

# IRWIN®

## HANSON®

### Taps & Dies

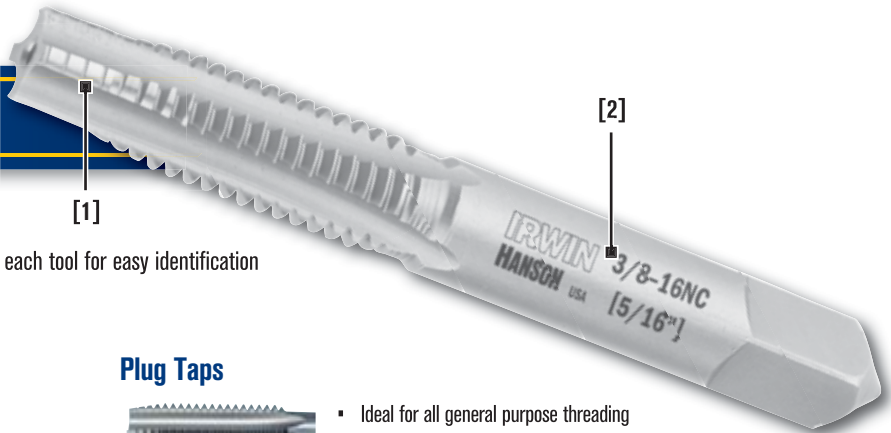


## IRWIN HANSON

IRWIN® HANSON® has been manufacturing High Carbon Steel threading tools for over 100 years, and has proven itself to be a brand you can trust. Performance, thread quality, durability, and ease of use — proven for over a century.

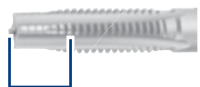
### IRWIN TAP FEATURES

1. Chamfer with various styles for specific drilling applications
2. Tap size and recommended drill bit size are laser-etched on each tool for easy identification



## Tap and Die Styles

### Self-Aligning Taps



8-10 threads

- Starts straight every time
- Ideal for through holes and irregular surfaces

### Plug Taps



3-5 threads

- Ideal for all general purpose threading
- 3 to 5 threads chamfered
- Most common chamfer

### Taper Taps



8-10 threads

- Ideal for tough starting applications
- Preferred use with deep or through-hole applications
- 8 to 10 threads chamfered

### Bottom Taps



1-2 threads

- Ideal for threading close to the bottom of blind holes
- 1 to 2 threads chamfered
- Shortest standard chamfer

### Self-Aligning Dies



#### 1" Across Hex Flats

- Starts straight every time
- More steel at critical points for extra strength
- Recommended for use with PTS die stock

### Hexagon Dies



#### 5/8", 1", 1-7/16" and 1-13/16" Across Hex Flats

- Best suited for maintenance and repair work
- Recommended for use with hexagonal die stock handles
- In area with limited space, die can be used with a wrench or socket

### Solid Round Dies



#### 1" and 1-1/2" Overall Diameter

- Ideal for general purpose threading
- Fits into adjustable guide or plain die stock handles

### Adjustable Round Dies



#### 1", 1-1/2", 2" and 3" Overall Diameter

- Ideal for a precision threading with the adjustment of die made by set screw
- Adjustable dies allow the user to under or over cut their threads
- Fits into adjustable guide or plain die stock handles
- Meets Federal Specifications GGG-D-296

## Tap & Die Description Guide

### 10-24 NC

#### Fastener Diameter

10 - Machine screw size  
5/8" - Fractional  
8 mm - Metric

#### Thread Pitch

Threads per inch (machine & fractional)  
Distance between threads (metric)

#### Thread Type

NC = National Coarse (USS)  
NF = National Fine (SAE)  
NS = National Special  
NEF = National Extra Fine  
NPT = National Pipe Taper  
BSP = British Standard Pipe  
(no thread symbol required for metric fasteners)

#### Applications

General purpose machines and appliances  
Automotive parts requiring extreme pressures  
Special threads - either diameter or threads per inch  
For optical or thin wall parts  
For all pipe threads  
For all pipe threads

Diam/Type	Decimal Equiv.	Fractional Tap	Machine Screw Tap	Metric Tap	Screw Ext.
1/64"	.0516				
1/32"	.0312				
1.0 mm	.0394				
60	.0400				
59	.0410				
58	.0420				
57	.0430				
56	.0465				
3/64"	.0469		0 - 80 NF		
55	.0520				
54	.0550				
1.5 mm	.0591				
53	.0595		1 - 64 NC 1 - 72NF		
1/16"	.0625				
52	.0635				
51	.0670				
50	.0700		2 - 56 NC 2 - 64 NF		
49	.0730				
48	.0760				
5/64"	.0781		3 - 48 NC		EX-1
47	.0785				
2.0 mm	.0787				
46	.0810				
45	.0820		3 - 56 NF		
44	.0860		4 - 36 NS		
43	.0890		4 - 40 NC		
42	.0935				
3/32"	.0938		4 - 48 NF		
41	.0960			3 mm - 0.60	
40	.0980				
2.5 mm	.0984			3 mm - 0.50	
39	.0995			3 mm - 0.50	
38	.1015	1/8" - 40 NS	5 - 40 NC		
37	.1040		5 - 44 NF		
36	.1065		6 - 32 NC		
7/64"	.1094				EX-2
35	.1100				
34	.1110		6 - 36 NS		
33	.1130		6 - 40 NF		
32	.1160		6 - 48 NS		
3.0 mm	.1181				
31	.1200				
1/8"	.1250				
30	.1285			4 mm - 0.70 4 mm - 0.75	
29	.1360		8 - 32 NC 8 - 36 NF		
3.5 mm	.1378				
28	.1405				

Diam/Type	Decimal Equiv.	Fractional Tap	Machine Screw Tap	Metric Tap	Screw Ext.
9/64"	.1406	8 - 40 NS			ST-1
27	.1440				
26	.1470	3/16"-24 NS			
25	.1495		10 - 24 NC		
24	.1520				
23	.1540				
5/32"	.1562	3/16"-32 NS			EX-3
22	.1570				
4.0 mm	.1575				
21	.1590		10 - 32 NF		
20	.1600			5 mm - 0.90	
19	.1660			5 mm - 0.80	
18	.1695				
11/64"	.1719				
17	.1730				
16	.1770		12 - 24 NC		
4.5 mm	.1772				
15	.1800				
14	.1820		12 - 28 NEF		
13	.1850				
3/16"	.1875				ST-2
12	.1890				
11	.1910				
10	.1935		14 - 20 NS		
9	.1960				
5.0 mm	.1969			6 mm - 1.00	
8	.1990			6 mm - 1.00	
7	.2010	1/4" - 20 NC			
13/64"	.2031		14 - 24 NS		
6	.2040				
5	.2055				
4	.2090	1/4" - 24 NS			
3	.2130	1/4" - 28 NF			
5.5 mm	.2165				
7/32"	.2188	1/4" - 32 NEF			
2	.2210				
1	.2280	1/4" - 40 NS			
A	.2340				
15/64"	.2344			7 mm - 1.00	ST-3
6.0 mm	.2362			7 mm - 1.00	
B	.2380				
C	.2420				
D	.2460				
E	.2500				
1/4"	.2500				EX-4
6.5 mm	.2559				
F	.2570	5/16"-18 NC			

### Machine Screw Reference Guide

Before cutting a thread, you must know the rod diameter.

Use the chart at right to determine the appropriate machine screw size:

Machine Screw	Rod Diameter
#0	.060"
#1	.073"
#2	.086"
#3	.099"
#4	.112"
#5	.125"
#6	.138"

Machine Screw	Rod Diameter
#7	.151"
#8	.164"
#9	.179"
#10	.190"
#12	.216"
#14	.242"

# Taps & Dies

## Tap & Drill Selection Chart

TAPS & DIES

Diam/Type	Decimal Equiv.	Fractional Tap	Pipe Tap	Metric Tap	Screw Ext.
G	.2610				
17/64"	.2656			8 mm - 1.25	
H	.2660				
I	.2720	5/16"-24 NF			
7.0 mm	.2756			8 mm - 1.00	
J	.2770			8 mm - 1.00	
K	.2810				
9/32"	.2812	5/16"-32 NEF			
L	.2900				
M	.2950				
7.5 mm	.2953				
19/64"	.2969				EX-5
N	.3020			9 mm - 1.25	
5/16"	.3125	3/8"- 16 NC			ST-4
8.0 mm	.3150			9 mm - 1.00	
O	.3160			9 mm - 1.00	
P	.3230			9 mm - 0.75	
21/64"	.3281		1/8" - 28 BSP		
Q	.3320	3/8"- 24 NF	1/8" - 27 NPT		
8.5 mm	.3346			10 mm - 1.50	
R	.3390			10 mm - 1.50	
11/32"	.3438			10 mm - 1.25	
S	.3480				
9.0 mm	.3543			10 mm - 1.00	
T	.3580			10 mm - 1.00	
23/64"	.3594				
U	.3680	7/16"- 14 NC			
9.5 mm	.3740			11 mm - 1.50	
3/8"	.3750			11 mm - 1.50	ST-5
V	.3770				
W	.3806				
25/64"	.3906	7/16"- 20 NF			
10.0 mm	.3937				
X	.3970				
Y	.4040				
13/32"	.4062			12 mm - 1.75	EX-6
Z	.4130			12 mm - 1.50	
10.5 mm	.4134			12 mm - 1.50	
27/64"	.4219	1/2"- 13 NC		12 mm - 1.25	
11.0 mm	.4331				
7/16"	.4375		1/4" - 18 NPT		
11.5 mm	.4528				
29/64"	.4531	1/2"-20 NF 1/2"-24 NS	1/4" - 19 BSP		
15/32"	.4688			14 mm - 2.00	ST-6
12.0 mm	.4724			14 mm - 2.00	
31/64"	.4844	9/16"- 12 NC			
12.5 mm	.4921			14 mm - 1.50	

Diam/Type	Decimal Equiv.	Fractional Tap	Pipe Tap	Metric Tap	Screw Ext.
1/2"	.5000			14 mm - 1.25 14 mm - 1.50	
13.0 mm	.5118			14 mm - 1.25	
33/64"	.5156	9/16"- 18 NF			
17/32"	.5313	5/8"- 11 NC			EX-7
35/64"	.5469			16 mm - 2.00	
9/16"	.5625		3/8" - 18 NPT		ST-7
37/64"	.5781	5/8"- 18 NF		16 mm - 1.50	
19/32"	.5938	11/16"-11 NS			
39/64"	.6094			18 mm - 2.50	
5/8"	.6250	11/16"-16 NS			
41/64"	.6406				
21/32"	.6562	3/4" - 10 NC		18 mm - 1.50	
43/64"	.6719				
11/16"	.6875	3/4" - 16 NF		20 mm - 2.50	
45/64"	.7031		1/2" - 14 NPT		
23/32"	.7188				
47/64"	.7344				
3/4"	.7500				
49/64"	.7656				
25/32"	.7812	7/8" - 9 NC			
51/64"	.7969				
13/16"	.8125	7/8" - 14 NF		22 mm - 1.50	EX-8
53/64"	.8281			24 mm - 3.00	
27/32"	.8438				
55/64"	.8594				
7/8"	.8750	1" - 8 NC		24 mm - 2.00	
57/64"	.8906				
29/32"	.9062				
59/64"	.9219	1" - 12 NF	3/4" - 14 NPT		
15/16"	.9375	1" - 14 NS			
61/64"	.9531				
31/32"	.9688				
63/64"	.9844	1-1/8"- 7 NC			
1"	1.0000				
1-1/64"	1.0156				
1-1/32"	1.0312				
1-1/16"	1.0625				EX-9
1-3/32"	1.0938				
1-1/8"	1.1250				
1-5/32"	1.1562		1" - 11-1/2" NPT		
1-3/16"	1.1875				
1-1/4"	1.2500				
1-5/16"	1.3125				
1-3/8"	1.3750				
1-7/16"	1.4375				
1-1/2"	1.5000		1-1/4" - 11-1/2" NPT		

### Driving Performance Through Innovation

At IRWIN, we understand it's all about performance, and you only get out of a tool what you put in a tool. The new **Performance Threading System™** drive tools from IRWIN HANSON are a prime example. With exceptional innovation, these threading tools are now easier to use, and aid in maintaining the high thread quality and durability professionals trust. The IRWIN HANSON **Performance Threading System™** drive tools have been engineered to make threading more efficient by reducing the setup time and the number of tools needed.



### HANSON PTS Die Stock Handle



4935054

- Die Lock – no more set screws needed
- Simply twist to insert and remove die

### HANSON PTS Adjustable Tap Handle & Reamer Wrenches



4935052

- Versatile base, drives with die stock, 3/8" ratchet or T-handle (included)
- Adjustable jaw has two tap sockets that fit No. 4 to 1/2" or 3 mm to 12 mm

Description	Usage	Carded Item #	Bulk Item #
<b>Hanson PTS Die Stock &amp; Tap Driver</b>			
Tap Driver - Small	For Taps No. 4 to 1/4" (3mm to 6mm)	1766068	4935052
Tap Driver - Medium	For Taps 1/4" to 1/2" (6mm to 12mm)	1766069	4935053
Die Stock	For 1" Hexagon Dies; Accepts Small & Medium Adj. Tap Sockets to Drive Taps	1766070	4935054

### HANSON PTS Drive Tool Module



4935055

Threading Tools	Item #
Tap Driver – Small: Adj Tap Socket Drives Taps Sizes No. 4 (3mm) To 1/4" (6mm)	4935052
Tap Driver – Medium: Adj Tap Socket Drives Taps Sizes 1/4" (3mm) To 1/2" (12mm)	4935053
Die Stock: Drives 1" Hex Dies With And Without Alignment, Accepts Sm & Med Adjustable Tap Sockets	4935054
Metric Pitch Gauge	11016
SAE Pitch Gauge	11018
Die Spacer Bulk, Hex – IRWIN	1775311
T-Bar For Adj. Tap Socket Bulk – IRWIN	1775312

### HANSON Adjustable Tap Handle & Reamer Wrenches



12498

- Straight handle design provides greater leverage, especially when using larger diameter taps
- Designed for use with taps, reamers, screw extractors and other tools with a square shank

### HANSON Offset Handle Adjustable Tap & Reamer Wrenches



12421

- Straight handle design provides greater leverage, especially when using larger diameter taps

### HANSON Tap Adaptors



3095001

- Adaptors feature a 3/8" square drive to accommodate socket wrench or extension
- Designed for use with taps, reamers, screw extractors, and other tools with a square shank
- Not recommended for cutting new threads

### HANSON T-Handle Tap Wrenches



12401

- Designed for use with taps, reamers, screw extractors and other tools with a square shank
- Adjusted and tightened to size by twisting knurled nut
- End of TR-50 & TR-73 wrench has 3/8" square drive to accommodate socket wrench or extension when desired

### HANSON T-Handle Ratcheting Tap Wrench



21101

21112

- Three position gear box for quick, efficient ratcheting action
- Designed for use with taps, reamers, screw extractors and other tools with a square shank

Description	Usage	Carded Item #	Bulk Item #
<b>HANSON Offset Handle Adj. Tap Handle &amp; Reamer Wrenches</b>			
TR - 21	For Taps No. 0 to 1/2" (3 mm to 12 mm)	12021	12421
TR - 121	For Taps No. 1/4" to 1" (6 mm to 24 mm)	—	11212
<b>HANSON Adj. Tap Handle &amp; Reamer Wrenches</b>			
TR - 88	For Taps No. 0 to 1/2" (3 mm to 12 mm)	12088	311088
TR - 98	For Taps 1/4" to 1" (6 mm to 24 mm)	—	12498
<b>HANSON Tap Adaptors</b>			
2pc Tap Adaptor Set	2 Sizes for Taps No. 0 to 1/2"	3095001	—
Small Tap Adaptor	For Taps No. 0 to 1/4"	—	3095001A
Large Tap Adaptor	For Taps 1/4" to 1/2"	—	3095001B
<b>HANSON T-Handle Tap Wrench</b>			
TR - 1E	For Taps No. 0 to 1/4" (3 mm to 6 mm)	12001	12401
TR - 1-1/2E	For Taps No. 12 to 5/16"	12115	12415
TR - 2E	For Taps 1/4" to 1/2" (6 mm to 12 mm)	12002	12402
<b>HANSON Tap Wrenches with 3/8" Drive</b>			
TR - 73*	For Taps No. 0 to 1/4" (3 mm - 6 mm) *	12073	12473
TR - 50	For Taps 1/4" to 1/2" (6 mm to 12 mm)	12050	12450
<b>HANSON T-Handle Ratcheting Tap Wrench</b>			
—	For Tap Sizes No. 0 to 1/4" (3 mm to 6 mm)	21201	21101
—	For Tap Sizes 1/4" to 1/2" (6 mm to 12 mm)	21202	21102
—	10" Extended Length for Tap Sizes #0 - 1/4" (3 mm to 6 mm)	21210	21110
—	12" Extended Length for Tap Sizes 1/4" - 1/2" (6 mm to 12 mm)	21212	21112

\*Note: TR-73 comes with a hexagon nut

### HANSON Adjustable Guide Die Stock Handles



12428

- Maintains alignment for accurate, straight threading

### HANSON Plain Die Stock Handles



12416

- Dies easily lock in position with set screw

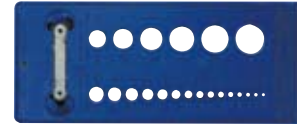
### HANSON Reamers



11221

- For deburring and enlarging holes in sheet metal and similar materials
- Not for use in machine tools

### HANSON Metric Measuring Kit with Thread Gauges



12087

- Shows 21 outside diameters (OD) in millimeters and decimals from 2.3 mm (.0906) to 24 mm (.9449)
- Measures thread pitch in millimeters from 0.35 to 3.00

### HANSON Thread Pitch Gauges



11016

Description	Usage	Carded Item #	Bulk Item #
<b>HANSON Adj. Guide Die Stock Handles</b>			
DS - 28	For 1" Adjustable Round Dies	—	12428
DS - 35	For 1-1/2" Adjustable Round Dies	—	12435
DS - 45	For 2" Adjustable Round Dies	—	12445
DS - 26	For 1" Hexagon or Round Dies	12026	11026
DS - 36	For 1-7/16" Hexagon Dies	—	12436
DS - 46	For 1-13/16" Hexagon Dies	—	12446
<b>HANSON Plain Die Stock Handles</b>			
DS - 57	For 5/8" Hexagon Dies	—	12457
DS - 13	For 13/16" Round Dies	—	12416
DS - 9	For 1" Hexagon or Round Dies	12008	11008
<b>HANSON Reamers</b>			
Repair Reamer (1/8" to 1/2")		11214	—
Repair Reamer Pouched (1/2" to 1")		11221	—
<b>HANSON Metric Measuring Kit w/Thread Gauges</b>			
Metric Measuring Kit		—	12087
<b>HANSON Thread Pitch Gauges</b>			
16-Leaf Metric Thread Pitch Gauge		12016	11016
16-Leaf Standard and Metric Thread Pitch Gauge		12017	11017
18-Leaf Standard Thread Pitch Gauge		12018	11018

# Taps & Dies

## High Carbon Steel Taps

### HANSON® Machine Screw Taps (HCS)



1032ZR



1132



1232



4935227

- Ideal for routine maintenance, repair work and for rethreading where high accuracy and tolerance thread is not critical
- Straight flutes are ground to provide rapid chip removal for efficient threading
- Designed for hand threading work in a variety of materials
- Taps produce a class 2B thread

Description	No. of Flutes	Plug Carded Item #	Plug Bulk Item #	Taper Bulk Item #	Bottom Bulk Item #	Self Aligning Bulk Item #
0 - 80 NF	2	—	1102ZR	1002	1202	—
1 - 64 NC	2	—	1104	1004	1204ZR	—
1 - 72 NF	2	—	1105ZR	1005	1205	—
2 - 56 NC	3	—	1106ZR	1006ZR	1206	—
2 - 64 NF	3	—	1107	1007	1207	—
3 - 48 NC	3	—	1108ZR	1008ZR	1208ZR	—
3 - 56 NF	3	—	1109	1009ZR	1209ZR	—
4 - 36 NS	3	8011	1111ZR	1011ZR	1211ZR	—
4 - 40 NC	3	8012	1112ZR	1012ZR	1212ZR	4935222
4 - 48 NF	3	—	1113ZR	1013	1213	—
5 - 40 NC	3	—	1116ZR	1016	1216ZR	—
5 - 44 NF	3	—	1117	1017	1217ZR	—
6 - 32 NC	3	8018	1118	1018	1218ZR	4935223
6 - 36 NS	3	—	1119	1019	1219ZR	—
6 - 40 NF	3	—	1120	1020	1220ZR	—
6 - 48 NS	3	—	1121ZR	1021	1221	—
8 - 32 NC	4	8024	1124	1024	1224ZR	4935224
8 - 36 NF	4	—	1125	1025	1225ZR	—
8 - 40 NS	4	—	1126ZR	1026	1226ZR	—
10 - 24 NC	4	8028	1128ZR	1028	1228	4935225
10 - 32 NF	4	8031	1131	1031ZR	1231ZR	4935226
12 - 24 NC	4	8032	1132	1032ZR	1232ZR	4935227
12 - 28 NF	4	—	1133	1033	1233	—
12 - 32 NEF	4	—	1134	1034	1234	—
14 - 20 NS	4	8035	1135ZR	—	1235ZR	—
14 - 24 NS	4	—	1136	1036	1236ZR	—

### TAPS & DIES

### HANSON Fractional Taps (HCS)



1323



1423



1523



4935229

- Ideal for routine maintenance, repair work and for rethreading where high accuracy and tolerance thread is not critical
- Straight flutes are ground to provide rapid chip removal for efficient threading
- Designed for hand threading work in a variety of materials
- Taps produce a class 2B thread

Description	No. of Flutes	Plug Carded Item #	Plug Bulk Item #	Taper Bulk Item #	Bottom Bulk Item #	Self Aligning Bulk Item #
1/8" - 40 NS	3	—	1406ZR	1306	1506	—
1/8" - 44 NS	3	—	1407	—	—	—
5/32" - 32 NS	3	—	1410	—	—	—
5/32" - 36 NS	3	—	1411	—	—	—
3/16" - 24 NS	4	—	1412ZR	1312ZR	1512	—
3/16" - 32 NS	4	—	1413ZR	1313ZR	1513	—
3/16" - 36 NS	—	—	1415	—	—	—
1/4" - 20 NC	4	8120	1420	1320ZR	1520	4935228
1/4" - 24 NS	4	—	1421	1321ZR	1521	—
1/4" - 28 NF	4	8123	1423ZR	1323ZR	1523	4935229
1/4" - 32 NEF	4	—	1424ZR	1324	1524	—
1/4" - 40 NS	4	—	1425	1325	1525	—
5/16" - 18 NC	4	8127	1427	1327	1527	4935230
5/16" - 24 NF	4	8129	1429ZR	1329ZR	1529ZR	4935231
5/16" - 32 NEF	4	—	1431ZR	1331ZR	1531	—
3/8" - 16 NC	4	8134	1434ZR	1334	1534	4935232
3/8" - 24 NF	4	8136	1436	1336	1536	4935233
7/16" - 14 NC	4	8139	1439ZR	1339ZR	1539	4935234
7/16" - 20 NF	4	8140	1440	1340ZR	1540ZR	4935235
1/2" - 13 NC	4	8144	1444ZR	1344	1544	4935236
1/2" - 20 NF	4	8145	1445	1345	1545	4935237
1/2" - 24 NS	4	—	1446	1346ZR	1546	—
9/16" - 12 NC	4	8148	1448	1348	1548ZR	—
9/16" - 18 NF	4	8149	1449	1349	1549ZR	—
5/8" - 11 NC	4	8152	1452	1352	1552ZR	—
5/8" - 18 NF	4	8154	1454	1354	1554ZR	—
11/16" - 11 NS	4	—	1456ZR	1356ZR	1556ZR	—
11/16" - 16 NS	4	—	1457ZR	1357ZR	1557ZR	—
3/4" - 10 NC	4	8158	1458	1358ZR	1558ZR	—
3/4" - 16 NF	4	8160	1460	1360	1560ZR	—
7/8" - 9 NC	4	—	1461	1361	1561	—
7/8" - 14 NF	4	—	1463	1363ZR	1563	—
1" - 8 NC	4	—	1465ZR	1365ZR	1565ZR	—
1" - 12 NF	4	—	1466ZR	1366ZR	1566ZR	—
1" - 14 NS	4	—	1467ZR	1367ZR	1567ZR	—



### HANSON Metric Taps (HCS)



1859

- Ideal for auto repair and machinery where metric threads are specified
- Straight flutes are ground to provide rapid chip removal for efficient threading
- Designed for hand threading work in a variety of materials
- Taps produce a class 2B thread

Description	No. of Flutes	Plug Carded Item #	Plug Bulk Item #	Bottom Bulk Item #	Self Aligning Bulk Item #
3 mm - 0.50	3	8312	1712ZR	1812ZR	4935238
3 mm - 0.60	3	—	1713ZR	—	—
4 mm - 0.70	4	8317	1717ZR	1817ZR	4935239
4 mm - 0.75	4	8318	1718ZR	1818ZR	4935240
5 mm - 0.80	4	8322ZR	1722ZR	1822ZR	4935241
5 mm - 0.90	4	8323ZR	1723ZR	1823ZR	4935242
6 mm - 1.00	4	8327	1727	1827ZR	4935243
6.3 mm - 1.00	4	—	1729ZR	1829	—
7 mm - 1.00	4	8331	1731ZR	1831ZR	4935244
8 mm - 1.00	4	8333	1733ZR	1833ZR	4935245
8 mm - 1.25	4	8334	1734ZR	1834ZR	4935246
9 mm - 0.75	4	8335	1735	—	—
9 mm - 1.00	4	8336	1736	—	4935247
9 mm - 1.25	4	8337	1737	1837ZR	4935248
10 mm - 1.00	4	8338	1738	1838ZR	—
10 mm - 1.25	4	8339	1739	1839	4935249
10 mm - 1.50	4	8340	1740ZR	1840	4935250
11 mm - 1.50	4	8341	1741ZR	—	4935251
12 mm - 1.25	4	8342ZR	1742ZR	1842ZR	4935252
12 mm - 1.50	4	8343ZR	1743ZR	—	—
12 mm - 1.75	4	8344	1744ZR	1844	4935253
14 mm - 1.25	4	—	1749ZR	1849ZR	—
14 mm - 1.50	4	—	1750	—	—
14 mm - 2.00	4	—	1752ZR	1852	—
16 mm - 1.00	4	—	1754ZR	—	—
16 mm - 1.50	4	—	1755ZR	1855	—
16 mm - 2.00	4	—	1756ZR	1856	—
18 mm - 1.50	4	—	1759ZR	1859ZR	—
18 mm - 2.50	4	—	1761ZR	1861ZR	—
20 mm - 2.50	4	—	1764ZR	1864ZR	—
22 mm - 1.50	4	—	1765ZR	1865ZR	—
24 mm - 2.00	4	—	1768ZR	1868ZR	—
24 mm - 3.00	4	—	1769ZR	1869ZR	—

### HANSON Pipe Taper Taps (HCS)



1903

- Ideal for pipe fittings
- Cuts internal threads in pipes
- Nominal size of the tap is that of the pipe fitting being tapped
- Available in National Pipe Taper (NPT) and British Standard Pipe Taper (BSP)
- Tapered at a rate of 3/4" per foot

Description	No. of Flutes	Plug Carded Item #	Taper Pouched Item #	Taper Bulk Item #
1/8" - 27 NPT	4	8202	—	1902ZR
1/4" - 18 NPT	4	8203	—	1903ZR
3/8" - 18 NPT	4	—	1904P	1904ZR
1/2" - 14 NPT	4	—	1905P	1905ZR
3/4" - 14 NPT	5	—	1906P	1906ZR
1" - 11-1/2 NPT	5	—	—	1907ZR
1-1/4" - 11-1/2 NPT	5	—	—	1908ZR
1-1/2" - 11-1/2 NPT	6	—	—	1909ZR
2" - 11-1/2 NPT	6	—	—	1910ZR
1/8" - 28 BSP	4	—	—	1911ZR
1/4" - 19 BSP	4	—	—	1912ZR

### HANSON 6-piece Pipe Taper Tap Set (HCS)



1921

Set Contents	Item # 1921
1/8" - 27 NPT	1902ZR
1/4" - 18 NPT	1903ZR
3/8" - 18 NPT	1904ZR
1/2" - 14 NPT	1905ZR
3/4" - 14 NPT	1906ZR
1" - 11-1/2 NPT	1907ZR

# Taps & Dies

## High Carbon Steel Taps

### HANSON Spark Plug Taps (HCS)



2459

- Available in standard and metric threads
- Ideal for threading or re-threading spark plug holes

Description	No. of Flutes	Bulk Item #
7/8" - 18 NS	4	2364ZR
14 mm - 1.25	4	2449
18 mm - 1.50	4	2459ZR

### HANSON Tap Sets with Taper, Bottoming & Plug Point Styles

2652



- Set contains all three chamfer styles for various uses

Description	No. of Flutes	Item #
5 - 40 NC	3	2516
6 - 32 NC	3	2518
8 - 32 NC	4	2524
10 - 24 NC	4	2528
10 - 32 NF	4	2531
1/8" - 40 NS	3	2606
1/8" - 44 NS	3	2607
5/32" - 32 NS	4	2610
5/32" - 36 NS	4	2611
3/16" - 24 NS	4	2612
3/16" - 32 NS	4	2613ZR
1/4" - 20 NC	4	2620
1/4" - 28 NF	4	2623
5/16" - 18 NC	4	2627
5/16" - 24 NF	4	2629
3/8" - 16 NC	4	2634
3/8" - 24 NF	4	2636
7/16" - 14 NC	4	2639
7/16" - 20 NF	4	2640
1/2" - 13 NC	4	2644
1/2" - 20 NF	4	2645
9/16" - 12 NC	4	2648
9/16" - 18 NF	4	2649ZR
5/8" - 11 NC	4	2652
5/8" - 18 NF	4	2654
3/4" - 10 NC	4	2658ZR
3/4" - 16 NF	4	2660
7/8" - 9 NC	4	2661
7/8" - 14 NF	4	2663
1" - 8 NC	4	2665
1" - 12 NS	4	2666
1" - 14 NF	4	2667
3 mm - 0.50	3	2712
5 mm - 0.80	4	2722
6 mm - 1.00	4	2727
7 mm - 1.00	4	2731
8 mm - 1.00	4	2733
8 mm - 1.25	4	2734
10 mm - 1.00	4	2738
10 mm - 1.25	4	2739
10 mm - 1.50	4	2740
12 mm - 1.25	4	2742
12 mm - 1.75	4	2744
14 mm - 2.00	4	2752
16 mm - 2.00	4	2756

### HANSON Tap (HCS) & Drill Bit (HSS)



80238



1765531

- Convenient HCS tap and HSS drill bit set
- Plug taps ideal for general purpose threading
- Self-aligning taps are ideal for through holes and irregular surfaces

Description	Plug Carded Item #	Self Aligning Carded Item #
4 - 40 NC Tap + No. 43 Drill Bit	80209	—
6 - 32 NC Tap + 7/64" Drill Bit	80213	1765531
8 - 32 NC Tap + No. 29 Drill Bit	80217	1765534
10 - 24 NC Tap + No. 25 Drill Bit	80220	1765535
10 - 32 NF Tap + No. 21 Drill Bit	80221	1765536
12 - 24 NC Tap + No. 16 Drill Bit	80222	1765537
1/4" - 20 NC Tap + 13/64" Drill Bit	80230	1765538
1/4" - 28 NF Tap + No. 3 Drill Bit	80232	—
5/16" - 18 NC Tap + Letter G Drill Bit	80235	1765539
3/8" - 16 NC Tap + Letter O Drill Bit	80238	1765540
1/2" - 13 NC Tap + 27/64" Drill Bit	80242	—
1/4" - 18 NPT Tap + 7/16" Drill Bit	80260	—
6 mm - 1.00 Tap + 5mm Drill Bit	80327	1788680
8 mm - 1.25 Tap + 17/64" Drill Bit	80334	1788681
10 mm - 1.50 Tap + 8.5 Drill Bit	80340	1788682

### HANSON Tap (HCS) & Drill Bit (HSS) Sets



80187

- These drill and tap sets produce a thread that is strong and easy to tap
- Plug taps ideal for general purpose threading

Description	Contents		Item #
13-pc Set	Lock & Hardware Drill & Tap Set		80185
Thread Size	Plug Tap Item #	Drill Bit Size	Drill Bit Item #
6 - 32 NC	1118	7/64"	30107
8 - 32 NC	1124	No. 29	20129
10 - 24 NC	1128	No. 25	20125
10 - 32 NF	1131	No. 21	20121
12 - 24 NC	1132	No. 16	20116
1/4" - 20 NC	1420	13/64"	30113
<b>Threading Tools</b>			<b>Item #</b>
T-Handle Tap Wrench			12401
13-pc Set	All-Purpose Drill & Tap Set		80187
Thread Size	Plug Tap Item #	Drill Bit Size	Drill Bit Item #
4 - 40 NC	1112	No. 43	20143
6 - 32 NC	1118	7/64"	30107
8 - 32 NC	1124	No. 29	20129
10 - 24 NC	1128	No. 25	20125
10 - 32 NF	1131	No. 21	20121
1/4" - 20 NC	1420	13/64"	30113
<b>Threading Tools</b>			<b>Item #</b>
T-Handle Tap Wrench			12401

# Taps & Dies

## High Carbon Steel Dies

### HANSON® Self Aligning Dies (HCS)



4935027

- Threads straight every turn
- More steel at critical points for extra strength
- Use with PTS die stock for best performance

TAPS & DIES

Description	1" Across Flat Self Aligning Bulk Item #	1" Across Flat Self Aligning Carded Item #
<b>Machine Screw</b>		
DIE SA 4-40NC 1" HEX	4935018	1799376
DIE SA 6-32NC 1" HEX	4935019	1799378
DIE SA 8-32NC 1" HEX	4935020	1799379
DIE SA 10-24NC 1" HEX	4935021	1799380
DIE SA 10-32NF 1" HEX	4935022	1799481
DIE SA 12-24NC 1" HEX	4935023	1799482
<b>Fractional</b>		
DIE SA 1/4"-20NC 1" HEX	4935024	1799483
DIE SA 1/4"-28NF 1" HEX	4935025	1799484
DIE SA 5/16"-18NC 1" HEX	4935026	1799485
DIE SA 5/16"-24NF 1" HEX	4935027	1799486
DIE SA 3/8"-16NC 1" HEX	4935028	1799487
DIE SA 3/8"-24NF 1" HEX	4935029	1799488
DIE SA 7/16"-14NC 1" HEX	4935030	1799489
DIE SA 7/16"-20NF 1" HEX	4935031	1799490
DIE SA 1/2"-13NC 1" HEX	4935032	1799491
DIE SA 1/2"-20NF 1" HEX	4935033	1799492
<b>Metric</b>		
DIE SA 3-0 5MM 1" HEX	4935035	1799493
DIE SA 4-0 7MM 1" HEX	4935036	1799494
DIE SA 4-0 75MM 1" HEX	4935037	1799495
DIE SA 5-0 8MM 1" HEX	4935038	1799496
DIE SA 5-0 9MM 1" HEX	4935039	1799497
DIE SA 6-1MM 1" HEX	4935040	1799498
DIE SA 7-1MM 1" HEX	4935041	1799499
DIE SA 8-1MM 1" HEX	4935042	1799500
DIE SA 8-1 25MM 1" HEX	4935043	1799501
DIE SA 9-1MM 1" HEX	4935044	1799502
DIE SA 9-1 25MM 1" HEX	4935045	1799503
DIE SA 10-1 25MM 1" HEX	4935046	1799504
DIE SA 10-1 5MM 1" HEX	4935047	1799505
DIE SA 11-1 5MM 1" HEX	4935048	1799506
DIE SA 12-1 25MM 1" HEX	4935049	1799507
DIE SA 12-1 75MM 1" HEX	4935050	1799508
DIE SA 1/8" - 28BSP 1"HEX	4935051	—

### HANSON Hexagon Machine Screw Dies (HCS)



6432

Description	1" Across Flat Carded Item #	1" Across Flat Bulk Item #	1-7/16" Across Flat Bulk Item #	1-13/16" Across Flat Bulk Item #
<b>Machine</b>				
4 - 36 NS	9311	6411ZR	—	—
4 - 40 NC	9312	6412ZR	—	—
5 - 40 NC	—	6416ZR	—	—
6 - 32 NC	9318	6418	—	—
8 - 32 NC	9324	6424	—	—
10 - 24 NC	9328	6428	—	—
10 - 32 NF	9331ZR	6431	—	—
12 - 24 NC	9332ZR	6432ZR	—	—
14 - 20 NS	9335ZR	6435	—	—

### HANSON Hexagon Fractional Dies (HCS)



6544



8461

- Ideal for maintenance and repair work
- Recommended for use with hexagon die stock
- Die can be used with a wrench or socket when space is limited

Description	1" Across Flat Carded Item #	1" Across Flat Bulk Item #	1-7/16" Across Flat Bulk Item #	1-13/16" Across Flat Bulk Item #
<b>Fractional</b>				
3/16" - 24 NS	—	6512	—	—
1/4" - 20 NC	9420ZR	6520ZR	—	—
1/4" - 28 NF	9423	6523ZR	—	—
5/16" - 18 NC	9427	6527	—	—
5/16" - 24 NF	9429	6529	—	—
3/8" - 16 NC	9434	6534ZR	—	—
3/8" - 24 NF	9436	6536	—	—
7/16" - 14 NC	9439	6539	—	—
7/16" - 20 NF	9440	6540	—	—
1/2" - 13 NC	9444	6544	—	—
1/2" - 20 NF	9445	6545	—	—
9/16" - 12 NC	—	—	6848	—
9/16" - 18 NF	—	—	6849	—
5/8" - 11 NC	—	—	6852	—
5/8" - 18 NF	—	—	6854	—
3/4" - 10 NC	—	—	6858	—
3/4" - 16 NF	—	—	6860ZR	—
7/8" - 9 NC	—	—	—	8461
7/8" - 14 NF	—	—	—	8463
1" - 8 NC	—	—	—	8465
1" - 14 NS	—	—	—	8467

# Taps & Dies

## High Carbon Steel Dies

### HANSON® Hexagon Metric Dies (HCS)



6638



6949



8569

- Ideal for automotive repair and machinery where metric threads are specified

TAPS & DIES

Description	1" Across Flat Carded Item #	1" Across Flat Bulk Item #	1-7/16" Across Flat Bulk Item #	1-13/16" Across Flat Bulk Item #
3 mm - 0.50	9712	6612ZR	—	—
3 mm - 0.60	—	6613	—	—
4 mm - 0.70	9717	6617	—	—
4 mm - 0.75	9718	6618	—	—
5 mm - 0.80	9722ZR	6622	—	—
5 mm - 0.90	9723ZR	6623	—	—
6 mm - 1.00	9727ZR	6627	—	—
6.3 mm - 1.00	—	6629	—	—
7 mm - 1.00	9731	6631	—	—
8 mm - 1.00	9733	6633	—	—
8 mm - 1.25	9734	6634	—	—
9 mm - 0.75	9735	6635	—	—
9 mm - 1.00	9736	6636	—	—
9 mm - 1.25	9737	6637	—	—
10 mm - 1.00	9738	6638	—	—
10 mm - 1.25	9739	6639	—	—
10 mm - 1.50	9740	6640	—	—
11 mm - 1.50	9741	6641	—	—
12 mm - 1.25	9742	6642ZR	—	—
12 mm - 1.50	9743	6643	—	—
12 mm - 1.75	9744	6644	—	—
14 mm - 1.25	—	—	6949ZR	—
14 mm - 1.50	—	—	6950ZR	—
14 mm - 2.00	—	—	6952	—
16 mm - 1.00	—	—	6954	—
16 mm - 1.50	—	—	6955ZR	—
16 mm - 2.00	—	—	6956	—
18 mm - 1.50	—	—	6959	—
18 mm - 2.50	—	—	6961ZR	—
20 mm - 2.50	—	—	—	8564ZR
22 mm - 1.50	—	—	—	8565ZR
24 mm - 2.00	—	—	—	8568
24 mm - 3.00	—	—	—	8569

### HANSON Hexagon Pipe Taper Dies (HCS)



6703



7004

- Ideal for plumbing and air applications

Description	1" Across Flat Carded Item #	1" Across Flat Bulk Item #	1-7/16" Across Flat Bulk Item #
1/8" - 27 NPT	9502ZR	6702	—
1/4" - 18 NPT	9503ZR	6703	—
3/8" - 18 NPT	—	—	7004
1/2" - 14 NPT	—	—	7005
1/8" - 28 BSP	—	6711	—
1/4" - 19 BSP	—	6712	—

### HANSON Round Machine Screw Dies (HCS)



3718



3028

- Solid round dies ideal for general purpose threading
- Adjustable round dies ideal for precision threading

Description	1" Overall Diam. Screw Adj. Bulk Item #	1" Overall Diam. Solid Bulk Item #
0 - 80 NF	3702	—
1 - 72 NF	3705	—
2 - 64 NF	3707	—
4 - 40 NC	3712	—
4 - 48 NF	3713	—
5 - 40 NC	3716	—
5 - 44 NF	3717	—
6 - 32 NC	3718	—
6 - 36 NS	3719	—
6 - 40 NF	3720	—
6 - 48 NS	3721ZR	—
8 - 32 NC	3724	—
8 - 36 NF	3725ZR	—
8 - 40 NS	3726ZR	—
10 - 24 NC	3728	3028ZR
10 - 32 NF	3731	—
12 - 24 NC	3732	—
12 - 28 NF	3733	—
12 - 32 NEF	3734	—
14 - 20 NS	3735	—
14 - 24 NS	3736	—

### HANSON Round Fractional Dies (HCS)



3820



3120

- Solid round dies ideal for general purpose threading
- Adjustable round dies ideal for precision threading

Description	1" Overall Diam. Screw Adj. Bulk Item #	1" Overall Diam. Solid Bulk Item #
3/16" - 32 NS	3813	—
3/16" - 36 MS	3815	—
1/4" - 20 NC	3820ZR	3120
1/4" - 24 NS	3821	—
1/4" - 28 NF	3823	—
1/4" - 32 NEF	3824	—
1/4" - 40 NS	3825	—
5/16" - 18 NC	3827	3127
5/16" - 24 NF	3829	—
5/16" - 32 NEF	3831	—
3/8" - 16 NC	3834	3134
3/8" - 24 NF	3836	—
7/16" - 14 NC	3839	—
7/16" - 20 NF	3840	—
1/2" - 13 NC	3844	3144
1/2" - 20 NF	3845	—
1/2" - 24 NS	3846	—

# Taps & Dies

## High Carbon Steel Dies

### HANSON Adjustable Round Fractional Dies Right & Left-Hand (HCS)



4020



7520



7652

TAPS & DIES

- Adjustable round dies ideal for precision threading
- Left-hand dies cut threads with a left-hand rotation

Description	Right-Hand 1-1/2" O.D. Bulk Item #	Right-Hand 2" O.D. Bulk Item #	Right-Hand 3" O.D. Bulk Item #	Left-Hand 1" O.D. Bulk Item #	Left-Hand 1-1/2" O.D. Bulk Item #
1/4" - 20 NC	4020ZR	—	—	7520	—
1/4" - 28 NF	4023	—	—	7523	—
5/16" - 18 NC	4027ZR	4227	—	7527	—
5/16" - 24 NF	4029ZR	—	—	7529	—
3/8" - 16 NC	4034ZR	—	—	7534	—
3/8" - 24 NF	4036	—	—	7536	—
7/16" - 14 NC	4039ZR	—	—	7539	—
7/16" - 20 NF	4040ZR	—	—	7540	—
1/2" - 13 NC	4044	—	—	7544ZR	—
1/2" - 20 NF	4045ZR	—	—	7545	—
9/16" - 12 NC	4048ZR	—	—	—	7648
9/16" - 18 NF	4049ZR	—	—	—	7649
5/8" - 11 NC	4052	—	—	—	7652
5/8" - 18 NF	4054	—	—	—	7654
11/16" - 11 NS	4056	—	—	—	—
11/16" - 16 NS	4057	—	—	—	—
3/4" - 10 NC	4058ZR	—	—	—	7658
3/4" - 16 NF	4060ZR	—	—	—	7660
7/8" - 9 NC	—	4261	—	—	—
7/8" - 14 NF	—	4263	—	—	—
1" - 8 NC	—	4265	—	—	—
1" - 12 NF	—	4266	—	—	—
1" - 14 NS	—	4267	—	—	—
1-1/8" - 7 NC	—	—	4668	—	—
1-1/8" - 12 NF	—	—	4669	—	—
1-1/4" - 7 NC	—	—	4670	—	—
1-1/4" - 12 NF	—	—	4671	—	—
1-3/8" - 6 NC	—	—	4672	—	—
1-3/8" - 12 NF	—	—	4673	—	—
1-1/2" - 6 NC	—	—	4674	—	—
1-1/2" - 12 NF	—	—	4675	—	—

### HANSON Round Pipe Taper Dies (HCS)



4102

Description	1-1/2" O.D. Solid Round Bulk Item #	1-1/2" O.D. Screw Adj. Bulk Item #	1" O.D. Screw Adj. Bulk Item #	2" O.D. Screw Adj. Bulk Item #
1/8" - 27 NPT	4102	5102	502101*	—
1/4" - 18 NPT	4103	5103	—	—
3/8" - 18 NPT	4104	5104	—	—
1/2" - 14 NPT	4105	5105	—	—
1/2" - 14 NPT	—	—	—	4305
3/4" - 14 NPT	—	—	—	4306

\*Note: 502101 is a High Speed Steel Die



### HANSON 116-Piece Mach / Fractional / Metric Plug Tap and 1" Hex Die Set



1813817



#### Set Contents

Set Item # 1813817

Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 1" Hexagon	Drill Bit Size	Drill Bit Item #
4 - 40 NC	1112ZR	6412ZR	No. 43	80143
6 - 32 NC	1118	6418	No. 36	80136
8 - 32 NC	1124	6424	No. 29	80129
10 - 24 NC	1128ZR	6428	No.25	80125
10 - 32 NF	1131	6431	No.21	80121
12 - 24 NC	1132	6432ZR	No. 16	80116
<b>Fractional</b>				
1/4" - 20 NC	1420	6520ZR	No.7	80107
1/4" - 28 NF	1423ZR	6523ZR	No.3	80103
5/16" - 18 NC	1427	6527	Letter F	40106
5/16" - 24 NF	1429ZR	6529	Letter I	40109
3/8" - 16 NC	1434ZR	6534ZR	5/16"	60120
3/8" - 24 NF	1436	6536	Letter Q	40117
7/16" - 14 NC	1439ZR	6539	Letter U	40121
7/16" - 20 NF	1440	6540	25/64"	60125
1/2" - 13 NC	1444ZR	6544	27/64"	60127
1/2" - 20 NF	1445	6545	29/64"	60129
<b>Metric</b>				
3 mm - 0.50	1712ZR	6612ZR	No. 39	80139
4 mm - 0.70	1717ZR	6617	No. 30	80130
4 mm - 0.75	1718ZR	6618	No. 30	80130
5 mm - 0.80	1722ZR	6622	No. 19	90119
5 mm - 0.90	1723ZR	6623	No. 20	80120
6 mm - 1.00	1727	6627	No. 9	80109
7 mm - 1.00	1731ZR	6631	Letter B	40102
8 mm - 1.00	1733ZR	6633	Letter J	40110
8 mm - 1.25	1734ZR	6634	Letter H	40108
9 mm - 1.00	1736	6636	Letter O	40115
9 mm - 1.25	1737	6637	5/16"	60120
10 mm - 1.25	1739	6639	Letter S	40119
10 mm - 1.50	1740ZR	6640	Letter R	40118
11 mm - 1.50	1741ZR	6641	3/8"	60124
12 mm - 1.25	1743ZR	6642ZR	Letter Z	40126
12 mm - 1.75	1744ZR	6644	13/32"	60126
<b>Pipe</b>				
1/8" - 27 NPT	1902ZR	6702	Letter Q	40117
1/8" - 28 BSP	1911ZR	6711	21/64"	60121
<b>Spiral Flute Screw Extractor</b>			Drill Bit Size	Item #
EX - 1			5/64"	60105
EX - 2			7/64"	60107
EX - 3			5/32"	60110
EX - 4			1/4"	60116
EX - 5			19/64"	60119
<b>Threading Tools</b>				Item #
PTS Die Stock - 1"				4935054
PTS Die Spacer				1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)				4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)				4935053
T-Bar for Adj Tap Socket				1775312
SAE Pitch Gauge				11018
Metric Pitch Gauge				11016

# Taps & Dies

## PTS Drive Tool / Combo Sets

### HANSON 116-Piece Mach / Fractional / Metric Self Alignment Tap and Die Set



Starts Straight



1841432



TAPS & DIES

Set Contents				Set Item # 1841432	
Thread Size Machine Screw	Tap Item # Self-Aligning	Die Item # Self-Aligning	Drill Bit Size	Drill Bit Item #	
4 - 40 NC	4935222	4935018	No. 43	80143	
6 - 32 NC	4935223	4935019	No. 36	80136	
8 - 32 NC	4935224	4935020	No. 29	80129	
10 - 24 NC	4935225	4935021	No.25	80125	
10 - 32 NF	4935226	4935022	No.21	80121	
12 - 24 NC	4935227	4935023	No. 16	80116	
<b>Fractional</b>					
1/4" - 20 NC	4935228	4935024	No.7	80107	
1/4" - 28 NF	4935229	4935025	No.3	80103	
5/16" -18 NC	4935230	4935026	Letter F	40106	
5/16" - 24 NF	4935231	4935027	Letter I	40109	
3/8" - 16 NC	4935232	4935028	5/16"	60120	
3/8" - 24 NF	4935233	4935029	Letter Q	40117	
7/16" - 14 NC	4935234	4935030	Letter U	40121	
7/16" - 20 NF	4935235	4935031	25/64"	60125	
1/2" - 13 NC	4935236	4935032	27/64"	60127	
1/2" - 20 NF	4935237	4935033	29/64"	60129	
<b>Metric</b>					
3 mm - 0.50	4935238	4935035	No. 39	80139	
4 mm - 0.70	4935239	4935036	No. 30	80130	
4 mm - 0.75	4935240	4935037	No. 30	80130	
5 mm - 0.80	4935241	4935038	No. 19	90119	
5 mm - 0.90	4935242	4935039	No. 20	80120	
6 mm - 1.00	4935243	4935040	No. 9	80109	
7 mm - 1.00	4935244	4935041	Letter B	40102	
8 mm - 1.00	4935245	4935042	Letter J	40110	
8 mm - 1.25	4935246	4935043	Letter H	40108	
9 mm - 1.00	4935247	4935044	Letter O	40115	
9 mm - 1.25	4935248	4935045	5/16"	60120	
10 mm - 1.25	4935249	4935046	Letter S	40119	
10 mm - 1.50	4935250	4935047	Letter R	40118	
11 mm - 1.50	4935251	4935048	3/8"	60124	
12 mm - 1.25	4935252	4935049	Letter Z	40126	
12 mm - 1.75	4935253	4935050	13/32"	60126	
<b>Pipe</b>					
1/8" - 27 NPT	1902ZR	6702	Letter Q	40117	
1/8" - 28 BSP	1911ZR	6711	21/64"	60121	
<b>Spiral Flute Screw Extractor</b>			Drill Bit Size	Item #	
EX - 1			5/64"	60105	
EX - 2			7/64"	60107	
EX - 3			5/32"	60110	
EX - 4			1/4"	60116	
EX - 5			19/64"	60119	
<b>Threading Tools</b>			Item #		
PTS Die Stock - 1"			4935054		
PTS Die Spacer			1775311		
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)			4935052		
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)			4935053		
T-Bar for Adj Tap Socket			1775312		
SAE Pitch Gauge			11018		
Metric Pitch Gauge			11016		

**HANSON 75-Piece Mach / Fractional / Metric Plug Tap and 1" Hex Die Set**



1813816



**Set Contents**

**Set Item # 1813816**

Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 1" Hexagon
4 - 40 NC	1112ZR	6412ZR
6 - 32 NC	1118	6418
8 - 32 NC	1124	6424
10 - 24 NC	1128ZR	6428
10 - 32 NF	1131	6431
12 - 24 NC	1132	6432ZR
<b>Fractional</b>		
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
<b>Metric</b>		
3 mm - 0.50	1712ZR	6612ZR
4 mm - 0.70	1717ZR	6617
4 mm - 0.75	1718ZR	6618
5 mm - 0.80	1722ZR	6622
5 mm - 0.90	1723ZR	6623
6 mm - 1.00	1727	6627
7 mm - 1.00	1731ZR	6631
8 mm - 1.00	1733ZR	6633
8 mm - 1.25	1734ZR	6634
9 mm - 1.00	1736	6636
9 mm - 1.25	1737	6637
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
11 mm - 1.50	1741ZR	6641
12 mm - 1.25	1743ZR	6642ZR
12 mm - 1.75	1744ZR	6644
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	6702
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		<b>Item #</b>
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053
T-Bar for Adj Tap Socket		1775312
SAE Pitch Gauge		11018
Metric Pitch Gauge		11016

TAPS & DIES

# Taps & Dies

## PTS Drive Tool / Combo Sets

### HANSON 75-Piece Mach / Fractional / Metric Self Alignment Tap and Die Set



Starts Straight



1841350



TAPS & DIES

Set Contents		Set Item # 1841350
Thread Size Machine Screw	Tap Item # Self-Aligning	Die Item # Self-Aligning
4 - 40 NC	4935222	4935018
6 - 32 NC	4935223	4935019
8 - 32 NC	4935224	4935020
10 - 24 NC	4935225	4935021
10 - 32 NF	4935226	4935022
12 - 24 NC	4935227	4935023
<b>Fractional</b>		
1/4" - 20 NC	4935228	4935024
1/4" - 28 NF	4935229	4935025
5/16" - 18 NC	4935230	4935026
5/16" - 24 NF	4935231	4935027
3/8" - 16 NC	4935232	4935028
3/8" - 24 NF	4935233	4935029
7/16" - 14 NC	4935234	4935030
7/16" - 20 NF	4935235	4935031
1/2" - 13 NC	4935236	4935032
1/2" - 20 NF	4935237	4935033
<b>Metric</b>		
3 mm - 0.50	4935238	4935035
4 mm - 0.70	4935239	4935036
4 mm - 0.75	4935240	4935037
5 mm - 0.80	4935241	4935038
5 mm - 0.90	4935242	4935039
6 mm - 1.00	4935243	4935040
7 mm - 1.00	4935244	4935041
8 mm - 1.00	4935245	4935042
8 mm - 1.25	4935246	4935043
9 mm - 1.00	4935247	4935044
9 mm - 1.25	4935248	4935045
10 mm - 1.25	4935249	4935046
10 mm - 1.50	4935250	4935047
11 mm - 1.50	4935251	4935048
12 mm - 1.25	4935252	4935049
12 mm - 1.75	4935253	4935050
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	6702
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		<b>Item #</b>
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053
T-Bar for Adj Tap Socket		1775312
SAE Pitch Gauge		11018
Metric Pitch Gauge		11016

### HANSON 40-Piece Machine Screw & Fractional Plug Tap and 1" Hex Die Set



1835091



Set Contents		Set Item # 1835091
<b>Thread Size</b>	<b>Tap Item #</b>	<b>Die Item #</b>
<b>Machine Screw</b>	<b>Plug Style</b>	<b>1" Hexagon</b>
4 - 40 NC	1112ZR	6412ZR
6 - 32 NC	1118	6418
8 - 32 NC	1124	6424
10 - 24 NC	1128ZR	6428
10 - 32 NF	1131	6431
12 - 24 NC	1132	6432ZR
<b>Fractional</b>		
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	6702
<b>Threading Tools</b>		<b>Item #</b>
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053
T-Bar for Adj Tap Socket		1775312
SAE Pitch Gauge		11018

### HANSON 40-Piece Machine Screw & Fractional Self Alignment Tap and Die Set



1841346



Starts Straight



Set Contents		Set Item # 1841346
<b>Thread Size</b>	<b>Tap Item #</b>	<b>Die Item #</b>
<b>Machine Screw</b>	<b>Self-Aligning</b>	<b>Self-Aligning</b>
4 - 40 NC	4935222	4935018
6 - 32 NC	4935223	4935019
8 - 32 NC	4935224	4935020
10 - 24 NC	4935225	4935021
10 - 32 NF	4935226	4935022
12 - 24 NC	4935227	4935023
<b>Fractional</b>		
1/4" - 20 NC	4935228	4935024
1/4" - 28 NF	4935229	4935025
5/16" - 18 NC	4935230	4935026
5/16" - 24 NF	4935231	4935027
3/8" - 16 NC	4935232	4935028
3/8" - 24 NF	4935233	4935029
7/16" - 14 NC	4935234	4935030
7/16" - 20 NF	4935235	4935031
1/2" - 13 NC	4935236	4935032
1/2" - 20 NF	4935237	4935033
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	6702
<b>Threading Tools</b>		<b>Item #</b>
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053
T-Bar for Adj Tap Socket		1775312
SAE Pitch Gauge		11018

# Taps & Dies

## PTS Drive Tool / Combo Sets

### HANSON 40-Piece Metric Plug Tap and 1" Hex Die Set



1835092



TAPS & DIES

### HANSON 40-Piece Metric Self Alignment Tap and Die Set



1841348



Starts Straight



Set Contents		Set Item # 1813816
Thread Size Metric	Tap Item # Plug Style	Die Item # 1" Hexagon
3 mm - 0.50	1712ZR	6612ZR
4 mm - 0.70	1717ZR	6617
4 mm - 0.75	1718ZR	6618
5 mm - 0.80	1722ZR	6622
5 mm - 0.90	1723ZR	6623
6 mm - 1.00	1727	6627
7 mm - 1.00	1731ZR	6631
8 mm - 1.00	1733ZR	6633
8 mm - 1.25	1734ZR	6634
9 mm - 1.00	1736	6636
9 mm - 1.25	1737	6637
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
11 mm - 1.50	1741ZR	6641
12 mm - 1.25	1743ZR	6642ZR
12 mm - 1.75	1744ZR	6644
<b>Pipe</b>		
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		Item #
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053
T-Bar for Adj Tap Socket		1775312
Metric Pitch Gauge		11016

Set Contents		Set Item # 1841348
Thread Size Metric	Tap Item # Self-Aligning	Die Item # Self-Aligning
3 mm - 0.50	4935238	4935035
4 mm - 0.70	4935239	4935036
4 mm - 0.75	4935240	4935037
5 mm - 0.80	4935241	4935038
5 mm - 0.90	4935242	4935039
6 mm - 1.00	4935243	4935040
7 mm - 1.00	4935244	4935041
8 mm - 1.00	4935245	4935042
8 mm - 1.25	4935246	4935043
9 mm - 1.00	4935247	4935044
9 mm - 1.25	4935248	4935045
10 mm - 1.25	4935249	4935046
10 mm - 1.50	4935250	4935047
11 mm - 1.50	4935251	4935048
12 mm - 1.25	4935252	4935049
12 mm - 1.75	4935253	4935050
<b>Pipe</b>		
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		Item #
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053
T-Bar for Adj Tap Socket		1775312
Metric Pitch Gauge		11016

### HANSON 41-Piece Machine Screw, Fractional & Metric Plug Tap Set



1840234



Set Contents		Set Item # 1840234	
Thread Size Machine Screw	Tap Item # Plug Style	Thread Size Metric	Tap Item # Plug Style
4-40NC	1112ZR	3 mm - 0.50	1712ZR
6-32NC	1118	4 mm - 0.70	1717ZR
8-32NC	1124	4 mm - 0.75	1718ZR
10-24NC	1128ZR	5 mm - 0.80	1722ZR
10-32NF	1131	5 mm - 0.90	1723ZR
12-24NC	1132	6 mm - 1.00	1727
<b>Fractional</b>		7 mm - 1 .00	1731ZR
1/4"-20NC	1420	8 mm - 1.00	1733ZR
1/4"-28NF	1423ZR	8 mm - 1.25	1734ZR
5/16"-18NC	1427	9 mm - 1.00	1736
5/16"-24NF	1429ZR	9 mm - 1.25	1737
3/8"-16NC	1434ZR	10 mm - 1.25	1739
3/8"-24NF	1436	10 mm - 1.50	1740ZR
7/16"-14NC	1439ZR	11 mm - 1.50	1741ZR
7/16"-20NF	1440	12 mm - 1.25	1743ZR
1/2"-13NC	1444ZR	12 mm - 1.75	1744ZR
1/2"-20NF	1445		
<b>Pipe</b>		<b>Pipe</b>	
1/8"-27NPT	1902ZR	1/8"-28BSP	1911ZR
Threading Tools		Item #	
PTS Die Stock - 1"		4935054	
PTS Die Spacer		1775311	
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052	
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053	
T-Bar for Adj Tap Socket		1775312	
SAE Pitch Gauge		11018	
Metric Pitch Gauge		11016	

### HANSON 41-Piece Machine Screw, Fractional & Metric Self Alignment Tap Set



1840235



Starts Straight



Set Contents		Set Item # 1840235	
Thread Size Machine Screw	Tap Item # Self-Aligning	Thread Size Metric	Tap Item # Self-Aligning
4-40NC	4935222	3 mm - 0.50	4935238
6-32NC	4935223	4 mm - 0.70	4935239
8-32NC	4935224	4 mm - 0.75	4935240
10-24NC	4935225	5 mm - 0.80	4935241
10-32NF	4935226	5 mm - 0.90	4935242
12-24NC	4935227	6 mm - 1.00	4935243
<b>Fractional</b>		7 mm - 1 .00	4935244
1/4"-20NC	4935228	8 mm - 1.00	4935245
1/4"-28NF	4935229	8 mm - 1.25	4935246
5/16"-18NC	4935230	9 mm - 1.00	4935247
5/16"-24NF	4935231	9 mm - 1.25	4935248
3/8"-16NC	4935232	10 mm - 1.25	4935249
3/8"-24NF	4935233	10 mm - 1.50	4935250
7/16"-14NC	4935234	11 mm - 1.50	4935251
7/16"-20NF	4935235	12 mm - 1.25	4935252
1/2"-13NC	4935236	12 mm - 1.75	4935253
1/2"-20NF	4935237		
<b>Pipe</b>		<b>Pipe</b>	
1/8"-27NPT	1902ZR	1/8"-28BSP	1911ZR
Threading Tools		Item #	
PTS Die Stock - 1"		4935054	
PTS Die Spacer		1775311	
PTS Adj Tap Socket - Small No. 4 to 1/4" (3 mm-6 mm)		4935052	
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6 mm - 12 mm)		4935053	
T-Bar for Adj Tap Socket		1775312	
SAE Pitch Gauge		11018	
Metric Pitch Gauge		11016	

# Taps & Dies

## PTS Drive Tool / Combo Sets

### HANSON 38-Piece Machine Screw, Fractional & Metric 1" Hex Die Set



1840236



Set Contents		Set Item # 1840236	
Thread Size Machine Screw	Die Item # 1" Hexagonal	Thread Size Metric	Die Item # 1" Hexagonal
4-40NC	6412ZR	3 mm - 0.50	6612ZR
6-32NC	6418	4 mm - 0.70	6617
8-32NC	6424	4 mm - 0.75	6618
10-24NC	6428	5 mm - 0.80	6622
10-32NF	6431	5 mm - 0.90	6623
12-24NC	6432ZR	6 mm - 1.00	6627
<b>Fractional</b>		7 mm - 1.00	6631
1/4"-20NC	6520ZR	8 mm - 1.00	6633
1/4"-28NF	6523ZR	8 mm - 1.25	6634
5/16"-18NC	6527	9 mm - 1.00	6636
5/16"-24NF	6529	9 mm - 1.25	6637
3/8"-16NC	6534ZR	10 mm - 1.25	6639
3/8"-24NF	6536	10 mm - 1.50	6640
7/16"-14NC	6539	11 mm - 1.50	6641
7/16"-20NF	6540	12 mm - 1.25	6642ZR
1/2"-13NC	6544	12 mm - 1.75	6644
1/2"-20NF	6545		
<b>Pipe</b>		<b>Pipe</b>	
1/8"-27NPT	1902ZR	1/8"-28BSP	1911ZR
<b>Threading Tools</b>		<b>Item #</b>	
PTS Die Stock - 1"		4935054	
PTS Die Spacer		1775311	
SAE Pitch Gauge		11018	
Metric Pitch Gauge		11016	

TAPS & DIES

### HANSON 38-Piece Machine Screw, Fractional & Metric Self Alignment Die Set



1840237



Starts Straight



Set Contents		Set Item # 1840237	
Thread Size Machine Screw	Die Item # Self-Aligning	Thread Size Metric	Die Item # Self-Aligning
4-40NC	4935018	3 mm - 0.50	4935035
6-32NC	4935019	4 mm - 0.70	4935036
8-32NC	4935020	4 mm - 0.75	4935037
10-24NC	4935021	5 mm - 0.80	4935038
10-32NF	4935022	5 mm - 0.90	4935039
12-24NC	4935023	6 mm - 1.00	4935040
<b>Fractional</b>		7 mm - 1.00	4935041
1/4"-20NC	4935024	8 mm - 1.00	4935042
1/4"-28NF	4935025	8 mm - 1.25	4935043
5/16"-18NC	4935026	9 mm - 1.00	4935044
5/16"-24NF	4935027	9 mm - 1.25	4935045
3/8"-16NC	4935028	10 mm - 1.25	4935046
3/8"-24NF	4935029	10 mm - 1.50	4935047
7/16"-14NC	4935030	11 mm - 1.50	4935048
7/16"-20NF	4935031	12 mm - 1.25	4935049
1/2"-13NC	4935032	12 mm - 1.75	4935050
1/2"-20NF	4935033		
<b>Pipe</b>		<b>Pipe</b>	
1/8"-27NPT	1902ZR	1/8"-28BSP	1911ZR
<b>Threading Tools</b>		<b>Item #</b>	
PTS Die Stock - 1"		4935054	
PTS Die Spacer		1775311	
SAE Pitch Gauge		11018	
Metric Pitch Gauge		11016	



### HANSON 117-piece Machine Screw/Fractional/Metric Tap, Die, Extractor and Drill Bit Deluxe Set



26377

Set Contents				Set Item # 26377	
Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 5/8" Hexagon	Drill Bit Size	Drill Bit Item #	
4 - 40 NC	1112ZR	6112	No. 43	80143	
6 - 32 NC	1118	6118	No. 36	80136	
8 - 32 NC	1124	6124	No. 29	80129	
10 - 24 NC	1128ZR	6128	No. 25	80125	
10 - 32 NF	1131	6131	No. 21	80121	
12 - 24 NC	1132	6132	No. 16	80116	
<b>Fractional</b>					
		<b>1" Hexagon</b>			
1/4" - 20 NC	1420	6520ZR	No. 7	80107	
1/4" - 28 NF	1423ZR	6523ZR	No. 3	80103	
5/16" - 18 NC	1427	6527	Letter F	40106	
5/16" - 24 NF	1429ZR	6529	Letter I	40109	
3/8" - 16 NC	1434ZR	6534ZR	5/16"	60120	
3/8" - 24 NF	1436	6536	Letter Q	40117	
7/16" - 14 NC	1439ZR	6539	Letter U	40121	
7/16" - 24 NF	1440	6540	25/64"	60125	
1/2" - 13 NC	1444ZR	6544	27/64"	60127	
1/2" - 20 NF	1445	6545	29/64"	60129	
<b>Metric</b>					
		<b>5/8" Hexagon</b>			
3 mm - 0.50	1712ZR	6312	No. 39	80139	
4 mm - 0.70	1717ZR	6317	No. 30	80130	
4 mm - 0.75	1718ZR	6318	No. 30	80130*	
5 mm - 0.80	1722ZR	6322	No. 19	90119	
5 mm - 0.90	1723ZR	6323ZR	No. 20	80120	
6 mm - 1.00	1727	6327	No. 9	80109	
		<b>1" Hexagon</b>			
7 mm - 1.00	1731ZR	6631	Letter B	40102	
8 mm - 1.00	1733ZR	6633	Letter J	40110	
8 mm - 1.25	1734ZR	6634	Letter H	40108	
9 mm - 1.00	1736	6636	Letter O	40115	
9 mm - 1.25	1737	6637	5/16"	60120*	
10 mm - 1.25	1739	6639	Letter S	40119	
10 mm - 1.50	1740ZR	6640	Letter R	40118	
11 mm - 1.50	1741ZR	6641	3/8"	60124	
12 mm - 1.50	1743ZR	6643	Letter Z	40126	
12 mm - 1.75	1744ZR	6644	13/32"	60126	
<b>Pipe</b>					
1/8" - 27 NPT	1902ZR	6702	Letter Q	40117*	
1/8" - 28 BSP	1911ZR	6711	21/64"	60121	
<b>Spiral Flute Screw Extractor</b>			<b>Drill Bit Size</b>	<b>Item #</b>	
EX - 1			5/64"	60105	
EX - 2			7/64"	60107	
EX - 3			5/32"	60110	
EX - 4			1/4"	60116	
EX - 5			19/64"	60119	
<b>Threading Tools</b>					<b>Item #</b>
Plain Die Stock - 5/8" Hexagon Dies					12457
Adjustable Die Stock - 1" Dies					11026
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"					311088
Two-in-One Tap Wrench - Taps 1/4" to 1/2"					12450
T-Handle Wrench - Taps No. 0 to 1/4"					12473
16 Leaf Metric Thread Pitch Gauge					11016
18 Leaf Standard Thread Pitch Gauge					11018
Empty Plastic Case For 26377					26377MT

\* Duplicate

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON® 76-piece Machine Screw/ Fractional/Metric Tap & Hex Die Set



26376

TAPS & DIES

Set Contents		Item # 26376
Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 5/8" Hexagon
4 - 40 NC	1112ZR	6112
6 - 32 NC	1118	6118
8 - 32 NC	1124	6124
10 - 24 NC	1128ZR	6128
10 - 32 NF	1131	6131
12 - 24 NC	1132	6132
<b>Fractional</b>		<b>1" Hexagon</b>
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
<b>Metric</b>		<b>5/8" Hexagon</b>
3 mm - 0.50	1712ZR	6312
4 mm - 0.70	1717ZR	6317
4 mm - 0.75	1718ZR	6318
5 mm - 0.80	1722ZR	6322
5 mm - 0.90	1723ZR	6323ZR
6 mm - 1.00	1727	6327
		<b>1" Hexagon</b>
7 mm - 1.00	1731ZR	6631
8 mm - 1.00	1733ZR	6633
8 mm - 1.25	1734ZR	6634
9 mm - 1.00	1736	6636
9 mm - 1.25	1737	6637
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
11 mm - 1.50	1741ZR	6641
12 mm - 1.50	1743ZR	6643
12 mm - 1.75	1744ZR	6644
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	6702
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		<b>Item #</b>
Plain Die Stock - 5/8" Hexagon Dies		12457
Adj. Die Stock - 1" Dies		11026
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
Two-in-One Tap Wrench - Taps 1/4" to 1/2"		12450
T-Handle Wrench - Taps No. 0 to 1/4"		12473
16 Leaf Metric Thread Pitch Gauge		11016
18 Leaf Standard Thread Pitch Gauge		11018
Empty Plastic Case For 26376		26376MT

### HANSON 66-piece Machine Screw/ Fractional Tap & Hex Die Set



97606

Set Contents		Item # 97606
<b>Thread Size</b>	<b>Tap Item #</b>	<b>Die Item #</b>
<b>Machine Screw</b>	<b>Plug Style</b>	<b>5/8" Hexagon</b>
4 - 40 NC	1112ZR	6112
6 - 32 NC	1118	6118
8 - 32 NC	1124	6124
10 - 24 NC	1128ZR	6128
10 - 32 NF	1131	6131
12 - 24 NC	1132	6132
<b>Fractional</b>		<b>1" Hexagon</b>
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
		<b>1-7/16" Hexagon</b>
9/16" - 12 NC	1448	6848
9/16" - 18 NF	1449	6849
5/8" - 11 NC	1452	6852
5/8" - 18 NF	1454	6854
3/4" - 10 NC	1458	6858
3/4" - 16 NF	1460	6860ZR
		<b>1-13/16" Hexagon</b>
7/8" - 9 NC	1461	8461
7/8" - 14 NF	1463	8463
1" - 8 NC	1465ZR	8465
1" - 14 NS	1467ZR	8467
<b>Pipe</b>		<b>1" Hexagon</b>
1/8" - 27 NPT	1902ZR	6702
1/4" - 18 NPT	1903ZR	7003
<b>Threading Tools</b>		<b>Item #</b>
Plain Die Stock - 5/8" Hexagon Dies		12457
Adj. Die Stock - 1" Dies		11026
Adj. Die Stock - 1-7/16" Hexagon Dies		12436
Adj. Die Stock - 1-13/16" Hexagon Dies		12446
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
Two-in-One Tap Wrench - Taps 1/4" to 1/2"		12450
T-Handle Wrench - Taps No. 0 to 1/4"		12473
18 Leaf Standard Thread Pitch Gauge		11018

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON® 66-piece Metric Tap & Hex Die Set



97312

TAPS & DIES

Set Contents		Item # 97312
Thread Size Metric	Tap Item # Plug Style	Die Item # 5/8" Hexagon
3 mm - 0.50	1712ZR	6312
4 mm - 0.70	1717ZR	6317
4 mm - 0.75	1718ZR	6318
5 mm - 0.80	1722ZR	6322
5 mm - 0.90	1723ZR	6323ZR
6 mm - 1.00	1727	6327
		<b>1" Hexagon</b>
7 mm - 1.00	1731ZR	6631
8 mm - 1.00	1733ZR	6633
8 mm - 1.25	1734ZR	6634
9 mm - 1.00	1736	6636
9 mm - 1.25	1737	6637
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
11 mm - 1.50	1741ZR	6641
12 mm - 1.50	1743ZR	6643
12 mm - 1.75	1744ZR	6644
		<b>1-7/16" Hexagon</b>
14 mm - 1.25	2449	6949ZR
14 mm - 1.50	1750	6950ZR
14 mm - 2.00	1752ZR	6952
16 mm - 1.50	1755ZR	6955ZR
16 mm - 2.00	1756ZR	6956
18 mm - 1.50	1759ZR	6959
18 mm - 2.50	1761ZR	6961ZR
		<b>1-13/16" Hexagon</b>
20 mm - 2.50	1764ZR	8564ZR
22 mm - 1.50	1765ZR	8565ZR
24 mm - 2.00	1768ZR	8568
24 mm - 3.00	1769ZR	8569
<b>Pipe</b>		<b>1" Hexagon</b>
1/8" - 28 BSP	1911ZR	6711
Threading Tools		Item #
Plain Die Stock - 5/8" Hexagon Dies		12457
Adj. Die Stock - 1" Dies		11026
Adj. Die Stock - 1-7/16" Hexagon Dies		12436
Adj. Die Stock - 1-13/16" Hexagon Dies		12446
T-Handle Wrench - Taps No. 0 to 1/4"		12473
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
Two-in-One Tap Wrench - Taps 1/4" to 1/2"		12450
16 Leaf Metric Thread Pitch Gauge		11016

### HANSON 53-piece Machine Screw/ Fractional Tap & Hex Die Set



24640

### HANSON 53-piece Metric Tap & Hex Die Set



26394

Set Contents		Item # 24640
<b>Thread Size Machine Screw</b>	<b>Tap Item # Plug Style</b>	<b>Die Item # 1" Hexagon</b>
6 - 32 NC	1118	6418
8 - 32 NC	1124	6424
10 - 24 NC	1128ZR	6428
10 - 32 NF	1131	6431
12 - 24 NC	1132	6432ZR
<b>Fractional</b>		
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
<b>1-7/16" Hexagon</b>		
9/16" - 12 NC	1448	6848
9/16" - 18 NF	1449	6849
5/8" - 11 NC	1452	6852
5/8" - 18 NF	1454	6854
3/4" - 10 NC	1458	6858
3/4" - 16 NF	1460	6860ZR
<b>Pipe</b>		
1/8" - 27 NPT Pipe	1902ZR	6702
1/4" - 18 NPT Pipe	1903ZR	6703
<b>Threading Tools</b>		<b>Item #</b>
Adj. Die Stock - 1" Dies		11026
Adj. Die Stock - 1-7/16" Hexagon Dies		12436
T-Handle Wrench - Taps No. 0 to 1/4"		12473
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
18 Leaf Standard Thread Pitch Gauge		11018
<b>Set Contents</b>		<b>Item # 26394</b>
<b>Thread Size Metric Screw</b>	<b>Tap Item # Plug Style</b>	<b>Die Item # 1" Hexagon</b>
3 mm - 0.50	1712ZR	6612ZR
4 mm - 0.70	1717ZR	6617
4 mm - 0.75	1718ZR	6618
5 mm - 0.80	1722ZR	6622
5 mm - 0.90	1723ZR	6623
6 mm - 1.00	1727	6627
7 mm - 1.00	1731ZR	6631
8 mm - 1.25	1734ZR	6634
9 mm - 1.00	1736	6636
9 mm - 1.25	1737	6637
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
11 mm - 1.50	1741ZR	6641
12 mm - 1.50	1743ZR	6643
12 mm - 1.75	1744ZR	6644
<b>1-7/16" Hexagon</b>		
14 mm - 1.25	1749ZR	6949ZR
14 mm - 2.00	1752ZR	6952
16 mm - 1.50	1755ZR	6955ZR
16 mm - 2.00	1756ZR	6956
18 mm - 1.50	1759ZR	6959
18 mm - 2.50	1761ZR	6961ZR
<b>Pipe</b>		
1/8" - 28 BSP	1911ZR	6711
1/4" - 19 BSP	1912ZR	6712
<b>Threading Tools</b>		<b>Item #</b>
Adj. Die Stock - 1" Dies		11026
Adj. Die Stock - 1-7/16" Hexagon Dies		12436
T-Handle Wrench - Taps No. 0 to 1/4"		12473
T-Handle Wrench - Taps No. 0 to 1/2"		311088
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
16 Leaf Metric Thread Pitch Gauge		11016
Empty Plastic Case		26394MT

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON® 41-piece Machine Screw/Fractional Tap & Hex Die Set



24606

- Plastic storage case with removable tray keeps all tools organized

TAPS & DIES

### HANSON 41-piece Metric Tap & Hex Die Set



26317

#### Set Contents

Thread Size	Tap Item #	Die Item #
<b>Machine Screw</b>	<b>Plug Style</b>	<b>5/8" Hexagon</b>
4 - 40 NC	1112ZR	6112
6 - 32 NC	1118	6118
8 - 32 NC	1124	6124
10 - 24 NC	1128ZR	6128
10 - 32 NF	1131	6131
12 - 24 NC	1132	6132
<b>Fractional</b>		<b>1" Hexagon</b>
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
<b>Pipe</b>		<b>1" Hexagon</b>
1/8" - 27 NPT	1902	6702
<b>Threading Tools</b>		<b>Item #</b>
Plain Die Stock - 5/8" Hexagon Dies		12457
Adj. Die Stock - 1" Dies		11026
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
T-Handle Wrench - Taps No. 0 to 1/4"		12473
Two-in-One Tap Wrench - Taps 1/4" to 1/2"		12450
18 Leaf Standard Thread Pitch Gauge		11018
Empty Plastic Case		24606MT

#### Set Contents

Thread Size	Tap Item #	Die Item #
<b>Metric</b>	<b>Plug Style</b>	<b>5/8" Die Item #</b>
3 mm - 0.50	1712ZR	6312
4 mm - 0.70	1717ZR	6317
4 mm - 0.75	1718ZR	6318
5 mm - 0.80	1722ZR	6322
5 mm - 0.90	1723ZR	6323ZR
6 mm - 1.00	1727	6327
		<b>1" Die Item #</b>
7 mm - 1.00	1731ZR	6631
8 mm - 1.00	1733ZR	6633
8 mm - 1.25	1734ZR	6634
9 mm - 1.00	1736	6636
9 mm - 1.25	1737	6637
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
11 mm - 1.50	1741ZR	6641
12 mm - 1.50	1743ZR	6643
12 mm - 1.75	1744ZR	6644
<b>Pipe</b>		<b>Item #</b>
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		<b>Item #</b>
Plain Die Stock - 5/8" Hexagon Dies		12457
Adj. Die Stock - 1" Dies		11026
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
T-Handle Wrench - Taps No. 0 to 1/4"		12473
Two-in-One Tap Wrench - Taps 1/4" to 1/2"		12450
18 Leaf Standard Thread Pitch Gauge		11018
Empty Plastic Case		24606MT

### HANSON® 41-piece Machine Screw/ Fractional/Metric Tap & Hex Die Set



26319

Set Contents		Item # 26319
<b>Thread Size</b>	<b>Tap Item #</b>	<b>Die Item #</b>
<b>Machine Screw</b>	<b>Plug Style</b>	<b>5/8" Hexagon</b>
6 - 32 NC	1118	6118
8 - 32 NC	1124	6124
10 - 24 NC	1128ZR	6128
<b>Fractional</b>		<b>1" Hexagon</b>
1/4" - 20 NC	1420	6520ZR
5/16" - 18 NC	1427	6527
3/8" - 16 NC	1434ZR	6534ZR
7/16" - 14 NC	1439ZR	6539
1/2" - 13 NC	1444ZR	6544
1/8" - 27 NPT	1902ZR	6702
<b>Metric</b>		<b>5/8" Hexagon</b>
4 mm - 0.75	1718ZR	6318
5 mm - 0.80	1722ZR	6322
6 mm - 1.00	1727	6327
		<b>1" Hexagon</b>
7 mm - 1.00	1731ZR	6631
8 mm - 1.25	1734ZR	6634
10 mm - 1.25	1739	6639
10 mm - 1.50	1740ZR	6640
12 mm - 1.75	1744ZR	6644
<b>Threading Tools</b>		<b>Item #</b>
Adj. Die Stock - 1" Dies		11026
Plain Die Stock - 5/8" Hexagon Dies		12457
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
T-Handle Wrench - Taps No. 0 to 1/4"		12473
Two-in-One Tap Wrench - Taps 1/4" to 1/2"		12450
Standard and Metric Thread Pitch Gauge		11017

### HANSON® 25-piece Fractional Tap & Hex Die Set



97094ZR

Set Contents		Item # 97094ZR
<b>Thread Size</b>	<b>Tap Item #</b>	<b>Die Item #</b>
<b>Fractional</b>	<b>Plug Style</b>	<b>1-7/16" Hexagon</b>
9/16" - 12 NC	1448	6848
9/16" - 18 NF	1449	6849
5/8" - 11 NC	1452	6852
5/8" - 18 NF	1454	6854
3/4" - 10 NC	1458	6858
3/4" - 16 NF	1460	6860ZR
		<b>1-13/16" Hexagon</b>
7/8" - 9 NC	1461	8461
7/8" - 14 NF	1463	8463
1" - 8 NC	1465ZR	8465
1" - 14 NS	1467ZR	8467
<b>Pipe</b>		<b>1-7/16" Hexagon</b>
1/4" - 18 NPT	1903ZR	7003
<b>Threading Tools</b>		<b>Item #</b>
Adj. Die Stock - 1-7/16" Hexagon Dies		12436
Adj. Die Stock - 1-13/16" Hexagon Dies		12446
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
Empty Plastic Case		97094MT

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON 25-piece Metric Tap & Hex Die Set



97311

### HANSON 12-piece Machine Screw/ Fractional Tap & Hex Die Set



1765542

### HANSON 12-piece Machine Screw/ Fractional Tap & Hex Die Set



24605

### HANSON 12-piece Metric Tap & Hex Die Set



1765541

Set Contents		Item # 97311
<b>Thread Size Metric</b>	<b>Tap Item # Plug Style</b>	<b>Die Item # 1-7/16" Hexagon</b>
14 mm - 1.25	2449	6949ZR
14 mm - 1.50	1750	6950ZR
14 mm - 2.00	1752ZR	6952
16 mm - 1.50	1755ZR	6955ZR
16 mm - 2.00	1756ZR	6956
18 mm - 1.50	1759ZR	6959
18 mm - 2.50	1761ZR	6961ZR
		<b>1-13/16" Hexagon</b>
20 mm - 2.50	1764ZR	8564ZR
22 mm - 1.50	1765ZR	8565ZR
24 mm - 2.00	1768ZR	8568
24 mm - 3.00	1769ZR	8569
Threading Tools		Item #
Adj. Die Stock - 1-7/16" Hexagon Dies		12436
Adj. Die Stock - 1-13/16" Hexagon Dies		12446
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
Empty Plastic Case		97311MT

Set Contents		Item # 1765542
<b>Thread Size Fractional</b>	<b>Tap Item # Self-Alignmning</b>	<b>Die Item # Self-Aligning</b>
1/4" - 20 NC	4935228	4935024
5/16" - 18 NC	4935230	4935026
3/8" - 16 NC	4935232	4935028
1/2" - 13 NC	4935236	4935032
Threading Tools		Item #
PTS Die Stock - 1"		4935054
PTS Die Spacer		1775311
PTS Adj Tap Socket - Medium 1/4" to 1/2" (6mm - 12mm)		4935053
T-Bar for Adj Tap Socket		1775312

Set Contents		Item # 24605
<b>Thread Size Machine Screw</b>	<b>Tap Item # Plug Style</b>	<b>Die Item # 5/8" Hexagon</b>
6 - 32 NC	1118	6118
8 - 32 NC	1124	6124
10 - 24 NC	1128ZR	6128
10 - 32 NF	1131	6131
<b>Fractional</b>		
1/4" - 20 NC	1420	6220
Threading Tools		Item #
Plain Die Stock - 5/8" Hexagon Dies		12457
T-Handle Tap Wrench - Taps No. 0 to 1/4"		12401

Set Contents		Item # 1765541
<b>Thread Size Metric</b>	<b>Tap Item # Plug Style</b>	<b>Die Item # 5/8" Hexagon</b>
3mm - 0.50	1712ZR	6312
4mm - 0.70	1717ZR	6317
5mm - 0.80	1722ZR	6322
6mm - 1.00	1727	6327
7mm - 1.00	1731ZR	6631
Threading Tools		Item #
Plain Die Stock - 5/8" Hexagon Dies		12457
T-Handle Tap Wrench - Taps No. 0 to 1/4"		12401



### HANSON 24-piece Fractional Tap & Hex Die Set



24614

Set Contents		Item # 24614
Thread Size Fractional	Tap Item # Plug Style	Die Item # 1" Hexagon
1/4" - 20 NC	1420	6520ZR
1/4" - 28 NF	1423ZR	6523ZR
5/16" - 18 NC	1427	6527
5/16" - 24 NF	1429ZR	6529
3/8" - 16 NC	1434ZR	6534ZR
3/8" - 24 NF	1436	6536
7/16" - 14 NC	1439ZR	6539
7/16" - 20 NF	1440	6540
1/2" - 13 NC	1444ZR	6544
1/2" - 20 NF	1445	6545
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	6702
<b>Threading Tools</b>		Item #
Plain Die Stock - 1" Dies		11008
Offset Adj. Tap Wrench - Taps No. 0 to 1/2"		12421

### HANSON 24-piece Metric Tap & Hex Die Set



26313

Set Contents		Item # 26313
Thread Size Metric	Tap Item # Plug Style	Die Item # 1" Hexagon
3 mm - 0.50	1712ZR	6612ZR
4 mm - 0.70	1717ZR	6617
5 mm - 0.80	1722ZR	6622
6 mm - 1.00	1727	6627
7 mm - 1.00	1731ZR	6631
8 mm - 1.25	1734ZR	6634
9 mm - 1.25	1737	6637
10 mm - 1.50	1740ZR	6640
12 mm - 1.50	1743ZR	6643
12 mm - 1.75	1744ZR	6644
<b>Pipe</b>		
1/8" - 28 BSP	1911ZR	6711
<b>Threading Tools</b>		Item #
Plain Die Stock - 1" Dies		11008
Offset Adj. Tap Wrench - Taps No. 0 to 1/2"		12421

### HANSON 12-piece Fractional Tap & Hex Die Set



24612

Set Contents		Item # 24612
Thread Size Fractional	Tap Item # Plug Style	Die Item # 1" Hexagon
1/4" - 20 NC	1420ZR	6520ZR
5/16" - 18 NC	1427	6527
3/8" - 16 NC	1434ZR	6534ZR
7/16" - 14 NC	1439ZR	6539
1/2" - 13 NC	1444ZR	6544
<b>Threading Tools</b>		Item #
Plain Die Stock - 1" Dies		11008
Offset Adj. Tap Wrench - Taps No. 0 to 1/2"		12421

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON® 64-piece Machine Screw/ Fractional Tap & Solid / Adjustable Round Die Set



98614

TAPS & DIES

Set Contents		Item # 98614
Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 1" Solid Round
4 - 40 NC	1112ZR	3012
6 - 32 NC	1118	3018
8 - 32 NC	1124	3024
10 - 24 NC	1128ZR	3028ZR
10 - 32 NF	1131	3031
12 - 24 NC	1132	3032
<b>Fractional</b>		
1/4" - 20 NC	1420	3120
1/4" - 28 NF	1423ZR	3123
5/16" - 18 NC	1427	3127
5/16" - 24 NF	1429ZR	3129
3/8" - 16 NC	1434ZR	3134
3/8" - 24 NF	1436	3136
7/16" - 14 NC	1439ZR	3139
7/16" - 20 NF	1440	3140
1/2" - 13 NC	1444ZR	3144
1/2" - 20 NF	1445	3145
<b>1-1/2" Adj. Round</b>		
9/16" - 12 NC	1448	4048ZR
9/16" - 18 NF	1449	4049ZR
5/8" - 11 NC	1452	4052
5/8" - 18 NF	1454	4054
3/4" - 10 NC	1458	4058ZR
3/4" - 16 NF	1460	4060ZR
<b>2" Adj. Round</b>		
7/8" - 9 NC	1461	4261
7/8" - 14 NF	1463	4263
1" - 8 NC	1465ZR	4265
1" - 12 NF	1466ZR	4266
<b>Pipe</b>		
		<b>1" Solid Round</b>
1/8" - 27 NPT	1902ZR	3202
		<b>1-1/2" Solid Round</b>
1/4" - 18 NPT	1903ZR	4103
<b>Threading Tools</b>		<b>Item #</b>
Adj. Die Stock - 1" Dies		11026
Adj. Die Stock - 1-1/2" Adj. Round Dies		12435
Adj. Die Stock - 2" Adj. Round Dies		12445
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
T-Handle Wrench - Taps No. 0 to 1/4"		12401
18 Leaf Standard Thread Pitch Gauge		11018

### HANSON 64-piece Machine Screw/ Fractional Tap & Adjustable / Solid Round Die Set



98146

#### Set Contents

Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 1" Adj. Round
4 - 40 NC	1112ZR	3712
6 - 32 NC	1118	3718
8 - 32 NC	1124	3724
10 - 24 NC	1128ZR	3728
10 - 32 NF	1131	3731
12 - 24 NC	1132	3732
<b>Fractional</b>		
1/4" - 20 NC	1420	3820ZR
1/4" - 28 NF	1423ZR	3823
5/16" - 18 NC	1427	3827
5/16" - 24 NF	1429ZR	3829
3/8" - 16 NC	1434ZR	3834
3/8" - 24 NF	1436	3836
7/16" - 14 NC	1439ZR	3839
7/16" - 20 NF	1440	3840
1/2" - 13 NC	1444ZR	3844
1/2" - 20 NF	1445	3845
<b>1-1/2" Adj. Round</b>		
9/16" - 12 NC	1448	4048ZR
9/16" - 18 NF	1449	4049ZR
5/8" - 11 NC	1452	4052
5/8" - 18 NF	1454	4054
3/4" - 10 NC	1458	4058ZR
3/4" - 16 NF	1460	4060ZR
<b>2" Adj. Round</b>		
7/8" - 9 NC	1461	4261
7/8" - 14 NF	1463	4263
1" - 8 NC	1465ZR	4265
1" - 12 NF	1466ZR	4266
<b>Pipe</b>		
<b>1" Solid Round</b>		
1/8" - 27 NPT	1902ZR	3202
<b>1-1/2" Solid Round</b>		
1/4" - 18 NPT	1903ZR	4103
<b>Threading Tools</b>		
		<b>Item #</b>
Adj. Die Stock - 1" Adj. Round Dies		12428
Adj. Die Stock - 1-1/2" Adj. Round Dies		12435
Adj. Die Stock - 2" Adj. Round Dies		12445
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
T-Handle Wrench - Taps No. 0 to 1/4"		12401
18 Leaf Standard Thread Pitch Gauge		11018

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON® 41-piece Fractional Tap & Adjustable/Solid Round Die Set



25941

TAPS & DIES

Set Contents		Item # 25941
Thread Size Fractional	Tap Item # Plug Style	Die Item # 1-1/2" Adj. Round
1/4" - 20 NC	1420	4020ZR
1/4" - 28 NF	1423ZR	4023
5/16" - 18 NC	1427	4027ZR
5/16" - 24 NF	1429ZR	4029ZR
3/8" - 16 NC	1434ZR	4034ZR
3/8" - 24 NF	1436	4036
7/16" - 14 NC	1439ZR	4039ZR
7/16" - 20 NF	1440	4040ZR
1/2" - 13 NC	1444ZR	4044
1/2" - 20 NF	1445	4045ZR
9/16" - 12 NC	1448	4048ZR
9/16" - 18 NF	1449	4049ZR
5/8" - 11 NC	1452	4052
5/8" - 18 NF	1454	4054
3/4" - 10 NC	1458	4058ZR
3/4" - 16 NF	1460	4060ZR
<b>Pipe</b>		<b>1-1/2" Solid Round</b>
1/8" - 27 NPT	1902ZR	4102
1/4" - 18 NPT	1903ZR	4103
<b>Threading Tools</b>		<b>Item #</b>
Adj. Die Stock - 1-1/2" Dies		12435
T-Handle Wrench - Taps 1/4" to 1/2"		12402
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
18 Leaf Standard Thread Pitch Gauge		11018
Empty Plastic Case		25941MT

### HANSON 39-piece Machine Screw/ Fractional Tap & Solid Round Die Set



23614

### HANSON 39-piece Machine Screw/ Fractional Tap & Adjustable Round Die Set



25914

Set Contents		Item # 23614
Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 1" Solid Round
4 - 40 NC	1112ZR	3012
6 - 32 NC	1118	3018
8 - 32 NC	1124	3024
10 - 24 NC	1128ZR	3028ZR
10 - 32 NF	1131	3031
12 - 24 NC	1132	3032
<b>Fractional</b>		
1/4" - 20 NC	1420	3120ZR
1/4" - 28 NF	1423ZR	3123
5/16" - 18 NC	1427	3127
5/16" - 24 NF	1429ZR	3129
3/8" - 16 NC	1434ZR	3134
3/8" - 24 NF	1436	3136
7/16" - 14 NC	1439ZR	3139
7/16" - 20 NF	1440	3140
1/2" - 13 NC	1444ZR	3144
1/2" - 20 NF	1445	3145
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	3202
<b>Threading Tools</b>		Item #
Adj. Die Stock - 1" Dies		11026
T-Handle Wrench - Taps No. 0 to 1/4"		12401
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
18 Leaf Standard Thread Pitch Gauge		11018
Empty Plastic Case		23614MT

Set Contents		Item # 25914
Thread Size Machine Screw	Tap Item # Plug Style	Die Item # 1-1/2" Adj. Round
4 - 40 NC	1112ZR	3712
6 - 32 NC	1118	3718
8 - 32 NC	1124	3724
10 - 24 NC	1128ZR	3728
10 - 32 NF	1131	3731
12 - 24 NC	1132	3732
<b>Fractional</b>		
1/4" - 20 NC	1420	3820ZR
1/4" - 28 NF	1423ZR	3823
5/16" - 18 NC	1427	3827
5/16" - 24 NF	1429ZR	3829
3/8" - 16 NC	1434ZR	3834
3/8" - 24 NF	1436	3836
7/16" - 14 NC	1439ZR	3839
7/16" - 20 NF	1440	3840
1/2" - 13 NC	1444ZR	3844
1/2" - 20 NF	1445	3845
<b>Pipe</b>		
1/8" - 27 NPT	1902ZR	3202
<b>Threading Tools</b>		Item #
Adj. Die Stock - 1" Adj. Round Dies		12428
T-Handle Wrench - Taps No. 0 to 1/4"		12401
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
18 Leaf Standard Thread Pitch Gauge		11018
Empty Plastic Case		25914MT

# Taps & Dies

## High Carbon Steel Combination Sets

### HANSON® 25-piece Fractional Tap & Adjustable/Solid Round Die Set



98000

Set Contents		Item # 98000
Thread Size Fractional	Tap Item # Plug Style	Die Item # 1-1/2" Adj. Round
9/16" - 12 NC	1448	4048ZR
9/16" - 18 NF	1449	4049ZR
5/8" - 11 NC	1452	4052
5/8" - 18 NF	1454	4054
3/4" - 10 NC	1458	4058ZR
3/4" - 16 NF	1460	4060ZR
		2" Adj. Round
7/8" - 9 NC	1461	4261
7/8" - 14 NF	1463	4263
1" - 8 NC	1465ZR	4265
1" - 12 NF	1466ZR	4266
Pipe		1-1/2" Solid Round
1/4" - 18 NPT	1903ZR	4103
Threading Tools		Item #
Adj. Die Stock - 1-1/2" Adj. Round Dies		12435
Adj. Die Stock - 2" Adj. Round Dies		12445
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
Empty Plastic Case		98000MT

TAPS & DIES

### HANSON 24-piece Fractional Tap & Solid Round Die Set



23622

Set Contents		Item # 23622
Thread Size Fractional	Tap Item # Plug Style	Die Item # 1" Solid Round
1/4" - 20 NC	1420	3120ZR
1/4" - 28 NF	1423ZR	3123
5/16" - 18 NC	1427	3127
5/16" - 24 NF	1429ZR	3129
3/8" - 16 NC	1434ZR	3134
3/8" - 24 NF	1436	3136
7/16" - 14 NC	1439ZR	3139
7/16" - 20 NF	1440	3140
1/2" - 13 NC	1444ZR	3144
1/2" - 20 NF	1445	3145
Pipe		
1/8" - 27 NPT	1902ZR	3202
Threading Tools		Item #
Plain Die Stock - 1" Dies		11008
Offset Adj. Tap Wrench - Taps No. 0 to 1/2"		12421

### HANSON Cut Thread Machine Screw Taps (HSS)



400023



403025



406025

- Straight fluted, hand taps
- Taps produce a class 2B thread

### HANSON Cut Thread Fractional Taps (HSS)



410022



413022



416022

- Straight fluted, hand taps
- Taps produce a class 2B thread
- Works in most materials including stainless & alloy steels

### HANSON Cut Thread Pipe Taper Taps (HSS)



459002

- Cuts internal threads in pipes
- Ideal for pipe fittings
- Tapered at a rate of 3/4" per foot

Description	No. of Flutes	Plug Bulk Item #	Taper Bulk Item #	Bottom Bulk Item #
4 - 40 NC	3	403009	—	—
6 - 32 NC	3	403015	400015ZR	406015
6 - 48 NS	3	403017	400017	406017
8 - 32 NC	4	403019	400019	406019
8 - 40 NS	4	403021	400021ZR	406021ZR
10 - 24 NC	4	403022	400022ZR	406022
10 - 32 NF	4	403023	400023ZR	406023
12 - 24 NC	4	403025	400025ZR	—
14 - 20 NS	4	403028	—	—

Description	No. of Flutes	Plug Bulk Item #	Taper Bulk Item #	Bottom Bulk Item #
1/4" - 20 NC	4	413010	410010	416010
1/4" - 28 NF	4	413012	—	416012
5/16" - 18 NC	4	413015	410015	416015
5/16" - 24 NF	4	413016	—	416016
3/8" - 16 NC	4	413018	410018	416018
3/8" - 24 NF	4	413019	410019ZR	—
7/16" - 14 NC	4	413020	410020	416020
7/16" - 20 NF	4	413021	410021	—
1/2" - 13 NC	4	413022	410022ZR	416022
1/2" - 20 NF	4	413023	410023ZR	—
9/16" - 12 NC	4	413024	—	—
5/8" - 11 NC	4	413026	410026	—
3/4" - 10 NC	4	—	410028	—

Description	No. of Flutes	Taper Item #
1/8" - 27 NPT	4	459001
1/4" - 18 NPT	4	459002
3/8" - 18 NPT	4	459003
1/2" - 14 NPT	4	459004
3/4" - 14 NPT	5	459005
1" - 11-1/2 NPT	5	459006
1-1/4" - 11-1/2 NPT	5	459007
1-1/2" - 11-1/2 NPT	6	459008

# Taps & Dies

## High Speed Steel Taps

### HANSON 6-piece Cut Thread Pipe Taper Tap Set (HSS)



1924

Contents	Item # 1924ZR
1/8" - 27 NPT	459001
1/4" - 18 NPT	459002
3/8" - 18 NPT	459003
1/2" - 14 NPT	459004
3/4" - 14 NPT	459005
1" - 11-1/2 NPT	459006

#### Tips

- Always use cutting fluid
- When threading a blind hole, clean the chips from the hole often and do not bottom out the tap - it can cause tap breakage.

### HANSON Ground Thread Fractional Taps (HSS)



310310



313310



316310

- Ground thread taps produce a tighter thread tolerance than cut thread taps
- Designed to .0005" pitch diameter tolerance
- Straight fluted hand taps

TAPS & DIES

Description	No. of Flutes	Pitch Diameter Limits	Plug Bulk Item #	Taper Bulk Item #	Bottom Bulk Item #
1/4" - 20 NC	4	H3	313310	310310	316310
1/4" - 28 NF	4	H3	313312	310312	316312
5/16" - 18 NC	4	H3	313315	310315	316315
5/16" - 24 NF	4	H3	313316	310316	316316
3/8" - 16 NC	4	H3	313318	310318	316318
3/8" - 24 NF	4	H3	313319	310319	316319
7/16" - 14 NC	4	H3	313320	310320	316320
1/2" - 13 NC	4	H3	313322	310322	316322
1/2" - 20 NF	4	H3	313325	310323	316323
9/16" - 18 NF	4	H3	313326	—	—
5/8" - 11 NC	4	H3	313327	310327	316327
5/8" - 18 NF	4	H3	313328	310328	316328
3/4" - 10 NC	4	H3	313331	310331	316331
3/4" - 16 NF	4	H3	313332	310332	316332
7/8" - 9 NC	4	H4	313433	310433	316433
7/8" - 14 NF	4	H4	313434	310434	316434
1" - 8 NC	4	H4	313435	310435	316435
1" - 12 NF	4	H4	313436	—	—
1" - 14 NS	4	H4	313437	—	—
1-1/8" - 7 NC	4	H4	313438	310438	316438
1-1/8" - 12 NF	4	H4	313439	310439	316439
1-1/4" - 7 NC	4	H4	313440	310440	316440
1-1/4" - 12 NF	6	H4	313441	310441	316441
1-3/8" - 6 NC	4	H4	—	310442	—
1-3/8" - 12 NF	6	H4	—	310443	—
1-1/2" - 6 NC	4	H4	—	310444	316444
1-1/2" - 12 NF	6	H4	313445	—	—

### HANSON Ground Thread Machine Screw Taps (HSS)



300325

- Ideal for maintenance and repair work
- Ground thread taps produce a tighter thread tolerance than cut thread taps
- Designed to .0005" pitch diameter tolerance
- Straight fluted hand taps

Description	No. of Flutes	Pitch Diameter Limits	Plug Bulk Item #	Taper Bulk Item #	Bottom Bulk Item #
0 - 80 NF	2	H1	303101	—	—
1 - 64 NC	2	H1	303102	—	—
1 - 72 NC	2	H1	303103	—	—
2 - 56 NC	3	H2	303205	—	306205
6 - 32 NC	3	H3	—	300315	—
8 - 32 NC	4	H3	303319	300319	—
10 - 24 NC	4	H3	303322	300322	—
10 - 32 NF	4	H3	303323	300323	—
12 - 24 NC	4	H3	—	300325	—
12 - 28 NF	4	H3	—	300326	—



### HANSON Ground Thread Left-hand Fractional Plug Taps (HSS)



2120

- Left-hand taps cut threads with a left-hand rotation
- Used in applications where left-hand studs or fasteners are required

### HANSON Ground Thread Pipe Taper Taps (HSS)



359003

- Ideal for pipe fittings
- Tapered at a rate of 3/4" per foot

### HANSON Ground Thread Spiral Point\* (Gun Taps) Chip Driver Machine Screw/Fractional Taps (HSS)



323325

- Engineered specifically for tapping of "through" holes
- Designed to .0005-inches pitch tolerance
- Cuts with a shearing action that shoots the chips ahead of the tap, producing a cleaner thread
- Recommended for production use in machine tools

Description	No. of Flutes	Pitch Diameter Limits	Bulk Item #
1/4" - 20 NC	4	H3	2120
1/4" - 28 NF	4	H3	2123
5/16" - 18 NC	4	H3	2127
5/16" - 24 NF	4	H3	2129
3/8" - 16 NC	4	H3	2134
3/8" - 24 NF	4	H3	2136
7/16" - 14 NC	4	H3	2139
7/16" - 20 NF	4	H3	2140ZR
1/2" - 13 NC	4	H3	2144
1/2" - 20 NF	4	H3	2145
9/16" - 12 NC	4	H3	2148
9/16" - 18 NF	4	H3	2149
5/8" - 11 NC	4	H3	2152
5/8" - 18 NF	4	H3	2154
3/4" - 10 NC	4	H3	2158ZR
3/4" - 16 NF	4	H3	2160ZR

Description	No. of Flutes	Bulk Item #
1/16" - 27 NPT	4	359010
1/8" - 27 NPT	4	359001
1/4" - 18 NPT	4	359002
3/8" - 18 NPT	4	359003
1/2" - 14 NPT	4	359004
3/4" - 14 NPT	5	359005

Description	No. of Flutes	Pitch Diameter Limits	Taper Bulk Item #
<b>Machine</b>			
6 - 32 NC	2	H3	323315
8 - 32 NC	2	H3	323319
10 - 24 NC	2	H3	323322
10 - 32 NF	2	H3	323323ZR
12 - 24 NC	2	H3	323325
14 - 20 NS	2	H3	323328
<b>Fractional</b>			
1/4 - 20 NC	3	H3	333310
1/4" - 28 NF	2	H3	333312
5/16" - 18 NC	2	H3	333315
3/8" - 16 NC	3	H3	333318
7/16" - 14 NC	3	H3	333320
7/16" - 20 NF	3	H3	333321
1/2" - 13 NC	3	H3	333322
1/2" - 20 NF	3	H3	333323

\*Spiral Point taps should only be used on "through" hole applications

# Taps & Dies

## High Speed Steel Dies

### HANSON Adjustable Round Machine Screw & Fractional Dies (HSS)



502024



504053

- HSS ideal for machine cutting where critical dimensions are required
- Adjustable round dies for precision threading

TAPS & DIES

Description	1" Overall Diam. Bulk Item #	2" Overall Diam. Bulk Item #
<b>Machine</b>		
4 - 40 NC	502009	—
4 - 48 NF	502010	—
5 - 40 NC	502012	—
5 - 44 NF	502013	—
6 - 32 NC	502014	—
6 - 40 NF	502015	—
8 - 32 NC	502018	—
8 - 36 NF	502019	—
10 - 24 NC	502021	—
10 - 32 NF	502022	—
12 - 24 NC	502024	—
12 - 28 NF	502025	—
<b>Fractional</b>		
1/4" - 20 NC	502038	—
1/4" - 28 NF	502039	—
5/16" - 18 NC	502041	—
5/16" - 24 NF	502042	—
3/8" - 16 NC	502044	—
3/8" - 24 NF	502045	—
7/16" - 14 NC	502046	—
7/16" - 20 NF	502047	—
1/2" - 13 NC	502048	—
1/2" - 20 NF	502049	—
5/8" - 11 NC	—	504053
5/8" - 18 NF	—	504054
3/4" - 10 NC	—	504057
3/4" - 16 NF	—	504058
7/8" - 9 NC	—	504059
7/8" - 14 NF	—	504060
1" - 8 NC	—	504061
1" - 12 NF	—	504062
1" - 14 NS	—	504063

### HANSON 41-piece HSS Cut Thread Fractional Tap & Adjustable Die Set



543715

Set Contents		Stock # 543715
Thread Size Fractional	Tap Stock # Plug Style	Die Stock # 1-1/2" Adj. Round
1/4" - 20 NC	413010	503038
1/4" - 28 NF	413012	503039
5/16" - 18 NC	413015	503041
5/16" - 24 NF	413016	503042
3/8" - 16 NC	413018	503044
3/8" - 24 NF	413019	503045
7/16" - NC	413020	503046
7/16" - 20 NF	413021	503047
1/2" - 13 NC	413022	503048
1/2" - 20 NF	413023	503049
9/16" - 12 NC	413024	503051
9/16" - 18 NF	413025	503052
5/8" - 11 NC	413026	503053
5/8" - 18 NF	413027	503054
3/4" - 10 NC	413028	503057
3/4" - 16 NF	413029	503058
1/8" - 27 NPT	459001	503102
1/4" - 18 NPT	459002	503101
Threading Tools		Stock #
Adj. Die Stock - 1-1/2" Round Dies		12435
T-Handle Wrench - Taps No. 1/4" to 1/2"		12402
Adj. Handle Tap Wrench - Taps 1/4" to 1"		12498
18 Leaf Standard Thread Pitch Gauge		11018

### HANSON 39-piece HSS Cut Thread Machine Screw/Fractional Tap & Adjustable Round Die Set



541614

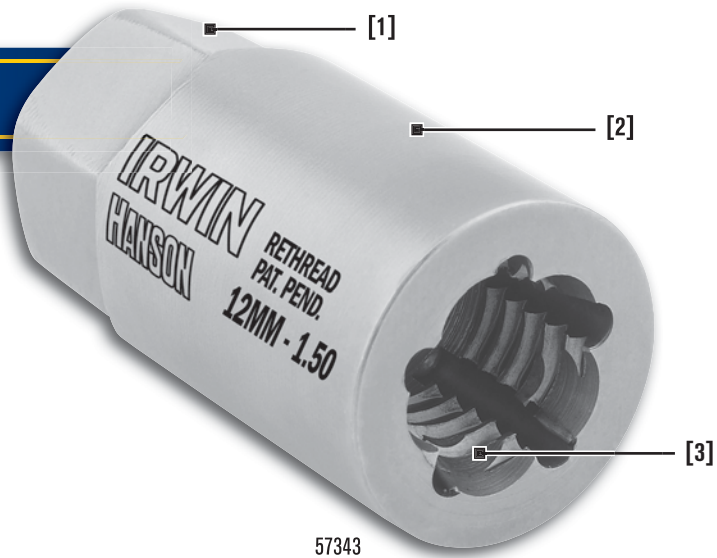
Set Contents		Stock # 541614
Thread Size Machine Screw	Tap Stock # Plug Style	Die Stock # 1" Adj. Round
4 - 40 NC	403009	502009
6 - 32 NC	403015	502014
8 - 32 NC	403019	502018
10 - 24 NC	403022	502021
10 - 32 NF	403023	502022
12 - 24 NC	403025	502024
Fractional		
1/4" - 20 NC	413010	502038
1/4" - 28 NF	413012	502039
5/16" - 18 NC	413015	502041
5/16" - 24 NF	413016	502042
3/8" - 16 NC	413018	502044
3/8" - 24 NF	413019	502045
7/16" - 14 NC	413020	502046
7/16" - 20 NF	413021	502047
1/2" - 13 NC	413022	502048
1/2" - 20 NF	413023	502049
Pipe		
1/8" - 27 NPT	459001	502101
Threading Tools		Stock #
Adjustable Die Stock - 1" Adj. Round Dies		12428
T-Handle Wrench - Taps No. 0 to 1/4"		12401
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"		311088
18 Leaf Standard Thread Pitch Gauge		11018

### Deep Well Thread Chaser

The IRWIN® HANSON® Deep Well Thread Chaser allows you to reach and repair threads that your current tools can't touch. Whether you're repairing wheel studs, bolts, or other fasteners, the Deep Well Thread Chaser will fix your threads quickly and correctly.

#### DEEP WELL THREAD CHASER FEATURES

1. Reduced profile head enables use in confined spaces
2. Rethread design repairs & cleans bent, dented, rusted, painted, or damaged threads
3. Deep well design fits over exposed studs and repairs the full length
4. Tougher than tool steel, high carbon steel ensures longer life and greater durability



TAPS & DIES



3094102



3094104

Description	Pack Qty	Item #
3/8" - 16 NC ThreadChaser	4	57234
3/8" - 24 NF ThreadChaser	4	57236
7/16" - 14 NC ThreadChaser	4	57239
7/16" - 20 NF ThreadChaser	4	57240
1/2" - 13 NC ThreadChaser	4	57244
1/2" - 20 NF ThreadChaser	4	57245
9/16" - 12 NC ThreadChaser	4	57248
9/16" - 18 NF ThreadChaser	4	57249
5/8" - 11 NC ThreadChaser	4	57252
5/8" - 18 NF ThreadChaser	4	57254
12 mm - 1.25 ThreadChaser	4	57342
12 mm - 1.50 ThreadChaser	4	57343
14 mm - 1.50 ThreadChaser	4	57349
16 mm - 1.50 ThreadChaser	4	57355
ThreadChaser 5-Pc SAE Coarse Set	1	3094100
ThreadChaser 5-Pc SAE Fine Set	1	3094101
ThreadChaser 10-Pc SAE Complete Set	1	3094102
ThreadChaser 4-Pc Metric Set	1	3094104

### HANSON® Hexagon Re-threading Pipe Taper Dies (HCS)



7403

- Ideal for repairing damaged threads on plumbing and air pipe applications

### HANSON Re-threading Hexagon Metric Right & Left-hand Dies (HCS)



7349

- Ideal for repairing damaged bolts and studs where metric threads are specified

### HANSON Re-threading Hexagon Fractional Right & Left-hand Dies (HCS)



7220



7720

- Designed for repairing damaged bolts and studs

Description	Width Across Hex Flats	Thickness of Hex Die	Bulk Item #
1/8" - 27 NPT	1-1/16"	3/8"	7402
1/4" - 18 NPT	1-1/4"	5/8"	7403ZR
3/8" - 18 NPT	1-7/16"	5/8"	7404
1/2" - 14 NPT	1-5/8"	3/4"	7405
3/4" - 14 NPT	2"	3/16"	7406
1" - 11-1/2 NPT	2-3/8"	1"	7407

Description	Width Across Hex Flats	Thickness of Hex Die	Right-Hand Bulk Item #	Left-Hand Bulk Item #
14 mm - 1.25	1-1/16"	1/2"	7349	—
14 mm - 1.50	1-1/16"	1/2"	7350	—
14 mm - 2.00	1-1/16"	1/2"	7352	—
16 mm - 1.50	1-1/4"	5/8"	7355	7855
16 mm - 2.00	1-1/4"	5/8"	7356	—
18 mm - 1.00	1-7/16"	3/4"	7358	—
18 mm - 1.50	1-7/16"	3/4"	7359	7859
18 mm - 2.50	1-7/16"	3/4"	7361	—
20 mm - 2.50	1-7/16"	3/4"	7364	—
22 mm - 1.50	1-5/8"	7/8"	7365ZR	7865ZR
24 mm - 1.50	1-13/16"	1"	7367	—
30 mm - 1.50	2"	1"	7373	—

Description	Width Across Hex Flats	Thickness of Hex Die	Right-Hand Bulk Item #	Left-Hand Bulk Item #
1/4" - 20 NC	19/32"	1/4"	7220	7720
1/4" - 28 NF	19/32"	1/4"	7223	7723
5/16" - 18 NC	11/16"	5/16"	7227ZR	7727
5/16" - 24 NF	11/16"	5/16"	7229	7729
3/8" - 16 NC	25/32"	3/8"	7234	7734
3/8" - 24 NF	25/32"	3/8"	7236	7736
7/16" - 14 NC	7/8"	7/16"	7239	7739ZR
7/16" - 20 NF	7/8"	7/16"	7240	7740
1/2" - 13 NC	1-1/16"	1/2"	7244	7744
1/2" - 20 NF	1-1/16"	1/2"	7245	7745
9/16" - 12 NC	1-1/16"	1/2"	7248ZR	7748
9/16" - 18 NF	1-1/16"	1/2"	7249ZR	7749
5/8" - 11 NC	1-1/4"	5/8"	7252	7752
5/8" - 18 NF	1-1/4"	5/8"	7254	7754
11/16" - 11 NS	1-7/16"	3/4"	7256	7756
11/16" - 16 NS	1-7/16"	3/4"	7257ZR	7757
3/4" - 10 NC	1-7/16"	3/4"	7258ZR	7758
3/4" - 16 NF	1-7/16"	3/4"	7260	7760
7/8" - 9 NC	1-5/8"	7/8"	7261	7761
7/8" - 14 NF	1-5/8"	7/8"	7263	7763
1" - 8 NC	1-13/16"	1"	7265	7765
1" - 12 NF	1-13/16"	1"	7266	7766
1" - 14 NS	1-13/16"	1"	7267	7767
1-1/8" - 7 NC	2"	1"	7268	—
1-1/8" - 12 NF	2"	1"	7269	—
1-1/4" - 7 NC	2-3/16"	1"	7270	—
1-1/4" - 12 NF	2-3/16"	1"	7271	—
1-3/8" - 6 NC	2-3/8"	1"	7272	—
1-3/8" - 12 NF	2-3/8"	1"	7273	—
1-1/2" - 6 NC	2-9/16"	1"	7274	—
1-1/2" - 12 NF	2-9/16"	1"	7275	—

# Taps & Dies

## Re-Threading Die Sets

### HANSON 10-piece Hexagon Re-threading Fractional NC Die Set (HCS)



25701

### HANSON 10-piece Hexagon Re-threading Fractional NF Die Set (HCS)



24801

### HANSON 6-piece Hexagon Re-threading Fractional Pipe Taper Die Set (HCS)



1922

### HANSON 16-piece Hexagon Re-threading Fractional Die Set (HCS)



24839

### HANSON 12-piece Tap & Re-threading Hexagonal Pipe Die Sets (HCS) & (HSS)



1920

#### Set Contents

#### Item # 25701

Die Size	
1/4" - 20 NC	7220
5/16" - 18 NC	7227ZR
3/8" - 16 NC	7234
7/16" - 14 NC	7239
1/2" - 13 NC	7244
9/16" - 12 NC	7248ZR
5/8" - 11 NC	7252
3/4" - 10 NC	7258ZR
7/8" - 9 NC	7261
1" - 8 NC	7265

#### Set Contents

#### Item # 24801

Die Size	
1/4" - 28 NF	7223
5/16" - 24 NF	7229
3/8" - 24 NF	7236
7/16" - 20 NF	7240
1/2" - 20 NF	7245
9/16" - 18 NF	7249ZR
5/8" - 18 NF	7252
3/4" - 16 NF	7260
7/8" - 14 NF	7263
1" - 12 NF	7266

#### Set Contents

#### Item # 1922ZR

Die Size	
1/8" - 27 NPT	7402
1/4" - 18 NPT	7403ZR
3/8" - 18 NPT	7404
1/2" - 14 NPT	7405
3/4" - 14 NPT	7406
1" - 11-1/2 NPT	7407

#### Set Contents

#### Item # 24839

Die Size	
1/4" - 20 NC	7220
1/4" - 28 NF	7223
5/16" - 18 NC	7227ZR
5/16" - 24 NF	7229
3/8" - 16 NC	7234
3/8" - 24 NF	7236
7/16" - 14 NC	7239
7/16" - 20 NF	7240
1/2" - 13 NC	7244
1/2" - 20 NF	7245
9/16" - 12 NC	7248ZR
9/16" - 18 NF	7249ZR
5/8" - 11 NC	7252
5/8" - 18 NF	7254
3/4" - 10 NC	7258ZR
3/4" - 16 NF	7260

#### Set Contents

#### Item # 1920

Thread Size Pipe	Tap Item #	Hex Die Item #
1/8" - 27 NPT	1902	7402
1/4" - 18 NPT	1903	7403ZR
3/8" - 18 NPT	1904	7404
1/2" - 14 NPT	1905	7405
3/4" - 14 NPT	1906	7406
1" - 11-1/2 NPT	1907	7407
Empty Wooden Case		1920MT

#### Set Contents

#### Item # 1923

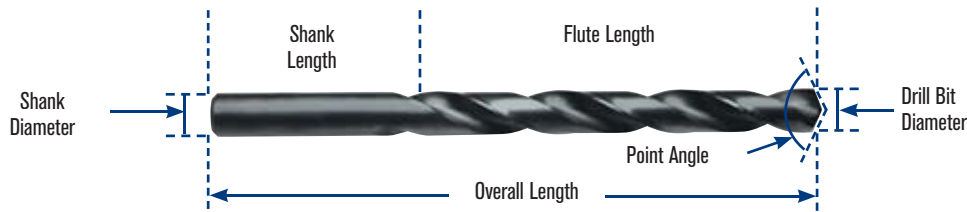
Thread Size Pipe	Tap Item #	Hex Die Item #
1/8" - 27 NPT	459001	7402
1/4" - 18 NPT	459002	7403ZR
3/8" - 18 NPT	459003	7404
1/2" - 14 NPT	459004	7405
3/4" - 14 NPT	459005	7406
1" - 11-1/2 NPT	459006	7407

# IRWIN®

## Metal Drilling



## Engineered for Controlled Precision and Speed



**Overall Length:** The length from the point to the end of the drill bit

**Point Angle:** The angle of the cutting edges

**Drill Diameter:** The cutting diameter of the drill bit

**Shank Length:** The end of the drill bit that is secured by the drill

**Flute Length:** The length from the point to the end of the flutes

### Tip Geometry

METAL DRILLING

**118° Conventional Point**

- General use
- Not self-centering
- Best for stationary drills
- Performs better in softer materials vs. hard metal

118° Point Angle

**135° Split Point**

- Self-centering (won't "walk")
- Best for portable drills
- Requires less force than 118°

135° Point Angle

**TURBOMAX® Tip**

- Self-centering (won't "walk")
- Precision-ground to stay sharp longer and drill faster
- Best for portable drills
- Requires less force than 118°

### Drill Bit Selection

Material	Point Angle	Black & Gold (135°)	TURBOMAX® (TURBOMAX)	Heavy-Duty (135°)	Titanium Nitride (TiN) Coated (135°)	Cobalt (135°)	General Purpose (118°)
Wood/Drywall		●	●	●	●	●	●
Sheet Metal		●	●	●	●	●	●
Mild Steel		●	●	●	●	●	●
High Alloy Steels		●	●	●	●	●	●
Stainless Steel		●	●	●	●	●	●
Cast Iron		●	●	●	●	●	●
Aluminum, Brass & Copper		●	●	●	●	●	●
Plastic		●	●	●	●	●	●

Key: ● Recommended ● Acceptable ● Not Recommended



### Cutting Speeds (by Working Material)

Speeds for High Speed Steel Drills	SFM*
Aluminum and its Alloys	200 - 300
Brass and Bronze (Ordinary)	150 - 300
Bronze (High Tensile)	70 - 150
Die Castings (Zinc Base)	300 - 400
Iron-Cast (Soft)	100 - 150
Cast (Medium hard)	70 - 100
Hard Chilled	30 - 40
Malleable	80 - 90
Magnesium and its Alloys	250 - 400
Monel Metal or High-Nickel Steel	30 - 50
Plastics or Similar Materials (Bakelite)	100 - 300
Steel - Mild (.2 carbon to .3 carbon)	80 - 110
Steel (.4 carbon to .5 carbon)	70 - 80
Tool (1.2 carbon)	50 - 60
Forgings	40 - 50
Alloy - 300 to 400 Brinell	20 - 30
High Tensile (Heat-Treated)	
35 to 40 Rockwell C	30 - 40
40 to 45 Rockwell C	25 - 35
45 to 50 Rockwell C	15 - 25
50 to 55 Rockwell C	7 - 15
Stainless Steel	
Free Machining Grades	30 - 80
Work Hardening Grades	15 - 50
Wood	300 - 400

\*Surface Feet per Minute (SFM)

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

### TURBOMAX® Titanium HSS Fractional Jobber Length Drill Bits (Series 3015)



3015012

- Titanium nitride (TiN) coating resists heat and friction, providing up to six times longer life than standard high speed steel bits.
- Self-centering, precision-ground TURBOMAX® feature-point tip eliminates "walking" on flat and curved surfaces, stays sharp longer, and drills faster than standard high speed steel bits.
- 3-flatted shank on 3/16" and above sizes for exceptional grip on chuck.

#### Sets:

Pro Set Cases: 3018008, 3018009, 3018010, 3018011

### Speeds and Feeds for Deep-Hole Drilling

Holes that qualify as "deep-hole drilling" are three or more drill bit diameters deep. When drilling this deep, the speed and feed rate must be adjusted to reduce friction. Friction creates heat, and heat build-up in the drill bit can cause failure and breakage. Lubricants help dissipate heat from the tip of the drill bit, prolonging drill life, and should always be used when deep-hole drilling.

Another technique that should be used when deep-hole drilling is "pecking." Pecking is the process whereby the user drills a short distance, then backs the drill out of the hole before progressing. Pecking reduces the possibility of chips getting lodged in the flute, and allows for the reintroduction of lubricant into the hole.

#### Speed and Feed Reduction (Based on the hole depth)

Hole Depth to Dia. (times drill dia.)	Speed Reduction	Feed Reduction
3	10%	10%
4	20%	10%
5	30%	20%
6	35 - 40%	20%

#### Feed Per Drill Revolution

Drill Dia. Range	Light	Medium	Heavy
1/16" to 1/8"	.0005 - .0010	.0010 - .0020	.0020 - .0040
1/8" to 1/4"	.0010 - .0030	.0030 - .0050	.0040 - .0050
1/4" to 3/8"	.0030 - .0050	.0050 - .0070	.0060 - .0100
3/8" to 1/2"	.0040 - .0060	.0050 - .0080	.0080 - .0120
1/2" to 3/4"	.0050 - .0070	.0070 - .0100	.0090 - .0140
3/4" to 1"	.0070 - .0100	.0090 - .0140	.0140 - .0200

See pages 175-176 for Tap & Drill Selection Chart

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	7/8"	1-7/8"	3015004*	—
5/64"	.0781	1"	2"	3015005*	—
3/32"	.0938	1-1/8"	2-1/4"	3015006*	—
7/64"	.1094	1-1/2"	2-5/8"	3015007*	—
1/8"	.1250	1-5/8"	2-3/4"	3015008	—
9/64"	.1406	1-3/4"	2-7/8"	3015009	—
5/32"	.1563	2"	3-1/8"	3015010	—
11/64"	.1719	2-1/8"	3-1/4"	3015011	—
3/16"	.1875	2-5/16"	3-1/2"	3015012	—
13/64"	.2031	2-7/16"	3-5/8"	3015013	—
7/32"	.2188	2-1/2"	3-3/4"	3015014	—
15/64"	.2344	2-5/8"	3-7/8"	3015015	—
1/4"	.2500	2-3/4"	4"	3015016	—
17/64"	.2656	2-7/8"	4-1/8"	3015017	—
9/32"	.2813	2-15/16"	4-1/4"	3015018	—
19/64"	.2969	3-1/16"	4-3/8"	3015019	—
5/16"	.3125	3-3/16"	4-1/2"	3015020	—
21/64"	.3281	3-5/16"	4-5/8"	3015021	—
11/32"	.3438	3-7/16"	4-3/4"	3015022	—
23/64"	.3594	3-1/2"	4-7/8"	3015023	—
3/8"	.3750	3-5/8"	5"	3015024	—
25/64"***	.3906	3-3/4"	5-1/8"	3015025	—
13/32"***	.4063	3-7/8"	5-1/4"	3015026	—
27/64"***	.4219	3-15/16"	5-3/8"	3015027	—
7/16"***	.4375	4-1/16"	5-1/2"	3015028	—
29/64"***	.4531	4-3/16"	5-5/8"	3015029	—
15/32"***	.4688	4-5/16"	5-3/4"	3015030	—
31/64"***	.4844	4-3/8"	5-7/8"	3015031	—
1/2"***	.5000	4-1/2"	6"	3015032	—

\*Note: 2 bits per Card \*\*Note: 3/8" reduced shank

# Metal Drilling

## Jobber Length Drill Bits

### TURBOMAX® HSS Fractional Straight Shank Jobber Length Drill Bits (Series 733/731)



73124

- Self-centering, precision-ground TURBOMAX® feature-point tip eliminates “walking” on flat and curved surfaces, stays sharp longer, and drills faster than standard high speed steel bits.
- Manufactured with premium high speed steel with black and gold oxide coating for maximum corrosion resistance.
- 3-flatted shank on 3/16” and above sizes for exceptional grip on chuck.

#### Sets:

Metal Index: 73136, 73137, 73138, 73149

Pro Set Cases: 318015, 318018

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	7/8"	1-7/8"	73304*	73104
5/64"	.0781	1"	2"	73305*	73105ZR
3/32"	.0938	1-1/8"	2-1/4"	73306*	73106ZR
7/64"	.1094	1-1/2"	2-5/8"	73307*	73107
1/8"	.1250	1-5/8"	2-3/4"	73308*	73108
9/64"	.1406	1-3/4"	2-7/8"	73309	73109
5/32"	.1563	2"	3-1/8"	73310	73110
11/64"	.1719	2-1/8"	3-1/4"	73311	73111
3/16"	.1875	2-5/16"	3-1/2"	73312	73112
13/64"	.2031	2-7/16"	3-5/8"	73313	73113
7/32"	.2188	2-1/2"	3-3/4"	73314	73114
15/64"	.2344	2-5/8"	3-7/8"	73315	73115
1/4"	.2500	2-3/4"	4"	73316	73116
17/64"	.2656	2-7/8"	4-1/8"	73317	73117
9/32"	.2813	2-15/16"	4-1/4"	73318ZR	73118
19/64"	.2969	3-1/16"	4-3/8"	73319	73119
5/16"	.3125	3-3/16"	4-1/2"	73320	73120
21/64"	.3281	3-5/16"	4-5/8"	73321	73121
11/32"	.3438	3-7/16"	4-3/4"	73322	73122
23/64"	.3594	3-1/2"	4-7/8"	73323	73123
3/8"	.3750	3-5/8"	5"	73324	73124
25/64"	.3906	3-3/4"	5-1/8"	73325	73125
13/32"	.4063	3-7/8"	5-1/4"	73326	73126
27/64"	.4219	3-15/16"	5-3/8"	73327	73127
7/16"	.4375	4-1/16"	5-1/2"	73328	73128
29/64"	.4531	4-3/16"	5-5/8"	73329	73129
15/32"	.4688	4-5/16"	5-3/4"	73330	73130
31/64"	.4844	4-3/8"	5-7/8"	73331	73131
1/2"	.5000	4-1/2"	6"	73332	73132

\*Note: 2 bits per Card

METAL DRILLING

### TURBOMAX® HSS 3/8" Reduced Shank Jobber Length Drill Bits (Series 736/734)



73432

- Standard TURBOMAX bit with 3/8" reduced shank

#### Sets:

Metal Index: 3018006B

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
25/64"	.3906	3-3/4"	5-1/8"	73625ZR	73425
13/32"	.4063	3-7/8"	5-1/4"	73626	73426
27/64"	.4219	3-15/16"	5-3/8"	73627ZR	73427
7/16"	.4375	4-1/16"	5-1/2"	73628ZR	73428ZR
29/64"	.4531	4-3/16"	5-5/8"	73629ZR	73429ZR
15/32"	.4688	4-5/16"	5-3/4"	73630ZR	73430
31/64"	.4844	4-3/8"	5-7/8"	73631	73431ZR
1/2"	.5000	4-1/2"	6"	73632	73432ZR

### Cobalt HSS Fractional Straight Shank Jobber Length Drill Bits with 135° Point (Series 3016/631)



63124

- Engineered with Cobalt for high heat and abrasion resistance.
- 135° split-point tip starts drilling immediately and eliminates “walking.”
- Straight shank

#### Applications:

Tough metal drilling, including heavy-duty abrasive alloy metal drilling on hardened steel (heat-treated)

#### Sets:

Pro Set Case: 316015

Metal Index: 63137, 63221 (M35 grade, 5% Cobalt)

Pro Set Case: 316015

Metal Index: 3018002B (M42 grade, 8% Cobalt)

### Cobalt HSS Fractional 3/8" Reduced Shank Jobber Length Drill Bits with 135° Point (Series 30160)



3016228

- Standard Cobalt bit with 3/8" reduced shank

#### Applications:

Tough metal drilling, including heavy-duty abrasive alloy metal drilling on hardened steel (heat-treated)

#### Sets:

Pro Set Case: 316015 (M35 grade);

Metal Index: 63137, 63221 (M35 grade); 3018002B (M42 grade)

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	7/8"	1-7/8"	3016004	63104
5/64"	.0781	1"	2"	3016005	63105ZR
3/32"	.0938	1-1/8"	2-1/4"	3016006	63106
7/64"	.1094	1-1/2"	2-5/8"	3016007	63107
1/8"	.1250	1-5/8"	2-3/4"	3016008	63108
9/64"	.1406	1-3/4"	2-7/8"	3016009	63109
5/32"	.1563	2"	3-1/8"	3016010	63110
11/64"	.1719	2-1/8"	3-1/4"	3016011	63111
3/16"	.1875	2-5/16"	3-1/2"	3016012	63112ZR
13/64"	.2031	2-7/16"	3-5/8"	3016013	63113ZR
7/32"	.2188	2-1/2"	3-3/4"	3016014	63114
15/64"	.2344	2-5/8"	3-7/8"	3016015	63115
1/4"	.2500	2-3/4"	4"	3016016	63116
17/64"	.2656	2-7/8"	4-1/8"	3016017	63117
9/32"	.2813	2-15/16"	4-1/4"	3016018	63118
19/64"	.2969	3-1/16"	4-3/8"	3016019	63119
5/16"	.3125	3-3/16"	4-1/2"	3016020	63120
21/64"	.3281	3-5/16"	4-5/8"	3016021	63121
11/32"	.3438	3-7/16"	4-3/4"	3016022	63122
23/64"	.3594	3-1/2"	4-7/8"	3016023	63123
3/8"	.3750	3-5/8"	5"	3016024	63124
25/64"	.3906	3-3/4"	5-1/8"	3016125	63125
13/32"	.4063	3-7/8"	5-1/4"	3016126	63126
27/64"	.4219	3-15/16"	5-3/8"	3016127	63127
7/16"	.4375	4-1/16"	5-1/2"	3016128	63128
29/64"	.4531	4-3/16"	5-5/8"	3016129	63129
15/32"	.4689	4-5/16"	5-3/4"	3016130	63130
31/64"	.4844	4-3/8"	5-7/8"	3016131ZR	63131
1/2"	.5000	4-1/2"	6"	3016132	63132

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
25/64"	.3906	7/8"	1-7/8"	3016025	3016225
13/32"	.4063	1"	2"	3016026	3016226
27/64"	.4219	1-1/8"	2-1/4"	3016027	3016227
7/16"	.4375	1-1/2"	2-5/8"	3016028	3016228
29/64"	.4531	1-5/8"	2-3/4"	3016029	3016229
15/32"	.4689	1-3/4"	2-7/8"	3016030	3016230
31/64"	.4844	2"	3-1/8"	3016031ZR	3016231
1/2"	.5000	2-1/8"	3-1/4"	3016032	3016232

# Metal Drilling

## Jobber Length Drill Bits

### Titanium Nitride (TiN) Coated HSS Fractional Straight Shank Jobber Length Drill Bits with 135° Split Point (Series 639/637)



63724

- Titanium Nitride coating resists heat and friction, providing up to six times longer life than standard high speed steel bits.
- 135° split-point tip starts drilling immediately and eliminates “walking.”
- Straight shank.

#### Sets:

Metal Index: 63737, 3018003

\*Note: 2 bits per card

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	7/8"	1-7/8"	63904*	63704ZR
5/64"	.0781	1"	2"	63905*	63705ZR
3/32"	.0938	1-1/8"	2-1/4"	63906*	63706ZR
7/64"	.1094	1-1/2"	2-5/8"	63907*	63707ZR
1/8"	.1250	1-5/8"	2-3/4"	63908*	63708
9/64"	.1406	1-3/4"	2-7/8"	63909	63709ZR
5/32"	.1563	2"	3-1/8"	63910	63710
11/64"	.1719	2-1/8"	3-1/4"	63911	63711ZR
3/16"	.1875	2-5/16"	3-1/2"	63912	63712
13/64"	.1563	2-7/16"	3-5/8"	63913	63713ZR
7/32"	.2188	2-1/2"	3-3/4"	63914	63714ZR
15/64"	.2344	2-5/8"	3-7/8"	63915	63715ZR
1/4"	.2500	2-3/4"	4"	63916	63716
17/64"	.2656	2-7/8"	4-1/8"	—	63717
9/32"	.2812	2-15/16"	4-1/4"	63918	63718
19/64"	.2969	3-1/16"	4-3/8"	—	63719
5/16"	.3125	3-3/16"	4-1/2"	63920	63720ZR
21/64"	.3281	3-5/16"	4-5/8"	—	63721ZR
11/32"	.3438	3-7/16"	4-3/4"	63922	63722
23/64"	.3594	3-1/2"	4-7/8"	—	63723
3/8"	.3750	3-5/8"	5"	63924	63724
25/64"	.3906	3-3/4"	5-1/8"	—	63725
13/32"	.4063	3-7/8"	5-1/4"	63926	63726
27/64"	.4219	3-15/16"	5-3/8"	—	63727
7/16"	.4375	4-1/16"	5-1/2"	63928	63728
29/64"	.4531	4-3/16"	5-5/8"	—	63729
15/32"	.4689	4-5/16"	5-3/4"	63930	63730
31/64"	.4844	4-3/8"	5-7/8"	—	63731ZR
1/2"	.5000	4-1/2"	6"	63932	63732ZR

METAL DRILLING

### Black & Gold HSS Fractional Straight Shank Jobber Length Drill Bits with 135° Split Point (Series 30190)



3019016B

- 135° split-point tip starts drilling immediately and eliminates “walking.”
- Engineered with premium high speed steel with black and gold oxide coating for corrosion resistance.
- 3-flatted shank on 3/16" and above sizes for exceptional grip on chuck.

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
3/64"	.0469	3/4"	1-3/4"	—	3019003B
1/16"	.0625	7/8"	1-7/8"	—	3019004B
5/64"	.0781	1"	2"	—	3019005B
3/32"	.0938	1-1/8"	2-1/4"	—	3019006B
7/64"	.1094	1-1/2"	2-5/8"	—	3019007B
1/8"	.1250	1-5/8"	2-3/4"	—	3019008B
9/64"	.1406	1-3/4"	2-7/8"	—	3019009B
5/32"	.1563	2"	3-1/8"	—	3019010B
11/64"	.1719	2-1/8"	3-1/4"	—	3019011B
3/16"	.1875	2-5/16"	3-1/2"	—	3019012B
13/64"	.2031	2-7/16"	3-5/8"	—	3019013B
7/32"	.2188	2-1/2"	3-3/4"	—	3019014B
15/64"	.2344	2-5/8"	3-7/8"	—	3019015B
1/4"	.2500	2-3/4"	4"	—	3019016B
17/64"	.2656	2-7/8"	4-1/8"	—	3019017B
9/32"	.2813	2-15/16"	4-1/4"	—	3019018B
19/64"	.2969	3-1/16"	4-3/8"	—	3019019B
5/16"	.3125	3-3/16"	4-1/2"	—	3019020B
21/64"	.3281	3-5/16"	4-5/8"	—	3019021B
11/32"	.3438	3-7/16"	4-3/4"	—	3019022B
23/64"	.3594	3-1/2"	4-7/8"	—	3019023B
3/8"	.3750	3-5/8"	5"	—	3019024B
25/64"	.3906	3-3/4"	5-1/8"	—	3019025B
13/32"	.4063	3-7/8"	5-1/4"	—	3019026B
27/64"	.4219	3-15/16"	5-3/8"	—	3019027B
7/16"	.4375	4-1/16"	5-1/2"	—	3019028B
29/64"	.4531	4-3/16"	5-5/8"	—	3019029B
15/32"	.4688	4-5/16"	5-3/4"	—	3019030B
31/64"	.4844	4-3/8"	5-7/8"	—	3019031B
1/2"	.5000	4-1/2"	6"	—	3019032B

### Black & Gold HSS Fractional 3/8" Reduced Shank Jobber Length Drill Bits with 135° Split Point (Series 30191)



3019128B

- Standard Black & Gold bit with 3/8" reduced shank

**Set:**

Metal Index: 3018005

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
25/64"	.3906	3-3/4"	5-1/8"	—	3019125B
13/32"	.4063	3-7/8"	5-1/4"	—	3019126B
27/64"	.4219	3-15/16"	5-3/8"	—	3019127B
7/16"	.4375	4-1/16"	5-1/2"	—	3019128B
29/64"	.4531	4-3/16"	5-5/8"	—	3019129B
15/32"	.4688	4-5/16"	5-3/4"	—	3019130B
31/64"	.4844	4-3/8"	5-7/8"	—	3019131B
1/2"	.5000	4-1/2"	6"	—	3019132B

### Black Oxide HSS Fractional Straight Shank Jobber Length Drill Bits with 135° Split Point (Series 675/635)



63524ZR

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Manufactured with premium high speed steel with black oxide coating for corrosion resistance.
- Straight shank

**Set:**

Pro Set Cases: 314015

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
3/64"	.0469	3/4"	1-3/4"	—	63503
1/16"	.0625	7/8"	1-7/8"	67504*	63504
5/64"	.0781	1"	2"	67505*	63505
3/32"	.0938	1-1/8"	2-1/4"	67506*	63506
7/64"	.1094	1-1/2"	2-5/8"	67507*	63507
1/8"	.1250	1-5/8"	2-3/4"	67508*	63508
9/64"	.1406	1-3/4"	2-7/8"	67509	63509
5/32"	.1563	2"	3-1/8"	67510	63510
11/64"	.1719	2-1/8"	3-1/4"	67511	63511
3/16"	.1875	2-5/16"	3-1/2"	67512	63512
13/64"	.2031	2-7/16"	3-5/8"	67513	63513
7/32"	.2188	2-1/2"	3-3/4"	67514	63514
15/64"	.2344	2-5/8"	3-7/8"	67515	63515
1/4"	.2500	2-3/4"	4"	67516	63516
17/64"	.2656	2-7/8"	4-1/8"	67517	63517
9/32"	.2813	2-15/16"	4-1/4"	67518	63518
19/64"	.2969	3-1/16"	4-3/8"	67519	63519
5/16"	.3125	3-3/16"	4-1/2"	67520	63520ZR
21/64"	.3281	3-5/16"	4-5/8"	67521	63521ZR
11/32"	.3438	3-7/16"	4-3/4"	67522	63522ZR
23/64"	.3594	3-1/2"	4-7/8"	67523	63523ZR
3/8"	.3750	3-5/8"	5"	67524	63524ZR
25/64"	.3906	3-3/4"	5-1/8"	67525	63525ZR
13/32"	.4063	3-7/8"	5-1/4"	67526	63526ZR
27/64"	.4219	3-15/16"	5-3/8"	67527	63527ZR
7/16"	.4375	4-1/16"	5-1/2"	67528	63528ZR
29/64"	.4531	4-3/16"	5-5/8"	67529	63529ZR
15/32"	.4688	4-5/16"	5-3/4"	67530	63530
31/64"	.4844	4-3/8"	5-7/8"	67531	63531
1/2"	.5000	4-1/2"	6"	67532	63532

\*Note: 2 bits per Card

### Black Oxide HSS Fractional 3/8" Reduced Shank Jobber Length Drill Bits with 135° Split Point (Series 678/634)



63432

- Standard Black Oxide bit with 3/8" reduced shank

**Sets:**

Pro Set Case: 314018

Metal Index: 3018004

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
25/64"	.3906	3-3/4"	5-1/8"	67825	63425
13/32"	.4063	3-7/8"	5-1/4"	67826	63426
27/64"	.4219	3-15/16"	5-3/8"	67827	63427
7/16"	.4375	4-1/16"	5-1/2"	67828	63428
29/64"	.4531	4-3/16"	5-5/8"	67829	63429
15/32"	.4688	4-5/16"	5-3/4"	67830	63430
31/64"	.4844	4-3/8"	5-7/8"	67831	63431
1/2"	.5000	4-1/2"	6"	67832	63432

# Metal Drilling

## Jobber Length Drill Bits

### Black Oxide 1/4" Hex Shank Drill Bits



4935636

- 135° split-point tip starts drilling immediately and eliminates “walking.”
- Engineered with high speed steel with black oxide coating for corrosion resistance.
- 1/4" hex shank works in all Lock-n-Load® quick-change extensions as well as all drill chucks.

#### Applications:

Automotive, maintenance and repair, portable drills, stationary drill press

#### Sets:

5-piece Set: 4935642

12-piece Pro Set: 4935643

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	0.0625	3/4"	2-5/8"	4935632	—
5/64"	0.0781	1"	2-3/4"	4935633	—
3/32"	0.0938	1-5/16"	3"	4935634	—
7/64"	0.1094	1-1/2"	3-7/16"	4935635	—
1/8"	0.1250	1-5/8"	3-1/2"	4935636	—
9/64"	0.1406	1-7/8"	3-3/16"	4935637	—
5/32"	0.1563	2-1/16"	3-15/16"	4935638	—
3/16"	0.1875	2-3/8"	4-1/4"	4935639	—
7/32"	0.2188	2-5/8"	4-1/2"	4935640	—
1/4"	0.2500	2-7/8"	4-3/4"	4935641	—

### Left-Hand Heavy-Duty HSS Fractional Straight Shank Jobber Length Drill Bits (Series 623)



62324

- 135° split-point tip starts drilling immediately and eliminates “walking.”
- Manufactured with premium high speed steel with black oxide coating for corrosion resistance.
- Straight shank

#### Applications:

General metal drilling or creating pilot holes for screw extractors.

Size	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	7/8"	1-7/8"	—	62304
5/64"	1"	2"	—	62305
3/32"	1-1/8"	2-1/4"	—	62306
7/64"	1-1/2"	2-5/8"	—	62307
1/8"	1-5/8"	2-3/4"	—	62308
9/64"	1-3/4"	2-7/8"	—	62309ZR
5/32"	2"	3-1/8"	—	62310
11/64"	2-1/8"	3-1/4"	—	62311
3/16"	2-5/16"	3-1/2"	—	62312
13/64"	2-7/16"	3-5/8"	—	62313
7/32"	2-1/2"	3-3/4"	—	62314
15/64"	2-5/8"	3-7/8"	—	62315
1/4"	2-3/4"	4"	—	62316
17/64"	2-7/8"	4-1/8"	—	62317
9/32"	2-15/16"	4-1/4"	—	62318
19/64"	3-1/16"	4-3/8"	—	62319
5/16"	3-3/16"	4-1/2"	—	62320
21/64"	3-5/16"	4-5/8"	—	62321
11/32"	3-7/16"	4-3/4"	—	62322
23/64"	3-1/2"	4-7/8"	—	62323
3/8"	3-5/8"	5"	—	62324
25/64"	3-3/4"	5-1/8"	—	62325
13/32"	3-7/8"	5-1/4"	—	62326
27/64"	3-15/16"	5-3/8"	—	62327
7/16"	4-1/16"	5-1/2"	—	62328
29/64"	4-3/16"	5-5/8"	—	62329
15/32"	4-5/16"	5-3/4"	—	62330
31/64"	4-3/8"	5-7/8"	—	62331
1/2"	4-1/2"	6"	—	62332

### Black Oxide HSS Metric Straight Shank Jobber Length Drill Bits (Series 681)



68950

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Manufactured with premium high speed steel with black oxide coating for corrosion resistance.
- Straight shank

#### Applications:

Automotive, maintenance and repair, portable drills, stationary drill press

### General Purpose HSS Fractional Straight Shank Jobber Length Drill Bits with 118° Point (Series 605/601)



60124

- 118° chisel tip point is perfect for general purpose applications.
- Engineered with premium high speed steel in bright finish.
- Recommended for drilling in metal, wood, and plastic.
- Straight shank

#### Applications:

Automotive, maintenance and repair, stationary drill press

#### Sets:

Metal Index: 60136, 60137, 60138, 60221

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1.00 mm	0.0394	11/16"	1-5/8"	—	68100
1.50 mm	0.0591	7/8"	1-7/8"	—	68150
2.00 mm	0.0787	1"	2"	—	68200
2.50 mm	0.0984	1-3/8"	2-3/8"	—	68250ZR
3.00 mm	0.1181	1-5/8"	2-3/4"	—	68300
3.50 mm	0.1378	1-3/4"	2-7/8"	—	68350
4.00 mm	0.1575	2-1/8"	3-1/4"	—	68400
4.50 mm	0.1772	2-3/16"	3-3/8"	—	68450
5.00 mm	0.1969	2-7/16"	3-5/8"	—	68500
5.50 mm	0.2165	2-1/2"	3-3/4"	—	68550ZR
6.00 mm	0.2362	2-3/4"	4"	—	68600
6.50 mm	0.2559	2-7/8"	4-1/8"	—	68650
7.00 mm	0.2756	2-7/8"	4-1/8"	—	68700
7.50 mm	0.2953	3-1/16"	4-3/8"	—	68750
8.00 mm	0.3150	3-3/16"	4-1/2"	—	68800
8.50 mm	0.3346	3-7/16"	4-3/4"	—	68850
9.00 mm	0.3543	3-1/2"	4-7/8"	—	68900
9.50 mm	0.3740	3-5/8"	5"	—	68950
10.00 mm	0.3937	3-3/4"	5-1/8"	—	69010
10.50 mm	0.4134	3-7/8"	5-1/4"	—	69015
11.00 mm	0.4331	4-1/16"	5-1/2"	—	69110ZR
11.50 mm	0.4528	4-3/16"	5-5/8"	—	69115ZR
12.00 mm	0.4724	4-3/8"	5-7/8"	—	69120ZR
12.50 mm	0.4921	4-1/2"	6"	—	69125ZR
13.00 mm	0.5118	4-1/2"	6"	—	69130ZR

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/64"	.0156	3/16"	3/4"	—	60101ZR
1/32"	.0313	1/2"	1-3/8"	—	60102ZR
3/64"	.0469	3/4"	1-3/4"	—	60103ZR
1/16"	.0625	7/8"	1-7/8"	60504*	60104ZR
5/64"	.0781	1"	2"	60505*	60105
3/32"	.0938	1-1/8"	2-1/4"	60506*	60106ZR
7/64"	.1094	1-1/2"	2-5/8"	60507*	60107
1/8"	.1250	1-5/8"	2-3/4"	60508*	60108ZR
9/64"	.1406	1-3/4"	2-7/8"	60509	60109
5/32"	.1563	2"	3-1/8"	60510ZR	60110
11/64"	.1719	2-1/8"	3-1/4"	60511	60111
3/16"	.1875	2-5/16"	3-1/2"	60512	60112
13/64"	.2031	2-7/16"	3-5/8"	60513	60113
7/32"	.2188	2-1/2"	3-3/4"	60514	60114
15/64"	.2344	2-5/8"	3-7/8"	60515	60115ZR
1/4"	.2500	2-3/4"	4"	60516	60116
17/64"	.2656	2-7/8"	4-1/8"	60517	60117ZR
9/32"	.2813	2-15/16"	4-1/4"	60518	60118
19/64"	.2969	3-1/16"	4-3/8"	60519	60119
5/16"	.3125	3-3/16"	4-1/2"	60520	60120
21/64"	.3281	3-5/16"	4-5/8"	60521	60121
11/32"	.3438	3-7/16"	4-3/4"	60522	60122
23/64"	.3594	3-1/2"	4-7/8"	60523	60123
3/8"	.3750	3-5/8"	5"	60524	60124
25/64"	.3906	3-3/4"	5-1/8"	60525	60125
13/32"	.4063	3-7/8"	5-1/4"	60526	60126ZR
27/64"	.4219	3-15/16"	5-3/8"	60527	60127
7/16"	.4375	4-1/16"	5-1/2"	60528	60128
29/64"	.4531	4-3/16"	5-5/8"	60529	60129
15/32"	.4688	4-5/16"	5-3/4"	60530	60130
31/64"	.4844	4-3/8"	5-7/8"	60531	60131
1/2"	.5000	4-1/2"	6"	60532	60132

\*Note: 2 bits per Card

# Metal Drilling

## Jobber Length Drill Bits

### General Purpose HSS Fractional 3/8" Reduced Shank Jobber Length Drill Bits with 118° Point (Series 738/718)



71832

- Standard general purpose bit with 3/8" reduced shank

#### Applications:

Automotive, maintenance and repair, stationary drill press

#### Sets:

Metal Index: 60147, 60148

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
25/64"	.3906	3-3/4"	5-1/8"	73825	71825
13/32"	.4063	3-7/8"	5-1/4"	73826	71826
27/64"	.4219	3-15/16"	5-3/8"	73827	71827
7/16"	.4375	4-1/16"	5-1/2"	73828	71828
29/64"	.4531	4-3/16"	5-5/8"	73829	71829
15/32"	.4688	4-5/16"	5-3/4"	73830	71830
31/64"	.4844	4-3/8"	5-7/8"	73831	71831
1/2"	.5000	4-1/2"	6"	73832ZR	71832

### General Purpose HSS Letter Size Straight Shank Jobber Length Drill Bits (Series 401)



40101ZR

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Engineered with premium high speed steel in bright finish.
- Ideal for use when large, precisely-sized holes are required. Drills exact-sized hole for tapping applications.
- Straight shank

#### Applications:

Automotive, maintenance and repair, portable drills, stationary drill press

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
Letter A	0.2340	2-5/8"	3-7/8"	—	40101ZR
Letter B	0.2380	2-3/4"	4"	—	40102
Letter C	0.2420	2-3/4"	4"	—	40103ZR
Letter D	0.2460	2-3/4"	4"	—	40104ZR
Letter E	0.2500	2-3/4"	4"	—	40105
Letter F	0.2570	2-7/8"	4-1/8"	—	40106
Letter G	0.2610	2-7/8"	4-1/8"	—	40107
Letter H	0.2660	2-7/8"	4-1/8"	—	40108ZR
Letter I	0.2720	2-7/8"	4-1/8"	—	40109ZR
Letter J	0.2770	2-7/8"	4-1/8"	—	40110ZR
Letter K	0.2810	2-15/16"	4-1/4"	—	40111ZR
Letter L	0.2900	2-15/16"	4-1/4"	—	40112
Letter M	0.2950	3-1/16"	4-3/8"	—	40113
Letter N	0.3020	3-1/16"	4-3/8"	—	40114
Letter O	0.3160	3-3/16"	4-1/2"	—	40115
Letter P	0.3230	3-5/16"	4-5/8"	—	40116
Letter Q	0.3320	3-7/16"	4-3/4"	—	40117
Letter R	0.3390	3-7/16"	4-3/4"	—	40118
Letter S	0.3480	3-1/2"	4-7/8"	—	40119ZR
Letter T	0.3580	3-1/2"	4-7/8"	—	40120
Letter U	0.3680	3-5/8"	5"	—	40121
Letter V	0.3770	3-5/8"	5"	—	40122
Letter W	0.3860	3-3/4"	5-1/8"	—	40123
Letter X	0.3970	3-3/4"	5-1/8"	—	40124
Letter Y	0.4040	3-7/8"	5-1/4"	—	40125
Letter Z	0.4130	3-7/8"	5-1/4"	—	40126



### General Purpose HSS Wire Gauge Straight Shank Jobber Length Drill Bits (Series 811)



80128

- 118° chisel point tip is perfect for general purpose applications.
- Engineered with premium high speed steel in bright finish.
- Ideal for use when non-fractional-sized holes are required. Drills exact-sized hole for tapping applications.
- Straight shank

**Applications:** Automotive, maintenance and repair, portable drills, stationary drill press

**Sets:**

Metal index: 80181, 80183

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
No. 1	.2280	2-5/8"	3-7/8"	81101	80101
No. 2	.2210	2-5/8"	3-7/8"	81102	80102ZR
No. 3	.2130	2-1/2"	3-3/4"	81103	80103ZR
No. 4	.2090	2-1/2"	3-3/4"	81104	80104
No. 5	.2055	2-1/2"	3-3/4"	81105	80105
No. 6	.2040	2-1/2"	3-3/4"	81106	80106
No. 7	.2010	2-7/16"	3-5/8"	81107	80107
No. 8	.1990	2-7/16"	3-5/8"	81108	80108
No. 9	.1960	2-7/16"	3-5/8"	81109	80109
No. 10	.1935	2-7/16"	3-5/8"	81110ZR	80110
No. 11	.1910	2-5/16"	3-1/2"	81111	80111
No. 12	.1890	2-5/16"	3-1/2"	81112	80112
No. 13	.1850	2-5/16"	3-1/2"	81113	80113
No. 14	.1820	2-3/16"	3-3/8"	81114	80114
No. 15	.1800	2-3/16"	3-3/8"	81115	80115
No. 16	.1770	2-3/16"	3-3/8"	81116	80116
No. 17	.1730	2-3/16"	3-3/8"	81117	80117
No. 18	.1695	2-1/8"	3-1/4"	81118	80118
No. 19	.1660	2-1/8"	3-1/4"	81119	80119
No. 20	.1610	2-1/8"	3-1/4"	81120ZR	80120
No. 21	.1590	2-1/8"	3-1/4"	81121	80121
No. 22	.1570	2"	3-1/8"	81122ZR	80122
No. 23	.1540	2"	3-1/8"	81123ZR	80123
No. 24	.1520	2"	3-1/8"	81124ZR	80124
No. 25	.1495	1-7/8"	3"	81125	80125ZR
No. 26	.1470	1-7/8"	3"	81126	80126
No. 27	.1440	1-7/8"	3"	81127ZR	80127
No. 28	.1405	1-3/4"	2-7/8"	81128ZR	80128
No. 29	.1360	1-3/4"	2-7/8"	81129	80129
No. 30	.1285	1-5/8"	2-3/4"	81130ZR	80130
No. 31	.1200	1-5/8"	2-3/4"	81131	80131
No. 32	.1160	1-5/8"	2-3/4"	81132	80132
No. 33	.1130	1-1/2"	2-5/8"	81133	80133
No. 34	.1110	1-1/2"	2-5/8"	81134	80134
No. 35	.1100	1-1/2"	2-5/8"	81135	80135
No. 36	.1065	1-7/16"	2-1/2"	81136	80136
No. 37	.1040	1-7/16"	2-1/2"	81137	80137
No. 38	.1015	1-7/16"	2-1/2"	81138	80138
No. 39	.0995	1-3/8"	2-3/8"	81139	80139
No. 40	.0980	1-3/8"	2-3/8"	81140	80140

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
No. 41	.0960	1-3/8"	2-3/8"	81141	80141
No. 42	.0935	1-1/8"	2-1/4"	81142	80142
No. 43	.0890	1-1/8"	2-1/4"	81143	80143
No. 44	.0860	1-1/8"	2-1/8"	81144	80144
No. 45	.0820	1-1/8"	2-1/8"	81145	80145
No. 46	.0810	1-1/8"	2-1/8"	81146	80146
No. 47	.0785	1"	2"	81147	80147
No. 48	.0760	1"	2"	81148	80148
No. 49	.0730	1"	2"	81149	80149
No. 50	.0700	1"	2"	81150	80150
No. 51	.0670	1"	2"	81151	80151
No. 52	.0635	7/8"	1-7/8"	81152	80152ZR
No. 53	.0595	7/8"	1-7/8"	81153ZR	80153
No. 54	.0550	7/8"	1-7/8"	81154	80154
No. 55	.0520	7/8"	1-7/8"	81155	80155
No. 56	.0465	3/4"	1-3/4"	81156	80156
No. 57	.0430	3/4"	1-3/4"	81157ZR	80157
No. 58	.0420	11/16"	1-5/8"	81158	80158
No. 59	.0410	11/16"	1-5/8"	81159ZR	80159
No. 60	.0400	11/16"	1-5/8"	81160	80160
No. 61	.0390	11/16"	1-5/8"	—	80161
No. 62	.0380	5/8"	1-1/2"	—	80162
No. 63	.0370	5/8"	1-1/2"	—	80163
No. 64	.0360	5/8"	1-1/2"	—	80164
No. 65	.0350	5/8"	1-1/2"	—	80165
No. 66	.0330	1/2"	1-3/8"	—	80166
No. 67	.0320	1/2"	1-3/8"	—	80167
No. 68	.0310	1/2"	1-3/8"	—	80168
No. 69	.0292	1/2"	1-3/8"	—	80169
No. 70	.0280	3/8"	1-1/4"	—	80170
No. 71	.0260	3/8"	1-1/4"	—	80171
No. 72	.0250	5/16"	1-1/8"	—	80172
No. 73	.0240	5/16"	1-1/8"	—	80173
No. 74	.0225	1/4"	1"	—	80174ZR
No. 75	.0210	1/4"	1"	—	80175
No. 76	.0200	3/16"	7/8"	—	80176
No. 77	.0180	3/16"	7/8"	—	80177
No. 78	.0160	3/16"	7/8"	—	80178
No. 79	.0145	1/8"	3/4"	—	80179
No. 80	.0135	1/8"	3/4"	—	80180

# Metal Drilling

## Mechanics Length / Screw Machine Length Drill Bits

### Left-Hand Cobalt HSS Fractional Mechanics Length Drill Bits with 135° Split Point (Series 305)



30524

- 8% Cobalt alloyed for higher heat and abrasion resistance.
- Shorter drill for additional strength.
- Drill into fasteners without tightening them.
- Can often remove broken fasteners without an extractor.

#### Sets:

5-piece Set: 30520

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
5/64"	.0781	1"	2"	—	30505ZR
7/64"	.1094	1"	2-3/16"	—	30507
1/8"	.1250	1-1/16"	2-1/4"	—	30508
5/32"	.1563	1-1/4"	2-9/16"	—	30510
3/16"	.1875	1-1/2"	2-7/8"	—	30512ZR
7/32"	.2188	1-5/8"	3-1/8"	—	30514
1/4"	.2500	1-3/4"	3-5/16"	—	30516
9/32"	.2812	2"	3-9/16"	—	30518ZR
19/64"	.2969	2-1/16"	3-5/8"	—	30519
5/16"	.3125	2-1/8"	3-3/4"	—	31520
11/32"	.3438	2-1/4"	3-15/16"	—	30522
3/8"	.3750	2-3/8"	4-1/8"	—	30524
13/32"	.4062	2-1/2"	4-3/8"	—	30526ZR
7/16"	.4375	2-5/8"	4-9/16"	—	30528
15/32"	.4688	2-3/4"	4-3/4"	—	30530
1/2"	.5000	2-7/8"	5"	—	30532

### HSS Fractional Screw Machine Length Drill Bits (Series 301)



30132

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Shorter length for increased strength and rigidity (commonly known as "stubbies").
- Straight shank

#### Applications:

Industrial applications, maintenance and repair, automotive, machine shop

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	5/8"	1-5/8"	—	30104
5/64"	.0781	11/16"	1-11/16"	—	30105
3/32"	.0938	3/4"	1-3/4"	—	30106
7/64"	.1094	13/16"	1-13/16"	—	30107
1/8"	.1250	7/8"	1-7/8"	—	30108
9/64"	.1406	15/16"	1-15/16"	—	30109
5/32"	.1562	1"	2-1/16"	—	30110
11/64"	.1719	1-1/16"	2-1/8"	—	30111
3/16"	.1875	1-1/8"	2-3/16"	—	30112ZR
13/64"	.2031	1-3/16"	2-1/4"	—	30113
7/32"	.2188	1-1/4"	2-3/8"	—	30114
15/64"	.2344	1-5/16"	2-7/16"	—	30115
1/4"	.2500	1-3/8"	2-1/2"	—	30116
17/64"	.2656	1-7/16"	2-5/8"	—	30117
9/32"	.2813	1-1/2"	2-11/16"	—	30118
19/64"	.2969	1-9/16"	2-3/4"	—	30119
5/16"	.3125	1-5/8"	2-13/16"	—	30120
21/64"	.3281	1-11/16"	2-15/16"	—	30121
11/32"	.3438	1-11/16"	3"	—	30122ZR
23/64"	.3594	1-3/4"	3-1/16"	—	30123
3/8"	.3750	1-13/16"	3-1/8"	—	30124
25/64"	.3906	1-7/8"	3-1/4"	—	30125
13/32"	.4063	1-15/16"	3-5/16"	—	30126
27/64"	.4219	2"	3-3/8"	—	30127ZR
7/16"	.4375	2-1/16"	3-7/16"	—	30128ZR
29/64"	.4531	2-1/8"	3-9/16"	—	30129ZR
15/32"	.4689	2-1/8"	3-5/8"	—	30130
31/64"	.4844	2-3/16"	3-11/16"	—	30131
1/2"	.5000	2-1/4"	3-3/4"	—	30132ZR

### HSS Wire Gauge Screw Machine Length Drill Bits (Series 201)



20120

- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Numbered from 1 to 55 (large to small).
- Ideal for use when non-fractional-sized holes are required. Drills exact-sized hole for tapping applications.
- Shorter length for increased strength and rigidity.

#### Applications:

Industrial applications, maintenance and repair, automotive, machine shop

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
No. 1	.2280	1-5/16"	2-7/16"	—	20101ZR
No. 2	.2210	1-5/16"	2-7/16"	—	20102
No. 3	.2130	1-1/4"	2-3/8"	—	20103
No. 4	.2090	1-1/4"	2-3/8"	—	20104
No. 5	.2055	1-1/4"	2-3/8"	—	20105
No. 6	.2040	1-1/4"	2-3/8"	—	20106
No. 7	.2010	1-3/16"	2-1/4"	—	20107
No. 8	.1190	1-3/16"	2-1/4"	—	20108
No. 9	.1960	1-3/16"	2-1/4"	—	20109
No. 10	.1935	1-3/16"	2-1/4"	—	20110
No. 11	.1910	1-3/16"	2-1/4"	—	20111
No. 12	.1890	1-3/16"	2-1/4"	—	20112
No. 13	.1850	1-1/8"	2-3/16"	—	20113
No. 14	.1820	1-1/8"	2-3/16"	—	20114
No. 15	.1800	1-1/8"	2-3/16"	—	20115
No. 16	.1770	1-1/8"	2-3/16"	—	20116
No. 17	.1730	1-1/8"	2-3/16"	—	20117
No. 18	.1695	1-1/16"	2-1/8"	—	20118
No. 19	.1660	1-1/16"	2-1/8"	—	20119
No. 20	.1610	1-1/16"	2-1/8"	—	20120
No. 21	.1590	1-1/16"	2-1/8"	—	20121
No. 22	.1570	1-1/16"	2-1/8"	—	20122
No. 23	.1540	1"	2-1/16"	—	20123
No. 24	.1520	1"	2-1/16"	—	20124
No. 25	.1495	1"	2-1/16"	—	20125
No. 26	.1470	1"	2-1/16"	—	20126
No. 27	.1440	1"	2-1/16"	—	20127ZR
No. 28	.1405	15/16"	1-15/16"	—	20128ZR
No. 29	.1360	15/16"	1-15/16"	—	20129
No. 30	.1285	15/16"	1-15/16"	—	20130
No. 31	.1200	7/8"	1-7/8"	—	20131
No. 32	.1160	7/8"	1-7/8"	—	20132
No. 33	.1130	7/8"	1-7/8"	—	20133
No. 34	.1110	7/8"	1-7/8"	—	20134
No. 35	.1100	7/8"	1-7/8"	—	20135
No. 36	.1065	13/16"	1-13/16"	—	20136
No. 37	.1040	13/16"	1-13/16"	—	20137ZR
No. 38	.1015	13/16"	1-13/16"	—	20138ZR
No. 39	.0995	13/16"	1-13/16"	—	20139ZR
No. 40	.0980	13/16"	1-13/16"	—	20140
No. 41	.0960	13/16"	1-13/16"	—	20141
No. 42	.0935	3/4"	1-3/4"	—	20142ZR
No. 43	.0890	3/4"	1-3/4"	—	20143
No. 44	.0860	3/4"	1-3/4"	—	20144
No. 45	.0820	3/4"	1-3/4"	—	20145
No. 46	.0810	3/4"	1-3/4"	—	20146
No. 47	.0785	11/16"	1-11/16"	—	20147
No. 48	.0760	11/16"	1-11/16"	—	20148
No. 49	.0730	11/16"	1-11/16"	—	20149
No. 50	.0700	11/16"	1-11/16"	—	20150
No. 51	.0670	11/16"	1-11/16"	—	20151
No. 52	.0635	11/16"	1-11/16"	—	20152
No. 53	.0595	5/8"	1-5/8"	—	20153
No. 54	.0550	5/8"	1-5/8"	—	20154
No. 55	.0520	5/8"	1-5/8"	—	20155

# Metal Drilling

## Silver & Deming Drill Bits

### Silver and Deming (S&D) HSS Fractional 1/2" Reduced Shank Drill Bits with 118° Point (Series 911/901)



91148

- 118° chisel point tip is perfect for general purpose applications.
- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Ideal for heavy-duty metal drilling, automotive, body shop, and fabrication applications.
- 1/2" reduced shank with 3-flats grips securely.

#### Applications:

Heavy-duty metal drilling, automotive, body shop, metal fabrication

#### Sets:

8-Piece Set: 90108

Size	Decimal Equivalent.	Flute Length	Overall Length	Tubed Item #
33/64"	.5156	3"	6"	91133
17/32"	.5313	3"	6"	91134
35/64"	.5469	3"	6"	91135
9/16"	.5625	3"	6"	91136
37/64"	.5781	3"	6"	91137
19/32"	.5938	3"	6"	91138
39/64"	.6094	3"	6"	91139
5/8"	.6250	3"	6"	91140
41/64"	.6406	3"	6"	91141
21/32"	.6563	3"	6"	91142
43/64"	.6719	3"	6"	91143
11/16"	.6875	3"	6"	91144
45/64"	.7031	3"	6"	91145
23/32"	.7188	3"	6"	91146
47/64"	.7344	3"	6"	91147
3/4"	.7500	3"	6"	91148
49/64"	.7656	3"	6"	91149
25/32"	.7812	3"	6"	91150
51/64"	.7969	3"	6"	91151
13/16"	.8125	3"	6"	91152
53/64"	.8281	3"	6"	91153
27/32"	.8438	3"	6"	91154
55/64"	.8594	3"	6"	91155ZR
7/8"	.8750	3"	6"	91156
57/64"	.8906	3"	6"	91157
29/32"	.9062	3"	6"	91158
59/64"	.9219	3"	6"	91159
15/16"	.9375	3"	6"	91160
61/64"	.9531	3"	6"	91161
31/32"	.9688	3"	6"	91162
63/64"	.9844	3"	6"	91163
1"	1.000	3"	6"	91164
1-1/64"	1.0156	3"	6"	90165
1-1/32"	1.0313	3"	6"	90166
1-1/16"	1.0625	3"	6"	90168
1-3/32"	1.0938	3"	6"	90170
1-1/8"	1.1250	3"	6"	90172
1-5/32"	1.1563	3"	6"	90174
1-3/16"	1.1875	3"	6"	90176
1-1/4"	1.2500	3"	6"	90180
1-5/16"	1.3125	3"	6"	90184
1-3/8"	1.3750	3"	6"	90188
1-7/16"	1.4375	3"	6"	90192
1-1/2"	1.5000	3"	6"	90196

### 12" Aircraft Extension HSS Fractional Straight Shank Drill Bits with 135° Split Point (Series 621/612)



61224

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Ideal for applications requiring an extended reach. Not recommended for deep drilling applications.
- Straight shank

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	7/8"	12"	62104ZR	61204
3/32"	.0938	1-1/4"	12"	—	61206
1/8"	.1250	1-5/8"	12"	62108	61208
5/32"	.1563	2"	12"	—	61210
3/16"	.1875	2-5/16"	12"	62112ZR	61212
7/32"	.2188	2-1/2"	12"	—	61214
1/4"	.2500	2-3/4"	12"	62116	61216
9/32"	.2813	2-15/16"	12"	—	61218
5/16"	.3125	3-3/16"	12"	62120	61220
11/32"	.3438	3-7/16"	12"	—	61222
3/8"	.3750	3-5/8"	12"	62124	61224
13/32"	.4063	3-7/8"	12"	—	61226
7/16"	.4375	4-1/16"	12"	62128	61228
15/32"	.4688	4-5/16"	12"	—	61230
1/2"	.5000	4-1/2"	12"	62132	61232ZR

### 6" Aircraft Extension HSS Fractional Straight Shank Drill Bits with 135° Split Point (Series 667/666)



66624

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Ideal for applications requiring an extended reach. Not recommended for deep drilling applications.
- Straight shank

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/16"	.0625	7/8"	6"	66704ZR	66604ZR
5/64"	.0781	1"	6"	—	66605
3/32"	.0938	1-1/4"	6"	—	66606
7/64"	.1094	1-1/2"	6"	—	66607
1/8"	.1250	1-5/8"	6"	66708	66608
9/64"	.1406	1-3/4"	6"	—	66609
5/32"	.1563	2"	6"	66710	66610
11/64"	.1719	2-1/8"	6"	—	66611
3/16"	.1875	2-5/16"	6"	66712	66612
13/64"	.2031	2-7/16"	6"	—	66613
7/32"	.2188	2-1/2"	6"	66714	66614
15/64"	.2344	2-5/8"	6"	—	66615
1/4"	.2500	2-3/4"	6"	66716	66616
17/64"	.2656	2-7/8"	6"	—	66617ZR
9/32"	.2813	2-15/16"	6"	—	66618
19/64"	.2969	3-1/16"	6"	—	66619
5/16"	.3125	3-3/16"	6"	66720ZR	66620
21/64"	.3281	3-5/16"	6"	—	66621
11/32"	.3438	3-7/16"	6"	—	66622
23/64"	.3594	3-1/2"	6"	—	66623
3/8"	.3750	3-5/8"	6"	66724	66624
25/64"	.3906	3-3/4"	6"	—	66625
13/32"	.4063	3-7/8"	6"	—	66626
27/64"	.4219	3-15/16"	6"	—	66627
7/16"	.4375	4-1/16"	6"	66728	66628
15/32"	.4688	4-5/16"	6"	—	66630
1/2"	.5000	4-1/2"	6"	66732	66632

# Metal Drilling

## Special Purpose Drilling

### Double-End HSS Drill Bits (Series 606/616)



10228

- 135° split-point tip starts drilling immediately and eliminates "walking."
- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Drills twice as many holes as a single-end drill bit.

#### Applications:

General metal drilling in tight spaces, drilling sheet metal for rivets and fasteners

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
7/64"	.1094	5/8"	1-7/8"	—	60607
1/8"	.1250	5/8"	2"	—	60608
9/64"	.1406	5/8"	2"	—	60609
5/32"	.1563	5/8"	2-1/16"	—	60610
3/16"	.1875	5/8"	2-3/16"	—	60612
7/32"	.2188	11/16"	2-3/8"	—	60614
1/4"	.2500	7/8"	2-1/2"	—	60616
#11	.1910	11/16"	2-1/4"	—	61611
#20	.1600	5/8"	2-1/8"	—	61620
#30	.1285	5/8"	2"	—	61630

### High Speed Steel Countersinks



12413

- Tip is milled and precision-ground to 82-degrees for countersinking into most machinable materials.
- Engineered with premium high speed steel with black oxide coating for corrosion resistance.
- Features five flutes for reduced vibration.
- 1/4" round shank

Size	Decimal Equiv.	Flute Length	Overall Length	Carded Item #	Bulk Item #
1/2"	.5000	3/8"	1-5/8"	12411	—
5/8"	.6250	7/16"	1-3/4"	12412	—
3/4"	.7500	1/2"	1-13/16"	12413	—

## 29-piece Metal Index Drill Bit Sets

### Automatic Indexing

- For easy bit access and identification

### Removable Cartridges

- Allows for easy transport to worksite

### Rubber Over-Molded Case

- Protects case if dropped



3018003

### 3 Easy Steps to Open Case and Remove a Cartridge



Slide Latch



Open Case



Remove Cartridge

Description	Type	Contents	Point	Finish	Item #
29-Piece Set	Cobalt M42 HSS Fractional	1/16" - 1/2" by 64ths	135°	Cobalt	3018002B
29-Piece Set*	Cobalt M35 HSS Fractional	1/16" - 1/2" by 64ths	135°	Cobalt	3018002
29-Piece Set*	TiN HSS Fractional	1/16" - 1/2" by 64ths	135°	TiN Coated	3018003
29-Piece Set*	Heavy-Duty HSS Fractional	1/16" - 1/2" by 64ths	135°	Black Oxide	3018004
29-Piece Set*	Black & Gold HSS Fractional	1/16" - 1/2" by 64ths	135°	Black & Gold Oxide	3018005
29-Piece Set*	TURBOMAX HSS Fractional	1/16" - 1/2" by 64ths	TURBOMAX	Black & Gold Oxide	3018006B
29-Piece Set*	TURBOMAX Titanium Fractional	1/16" - 1/2" by 64ths	TURBOMAX	TiN Coated	3018011
29-Piece Set*	29-Piece Set Empty Case	-	-	-	3018006MT

\*Note: 3/8" Reduced Shank

### 29-piece Metal Index Drill Bit Set



73138

### 21-piece Metal Index Drill Bit Set



73149

### 13-piece Metal Index Drill Bit Set



73136

Description	Type	Contents	Point	Finish	Item #
<b>Straight Shank Sets</b>					
13-Piece Set	Gen. Purp. HSS Fractional	1/16" - 1/4" by 64ths	118°	Bright	60136
15-Piece Set	Gen. Purp. HSS Fractional	1/16" - 1/2" by 32nds	118°	Bright	60137
21-Piece Set	Gen. Purp. HSS Fractional	1/16" - 3/8" by 64ths	118°	Bright	60221
29-Piece Set	Gen. Purp. HSS Fractional	1/16" - 1/2" by 64ths	118°	Bright	60138
60-Piece Set	Gen. Purp. HSS Wire Gauge	#1 - #60	118°	Bright	80181
20-Piece Set	Gen. Purp. HSS Wire Gauge	#61 - #80	118°	Bright	80183
15-Piece Set	Heavy Duty HSS Fractional	1/16" - 1/2" by 32nds	135°	Black Oxide	63537
15-Piece Set	Cobalt HSS Fractional	1/16" - 1/2" by 32nds	135°	Cobalt	63137
21-Piece Set	Cobalt HSS Fractional	1/16" - 3/8" by 64ths	135°	Cobalt	63221
15-Piece Set	TiN HSS Fractional	1/16" - 1/2" by 32nds	135°	TiN Coated	63737
13-Piece Set	TURBOMAX HSS Fractional	1/16" - 1/4" by 64ths	TURBOMAX	Black & Gold Oxide	73136
15-Piece Set	TURBOMAX HSS Fractional	1/16" - 1/2" by 32nds	TURBOMAX	Black & Gold Oxide	73137
29-Piece Set	TURBOMAX HSS Fractional	1/16" - 1/2" by 64ths	TURBOMAX	Black & Gold Oxide	73138
21-Piece Set	TURBOMAX HSS Fractional	1/16" - 3/8" by 64ths	TURBOMAX	Black & Gold Oxide	73149
<b>Reduced Shank Sets</b>					
15-Piece Set	Gen. Purp. HSS Fractional 3/8"	1/16" - 1/2" by 32nds	118°	Bright	60147
29-Piece Set	Gen. Purp. HSS Fractional 3/8"	1/16" - 1/2" by 64ths	118°	Bright	60148
8-Piece Set	Silver & Deming (S&D) HSS Fractional 1/2"	9/16" - 1" by 32nds	118°	Black Oxide & Bright	90108
<b>1/4" Hex Shank Sets</b>					
5-Piece Set	Heavy Duty HSS Fractional	3/32", 7/64", 1/8", 6/64", & 5/32"	135°	Black Oxide	4935642

# Metal Drilling

## Drill Bit Sets / Gauges

### Pro Set Cases



314018



318015



316015



4935643

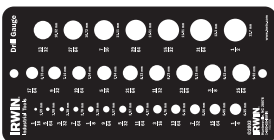


3018009

METAL DRILLING

Description	Type	Contents	Point	Finish	Item #
15-Piece Set	Black Oxide HSS Fractional Straight Shank Jobber Length	1/16" - 3/8"	135°	Black Oxide	314015
18-Piece Set	Black Oxide HSS Fractional Jobber Length	1/16" - 1/2" with 3/8" Reduced Shank	135°	Black Oxide	314018
20-Piece Set	Drill/Drive Set with Black Oxide HSS Drills and Screwdriver Bits	1/16" (2), 3/32", 1/8" (2), 5/32", 3/16", 1/4" Drills and 12 Screwdriver and Nutdriver Bits	135°	Black Oxide	357020
15-Piece Set	Cobalt HSS Fractional Straight Shank Jobber Length	1/16" - 3/8"	135°	Cobalt	316015
15-Piece Set	TURBOMAX® HSS Fractional Straight Shank Jobber	Length 1/16"-3/8"	TURBOMAX	Black & Gold Oxide	318015
18-Piece Set	TURBOMAX HSS Fractional Jobber	Length 1/16"-1/2" with 3/8" Reduced Shank	TURBOMAX	Black & Gold Oxide	3018024SM
12-Piece Set	Black Oxide HSS 1/4" Hex Shank Jobber Length	1/16", 5/64", 3/32", 7/64", 1/8" (2), 9/64", 5/32", 3/16", 7/32", 1/4" Drills and Lock-N-Load® Quick-Change	135°	Black Oxide	4935643
15-Piece Set	Titanium Coated HSS Fractional Straight Shank Jobber	1/16"-3/8"	135°	TiN	4935607
15-Piece Set	Titanium Turbomax	1/16" - 3/8"	TURBOMAX	TiN	3018009
18-Piece Set	Titanium Turbomax	1/16" - 1/2"	TURBOMAX	TiN	3018010
9-Piece Set	Titanium Turbomax & Unibit	1/16" - 3/8" Unibit #1 & #4	TURBOMAX	TiN	3018008

### Drill Bit Gauge & Stand



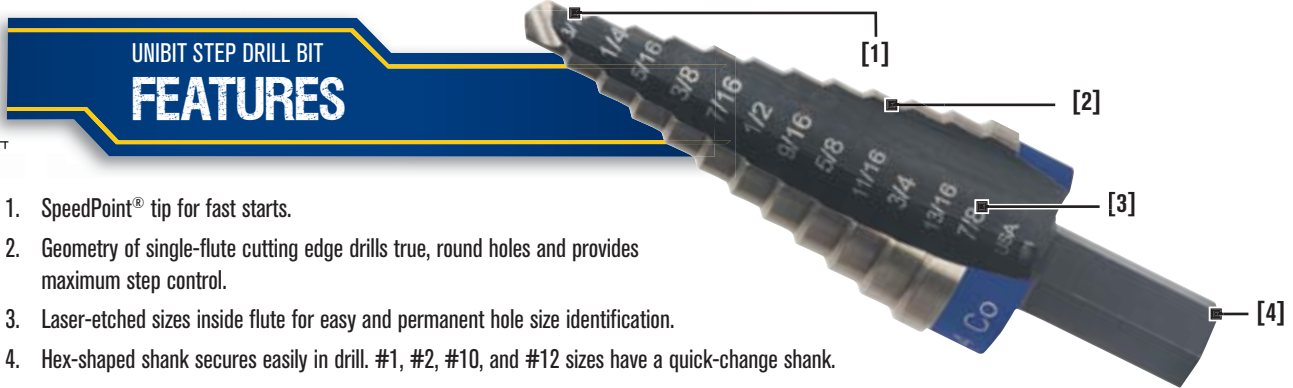
12092

Description	Carded Item #	Bulk Item #
Fractional Drill Gauge	12092	-
Drill Stand 1/16" - 1/2"	60172	-



### UNIBIT Step Drill Bits – Drill Multiple Hole Sizes with One Bit

IRWIN® UNIBIT® step drill bits are ideal for drilling holes in just about any type of thin material. General purpose high speed steel UNIBIT step drill bits are perfect for use in mild steel, copper, brass, aluminum, plexiglass, wood, and laminate. Our Titanium Nitride-coated (TiN) bits resist heat and friction, which extends the life of the cutting edge six times longer than standard step drills. And, our Cobalt step drill bits are engineered with M35 Cobalt steel for maximum life when drilling in the toughest steel, including stainless steel. Most UNIBIT step drills are designed with a SpeedPoint® tip that guarantees fast starts. They're manufactured with a single-flute cutting edge that drills multiple sizes of true, round holes with precise step control. Plus, the hole sizes are permanently laser-etched on the inside of the flute, so they can be easily identified throughout the life of the bit.



1. SpeedPoint® tip for fast starts.
2. Geometry of single-flute cutting edge drills true, round holes and provides maximum step control.
3. Laser-etched sizes inside flute for easy and permanent hole size identification.
4. Hex-shaped shank secures easily in drill. #1, #2, #10, and #12 sizes have a quick-change shank.

### UNIBIT Application Guide

Cobalt	Titanium Nitride (TiN)	High Speed Steel (HSS)
Stainless Steel or Other Tough Materials	Repetitive Drilling	General Use

#### UNIBIT Cobalt HSS



10231CB

- Engineered with M35 Cobalt steel for maximum life when drilling in tough steel.
- SpeedPoint® tip for fast starts.\*

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
#1 1/8"-1/2" (1/32" steps)	13	1/4"	10231CB
#2 3/16"-1/2" (1/16" steps)	6	1/4"	10232CB
#3 1/4"-3/4" (1/16" steps)	9	3/8"	10233CB
#4 3/16"-7/8" (1/16" steps)	12	3/8"	10234CB
#9 7/8" and 1-1/8" for (1/2" and 3/4") KO	2	7/16"	10239CB
#20 9/16"-1" (1/16") Inc - Hole Enlarging	8	7/16"	10220CB
#1M 4 mm-12 mm (1 mm steps)	9	1/4"	11101CB
#2M 4 mm - 12 mm (2 mm steps)	5	1/4"	11102CB
#3M 6 mm - 18 mm (2 mm steps)	7	3/8"	11103CB
#4M 4 mm - 22 mm (2 mm steps)	10	3/8"	11104CB

#### UNIBIT HSS Fractional Titanium Nitride (TiN) Coated



15101ZR

- Titanium Nitride coating resists heat and friction, extending the cutting edge life up to six times longer than other high speed steel step drill bits.
- SpeedPoint® tip for fast starts.\*

Set: 15502

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
#1T 1/8" - 1/2" (1/32" steps)	13	1/4"	15101ZR
#2T 3/16" - 1/2" (1/16" steps)	6	1/4"	15102ZR
#3T 1/4" - 3/4" (1/16" steps)	9	3/8"	15103ZR
#4T 3/16" - 7/8" (1/16" steps)	12	3/8"	15104
#13T 1-1/8" (single hole)	1	7/16"	15313
#20T 9/16" - 1" (hole enlarging)	8	7/16"	15200
#21T 13/16" - 1-3/8" (hole enlarging)	10	7/16"	15221

▲ – SpeedPoint™ Tip

\*included on all self-starting sizes except for #1

# Metal Drilling

## Step Drill Bits / Sets

### UNIBIT® HSS Metric Titanium Nitride (TiN) Coated



16103

- Titanium Nitride coating resists heat and friction, extending the cutting edge life up to six times longer than other high speed steel step drill bits.
- SpeedPoint® tip for fast starts.\*

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
▲ #1MT 4 mm - 12 mm (1 mm steps)	9	1/4"	16101
▲ #2MT 4 mm - 12 mm (2 mm steps)	5	1/4"	16102
▲ #3MT 6 mm - 18 mm (2 mm steps)	7	3/8"	16103
▲ #4MT 4 mm - 22 mm (2 mm steps)	10	3/8"	16104
▲ #5MT 5 mm - 35 mm (2 - 3 mm steps)	13	7/16"	16105

### UNIBIT HSS Fractional



10234

- SpeedPoint® tip for fast starts.\*
- Geometry of single-flute cutting edge drills true, round holes and provides maximum step control.

**Sets:** 10225, 10228, 10502

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
▲ #1 1/8" - 1/2" (1/32" steps)	13	1/4"	10231
▲ #2 3/16" - 1/2" (1/16" steps)	6	1/4"	10232
▲ #3 1/4" - 3/4" (1/16" steps)	9	3/8"	10233
▲ #4 3/16" - 7/8" (1/16" steps)	12	3/8"	10234
▲ #5 1/4" - 1-3/8" (1/8" steps)	10	7/16"	10235
▲ #9 7/8" and 1-1/8" (1/2" and 3/4" Knock-Out)	2	7/16"	10239
#10 1/2" (single hole)	1	1/4"	10310
#11 7/8" (single hole)	1	3/8"	10311ZR
#12 3/8" (single hole)	1	1/4"	10312ZR
#13 1-1/8" (single hole)	1	7/16"	10313ZR
#14 1-7/32" (single hole)	1	7/16"	10314
#20 9/16" - 1" (hole enlarging)	8	7/16"	10220
#21 13/16" - 1-3/8" (hole enlarging)	10	7/16"	10221

### UNIBIT HSS Metric



11101ZR

- SpeedPoint® tip for fast starts.\*
- Geometry of single-flute cutting edge drills true, round holes and provides maximum step control.

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
▲ #1M 4 mm - 12 mm (1 mm steps)	9	1/4"	11101ZR
▲ #2M 4 mm - 12 mm (2 mm steps)	5	1/4"	11102
▲ #3M 6 mm - 18 mm (2 mm steps)	7	3/8"	11103
▲ #4M 4 mm - 22 mm (2 mm steps)	10	3/8"	11104
▲ #5M 5 mm - 35 mm (2-3 mm steps)	13	7/16"	11105ZR
#20M 14 mm - 24 mm (hole enlarging)	6	7/16"	11580
#21M 20 mm - 34 mm (hole enlarging)	8	7/16"	11581
PG29M 5 mm - 28.3 mm	10	7/16"	11194
29 mm 5 mm - 29 mm	10	7/16"	11195

### UNIBIT Sets



10502CB

Description	Type	Contents	Item #
4-Piece Set	High Speed Steel Set	#1, 2, 4 & 21	10225
4-Piece Set	High Speed Steel Set w/#1 TiN	#1, 2 & 3 plus #1T	10228
3-Piece Set	High Speed Steel Set	#1, 2 & 3	10502ZR
3-Piece Set	Titanium Nitride Coated Set	#1T, 2T & 3T	15502
3-Piece Set	Cobalt Set	#1C, 2C & 3C	10502CB
9-Piece Set	Unibit/TiN Turbomax Set	#1, #4 & 7-Piece TiN (1/16", 3/32", 1/8", 3/16", 7/32", 1/4", 3/8")	3018008

▲ - SpeedPoint™ Tip

\*included on all self-starting sizes except for #1

METAL DRILLING