

# DRILL

## AMERICA



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**Drill America**<sup>®</sup>

**QualTech**<sup>®</sup>

**KFD**<sup>®</sup>

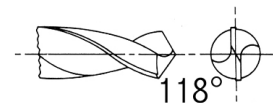
# TABLE OF CONTENTS

CALL GARY LODGE @ 615.982.2027

<b>Drills.....</b>	<b>2 - 44</b>
<b>Drill Sets .....</b>	<b>45 - 49</b>
<b>Taps .....</b>	<b>50 - 61</b>
<b>Dies .....</b>	<b>61 - 70</b>
<b>Counterbores .....</b>	<b>71 - 73</b>
<b>Countersinks.....</b>	<b>74 - 79</b>
<b>Countersink Cages .....</b>	<b>78</b>
<b>Threaded Shank Drills.....</b>	<b>80 - 81</b>
<b>Reamers .....</b>	<b>82 - 93</b>
<b>Bridge Reamers .....</b>	<b>90 - 91</b>
<b>Hole Saws.....</b>	<b>94</b>
<b>Cutters .....</b>	<b>95</b>
<b>Machine Tool Accessories.....</b>	<b>96 - 97</b>
<b>End Mills .....</b>	<b>98 - 108</b>
<b>Carbide Burs .....</b>	<b>109 - 111</b>
<b>Files .....</b>	<b>112</b>
<b>Abrasives .....</b>	<b>113</b>
<b>Indexes &amp; Dispensers .....</b>	<b>114 - 115</b>
<b>Tool Bits .....</b>	<b>116</b>
<b>Wood Working .....</b>	<b>117</b>
<b>Insert Bits .....</b>	<b>118 - 119</b>

# HSS JOBBERS LENGTH DRILLS

## 118° POINT



### DWDN Series - Surface Treated Economy

### D/AN Series - Surface Treated Premium Quality

A dependable, general purpose drill designed to perform in a broad range of materials in the iron and steel families. Ideal for production, maintenance or portable drilling jobs. Surface treated with abrasion-resistant black oxide.



### DWDP Series - Polished Economy

### D/AP Series - Polished Premium Quality

A dependable, general-purpose drill used for a variety of materials. Ideal for production, maintenance or portable drilling jobs. Bright finish, which provides superior chip evacuation.

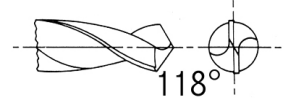


## F R A C T I O N A L   S I Z E S

				<b>qualiTECH™</b>		<i>Drill America</i>		<b>qualiTECH™</b>		<i>Drill America</i>	
				<b>H.S.S DWDN Series</b>		<b>H.S.S D/AN Series</b>		<b>H.S.S DWDP Series</b>		<b>H.S.S D/AP Series</b>	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price	Part Number	List Price	Part Number	List Price
1/64"	.0156	3/16"	3/4"	DWDN1/64	\$0.59	D/AN1/64	\$1.91	DWDP1/64	\$1.71	D/AP1/64	\$1.91
1/32"	.0312	1/2"	1-3/8"	DWDN1/32	\$0.56	D/AN1/32	\$1.31	DWDP1/32	\$1.22	D/AP1/32	\$1.31
3/64"	.0469	3/4"	1-3/4"	DWDN3/64	\$0.56	D/AN3/64	\$1.25	DWDP3/64	\$1.09	D/AP3/64	\$1.25
1/16"	.0625	7/8"	1-7/8"	DWDN1/16	\$0.56	D/AN1/16	\$1.12	DWDP1/16	\$1.01	D/AP1/16	\$1.12
5/64"	.0781	1"	2"	DWDN5/64	\$0.59	D/AN5/64	\$1.16	DWDP5/64	\$1.01	D/AP5/64	\$1.16
3/32"	.0938	1-1/4"	2-1/4"	DWDN3/32	\$0.59	D/AN3/32	\$1.00	DWDP3/32	\$0.89	D/AP3/32	\$1.00
7/64"	.1094	1-1/2"	2-5/8"	DWDN7/64	\$0.59	D/AN7/64	\$1.08	DWDP7/64	\$0.97	D/AP7/64	\$1.08
1/8"	.1250	1-5/8"	2-3/4"	DWDN1/8	\$0.59	D/AN1/8	\$1.20	DWDP1/8	\$1.06	D/AP1/8	\$1.20
9/64"	.1406	1-3/4"	2-7/8"	DWDN9/64	\$0.67	D/AN9/64	\$1.25	DWDP9/64	\$1.06	D/AP9/64	\$1.25
5/32"	.1562	2"	3-1/8"	DWDN5/32	\$0.67	D/AN5/32	\$1.44	DWDP5/32	\$1.27	D/AP5/32	\$1.44
11/64"	.1719	2-1/8"	3-1/4"	DWDN11/64	\$0.75	D/AN11/64	\$1.63	DWDP11/64	\$1.45	D/AP11/64	\$1.63
3/16"	.1875	2-5/16"	3-1/2"	DWDN3/16	\$0.82	D/AN3/16	\$1.80	DWDP3/16	\$1.61	D/AP3/16	\$1.80
13/64"	.2031	2-7/16"	3-5/8"	DWDN13/64	\$0.93	D/AN13/64	\$2.00	DWDP13/64	\$1.75	D/AP13/64	\$2.00
7/32"	.2188	2-1/2"	3-3/4"	DWDN7/32	\$1.00	D/AN7/32	\$2.24	DWDP7/32	\$1.96	D/AP7/32	\$2.24
15/64"	.2344	2-5/8"	3-7/8"	DWDN15/64	\$1.11	D/AN15/64	\$2.47	DWDP15/64	\$2.21	D/AP15/64	\$2.47
1/4"	.2500	2-3/4"	4"	DWDN1/4	\$1.16	D/AN1/4	\$2.52	DWDP1/4	\$2.21	D/AP1/4	\$2.47
17/64"	.2656	2-7/8"	4-1/8"	DWDN17/64	\$1.41	D/AN17/64	\$3.14	DWDP17/64	\$2.77	D/AP17/64	\$3.14
9/32"	.2812	2-15/16"	4-1/4"	DWDN9/32	\$1.46	D/AN9/32	\$3.54	DWDP9/32	\$3.17	D/AP9/32	\$3.54
19/64"	.2969	3-1/16"	4-3/8"	DWDN19/64	\$1.74	D/AN19/64	\$4.02	DWDP19/64	\$3.59	D/AP19/64	\$4.02
5/16"	.3125	3-3/16"	4-1/2"	DWDN5/16	\$1.88	D/AN5/16	\$4.14	DWDP5/16	\$3.66	D/AP5/16	\$4.14
21/64"	.3281	3-5/16"	4-5/8"	DWDN21/64	\$2.11	D/AN21/64	\$4.60	DWDP21/64	\$4.06	D/AP21/64	\$4.60
11/32"	.3438	3-7/16"	4-3/4"	DWDN11/32	\$2.31	D/AN11/32	\$5.12	DWDP11/32	\$4.54	D/AP11/32	\$5.12
23/64"	.3594	3-1/2"	4-7/8"	DWDN23/64	\$2.64	D/AN23/64	\$5.78	DWDP23/64	\$5.11	D/AP23/64	\$5.78
3/8"	.3750	3-5/8"	5"	DWDN3/8	\$2.66	D/AN3/8	\$5.78	DWDP3/8	\$5.11	D/AP3/8	\$5.78
25/64"	.3906	3-3/4"	5-1/8"	DWDN25/64	\$3.12	D/AN25/64	\$6.75	DWDP25/64	\$5.97	D/AP25/64	\$6.75
13/32"	.4062	3-7/8"	5-1/4"	DWDN13/32	\$3.16	D/AN13/32	\$6.91	DWDP13/32	\$6.09	D/AP13/32	\$6.91
27/64"	.4219	3-15/16"	5-3/8"	DWDN27/64	\$3.53	D/AN27/64	\$8.01	DWDP27/64	\$6.85	D/AP27/64	\$7.76
7/16"	.4375	4-1/16"	5-1/2"	DWDN7/16	\$3.63	D/AN7/16	\$8.01	DWDP7/16	\$7.08	D/AP7/16	\$8.01
29/64"	.4531	4-3/16"	5-5/8"	DWDN29/64	\$4.12	D/AN29/64	\$9.03	DWDP29/64	\$7.97	D/AP29/64	\$9.03
15/32"	.4688	4-5/16"	5-3/4"	DWDN15/32	\$4.35	D/AN15/32	\$9.51	DWDP15/32	\$8.39	D/AP15/32	\$9.51
31/64"	.4844	4-3/8"	5-7/8"	DWDN31/64	\$4.57	D/AN31/64	\$10.70	DWDP31/64	\$9.46	D/AP31/64	\$10.70
1/2"	.5000	4-1/2"	6"	DWDN1/2	\$4.78	D/AN1/2	\$10.73	DWDP1/2	\$9.46	D/AP1/2	\$10.73

# HSS JOBBERS LENGTH DRILLS

## 118° POINT



### FRACTIONAL SIZES OVER 1/2"

qualTECH™ Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDN Series		H.S.S D/AN Series	
				Part Number	List Price	Part Number	List Price
33/64"	.5156	4-13/16"	6-5/8"	DWDN33/64	\$10.21	D/AN33/64	\$19.55
17/32"	.5312	4-13/16"	6-5/8"	DWDN17/32	\$10.72	D/AN17/32	\$20.50
35/64"	.5469	4-13/16"	6-5/8"	DWDN35/64	\$11.57	D/AN35/64	\$22.19
9/16"	.5625	4-13/16"	6-5/8"	DWDN9/16	\$12.14	D/AN9/16	\$23.24
37/64"	.5781	4-13/16"	6-5/8"	DWDN37/64	\$12.18	D/AN37/64	\$23.30
19/32"	.5938	5-3/16"	7-1/8"	DWDN19/32	\$12.50	D/AN19/32	\$23.93
39/64"	.6094	5-3/16"	7-1/8"	DWDN39/64	\$13.39	D/AN39/64	\$25.64
5/8"	.6250	5-3/16"	7-1/8"	DWDN5/8	\$13.39	D/AN5/8	\$25.64
41/64"	.6406	5-3/16"	7-1/8"	DWDN41/64	\$14.34	D/AN41/64	\$27.49
21/32"	.6562	5-3/16"	7-1/8"	DWDN21/32	\$15.04	D/AN21/32	\$28.81
43/64"	.6719	5-5/8"	7-5/8"	DWDN43/64	\$16.25	D/AN43/64	\$31.14
11/16"	.6875	5-5/8"	7-5/8"	DWDN11/16	\$16.25	D/AN11/16	\$31.14

### LETTER SIZES

qualTECH™ Drill America Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDN Series		H.S.S D/AN Series		H.S.S D/AP Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
A	.2340	2-5/8"	3-7/8"	DWDNA	\$1.73	D/ANA	\$3.04	D/APA	\$3.04
B	.2380	2-3/4"	4"	DWDNB	\$1.73	D/ANB	\$3.12	D/APB	\$3.12
C	.2420	2-3/4"	4"	DWDNC	\$1.73	D/ANC	\$2.93	D/APC	\$2.93
D	.2460	2-3/4"	4"	DWDND	\$1.73	D/AND	\$2.93	D/APD	\$2.93
E	.2500	2-3/4"	4"	DWDNE	\$1.61	D/ANE	\$3.07	D/APE	\$3.07
F	.2570	2-7/8"	4-1/8"	DWDNF	\$1.86	D/ANF	\$3.55	D/APF	\$3.55
G	.2610	2-7/8"	4-1/8"	DWDNG	\$2.07	D/ANG	\$3.83	D/APG	\$3.83
H	.2660	2-7/8"	4-1/8"	DWDNH	\$2.07	D/ANH	\$4.00	D/APH	\$4.00
I	.2720	2-7/8"	4-1/8"	DWDNI	\$2.07	D/ANI	\$4.00	D/API	\$4.00
J	.2770	2-7/8"	4-1/8"	DWDNJ	\$2.24	D/ANJ	\$4.27	D/APJ	\$4.27
K	.2810	2-15/16"	4-1/4"	DWDNK	\$2.44	D/ANK	\$4.27	D/APK	\$4.27
L	.2900	2-15/16"	4-1/4"	DWDNL	\$2.44	D/ANL	\$4.95	D/APL	\$4.95
M	.2950	3-1/16"	4-3/8"	DWDNM	\$2.60	D/ANM	\$4.95	D/APM	\$4.95
N	.3020	3-1/16"	4-3/8"	DWDNN	\$2.60	D/ANN	\$4.99	D/APN	\$4.99
O	.3160	3-3/16"	4-1/2"	DWDNO	\$2.64	D/ANO	\$5.06	D/APO	\$5.06
P	.3230	3-5/16"	4-5/8"	DWDNP	\$2.98	D/ANP	\$5.70	D/APP	\$5.70
Q	.3320	3-7/16"	4-3/4"	DWDNQ	\$2.98	D/ANQ	\$5.70	D/APQ	\$5.70
R	.3390	3-7/16"	4-3/4"	DWDNR	\$3.19	D/ANR	\$6.06	D/APR	\$6.06
S	.3480	3-1/2"	4-7/8"	DWDNS	\$3.34	D/ANS	\$6.47	D/APS	\$6.47
T	.3580	3-1/2"	4-7/8"	DWDNT	\$3.83	D/ANT	\$6.97	D/APT	\$6.97
U	.3680	3-5/8"	5"	DWDNU	\$3.83	D/ANU	\$7.03	D/APU	\$7.03
V	.3770	3-5/8"	5"	DWDNV	\$3.93	D/ANV	\$7.26	D/APV	\$7.26
W	.3860	3-3/4"	5-1/8"	DWDNW	\$4.05	D/ANW	\$7.74	D/APW	\$7.74
X	.3970	3-3/4"	5-1/8"	DWDNX	\$4.92	D/ANX	\$7.83	D/APX	\$7.83
Y	.4040	3-7/8"	5-1/4"	DWDNY	\$5.91	D/ANY	\$9.57	D/APY	\$9.57
Z	.4130	3-7/8"	5-1/4"	DWDNZ	\$5.52	D/ANZ	\$10.57	D/APZ	\$10.57

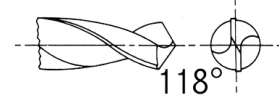
## Package Quantities

#1 - #80	-----	12 pcs per pack
A - O	-----	12 pcs per pack
P - Z	-----	6 pcs per pack
1/64" - 5-16"	-----	12 pcs per pack
21/64" - 1/2'	-----	6 pcs per pack
33/64" & Up	-----	1 pcs per pack
.30 - 8MM	-----	12 pcs per pack
8.10-13MM	-----	6 pcs per pack
13.5MM & Up	-----	1 pc per pack



# HSS JOBBERS LENGTH DRILLS

## 118° POINT



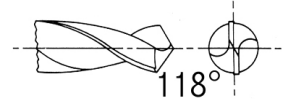
### WIRE GAUGE SIZES

**qualTECH™** Drill America Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDN Series		H.S.S D/AN Series		H.S.S D/AP Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
1	.2280	2-5/8"	3-7/8"	DWDN1	\$1.60	D/AN1	\$2.72	D/AP1	\$2.72
2	.2210	2-5/8"	3-7/8"	DWDN2	\$1.60	D/AN2	\$2.72	D/AP2	\$2.72
3	.2130	2-1/2"	3-3/4"	DWDN3	\$1.46	D/AN3	\$2.55	D/AP3	\$2.55
4	.2090	2-1/2"	3-3/4"	DWDN4	\$1.46	D/AN4	\$2.55	D/AP4	\$2.55
5	.2055	2-1/2"	3-3/4"	DWDN5	\$1.46	D/AN5	\$2.55	D/AP5	\$2.55
6	.2040	2-1/2"	3-3/4"	DWDN6	\$1.46	D/AN6	\$2.55	D/AP6	\$2.55
7	.2010	2-7/16"	3-5/8"	DWDN7	\$1.30	D/AN7	\$2.31	D/AP7	\$2.31
8	.1990	2-7/16"	3-5/8"	DWDN8	\$1.30	D/AN8	\$2.31	D/AP8	\$2.31
9	.1960	2-7/16"	3-5/8"	DWDN9	\$1.30	D/AN9	\$2.31	D/AP9	\$2.31
10	.1935	2-7/16"	3-5/8"	DWDN10	\$1.30	D/AN10	\$2.31	D/AP10	\$2.31
11	.1910	2-5/16"	3-1/2"	DWDN11	\$1.20	D/AN11	\$2.16	D/AP11	\$2.16
12	.1890	2-5/16"	3-1/2"	DWDN12	\$1.20	D/AN12	\$2.16	D/AP12	\$2.16
13	.1850	2-5/16"	3-1/2"	DWDN13	\$1.18	D/AN13	\$2.07	D/AP13	\$2.00
14	.1820	2-3/16"	3-3/8"	DWDN14	\$1.18	D/AN14	\$2.00	D/AP14	\$2.00
15	.1800	2-3/16"	3-3/8"	DWDN15	\$1.18	D/AN15	\$2.00	D/AP15	\$2.00
16	.1770	2-3/16"	3-3/8"	DWDN16	\$1.18	D/AN16	\$2.00	D/AP16	\$2.00
17	.1730	2-3/16"	3-3/8"	DWDN17	\$1.18	D/AN17	\$2.00	D/AP17	\$2.00
18	.1695	2-1/8"	3-1/4"	DWDN18	\$0.93	D/AN18	\$1.79	D/AP18	\$1.79
19	.1660	2-1/8"	3-1/4"	DWDN19	\$0.93	D/AN19	\$1.79	D/AP19	\$1.79
20	.1610	2-1/8"	3-1/4"	DWDN20	\$0.93	D/AN20	\$1.79	D/AP20	\$1.79
21	.1590	2-1/8"	3-1/4"	DWDN21	\$0.92	D/AN21	\$1.64	D/AP21	\$1.64
22	.1570	2"	3-1/8"	DWDN22	\$0.92	D/AN22	\$1.64	D/AP22	\$1.64
23	.1540	2"	3-1/8"	DWDN23	\$0.89	D/AN23	\$1.61	D/AP23	\$1.61
24	.1520	2"	3-1/8"	DWDN24	\$0.89	D/AN24	\$1.61	D/AP24	\$1.61
25	.1495	1-7/8"	3"	DWDN25	\$0.86	D/AN25	\$1.44	D/AP25	\$1.44
26	.1470	1-7/8"	3"	DWDN26	\$0.86	D/AN26	\$1.44	D/AP26	\$1.44
27	.1440	1-7/8"	3"	DWDN27	\$0.86	D/AN27	\$1.44	D/AP27	\$1.44
28	.1405	1-3/4"	2-7/8"	DWDN28	\$0.78	D/AN28	\$1.35	D/AP28	\$1.35
29	.1360	1-3/4"	2-7/8"	DWDN29	\$0.78	D/AN29	\$1.35	D/AP29	\$1.35
30	.1285	1-5/8"	2-3/4"	DWDN30	\$0.78	D/AN30	\$1.31	D/AP30	\$1.31
31	.1200	1-5/8"	2-3/4"	DWDN31	\$0.78	D/AN31	\$1.20	D/AP31	\$1.20
32	.1160	1-5/8"	2-3/4"	DWDN32	\$0.78	D/AN32	\$1.20	D/AP32	\$1.20
33	.1130	1-1/2"	2-5/8"	DWDN33	\$0.78	D/AN33	\$1.20	D/AP33	\$1.20
34	.1110	1-1/2"	2-5/8"	DWDN34	\$0.78	D/AN34	\$1.20	D/AP34	\$1.20
35	.1100	1-1/2"	2-5/8"	DWDN35	\$0.78	D/AN35	\$1.20	D/AP35	\$1.20
36	.1065	1-7/16"	2-1/2"	DWDN36	\$0.78	D/AN36	\$1.20	D/AP36	\$1.20
37	.1040	1-7/16"	2-1/2"	DWDN37	\$0.78	D/AN37	\$1.20	D/AP37	\$1.20
38	.1015	1-7/16"	2-1/2"	DWDN38	\$0.78	D/AN38	\$1.20	D/AP38	\$1.20
39	.0995	1-3/8"	2-3/8"	DWDN39	\$0.78	D/AN39	\$1.20	D/AP39	\$1.20
40	.0980	1-3/8"	2-3/8"	DWDN40	\$0.78	D/AN40	\$1.20	D/AP40	\$1.20

# HSS JOBBERS LENGTH DRILLS

## 118° POINT



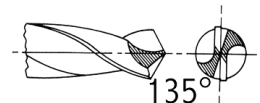
### WIRE GAUGE SIZES

qualTECH™ Drill America Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDN Series		H.S.S D/AN Series		H.S.S D/AP Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
41	.0960	1-3/8"	2-3/8"	DWDN41	\$0.89	D/AN41	\$1.20	D/AP41	\$1.20
42	.0935	1-1/4"	2-1/4"	DWDN42	\$0.89	D/AN42	\$1.20	D/AP42	\$1.20
43	.0890	1-1/4"	2-1/4"	DWDN43	\$0.89	D/AN43	\$1.20	D/AP43	\$1.20
44	.0860	1-1/8"	2-1/8"	DWDN44	\$0.89	D/AN44	\$1.20	D/AP44	\$1.20
45	.0820	1-1/8"	2-1/8"	DWDN45	\$0.89	D/AN45	\$1.28	D/AP45	\$1.28
46	.0810	1-1/8"	2-1/8"	DWDN46	\$0.89	D/AN46	\$1.28	D/AP46	\$1.28
47	.0785	1"	2"	DWDN47	\$0.89	D/AN47	\$1.28	D/AP47	\$1.28
48	.0760	1"	2"	DWDN48	\$0.89	D/AN48	\$1.28	D/AP48	\$1.28
49	.0730	1"	2"	DWDN49	\$0.89	D/AN49	\$1.28	D/AP49	\$1.28
50	.0700	1"	2"	DWDN50	\$0.89	D/AN50	\$1.28	D/AP50	\$1.28
51	.0670	1"	2"	DWDN51	\$0.89	D/AN51	\$1.28	D/AP51	\$1.28
52	.0635	7/8"	1-7/8"	DWDN52	\$0.89	D/AN52	\$1.28	D/AP52	\$1.28
53	.0595	7/8"	1-7/8"	DWDN53	\$0.89	D/AN53	\$1.28	D/AP53	\$1.28
54	.0550	7/8"	1-7/8"	DWDN54	\$0.89	D/AN54	\$1.28	D/AP54	\$1.28
55	.0520	7/8"	1-7/8"	DWDN55	\$0.89	D/AN55	\$1.28	D/AP55	\$1.28
56	.0465	3/4"	1-3/4"	DWDN56	\$0.89	D/AN56	\$1.28	D/AP56	\$1.28
57	.0430	3/4"	1-3/4"	DWDN57	\$0.89	D/AN57	\$1.41	D/AP57	\$1.41
58	.0420	11/16"	1-5/8"	DWDN58	\$0.89	D/AN58	\$1.47	D/AP58	\$1.47
59	.0410	11/16"	1-5/8"	DWDN59	\$0.89	D/AN59	\$1.47	D/AP59	\$1.47
60	.0400	11/16"	1-5/8"	DWDN60	\$0.89	D/AN60	\$1.47	D/AP60	\$1.47
61	.0390	11/16"	1-5/8"	DWDN61	\$0.89	D/AN61	\$1.47	D/AP61	\$1.47
62	.0380	5/8"	1-1/2"	DWDN62	\$0.89	D/AN62	\$1.47	D/AP62	\$1.47
63	.0370	5/8"	1-1/2"	DWDN63	\$0.89	D/AN63	\$1.47	D/AP63	\$1.47
64	.0360	5/8"	1-1/2"	DWDN64	\$0.89	D/AN64	\$1.47	D/AP64	\$1.47
65	.0350	5/8"	1-1/2"	DWDN65	\$0.89	D/AN65	\$1.47	D/AP65	\$1.47
66	.0330	1/2"	1-3/8"	DWDN66	\$0.89	D/AN66	\$1.47	D/AP66	\$1.47
67	.0320	1/2"	1-3/8"	DWDN67	\$0.89	D/AN67	\$1.47	D/AP67	\$1.47
68	.0310	1/2"	1-3/8"	DWDN68	\$0.89	D/AN68	\$1.47	D/AP68	\$1.47
69	.0292	1/2"	1-3/8"	DWDN69	\$0.89	D/AN69	\$1.80	D/AP69	\$1.80
70	.0280	3/8"	1-1/4"	DWDN70	\$0.89	D/AN70	\$1.80	D/AP70	\$1.80
71	.0260	3/8"	1-1/4"	DWDN71	\$1.22	D/AN71	\$1.80	D/AP71	\$1.80
72	.0250	5/16"	1-1/8"	DWDN72	\$1.22	D/AN72	\$1.80	D/AP72	\$1.80
73	.0240	5/16"	1-1/8"	DWDN73	\$1.22	D/AN73	\$1.80	D/AP73	\$1.80
74	.0225	1/4"	1"	DWDN74	\$1.22	D/AN74	\$1.80	D/AP74	\$1.80
75	.0210	1/4"	1"	DWDN75	\$1.22	D/AN75	\$2.00	D/AP75	\$2.00
76	.0200	3/16"	7/8"	DWDN76	\$1.22	D/AN76	\$2.00	D/AP76	\$2.00
77	.0180	3/16"	7/8"	DWDN77	\$1.22	D/AN77	\$2.00	D/AP77	\$2.00
78	.0160	3/16"	7/8"	DWDN78	\$1.22	D/AN78	\$2.00	D/AP78	\$2.00
79	.0145	1/8"	3/4"	DWDN79	\$1.22	D/AN79	\$2.00	D/AP79	\$2.00
80	.0135	1/8"	3/4"	DWDN80	\$1.22	D/AN80	\$2.00	D/AP80	\$2.00

# HSS JOBBERS LENGTH DRILLS

## 135° SPLIT POINT



### DWSP Series - Economy

### D/ASP Series - Premium Quality

Manufactured to National Aerospace Standard 907, these drills are ideal for portable or machine drilling of low tensile strength alloy materials. They have a black oxide surface treatment that is abrasion resistant, reduces chip welding and improves chip flow. The 135° split point is self-centering and reduces thrust.



## BLACK & GOLD

### DWDBG Series - Economy

### KFD Series - Premium Quality

Manufactured from premium grade high speed steel, Killer Force Drills have a heavy duty 135° split point for self-centering and reducing thrust. **Black and Gold** surface treated for use in stainless steel and other hard metal drilling.



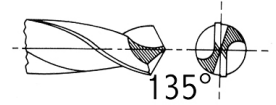
### F R A C T I O N A L   S I Z E S

**qualTECH™** Drill America **qualTECH™** Killer Force Drill

				H.S.S DWSP Series		H.S.S D/ASP Series		H.S.S DWDBG Series		H.S.S KFD Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price	Part Number	List Price	Part Number	List Price
1/16"	.0625	7/8"	1-7/8"	DWSP1/16	\$1.16	D/ASP1/16	\$1.29	DWDBG1/16	\$0.81	KFD1/16	\$1.02
5/64"	.0781	1"	2"	DWSP5/64	\$1.16	D/ASP5/64	\$1.38	DWDBG5/64	\$0.86	KFD5/64	\$1.07
3/32"	.0938	1-1/4"	2-1/4"	DWSP3/32	\$1.16	D/ASP3/32	\$1.18	DWDBG3/32	\$0.86	KFD3/32	\$1.07
7/64"	.1094	1-1/2"	2-5/8"	DWSP7/64	\$1.24	D/ASP7/64	\$1.26	DWDBG7/64	\$0.86	KFD7/64	\$1.07
1/8"	.1250	1-5/8"	2-3/4"	DWSP1/8	\$1.16	D/ASP1/8	\$1.38	DWDBG1/8	\$0.86	KFD1/8	\$1.07
9/64"	.1406	1-3/4"	2-7/8"	DWSP9/64	\$1.30	D/ASP9/64	\$1.53	DWDBG9/64	\$0.95	KFD9/64	\$1.19
5/32"	.1562	2"	3-1/8"	DWSP5/32	\$1.39	D/ASP5/32	\$1.83	DWDBG5/32	\$1.14	KFD5/32	\$1.42
11/64"	.1719	2-1/8"	3-1/4"	DWSP11/64	\$1.46	D/ASP11/64	\$1.99	DWDBG11/64	\$1.28	KFD11/64	\$1.60
3/16"	.1875	2-5/16"	3-1/2"	DWSP3/16	\$1.62	D/ASP3/16	\$2.15	DWDBG3/16	\$1.34	KFD3/16	\$1.69
13/64"	.2031	2-7/16"	3-5/8"	DWSP13/64	\$1.76	D/ASP13/64	\$2.47	DWDBG13/64	\$1.61	KFD13/64	\$2.02
7/32"	.2188	2-1/2"	3-3/4"	DWSP7/32	\$2.05	D/ASP7/32	\$2.61	DWDBG7/32	\$1.70	KFD7/32	\$2.14
15/64"	.2344	2-5/8"	3-7/8"	DWSP15/64	\$2.24	D/ASP15/64	\$2.90	DWDBG15/64	\$1.89	KFD15/64	\$2.38
1/4"	.2500	2-3/4"	4"	DWSP1/4	\$2.28	D/ASP1/4	\$2.90	DWDBG1/4	\$1.88	KFD1/4	\$2.38
17/64"	.2656	2-7/8"	4-1/8"	DWSP17/64	\$2.77	D/ASP17/64	\$3.96	DWDBG17/64	\$2.51	KFD17/64	\$3.46
9/32"	.2812	2-15/16"	4-1/4"	DWSP9/32	\$2.86	D/ASP9/32	\$4.03	DWDBG9/32	\$2.82	KFD9/32	\$3.60
19/64"	.2969	3-1/16"	4-3/8"	DWSP19/64	\$3.32	D/ASP19/64	\$4.78	DWDBG19/64	\$3.13	KFD19/64	\$4.01
5/16"	.3125	3-3/16"	4-1/2"	DWSP5/16	\$3.59	D/ASP5/16	\$5.05	DWDBG5/16	\$3.23	KFD5/16	\$4.10
21/64"	.3281	3-5/16"	4-5/8"	DWSP21/64	\$4.08	D/ASP21/64	\$5.63	DWDBG21/64	\$3.59	KFD21/64	\$4.77
11/32"	.3438	3-7/16"	4-3/4"	DWSP11/32	\$4.50	D/ASP11/32	\$6.36	DWDBG11/32	\$4.15	KFD11/32	\$5.53
23/64"	.3594	3-1/2"	4-7/8"	DWSP23/64	\$5.11	D/ASP23/64	\$6.98	DWDBG23/64	\$4.45	KFD23/64	\$5.96
3/8"	.3750	3-5/8"	5"	DWSP3/8	\$5.12	D/ASP3/8	\$6.98	DWDBG3/8	\$4.45	KFD3/8	\$5.96
25/64"	.3906	3-3/4"	5-1/8"	DWSP25/64	\$5.97	D/ASP25/64	\$8.22	DWDBG25/64	\$5.24	KFD25/64	\$7.02
13/32"	.4062	3-7/8"	5-1/4"	DWSP13/32	\$6.13	D/ASP13/32	\$8.59	DWDBG13/32	\$5.52	KFD13/32	\$7.35
27/64"	.4219	3-15/16"	5-3/8"	DWSP27/64	\$6.83	D/ASP27/64	\$9.57	DWDBG27/64	\$6.10	KFD27/64	\$8.15
7/16"	.4375	4-1/16"	5-1/2"	DWSP7/16	\$6.93	D/ASP7/16	\$9.91	DWDBG7/16	\$6.57	KFD7/16	\$8.76
29/64"	.4531	4-3/16"	5-5/8"	DWSP29/64	\$7.96	D/ASP29/64	\$11.18	DWDBG29/64	\$7.13	KFD29/64	\$10.03
15/32"	.4688	4-5/16"	5-3/4"	DWSP15/32	\$8.33	D/ASP15/32	\$11.73	DWDBG15/32	\$7.69	KFD15/32	\$10.88
31/64"	.4844	4-3/8"	5-7/8"	DWSP31/64	\$8.85	D/ASP31/64	\$12.56	DWDBG31/64	\$8.02	KFD31/64	\$11.33
1/2"	.5000	4-1/2"	6"	DWSP1/2	\$8.98	D/ASP1/2	\$12.26	DWDBG1/2	\$7.82	KFD1/2	\$11.00

# HSS JOBBERS LENGTH DRILLS

## 135° SPLIT POINT



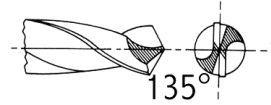
### LETTER SIZES

**QUALI**  **TECH™** Drill America Killer Force Drill

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDSPP Series		H.S.S D/ASP Series		H.S.S KFD Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
A	.2340	2-5/8"	3-7/8"	DWDSPPA	\$3.08	D/ASPA	\$3.54	KFDA	\$3.90
B	.2380	2-3/4"	4"	DWDSPPB	\$3.08	D/ASPB	\$3.54	KFDB	\$3.90
C	.2420	2-3/4"	4"	DWDSPPC	\$2.94	D/ASPC	\$3.37	KFDC	\$3.73
D	.2460	2-3/4"	4"	DWDSPPD	\$2.94	D/ASPD	\$3.37	KFDD	\$3.73
E	.2500	2-3/4"	4"	DWDSPP E	\$2.94	D/ASPE	\$3.37	KFDE	\$3.73
F	.2570	2-7/8"	4-1/8"	DWDSPPF	\$3.34	D/ASPF	\$3.83	KFDF	\$4.23
G	.2610	2-7/8"	4-1/8"	DWDSPPG	\$3.45	D/ASPG	\$3.95	KFDG	\$4.37
H	.2660	2-7/8"	4-1/8"	DWDSPPH	\$3.57	D/ASPH	\$4.11	KFDH	\$4.49
I	.2720	2-7/8"	4-1/8"	DWDSPP I	\$3.57	D/ASPI	\$4.11	KFDI	\$4.49
J	.2770	2-7/8"	4-1/8"	DWDSPPJ	\$3.95	D/ASPJ	\$4.55	KFDJ	\$5.35
K	.2810	2-15/16"	4-1/4"	DWDSPPK	\$4.26	D/ASPK	\$4.88	KFDK	\$5.35
L	.2900	2-15/16"	4-1/4"	DWDSPLL	\$4.46	D/ASPL	\$5.12	KFDL	\$6.08
M	.2950	3-1/16"	4-3/8"	DWDSPPM	\$4.73	D/ASPM	\$5.44	KFDM	\$6.46
N	.3020	3-1/16"	4-3/8"	DWDSPPN	\$4.73	D/ASPN	\$5.44	KFDN	\$6.46
O	.3160	3-3/16"	4-1/2"	DWDSPP O	\$4.73	D/ASPO	\$5.44	KFDO	\$6.46
P	.3230	3-5/16"	4-5/8"	DWDSPP P	\$5.35	D/ASPP	\$6.12	KFDP	\$7.01
Q	.3320	3-7/16"	4-3/4"	DWDSPPQ	\$5.35	D/ASPQ	\$6.12	KFDQ	\$7.01
R	.3390	3-7/16"	4-3/4"	DWDSPPR	\$5.35	D/ASPR	\$6.12	KFDR	\$7.01
S	.3480	3-1/2"	4-7/8"	DWDSPPS	\$6.13	D/ASPS	\$7.05	KFDS	\$8.18
T	.3580	3-1/2"	4-7/8"	DWDSPP T	\$6.25	D/ASPT	\$7.17	KFDT	\$8.18
U	.3680	3-5/8"	5"	DWDSPPU	\$6.73	D/ASPU	\$7.72	KFDU	\$8.84
V	.3770	3-5/8"	5"	DWDSPPV	\$6.73	D/ASPV	\$7.72	KFDV	\$8.84
W	.3860	3-3/4"	5-1/8"	DWDSPPW	\$7.23	D/ASPW	\$8.30	KFDW	\$9.46
X	.3970	3-3/4"	5-1/8"	DWDSPPX	\$8.47	D/ASPX	\$9.73	KFDX	\$11.18
Y	.4040	3-7/8"	5-1/4"	DWDSPPY	\$9.13	D/ASPY	\$10.48	KFDY	\$11.92
Z	.4130	3-7/8"	5-1/4"	DWDSPPZ	\$9.83	D/ASPZ	\$11.29	KFDZ	\$12.88

# HSS JOBBERS LENGTH DRILLS

## 135° SPLIT POINT



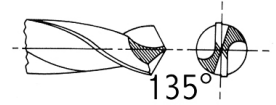
### WIRE GAUGE SIZES

**qualTECH™** Drill America Killer Force Drill

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDSP Series		H.S.S D/ASP Series		H.S.S KFD Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
1	.2280	2-5/8"	3-7/8"	DWDSP1	\$2.34	D/ASP1	\$2.96	KFD1	\$2.47
2	.2210	2-5/8"	3-7/8"	DWDSP2	\$2.34	D/ASP2	\$2.96	KFD2	\$2.47
3	.2130	2-1/2"	3-3/4"	DWDSP3	\$2.16	D/ASP3	\$2.72	KFD3	\$2.26
4	.2090	2-1/2"	3-3/4"	DWDSP4	\$2.16	D/ASP4	\$2.72	KFD4	\$2.26
5	.2055	2-1/2"	3-3/4"	DWDSP5	\$2.16	D/ASP5	\$2.72	KFD5	\$2.26
6	.2040	2-1/2"	3-3/4"	DWDSP6	\$2.16	D/ASP6	\$2.72	KFD6	\$2.26
7	.2010	2-7/16"	3-5/8"	DWDSP7	\$1.97	D/ASP7	\$2.55	KFD7	\$2.15
8	.1990	2-7/16"	3-5/8"	DWDSP8	\$1.97	D/ASP8	\$2.55	KFD8	\$2.15
9	.1960	2-7/16"	3-5/8"	DWDSP9	\$1.97	D/ASP9	\$2.55	KFD9	\$2.15
10	.1935	2-7/16"	3-5/8"	DWDSP10	\$1.88	D/ASP10	\$2.36	KFD10	\$1.99
11	.1910	2-5/16"	3-1/2"	DWDSP11	\$1.82	D/ASP11	\$2.36	KFD11	\$1.99
12	.1890	2-5/16"	3-1/2"	DWDSP12	\$1.82	D/ASP12	\$2.36	KFD12	\$1.99
13	.1850	2-5/16"	3-1/2"	DWDSP13	\$1.77	D/ASP13	\$2.36	KFD13	\$1.93
14	.1820	2-3/16"	3-3/8"	DWDSP14	\$1.77	D/ASP14	\$2.29	KFD14	\$1.84
15	.1800	2-3/16"	3-3/8"	DWDSP15	\$1.77	D/ASP15	\$2.29	KFD15	\$1.84
16	.1770	2-3/16"	3-3/8"	DWDSP16	\$1.77	D/ASP16	\$2.29	KFD16	\$1.84
17	.1730	2-3/16"	3-3/8"	DWDSP17	\$1.77	D/ASP17	\$2.07	KFD17	\$1.66
18	.1695	2-1/8"	3-1/4"	DWDSP18	\$1.46	D/ASP18	\$1.98	KFD18	\$1.66
19	.1660	2-1/8"	3-1/4"	DWDSP19	\$1.46	D/ASP19	\$1.98	KFD19	\$1.66
20	.1610	2-1/8"	3-1/4"	DWDSP20	\$1.46	D/ASP20	\$1.94	KFD20	\$1.56
21	.1590	2-1/8"	3-1/4"	DWDSP21	\$1.39	D/ASP21	\$1.90	KFD21	\$1.56
22	.1570	2"	3-1/8"	DWDSP22	\$1.39	D/ASP22	\$1.90	KFD22	\$1.54
23	.1540	2"	3-1/8"	DWDSP23	\$1.35	D/ASP23	\$1.83	KFD23	\$1.54
24	.1520	2"	3-1/8"	DWDSP24	\$1.35	D/ASP24	\$1.83	KFD24	\$1.54
25	.1495	1-7/8"	3"	DWDSP25	\$1.31	D/ASP25	\$1.66	KFD25	\$1.31
26	.1470	1-7/8"	3"	DWDSP26	\$1.31	D/ASP26	\$1.66	KFD26	\$1.31
27	.1440	1-7/8"	3"	DWDSP27	\$1.31	D/ASP27	\$1.66	KFD27	\$1.31
28	.1405	1-3/4"	2-7/8"	DWDSP28	\$1.19	D/ASP28	\$1.59	KFD28	\$1.29
29	.1360	1-3/4"	2-7/8"	DWDSP29	\$1.19	D/ASP29	\$1.59	KFD29	\$1.29
30	.1285	1-5/8"	2-3/4"	DWDSP30	\$1.19	D/ASP30	\$1.51	KFD30	\$1.20
31	.1200	1-5/8"	2-3/4"	DWDSP31	\$1.19	D/ASP31	\$1.40	KFD31	\$1.18
32	.1160	1-5/8"	2-3/4"	DWDSP32	\$1.19	D/ASP32	\$1.40	KFD32	\$1.18
33	.1130	1-1/2"	2-5/8"	DWDSP33	\$1.19	D/ASP33	\$1.40	KFD33	\$1.18
34	.1110	1-1/2"	2-5/8"	DWDSP34	\$1.19	D/ASP34	\$1.40	KFD34	\$1.18
35	.1100	1-1/2"	2-5/8"	DWDSP35	\$1.19	D/ASP35	\$1.40	KFD35	\$1.18
36	.1065	1-7/16"	2-1/2"	DWDSP36	\$1.19	D/ASP36	\$1.40	KFD36	\$1.18
37	.1040	1-7/16"	2-1/2"	DWDSP37	\$1.19	D/ASP37	\$1.40	KFD37	\$1.18
38	.1015	1-7/16"	2-1/2"	DWDSP38	\$1.19	D/ASP38	\$1.40	KFD38	\$1.18
39	.0995	1-3/8"	2-3/8"	DWDSP39	\$1.19	D/ASP39	\$1.40	KFD39	\$1.18
40	.0980	1-3/8"	2-3/8"	DWDSP40	\$1.19	D/ASP40	\$1.40	KFD40	\$1.18
41	.0960	1-3/8"	2-3/8"	DWDSP41	\$1.19	D/ASP41	\$1.40	KFD41	\$1.18
42	.0935	1-1/4"	2-1/4"	DWDSP42	\$1.19	D/ASP42	\$1.40	KFD42	\$1.18
43	.0890	1-1/4"	2-1/4"	DWDSP43	\$1.19	D/ASP43	\$1.40	KFD43	\$1.14
44	.0860	1-1/8"	2-1/8"	DWDSP44	\$1.19	D/ASP44	\$1.40	KFD44	\$1.14
45	.0820	1-1/8"	2-1/8"	DWDSP45	\$1.19	D/ASP45	\$1.40	KFD45	\$1.14
46	.0810	1-1/8"	2-1/8"	DWDSP46	\$1.19	D/ASP46	\$1.40	KFD46	\$1.14
47	.0785	1"	2"	DWDSP47	\$1.19	D/ASP47	\$1.40	KFD47	\$1.14
48	.0760	1"	2"	DWDSP48	\$1.19	D/ASP48	\$1.40	KFD48	\$1.14
49	.0730	1"	2"	DWDSP49	\$1.19	D/ASP49	\$1.40	KFD49	\$1.14
50	.0700	1"	2"	DWDSP50	\$1.19	D/ASP50	\$1.40	KFD50	\$1.14
51	.0670	1"	2"	DWDSP51	\$1.19	D/ASP51	\$1.40	KFD51	\$1.14
52	.0635	7/8"	1-7/8"	DWDSP52	\$1.19	D/ASP52	\$1.40	KFD52	\$1.10

# COBALT JOBBERS LENGTH DRILLS

## 135° SPLIT POINT



DWDCO Series - Economy

D/ACO Series - Premium Quality

Manufactured to National Aerospace standard 907. Made of heat resistant cobalt, they display higher red hardness which permits speeds upto 30% greater than high speed steel drills and are especially effective in drilling tough, high tensile strength materials like PH stainless steel, inconel, and titanium. The 135° split point is self-centering and reduces thrust. Sizes smaller than 1/16 have the 118° standard point.



### F R A C T I O N A L   S I Z E S

**qualTECH™**

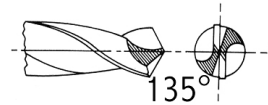
*Drill America*

				COBALT DWDCO Series		COBALT D/ACO Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
* 1/64"	.0156	3/16"	3/4"	DWDCO1/64	\$2.94	D/ACO1/64	\$3.93
* 1/32"	.0312	1/2"	1-3/8"	DWDCO1/32	\$2.34	D/ACO1/32	\$3.12
* 3/64"	.0469	3/4"	1-3/4"	DWDCO3/64	\$1.73	D/ACO3/64	\$2.30
1/16"	.0625	7/8"	1-7/8"	DWDCO1/16	\$1.64	D/ACO1/16	\$2.02
5/64"	.0781	1"	2"	DWDCO5/64	\$1.64	D/ACO5/64	\$2.02
3/32"	.0938	1-1/4"	2-1/4"	DWDCO3/32	\$1.64	D/ACO3/32	\$2.02
7/64"	.1094	1-1/2"	2-5/8"	DWDCO7/64	\$1.73	D/ACO7/64	\$2.10
1/8"	.1250	1-5/8"	2-3/4"	DWDCO1/8	\$2.14	D/ACO1/8	\$2.57
9/64"	.1406	1-3/4"	2-7/8"	DWDCO9/64	\$2.14	D/ACO9/64	\$2.60
5/32"	.1562	2"	3-1/8"	DWDCO5/32	\$2.38	D/ACO5/32	\$3.19
11/64"	.1719	2-1/8"	3-1/4"	DWDCO11/64	\$2.52	D/ACO11/64	\$3.43
3/16"	.1875	2-5/16"	3-1/2"	DWDCO3/16	\$2.82	D/ACO3/16	\$3.76
13/64"	.2031	2-7/16"	3-5/8"	DWDCO13/64	\$3.39	D/ACO13/64	\$4.50
7/32"	.2188	2-1/2"	3-3/4"	DWDCO7/32	\$3.70	D/ACO7/32	\$5.10
15/64"	.2344	2-5/8"	3-7/8"	DWDCO15/64	\$3.95	D/ACO15/64	\$5.39
1/4"	.2500	2-3/4"	4"	DWDCO1/4	\$4.21	D/ACO1/4	\$5.64
17/64"	.2656	2-7/8"	4-1/8"	DWDCO17/64	\$4.95	D/ACO17/64	\$6.99
9/32"	.2812	2-15/16"	4-1/4"	DWDCO9/32	\$5.19	D/ACO9/32	\$7.76
19/64"	.2969	3-1/16"	4-3/8"	DWDCO19/64	\$6.32	D/ACO19/64	\$8.44
5/16"	.3125	3-3/16"	4-1/2"	DWDCO5/16	\$6.74	D/ACO5/16	\$9.00
21/64"	.3281	3-5/16"	4-5/8"	DWDCO21/64	\$7.52	D/ACO21/64	\$10.13
11/32"	.3438	3-7/16"	4-3/4"	DWDCO11/32	\$8.23	D/ACO11/32	\$10.91
23/64"	.3594	3-1/2"	4-7/8"	DWDCO23/64	\$9.48	D/ACO23/64	\$12.86
3/8"	.3750	3-5/8"	5"	DWDCO3/8	\$9.48	D/ACO3/8	\$12.55
25/64"	.3906	3-3/4"	5-1/8"	DWDCO25/64	\$10.88	D/ACO25/64	\$14.61
13/32"	.4062	3-7/8"	5-1/4"	DWDCO13/32	\$11.35	D/ACO13/32	\$15.52
27/64"	.4219	3-15/16"	5-3/8"	DWDCO27/64	\$12.54	D/ACO27/64	\$16.75
7/16"	.4375	4-1/16"	5-1/2"	DWDCO7/16	\$12.83	D/ACO7/16	\$17.36
29/64"	.4531	4-3/16"	5-5/8"	DWDCO29/64	\$15.69	D/ACO29/64	\$20.75
15/32"	.4688	4-5/16"	5-3/4"	DWDCO15/32	\$15.99	D/ACO15/32	\$21.25
31/64"	.4844	4-3/8"	5-7/8"	DWDCO31/64	\$16.47	D/ACO31/64	\$22.42
1/2"	.5000	4-1/2"	6"	DWDCO1/2	\$16.47	D/ACO1/2	\$21.91

\* 118° Standard Point

# COBALT JOBBERS LENGTH DRILLS

## 135° SPLIT POINT



### WIRE GAUGE SIZES

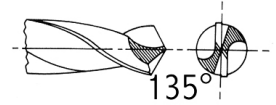
qualTECH™ Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	COBALT DWDCO Series		COBALT D/ACO Series	
				Part Number	List Price	Part Number	List Price
1	.2280	2-5/8"	3-7/8"	DWDCO1	\$4.42	D/ACO1	\$5.90
2	.2210	2-5/8"	3-7/8"	DWDCO2	\$4.42	D/ACO2	\$5.90
3	.2130	2-1/2"	3-3/4"	DWDCO3	\$4.14	D/ACO3	\$5.54
4	.2090	2-1/2"	3-3/4"	DWDCO4	\$4.14	D/ACO4	\$5.54
5	.2055	2-1/2"	3-3/4"	DWDCO5	\$4.14	D/ACO5	\$5.54
6	.2040	2-1/2"	3-3/4"	DWDCO6	\$4.14	D/ACO6	\$5.54
7	.2010	2-7/16"	3-5/8"	DWDCO7	\$3.22	D/ACO7	\$4.32
8	.1990	2-7/16"	3-5/8"	DWDCO8	\$3.22	D/ACO8	\$4.32
9	.1960	2-7/16"	3-5/8"	DWDCO9	\$3.22	D/ACO9	\$4.32
10	.1935	2-7/16"	3-5/8"	DWDCO10	\$3.22	D/ACO10	\$4.32
11	.1910	2-5/16"	3-1/2"	DWDCO11	\$3.22	D/ACO11	\$4.32
12	.1890	2-5/16"	3-1/2"	DWDCO12	\$3.22	D/ACO12	\$4.32
13	.1850	2-5/16"	3-1/2"	DWDCO13	\$3.09	D/ACO13	\$4.12
14	.1820	2-3/16"	3-3/8"	DWDCO14	\$3.09	D/ACO14	\$4.12
15	.1800	2-3/16"	3-3/8"	DWDCO15	\$3.09	D/ACO15	\$4.12
16	.1770	2-3/16"	3-3/8"	DWDCO16	\$2.87	D/ACO16	\$3.83
17	.1730	2-3/16"	3-3/8"	DWDCO17	\$2.82	D/ACO17	\$3.73
18	.1695	2-1/8"	3-1/4"	DWDCO18	\$2.57	D/ACO18	\$3.34
19	.1660	2-1/8"	3-1/4"	DWDCO19	\$2.49	D/ACO19	\$3.34
20	.1610	2-1/8"	3-1/4"	DWDCO20	\$2.49	D/ACO20	\$3.34
21	.1590	2-1/8"	3-1/4"	DWDCO21	\$2.48	D/ACO21	\$3.34
22	.1570	2"	3-1/8"	DWDCO22	\$2.48	D/ACO22	\$3.34
23	.1540	2"	3-1/8"	DWDCO23	\$2.48	D/ACO23	\$3.34
24	.1520	2"	3-1/8"	DWDCO24	\$2.48	D/ACO24	\$3.34
25	.1495	1-7/8"	3"	DWDCO25	\$2.27	D/ACO25	\$3.02
26	.1470	1-7/8"	3"	DWDCO26	\$2.25	D/ACO26	\$2.99
27	.1440	1-7/8"	3"	DWDCO27	\$2.25	D/ACO27	\$2.99
28	.1405	1-3/4"	2-7/8"	DWDCO28	\$2.11	D/ACO28	\$2.79
29	.1360	1-3/4"	2-7/8"	DWDCO29	\$2.04	D/ACO29	\$2.72
30	.1285	1-5/8"	2-3/4"	DWDCO30	\$1.91	D/ACO30	\$2.55
31	.1200	1-5/8"	2-3/4"	DWDCO31	\$1.89	D/ACO31	\$2.52
32	.1160	1-5/8"	2-3/4"	DWDCO32	\$1.86	D/ACO32	\$2.48
33	.1130	1-1/2"	2-5/8"	DWDCO33	\$1.78	D/ACO33	\$2.40
34	.1110	1-1/2"	2-5/8"	DWDCO34	\$1.78	D/ACO34	\$2.40
35	.1100	1-1/2"	2-5/8"	DWDCO35	\$1.78	D/ACO35	\$2.40
36	.1065	1-7/16"	2-1/2"	DWDCO36	\$1.75	D/ACO36	\$2.33
37	.1040	1-7/16"	2-1/2"	DWDCO37	\$1.75	D/ACO37	\$2.33
38	.1015	1-7/16"	2-1/2"	DWDCO38	\$1.63	D/ACO38	\$2.17
39	.0995	1-3/8"	2-3/8"	DWDCO39	\$1.63	D/ACO39	\$2.17
40	.0980	1-3/8"	2-3/8"	DWDCO40	\$1.63	D/ACO40	\$2.17
41	.0960	1-3/8"	2-3/8"	DWDCO41	\$1.61	D/ACO41	\$2.13
42	.0935	1-1/4"	2-1/4"	DWDCO42	\$1.59	D/ACO42	\$2.10
43	.0890	1-1/4"	2-1/4"	DWDCO43	\$1.59	D/ACO43	\$2.10
44	.0860	1-1/8"	2-1/8"	DWDCO44	\$1.59	D/ACO44	\$2.10
45	.0820	1-1/8"	2-1/8"	DWDCO45	\$1.59	D/ACO45	\$2.10
46	.0810	1-1/8"	2-1/8"	DWDCO46	\$1.59	D/ACO46	\$2.10
47	.0785	1"	2"	DWDCO47	\$1.59	D/ACO47	\$2.10
48	.0760	1"	2"	DWDCO48	\$1.59	D/ACO48	\$2.10
49	.0730	1"	2"	DWDCO49	\$1.59	D/ACO49	\$2.10
50	.0700	1"	2"	DWDCO50	\$1.59	D/ACO50	\$2.10
51	.0670	1"	2"	DWDCO51	\$1.59	D/ACO51	\$2.10
52	.0635	7/8"	1-7/8"	DWDCO52	\$1.59	D/ACO52	\$2.10
* 53	.0595	7/8"	1-7/8"	DWDCO53	\$1.79	D/ACO53	\$2.29
* 54	.0550	7/8"	1-7/8"	DWDCO54	\$1.79	D/ACO54	\$2.29
* 55	.0520	7/8"	1-7/8"	DWDCO55	\$1.79	D/ACO55	\$2.29
* 56	.0465	3/4"	1-3/4"	DWDCO56	\$2.02	D/ACO56	\$2.65
* 57	.0430	3/4"	1-3/4"	DWDCO57	\$2.02	D/ACO57	\$2.65
* 58	.0420	11/16"	1-5/8"	DWDCO58	\$2.02	D/ACO58	\$2.65
* 59	.0410	11/16"	1-5/8"	DWDCO59	\$2.02	D/ACO59	\$2.65
* 60	.0400	11/16"	1-5/8"	DWDCO60	\$2.02	D/ACO60	\$2.65

\* 118° Standard Point

# COBALT JOBBERS LENGTH DRILLS

## 135° SPLIT POINT



### WIRE GAUGE SIZES

**qualiTECH™** *Drill America*

Size	Dec. Equiv.	Flute Length	O.A.L.	COBALT DWDCO Series		COBALT D/ACO Series	
				Part Number	List Price	Part Number	List Price
* 61	.0390	11/16"	1-5/8"	DWDCO61	\$2.45	D/ACO61	\$3.76
* 62	.0380	5/8"	1-1/2"	DWDCO62	\$2.45	D/ACO62	\$3.76
* 63	.0370	5/8"	1-1/2"	DWDCO63	\$2.45	D/ACO63	\$3.76
* 64	.0360	5/8"	1-1/2"	DWDCO64	\$2.45	D/ACO64	\$3.76
* 65	.0350	5/8"	1-1/2"	DWDCO65	\$2.45	D/ACO65	\$3.76
* 66	.0330	1/2"	1-3/8"	DWDCO66	\$2.59	D/ACO66	\$3.95
* 67	.0320	1/2"	1-3/8"	DWDCO67	\$2.59	D/ACO67	\$3.95
* 68	.0310	1/2"	1-3/8"	DWDCO68	\$2.59	D/ACO68	\$3.95
* 69	.0292	1/2"	1-3/8"	DWDCO69	\$2.93	D/ACO69	\$4.48
* 70	.0280	3/8"	1-1/4"	DWDCO70	\$2.93	D/ACO70	\$4.48
* 71	.0260	3/8"	1-1/4"	DWDCO71	\$2.93	D/ACO71	\$4.48
* 72	.0250	5/16"	1-1/8"	DWDCO72	\$2.93	D/ACO72	\$4.48
* 73	.0240	5/16"	1-1/8"	DWDCO73	\$2.93	D/ACO73	\$4.48
* 74	.0225	1/4"	1"	DWDCO74	\$2.93	D/ACO74	\$4.48
* 75	.0210	1/4"	1"	DWDCO75	\$3.23	D/ACO75	\$4.96
* 76	.0200	3/16"	7/8"	DWDCO76	\$3.23	D/ACO76	\$4.96
* 77	.0180	3/16"	7/8"	DWDCO77	\$3.23	D/ACO77	\$4.96
* 78	.0160	3/16"	7/8"	DWDCO78	\$3.23	D/ACO78	\$4.96
* 79	.0145	1/8"	3/4"	DWDCO79	\$3.23	D/ACO79	\$4.96
* 80	.0135	1/8"	3/4"	DWDCO80	\$3.23	D/ACO80	\$4.96

\* 118° Standard Point

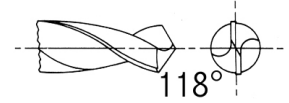
### LETTER SIZES

**qualiTECH™** *Drill America*

Size	Dec. Equiv.	Flute Length	O.A.L.	COBALT DWDCO Series		COBALT D/ACO Series	
				Part Number	List Price	Part Number	List Price
A	.2340	2-5/8"	3-7/8"	DWDCOA	\$4.64	D/ACOA	\$6.24
B	.2380	2-3/4"	4"	DWDCOB	\$5.34	D/ACOB	\$7.18
C	.2420	2-3/4"	4"	DWDCOC	\$5.34	D/ACOC	\$7.18
D	.2460	2-3/4"	4"	DWDCOD	\$6.02	D/ACOD	\$8.09
E	.2500	2-3/4"	4"	DWDCOE	\$4.69	D/ACOE	\$6.29
F	.2570	2-7/8"	4-1/8"	DWDCOF	\$5.29	D/ACOF	\$7.10
G	.2610	2-7/8"	4-1/8"	DWDCOG	\$5.34	D/ACOG	\$7.18
H	.2660	2-7/8"	4-1/8"	DWDCOH	\$6.02	D/ACOH	\$8.09
I	.2720	2-7/8"	4-1/8"	DWDCOI	\$5.64	D/ACOI	\$7.55
J	.2770	2-7/8"	4-1/8"	DWDCOJ	\$6.02	D/ACOJ	\$8.09
K	.2810	2-15/16"	4-1/4"	DWDCOK	\$6.02	D/ACOK	\$8.09
L	.2900	2-15/16"	4-1/4"	DWDCOL	\$6.83	D/ACOL	\$9.18
M	.2950	3-1/16"	4-3/8"	DWDCOM	\$7.25	D/ACOM	\$9.73
N	.3020	3-1/16"	4-3/8"	DWDCON	\$7.25	D/ACON	\$9.73
O	.3160	3-3/16"	4-1/2"	DWDCOO	\$7.99	D/ACOO	\$10.74
P	.3230	3-5/16"	4-5/8"	DWDCOP	\$8.51	D/ACOP	\$11.40
Q	.3320	3-7/16"	4-3/4"	DWDCOQ	\$8.81	D/ACOQ	\$11.83
R	.3390	3-7/16"	4-3/4"	DWDCOR	\$8.81	D/ACOR	\$11.83
S	.3480	3-1/2"	4-7/8"	DWDCOS	\$10.80	D/ACOS	\$14.50
T	.3580	3-1/2"	4-7/8"	DWDCOT	\$10.80	D/ACOT	\$14.50
U	.3680	3-5/8"	5"	DWDCOU	\$10.80	D/ACOU	\$14.50
V	.3770	3-5/8"	5"	DWDCOV	\$11.92	D/ACOV	\$16.00
W	.3860	3-3/4"	5-1/8"	DWDCOW	\$12.26	D/ACOW	\$16.00
X	.3970	3-3/4"	5-1/8"	DWDCOX	\$12.26	D/ACOX	\$16.00
Y	.4040	3-7/8"	5-1/4"	DWDCOY	\$12.99	D/ACOY	\$16.95
Z	.4130	3-7/8"	5-1/4"	DWDCOZ	\$14.14	D/ACOZ	\$18.45

# HSS METRIC JOBBER DRILLS

## 118° POINT



### DWDMM Series - Metric

A dependable, general purpose drill designed to perform in a broad range of materials in the iron and steel families. Ideal for production, maintenance or portable drilling jobs. Surface treated with abrasion-resistant black oxide.

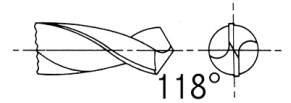


### METRIC SIZES

				H.S.S DWDMM Series						H.S.S DWDMM Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
.30	.0118	3	19	DWDMM.30	\$1.93	3.10	.1220	41	65	DWDMM3.10	\$1.13
.35	.0138	3	19	DWDMM.35	\$1.72	3.15	.1240	41	65	DWDMM3.15	\$1.13
.40	.0157	5	20	DWDMM.40	\$1.53	3.20	.1260	41	65	DWDMM3.20	\$1.23
.45	.0177	5	20	DWDMM.45	\$1.53	3.25	.1280	41	65	DWDMM3.25	\$1.23
.50	.0197	5	22	DWDMM.50	\$1.48	3.30	.1299	44	65	DWDMM3.30	\$1.23
.55	.0217	6	24	DWDMM.55	\$1.48	3.35	.1319	44	70	DWDMM3.35	\$1.23
.60	.0236	8	24	DWDMM.60	\$1.48	3.40	.1339	44	70	DWDMM3.40	\$1.31
.65	.0256	10	26	DWDMM.65	\$1.48	3.45	.1358	44	70	DWDMM3.45	\$1.31
.70	.0276	10	28	DWDMM.70	\$1.33	3.50	.1378	44	70	DWDMM3.50	\$1.31
.75	.0295	13	28	DWDMM.75	\$1.22	3.55	.1397	48	70	DWDMM3.55	\$1.33
.80	.0315	13	30	DWDMM.80	\$1.10	3.60	.1417	48	70	DWDMM3.60	\$1.33
.85	.0335	16	30	DWDMM.85	\$1.10	3.65	.1437	48	70	DWDMM3.65	\$1.33
.90	.0354	16	32	DWDMM.90	\$1.10	3.70	.1457	48	70	DWDMM3.70	\$1.33
.95	.0374	16	32	DWDMM.95	\$1.10	3.75	.1476	48	75	DWDMM3.75	\$1.33
1.00	.0394	17	34	DWDMM1.00	\$1.08	3.80	.1496	48	75	DWDMM3.80	\$1.33
1.05	.0413	17	34	DWDMM1.05	\$1.08	3.85	.1516	51	75	DWDMM3.85	\$1.33
1.10	.0433	19	36	DWDMM1.10	\$1.08	3.90	.1535	51	75	DWDMM3.90	\$1.33
1.15	.0453	19	36	DWDMM1.15	\$1.08	3.95	.1555	51	75	DWDMM3.95	\$1.42
1.20	.0472	22	38	DWDMM1.20	\$1.05	4.00	.1575	54	75	DWDMM4.00	\$1.42
1.25	.0492	22	38	DWDMM1.25	\$1.05	4.05	.1594	54	75	DWDMM4.05	\$1.42
1.30	.0512	22	38	DWDMM1.30	\$1.05	4.10	.1614	54	75	DWDMM4.10	\$1.42
1.35	.0531	22	40	DWDMM1.35	\$1.05	4.20	.1654	54	75	DWDMM4.20	\$1.42
1.40	.0551	22	40	DWDMM1.40	\$1.05	4.25	.1673	54	80	DWDMM4.25	\$1.42
1.45	.0571	22	40	DWDMM1.45	\$1.05	4.30	.1693	54	80	DWDMM4.30	\$1.42
1.50	.0591	22	40	DWDMM1.50	\$1.05	4.35	.1713	54	80	DWDMM4.35	\$1.42
1.55	.0610	22	43	DWDMM1.55	\$1.05	4.40	.1732	56	80	DWDMM4.40	\$1.48
1.60	.0630	22	43	DWDMM1.60	\$1.05	4.50	.1772	56	80	DWDMM4.50	\$1.48
1.65	.0650	25	43	DWDMM1.65	\$1.05	4.60	.1811	56	80	DWDMM4.60	\$1.48
1.70	.0669	25	43	DWDMM1.70	\$1.05	4.65	.1831	56	80	DWDMM4.65	\$1.48
1.75	.0689	25	46	DWDMM1.75	\$1.05	4.70	.1850	59	80	DWDMM4.70	\$1.48
1.80	.0709	25	46	DWDMM1.80	\$1.05	4.75	.1870	59	86	DWDMM4.75	\$1.72
1.85	.0728	25	46	DWDMM1.85	\$1.05	4.80	.1890	59	86	DWDMM4.80	\$1.72
1.90	.0748	25	46	DWDMM1.90	\$1.05	4.85	.1909	62	86	DWDMM4.85	\$1.72
1.95	.0768	25	49	DWDMM1.95	\$1.05	4.90	.1929	62	86	DWDMM4.90	\$1.72
2.00	.0787	25	49	DWDMM2.00	\$1.05	5.00	.1969	62	86	DWDMM5.00	\$1.72
2.05	.0807	29	49	DWDMM2.05	\$1.05	5.10	.2008	62	86	DWDMM5.10	\$1.72
2.10	.0827	29	49	DWDMM2.10	\$1.05	5.20	.2047	64	86	DWDMM5.20	\$1.82
2.15	.0846	29	53	DWDMM2.15	\$1.05	5.25	.2067	64	86	DWDMM5.25	\$1.82
2.20	.0866	32	53	DWDMM2.20	\$1.05	5.30	.2087	64	86	DWDMM5.30	\$1.82
2.25	.0886	32	53	DWDMM2.25	\$1.05	5.40	.2126	64	93	DWDMM5.40	\$2.01
2.30	.0906	32	53	DWDMM2.30	\$1.05	5.50	.2165	64	93	DWDMM5.50	\$2.01
2.35	.0925	32	53	DWDMM2.35	\$1.05	5.60	.2205	67	93	DWDMM5.60	\$2.17
2.40	.0945	35	57	DWDMM2.40	\$1.05	5.70	.2244	67	93	DWDMM5.70	\$2.17
2.45	.0965	35	57	DWDMM2.45	\$1.05	5.75	.2264	67	93	DWDMM5.75	\$2.17
2.50	.0984	35	57	DWDMM2.50	\$1.05	5.80	.2283	67	93	DWDMM5.80	\$2.17
2.55	.1003	35	57	DWDMM2.55	\$1.05	5.90	.2323	67	93	DWDMM5.90	\$2.17
2.60	.1024	37	57	DWDMM2.60	\$1.05	6.00	.2362	70	93	DWDMM6.00	\$2.17
2.65	.1043	37	57	DWDMM2.65	\$1.05	6.10	.2402	70	101	DWDMM6.10	\$2.29
2.70	.1063	37	61	DWDMM2.70	\$1.13	6.20	.2441	70	101	DWDMM6.20	\$2.29
2.75	.1083	37	61	DWDMM2.75	\$1.13	6.25	.2461	70	101	DWDMM6.25	\$2.29
2.80	.1102	38	61	DWDMM2.80	\$1.13	6.30	.2480	70	101	DWDMM6.30	\$2.29
2.85	.1122	38	61	DWDMM2.85	\$1.13	6.40	.2520	73	101	DWDMM6.40	\$2.42
2.90	.1142	41	61	DWDMM2.90	\$1.13	6.50	.2559	73	101	DWDMM6.50	\$2.42
2.95	.1161	41	61	DWDMM2.95	\$1.13	6.60	.2598	73	101	DWDMM6.60	\$2.42
3.00	.1181	41	61	DWDMM3.00	\$1.13	6.70	.2638	73	101	DWDMM6.70	\$2.42
3.05	.1201	41	65	DWDMM3.05	\$1.13	6.75	.2657	73	109	DWDMM6.75	\$2.82

# HSS METRIC JOBBER DRILLS

## 118° POINT

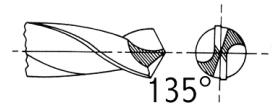


Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
6.80	.2677	73	109	DWDMM6.80	\$2.82
6.90	.2717	73	109	DWDMM6.90	\$2.82
7.00	.2756	73	109	DWDMM7.00	\$2.82
7.10	.2795	75	109	DWDMM7.10	\$2.82
7.20	.2835	75	109	DWDMM7.20	\$2.82
7.25	.2854	75	109	DWDMM7.25	\$2.82
7.30	.2874	75	109	DWDMM7.30	\$2.82
7.40	.2913	78	109	DWDMM7.40	\$2.82
7.50	.2953	78	109	DWDMM7.50	\$2.82
7.60	.2992	78	117	DWDMM7.60	\$3.47
7.70	.3031	81	117	DWDMM7.70	\$3.47
7.75	.3051	81	117	DWDMM7.75	\$3.47
7.80	.3071	81	117	DWDMM7.80	\$3.47
7.90	.3110	81	117	DWDMM7.90	\$3.47
8.00	.3150	81	117	DWDMM8.00	\$3.68
8.10	.3189	84	117	DWDMM8.10	\$3.68
8.20	.3228	84	117	DWDMM8.20	\$3.68
8.25	.3248	84	117	DWDMM8.25	\$3.68
8.30	.3268	84	117	DWDMM8.30	\$3.68
8.40	.3307	87	117	DWDMM8.40	\$3.68
8.50	.3346	87	117	DWDMM8.50	\$3.68
8.60	.3386	87	125	DWDMM8.60	\$4.23
8.70	.3425	87	125	DWDMM8.70	\$4.23
8.75	.3445	87	125	DWDMM8.75	\$4.47
8.80	.3465	89	125	DWDMM8.80	\$4.47
8.90	.3504	89	125	DWDMM8.90	\$4.47
9.00	.3543	89	125	DWDMM9.00	\$4.47
9.10	.3583	89	125	DWDMM9.10	\$4.47
9.20	.3622	92	125	DWDMM9.20	\$5.10
9.25	.3642	92	125	DWDMM9.25	\$5.10
9.30	.3661	92	125	DWDMM9.30	\$5.10
9.40	.3701	92	125	DWDMM9.40	\$5.10
9.50	.3740	92	125	DWDMM9.50	\$5.10

Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
9.60	.3780	95	133	DWDMM9.60	\$5.76
9.70	.3819	95	133	DWDMM9.70	\$5.76
9.75	.3839	95	133	DWDMM9.75	\$5.76
9.80	.3858	95	133	DWDMM9.80	\$5.76
9.90	.3898	95	133	DWDMM9.90	\$5.76
10.00	.3937	95	133	DWDMM10.00	\$5.76
10.20	.4016	98	133	DWDMM10.20	\$5.76
10.25	.4035	98	133	DWDMM10.25	\$6.65
10.50	.4134	98	133	DWDMM10.50	\$6.65
10.70	.4213	100	142	DWDMM10.70	\$7.94
10.75	.4232	101	142	DWDMM10.75	\$7.94
10.80	.4252	103	142	DWDMM10.80	\$7.94
11.00	.4331	103	142	DWDMM11.00	\$7.08
11.50	.4528	106	142	DWDMM11.50	\$7.91
11.70	.4606	110	142	DWDMM11.70	\$9.79
12.00	.4724	111	151	DWDMM12.00	\$8.83
12.50	.4921	114	151	DWDMM12.50	\$9.14
12.80	.5039	114	151	DWDMM12.80	\$10.46
13.00	.5118	114	151	DWDMM13.00	\$10.46
13.50	.5315	122	160	DWDMM13.50	\$13.13
14.00	.5512	122	160	DWDMM14.00	\$15.02
14.50	.5709	122	169	DWDMM14.50	\$15.02
15.00	.5906	132	169	DWDMM15.00	\$16.29
15.50	.6102	132	178	DWDMM15.50	\$18.62
16.00	.6299	132	178	DWDMM16.00	\$18.62
16.50	.6496	132	184	DWDMM16.50	\$20.11
17.00	.6693	143	184	DWDMM17.00	\$20.11
17.50	.6890	143	191	DWDMM17.50	\$22.12
18.00	.7087	145	191	DWDMM18.00	\$23.26
18.50	.7283	149	198	DWDMM18.50	\$25.22
19.00	.7480	149	198	DWDMM19.00	\$27.90
19.50	.7677	154	205	DWDMM19.50	\$27.90
20.00	.7874	154	205	DWDMM20.00	\$27.90

# COBALT METRIC JOBBER DRILLS

## 135° SPLIT POINT



### D/AMMCO Series - Metric Cobalt

Manufactured to National Aerospace standard 907. Made of heat resistant cobalt, they display higher red hardness which permits speeds upto 30% greater than high speed steel drills and are especially effective in drilling tough, high tensile strength materials like PH stainless steel, inconel, and titanium. The 135° split point is self-centering and reduces thrust. Sizes smaller than 2mm have the 118° standard point.



★★★*Drill America*★★★

### M E T R I C   S I Z E S

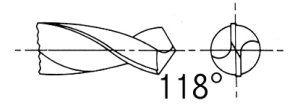
COBALT D/AMMCO Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
* 1.00	.0394	17	41	D/AMMCO1.00	\$3.23
* 1.50	.0591	22	48	D/AMMCO1.50	\$3.13
2.00	.0787	25	51	D/AMMCO2.00	\$3.13
2.50	.0984	35	60	D/AMMCO2.50	\$3.20
3.00	.1181	41	70	D/AMMCO3.00	\$3.84
3.50	.1378	48	73	D/AMMCO3.50	\$3.91
4.00	.1575	54	83	D/AMMCO4.00	\$4.62
4.50	.1772	56	86	D/AMMCO4.50	\$5.18
5.00	.1969	62	92	D/AMMCO5.00	\$6.24
5.50	.2165	64	95	D/AMMCO5.50	\$7.00
6.00	.2362	70	102	D/AMMCO6.00	\$7.96
6.50	.2559	73	105	D/AMMCO6.50	\$9.02
7.00	.2756	73	105	D/AMMCO7.00	\$9.48

COBALT D/AMMCO Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
7.50	.2953	78	111	D/AMMCO7.50	\$11.48
8.00	.3150	81	114	D/AMMCO8.00	\$13.56
8.50	.3346	87	121	D/AMMCO8.50	\$14.83
9.00	.3543	89	124	D/AMMCO9.00	\$17.06
9.50	.3740	92	127	D/AMMCO9.50	\$17.06
10.00	.3937	95	130	D/AMMCO10.00	\$20.24
10.50	.4134	98	133	D/AMMCO10.50	\$22.39
11.00	.4331	103	140	D/AMMCO11.00	\$22.92
11.50	.4528	106	143	D/AMMCO11.50	\$27.45
12.00	.4724	111	149	D/AMMCO12.00	\$28.83
12.50	.4921	114	152	D/AMMCO12.50	\$29.39
13.00	.5118	114	152	D/AMMCO13.00	\$38.44

\* 118° Standard Point

# HSS TIN-COATED JOBBER DRILLS

## 118° POINT



### DWDTN Series - TIN Coated

Superhard titanium nitride surface treatment improves drill life, chip ejection, and productivity; decreases horsepower requirements. Ideal for hard metals, work hardened stainless and other difficult to drill materials.



### FRACTIONAL SIZES

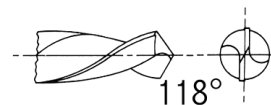
### WIRE GAUGE SIZES

				H.S.S DWDTN Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1/16"	.0625	7/8"	1-7/8"	DWDTN1/16	\$3.08
5/64"	.0781	1"	2"	DWDTN5/64	\$3.08
3/32"	.0938	1-1/4"	2-1/4"	DWDTN3/32	\$3.08
7/64"	.1094	1-1/2"	2-5/8"	DWDTN7/64	\$3.13
1/8"	.1250	1-5/8"	2-3/4"	DWDTN1/8	\$3.13
9/64"	.1406	1-3/4"	2-7/8"	DWDTN9/64	\$3.56
5/32"	.1562	2"	3-1/8"	DWDTN5/32	\$3.66
11/64"	.1719	2-1/8"	3-1/4"	DWDTN11/64	\$3.85
3/16"	.1875	2-5/16"	3-1/2"	DWDTN3/16	\$4.08
13/64"	.2031	2-7/16"	3-5/8"	DWDTN13/64	\$5.54
7/32"	.2188	2-1/2"	3-3/4"	DWDTN7/32	\$5.79
15/64"	.2344	2-5/8"	3-7/8"	DWDTN15/64	\$5.97
1/4"	.2500	2-3/4"	4"	DWDTN1/4	\$6.17
17/64"	.2656	2-7/8"	4-1/8"	DWDTN17/64	\$9.47
9/32"	.2812	2-15/16"	4-1/4"	DWDTN9/32	\$9.77
19/64"	.2969	3-1/16"	4-3/8"	DWDTN19/64	\$10.15
5/16"	.3125	3-3/16"	4-1/2"	DWDTN5/16	\$10.32
21/64"	.3281	3-5/16"	4-5/8"	DWDTN21/64	\$13.14
11/32"	.3438	3-7/16"	4-3/4"	DWDTN11/32	\$13.81
23/64"	.3594	3-1/2"	4-7/8"	DWDTN23/64	\$13.78
3/8"	.3750	3-5/8"	5"	DWDTN3/8	\$14.84
25/64"	.3906	3-3/4"	5-1/8"	DWDTN25/64	\$16.53
13/32"	.4062	3-7/8"	5-1/4"	DWDTN13/32	\$17.20
27/64"	.4219	3-15/16"	5-3/8"	DWDTN27/64	\$17.97
7/16"	.4375	4-1/16"	5-1/2"	DWDTN7/16	\$18.52
29/64"	.4531	4-3/16"	5-5/8"	DWDTN29/64	\$20.52
15/32"	.4688	4-5/16"	5-3/4"	DWDTN15/32	\$21.42
31/64"	.4844	4-3/8"	5-7/8"	DWDTN31/64	\$22.01
1/2"	.5000	4-1/2"	6"	DWDTN1/2	\$22.60

				H.S.S DWDTN Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1	.2280	2-5/8"	3-7/8"	DWDTN1	\$7.67
2	.2210	2-5/8"	3-7/8"	DWDTN2	\$7.67
3	.2130	2-1/2"	3-3/4"	DWDTN3	\$7.23
4	.2090	2-1/2"	3-3/4"	DWDTN4	\$7.23
5	.2055	2-1/2"	3-3/4"	DWDTN5	\$7.23
6	.2040	2-1/2"	3-3/4"	DWDTN6	\$7.23
7	.2010	2-7/16"	3-5/8"	DWDTN7	\$6.81
8	.1990	2-7/16"	3-5/8"	DWDTN8	\$6.81
9	.1960	2-7/16"	3-5/8"	DWDTN9	\$6.81
10	.1935	2-7/16"	3-5/8"	DWDTN10	\$6.81
11	.1910	2-5/16"	3-1/2"	DWDTN11	\$6.62
12	.1890	2-5/16"	3-1/2"	DWDTN12	\$6.62
13	.1850	2-5/16"	3-1/2"	DWDTN13	\$6.53
14	.1820	2-3/16"	3-3/8"	DWDTN14	\$6.53
15	.1800	2-3/16"	3-3/8"	DWDTN15	\$6.53
16	.1770	2-3/16"	3-3/8"	DWDTN16	\$6.53
17	.1730	2-3/16"	3-3/8"	DWDTN17	\$6.53
18	.1695	2-1/8"	3-1/4"	DWDTN18	\$6.01
19	.1660	2-1/8"	3-1/4"	DWDTN19	\$6.01
20	.1610	2-1/8"	3-1/4"	DWDTN20	\$6.01
21	.1590	2-1/8"	3-1/4"	DWDTN21	\$5.84
22	.1570	2"	3-1/8"	DWDTN22	\$5.84
23	.1540	2"	3-1/8"	DWDTN23	\$5.81
24	.1520	2"	3-1/8"	DWDTN24	\$5.81
25	.1495	1-7/8"	3"	DWDTN25	\$5.70
26	.1470	1-7/8"	3"	DWDTN26	\$5.70
27	.1440	1-7/8"	3"	DWDTN27	\$5.70
28	.1405	1-3/4"	2-7/8"	DWDTN28	\$5.55
29	.1360	1-3/4"	2-7/8"	DWDTN29	\$5.55
30	.1285	1-5/8"	2-3/4"	DWDTN30	\$5.55
31	.1200	1-5/8"	2-3/4"	DWDTN31	\$3.71
32	.1160	1-5/8"	2-3/4"	DWDTN32	\$3.71
33	.1130	1-1/2"	2-5/8"	DWDTN33	\$3.71
34	.1110	1-1/2"	2-5/8"	DWDTN34	\$3.71
35	.1100	1-1/2"	2-5/8"	DWDTN35	\$3.71
36	.1065	1-7/16"	2-1/2"	DWDTN36	\$3.71
37	.1040	1-7/16"	2-1/2"	DWDTN37	\$3.71
38	.1015	1-7/16"	2-1/2"	DWDTN38	\$3.71
39	.0995	1-3/8"	2-3/8"	DWDTN39	\$3.71
40	.0980	1-3/8"	2-3/8"	DWDTN40	\$3.71

# HSS LEFT HAND JOBBER DRILLS

## 118° POINT



### DWDLH Series - Left Hand

General purpose drill construction. Features a left hand helix for screw machine applications where spindles rotate counterclockwise. Left hand drills can also be used to drill out broken bolts.



**QUALI TECH™**

### FRACTIONAL SIZES

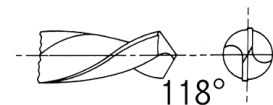
H.S.S DWDLH Series						H.S.S DWDLH Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1/32"	.0312	1/2"	1-3/8"	DWDLH1/32	\$5.83	9/32"	.2812	2-15/16"	4-1/4"	DWDLH9/32	\$9.09
3/64"	.0469	3/4"	1-3/4"	DWDLH3/64	\$3.83	19/64"	.2969	3-1/16"	4-3/8"	DWDLH19/64	\$9.95
1/16"	.0625	7/8"	1-7/8"	DWDLH1/16	\$3.83	5/16"	.3125	3-3/16"	4-1/2"	DWDLH5/16	\$10.59
5/64"	.0781	1"	2"	DWDLH5/64	\$3.83	21/64"	.3281	3-5/16"	4-5/8"	DWDLH21/64	\$11.37
3/32"	.0938	1-1/4"	2-1/4"	DWDLH3/32	\$3.98	11/32"	.3438	3-7/16"	4-3/4"	DWDLH11/32	\$13.07
7/64"	.1094	1-1/2"	2-5/8"	DWDLH7/64	\$4.13	23/64"	.3594	3-1/2"	4-7/8"	DWDLH23/64	\$15.18
1/8"	.1250	1-5/8"	2-3/4"	DWDLH1/8	\$4.13	3/8"	.3750	3-5/8"	5"	DWDLH3/8	\$15.98
9/64"	.1406	1-3/4"	2-7/8"	DWDLH9/64	\$4.31	25/64"	.3906	3-3/4"	5-1/8"	DWDLH25/64	\$17.46
5/32"	.1562	2"	3-1/8"	DWDLH5/32	\$4.79	13/32"	.4062	3-7/8"	5-1/4"	DWDLH13/32	\$18.20
11/64"	.1719	2-1/8"	3-1/4"	DWDLH11/64	\$5.40	27/64"	.4219	3-15/16"	5-3/8"	DWDLH27/64	\$20.48
3/16"	.1875	2-5/16"	3-1/2"	DWDLH3/16	\$5.99	7/16"	.4375	4-1/16"	5-1/2"	DWDLH7/16	\$21.40
13/64"	.2031	2-7/16"	3-5/8"	DWDLH13/64	\$5.99	29/64"	.4531	4-3/16"	5-5/8"	DWDLH29/64	\$24.42
7/32"	.2188	2-1/2"	3-3/4"	DWDLH7/32	\$5.99	15/32"	.4688	4-5/16"	5-3/4"	DWDLH15/32	\$25.97
15/64"	.2344	2-5/8"	3-7/8"	DWDLH15/64	\$8.31	31/64"	.4844	4-3/8"	5-7/8"	DWDLH31/64	\$27.46
1/4"	.2500	2-3/4"	4"	DWDLH1/4	\$8.31	1/2"	.5000	4-1/2"	6"	DWDLH1/2	\$27.46
17/64"	.2656	2-7/8"	4-1/8"	DWDLH17/64	\$8.77						

### WIRE GAUGE SIZES

H.S.S DWDLH Series						H.S.S DWDLH Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1	.2280	2-5/8"	3-7/8"	DWDLH1	\$7.33	31	.1200	1-5/8"	2-3/4"	DWDLH31	\$3.55
2	.2210	2-5/8"	3-7/8"	DWDLH2	\$7.33	32	.1160	1-5/8"	2-3/4"	DWDLH32	\$3.55
3	.2130	2-1/2"	3-3/4"	DWDLH3	\$6.89	33	.1130	1-1/2"	2-5/8"	DWDLH33	\$3.55
4	.2090	2-1/2"	3-3/4"	DWDLH4	\$6.89	34	.1110	1-1/2"	2-5/8"	DWDLH34	\$3.55
5	.2055	2-1/2"	3-3/4"	DWDLH5	\$6.89	35	.1100	1-1/2"	2-5/8"	DWDLH35	\$3.55
6	.2040	2-1/2"	3-3/4"	DWDLH6	\$6.89	36	.1065	1-7/16"	2-1/2"	DWDLH36	\$3.55
7	.2010	2-7/16"	3-5/8"	DWDLH7	\$5.80	37	.1040	1-7/16"	2-1/2"	DWDLH37	\$3.55
8	.1990	2-7/16"	3-5/8"	DWDLH8	\$5.80	38	.1015	1-7/16"	2-1/2"	DWDLH38	\$3.55
9	.1960	2-7/16"	3-5/8"	DWDLH9	\$5.80	39	.0995	1-3/8"	2-3/8"	DWDLH39	\$3.55
10	.1935	2-7/16"	3-5/8"	DWDLH10	\$5.80	40	.0980	1-3/8"	2-3/8"	DWDLH40	\$3.55
11	.1910	2-5/16"	3-1/2"	DWDLH11	\$5.59	41	.0960	1-3/8"	2-3/8"	DWDLH41	\$3.55
12	.1890	2-5/16"	3-1/2"	DWDLH12	\$5.59	42	.0935	1-1/4"	2-1/4"	DWDLH42	\$3.55
13	.1850	2-5/16"	3-1/2"	DWDLH13	\$5.16	43	.0890	1-1/4"	2-1/4"	DWDLH43	\$3.55
14	.1820	2-3/16"	3-3/8"	DWDLH14	\$5.16	44	.0860	1-1/8"	2-1/8"	DWDLH44	\$3.55
15	.1800	2-3/16"	3-3/8"	DWDLH15	\$5.16	45	.0820	1-1/8"	2-1/8"	DWDLH45	\$3.55
16	.1770	2-3/16"	3-3/8"	DWDLH16	\$5.16	46	.0810	1-1/8"	2-1/8"	DWDLH46	\$3.55
17	.1730	2-3/16"	3-3/8"	DWDLH17	\$5.16	47	.0785	1"	2"	DWDLH47	\$3.55
18	.1695	2-1/8"	3-1/4"	DWDLH18	\$4.54	48	.0760	1"	2"	DWDLH48	\$3.55
19	.1660	2-1/8"	3-1/4"	DWDLH19	\$4.54	49	.0730	1"	2"	DWDLH49	\$3.55
20	.1610	2-1/8"	3-1/4"	DWDLH20	\$4.54	50	.0700	1"	2"	DWDLH50	\$3.55
21	.1590	2-1/8"	3-1/4"	DWDLH21	\$4.32	51	.0670	1"	2"	DWDLH51	\$3.58
22	.1570	2"	3-1/8"	DWDLH22	\$4.32	52	.0635	7/8"	1-7/8"	DWDLH52	\$3.58
23	.1540	2"	3-1/8"	DWDLH23	\$4.13	53	.0595	7/8"	1-7/8"	DWDLH53	\$3.58
24	.1520	2"	3-1/8"	DWDLH24	\$4.13	54	.0550	7/8"	1-7/8"	DWDLH54	\$3.58
25	.1495	1-7/8"	3"	DWDLH25	\$3.98	55	.0520	7/8"	1-7/8"	DWDLH55	\$3.58
26	.1470	1-7/8"	3"	DWDLH26	\$3.98	56	.0465	3/4"	1-3/4"	DWDLH56	\$3.58
27	.1440	1-7/8"	3"	DWDLH27	\$3.98	57	.0430	3/4"	1-3/4"	DWDLH57	\$3.58
28	.1405	1-3/4"	2-7/8"	DWDLH28	\$3.55	58	.0420	11/16"	1-5/8"	DWDLH58	\$3.58
29	.1360	1-3/4"	2-7/8"	DWDLH29	\$3.55	59	.0410	11/16"	1-5/8"	DWDLH59	\$3.58
30	.1285	1-5/8"	2-3/4"	DWDLH30	\$3.55	60	.0400	11/16"	1-5/8"	DWDLH60	\$3.58

# HSS LEFT HAND JOBBER DRILLS

## 118° POINT



### LETTER SIZES

H.S.S DWDLH Series						H.S.S DWDLH Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
A	.2340	2-5/8"	3-7/8"	DWDLHA	\$9.69	N	.3020	3-1/16"	4-3/8"	DWDLHN	\$11.04
B	.2380	2-3/4"	4"	DWDLHB	\$8.97	O	.3160	3-3/16"	4-1/2"	DWDLHO	\$11.04
C	.2420	2-3/4"	4"	DWDLHC	\$8.97	P	.3230	3-5/16"	4-5/8"	DWDLHP	\$12.43
D	.2460	2-3/4"	4"	DWDLHD	\$8.97	Q	.3320	3-7/16"	4-3/4"	DWDLHQ	\$12.69
E	.2500	2-3/4"	4"	DWDLHE	\$8.28	R	.3390	3-7/16"	4-3/4"	DWDLHR	\$13.60
F	.2570	2-7/8"	4-1/8"	DWDLHF	\$8.90	S	.3480	3-1/2"	4-7/8"	DWDLHS	\$14.98
G	.2610	2-7/8"	4-1/8"	DWDLHG	\$9.80	T	.3580	3-1/2"	4-7/8"	DWDLHT	\$16.95
H	.2660	2-7/8"	4-1/8"	DWDLHH	\$9.80	U	.3680	3-5/8"	5"	DWDLHU	\$17.17
I	.2720	2-7/8"	4-1/8"	DWDLHI	\$9.80	V	.3770	3-5/8"	5"	DWDLHV	\$17.17
J	.2770	2-7/8"	4-1/8"	DWDLHJ	\$10.52	W	.3860	3-3/4"	5-1/8"	DWDLHW	\$17.70
K	.2810	2-15/16"	4-1/4"	DWDLHK	\$10.97	X	.3970	3-3/4"	5-1/8"	DWDLHX	\$21.67
L	.2900	2-15/16"	4-1/4"	DWDLHL	\$10.97	Y	.4040	3-7/8"	5-1/4"	DWDLHY	\$24.32
M	.2950	3-1/16"	4-3/8"	DWDLHM	\$11.04	Z	.4130	3-7/8"	5-1/4"	DWDLHZ	\$26.36

# HSS DRILL BLANKS

## DWDBL Series - Blanks

Bright finish, Hardened and ground, blanks are often used as gauges to check hole size and drill bushing size. Can often be used as guide pins for die sets or modified as punches

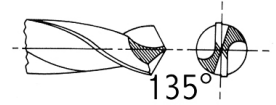


### FRACTIONAL SIZES

H.S.S DWDBL Series					H.S.S DWDBL Series				
Size	Dec. Equiv.	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	O.A.L.	Part Number	List Price
1/64"	.0156	3/4"	DWDBL1/64	\$2.54	33/64"	.5156	6-5/8"	DWDBL33/64	\$31.05
1/32"	.0312	1-3/8"	DWDBL1/32	\$2.54	17/32"	.5312	6-5/8"	DWDBL17/32	\$31.05
3/64"	.0469	1-3/4"	DWDBL3/64	\$2.75	35/64"	.5469	6-5/8"	DWDBL35/64	\$32.34
1/16"	.0625	1-7/8"	DWDBL1/16	\$2.75	9/16"	.5625	6-5/8"	DWDBL9/16	\$32.34
5/64"	.0781	2"	DWDBL5/64	\$2.83	37/64"	.5781	6-5/8"	DWDBL37/64	\$37.08
3/32"	.0938	2-1/4"	DWDBL3/32	\$2.83	19/32"	.5938	7-1/8"	DWDBL19/32	\$37.08
7/64"	.1094	2-5/8"	DWDBL7/64	\$2.83	39/64"	.6094	7-1/8"	DWDBL39/64	\$37.41
1/8"	.1250	2-3/4"	DWDBL1/8	\$2.83	5/8"	.6250	7-1/8"	DWDBL5/8	\$37.41
9/64"	.1406	2-7/8"	DWDBL9/64	\$2.83	41/64"	.6406	7-1/8"	DWDBL41/64	\$42.88
5/32"	.1562	3-1/8"	DWDBL5/32	\$3.21	21/32"	.6562	7-1/8"	DWDBL21/32	\$42.88
11/64"	.1719	3-1/4"	DWDBL11/64	\$3.21	43/64"	.6719	7-5/8"	DWDBL43/64	\$46.99
3/16"	.1875	3-1/2"	DWDBL3/16	\$3.60	11/16"	.6875	7-5/8"	DWDBL11/16	\$46.99
13/64"	.2031	3-5/8"	DWDBL13/64	\$4.55	45/64"	.7031	6"	DWDBL45/64	\$46.99
7/32"	.2188	3-3/4"	DWDBL7/32	\$4.72	23/32"	.7188	6"	DWDBL23/32	\$46.99
15/64"	.2344	3-7/8"	DWDBL15/64	\$5.16	47/64"	.7344	6"	DWDBL47/64	\$50.06
1/4"	.2500	4"	DWDBL1/4	\$5.59	3/4"	.7500	6"	DWDBL3/4	\$50.06
17/64"	.2656	4-1/8"	DWDBL17/64	\$6.60	49/64"	.7656	6"	DWDBL49/64	\$56.63
9/32"	.2812	4-1/4"	DWDBL9/32	\$7.12	25/32"	.7813	6"	DWDBL25/32	\$56.63
19/64"	.2969	4-3/8"	DWDBL19/64	\$7.91	51/64"	.7969	6"	DWDBL51/64	\$56.63
5/16"	.3125	4-1/2"	DWDBL5/16	\$8.14	13/16"	.8125	6"	DWDBL13/16	\$56.63
21/64"	.3281	4-5/8"	DWDBL21/64	\$8.95	53/64"	.8281	6"	DWDBL53/64	\$66.65
11/32"	.3438	4-3/4"	DWDBL11/32	\$9.61	27/32"	.8438	6"	DWDBL27/32	\$66.65
23/64"	.3594	4-7/8"	DWDBL23/64	\$10.81	55/64"	.8594	6"	DWDBL55/64	\$66.65
3/8"	.3750	5"	DWDBL3/8	\$11.87	7/8"	.8750	6"	DWDBL7/8	\$66.79
25/64"	.3906	5-1/8"	DWDBL25/64	\$12.35	57/64"	.8906	6"	DWDBL57/64	\$76.95
13/32"	.4062	5-1/4"	DWDBL13/32	\$13.37	29/32"	.9063	6"	DWDBL29/32	\$76.95
27/64"	.4219	5-3/8"	DWDBL27/64	\$14.99	59/64"	.9219	6"	DWDBL59/64	\$76.95
7/16"	.4375	5-1/2"	DWDBL7/16	\$16.94	15/16"	.9375	6"	DWDBL15/16	\$76.95
29/64"	.4531	5-5/8"	DWDBL29/64	\$17.38	61/64"	.9531	6"	DWDBL61/64	\$86.71
15/32"	.4688	5-3/4"	DWDBL15/32	\$17.66	31/32"	.9688	6"	DWDBL31/32	\$86.71
31/64"	.4844	5-7/8"	DWDBL31/64	\$20.05	63/64"	.9844	6"	DWDBL63/64	\$86.71
1/2"	.5000	6"	DWDBL1/2	\$21.23	1"	1.0000	6"	DWDBL1INCH	\$86.71

# SCREW MACHINE LENGTH DRILLS

## 135° POINT



### DWDST Series - High Speed Economy

### D/AST Series - High Speed Premium Quality

Manufactured to National Aerospace Standard 907. 135° split point is self-centering and reduces thrust. Ideal for portable or machine drilling. Short, rugged construction performs well in a broad range of materials in the iron and steel families. Screw machine drills are popular in the automotive and construction industries. They are often used in screw machine setup where spindle clearance is limited. Sizes smaller than 1/16" or #52, and larger than 1/2" have the 118° standard point.



### D/ASTCO Series - Cobalt Premium Quality

Manufactured to National Aerospace Standard 907. 135° split point is self-centering and reduces thrust. Ideal for portable or machine drilling. Short, rugged construction performs well in high tensile strength materials like PH stainless steel, inconel, and titanium. The 135° split point is self-centering and reduces thrust. Sizes smaller than 1/16" have the 118° standard point.



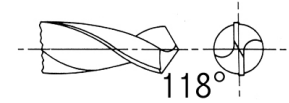
## F R A C T I O N A L   S I Z E S

				<b>qualTECH™</b>		<i>Drill America</i>		<i>Drill America</i>	
				<b>H.S.S DWDST Series</b>		<b>H.S.S D/AST Series</b>		<b>Cobalt D/ASTCO Series</b>	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price	Part Number	List Price
* 3/64"	.0469	1/2"	1-3/8"	DWDST3/64	\$1.28	D/AST3/64	\$1.85	D/ASTCO3/64	\$2.25
1/16"	.0625	5/8"	1-5/8"	DWDST1/16	\$0.97	D/AST1/16	\$1.25	D/ASTCO1/16	\$2.04
5/64"	.0781	11/16"	1-11/16"	DWDST5/64	\$0.97	D/AST5/64	\$1.25	D/ASTCO5/64	\$2.04
3/32"	.0938	3/4"	1-3/4"	DWDST3/32	\$0.93	D/AST3/32	\$1.20	D/ASTCO3/32	\$2.04
7/64"	.1094	13/16"	1-13/16"	DWDST7/64	\$0.93	D/AST7/64	\$1.20	D/ASTCO7/64	\$2.31
1/8"	.1250	7/8"	1-7/8"	DWDST1/8	\$0.93	D/AST1/8	\$1.20	D/ASTCO1/8	\$2.69
9/64"	.1406	15/16"	1-15/16"	DWDST9/64	\$1.05	D/AST9/64	\$1.33	D/ASTCO9/64	\$2.69
5/32"	.1562	1"	2-1/16"	DWDST5/32	\$1.32	D/AST5/32	\$1.70	D/ASTCO5/32	\$2.97
11/64"	.1719	1-1/16"	2-1/8"	DWDST11/64	\$1.42	D/AST11/64	\$1.80	D/ASTCO11/64	\$3.31
3/16"	.1875	1-1/8"	2-3/16"	DWDST3/16	\$1.53	D/AST3/16	\$1.93	D/ASTCO3/16	\$3.88
13/64"	.2031	1-3/16"	2-1/4"	DWDST13/64	\$1.69	D/AST13/64	\$2.15	D/ASTCO13/64	\$4.46
7/32"	.2188	1-1/4"	2-3/8"	DWDST7/32	\$1.85	D/AST7/32	\$2.40	D/ASTCO7/32	\$4.92
15/64"	.2344	1-5/16"	2-7/16"	DWDST15/64	\$1.93	D/AST15/64	\$2.48	D/ASTCO15/64	\$5.26
1/4"	.2500	1-3/8"	2-1/2"	DWDST1/4	\$2.02	D/AST1/4	\$2.57	D/ASTCO1/4	\$5.46
17/64"	.2656	1-7/16"	2-5/8"	DWDST17/64	\$2.86	D/AST17/64	\$3.50	D/ASTCO17/64	\$6.26
9/32"	.2813	1-1/2"	2-11/16"	DWDST9/32	\$3.03	D/AST9/32	\$3.70	D/ASTCO9/32	\$6.79
19/64"	.2969	1-9/16"	2-3/4"	DWDST19/64	\$3.27	D/AST19/64	\$4.02	D/ASTCO19/64	\$7.87
5/16"	.3125	1-5/8"	2-13/16"	DWDST5/16	\$3.45	D/AST5/16	\$4.23	D/ASTCO5/16	\$8.77
21/64"	.3281	1-11/16"	2-15/16"	DWDST21/64	\$3.93	D/AST21/64	\$4.75	D/ASTCO21/64	\$9.33
11/32"	.3438	1-11/16"	3"	DWDST11/32	\$4.19	D/AST11/32	\$5.09	D/ASTCO11/32	\$10.14
23/64"	.3594	1-3/4"	3-1/16"	DWDST23/64	\$4.43	D/AST23/64	\$5.41	D/ASTCO23/64	\$11.68
3/8"	.3750	1-13/16"	3-1/8"	DWDST3/8	\$4.81	D/AST3/8	\$5.85	D/ASTCO3/8	\$11.68
25/64"	.3906	1-7/8"	3-1/4"	DWDST25/64	\$5.28	D/AST25/64	\$6.35	D/ASTCO25/64	\$13.33
13/32"	.4062	1-15/16"	3-5/16"	DWDST13/32	\$5.69	D/AST13/32	\$6.88	D/ASTCO13/32	\$13.80
27/64"	.4219	2"	3-3/8"	DWDST27/64	\$6.04	D/AST27/64	\$7.28	D/ASTCO27/64	\$15.25
7/16"	.4375	2-1/16"	3-7/16"	DWDST7/16	\$6.63	D/AST7/16	\$7.98	D/ASTCO7/16	\$15.67
29/64"	.4531	2-1/8"	3-9/16"	DWDST29/64	\$7.13	D/AST29/64	\$8.46	D/ASTCO29/64	\$18.79
15/32"	.4688	2-1/8"	3-5/8"	DWDST15/32	\$7.82	D/AST15/32	\$9.22	D/ASTCO15/32	\$18.79
31/64"	.4844	2-3/16"	3-11/16"	DWDST31/64	\$8.16	D/AST31/64	\$9.62	D/ASTCO31/64	\$18.79
1/2"	.5000	2-1/4"	3-3/4"	DWDST1/2	\$8.59	D/AST1/2	\$10.16	D/ASTCO1/2	\$18.63

\* 118° Standard Point

# SCREW MACHINE LENGTH DRILLS

## 118° POINT



FRACTIONAL SIZES OVER 1/2"

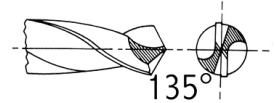
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Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDST Series		Cobalt D/ASTCO Series	
				Part Number	List Price	Part Number	List Price
33/64"	.5156	2-3/8"	3-7/8"	DWDST33/64	\$19.62	D/ASTCO33/64	\$52.87
17/32"	.5312	2-3/8"	3-7/8"	DWDST17/32	\$20.54	D/ASTCO17/32	\$53.31
35/64"	.5469	2-1/2"	4"	DWDST35/64	\$21.38	D/ASTCO35/64	\$57.40
9/16"	.5625	2-1/2"	4"	DWDST9/16	\$21.38	D/ASTCO9/16	\$55.35
37/64"	.5781	2-5/8"	4-1/8"	DWDST37/64	\$24.48	D/ASTCO37/64	\$65.73
19/32"	.5938	2-5/8"	4-1/8"	DWDST19/32	\$24.48	D/ASTCO19/32	\$63.38
39/64"	.6094	2-3/4"	4-1/4"	DWDST39/64	\$24.70	D/ASTCO39/64	\$66.44
5/8"	.6250	2-3/4"	4-1/4"	DWDST5/8	\$24.70	D/ASTCO5/8	\$64.06
41/64"	.6406	2-7/8"	4-1/2"	DWDST41/64	\$28.38	D/ASTCO41/64	\$76.26
21/32"	.6562	2-7/8"	4-1/2"	DWDST21/32	\$28.38	D/ASTCO21/32	\$73.53
43/64"	.6719	2-7/8"	4-5/8"	DWDST43/64	\$31.47	D/ASTCO43/64	\$84.49
11/16"	.6875	2-7/8"	4-5/8"	DWDST11/16	\$31.47	D/ASTCO11/16	\$81.48
45/64"	.7031	3"	4-3/4"	DWDST45/64	\$34.13	D/ASTCO45/64	\$91.74
23/32"	.7188	3"	4-3/4"	DWDST23/32	\$34.13	D/ASTCO23/32	\$88.48
47/64"	.7344	3-1/8"	5"	DWDST47/64	\$36.00	D/ASTCO47/64	\$96.79
3/4"	.7500	3-1/8"	5"	DWDST3/4	\$36.00	D/ASTCO3/4	\$93.35
49/64"	.7656	3-1/4"	5-1/8"	DWDST49/64	\$40.73	D/ASTCO49/64	\$117.42
25/32"	.7812	3-1/4"	5-1/8"	DWDST25/32	\$40.73	D/ASTCO25/32	\$117.42
51/64"	.7969	3-3/8"	5-1/4"	DWDST51/64	\$42.86	D/ASTCO51/64	\$118.63
13/16"	.8125	3-3/8"	5-1/4"	DWDST13/16	\$42.86	D/ASTCO13/16	\$121.68
53/64"	.8281	3-1/2"	5-3/8"	DWDST53/64	\$45.38	D/ASTCO53/64	\$129.73
27/32"	.8438	3-1/2"	5-3/8"	DWDST27/32	\$45.38	D/ASTCO27/32	\$129.73
55/64"	.8594	3-1/2"	5-1/2"	DWDST55/64	\$47.01	D/ASTCO55/64	\$139.73
7/8"	.8750	3-1/2"	5-1/2"	DWDST7/8	\$47.01	D/ASTCO7/8	\$139.73
57/64"	.8906	3-5/8"	5-5/8"	DWDST57/64	\$48.82	D/ASTCO57/64	\$143.24
29/32"	.9062	3-5/8"	5-5/8"	DWDST29/32	\$48.82	D/ASTCO29/32	\$143.44
59/64"	.9219	3-3/4"	5-3/4"	DWDST59/64	\$53.77	D/ASTCO59/64	\$143.24
15/16"	.9375	3-3/4"	5-3/4"	DWDST15/16	\$53.77	D/ASTCO15/16	\$143.24
61/64"	.9531	3-7/8"	5-7/8"	DWDST61/64	\$58.50	D/ASTCO61/64	\$166.17
31/32"	.9688	3-7/8"	5-7/8"	DWDST31/32	\$58.50	D/ASTCO31/32	\$166.17
63/64"	.9844	4"	6"	DWDST63/64	\$60.72	D/ASTCO63/64	\$174.11
1"	1.0000	4"	6"	DWDST1INCH	\$60.72	D/ASTCO1INCH	\$174.11
1-1/64"	1.0156	4"	6"	DWDST1-1/64	\$72.45		
1-1/32"	1.0312	4"	6-1/4"	DWDST1-1/32	\$72.45		
1-3/64"	1.0469	4"	6-1/4"	DWDST1-3/64	\$72.45		
1-1/16"	1.0625	4"	6-1/4"	DWDST1-1/16	\$72.45		
1-5/64"	1.0781	4"	6-1/4"	DWDST1-5/64	\$82.10		
1-3/32"	1.0938	4"	6-1/4"	DWDST1-3/32	\$82.10		
1-7/64"	1.1094	4"	6-1/4"	DWDST1-7/64	\$82.10		
1-1/8"	1.1250	4"	6-3/8"	DWDST1-1/8	\$82.10		
1-9/64"	1.1406	4"	6-3/8"	DWDST1-9/64	\$85.13		
1-5/32"	1.1562	4-1/4"	6-5/8"	DWDST1-5/32	\$85.13		
1-11/64"	1.1719	4-1/4"	6-5/8"	DWDST1-11/64	\$85.13		
1-3/16"	1.1875	4-1/4"	6-5/8"	DWDST1-3/16	\$85.13		
1-1/4"	1.2500	4-3/8"	6-3/4"	DWDST1-1/4	\$95.22		
1-9/32"	1.2813	4-3/8"	7"	DWDST1-9/32	\$125.83		
1-5/16"	1.3125	4-3/8"	7"	DWDST1-5/16	\$125.83		
1-3/8"	1.3750	4-1/2"	7-1/8"	DWDST1-3/8	\$134.15		
1-13/32"	1.4062	4-3/4"	7-3/8"	DWDST1-13/32	\$143.80		
1-7/16"	1.4375	4-3/4"	7-3/8"	DWDST1-7/16	\$143.80		
1-1/2"	1.5000	4-7/8"	7-1/2"	DWDST1-1/2	\$151.61		
2"	2.0000	5-5/8"	8-1/2"	DWDST2INCH	\$286.33		

# SCREW MACHINE LENGTH DRILLS

## 135° POINT



### WIRE GAUGE SIZES

qualTECH™

Drill America

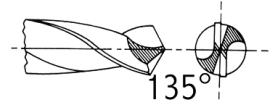
Drill America

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDST Series		H.S.S D/AST Series		Cobalt D/ASTCO Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
1	.2280	1-5/16"	2-7/16"	DWDST1	\$2.09	D/AST1	\$2.52	D/ASTCO1	\$6.07
2	.2210	1-5/16"	2-7/16"	DWDST2	\$2.09	D/AST2	\$2.52	D/ASTCO2	\$6.07
3	.2130	1-1/4"	2-3/8"	DWDST3	\$1.96	D/AST3	\$2.35	D/ASTCO3	\$6.07
4	.2090	1-1/4"	2-3/8"	DWDST4	\$1.96	D/AST4	\$2.35	D/ASTCO4	\$5.42
5	.2055	1-1/4"	2-3/8"	DWDST5	\$1.96	D/AST5	\$2.35	D/ASTCO5	\$5.42
6	.2040	1-1/4"	2-3/8"	DWDST6	\$1.96	D/AST6	\$2.35	D/ASTCO6	\$5.42
7	.2010	1-3/16"	2-1/4"	DWDST7	\$1.79	D/AST7	\$2.15	D/ASTCO7	\$4.23
8	.1990	1-3/16"	2-1/4"	DWDST8	\$1.79	D/AST8	\$2.15	D/ASTCO8	\$4.18
9	.1960	1-3/16"	2-1/4"	DWDST9	\$1.79	D/AST9	\$2.15	D/ASTCO9	\$4.18
10	.1935	1-3/16"	2-1/4"	DWDST10	\$1.68	D/AST10	\$2.03	D/ASTCO10	\$4.18
11	.1910	1-3/16"	2-1/4"	DWDST11	\$1.68	D/AST11	\$2.03	D/ASTCO11	\$4.11
12	.1890	1-3/16"	2-1/4"	DWDST12	\$1.68	D/AST12	\$2.03	D/ASTCO12	\$4.11
13	.1850	1-1/8"	2-3/16"	DWDST13	\$1.65	D/AST13	\$1.99	D/ASTCO13	\$4.07
14	.1820	1-1/8"	2-3/16"	DWDST14	\$1.56	D/AST14	\$1.90	D/ASTCO14	\$4.07
15	.1800	1-1/8"	2-3/16"	DWDST15	\$1.56	D/AST15	\$1.90	D/ASTCO15	\$4.07
16	.1770	1-1/8"	2-3/16"	DWDST16	\$1.56	D/AST16	\$1.90	D/ASTCO16	\$4.04
17	.1730	1-1/8"	2-3/16"	DWDST17	\$1.53	D/AST17	\$1.87	D/ASTCO17	\$3.88
18	.1695	1-1/16"	2-1/8"	DWDST18	\$1.51	D/AST18	\$1.80	D/ASTCO18	\$3.27
19	.1660	1-1/16"	2-1/8"	DWDST19	\$1.47	D/AST19	\$1.77	D/ASTCO19	\$3.16
20	.1610	1-1/16"	2-1/8"	DWDST20	\$1.44	D/AST20	\$1.74	D/ASTCO20	\$3.16
21	.1590	1-1/16"	2-1/8"	DWDST21	\$1.41	D/AST21	\$1.70	D/ASTCO21	\$3.16
22	.1570	1-1/16"	2-1/8"	DWDST22	\$1.41	D/AST22	\$1.70	D/ASTCO22	\$3.16
23	.1540	1"	2-1/16"	DWDST23	\$1.37	D/AST23	\$1.65	D/ASTCO23	\$3.16
24	.1520	1"	2-1/16"	DWDST24	\$1.37	D/AST24	\$1.65	D/ASTCO24	\$3.16
25	.1495	1"	2-1/16"	DWDST25	\$1.24	D/AST25	\$1.49	D/ASTCO25	\$2.97
26	.1470	1"	2-1/16"	DWDST26	\$1.24	D/AST26	\$1.49	D/ASTCO26	\$2.97
27	.1440	1"	2-1/16"	DWDST27	\$1.24	D/AST27	\$1.49	D/ASTCO27	\$2.97
28	.1405	15/16"	1-15/16"	DWDST28	\$1.12	D/AST28	\$1.36	D/ASTCO28	\$2.69
29	.1360	15/16"	1-15/16"	DWDST29	\$1.12	D/AST29	\$1.36	D/ASTCO29	\$2.69
30	.1285	15/16"	1-15/16"	DWDST30	\$1.10	D/AST30	\$1.33	D/ASTCO30	\$2.53
31	.1200	7/8"	1-7/8"	DWDST31	\$1.03	D/AST31	\$1.25	D/ASTCO31	\$2.53
32	.1160	7/8"	1-7/8"	DWDST32	\$0.99	D/AST32	\$1.20	D/ASTCO32	\$2.53
33	.1130	7/8"	1-7/8"	DWDST33	\$0.96	D/AST33	\$1.17	D/ASTCO33	\$2.42
34	.1110	7/8"	1-7/8"	DWDST34	\$0.96	D/AST34	\$1.17	D/ASTCO34	\$2.42
35	.1100	7/8"	1-7/8"	DWDST35	\$0.96	D/AST35	\$1.17	D/ASTCO35	\$2.42
36	.1065	13/16"	1-13/16"	DWDST36	\$0.96	D/AST36	\$1.17	D/ASTCO36	\$2.42
37	.1040	13/16"	1-13/16"	DWDST37	\$0.96	D/AST37	\$1.17	D/ASTCO37	\$2.42
38	.1015	13/16"	1-13/16"	DWDST38	\$0.96	D/AST38	\$1.17	D/ASTCO38	\$2.22
39	.0995	13/16"	1-13/16"	DWDST39	\$0.96	D/AST39	\$1.17	D/ASTCO39	\$2.22
40	.0980	13/16"	1-13/16"	DWDST40	\$0.96	D/AST40	\$1.17	D/ASTCO40	\$2.22
41	.0960	13/16"	1-13/16"	DWDST41	\$0.96	D/AST41	\$1.17	D/ASTCO41	\$2.30
42	.0935	3/4"	1-3/4"	DWDST42	\$0.96	D/AST42	\$1.17	D/ASTCO42	\$2.26
43	.0890	3/4"	1-3/4"	DWDST43	\$0.96	D/AST43	\$1.17	D/ASTCO43	\$2.26
44	.0860	3/4"	1-3/4"	DWDST44	\$0.96	D/AST44	\$1.17	D/ASTCO44	\$2.26
45	.0820	3/4"	1-3/4"	DWDST45	\$0.96	D/AST45	\$1.17	D/ASTCO45	\$2.26
46	.0810	3/4"	1-3/4"	DWDST46	\$0.96	D/AST46	\$1.17	D/ASTCO46	\$2.26
47	.0785	11/16"	1-11/16"	DWDST47	\$0.96	D/AST47	\$1.17	D/ASTCO47	\$2.26
48	.0760	11/16"	1-11/16"	DWDST48	\$0.96	D/AST48	\$1.17	D/ASTCO48	\$2.26
49	.0730	11/16"	1-11/16"	DWDST49	\$0.96	D/AST49	\$1.17	D/ASTCO49	\$2.26
50	.0700	11/16"	1-11/16"	DWDST50	\$0.96	D/AST50	\$1.17	D/ASTCO50	\$2.26
51	.0670	11/16"	1-11/16"	DWDST51	\$0.96	D/AST51	\$1.17	D/ASTCO51	\$2.26
52	.0635	11/16"	1-11/16"	DWDST52	\$0.96	D/AST52	\$1.17	D/ASTCO52	\$2.26
* 53	.0595	5/8"	1-5/8"	DWDST53	\$0.96	D/AST53	\$1.17	D/ASTCO53	\$2.54
* 54	.0550	5/8"	1-5/8"	DWDST54	\$0.96	D/AST54	\$1.17	D/ASTCO54	\$2.54
* 55	.0520	5/8"	1-5/8"	DWDST55	\$0.96	D/AST55	\$1.17	D/ASTCO55	\$2.54
* 56	.0465	1/2"	1-3/8"	DWDST56	\$0.96	D/AST56	\$1.17	D/ASTCO56	\$2.54
* 57	.0430	1/2"	1-3/8"	DWDST57	\$1.12	D/AST57	\$1.36	D/ASTCO57	\$2.54
* 58	.0420	1/2"	1-3/8"	DWDST58	\$1.12	D/AST58	\$1.36	D/ASTCO58	\$2.71
* 59	.0410	1/2"	1-3/8"	DWDST59	\$1.19	D/AST59	\$1.46	D/ASTCO59	\$2.71
* 60	.0400	1/2"	1-3/8"	DWDST60	\$1.19	D/AST60	\$1.46	D/ASTCO60	\$2.71

\* 118° Standard Point

# SCREW MACHINE LENGTH DRILLS

## 135° POINT



### LETTER SIZES

				<b>qualiTECH™</b>		<i>Drill America</i>		<i>Drill America</i>	
				<b>H.S.S DWDST Series</b>		<b>H.S.S D/AST Series</b>		<b>Cobalt D/ASTCO Series</b>	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price	Part Number	List Price
A	.2340	1-5/16"	2-7/16"	DWDSTA	\$2.42	D/ASTA	\$3.37	D/ASTCOA	\$6.78
B	.2380	1-3/8"	2-1/2"	DWDSTB	\$2.42	D/ASTB	\$3.37	D/ASTCOB	\$7.21
C	.2420	1-3/8"	2-1/2"	DWDSTC	\$2.42	D/ASTC	\$3.37	D/ASTCOC	\$7.21
D	.2460	1-3/8"	2-1/2"	DWDSTD	\$2.42	D/ASTD	\$3.37	D/ASTCOD	\$7.21
E	.2500	1-3/8"	2-1/2"	DWDSTE	\$2.61	D/ASTE	\$3.63	D/ASTCOE	\$6.57
F	.2570	1-7/16"	2-5/8"	DWDSTF	\$2.81	D/ASTF	\$3.77	D/ASTCOF	\$7.63
G	.2610	1-7/16"	2-5/8"	DWDSTG	\$2.94	D/ASTG	\$4.02	D/ASTCOG	\$7.63
H	.2660	1-1/2"	2-11/16"	DWDSTH	\$2.94	D/ASTH	\$4.02	D/ASTCOH	\$8.09
I	.2720	1-1/2"	2-11/16"	DWDSTI	\$2.94	D/ASTI	\$4.02	D/ASTCOI	\$8.09
J	.2770	1-1/2"	2-11/16"	DWDSTJ	\$3.16	D/ASTJ	\$4.24	D/ASTCOJ	\$8.09
K	.2810	1-1/2"	2-11/16"	DWDSTK	\$3.37	D/ASTK	\$4.61	D/ASTCOK	\$8.09
L	.2900	1-9/16"	2-3/4"	DWDSTL	\$3.37	D/ASTL	\$4.61	D/ASTCOL	\$9.58
M	.2950	1-9/16"	2-3/4"	DWDSTM	\$3.68	D/ASTM	\$5.04	D/ASTCOM	\$9.58
N	.3020	1-5/8"	2-13/16"	DWDSTN	\$3.68	D/ASTN	\$5.04	D/ASTCON	\$10.30
O	.3160	1-11/16"	2-15/16"	DWDSTO	\$3.74	D/ASTO	\$5.09	D/ASTCOO	\$11.41
P	.3230	1-11/16"	2-15/16"	DWDSTP	\$4.19	D/ASTP	\$5.68	D/ASTCOP	\$11.41
Q	.3320	1-11/16"	3"	DWDSTQ	\$4.23	D/ASTQ	\$5.68	D/ASTCOQ	\$12.34
R	.3390	1-11/16"	3"	DWDSTR	\$4.26	D/ASTR	\$5.75	D/ASTCOR	\$12.34
S	.3480	1-3/4"	3-1/16"	DWDSTS	\$4.84	D/ASTS	\$6.53	D/ASTCOS	\$15.37
T	.3580	1-3/4"	3-1/16"	DWDSTT	\$5.62	D/ASTT	\$7.59	D/ASTCOT	\$15.37
U	.3680	1-13/16"	3-1/8"	DWDSTU	\$5.62	D/ASTU	\$7.59	D/ASTCOU	\$15.37
V	.3770	1-7/8"	3-1/4"	DWDSTV	\$6.07	D/ASTV	\$8.08	D/ASTCOV	\$17.04
W	.3860	1-7/8"	3-1/4"	DWDSTW	\$6.40	D/ASTW	\$8.52	D/ASTCOW	\$17.04
X	.3970	1-15/16"	3-5/16"	DWDSTX	\$7.38	D/ASTX	\$9.87	D/ASTCOX	\$17.04
Y	.4040	1-15/16"	3-5/16"	DWDSTY	\$8.75	D/ASTY	\$11.67	D/ASTCOY	\$17.04
Z	.4130	2"	3-3/8"	DWDSTZ	\$8.75	D/ASTZ	\$11.67	D/ASTCOZ	\$19.54

## STEP DRILLS

### VAC Series - Step Drills

Commonly used on sheet metal and general construction, a single bit can be used for drilling a wide range of hole sizes.



Size	Description	Part Number	List Price
13	1/8"-1/2"x32nds	VAC1	\$33.65
6	3/16"-1/2"x16ths	VAC2	\$28.62
9	1/4"-3/4"x16ths	VAC3	\$52.43
12	3/16"-7/8"x16ths	VAC4	\$52.89
12	1/4"-1-3/8"x8ths	VAC5	\$97.20

3 Piece Set #1,2,3 VACSET \$107.96  
5 Piece Set #1,2,3,4,5 VAC1-5SET \$253.13

## GLASS & TILE DRILLS

### DWDGD Series - Glass & Tile Drills

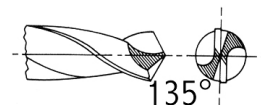
Provide smooth, accurate drilling in ceramic tile, marble, china, and glass.



Size	O.A.L.	Part Number	List Price
1/8"	2-1/2"	DWDGD1/8	\$9.06
3/16"	2-1/2"	DWDGD3/16	\$9.35
1/4"	2-1/2"	DWDGD1/4	\$10.54
5/16"	2-1/2"	DWDGD5/16	\$11.39
3/8"	3"	DWDGD3/8	\$17.37
1/2"	3"	DWDGD1/2	\$24.30

# KFD MECHANICS LENGTH DRILLS

## 135° POINT



### KFDML Series - KFD Mechanics Length

Manufactured from premium grade high speed steel, Killer Force Drills have a heavy duty 135 split point for self-centering and reducing thrust. Gold and black surface treated for use in stainless steel and other hard metal drilling.

★★★Killer Force Drill ★★★



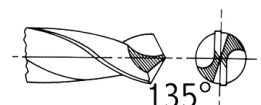
\*Sizes 3/16" and larger have a 3-Flat shank

### F R A C T I O N A L   S I Z E S

				H.S.S. KFDML Series						H.S.S. KFDML Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1/16"	.0625	7/8"	1-7/8"	KFDML1/16	\$1.22	19/64"	.2969	2-1/4"	3-3/4"	KFDML19/64	\$4.86
5/64"	.0781	1"	2"	KFDML5/64	\$1.31	5/16"	.3125	2-3/8"	4"	KFDML5/16	\$5.00
3/32"	.0938	1-1/8"	2-1/4"	KFDML3/32	\$1.31	21/64"	.3281	2-1/2"	4-1/16"	KFDML21/64	\$5.27
7/64"	.1094	1-1/8"	2-3/8"	KFDML7/64	\$1.54	11/32"	.3438	2-9/16"	4-1/8"	KFDML11/32	\$6.31
1/8"	.1250	1-3/16"	2-1/2"	KFDML1/8	\$1.54	23/64"	.3594	2-9/16"	4-3/16"	KFDML23/64	\$7.02
9/64"	.1406	1-3/8"	2-5/8"	KFDML9/64	\$1.54	3/8"	.3750	2-5/8"	4-1/4"	KFDML3/8	\$7.50
5/32"	.1562	1-1/2"	2-3/4"	KFDML5/32	\$1.74	25/64"	.3906	2-5/8"	4-5/16"	KFDML25/64	\$8.24
11/64"	.1719	1-9/16"	2-7/8"	KFDML11/64	\$1.77	13/32"	.4062	2-11/16"	4-3/8"	KFDML13/32	\$8.64
3/16"	.1875	1-5/8"	3"	KFDML3/16	\$2.16	27/64"	.4219	2-3/4"	4-7/16"	KFDML27/64	\$9.12
13/64"	.2031	1-11/16"	3-1/8"	KFDML13/64	\$2.46	7/16"	.4375	2-7/8"	4-1/2"	KFDML7/16	\$9.55
7/32"	.2188	1-3/4"	3-1/4"	KFDML7/32	\$2.69	29/64"	.4531	2-15/16"	4-5/8"	KFDML29/64	\$10.67
15/64"	.2344	1-7/8"	3-3/8"	KFDML15/64	\$2.92	15/32"	.4688	3"	4-3/4"	KFDML15/32	\$11.44
1/4"	.2500	2"	3-1/2"	KFDML1/4	\$3.18	31/64"	.4844	3-1/8"	4-7/8"	KFDML31/64	\$11.85
17/64"	.2656	2"	3-5/8"	KFDML17/64	\$4.02	1/2"	.5000	3-1/4"	5"	KFDML1/2	\$12.25
9/32"	.2812	2-3/16"	3-5/8"	KFDML9/32	\$4.08						

# H.S.S. DOUBLE END DRILLS

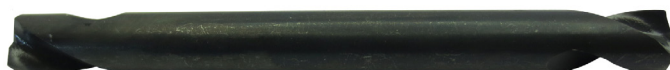
## 135° POINT



### DWDDE - Economy

### D/ADE - Premium Quality

Used for drilling truck and auto bodies, or any thin sheet metal. Popular for pop rivet drilling applications. 135° self-centering split point aids in penetration.



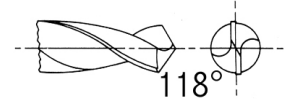
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				H.S.S DWDDE Series		H.S.S D/ADE Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
7/64"	.1094	1/2"	1-7/8"	DWDDE7/64	\$1.79	D/ADE7/64	\$2.87
1/8"	.1250	1/2"	2"	DWDDE1/8	\$1.76	D/ADE1/8	\$3.02
30	.1285	1/2"	2"	DWDDE30	\$1.76	D/ADE30	\$3.02
9/64"	.1406	1/2"	2"	DWDDE9/64	\$1.88	D/ADE9/64	\$3.08
5/32"	.1563	1/2"	2-1/16"	DWDDE5/32	\$2.05	D/ADE5/32	\$3.35
20	.1610	1/2"	2-1/8"	DWDDE20	\$2.57	D/ADE20	\$4.18
3/16"	.1875	1/2"	2-3/16"	DWDDE3/16	\$2.78	D/ADE3/16	\$4.13
11	.1910	1/2"	2-1/4"	DWDDE11	\$3.47	D/ADE11	\$5.13
7/32"	.2188	1/2"	2-3/8"	DWDDE7/32	\$3.58	D/ADE7/32	\$5.31
1/4"	.2500	1/2"	2-1/2"	DWDDE1/4	\$4.28	D/ADE1/4	\$6.33

# SOLID CARBIDE DRILLS

## 118° POINT



### DMOD Series - Solid Carbide Drills

Solid carbide drills are designed for drilling abrasive materials when drilling accuracy must be maintained and/or when used in high temperature drilling applications. Solid Carbide drills are used on materials such as cast iron, the non-ferrous alloys, high silicon aluminum, copper, plastics, bronze, hard rubber, plexiglass, and other similar materials.

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### FRACTIONAL SIZES

Carbide DMOD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
3/64"	.0469	3/4"	1-1/2"	DMOD3/64	\$14.96
1/16"	.0625	3/4"	1-1/2"	DMOD1/16	\$13.35
5/64"	.0781	7/8"	1-3/4"	DMOD5/64	\$15.47
3/32"	.0938	1"	2"	DMOD3/32	\$17.70
7/64"	.1094	1-1/4"	2-1/4"	DMOD7/64	\$20.94
1/8"	.1250	1-1/4"	2-1/4"	DMOD1/8	\$20.94
9/64"	.1406	1-3/8"	2-1/2"	DMOD9/64	\$24.68
5/32"	.1563	1-3/8"	2-1/2"	DMOD5/32	\$26.54
11/64"	.1719	1-5/8"	2-3/4"	DMOD11/64	\$31.99
3/16"	.1875	1-5/8"	2-3/4"	DMOD3/16	\$31.89
13/64"	.2031	1-3/4"	3"	DMOD13/64	\$39.77
7/32"	.2188	1-3/4"	3"	DMOD7/32	\$42.61
15/64"	.2344	2"	3-1/4"	DMOD15/64	\$45.93
1/4"	.2500	2"	3-1/4"	DMOD1/4	\$44.26
17/64"	.2656	2-1/8"	3-1/2"	DMOD17/64	\$54.53

Carbide DMOD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
9/32"	.2813	2-1/8"	3-1/2"	DMOD9/32	\$56.84
19/64"	.2969	2-3/8"	4"	DMOD19/64	\$64.91
5/16"	.3125	2-3/8"	4"	DMOD5/16	\$63.74
21/64"	.3281	2-1/2"	4"	DMOD21/64	\$75.15
11/32"	.3438	2-1/2"	4"	DMOD11/32	\$80.95
23/64"	.3594	2-3/4"	4-1/4"	DMOD23/64	\$85.49
3/8"	.3750	2-3/4"	4-1/4"	DMOD3/8	\$91.09
25/64"	.3906	2-7/8"	4-1/2"	DMOD25/64	\$108.76
13/32"	.4063	2-7/8"	4-1/2"	DMOD13/32	\$117.67
27/64"	.4219	2-7/8"	4-1/2"	DMOD27/64	\$123.89
7/16"	.4375	2-7/8"	4-1/2"	DMOD7/16	\$124.25
29/64"	.4531	3"	4-3/4"	DMOD29/64	\$145.80
15/32"	.4688	3"	4-3/4"	DMOD15/32	\$151.37
31/64"	.4844	3"	4-3/4"	DMOD31/64	\$154.74
1/2"	.5000	3"	4-3/4"	DMOD1/2	\$146.83



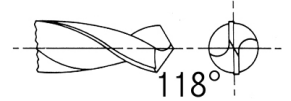
### WIRE GAUGE SIZES

Carbide DMOD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1	.2280	1-3/4"	3"	DMOD1	\$44.67
2	.2210	1-3/4"	3"	DMOD2	\$44.44
3	.2130	1-3/4"	3"	DMOD3	\$42.74
4	.2090	1-3/4"	3"	DMOD4	\$41.91
5	.2055	1-3/4"	3"	DMOD5	\$41.12
6	.2040	1-3/4"	3"	DMOD6	\$40.39
7	.2010	1-3/4"	3"	DMOD7	\$44.78
8	.1990	1-3/4"	3"	DMOD8	\$38.47
9	.1960	1-3/4"	3"	DMOD9	\$37.32
10	.1935	1-5/8"	2-3/4"	DMOD10	\$34.87
11	.1910	1-5/8"	2-3/4"	DMOD11	\$35.06
12	.1890	1-5/8"	2-3/4"	DMOD12	\$34.74
13	.1850	1-5/8"	2-3/4"	DMOD13	\$33.50
14	.1820	1-5/8"	2-3/4"	DMOD14	\$33.21
15	.1800	1-5/8"	2-3/4"	DMOD15	\$32.55
16	.1770	1-5/8"	2-3/4"	DMOD16	\$32.21
17	.1730	1-5/8"	2-3/4"	DMOD17	\$31.77
18	.1695	1-5/8"	2-3/4"	DMOD18	\$30.77
19	.1660	1-5/8"	2-3/4"	DMOD19	\$30.29
20	.1610	1-3/8"	2-1/2"	DMOD20	\$29.23
21	.1590	1-3/8"	2-1/2"	DMOD21	\$28.99
22	.1570	1-3/8"	2-1/2"	DMOD22	\$28.16
23	.1540	1-3/8"	2-1/2"	DMOD23	\$26.29
24	.1520	1-3/8"	2-1/2"	DMOD24	\$26.14
25	.1495	1-3/8"	2-1/2"	DMOD25	\$26.04
26	.1470	1-3/8"	2-1/2"	DMOD26	\$25.45
27	.1440	1-3/8"	2-1/2"	DMOD27	\$25.45
28	.1405	1-3/8"	2-1/2"	DMOD28	\$24.18
29	.1360	1-3/8"	2-1/2"	DMOD29	\$23.25
30	.1285	1-3/8"	2-1/2"	DMOD30	\$22.64

Carbide DMOD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
31	.1200	1-1/4"	2-1/4"	DMOD31	\$22.81
32	.1160	1-1/4"	2-1/4"	DMOD32	\$22.37
33	.1130	1-1/4"	2-1/4"	DMOD33	\$22.11
34	.1110	1-1/4"	2-1/4"	DMOD34	\$22.11
35	.1100	1-1/4"	2-1/4"	DMOD35	\$21.47
36	.1065	1-1/4"	2-1/4"	DMOD36	\$21.14
37	.1040	1-1/4"	2-1/4"	DMOD37	\$20.70
38	.1015	1-1/4"	2-1/4"	DMOD38	\$20.70
39	.0995	1-1/4"	2-1/4"	DMOD39	\$20.20
40	.0980	1"	2"	DMOD40	\$19.90
41	.0960	1"	2"	DMOD41	\$19.90
42	.0935	1"	2"	DMOD42	\$19.07
43	.0890	1"	2"	DMOD43	\$18.54
44	.0860	1"	2"	DMOD44	\$18.54
45	.0820	7/8"	1-3/4"	DMOD45	\$17.82
46	.0810	7/8"	1-3/4"	DMOD46	\$17.36
47	.0785	7/8"	1-3/4"	DMOD47	\$16.80
48	.0760	7/8"	1-3/4"	DMOD48	\$15.70
49	.0730	7/8"	1-3/4"	DMOD49	\$15.17
50	.0700	7/8"	1-3/4"	DMOD50	\$14.73
51	.0670	3/4"	1-1/2"	DMOD51	\$14.49
52	.0635	3/4"	1-1/2"	DMOD52	\$14.23
53	.0595	3/4"	1-1/2"	DMOD53	\$15.93
54	.0550	3/4"	1-1/2"	DMOD54	\$15.93
55	.0520	3/4"	1-1/2"	DMOD55	\$15.79
56	.0465	3/4"	1-1/2"	DMOD56	\$16.08
57	.0430	3/4"	1-1/2"	DMOD57	\$19.25
58	.0420	3/4"	1-1/2"	DMOD58	\$19.25
59	.0410	3/4"	1-1/2"	DMOD59	\$19.25
60	.0400	3/4"	1-1/2"	DMOD60	\$19.25

# SOLID CARBIDE DRILLS

## 118° POINT



### LETTER SIZES

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Carbide DMOD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
A	.2340	2"	3-1/4"	DMODA	\$50.25
B	.2380	2"	3-1/4"	DMODB	\$51.08
C	.2420	2"	3-1/4"	DMODC	\$51.68
D	.2460	2"	3-1/4"	DMODD	\$52.03
E	.2500	2"	3-1/4"	DMODE	\$53.46
F	.2570	2"	3-1/4"	DMODF	\$57.50
G	.2610	2-1/8"	3-1/2"	DMODG	\$58.25
H	.2660	2-1/8"	3-1/2"	DMODH	\$61.23
I	.2720	2-1/8"	3-1/2"	DMODI	\$62.10
J	.2770	2-1/8"	3-1/2"	DMODJ	\$63.22
K	.2810	2-1/8"	3-1/2"	DMODK	\$63.60
L	.2900	2-1/8"	3-1/2"	DMODL	\$66.19
M	.2950	2-3/8"	4"	DMODM	\$71.05

Carbide DMOD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
N	.3020	2-3/8"	4"	DMODN	\$75.01
O	.3160	2-3/8"	4"	DMODO	\$80.86
P	.3230	2-3/8"	4"	DMODP	\$80.86
Q	.3320	2-1/2"	4"	DMODQ	\$84.33
R	.3390	2-1/2"	4"	DMODR	\$87.56
S	.3480	2-1/2"	4"	DMODS	\$91.29
T	.3580	2-3/4"	4-1/4"	DMODT	\$93.15
U	.3680	2-3/4"	4-1/4"	DMODU	\$105.44
V	.3770	2-3/4"	4-1/4"	DMODV	\$114.31
W	.3860	2-7/8"	4-1/2"	DMODW	\$117.16
X	.3970	2-7/8"	4-1/2"	DMODX	\$127.14
Y	.4040	2-7/8"	4-1/2"	DMODY	\$128.17
Z	.4130	2-7/8"	4-1/2"	DMODZ	\$134.40

# DIE DRILLS

## D/ADIE Series - Carbide Tipped Die Drills

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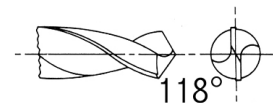
Run at 75 to 100 surface feet per minute with steady hand feed. It is good practice to clear the drill from the hole to allow coolant to wash away the chips. Designed for drilling hardened steels in the range of 45-65 Rc. Note: Sizes under 11/64" are solid carbide spade construction.



Carbide Tipped D/ADIE Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1/16"	.0625	15/32"	2"	D/ADIE1/16	\$19.42
3/32"	.0938	17/32"	2"	D/ADIE3/32	\$19.56
1/8"	.1250	21/32"	2"	D/ADIE1/8	\$20.59
5/32"	.1562	21/32"	2"	D/ADIE5/32	\$27.56
11/64"	.1719	1-1/2"	3-1/2"	D/ADIE11/64	\$47.69
3/16"	.1875	1-1/2"	3-1/2"	D/ADIE3/16	\$47.69
13/64"	.2031	1-3/4"	3-3/4"	D/ADIE13/64	\$49.17
7/32"	.2188	1-3/4"	3-3/4"	D/ADIE7/32	\$49.17
15/64"	.2344	2"	4"	D/ADIE15/64	\$50.94
1/4"	.2500	2"	4"	D/ADIE1/4	\$50.94
17/64"	.2656	2-1/4"	4-1/4"	D/ADIE17/64	\$58.72
9/32"	.2812	2-1/4"	4-1/4"	D/ADIE9/32	\$53.82
19/64"	.2969	2-1/2"	4-1/2"	D/ADIE19/64	\$56.29
5/16"	.3125	2-1/2"	4-1/2"	D/ADIE5/16	\$56.29
21/64"	.3281	2-3/4"	4-3/4"	D/ADIE21/64	\$60.61
11/32"	.3438	2-3/4"	4-3/4"	D/ADIE11/32	\$60.61
23/64"	.3594	3"	5"	D/ADIE23/64	\$70.44
3/8"	.3750	3"	5"	D/ADIE3/8	\$64.57
25/64"	.3906	3"	5-1/4"	D/ADIE25/64	\$82.18
13/32"	.4062	3"	5-1/4"	D/ADIE13/32	\$75.33
27/64"	.4219	3"	5-1/2"	D/ADIE27/64	\$87.47
7/16"	.4375	3"	5-1/2"	D/ADIE7/16	\$87.47
29/64"	.4531	3-1/4"	5-3/4"	D/ADIE29/64	\$104.90
15/32"	.4688	3-1/4"	5-3/4"	D/ADIE15/32	\$96.16
31/64"	.4844	3-1/2"	6"	D/ADIE31/64	\$122.99
1/2"	.5000	3-1/2"	6"	D/ADIE1/2	\$112.74
17/32"	.5312	3-1/2"	6"	D/ADIE17/32	\$136.14
9/16"	.5625	3-1/2"	6"	D/ADIE9/16	\$136.14
19/32"	.5938	4"	7"	D/ADIE19/32	\$162.04
5/8"	.6250	4"	7"	D/ADIE5/8	\$148.53
21/32"	.6562	4-1/2"	7-1/2"	D/ADIE21/32	\$156.46
11/16"	.6875	4-1/2"	7-1/2"	D/ADIE11/16	\$160.85
23/32"	.7188	4-3/4"	8"	D/ADIE23/32	\$168.82
3/4"	.7500	4-3/4"	8"	D/ADIE3/4	\$173.22

# CARBIDE TIPPED JOBBER DRILLS

## 118° POINT



### D/ACT Series - Carbide Tipped

Features heavy-duty construction and heat treated body for optimum wear resistance and support of the carbide tip. Used in the production of cast iron, non-ferrous metals, and many composite materials such as hard rubber or copper alloys. NOT recommended for drilling steel.

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### FRACTIONAL SIZES

### WIRE GAUGE SIZES

				Carbide Tipped D/ACT Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1/8"	.1250	1-5/8"	2-3/4"	D/ACT1/8	\$23.50
9/64"	.1406	1-3/4"	2-7/8"	D/ACT9/64	\$24.84
5/32"	.1562	2"	3-1/8"	D/ACT5/32	\$24.84
11/64"	.1719	2-1/8"	3-1/4"	D/ACT11/64	\$28.96
3/16"	.1875	2-5/16"	3-1/2"	D/ACT3/16	\$26.54
13/64"	.2031	2-7/16"	3-5/8"	D/ACT13/64	\$31.56
7/32"	.2188	2-1/2"	3-3/4"	D/ACT7/32	\$31.56
15/64"	.2344	2-5/8"	3-7/8"	D/ACT15/64	\$34.13
1/4"	.2500	2-3/4"	4"	D/ACT1/4	\$31.28
17/64"	.2656	2-7/8"	4-1/8"	D/ACT17/64	\$36.77
9/32"	.2812	2-15/16"	4-1/4"	D/ACT9/32	\$36.77
19/64"	.2969	3-1/16"	4-3/8"	D/ACT19/64	\$39.80
5/16"	.3125	3-3/16"	4-1/2"	D/ACT5/16	\$39.80
21/64"	.3281	3-5/16"	4-5/8"	D/ACT21/64	\$42.28
11/32"	.3438	3-7/16"	4-3/4"	D/ACT11/32	\$46.13
23/64"	.3594	3-1/2"	4-7/8"	D/ACT23/64	\$49.03
3/8"	.3750	3-5/8"	5"	D/ACT3/8	\$44.95
25/64"	.3906	3-3/4"	5-1/8"	D/ACT25/64	\$48.95
13/32"	.4062	3-7/8"	5-1/4"	D/ACT13/32	\$48.95
27/64"	.4219	3-15/16"	5-3/8"	D/ACT27/64	\$57.86
7/16"	.4375	4-1/16"	5-1/2"	D/ACT7/16	\$53.04
29/64"	.4531	4-3/16"	5-5/8"	D/ACT29/64	\$65.03
15/32"	.4688	4-5/16"	5-3/4"	D/ACT15/32	\$65.03
31/64"	.4844	4-3/8"	5-7/8"	D/ACT31/64	\$72.79
1/2"	.5000	4-1/2"	6"	D/ACT1/2	\$72.79

				Carbide Tipped D/ACT Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1	.2280	2-5/8"	3-7/8"	D/ACT1	\$33.73
2	.2210	2-5/8"	3-7/8"	D/ACT2	\$33.73
3	.2130	2-1/2"	3-3/4"	D/ACT3	\$31.92
4	.2090	2-1/2"	3-3/4"	D/ACT4	\$31.92
5	.2055	2-1/2"	3-3/4"	D/ACT5	\$31.92
6	.2040	2-1/2"	3-3/4"	D/ACT6	\$31.92
7	.2010	2-7/16"	3-5/8"	D/ACT7	\$31.92
8	.1990	2-7/16"	3-5/8"	D/ACT8	\$31.92
9	.1960	2-7/16"	3-5/8"	D/ACT9	\$31.92
10	.1935	2-7/16"	3-5/8"	D/ACT10	\$31.30
11	.1910	2-5/16"	3-1/2"	D/ACT11	\$31.30
12	.1890	2-5/16"	3-1/2"	D/ACT12	\$31.30
13	.1850	2-5/16"	3-1/2"	D/ACT13	\$30.17
14	.1820	2-3/16"	3-3/8"	D/ACT14	\$30.17
15	.1800	2-3/16"	3-3/8"	D/ACT15	\$30.17
16	.1770	2-3/16"	3-3/8"	D/ACT16	\$30.17
17	.1730	2-3/16"	3-3/8"	D/ACT17	\$30.17
18	.1695	2-1/8"	3-1/4"	D/ACT18	\$30.17
19	.1660	2-1/8"	3-1/4"	D/ACT19	\$30.17
20	.1610	2-1/8"	3-1/4"	D/ACT20	\$30.17
21	.1590	2-1/8"	3-1/4"	D/ACT21	\$30.17
22	.1570	2"	3-1/8"	D/ACT22	\$30.17
23	.1540	2"	3-1/8"	D/ACT23	\$28.50
24	.1520	2"	3-1/8"	D/ACT24	\$28.50
25	.1495	1-7/8"	3"	D/ACT25	\$28.50
26	.1470	1-7/8"	3"	D/ACT26	\$28.50
27	.1440	1-7/8"	3"	D/ACT27	\$28.50
28	.1405	1-3/4"	2-7/8"	D/ACT28	\$28.50
29	.1360	1-3/4"	2-7/8"	D/ACT29	\$27.97
30	.1285	1-5/8"	2-3/4"	D/ACT30	\$27.18
31	.1200	1-5/8"	2-3/4"	D/ACT31	\$27.18
32	.1160	1-5/8"	2-3/4"	D/ACT32	\$27.18

### LETTER SIZES

				Carbide Tipped D/ACT Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
A	.2340	2-5/8"	3-7/8"	D/ACTA	\$38.68
B	.2380	2-3/4"	4"	D/ACTB	\$38.68
C	.2420	2-3/4"	4"	D/ACTC	\$38.68
D	.2460	2-3/4"	4"	D/ACTD	\$38.68
E	.2500	2-3/4"	4"	D/ACTE	\$36.95
F	.2570	2-7/8"	4-1/8"	D/ACTF	\$43.70
G	.2610	2-7/8"	4-1/8"	D/ACTG	\$44.48
H	.2660	2-7/8"	4-1/8"	D/ACTH	\$44.48
I	.2720	2-7/8"	4-1/8"	D/ACTI	\$44.48
J	.2770	2-7/8"	4-1/8"	D/ACTJ	\$45.49
K	.2810	2-15/16"	4-1/4"	D/ACTK	\$45.49
L	.2900	2-15/16"	4-1/4"	D/ACTL	\$45.49
M	.2950	3-1/16"	4-3/8"	D/ACTM	\$48.08

				Carbide Tipped D/ACT Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
N	.3020	3-1/16"	4-3/8"	D/ACTN	\$48.08
O	.3160	3-3/16"	4-1/2"	D/ACTO	\$48.08
P	.3230	3-5/16"	4-5/8"	D/ACTP	\$51.20
Q	.3320	3-7/16"	4-3/4"	D/ACTQ	\$51.20
R	.3390	3-7/16"	4-3/4"	D/ACTR	\$51.20
S	.3480	3-1/2"	4-7/8"	D/ACTS	\$54.37
T	.3580	3-1/2"	4-7/8"	D/ACTT	\$54.37
U	.3680	3-5/8"	5"	D/ACTU	\$54.37
V	.3770	3-5/8"	5"	D/ACTV	\$55.46
W	.3860	3-3/4"	5-1/8"	D/ACTW	\$60.48
X	.3970	3-3/4"	5-1/8"	D/ACTX	\$60.48
Y	.4040	3-7/8"	5-1/4"	D/ACTY	\$60.48
Z	.4130	3-7/8"	5-1/4"	D/ACTZ	\$66.96

# HSS REDUCED SHANK DRILLS

DWDRSD Series - High Speed Steel Economy

D/ARSD Series - High Speed Steel Premium Quality

Made of HS Steel and ground to a 118° point. These drills expand the size range capacity of a portable drill chuck. Common flute and overall length for minimal adjustment during tool changes. Precision ground for high degree of concentricity between shank and body diameter. Ideal for drilling in low and medium tensile strength materials.

## 1 / 4 " S H A N K

**qualiTECH™**

*Drill America*

				H.S.S DWDRSD Series		H.S.S D/ARSD Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
17/64"	.2656	2-1/4"	3-1/2"	DWDRSD17/64	\$5.11	D/ARSD17/64	\$5.68
9/32"	.2813	2-1/4"	3-9/16"	DWDRSD9/32	\$5.11	D/ARSD9/32	\$5.68
19/64"	.2969	2-3/8"	3-11/16"	DWDRSD19/64	\$5.91	D/ARSD19/64	\$6.57
5/16"	.3125	2-1/2"	3-13/16"	DWDRSD5/16	\$5.91	D/ARSD5/16	\$6.57
21/64"	.3281	2-9/16"	3-13/16"	DWDRSD21/64	\$6.82	D/ARSD21/64	\$7.57
11/32"	.3438	2-5/8"	4"	DWDRSD11/32	\$6.82	D/ARSD11/32	\$7.57
23/64"	.3594	2-3/4"	4-1/8"	DWDRSD23/64	\$7.60	D/ARSD23/64	\$8.47
3/8"	.3750	2-7/8"	4-1/4"	DWDRSD3/8	\$7.60	D/ARSD3/8	\$8.47
25/64"	.3906	3"	4-5/16"	DWDRSD25/64	\$8.84	D/ARSD25/64	\$9.82
13/32"	.4063	3-1/8"	4-7/16"	DWDRSD13/32	\$8.84	D/ARSD13/32	\$9.82
27/64"	.4219	3-1/8"	4-9/16"	DWDRSD27/64	\$9.89	D/ARSD27/64	\$11.01
7/16"	.4375	3-3/8"	4-11/16"	DWDRSD7/16	\$9.89	D/ARSD7/16	\$11.01
29/64"	.4531	3-3/8"	4-3/4"	DWDRSD29/64	\$11.27	D/ARSD29/64	\$12.52
15/32"	.4688	3-1/2"	4-7/8"	DWDRSD15/32	\$11.27	D/ARSD15/32	\$12.52
31/64"	.4844	3-1/2"	5"	DWDRSD31/64	\$12.76	D/ARSD31/64	\$14.18
1/2"	.5000	3-5/8"	5-1/16"	DWDRSD1/2	\$12.76	D/ARSD1/2	\$14.18



## 3 / 8 " S H A N K

**qualiTECH™**

*Drill America*

				H.S.S DWDRSD Series		H.S.S D/ARSD Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
25/64"	.3906	3"	6"	DWDRSD3/8X25/64	\$9.24	D/ARSD3/8X25/64	\$10.30
13/32"	.4063	3"	6"	DWDRSD3/8X13/32	\$9.24	D/ARSD3/8X13/32	\$10.30
27/64"	.4219	3"	6"	DWDRSD3/8X27/64	\$9.90	D/ARSD3/8X27/64	\$11.97
7/16"	.4375	3"	6"	DWDRSD3/8X7/16	\$9.90	D/ARSD3/8X7/16	\$11.97
29/64"	.4531	3"	6"	DWDRSD3/8X29/64	\$11.74	D/ARSD3/8X29/64	\$13.28
15/32"	.4688	3"	6"	DWDRSD3/8X15/32	\$11.74	D/ARSD3/8X15/32	\$13.28
31/64"	.4844	3"	6"	DWDRSD3/8X31/64	\$11.74	D/ARSD3/8X31/64	\$15.03
1/2"	.5000	3"	6"	DWDRSD3/8X1/2	\$11.74	D/ARSD3/8X1/2	\$14.49
33/64"	.5156	3"	6"	DWDRSD3/8X33/64	\$21.54	D/ARSD3/8X33/64	\$33.13
17/32"	.5313	3"	6"	DWDRSD3/8X17/32	\$21.54	D/ARSD3/8X17/32	\$33.13
35/64"	.5469	3"	6"	DWDRSD3/8X35/64	\$22.89	D/ARSD3/8X35/64	\$35.24
9/16"	.5625	3"	6"	DWDRSD3/8X9/16	\$22.89	D/ARSD3/8X9/16	\$35.24
37/64"	.5781	3"	6"	DWDRSD3/8X37/64	\$24.59	D/ARSD3/8X37/64	\$37.84
19/32"	.5938	3"	6"	DWDRSD3/8X19/32	\$24.59	D/ARSD3/8X19/32	\$37.84
39/64"	.6094	3"	6"	DWDRSD3/8X39/64	\$25.77	D/ARSD3/8X39/64	\$39.66
5/8"	.6250	3"	6"	DWDRSD3/8X5/8	\$25.77	D/ARSD3/8X5/8	\$39.66
41/64"	.6406	3"	6"	DWDRSD3/8X41/64	\$27.48	D/ARSD3/8X41/64	\$42.32
21/32"	.6563	3"	6"	DWDRSD3/8X21/32	\$27.48	D/ARSD3/8X21/32	\$42.32
43/64"	.6719	3"	6"	DWDRSD3/8X43/64	\$28.54	D/ARSD3/8X43/64	\$43.97
11/16"	.6875	3"	6"	DWDRSD3/8X11/16	\$28.54	D/ARSD3/8X11/16	\$43.97
45/64"	.7031	3"	6"	DWDRSD3/8X45/64	\$28.91	D/ARSD3/8X45/64	\$44.55
23/32"	.7188	3"	6"	DWDRSD3/8X23/32	\$28.91	D/ARSD3/8X23/32	\$44.55
47/64"	.7344	3"	6"	DWDRSD3/8X47/64	\$31.50	D/ARSD3/8X47/64	\$48.51
3/4"	.7500	3"	6"	DWDRSD3/8X3/4	\$31.50	D/ARSD3/8X3/4	\$48.51



*Drill America*

*Killer Force Drill*

				Cobalt D/ACO Series		H.S.S Black & Gold KFDRSD Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
25/64"	.3906	3"	6"	D/ACO3/8X25/64	\$18.89	KFDRSD3/8X25/64	\$8.89
13/32"	.4063	3"	6"	D/ACO3/8X13/32	\$19.94	KFDRSD3/8X13/32	\$9.09
27/64"	.4219	3"	6"	D/ACO3/8X27/64	\$21.11	KFDRSD3/8X27/64	\$9.93
7/16"	.4375	3"	6"	D/ACO3/8X7/16	\$21.79	KFDRSD3/8X7/16	\$10.55
29/64"	.4531	3"	6"	D/ACO3/8X29/64	\$25.98	KFDRSD3/8X29/64	\$11.89
15/32"	.4688	3"	6"	D/ACO3/8X15/32	\$26.25	KFDRSD3/8X15/32	\$12.15
31/64"	.4844	3"	6"	D/ACO3/8X31/64	\$26.99	KFDRSD3/8X31/64	\$12.66
1/2"	.5000	3"	6"	D/ACO3/8X1/2	\$27.44	KFDRSD3/8X1/2	\$12.98

# HSS REDUCED SHANK DRILLS

1 / 2 " S H A N K

qualiTECH™

Drill America

				H.S.S DWDRSD Series		H.S.S D/ARSD Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
33/64"	.5156	3"	6"	DWDRSD33/64	\$9.79	D/ARSD33/64	\$23.11
17/32"	.5313	3"	6"	DWDRSD17/32	\$9.79	D/ARSD17/32	\$23.11
35/64"	.5469	3"	6"	DWDRSD35/64	\$10.41	D/ARSD35/64	\$24.65
9/16"	.5625	3"	6"	DWDRSD9/16	\$10.41	D/ARSD9/16	\$24.40
37/64"	.5781	3"	6"	DWDRSD37/64	\$11.15	D/ARSD37/64	\$26.33
19/32"	.5938	3"	6"	DWDRSD19/32	\$11.15	D/ARSD19/32	\$26.33
39/64"	.6094	3"	6"	DWDRSD39/64	\$11.70	D/ARSD39/64	\$27.48
5/8"	.6250	3"	6"	DWDRSD5/8	\$11.43	D/ARSD5/8	\$27.48
41/64"	.6406	3"	6"	DWDRSD41/64	\$12.74	D/ARSD41/64	\$29.05
21/32"	.6563	3"	6"	DWDRSD21/32	\$12.74	D/ARSD21/32	\$29.05
43/64"	.6719	3"	6"	DWDRSD43/64	\$13.19	D/ARSD43/64	\$30.40
11/16"	.6875	3"	6"	DWDRSD11/16	\$13.19	D/ARSD11/16	\$30.40
45/64"	.7031	3"	6"	DWDRSD45/64	\$13.39	D/ARSD45/64	\$31.81
23/32"	.7188	3"	6"	DWDRSD23/32	\$13.39	D/ARSD23/32	\$31.81
47/64"	.7344	3"	6"	DWDRSD47/64	\$14.59	D/ARSD47/64	\$33.26
3/4"	.7500	3"	6"	DWDRSD3/4	\$14.59	D/ARSD3/4	\$33.26
49/64"	.7656	3"	6"	DWDRSD49/64	\$16.01	D/ARSD49/64	\$34.92
25/32"	.7813	3"	6"	DWDRSD25/32	\$16.01	D/ARSD25/32	\$34.92
51/64"	.7969	3"	6"	DWDRSD51/64	\$16.82	D/ARSD51/64	\$37.36
13/16"	.8125	3"	6"	DWDRSD13/16	\$16.82	D/ARSD13/16	\$37.36
53/64"	.8281	3"	6"	DWDRSD53/64	\$17.40	D/ARSD53/64	\$39.14
27/32"	.8438	3"	6"	DWDRSD27/32	\$17.40	D/ARSD27/32	\$39.14
55/64"	.8594	3"	6"	DWDRSD55/64	\$18.05	D/ARSD55/64	\$40.25
7/8"	.8750	3"	6"	DWDRSD7/8	\$18.05	D/ARSD7/8	\$40.25
57/64"	.8906	3"	6"	DWDRSD57/64	\$18.87	D/ARSD57/64	\$42.29
29/32"	.9063	3"	6"	DWDRSD29/32	\$18.87	D/ARSD29/32	\$42.29
59/64"	.9219	3"	6"	DWDRSD59/64	\$20.15	D/ARSD59/64	\$45.65
15/16"	.9375	3"	6"	DWDRSD15/16	\$20.15	D/ARSD15/16	\$45.65
61/64"	.9531	3"	6"	DWDRSD61/64	\$21.30	D/ARSD61/64	\$49.47
31/32"	.9688	3"	6"	DWDRSD31/32	\$21.30	D/ARSD31/32	\$49.47
63/64"	.9844	3"	6"	DWDRSD63/64	\$23.74	D/ARSD63/64	\$52.15
1"	1.0000	3"	6"	DWDRSD1	\$23.74	D/ARSD1	\$52.15
1-1/64"	1.0156	3"	6"	DWDRSD1-1/64	\$34.05	D/ARSD1-1/64	\$76.67
1-1/32"	1.0313	3"	6"	DWDRSD1-1/32	\$34.82	D/ARSD1-1/32	\$76.67
1-3/64"	1.0469	3"	6"	DWDRSD1-3/64	\$34.82	D/ARSD1-3/64	\$76.67
1-1/16"	1.0625	3"	6"	DWDRSD1-1/16	\$34.82	D/ARSD1-1/16	\$76.67
1-5/64"	1.0781	3"	6"	DWDRSD1-5/64	\$35.94	D/ARSD1-5/64	\$83.89
1-3/32"	1.0938	3"	6"	DWDRSD1-3/32	\$37.11	D/ARSD1-3/32	\$83.89
1-7/64"	1.1094	3"	6"	DWDRSD1-7/64	\$38.78	D/ARSD1-7/64	\$83.89
1-1/8"	1.1250	3"	6"	DWDRSD1-1/8	\$39.60	D/ARSD1-1/8	\$83.89
1-9/64"	1.1406	3"	6"	DWDRSD1-9/64	\$39.60	D/ARSD1-9/64	\$89.29
1-5/32"	1.1563	3"	6"	DWDRSD1-5/32	\$39.60	D/ARSD1-5/32	\$89.29
1-11/64"	1.1719	3"	6"	DWDRSD1-11/64	\$45.03	D/ARSD1-11/64	\$89.29
1-3/16"	1.1875	3"	6"	DWDRSD1-3/16	\$43.48	D/ARSD1-3/16	\$89.29
1-13/64"	1.2031	3"	6"	DWDRSD1-13/64	\$45.79	D/ARSD1-13/64	\$98.45
1-7/32"	1.2188	3"	6"	DWDRSD1-7/32	\$46.78	D/ARSD1-7/32	\$98.45
1-15/64"	1.2344	3"	6"	DWDRSD1-15/64	\$46.78	D/ARSD1-15/64	\$98.45
1-1/4"	1.2500	3"	6"	DWDRSD1-1/4	\$46.78	D/ARSD1-1/4	\$98.45
1-17/64"	1.2656	3"	6"	DWDRSD1-17/64	\$54.13	D/ARSD1-17/64	\$120.46
1-9/32"	1.2813	3"	6"	DWDRSD1-9/32	\$54.13	D/ARSD1-9/32	\$107.50
1-19/64"	1.2969	3"	6"	DWDRSD1-19/64	\$54.13	D/ARSD1-19/64	\$121.62
1-5/16"	1.3125	3"	6"	DWDRSD1-5/16	\$57.36	D/ARSD1-5/16	\$107.50
1-21/64"	1.3281	3"	6"	DWDRSD1-21/64	\$62.21	D/ARSD1-21/64	\$125.11
1-11/32"	1.3438	3"	6"	DWDRSD1-11/32	\$62.21	D/ARSD1-11/32	\$125.11
1-23/64"	1.3594	3"	6"	DWDRSD1-23/64	\$62.21	D/ARSD1-23/64	\$125.92
1-3/8"	1.3750	3"	6"	DWDRSD1-3/8	\$65.94	D/ARSD1-3/8	\$118.59
1-25/64"	1.3906	3"	6"	DWDRSD1-25/64	\$68.44	D/ARSD1-25/64	\$136.66
1-13/32"	1.4063	3"	6"	DWDRSD1-13/32	\$68.44	D/ARSD1-13/32	\$136.66
1-27/64"	1.4219	3"	6"	DWDRSD1-27/64	\$68.44	D/ARSD1-27/64	\$136.66
1-7/16"	1.4375	3"	6"	DWDRSD1-7/16	\$72.53	D/ARSD1-7/16	\$136.66
1-29/64"	1.4531	3"	6"	DWDRSD1-29/64	\$75.25	D/ARSD1-29/64	\$147.25
1-15/32"	1.4688	3"	6"	DWDRSD1-15/32	\$75.25	D/ARSD1-15/32	\$147.25
1-31/64"	1.4844	3"	6"	DWDRSD1-31/64	\$79.78	D/ARSD1-31/64	\$147.25
1-1/2"	1.5000	3"	6"	DWDRSD1-1/2	\$79.78	D/ARSD1-1/2	\$142.28



# HSS REDUCED SHANK DRILLS

## 1 / 2 " S H A N K M E T R I C

H.S.S DWDRSD Series						H.S.S DWDRSD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
12.5	.4921	3"	6"	DWDRSD12.5MM	\$19.20	23.5	.7881	3"	6"	DWDRSD23.5MM	\$48.78
13.0	.5118	3"	6"	DWDRSD13.0MM	\$19.20	24.0	.7882	3"	6"	DWDRSD24.0MM	\$48.78
13.5	.5315	3"	6"	DWDRSD13.5MM	\$21.58	24.5	.7883	3"	6"	DWDRSD24.5MM	\$54.38
14.0	.5512	3"	6"	DWDRSD14.0MM	\$24.72	25.0	.7884	3"	6"	DWDRSD25.0MM	\$54.38
14.5	.5709	3"	6"	DWDRSD14.5MM	\$24.72	25.5	.7885	3"	6"	DWDRSD25.5MM	\$83.56
15.0	.5906	3"	6"	DWDRSD15.0MM	\$26.49	26.0	.7886	3"	6"	DWDRSD26.0MM	\$83.56
15.5	.6102	3"	6"	DWDRSD15.5MM	\$27.69	26.5	.7887	3"	6"	DWDRSD26.5MM	\$83.56
16.0	.6299	3"	6"	DWDRSD16.0MM	\$29.33	27.0	.7888	3"	6"	DWDRSD27.0MM	\$83.56
16.5	.6496	3"	6"	DWDRSD16.5MM	\$29.47	27.5	.7889	3"	6"	DWDRSD27.5MM	\$93.06
17.0	.6693	3"	6"	DWDRSD17.0MM	\$30.67	28.0	.7890	3"	6"	DWDRSD28.0MM	\$93.06
17.5	.6890	3"	6"	DWDRSD17.5MM	\$30.67	28.5	.7891	3"	6"	DWDRSD28.5MM	\$95.03
18.0	.7087	3"	6"	DWDRSD18.0MM	\$32.31	29.0	.7892	3"	6"	DWDRSD29.0MM	\$95.03
18.5	.7283	3"	6"	DWDRSD18.5MM	\$33.79	29.5	.7893	3"	6"	DWDRSD29.5MM	\$104.35
19.0	.7480	3"	6"	DWDRSD19.0MM	\$33.79	30.0	.7894	3"	6"	DWDRSD30.0MM	\$104.35
19.5	.7677	3"	6"	DWDRSD19.5MM	\$35.28	31.0	.7895	3"	6"	DWDRSD31.0MM	\$112.27
20.0	.7874	3"	6"	DWDRSD20.0MM	\$35.58	32.0	.7896	3"	6"	DWDRSD32.0MM	\$129.91
20.5	.7875	3"	6"	DWDRSD20.5MM	\$39.87	33.0	.7897	3"	6"	DWDRSD33.0MM	\$137.67
21.0	.7876	3"	6"	DWDRSD21.0MM	\$39.87	34.0	.7898	3"	6"	DWDRSD34.0MM	\$149.31
21.5	.7877	3"	6"	DWDRSD21.5MM	\$41.35	35.0	.7899	3"	6"	DWDRSD35.0MM	\$158.26
22.0	.7878	3"	6"	DWDRSD22.0MM	\$41.35	36.0	.7900	3"	6"	DWDRSD36.0MM	\$164.25
22.5	.7879	3"	6"	DWDRSD22.5MM	\$43.22	37.0	.7901	3"	6"	DWDRSD37.0MM	\$180.60
23.0	.7880	3"	6"	DWDRSD23.0MM	\$43.22						

## 3 / 4 " S H A N K

H.S.S DWDRSD Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1"	1.0000	3"	6"	DWDRSD34X1	\$68.45
1-1/32"	1.0313	3"	6"	DWDRSD34X1-1/32	\$80.24
1-1/16"	1.0625	3"	6"	DWDRSD34X1-1/16	\$80.24
1-3/32"	1.0938	3"	6"	DWDRSD34X1-3/32	\$89.10
1-1/8"	1.1250	3"	6"	DWDRSD34X1-1/8	\$89.10
1-5/32"	1.1563	3"	6"	DWDRSD34X1-5/32	\$98.36
1-3/16"	1.1875	3"	6"	DWDRSD34X1-3/16	\$98.36
1-7/32"	1.2188	3"	6"	DWDRSD34X1-7/32	\$101.10
1-1/4"	1.2500	3"	6"	DWDRSD34X1-1/4	\$101.10
1-9/32"	1.2813	3"	6"	DWDRSD34X1-9/32	\$125.66
1-5/16"	1.3125	3"	6"	DWDRSD34X1-5/16	\$125.66
1-11/32"	1.3438	3"	6"	DWDRSD34X1-11/32	\$156.56
1-23/64"	1.3594	3"	6"	DWDRSD34X1-23/64	\$156.56
1-3/8"	1.3750	3"	6"	DWDRSD34X1-3/8	\$156.56
1-13/32"	1.4063	3"	6"	DWDRSD34X1-13/32	\$164.62
1-7/16"	1.4375	3"	6"	DWDRSD34X1-7/16	\$164.62
1-15/32"	1.4688	3"	6"	DWDRSD34X1-15/32	\$180.37
1-1/2"	1.5000	3"	6"	DWDRSD34X1-1/2	\$180.37
1-17/32"	1.5313	3"	6"	DWDRSD34X1-17/32	\$203.57
1-9/16"	1.5625	3"	6"	DWDRSD34X1-9/16	\$203.57
1-19/32"	1.5938	3"	6"	DWDRSD34X1-19/32	\$225.59
1-5/8"	1.6250	3"	6"	DWDRSD34X1-5/8	\$225.59
1-21/32"	1.6563	3"	6"	DWDRSD34X1-21/32	\$261.00
1-11/16"	1.6875	3"	6"	DWDRSD34X1-11/16	\$261.00
1-23/32"	1.7188	3"	6"	DWDRSD34X1-23/32	\$270.84
1-3/4"	1.7500	3"	6"	DWDRSD34X1-3/4	\$270.84
1-25/32"	1.7813	3"	6"	DWDRSD34X1-25/32	\$296.99
1-13/16"	1.8125	3"	6"	DWDRSD34X1-13/16	\$296.99
1-27/32"	1.8438	3"	6"	DWDRSD34X1-27/32	\$305.67
1-7/8"	1.8750	3"	6"	DWDRSD34X1-7/8	\$305.67
1-29/32"	1.9063	3"	6"	DWDRSD34X1-29/32	\$324.12
1-15/16"	1.9375	3"	6"	DWDRSD34X1-15/16	\$324.12
1-31/32"	1.9688	3"	6"	DWDRSD34X1-31/32	\$340.64
2"	2.0000	3"	6"	DWDRSD34X2	\$340.64



# HSS 3-FLAT REDUCED SHANK DRILLS

## D/A3F Series - 3 Flat S&D

## KFDRSD Series - Black and Gold S&D

Made of HS Steel, these drills expand the size range capacity of a portable drill chuck. Common flute and overall length for minimal adjustment during tool changes. Precision ground for high degree of concentricity between shank and body diameter. Ideal for drilling in low and medium tensile strength materials.



## 1 / 2 " SHANK

### Drill America

### Killer Force Drill

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S D/A3F Series		H.S.S Black & Gold KFDRSD Series	
				Part Number	List Price	Part Number	List Price
33/64"	.5156	3"	6"	D/A3F33/64	\$22.94	KFDRSD33/64	\$18.63
17/32"	.5313	3"	6"	D/A3F17/32	\$22.94	KFDRSD17/32	\$18.63
35/64"	.5469	3"	6"	D/A3F35/64	\$24.35	KFDRSD35/64	\$19.86
9/16"	.5625	3"	6"	D/A3F9/16	\$24.35	KFDRSD9/16	\$19.86
37/64"	.5781	3"	6"	D/A3F37/64	\$26.23	KFDRSD37/64	\$21.21
19/32"	.5938	3"	6"	D/A3F19/32	\$26.23	KFDRSD19/32	\$21.21
39/64"	.6094	3"	6"	D/A3F39/64	\$26.93	KFDRSD39/64	\$22.39
5/8"	.6250	3"	6"	D/A3F5/8	\$26.93	KFDRSD5/8	\$22.39
41/64"	.6406	3"	6"	D/A3F41/64	\$28.36	KFDRSD41/64	\$23.79
21/32"	.6563	3"	6"	D/A3F21/32	\$28.36	KFDRSD21/32	\$23.79
43/64"	.6719	3"	6"	D/A3F43/64	\$29.63	KFDRSD43/64	\$24.92
11/16"	.6875	3"	6"	D/A3F11/16	\$29.63	KFDRSD11/16	\$24.92
45/64"	.7031	3"	6"	D/A3F45/64	\$30.88	KFDRSD45/64	\$26.27
23/32"	.7188	3"	6"	D/A3F23/32	\$30.88	KFDRSD23/32	\$26.27
47/64"	.7344	3"	6"	D/A3F47/64	\$32.21	KFDRSD47/64	\$27.32
3/4"	.7500	3"	6"	D/A3F3/4	\$32.21	KFDRSD3/4	\$27.32
49/64"	.7656	3"	6"	D/A3F49/64	\$34.64	KFDRSD49/64	\$28.90
25/32"	.7813	3"	6"	D/A3F25/32	\$34.64	KFDRSD25/32	\$28.90
51/64"	.7969	3"	6"	D/A3F51/64	\$36.86	KFDRSD51/64	\$30.38
13/16"	.8125	3"	6"	D/A3F13/16	\$36.86	KFDRSD13/16	\$30.38
53/64"	.8281	3"	6"	D/A3F53/64	\$38.49	KFDRSD53/64	\$31.17
27/32"	.8438	3"	6"	D/A3F27/32	\$38.49	KFDRSD27/32	\$31.17
55/64"	.8594	3"	6"	D/A3F55/64	\$39.53	KFDRSD55/64	\$32.60
7/8"	.8750	3"	6"	D/A3F7/8	\$39.53	KFDRSD7/8	\$32.60
57/64"	.8906	3"	6"	D/A3F57/64	\$41.37	KFDRSD57/64	\$34.09
29/32"	.9063	3"	6"	D/A3F29/32	\$41.37	KFDRSD29/32	\$34.09
59/64"	.9219	3"	6"	D/A3F59/64	\$44.44	KFDRSD59/64	\$36.54
15/16"	.9375	3"	6"	D/A3F15/16	\$44.44	KFDRSD15/16	\$36.54
61/64"	.9531	3"	6"	D/A3F61/64	\$47.94	KFDRSD61/64	\$38.73
31/32"	.9688	3"	6"	D/A3F31/32	\$47.94	KFDRSD31/32	\$38.73
63/64"	.9844	3"	6"	D/A3F63/64	\$50.39	KFDRSD63/64	\$42.42
1"	1.0000	3"	6"	D/A3F1	\$50.39	KFDRSD1	\$42.55
1-1/32"	1.0313	3"	6"	D/A3F1-1/32	\$73.68	-	-
1-1/16"	1.0625	3"	6"	D/A3F1-1/16	\$73.68	KFDRSD1-1/16	\$52.85
1-3/32"	1.0938	3"	6"	D/A3F1-3/32	\$80.27	-	-
1-1/8"	1.1250	3"	6"	D/A3F1-1/8	\$80.27	KFDRSD1-1/8	\$52.85
1-5/32"	1.1563	3"	6"	D/A3F1-5/32	\$85.22	-	-
1-3/16"	1.1875	3"	6"	D/A3F1-3/16	\$85.22	KFDRSD1-3/16	\$60.08
1-7/32"	1.2188	3"	6"	D/A3F1-7/32	\$93.57	-	-
1-1/4"	1.2500	3"	6"	D/A3F1-1/4	\$93.57	KFDRSD1-1/4	\$62.94
1-5/16"	1.3125	3"	6"	D/A3F1-5/16	\$101.50	KFDRSD1-5/16	\$69.04
1-3/8"	1.3750	3"	6"	D/A3F1-3/8	\$111.97	KFDRSD1-3/8	\$70.29
1-7/16"	1.4375	3"	6"	D/A3F1-7/16	\$128.47	KFDRSD1-7/16	\$80.34
1-1/2"	1.5000	3"	6"	D/A3F1-1/2	\$133.58	KFDRSD1-1/2	\$82.43

# COBALT REDUCED SHANK DRILLS

## DWDCO Series - Economy

Made of heat resistant cobalt and ground to a heavy duty 135° split point. Common flute and overall length for minimal adjustment during tool changes. Precision ground for high degree of concentricity between shank and body diameter. Ideal for drilling in tough, high tensile strength materials.

## D/ACO Series - Premium Quality

Expands the size range capacity of a portable drill chuck. Common flute and overall length for minimal adjustment during tool changes. Precision ground for high degree of concentricity between shank and body diameter. Ideal for drilling in low and medium tensile strength materials.



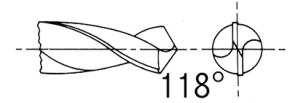
## 1 / 2 " S H A N K

**qualiTECH™**

*Drill America*

				Cobalt DWDCO Series		Cobalt D/ACO Series	
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
33/64"	.5156	3"	6"	DWDCO33/64	\$34.12	D/ACO33/64	\$49.16
17/32"	.5313	3"	6"	DWDCO17/32	\$33.17	D/ACO17/32	\$47.41
35/64"	.5469	3"	6"	DWDCO35/64	\$34.12	D/ACO35/64	\$49.16
9/16"	.5625	3"	6"	DWDCO9/16	\$31.26	D/ACO9/16	\$47.41
37/64"	.5781	3"	6"	DWDCO37/64	\$38.35	D/ACO37/64	\$55.35
19/32"	.5938	3"	6"	DWDCO19/32	\$36.80	D/ACO19/32	\$53.38
39/64"	.6094	3"	6"	DWDCO39/64	\$38.35	D/ACO39/64	\$55.35
5/8"	.6250	3"	6"	DWDCO5/8	\$35.16	D/ACO5/8	\$53.38
41/64"	.6406	3"	6"	DWDCO41/64	\$42.09	D/ACO41/64	\$60.77
21/32"	.6563	3"	6"	DWDCO21/32	\$38.92	D/ACO21/32	\$58.63
43/64"	.6719	3"	6"	DWDCO43/64	\$42.09	D/ACO43/64	\$60.77
11/16"	.6875	3"	6"	DWDCO11/16	\$38.58	D/ACO11/16	\$58.63
45/64"	.7031	3"	6"	DWDCO45/64	\$45.40	D/ACO45/64	\$67.66
23/32"	.7188	3"	6"	DWDCO23/32	\$43.26	D/ACO23/32	\$65.24
47/64"	.7344	3"	6"	DWDCO47/64	\$45.40	D/ACO47/64	\$67.66
3/4"	.7500	3"	6"	DWDCO3/4	\$44.34	D/ACO3/4	\$65.24
49/64"	.7656	3"	6"	DWDCO49/64	\$54.12	D/ACO49/64	\$75.97
25/32"	.7813	3"	6"	DWDCO25/32	\$50.03	D/ACO25/32	\$73.27
51/64"	.7969	3"	6"	DWDCO51/64	\$54.12	D/ACO51/64	\$75.97
13/16"	.8125	3"	6"	DWDCO13/16	\$49.54	D/ACO13/16	\$73.27
53/64"	.8281	3"	6"	DWDCO53/64	\$58.17	D/ACO53/64	\$73.27
27/32"	.8438	3"	6"	DWDCO27/32	\$53.82	D/ACO27/32	\$78.71
55/64"	.8594	3"	6"	DWDCO55/64	\$58.17	D/ACO55/64	\$89.29
7/8"	.8750	3"	6"	DWDCO7/8	\$54.46	D/ACO7/8	\$86.07
57/64"	.8906	3"	6"	DWDCO57/64	\$66.12	D/ACO57/64	\$99.80
29/32"	.9063	3"	6"	DWDCO29/32	\$61.34	D/ACO29/32	\$96.25
59/64"	.9219	3"	6"	DWDCO59/64	\$66.12	D/ACO59/64	\$99.80
15/16"	.9375	3"	6"	DWDCO15/16	\$60.69	D/ACO15/16	\$96.25
61/64"	.9531	3"	6"	DWDCO61/64	\$77.98	D/ACO61/64	\$116.42
31/32"	.9688	3"	6"	DWDCO31/32	\$72.21	D/ACO31/32	\$113.16
63/64"	.9844	3"	6"	DWDCO63/64	\$77.98	D/ACO63/64	\$116.42
1"	1.0000	3"	6"	DWDCO1INCH	\$71.48	D/ACO1INCH	\$113.16
1-1/16"	1.0625	3"	6"	DWDCO1-1/16	\$88.53	D/ACO1-1/16	\$143.55
1-1/8"	1.1250	3"	6"	DWDCO1-1/8	\$100.69	D/ACO1-1/8	\$163.26
1-3/16"	1.1875	3"	6"	DWDCO1-3/16	\$110.48	D/ACO1-3/16	\$179.07
1-1/4"	1.2500	3"	6"	DWDCO1-1/4	\$122.35	D/ACO1-1/4	\$198.27
1-5/16"	1.3125	3"	6"	DWDCO1-5/16	\$151.97	D/ACO1-5/16	\$246.03
1-3/8"	1.3750	3"	6"	DWDCO1-3/8	\$174.67	D/ACO1-3/8	\$282.93
1-7/16"	1.4375	3"	6"	DWDCO1-7/16	\$192.26	D/ACO1-7/16	\$311.24
1-1/2"	1.5000	3"	6"	DWDCO1-1/2	\$222.45	D/ACO1-1/2	\$342.30

# CARDED DRILLS



## CRDN Series - H.S.S. Jobber Drills Carded

A dependable, general purpose drill designed to perform in a broad range of materials in the iron and steel families. Ideal for production, maintenance or portable drilling jobs. Surface treated with abrasion-resistant black oxide.



Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
1/16"	.0625	7/8"	1-7/8"	CRDN1/16	\$0.59
5/64"	.0781	1"	2"	CRDN5/64	\$0.62
3/32"	.0938	1-1/4"	2-1/4"	CRDN3/32	\$0.62
7/64"	.1094	1-1/2"	2-5/8"	CRDN7/64	\$0.62
1/8"	.1250	1-5/8"	2-3/4"	CRDN1/8	\$0.62
9/64"	.1406	1-3/4"	2-7/8"	CRDN9/64	\$0.70
5/32"	.1562	2"	3-1/8"	CRDN5/32	\$0.70
11/64"	.1719	2-1/8"	3-1/4"	CRDN11/64	\$0.79
3/16"	.1875	2-5/16"	3-1/2"	CRDN3/16	\$0.86
13/64"	.2031	2-7/16"	3-5/8"	CRDN13/64	\$0.98
7/32"	.2188	2-1/2"	3-3/4"	CRDN7/32	\$1.05
15/64"	.2344	2-5/8"	3-7/8"	CRDN15/64	\$1.17
1/4"	.2500	2-3/4"	4"	CRDN1/4	\$1.22
17/64"	.2656	2-7/8"	4-1/8"	CRDN17/64	\$1.48
9/32"	.2812	2-15/16"	4-1/4"	CRDN9/32	\$1.53
19/64"	.2969	3-1/16"	4-3/8"	CRDN19/64	\$1.83
5/16"	.3125	3-3/16"	4-1/2"	CRDN5/16	\$1.97
21/64"	.3281	3-5/16"	4-5/8"	CRDN21/64	\$2.22
11/32"	.3438	3-7/16"	4-3/4"	CRDN11/32	\$2.43
23/64"	.3594	3-1/2"	4-7/8"	CRDN23/64	\$2.77
3/8"	.3750	3-5/8"	5"	CRDN3/8	\$2.79
25/64"	.3906	3-3/4"	5-1/8"	CRDN25/64	\$3.28
13/32"	.4062	3-7/8"	5-1/4"	CRDN13/32	\$3.32
27/64"	.4219	3-15/16"	5-3/8"	CRDN27/64	\$3.71
7/16"	.4375	4-1/16"	5-1/2"	CRDN7/16	\$3.82
29/64"	.4531	4-3/16"	5-5/8"	CRDN29/64	\$4.33
15/32"	.4688	4-5/16"	5-3/4"	CRDN15/32	\$4.57
31/64"	.4844	4-3/8"	5-7/8"	CRDN31/64	\$4.80
1/2"	.5000	4-1/2"	6"	CRDN1/2	\$5.02



## CRDRSD Series - H.S.S. 3/8" Reduced Shank Drills

Expands the size range capacity of a portable drill chuck. Common flute and overall length for minimal adjustment during tool changes. Precision ground for high degree of concentricity between shank and body diameter. Ideal for drilling in low and medium tensile strength materials.

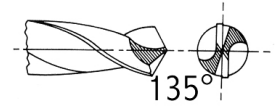
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
7/16"	.4375	4-1/16"	5-1/2"	CRDRSD3/8X7/16	\$10.17
1/2"	.5000	4-1/2"	6"	CRDRSD3/8X1/2	\$12.33
9/16"	.5625	4-13/16"	6-5/8"	CRDRSD3/8X9/16	\$24.03
5/8"	.6250	5-3/16"	7-1/8"	CRDRSD3/8X5/8	\$27.06



# 6" AIRCRAFT EXT. DRILLS

DWDA/C Series - High Speed Steel Economy

D/AA/C Series - High Speed Steel Premium Quality



Manufactured to National Aerospace Standard 907. 135° split point is self-centering and reduces thrust. Ideal for drilling in mild steels where extra length for reach is required. They have a black oxide surface treatment that is abrasion resistant, reduces chip welding and improves chip flow. Sizes smaller than #52 and 1/16 have the 118° standard point.



GLBCO Series - Cobalt

Manufactured to National Aerospace Standard 907. Made of heat resistant cobalt, the 135° split point is self-centering and reduces thrust. They are especially effective in drilling tough, high tensile strength materials like PH stainless steel, inconel, and titanium.



## F R A C T I O N A L   S I Z E S

			<b>qualiTECH™</b>		<i>Drill America</i>		<b>qualiTECH™</b>	
			<b>H.S.S DWDA/C Series</b>		<b>H.S.S D/AA/C Series</b>		<b>Cobalt GLBCO Series</b>	
Size	Dec. Equiv.	Flute Length	Part Number	List Price	Part Number	List Price	Part Number	List Price
3/64"	.0469	3/4"	DWDA/CX63/64	\$5.64	D/AA/CX63/64	\$10.54	GLBCOX61/16	\$5.62
1/16"	.0625	7/8"	DWDA/CX61/16	\$3.30	D/AA/CX61/16	\$4.88	GLBCOX65/64	\$5.62
5/64"	.0781	1"	DWDA/CX65/64	\$3.30	D/AA/CX65/64	\$4.88	GLBCOX63/32	\$5.62
3/32"	.0938	1-1/4"	DWDA/CX63/32	\$2.46	D/AA/CX63/32	\$3.62	GLBCOX67/64	\$5.07
7/64"	.1094	1-1/2"	DWDA/CX67/64	\$2.46	D/AA/CX67/64	\$3.62	GLBCOX61/8	\$4.77
1/8"	.1250	1-5/8"	DWDA/CX61/8	\$2.46	D/AA/CX61/8	\$3.50	GLBCOX69/64	\$5.66
9/64"	.1406	1-3/4"	DWDA/CX69/64	\$3.01	D/AA/CX69/64	\$4.47	GLBCOX65/32	\$5.66
5/32"	.1563	2"	DWDA/CX65/32	\$3.01	D/AA/CX65/32	\$4.47	GLBCOX611/64	\$6.21
11/64"	.1719	2-1/8"	DWDA/CX611/64	\$3.55	D/AA/CX611/64	\$5.24	GLBCOX63/16	\$6.21
3/16"	.1875	2-5/16"	DWDA/CX63/16	\$3.55	D/AA/CX63/16	\$5.03	GLBCOX613/64	\$7.73
13/64"	.2031	2-7/16"	DWDA/CX613/64	\$4.28	D/AA/CX613/64	\$6.03	GLBCOX67/32	\$7.73
7/32"	.2188	2-1/2"	DWDA/CX67/32	\$4.28	D/AA/CX67/32	\$6.03	GLBCOX615/64	\$8.43
15/64"	.2344	2-5/8"	DWDA/CX615/64	\$4.88	D/AA/CX615/64	\$6.88	GLBCOX61/4	\$8.43
1/4"	.2500	2-3/4"	DWDA/CX61/4	\$4.88	D/AA/CX61/4	\$6.60	GLBCOX617/64	\$14.22
17/64"	.2656	2-7/8"	DWDA/CX617/64	\$7.58	D/AA/CX617/64	\$11.19	GLBCOX69/32	\$15.65
9/32"	.2813	2-15/16"	DWDA/CX69/32	\$8.75	D/AA/CX69/32	\$12.90	GLBCOX619/64	\$16.87
19/64"	.2969	3-1/16"	DWDA/CX619/64	\$9.87	D/AA/CX619/64	\$14.56	GLBCOX65/16	\$17.30
5/16"	.3125	3-3/16"	DWDA/CX65/16	\$10.93	D/AA/CX65/16	\$15.49	GLBCOX621/64	\$18.55
21/64"	.3281	3-5/16"	DWDA/CX621/64	\$12.63	D/AA/CX621/64	\$18.62	GLBCOX611/32	\$19.48
11/32"	.3438	3-7/16"	DWDA/CX611/32	\$12.87	D/AA/CX611/32	\$18.98	GLBCOX623/64	\$21.51
23/64"	.3594	3-1/2"	DWDA/CX623/64	\$13.38	D/AA/CX623/64	\$19.63	GLBCOX63/8	\$21.66
3/8"	.3750	3-5/8"	DWDA/CX63/8	\$14.25	D/AA/CX63/8	\$20.17	GLBCOX625/64	\$23.62
25/64"	.3906	3-3/4"	DWDA/CX625/64	\$14.75	D/AA/CX625/64	\$21.75	GLBCOX613/32	\$24.30
13/32"	.4063	3-7/8"	DWDA/CX613/32	\$15.31	D/AA/CX613/32	\$22.56	GLBCOX627/64	\$25.90
27/64"	.4219	3-15/16"	DWDA/CX627/64	\$16.13	D/AA/CX627/64	\$23.79	GLBCOX67/16	\$25.09
7/16"	.4375	4-1/16"	DWDA/CX67/16	\$18.11	D/AA/CX67/16	\$26.71		
29/64"	.4531	4-3/16"	DWDA/CX629/64	\$18.51	D/AA/CX629/64	\$27.32		
15/32"	.4688	4-5/16"	DWDA/CX615/32	\$18.51	D/AA/CX615/32	\$27.32		
31/64"	.4844	4-3/8"	DWDA/CX631/64	\$20.60	D/AA/CX631/64	\$30.37		
1/2"	.5000	4-1/2"	DWDA/CX61/2	\$20.60	D/AA/CX61/2	\$29.06		

# 6" AIRCRAFT EXT. DRILLS

## LETTER SIZES

qualiTECH™

H.S.S DWDA/C Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
A	.2340	2-5/8	DWDA/CX6A	\$10.05
B	.2380	2-3/4	DWDA/CX6B	\$10.05
C	.2420	2-3/4	DWDA/CX6C	\$10.05
D	.2460	2-3/4	DWDA/CX6D	\$10.05
E	.2500	2-3/4	DWDA/CX6E	\$7.82
F	.2570	2-7/8	DWDA/CX6F	\$11.10
G	.2610	2-7/8	DWDA/CX6G	\$18.30
H	.2660	2-7/8	DWDA/CX6H	\$19.37
I	.2720	2-7/8	DWDA/CX6I	\$19.37
J	.2770	2-7/8	DWDA/CX6J	\$19.37
K	.2810	2-15/16	DWDA/CX6K	\$19.37
L	.2900	2-15/16	DWDA/CX6L	\$21.96
M	.2950	3-1/16	DWDA/CX6M	\$21.96

qualiTECH™

H.S.S DWDA/C Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
N	.3020	3-1/16	DWDA/CX6N	\$24.72
O	.3160	3-3/16	DWDA/CX6O	\$25.85
P	.3230	3-5/16	DWDA/CX6P	\$25.85
Q	.3320	3-7/16	DWDA/CX6Q	\$26.04
R	.3390	3-7/16	DWDA/CX6R	\$26.04
S	.3480	3-1/2	DWDA/CX6S	\$28.69
T	.3580	3-1/2	DWDA/CX6T	\$28.69
U	.3680	3-5/8	DWDA/CX6U	\$30.33
V	.3770	3-5/8	DWDA/CX6V	\$32.04
W	.3860	3-3/4	DWDA/CX6W	\$32.04
X	.3970	3-3/4	DWDA/CX6X	\$32.04
Y	.4040	3-7/8	DWDA/CX6Y	\$32.04
Z	.4130	3-7/8	DWDA/CX6Z	\$34.36

## WIRE GAUGE SIZES

qualiTECH™

qualiTECH™

qualiTECH™

H.S.S DWDA/C Series					Cobalt GLBCO Series		H.S.S DWDA/C Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price	Part Number	List Price	Size	Dec. Equiv.	Flute Length	Part Number	List Price
1	.2280	2-5/8"	DWDA/CX61	\$5.07	GLBCOX61	\$8.75	41	.0960	1-3/8"	DWDA/CX641	\$2.86
2	.2210	2-5/8"	DWDA/CX62	\$5.07	GLBCOX62	\$8.75	42	.0935	1-1/4"	DWDA/CX642	\$2.86
3	.2130	2-1/2"	DWDA/CX63	\$4.55	GLBCOX63	\$7.91	43	.0890	1-1/4"	DWDA/CX643	\$3.66
4	.2090	2-1/2"	DWDA/CX64	\$4.55	GLBCOX64	\$7.91	44	.0860	1-1/8"	DWDA/CX644	\$3.66
5	.2055	2-1/2"	DWDA/CX65	\$4.55	GLBCOX65	\$7.91	45	.0820	1-1/8"	DWDA/CX645	\$3.66
6	.2040	2-1/2"	DWDA/CX66	\$4.55	GLBCOX66	\$7.91	46	.0810	1-1/8"	DWDA/CX646	\$3.66
7	.2010	2-7/16"	DWDA/CX67	\$4.55	GLBCOX67	\$7.91	47	.0785	1"	DWDA/CX647	\$3.66
8	.1990	2-7/16"	DWDA/CX68	\$4.48	GLBCOX68	\$7.64	48	.0760	1"	DWDA/CX648	\$3.66
9	.1960	2-7/16"	DWDA/CX69	\$4.40	GLBCOX69	\$7.64	49	.0730	1"	DWDA/CX649	\$3.66
10	.1935	2-7/16"	DWDA/CX610	\$3.81	GLBCOX610	\$7.08	50	.0700	1"	DWDA/CX650	\$3.66
11	.1910	2-5/16"	DWDA/CX611	\$3.81	GLBCOX611	\$7.08	51	.0670	1"	DWDA/CX651	\$3.66
12	.1890	2-5/16"	DWDA/CX612	\$3.81	GLBCOX612	\$6.58	52	.0635	7/8"	DWDA/CX652	\$3.66
13	.1850	2-5/16"	DWDA/CX613	\$3.63	GLBCOX613	\$6.58	53	.0595	7/8"	DWDA/CX653	\$7.32
14	.1820	2-3/16"	DWDA/CX614	\$3.63	GLBCOX614	\$6.58	54	.0550	7/8"	DWDA/CX654	\$7.32
15	.1800	2-3/16"	DWDA/CX615	\$3.63	GLBCOX615	\$6.58	55	.0520	7/8"	DWDA/CX655	\$7.32
16	.1770	2-3/16"	DWDA/CX616	\$3.63	GLBCOX616	\$6.58	56	.0465	3/4"	DWDA/CX656	\$7.32
17	.1730	2-3/16"	DWDA/CX617	\$3.63	GLBCOX617	\$6.58	57	.0430	3/4"	DWDA/CX657	\$8.83
18	.1695	2-1/8"	DWDA/CX618	\$3.63	GLBCOX618	\$6.58	58	.0420	11/16"	DWDA/CX658	\$8.83
19	.1660	2-1/8"	DWDA/CX619	\$3.63	GLBCOX619	\$6.58	59	.0410	11/16"	DWDA/CX659	\$8.83
20	.1610	2-1/8"	DWDA/CX620	\$3.32	GLBCOX620	\$5.98	60	.0400	11/16"	DWDA/CX660	\$8.83
21	.1590	2-1/8"	DWDA/CX621	\$3.32	GLBCOX621	\$5.98					
22	.1570	2"	DWDA/CX622	\$3.32	GLBCOX622	\$5.98					
23	.1540	2"	DWDA/CX623	\$3.32	GLBCOX623	\$5.98					
24	.1520	2"	DWDA/CX624	\$3.32	GLBCOX624	\$5.98					
25	.1495	1-7/8"	DWDA/CX625	\$3.32	GLBCOX625	\$5.98					
26	.1470	1-7/8"	DWDA/CX626	\$3.32	GLBCOX626	\$5.98					
27	.1440	1-7/8"	DWDA/CX627	\$3.32	GLBCOX627	\$5.98					
28	.1405	1-3/4"	DWDA/CX628	\$3.32	GLBCOX628	\$5.98					
29	.1360	1-3/4"	DWDA/CX629	\$3.32	GLBCOX629	\$5.98					
30	.1285	1-5/8"	DWDA/CX630	\$2.71	GLBCOX630	\$4.82					
31	.1200	1-5/8"	DWDA/CX631	\$2.71	GLBCOX631	\$4.82					
32	.1160	1-5/8"	DWDA/CX632	\$2.71	GLBCOX632	\$4.82					
33	.1130	1-1/2"	DWDA/CX633	\$2.71	GLBCOX633	\$4.82					
34	.1110	1-1/2"	DWDA/CX634	\$2.71	GLBCOX634	\$4.82					
35	.1100	1-1/2"	DWDA/CX635	\$2.71	GLBCOX635	\$4.82					
36	.1065	1-7/16"	DWDA/CX636	\$2.78	GLBCOX636	\$5.07					
37	.1040	1-7/16"	DWDA/CX637	\$2.78	GLBCOX637	\$5.07					
38	.1015	1-7/16"	DWDA/CX638	\$2.78	GLBCOX638	\$5.07					
39	.0995	1-3/8"	DWDA/CX639	\$2.87	GLBCOX639	\$5.07					
40	.0980	1-3/8"	DWDA/CX640	\$2.46	GLBCOX640	\$5.07					

# 12" AIRCRAFT EXT. DRILLS

## FRACTIONAL SIZES

			<b>qualiTECH™</b>		<i>Drill America</i>		<b>qualiTECH™</b>	
			<b>H.S.S DWDA/C Series</b>		<b>H.S.S D/AA/C Series</b>		<b>Cobalt GLBCO Series</b>	
Size	Dec. Equiv.	Flute Length	Part Number	List Price	Part Number	List Price	Part Number	List Price
3/64"	.0469	3/4"	DWDA/CX123/64	\$8.64	D/AA/CX123/64	\$19.13	GLBCOX121/16	\$14.82
1/16"	.0625	7/8"	DWDA/CX121/16	\$6.55	D/AA/CX121/16	\$8.00	GLBCOX125/64	\$14.82
5/64"	.0781	1"	DWDA/CX125/64	\$6.28	D/AA/CX125/64	\$7.67	GLBCOX123/32	\$11.73
3/32"	.0938	1-1/4"	DWDA/CX123/32	\$6.75	D/AA/CX123/32	\$8.25	GLBCOX127/64	\$12.91
7/64"	.1094	1-1/2"	DWDA/CX127/64	\$7.01	D/AA/CX127/64	\$8.58	GLBCOX121/8	\$13.11
1/8"	.1250	1-5/8"	DWDA/CX121/8	\$7.05	D/AA/CX121/8	\$8.58	GLBCOX129/64	\$14.82
9/64"	.1406	1-3/4"	DWDA/CX129/64	\$7.72	D/AA/CX129/64	\$9.33	GLBCOX125/32	\$13.41
5/32"	.1563	2"	DWDA/CX125/32	\$8.70	D/AA/CX125/32	\$10.52	GLBCOX1211/64	\$14.59
11/64"	.1719	2-1/8"	DWDA/CX1211/64	\$8.61	D/AA/CX1211/64	\$10.52	GLBCOX123/16	\$14.59
3/16"	.1875	2-5/16"	DWDA/CX123/16	\$8.91	D/AA/CX123/16	\$10.90	GLBCOX1213/64	\$16.03
13/64"	.2031	2-7/16"	DWDA/CX1213/64	\$9.75	D/AA/CX1213/64	\$11.39	GLBCOX127/32	\$16.75
7/32"	.2188	2-1/2"	DWDA/CX127/32	\$9.88	D/AA/CX127/32	\$11.51	GLBCOX1215/64	\$17.96
15/64"	.2344	2-5/8"	DWDA/CX1215/64	\$10.44	D/AA/CX1215/64	\$12.19	GLBCOX121/4	\$17.96
1/4"	.2500	2-3/4"	DWDA/CX121/4	\$10.55	D/AA/CX121/4	\$12.30	GLBCOX1217/64	\$27.58
17/64"	.2656	2-7/8"	DWDA/CX1217/64	\$12.18	D/AA/CX1217/64	\$14.20	GLBCOX129/32	\$27.89
9/32"	.2813	2-15/16"	DWDA/CX129/32	\$12.35	D/AA/CX129/32	\$14.42	GLBCOX1219/64	\$29.24
19/64"	.2969	3-1/16"	DWDA/CX1219/64	\$14.05	D/AA/CX1219/64	\$16.36	GLBCOX125/16	\$29.78
5/16"	.3125	3-3/16"	DWDA/CX125/16	\$14.27	D/AA/CX125/16	\$16.61	GLBCOX1221/64	\$30.62
21/64"	.3281	3-5/16"	DWDA/CX1221/64	\$16.06	D/AA/CX1221/64	\$18.38	GLBCOX1211/32	\$31.55
11/32"	.3438	3-7/16"	DWDA/CX1211/32	\$16.06	D/AA/CX1211/32	\$18.38	GLBCOX1223/64	\$33.46
23/64"	.3594	3-1/2"	DWDA/CX1223/64	\$17.95	D/AA/CX1223/64	\$20.60	GLBCOX123/8	\$34.21
3/8"	.3750	3-5/8"	DWDA/CX123/8	\$17.95	D/AA/CX123/8	\$20.60	GLBCOX1225/64	\$35.48
25/64"	.3906	3-3/4"	DWDA/CX1225/64	\$20.67	D/AA/CX1225/64	\$22.87	GLBCOX1213/32	\$36.09
13/32"	.4063	3-7/8"	DWDA/CX1213/32	\$20.67	D/AA/CX1213/32	\$22.87	GLBCOX1227/64	\$37.62
27/64"	.4219	3-15/16"	DWDA/CX1227/64	\$23.21	D/AA/CX1227/64	\$25.68	GLBCOX127/16	\$48.12
7/16"	.4375	4-1/16"	DWDA/CX127/16	\$23.21	D/AA/CX127/16	\$25.68	GLBCOX1229/64	\$51.58
29/64"	.4531	4-3/16"	DWDA/CX1229/64	\$26.33	D/AA/CX1229/64	\$28.17	GLBCOX1215/32	\$51.93
15/32"	.4688	4-5/16"	DWDA/CX1215/32	\$26.33	D/AA/CX1215/32	\$28.17	GLBCOX1231/64	\$53.78
31/64"	.4844	4-3/8"	DWDA/CX1231/64	\$28.72	D/AA/CX1231/64	\$30.78	GLBCOX121/2	\$61.28
1/2"	.5000	4-1/2"	DWDA/CX121/2	\$28.72	D/AA/CX121/2	\$30.78		

## LETTER SIZES

			<b>qualiTECH™</b>					<b>qualiTECH™</b>	
			<b>H.S.S DWDA/C Series</b>					<b>H.S.S DWDA/C Series</b>	
Size	Dec. Equiv.	Flute Length	Part Number	List Price	Size	Dec. Equiv.	Flute Length	Part Number	List Price
A	.2340	2-5/8"	DWDA/CX12A	\$21.55	N	.3020	3-1/16"	DWDA/CX12N	\$29.52
B	.2380	2-3/4"	DWDA/CX12B	\$21.55	O	.3160	3-3/16"	DWDA/CX12O	\$31.66
C	.2420	2-3/4"	DWDA/CX12C	\$21.55	P	.3230	3-5/16"	DWDA/CX12P	\$32.23
D	.2460	2-3/4"	DWDA/CX12D	\$21.55	Q	.3320	3-7/16"	DWDA/CX12Q	\$33.73
E	.2500	2-3/4"	DWDA/CX12E	\$19.49	R	.3390	3-7/16"	DWDA/CX12R	\$35.24
F	.2570	2-7/8"	DWDA/CX12F	\$25.58	S	.3480	3-1/2"	DWDA/CX12S	\$36.87
G	.2610	2-7/8"	DWDA/CX12G	\$25.65	T	.3580	3-1/2"	DWDA/CX12T	\$36.87
H	.2660	2-7/8"	DWDA/CX12H	\$25.65	U	.3680	3-5/8"	DWDA/CX12U	\$36.87
I	.2720	2-7/8"	DWDA/CX12I	\$25.65	V	.3770	3-5/8"	DWDA/CX12V	\$39.10
J	.2770	2-7/8"	DWDA/CX12J	\$25.65	W	.3860	3-3/4"	DWDA/CX12W	\$40.50
K	.2810	2-15/16"	DWDA/CX12K	\$25.65	X	.3970	3-3/4"	DWDA/CX12X	\$42.83
L	.2900	2-15/16"	DWDA/CX12L	\$27.09	Y	.4040	3-7/8"	DWDA/CX12Y	\$42.83
M	.2950	3-1/16"	DWDA/CX12M	\$27.09	Z	.4130	3-7/8"	DWDA/CX12Z	\$45.19

# 12" AIRCRAFT EXT. DRILLS

## WIRE GAUGE SIZES

qualTECH™

qualTECH™

Size	Dec. Equiv.	Flute Length	H.S.S DWDA/C Series		Cobalt GLBCO Series	
			Part Number	List Price	Part Number	List Price
1	.2280	2-5/8"	DWDA/CX121	\$12.28	GLBCOX121	\$19.53
2	.2210	2-5/8"	DWDA/CX122	\$12.28	GLBCOX122	\$19.53
3	.2130	2-1/2"	DWDA/CX123	\$11.43	GLBCOX123	\$18.22
4	.2090	2-1/2"	DWDA/CX124	\$11.43	GLBCOX124	\$18.22
5	.2055	2-1/2"	DWDA/CX125	\$11.43	GLBCOX125	\$18.22
6	.2040	2-1/2"	DWDA/CX126	\$11.43	GLBCOX126	\$18.22
7	.2010	2-7/16"	DWDA/CX127	\$11.43	GLBCOX127	\$18.22
8	.1990	2-7/16"	DWDA/CX128	\$11.43	GLBCOX128	\$18.22
9	.1960	2-7/16"	DWDA/CX129	\$10.43	GLBCOX129	\$16.34
10	.1935	2-7/16"	DWDA/CX1210	\$10.43	GLBCOX1210	\$16.34
11	.1910	2-5/16"	DWDA/CX1211	\$10.43	GLBCOX1211	\$16.34
12	.1890	2-5/16"	DWDA/CX1212	\$10.43	GLBCOX1212	\$16.34
13	.1850	2-5/16"	DWDA/CX1213	\$9.95	GLBCOX1213	\$16.34
14	.1820	2-3/16"	DWDA/CX1214	\$9.95	GLBCOX1214	\$16.34
15	.1800	2-3/16"	DWDA/CX1215	\$9.95	GLBCOX1215	\$16.34
16	.1770	2-3/16"	DWDA/CX1216	\$9.95	GLBCOX1216	\$16.34
17	.1730	2-3/16"	DWDA/CX1217	\$9.95	GLBCOX1217	\$16.34
18	.1695	2-1/8"	DWDA/CX1218	\$9.95	GLBCOX1218	\$16.34
19	.1660	2-1/8"	DWDA/CX1219	\$9.95	GLBCOX1219	\$16.34
20	.1610	2-1/8"	DWDA/CX1220	\$8.94	GLBCOX1220	\$14.94
21	.1590	2-1/8"	DWDA/CX1221	\$8.94	GLBCOX1221	\$14.94
22	.1570	2"	DWDA/CX1222	\$8.94	GLBCOX1222	\$14.94
23	.1540	2"	DWDA/CX1223	\$8.94	GLBCOX1223	\$14.94
24	.1520	2"	DWDA/CX1224	\$8.94	GLBCOX1224	\$14.94
25	.1495	1-7/8"	DWDA/CX1225	\$8.94	GLBCOX1225	\$14.94
26	.1470	1-7/8"	DWDA/CX1226	\$8.94	GLBCOX1226	\$14.94
27	.1440	1-7/8"	DWDA/CX1227	\$8.94	GLBCOX1227	\$14.94
28	.1405	1-3/4"	DWDA/CX1228	\$8.94	GLBCOX1228	\$14.94
29	.1360	1-3/4"	DWDA/CX1229	\$8.94	GLBCOX1229	\$14.94
30	.1285	1-5/8"	DWDA/CX1230	\$8.94	GLBCOX1230	\$14.94
31	.1200	1-5/8"	DWDA/CX1231	\$8.94	GLBCOX1231	\$14.94
32	.1160	1-5/8"	DWDA/CX1232	\$8.94	GLBCOX1232	\$14.94
33	.1130	1-1/2"	DWDA/CX1233	\$9.21	GLBCOX1233	\$15.40
34	.1110	1-1/2"	DWDA/CX1234	\$9.21	GLBCOX1234	\$15.40
35	.1100	1-1/2"	DWDA/CX1235	\$9.21	GLBCOX1235	\$15.40
36	.1065	1-7/16"	DWDA/CX1236	\$9.21	GLBCOX1236	\$15.40
37	.1040	1-7/16"	DWDA/CX1237	\$9.21	GLBCOX1237	\$15.40
38	.1015	1-7/16"	DWDA/CX1238	\$9.21	GLBCOX1238	\$15.40
39	.0995	1-3/8"	DWDA/CX1239	\$9.21	GLBCOX1239	\$15.40
40	.0980	1-3/8"	DWDA/CX1240	\$8.40	GLBCOX1240	\$14.82
41	.0960	1-3/8"	DWDA/CX1241	\$10.59		
42	.0935	1-1/4"	DWDA/CX1242	\$10.59		
43	.0890	1-1/4"	DWDA/CX1243	\$13.42		
44	.0860	1-1/8"	DWDA/CX1244	\$13.42		
45	.0820	1-1/8"	DWDA/CX1245	\$13.42		
46	.0810	1-1/8"	DWDA/CX1246	\$13.42		
47	.0785	1"	DWDA/CX1247	\$11.80		
48	.0760	1"	DWDA/CX1248	\$11.80		
49	.0730	1"	DWDA/CX1249	\$11.80		
50	.0700	1"	DWDA/CX1250	\$11.80		
51	.0670	1"	DWDA/CX1251	\$14.18		
52	.0635	7/8"	DWDA/CX1252	\$14.18		
53	.0595	7/8"	DWDA/CX1253	\$14.34		
54	.0550	7/8"	DWDA/CX1254	\$14.34		
55	.0520	7/8"	DWDA/CX1255	\$14.34		
56	.0465	3/4"	DWDA/CX1256	\$14.34		
57	.0430	3/4"	DWDA/CX1257	\$14.34		
58	.0420	11/16"	DWDA/CX1258	\$16.15		
59	.0410	11/16"	DWDA/CX1259	\$16.15		
60	.0400	11/16"	DWDA/CX1260	\$16.15		



# CARBIDE TIPPED MASONRY DRILLS

★★★Drill America★★★

## DAM Series - Masonry Drills

Engineered with wide flutes to provide fast dust removal in softer materials. Designed for drilling in brick, concrete, and sandstone. Carbide tips brazed to tough steel bodies and are larger than the nominal drill size to provide clearance for installation of anchor screws, expansion shields and toggle bolts. Designed for use in portable electric drills.



				Carbide Tipped DAM Series	
Size	Dec. Equiv.	Shank	O.A.L.	Part Number	List Price
1/8"	.1250	1/8"	3"	DAM3X1/8	\$1.50
3/16"	.1875	3/16"	4"	DAM4X3/16	\$1.57
3/16"	.1875	3/16"	6"	DAM6X3/16	\$2.74
7/32"	.2188	7/32"	4"	DAM4X7/32	\$1.74
1/4"	.2500	1/4"	4"	DAM4X1/4	\$1.74
1/4"	.2500	1/4"	6"	DAM6X1/4	\$2.74
1/4"	.2500	1/4"	13"	DAM13X1/4	\$7.60
1/4"	.2500	1/4"	18"	DAM18X1/4	\$13.51
1/4"	.2500	1/4"	24"	DAM24X1/4	\$14.27
1/4"	.2500	1/4"	30"	DAM30X1/4	\$16.66
5/16"	.3125	1/4"	4"	DAM4X5/16	\$2.25
5/16"	.3125	1/4"	6"	DAM6X5/16	\$3.57
5/16"	.3125	1/4"	13"	DAM13X5/16	\$7.96
5/16"	.3125	1/4"	18"	DAM18X5/16	\$14.42
5/16"	.3125	1/4"	24"	DAM24X5/16	\$15.17
5/16"	.3125	1/4"	30"	DAM30X5/16	\$17.71
3/8"	.3750	3/8"	4"	DAM4X3/8	\$3.02
3/8"	.3750	1/4"	6"	DAM6X3/8X1/4	\$4.07
3/8"	.3750	3/8"	6"	DAM6X3/8X3/8	\$4.07
3/8"	.3750	3/8"	13"	DAM13X3/8X3/8	\$10.33
3/8"	.3750	3/8"	18"	DAM18X3/8	\$15.17
3/8"	.3750	3/8"	24"	DAM24X3/8	\$15.93
3/8"	.3750	3/8"	30"	DAM30X3/8	\$18.46
7/16"	.4375	1/4"	4"	DAM4X7/16	\$4.46
7/16"	.4375	1/4"	6"	DAM6X7/16X1/4	\$4.83
7/16"	.4375	3/8"	6"	DAM6X7/16X3/8	\$4.83
7/16"	.4375	3/8"	13"	DAM13X7/16X3/8	\$10.74
7/16"	.4375	3/8"	18"	DAM18X7/16	\$16.68
1/2"	.5000	3/8"	4"	DAM4X1/2	\$5.07
1/2"	.5000	1/4"	6"	DAM6X1/2X1/4	\$5.43
1/2"	.5000	3/8"	6"	DAM6X1/2X3/8	\$5.43
1/2"	.5000	3/8"	13"	DAM13X1/2X3/8	\$11.58
1/2"	.5000	3/8"	18"	DAM18X1/2	\$18.20
1/2"	.5000	3/8"	24"	DAM24X1/2	\$19.17
1/2"	.5000	3/8"	30"	DAM30X1/2	\$22.12
9/16"	.5625	3/8"	6"	DAM6X9/16X3/8	\$5.97
9/16"	.5625	1/2"	6"	DAM6X9/16X1/2	\$5.97
9/16"	.5625	3/8"	13"	DAM13X9/16X3/8	\$12.07
9/16"	.5625	1/2"	13"	DAM13X9/16X1/2	\$12.07
9/16"	.5625	1/2"	18"	DAM18X9/16	\$18.95
5/8"	.6250	1/4"	4"	DAM4X5/8	\$7.55
5/8"	.6250	3/8"	6"	DAM6X5/8X3/8	\$7.96
5/8"	.6250	1/2"	6"	DAM6X5/8X1/2	\$7.96
5/8"	.6250	1/2"	13"	DAM13X5/8X1/2	\$15.26
5/8"	.6250	1/2"	18"	DAM18X5/8	\$21.36
5/8"	.6250	1/2"	24"	DAM24X5/8	\$22.38
11/16"	.6875	1/2"	6"	DAM6X11/16	\$14.12
3/4"	.7500	1/2"	6"	DAM6X3/4	\$16.22
3/4"	.7500	1/2"	13"	DAM13X3/4	\$22.88
3/4"	.7500	1/2"	18"	DAM18X3/4	\$28.06
3/4"	.7500	1/2"	24"	DAM24X3/4	\$29.30
7/8"	.8750	1/2"	6"	DAM6X7/8	\$17.44
7/8"	.8750	1/2"	13"	DAM13X7/8	\$28.36
7/8"	.8750	1/2"	18"	DAM18X7/8	\$34.75
1"	1.0000	1/2"	6"	DAM6X1	\$21.23
1"	1.0000	1/2"	13"	DAM13X1	\$36.80
1"	1.0000	1/2"	18"	DAM18X1	\$45.36

# SDS DRILLS

## SDS Series - SDS Drills

SDS Plus shank hammer bits are especially suited for drilling in stone or concrete.

SDS Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
5/32"	.1563	3-3/4"	6"	SDS5326	\$11.09
3/16"	.1875	1-3/4"	4"	SDS3164	\$6.20
3/16"	.1875	3-3/4"	6"	SDS3166	\$7.10
3/16"	.1875	6-1/2"	10"	SDS31610	\$16.50
3/16"	.1875	9"	12"	SDS31612	\$18.48
7/32"	.2188	3-3/4"	6"	SDS7326	\$11.30
7/32"	.2188	5-1/2"	8"	SDS7328	\$16.09
1/4"	.2500	1-3/4"	4"	SDS144	\$6.04
1/4"	.2500	3-3/4"	6"	SDS146	\$6.95
1/4"	.2500	5-1/2"	8"	SDS148	\$9.46
1/4"	.2500	9"	12"	SDS1412	\$21.67
5/16"	.3125	3-3/4"	6"	SDS5166	\$7.89
3/8"	.3750	3-3/4"	6"	SDS386	\$8.37
3/8"	.3750	5-1/2"	8"	SDS388	\$13.16
3/8"	.3750	9"	12"	SDS3812	\$14.98

SDS Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
3/8"	.3750	14"	18"	SDS3818	\$24.88
7/16"	.4375	3-3/4"	6"	SDS7166	\$10.68
1/2"	.5000	3-3/4"	6"	SDS126	\$11.09
1/2"	.5000	9"	12"	SDS1212	\$18.59
1/2"	.5000	14"	18"	SDS1218	\$30.18
9/16"	.5625	3-3/4"	6"	SDS9166	\$14.54
5/8"	.6250	5-1/2"	8"	SDS588	\$16.94
5/8"	.6250	9"	12"	SDS5812	\$31.42
5/8"	.6250	14"	18"	SDS5818	\$34.95
3/4"	.7500	5-1/2"	8"	SDS348	\$35.75
3/4"	.7500	9"	12"	SDS3412	\$41.38
3/4"	.7500	14"	18"	SDS3418	\$53.52
7/8"	.8750	6-1/2"	10"	SDS7810	\$45.44
7/8"	.8750	14"	18"	SDS7818	\$50.20
1"	1.0000	6-1/2"	10"	SDS110	\$52.43



# CONCRETE SCREW ANCHOR DRILLS

## DAM Series - DAM Tapcon Drills

Screw anchor bits insure precise drilling of pilot holes when installing Tapcon anchors.

\* Sold in Standard Packages of 10.

## Regular Shank

★★★*Drill America*★★★

DAM Series				
Size	Flute Length	O.A.L.	Part Number	List Price
5/32"	2"	3-1/2"	DAM532312	\$2.79
5/32"	3"	4-1/2"	DAM532412	\$3.19
5/32"	3-1/2"	5-1/2"	DAM532512	\$3.49
5/32"	4"	6-1/2"	DAM532612	\$5.14
5/32"	4-1/2"	7-1/2"	DAM532712	\$6.45
3/16"	2"	3-1/2"	DAM316312	\$2.96
3/16"	3"	4-1/2"	DAM316412	\$3.33
3/16"	3- 1/2"	5-1/2"	DAM316512	\$3.65
3/16"	4	6-1/2"	DAM316612	\$4.91
3/16"	4"	7-1/2"	DAM316712	\$6.00



## SDS Series - SDS Tapcon Drills

SDS Shank screw anchor bits allow for drilling pilot holes when installing Tapcon anchors using an SDS hammer drill.

## SDS Shank

SDS Series				
Size	Flute Length	O.A.L.	Part Number	List Price
5/32"	2-1/2"	5-1/2"	SDS532512TAPCON	\$15.85
5/32"	4"	7"	SDS5327TAPCON	\$15.85
3/16"	2-1/2"	5-1/2"	SDS316512TAPCON	\$15.85
3/16"	4"	7"	SDS3167TAPCON	\$15.85



# HSS TAPER SHANK DRILLS

## DWDTs Series - Taper Shank Drills

Made to fit Morse tapered holders. Designed to perform in a broad range of materials in the iron and steel families. They have a black oxide surface treatment that is abrasion resistant, reduces chip welding and improves chip flow.



				H.S.S DWDTs Series						H.S.S DWDTs Series	
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price	Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
1/8"	1-7/8"	5-1/8"	1MT	DWDTs1/8	\$7.68	1-1/64"	6-1/2"	11-1/8"	3MT	DWDTs1-1/64	\$73.70
9/64"	2-1/8"	5-3/8"	1MT	DWDTs9/64	\$8.78	1-1/32"	6-1/2"	11-1/8"	3MT	DWDTs1-1/32	\$69.69
5/32"	2-1/8"	5-3/8"	1MT	DWDTs5/32	\$8.18	1-3/64"	6-5/8"	11-1/4"	3MT	DWDTs1-3/64	\$77.44
11/64"	2-1/2"	5-3/4"	1MT	DWDTs11/64	\$9.83	1-1/16"	6-5/8"	11-1/4"	3MT	DWDTs1-1/16	\$69.54
3/16"	2-1/2"	5-3/4"	1MT	DWDTs3/16	\$7.93	1-5/64"	6-7/8"	12-1/2"	4MT	DWDTs1-5/64	\$89.41
13/64"	2-3/4"	6"	1MT	DWDTs13/64	\$8.60	1-3/32"	6-7/8"	12-1/2"	4MT	DWDTs1-3/32	\$86.04
7/32"	2-3/4"	6"	1MT	DWDTs7/32	\$8.60	1-7/64"	7-1/8"	12-3/4"	4MT	DWDTs1-7/64	\$92.85
15/64"	2-7/8"	6-1/8"	1MT	DWDTs15/64	\$9.83	1-1/8"	7-1/8"	12-3/4"	4MT	DWDTs1-1/8	\$85.18
1/4"	2-7/8"	6-1/8"	1MT	DWDTs1/4	\$8.78	1-9/64"	7-1/4"	12-7/8"	4MT	DWDTs1-9/64	\$98.38
17/64"	3"	6-1/4"	1MT	DWDTs17/64	\$9.50	1-5/32"	7-1/4"	12-7/8"	4MT	DWDTs1-5/32	\$93.53
9/32"	3"	6-1/4"	1MT	DWDTs9/32	\$9.50	1-11/64"	7-3/8"	13"	4MT	DWDTs1-11/64	\$99.52
19/64"	3-1/8"	6-3/8"	1MT	DWDTs19/64	\$11.78	1-3/16"	7-3/8"	13"	4MT	DWDTs1-3/16	\$92.85
5/16"	3-1/8"	6-3/8"	1MT	DWDTs5/16	\$9.46	1-13/64"	7-1/2"	13-1/8"	4MT	DWDTs1-13/64	\$106.49
21/64"	3-1/4"	6-1/2"	1MT	DWDTs21/64	\$12.90	1-7/32"	7-1/2"	13-1/8"	4MT	DWDTs1-7/32	\$104.88
11/32"	3-1/4"	6-1/2"	1MT	DWDTs11/32	\$14.06	1-15/64"	7-7/8"	13-1/2"	4MT	DWDTs1-15/64	\$114.36
23/64"	3-1/2"	6-3/4"	1MT	DWDTs23/64	\$14.97	1-1/4"	7-7/8"	13-1/2"	4MT	DWDTs1-1/4	\$107.27
3/8"	3-1/2"	6-3/4"	1MT	DWDTs3/8	\$14.97	1-17/64"	8-1/2"	14-1/8"	4MT	DWDTs1-17/64	\$137.52
25/64"	3-5/8"	7"	1MT	DWDTs25/64	\$15.51	1-9/32"	8-1/2"	14-1/8"	4MT	DWDTs1-9/32	\$136.36
13/32"	3-5/8"	7"	1MT	DWDTs13/32	\$14.97	1-19/64"	8-5/8"	14-1/4"	4MT	DWDTs1-19/64	\$146.40
27/64"	3-7/8"	7-1/4"	1MT	DWDTs27/64	\$16.52	1-5/16"	8-5/8"	14-1/4"	4MT	DWDTs1-5/16	\$128.01
7/16"	3-7/8"	7-1/4"	1MT	DWDTs7/16	\$16.59	1-21/64"	8-3/4"	14-3/8"	4MT	DWDTs1-21/64	\$151.33
29/64"	4-1/8"	7-1/2"	1MT	DWDTs29/64	\$18.17	1-11/32"	8-3/4"	14-3/8"	4MT	DWDTs1-11/32	\$146.40
15/32"	4-1/8"	7-1/2"	1MT	DWDTs15/32	\$19.02	1-23/64"	8-7/8"	14-1/2"	4MT	DWDTs1-23/64	\$154.63
31/64"	4-3/8"	8-1/4"	2MT	DWDTs31/64	\$20.58	1-3/8"	8-7/8"	14-1/2"	4MT	DWDTs1-3/8	\$137.38
1/2"	4-3/8"	8-1/4"	2MT	DWDTs1/2	\$19.62	1-25/64"	9"	14-5/8"	4MT	DWDTs1-25/64	\$159.03
33/64"	4-5/8"	8-1/2"	2MT	DWDTs33/64	\$24.90	1-13/32"	9"	14-5/8"	4MT	DWDTs1-13/32	\$159.03
17/32"	4-5/8"	8-1/2"	2MT	DWDTs17/32	\$24.38	1-27/64"	9-1/8"	14-3/4"	4MT	DWDTs1-27/64	\$164.55
35/64"	4-7/8"	8-3/4"	2MT	DWDTs35/64	\$26.16	1-7/16"	9-1/8"	14-3/4"	4MT	DWDTs1-7/16	\$147.27
9/16"	4-7/8"	8-3/4"	2MT	DWDTs9/16	\$24.90	1-29/64"	9-1/4"	14-7/8"	4MT	DWDTs1-29/64	\$173.02
37/64"	4-7/8"	8-3/4"	2MT	DWDTs37/64	\$28.19	1-15/32"	9-1/4"	14-7/8"	4MT	DWDTs1-15/32	\$171.33
19/32"	4-7/8"	8-3/4"	2MT	DWDTs19/32	\$27.85	1-31/64"	9-3/8"	15"	4MT	DWDTs1-31/64	\$177.61
39/64"	4-7/8"	8-3/4"	2MT	DWDTs39/64	\$28.36	1-1/2"	9-3/8"	15"	4MT	DWDTs1-1/2	\$162.75
5/8"	4-7/8"	8-3/4"	2MT	DWDTs5/8	\$27.43	1-33/64"	9-3/8"	16-3/8"	5MT	DWDTs1-33/64	\$202.54
41/64"	5-1/8"	9"	2MT	DWDTs41/64	\$31.27	1-17/32"	9-3/8"	16-3/8"	5MT	DWDTs1-17/32	\$202.54
21/32"	5-1/8"	9"	2MT	DWDTs21/32	\$30.29	1-35/64"	9-5/8"	16-5/8"	5MT	DWDTs1-35/64	\$212.26
43/64"	5-3/8"	9-1/4"	2MT	DWDTs43/64	\$33.63	1-9/16"	9-5/8"	16-5/8"	5MT	DWDTs1-9/16	\$202.08
11/16"	5-3/8"	9-1/4"	2MT	DWDTs11/16	\$31.22	1-37/64"	9-5/8"	16-7/8"	5MT	DWDTs1-37/64	\$229.26
45/64"	5-5/8"	9-1/2"	2MT	DWDTs45/64	\$34.91	1-19/32"	9-7/8"	16-7/8"	5MT	DWDTs1-19/32	\$229.26
23/32"	5-5/8"	9-1/2"	2MT	DWDTs23/32	\$34.91	1-39/64"	10"	17"	5MT	DWDTs1-39/64	\$229.26
47/64"	5-7/8"	9-3/4"	2MT	DWDTs47/64	\$38.65	1-5/8"	10"	17"	5MT	DWDTs1-5/8	\$222.36
3/4"	5-7/8"	9-3/4"	2MT	DWDTs3/4	\$37.10	1-41/64"	10-1/8"	17-1/8"	5MT	DWDTs1-41/64	\$246.51
49/64"	6"	9-7/8"	2MT	DWDTs49/64	\$44.64	1-21/32"	10-1/8"	17-1/8"	5MT	DWDTs1-21/32	\$246.51
25/32"	6"	9-7/8"	2MT	DWDTs25/32	\$45.57	1-43/64"	10-1/8"	17-1/8"	5MT	DWDTs1-43/64	\$252.72
51/64"	6-1/8"	10-3/4"	3MT	DWDTs51/64	\$48.86	1-11/16"	10-1/8"	17-1/8"	5MT	DWDTs1-11/16	\$240.65
13/16"	6-1/8"	10-3/4"	3MT	DWDTs13/16	\$45.86	1-45/64"	10-1/8"	17-1/8"	5MT	DWDTs1-45/64	\$265.22
53/64"	6-1/8"	10-3/4"	3MT	DWDTs53/64	\$54.05	1-23/32"	10-1/8"	17-1/8"	5MT	DWDTs1-23/32	\$265.22
27/32"	6-1/8"	10-3/4"	3MT	DWDTs27/32	\$51.14	1-47/64"	10-1/8"	17-1/8"	5MT	DWDTs1-47/64	\$270.67
55/64"	6-1/8"	10-3/4"	3MT	DWDTs55/64	\$55.90	1-3/4"	10-1/8"	17-1/8"	5MT	DWDTs1-3/4	\$262.12
7/8"	6-1/8"	10-3/4"	3MT	DWDTs7/8	\$45.08	1-25/32"	10-1/8"	17-1/8"	5MT	DWDTs1-25/32	\$285.95
57/64"	6-1/8"	10-3/4"	3MT	DWDTs57/64	\$54.01	1-13/16"	10-1/8"	17-1/8"	5MT	DWDTs1-13/16	\$279.41
29/32"	6-1/8"	10-3/4"	3MT	DWDTs29/32	\$57.15	1-27/32"	10-1/8"	17-1/8"	5MT	DWDTs1-27/32	\$306.32
59/64"	6-1/8"	10-3/4"	3MT	DWDTs59/64	\$57.85	1-7/8"	10-3/8"	17-3/8"	5MT	DWDTs1-7/8	\$292.39
15/16"	6-1/8"	10-3/4"	3MT	DWDTs15/16	\$50.97	1-29/32"	10-3/8"	17-3/8"	5MT	DWDTs1-29/32	\$320.32
61/64"	6-3/8"	11"	3MT	DWDTs61/64	\$56.03	1-15/16"	10-3/8"	17-3/8"	5MT	DWDTs1-15/16	\$330.24
31/32"	6-3/8"	11"	3MT	DWDTs31/32	\$58.98	1-31/32"	10-3/8"	17-3/8"	5MT	DWDTs1-31/32	\$337.44
63/64"	6-3/8"	11"	3MT	DWDTs63/64	\$62.80	2"	10-3/8"	17-3/8"	5MT	DWDTs2INCH	\$339.73
1"	6-3/8"	11"	3MT	DWDTs1INCH	\$57.18	2-1/32"	10-3/8"	17-3/8"	5MT	DWDTs2-1/32	\$423.76

# HSS TAPER SHANK DRILLS

DWDTs Series						DWDTs Series					
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price	Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
2-1/16"	10-1/4"	17-3/8"	5MT	DWDTs2-1/16	\$406.83	2-3/4"	12-3/4"	20-3/8"	5MT	DWDTs2-3/4	\$955.76
2-3/32"	10-1/4"	17-3/8"	5MT	DWDTs2-3/32	\$451.55	2-13/16"	13-3/8"	21-1/8"	5MT	DWDTs2-13/16	\$1,039.62
2-1/8"	10-1/4"	17-3/8"	5MT	DWDTs2-1/8	\$430.26	2-7/8"	13-3/8"	21-1/8"	5MT	DWDTs2-7/8	\$1,097.97
2-5/32"	10-1/4"	17-3/8"	5MT	DWDTs2-5/32	\$481.75	2-15/16"	14"	21-3/4"	5MT	DWDTs2-15/16	\$1,156.03
2-3/16"	10-1/4"	17-3/8"	5MT	DWDTs2-3/16	\$466.93	3"	14"	21-3/4"	5MT	DWDTs3INCH	\$1,207.60
2-7/32"	10-1/8"	17-3/8"	5MT	DWDTs2-7/32	\$507.91	3-1/16"	14-5/8"	24-1/2"	6MT	DWDTs3-1/16	POA
2-1/4"	10-1/8"	17-3/8"	5MT	DWDTs2-1/4	\$487.54	3-1/8"	14-5/8"	24-1/2"	6MT	DWDTs3-1/8	POA
2-5/16"	10-1/8"	17-3/8"	5MT	DWDTs2-5/16	\$546.41	3-3/16"	14-5/8"	24-1/2"	6MT	DWDTs3-3/16	POA
2-3/8"	11-1/4"	17-3/8"	5MT	DWDTs2-3/8	\$567.81	3-1/4"	15-1/2"	25-1/2"	6MT	DWDTs3-1/4	POA
2-7/16"	11-1/4"	18-3/4"	5MT	DWDTs2-7/16	\$682.99	3-5/16"	15-1/2"	25-1/2"	6MT	DWDTs3-5/16	POA
2-1/2"	11-1/4"	18-3/4"	5MT	DWDTs2-1/2	\$710.31	3-3/8"	15-1/2"	25-1/2"	6MT	DWDTs3-3/8	POA
2-9/16"	11-7/8"	19-1/2"	5MT	DWDTs2-9/16	\$733.33	3-7/16"	15-1/2"	25-1/2"	6MT	DWDTs3-7/16	POA
2-5/8"	11-7/8"	19-1/2"	5MT	DWDTs2-5/8	\$859.07	3-1/2"	16-3/8"	26-1/2"	6MT	DWDTs3-1/2	POA
2-11/16"	12-3/4"	20-3/8"	5MT	DWDTs2-11/16	\$969.46						

# HSS TAPER SHANK DRILLS UNDERSIZED SHANK

DWDTs Series					
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
<b>1MT</b>					
31/64"	4-3/8"	8-1/4"	1MT	DWDTs31/64-1MT	\$27.95
1/2"	4-3/8"	8-1/4"	1MT	DWDTs1/2-1MT	\$23.77
33/64"	4-5/8"	8-1/2"	1MT	DWDTs33/64-1MT	\$30.38
17/32"	4-5/8"	8-1/2"	1MT	DWDTs17/32-1MT	\$30.38
35/64"	4-7/8"	8-3/4"	1MT	DWDTs35/64-1MT	\$31.86
<b>2MT</b>					
51/64"	6-1/8"	10-3/4"	2MT	DWDTs51/64-2MT	\$50.57
13/16"	6-1/8"	10-3/4"	2MT	DWDTs13/16-2MT	\$54.10
53/64"	6-1/8"	10-3/4"	2MT	DWDTs53/64-2MT	\$63.32
27/32"	6-1/8"	10-3/4"	2MT	DWDTs27/32-2MT	\$59.41
55/64"	6-1/8"	10-3/4"	2MT	DWDTs55/64-2MT	\$66.62
7/8"	6-1/8"	10-3/4"	2MT	DWDTs7/8-2MT	\$59.46
57/64"	6-1/8"	10-3/4"	2MT	DWDTs57/64-2MT	\$62.74
<b>3MT</b>					
1-5/64"	6-7/8"	12-1/2"	3MT	DWDTs1-5/64-3MT	\$106.32
1-3/32"	6-7/8"	12-1/2"	3MT	DWDTs1-3/32-3MT	\$101.27
1-1/8"	7-1/8"	12-3/4"	3MT	DWDTs1-1/8-3MT	\$95.34
1-9/64"	7-1/4"	12-7/8"	3MT	DWDTs1-9/64-3MT	\$114.60
1-5/32"	7-1/4"	12-7/8"	3MT	DWDTs1-5/32-3MT	\$114.60
1-11/64"	7-3/8"	13"	3MT	DWDTs1-11/64-3MT	\$118.38
1-3/16"	7-3/8"	13"	3MT	DWDTs1-3/16-3MT	\$103.66
1-13/64"	7-1/2"	13-1/8"	3MT	DWDTs1-13/64-3MT	\$127.00
1-7/32"	7-1/2"	13-1/8"	3MT	DWDTs1-7/32-3MT	\$125.64
1-15/64"	7-7/8"	13-1/2"	3MT	DWDTs1-15/64-3MT	\$138.44
1-1/4"	7-7/8"	13-1/2"	3MT	DWDTs1-1/4-3MT	\$117.67
1-5/16"	8-5/8"	14-1/4"	3MT	DWDTs1-5/16-3MT	\$187.07
1-3/8"	8-7/8"	14-1/2"	3MT	DWDTs1-3/8-3MT	\$198.61
1-7/16"	9-1/8"	14-3/4"	3MT	DWDTs1-7/16-3MT	\$218.35
1-1/2"	9-3/8"	15"	3MT	DWDTs1-1/2-3MT	\$226.33
<b>4MT</b>					
1-17/32"	9-3/8"	16-3/8"	4MT	DWDTs1-17/32-4MT	\$220.46
1-35/64"	9-5/8"	16-5/8"	4MT	DWDTs1-35/64-4MT	\$237.34
1-9/16"	9-5/8"	16-5/8"	4MT	DWDTs1-9/16-4MT	\$211.01
1-37/64"	9-7/8"	16-7/8"	4MT	DWDTs1-37/64-4MT	\$252.18
1-19/32"	9-7/8"	16-7/8"	4MT	DWDTs1-19/32-4MT	\$252.18
1-39/64"	10"	17"	4MT	DWDTs1-39/64-4MT	\$261.89
1-5/8"	10"	17"	4MT	DWDTs1-5/8-4MT	\$222.34
1-41/64"	10-1/8"	17-1/8"	4MT	DWDTs1-41/64-4MT	\$282.28
1-11/16"	10-1/8"	17-1/8"	4MT	DWDTs1-11/16-4MT	\$254.39
1-45/64"	10-1/8"	17-1/8"	4MT	DWDTs1-45/64-4MT	\$301.85
1-3/4"	10-1/8"	17-1/8"	4MT	DWDTs1-3/4-4MT	\$261.00
1-7/8"	10-3/8"	17-3/8"	4MT	DWDTs1-7/8-4MT	\$298.99
1-15/16"	10-3/8"	17-3/8"	4MT	DWDTs1-15/16-4MT	\$313.06
1-31/32"	10-3/8"	17-3/8"	4MT	DWDTs1-31/32-4MT	\$360.61
2"	10-3/8"	17-3/8"	4MT	DWDTs2INCH-4MT	\$326.58

**OTHER SIZES AVAILABLE!**

**Please  
Inquire!**

# HSS TAPER SHANK DRILLS OVERSIZED SHANK

DWDT Series					
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
<b>2MT</b>					
3/8"	3-1/2"	7-3/8"	2MT	DWDT3/8-2MT	\$20.78
25/64"	3-5/8"	7-1/2"	2MT	DWDT25/64-2MT	\$23.12
13/32"	3-5/8"	7-1/2"	2MT	DWDT13/32-2MT	\$23.12
27/64"	3-7/8"	7-3/4"	2MT	DWDT27/64-2MT	\$23.93
7/16"	3-7/8"	7-3/4"	2MT	DWDT7/16-2MT	\$23.05
29/64"	4-1/8"	8"	2MT	DWDT29/64-2MT	\$25.68
15/32"	4-1/8"	8"	2MT	DWDT15/32-2MT	\$27.64
<b>3MT</b>					
21/32"	5-1/8"	9-3/4"	3MT	DWDT21/32-3MT	\$42.30
43/64"	5-3/8"	10"	3MT	DWDT43/64-3MT	\$44.80
45/64"	5-5/8"	10-1/4"	3MT	DWDT45/64-3MT	\$48.42
23/32"	5-5/8"	10-1/4"	3MT	DWDT23/32-3MT	\$49.67
47/64"	5-7/8"	10-1/2"	3MT	DWDT47/64-3MT	\$49.02
3/4"	5-7/8"	10-1/2"	3MT	DWDT3/4-3MT	\$52.97
25/32"	6"	10-5/8"	3MT	DWDT25/32-3MT	\$59.10

**OTHER SIZES AVAILABLE!**

**Please  
Inquire!**

# HSS METRIC TAPER SHANK DRILLS

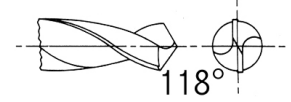


DWDTSMM Series						DWDTSMM Series					
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price	Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
5.00	2-3/4"	6"	1MT	DWDTSMM5.00	\$8.72	24.50	6-3/8"	11"	3MT	DWDTSMM24.50	\$61.17
5.50	2-3/4"	6"	1MT	DWDTSMM5.50	\$8.72	25.00	6-3/8"	11"	3MT	DWDTSMM25.00	\$65.40
6.00	2-7/8"	6-1/8"	1MT	DWDTSMM6.00	\$9.17	25.50	6-3/8"	11"	3MT	DWDTSMM25.50	\$68.42
6.50	2-7/8"	6-1/8"	1MT	DWDTSMM6.50	\$9.76	26.00	6-1/2"	11-1/8"	3MT	DWDTSMM26.00	\$68.42
7.00	3"	6-1/4"	1MT	DWDTSMM7.00	\$9.76	26.50	6-5/8"	11-1/4"	3MT	DWDTSMM26.50	\$76.00
7.50	3-1/8"	6-3/8"	1MT	DWDTSMM7.50	\$9.96	27.00	6-5/8"	11-1/4"	3MT	DWDTSMM27.00	\$84.48
8.00	3-1/8"	6-3/8"	1MT	DWDTSMM8.00	\$13.75	27.50	6-7/8"	12-1/2"	4MT	DWDTSMM27.50	\$84.48
8.50	3-1/4"	6-1/2"	1MT	DWDTSMM8.50	\$14.56	28.00	7-1/8"	12-3/4"	4MT	DWDTSMM28.00	\$88.67
9.00	3-1/2"	6-3/4"	1MT	DWDTSMM9.00	\$16.07	28.50	7-1/8"	12-3/4"	4MT	DWDTSMM28.50	\$88.67
9.50	3-1/2"	6-3/4"	1MT	DWDTSMM9.50	\$16.07	29.00	7-1/4"	12-7/8"	4MT	DWDTSMM29.00	\$91.89
10.00	3-5/8"	7"	1MT	DWDTSMM10.00	\$16.07	29.50	7-1/4"	12-7/8"	4MT	DWDTSMM29.50	\$96.62
10.50	3-7/8"	7-1/4"	1MT	DWDTSMM10.50	\$17.14	30.00	7-3/8"	13"	4MT	DWDTSMM30.00	\$96.62
11.00	3-7/8"	7-1/4"	1MT	DWDTSMM11.00	\$17.38	30.50	7-1/2"	13-1/8"	4MT	DWDTSMM30.50	\$104.57
11.50	4-1/8"	7-1/2"	1MT	DWDTSMM11.50	\$19.09	31.00	7-1/2"	13-1/8"	4MT	DWDTSMM31.00	\$108.72
12.00	4-1/8"	7-1/2"	2MT	DWDTSMM12.00	\$21.63	31.50	7-7/8"	13-1/2"	4MT	DWDTSMM31.50	\$108.72
12.50	4-3/8"	8-1/4"	2MT	DWDTSMM12.50	\$21.63	32.00	8-1/2"	14-1/8"	4MT	DWDTSMM32.00	\$130.38
13.00	4-5/8"	8-1/2"	2MT	DWDTSMM13.00	\$24.20	32.50	8-1/2"	14-1/8"	4MT	DWDTSMM32.50	\$130.38
13.50	4-5/8"	8-1/2"	2MT	DWDTSMM13.50	\$26.40	33.00	8-5/8"	14-1/4"	4MT	DWDTSMM33.00	\$132.45
14.00	4-7/8"	8-3/4"	2MT	DWDTSMM14.00	\$26.40	33.50	8-5/8"	14-1/4"	4MT	DWDTSMM33.50	\$139.97
14.50	4-7/8"	8-3/4"	2MT	DWDTSMM14.50	\$28.10	34.00	8-3/4"	14-3/8"	4MT	DWDTSMM34.00	\$139.97
15.00	4-7/8"	8-3/4"	2MT	DWDTSMM15.00	\$28.10	34.50	8-7/8"	14-1/2"	4MT	DWDTSMM34.50	\$147.85
15.50	4-7/8"	8-3/4"	2MT	DWDTSMM15.50	\$30.09	35.00	8-7/8"	14-1/2"	4MT	DWDTSMM35.00	\$152.04
16.00	4-7/8"	8-3/4"	2MT	DWDTSMM16.00	\$33.24	35.50	9"	14-5/8"	4MT	DWDTSMM35.50	\$152.04
16.50	5-1/8"	9"	2MT	DWDTSMM16.50	\$33.24	36.00	9-1/8"	14-3/4"	4MT	DWDTSMM36.00	\$153.59
17.00	5-3/8"	9-1/4"	2MT	DWDTSMM17.00	\$34.99	37.00	9-1/8"	14-3/4"	4MT	DWDTSMM37.00	\$163.31
17.50	5-3/8"	9-1/4"	2MT	DWDTSMM17.50	\$37.09	38.00	9-3/8"	15"	4MT	DWDTSMM38.00	\$163.31
18.00	5-5/8"	9-1/2"	2MT	DWDTSMM18.00	\$37.09	39.00	9-3/8"	16-3/8"	5MT	DWDTSMM39.00	\$197.77
18.50	5-7/8"	9-3/4"	2MT	DWDTSMM18.50	\$40.80	40.00	9-7/8"	16-7/8"	5MT	DWDTSMM40.00	\$213.63
19.00	5-7/8"	9-3/4"	2MT	DWDTSMM19.00	\$40.80	41.00	10"	17"	5MT	DWDTSMM41.00	\$213.63
19.50	6"	9-7/8"	2MT	DWDTSMM19.50	\$48.75	42.00	10-1/8"	17-1/8"	5MT	DWDTSMM42.00	\$229.73
20.00	6"	9-7/8"	3MT	DWDTSMM20.00	\$50.46	43.00	10-1/8"	17-1/8"	5MT	DWDTSMM43.00	\$247.10
20.50	6-1/8"	10-3/4"	3MT	DWDTSMM20.50	\$50.46	44.00	10-1/8"	17-1/8"	5MT	DWDTSMM44.00	\$252.19
21.00	6-1/8"	10-3/4"	3MT	DWDTSMM21.00	\$56.03	45.00	10-1/8"	17-1/8"	5MT	DWDTSMM45.00	\$261.99
21.50	6-1/8"	10-3/4"	3MT	DWDTSMM21.50	\$56.03	46.00	10-1/8"	17-1/8"	5MT	DWDTSMM46.00	\$268.78
22.00	6-1/8"	10-3/4"	3MT	DWDTSMM22.00	\$56.03	47.00	10-1/8"	17-1/8"	5MT	DWDTSMM47.00	\$281.28
22.50	6-1/8"	10-3/4"	3MT	DWDTSMM22.50	\$56.24	48.00	10-3/8"	17-3/8"	5MT	DWDTSMM48.00	\$293.48
23.00	6-1/8"	10-3/4"	3MT	DWDTSMM23.00	\$56.24	49.00	10-3/8"	17-3/8"	5MT	DWDTSMM49.00	\$302.57
23.50	6-1/8"	10-3/4"	3MT	DWDTSMM23.50	\$56.24	50.00	10-3/8"	17-3/8"	5MT	DWDTSMM50.00	\$309.18
24.00	6-1/8"	10-3/4"	3MT	DWDTSMM24.00	\$61.17	51.00	10-3/8"	17-3/8"	5MT	DWDTSMM51.00	\$330.02

# TAPER SHANK DRILLS

## DWDTSCT Series - Carbide Tipped Taper Shank Drills

Features heavy-duty construction and heat treated body for optimum wear resistance and support of the carbide tip. Designed for drilling in cast iron and non-ferrous metals. NOT RECOMMENDED FOR DRILLING STEEL.

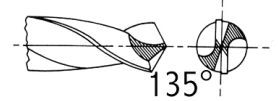


				Carbide Tipped DWDTSCT Series	
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
1/2"	4-3/8"	8-1/4"	2MT	DWDTSCT1/2	\$165.38
33/64"	4-5/8"	8-1/2"	2MT	DWDTSCT33/64	\$179.60
17/32"	4-5/8"	8-1/2"	2MT	DWDTSCT17/32	\$173.19
35/64"	4-7/8"	8-3/4"	2MT	DWDTSCT35/64	\$182.04
9/16"	4-7/8"	8-3/4"	2MT	DWDTSCT9/16	\$175.54
37/64"	4-7/8"	8-3/4"	2MT	DWDTSCT37/64	\$190.52
19/32"	4-7/8"	8-3/4"	2MT	DWDTSCT19/32	\$183.75
39/64"	4-7/8"	8-3/4"	2MT	DWDTSCT39/64	\$216.83
5/8"	4-7/8"	8-3/4"	2MT	DWDTSCT5/8	\$209.06
41/64"	5-1/8"	9"	2MT	DWDTSCT41/64	\$229.88
21/32"	5-1/8"	9"	2MT	DWDTSCT21/32	\$221.67
43/64"	5-3/8"	9-1/4"	2MT	DWDTSCT43/64	\$222.74
11/16"	5-3/8"	9-1/4"	2MT	DWDTSCT11/16	\$214.77
45/64"	5-5/8"	9-1/2"	2MT	DWDTSCT45/64	\$228.72
23/32"	5-5/8"	9-1/2"	2MT	DWDTSCT23/32	\$220.58
47/64"	5-7/8"	9-3/4"	2MT	DWDTSCT47/64	\$233.47
3/4"	5-7/8"	9-3/4"	2MT	DWDTSCT3/4	\$225.14

				Carbide Tipped DWDTSCT Series	
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
49/64"	6"	9-7/8"	2MT	DWDTSCT49/64	\$243.98
25/32"	6"	9-7/8"	2MT	DWDTSCT25/32	\$243.98
51/64"	6-1/8"	10-3/4"	3MT	DWDTSCT51/64	\$246.39
13/16"	6-1/8"	10-3/4"	3MT	DWDTSCT13/16	\$246.39
53/64"	6-1/8"	10-3/4"	3MT	DWDTSCT53/64	\$252.01
27/32"	6-1/8"	10-3/4"	3MT	DWDTSCT27/32	\$252.01
55/64"	6-1/8"	10-3/4"	3MT	DWDTSCT55/64	\$267.36
7/8"	6-1/8"	10-3/4"	3MT	DWDTSCT7/8	\$267.36
57/64"	6-1/8"	10-3/4"	3MT	DWDTSCT57/64	\$287.70
29/32"	6-1/8"	10-3/4"	3MT	DWDTSCT29/32	\$287.70
59/64"	6-1/8"	10-3/4"	3MT	DWDTSCT59/64	\$286.38
15/16"	6-1/8"	10-3/4"	3MT	DWDTSCT15/16	\$286.38
61/64"	6-3/8"	11"	3MT	DWDTSCT61/64	\$307.32
31/32"	6-3/8"	11"	3MT	DWDTSCT31/32	\$307.32
63/64"	6-3/8"	11"	3MT	DWDTSCT63/64	\$302.38
1"	6-3/8"	11"	3MT	DWDTSCT1INCH	\$302.38

## DWDTSCO Series - Cobalt Taper Shank Drills

Made of heat resistant cobalt. Engineered with heavy-duty construction to perform well in tough, hard-to-machine materials. Notched Point.



				Cobalt DWDTSCO Series	
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
1/4"	2-7/8"	6-1/8"	1MT	DWDTSCO1/4	\$51.74
5/16"	3-1/8"	6-3/8"	1MT	DWDTSCO5/16	\$55.01
3/8"	3-1/2"	6-3/4"	1MT	DWDTSCO3/8	\$79.05
7/16"	3-7/8"	7-1/4"	1MT	DWDTSCO7/16	\$90.53
1/2"	4-3/8"	8-1/4"	2MT	DWDTSCO1/2	\$100.36
17/32"	4-5/8"	8-1/2"	2MT	DWDTSCO17/32	\$113.87
9/16"	4-7/8"	8-3/4"	2MT	DWDTSCO9/16	\$119.11
19/32"	4-7/8"	8-3/4"	2MT	DWDTSCO19/32	\$132.48
5/8"	4-7/8"	8-3/4"	2MT	DWDTSCO5/8	\$135.50
11/16"	5-3/8"	9-1/4"	2MT	DWDTSCO11/16	\$165.60
3/4"	5-7/8"	9-3/4"	2MT	DWDTSCO3/4	\$191.97

				Cobalt DWDTSCO Series	
Size	Flute Length	O.A.L.	Shank Taper	Part Number	List Price
13/16"	6-1/8"	10-3/4"	3MT	DWDTSCO13/16	\$208.49
7/8"	6-1/8"	10-3/4"	3MT	DWDTSCO7/8	\$242.79
15/16"	6-1/8"	10-3/4"	3MT	DWDTSCO15/16	\$285.36
1"	6-3/8"	11"	3MT	DWDTSCO1INCH	\$323.01
1-1/8"	7-1/8"	12-3/4"	4MT	DWDTSCO1-1/8	\$452.72
1-3/16"	7-3/8"	13"	4MT	DWDTSCO1-3/16	\$513.20
1-1/4"	7-7/8"	13-1/2"	4MT	DWDTSCO1-1/4	\$595.97
1-5/16"	8-5/8"	14-1/4"	4MT	DWDTSCO1-5/16	\$698.21
1-3/8"	8-7/8"	14-1/2"	4MT	DWDTSCO1-3/8	\$748.98
1-1/2"	9-3/8"	15"	4MT	DWDTSCO1-1/2	\$869.29

# TAPER LENGTH DRILLS

## DWDTL Series - H.S.S. Taper Length Drills

Designed for general purpose drilling where a length longer than Jobber Length is required. Performs under a variety of normal conditions and in a broad range of materials in the iron and steel families.



## DWDTLCO Series - Cobalt Taper Length Drills

Made of heat resistant cobalt. Features 135° heavy-duty construction for drilling in tough alloy steels, forgings, and castings.



## DWDTLCT Series - Carbide Tipped Taper Length Drills

Features heavy-duty construction and heat treated body for optimum wear resistance and support of the carbide tip. Particularly advantageous when length longer than Jobber Length is required. Used in production drilling of cast iron, non-ferrous metals, and many composites. Tanged shank allows for use with ASA split sleeve drivers. NOT RECOMMENDED FOR DRILLING STEEL.



Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S. DWDTL Series		Cobalt DWDTLCO Series		Carbide Tipped DWDTLCT Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
1/64"	.0156	5/16"	1-1/2"	DWDTL1/64	\$8.91				
1/32"	.0312	3/4"	2"	DWDTL1/32	\$6.49				
3/64"	.0469	1-1/8"	2-1/4"	DWDTL3/64	\$3.00				
1/16"	.0625	1-3/4"	3"	DWDTL1/16	\$3.24	DWDTLCO1/16	\$9.90		
5/64"	.0781	2"	3-3/4"	DWDTL5/64	\$3.73	DWDTLCO5/64	\$11.53		
3/32"	.0938	2-1/4"	4-1/4"	DWDTL3/32	\$4.54	DWDTLCO3/32	\$13.80		
7/64"	.1094	2-1/2"	4-5/8"	DWDTL7/64	\$5.65	DWDTLCO7/64	\$17.36		
1/8"	.1250	2-3/4"	5-1/8"	DWDTL1/8	\$5.85	DWDTLCO1/8	\$17.84	DWDTLCT1/8	\$39.03
9/64"	.1406	3"	5-3/8"	DWDTL9/64	\$7.09	DWDTLCO9/64	\$21.72	DWDTLCT9/64	\$39.03
5/32"	.1562	3"	5-3/8"	DWDTL5/32	\$7.09	DWDTLCO5/32	\$21.72	DWDTLCT5/32	\$41.12
11/64"	.1719	3-3/8"	5-3/4"	DWDTL11/64	\$7.09	DWDTLCO11/64	\$21.72	DWDTLCT11/64	\$41.86
3/16"	.1875	3-3/8"	5-3/4"	DWDTL3/16	\$7.09	DWDTLCO3/16	\$21.72	DWDTLCT3/16	\$41.86
13/64"	.2031	3-5/8"	6"	DWDTL13/64	\$8.27	DWDTLCO13/64	\$25.36	DWDTLCT13/64	\$44.24
7/32"	.2188	3-5/8"	6"	DWDTL7/32	\$8.27	DWDTLCO7/32	\$25.36	DWDTLCT7/32	\$44.24
15/64"	.2344	3-3/4"	6-1/8"	DWDTL15/64	\$8.27	DWDTLCO15/64	\$26.29	DWDTLCT15/64	\$50.90
1/4"	.2500	3-3/4"	6-1/8"	DWDTL1/4	\$8.27	DWDTLCO1/4	\$25.36	DWDTLCT1/4	\$49.95
17/64"	.2656	3-7/8"	6-1/4"	DWDTL17/64	\$10.12	DWDTLCO17/64	\$31.85	DWDTLCT17/64	\$57.08
9/32"	.2812	3-7/8"	6-1/4"	DWDTL9/32	\$10.12	DWDTLCO9/32	\$30.71	DWDTLCT9/32	\$56.05
19/64"	.2969	4"	6-3/8"	DWDTL19/64	\$10.25	DWDTLCO19/64	\$31.85	DWDTLCT19/64	\$61.62
5/16"	.3125	4"	6-3/8"	DWDTL5/16	\$10.25	DWDTLCO5/16	\$30.71	DWDTLCT5/16	\$60.51
21/64"	.3281	4-1/8"	6-1/2"	DWDTL21/64	\$11.75	DWDTLCO21/64	\$36.65	DWDTLCT21/64	\$67.87
11/32"	.3438	4-1/8"	6-1/2"	DWDTL11/32	\$11.75	DWDTLCO11/32	\$35.32	DWDTLCT11/32	\$66.64
23/64"	.3594	4-1/4"	6-3/4"	DWDTL23/64	\$13.83	DWDTLCO23/64	\$43.22	DWDTLCT23/64	\$74.44
3/8"	.3750	4-1/4"	6-3/4"	DWDTL3/8	\$13.83	DWDTLCO3/8	\$41.66	DWDTLCT3/8	\$73.09
25/64"	.3906	4-3/8"	7"	DWDTL25/64	\$14.44	DWDTLCO25/64	\$44.90	DWDTLCT25/64	\$81.98
13/32"	.4062	4-3/8"	7"	DWDTL13/32	\$14.44	DWDTLCO13/32	\$43.31	DWDTLCT13/32	\$80.48
27/64"	.4219	4-5/8"	7-1/4"	DWDTL27/64	\$15.58	DWDTLCO27/64	\$48.71	DWDTLCT27/64	\$94.37
7/16"	.4375	4-5/8"	7-1/4"	DWDTL7/16	\$15.89	DWDTLCO7/16	\$47.93	DWDTLCT7/16	\$92.67
29/64"	.4531	4-3/4"	7-1/2"	DWDTL29/64	\$17.62	DWDTLCO29/64	\$55.21	DWDTLCT29/64	\$104.24
15/32"	.4688	4-3/4"	7-1/2"	DWDTL15/32	\$18.71	DWDTLCO15/32	\$56.21	DWDTLCT15/32	\$102.33
31/64"	.4844	4-3/4"	7-3/4"	DWDTL31/64	\$19.53	DWDTLCO31/64	\$61.10	DWDTLCT31/64	\$109.19
1/2"	.5000	4-3/4"	7-3/4"	DWDTL1/2	\$19.53	DWDTLCO1/2	\$58.93	DWDTLCT1/2	\$107.20
33/64"	.5156	4-3/4"	8"	DWDTL33/64	\$30.06	DWDTLCO33/64	\$78.47	DWDTLCT33/64	\$140.68
17/32"	.5312	4-3/4"	8"	DWDTL17/32	\$30.06	DWDTLCO17/32	\$75.68	DWDTLCT17/32	\$138.79
35/64"	.5469	4-7/8"	8-1/4"	DWDTL35/64	\$31.60	DWDTLCO35/64	\$84.79	DWDTLCT35/64	\$145.35
9/16"	.5625	4-7/8"	8-1/4"	DWDTL9/16	\$31.60	DWDTLCO9/16	\$81.76	DWDTLCT9/16	\$140.15
37/64"	.5781	4-7/8"	8-3/4"	DWDTL37/64	\$36.94	DWDTLCO37/64	\$99.00	DWDTLCT37/64	\$153.39
19/32"	.5938	4-7/8"	8-3/4"	DWDTL19/32	\$36.94	DWDTLCO19/32	\$95.44	DWDTLCT19/32	\$150.70
39/64"	.6094	4-7/8"	8-3/4"	DWDTL39/64	\$38.23	DWDTLCO39/64	\$99.00	DWDTLCT39/64	\$176.72
5/8"	.6250	4-7/8"	8-3/4"	DWDTL5/8	\$38.23	DWDTLCO5/8	\$95.44	DWDTLCT5/8	\$170.40

# TAPER LENGTH DRILLS

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDTL Series		Cobalt DWDTLCO Series		Carbide Tipped DWDTLCT Series	
				Part Number	List Price	Part Number	List Price	Part Number	List Price
41/64"	.6406	5-1/8"	9"	DWDTL41/64	\$44.78	DWDTLCO41/64	\$109.21	DWDTLCT41/64	\$183.31
21/32"	.6562	5-3/8"	9"	DWDTL21/32	\$43.57	DWDTLCO21/32	\$105.29	DWDTLCT21/32	\$176.75
43/64"	.6719	5-3/8"	9-1/4"	DWDTL43/64	\$52.59	DWDTLCO43/64	\$127.72	DWDTLCT43/64	\$186.46
11/16"	.6875	5-3/8"	9-1/4"	DWDTL11/16	\$54.82	DWDTLCO11/16	\$123.17	DWDTLCT11/16	\$179.79
45/64"	.7031	5-5/8"	9-1/2"	DWDTL45/64	\$55.37	DWDTLCO45/64	\$139.80	DWDTLCT45/64	\$188.51
23/32"	.7188	5-5/8"	9-1/2"	DWDTL23/32	\$53.89	DWDTLCO23/32	\$134.78	DWDTLCT23/32	\$183.72
47/64"	.7344	5-7/8"	9-3/4"	DWDTL47/64	\$59.55	DWDTLCO47/64	\$147.95	DWDTLCT47/64	\$191.66
3/4"	.7500	5-7/8"	9-3/4"	DWDTL3/4	\$57.95	DWDTLCO3/4	\$142.67	DWDTLCT3/4	\$187.77
49/64"	.7656	6"	9-7/8"	DWDTL49/64	\$67.16	DWDTLCO49/64	\$174.19	DWDTLCT49/64	\$203.26
25/32"	.7812	6"	9-7/8"	DWDTL25/32	\$65.35	DWDTLCO25/32	\$167.98	DWDTLCT25/32	\$204.25
51/64"	.7969	6-1/8"	10"	DWDTL51/64	\$72.24	DWDTLCO51/64	\$187.24	DWDTLCT51/64	\$204.25
13/16"	.8125	6-1/8"	10"	DWDTL13/16	\$70.28	DWDTLCO13/16	\$180.56	DWDTLCT13/16	\$204.25
53/64"	.8281	6-1/8"	10"	DWDTL53/64	\$76.01	DWDTLCO53/64	\$193.80	DWDTLCT53/64	\$204.25
27/32"	.8438	6-1/8"	10"	DWDTL27/32	\$73.96	DWDTLCO27/32	\$186.90	DWDTLCT27/32	\$204.25
55/64"	.8594	6-1/8"	10"	DWDTL55/64	\$79.86	DWDTLCO55/64	\$203.63	DWDTLCT55/64	\$215.89
7/8"	.8750	6-1/8"	10"	DWDTL7/8	\$77.69	DWDTLCO7/8	\$196.37	DWDTLCT7/8	\$215.89
57/64"	.8906	6-1/8"	10"	DWDTL57/64	\$83.20	DWDTLCO57/64	\$212.12	DWDTLCT57/64	\$223.39
29/32"	.9062	6-1/8"	10"	DWDTL29/32	\$80.95	DWDTLCO29/32	\$204.55	DWDTLCT29/32	\$223.39
59/64"	.9219	6-1/8"	10-3/4"	DWDTL59/64	\$90.54	DWDTLCO59/64	\$230.81	DWDTLCT59/64	\$226.59
15/16"	.9375	6-1/8"	10-3/4"	DWDTL15/16	\$88.08	DWDTLCO15/16	\$222.58	DWDTLCT15/16	\$226.59
61/64"	.9531	6-3/8"	11"	DWDTL61/64	\$99.88	DWDTLCO61/64	\$254.78	DWDTLCT61/64	\$237.31
31/32"	.9688	6-3/8"	11"	DWDTL31/32	\$97.17	DWDTLCO31/32	\$245.69	DWDTLCT31/32	\$237.31
63/64"	.9844	6-3/8"	11"	DWDTL63/64	\$104.12	DWDTLCO63/64	\$265.57	DWDTLCT63/64	\$244.75
1"	1.0000	6-3/8"	11"	DWDTL1INCH	\$101.29	DWDTLCO1INCH	\$256.07	DWDTLCT1INCH	\$244.75
1-1/8"	1.1250	7-1/8"	11-3/4"	DWDTL1-1/8	\$152.36				
1-1/4"	1.2500	7-7/8"	12-1/2"	DWDTL1-1/4	\$191.26				
1-3/8"	1.3750	8-7/8"	14-1/2"	DWDTL1-3/8	\$244.75				
1-1/2"	1.5000	9-3/8"	15"	DWDTL1-1/2	\$298.98				

## WIRE GAUGE SIZES

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDTL Series	
				Part Number	List Price
1	.2280	3-3/4"	6-1/8"	DWDTL1	\$11.41
2	.2210	3-5/8"	6"	DWDTL2	\$11.41
3	.2130	3-5/8"	6"	DWDTL3	\$11.00
4	.2090	3-5/8"	6"	DWDTL4	\$11.00
5	.2055	3-5/8"	6"	DWDTL5	\$11.00
6	.2040	3-5/8"	6"	DWDTL6	\$11.00
7	.2010	3-5/8"	6"	DWDTL7	\$11.00
8	.1990	3-5/8"	6"	DWDTL8	\$11.00
9	.1960	3-5/8"	6"	DWDTL9	\$11.00
10	.1935	3-5/8"	6"	DWDTL10	\$11.00
11	.1910	3-5/8"	6"	DWDTL11	\$11.00
12	.1890	3-5/8"	6"	DWDTL12	\$11.00
13	.1850	3-3/8"	5-3/4"	DWDTL13	\$10.00
14	.1820	3-3/8"	5-3/4"	DWDTL14	\$10.00
15	.1800	3-3/8"	5-3/4"	DWDTL15	\$10.00
16	.1770	3-3/8"	5-3/4"	DWDTL16	\$10.00
17	.1730	3-3/8"	5-3/4"	DWDTL17	\$10.00
18	.1695	3-3/8"	5-3/4"	DWDTL18	\$10.00
19	.1660	3-3/8"	5-3/4"	DWDTL19	\$10.00
20	.1610	3-3/8"	5-3/4"	DWDTL20	\$10.00
21	.1590	3-3/8"	5-3/4"	DWDTL21	\$10.00
22	.1570	3-3/8"	5-3/4"	DWDTL22	\$10.00
23	.1540	3"	5-3/8"	DWDTL23	\$10.00
24	.1520	3"	5-3/8"	DWDTL24	\$10.00
25	.1495	3"	5-3/8"	DWDTL25	\$10.00
26	.1470	3"	5-3/8"	DWDTL26	\$10.00
27	.1440	3"	5-3/8"	DWDTL27	\$10.00
28	.1405	3"	5-3/8"	DWDTL28	\$10.00
29	.1360	3"	5-3/8"	DWDTL29	\$10.00
30	.1285	3"	5-3/8"	DWDTL30	\$10.00

Size	Dec. Equiv.	Flute Length	O.A.L.	H.S.S DWDTL Series	
				Part Number	List Price
31	.1200	2-3/4"	5-1/8"	DWDTL31	\$9.80
32	.1160	2-3/4"	5-1/8"	DWDTL32	\$9.80
33	.1130	2-3/4"	5-1/8"	DWDTL33	\$9.80
34	.1110	2-3/4"	5-1/8"	DWDTL34	\$9.80
35	.1100	2-3/4"	5-1/8"	DWDTL35	\$9.80
36	.1065	2-1/2"	4-5/8"	DWDTL36	\$7.35
37	.1040	2-1/2"	4-5/8"	DWDTL37	\$7.35
38	.1015	2-1/2"	4-5/8"	DWDTL38	\$7.35
39	.0995	2-1/2"	4-5/8"	DWDTL39	\$6.41
40	.0980	2-1/2"	4-5/8"	DWDTL40	\$6.41
41	.0960	2-1/2"	4-5/8"	DWDTL41	\$6.41
42	.0935	2-1/4"	4-1/4"	DWDTL42	\$5.41
43	.0890	2-1/4"	4-1/4"	DWDTL43	\$5.41
44	.0860	2-1/4"	4-1/4"	DWDTL44	\$5.41
45	.0820	2-1/4"	4-1/4"	DWDTL45	\$5.41
46	.0810	2-1/4"	4-1/4"	DWDTL46	\$5.41
47	.0785	2-1/4"	4-1/4"	DWDTL47	\$5.41
48	.0760	2"	3-3/4"	DWDTL48	\$4.25
49	.0730	2"	3-3/4"	DWDTL49	\$4.25
50	.0700	2"	3-3/4"	DWDTL50	\$4.25
51	.0670	2"	3-3/4"	DWDTL51	\$4.25
52	.0635	2"	3-3/4"	DWDTL52	\$4.25
53	.0595	1-3/4"	3"	DWDTL53	\$4.27
54	.0550	1-3/4"	3"	DWDTL54	\$4.27
55	.0520	1-3/4"	3"	DWDTL55	\$4.27
56	.0465	1-1/8"	2-1/4"	DWDTL56	\$4.27
57	.0430	1-1/8"	2-1/4"	DWDTL57	\$4.27
58	.0420	1-1/8"	2-1/4"	DWDTL58	\$4.27
59	.0410	1-1/8"	2-1/4"	DWDTL59	\$4.27
60	.0400	1-1/8"	2-1/4"	DWDTL60	\$4.27

# TAPER LENGTH DRILLS

H.S.S DWDTL Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
61	.0390	1-1/8"	2-1/4"	DWDTL61	\$4.57
62	.0380	3/4"	2"	DWDTL62	\$4.57
63	.0370	3/4"	2"	DWDTL63	\$4.57
64	.0360	3/4"	2"	DWDTL64	\$4.57
65	.0350	3/4"	2"	DWDTL65	\$4.57
66	.0330	3/4"	2"	DWDTL66	\$5.53
67	.0320	3/4"	2"	DWDTL67	\$5.53
68	.0310	3/4"	2"	DWDTL68	\$5.53
69	.0292	3/4"	2"	DWDTL69	\$5.53
70	.0280	3/4"	2"	DWDTL70	\$6.05

H.S.S DWDTL Series					
Size	Dec. Equiv.	Flute Length	O.A.L.	Part Number	List Price
71	.0260	3/4"	2"	DWDTL71	\$6.05
72	.0250	5/16"	1-1/2"	DWDTL72	\$6.05
73	.0240	5/16"	1-1/2"	DWDTL73	\$6.05
74	.0225	5/16"	1-1/2"	DWDTL74	\$6.05
75	.0210	5/16"	1-1/2"	DWDTL75	\$6.05
76	.0200	5/16"	1-1/2"	DWDTL76	\$7.25
77	.0180	5/16"	1-1/2"	DWDTL77	\$7.25
78	.0160	5/16"	1-1/2"	DWDTL78	\$7.25
79	.0145	5/16"	1-1/2"	DWDTL79	\$7.25
80	.0135	5/16"	1-1/2"	DWDTL80	\$7.25

## H.S.S. LONG BOYS EXTRA LONG DRILLS

### DWDDL Series - Long Boy Drills

For general purpose drilling in applications where extra length for reach is required, designed to perform in a broad range of materials in the iron and steel families.



8" O.A.L.

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
7/64"	.1094	6"	DWDDL8X7/64	\$14.12
1/8"	.1250	6"	DWDDL8X1/8	\$14.12
9/64"	.1406	6"	DWDDL8X9/64	\$15.40
5/32"	.1563	6"	DWDDL8X5/32	\$15.40
11/64"	.1719	6"	DWDDL8X11/64	\$15.55
3/16"	.1875	6"	DWDDL8X3/16	\$15.55
13/64"	.2031	6"	DWDDL8X13/64	\$17.26
7/32"	.2188	6"	DWDDL8X7/32	\$17.26
15/64"	.2344	6"	DWDDL8X15/64	\$17.26
1/4"	.2500	6"	DWDDL8X1/4	\$17.26
17/64"	.2656	6"	DWDDL8X17/64	\$18.68

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
9/32"	.2813	6"	DWDDL8X9/32	\$18.68
19/64"	.2969	6"	DWDDL8X19/64	\$18.68
5/16"	.3125	6"	DWDDL8X5/16	\$18.68
21/64"	.3281	6"	DWDDL8X21/64	\$20.09
11/32"	.3438	6"	DWDDL8X11/32	\$20.09
23/64"	.3594	6"	DWDDL8X23/64	\$20.09
3/8"	.3750	6"	DWDDL8X3/8	\$20.09
13/32"	.4063	6"	DWDDL8X13/32	\$23.19
7/16"	.4375	6"	DWDDL8X7/16	\$24.54
15/32"	.4688	6"	DWDDL8X15/32	\$27.40
1/2"	.5000	6"	DWDDL8X1/2	\$27.40

12" O.A.L.

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
1/8"	.1250	9"	DWDDL12X1/8	\$17.25
9/64"	.1406	9"	DWDDL12X9/64	\$18.28
5/32"	.1563	9"	DWDDL12X5/32	\$18.28
11/64"	.1719	9"	DWDDL12X11/64	\$19.98
3/16"	.1875	9"	DWDDL12X3/16	\$19.98
13/64"	.2031	9"	DWDDL12X13/64	\$20.98
7/32"	.2188	9"	DWDDL12X7/32	\$20.98
15/64"	.2344	9"	DWDDL12X15/64	\$20.98
1/4"	.2500	9"	DWDDL12X1/4	\$20.98
17/64"	.2656	9"	DWDDL12X17/64	\$22.68
9/32"	.2813	9"	DWDDL12X9/32	\$22.68
19/64"	.2969	9"	DWDDL12X19/64	\$23.68
5/16"	.3125	9"	DWDDL12X5/16	\$23.68
21/64"	.3281	9"	DWDDL12X21/64	\$26.05
11/32"	.3438	9"	DWDDL12X11/32	\$26.05
23/64"	.3594	9"	DWDDL12X23/64	\$27.42
3/8"	.3750	9"	DWDDL12X3/8	\$26.90
25/64"	.3906	9"	DWDDL12X25/64	\$30.78
13/32"	.4063	9"	DWDDL12X13/32	\$30.28
27/64"	.4219	9"	DWDDL12X27/64	\$31.82
7/16"	.4375	9"	DWDDL12X7/16	\$31.73

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
29/64"	.4531	9"	DWDDL12X29/64	\$35.84
15/32"	.4688	9"	DWDDL12X15/32	\$35.68
31/64"	.4844	9"	DWDDL12X31/64	\$37.76
1/2"	.5000	9"	DWDDL12X1/2	\$36.40
33/64"	.5156	9"	DWDDL12X33/64	\$49.27
17/32"	.5313	9"	DWDDL12X17/32	\$47.52
35/64"	.5469	9"	DWDDL12X35/64	\$49.27
9/16"	.5625	9"	DWDDL12X9/16	\$47.52
37/64"	.5781	9"	DWDDL12X37/64	\$52.95
19/32"	.5938	9"	DWDDL12X19/32	\$51.06
39/64"	.6094	9"	DWDDL12X39/64	\$55.64
5/8"	.6250	9"	DWDDL12X5/8	\$53.63
41/64"	.6406	9"	DWDDL12X41/64	\$58.58
21/32"	.6563	9"	DWDDL12X21/32	\$58.58
43/64"	.6719	9"	DWDDL12X43/64	\$61.97
11/16"	.6875	9"	DWDDL12X11/16	\$61.97
45/64"	.7031	9"	DWDDL12X45/64	\$67.10
23/32"	.7188	9"	DWDDL12X23/32	\$67.10
47/64"	.7344	9"	DWDDL12X47/64	\$69.74
3/4"	.7500	9"	DWDDL12X3/4	\$69.74

# H.S.S. LONG BOYS



## 1 8 " O . A . L .

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
3/16"	.1875	13"	DWDDL18X3/16	\$41.37
7/32"	.2188	13"	DWDDL18X7/32	\$41.37
1/4"	.2500	13"	DWDDL18X1/4	\$41.37
17/64"	.2656	13"	DWDDL18X17/64	\$44.56
9/32"	.2813	13"	DWDDL18X9/32	\$44.56
19/64"	.2969	13"	DWDDL18X19/64	\$47.22
5/16"	.3125	13"	DWDDL18X5/16	\$45.53
21/64"	.3281	13"	DWDDL18X21/64	\$52.42
11/32"	.3438	13"	DWDDL18X11/32	\$50.50
23/64"	.3594	13"	DWDDL18X23/64	\$52.42
3/8"	.3750	13"	DWDDL18X3/8	\$50.50
25/64"	.3906	13"	DWDDL18X25/64	\$56.77
13/32"	.4063	13"	DWDDL18X13/32	\$54.75
27/64"	.4219	13"	DWDDL18X27/64	\$59.93
7/16"	.4375	13"	DWDDL18X7/16	\$58.99
29/64"	.4531	13"	DWDDL18X29/64	\$63.12
15/32"	.4688	13"	DWDDL18X15/32	\$63.12
31/64"	.4844	13"	DWDDL18X31/64	\$67.49
1/2"	.5000	13"	DWDDL18X1/2	\$67.49
33/64"	.5156	13"	DWDDL18X33/64	\$87.98
17/32"	.5313	13"	DWDDL18X17/32	\$84.84
35/64"	.5469	13"	DWDDL18X35/64	\$89.43
9/16"	.5625	13"	DWDDL18X9/16	\$86.22
37/64"	.5781	13"	DWDDL18X37/64	\$92.53
19/32"	.5938	13"	DWDDL18X19/32	\$89.27
39/64"	.6094	13"	DWDDL18X39/64	\$97.13

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
5/8"	.6250	13"	DWDDL18X5/8	\$93.67
41/64"	.6406	13"	DWDDL18X41/64	\$103.54
21/32"	.6563	13"	DWDDL18X21/32	\$103.54
43/64"	.6719	13"	DWDDL18X43/64	\$110.89
11/16"	.6875	13"	DWDDL18X11/16	\$110.89
45/64"	.7031	13"	DWDDL18X45/64	\$121.20
23/32"	.7188	13"	DWDDL18X23/32	\$121.20
47/64"	.7344	13"	DWDDL18X47/64	\$128.51
3/4"	.7500	13"	DWDDL18X3/4	\$128.51
49/64"	.7656	13"	DWDDL18X49/64	\$143.35
25/32"	.7813	13"	DWDDL18X25/32	\$143.35
51/64"	.7969	13"	DWDDL18X51/64	\$148.83
13/16"	.8125	13"	DWDDL18X13/16	\$148.83
53/64"	.8281	13"	DWDDL18X53/64	\$153.54
27/32"	.8438	13"	DWDDL18X27/32	\$153.54
55/64"	.8594	13"	DWDDL18X55/64	\$153.54
7/8"	.8750	13"	DWDDL18X7/8	\$153.54
57/64"	.8906	13"	DWDDL18X57/64	\$161.50
29/32"	.9063	13"	DWDDL18X29/32	\$161.50
59/64"	.9219	13"	DWDDL18X59/64	\$161.50
15/16"	.9375	13"	DWDDL18X15/16	\$161.50
61/64"	.9531	13"	DWDDL18X61/64	\$171.25
31/32"	.9688	13"	DWDDL18X31/32	\$171.25
63/64"	.9844	13"	DWDDL18X63/64	\$171.25
1"	1.0000	13"	DWDDL18X1INCH	\$171.25

## 2 4 " O . A . L .

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
1/4"	.2500	18"	DWDDL24X1/4	\$166.46
5/16"	.3125	18"	DWDDL24X5/16	\$172.90
3/8"	.3750	18"	DWDDL24X3/8	\$180.70
7/16"	.4375	18"	DWDDL24X7/16	\$188.10
1/2"	.5000	18"	DWDDL24X1/2	\$193.62
9/16"	.5625	18"	DWDDL24X9/16	\$196.36
5/8"	.6250	18"	DWDDL24X5/8	\$199.03

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
11/16"	.6875	18"	DWDDL24X11/16	\$207.25
3/4"	.7500	18"	DWDDL24X3/4	\$216.90
13/16"	.8125	18"	DWDDL24X13/16	\$247.27
7/8"	.8750	18"	DWDDL24X7/8	\$257.00
15/16"	.9375	18"	DWDDL24X15/16	\$284.68
1"	1.0000	18"	DWDDL24X1INCH	\$303.94

## 1 / 2 " R E D U C E D S H A N K



### 1 2 " O . A . L .

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
17/32"	.5313	9"	DWDDL12X17/32X1/2	\$64.99
9/16"	.5625	9"	DWDDL12X9/16X1/2	\$64.99
5/8"	.6250	9"	DWDDL12X5/8X1/2	\$72.95
11/16"	.6875	9"	DWDDL12X11/16X1/2	\$85.05
3/4"	.7500	9"	DWDDL12X3/4X1/2	\$94.88

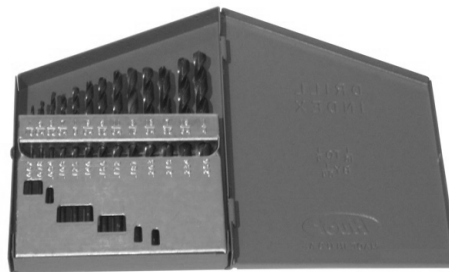
### 1 8 " O . A . L .

DWDDL Series				
Size	Dec. Equiv.	Flute Length	Part Number	List Price
5/8"	.6250	13"	DWDDL18X5/8X1/2	\$127.27
3/4"	.7500	13"	DWDDL18X3/4X1/2	\$173.55
7/8"	.8750	13"	DWDDL18X7/8X1/2	\$206.77
1"	1.0000	13"	DWDDL18X1INCHX1/2	\$230.10

# DRILL SETS

## 2 9 P I E C E 1 / 1 6 " - 1 / 2 " X 6 4 T H S

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A29J-SET	Drill America HSS Surface treated Jobbers	\$139.74
D/A29J-P-SET	Drill America HSS Polished Jobbers	\$139.74
D/A29J-PC	Drill America HSS Surface treated Jobbers in Plastic Case	\$151.08
DWD29J-SET	Qualtech HSS Surface treated Jobbers	\$66.78
DWD29J-P-SET	Qualtech HSS Polished Jobbers	\$105.00
DWD29J-PC	Qualtech HSS Surface treated Jobbers in Plastic Case	\$77.91
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A29J-SP-SET	Drill America Split Point Jobbers	\$136.40
D/A29J-SP-PC	Drill America Split Point Jobbers in Plastic Case	\$149.05
DWD29J-SP-SET	Qualtech Split Point Jobbers	\$125.12
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A29J-CO-SET	Drill America Cobalt Jobbers	\$263.12
D/A29J-CO-PC	Drill America Cobalt Jobbers in Plastic Case	\$276.28
DWD29J-CO-SET	Qualtech Cobalt Jobbers	\$194.86
DWD29J-CO-PC	Qualtech Cobalt Jobbers in Plastic Case	\$203.97
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD29J-SET	KFD HSS Black and Gold Jobbers	\$130.69
KFD29J-PC	KFD HSS Black and Gold Jobbers in Plastic Case	\$148.44
DWD29J-BG-SET	Qualtech Economy Black and Gold Jobbers	\$103.14
DWD29J-BG-PC	Qualtech Economy Black and Gold Jobbers in Plastic Case	\$119.82
<b>135° Heavy Duty Split Point Screw Machine Length</b>		
D/A29S-SET	Drill America HSS Split Point Screw Machine	\$142.64
DWD29S-SET	Qualtech HSS Split Point Screw Machine	\$137.17
D/A29S-CO-SET	Drill America Cobalt Split Point Screw Machine	\$261.72
<b>135° Heavy Duty HSS Black and Gold Mechanics Length</b>		
KFD29ML-PC	KFD HSS Black and Gold Mechanics Length in Plastic Case	\$169.05
KFD29ML-SET	KFD HSS Black and Gold Mechanics Length	\$152.46
<b>118° General Purpose 1/4" and 3/8" Reduced Shank</b>		
D/A29JX1/4-SET	Drill America HSS Surface treated Jobbers with 1/4 Shank	\$194.32
DWD29JX1/4-SET	Qualtech HSS Surface treated Jobbers with 1/4 Shank	\$145.94
D/A29JX3/8-SET	Drill America HSS Surface treated Jobbers with 3/8 Shank	\$177.53
DWD29JX3/8-SET	Qualtech HSS Surface treated Jobbers with 3/8 Shank	\$121.33
D/A29JX3/8-CO-SET	Drill America Cobalt Jobbers with 3/8 Shank	\$335.29
DWD29JX3/8-CO-SET	Qualtech Cobalt Jobbers with 3/8 Shank	\$253.76
KFD29JX3/8-SET	KFD Black and Gold Jobbers with 3/8 Shank	\$168.90
KFD29JX3/8-PC	KFD Black and Gold Jobbers with 3/8 Shank Plastic Case	\$199.18
<b>118° General Purpose Miscellaneous</b>		
D/A29J-LH-SET	Drill America HSS Left Hand Jobbers	\$478.31
DWD29J-LH-SET	Qualtech HSS Left Hand Jobbers	\$271.14
DWD29J-TN-SET	Qualtech HSS TIN Coated Jobbers	\$172.54
<b>Miscellaneous</b>		
DWD29J-DB-SET	Qualtech Drill Blanks	\$213.75



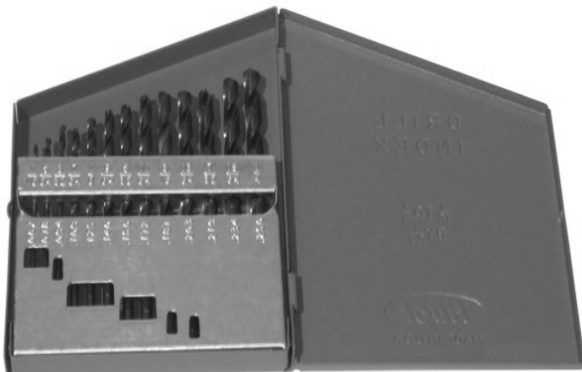
# DRILL SETS

## 1 3 P I E C E 1 / 1 6 " - 1 / 4 " X 6 4 T H S

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A13J-SET	Drill America HSS Surface treated Jobbers	\$28.83
D/A13J-P-SET	Drill America HSS Polished Jobbers	\$28.83
DWD13J-SET	Qualtech HSS Surface treated Jobbers	\$17.43
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A13J-SP-SET	Drill America HSS Split Point Jobbers	\$32.00
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A13J-CO-SET	Drill America Cobalt Jobbers	\$52.14
DWD13J-CO-SET	Qualtech Cobalt Jobbers	\$38.95
<b>135° Heavy Duty Split Point HSS Screw Machine Length</b>		
D/A13S-SET	Drill America HSS Split Point Screw Machine	\$30.02
DWD13S-SET	Qualtech HSS Split Point Screw Machine	\$24.79
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD13J-SET	KFD HSS Black and Gold Jobbers	\$23.33
<b>118° General Purpose Miscellaneous</b>		
DWD13J-LH-SET	Qualtech HSS Left Hand Jobbers	\$62.03
DWD13J-TN-SET	Qualtech HSS TIN Coated Jobbers	\$64.81

## 1 5 P I E C E 1 / 1 6 " - 1 / 2 " X 3 2 N D S

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A15J-SET	Drill America HSS Surface treated Jobbers	\$74.66
D/A15J-P-SET	Drill America HSS Polished Jobbers	\$74.66
DWD15J-SET	Qualtech HSS Surface treated Jobbers	\$40.09
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A15J-SP-SET	Drill America HSS Split Point Jobbers	\$90.24
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A15J-CO-SET	Drill America Cobalt Jobbers	\$155.12
DWD15J-CO-SET	Qualtech Cobalt Jobbers	\$106.29
<b>135° Heavy Duty Split Point HSS Screw Machine Length</b>		
D/A15S-SET	Drill America HSS Split Point Screw Machine	\$102.25
DWD15S-SET	Qualtech HSS Split Point Screw Machine	\$72.30
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD15J-SET	KFD HSS Black and Gold Jobbers	\$67.76
DWD15J-BG-SET	Qualtech Economy Black and Gold Jobbers	\$59.36
<b>118° General Purpose Miscellaneous</b>		
DWD15J-LH-SET	Qualtech HSS Left Hand Jobbers	\$142.77
DWD15J-TN-SET	Qualtech HSS TIN Coated Jobbers	\$167.27



# DRILL SETS

## 2 1 P I E C E 1 / 1 6 " - 3 / 8 " X 6 4 T H S

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A21J-SET	Drill America HSS Surface treated Jobbers	\$67.18
D/A21J-P-SET	Drill America HSS Polished Jobbers	\$67.18
DWD21J-SET	Qualtech HSS Surface treated Jobbers	\$37.51
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A21J-SP-SET	Drill America HSS Split Point Jobbers	\$81.26
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A21J-CO-SET	Drill America Cobalt Jobbers	\$135.48
DWD21J-CO-SET	Qualtech Cobalt Jobbers	\$102.21
<b>135° Heavy Duty Split Point Screw HSS Machine Length</b>		
D/A21S-SET	Drill America HSS Split Point Screw Machine	\$91.22
DWD21S-SET	Qualtech HSS Split Point Screw Machine	\$55.26
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD21J-SET	KFD HSS Black and Gold Jobbers	\$82.21
<b>118° General Purpose Miscellaneous</b>		
DWD21J-LH-SET	Qualtech HSS Left Hand Jobbers	\$134.89
DWD21J-TN-SET	Qualtech HSS TIN Coated Jobbers	\$178.32

## 6 0 P I E C E # 1 - 6 0 W I R E G A U G E S I Z E S

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A60J-SET	Drill America HSS Surface treated Jobbers	\$107.73
D/A60J-P-SET	Drill America HSS Polished Jobbers	\$107.73
DWD60J-SET	Qualtech HSS Surface treated Jobbers	\$71.98
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A60J-SP-SET	Drill America HSS Split Point Jobbers	\$125.77
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A60J-CO-SET	Drill America Cobalt Jobbers	\$203.73
DWD60J-CO-SET	Qualtech Cobalt Jobbers	\$165.28
<b>135° Heavy Duty Split Point Screw Machine Length</b>		
D/A60S-SET	Drill America HSS Split Point Screw Machine	\$131.47
DWD60S-SET	Qualtech HSS Split Point Screw Machine	\$120.30
D/A60S-CO-SET	Drill America Cobalt Split Point Screw Machine	\$213.70
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD60J-SET	KFD HSS Black and Gold Jobbers	\$121.97
<b>118° HSS Left Hand Jobbers</b>		
DWD60J-LH-SET	Qualtech HSS Left Hand Jobbers	\$335.21
<b>Miscellaneous</b>		
DWD60J-DB-SET	Qualtech Drill Blanks	\$169.63

## 2 0 P I E C E # 6 1 - 8 0 W I R E G A U G E S I Z E S

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A20J-SET	Drill America HSS Surface treated Jobbers	\$41.92
DWD20J-SET	Qualtech HSS Surface treated Jobbers	\$29.19
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A20J-CO-SET	Drill America Cobalt Jobbers	\$72.83

# DRILL SETS

## 26 PIECE A-Z LETTER SIZES

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
D/A26J-SET	Drill America HSS Surface treated Jobbers	\$147.77
DWD26J-SET	Qualtech HSS Surface treated Jobbers	\$88.90
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A26J-SP-SET	Drill America HSS Split Point Jobbers	\$168.64
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A26J-CO-SET	Drill America Cobalt Jobbers	\$293.34
DWD26J-CO-SET	Qualtech Cobalt Jobbers	\$218.63
<b>135° Heavy Duty Split Point Screw Machine Length</b>		
D/A26S-SET	Drill America HSS Split Point Screw Machine	\$175.68
D/A26S-CO-SET	Drill America Cobalt Split Point Screw Machine	\$310.82
DWD26S-SET	Qualtech HSS Split Point Screw Machine	\$139.41
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD26J-SET	KFD HSS Black and Gold Jobbers	\$144.78

## 115 PIECE FRAC, LETTER, WIRE GAUGE CONTAINS SIZES 1/16" - 1/2" x 64THS, A-Z, #1 - #60 COMBINED

Part Number	Description	List Price
<b>118° General Purpose HSS Jobbers Length</b>		
DA115J-SET	Drill America HSS Surface treated Jobbers	\$367.10
D/A115J-P-SET	Drill America HSS Polished Jobbers	\$367.10
DWD115J-SET	Qualtech HSS Surface treated Jobbers	\$194.78
<b>135° Heavy Duty Split Point HSS Jobbers Length</b>		
D/A115J-SP-SET	Drill America HSS Split Point Jobbers	\$446.59
<b>135° Heavy Duty Split Point Cobalt Jobbers Length</b>		
D/A115J-CO-SET	Drill America Cobalt Jobbers	\$769.14
DWD115J-CO-SET	Qualtech Cobalt Jobbers	\$567.77
<b>118° HSS TIN Coated Jobbers</b>		
DWD115J-TN-SET	Qualtech HSS TIN Coated Jobbers	\$396.62
<b>135° Heavy Duty HSS Black and Gold Jobbers Length</b>		
KFD115J-SET	KFD HSS Black and Gold Jobbers	\$440.75
<b>Miscellaneous</b>		
DWD115J-DB-SET	Qualtech Drill Blanks	\$510.16



# DRILL SETS

## METRIC JOBBERS

Part Number	Description		List Price
DWD4011-SET	Qualtech HSS Surface treated Jobbers 1 - 6 mm x 0.5 mm	11 Piece	\$22.84
DWD4013-SET	Qualtech HSS Surface treated Jobbers 1 - 7 mm x 0.5 mm	13 Piece	\$27.92
DWD4019-SET	Qualtech HSS Surface treated Jobbers 1 - 10 mm x 0.5 mm	19 Piece	\$60.23
D/A4025-SET	Drill America HSS Surface treated Jobbers 1 - 13 mm x 0.5 mm	25 Piece	\$222.18
DWD4025-SET	Qualtech HSS Surface treated Jobbers 1 - 13 mm x 0.5 mm	25 Piece	\$89.97
D/A4025-CO-SET	Drill America Cobalt Jobbers 1 - 13 mm x 0.5 mm	25 Piece	\$340.46

## S&D SETS

### 5 PIECE SET W/ 1/2" SHANK

CONTAINS SIZES 9/16", 5/8", 3/4", 7/8, 1"

Part Number	Description	List Price
D/ASWD	Drill America HSS S&D Drills	\$222.03
DWDSWD	Qualtech HSS S&D Drills	\$118.13

### 8 PIECE SET W/ 1/2" SHANK

9/16" - 1" X 16THS

Part Number	Description	List Price
D/A1008-SET	Drill America HSS S&D Drills	\$330.27
DWD1008-SET	Qualtech HSS S&D Drills	\$172.70
D/A1008-CO-SET	Drill America Cobalt S&D Drills	\$540.68
DWD1008-CO-SET	Qualtech Cobalt S&D Drills	\$371.93
KFD1008-SET	KFD HSS Black and Gold S&D Drills	\$322.06

### 33 PIECE SET W/ 1/2" SHANK

1/2" - 1" X 64THS

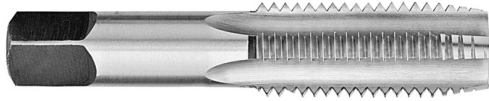
Part Number	Description	List Price
D/A833SD-SET	Drill America HSS S&D Drills	\$1180.77
DWD833SD-SET	Qualtech HSS S&D Drills	\$571.50
D/A833SD-CO-SET	Drill America Cobalt S&D Drills	\$2261.70



# HSS HAND TAPS

## T/A Series - High Speed Hand Taps

Hand Taps are the most versatile taps for hand use, or for tapping under power. Hand Taps are popular for use in general machine tapping or CNC tapping. They are also appropriate for tapping the vast majority of materials in through or blind holed conditions. **Taper Style** - Starts the thread square with the workpiece. **Plug Style** - Generally used in thru holes. **Bottom style** - Generates the thread to the bottom of the hole.



★★★ Tap America ★★★

**MADE IN U.S.A.**

**M A C H I N E   A N D   F R A C T I O N A L   S I Z E S**

**Taper   Plug   Bottom**



7-10 Threads   3-5 Threads   1-2 Threads

Size	Limit	No. of Flutes	Taper	Plug	Bottom	List Price	Sets	List Price
0-80	H1	2	T/A54025	T/A54026	T/A54027	\$15.85	T/A54028	\$47.58
1-64	H1	2	T/A54055	T/A54056	T/A54057	\$15.15	T/A54058	\$45.46
1-72	H1	2	T/A54060	T/A54061	T/A54062	\$15.15	T/A54063	\$45.46
2-56	H2	3	T/A54089	T/A54090	T/A54091	\$13.02	T/A54092	\$39.13
2-64	H2	3	T/A54093	T/A54094	T/A54095	\$14.07	T/A54096	\$42.25
3-48	H2	3	T/A54115	T/A54116	T/A54117	\$10.03	T/A54118	\$30.10
3-56	H2	3	T/A54120	T/A54121	T/A54122	\$10.72	T/A54123	\$32.19
4-36	H2	3	T/A54139	T/A54140	T/A54141	\$9.14	T/A54137	\$27.41
4-40	H2	3	T/A54149	T/A54150	T/A54151	\$8.51	T/A54152	\$25.52
4-48	H2	3	T/A54153	T/A54154	T/A54155	\$9.14	T/A54156	\$27.41
5-40	H2	3	T/A54188	T/A54189	T/A54190	\$8.01	T/A54191	\$24.03
5-44	H2	3	T/A54192	T/A54193	T/A54194	\$8.01	T/A54195	\$24.03
6-32	H3	3	T/A54223	T/A54224	T/A54225	\$6.44	T/A54226	\$19.30
6-40	H2	3	T/A54232	T/A54233	T/A54234	\$6.88	T/A54235	\$20.64
8-32	H3	4	T/A54277	T/A54278	T/A54279	\$7.18	T/A54280	\$21.54
8-36	H2	4	T/A54289	T/A54290	T/A54291	\$7.42	T/A54292	\$22.26
10-24	H3	4	T/A54329	T/A54330	T/A54331	\$7.42	T/A54332	\$22.26
10-32	H3	4	T/A54356	T/A54357	T/A54358	\$7.42	T/A54359	\$22.26
12-24	H3	4	T/A54385	T/A54386	T/A54387	\$7.86	T/A54388	\$23.60
12-28	H3	4	T/A54389	T/A54390	T/A54391	\$7.86	T/A54392	\$23.60
1/4"-20	H3	4	T/A54453	T/A54454	T/A54455	\$6.71	T/A54460	\$20.12
1/4"-28	H3	4	T/A54469	T/A54470	T/A54471	\$6.71	T/A54476	\$20.12
5/16"-18	H3	4	T/A54504	T/A54505	T/A54506	\$8.32	T/A54511	\$24.94
5/16"-24	H3	4	T/A54518	T/A54519	T/A54520	\$8.32	T/A54523	\$24.94
3/8"-16	H3	4	T/A54582	T/A54583	T/A54584	\$9.09	T/A54587	\$27.27
3/8"-24	H3	4	T/A54595	T/A54596	T/A54597	\$9.09	T/A54600	\$27.27
7/16"-14	H3	4	T/A54652	T/A54653	T/A54654	\$16.01	T/A54656	\$48.02
7/16"-20	H3	4	T/A54661	T/A54662	T/A54663	\$16.01	T/A54665	\$48.02
1/2"-13	H3	4	T/A54726	T/A54727	T/A54728	\$16.71	T/A54731	\$50.11
1/2"-20	H3	4	T/A54737	T/A54738	T/A54739	\$17.64	T/A54741	\$52.92
9/16"-12	H3	4	T/A54759	T/A54760	T/A54761	\$28.35	T/A54762	\$85.04
9/16"-18	H3	4	T/A54765	T/A54766	T/A54767	\$28.35	T/A54768	\$85.04
5/8"-11	H3	4	T/A54779	T/A54780	T/A54781	\$33.89	T/A54782	\$101.66
5/8"-18	H3	4	T/A54787	T/A54788	T/A54789	\$33.89	T/A54790	\$101.66
11/16"-11	H3	4	T/A54813	T/A54814	T/A54815	\$42.06	T/A54816	\$126.18
11/16"-16	H3	4	T/A54817	T/A54818	T/A54819	\$42.06	T/A54820	\$126.18
3/4"-10	H3	4	T/A54838	T/A54839	T/A54840	\$47.20	T/A54841	\$141.60
3/4"-16	H3	4	T/A54846	T/A54847	T/A54848	\$47.20	T/A54849	\$141.60
7/8"-9	H4	4	T/A54884	T/A54885	T/A54886	\$67.35	T/A54887	\$202.05
7/8"-14	H4	4	T/A54890	T/A54891	T/A54892	\$67.35	T/A54893	\$202.05
1"-8	H4	4	T/A54923	T/A54924	T/A54925	\$89.67	T/A54926	\$269.03
1"-12	H4	4	T/A54928	T/A54929	T/A54930	\$92.49	T/A54931	\$277.46
1"-14	H4	4	T/A54933	T/A54934	T/A54935	\$89.67	T/A54936	\$269.03
1-1/8"-7	H4	4	T/A54965	T/A54966	T/A54967	\$138.43	T/A54944	\$415.30
1-1/8"-12	H4	4	T/A54971	T/A54972	T/A54973	\$138.43	T/A54937	\$415.30
1-1/4"-7	H4	4	T/A54994	T/A54995	T/A54996	\$178.68	T/A54938	\$536.03
1-1/4"-12	H4	6	T/A55000	T/A55001	T/A55002	\$178.68	T/A54939	\$536.03
1-3/8"-6	H4	4	T/A55027	T/A55028	T/A55029	\$224.65	T/A54940	\$673.94
1-3/8"-12	H4	6	T/A55030	T/A55031	T/A55032	\$224.65	T/A54941	\$673.94
1-1/2"-6	H4	4	T/A55057	T/A55058	T/A55059	\$266.66	T/A54942	\$799.99
1-1/2"-12	H4	6	T/A55063	T/A55064	T/A55065	\$266.66	T/A54943	\$799.99

# HSS HAND TAPS

DWT Series - High Speed Hand Taps



**QUALI**  **TECH™**

**Taper Plug Bottom**



7-10 Threads    3-5 Threads    1-2 Threads

Size	No. of Flutes	Taper	Plug	Bottom	List Price	Sets	List Price
0-80	2	DWT54025	DWT54026	DWT54027	\$10.93	DWT54028	\$32.78
1-64	2	DWT54055	DWT54056	DWT54057	\$10.15	DWT54058	\$30.37
1-72	2	DWT54060	DWT54061	DWT54062	\$10.15	DWT54063	\$30.37
2-56	3	DWT54089	DWT54090	DWT54091	\$8.70	DWT54092	\$26.11
2-64	3	DWT54093	DWT54094	DWT54095	\$9.42	DWT54096	\$28.22
3-48	3	DWT54115	DWT54116	DWT54117	\$6.64	DWT54118	\$19.92
3-56	3	DWT54120	DWT54121	DWT54122	\$7.04	DWT54123	\$21.08
4-36	3	DWT54139	DWT54140	DWT54141	\$5.54	DWT54137	\$16.63
4-40	3	DWT54149	DWT54150	DWT54151	\$5.49	DWT54152	\$16.46
4-48	3	DWT54153	DWT54154	DWT54155	\$5.54	DWT54156	\$16.63
5-40	3	DWT54188	DWT54189	DWT54190	\$5.54	DWT54191	\$16.63
5-44	3	DWT54192	DWT54193	DWT54194	\$5.54	DWT54195	\$16.63
6-32	3	DWT54223	DWT54224	DWT54225	\$4.19	DWT54226	\$12.54
6-40	3	DWT54232	DWT54233	DWT54234	\$4.44	DWT54235	\$13.33
8-32	4	DWT54277	DWT54278	DWT54279	\$4.33	DWT54280	\$12.99
8-36	4	DWT54289	DWT54290	DWT54291	\$4.44	DWT54292	\$13.33
10-24	4	DWT54329	DWT54330	DWT54331	\$4.44	DWT54332	\$13.33
10-32	4	DWT54356	DWT54357	DWT54358	\$4.44	DWT54359	\$13.33
12-24	4	DWT54385	DWT54386	DWT54387	\$4.73	DWT54388	\$14.15
12-28	4	DWT54389	DWT54390	DWT54391	\$4.88	DWT54392	\$14.67
14-20	4	DWT54393	DWT54394	DWT54395	\$9.84	DWT54396	\$29.54
14-24	4	DWT54397	DWT54398	DWT54399	\$9.84	DWT54400	\$29.54
1/4"-20	4	DWT54453	DWT54454	DWT54455	\$4.68	DWT54460	\$14.03
1/4"-28	4	DWT54469	DWT54470	DWT54471	\$4.68	DWT54476	\$14.03
5/16"-18	4	DWT54504	DWT54505	DWT54506	\$5.91	DWT54511	\$17.73
5/16"-24	4	DWT54518	DWT54519	DWT54520	\$5.91	DWT54523	\$17.73
3/8"-16	4	DWT54582	DWT54583	DWT54584	\$6.71	DWT54587	\$20.06
3/8"-24	4	DWT54595	DWT54596	DWT54597	\$6.71	DWT54600	\$20.06
7/16"-14	4	DWT54652	DWT54653	DWT54654	\$11.03	DWT54656	\$33.10
7/16"-20	4	DWT54661	DWT54662	DWT54663	\$11.03	DWT54665	\$33.10
1/2"-13	4	DWT54726	DWT54727	DWT54728	\$12.12	DWT54731	\$36.28
1/2"-20	4	DWT54737	DWT54738	DWT54739	\$12.12	DWT54741	\$36.28
9/16"-12	4	DWT54759	DWT54760	DWT54761	\$19.65	DWT54762	\$58.95
9/16"-18	4	DWT54765	DWT54766	DWT54767	\$19.65	DWT54768	\$58.95
5/8"-11	4	DWT54779	DWT54780	DWT54781	\$24.09	DWT54782	\$72.30
5/8"-18	4	DWT54787	DWT54788	DWT54789	\$24.09	DWT54790	\$72.30
11/16"-11	4	DWT54813	DWT54814	DWT54815	\$29.16	DWT54816	\$87.49
11/16"-16	4	DWT54817	DWT54818	DWT54819	\$29.16	DWT54820	\$87.49
3/4"-10	4	DWT54838	DWT54839	DWT54840	\$32.59	DWT54841	\$97.79
3/4"-16	4	DWT54846	DWT54847	DWT54848	\$32.59	DWT54849	\$97.79
7/8"-9	4	DWT54884	DWT54885	DWT54886	\$45.55	DWT54887	\$136.68
7/8"-14	4	DWT54890	DWT54891	DWT54892	\$45.55	DWT54893	\$136.68
1"-8	4	DWT54923	DWT54924	DWT54925	\$61.18	DWT54926	\$183.55
1"-12	4	DWT54928	DWT54929	DWT54930	\$62.22	DWT54931	\$186.63
1"-14	4	DWT54933	DWT54934	DWT54935	\$62.22	DWT54936	\$186.63
1-1/8"-7	4	DWT54965	DWT54966	DWT54967	\$96.75	DWT54944	\$290.22
1-1/8"-12	4	DWT54971	DWT54972	DWT54973	\$98.26	DWT54937	\$294.79
1-1/4"-7	4	DWT54994	DWT54995	DWT54996	\$115.84	DWT54938	\$347.51
1-1/4"-12	6	DWT55000	DWT55001	DWT55002	\$115.84	DWT54939	\$347.51
1-3/8"-6	4	DWT55027	DWT55028	DWT55029	\$150.33	DWT54940	\$450.99
1-3/8"-12	6	DWT55030	DWT55031	DWT55032	\$151.18	DWT54941	\$453.52
1-1/2"-6	4	DWT55057	DWT55058	DWT55059	\$172.82	DWT54942	\$518.94
1-1/2"-12	6	DWT55063	DWT55064	DWT55065	\$176.04	DWT54943	\$528.12

# HSS HAND TAPS

DWT Series - High Speed Plug Taps (Taper & Bottoming Taps Available - POA)



## SPECIAL SIZES

Size	Part Number	List Price	Size	Part Number	List Price	Size	Part Number	List Price
4-32	DWTST4-32P	\$20.79	7/16"-28	DWTST7/16-28P	\$25.98	15/16"-16	DWTST15/16-16P	\$56.98
5-36	DWTST5-36P	\$20.79	7/16"-32	DWTST7/16-32P	\$25.98	15/16"-20	DWTST15/16-20P	\$56.98
6-36	DWTST6-36P	\$19.75	7/16"-40	DWTST7/16-40P	\$25.98	1"-16	DWTST1-16P	\$72.14
6-48	DWTST6-48P	\$19.75	15/32"-32	DWTST15/32-32P	\$28.17	1"-18	DWTST1-18P	\$72.14
8-30	DWTST8-30P	\$19.93	1/2"-12	DWTST1/2-12P	\$28.17	1"-20	DWTST1-20P	\$72.14
8-40	DWTST8-40P	\$19.93	1/2"-14	DWTST1/2-14P	\$28.17	1"-24	DWTST1-24P	\$72.14
8-48	DWTST8-48P	\$19.93	1/2"-16	DWTST1/2-16P	\$28.17	1"-28	DWTST1-28P	\$72.14
10-28	DWTST10-28P	\$19.93	1/2"-18	DWTST1/2-18P	\$28.17	1"-32	DWTST1-32P	\$72.14
10-36	DWTST10-36P	\$19.93	1/2"-24	DWTST1/2-24P	\$28.17	1-1/16"-16	DWTST1-1/16-16P	\$110.09
10-40	DWTST10-40P	\$19.93	1/2"-27	DWTST1/2-27P	\$28.17	1-1/16"-18	DWTST1-1/16-18P	\$110.09
12-32	DWTST12-32P	\$21.03	1/2"-28	DWTST1/2-28P	\$28.17	1-1/8"-16	DWTST1-1/8-16P	\$124.98
12-40	DWTST12-40P	\$21.03	1/2"-32	DWTST1/2-32P	\$28.17	1-1/8"-18	DWTST1-1/8-18P	\$124.98
5/32"-32	DWTST5/32-32P	\$21.60	1/2"-36	DWTST1/2-36P	\$28.17	1-1/8"-20	DWTST1-1/8-20P	\$124.98
3/16"-24	DWTST3/16-24P	\$21.60	9/16"-14	DWTST9/16-14P	\$29.65	1-3/16"-12	DWTST1-3/16-12P	\$142.55
3/16"-32	DWTST3/16-32P	\$21.60	9/16"-16	DWTST9/16-16P	\$29.65	1-3/16"-24	DWTST1-3/16-24P	\$142.55
7/32"-32	DWTST7/32-32P	\$21.60	9/16"-20	DWTST9/16-20P	\$29.65	1-1/4"-18	DWTST1-1/4-18P	\$142.55
1/4"-24	DWTST1/4-24P	\$21.60	9/16"-24	DWTST9/16-24P	\$29.65	1-1/4"-24	DWTST1-1/4-24P	\$142.55
1/4"-27	DWTST1/4-27P	\$21.60	9/16"-27	DWTST9/16-27P	\$29.65	1-1/4"-27	DWTST1-1/4-27P	\$142.55
1/4"-32	DWTST1/4-32P	\$21.60	9/16"-28	DWTST9/16-28P	\$29.65	1-1/4"-32	DWTST1-1/4-32P	\$142.55
1/4"-36	DWTST1/4-36P	\$21.60	9/16"-32	DWTST9/16-32P	\$29.65	1-3/16"-16	DWTST1-3/16-16P	\$142.55
1/4"-40	DWTST1/4-40P	\$21.60	9/16"-40	DWTST9/16-40P	\$29.65	1-5/16"-12	DWTST1-5/16-12P	\$178.20
1/4"-48	DWTST1/4-48P	\$21.60	5/8"-12	DWTST5/8-12P	\$32.70	1-3/8"-14	DWTST1-3/8-14P	\$178.20
1/4"-60	DWTST1/4-60P	\$21.60	5/8"-16	DWTST5/8-16P	\$32.70	1-3/8"-16	DWTST1-3/8-16P	\$178.20
9/32"-32	DWTST9/32-32P	\$22.11	5/8"-20	DWTST5/8-20P	\$32.70	1-3/8"-18	DWTST1-3/8-18P	\$178.20
9/32"-40	DWTST9/32-40P	\$22.11	5/8"-24	DWTST5/8-24P	\$32.70	1-1/2"-16	DWTST1-1/2-16P	\$218.43
5/16"-16	DWTST5/16-16P	\$22.11	5/8"-27	DWTST5/8-27P	\$32.70	1-1/2"-18	DWTST1-1/2-18P	\$218.43
5/16"-20	DWTST5/16-20P	\$22.11	5/8"-28	DWTST5/8-28P	\$32.70	1-5/8"-10	DWTST1-5/8-10P	\$245.86
5/16"-27	DWTST5/16-27P	\$22.11	5/8"-32	DWTST5/8-32P	\$32.70	1-5/8"-12	DWTST1-5/8-12P	\$245.86
5/16"-28	DWTST5/16-28P	\$22.11	11/16"-18	DWTST11/16-18P	\$39.47	1-3/4"-5	DWTST1-3/4-5P	\$261.02
5/16"-30	DWTST5/16-30P	\$22.11	11/16"-20	DWTST11/16-20P	\$39.47	1-3/4"-12	DWTST1-3/4-12P	\$261.02
5/16"-32	DWTST5/16-32P	\$22.11	11/16"-24	DWTST11/16-24P	\$39.47	1-3/4"-16	DWTST1-3/4-16P	\$261.02
5/16"-36	DWTST5/16-36P	\$22.11	3/4"-12	DWTST3/4-12P	\$43.31	1-3/4"-18	DWTST1-3/4-18P	\$261.02
5/16"-40	DWTST5/16-40P	\$22.11	3/4"-20	DWTST3/4-20P	\$43.31	1-3/4"-20	DWTST1-3/4-20P	\$261.02
5/16"-48	DWTST5/16-48P	\$22.11	3/4"-24	DWTST3/4-24P	\$43.31	2"-12	DWTST2-12P	\$380.29
11/32"-32	DWTST11/32-32P	\$24.09	3/4"-28	DWTST3/4-28P	\$43.31	2-1/4"-4 -1/2	DWTST2-4-1/2P	\$380.29
11/32"-40	DWTST11/32-40P	\$24.09	3/4"-32	DWTST3/4-32P	\$43.31	2-1/8"-12	DWTST2-1/8-12P	\$429.13
3/8"-20	DWTST3/8-20P	\$24.09	13/16"-16	DWTST13/16-16P	\$47.48	2-1/8"-16	DWTST2-1/8-16P	\$429.13
3/8"-27	DWTST3/8-27P	\$24.09	13/16"-18	DWTST13/16-18P	\$47.48	2-1/4"-12	DWTST2-1/4-12P	\$462.23
3/8"-28	DWTST3/8-28P	\$24.09	13/16"-20	DWTST13/16-20P	\$47.48	2-1/4"-16	DWTST2-1/4-16P	\$462.23
3/8"-30	DWTST3/8-30P	\$24.09	13/16"-32	DWTST13/16-32P	\$47.48	2-1/4"-18	DWTST2-1/4-18P	\$462.23
3/8"-32	DWTST3/8-32P	\$24.09	7/8"-12	DWTST7/8-12P	\$54.58	2-3/8"-12	DWTST2-3/8-12P	\$495.44
3/8"-36	DWTST3/8-36P	\$24.09	7/8"-16	DWTST7/8-16P	\$54.58	2-3/8"-16	DWTST2-3/8-16P	\$495.44
3/8"-40	DWTST3/8-40P	\$24.09	7/8"-18	DWTST7/8-18P	\$54.58	2-1/2"-4	DWTST2-1/2-4P	\$634.50
3/8"-48	DWTST3/8-48P	\$24.09	7/8"-20	DWTST7/8-20P	\$54.58	2-1/2"-12	DWTST2-1/2-12P	\$634.50
7/16"-16	DWTST7/16-16P	\$25.98	7/8"-24	DWTST7/8-24P	\$54.58	2-3/4"-12	DWTST2-3/4-12P	\$771.98
7/16"-18	DWTST7/16-18P	\$25.98	7/8"-27	DWTST7/8-27P	\$54.58	2-7/8"-12	DWTST2-7/8-12P	\$877.58
7/16"-24	DWTST7/16-24P	\$25.98	7/8"-28	DWTST7/8-28P	\$54.58	3"-12	DWTST3-12P	\$971.85
7/16"-27	DWTST7/16-27P	\$25.98	7/8"-32	DWTST7/8-32P	\$54.58			

## 8 PITCH SIZES

Size	Part Number	List Price	Size	Part Number	List Price	Size	Part Number	List Price
1-1/16-8	DWTST1-1/16-8P	\$94.70	1-7/8-8	DWTST1-7/8-8P	\$256.58	3-1/8-8	DWTST3-1/8-8P	\$959.48
1-1/8-8	DWTST1-1/8-8P	\$93.02	2-8	DWTST2-8P	\$295.92	3-1/4-8	DWTST3-1/4-8P	\$1,022.88
1-3/16-8	DWTST1-3/16-8P	\$125.27	2-1/8-8	DWTST2-1/8-8P	\$387.49	3-3/8-8	DWTST3-3/8-8P	\$1,133.87
1-1/4-8	DWTST1-1/4-8P	\$118.54	2-1/4-8	DWTST2-1/4-8P	\$423.34	3-1/2-8	DWTST3-1/2-8P	\$1,175.60
1-5/16-8	DWTST1-5/16-8P	\$149.36	2-3/8-8	DWTST2-3/8-8P	\$429.19	3-5/8-8	DWTST3-5/8-8P	\$1,341.38
1-3/8-8	DWTST1-3/8-8P	\$149.36	2-1/2-8	DWTST2-1/2-8P	\$551.42	3-3/4-8	DWTST3-3/4-8P	\$1,381.51
1-7/16-8	DWTST1-7/16-8P	\$180.05	2-5/8-8	DWTST2-5/8-8P	\$638.63	3-7/8-8	DWTST3-7/8-8P	\$1,504.20
1-1/2-8	DWTST1-1/2-8P	\$187.59	2-3/4-8	DWTST2-3/4-8P	\$693.49	4-8	DWTST4-8P	\$1,668.63
1-5/8-8	DWTST1-5/8-8P	\$212.00	2-7/8-8	DWTST2-7/8-8P	\$781.61			
1-3/4-8	DWTST1-3/4-8P	\$229.79	3-8	DWTST3-8P	\$848.39			

# HSS METRIC HAND TAPS

## DWT Series - High Speed Metric Hand Taps



Size	No. of Flutes	Taper	Plug	Bottom	List Price	Sets	List Price
1.6x0.35	2	DWTT1.6X.35	DWTP1.6X.35	DWTB1.6X.35	\$15.16	DWTS1.6X.35	\$45.48
1.8x0.35	2	DWTT1.8X.35	DWTP1.8X.35	DWTB1.8X.35	\$15.16	DWTS1.8X.35	\$45.48
2x0.4	3	DWTT2X.4	DWTP2X.4	DWTB2X.4	\$15.16	DWTS2X.4	\$45.48
2.2x0.45	3	DWTT2.2X.45	DWTP2.2X.45	DWTB2.2X.45	\$9.34	DWTS2.2X.45	\$28.05
2.5x0.45	3	DWTT2.5X.45	DWTP2.5X.45	DWTB2.5X.45	\$9.34	DWTS2.5X.45	\$28.05
3x0.5	3	DWTT3X.5	DWTP3X.5	DWTB3X.5	\$7.81	DWTS3X.5	\$23.43
3.5x0.6	3	DWTT3.5X.6	DWTP3.5X.6	DWTB3.5X.6	\$6.40	DWTS3.5X.6	\$19.22
4x0.7	4	DWTT4X.7	DWTP4X.7	DWTB4X.7	\$6.40	DWTS4X.7	\$19.22
4.5x0.75	4	DWTT4.5X.75	DWTP4.5X.75	DWTB4.5X.75	\$6.40	DWTS4.5X.75	\$19.22
5x0.8	4	DWTT5X.8	DWTP5X.8	DWTB5X.8	\$6.40	DWTS5X.8	\$19.22
6x1	4	DWTT6X1	DWTP6X1	DWTB6X1	\$6.80	DWTS6X1	\$20.42
7x1	4	DWTT7X1	DWTP7X1	DWTB7X1	\$7.38	DWTS7X1	\$22.15
8x1	4	DWTT8X1	DWTP8X1	DWTB8X1	\$7.38	DWTS8X1	\$22.15
8x1.25	4	DWTT8X1.25	DWTP8X1.25	DWTB8X1.25	\$7.38	DWTS8X1.25	\$22.15
10x1.25	4	DWTT10X1.25	DWTP10X1.25	DWTB10X1.25	\$13.92	DWTS10X1.25	\$41.80
10x1.5	4	DWTT10X1.5	DWTP10X1.5	DWTB10X1.5	\$13.92	DWTS10X1.5	\$41.80
12x1.25	4	DWTT12X1.25	DWTP12X1.25	DWTB12X1.25	\$16.41	DWTS12X1.25	\$49.23
12x1.75	4	DWTT12X1.75	DWTP12X1.75	DWTB12X1.75	\$16.41	DWTS12X1.75	\$49.23
14x1.25	4	DWTT14X1.25	DWTP14X1.25	DWTB14X1.25	\$24.44	DWTS14X1.25	\$73.30
14x1.5	4	DWTT14X1.5	DWTP14X1.5	DWTB14X1.5	\$24.44	DWTS14X1.5	\$73.30
14x2	4	DWTT14X2	DWTP14X2	DWTB14X2	\$24.44	DWTS14X2	\$73.30
16x1.5	4	DWTT16X1.5	DWTP16X1.5	DWTB16X1.5	\$29.95	DWTS16X1.5	\$89.86
16x2	4	DWTT16X2	DWTP16X2	DWTB16X2	\$29.95	DWTS16X2	\$89.86
18x1.5	4	DWTT18X1.5	DWTP18X1.5	DWTB18X1.5	\$40.24	DWTS18X1.5	\$120.70
18x2.5	4	DWTT18X2.5	DWTP18X2.5	DWTB18X2.5	\$40.24	DWTS18X2.5	\$120.70
20x1.5	4	DWTT20X1.5	DWTP20X1.5	DWTB20X1.5	\$54.63	DWTS20X1.5	\$163.88
20x2.5	4	DWTT20X2.5	DWTP20X2.5	DWTB20X2.5	\$54.63	DWTS20X2.5	\$163.88
22x1.5	4	DWTT22X1.5	DWTP22X1.5	DWTB22X1.5	\$56.02	DWTS22X1.5	\$168.08
22x2.5	4	DWTT22X2.5	DWTP22X2.5	DWTB22X2.5	\$56.02	DWTS22X2.5	\$168.08
24x2	4	DWTT24X2	DWTP24X2	DWTB24X2	\$76.04	DWTS24X2	\$228.15
24x3	4	DWTT24X3	DWTP24X3	DWTB24X3	\$76.04	DWTS24X3	\$228.15
27x2	4	DWTT27X2	DWTP27X2	DWTB27X2	\$120.86	DWTS27X2	\$362.58
27x3	4	DWTT27X3	DWTP27X3	DWTB27X3	\$120.86	DWTS27X3	\$362.58
30x2	4	DWTT30X2	DWTP30X2	DWTB30X2	\$134.98	DWTS30X2	\$404.92
30x3.5	4	DWTT30X3.5	DWTP30X3.5	DWTB30X3.5	\$132.07	DWTS30X3.5	\$396.20
33x2	4	DWTT33X2	DWTP33X2	DWTB33X2	\$171.64	DWTS33X2	\$514.94
33x3.5	4	DWTT33X3.5	DWTP33X3.5	DWTB33X3.5	\$171.64	DWTS33X3.5	\$514.94
36x3	4	DWTT36X3	DWTP36X3	DWTB36X3	\$211.77	DWTS36X3	\$635.30
36x4	4	DWTT36X4	DWTP36X4	DWTB36X4	\$211.77	DWTS36X4	\$635.30
39x3	6	DWTT39X3	DWTP39X3	DWTB39X3	\$230.68	DWTS39X3	\$692.02
39x4	6	DWTT39X4	DWTP39X4	DWTB39X4	\$230.68	DWTS39X4	\$692.02

## T/A Series - High Speed Metric Hand Taps

★★★ Tap America ★★★

Size	No. of Flutes	Taper	Plug	Bottom	List Price	Sets	List Price
3x.5	3	T/AT3X.5	T/AP3X.5	T/AB3X.5	\$13.38	T/AS3X.5	\$40.12
4x.7	4	T/AT4X.7	T/AP4X.7	T/AB4X.7	\$11.04	T/AS4X.7	\$33.12
5x.8	4	T/AT5X.8	T/AP5X.8	T/AB5X.8	\$11.04	T/AS5X.8	\$33.12
6x1	4	T/AT6X1	T/AP6X1	T/AB6X1	\$11.67	T/AS6X1	\$35.01
7x1	4	T/AT7X1	T/AP7X1	T/AB7X1	\$12.71	T/AS7X1	\$38.13
8x1.25	4	T/AT8X1.25	T/AP8X1.25	T/AB8X1.25	\$12.71	T/AS8X1.25	\$38.13
10x1.5	4	T/AT10X1.5	T/AP10X1.5	T/AB10X1.5	\$23.95	T/AS10X1.5	\$71.85
12x1.75	4	T/AT12X1.75	T/AP12X1.75	T/AB12X1.75	\$28.09	T/AS12X1.75	\$84.27
14x2	4	T/AT14X2	T/AP14X2	T/AB14X2	\$42.00	T/AS14X2	\$125.99
16x2	4	T/AT16X2	T/AP16X2	T/AB16X2	\$51.16	T/AS16X2	\$153.49
18x2.5	4	T/AT18X2.5	T/AP18X2.5	T/AB18X2.5	\$68.88	T/AS18X2.5	\$206.66
20x2.5	4	T/AT20X2.5	T/AP20X2.5	T/AB20X2.5	\$89.12	T/AS20X2.5	\$267.36
24x3	4	T/AT24X3	T/AP24X3	T/AB24X3	\$130.41	T/AS24X3	\$391.22

# HSS METRIC HAND TAPS

DWT Series - High Speed Metric Hand Taps



## SPECIAL METRIC SIZES

Size	Part Number	List Price
1x.20	DWTSMT1X.2	\$42.91
1x.25	DWTSMT1X.25	\$42.91
1.2x.20	DWTSMT1.2X.2	\$42.91
1.2x.25	DWTSMT1.2X.25	\$42.91
1.4x.20	DWTSMT1.4X.2	\$42.91
1.4x.30	DWTSMT1.4X.3	\$42.91
1.5x.35	DWTSMT1.5X.35	\$23.86
1.6x.20	DWTSMT1.6X.2	\$42.91
1.7x.20	DWTSMT1.7X.2	\$39.05
1.7x.35	DWTSMT1.7X.35	\$39.05
1.8x.20	DWTSMT1.8X.2	\$18.61
2x.20	DWTSMT2X.2	\$32.33
2x.25	DWTSMT2X.25	\$32.33
2x.45	DWTSMT2X.45	\$16.82
2.3x.40	DWTSMT2.3X.4	\$11.29
2.5x.35	DWTSMT2.5X.35	\$28.44
2.5x.50	DWTSMT2.5X.5	\$28.44
2.6x.35	DWTSMT2.6X.35	\$28.44
2.6x.45	DWTSMT2.6X.45	\$11.29
3x.35	DWTSMT3X.35	\$28.44
3x.60	DWTSMT3X.6	\$8.73
3.5x.50	DWTSMT3.5X.5	\$28.44
4x.50	DWTSMT4X.5	\$8.36
4x.75	DWTSMT4X.75	\$27.31
4.5x.50	DWTSMT4.5X.5	\$27.31
5x.50	DWTSMT5X.5	\$27.31
5x.70	DWTSMT5X.7	\$27.31
5x.75	DWTSMT5X.75	\$27.31
5x.90	DWTSMT5X.9	\$7.54
5x1	DWTSMT5X1	\$27.31
5.5x.50	DWTSMT5.5X.5	\$27.31
5.5x.90	DWTSMT5.5X.9	\$7.54
6x.50	DWTSMT6X.5	\$27.31
6x.75	DWTSMT6X.75	\$7.83
6x1.25	DWTSMT6X1.25	\$27.31
6.3x1	DWTSMT6.3X1	\$7.83
7x.50	DWTSMT7X.5	\$28.33
7x.75	DWTSMT7X.75	\$28.33
7x1.25	DWTSMT7X1.25	\$28.33
8x.50	DWTSMT8X.5	\$29.55
8x.75	DWTSMT8X.75	\$29.55
8x1.50	DWTSMT8X1.5	\$29.55
8x1.75	DWTSMT8X1.75	\$29.55
8x2	DWTSMT8X2	\$29.55
9x.75	DWTSMT9X.75	\$31.23
9x1	DWTSMT9X1	\$8.73
9x1.25	DWTSMT9X1.25	\$31.23
9x1.50	DWTSMT9X1.5	\$31.23
10x.50	DWTSMT10X.5	\$32.33
10x.75	DWTSMT10X.75	\$32.33
10x1	DWTSMT10X1	\$15.47
10x1.75	DWTSMT10X1.75	\$32.33
11x.50	DWTSMT11X.5	\$33.44
11x.75	DWTSMT11X.75	\$33.44
11x1	DWTSMT11X1	\$33.44
11x1.25	DWTSMT11X1.25	\$33.44
11x1.50	DWTSMT11X1.5	\$15.47

Size	Part Number	List Price
11x1.75	DWTSMT11X1.75	\$33.44
11x2	DWTSMT11X2	\$33.44
12x.50	DWTSMT12X.5	\$35.13
12x.75	DWTSMT12X.75	\$35.13
12x1	DWTSMT12X1	\$35.13
12x1.50	DWTSMT12X1.5	\$20.57
12x2	DWTSMT12X2	\$35.13
13x.50	DWTSMT13X.5	\$39.05
13x1	DWTSMT13X1	\$39.05
13x1.25	DWTSMT13X1.25	\$39.05
13x1.50	DWTSMT13X1.5	\$39.05
13x2	DWTSMT13X2	\$39.05
14x.50	DWTSMT14X.5	\$42.94
14x.75	DWTSMT14X.75	\$42.94
14x1	DWTSMT14X1	\$42.94
14x1.75	DWTSMT14X1.75	\$42.94
15x.50	DWTSMT15X.5	\$46.85
15x1	DWTSMT15X1	\$46.85
15x1.25	DWTSMT15X1.25	\$46.85
15x1.50	DWTSMT15X1.5	\$46.85
15x1.75	DWTSMT15X1.75	\$46.85
15x2	DWTSMT15X2	\$46.85
16x.50	DWTSMT16X.5	\$53.99
16x.75	DWTSMT16X.75	\$53.99
16x1	DWTSMT16X1	\$53.99
16x1.25	DWTSMT16X1.25	\$53.99
16x1.75	DWTSMT16X1.75	\$53.99
16x2.50	DWTSMT16X2.5	\$53.99
17x.50	DWTSMT17X.5	\$55.65
17x1	DWTSMT17X1	\$55.65
17x1.50	DWTSMT17X1.5	\$55.65
17x1.75	DWTSMT17X1.75	\$55.65
17x2	DWTSMT17X2	\$55.65
18x.50	DWTSMT18X.5	\$62.48
18x.75	DWTSMT18X.75	\$62.48
18x1	DWTSMT18X1	\$44.63
18x1.25	DWTSMT18X1.25	\$62.48
18x1.75	DWTSMT18X1.75	\$62.48
18x2	DWTSMT18X2	\$44.63
19x1	DWTSMT19X1	\$67.02
19x1.50	DWTSMT19X1.5	\$67.02
19x1.75	DWTSMT19X1.75	\$67.02
19x2.50	DWTSMT19X2.5	\$67.02
20x.50	DWTSMT20X.5	\$79.51
20x.75	DWTSMT20X.75	\$79.51
20x1	DWTSMT20X1	\$60.64
20x1.25	DWTSMT20X1.25	\$79.51
20x1.75	DWTSMT20X1.75	\$79.51
20x2	DWTSMT20X2	\$60.64
21x1	DWTSMT21X1	\$82.91
21x1.25	DWTSMT21X1.25	\$82.91
21x1.50	DWTSMT21X1.5	\$82.91
21x1.75	DWTSMT21X1.75	\$82.91
21x2	DWTSMT21X2	\$82.91
21x2.50	DWTSMT21X2.5	\$82.91
22x.50	DWTSMT22X.5	\$93.14
22x.75	DWTSMT22X.75	\$93.14

Size	Part Number	List Price
22x1	DWTSMT22X1	\$93.14
22x1.25	DWTSMT22X1.25	\$93.14
22x1.75	DWTSMT22X1.75	\$93.14
22x2	DWTSMT22X2	\$93.14
22x3	DWTSMT22X3	\$93.14
23x1	DWTSMT23X1	\$97.68
23x1.50	DWTSMT23X1.5	\$97.68
23x2	DWTSMT23X2	\$97.68
23x2.50	DWTSMT23X2.5	\$97.68
24x1	DWTSMT24X1	\$99.94
24x1.25	DWTSMT24X1.25	\$99.94
24x1.50	DWTSMT24X1.5	\$84.83
24x2.50	DWTSMT24X2.5	\$99.94
25x1	DWTSMT25X1	\$109.01
25x1.25	DWTSMT25X1.25	\$109.01
25x1.50	DWTSMT25X1.5	\$109.01
25x3	DWTSMT25X3	\$109.01
26x1	DWTSMT26X1	\$164.60
26x1.50	DWTSMT26X1.5	\$164.60
26x2	DWTSMT26X2	\$164.60
26x2.50	DWTSMT26X2.5	\$164.60
26x3	DWTSMT26X3	\$164.60
27x1	DWTSMT27X1	\$173.35
27x1.25	DWTSMT27X1.25	\$173.35
27x1.50	DWTSMT27X1.5	\$173.35
27x2.50	DWTSMT27X2.5	\$173.35
28x1	DWTSMT28X1	\$213.73
28x1.50	DWTSMT28X1.5	\$213.73
28x2	DWTSMT28X2	\$213.73
28x2.50	DWTSMT28X2.5	\$213.73
28x3	DWTSMT28X3	\$213.73
30x1	DWTSMT30X1	\$230.35
30x1.25	DWTSMT30X1.25	\$230.35
30x1.50	DWTSMT30X1.5	\$146.66
30x2.50	DWTSMT30X2.5	\$230.35
30x3	DWTSMT30X3	\$230.35
32x1.50	DWTSMT32X1.5	\$237.45
32x2.50	DWTSMT32X2.5	\$237.45
33x1	DWTSMT33X1	\$251.70
33x1.50	DWTSMT33X1.5	\$251.70
33x3	DWTSMT33X3	\$251.70
34x1.50	DWTSMT34X1.5	\$261.20
35x3	DWTSMT35X3	\$280.20
36x1.50	DWTSMT36X1.5	\$294.81
36x2	DWTSMT36X2	\$294.81
38x1.50	DWTSMT38X1.5	\$320.57
38x3	DWTSMT38X3	\$320.57
38x4	DWTSMT38X4	\$320.57
39x1.50	DWTSMT39X1.5	\$356.48
40x4	DWTSMT40X4	\$376.62
42x1.50	DWTSMT42X1.5	\$292.27
42x3	DWTSMT42X3	\$401.40
45x1.50	DWTSMT45X1.5	\$292.27
45x4.50	DWTSMT45X4.5	\$292.27
46x4.50	DWTSMT46X4.5	\$456.11
48x5	DWTSMT48X5	\$304.25

# HSS SPIRAL POINTED TAPS

## DWT Series - High Speed Gun Taps

Spiral-Pointed taps, or Machine Taps, were originated to solve the problem of tap breakage in through hole tapping. The Machine Tap shoots chips ahead of the cutting action, thus reducing loading and clogging in the flutes. They are recommended for use in through or blind holes which allow for chip accumulation in the bottom of the hole. Ideal for threading a wide variety of ductile materials, copper and copper alloys, brass and non-metallics.



Size	No. of Flutes	Part Number	List Price	Size	No. of Flutes	Part Number	List Price
0-80	2	DWT57009	\$13.36	1/4"-28	2	DWT57139	\$5.55
1-64	2	DWT57021	\$12.17	5/16"-18	2	DWT57151	\$6.16
1-72	2	DWT57023	\$12.17	5/16"-24	2	DWT57160	\$6.16
2-56	2	DWT57031	\$10.21	3/8"-16	3	DWT57176	\$7.14
2-64	2	DWT57033	\$11.16	3/8"-24	3	DWT57181	\$7.14
3-48	2	DWT57038	\$8.27	7/16"-14	3	DWT57192	\$12.17
3-56	2	DWT57041	\$9.04	7/16"-20	3	DWT57195	\$12.17
4-36	2	DWT57046	\$7.17	1/2"-13	3	DWT57215	\$12.37
4-40	2	DWT57048	\$6.63	1/2"-20	3	DWT57220	\$12.37
4-48	2	DWT57051	\$7.24	9/16"-12	3	DWT91612	\$23.00
5-40	2	DWT57062	\$6.63	9/16"-18	3	DWT91618	\$23.00
5-44	2	DWT57064	\$6.89	5/8"-11	3	DWT57230	\$26.49
6-32	2	DWT57072	\$5.55	5/8"-18	3	DWT57555	\$26.49
6-40	2	DWT57076	\$5.85	11/16"-11	3	DWT111611	\$35.89
8-32	2	DWT57085	\$5.55	11/16"-16	3	DWT111616	\$35.89
8-36	2	DWT57089	\$5.85	3/4"-10	3	DWT57246	\$37.85
10-24	2	DWT57097	\$5.55	3/4"-16	3	DWT60999	\$37.85
10-32	2	DWT57104	\$5.55	7/8"-9	3	DWT789	\$55.25
12-24	2	DWT57112	\$6.35	7/8"-14	3	DWT7814	\$55.25
12-28	2	DWT57114	\$6.35	1"-8	3	DWT18	\$73.56
14-24	2	DWT57115	\$12.17	1"-12	3	DWT112	\$73.56
1/4"-20	2	DWT57129	\$5.55	1"-14	3	DWT114	\$73.56



## T/A Series - High Speed Gun Taps

★★★ Tap America ★★★

Size	Limit	No. of Flutes	Part Number	List Price	Size	Limit	No. of Flutes	Part Number	List Price
0-80	H1	2	T/A57009	\$19.52	12-24	H3	2	T/A57112	\$9.28
1-64	H1	2	T/A57021	\$15.69	12-28	H3	2	T/A57114	\$9.28
1-72	H1	2	T/A57023	\$15.69	1/4"-20	H3	2	T/A57129	\$7.56
2-56	H2	2	T/A57031	\$15.29	1/4"-28	H3	2	T/A57139	\$7.56
2-64	H2	2	T/A57033	\$15.72	5/16"-18	H3	2	T/A57151	\$8.40
3-48	H2	2	T/A57038	\$11.47	5/16"-24	H3	2	T/A57160	\$8.40
3-56	H2	2	T/A57041	\$11.47	3/8"-16	H3	3	T/A57176	\$9.72
4-36	H2	2	T/A57046	\$11.47	3/8"-24	H3	3	T/A57181	\$9.72
4-40	H2	2	T/A57048	\$9.89	7/16"-14	H3	3	T/A57192	\$16.58
4-48	H2	2	T/A57051	\$11.47	7/16"-20	H3	3	T/A57195	\$16.58
5-40	H2	2	T/A57062	\$9.89	1/2"-13	H3	3	T/A57215	\$16.83
5-44	H2	2	T/A57064	\$11.47	1/2"-20	H3	3	T/A57220	\$17.67
6-32	H3	2	T/A57072	\$8.33	9/16"-12	H3	3	T/A91612	\$32.93
6-40	H2	2	T/A57076	\$9.03	9/16"-18	H3	3	T/A91618	\$32.93
8-32	H3	2	T/A57085	\$8.33	5/8"-11	H3	3	T/A57230	\$36.43
8-36	H2	2	T/A57089	\$9.03	5/8"-18	H3	3	T/A57555	\$36.43
10-24	H3	2	T/A57097	\$8.33	3/4"-10	H3	3	T/A57246	\$48.88
10-32	H3	2	T/A57104	\$8.33	3/4"-16	H3	3	T/A60999	\$48.88

## DWT Series - High Speed Metric Gun Taps



Size	No. of Flutes	Part Number	List Price	Size	No. of Flutes	Part Number	List Price	Size	No. of Flutes	Part Number	List Price
1.6x.35	2	DWTG1.6X.35	\$17.36	6x1	2	DWTG6X1	\$8.02	14x2	3	DWTG14X2	\$27.97
1.8x.35	2	DWTG1.8X.35	\$17.36	7x1	2	DWTG7X1	\$9.29	16x1.5	3	DWTG16X1.5	\$32.75
2x.4	2	DWTG2X.4	\$15.40	8x1	2	DWTG8X1	\$9.29	16x2	3	DWTG16X2	\$32.75
2.2x.45	2	DWTG2.2X.45	\$14.00	8x1.25	2	DWTG8X1.25	\$9.29	18x1.5	3	DWTG18X1.5	\$47.01
2.5x.45	2	DWTG2.5X.45	\$11.69	10x1.25	3	DWTG10X1.25	\$13.96	18x2.5	3	DWTG18X2.5	\$47.01
3x.5	2	DWTG3X.5	\$9.29	10x1.5	3	DWTG10X1.5	\$13.96	20x1.5	3	DWTG20X1.5	\$57.87
3.5x.6	2	DWTG3.5X.6	\$8.02	12x1.25	3	DWTG12X1.25	\$18.75	20x2.5	3	DWTG20X2.5	\$57.87
4x.7	2	DWTG4X.7	\$8.02	12x1.75	3	DWTG12X1.75	\$18.75	22x2.5	3	DWTG22X2.5	\$74.71
4.5x.75	2	DWTG4.5X.75	\$8.02	14x1.25	3	DWTG14X1.25	\$27.97				
5x.8	2	DWTG5X.8	\$8.02	14x1.5	3	DWTG14X1.5	\$27.97				

# TIN-COATED TAPS

## T/A Series - TIN Coated Plug Taps

★★★ *Tap America* ★★★

Size	Limit	No. of Flutes	Part Number	List Price	Size	Limit	No. of Flutes	Part Number	List Price
6-32	H3	3	T/A54224TN	\$10.81	7/16"-20	H3	4	T/A54662TN	\$28.67
8-32	H3	4	T/A54278TN	\$11.75	1/2"-13	H3	4	T/A54727TN	\$30.20
10-24	H3	4	T/A54330TN	\$12.85	1/2"-20	H3	4	T/A54738TN	\$30.20
10-32	H3	4	T/A54357TN	\$12.85	5/8"-11	H3	4	T/A54780TN	\$60.60
12-24	H3	4	T/A54386TN	\$13.62	5/8"-18	H3	4	T/A54788TN	\$60.60
1/4"-20	H3	4	T/A54454TN	\$12.72	3/4"-10	H3	4	T/A54839TN	\$84.51
1/4"-28	H3	4	T/A54470TN	\$12.72	3/4"-16	H3	4	T/A54847TN	\$84.51
5/16"-18	H3	4	T/A54505TN	\$17.43	7/8"-9	H3	4	T/A54885TN	\$120.42
5/16"-24	H3	4	T/A54519TN	\$17.43	7/8"-14	H3	4	T/A54891TN	\$120.42
3/8"-16	H3	4	T/A54583TN	\$18.66	1"-8	H3	4	T/A54924TN	\$146.55
3/8"-24	H3	4	T/A54596TN	\$18.66	1"-12	H3	4	T/A54929TN	\$150.74
7/16"-14	H3	4	T/A54653TN	\$28.67	1"-14	H3	4	T/A54934TN	\$146.55



## T/A Series - TIN Coated Gun Taps

★★★ *Tap America* ★★★

Size	Limit	No. of Flutes	Part Number	List Price	Size	Limit	No. of Flutes	Part Number	List Price
0-80	H1	2	T/A57009TN	\$25.42	12-28	H3	2	T/A57114TN	\$15.54
1-64	H1	2	T/A57021TN	\$23.53	1/4"-20	H3	2	T/A57129TN	\$14.46
1-72	H1	2	T/A57023TN	\$23.53	1/4"-28	H3	2	T/A57139TN	\$14.46
2-56	H2	2	T/A57031TN	\$21.16	5/16"-18	H3	2	T/A57151TN	\$18.42
2-64	H2	2	T/A57033TN	\$22.85	5/16"-24	H3	2	T/A57160TN	\$18.42
3-48	H2	2	T/A57038TN	\$18.75	3/8"-16	H3	3	T/A57176TN	\$20.65
3-56	H2	2	T/A57041TN	\$18.75	3/8"-24	H3	3	T/A57181TN	\$20.65
4-40	H2	2	T/A57048TN	\$17.37	7/16"-14	H3	3	T/A57192TN	\$35.56
4-48	H2	2	T/A57051TN	\$18.75	7/16"-20	H3	3	T/A57195TN	\$35.56
5-40	H2	2	T/A57062TN	\$17.37	1/2"-13	H3	3	T/A57215TN	\$35.87
5-44	H2	2	T/A57064TN	\$18.75	1/2"-20	H3	3	T/A57220TN	\$38.76
6-32	H3	2	T/A57072TN	\$14.50	9/16"-12	H3	3	T/A91612TN	\$51.06
6-40	H2	2	T/A57076TN	\$15.53	9/16"-18	H3	3	T/A91618TN	\$51.06
8-32	H3	2	T/A57085TN	\$14.50	5/8"-11	H3	3	T/A57230TN	\$64.72
8-36	H2	2	T/A57089TN	\$15.53	5/8"-18	H3	3	T/A57555TN	\$64.72
10-24	H3	2	T/A57097TN	\$14.50	3/4"-10	H3	3	T/A57246TN	\$78.97
10-32	H3	2	T/A57104TN	\$14.50	3/4"-16	H3	3	T/A60999TN	\$78.97
12-24	H3	2	T/A57112TN	\$15.54					



# CARBON STEEL HAND TAPS

## DWT Series - Carbon Steel Hand Taps

Carbon Steel Hand Taps are used to re-thread damaged and/or jammed threads. Carbon Steel Hand Taps may also be used to thread mild steels. **Taper Style** - Starts the thread square with the workpiece. **Plug Style** - Generally used in thru holes. **Bottom style** - Generates the thread to the bottom of the hole.



Size	No. of Flutes	Taper	Plug	Bottom	List Price	Sets	List Price
0-80	2	DWTT0-80	DWTP0-80	DWTB0-80	\$3.90	DWTS0-80	\$11.67
1-64	2	DWTT1-64	DWTP1-64	DWTB1-64	\$3.65	DWTS1-64	\$10.96
1-72	2	DWTT1-72	DWTP1-72	DWTB1-72	\$3.65	DWTS1-72	\$10.96
2-56	3	DWTT2-56	DWTP2-56	DWTB2-56	\$3.48	DWTS2-56	\$10.39
2-64	3	DWTT2-64	DWTP2-64	DWTB2-64	\$3.48	DWTS2-64	\$10.39
3-48	3	DWTT3-48	DWTP3-48	DWTB3-48	\$2.52	DWTS3-48	\$7.53
3-56	3	DWTT3-56	DWTP3-56	DWTB3-56	\$2.52	DWTS3-56	\$7.53
4-36	3	DWTT4-36	DWTP4-36	DWTB4-36	\$2.52	DWTS4-36	\$7.53
4-40	3	DWTT4-40	DWTP4-40	DWTB4-40	\$2.52	DWTS4-40	\$7.53
5-40	3	DWTT5-40	DWTP5-40	DWTB5-40	\$2.10	DWTS5-40	\$6.29
5-44	3	DWTT5-44	DWTP5-44	DWTB5-44	\$2.10	DWTS5-44	\$6.29
6-32	3	DWTT6-32	DWTP6-32	DWTB6-32	\$2.10	DWTS6-32	\$6.29
6-40	3	DWTT6-40	DWTP6-40	DWTB6-40	\$2.10	DWTS6-40	\$6.29
8-32	4	DWTT8-32	DWTP8-32	DWTB8-32	\$2.10	DWTS8-32	\$6.29
8-36	4	DWTT8-36	DWTP8-36	DWTB8-36	\$2.10	DWTS8-36	\$6.29
10-24	4	DWTT10-24	DWTP10-24	DWTB10-24	\$2.31	DWTS10-24	\$6.88
10-32	4	DWTT10-32	DWTP10-32	DWTB10-32	\$2.31	DWTS10-32	\$6.88
12-24	4	DWTT12-24	DWTP12-24	DWTB12-24	\$2.62	DWTS12-24	\$7.84
12-28	4	DWTT12-28	DWTP12-28	DWTB12-28	\$2.62	DWTS12-28	\$7.84
1/4"-20	4	DWTT1/4-20	DWTP1/4-20	DWTB1/4-20	\$2.62	DWTS1/4-20	\$7.91
1/4"-28	4	DWTT1/4-28	DWTP1/4-28	DWTB1/4-28	\$2.62	DWTS1/4-28	\$7.91
5/16"-18	4	DWTT5/16-18	DWTP5/16-18	DWTB5/16-18	\$3.23	DWTS5/16-18	\$9.66
5/16"-24	4	DWTT5/16-24	DWTP5/16-24	DWTB5/16-24	\$3.23	DWTS5/16-24	\$9.66
3/8"-16	4	DWTT3/8-16	DWTP3/8-16	DWTB3/8-16	\$3.60	DWTS3/8-16	\$10.79
3/8"-24	4	DWTT3/8-24	DWTP3/8-24	DWTB3/8-24	\$3.60	DWTS3/8-24	\$10.79
7/16"-14	4	DWTT7/16-14	DWTP7/16-14	DWTB7/16-14	\$4.72	DWTS7/16-14	\$14.19
7/16"-20	4	DWTT7/16-20	DWTP7/16-20	DWTB7/16-20	\$4.72	DWTS7/16-20	\$14.19
1/2"-13	4	DWTT1/2-13	DWTP1/2-13	DWTB1/2-13	\$5.39	DWTS1/2-13	\$16.22
1/2"-20	4	DWTT1/2-20	DWTP1/2-20	DWTB1/2-20	\$5.39	DWTS1/2-20	\$16.22
9/16"-12	4	DWTT9/16-12	DWTP9/16-12	DWTB9/16-12	\$7.33	DWTS9/16-12	\$22.03
9/16"-18	4	DWTT9/16-18	DWTP9/16-18	DWTB9/16-18	\$7.33	DWTS9/16-18	\$22.03
5/8"-11	4	DWTT5/8-11	DWTP5/8-11	DWTB5/8-11	\$8.13	DWTS5/8-11	\$24.39
5/8"-18	4	DWTT5/8-18	DWTP5/8-18	DWTB5/8-18	\$8.13	DWTS5/8-18	\$24.39
11/16"-11	4	DWTT11/16-11	DWTP11/16-11	DWTB11/16-11	\$9.73	DWTS11/16-11	\$29.20
11/16"-16	4	DWTT11/16-16	DWTP11/16-16	DWTB11/16-16	\$9.73	DWTS11/16-16	\$29.20
3/4"-10	4	DWTT3/4-10	DWTP3/4-10	DWTB3/4-10	\$11.57	DWTS3/4-10	\$34.74
3/4"-16	4	DWTT3/4-16	DWTP3/4-16	DWTB3/4-16	\$11.57	DWTS3/4-16	\$34.74
7/8"-9	4	DWTT7/8-9	DWTP7/8-9	DWTB7/8-9	\$16.26	DWTS7/8-9	\$48.76
7/8"-14	4	DWTT7/8-14	DWTP7/8-14	DWTB7/8-14	\$16.26	DWTS7/8-14	\$48.76
1"-8	4	DWTT1-8	DWTP1-8	DWTB1-8	\$20.24	DWTS1-8	\$60.74
1"-12	4	DWTT1-12	DWTP1-12	DWTB1-12	\$20.24	DWTS1-12	\$60.74
1"-14	4	DWTT1-14	DWTP1-14	DWTB1-14	\$20.24	DWTS1-14	\$60.74
1-1/8"-7	4	DWTT1-1/8-7	DWTP1-1/8-7	DWTB1-1/8-7	\$41.13	DWTS1-1/8-7	\$123.44
1-1/8"-12	4	DWTT1-1/8-12	DWTP1-1/8-12	DWTB1-1/8-12	\$41.13	DWTS1-1/8-12	\$123.44
1-1/4"-7	4	DWTT1-1/4-7	DWTP1-1/4-7	DWTB1-1/4-7	\$47.36	DWTS1-1/4-7	\$142.10
1-1/4"-12	6	DWTT1-1/4-12	DWTP1-1/4-12	DWTB1-1/4-12	\$47.36	DWTS1-1/4-12	\$142.10
1-3/8"-6	4	DWTT1-3/8-6	DWTP1-3/8-6	DWTB1-3/8-6	\$54.54	DWTS1-3/8-6	\$163.68
1-3/8"-12	6	DWTT1-3/8-12	DWTP1-3/8-12	DWTB1-3/8-12	\$54.54	DWTS1-3/8-12	\$163.68
1-1/2"-6	4	DWTT1-1/2-6	DWTP1-1/2-6	DWTB1-1/2-6	\$64.31	DWTS1-1/2-6	\$193.15
1-1/2"-12	6	DWTT1-1/2-12	DWTP1-1/2-12	DWTB1-1/2-12	\$64.31	DWTS1-1/2-12	\$193.15
1-3/4"-5	6	DWTT1-3/4-5	DWTP1-3/4-5	DWTB1-3/4-5	\$72.06	DWTS1-3/4-5	\$216.23

# TAPS

## DWT Series - High Speed Left Hand Taps



Size	No. of Flutes	Taper	Plug	Bottom	List Price	Sets	List Price
6-32	3	DWT60705	DWT60706	DWT60707	\$6.57	DWT60708	\$19.72
8-32	4	DWT60716	DWT60717	DWT60718	\$6.57	DWT60719	\$19.72
10-24	4	DWT60727	DWT60728	DWT60729	\$6.57	DWT60730	\$19.72
10-32	4	DWT60731	DWT60732	DWT60733	\$6.57	DWT60734	\$19.72
1/4"-20	4	DWT60747	DWT60748	DWT60749	\$7.62	DWT60750	\$22.85
1/4"-28	4	DWT60751	DWT60752	DWT60753	\$7.62	DWT60754	\$22.85
5/16"-18	4	DWT60759	DWT60760	DWT60761	\$8.50	DWT60762	\$25.51
5/16"-24	4	DWT60763	DWT60764	DWT60765	\$8.50	DWT60766	\$25.51
3/8"-16	4	DWT60775	DWT60776	DWT60777	\$11.01	DWT60778	\$33.04
3/8"-24	4	DWT60779	DWT60780	DWT60781	\$11.01	DWT60782	\$33.04
7/16"-14	4	DWT60791	DWT60792	DWT60793	\$16.02	DWT60794	\$48.05
7/16"-20	4	DWT60795	DWT60796	DWT60797	\$16.02	DWT60798	\$48.05
1/2"-13	4	DWT60807	DWT60808	DWT60809	\$18.68	DWT60810	\$56.07
1/2"-20	4	DWT60811	DWT60812	DWT60813	\$18.68	DWT60814	\$56.07
9/16"-12	4	DWT60823	DWT60824	DWT60825	\$27.50	DWT60826	\$82.47
9/16"-18	4	DWT60827	DWT60828	DWT60829	\$27.50	DWT60830	\$82.47
5/8"-11	4	DWT60831	DWT60832	DWT60833	\$33.88	DWT60834	\$101.64
5/8"-18	4	DWT60835	DWT60836	DWT60837	\$33.88	DWT60838	\$101.64
3/4"-10	4	DWT60861	DWT60862	DWT60863	\$45.57	DWT60864	\$136.70
3/4"-16	4	DWT60865	DWT60866	DWT60867	\$45.57	DWT60868	\$136.70
7/8"-9	4	DWT60885	DWT60886	DWT60887	\$60.92	DWT60888	\$182.79
7/8"-14	4	DWT60889	DWT60890	DWT60891	\$60.92	DWT60892	\$182.79
1"-8	4	DWT60901	DWT60902	DWT60903	\$81.04	DWT60904	\$243.13
1"-12	4	DWT60905	DWT60906	DWT60907	\$81.04	DWT60908	\$243.13
1"-14	4	DWT60909	DWT60910	DWT60911	\$81.04	DWT60912	\$243.13

## PULLEY TAPS

### DWTET Series - High Speed Pulley Taps

Extension Taps are used for tapping the hubs of pulleys for oil caps or set screws. The long shank is also ideal for reaching holes inaccessible with standard length taps. Extension Taps are furnished in several different overall lengths. Available in PLUG chamfer only.



### 6" O.A.L.

Size	Part Number	List Price
6-32	DWTET6X6-32	\$22.68
8-32	DWTET6X8-32	\$22.68
10-24	DWTET6X10-24	\$22.68
10-32	DWTET6X10-32	\$22.68
12-24	DWTET6X12-24	\$22.68
1/4"-20	DWTET6X1/4-20	\$34.47
1/4"-28	DWTET6X1/4-28	\$34.47
5/16"-18	DWTET6X5/16-18	\$35.86
5/16"-24	DWTET6X5/16-24	\$35.86
3/8"-16	DWTET6X3/8-16	\$40.36
3/8"-24	DWTET6X3/8-24	\$40.36
7/16"-14	DWTET6X7/16-14	\$42.91
7/16"-20	DWTET6X7/16-20	\$42.91
1/2"-13	DWTET6X1/2-13	\$43.28
1/2"-20	DWTET6X1/2-20	\$43.28
5/8"-11	DWTET6X5/8-11	\$57.78
5/8"-18	DWTET6X5/8-18	\$57.78
3/4"-10	DWTET6X3/4-10	\$69.96
3/4"-16	DWTET6X3/4-16	\$69.96
7/8"-9	DWTET6X7/8-9	\$94.03

### 8" O.A.L.

Size	Part Number	List Price
1/4"-20	DWTET8X1/4-20	\$41.76
5/16"-18	DWTET8X5/16-18	\$42.92
3/8"-16	DWTET8X3/8-16	\$47.93
7/16"-14	DWTET8X7/16-14	\$54.76
7/16"-20	DWTET8X7/16-20	\$54.76
9/16"-18	DWTET8X9/16-18	\$86.22
5/8"-11	DWTET8X5/8-11	\$73.90
3/4"-10	DWTET8X3/4-10	\$85.14
1"-14	DWTET8X1-14	\$145.11

### SMALL SHK 6" O.A.L.

Size	Part Number	List Price
1/4"-20	DWTET6X1/4-20SS	\$34.47
5/16"-18	DWTET6X5/16-18SS	\$35.86
3/8"-16	DWTET6X3/8-16SS	\$40.36



### GUN TAPS 6" O.A.L.

Size	Part Number	List Price
6-32	DWTGT6X6-32	\$30.25
8-32	DWTGT6X8-32	\$30.25
10-24	DWTGT6X10-24	\$30.25
10-32	DWTGT6X10-32	\$30.25
12-24	DWTGT6X12-24	\$30.25
1/4"-20	DWTGT6X1/4-20	\$37.78
1/4"-28	DWTGT6X1/4-28	\$37.78
5/16"-18	DWTGT6X5/16-18	\$38.83
5/16"-24	DWTGT6X5/16-24	\$38.83
3/8"-16	DWTGT6X3/8-16	\$41.75
3/8"-24	DWTGT6X3/8-24	\$41.75
7/16"-14	DWTGT6X7/16-14	\$44.66
1/2"-13	DWTGT6X1/2-13	\$48.55
1/2"-20	DWTGT6X1/2-20	\$48.55

## NUT TAPS

Size	Part Number	List Price
10-32	DWTNT10-32	\$62.53
1/4"-20	DWTNT1/4-20	\$53.60
5/16"-18	DWTNT5/16-18	\$60.67
3/8"-16	DWTNT3/8-16	\$71.58
3/8"-24	DWTNT3/8-24	\$71.58
7/16"-20	DWTNT7/16-20	\$76.58
9/16"-12	DWTNT9/16-12	\$131.18
9/16"-18	DWTNT9/16-18	\$131.18

# PIPE TAPS

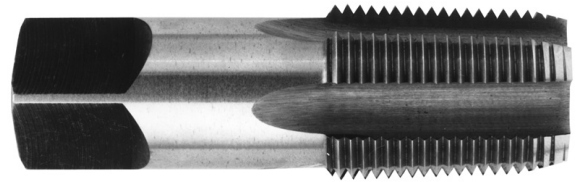
## DWT Series - High Speed NPT Taps



National Pipe Taper Taps are appropriate for threading a wide variety of materials both ferrous and non-ferrous. The nominal size of a Pipe Tap is that of the pipe fitting to be tapped, not the actual size of the tap. The thread tapers 3/4 of an inch per foot. All Pipe Taps furnished with a 2-1/2 to 3-1/2 thread chamfer. NPT threads require the use of a "sealer" like teflon tape or pipe compound.

Size	No. of Flutes	Part Number	List Price
1/16"-27	4	DWT64003	\$19.60
1/8"-27	4	DWT64005	\$19.60
1/4"-18	4	DWT64006	\$21.99
3/8"-18	4	DWT64007	\$28.48
1/2"-14	4	DWT64008	\$45.47
3/4"-14	5	DWT64009	\$70.06
1"-11-1/2	5	DWT64010	\$106.46
1-1/4"-11-1/2	5	DWT64011	\$156.90
1-1/2"-11-1/2	7	DWT64012	\$211.13
2"-11-1/2	7	DWT64013	\$296.00
2-1/2"-8	8	DWT64014	\$751.78
3"-8	8	DWT64015	\$1,109.33
3-1/2"-8	8	DWT64016	\$1,339.36
4"-8	8	DWT64017	\$1,900.85

## T/A Series - High Speed NPT Taps



Size	No. of Flutes	Part Number	List Price
1/16"-27	4	T/A64003	\$32.09
1/8"-27	4	T/A64005	\$29.37
1/4"-18	4	T/A64006	\$32.43
3/8"-18	4	T/A64007	\$42.54
1/2"-14	4	T/A64008	\$66.91
3/4"-14	5	T/A64009	\$95.12
1"-11-1/2	5	T/A64010	\$144.62
1-1/4"-11-1/2	5	T/A64011	\$203.96
1-1/2"-11-1/2	7	T/A64012	\$274.34
2"-11-1/2	7	T/A64013	\$373.26

## DWTPT Series - Carbon Steel NPT Taps

Carbon Steel Pipe taps are designed to clean and/or re-thread damaged or jammed pipe threads.



Size	Part Number	List Price
1/8"-27	DWTPT1/8	\$5.64
1/4"-18	DWTPT1/4	\$6.91
3/8"-18	DWTPT3/8	\$8.62
1/2"-14	DWTPT1/2	\$11.62
3/4"-14	DWTPT3/4	\$19.44
1"-11-1/2	DWTPT1INCH	\$38.74
1-1/4"-11-1/2	DWTPT1-1/4	\$57.88
1-1/2"-11-1/2	DWTPT1-1/2	\$77.77
2"-11-1/2	DWTPT2INCH	\$121.27
2-1/2"-8	DWTPT2-1/2	\$284.02
3"-8	DWTPT3INCH	\$480.05
3-1/2"-8	DWTPT3-1/2	\$836.14
4"-8	DWTPT4INCH	\$1,152.51
5"-8	DWTPT5INCH	\$1,869.80
6"-8	DWTPT6INCH	\$2,635.79



## H.S.S. NPS TAPS

National Pipe Straight Taps marked NPS are suitable for tapping holes, or couplings, for low pressure work to assemble with taper threaded pipe or fittings to secure a tight joint when a sealer is used. They are suitable for NPSC and NPSM work.



## H.S.S. INTERRUPTED THREAD

Special Purpose Pipe Tap, appropriate for threading a wide variety of materials both ferrous and non-ferrous where chip disposal is a problem. The first few threads on an Interrupted Thread Pipe Tap are full. The balance of the threads are interrupted to reduce drag while taper pipe threading. These pipe taps are standard having an odd number of flutes.

Size	Part Number	List Price
1/8"-27	DWT64224	\$30.87
1/4"-18	DWT64225	\$32.51
3/8"-18	DWT64226	\$47.06
1/2"-14	DWT64227	\$72.79
3/4"-14	DWT64228	\$102.56
1"-11-1/2	DWT64229	\$158.37
1-1/4"-11-1/2	DWT64230	\$229.21
1-1/2"-11-1/2	DWT64231	\$310.39
2"-11-1/2	DWT64232	\$418.61



Size	No. of Flutes	Part Number	List Price
1/16"-27	4	DWT64115	\$26.79
1/8"-27	4	DWT64116	\$20.50
1/4"-18	4	DWT64117	\$22.99
3/8"-18	4	DWT64118	\$34.18
1/2"-14	4	DWT64119	\$52.93
3/4"-14	5	DWT64120	\$75.87
1"-11-1/2	5	DWT64121	\$116.15
1-1/4"-11-1/2	5	DWT64122	\$159.95
1-1/2"-11-1/2	7	DWT64123	\$220.34
2"-11-1/2	7	DWT64124	\$313.09

# TAPS & ACCESSORIES

TAP AND DIE SETS

QUALITECH™

Description	Part Number	List Price
#4-1/2 CS Tap & Die Set with Hex Dies	DWT40PC-HEX	\$188.81
#4-1/2 CS Tap & Die Set with Round Dies	DWT40PC-ROUND	\$188.81
3-12 mm CS Tap & Die Set with Hex Dies	DWT40PC-MM-HEX	\$188.81
3-12 mm CS Tap & Die Set with Round Dies	DWT40PC-MM-ROUND	\$188.81
#4-1/2 HS Tap & Die Set with Round Dies	DWT40PC-HS-ROUND	\$514.81
3-12mm HS Tap & Die Set with Round Dies	DWT40PC-HS-MM-ROUND	\$514.81
6-24mm NC & NF CS Tap & Die Set	DWT45PC-MM-SET	\$620.80
1/4-1 NC & NF CS Tap & Die Set	DWT45PC-SET	\$620.80



## COMBINED DRILL AND TAP

Size	Part Number	List Price
4-40	DWT4-40DRAP	\$30.01
6-32	DWT6-32DRAP	\$27.79
8-32	DWT8-32DRAP	\$27.79
10-24	DWT10-24DRAP	\$28.74
10-32	DWT10-32DRAP	\$28.74
12-24	DWT12-24DRAP	\$31.76
1/4"-20	DWT1/4-20DRAP	\$32.08
5/16"-18	DWT5/16-18DRAP	\$41.96
3/8"-16	DWT3/8-16DRAP	\$51.01
7/16"-14	DWT7/16-14DRAP	\$64.44
1/2"-13	DWT1/2-13DRAP	\$77.58
9/16"-12	DWT9/16-12DRAP	\$121.82
5/8"-11	DWT5/8-11DRAP	\$153.68

### DWT Series - Combined Drill and Tap

Designed to drill and tap in one operation. Can be used on multi-spindle or hand held operations.



## TAP WRENCHES

### ADJUSTABLE TAP WRENCHES

#### DWTTW Series - Adjustable Tap Wrenches



Capacity					O.A.L.	Part Number	List Price
Hand Taps	Screw Machine	Pipe	Hand Reamers				
1/16"-1/4"	0-14	-	1/8"-17/64"	5"	DWTTW00	\$28.38	
1/16"-1/4"	0-14	-	1/8"-21/64"	7"	DWTTW0	\$10.75	
1/16"-3/8"	0-14	-	1/8"-25/64"	9"	DWTTW4	\$20.43	
5/32"-1/2"	7-14	1/8"	11/64"-7/16"	11"	DWTTW5	\$16.58	
5/32"-3/4"	7-14	1/8"-1/4"	11/64"-41/64"	15"	DWTTW6	\$23.41	
1/4"-1-1/8"	-	1/8"-3/4"	9/32"-29/32"	19"	DWTTW7	\$45.33	
1/2"-1-3/8"	-	1/8"-1"	3/8"-1-5/32"	31"	DWTTW7-1/2	\$79.11	
3/4"-1-5/8"	-	3/8"-1-1/4"	37/64"-1-11/32"	40"	DWTTW8	\$125.97	
1"-2-1/2"	-	3/4"-2"	7/8"-2-1/8"		DWTTW22	\$233.81	
1-3/4"-4"	-	1-1/2"-4"	1-7/16"-3"		DWTTW24	\$306.25	

## T-HANDLE TAP WRENCHES

#### DWTD Series - T-Handle Tap Wrenches

Style	Capacity		O.A.L.	Part Number	List Price
	Fractional Taps	Screw Machine			
Plain	1/16"-1/4"	0-14	2-3/4"	DWTD328	\$12.02
Plain	7/32"-1/2"	12-14	3-5/8"	DWTD332	\$16.79
Plain	1/16"-1/4"	0-14	8-3/4"	DWTD336	\$33.62
Plain	7/32"-1/2"	12-14	10-5/8"	DWTD337	\$47.07
Ratchet	1/16"-1/4"	0-14	3-3/4"	DWTD338R	\$45.98
Ratchet	7/32"-1/2"	12-14	5"	DWTD339R	\$49.46

RATCHET



PLAIN



# TAPS & DIES

## DWT Series - Acme Taps

Single pass acme taps produce threads from 10° to 30° in a single pass without a lead screw.



Size	Decimal Equivalent	Thread Length	O.A.L.	Part Number	List Price
3/8"-12	.3750	2"	4"	DWT3/8-12ACME	\$225.50
7/16"-12	.4375	2-1/4"	4-1/2"	DWT7/16-12ACME	\$225.50
1/2"-10	.5000	2-9/16"	5"	DWT1/2-10ACME	\$220.00
5/8"-8	.6250	3-3/16"	6-1/4"	DWT5/8-8ACME	\$254.38
3/4"-6	.7500	4-5/16"	7-15/16"	DWT3/4-6ACME	\$331.38
7/8"-6	.8750	4-3/8"	8-5/8"	DWT7/8-6ACME	\$335.50
1"-5	1.0000	5-1/4"	10-1/8"	DWT1-5ACME	\$408.38
1-1/8"-5	1.1250	5-1/4"	10-3/4"	DWT1-1/8-5ACME	\$446.88
1-1/4"-5	1.2500	5-1/4"	11-1/8"	DWT1-1/4-5ACME	\$484.00
1-3/8"-4	1.3750	5-7/8"	12-1/4"	DWT1-3/8-4ACME	\$529.38
1-1/2"-4	1.5000	5-7/8"	12-5/8"	DWT1-1/2-4ACME	\$605.00

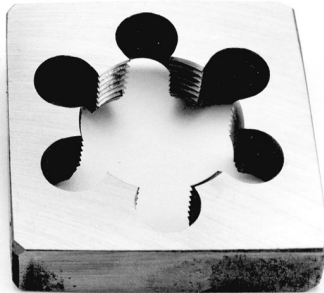
## CARBON STEEL SQUARE DIES

### DWT Series - Carbon Steel Square Dies

Designed for rethreading jammed or damaged bolt threads.

#### BOLT SIZES

Size	Part Number	List Price
1/4"-20	DWTSQ1420	\$59.92
5/16"-18	DWTSQ51618	\$64.80
3/8"-16	DWTSQ3816	\$67.54
7/16"-14	DWTSQ71614	\$72.05
1/2"-13	DWTSQ1213	\$82.35
5/8"-11	DWTSQ5811	\$91.54
3/4"-10	DWTSQ3410	\$93.30
7/8"-9	DWTSQ789	\$101.10
1"-8	DWTSQ18	\$113.60
1-1/8"-7	DWTSQ1187	\$126.28
1-1/4"-7	DWTSQ1147	\$139.15
1-3/8"-6	DWTSQ1386	\$155.37
1-1/2"-6	DWTSQ1126	\$165.12
1-3/4"-5	DWTSQ1345	\$259.59
2"-4-1/2	DWTSQ2412	\$516.67



#### NPT SIZES

Size	Part Number	List Price
1/8"X2"SQ	DWTSQNPT18X2	\$67.79
1/8"X2-1/2"SQ	DWTSQNPT18X212	\$82.14
1/4"X2"SQ	DWTSQNPT14X2	\$67.79
1/4"X2-1/2"SQ	DWTSQNPT14X212	\$82.14
3/8"X2"SQ	DWTSQNPT38X2	\$67.79
3/8"X2-1/2"SQ	DWTSQNPT38X212	\$82.14
1/2"X2"SQ	DWTSQNPT12X2	\$67.79
1/2"X2-1/2"SQ	DWTSQNPT12X212	\$82.14
1/2"X3"SQ	DWTSQNPT12X3	\$95.46
3/4"X2-1/2"SQ	DWTSQNPT34X212	\$82.14
3/4"X3"SQ	DWTSQNPT34X3	\$95.46
1"X2-1/2"SQ	DWTSQNPT1X212	\$82.14
1"X3"SQ	DWTSQNPT1X3	\$95.46
1"X4"SQ	DWTSQNPT1X4	\$115.97
1-1/4"X3"SQ	DWTSQNPT114X3	\$95.46
1-1/4"X4"SQ	DWTSQNPT114X4	\$115.97
1-1/2"X4"SQ	DWTSQNPT112X4	\$115.97
2"X4"SQ	DWTSQNPT2X4	\$115.97
2-1/2"X5"SQ	DWTSQNPT212X5	\$199.51
3"X5"SQ	DWTSQNPT3X5	\$199.51

# HEX DIES

## DWT Series - Hex Dies

Carbon Steel Hex Dies are for dressing over bruised or rusty threads, they are the most cost effective rethreading tool available. No special holder is required for this type of die, any wrench large enough will suffice. Ideal for maintenance in the shop or field.



### MACHINE AND FRACTIONAL SIZES

Size	Part Number	List Price	Size	Part Number	List Price	Size	Part Number	List Price
4-40	DWTHX440	\$9.24	7/16"-14	DWTHX71614	\$11.86	7/8"-14	DWTHX7814	\$23.70
5-40	DWTHX540	\$9.24	7/16"-20	DWTHX71620	\$11.86	1"-8	DWTHX18	\$29.91
6-32	DWTHX632	\$9.24	1/2"-13	DWTHX1213	\$12.83	1"-12	DWTHX112	\$29.91
8-32	DWTHX832	\$9.24	1/2"-20	DWTHX1220	\$12.83	1"-14	DWTHX114	\$29.91
10-24	DWTHX1024	\$9.24	9/16"-12	DWTHX91612	\$13.87	1-1/8"-7	DWTHX1187	\$44.98
10-32	DWTHX1032	\$9.24	9/16"-18	DWTHX91618	\$13.87	1-1/8"-12	DWTHX11812	\$44.98
12-24	DWTHX1224	\$9.24	5/8"-11	DWTHX5811	\$16.12	1-1/4"-7	DWTHX1147	\$52.18
1/4"-20	DWTHX1420	\$8.34	5/8"-18	DWTHX5818	\$16.12	1-1/4"-12	DWTHX11412	\$52.18
1/4"-28	DWTHX1428	\$8.34	11/16"-11	DWTHX111611	\$19.84	1-3/8"-6	DWTHX1386	\$59.29
5/16"-18	DWTHX51618	\$9.33	11/16"-16	DWTHX111616	\$19.84	1-3/8"-12	DWTHX13812	\$59.29
5/16"-24	DWTHX51624	\$9.33	3/4"-10	DWTHX3410	\$21.14	1-1/2"-6	DWTHX1126	\$66.37
3/8"-16	DWTHX3816	\$9.60	3/4"-16	DWTHX3416	\$21.14	1-1/2"-12	DWTHX11212	\$66.37
3/8"-24	DWTHX3824	\$9.60	7/8"-9	DWTHX789	\$23.70			

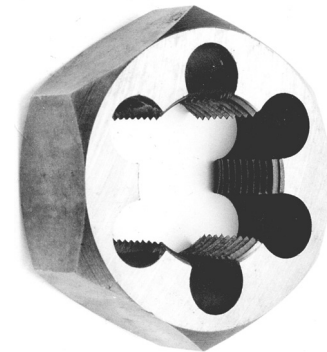
### NPT PIPE SIZES

Size	Part Number	List Price	Size	Part Number	List Price
1/8"NPT	DWTHXNPT18	\$12.43	1-1/2"NPT	DWTHXNPT112	\$189.87
1/4"NPT	DWTHXNPT14	\$16.26	2"NPT	DWTHXNPT2INCH	\$288.26
3/8"NPT	DWTHXNPT38	\$24.08	2-1/2"NPT	DWTHXNPT212	\$482.53
1/2"NPT	DWTHXNPT12	\$29.38	3"NPT	DWTHXNPT3INCH	\$682.27
3/4"NPT	DWTHXNPT34	\$47.70	3-1/2"NPT	DWTHXNPT312	\$965.68
1"NPT	DWTHXNPT1INCH	\$75.94	4"NPT	DWTHXNPT4INCH	\$1,186.24
1-1/4"NPT	DWTHXNPT114	\$122.51			



### SPECIAL THREAD - 8 PITCH SIZES

Size	Part Number	List Price	Size	Part Number	List Price
1-1/8"-8	DWTSH1-1/8-8	\$45.83	2-3/8"-8	DWTSH2-3/8-8	\$226.11
1-1/4"-8	DWTSH1-1/4-8	\$51.33	2-1/2"-8	DWTSH2-1/2-8	\$245.28
1-3/8"-8	DWTSH1-3/8-8	\$54.98	2-5/8"-8	DWTSH2-5/8-8	\$262.52
1-1/2"-8	DWTSH1-1/2-8	\$65.97	2-3/4"-8	DWTSH2-3/4-8	\$277.85
1-5/8"-8	DWTSH1-5/8-8	\$131.98	2-7/8"-8	DWTSH2-7/8-8	\$344.91
1-3/4"-8	DWTSH1-3/4-8	\$142.97	3"-8	DWTSH3-8	\$419.90
1-7/8"-8	DWTSH1-7/8-8	\$155.69	3-1/4"-8	DWTSH3-1/4-8	\$499.90
2"-8	DWTSH2-8	\$170.45	3-1/2"-8	DWTSH3-1/2-8	\$559.87
2-1/8"-8	DWTSH2-1/8-8	\$201.20	3-3/4"-8	DWTSH3-3/4-8	\$619.86
2-1/4"-8	DWTSH2-1/4-8	\$210.78	4"-8	DWTSH4-8	\$639.85



### HIGH SPEED STEEL FRACTIONAL SIZES

Size	Part Number	List Price	Size	Part Number	List Price
1/4"-20	DWTHSHEX1420	\$22.21	11/16"-11	DWTHSHEX111611	\$54.29
1/4"-28	DWTHSHEX1428	\$22.21	11/16"-16	DWTHSHEX111616	\$54.29
5/16"-18	DWTHSHEX51618	\$24.98	3/4"-10	DWTHSHEX3410	\$55.47
5/16"-24	DWTHSHEX51624	\$24.98	3/4"-16	DWTHSHEX3416	\$55.47
3/8"-16	DWTHSHEX3816	\$27.73	7/8"-9	DWTHSHEX789	\$66.53
3/8"-24	DWTHSHEX3824	\$27.73	7/8"-14	DWTHSHEX7814	\$66.53
7/16"-14	DWTHSHEX71614	\$29.94	1"-8	DWTHSHEX18	\$77.60
7/16"-20	DWTHSHEX71620	\$29.94	1"-12	DWTHSHEX112	\$77.60
1/2"-13	DWTHSHEX1213	\$37.70	1"-14	DWTHSHEX114	\$77.60
1/2"-20	DWTHSHEX1220	\$37.70	1-1/4"-7	DWTHSHEX1147	\$161.68
9/16"-12	DWTHSHEX91612	\$45.52	1-1/4"-12	DWTHSHEX11412	\$161.68
9/16"-18	DWTHSHEX91618	\$45.52	1-3/8"-6	DWTHSHEX1386	\$183.71
5/8"-11	DWTHSHEX5811	\$49.93	1-3/8"-12	DWTHSHEX13812	\$183.71
5/8"-18	DWTHSHEX5818	\$49.93			



# HEX DIES

## STANDARD METRIC SIZES



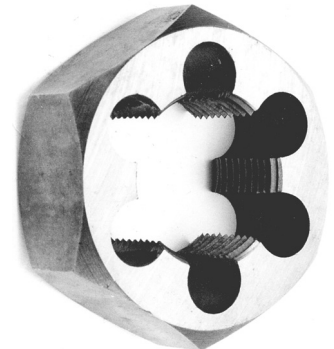
Size	Part Number	List Price	Size	Part Number	List Price	Size	Part Number	List Price
1.6X.35	DWTMHX1.6X.35	\$13.24	10X1.25	DWTMHX10X1.25	\$17.07	22X2.5	DWTMHX22X2.5	\$43.65
1.8X.35	DWTMHX1.8X.35	\$13.24	10X1.5	DWTMHX10X1.5	\$17.07	24X2	DWTMHX24X2	\$45.98
2X.4	DWTMHX2X.4	\$13.24	12X1.25	DWTMHX12X1.25	\$18.48	24X3	DWTMHX24X3	\$45.98
2.2X.45	DWTMHX2.2X.45	\$13.24	12X1.75	DWTMHX12X1.75	\$18.48	27X2	DWTMHX27X2	\$51.15
2.5X.45	DWTMHX2.5X.45	\$13.24	14X1.25	DWTMHX14X1.25	\$19.53	27X3	DWTMHX27X3	\$51.15
3X.5	DWTMHX3X.5	\$12.33	14X1.5	DWTMHX14X1.5	\$19.53	30X2	DWTMHX30X2	\$61.89
3.5X.6	DWTMHX3.5X.6	\$12.33	14X2	DWTMHX14X2	\$19.53	30X3.5	DWTMHX30X3.5	\$61.89
4X.7	DWTMHX4X.7	\$12.33	16X1.5	DWTMHX16X1.5	\$22.38	33X2	DWTMHX33X2	\$68.13
4.5X.75	DWTMHX4.5X.75	\$12.33	16X2	DWTMHX16X2	\$22.38	33X3.5	DWTMHX33X3.5	\$68.13
5X.8	DWTMHX5X.8	\$12.33	18X1.5	DWTMHX18X1.5	\$29.08	36X3	DWTMHX36X3	\$75.01
6X1	DWTMHX6X1	\$12.91	18X2.5	DWTMHX18X2.5	\$29.08	36X4	DWTMHX36X4	\$75.01
7X1	DWTMHX7X1	\$13.82	20X1.5	DWTMHX20X1.5	\$35.79	39X3	DWTMHX39X3	\$78.73
8X1	DWTMHX8X1	\$13.82	20X2.5	DWTMHX20X2.5	\$35.79	39X4	DWTMHX39X4	\$82.53
8X1.25	DWTMHX8X1.25	\$13.82	22X1.5	DWTMHX22X1.5	\$43.65			

## SPECIAL THREAD METRIC SIZES

Size	Part Number	List Price	Size	Part Number	List Price	Size	Part Number	List Price
3X.6	DWTSMH3X.6	\$17.99	11X1.25	DWTSMH11X1.25	\$26.83	20X1	DWTSMH20X1	\$43.45
4X.5	DWTSMH4X.5	\$17.99	11X1.5	DWTSMH11X1.5	\$26.83	20X1.25	DWTSMH20X1.25	\$43.45
4X.75	DWTSMH4X.75	\$17.99	12X.75	DWTSMH12X.75	\$25.40	20X2	DWTSMH20X2	\$43.45
5X.5	DWTSMH5X.5	\$17.99	12X1	DWTSMH12X1	\$25.40	22X2	DWTSMH22X2	\$45.47
5X.75	DWTSMH5X.75	\$17.99	12X1.5	DWTSMH12X1.5	\$25.40	24X1	DWTSMH24X1	\$49.50
5X.9	DWTSMH5X.9	\$17.99	13X.5	DWTSMH13X.5	\$28.18	24X1.5	DWTSMH24X1.5	\$49.50
6X.5	DWTSMH6X.5	\$17.99	13X1.25	DWTSMH13X1.25	\$28.18	26X1	DWTSMH26X1	\$53.56
6X.75	DWTSMH6X.75	\$17.99	13X1.5	DWTSMH13X1.5	\$28.18	26X1.5	DWTSMH26X1.5	\$53.56
6X1.25	DWTSMH6X1.25	\$17.99	13X2	DWTSMH13X2	\$28.18	26X2	DWTSMH26X2	\$53.56
6.3X1	DWTSMH6.3X1	\$17.99	14X1	DWTSMH14X1	\$30.48	26X2.5	DWTSMH26X2.5	\$53.56
7X.75	DWTSMH7X.75	\$18.95	14X1.75	DWTSMH14X1.75	\$30.48	26X3	DWTSMH26X3	\$53.56
8X.5	DWTSMH8X.5	\$18.95	15X1	DWTSMH15X1	\$33.41	27X1.5	DWTSMH27X1.5	\$54.56
8X.75	DWTSMH8X.75	\$18.95	15X1.5	DWTSMH15X1.5	\$33.41	27X2.5	DWTSMH27X2.5	\$54.56
8X1.5	DWTSMH8X1.5	\$18.95	16X1	DWTSMH16X1	\$35.05	30X1	DWTSMH30X1	\$64.70
9X.75	DWTSMH9X.75	\$21.16	16X1.75	DWTSMH16X1.75	\$35.05	30X1.5	DWTSMH30X1.5	\$64.70
9X1	DWTSMH9X1	\$21.16	18X1	DWTSMH18X1	\$36.89	35X1.5	DWTSMH35X1.5	\$90.95
9X1.25	DWTSMH9X1.25	\$21.16	18X1.25	DWTSMH18X1.25	\$36.89	36X1.5	DWTSMH36X1.5	\$90.95
10X.75	DWTSMH10X.75	\$21.45	18X2	DWTSMH18X2	\$36.89	36X2	DWTSMH36X2	\$90.95
10X1	DWTSMH10X1	\$21.45	19X1	DWTSMH19X1	\$43.45	42X4.5	DWTSMH42X4.5	\$127.33
11X.75	DWTSMH11X.75	\$26.83	19X1.5	DWTSMH19X1.5	\$43.45	48X5	DWTSMH48X5	\$161.68
11X1	DWTSMH11X1	\$26.83	19X2.5	DWTSMH19X2.5	\$43.45			

## LEFT HAND FRACTIONAL SIZES

Size	Part Number	List Price	Size	Part Number	List Price
1/4"-20	DWTHX1420LH	\$14.80	3/4"-10	DWTHX3410LH	\$35.34
1/4"-28	DWTHX1428LH	\$14.80	3/4"-16	DWTHX3416LH	\$35.34
5/16"-18	DWTHX51618LH	\$16.39	7/8"-9	DWTHX789LH	\$49.01
5/16"-24	DWTHX51624LH	\$16.39	7/8"-14	DWTHX7814LH	\$49.01
3/8"-16	DWTHX3816LH	\$18.57	1"-8	DWTHX18LH	\$50.38
3/8"-24	DWTHX3824LH	\$18.57	1"-12	DWTHX112LH	\$50.38
7/16"-14	DWTHX71614LH	\$19.34	1"-14	DWTHX114LH	\$50.38
7/16"-20	DWTHX71620LH	\$19.34	1-1/8"-7	DWTHX1187LH	\$65.65
1/2"-13	DWTHX1213LH	\$23.69	1-1/8"-12	DWTHX11812LH	\$65.65
1/2"-20	DWTHX1220LH	\$23.69	1-1/4"-7	DWTHX1147LH	\$69.60
9/16"-12	DWTHX91612LH	\$28.82	1-1/4"-12	DWTHX11412LH	\$69.60
9/16"-18	DWTHX91618LH	\$28.82	1-3/8"-6	DWTHX1386LH	\$73.13
5/8"-11	DWTHX5811LH	\$31.00	1-3/8"-12	DWTHX13812LH	\$73.13
5/8"-18	DWTHX5818LH	\$31.00	1-1/2"-6	DWTHX1126LH	\$76.78
11/16"-11	DWTHX111611LH	\$34.57	1-1/2"-12	DWTHX11212LH	\$76.78
11/16"-16	DWTHX111616LH	\$34.57			



# ROUND DIES

## H. S. S. ROUND STANDARD SIZES



### DWT Series - High Speed Adjustable Round Dies

For threading, a High Speed Steel Round Adjustable Die is desired for improved wear life. Round Dies are chamfered on both faces. One side has a 2 to 3 thread chamfer for threading, the other side has a 1 to 1-1/2 thread chamfer for threading close to a shoulder. Adjustment is obtained by a fine pitch screw which forces the sides of the die apart, or allows them to spring together. The slot is beveled so that when the dies are used in a machine holder the adjusting screw can be removed and adjustment made by the adjusting screws in the holder.

#### 1 3 / 16 " O D

Size	Part Number	List Price
0-80	DWTH1316-080	\$12.42
1-64	DWTH1316-164	\$12.42
1-72	DWTH1316-172	\$12.42
2-56	DWTH1316-256	\$12.42
2-64	DWTH1316-264	\$12.42
3-48	DWTH1316-348	\$12.42
3-56	DWTH1316-356	\$12.42
4-36	DWTH1316-436	\$12.42
4-40	DWTH1316-440	\$12.42
4-48	DWTH1316-448	\$12.42
5-40	DWTH1316-540	\$12.42
5-44	DWTH1316-544	\$12.42
6-32	DWTH1316-632	\$12.42
6-40	DWTH1316-640	\$12.42
8-32	DWTH1316-832	\$12.42
8-36	DWTH1316-836	\$12.42
10-24	DWTH1316-1024	\$12.42
10-32	DWTH1316-1032	\$12.42
12-24	DWTH1316-1224	\$12.42
12-28	DWTH1316-1228	\$12.42
1/4"-20	DWTH1316-1420	\$12.42
1/4"-28	DWTH1316-1428	\$12.42
5/16"-18	DWTH1316-51618	\$12.42
5/16"-24	DWTH1316-51624	\$12.42

#### 1 " O D

Size	Part Number	List Price
2-56	DWTH1-256	\$15.22
3-56	DWTH1-356	\$15.22
4-36	DWTH1-436	\$15.22
4-40	DWTH1-440	\$15.22
4-48	DWTH1-448	\$15.22
5-40	DWTH1-540	\$15.22
5-44	DWTH1-544	\$15.22
6-32	DWTH1-632	\$15.22
6-40	DWTH1-640	\$15.22
8-32	DWTH1-832	\$15.22
8-36	DWTH1-836	\$15.22
10-24	DWTH1-1024	\$15.22
10-32	DWTH1-1032	\$15.22
12-24	DWTH1-1224	\$15.22
12-28	DWTH1-1228	\$15.22
1/4"-20	DWTH1-1420	\$15.22
1/4"-28	DWTH1-1428	\$15.22
5/16"-18	DWTH1-51618	\$15.22
5/16"-24	DWTH1-51624	\$15.22
3/8"-16	DWTH1-3816	\$15.22
3/8"-24	DWTH1-3824	\$15.22
7/16"-14	DWTH1-71614	\$15.22
7/16"-20	DWTH1-71620	\$15.22
1/2"-13	DWTH1-1213	\$15.22
1/2"-20	DWTH1-1220	\$15.22

#### 1 - 1 / 2 " O D

Size	Part Number	List Price
1/4"-20	DWTH112-1420	\$24.52
1/4"-28	DWTH112-1428	\$24.52
5/16"-18	DWTH112-51618	\$24.52
5/16"-24	DWTH112-51624	\$24.52
3/8"-16	DWTH112-3816	\$24.52
3/8"-24	DWTH112-3824	\$24.52
7/16"-14	DWTH112-71614	\$24.52
7/16"-20	DWTH112-71620	\$24.52
1/2"-13	DWTH112-1213	\$24.52
1/2"-20	DWTH112-1220	\$24.52
9/16"-12	DWTH112-91612	\$24.52
9/16"-18	DWTH112-91618	\$24.52
5/8"-11	DWTH112-5811	\$24.52
5/8"-18	DWTH112-5818	\$24.52
11/16"-11	DWTH112-111611	\$24.52
11/16"-16	DWTH112-111616	\$24.52
3/4"-10	DWTH112-3410	\$24.52
3/4"-16	DWTH112-3416	\$24.52

#### 2 " O D

Size	Part Number	List Price
1/4"-20	DWTH2-1420	\$44.44
1/4"-28	DWTH2-1428	\$44.44
5/16"-18	DWTH2-51618	\$44.44
5/16"-24	DWTH2-51624	\$44.44
3/8"-16	DWTH2-3816	\$44.44
3/8"-24	DWTH2-3824	\$44.44
7/16"-14	DWTH2-71614	\$44.44
7/16"-20	DWTH2-71620	\$44.44
1/2"-13	DWTH2-1213	\$44.44
1/2"-20	DWTH2-1220	\$44.44
9/16"-12	DWTH2-91612	\$44.44
9/16"-18	DWTH2-91618	\$44.44
5/8"-11	DWTH2-5811	\$44.44
5/8"-18	DWTH2-5818	\$44.44
11/16"-11	DWTH2-111611	\$44.44
3/4"-10	DWTH2-3410	\$44.44
3/4"-16	DWTH2-3416	\$44.44
7/8"-9	DWTH2-789	\$44.44
7/8"-14	DWTH2-7814	\$44.44
1"-8	DWTH2-18	\$44.44
1"-12	DWTH2-112	\$44.44
1"-14	DWTH2-114	\$44.44

#### 2 - 1 / 2 " O D

Size	Part Number	List Price
7/8"-9	DWTH212-789	\$86.96
7/8"-14	DWTH212-7814	\$86.96
1"-8	DWTH212-18	\$86.96
1"-12	DWTH212-112	\$86.96
1"-14	DWTH212-114	\$86.96
1-1/8"-7	DWTH212-1187	\$86.96
1-1/8"-12	DWTH212-11812	\$86.96
1-1/4"-7	DWTH212-1147	\$86.96
1-1/4"-12	DWTH212-11412	\$86.96
1-3/8"-6	DWTH212-1386	\$86.96
1-3/8"-12	DWTH212-13812	\$86.96
1-1/2"-6	DWTH212-1126	\$86.96
1-1/2"-12	DWTH212-11212	\$86.96

#### 3 " O D

Size	Part Number	List Price
1-1/8"-7	DWTH3-1187	\$148.80
1-1/8"-12	DWTH3-11812	\$148.80
1-1/4"-7	DWTH3-1147	\$148.80
1-1/4"-12	DWTH3-11412	\$148.80
1-3/8"-6	DWTH3-1386	\$148.80
1-3/8"-12	DWTH3-13812	\$148.80
1-1/2"-6	DWTH3-1126	\$148.80
1-1/2"-12	DWTH3-11212	\$148.80



# ROUND DIES

## H . S . S . R O U N D S P E C I A L S I Z E S

### 1 3 / 1 6 " O D



Size	Part Number	List Price
1-56	DWTSR1316-156	\$34.84
3-60	DWTSR1316-360	\$34.84
4-32	DWTSR1316-432	\$34.84
4-60	DWTSR1316-460	\$34.84
4-64	DWTSR1316-464	\$34.84
5-32	DWTSR1316-532	\$34.84
5-36	DWTSR1316-536	\$34.84
5-48	DWTSR1316-548	\$34.84
6-36	DWTSR1316-636	\$34.84
6-48	DWTSR1316-648	\$34.84
6-56	DWTSR1316-656	\$34.84

Size	Part Number	List Price
8-24	DWTSR1316-824	\$34.84
8-48	DWTSR1316-848	\$34.84
10-36	DWTSR1316-1036	\$34.84
10-80	DWTSR1316-1080	\$34.84
12-32	DWTSR1316-1232	\$34.84
12-36	DWTSR1316-1236	\$34.84
12-40	DWTSR1316-1240	\$34.84
12-48	DWTSR1316-1248	\$34.84
3/32"-48	DWTSR1316-33248	\$34.84
5/32"-32	DWTSR1316-53232	\$34.84
5/32"-36	DWTSR1316-53236	\$34.84

Size	Part Number	List Price
3/16"-24	DWTSR1316-31624	\$34.84
3/16"-32	DWTSR1316-31632	\$34.84
7/32"-24	DWTSR1316-73224	\$34.84
7/32"-40	DWTSR1316-73240	\$34.84
1/4"-27	DWTSR1316-1427	\$34.84
1/4"-32	DWTSR1316-1432	\$34.84
1/4"-40	DWTSR1316-1440	\$34.84
5/16"-27	DWTSR1316-51627	\$34.84
5/16"-36	DWTSR1316-51636	\$34.84

### 1 " O D

Size	Part Number	List Price
6-36	DWTSR1-636	\$39.56
6-48	DWTSR1-648	\$39.56
10-28	DWTSR1-1028	\$39.56
10-56	DWTSR1-1056	\$39.56
12-40	DWTSR1-12-40	\$39.56
5/32"-32	DWTSR1-53232	\$39.56
3/16"-24	DWTSR1-31624	\$39.56
3/16"-32	DWTSR1-31632	\$39.56
7/32"-24	DWTSR1-73224	\$39.56
7/32"-40	DWTSR1-73240	\$39.56
1/4"-16	DWTSR1-1416	\$39.56
1/4"-18	DWTSR1-1418	\$39.56
1/4"-22	DWTSR1-1422	\$39.56
1/4"-24	DWTSR1-1424	\$39.56
1/4"-26	DWTSR1-1426	\$39.56
1/4"-27	DWTSR1-1427	\$39.56
1/4"-30	DWTSR1-1430	\$39.56
1/4"-32	DWTSR1-1432	\$39.56
1/4"-36	DWTSR1-1436	\$39.56
1/4"-40	DWTSR1-1440	\$39.56
1/4"-48	DWTSR1-1448	\$39.56
1/4"-56	DWTSR1-1456	\$39.56
1/4"-60	DWTSR1-1460	\$39.56
1/4"-64	DWTSR1-1464	\$39.56
1/4"-72	DWTSR1-1472	\$39.56
1/4"-80	DWTSR1-1480	\$39.56

Size	Part Number	List Price
9/32"-32	DWTSR1-93232	\$39.56
9/32"-40	DWTSR1-93240	\$39.56
5/16"-16	DWTSR1-51616	\$39.56
5/16"-20	DWTSR1-51620	\$39.56
5/16"-22	DWTSR1-51622	\$39.56
5/16"-27	DWTSR1-51627	\$39.56
5/16"-28	DWTSR1-51628	\$39.56
5/16"-30	DWTSR1-51630	\$39.56
5/16"-32	DWTSR1-51632	\$39.56
5/16"-36	DWTSR1-51636	\$39.56
5/16"-40	DWTSR1-51640	\$39.56
5/16"-48	DWTSR1-51648	\$39.56
5/16"-56	DWTSR1-51656	\$39.56
5/16"-64	DWTSR1-51664	\$39.56
5/16"-72	DWTSR1-51672	\$39.56
3/8"-14	DWTSR1-3814	\$39.56
3/8"-18	DWTSR1-3818	\$39.56
3/8"-20	DWTSR1-3820	\$39.56
3/8"-26	DWTSR1-3826	\$39.56
3/8"-32	DWTSR1-3832	\$39.56
3/8"-36	DWTSR1-3836	\$39.56
3/8"-40	DWTSR1-3840	\$39.56
3/8"-48	DWTSR1-3848	\$39.56
3/8"-56	DWTSR1-3856	\$39.56
3/8"-60	DWTSR1-3860	\$39.56
3/8"-64	DWTSR1-3864	\$39.56

Size	Part Number	List Price
3/8"-72	DWTSR1-3872	\$39.56
3/8"-80	DWTSR1-3880	\$39.56
7/16"-12	DWTSR1-71612	\$39.56
7/16"-16	DWTSR1-71616	\$39.56
7/16"-18	DWTSR1-71618	\$39.56
7/16"-24	DWTSR1-71624	\$39.56
7/16"-27	DWTSR1-71627	\$39.56
7/16"-32	DWTSR1-71632	\$39.56
7/16"-36	DWTSR1-71636	\$39.56
7/16"-40	DWTSR1-71640	\$39.56
7/16"-48	DWTSR1-71648	\$39.56
7/16"-56	DWTSR1-71656	\$39.56
7/16"-64	DWTSR1-71664	\$39.56
7/16"-72	DWTSR1-71672	\$39.56
7/16"-80	DWTSR1-71680	\$39.56
1/2"-14	DWTSR1-1214	\$39.56
1/2"-16	DWTSR1-1216	\$39.56
1/2"-18	DWTSR1-1218	\$39.56
1/2"-24	DWTSR1-1224	\$39.56
1/2"-27	DWTSR1-1227	\$39.56
1/2"-28	DWTSR1-1228	\$39.56
1/2"-32	DWTSR1-1232	\$39.56
1/2"-36	DWTSR1-1236	\$39.56
1/2"-40	DWTSR1-1240	\$39.56
1/2"-48	DWTSR1-1248	\$39.56

### 1 - 1 / 2 " O D

Size	Part Number	List Price
1/4"-32	DWTSR112-1432	\$62.28
1/4"-48	DWTSR112-1448	\$62.28
5/16"-16	DWTSR112-51616	\$62.28
5/16"-27	DWTSR112-51627	\$62.28
5/16"-30	DWTSR112-51630	\$62.28
3/8"-27	DWTSR112-3827	\$62.28
3/8"-28	DWTSR112-3828	\$62.28
3/8"-32	DWTSR112-3832	\$62.28
3/8"-48	DWTSR112-3848	\$62.28
7/16"-12	DWTSR112-71612	\$62.28
7/16"-24	DWTSR112-71624	\$62.28
7/16"-27	DWTSR112-71627	\$62.28
7/16"-28	DWTSR112-71628	\$62.28

Size	Part Number	List Price
15/32"-32	DWTSR112-153232	\$62.28
1/2"-24	DWTSR112-1224	\$62.28
1/2"-40	DWTSR112-1240	\$62.28
9/16"-16	DWTSR112-91616	\$62.28
9/16"-20	DWTSR112-91620	\$62.28
9/16"-24	DWTSR112-91624	\$62.28
9/16"-27	DWTSR112-91627	\$62.28
9/16"-36	DWTSR112-91636	\$62.28
9/16"-40	DWTSR112-91640	\$62.28
5/8"-12	DWTSR112-5812	\$62.28
5/8"-20	DWTSR112-5820	\$62.28
5/8"-24	DWTSR112-5824	\$62.28
5/8"-27	DWTSR112-5827	\$62.28

Size	Part Number	List Price
5/8"-28	DWTSR112-5828	\$62.28
5/8"-32	DWTSR112-5832	\$62.28
5/8"-40	DWTSR112-5840	\$62.28
11/16"-18	DWTSR112-111618	\$62.28
3/4"-12	DWTSR112-3412	\$62.28
3/4"-14	DWTSR112-3414	\$62.28
3/4"-18	DWTSR112-3418	\$62.28
3/4"-20	DWTSR112-3420	\$62.28
3/4"-24	DWTSR112-3424	\$62.28
3/4"-27	DWTSR112-3427	\$62.28
3/4"-32	DWTSR112-3432	\$62.28
3/4"-40	DWTSR112-3440	\$62.28
13/16"-32	DWTSR112-131632	\$62.28

# DIES

## H.S.S. ROUND SPECIAL SIZES



### 2" O D

### 2 - 1/2" O D

### 3" O D

Size	Part Number	List Price
13/16"-16	DWTSR2-131616	\$133.22
7/8"-10	DWTSR2-7810	\$133.22
7/8"-16	DWTSR2-7816	\$133.22
7/8"-18	DWTSR2-7818	\$133.22
7/8"-20	DWTSR2-7820	\$133.22
7/8"-24	DWTSR2-7824	\$133.22
7/8"-27	DWTSR2-7827	\$133.22
15/16"-20	DWTSR2-151620	\$133.22
1"-16	DWTSR2-116	\$133.22
1"-18	DWTSR2-118	\$133.22
1"-20	DWTSR2-120	\$133.22
1"-24	DWTSR2-124	\$133.22
1"-32	DWTSR2-132	\$133.22

Size	Part Number	List Price
1-1/16"-20	DWTSR212-111620	\$159.87
1-1/16"-24	DWTSR212-111624	\$159.87
1-1/8"-8	DWTSR212-1188	\$159.87
1-1/8"-20	DWTSR212-11820	\$159.87
1-3/16"-8	DWTSR212-13168	\$159.87
1-3/16"-18	DWTSR212-131618	\$159.87
1-3/16"-20	DWTSR212-131620	\$159.87
1-1/4"-8	DWTSR212-1148	\$159.87
1-5/16"-8	DWTSR212-15168	\$159.87
1-5/16"-12	DWTSR212-151612	\$159.87
1-5/16"-24	DWTSR212-151624	\$159.87
1-3/8"-18	DWTSR212-13818	\$159.87
1-3/8"-24	DWTSR212-13824	\$159.87

Size	Part Number	List Price
1-3/4"-5	DWTSR3-1345	\$279.20
1-3/4"-8	DWTSR3-1348	\$279.20
1-3/4"-12	DWTSR3-13412	\$279.20
1-7/8"-8	DWTSR3-1788	\$279.20
1-7/8"-12	DWTSR3-17812	\$279.20
2"-4-1/2	DWTSR3-2412	\$279.20
2"-8	DWTSR3-28	\$279.20
2"-12	DWTSR3-212	\$279.20

## H.S.S. ROUND METRIC SIZES STANDARD SIZES

### 1 3/16" O D

### 1" O D

### 1 - 1/2" O D

Size	Part Number	List Price
1.6X.35	DWTMR1316-1.6X35	\$20.38
1.8X.35	DWTMR1316-1.8X35	\$20.38
2X.4	DWTMR1316-2X.4	\$20.38
2.2X.45	DWTMR1316-2.2X45	\$20.38
2.5X.45	DWTMR1316-2.5X45	\$20.38
3X.5	DWTMR1316-3X.5	\$20.38
3.5X.6	DWTMR1316-3.5X.6	\$20.38
4X.7	DWTMR1316-4X.7	\$20.38
4.5X.75	DWTMR1316-4.5X.75	\$20.38
6X1	DWTMR1316-6X1	\$20.38
7X1	DWTMR1316-7X1	\$20.38

Size	Part Number	List Price
3X.5	DWTMR1-3X.5	\$25.35
3.5X.6	DWTMR1-3.5X.6	\$25.35
4X.7	DWTMR1-4X.7	\$25.35
4.5X.75	DWTMR1-4.5X.75	\$25.35
5X.8	DWTMR1-5X.8	\$25.35
6X1	DWTMR1-6X1	\$25.35
7X1	DWTMR1-7X1	\$25.35
8X1	DWTMR1-8X1	\$25.35
8X1.25	DWTMR1-8X1.25	\$25.35
10X1.25	DWTMR1-10X1.25	\$25.35
10X1.5	DWTMR1-10X1.5	\$25.35
12X1.25	DWTMR1-12X1.25	\$25.35
12X1.75	DWTMR1-12X1.75	\$25.35

Size	Part Number	List Price
6X1	DWTMR112-6X1	\$40.44
7X1	DWTMR112-7X1	\$40.44
8X1	DWTMR112-8X1	\$40.44
8X1.25	DWTMR112-8X1.25	\$40.44
10X1.25	DWTMR112-10X1.25	\$40.44
10X1.5	DWTMR112-10X1.5	\$40.44
12X1.25	DWTMR112-12X1.25	\$40.44
12X1.75	DWTMR112-12X1.75	\$40.44
14X1.25	DWTMR112-14X1.25	\$40.44
14X1.5	DWTMR112-14X1.5	\$40.44
14X2	DWTMR112-14X2	\$40.44
16X1.5	DWTMR112-16X1.5	\$40.44
16X2	DWTMR112-16X2	\$40.44
18X1.5	DWTMR112-18X1.5	\$40.44
18X2.5	DWTMR112-18X2.5	\$40.44
20X1.5	DWTMR112-20X1.5	\$40.44
20X2.5	DWTMR112-20X2.5	\$40.44

### 2" O D

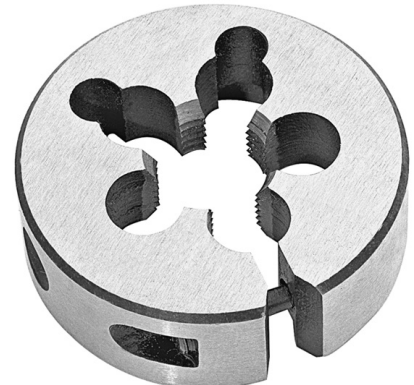
### 2 - 1/2" O D

### 3" O D

Size	Part Number	List Price
6X1	DWTMR2-6X1	\$72.78
7X1	DWTMR2-7X1	\$72.78
8X1.25	DWTMR2-8X1.25	\$72.78
10X1.25	DWTMR2-10X1.25	\$72.78
12X1.75	DWTMR2-12X1.75	\$72.78
14X1.5	DWTMR2-14X1.5	\$72.78
14X2	DWTMR2-14X2	\$72.78
16X1.5	DWTMR2-16X1.5	\$72.78
16X2	DWTMR2-16X2	\$72.78
18X1.5	DWTMR2-18X1.5	\$72.78
18X2.5	DWTMR2-18X2.5	\$72.78
20X1.5	DWTMR2-20X1.5	\$72.78
20X2.5	DWTMR2-20X2.5	\$72.78
22X1.5	DWTMR2-22X1.5	\$72.78
22X2.5	DWTMR2-22X2.5	\$72.78
24X2	DWTMR2-24X2	\$72.78
24X3	DWTMR2-24X3	\$72.78
27X2	DWTMR2-27X2	\$72.78
27X3	DWTMR2-27X3	\$72.78
30X2	DWTMR2-30X2	\$72.78
30X3.5	DWTMR2-30X3.5	\$72.78

Size	Part Number	List Price
24X3	DWTMR212-24X3	\$112.34
27X2	DWTMR212-27X2	\$112.34
27X3	DWTMR212-27X3	\$112.34
30X2	DWTMR212-30X2	\$112.34
30X3.5	DWTMR212-30X3.5	\$112.34
33X2	DWTMR212-33X2	\$112.34
33X3.5	DWTMR212-33X3.5	\$112.34
36X3	DWTMR212-36X3	\$112.34
36X4	DWTMR212-36X4	\$112.34
39X3	DWTMR212-39X3	\$112.34

Size	Part Number	List Price
33X3.5	DWTMR3-33X3.5	\$161.92
36X3	DWTMR3-36X3	\$161.92
36X4	DWTMR3-36X4	\$161.92
39X3	DWTMR3-39X3	\$161.92
39X4	DWTMR3-39X4	\$161.92



# DIES

## H.S.S. ROUND METRIC SPECIAL SIZES



### 1 3 / 16 " O D

Size	Part Number	List Price
1X.25	DWTSMR1316-1X.25	\$39.04
1.2X.2	DWTSMR1316-1.2X.2	\$39.04
1.4X.2	DWTSMR1316-1.4X.2	\$39.04
1.5X.3	DWTSMR1316-1.5X.3	\$39.04
1.7X.2	DWTSMR1316-1.7X.2	\$39.04
1.7X.35	DWTSMR1316-1.7X.35	\$39.04
2X.25	DWTSMR1316-2X.25	\$39.04

Size	Part Number	List Price
2.3X.4	DWTSMR1316-2.3X.4	\$39.04
2.5X.5	DWTSMR1316-2.5X.5	\$39.04
2.6X.45	DWTSMR1316-2.6X.45	\$39.04
3X.6	DWTSMR1316-3X.6	\$39.04
4X.5	DWTSMR1316-4X.5	\$39.04
4X.75	DWTSMR1316-4X.75	\$39.04
5X.75	DWTSMR1316-5X.75	\$39.04

Size	Part Number	List Price
5.5X.9	DWTSMR1316-5.5X.9	\$39.04
6X.5	DWTSMR1316-6X.5	\$39.04
6X1.25	DWTSMR1316-6X1.25	\$39.04
7X.75	DWTSMR1316-7X.75	\$39.04
8X1.5	DWTSMR1316-8X1.5	\$39.04

### 1 " O D

Size	Part Number	List Price
1.2X.25	DWTSMR1-1.2X.25	\$48.81
1.4X.3	DWTSMR1-1.4X.3	\$48.81
2.6X.45	DWTSMR1-2.6X.45	\$48.81
3X.6	DWTSMR1-3X.6	\$48.81
3.5X.5	DWTSMR1-3.5X.5	\$48.81
4X.5	DWTSMR1-4X.5	\$48.81
4X.75	DWTSMR1-4X.75	\$48.81
4.5X.5	DWTSMR1-4.5X.5	\$48.81
5X.5	DWTSMR1-5X.5	\$48.81
5X.7	DWTSMR1-5X.7	\$48.81
5X.75	DWTSMR1-5X.75	\$48.81
5X.9	DWTSMR1-5X.9	\$48.81
5X1	DWTSMR1-5X1	\$48.81
5.5X.5	DWTSMR1-5.5X.5	\$48.81
5.5X.9	DWTSMR1-5.5X.9	\$48.81
6X.5	DWTSMR1-6X.5	\$48.81

Size	Part Number	List Price
6X.75	DWTSMR1-6X.75	\$48.81
6X1.25	DWTSMR1-6X1.25	\$48.81
6.3X1	DWTSMR1-6.3X1	\$48.81
7X.5	DWTSMR1-7X.5	\$48.81
7X.75	DWTSMR1-7X.75	\$48.81
7X1.25	DWTSMR1-7X1.25	\$48.81
8X.5	DWTSMR1-8X.5	\$48.81
8X.75	DWTSMR1-8X.75	\$48.81
8X1.5	DWTSMR1-8X1.5	\$48.81
8X1.75	DWTSMR1-8X1.75	\$48.81
9X.5	DWTSMR1-9X.5	\$48.81
9X.75	DWTSMR1-9X.75	\$48.81
9X1	DWTSMR1-9X1	\$48.81
9X1.25	DWTSMR1-9X1.25	\$48.81
9X1.5	DWTSMR1-9X1.5	\$48.81
10X.5	DWTSMR1-10X.5	\$48.81

Size	Part Number	List Price
10X.75	DWTSMR1-10X.75	\$48.81
10X1	DWTSMR1-10X1	\$48.81
10X1.75	DWTSMR1-10X1.75	\$48.81
11X.5	DWTSMR1-11X.5	\$48.81
11X.75	DWTSMR1-11X.75	\$48.81
11X1	DWTSMR1-11X1	\$48.81
11X1.25	DWTSMR1-11X1.25	\$48.81
11X1.5	DWTSMR1-11X1.5	\$48.81
11X1.75	DWTSMR1-11X1.75	\$48.81
12X.5	DWTSMR1-12X.5	\$48.81
12X.75	DWTSMR1-12X.75	\$48.81
12X1	DWTSMR1-12X1	\$48.81
12X1.5	DWTSMR1-12X1.5	\$48.81
12X2	DWTSMR1-12X2	\$48.81

### 1 - 1 / 2 " O D

Size	Part Number	List Price
5X1	DWTSMR112-5X1	\$77.70
6X.75	DWTSMR112-6X.75	\$77.70
6X1.25	DWTSMR112-6X1.25	\$77.70
9X1	DWTSMR112-9X1	\$77.70
9X1.25	DWTSMR112-9X1.25	\$77.70
10X.75	DWTSMR112-10X.75	\$77.70
10X1	DWTSMR112-10X1	\$77.70
11X.75	DWTSMR112-11X.75	\$77.70
11X1	DWTSMR112-11X1	\$77.70
11X1.5	DWTSMR112-11X1.5	\$77.70
12X.75	DWTSMR112-12X.75	\$77.70
12X1	DWTSMR112-12X1	\$77.70
12X1.5	DWTSMR112-12X1.5	\$77.70
12X2	DWTSMR112-12X2	\$77.70
13X.5	DWTSMR112-13X.5	\$77.70
13X1	DWTSMR112-13X1	\$77.70
13X1.25	DWTSMR112-13X1.25	\$77.70
13X1.5	DWTSMR112-13X1.5	\$77.70
13X1.75	DWTSMR112-13X1.75	\$77.70

Size	Part Number	List Price
13X2	DWTSMR112-13X2	\$77.70
14X.5	DWTSMR112-14X.5	\$77.70
14X.75	DWTSMR112-14X.75	\$77.70
14X1	DWTSMR112-14X1	\$77.70
14X1.75	DWTSMR112-14X1.75	\$77.70
15X.5	DWTSMR112-15X.5	\$77.70
15X.75	DWTSMR112-15X.75	\$77.70
15X1	DWTSMR112-15X1	\$77.70
15X1.25	DWTSMR112-15X1.25	\$77.70
15X1.5	DWTSMR112-15X1.5	\$77.70
15X1.75	DWTSMR112-15X1.75	\$77.70
15X2	DWTSMR112-15X2	\$77.70
16X.5	DWTSMR112-16X.5	\$77.70
16X.75	DWTSMR112-16X.75	\$77.70
16X1	DWTSMR112-16X1	\$77.70
16X1.75	DWTSMR112-16X1.75	\$77.70
16X2.5	DWTSMR112-16X2.5	\$77.70
17X.5	DWTSMR112-17X.5	\$77.70
17X1	DWTSMR112-17X1	\$77.70

Size	Part Number	List Price
17X1.5	DWTSMR112-17X1.5	\$77.70
17X1.75	DWTSMR112-17X1.75	\$77.70
17X2	DWTSMR112-17X2	\$77.70
18X.5	DWTSMR112-18X.5	\$77.70
18X.75	DWTSMR112-18X.75	\$77.70
18X1	DWTSMR112-18X1	\$77.70
18X1.25	DWTSMR112-18X1.25	\$77.70
18X2	DWTSMR112-18X2	\$77.70
19X.5	DWTSMR112-19X.5	\$77.70
19X.75	DWTSMR112-19X.75	\$77.70
19X1	DWTSMR112-19X1	\$77.70
19X1.25	DWTSMR112-19X1.25	\$77.70
19X2	DWTSMR112-19X2	\$77.70
20X.5	DWTSMR112-20X.5	\$77.70
20X.75	DWTSMR112-20X.75	\$77.70
20X1	DWTSMR112-20X1	\$77.70
20X1.25	DWTSMR112-20X1.25	\$77.70
20X1.75	DWTSMR112-20X1.75	\$77.70
20X2	DWTSMR112-20X2	\$77.70

# DIES

## H . S . S . R O U N D M E T R I C S P E C I A L S I Z E S

### 2 " O D



Size	Part Number	List Price
18X1	DWTSMR2-18X1	\$140.08
18X2	DWTSMR2-18X2	\$140.08
20X1	DWTSMR2-20X1	\$140.08
20X2	DWTSMR2-20X2	\$140.08
21X1.25	DWTSMR2-21X1.25	\$140.08
21X1.75	DWTSMR2-21X1.75	\$140.08
21X2	DWTSMR2-21X2	\$140.08
22X1.25	DWTSMR2-22X1.25	\$140.08
22X2	DWTSMR2-22X2	\$140.08
23X1	DWTSMR2-23X1	\$140.08
23X2	DWTSMR2-23X2	\$140.08

Size	Part Number	List Price
23X2.5	DWTSMR2-23X2.5	\$140.08
24X1	DWTSMR2-24X1	\$140.08
24X1.5	DWTSMR2-24X1.5	\$140.08
24X2.5	DWTSMR2-24X2.5	\$140.08
25X1	DWTSMR2-25X1	\$140.08
25X1.5	DWTSMR2-25X1.5	\$140.08
25X2.5	DWTSMR2-25X2.5	\$140.08
25X3	DWTSMR2-25X3	\$140.08
26X1	DWTSMR2-26X1	\$140.08
26X1.5	DWTSMR2-26X1.5	\$140.08
26X2	DWTSMR2-26X2	\$140.08

Size	Part Number	List Price
26X2.5	DWTSMR2-26X2.5	\$140.08
26X3	DWTSMR2-26X3	\$140.08
27X1	DWTSMR2-27X1	\$140.08
27X1.25	DWTSMR2-27X1.25	\$140.08
27X1.5	DWTSMR2-27X1.5	\$140.08
27X2.5	DWTSMR2-27X2.5	\$140.08
28X1	DWTSMR2-28X1	\$140.08
28X2.5	DWTSMR2-28X2.5	\$140.08
30X1.5	DWTSMR2-30X1.5	\$140.08

### 2 - 1 / 2 " O D

Size	Part Number	List Price
24X1.5	DWTSMR212-24X1.5	\$215.00
26X1	DWTSMR212-26X1	\$215.00
26X1.5	DWTSMR212-26X1.5	\$215.00
26X2	DWTSMR212-26X2	\$215.00
26X2.5	DWTSMR212-26X2.5	\$215.00
26X3	DWTSMR212-26X3	\$215.00
27X1	DWTSMR212-27X1	\$215.00
27X2.5	DWTSMR212-27X2.5	\$215.00
28X1.5	DWTSMR212-28X1.5	\$215.00

Size	Part Number	List Price
28X2	DWTSMR212-28X2	\$215.00
30X1	DWTSMR212-30X1	\$215.00
30X1.25	DWTSMR212-30X1.25	\$215.00
30X1.5	DWTSMR212-30X1.5	\$215.00
30X2.5	DWTSMR212-30X2.5	\$215.00
30X3	DWTSMR212-30X3	\$215.00
32X1.5	DWTSMR212-32X1.5	\$215.00
32X2.5	DWTSMR212-32X2.5	\$215.00
32X3	DWTSMR212-32X3	\$215.00

Size	Part Number	List Price
33X1	DWTSMR212-33X1	\$215.00
34X1.5	DWTSMR212-34X1.5	\$215.00
34X3	DWTSMR212-34X3	\$215.00
34X3.5	DWTSMR212-34X3.5	\$215.00
36X1.5	DWTSMR212-36X1.5	\$215.00
36X2	DWTSMR212-36X2	\$215.00
38X1.5	DWTSMR212-38X1.5	\$215.00
38X3	DWTSMR212-38X3	\$215.00
38X4	DWTSMR212-38X4	\$215.00

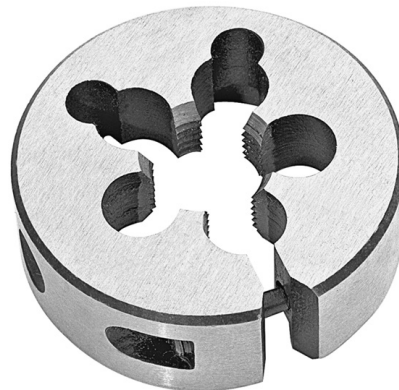
### 3 " O D

Size	Part Number	List Price
30X1.5	DWTSMR3-30X1.5	\$289.13
39X1.5	DWTSMR3-39X1.5	\$289.13
40X1.5	DWTSMR3-40X1.5	\$289.13
42X1.5	DWTSMR3-42X1.5	\$289.13
42X3	DWTSMR3-42X3	\$289.13
42X4.5	DWTSMR3-42X4.5	\$289.13

Size	Part Number	List Price
45X1.5	DWTSMR3-45X1.5	\$289.13
45X3	DWTSMR3-45X3	\$289.13
46X4.5	DWTSMR3-46X4.5	\$289.13
48X3	DWTSMR3-48X3	\$289.13
48X5	DWTSMR3-48X5	\$289.13

### 4 " O D

Size	Part Number	List Price
48X1.5	DWTSMR4-48X1.5	\$505.08
50X1.5	DWTSMR4-50X1.5	\$505.08



# DIES

## H.S.S. LEFT HAND ROUND STANDARD SIZES



### 1 3 / 16 " O D

Size	Part Number	List Price
2-56	DWTH1316-256LH	\$31.62
4-36	DWTH1316-436LH	\$31.62
4-40	DWTH1316-440LH	\$31.62
4-48	DWTH1316-448LH	\$31.62
5-40	DWTH1316-540LH	\$31.62
5-44	DWTH1316-544LH	\$31.62
6-32	DWTH1316-632LH	\$31.62
6-40	DWTH1316-640LH	\$31.62
8-32	DWTH1316-832LH	\$31.62
8-36	DWTH1316-836LH	\$31.62
10-24	DWTH1316-1024LH	\$31.62
10-32	DWTH1316-1032LH	\$31.62
12-24	DWTH1316-1224LH	\$31.62
12-28	DWTH1316-1228LH	\$31.62
1/4"-20	DWTH1316-1420LH	\$31.62
1/4"-28	DWTH1316-1428LH	\$31.62
5/16"-18	DWTH1316-51618LH	\$31.62
5/16"-24	DWTH1316-51624LH	\$31.62

### 1 " O D

Size	Part Number	List Price
5-44	DWTH1-544LH	\$36.28
6-32	DWTH1-632LH	\$36.28
6-40	DWTH1-640LH	\$36.28
8-32	DWTH1-832LH	\$36.28
8-36	DWTH1-836LH	\$36.28
10-24	DWTH1-1024LH	\$36.28
10-32	DWTH1-1032LH	\$36.28
12-24	DWTH1-1224LH	\$36.28
12-28	DWTH1-1228LH	\$36.28
1/4"-20	DWTH1-1420LH	\$36.28
1/4"-28	DWTH1-1428LH	\$36.28
5/16"-18	DWTH1-51618LH	\$36.28
5/16"-24	DWTH1-51624LH	\$36.28
3/8"-16	DWTH1-3816LH	\$36.28
3/8"-24	DWTH1-3824LH	\$36.28
7/16"-14	DWTH1-71614LH	\$36.28
7/16"-20	DWTH1-71620LH	\$36.28
1/2"-13	DWTH1-1213LH	\$36.28
1/2"-20	DWTH1-1220LH	\$36.28

### 1 - 1 / 2 " O D

Size	Part Number	List Price
1/4"-20	DWTH112-1420LH	\$56.54
1/4"-28	DWTH112-1428LH	\$56.54
5/16"-18	DWTH112-51618LH	\$56.54
5/16"-24	DWTH112-51624LH	\$56.54
3/8"-16	DWTH112-3816LH	\$56.54
3/8"-24	DWTH112-3824LH	\$56.54
7/16"-14	DWTH112-71614LH	\$56.54
7/16"-20	DWTH112-71620LH	\$56.54
1/2"-13	DWTH112-1213LH	\$56.54
1/2"-20	DWTH112-1220LH	\$56.54
9/16"-12	DWTH112-91612LH	\$56.54
9/16"-18	DWTH112-91618LH	\$56.54
5/8"-11	DWTH112-5811LH	\$56.54
5/8"-18	DWTH112-5818LH	\$56.54
11/16"-11	DWTH112-111611LH	\$56.54
11/16"-16	DWTH112-111616LH	\$56.54
3/4"-10	DWTH112-3410LH	\$56.54
3/4"-16	DWTH112-3416LH	\$56.54

### 2 " O D

Size	Part Number	List Price
9/16"-12	DWTH2-91612LH	\$120.92
9/16"-18	DWTH2-91618LH	\$120.92
5/8"-11	DWTH2-5811LH	\$120.92
5/8"-18	DWTH2-5818LH	\$120.92
3/4"-10	DWTH2-3410LH	\$120.92
3/4"-16	DWTH2-3416LH	\$120.92
7/8"-14	DWTH2-7814LH	\$120.92
7/8"-9	DWTH2-789LH	\$120.92
1"-8	DWTH2-18LH	\$120.92
1"-12	DWTH2-112LH	\$120.92
1"-14	DWTH2-114LH	\$120.92

### 2 - 1 / 2 " O D

Size	Part Number	List Price
1-1/8"-7	DWTH212-1187LH	\$145.10
1-1/8"-12	DWTH212-11812LH	\$145.10
1-1/4"-7	DWTH212-1147LH	\$145.10
1-1/4"-12	DWTH212-11412LH	\$145.10
1-3/8"-6	DWTH212-1386LH	\$145.10
1-3/8"-12	DWTH212-13812LH	\$145.10
1-1/2"-6	DWTH212-1126LH	\$145.10
1-1/2"-12	DWTH212-11212LH	\$145.10



# ROUND DIES

## H.S.S. ROUND NPT THREAD



### 1" O D

Size	Part Number	List Price
1/16"NPT	DWTH1-116NPT	\$23.86
1/8"NPT	DWTH1-18NPT	\$23.86

### 1 - 1/2" O D

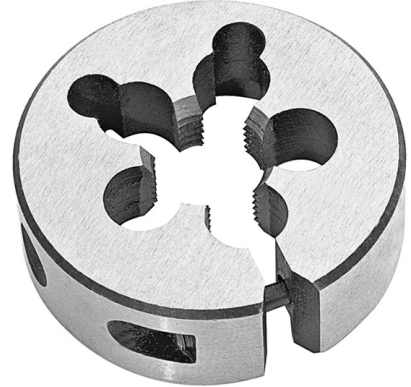
Size	Part Number	List Price
1/8"NPT	DWTH112-18NPT	\$38.38
1/4"NPT	DWTH112-14NPT	\$38.38
3/8"NPT	DWTH112-38NPT	\$38.38
1/2"NPT	DWTH112-12NPT	\$38.38

### 2" O D

Size	Part Number	List Price
3/8"NPT	DWTH2-38NPT	\$69.96
1/2"NPT	DWTH2-12NPT	\$69.96
3/4"NPT	DWTH2-34NPT	\$69.96

### 2 - 1/2" O D

Size	Part Number	List Price
3/4"NPT	DWTH212-34NPT	\$98.64
1"NPT	DWTH212-1NPT	\$98.64



## H.S.S. ROUND NPS THREAD

### 1" O D

Size	Part Number	List Price
1/16"NPS	DWTH1-116NPS	\$27.45
1/8"NPS	DWTH1-18NPS	\$27.45

### 1 - 1/2" O D

Size	Part Number	List Price
1/8"NPS	DWTH112-18NPS	\$41.61
1/4"NPS	DWTH112-14NPS	\$41.61
3/8"NPS	DWTH112-38NPS	\$41.61

### 2" O D

Size	Part Number	List Price
1/2"NPS	DWTH2-12NPS	\$84.83
3/4"NPS	DWTH2-34NPS	\$84.83

### 2 - 1/2" O D

Size	Part Number	List Price
1"NPS	DWTH212-1NPS	\$104.40

### 3" O D

Size	Part Number	List Price
1-1/4"NPS	DWTH3-114NPS	\$175.43
1-1/2"NPS	DWTH3-112NPS	\$175.43

## DIE STOCKS

Size	Part Number	List Price
5/8"	DWTDS5/8	\$10.54
13/16"	DWTDS13/16	\$11.10
1"	DWTDS1INCH	\$12.41
1-1/2"	DWTDS1-1/2	\$17.71
2"	DWTDS2INCH	\$24.38
2-1/2"	DWTDS2-1/2	\$47.86
3"	DWTDS3INCH	\$69.88

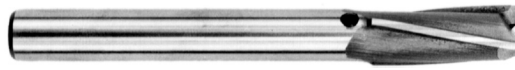


# COUNTERBORES

## DEWCBR Series - H.S.S.

Counterboring is the enlargement of a portion of a hole that has previously been formed. If the counterbored portion is shallow (1/8" or less), the operation is usually known as spot-facing; for example, a flat seat for a bolt head or nut. If, on the other hand, the hole is enlarged to a considerable depth, it is designated as counterboring. These counterbores are made of two-piece construction, having an integral shank and counterbore-cutter, and a pilot that is interchangeable, which provides flexibility in the use of the tool.

### STRAIGHT SHANK



\*Pilots can be found on page 73.

Size	O.A.L.	Shank Size	Pilot	Part Number	List Price	Size	O.A.L.	Shank Size	Pilot	Part Number	List Price
3/16"	3"	15/64"	3/32"	DEWCBR3/16	\$35.52	51/64"	5-3/8"	5/8"	1/4"	DEWCBR51/64	\$68.67
13/64"	3"	15/64"	3/32"	DEWCBR13/64	\$40.76	13/16"	5-3/8"	5/8"	1/4"	DEWCBR13/16	\$62.68
7/32"	3"	15/64"	3/32"	DEWCBR7/32	\$35.52	53/64"	5-3/8"	3/4"	1/4"	DEWCBR53/64	\$73.21
15/64"	3"	15/64"	3/32"	DEWCBR15/64	\$40.76	27/32"	5-3/8"	3/4"	1/4"	DEWCBR27/32	\$68.81
1/4"	3-13/16"	15/64"	3/32"	DEWCBR1/4	\$38.26	55/64"	5-3/8"	3/4"	1/4"	DEWCBR55/64	\$73.21
17/64"	3-13/16"	17/64"	3/32"	DEWCBR17/64	\$40.76	7/8"	5-3/8"	3/4"	1/4"	DEWCBR7/8	\$65.65
9/32"	3-13/16"	17/64"	3/32"	DEWCBR9/32	\$38.26	57/64"	6-1/8"	3/4"	1/4"	DEWCBR57/64	\$75.13
19/64"	3-13/16"	17/64"	3/32"	DEWCBR19/64	\$42.40	29/32"	6-1/8"	3/4"	1/4"	DEWCBR29/32	\$68.89
5/16"	3-13/16"	19/64"	3/32"	DEWCBR5/16	\$39.19	59/64"	6-1/8"	3/4"	1/4"	DEWCBR59/64	\$75.13
21/64"	3-13/16"	5/16"	3/32"	DEWCBR21/64	\$43.86	15/16"	6-1/8"	3/4"	1/4"	DEWCBR15/16	\$68.89
11/32"	3-13/16"	5/16"	3/32"	DEWCBR11/32	\$40.17	61/64"	6-3/8"	3/4"	1/4"	DEWCBR61/64	\$82.89
23/64"	4-1/16"	5/16"	3/32"	DEWCBR23/64	\$43.86	31/32"	6-3/8"	3/4"	5/16"	DEWCBR31/32	\$82.58
3/8"	4-1/16"	5/16"	5/32"	DEWCBR3/8	\$40.17	63/64"	6-3/8"	3/4"	5/16"	DEWCBR63/64	\$86.37
25/64"	4-1/16"	3/8"	5/32"	DEWCBR25/64	\$44.99	1"	6-3/8"	3/4"	5/16"	DEWCBR1INCH	\$82.58
13/32"	4-1/16"	3/8"	5/32"	DEWCBR13/32	\$42.53	1-1/16"	6-3/8"	3/4"	5/16"	DEWCBR1-1/16	\$94.73
27/64"	4-1/16"	3/8"	5/32"	DEWCBR27/64	\$44.99	1-1/8"	6-3/8"	1"	5/16"	DEWCBR1-1/8	\$98.73
7/16"	4-1/16"	3/8"	5/32"	DEWCBR7/16	\$42.53	1-3/16"	6-3/8"	1"	5/16"	DEWCBR1-3/16	\$103.45
29/64"	4-5/16"	7/16"	5/32"	DEWCBR29/64	\$48.14	1-1/4"	6-5/8"	1"	3/8"	DEWCBR1-1/4	\$121.41
15/32"	4-5/16"	7/16"	3/16"	DEWCBR15/32	\$44.96	1-5/16"	6-5/8"	1"	3/8"	DEWCBR1-5/16	\$138.16
31/64"	4-5/16"	7/16"	3/16"	DEWCBR31/64	\$48.14	1-3/8"	6-5/8"	1"	3/8"	DEWCBR1-3/8	\$138.16
1/2"	4-5/16"	7/16"	3/16"	DEWCBR1/2	\$44.96	1-7/16"	7-7/8"	1-1/4"	3/8"	DEWCBR1-7/16	\$154.85
33/64"	4-5/16"	1/2"	3/16"	DEWCBR33/64	\$54.20	1-1/2"	7-7/8"	1-1/4"	3/8"	DEWCBR1-1/2	\$154.85
17/32"	4-5/16"	1/2"	3/16"	DEWCBR17/32	\$49.97	1-9/16"	8-1/8"	1-1/4"	7/16"	DEWCBR1-9/16	\$210.99
35/64"	4-5/16"	1/2"	3/16"	DEWCBR35/64	\$56.39	1-5/8"	8-1/8"	1-1/4"	7/16"	DEWCBR1-5/8	\$210.99
9/16"	4-5/16"	1/2"	3/16"	DEWCBR9/16	\$49.97	1-11/16"	8-1/8"	1-1/4"	7/16"	DEWCBR1-11/16	\$226.88
37/64"	5-1/8"	1/2"	3/16"	DEWCBR37/64	\$59.10	1-3/4"	8-1/8"	1-1/4"	7/16"	DEWCBR1-3/4	\$226.88
19/32"	5-1/8"	1/2"	3/16"	DEWCBR19/32	\$53.31	1-13/16"	8-1/8"	1-1/4"	7/16"	DEWCBR1-13/16	\$249.70
39/64"	5-1/8"	1/2"	3/16"	DEWCBR39/64	\$59.10	1-7/8"	8-1/8"	1-1/4"	7/16"	DEWCBR1-7/8	\$249.70
5/8"	5-1/8"	1/2"	3/16"	DEWCBR5/8	\$53.31	1-15/16"	8-1/8"	1-1/4"	7/16"	DEWCBR1-15/16	\$282.30
41/64"	5-1/8"	1/2"	3/16"	DEWCBR41/64	\$63.10	2"	8-3/8"	1-1/2"	1/2"	DEWCBR2INCH	\$282.30
21/32"	5-1/8"	1/2"	3/16"	DEWCBR21/32	\$58.90	2-1/8"	9-7/8"	1-1/2"	1/2"	DEWCBR2-1/8	\$353.34
43/64"	5-1/8"	1/2"	3/16"	DEWCBR43/64	\$63.10	2-1/4"	9-7/8"	1-1/2"	1/2"	DEWCBR2-1/4	\$376.30
11/16"	5-1/8"	1/2"	3/16"	DEWCBR11/16	\$58.90	2-3/8"	9-7/8"	1-1/2"	1/2"	DEWCBR2-3/8	\$403.87
45/64"	5-3/8"	1/2"	1/4"	DEWCBR45/64	\$64.66	2-1/2"	9-7/8"	1-3/4"	1/2"	DEWCBR2-1/2	\$429.99
23/32"	5-3/8"	1/2"	1/4"	DEWCBR23/32	\$61.25	2-5/8"	9-7/8"	1-3/4"	1/2"	DEWCBR2-5/8	\$529.95
47/64"	5-3/8"	1/2"	1/4"	DEWCBR47/64	\$64.66	2-3/4"	9-7/8"	1-3/4"	1/2"	DEWCBR2-3/4	\$561.65
3/4"	5-3/8"	1/2"	1/4"	DEWCBR3/4	\$61.25	2-7/8"	9-7/8"	1-3/4"	1/2"	DEWCBR2-7/8	\$584.36
49/64"	5-3/8"	5/8"	1/4"	DEWCBR49/64	\$68.67	3"	9-7/8"	1-3/4"	1/2"	DEWCBR3INCH	\$605.96
25/32"	5-3/8"	5/8"	1/4"	DEWCBR25/32	\$64.66						

### SOLID COUNTERBORES

For fillister head cap screws.



### MACHINE SCREW

### FRACTIONAL

Screw Size	Pilot Dia.	Cut Dia.	O.A.L.	Part Number	List Price	Pilot Dia.	Cut Dia.	Shank Dia.	O.A.L.	Part Number	List Price
2	.085	.155	2-1/2"	DEWCBRSOL2	\$12.93	1/4"	13/32"	5/16"	3-5/8"	DEWCBRSOL1/4	\$31.49
3	.098	.176	2-1/2"	DEWCBRSOL3	\$13.55	5/16"	15/32"	3/8"	4"	DEWCBRSOL5/16	\$33.02
4	.111	.198	2-5/8"	DEWCBRSOL4	\$14.05	3/8"	19/32"	7/16"	4-3/8"	DEWCBRSOL3/8	\$36.80
5	.124	.220	2-5/8"	DEWCBRSOL5	\$16.53	7/16"	21/32"	1/2"	4-3/4"	DEWCBRSOL7/16	\$41.88
6	.137	.241	2-5/8"	DEWCBRSOL6	\$17.63	1/2"	25/32"	9/16"	5-1/4"	DEWCBRSOL1/2	\$45.95
8	.163	.285	2-3/4"	DEWCBRSOL8	\$18.29						
10	.189	.328	2-7/8"	DEWCBRSOL10	\$18.86						
12	.215	.372	3"	DEWCBRSOL12	\$22.33						

# COUNTERBORES

## TAPER SHANK



Size	O.A.L.	Shank Size	Pilot Hole	Part Number	List Price
1/4"	3-13/16"	1MT	3/32"	DEWCBRTS1/4	\$39.40
9/32"	3-13/16"	1MT	3/32"	DEWCBRTS9/32	\$39.40
5/16"	3-13/16"	1MT	3/32"	DEWCBRTS5/16	\$40.49
3/8"	4-1/16"	1MT	5/32"	DEWCBRTS3/8	\$40.57
7/16"	4-1/16"	1MT	5/32"	DEWCBRTS7/16	\$42.94
1/2"	4-5/16"	1MT	3/16"	DEWCBRTS1/2	\$44.09
9/16"	4-5/16"	1MT	3/16"	DEWCBRTS9/16	\$49.44
5/8"	5-1/8"	2MT	3/16"	DEWCBRTS5/8	\$52.71
11/16"	5-1/8"	2MT	3/16"	DEWCBRTS11/16	\$57.87
3/4"	5-3/8"	2MT	1/4"	DEWCBRTS3/4	\$60.03
13/16"	5-3/8"	2MT	1/4"	DEWCBRTS13/16	\$63.39
27/32"	5-3/8"	2MT	1/4"	DEWCBRTS27/32	\$66.38
7/8"	5-3/8"	2MT	1/4"	DEWCBRTS7/8	\$66.38
15/16"	6-1/8"	3MT	1/4"	DEWCBRTS15/16	\$69.60
1"	6-3/8"	3MT	5/16"	DEWCBRTS1INCH	\$83.41
1-1/16"	6-3/8"	3MT	5/16"	DEWCBRTS1-1/16	\$95.75
1-1/8"	6-3/8"	3MT	5/16"	DEWCBRTS1-1/8	\$99.85
1-3/16"	6-3/8"	3MT	5/16"	DEWCBRTS1-3/16	\$104.44
1-1/4"	6-5/8"	3MT	3/8"	DEWCBRTS1-1/4	\$122.67
1-5/16"	6-5/8"	3MT	3/8"	DEWCBRTS1-5/16	\$130.12

Size	O.A.L.	Shank Size	Pilot Hole	Part Number	List Price
1-3/8"	6-5/8"	3MT	3/8"	DEWCBRTS1-3/8	\$135.37
1-7/16"	7-7/8"	4MT	3/8"	DEWCBRTS1-7/16	\$151.83
1-1/2"	7-7/8"	4MT	3/8"	DEWCBRTS1-1/2	\$151.83
1-9/16"	8-1/8"	4MT	7/16"	DEWCBRTS1-9/16	\$206.74
1-5/8"	8-1/8"	4MT	7/16"	DEWCBRTS1-5/8	\$206.74
1-11/16"	8-1/8"	4MT	7/16"	DEWCBRTS1-11/16	\$222.46
1-3/4"	8-1/8"	4MT	7/16"	DEWCBRTS1-3/4	\$222.46
1-13/16"	8-1/8"	4MT	7/16"	DEWCBRTS1-13/16	\$244.80
1-7/8"	8-1/8"	4MT	7/16"	DEWCBRTS1-7/8	\$244.80
1-15/16"	8-1/8"	4MT	7/16"	DEWCBRTS1-15/16	\$276.82
2"	8-3/8"	4MT	1/2"	DEWCBRTS2INCH	\$276.82
2-1/8"	9-7/8"	5MT	1/2"	DEWCBRTS2-1/8	\$359.08
2-1/4"	9-7/8"	5MT	1/2"	DEWCBRTS2-1/4	\$382.42
2-3/8"	9-7/8"	5MT	1/2"	DEWCBRTS2-3/8	\$410.44
2-1/2"	9-7/8"	5MT	1/2"	DEWCBRTS2-1/2	\$436.98
2-5/8"	9-7/8"	5MT	1/2"	DEWCBRTS2-5/8	\$538.57
2-3/4"	9-7/8"	5MT	1/2"	DEWCBRTS2-3/4	\$570.78
2-7/8"	9-7/8"	5MT	1/2"	DEWCBRTS2-7/8	\$593.86
3"	9-7/8"	5MT	1/2"	DEWCBRTS3INCH	\$615.80

## CONTINUOUS PILOT CAPSCREW COUNTERBORES



Size	Pilot Dia.	Cutter Dia.	Shank Dia.	O.A.L.	Part Number	List Price
5	.141	.221	3/16"	3"	DEWCSCBR5	\$32.78
6	.150	.242	7/32"	3"	DEWCSCBR6	\$32.78
8	11/64"	19/64"	1/4"	3"	DEWCSCBR8	\$32.78
10	13/64"	21/64"	5/16"	3-1/2"	DEWCSCBR10	\$34.68
1/4"	9/32"	13/32"	3/8"	5"	DEWCSCBR1/4	\$41.15
5/16"	11/32"	1/2"	7/16"	5"	DEWCSCBR5/16	\$44.38
3/8"	13/32"	19/32"	1/2"	6"	DEWCSCBR3/8	\$52.18

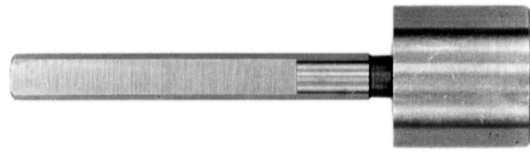
Size	Pilot Dia.	Cutter Dia.	Shank Dia.	O.A.L.	Part Number	List Price
7/16"	15/32"	11/16"	1/2"	7"	DEWCSCBR7/16	\$59.08
1/2"	17/32"	25/32"	3/4"	7-1/2"	DEWCSCBR1/2	\$65.40
5/8"	21/32"	31/32"	3/4"	7-1/2"	DEWCSCBR5/8	\$91.56
3/4"	13/16"	1-3/16"	1"	8"	DEWCSCBR3/4	\$135.80
7/8"	15/16"	1-3/8"	1"	8"	DEWCSCBR7/8	\$203.85
1"	1-1/16"	1-9/16"	1"	8"	DEWCSCBR1INCH	\$247.35

## AIRCRAFT COUNTERBORES (1/4" SHANK)

Size	Decimal Equivalent	Pilot Hole	O.A.L.	Part Number	List Price
1/4"	.2500	3/32"	2-3/8"	DEWA/CCBR1/4	\$41.09
9/32"	.2813	3/32"	2-3/8"	DEWA/CCBR9/32	\$41.89
5/16"	.3125	3/32"	2-3/8"	DEWA/CCBR5/16	\$42.38
11/32"	.3438	3/32"	2-3/8"	DEWA/CCBR11/32	\$43.23
3/8"	.3750	3/32"	2-3/8"	DEWA/CCBR3/8	\$43.23
13/32"	.4063	1/8"	2-13/16"	DEWA/CCBR13/32	\$47.44
7/16"	.4375	1/8"	2-13/16"	DEWA/CCBR7/16	\$45.52
15/32"	.4688	1/8"	2-13/16"	DEWA/CCBR15/32	\$46.93
1/2"	.5000	1/8"	2-13/16"	DEWA/CCBR1/2	\$47.77
17/32"	.5313	1/8"	2-13/16"	DEWA/CCBR17/32	\$54.77
9/16"	.5625	1/8"	2-13/16"	DEWA/CCBR9/16	\$55.75
19/32"	.5938	1/8"	2-13/16"	DEWA/CCBR19/32	\$59.48
5/8"	.6250	1/8"	2-13/16"	DEWA/CCBR5/8	\$59.49
21/32"	.6563	3/16"	3-1/8"	DEWA/CCBR21/32	\$64.88
11/16"	.6875	3/16"	3-1/8"	DEWA/CCBR11/16	\$65.65
23/32"	.7188	3/16"	3-1/8"	DEWA/CCBR23/32	\$68.29
3/4"	.7500	3/16"	3-1/8"	DEWA/CCBR3/4	\$68.33
25/32"	.7813	3/16"	3-1/8"	DEWA/CCBR25/32	\$72.19
13/16"	.8125	3/16"	3-1/8"	DEWA/CCBR13/16	\$69.90
27/32"	.8438	3/16"	3-1/8"	DEWA/CCBR27/32	\$73.22
7/8"	.8750	3/16"	3-1/8"	DEWA/CCBR7/8	\$73.23
29/32"	.9063	3/16"	3-1/8"	DEWA/CCBR29/32	\$76.88
15/16"	.9375	3/16"	3-1/8"	DEWA/CCBR15/16	\$76.89
31/32"	.9688	3/16"	3-1/8"	DEWA/CCBR31/32	\$92.16
1"	1.0000	3/16"	3-1/8"	DEWA/CCBR1	\$92.90



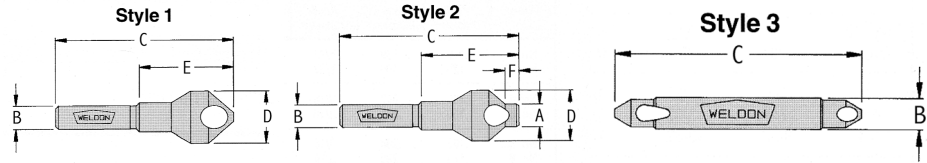
# PILOTS FOR COUNTERBORES



Size	Shank Diameter	O.A.L.	Part Number	List Price
1/8"	3/32"	1-1/4"	DEWPIL1/8X3/32	\$8.04
1/8"	1/8"	1-1/2"	DEWPIL1/8X1/8	\$8.04
5/32"	3/32"	1-1/4"	DEWPIL5/32X3/32	\$8.04
5/32"	1/8"	1-1/2"	DEWPIL5/32X1/8	\$8.04
5/32"	5/32"	1-1/2"	DEWPIL5/32X5/32	\$8.04
3/16"	3/32"	1-1/4"	DEWPIL3/16X3/32	\$8.04
3/16"	1/8"	1-1/2"	DEWPIL3/16X1/8	\$8.04
3/16"	5/32"	1-1/2"	DEWPIL3/16X5/32	\$8.04
3/16"	3/16"	1-3/4"	DEWPIL3/16X3/16	\$8.04
7/32"	3/32"	1-1/4"	DEWPIL7/32X3/32	\$9.27
7/32"	1/8"	1-1/2"	DEWPIL7/32X1/8	\$9.27
7/32"	5/32"	1-1/2"	DEWPIL7/32X5/32	\$9.27
7/32"	3/16"	1-3/4"	DEWPIL7/32X3/16	\$9.27
1/4"	3/32"	1-1/4"	DEWPIL1/4X3/32	\$9.27
1/4"	1/8"	1-1/2"	DEWPIL1/4X1/8	\$9.27
1/4"	5/32"	1-1/2"	DEWPIL1/4X5/32	\$9.27
1/4"	3/16"	1-3/4"	DEWPIL1/4X3/16	\$9.27
1/4"	1/4"	1-7/8"	DEWPIL1/4X1/4	\$9.27
9/32"	3/32"	1-1/4"	DEWPIL9/32X3/32	\$9.97
9/32"	1/8"	1-1/2"	DEWPIL9/32X1/8	\$9.97
9/32"	5/32"	1-1/2"	DEWPIL9/32X5/32	\$9.97
9/32"	3/16"	1-3/4"	DEWPIL9/32X3/16	\$9.97
5/16"	3/32"	1-1/4"	DEWPIL5/16X3/32	\$9.97
5/16"	1/8"	1-1/2"	DEWPIL5/16X1/8	\$9.97
5/16"	5/32"	1-1/2"	DEWPIL5/16X5/32	\$9.97
5/16"	3/16"	1-3/4"	DEWPIL5/16X3/16	\$9.97
5/16"	1/4"	1-7/8"	DEWPIL5/16X1/4	\$9.97
11/32"	3/32"	1-1/4"	DEWPIL11/32X3/32	\$9.97
11/32"	1/8"	1-1/2"	DEWPIL11/32X1/8	\$9.97
11/32"	3/16"	1-3/4"	DEWPIL11/32X3/16	\$9.97
11/32"	1/4"	1-7/8"	DEWPIL11/32X1/4	\$9.97
3/8"	3/32"	1-1/4"	DEWPIL3/8X3/32	\$9.97
3/8"	1/8"	1-1/2"	DEWPIL3/8X1/8	\$9.97
3/8"	5/32"	1-1/2"	DEWPIL3/8X5/32	\$9.97
3/8"	3/16"	1-3/4"	DEWPIL3/8X3/16	\$9.97
3/8"	1/4"	1-7/8"	DEWPIL3/8X1/4	\$9.97
3/8"	5/16"	2-1/8"	DEWPIL3/8X5/16	\$9.97
13/32"	1/8"	1-1/2"	DEWPIL13/32X1/8	\$11.19
13/32"	5/32"	1-1/2"	DEWPIL13/32X5/32	\$11.19
13/32"	3/16"	1-1/2"	DEWPIL13/32X3/16	\$11.19
13/32"	1/4"	1-7/8"	DEWPIL13/32X1/4	\$11.19
13/32"	5/16"	2-1/8"	DEWPIL13/32X5/16	\$11.19
13/32"	3/8"	2-3/8"	DEWPIL13/32X3/8	\$11.19
7/16"	3/32"	1-1/4"	DEWPIL7/16X3/32	\$11.19
7/16"	1/8"	1-1/2"	DEWPIL7/16X1/8	\$11.19
7/16"	5/32"	1-1/2"	DEWPIL7/16X5/32	\$11.19
7/16"	3/16"	1-3/4"	DEWPIL7/16X3/16	\$11.19
7/16"	1/4"	1-7/8"	DEWPIL7/16X1/4	\$11.19
7/16"	5/16"	2-1/8"	DEWPIL7/16X5/16	\$11.19
7/16"	3/8"	2-3/8"	DEWPIL7/16X3/8	\$11.19
15/32"	1/8"	1-1/2"	DEWPIL15/32X1/8	\$11.19
15/32"	3/16"	1-1/2"	DEWPIL15/32X3/16	\$11.19
15/32"	1/4"	1-7/8"	DEWPIL15/32X1/4	\$11.19
15/32"	5/16"	2-1/8"	DEWPIL15/32X5/16	\$11.19
1/2"	3/32"	1-1/4"	DEWPIL1/2X3/32	\$11.19
1/2"	1/8"	1-1/2"	DEWPIL1/2X1/8	\$11.19

Size	Shank Diameter	O.A.L.	Part Number	List Price
1/2"	5/32"	1-1/2"	DEWPIL1/2X5/32	\$11.19
1/2"	3/16"	1-3/4"	DEWPIL1/2X3/16	\$11.19
1/2"	1/4"	1-7/8"	DEWPIL1/2X1/4	\$11.19
1/2"	5/16"	2-1/8"	DEWPIL1/2X5/16	\$11.19
1/2"	3/8"	2-3/8"	DEWPIL1/2X3/8	\$11.19
1/2"	7/16"	2-5/8"	DEWPIL1/2X7/16	\$11.19
9/16"	3/16"	1-3/4"	DEWPIL9/16X3/16	\$14.28
9/16"	1/4"	1-7/8"	DEWPIL9/16X1/4	\$14.28
9/16"	5/16"	2-1/8"	DEWPIL9/16X5/16	\$14.28
9/16"	3/8"	2-3/8"	DEWPIL9/16X3/8	\$14.28
9/16"	7/16"	2-5/8"	DEWPIL9/16X7/16	\$14.28
9/16"	1/2"	2-3/4"	DEWPIL9/16X1/2	\$14.28
5/8"	3/16"	1-3/4"	DEWPIL5/8X3/16	\$17.19
5/8"	1/4"	1-7/8"	DEWPIL5/8X1/4	\$17.19
5/8"	5/16"	2-1/8"	DEWPIL5/8X5/16	\$17.19
5/8"	3/8"	2-3/8"	DEWPIL5/8X3/8	\$17.19
5/8"	7/16"	2-5/8"	DEWPIL5/8X7/16	\$17.19
5/8"	1/2"	2-3/4"	DEWPIL5/8X1/2	\$17.19
11/16"	1/4"	1-7/8"	DEWPIL11/16X1/4	\$18.26
11/16"	5/16"	2-1/8"	DEWPIL11/16X5/16	\$18.26
11/16"	3/8"	2-3/8"	DEWPIL11/16X3/8	\$18.26
11/16"	1/2"	2-3/4"	DEWPIL11/16X1/2	\$18.26
3/4"	3/16"	1-3/4"	DEWPIL3/4X3/16	\$19.33
3/4"	1/4"	1-7/8"	DEWPIL3/4X1/4	\$19.33
3/4"	5/16"	2-1/8"	DEWPIL3/4X5/16	\$19.33
3/4"	3/8"	2-3/8"	DEWPIL3/4X3/8	\$19.33
3/4"	7/16"	2-5/8"	DEWPIL3/4X7/16	\$19.33
3/4"	1/2"	2-3/4"	DEWPIL3/4X1/2	\$19.33
13/16"	1/4"	1-7/8"	DEWPIL13/16X1/4	\$21.73
13/16"	5/16"	2-1/8"	DEWPIL13/16X5/16	\$21.73
13/16"	3/8"	2-3/8"	DEWPIL13/16X3/8	\$21.73
13/16"	1/2"	2-3/4"	DEWPIL13/16X1/2	\$21.73
7/8"	1/4"	1-7/8"	DEWPIL7/8X1/4	\$23.15
7/8"	5/16"	2-1/8"	DEWPIL7/8X5/16	\$23.15
7/8"	3/8"	2-3/8"	DEWPIL7/8X3/8	\$23.15
7/8"	7/16"	2-5/8"	DEWPIL7/8X7/16	\$23.15
7/8"	1/2"	2-3/4"	DEWPIL7/8X1/2	\$23.15
15/16"	5/16"	2-1/8"	DEWPIL15/16X5/16	\$26.20
15/16"	3/8"	2-3/8"	DEWPIL15/16X3/8	\$26.20
15/16"	7/16"	2-5/8"	DEWPIL15/16X7/16	\$26.20
15/16"	1/2"	2-3/4"	DEWPIL15/16X1/2	\$26.20
1"	1/4"	1-7/8"	DEWPIL1X1/4	\$27.82
1"	5/16"	2-1/8"	DEWPIL1X5/16	\$27.82
1"	3/8"	2-3/8"	DEWPIL1X3/8	\$27.82
1"	7/16"	2-5/8"	DEWPIL1X7/16	\$27.82
1"	1/2"	2-3/4"	DEWPIL1X1/2	\$27.82
1-1/8"	5/16"	2-1/8"	DEWPIL1-1/8X5/16	\$34.64
1-1/8"	3/8"	2-3/8"	DEWPIL1-1/8X3/8	\$34.64
1-1/8"	7/16"	2-5/8"	DEWPIL1-1/8X7/16	\$34.64
1-1/8"	1/2"	2-3/4"	DEWPIL1-1/8X1/2	\$34.64
1-3/16"	3/8"	2-3/8"	DEWPIL1-3/16X3/8	\$36.85
1-3/16"	7/16"	1-7/8"	DEWPIL1-3/16X7/16	\$36.85
1-3/16"	1/2"	2-1/8"	DEWPIL1-3/16X1/2	\$36.85
1-5/16"	3/8"	2-3/8"	DEWPIL1-5/16X3/8	\$42.92
1-5/16"	7/16"	1-7/8"	DEWPIL1-5/16X7/16	\$42.92
1-5/16"	1/2"	2-1/8"	DEWPIL1-5/16X1/2	\$42.92

# COUNTERSINKS & DEBURRING TOOLS



## 60° DEBURRING TOOLS

Style	Diameter of Cut		Shank B	O.A.L.			Part Number	List Price
	Min.	Max.		C	D	E		
3	3/32"	11/64"	3/16"	1-1/2"			WELDC-6	\$21.56
3	1/8"	15/64"	1/4"	1-3/4"			WELDC-8	\$22.67
1	3/16"	13/32"	1/4"	1-3/4"	7/16"	7/8"	WELDC-14	\$25.93
1	5/16"	17/32"	1/4"	1-15/16"	9/16"	1-1/16"	WELDC-18	\$31.96
1	7/16"	25/32"	1/2"	2-11/16"	13/16"	1-7/16"	WELDC-26	\$55.32
1	7/16"	25/32"	1/4"	2-1/8"	13/16"	1-1/4"	WELDC-26A	\$55.32
1	11/16"	1-3/32"	1/2"	2-7/8"	1-1/8"	1-5/8"	WELDC-36	\$94.33

## PILOTED 82° COUNTERSINKS

Style	Screw Size	Pilot A	Shank B	O.A.L.			Part Number	List Price	
				C	D	E			
2	1/4"	1/4"	3/8"	2"	33/64"	1"	5/32"	WELCS8-1	\$34.52
2	1/4"	17/64"	3/8"	2"	33/64"	1"	5/32"	WELCS8-2	\$34.52
2	5/16"	5/16"	3/8"	2-3/16"	41/64"	1-3/16"	5/32"	WELCS10-1	\$41.24
2	5/16"	21/64"	3/8"	2-3/16"	41/64"	1-3/16"	5/32"	WELCS10-2	\$41.24
2	3/8"	3/8"	1/2"	2-5/8"	49/64"	1-3/8"	5/32"	WELCS12-1	\$54.74
2	3/8"	25/64"	1/2"	2-5/8"	49/64"	1-3/8"	5/32"	WELCS12-2	\$54.74
2	7/16"	7/16"	1/2"	2-3/4"	53/64"	1-1/2"	7/32"	WELCS14-1	\$68.13
2	7/16"	29/64"	1/2"	2-3/4"	53/64"	1-1/2"	7/32"	WELCS14-2	\$68.13
2	1/2"	1/2"	1/2"	2-13/16"	15/16"	1-9/16"	1/4"	WELCS16-1	\$70.81
2	1/2"	33/64"	1/2"	2-13/16"	15/16"	1-9/16"	1/4"	WELCS16-2	\$70.81

## PILOTLESS 82° COUNTERSINKS

Style	Diameter of Cut		Shank B	O.A.L.			Part Number	List Price
	Min.	Max.		C	D	E		
3	.073"	15/64"	1/4"	1-3/4"			WELCS-3S	\$23.80
1	3/16"	17/32"	1/4"	1-7/8"	9/16"	1"	WELCS-18	\$29.79
1	.307"	25/32"	1/2"	2-5/8"	13/16"	1-3/8"	WELCS-26	\$51.70
1	.307"	25/32"	1/4"	2-1/16"	13/16"	1-1/4"	WELCS-26A	\$51.70
1	.431"	7/8"	1/2"	2-13/16"	1-1/8"	1-9/16"	WELCS-36	\$87.83
1	1/2"	1-15/32"	1/2"	3-1/2"	1-1/2"	2-1/8"	WELCS-48	\$200.47

Style	Screw Size	Pilot A	Shank B	O.A.L.			Part Number	List Price
				C	D	E		
1	4,5		1/4"	1-1/2"	17/64"	5/8"	WELCS-5S	\$17.17
1	6		1/4"	1-1/2"	19/64"	5/8"	WELCS-6S	\$18.12
1	8		1/4"	1-5/8"	11/32"	3/4"	WELCS-8S	\$19.29
1	10		1/4"	1-5/8"	25/64"	3/4"	WELCS-10S	\$22.64

## 90° DEBURRING TOOLS

Style	Diameter of Cut		Shank B	O.A.L.			Part Number	List Price
	Min.	Max.		C	D	E		
3	1/64"	11/64"	3/16"	1-1/2"			WELDB-4	\$38.01
3	1/16"	11/64"	3/16"	1-1/2"			WELDB-6	\$19.92
3	1/8"	15/64"	1/4"	1-3/4"			WELDB-8	\$20.94
1	5/32"	13/32"	1/4"	1-11/16"	7/16"	13/16"	WELDB-14	\$23.71
1	3/16"	17/32"	1/4"	1-7/8"	9/16"	1"	WELDB-18	\$29.30
1	5/16"	25/32"	1/2"	2-19/32"	13/16"	1-3/8"	WELDB-26	\$50.98
1	5/16"	25/32"	1/4"	2-1/32"	13/16"	1-5/32"	WELDB-26A	\$50.98
1	9/16"	1-3/32"	1/2"	2-13/16"	1-1/8"	1-9/16"	WELDB-36	\$87.00
1	1/2"	1-15/32"	1/2"	3-1/2"	1-1/2"	2-1/8"	WELDB-48	\$198.32

## 100° COUNTERSINKS

Style	Diameter of Cut		Shank B	O.A.L.			Part Number	List Price
	Min.	Max.		C	D	E		
1	3/32"	1/4"	1/4"	1-1/2"	17/64"	5/8"	WELCSA-8	\$17.17
1	1/8"	27/64"	1/4"	1-11/16"	7/16"	13/16"	WELCSA-14	\$23.80
1	3/16"	35/64"	1/4"	1-7/8"	9/16"	1"	WELCSA-18	\$30.53



# H.S.S. COUNTERSINKS

## DEWSFC Series - Single Flute Countersinks



Single flute countersinks are ideal for chamfering, deburring, and countersinking. They provide a smooth finish on a variety of materials.

## DEWCSK Series - 3 Flute Countersinks

3 - Flute center reamers are designed for countersinking holes for centers or for enlarge existing holes.

## DEWMSK Series - 4 Flute Countersinks

4 - Flute countersinks or machine countersinks are designed for countersinking holes for centers or for enlarge existing holes.

## DEWCHAT Series - 6 Flute Countersinks

6 - Flute or chatterless countersinks are designed to provide more metal removal than the 1,2,3, & 4 flute countersinks. They are also more effective on harder materials.



### S I N G L E F L U T E H S S

Size	Shank Dia.	O.A.L.	60° Part #	82° Part #	90° Part #	100° Part #	120° Part #	List Price
3/16"	3/16"	1-1/2"	DEWSFC3/16-60	DEWSFC3/16-82	DEWSFC3/16-90	DEWSFC3/16-100	DEWSFC3/16-120	\$8.33
1/4"	1/4"	2"	DEWSFC1/4-60	DEWSFC1/4-82	DEWSFC1/4-90	DEWSFC1/4-100	DEWSFC1/4-120	\$9.14
5/16"	1/4"	2"	DEWSFC5/16-60	DEWSFC5/16-82	DEWSFC5/16-90	DEWSFC5/16-100	DEWSFC5/16-120	\$10.42
3/8"	1/4"	2"	DEWSFC3/8-60	DEWSFC3/8-82	DEWSFC3/8-90	DEWSFC3/8-100	DEWSFC3/8-120	\$10.42
1/2"	1/4"	2"	DEWSFC1/2-60	DEWSFC1/2-82	DEWSFC1/2-90	DEWSFC1/2-100	DEWSFC1/2-120	\$13.32
5/8"	3/8"	2-1/4"	DEWSFC5/8-60	DEWSFC5/8-82	DEWSFC5/8-90	DEWSFC5/8-100	DEWSFC5/8-120	\$18.74
3/4"	3/8"	2-3/4"	DEWSFC3/4-60	DEWSFC3/4-82	DEWSFC3/4-90	DEWSFC3/4-100	DEWSFC3/4-120	\$25.05
7/8"	1/2"	2-3/4"	DEWSFC7/8-60	DEWSFC7/8-82	DEWSFC7/8-90	DEWSFC7/8-100	DEWSFC7/8-120	\$42.65
1"	1/2"	2-3/4"	DEWSFC1-60	DEWSFC1-82	DEWSFC1-90	DEWSFC1-100	DEWSFC1-120	\$46.67
1-1/4"	3/4"	3-3/8"	DEWSFC1-1/4-60	DEWSFC1-1/4-82	DEWSFC1-1/4-90	DEWSFC1-1/4-100	DEWSFC1-1/4-120	\$70.77
1-1/2"	3/4"	3-3/8"	DEWSFC1-1/2-60	DEWSFC1-1/2-82	DEWSFC1-1/2-90	DEWSFC1-1/2-100	DEWSFC1-1/2-120	\$93.91
2"	3/4"	3-3/8"	DEWSFC2-60	DEWSFC2-82	DEWSFC2-90	DEWSFC2-100	DEWSFC2-120	\$179.94

### 3 F L U T E H S S ( C E N T E R R E A M E R S )

Size	Shank Dia.	O.A.L.	60° Part #	82° Part #	90° Part #	100° Part #	120° Part #	List Price
1/4"	3/16"	1-1/2"	DEWCSK1/4-60	DEWCSK1/4-82	DEWCSK1/4-90	DEWCSK1/4-100	DEWCSK1/4-120	\$8.46
3/8"	1/4"	1-3/4"	DEWCSK3/8-60	DEWCSK3/8-82	DEWCSK3/8-90	DEWCSK3/8-100	DEWCSK3/8-120	\$10.09
1/2"	3/8"	2"	DEWCSK1/2-60	DEWCSK1/2-82	DEWCSK1/2-90	DEWCSK1/2-100	DEWCSK1/2-120	\$12.28
1/2"	1/4"	2"		DEWCSK1/2-82x1/4				\$12.28
5/8"	3/8"	2-1/4"	DEWCSK5/8-60	DEWCSK5/8-82	DEWCSK5/8-90	DEWCSK5/8-100	DEWCSK5/8-120	\$19.02
3/4"	1/2"	2-5/8"	DEWCSK3/4-60	DEWCSK3/4-82	DEWCSK3/4-90	DEWCSK3/4-100	DEWCSK3/4-120	\$28.04
7/8"	1/2"	2-3/4"	DEWCSK7/8-60	DEWCSK7/8-82	DEWCSK7/8-90	DEWCSK7/8-100	DEWCSK7/8-120	\$40.01
1"	1/2"	3-1/2"	DEWCSK1-60	DEWCSK1-82	DEWCSK1-90	DEWCSK1-100	DEWCSK1-120	\$42.21
1-1/4"	3/4"	3-1/2"	DEWCSK1-1/4-60	DEWCSK1-1/4-82				\$97.07
1-1/2"	3/4"	3-1/2"	DEWCSK1-1/2-60	DEWCSK1-1/2-82				\$125.79

### 4 F L U T E H S S ( M A C H I N E C O U N T E R S I N K S )

Size	Shank Dia.	O.A.L.	60° Part #	82° Part #	List Price
1/2"	1/2"	3-7/8"	DEWMSK1/2-60	DEWMSK1/2-82	\$25.65
5/8"	1/2"	4"	DEWMSK5/8-60	DEWMSK5/8-82	\$20.04
3/4"	1/2"	4-1/8"	DEWMSK3/4-60	DEWMSK3/4-82	\$39.66
7/8"	1/2"	4-1/4"	DEWMSK7/8-60	DEWMSK7/8-82	\$48.43
1"	1/2"	4-3/8"	DEWMSK1-60	DEWMSK1-82	\$47.56
1-1/4"	1/2"	5"	DEWMSK1-1/4-60	DEWMSK1-1/4-82	\$102.28
1-1/2"	1/2"	5-3/8"	DEWMSK1-1/2-60	DEWMSK1-1/2-82	\$132.53
2"	1/2"	5-3/8"	DEWMSK2-60	DEWMSK2-82	\$212.32

# H.S.S. COUNTERSINKS

## 6 FLUTE HSS ( CHATTERLESS COUNTERSINKS )



Size	Shank Diameter	O.A.L.	60° Part #	82° Part #	90° Part #	List Price
3/16"	3/16"	1-1/2"	DEWCHAT3/16-60	DEWCHAT3/16-82	DEWCHAT3/16-90	\$10.69
1/4"	1/4"	2"	DEWCHAT1/4-60	DEWCHAT1/4-82	DEWCHAT1/4-90	\$11.25
5/16"	1/4"	2"	DEWCHAT5/16-60	DEWCHAT5/16-82	DEWCHAT5/16-90	\$12.28
3/8"	1/4"	2"	DEWCHAT3/8-60	DEWCHAT3/8-82	DEWCHAT3/8-90	\$14.60
1/2"	1/4"	2"	DEWCHAT1/2-60	DEWCHAT1/2-82	DEWCHAT1/2-90	\$18.07
5/8"	1/2"	2-1/2"	DEWCHAT5/8-60	DEWCHAT5/8-82	DEWCHAT5/8-90	\$26.32
3/4"	1/2"	2-3/4"	DEWCHAT3/4-60	DEWCHAT3/4-82	DEWCHAT3/4-90	\$38.89
7/8"	1/2"	2-3/4"	DEWCHAT7/8-60	DEWCHAT7/8-82	DEWCHAT7/8-90	\$47.27
1"	1/2"	2-3/4"	DEWCHAT1-60	DEWCHAT1-82	DEWCHAT1-90	\$56.72
1-1/4"	3/4"	3-3/8"	DEWCHAT1-1/4-60	DEWCHAT1-1/4-82	DEWCHAT1-1/4-90	\$88.21
1-1/2"	3/4"	3-1/2"	DEWCHAT1-1/2-60	DEWCHAT1-1/2-82	DEWCHAT1-1/2-90	\$125.51
1-3/4"	1"	4-1/4"	DEWCHAT1-3/4-60	DEWCHAT1-3/4-82	DEWCHAT1-3/4-90	\$173.48
2"	1"	4-3/8"	DEWCHAT2-60	DEWCHAT2-82	DEWCHAT2-90	\$202.58

Size	Shank Dia.	O.A.L.	100° Part #	120° Part #	List Price
3/16"	3/16"	1-1/2"	DEWCHAT3/16-100	DEWCHAT3/16-120	\$14.50
1/4"	1/4"	2"	DEWCHAT1/4-100	DEWCHAT1/4-120	\$15.98
5/16"	1/4"	2"	DEWCHAT5/16-100	DEWCHAT5/16-120	\$23.71
3/8"	1/4"	2"	DEWCHAT3/8-100	DEWCHAT3/8-120	\$22.97
1/2"	1/4"	2"	DEWCHAT1/2-100	DEWCHAT1/2-120	\$29.30
5/8"	1/2"	2-1/2"	DEWCHAT5/8-100	DEWCHAT5/8-120	\$44.26
3/4"	1/2"	2-3/4"	DEWCHAT3/4-100	DEWCHAT3/4-120	\$57.17
7/8"	1/2"	2-3/4"	DEWCHAT7/8-100	DEWCHAT7/8-120	\$71.15
1"	1/2"	2-3/4"	DEWCHAT1-100	DEWCHAT1-120	\$82.40
1-1/4"	3/4"	3-3/8"	DEWCHAT1-1/4-100	DEWCHAT1-1/4-120	\$139.61
1-1/2"	3/4"	3-1/2"	DEWCHAT1-1/2-100	DEWCHAT1-1/2-120	\$197.28
2"	1"	4-3/8"	DEWCHAT2-100	DEWCHAT2-120	\$316.70

# THREADED SHANK COUNTERSINKS

## TSC Series - H.S.S.

Countersink cutters may be used in all popular adjustable or micro-stop countersinking units utilizing a 1/4"-28 threaded shank drive. Made from the finest high speed tool steel. Precision ground to exacting tolerances and form relieved to insure concentricity of 100° countersink angle.

### 3 / 8 " Body Diameter

Pilot Size	Dec. Equiv.	Part Number	List Price
40	.0980	TSC3/8-40	\$15.45
30	.1285	TSC3/8-30	\$15.45
27	.1440	TSC3/8-27	\$15.45
26	.1470	TSC3/8-26	\$15.45
5/32"	.1562	TSC3/8-5/32	\$15.45
22	.1570	TSC3/8-22	\$15.45
21	.1590	TSC3/8-21	\$15.45
20	.1610	TSC3/8-20	\$15.45
19	.1660	TSC3/8-19	\$15.45
16	.1770	TSC3/8-16	\$15.45
13	.1850	TSC3/8-13	\$15.45
3/16"	.1875	TSC3/8-3/16	\$15.45
12	.1890	TSC3/8-12	\$15.45
10	.1935	TSC3/8-10	\$15.45
8	.1990	TSC3/8-8	\$15.45
7	.2010	TSC3/8-7	\$15.45
6	.2040	TSC3/8-6	\$15.45
D	.2460	TSC3/8-D	\$15.45
1/4"	.2500	TSC3/8-1/4	\$15.45
5/16"	.3125	TSC3/8-5/16	\$15.45

### 7 / 16 " Body Diameter

Pilot Size	Dec. Equiv.	Part Number	List Price
40	.0980	TSC7/16-40	\$15.45
1/8"	.1250	TSC7/16-1/8	\$15.45
30	.1285	TSC7/16-30	\$15.45
27	.1440	TSC7/16-27	\$15.45
5/32"	.1562	TSC7/16-5/32	\$15.45
21	.1590	TSC7/16-21	\$15.45
19	.1660	TSC7/16-19	\$15.45
3/16"	.1875	TSC7/16-3/16	\$15.45
12	.1890	TSC7/16-12	\$15.45
11	.1910	TSC7/16-11	\$15.45
10	.1935	TSC7/16-10	\$15.45
1/4"	.2500	TSC7/16-1/4	\$15.45
5/16"	.3125	TSC7/16-5/16	\$15.45

### 1 / 2 " Body Diameter

Pilot Size	Dec. Equiv.	Part Number	List Price
3/32"	.0938	TSC1/2-3/32	\$15.45
40	.0980	TSC1/2-40	\$15.45
1/8	.1250	TSC1/2-1/8	\$15.45
30	.1285	TSC1/2-30	\$15.45
27	.1440	TSC1/2-27	\$15.45
5/32"	.1562	TSC1/2-5/32	\$15.45
21	.1590	TSC1/2-21	\$15.45
20	.1610	TSC1/2-20	\$15.45
16	.1770	TSC1/2-16	\$15.45
13	.1850	TSC1/2-13	\$15.45
3/16"	.1875	TSC1/2-3/16	\$15.45
12	.1890	TSC1/2-12	\$15.45
11	.1910	TSC1/2-11	\$15.45
10	.1935	TSC1/2-10	\$15.45
8	.1990	TSC1/2-8	\$15.45
7	.2010	TSC1/2-7	\$15.45
13/64"	.2031	TSC1/2-13/64	\$15.45
6	.2040	TSC1/2-6	\$15.45
5	.2055	TSC1/2-5	\$15.45
4	.2090	TSC1/2-4	\$15.45
3	.2130	TSC1/2-3	\$15.45
7/32"	.2188	TSC1/2-7/32	\$15.45
A	.2340	TSC1/2-A	\$15.45
15/64"	.2344	TSC1/2-15/64	\$15.45
D	.2460	TSC1/2-D	\$15.45
1/4"	.2500	TSC1/2-1/4	\$15.45
G	.2610	TSC1/2-G	\$15.45
J	.2770	TSC1/2-J	\$15.45
9/32"	.2812	TSC1/2-9/32	\$15.45
N	.3020	TSC1/2-N	\$15.45
O	.3090	TSC1/2-O	\$15.45
5/16"	.3125	TSC1/2-5/16	\$15.45
P	.3230	TSC1/2-P	\$15.45
R	.3390	TSC1/2-R	\$15.45
3/8"	.3750	TSC1/2-3/8	\$15.45



### 9 / 16 " Body Diameter

Pilot Size	Dec. Equiv.	Part Number	List Price
1/4"	.2500	TSC9/16-1/4	\$27.47
.374	.3740	TSC9/16-.374	\$27.47
.390	.3900	TSC9/16-.390	\$27.47
.405	.4050	TSC9/16-.405	\$27.47

### 5 / 8 " Body Diameter

Pilot Size	Dec. Equiv.	Part Number	List Price
40	.0980	TSC5/8-40	\$24.90
30	.1285	TSC5/8-30	\$24.90
21	.1590	TSC5/8-21	\$24.90
13	.1850	TSC5/8-13	\$24.90
3/16"	.1875	TSC5/8-3/16	\$24.90
10	.1935	TSC5/8-10	\$24.90
D	.2460	TSC5/8-D	\$24.90
1/4"	.2500	TSC5/8-1/4	\$24.90
G	.2610	TSC5/8-G	\$24.90
.309	.3090	TSC5/8-.309	\$24.90
5/16"	.3125	TSC5/8-5/16	\$24.90
.325	.3250	TSC5/8-.325	\$24.90
R	.3390	TSC5/8-R	\$24.90
.345	.3450	TSC5/8-.345	\$24.90
.371	.3710	TSC5/8-.371	\$24.90
3/8"	.3750	TSC5/8-3/8	\$24.90
Y	.4040	TSC5/8-Y	\$24.90
.488	.4880	TSC5/8-.488	\$24.90

### 3 / 4 " Body Diameter

Pilot Size	Dec. Equiv.	Part Number	List Price
3/16"	.1875	TSC3/4-3/16	\$61.80
1/4"	.2500	TSC3/4-1/4	\$61.80
5/16"	.3125	TSC3/4-5/16	\$61.80
3/8"	.3750	TSC3/4-3/8	\$61.80
7/16"	.4375	TSC3/4-7/16	\$61.80

# COUNTERSINK CAGES

Part Number	Shank	Thread Shaft	Cutter Capacity	R.P.M.	Additional Info.	List Price
GLB3610	1/4"	1/4"-28	1/2"	3,000	MIDGET	\$60.00
GLB3620	1/4"-28	1/4"-28	1/2"	3,000	-	\$60.00
GLB3650	1/4"	1/4"-28	9/16"	10,000	NYLON FOOTPIECE	\$87.50
GLB3600	1/4"	1/4"-28	9/16"	3,000	NYLON FOOTPIECE	\$60.00
GLB3630	1/4"	1/4"-28	5/8"	10,000	HD	\$78.25
GLB3590	1/4"	1/4"-28	5/8"	3,000	-	\$60.00
GLB3660	1/4"	1/4"-28	5/8"	3,000	HD, NYLON FOOTPIECE	\$87.50
GLB3670	1/4"	1/4"-28	5/8"	3,000	W/ NEEDLE BEARING	\$87.50
GLB3580	3/8"	3/8"-24	1-1/4"	3,000	-	\$278.00
GLB3680	3/8"	3/8"-24	1-3/8"	3,000	-	\$278.00

## CUTTER CAPACITY

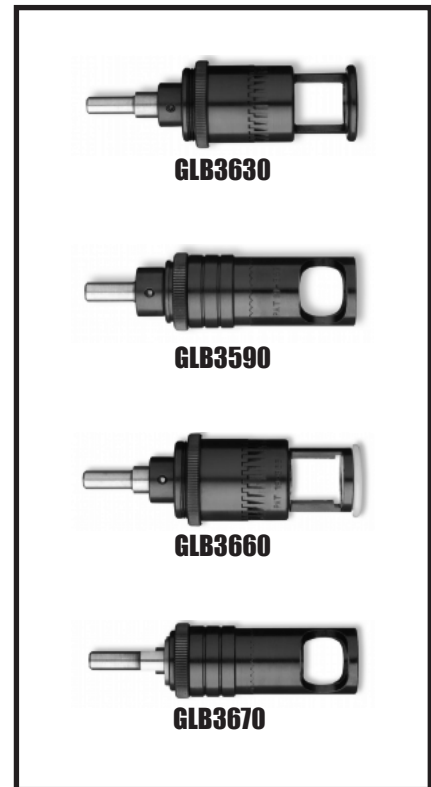
**1/2"**



**9/16"**



**5/8"**



**1-1/4"**



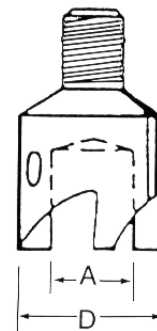
**1-3/8"**



## HOLLOW CUTTERS

These one piece cutters are used for collar removal on Hi-Shear fasteners. They come with a 1/4-28" shank.

Fastener Size	D	A	Fastener Type	Part Number	List Price
1/8"	.365	.1240	Hi-Shear	TSC1/8HC	\$20.60
5/32"	.365	.1570	Hi-Shear	TSC5/32HC	\$20.60
3/16"	.438	.1875	Hi-Shear	TSC3/16HC	\$20.60
1/4"	.500	.2470	Hi-Shear	TSC1/4HC	\$20.60
5/16"	.562	.3100	Hi-Shear	TSC5/16HC	\$20.60
3/8"	.625	.3730	Hi-Shear	TSC3/8HC	\$20.60
7/16"	.750	.4340	Hi-Shear	TSC7/16HC	\$24.03



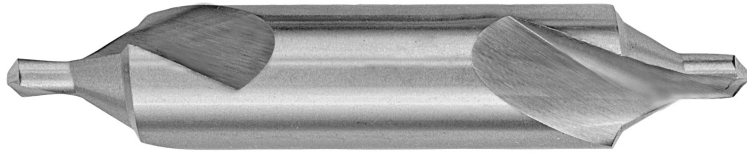
# COMBINED DRILL & C'SINK

## DEWCCD Series -

Used for producing center holes in work pieces which require machining between centers.



**H . S . S . L O N G**



**H . S . S .**

Size	Body Dia.	Point Dia.	Point Length	O.A.L.	Part Number	List Price
3-0	1/8"	0.020	0.020	1-1/4"	DEWCCD000	\$5.93
2-0	1/8"	0.025	0.025	1-1/4"	DEWCCD00	\$3.91
0	1/8"	1/32"	1/32"	1-1/4"	DEWCCD0	\$3.91
1	1/8"	3/64"	3/64"	1-1/4"	DEWCCD1	\$3.16
2	3/16"	5/64"	5/64"	1-7/8"	DEWCCD2	\$3.16
3	1/4"	7/64"	7/64"	2"	DEWCCD3	\$3.16
4	5/16"	1/8"	1/8"	2-1/8"	DEWCCD4	\$3.16
5	7/16"	3/16"	3/16"	2-3/4"	DEWCCD5	\$5.13
6	1/2"	7/32"	7/32"	2-3/4"	DEWCCD6	\$7.65
7	5/8"	1/4"	1/4"	3-1/4"	DEWCCD7	\$10.24
8	3/4"	5/16"	5/16"	3-1/2"	DEWCCD8	\$13.96
		#1-5	Set		DEWCCDS1-5	\$17.82
		#1-6	Set		DEWCCDS1-6	\$25.25

Size	O.A.L.	Part Number	List Price
1	3"	DEW1X3	\$14.52
1	4"	DEW1X4	\$15.15
1	5"	DEW1X5	\$21.09
1	6"	DEW1X6	\$27.58
2	4"	DEW2X4	\$16.61
2	5"	DEW2X5	\$21.09
2	6"	DEW2X6	\$27.58
3	4"	DEW3X4	\$17.46
3	5"	DEW3X5	\$23.03
3	6"	DEW3X6	\$27.92
4	4"	DEW4X4	\$19.23
4	5"	DEW4X5	\$24.55
4	6"	DEW4X6	\$28.43
5	4"	DEW5X4	\$24.55
5	5"	DEW5X5	\$28.38
5	6"	DEW5X6	\$31.68
6	5"	DEW6X5	\$29.95
6	6"	DEW6X6	\$36.15
7	6"	DEW7X6	\$65.76
8	6"	DEW8X6	\$72.27



## SOLID CARBIDE

Size	Cut Diameter	Shank Diameter	O.A.L.	Part Number	List Price
0	1/32"	1/8"	1-1/2"	DMOCCD0-60	\$35.88
1	3/64"	1/8"	1-1/2"	DMOCCD1-60	\$29.89
2	5/64"	3/16"	2"	DMOCCD2-60	\$37.51
3	7/64"	1/4"	2"	DMOCCD3-60	\$47.25
4	1/8"	5/16"	2-1/8"	DMOCCD4-60	\$64.48
5	3/16"	7/16"	2-3/4"	DMOCCD5-60	\$94.80
6	7/32"	1/2"	3"	DMOCCD6-60	\$130.45



# SCREW EXTRACTORS

Screw extractors are used expressly for removing broken or seized screws.

Size	Bolt Size	Pipe Size	Small End	Large End	Flute Length	Drill Size	O.A.L.	Part Number	List Price
1	3/16"	-	1/16"	1/8"	1/2"	5/64"	2"	DEWEZ1	\$2.28
2	1/4"	-	3/32"	13/64"	7/8"	7/64"	2-3/8"	DEWEZ2	\$2.45
3	5/16"	-	1/8"	1/4"	1"	5/32"	2-11/16"	DEWEZ3	\$3.02
4	7/16"	-	3/16"	11/32"	1-1/4"	1/4"	3"	DEWEZ4	\$3.16
5	9/16" - 3/4"	1/8" - 1/4"	1/4"	7/16"	1-1/2"	17/64"	3-3/8"	DEWEZ5	\$3.94
6	3/4" - 1"	3/8"	3/8"	19/32"	1-3/4"	13/32"	3-3/4"	DEWEZ6	\$8.81
7	1" - 1-3/8"	1/2"	1/2"	25/32"	2-1/4"	17/32"	4-1/8"	DEWEZ7	\$14.17
8	1-3/8" - 1-3/4"	3/4"	3/4"	1-1/32"	2-1/4"	13/16"	4-3/8"	DEWEZ8	\$19.31
9	1-3/4" - 2-1/8"	1"	1"	1-9/32"	2-1/4"	1-1/16"	4-5/8"	DEWEZ9	\$33.62
10	2-1/8" - 2-1/2"	1-1/4"	1-1/4"	1-9/16"	2-1/2"	1-5/16"	5"	DEWEZ10	\$46.89
11	2-1/2" - 3"	1-1/2"	1-1/2"	1-7/8"	3"	1-9/16"	5-5/8"	DEWEZ11	\$70.31
12	3" - 3-1/2"	2"	1-27/32"	2-5/16"	3-1/2"	1-15/16"	6-1/4"	DEWEZ12	\$113.66

## SETS

Size Range	Part Number	List Price
1-5	DEWEZS1-5	\$16.29
1-6	DEWEZS1-6	\$26.74
6-9	DEWEZS6-9	\$82.46
*1-6	DEWEZS1-6W/DRL	\$47.09
1-9	DEWEZS1-9	\$97.24

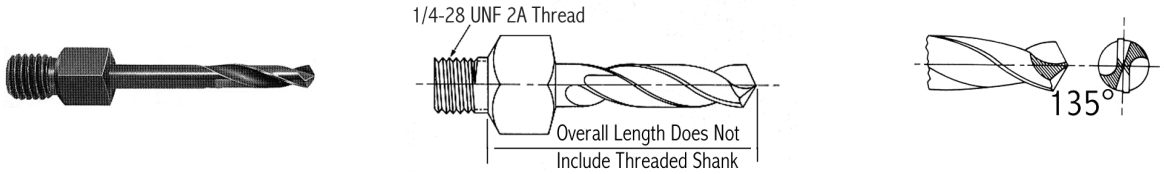
\*Set Includes corresponding drills



# THREADED SHANK DRILLS

## TSD Series

Type "D" adapter drills are made from **M42 8% cobalt high speed** steel and are manufactured to NAS 965 Type "D" specifications with 135° heavy duty split point and surface treated for drilling hard, tough, high tensile strength materials. When drilling low tensile strength materials, the Type "D" cobalt drill will have significantly greater tool life than the NAS 965 Type "B", high speed steel adapter drill, resulting in a much lower cost per hole.



## WIRE GAUGE SIZES

### Stubby Series

### Short Series

### Long Series

Size	Dec. Equiv.	Metric Equiv.	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price
1	.2280	5.79mm	TSD1ST	5/8"	\$8.76	TSD1S	1-1/4"	\$8.75	TSD1L	2-1/8"	\$8.64
2	.2210	5.61mm	TSD2ST	5/8"	\$8.26	TSD2S	1-1/4"	\$7.79	TSD2L	2-1/8"	\$8.03
3	.2130	5.41mm	TSD3ST	5/8"	\$8.22	TSD3S	1-1/4"	\$6.84	TSD3L	2-1/8"	\$7.21
4	.2090	5.31mm	TSD4ST	5/8"	\$7.47	TSD4S	1-1/4"	\$7.05	TSD4L	2-1/8"	\$7.43
5	.2055	5.22mm	TSD5ST	5/8"	\$7.47	TSD5S	1-1/4"	\$7.05	TSD5L	2-1/8"	\$7.43
6	.2040	5.18mm	TSD6ST	5/8"	\$8.17	TSD6S	1-1/4"	\$7.28	TSD6L	2-1/8"	\$7.52
7	.2010	5.11mm	TSD7ST	5/8"	\$6.91	TSD7S	1-1/4"	\$6.44	TSD7L	2-1/8"	\$6.68
8	.1990	5.06mm	TSD8ST	5/8"	\$6.63	TSD8S	1-1/4"	\$5.58	TSD8L	2-1/8"	\$6.53
9	.1960	4.98mm	TSD9ST	5/8"	\$6.91	TSD9S	1-1/4"	\$6.44	TSD9L	2-1/8"	\$8.52
10	.1935	4.92mm	TSD10ST	5/8"	\$6.77	TSD10S	1-1/4"	\$5.88	TSD10L	2-1/8"	\$6.16
11	.1910	4.85mm	TSD11ST	5/8"	\$6.58	TSD11S	1-1/4"	\$6.19	TSD11L	2-1/8"	\$6.54
12	.1890	4.80mm	TSD12ST	5/8"	\$6.63	TSD12S	1-1/4"	\$6.34	TSD12L	2-1/8"	\$6.54
13	.1850	4.70mm	TSD13ST	5/8"	\$6.23	TSD13S	1-1/4"	\$6.23	TSD13L	2-1/8"	\$6.17
14	.1820	4.62mm	TSD14ST	5/8"	\$7.24	TSD14S	1-1/4"	\$7.00	TSD14L	2-1/8"	\$7.12
15	.1800	4.57mm	TSD15ST	5/8"	\$7.24	TSD15S	1-1/4"	\$7.00	TSD15L	2-1/8"	\$9.09
16	.1770	4.50mm	TSD16ST	5/8"	\$6.19	TSD16S	1-1/4"	\$5.77	TSD16L	2-1/8"	\$6.09
17	.1730	4.39mm	TSD17ST	5/8"	\$6.14	TSD17S	1-1/4"	\$5.70	TSD17L	2-1/8"	\$8.00
18	.1695	4.30mm	TSD18ST	5/8"	\$6.89	TSD18S	1-1/4"	\$5.63	TSD18L	2-1/8"	\$6.93
19	.1660	4.22mm	TSD19ST	5/8"	\$5.79	TSD19S	1-1/4"	\$5.00	TSD19L	2-1/8"	\$5.77
20	.1610	4.09mm	TSD20ST	5/8"	\$5.37	TSD20S	1-1/4"	\$5.00	TSD20L	2-1/8"	\$5.35
21	.1590	4.04mm	TSD21ST	5/8"	\$6.14	TSD21S	1-1/4"	\$5.00	TSD21L	2-1/8"	\$5.35
22	.1570	3.99mm	TSD22ST	5/8"	\$7.47	TSD22S	1-1/4"	\$5.60	TSD22L	2-1/8"	\$6.91
23	.1540	3.91mm	TSD23ST	5/8"	\$7.47	TSD23S	1-1/4"	\$5.59	TSD23L	2-1/8"	\$7.62
24	.1520	3.86mm	TSD24ST	5/8"	\$7.94	TSD24S	1-1/4"	\$5.60	TSD24L	2-1/8"	\$7.59
25	.1495	3.80mm	TSD25ST	5/8"	\$7.94	TSD25S	1-1/4"	\$6.77	TSD25L	2-1/8"	\$7.59
26	.1470	3.73mm	TSD26ST	9/16"	\$6.65	TSD26S	1-1/4"	\$6.77	TSD26L	2-1/8"	\$6.89
27	.1440	3.66mm	TSD27ST	9/16"	\$5.15	TSD27S	1-1/4"	\$5.09	TSD27L	2-1/8"	\$4.88
28	.1405	3.57mm	TSD28ST	9/16"	\$7.50	TSD28S	1-1/4"	\$6.77	TSD28L	2-1/8"	\$6.89
29	.1360	3.45mm	TSD29ST	9/16"	\$7.50	TSD29S	1-1/4"	\$6.78	TSD29L	2-1/8"	\$5.81
30	.1285	3.26mm	TSD30ST	9/16"	\$5.23	TSD30S	1-1/4"	\$4.39	TSD30L	2-1/8"	\$4.51
31	.1200	3.05mm	TSD31ST	9/16"	\$7.00	TSD31S	1-1/4"	\$5.03	TSD31L	2-1/8"	\$5.15
32	.1160	2.95mm	TSD32ST	9/16"	\$8.05	TSD32S	1-1/4"	\$6.19	TSD32L	2-1/8"	\$6.57
33	.1130	2.87mm	TSD33ST	9/16"	\$7.50	TSD33S	1-1/4"	\$6.65	TSD33L	2-1/8"	\$6.57
34	.1110	2.82mm	TSD34ST	9/16"	\$7.50	TSD34S	1-1/4"	\$6.19	TSD34L	2-1/8"	\$6.57
35	.1100	2.79mm	TSD35ST	9/16"	\$7.50	TSD35S	1-1/4"	\$6.65	TSD35L	2-1/8"	\$6.57
36	.1065	2.71mm	TSD36ST	9/16"	\$7.50	TSD36S	1-1/4"	\$6.19	TSD36L	2-1/8"	\$6.57
37	.1040	2.64mm	TSD37ST	9/16"	\$6.77	TSD37S	1-1/4"	\$6.19	TSD37L	2-1/8"	\$6.57
38	.1015	2.58mm	TSD38ST	9/16"	\$7.50	TSD38S	1-1/4"	\$6.57	TSD38L	2-1/8"	\$6.19
39	.0995	2.53mm	TSD39ST	9/16"	\$7.50	TSD39S	1-1/4"	\$6.57	TSD39L	2-1/8"	\$6.19
40	.0980	2.49mm	TSD40ST	1/2"	\$4.81	TSD40S	1"	\$3.81	TSD40L	2-1/8"	\$4.04
41	.0960	2.44mm	TSD41ST	1/2"	\$5.63	TSD41S	1"	\$5.72	TSD41L	2-1/8"	\$6.09
42	.0935	2.37mm	TSD42ST	1/2"	\$7.87	TSD42S	1"	\$5.72	TSD42L	2-1/8"	\$6.09
43	.0890	2.26mm	TSD43ST	1/2"	\$7.08	TSD43S	1"	\$5.72	TSD43L	2-1/8"	\$6.09
44	.0860	2.18mm	TSD44ST	1/2"	\$7.08	TSD44S	1"	\$5.72	TSD44L	2-1/8"	\$6.09
45	.0820	2.08mm	TSD45ST	1/2"	\$7.08	TSD45S	1"	\$5.72	TSD45L	2-1/8"	\$6.09
46	.0810	2.06mm	TSD46ST	1/2"	\$7.08	TSD46S	1"	\$5.72	TSD46L	2-1/8"	\$6.09
47	.0785	1.99mm	TSD47ST	1/2"	\$7.08	TSD47S	1"	\$6.40	TSD47L	2-1/8"	\$6.09
48	.0760	1.93mm	TSD48ST	1/2"	\$7.08	TSD48S	1"	\$5.72	TSD48L	2-1/8"	\$6.09
49	.0730	1.85mm	TSD49ST	1/2"	\$7.08	TSD49S	1"	\$6.40	TSD49L	2-1/8"	\$6.09
50	.0700	1.78mm	TSD50ST	1/2"	\$5.55	TSD50S	1"	\$4.86	TSD50L	2-1/8"	\$5.09

# THREADED SHANK DRILLS

## FRACTIONAL SIZES

Stubby Series					Short Series			Long Series			
Size	Dec. Equiv.	Metric Equiv.	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price
1/8"	.1250	3.17mm	TSD1/8ST	1/2"	\$5.93	TSD1/8S	1"	\$5.46	TSD1/8L	2-1/8"	\$5.70
5/32"	.1562	3.97mm	TSD5/32ST	9/16"	\$5.98	TSD5/32S	1-1/4"	\$5.52	TSD5/32L	2-1/8"	\$5.75
3/16"	.1875	4.76mm	TSD3/16ST	9/16"	\$6.63	TSD3/16S	1-1/4"	\$6.16	TSD3/16L	2-1/8"	\$6.39
7/32"	.2188	5.56mm	TSD7/32ST	5/8"	\$7.42	TSD7/32S	1-1/4"	\$6.96	TSD7/32L	2-1/8"	\$7.86
1/4"	.2500	6.35mm	TSD1/4ST	5/8"	\$8.12	TSD1/4S	1-1/4"	\$7.10	TSD1/4L	2-1/8"	\$6.94
5/16"	.3125	7.94mm	TSD5/16ST	5/8"	\$13.19	TSD5/16S	1-1/4"	\$12.42	TSD5/16L	2-1/8"	\$14.19
3/8"	.3750	9.52mm	TSD3/8ST	3/4"	\$14.64	TSD3/8S	1-1/4"	\$14.64	TSD3/8L	2-1/8"	\$14.64

## LETTER SIZES

Stubby Series					Short Series			Long Series			
Size	Dec. Equiv.	Metric Equiv.	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price
C	.2420	6.15mm	TSDCST	5/8"	\$8.75	TSDCS	1-1/4"	\$8.17	TSDCL	2-1/8"	\$9.34
D	.2460	6.25mm	TSDDST	5/8"	\$8.12	TSDDS	1-1/4"	\$7.37	TSDDL	2-1/8"	\$8.19
F	.2570	6.53mm	TSDFST	5/8"	\$8.43	TSDFS	1-1/4"	\$7.38	TSDFL	2-1/8"	\$8.50
G	.2610	6.63mm	TSDGST	5/8"	\$9.22	TSDGS	1-1/4"	\$7.69	TSDGL	2-1/8"	\$8.73
H	.2660	6.75mm	TSDHST	5/8"	\$9.80	TSDHS	1-1/4"	\$8.87	TSDHL	2-1/8"	\$11.44
J	.2770	7.03mm	TSDJST	5/8"	\$9.80	TSDJS	1-1/4"	\$9.24	TSDJL	2-1/8"	\$9.03
K	.2810	7.14mm	TSDKST	5/8"	\$9.80	TSDKS	1-1/4"	\$9.24	TSDKL	2-1/8"	\$8.54
L	.2900	7.37mm	TSDLST	5/8"	\$9.80	TSDLS	1-1/4"	\$9.10	TSDLL	2-1/8"	\$9.34
M	.2950	7.49mm	TSDMST	5/8"	\$9.34	TSDMS	1-1/4"	\$10.41	TSDML	2-1/8"	\$11.67
N	.3020	7.67mm	TSDNST	5/8"	\$9.34	TSDNS	1-1/4"	\$9.10	TSDNL	2-1/8"	\$9.34
O	.3160	8.03mm	TSDOST	5/8"	\$10.85	TSDOS	1-1/4"	\$10.41	TSDOL	2-1/8"	\$10.85

## SPECIAL LENGTHS

Very Stubby Series					Extra Long Series			
Size	Dec. Equiv.	Metric Equiv.	Part Number	O.A.L.	List Price	Part Number	O.A.L.	List Price
40	.0980	2.49mm	TSD40VS	3/8"	\$5.03	TSD40EL	2-1/2"	\$5.72
30	.1285	3.26mm	TSD30VS	3/8"	\$5.37	TSD30EL	2-3/4"	\$5.95
27	.1440	3.66mm	TSD27VS	3/8"	\$5.48	TSD27EL	3"	\$6.42
21	.1590	4.04mm	TSD21VS	3/8"	\$6.42	TSD21EL	3"	\$6.54
20	.1610	4.09mm	TSD20VS	3/8"	\$6.42	TSD20EL	3"	\$6.65
16	.1770	4.50mm	TSD16VS	3/8"	\$6.42	TSD16EL	3"	\$7.35
13	.1850	4.70mm	TSD13VS	3/8"	\$6.42	TSD13EL	3"	\$7.47
12	.1890	4.80mm	TSD12VS	3/8"	\$6.65	TSD12EL	3"	\$7.94
11	.1910	4.85mm	TSD11VS	3/8"	\$6.65	TSD11EL	3"	\$7.94
10	.1935	4.92mm	TSD10VS	3/8"	\$6.89	TSD10EL	3"	\$7.24
8	.1990	5.06mm	TSD8VS	3/8"	\$8.17	TSD8EL	3"	\$8.17
5	.2055	5.22mm	TSD5VS	3/8"	\$7.82	TSD5EL	3"	\$7.70
1/4"	.2500	6.35mm	TSD1/4VS	3/8"	\$8.52	TSD1/4EL	3"	\$8.17

# AIRCRAFT TAPER ROUTERS

## D/ATR Series

High Speed Steel Aircraft Taper Routers are designed for use in clearance cutting or routing, and are furnished with a right hand helix and right hand cut.

★★★Drill America★★★



D/ATR Series						
Size	Small End Dia.	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1	.0810	.0980	13/16"	2"	D/ATR-1	\$6.06
2	.1100	.1280	7/8"	2-1/4"	D/ATR-2	\$6.23
3	.1650	.1875	1-1/16"	2-1/2"	D/ATR-3	\$10.46
4	.2240	.2500	1-1/4"	2-3/4"	D/ATR-4	\$12.73

# PILOTED REAMERS

## PIL Series -

Designed for accurate reaming in most materials.

### STRAIGHT SHANK

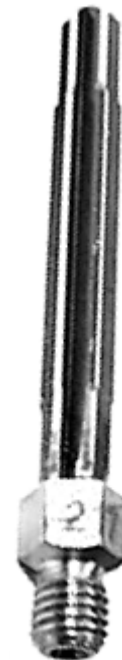
Reamer Diameter	Pilot Diameter	Number of Flutes	Flute Length	Pilot Length	O.A.L.	Part Number	List Price
.1590	.1280	6	1-1/8"	5/16"	4-1/2"	PIL.159X.128	\$56.25
.1840	.1610	6	1-1/8"	5/16"	4-1/2"	PIL.184X.161	\$56.25
.1875	.1590	6	1-1/8"	5/16"	4-1/2"	PIL.1875X.159	\$56.25
.1990	.1860	6	1-1/4"	5/16"	5"	PIL.199X.186	\$56.25
.2020	.1870	6	1-1/4"	5/16"	5"	PIL.202X.187	\$56.25
.2150	.2010	6	1-1/4"	5/16"	5"	PIL.215X.201	\$56.25
.2450	.2170	6	1-1/4"	5/16"	5"	PIL.245X.217	\$56.25
.2500	.2020	6	1-1/4"	5/16"	5"	PIL.250X.202	\$56.25
.2620	.2470	6	1-1/2"	5/16"	6"	PIL.262X.247	\$56.25
.2640	.2490	6	1-1/2"	5/16"	6"	PIL.264X.249	\$56.25
.2760	.2640	6	1-1/2"	5/16"	6"	PIL.276X.264	\$56.25
.2770	.2500	6	1-1/2"	5/16"	6"	PIL.277X.250	\$56.25
.3080	.2780	6	1-1/2"	5/16"	6"	PIL.308X.278	\$56.25
.3090	.2500	6	1-1/2"	5/16"	6"	PIL.309X.250	\$56.25
.3120	.2640	6	1-1/2"	5/16"	6"	PIL.312X.264	\$56.25
.3125	.2500	6	1-1/2"	5/16"	6"	PIL.3125X.250	\$56.25
.3230	.3100	6	1-1/2"	5/16"	6"	PIL.323X.310	\$56.25
.3260	.3120	6	1-1/2"	5/16"	6"	PIL.326X.312	\$56.25
.3260	.3125	6	1-1/2"	5/16"	6"	PIL.326X.3125	\$56.25
.3380	.3260	6	1-1/2"	5/16"	6"	PIL.338X.326	\$56.25
.3710	.3420	6	1-3/4"	5/16"	7"	PIL.371X.342	\$56.25
.3750	.3260	6	1-3/4"	5/16"	7"	PIL.375X.326	\$56.25
.3750	.3410	6	1-3/4"	5/16"	7"	PIL.375X.341	\$56.25
.3870	.3730	6	1-3/4"	1/2"	7"	PIL.387X.373	\$62.50
.3900	.3750	6	1-3/4"	1/2"	7"	PIL.390X.375	\$62.50
.4020	.3890	6	1-3/4"	1/2"	7"	PIL.402X.389	\$62.50
.4330	.4040	6	1-3/4"	1/2"	7"	PIL.433X.404	\$62.50
.4490	.4350	6	1-3/4"	1/2"	7"	PIL.449X.435	\$62.50
.4650	.4510	6	1-3/4"	1/2"	7"	PIL.465X.451	\$62.50
.4950	.4670	6	1-3/4"	1/2"	8"	PIL.495X.467	\$62.50



**OTHER SIZES AVAILABLE!  
Please Inquire!**

### 1 / 4 " - 2 8 T H R E A D E D S H A N K 2 " O . A . L .

Reamer Dia.	Pilot Dia.	Number of Flutes	Part Number	List Price
.1590	.1280	6	PIL.159X.128THD	\$71.88
.1840	.1610	6	PIL.184X.161THD	\$71.88
.1990	.1860	6	PIL.199X.186THD	\$71.88
.2020	.1870	6	PIL.202X.187THD	\$71.88
.2150	.2010	6	PIL.215X.201THD	\$71.88
.2450	.2170	6	PIL.245X.217THD	\$71.88
.2500	.2020	6	PIL.250X.202THD	\$71.88
.2620	.2470	6	PIL.262X.247THD	\$71.88
.2640	.2490	6	PIL.264X.249THD	\$71.88
.2760	.2640	6	PIL.276X.264THD	\$71.88
.3080	.2780	6	PIL.308X.278THD	\$71.88
.3120	.2640	6	PIL.312X.264THD	\$71.88
.3230	.3100	6	PIL.323X.310THD	\$71.88
.3260	.3120	6	PIL.326X.312THD	\$71.88
.3380	.3260	6	PIL.338X.326THD	\$71.88
.3710	.3420	6	PIL.371X.342THD	\$71.88
.3750	.3260	6	PIL.375X.326THD	\$71.88
.3870	.3730	6	PIL.387X.373THD	\$76.56
.3900	.3750	6	PIL.390X.375THD	\$76.56
.4020	.3890	6	PIL.402X.389THD	\$76.56
.4330	.4040	6	PIL.433X.404THD	\$76.56
.4490	.4350	6	PIL.449X.435THD	\$76.56
.4650	.4510	6	PIL.465X.451THD	\$76.56
.4950	.4670	6	PIL.495X.467THD	\$76.56



# CHUCKING REAMERS

DWRR Series - H.S.S. Straight Shank Straight Flute



DWRRSP Series - H.S.S. Straight Shank Spiral Flute

Chuckling Reamers are designed for accurate reaming in most materials using all types of equipment including screw machines, turret lathes, drill presses, and machining centers. They are regularly pointed with a 45° chamfer. The straight-flute design is recommended for most general purpose reaming. The right-hand spiral-flute reamer has the smooth, chatter-free action necessary for fine finishes. It is recommended over the straight-flute for more difficult materials, better surface requirements, and applications with an interruption such as a keyway or cross hole.

## F R A C T I O N A L   S I Z E S

### Straight Flute

### Spiral Flute

Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price	Part Number	List Price
3/64"	.0469"	2-1/2"	1/2"	DWRR3/64	\$13.64	-	-
1/16"	.0625"	2-1/2"	1/2"	DWRR1/16	\$12.43	DWRRSP1/16	\$13.26
5/64"	.0781"	3"	3/4"	DWRR5/64	\$11.47	DWRRSP5/64	\$13.26
3/32"	.0938"	3"	3/4"	DWRR3/32	\$9.83	DWRRSP3/32	\$11.72
7/64"	.1094"	3-1/2"	7/8"	DWRR7/64	\$11.47	DWRRSP7/64	\$13.26
1/8"	.1250"	3-1/2"	7/8"	DWRR1/8	\$12.68	DWRRSP1/8	\$16.14
9/64"	.1406"	4"	1"	DWRR9/64	\$12.79	DWRRSP9/64	\$14.47
5/32"	.1562"	4"	1"	DWRR5/32	\$12.79	DWRRSP5/32	\$14.47
11/64"	.1719"	4-1/2"	1-1/8"	DWRR11/64	\$14.03	DWRRSP11/64	\$14.47
3/16"	.1875"	4-1/2"	1-1/8"	DWRR3/16	\$14.03	DWRRSP3/16	\$15.82
13/64"	.2031"	5"	1-1/4"	DWRR13/64	\$15.24	DWRRSP13/64	\$16.80
7/32"	.2188"	5"	1-1/4"	DWRR7/32	\$15.24	DWRRSP7/32	\$16.80
15/64"	.2344"	6"	1-1/2"	DWRR15/64	\$16.25	DWRRSP15/64	\$18.04
1/4"	.2500"	6"	1-1/2"	DWRR1/4	\$16.25	DWRRSP1/4	\$18.04
17/64"	.2656"	6"	1-1/2"	DWRR17/64	\$17.46	DWRRSP17/64	\$19.35
9/32"	.2812"	6"	1-1/2"	DWRR9/32	\$17.46	DWRRSP9/32	\$19.35
19/64"	.2969"	6"	1-1/2"	DWRR19/64	\$17.46	DWRRSP19/64	\$19.35
5/16"	.3125"	6"	1-1/2"	DWRR5/16	\$17.46	DWRRSP5/16	\$19.35
21/64"	.3281"	6"	1-1/2"	DWRR21/64	\$18.69	DWRRSP21/64	\$21.60
11/32"	.3438"	6"	1-1/2"	DWRR11/32	\$18.69	DWRRSP11/32	\$21.60
23/64"	.3594"	7"	1-3/4"	DWRR23/64	\$20.80	DWRRSP23/64	\$23.94
3/8"	.3750"	7"	1-3/4"	DWRR3/8	\$20.80	DWRRSP3/8	\$23.94
25/64"	.3906"	7"	1-3/4"	DWRR25/64	\$20.80	DWRRSP25/64	\$23.94
13/32"	.4062"	7"	1-3/4"	DWRR13/32	\$20.80	DWRRSP13/32	\$23.94
27/64"	.4219"	7"	1-3/4"	DWRR27/64	\$20.80	DWRRSP27/64	\$23.94
7/16"	.4375"	7"	1-3/4"	DWRR7/16	\$20.80	DWRRSP7/16	\$23.94
29/64"	.4531"	7"	1-3/4"	DWRR29/64	\$23.80	DWRRSP29/64	\$26.49
15/32"	.4688"	7"	1-3/4"	DWRR15/32	\$23.03	DWRRSP15/32	\$26.49
31/64"	.4844"	8"	2"	DWRR31/64	\$27.73	DWRRSP31/64	\$32.29
1/2"	.5000"	8"	2"	DWRR1/2	\$27.73	DWRRSP1/2	\$32.29
33/64"	.5156"	8"	2"	DWRR33/64	\$29.46	DWRRSP33/64	\$32.87
17/32"	.5312"	8"	2"	DWRR17/32	\$29.46	DWRRSP17/32	\$32.87
35/64"	.5469"	8"	2"	DWRR35/64	\$29.46	DWRRSP35/64	\$36.47
9/16"	.5625"	8"	2"	DWRR9/16	\$29.46	DWRRSP9/16	\$36.47
37/64"	.5781"	8"	2"	DWRR37/64	\$31.61	DWRRSP37/64	\$36.47
19/32"	.5938"	8"	2"	DWRR19/32	\$31.61	DWRRSP19/32	\$36.47
39/64"	.6094"	8"	2"	DWRR39/64	\$34.09	DWRRSP39/64	\$41.47
5/8"	.6250"	9"	2-1/4"	DWRR5/8	\$34.09	DWRRSP5/8	\$41.47
41/64"	.6406"	9"	2-1/4"	DWRR41/64	\$36.36	DWRRSP41/64	\$41.47
21/32"	.6562"	9"	2-1/4"	DWRR21/32	\$36.36	DWRRSP21/32	\$41.47
43/64"	.6719"	9"	2-1/4"	DWRR43/64	\$36.36	DWRRSP43/64	\$41.47
11/16"	.6875"	9"	2-1/4"	DWRR11/16	\$36.36	DWRRSP11/16	\$41.47
45/64"	.7031"	9"	2-1/4"	DWRR45/64	\$41.04	DWRRSP45/64	\$47.60
23/32"	.7188"	9"	2-1/4"	DWRR23/32	\$41.04	DWRRSP23/32	\$47.60
47/64"	.7344"	9-1/2"	2-1/2"	DWRR47/64	\$45.79	DWRRSP47/64	\$53.68
3/4"	.7500"	9-1/2"	2-1/2"	DWRR3/4	\$45.79	DWRRSP3/4	\$53.68
49/64"	.7656"	9-1/2"	2-1/2"	DWRR49/64	\$46.89	DWRRSP49/64	\$59.58
25/32"	.7812"	9-1/2"	2-1/2"	DWRR25/32	\$46.89	DWRRSP25/32	\$59.58
51/64"	.7969"	9-1/2"	2-1/2"	DWRR51/64	\$46.89	DWRRSP51/64	\$59.58
13/16"	.8125"	9-1/2"	2-1/2"	DWRR13/16	\$46.89	DWRRSP13/16	\$59.58
53/64"	.8281"	9-1/2"	2-1/2"	DWRR53/64	\$53.02	DWRRSP53/64	\$59.58
27/32"	.8438"	9-1/2"	2-1/2"	DWRR27/32	\$53.02	DWRRSP27/32	\$59.58
55/64"	.8594"	10"	2-5/8"	DWRR55/64	\$57.77	DWRRSP55/64	\$67.08
7/8"	.8750"	10"	2-5/8"	DWRR7/8	\$57.77	DWRRSP7/8	\$67.08
57/64"	.8906"	10"	2-5/8"	DWRR57/64	\$58.69	DWRRSP57/64	\$67.08
29/32"	.9062"	10"	2-5/8"	DWRR29/32	\$58.69	DWRRSP29/32	\$67.08
59/64"	.9219"	10"	2-5/8"	DWRR59/64	\$58.69	DWRRSP59/64	\$75.69
15/16"	.9375"	10"	2-5/8"	DWRR15/16	\$58.69	DWRRSP15/16	\$75.69



# REAMERS

## FRACTIONAL SIZES (CONTINUED)



### Straight Flute

### Spiral Flute

Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price	Part Number	List Price
61/64"	.9531"	10"	2-5/8"	DWRR61/64	\$65.89	DWRRSP61/64	\$75.69
31/32"	.9688"	10"	2-5/8"	DWRR31/32	\$65.89	DWRRSP31/32	\$75.69
63/64"	.9844"	10-1/2"	2-3/4"	DWRR63/64	\$70.24	DWRRSP63/64	\$84.07
1"	1.0000"	10-1/2"	2-3/4"	DWRR1INCH	\$70.24	DWRRSP1INCH	\$84.07
1-1/16"	1.0625"	10-1/2"	2-3/4"	DWRR1-1/16	\$72.12	DWRRSP1-1/16	\$86.32
1-1/8"	1.1250"	11"	2-7/8"	DWRR1-1/8	\$83.04	DWRRSP1-1/8	\$95.16
1-3/16"	1.1875"	11"	2-7/8"	DWRR1-3/16	\$91.43	DWRRSP1-3/16	\$104.68
1-1/4"	1.2500"	11-1/2"	3"	DWRR1-1/4	\$102.13	DWRRSP1-1/4	\$117.25
1-5/16"	1.3125"	11-1/2"	3"	DWRR1-5/16	\$116.78	DWRRSP1-5/16	\$132.80
1-3/8"	1.3750"	12"	3-1/4"	DWRR1-3/8	\$129.38	DWRRSP1-3/8	\$145.88
1-7/16"	1.4375"	12"	3-1/4"	DWRR1-7/16	\$139.37	DWRRSP1-7/16	\$159.00
1-1/2"	1.5000"	12-1/2"	3-1/2"	DWRR1-1/2	\$150.53	DWRRSP1-1/2	\$171.88

## WIRE GAUGE SIZES

Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price
1	.2280	6"	1-1/2"	DWRR1	\$15.49
2	.2210	6"	1-1/2"	DWRR2	\$15.49
3	.2130	5"	1-1/4"	DWRR3	\$15.49
4	.2090	5"	1-1/4"	DWRR4	\$15.49
5	.2055	5"	1-1/4"	DWRR5	\$15.49
6	.2040	5"	1-1/4"	DWRR6	\$15.49
7	.2010	5"	1-1/4"	DWRR7	\$15.49
8	.1990	5"	1-1/4"	DWRR8	\$15.49
9	.1960	5"	1-1/4"	DWRR9	\$15.49
10	.1935	5"	1-1/4"	DWRR10	\$15.49
11	.1910	5"	1-1/4"	DWRR11	\$15.49
12	.1890	4-1/2"	1-1/8"	DWRR12	\$15.49
13	.1850	4-1/2"	1-1/8"	DWRR13	\$14.25
14	.1820	4-1/2"	1-1/8"	DWRR14	\$14.25
15	.1800	4-1/2"	1-1/8"	DWRR15	\$14.25
16	.1770	4-1/2"	1-1/8"	DWRR16	\$14.25
17	.1730	4-1/2"	1-1/8"	DWRR17	\$14.25
18	.1695	4-1/2"	1-1/8"	DWRR18	\$14.25
19	.1660	4-1/2"	1-1/8"	DWRR19	\$14.25
20	.1610	4-1/2"	1-1/8"	DWRR20	\$14.25
21	.1590	4-1/2"	1-1/8"	DWRR21	\$14.25
22	.1570	4"	1"	DWRR22	\$13.01
23	.1540	4"	1"	DWRR23	\$13.01
24	.1520	4"	1"	DWRR24	\$13.01
25	.1495	4"	1"	DWRR25	\$13.01
26	.1470	4"	1"	DWRR26	\$13.01
27	.1440	4"	1"	DWRR27	\$13.01
28	.1405	4"	1"	DWRR28	\$13.01
29	.1360	4"	1"	DWRR29	\$13.01
30	.1285	3-1/2"	7/8"	DWRR30	\$11.33

Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price
31	.1200	3-1/2"	7/8"	DWRR31	\$11.33
32	.1160	3-1/2"	7/8"	DWRR32	\$11.33
33	.1130	3-1/2"	7/8"	DWRR33	\$11.33
34	.1110	3-1/2"	7/8"	DWRR34	\$11.33
35	.1100	3-1/2"	7/8"	DWRR35	\$11.33
36	.1065	3-1/2"	7/8"	DWRR36	\$11.33
37	.1040	3-1/2"	7/8"	DWRR37	\$11.33
38	.1015	3-1/2"	7/8"	DWRR38	\$11.33
39	.0995	3-1/2"	7/8"	DWRR39	\$11.33
40	.0980	3-1/2"	7/8"	DWRR40	\$11.33
41	.0960	3-1/2"	7/8"	DWRR41	\$11.33
42	.0935	3"	3/4"	DWRR42	\$11.33
43	.0890	3"	3/4"	DWRR43	\$11.33
44	.0860	3"	3/4"	DWRR44	\$11.33
45	.0820	3"	3/4"	DWRR45	\$11.33
46	.0810	3"	3/4"	DWRR46	\$11.33
47	.0785	3"	3/4"	DWRR47	\$11.33
48	.0760	3"	3/4"	DWRR48	\$11.33
49	.0730	3"	3/4"	DWRR49	\$11.33
50	.0700	3"	3/4"	DWRR50	\$11.33
51	.0670	3"	3/4"	DWRR51	\$11.33
52	.0635	2-1/2"	1/2"	DWRR52	\$13.01
53	.0595	2-1/2"	1/2"	DWRR53	\$13.01
54	.0550	2-1/2"	1/2"	DWRR54	\$13.01
55	.0520	2-1/2"	1/2"	DWRR55	\$13.01
56	.0465	2-1/2"	1/2"	DWRR56	\$13.01
57	.0430	2-1/2"	1/2"	DWRR57	\$13.01
58	.0420	2-1/2"	1/2"	DWRR58	\$13.01
59	.0410	2-1/2"	1/2"	DWRR59	\$13.01
60	.0400	2-1/2"	1/2"	DWRR60	\$13.01

## LETTER SIZES

Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price
A	.2340	6"	1-1/2"	DWARRA	\$16.25
B	.2380	6"	1-1/2"	DWARRB	\$16.25
C	.2420	6"	1-1/2"	DWARRC	\$16.25
D	.2460	6"	1-1/2"	DWARRD	\$16.25
E	.2500	6"	1-1/2"	DWARR E	\$16.25
F	.2570	6"	1-1/2"	DWARRF	\$16.25
G	.2610	6"	1-1/2"	DWARRG	\$16.25
H	.2660	6"	1-1/2"	DWARRH	\$17.46
I	.2720	6"	1-1/2"	DWARRI	\$17.46
J	.2770	6"	1-1/2"	DWARRJ	\$17.46
K	.2810	6"	1-1/2"	DWARRK	\$17.46
L	.2900	6"	1-1/2"	DWARRL	\$17.46
M	.2950	6"	1-1/2"	DWARRM	\$17.46

Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price
N	.3020	6"	1-1/2"	DWARRN	\$17.46
O	.3160	6"	1-1/2"	DWARR O	\$18.69
P	.3230	6"	1-1/2"	DWARRP	\$18.69
Q	.3320	6"	1-1/2"	DWARRQ	\$18.69
R	.3390	6"	1-1/2"	DWARRR	\$18.69
S	.3480	7"	1-3/4"	DWARRS	\$22.08
T	.3580	7"	1-3/4"	DWARRT	\$22.08
U	.3680	7"	1-3/4"	DWARRU	\$22.08
V	.3770	7"	1-3/4"	DWARRV	\$22.08
W	.3860	7"	1-3/4"	DWARRW	\$22.08
X	.3970	7"	1-3/4"	DWARRX	\$22.08
Y	.4040	7"	1-3/4"	DWARRY	\$22.08
Z	.4130	7"	1-3/4"	DWARRZ	\$22.08

# CHUCKING REAMERS

## METRIC SIZES



Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price	Size	Decimal Equivalent	O.A.L.	Flute Length	Part Number	List Price
1.5	.0591	2-1/2"	1/2"	DWRR1.5MM	\$22.73	10.0	.3937	7"	1-3/4"	DWRR10.0MM	\$34.79
2.0	.0787	3"	3/4"	DWRR2.0MM	\$21.54	11.0	.4331	7"	1-3/4"	DWRR11.0MM	\$37.64
2.5	.0984	3-1/2"	7/8"	DWRR2.5MM	\$17.68	12.0	.4724	8"	2"	DWRR12.0MM	\$37.64
3.0	.1181	3-1/2"	7/8"	DWRR3.0MM	\$17.68	13.0	.5118	8"	2"	DWRR13.0MM	\$45.60
3.5	.1378	4"	1"	DWRR3.5MM	\$17.68	14.0	.5512	8"	2"	DWRR14.0MM	\$49.16
4.0	.1575	4-1/2"	1-1/8"	DWRR4.0MM	\$18.44	15.0	.5906	8"	2"	DWRR15.0MM	\$52.09
4.5	.1772	4-1/2"	1-1/8"	DWRR4.5MM	\$19.21	16.0	.6299	9"	2-1/4"	DWRR16.0MM	\$57.10
5.0	.1969	5"	1-1/4"	DWRR5.0MM	\$19.21	17.0	.6693	9"	2-1/4"	DWRR17.0MM	\$70.04
5.5	.2165	5"	1-1/4"	DWRR5.5MM	\$21.40	18.0	.7087	9"	2-1/4"	DWRR18.0MM	\$70.04
6.0	.2362	6"	1-1/2"	DWRR6.0MM	\$20.52	19.0	.7480	9-1/2"	2-1/2"	DWRR19.0MM	\$72.98
6.5	.2559	6"	1-1/2"	DWRR6.5MM	\$24.51	20.0	.7874	9-1/2"	2-1/2"	DWRR20.0MM	\$72.98
7.0	.2756	6"	1-1/2"	DWRR7.0MM	\$23.51	21.0	.8268	9-1/2"	2-1/2"	DWRR21.0MM	\$103.73
7.5	.2953	6"	1-1/2"	DWRR7.5MM	\$28.96	22.0	.8661	10"	2-5/8"	DWRR22.0MM	\$111.04
8.0	.3150	6"	1-1/2"	DWRR8.0MM	\$27.76	23.0	.9055	10"	2-5/8"	DWRR23.0MM	\$121.61
8.5	.3346	6"	1-1/2"	DWRR8.5MM	\$32.49	24.0	.9449	10-1/2"	2-3/4"	DWRR24.0MM	\$129.52
9.0	.3543	7"	1-3/4"	DWRR9.0MM	\$31.15	25.0	.9843	10-1/2"	2-3/4"	DWRR25.0MM	\$159.73
9.5	.3740	7"	1-3/4"	DWRR9.5MM	\$36.28						

DWRRTS Series - Taper Shank Straight Flute

DWRTSSP Series - Taper Shank Spiral Flute

## TAPER SHANK FRACTIONAL SIZES



Straight Flute

Spiral Flute

Size	Decimal Equivalent	Morse Taper	O.A.L.	Flute Length	Part Number	List Price	Part Number	List Price
1/4"	.2500	1	1-1/2"	6"	DWRRTS1/4	\$22.88	-	-
9/32"	.2813	1	1-1/2"	6"	DWRRTS9/32	\$23.71	-	-
5/16"	.3125	1	1-1/2"	6"	DWRRTS5/16	\$23.71	DWRTSSP5/16	\$26.86
11/32"	.3438	1	1-1/2"	6"	DWRRTS11/32	\$25.61	-	-
3/8"	.3750	1	1-3/4"	7"	DWRRTS3/8	\$25.61	DWRTSSP3/8	\$26.99
13/32"	.4063	1	1-3/4"	7"	DWRRTS13/32	\$25.61	DWRTSSP13/32	\$29.87
7/16"	.4375	1	1-3/4"	7"	DWRRTS7/16	\$25.61	DWRTSSP7/16	\$29.87
15/32"	.4688	1	1-3/4"	7"	DWRRTS15/32	\$28.60	-	-
1/2"	.5000	1	2"	8"	DWRRTS1/2	\$28.60	DWRTSSP1/2	\$29.87
17/32"	.5313	1	2"	8"	DWRRTS17/32	\$32.41	DWRTSSP17/32	\$35.75
9/16"	.5625	1	2"	8"	DWRRTS9/16	\$31.72	DWRTSSP9/16	\$35.75
19/32"	.5938	1	2"	8"	DWRRTS19/32	\$35.16	DWRTSSP19/32	\$38.57
5/8"	.6250	2	2-1/4"	9"	DWRRTS5/8	\$35.16	DWRTSSP5/8	\$38.57
21/32"	.6563	2	2-1/4"	9"	DWRRTS21/32	\$39.72	DWRTSSP21/32	\$41.74
11/16"	.6875	2	2-1/4"	9"	DWRRTS11/16	\$39.72	DWRTSSP11/16	\$41.74
23/32"	.7188	2	2-1/4"	9"	DWRRTS23/32	\$42.66	DWRTSSP23/32	\$47.05
3/4"	.7500	2	2-1/4"	9-1/2"	DWRRTS3/4	\$41.83	DWRTSSP3/4	\$47.05
13/16"	.8125	2	2-1/2"	9-1/2"	DWRRTS13/16	\$48.80	DWRTSSP13/16	\$53.66
7/8"	.8750	2	2-5/8"	10"	DWRRTS7/8	\$54.80	DWRTSSP7/8	\$61.50
15/16"	.9375	2	2-5/8"	10"	DWRRTS15/16	\$67.52	DWRTSSP15/16	\$67.24
1"	1.0000	3	2-3/4"	10-1/2"	DWRRTS1INCH	\$66.89	DWRTSSP1INCH	\$74.75
1-1/16"	1.0625	3	2-3/4"	10-1/2"	DWRRTS1-1/16	\$77.15	DWRTSSP1-1/16	\$85.13
1-1/8"	1.1250	3	2-7/8"	11"	DWRRTS1-1/8	\$77.15	DWRTSSP1-1/8	\$94.07
1-3/16"	1.1875	3	2-7/8"	11"	DWRRTS1-3/16	\$93.58	DWRTSSP1-3/16	\$102.37
1-1/4"	1.2500	4	3"	11-1/2"	DWRRTS1-1/4	\$101.30	DWRTSSP1-1/4	\$112.53
1-5/16"	1.3125	4	3"	11-1/2"	DWRRTS1-5/16	\$118.26	DWRTSSP1-5/16	\$128.58
1-3/8"	1.3750	4	3-1/4"	12"	DWRRTS1-3/8	\$127.78	DWRTSSP1-3/8	\$139.14
1-7/16"	1.4375	4	3-1/4"	12"	DWRRTS1-7/16	\$138.46	DWRTSSP1-7/16	\$151.56
1-1/2"	1.5000	4	3-1/2"	12-1/2"	DWRRTS1-1/2	\$147.95	DWRTSSP1-1/2	\$160.92

# REAMERS

## DOWEL PIN REAMERS



Size	Flute Length	O.A.L.	Part Number	List Price	Size	Flute Length	O.A.L.	Part Number	List Price
.1230	7/8"	3-1/2"	DWRRDP.1230	\$9.31	.3120	1-1/2"	6"	DWRRDP.3120	\$16.68
.1240	7/8"	3-1/2"	DWRRDP.1240	\$9.71	.3135	1-1/2"	6"	DWRRDP.3135	\$20.10
.1247	7/8"	3-1/2"	DWRRDP.1247	\$9.31	.3730	1-3/4"	7"	DWRRDP.3730	\$20.02
.1260	7/8"	3-1/2"	DWRRDP.1260	\$9.71	.3740	1-3/4"	7"	DWRRDP.3740	\$21.35
.1855	1-1/8"	4-1/2"	DWRRDP.1855	\$13.90	.3745	1-3/4"	7"	DWRRDP.3745	\$20.02
.1865	1-1/8"	4-1/2"	DWRRDP.1865	\$13.68	.3760	1-3/4"	7"	DWRRDP.3760	\$21.35
.1870	1-1/8"	4-1/2"	DWRRDP.1870	\$13.90	.4355	1-3/4"	7"	DWRRDP.4355	\$21.35
.1885	1-1/8"	4-1/2"	DWRRDP.1885	\$14.29	.4365	1-3/4"	7"	DWRRDP.4365	\$23.80
.2480	1-1/2"	6"	DWRRDP.2480	\$14.81	.4370	1-3/4"	7"	DWRRDP.4370	\$21.35
.2490	1-1/2"	6"	DWRRDP.2490	\$14.48	.4385	1-3/4"	7"	DWRRDP.4385	\$23.80
.2495	1-1/2"	6"	DWRRDP.2495	\$14.81	.4980	2"	8"	DWRRDP.4980	\$23.80
.2510	1-1/2"	6"	DWRRDP.2510	\$14.48	.4990	2"	8"	DWRRDP.4990	\$23.80
.3105	1-1/2"	6"	DWRRDP.3105	\$16.68	.4995	2"	8"	DWRRDP.4995	\$23.80
.3115	1-1/2"	6"	DWRRDP.3115	\$17.70	.5010	2"	8"	DWRRDP.5010	\$25.42

## SPECIAL DECIMAL SIZES

Size Range		List Price
From	To	
DWRR.0400	DWRR.0620	\$30.92
DWRR.0630	DWRR.1245	\$28.46
DWRR.1250	DWRR.1870	\$30.92
DWRR.1880	DWRR.2180	\$33.40
DWRR.2190	DWRR.2500	\$33.40
DWRR.2510	DWRR.2810	\$35.29
DWRR.2820	DWRR.3120	\$35.29
DWRR.3130	DWRR.3740	\$35.29
DWRR.3760	DWRR.4370	\$38.86
DWRR.4380	DWRR.5000	\$45.36
DWRR.5510	DWRR.5620	\$57.37
DWRR.5630	DWRR.6250	\$56.11
DWRR.6260	DWRR.6880	\$65.27
DWRR.6890	DWRR.7450	\$76.07
DWRR.7460	DWRR.8110	\$79.32
DWRR.8120	DWRR.8780	\$98.20
DWRR.8790	DWRR.1.0030	\$110.51

## COBALT CHUCKING REAMERS

Size	Decimal Equivalent	Flute Length	O.A.L.	Part Number	List Price	Size	Decimal Equivalent	Flute Length	O.A.L.	Part Number	List Price
1/8"	.1250	7/8"	3-1/2"	DWRRCO1/8	\$34.81	29/64"	.4531	1-3/4"	7"	DWRRCO29/64	\$83.00
9/64"	.1406	1"	4"	DWRRCO9/64	\$33.31	15/32"	.4688	1-3/4"	7"	DWRRCO15/32	\$83.00
5/32"	.1563	1"	4"	DWRRCO5/32	\$29.81	31/64"	.4844	2"	8"	DWRRCO31/64	\$103.50
11/64"	.1719	1-1/8"	4-1/2"	DWRRCO11/64	\$36.97	1/2"	.5000	2"	8"	DWRRCO1/2	\$103.50
3/16"	.1875	1-1/8"	4-1/2"	DWRRCO3/16	\$34.00	17/32"	.5313	2"	8"	DWRRCO17/32	\$114.66
13/64"	.2031	1-1/4"	5"	DWRRCO13/64	\$36.75	9/16"	.5625	2"	8"	DWRRCO9/16	\$130.97
7/32"	.2188	1-1/4"	5"	DWRRCO7/32	\$37.44	19/32"	.5938	2"	8"	DWRRCO19/32	\$135.91
15/64"	.2344	1-1/2"	6"	DWRRCO15/64	\$40.72	5/8"	.6250	2-1/4"	9"	DWRRCO5/8	\$146.22
1/4"	.2500	1-1/2"	6"	DWRRCO1/4	\$41.31	21/32"	.6563	2-1/4"	9"	DWRRCO21/32	\$171.91
17/64"	.2656	1-1/2"	6"	DWRRCO17/64	\$44.91	11/16"	.6875	2-1/4"	9"	DWRRCO11/16	\$169.03
9/32"	.2813	1-1/2"	6"	DWRRCO9/32	\$45.50	23/32"	.7188	2-1/4"	9"	DWRRCO23/32	\$190.75
19/64"	.2969	1-1/2"	6"	DWRRCO19/64	\$45.94	3/4"	.7500	2-1/2"	9-1/2"	DWRRCO3/4	\$201.47
5/16"	.3125	1-1/2"	6"	DWRRCO5/16	\$46.78	25/32"	.7813	2-1/2"	9-1/2"	DWRRCO25/32	\$216.06
21/64"	.3281	1-1/2"	6"	DWRRCO21/64	\$50.53	13/16"	.8125	2-1/2"	9-1/2"	DWRRCO13/16	\$228.63
11/32"	.3438	1-1/2"	6"	DWRRCO11/32	\$51.50	27/32"	.8438	2-1/2"	9-1/2"	DWRRCO27/32	\$252.56
23/64"	.3594	1-3/4"	7"	DWRRCO23/64	\$58.25	7/8"	.8750	2-5/8"	10"	DWRRCO7/8	\$280.47
3/8"	.3750	1-3/4"	7"	DWRRCO3/8	\$58.31	29/32"	.9063	2-5/8"	10"	DWRRCO29/32	\$293.56
25/64"	.3906	1-3/4"	7"	DWRRCO25/64	\$59.44	15/16"	.9375	2-5/8"	10"	DWRRCO15/16	\$293.56
13/32"	.4063	1-3/4"	7"	DWRRCO13/32	\$73.72	31/32"	.9688	2-5/8"	10"	DWRRCO31/32	\$341.84
27/64"	.4219	1-3/4"	7"	DWRRCO27/64	\$73.34	1"	1.0000	2-3/4"	10-1/2"	DWRRCO1INCH	\$356.22
7/16"	.4375	1-3/4"	7"	DWRRCO7/16	\$78.88						

# REAMERS

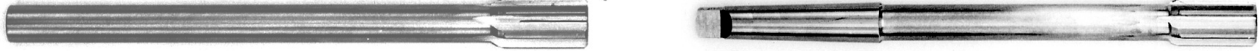
## H . S . S . M A C H I N E E X P A N S I O N R E A M E R S

### DWRRE Series - Straight Shank



### DWRRETS Series - Taper Shank

An economical high production reamer. Expansion feature permits reamer to be resharpened many times to its original diameter therefore saving on replacement costs. These reamers are NOT for reaming oversized holes. They may be expanded only for the purpose of regrinding to the original size. Misuse of these tools may cause damage to the tool, the workpiece and injury to the operator.



## F R A C T I O N A L S I Z E S

### Straight Shank

### Taper Shank

Size	Decimal Equivalent	O.A.L.	Shank Diameter	Flute Length	Part Number	List Price	Part Number	Shank	List Price
1/4"	.2500	6"	15/64"	5/8"	DWRRE1/4	\$103.28			
5/16"	.3125	6"	9/32"	11/16"	DWRRE5/16	\$103.28			
3/8"	.3750	7"	5/16"	3/4"	DWRRE3/8	\$85.52	DWRRETS3/8	1MT	\$95.74
13/32"	.4063	7"	5/16"	3/4"	DWRRE13/32	\$100.01	DWRRETS13/32	1MT	\$126.34
7/16"	.4375	7"	3/8"	7/8"	DWRRE7/16	\$81.28	DWRRETS7/16	1MT	\$97.78
15/32"	.4688	7"	27/64"	7/8"	DWRRE15/32	\$94.06	DWRRETS15/32	1MT	\$114.19
1/2"	.5000	8"	7/16"	1"	DWRRE1/2	\$81.28	DWRRETS1/2	1MT	\$91.51
17/32"	.5313	8"	7/16"	1"	DWRRE17/32	\$94.38	DWRRETS17/32	1MT	\$119.60
9/16"	.5625	8"	7/16"	1-1/8"	DWRRE9/16	\$90.97	DWRRETS9/16	1MT	\$95.95
19/32"	.5938	8"	7/16"	1-1/8"	DWRRE19/32	\$104.26	DWRRETS19/32	1MT	\$124.22
5/8"	.6250	9"	9/16"	1-1/4"	DWRRE5/8	\$91.74	DWRRETS5/8	2MT	\$101.96
21/32"	.6563	9"	9/16"	1-1/4"	DWRRE21/32	\$103.26	DWRRETS21/32	2MT	\$114.66
11/16"	.6875	9"	9/16"	1-1/4"	DWRRE11/16	\$100.20	DWRRETS11/16	2MT	\$106.97
23/32"	.7188	9"	9/16"	1-1/4"	DWRRE23/32	\$110.42	DWRRETS23/32	2MT	\$122.87
3/4"	.7500	9-1/2"	5/8"	1-3/4"	DWRRE3/4	\$104.88	DWRRETS3/4	2MT	\$116.10
25/32"	.7813	9-1/2"	5/8"	1-3/4"	DWRRE25/32	\$112.13	DWRRETS25/32	2MT	\$128.11
13/16"	.8125	9-1/2"	5/8"	1-3/4"	DWRRE13/16	\$116.35	DWRRETS13/16	2MT	\$123.16
27/32"	.8438	9-1/2"	5/8"	1-3/4"	DWRRE27/32	\$122.65	DWRRETS27/32	2MT	\$130.37
7/8"	.8750	10"	3/4"	1-1/2"	DWRRE7/8	\$125.08	DWRRETS7/8	2MT	\$135.53
29/32"	.9063	10"	3/4"	1-1/2"	DWRRE29/32	\$131.45	DWRRETS29/32	2MT	\$142.55
15/16"	.9375	10"	3/4"	1-1/2"	DWRRE15/16	\$137.66	DWRRETS15/16	3MT	\$145.98
31/32"	.9688	10"	3/4"	1-1/2"	DWRRE31/32	\$141.20	DWRRETS31/32	3MT	\$152.24
1"	1.0000	10-1/2"	7/8"	1-5/8"	DWRRE1INCH	\$144.53	DWRRETS1INCH	3MT	\$159.47
1-1/32"	1.0313	10-1/2"	7/8"	1-5/8"	DWRRE1-1/32	\$159.51	DWRRETS1-1/32	3MT	\$174.11
1-1/16"	1.0625	10-1/2"	7/8"	1-5/8"	DWRRE1-1/16	\$166.45	DWRRETS1-1/16	3MT	\$182.46
1-3/32"	1.0938	10-1/2"	7/8"	1-5/8"	DWRRE1-3/32	\$179.63	DWRRETS1-3/32	3MT	\$190.53
1-1/8"	1.1250	11"	7/8"	1-3/4"	DWRRE1-1/8	\$187.63	DWRRETS1-1/8	3MT	\$197.10
1-5/32"	1.1563	11"	7/8"	1-3/4"	DWRRE1-5/32	\$192.94	DWRRETS1-5/32	3MT	\$205.36
1-3/16"	1.1875	11"	1"	1-3/4"	DWRRE1-3/16	\$199.40	DWRRETS1-3/16	3MT	\$213.49
1-7/32"	1.2188	11"	1"	1-3/4"	DWRRE1-7/32	\$211.54	DWRRETS1-7/32	4MT	\$221.75
1-1/4"	1.2500	11-1/2"	1"	1-7/8"	DWRRE1-1/4	\$214.95	DWRRETS1-1/4	4MT	\$232.05
1-5/16"	1.3125	11-1/2"	1"	1-7/8"	DWRRE1-5/16	\$228.20	DWRRETS1-5/16	4MT	\$241.06
1-3/8"	1.3750	12"	1"	2"	DWRRE1-3/8	\$232.63	DWRRETS1-3/8	4MT	\$251.10
1-7/16"	1.4375	12"	1-1/4"	2"	DWRRE1-7/16	\$241.53	DWRRETS1-7/16	4MT	\$265.84
1-1/2"	1.5000	12-1/2"	1-1/4"	2-1/8"	DWRRE1-1/2	\$247.18	DWRRETS1-1/2	4MT	\$274.88
1-9/16"	1.5625	12-1/2"	1-1/4"	2-1/8"	DWRRE1-9/16	\$281.84	DWRRETS1-9/16	4MT	\$311.74
1-5/8"	1.6250	13"	1-1/4"	2-1/4"	DWRRE1-5/8	\$310.82	DWRRETS1-5/8	4MT	\$311.74
1-11/16"	1.6875	13"	1-1/4"	2-1/4"	DWRRE1-11/16	\$321.58	DWRRETS1-11/16	4MT	\$345.54
1-3/4"	1.7500	13-1/2"	1-1/4"	2-3/8"	DWRRE1-3/4	\$330.16	DWRRETS1-3/4	5MT	\$382.04
1-13/16"	1.8125	13-1/2"	1-1/2"	2-3/8"	DWRRE1-13/16	\$331.59	DWRRETS1-13/16	5MT	\$382.04
1-7/8"	1.8750	14"	1-1/2"	2-1/2"	DWRRE1-7/8	\$345.10	DWRRETS1-7/8	5MT	\$382.04
1-15/16"	1.9375	14"	1-1/2"	2-1/2"	DWRRE1-15/16	\$384.53	DWRRETS1-15/16	5MT	\$457.18
2"	2.0000	14"	1-1/2"	2-1/2"	DWRRE2INCH	\$394.12	DWRRETS2INCH	5MT	\$457.18

# REAMERS

## H . S . S . H A N D R E A M E R S

### DWRRHD Series - Straight Flute



### DWRRHDSP Series - Spiral Flute

Hand reamers are made of high-speed steel and are generally used by hand for the final sizing of holes. The square on the shank is suitable for holding in a tap wrench or a vise depending on whether the reamer or the part is rotated. A long starting taper is ground into the reamer for easy entry and accurate alignment. The straight-flute hand reamer is recommended for most hand reaming applications. The spiral-flute hand reamer is recommended for applications where there is an interrupted cut such as a keyway.

#### Straight Flute

#### Spiral Flute

Size	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
1/8"	1-1/2"	3"	DWRRHD1/8	\$29.90		
5/32"	1-5/8"	3-1/4"	DWRRHD5/32	\$32.35		
11/64"	1-3/4"	3-1/2"	DWRRHD11/64	\$32.35		
3/16"	1-3/4"	3-1/2"	DWRRHD3/16	\$31.73		
7/32"	1-7/8"	3-3/4"	DWRRHD7/32	\$34.86		
1/4"	2"	4"	DWRRHD1/4	\$33.62	DWRRHDSP1/4	\$37.88
17/64"	2-1/8"	4-1/4"	DWRRHD17/64	\$37.42		
9/32"	2-1/8"	4-1/2"	DWRRHD9/32	\$37.42		
19/64"	2-1/4"	4-1/2"	DWRRHD19/64	\$37.42		
5/16"	2-1/4"	4-1/2"	DWRRHD5/16	\$36.77	DWRRHDSP5/16	\$40.33
21/64"	2-3/8"	4-3/4"	DWRRHD21/64	\$43.38		
11/32"	3-3/8"	4-3/4"	DWRRHD11/32	\$42.91		
23/64"	2-1/2"	5"	DWRRHD23/64	\$43.38		
3/8"	2-1/2"	5"	DWRRHD3/8	\$42.49	DWRRHDSP3/8	\$48.01
13/32"	2-5/8"	5-1/4"	DWRRHD13/32	\$49.10		
7/16"	2-3/4"	5-1/2"	DWRRHD7/16	\$45.74	DWRRHDSP7/16	\$53.62
29/64"	2-7/8"	5-3/4"	DWRRHD29/64	\$53.33		
15/32"	2-7/8"	5-3/4"	DWRRHD15/32	\$53.33		
1/2"	3"	6"	DWRRHD1/2	\$51.37	DWRRHDSP1/2	\$57.22
17/32"	3-1/8"	6-1/4"	DWRRHD17/32	\$58.26	DWRRHDSP17/32	\$67.08
35/64"	3-1/4"	6-1/2"	DWRRHD35/64	\$58.26		
9/16"	3-1/4"	6-1/2"	DWRRHD9/16	\$58.26	DWRRHDSP9/16	\$64.70
19/32"	3-3/8"	6-3/4"	DWRRHD19/32	\$65.52	DWRRHDSP19/32	\$71.70
5/8"	3-1/2"	7"	DWRRHD5/8	\$61.86	DWRRHDSP5/8	\$69.86
41/64"	3-11/16"	7-3/8"	DWRRHD41/64	\$75.96		
21/32"	3-11/16"	7-3/8"	DWRRHD21/32	\$71.12	DWRRHDSP21/32	\$78.24
11/16"	3-7/8"	7-3/4"	DWRRHD11/16	\$67.01	DWRRHDSP11/16	\$75.53
45/64"	4-1/16"	8-1/8"	DWRRHD45/64	\$82.37		
23/32"	4-1/16"	8-1/8"	DWRRHD23/32	\$76.39	DWRRHDSP23/32	\$82.86
3/4"	4-3/16"	8-3/8"	DWRRHD3/4	\$72.68	DWRRHDSP3/4	\$80.68
25/32"	4-3/8"	8-3/4"	DWRRHD25/32	\$85.06	DWRRHDSP25/32	\$90.18
13/16"	4-9/16"	9-1/8"	DWRRHD13/16	\$85.06	DWRRHDSP13/16	\$86.10
27/32"	4-11/16"	9-3/8"	DWRRHD27/32	\$90.18	DWRRHDSP27/32	\$98.03
7/8"	4-7/8"	9-3/4"	DWRRHD7/8	\$86.10	DWRRHDSP7/8	\$93.83
29/32"	5"	10"	DWRRHD29/32	\$103.10	DWRRHDSP29/32	\$109.88
15/16"	5-1/8"	10-1/4"	DWRRHD15/16	\$103.10	DWRRHDSP15/16	\$107.23
31/32"	5-5/16"	10-5/8"	DWRRHD31/32	\$109.27	DWRRHDSP31/32	\$121.01
1"	5-7/16"	10-7/8"	DWRRHD1INCH	\$104.90	DWRRHDSP1INCH	\$116.77
1-1/16"	5-5/8"	11-1/4"	DWRRHD1-1/16	\$137.86	DWRRHDSP1-1/16	\$143.95
1-1/8"	5-13/16"	11-5/8"	DWRRHD1-1/8	\$134.25	DWRRHDSP1-1/8	\$143.95
1-3/16"	6"	12"	DWRRHD1-3/16	\$171.31	DWRRHDSP1-3/16	\$177.13
1-1/4"	6-1/8"	12-1/4"	DWRRHD1-1/4	\$173.50	DWRRHDSP1-1/4	\$177.13
1-5/16"	6-1/4"	12-1/2"	DWRRHD1-5/16	\$205.00	DWRRHDSP1-5/16	\$209.18
1-3/8"	6-5/16"	12-5/8"	DWRRHD1-3/8	\$195.49	DWRRHDSP1-3/8	\$209.18
1-7/16"	6-7/16"	12-7/8"	DWRRHD1-7/16	\$242.19	DWRRHDSP1-7/16	\$247.46
1-1/2"	6-1/2"	13"	DWRRHD1-1/2	\$233.06	DWRRHDSP1-1/2	\$247.46



# REAMERS

## H.S.S. HAND REAMERS STRAIGHT FLUTE METRIC SIZES



Size	Flute Length	O.A.L.	Part Number	List Price
3	1-7/32"	2-1/2"	DWRRHD3.0MM	\$58.56
3.5	1-3/8"	2-3/4"	DWRRHD3.5MM	\$58.56
4	1-1/2"	3"	DWRRHD4.0MM	\$65.04
4.5	1-5/8"	3-1/4"	DWRRHD4.5MM	\$65.04
5	1-3/4"	3-1/2"	DWRRHD5.0MM	\$68.29
5.5	1-7/8"	3-5/8"	DWRRHD5.5MM	\$68.29
6	1-7/8"	3-5/8"	DWRRHD6.0MM	\$68.29
7	2-1/8"	4-1/4"	DWRRHD7.0MM	\$74.81
8	2-1/4"	4-1/2"	DWRRHD8.0MM	\$79.70
9	2-1/2"	4-7/8"	DWRRHD9.0MM	\$79.70
10	2-5/8"	5-1/4"	DWRRHD10.0MM	\$84.56

Size	Flute Length	O.A.L.	Part Number	List Price
11	2-3/4"	5-1/2"	DWRRHD11.0MM	\$91.08
12	3"	6"	DWRRHD12.0MM	\$91.08
13	3"	6"	DWRRHD13.0MM	\$105.71
14	3-1/4"	6-1/2"	DWRRHD14.0MM	\$105.71
15	3-1/4"	6-1/2"	DWRRHD15.0MM	\$113.82
16	3-1/2"	7"	DWRRHD16.0MM	\$113.82
17	3-1/2"	7"	DWRRHD17.0MM	\$123.60
18	3-3/4"	7-1/2"	DWRRHD18.0MM	\$123.60
19	3-3/4"	7-1/2"	DWRRHD19.0MM	\$123.60
20	4-1/4"	8-1/2"	DWRRHD20.0MM	\$146.38

### DWRRHDE Series - Straight Flute Hand Expansion Reamers

### DWRRHDES Series - Spiral Flute Hand Expansion Reamers

Hand Expansion Reamer are used to enlarge holes in order to get proper fit. Adjusting screw is tightened to get proper size.

## F R A C T I O N A L S I Z E S

### Straight Flute

### Spiral Flute

Size	O.A.L.	Flute Length	Part Number	List Price	Part Number	List Price
3/16"	3-3/8"	1-1/8"	DWRRHDE3/16	\$144.96	DWRRHDES3/16	\$144.96
1/4"	3-7/8"	1-7/16"	DWRRHDE1/4	\$136.43	DWRRHDES1/4	\$144.96
9/32"	4"	1-3/4"	DWRRHDE9/32	\$134.16		
5/16"	4"	1-3/4"	DWRRHDE5/16	\$134.16	DWRRHDES5/16	\$153.48
3/8"	4-1/4"	1-3/4"	DWRRHDE3/8	\$144.96	DWRRHDES3/8	\$153.48
13/32"	4-1/2"	1-3/4"	DWRRHDE13/32	\$153.48	DWRRHDES13/32	\$166.28
7/16"	4-1/2"	1-3/4"	DWRRHDE7/16	\$153.48	DWRRHDES7/16	\$166.28
15/32"	5"	1-3/4"			DWRRHDES15/32	\$174.18
1/2"	5"	1-13/16"	DWRRHDE1/2	\$164.06	DWRRHDES1/2	\$174.18
17/32"	5-1/2"	2-1/8"	DWRRHDE17/32	\$176.83	DWRRHDES17/32	\$187.64
9/16"	5-1/2"	2-1/8"	DWRRHDE9/16	\$176.83	DWRRHDES9/16	\$187.64
19/32"	6"	2-1/2"	DWRRHDE19/32	\$191.93	DWRRHDES19/32	\$200.21
5/8"	6"	2-1/2"	DWRRHDE5/8	\$191.93	DWRRHDES5/8	\$200.21
21/32"	6-1/4"	2-1/2"	DWRRHDE21/32	\$202.43		
11/16"	6-1/4"	2-1/2"	DWRRHDE11/16	\$202.43	DWRRHDES11/16	\$213.07
23/32"	6-9/16"	2-11/16"	DWRRHDE23/32	\$223.81	DWRRHDES23/32	\$225.84
3/4"	6-9/16"	2-11/16"	DWRRHDE3/4	\$223.81	DWRRHDES3/4	\$225.84
25/32"	7-1/16"	3-1/16"	DWRRHDE25/32	\$234.37		
13/16"	7-1/16"	3-1/16"	DWRRHDE13/16	\$234.37	DWRRHDES13/16	\$238.68
27/32"	7-1/2"	3-5/16"	DWRRHDE27/32	\$249.44		
7/8"	7-1/2"	3-5/16"	DWRRHDE7/8	\$250.55	DWRRHDES7/8	\$250.55
29/32"	7-7/8"	3-9/16"	DWRRHDE29/32	\$262.18		
15/16"	7-7/8"	3-9/16"	DWRRHDE15/16	\$262.18	DWRRHDES15/16	\$260.02
31/32"	8-3/8"	3-3/4"	DWRRHDE31/32	\$272.83		
1"	8-3/8"	3-3/4"	DWRRHDE1INCH	\$272.83	DWRRHDES1INCH	\$277.06
1-1/16"	8-11/16"	4"	DWRRHDE1-1/16	\$319.78	DWRRHDES1-1/16	\$319.70
1-1/8"	9-1/2"	4-1/8"	DWRRHDE1-1/8	\$348.53	DWRRHDES1-1/8	\$353.00
1-3/16"	9-3/8"	4-1/4"	DWRRHDE1-3/16	\$384.09	DWRRHDES1-3/16	\$388.58
1-1/4"	9-3/4"	4-3/8"	DWRRHDE1-1/4	\$415.26	DWRRHDES1-1/4	\$430.74
1-5/16"	10-1/8"	4-1/2"	DWRRHDE1-5/16	\$479.60	DWRRHDES1-5/16	\$488.45
1-3/8"	10-1/2"	4-9/16"	DWRRHDE1-3/8	\$512.86	DWRRHDES1-3/8	\$532.85
1-7/16"	10-7/8"	4-3/4"			DWRRHDES1-7/16	\$612.85
1-1/2"	11-1/8"	4-13/16"	DWRRHDE1-1/2	\$643.88	DWRRHDES1-1/2	\$665.94
1-5/8"	11-1/2"	4-7/8"	DWRRHDE1-5/8	\$727.36	DWRRHDES1-5/8	\$762.00
1-3/4"	11-7/8"	5"	DWRRHDE1-3/4	\$785.06	DWRRHDES1-3/4	\$831.29



# BRIDGE REAMERS

DWRRB Series - High Speed Spiral Flute Taper Shank



DWRRBST Series - High Speed Straight Flute Taper Shank

Designed for hard service, these reamers are especially suitable for use in structural iron or steel bridgework and ship construction in lining up bolt or rivet holes. They have a sharp point and long taper for easy entry in badly misaligned holes. The taper shank bridge reamer is commonly used in electric and pneumatic portable equipment.

## TAPER SHANK

### Spiral Flute

### Straight Flute

Size	Point Diameter	Morse Taper	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price
3/8"	7/32"	2	4-3/8"	8-1/4"	DWRRB3/8	\$59.78	-	-
7/16"	17/64"	2	4-3/8"	8-1/4"	DWRRB7/16	\$48.04	DWRRBST7/16	\$57.57
1/2"	5/16"	2	5-1/8"	9"	DWRRB1/2	\$50.89	DWRRBST1/2	\$57.57
9/16"	3/8"	2	5-1/8"	9"	DWRRB9/16	\$53.27	DWRRBST9/16	\$57.57
5/8"	25/64"	2	6-1/8"	10"	DWRRB5/8	\$60.27	DWRRBST5/8	\$78.40
11/16"	13/32"	2	7-1/8"	11-3/4"	DWRRB11/16	\$81.38	DWRRBST11/16	\$82.33
3/4"	15/32"	3	7-3/8"	12"	DWRRB3/4	\$88.97	DWRRBST3/4	\$90.07
13/16"	35/64"	3	7-3/8"	12"	DWRRB13/16	\$91.88	DWRRBST13/16	\$95.48
7/8"	39/64"	3	7-3/8"	12"	DWRRB7/8	\$106.23	DWRRBST7/8	\$106.32
15/16"	43/64"	3	7-3/8"	12"	DWRRB15/16	\$104.83	DWRRBST15/16	\$108.36
1"	47/64"	3	7-3/8"	12"	DWRRB1INCH	\$121.92	DWRRBST1INCH	\$122.01
1-1/16"	13/16"	3	7-3/8"	12"	DWRRB1-1/16	\$134.04	DWRRBST1-1/16	\$131.58
1-1/8"	55/64"	3	7-3/8"	12"	DWRRB1-1/8	\$149.59	DWRRBST1-1/8	\$157.25
1-3/16"	59/64"	3	7-3/8"	12"	DWRRB1-3/16	\$176.03	DWRRBST1-3/16	\$172.99
1-1/4"	63/64"	3	7-3/8"	13"	DWRRB1-1/4	\$176.59	DWRRBST1-1/4	\$198.98
1-5/16"	1-1/16"	3	7-3/8"	13"	DWRRB1-5/16	\$202.60	DWRRBST1-5/16	\$198.98
1-3/8"	1-1/8"	4	7-3/8"	13"	DWRRB1-3/8	\$318.04	DWRRBST1-3/8	\$318.04
1-7/16"	1-3/16"	4	7-3/8"	13"	DWRRB1-7/16	\$325.07	DWRRBST1-7/16	\$325.07
1-1/2"	1-1/4"	4	7-3/8"	13"	DWRRB1-1/2	\$384.07	DWRRBST1-1/2	\$384.07
1-9/16"	1-1/4"	4	7-3/8"	13"	DWRRB1-9/16	\$406.93	DWRRBST1-9/16	\$406.93
1-5/8"	1-3/8"	4	7-3/8"	13"	DWRRB1-5/8	\$406.93	DWRRBST1-5/8	\$406.93
1-11/16"	1-3/8"	4	7-3/8"	13"	DWRRB1-11/16	\$427.87	DWRRBST1-11/16	\$427.87
1-3/4"	1-7/16"	4	7-3/8"	13"	DWRRB1-3/4	\$517.64	DWRRBST1-3/4	\$517.64
1-13/16"	1-7/16"	4	7-3/8"	13"	DWRRB1-13/16	\$517.64	DWRRBST1-13/16	\$517.64
1-7/8"	1-1/2"	4	7-3/8"	13"	DWRRB1-7/8	\$517.64	DWRRBST1-7/8	\$517.64
1-15/16"	1-1/2"	4	7-3/8"	13"	DWRRB1-15/16	\$598.42	DWRRBST1-15/16	\$598.42
2"	1-3/4"	4	7-3/8"	13"	DWRRB2INCH	\$601.44	-	-



## 1 / 2" ROUND SHANK

Size	Point Diameter	Flute Length	O.A.L.	Part Number	List Price
1/2"	5/16"	4"	5-7/8"	DWRRBSS1/2	\$69.04
9/16"	3/8"	4"	5-7/8"	DWRRBSS9/16	\$72.64
5/8"	25/64"	4-1/2"	6-3/8"	DWRRBSS5/8	\$83.76
11/16"	13/32"	4-1/2"	6-3/8"	DWRRBSS11/16	\$100.25
3/4"	15/32"	5"	6-7/8"	DWRRBSS3/4	\$108.08
13/16"	35/64"	5"	6-7/8"	DWRRBSS13/16	\$117.08
7/8"	39/64"	5"	6-7/8"	DWRRBSS7/8	\$129.98
15/16"	43/64"	5"	6-7/8"	DWRRBSS15/16	\$133.90
1"	47/64"	5"	6-7/8"	DWRRBSS1INCH	\$148.60
1-1/16"	13/16"	5"	6-7/8"	DWRRBSS1-1/16	\$163.31

Used to align existing holes prior to bolt or rivet installation. Point is tapered to permit entry into overlapping holes. Three symmetrically placed flats on shank provide positive grip in portable electric and pneumatic tools.



# REAMERS



## HEX SHANK BRIDGE REAMERS

Size	Point Diameter	Flute Length	O.A.L.	Part Number	List Price
11/16"	13/32"	5"	6-7/8"	DWRRB11/16HEX	\$97.55
13/16"	35/64"	5"	6-7/8"	DWRRB13/16HEX	\$105.20
15/16"	43/64"	5"	6-7/8"	DWRRB15/16HEX	\$120.78
1-1/16"	13/16"	5"	6-7/8"	DWRRB1-1/16HEX	\$147.30
1-3/16"	59/64"	5"	6-7/8"	DWRRB1-3/16HEX	\$180.47

Used to align existing holes prior to bolt or rivet installation. Point is tapered to permit entry into overlapping holes. Short length facilitates use in areas with limited access. Heavy-duty hex shank designed for portable pneumatic tools.

## HEX SHANK LONG LENGTH BRIDGE REAMERS

Size	Point Diameter	Flute Length	O.A.L.	Part Number	List Price
9/16"	3/8"	5-1/8"	9"	DWRRB9/16HEX-LONG	\$92.57
11/16"	13/32"	7-1/8"	11-3/4"	DWRRB11/16HEX-LONG	\$122.65
13/16"	35/64"	7-3/8"	12"	DWRRB13/16HEX-LONG	\$132.22
15/16"	43/64"	7-3/8"	12"	DWRRB15/16HEX-LONG	\$144.03
1-1/16"	13/16"	7-3/8"	12"	DWRRB1-1/16HEX-LONG	\$170.72
1-3/16"	59/64"	7-3/8"	12"	DWRRB1-3/16HEX-LONG	\$201.07



## T S STRAIGHT FLUTE CAR REAMERS

Size	Morse Taper	Flute Length	O.A.L.	Part Number	List Price
5/8"	2	4-1/2"	8-1/16"	DWRCARST5/8	\$66.70
11/16"	3	4-1/2"	8-13/16"	DWRCARST11/16	\$66.70
13/16"	3	5"	9-1/2"	DWRCARST13/16	\$82.28
15/16"	3	5"	9-1/2"	DWRCARST15/16	\$93.36
1"	3	5"	9-1/2"	DWRCARST1INCH	\$109.27



## T S SPIRAL FLUTE CAR REAMERS

Size	Morse Taper	Flute Length	O.A.L.	Part Number	List Price
3/8"	1	2-3/4"	5-11/16"	DWRCAR3/8	\$54.61
7/16"	2	3-1/2"	6-15/16"	DWRCAR7/16	\$43.88
11/16"	3	4-1/2"	8-13/16"	DWRCAR11/16	\$67.58
13/16"	3	5"	9-1/2"	DWRCAR13/16	\$76.28
15/16"	3	5"	9-1/2"	DWRCAR15/16	\$87.05
1"	3	5"	9-1/2"	DWRCAR1INCH	\$101.26
1-1/16"	3	5"	9-1/2"	DWRCAR1-1/16	\$111.29
1-3/16"	3	5"	9-1/2"	DWRCAR1-3/16	\$138.87
1-1/4"	3	5"	9-1/2"	DWRCAR1-1/4	\$153.24



## NPT TAPER PIPE REAMERS

Taper pipe reamers are made with a taper of 3/4" per foot and are designed for reaming holes to be tapped with American Standard taper pipe taps. Taper reamer use prior to tapping with taper pipe taps provides threads of better quality and are recommended when tapping Dryseal, NPT, and Military Aeronautical Pipe Thread Specification, ANPT. The spiral fluted reamers have left hand spiral, right hand cutting flutes.

### Straight Flute

### Spiral Flute

Size	Flute Length	Range Diameter	O.A.L.	Part Number	List Price	Part Number	List Price
1/16"	3/4"	11/32-19/64"	2"	DWRTPR1/16	\$28.61	DWRTPRS1/16	\$34.28
1/8"	3/4"	23/64-5/16"	2-1/8"	DWRTPR1/8	\$28.62	DWRTPRS1/8	\$32.94
1/4"	1-1/16"	15/32-13/32"	2-7/16"	DWRTPR1/4	\$36.41	DWRTPRS1/4	\$43.36
3/8"	1-1/16"	39/64-17/32"	2-9/16"	DWRTPR3/8	\$38.80	DWRTPRS3/8	\$46.83
1/2"	1-3/8"	3/4-21/32"	3-1/8"	DWRTPR1/2	\$51.44	DWRTPRS1/2	\$61.86
3/4"	1-3/8"	61/64-7/8"	3-1/4"	DWRTPR3/4	\$71.09	DWRTPRS3/4	\$84.93
1"	1-3/4"	1-13/64-1-3/32"	3-3/4"	DWRTPR1INCH	\$113.22	DWRTPRS1INCH	\$120.03
1-1/4"	1-3/4"	1-35/64-1-7/16"	4"	DWRTPR1-1/4	\$186.98	DWRTPRS1-1/4	\$195.30
1-1/2"	1-3/4"	1-51/64-1-11/16"	4-1/4"	DWRTPR1-1/2	\$249.09	DWRTPRS1-1/2	\$237.77
2"	1-3/4"	2-17/64-2-5/32"	4-1/2"	DWRTPR2INCH	\$333.99	DWRTPRS2INCH	\$315.41



# REAMERS



## H. S. S. ADJUSTABLE HAND REAMERS

### DWRRADJ Series

Reamers expand by loosening one adjusting nut and tightening the other. Each reamer expands to the next size.

Size	Range	O.A.L.	Part Number	List Price
8/A	1/4"-9/32"	3-1/4"	DWRRADJ8/A	\$48.27
7/A	9/32"-5/16"	3-1/2"	DWRRADJ7/A	\$48.27
6/A	5/16"-11/32"	4-1/8"	DWRRADJ6/A	\$42.50
5/A	11/32"-3/8"	4-3/8"	DWRRADJ5/A	\$42.50
4/A	3/8"-13/32"	4-3/4"	DWRRADJ4/A	\$44.61
3/A	13/32"-7/16"	5"	DWRRADJ3/A	\$49.22
2/A	7/16"-15/32"	5-1/4"	DWRRADJ2/A	\$49.22
A	15/32"-17/32"	5-1/2"	DWRRADJA	\$52.50
B	17/32"-19/32"	5-3/4"	DWRRADJB	\$52.50
C	19/32"-21/32"	6-1/2"	DWRRADJC	\$54.62
D	21/32"-23/32"	6-3/4"	DWRRADJD	\$57.12



Size	Range	O.A.L.	Part Number	List Price
E	23/32"-25/32"	7"	DWRRADJE	\$59.99
F	25/32"-27/32"	7-3/8"	DWRRADJF	\$61.72
G	27/32"-15/16"	8"	DWRRADJG	\$65.37
H	15/16"-1-1/16"	9"	DWRRADJH	\$68.85
I	1-1/16"-1-3/16"	10"	DWRRADJI	\$90.00
J	1-3/16"-1-11/32"	11"	DWRRADJJ	\$107.20
K	1-11/32"-1-1/2"	12"	DWRRADJK	\$129.36
L	1-1/2"-1-13/16"	14"	DWRRADJL	\$189.89
M	1-13/16"-2-7/32"	16"	DWRRADJM	\$258.51
N	2-7/32"-2-3/4"	18"	DWRRADJN	\$436.72
O	2-3/4"-3-11/32"	20"	DWRRADJO	\$593.56

# TAPER PIN REAMERS

### DWR RTP Series - Straight Flute



### DWR RTPH Series - Helical Flute



### DWR RTPS Series - Spiral Flute



These tapered reamers turn a straight hole into a tapered hole into which standard taper pins will fit. The straight-flute and spiral-flute reamers are generally used by hand while the helical-flute is designed for machine use. The square on the shanks of the straight and spiral fluted are suitable for holding in a tap wrench or vise. The straight flute taper pin reamer is recommended for most materials. The spiral-flute taper pin reamer is recommended for applications where the reamer tends to wedge itself. The Helical-flute Taper pin reamer has the geometry for reaming holes for tapered pins with a machine. The free cutting action at high speeds produces a good finish and minimizes chip packing in the flutes.

## FRACTIONAL SIZES

### Straight Flute

### Helical Flute

### Spiral Flute

Size	Shank Diameter	Short End	Large End	Flute Length	O.A.L.	Part Number	List Price	Part Number	List Price	Part Number	List Price
7/0	5/64"	.0497	.0666	13/16"	1-13/16"	DWR RTP7/0	\$32.21	DWR RTPH7/0	\$30.10	DWR RTPS7/0	\$33.54
6/0	3/32"	.0611	.0806	15/16"	1-15/16"	DWR RTP6/0	\$32.21	DWR RTPH6/0	\$30.10	DWR RTPS6/0	\$33.54
5/0	7/64"	.0719	.0966	1-3/16"	2-3/16"	DWR RTP5/0	\$29.49	DWR RTPH5/0	\$29.03	DWR RTPS5/0	\$32.21
4/0	1/8"	.0869	.1142	1-5/16"	2-5/16"	DWR RTP4/0	\$29.49	DWR RTPH4/0	\$29.03	DWR RTPS4/0	\$31.60
3/0	9/64"	.1029	.1302	1-5/16"	2-5/16"	DWR RTP3/0	\$29.49	DWR RTPH3/0	\$26.19	DWR RTPS3/0	\$32.21
2/0	5/32"	.1137	.1462	1-9/16"	2-9/16"	DWR RTP2/0	\$26.38	DWR RTPH2/0	\$25.19	DWR RTPS2/0	\$28.11
0	11/64"	.1287	.1638	1-11/16"	2-15/16"	DWR RTP0	\$25.25	DWR RTPH0	\$26.19	DWR RTPS0	\$27.06
1	3/16"	.1447	.1798	1-11/16"	2-15/16"	DWR RTP1	\$24.66	DWR RTPH1	\$27.69	DWR RTPS1	\$27.40
2	13/64"	.1605	.2008	1-15/16"	3-3/16"	DWR RTP2	\$24.66	DWR RTPH2	\$31.52	DWR RTPS2	\$27.76
3	15/64"	.1813	.2294	2-5/16"	3-11/16"	DWR RTP3	\$24.66	DWR RTPH3	\$32.44	DWR RTPS3	\$27.76
4	17/64"	.2071	.2604	2-9/16"	4-1/16"	DWR RTP4	\$27.40	DWR RTPH4	\$39.50	DWR RTPS4	\$29.70
5	5/16"	.2409	.2994	2-13/16"	4-5/16"	DWR RTP5	\$29.49	DWR RTPH5	\$42.27	DWR RTPS5	\$32.02
6	23/64"	.2773	.3540	3-11/16"	5-7/16"	DWR RTP6	\$37.10	DWR RTPH6	\$51.88	DWR RTPS6	\$41.12
7	13/32"	.3297	.4220	4-7/16"	6-5/16"	DWR RTP7	\$48.99	DWR RTPH7	\$64.02	DWR RTPS7	\$53.10
8	7/16"	.3971	.5050	5-3/16"	7-3/16"	DWR RTP8	\$62.59	DWR RTPH8	\$73.95	DWR RTPS8	\$68.56
9	9/16"	.4805	.6066	6-1/16"	8-5/16"	DWR RTP9	\$76.11	DWR RTPH9	\$79.50	DWR RTPS9	\$82.87
10	5/8"	.5799	.7219	6-13/16"	9-5/16"	DWR RTP10	\$83.66	DWR RTPH10	\$105.70	DWR RTPS10	\$91.92
11	3/4"	.7060	.8780	8-1/4"	11-1/4"	DWR RTP11	\$163.57	DWR RTPH11	\$214.15	DWR RTPS11	\$196.28
12	3/4"	.8420	1.0500	10"	13-7/8"	DWR RTP12	\$242.09	DWR RTPH12	\$285.49	DWR RTPS12	\$261.70
13	1-1/16"	1.0090	1.2590	12"	16"	DWR RTP13	\$376.19	DWR RTPH13	\$548.02	DWR RTPS13	\$425.32
14	1-3/32"	1.2500	1.5420	14"	18-1/4"	DWR RTP14	\$598.10	DWR RTPH14	\$701.92	DWR RTPS14	\$639.42

# REAMERS

## SHELL REAMERS

### DWRRS Series - Straight Flute

### DWRRSS Series - Spiral Flute



Used with Shell Reamer Arbors. One size arbor fits a range of sizes. More economical, particularly where larger sizes are concerned.

### Straight Flute

### Spiral Flute

Size	Flute Length	Hole Diameter	Fits Arbor	Part Number	List Price	Part Number	List Price
3/4"	2-1/4"	3/8"	4	DWRRS3/4	\$240.00	DWRRSS3/4	\$240.00
13/16"	2-1/2"	1/2"	5	DWRRS13/16	\$228.13	DWRRSS13/16	\$232.19
7/8"	2-1/2"	1/2"	5	DWRRS7/8	\$145.69	DWRRSS7/8	\$176.27
15/16"	2-1/2"	1/2"	5	DWRRS15/16	\$173.66	DWRRSS15/16	\$178.58
1"	2-1/2"	1/2"	5	DWRRS1INCH	\$143.04	DWRRSS1INCH	\$143.96
1-1/16"	2-3/4"	5/8"	6	DWRRS1-1/16	\$151.72	DWRRSS1-1/16	\$145.98
1-1/8"	2-3/4"	5/8"	6	DWRRS1-1/8	\$138.19	DWRRSS1-1/8	\$155.50
1-3/16"	2-3/4"	5/8"	6	DWRRS1-3/16	\$147.13	DWRRSS1-3/16	\$166.75
1-1/4"	2-3/4"	5/8"	6	DWRRS1-1/4	\$155.78	DWRRSS1-1/4	\$152.90
1-5/16"	3"	3/4"	7	DWRRS1-5/16	\$167.31	DWRRSS1-5/16	\$166.46
1-3/8"	3"	3/4"	7	DWRRS1-3/8	\$179.69	DWRRSS1-3/8	\$177.71
1-7/16"	3"	3/4"	7	DWRRS1-7/16	\$184.91	DWRRSS1-7/16	\$189.25
1-1/2"	3"	3/4"	7	DWRRS1-1/2	\$195.56	DWRRSS1-1/2	\$193.87
1-9/16"	3"	3/4"	7	DWRRS1-9/16	\$215.19	DWRRSS1-9/16	\$212.91
1-5/8"	3"	3/4"	7	DWRRS1-5/8	\$231.94	DWRRSS1-5/8	\$228.78
1-11/16"	3-1/2"	1"	8	DWRRS1-11/16	\$250.66	DWRRSS1-11/16	\$248.11
1-3/4"	3-1/2"	1"	8	DWRRS1-3/4	\$274.03	DWRRSS1-3/4	\$271.19
1-13/16"	3-1/2"	1"	8	DWRRS1-13/16	\$292.78	DWRRSS1-13/16	\$289.94
1-7/8"	3-1/2"	1"	8	DWRRS1-7/8	\$312.97	DWRRSS1-7/8	\$310.13
1-15/16"	3-1/2"	1"	8	DWRRS1-15/16	\$330.28	DWRRSS1-15/16	\$327.44
2"	3-1/2"	1"	8	DWRRS2INCH	\$353.38	DWRRSS2INCH	\$349.08
2-1/16"	3-3/4"	1-1/4"	9	DWRRS2-1/16	\$372.13	DWRRSS2-1/16	\$442.84
2-1/8"	3-3/4"	1-1/4"	9	DWRRS2-1/8	\$392.31	DWRRSS2-1/8	\$465.92
2-3/16"	3-3/4"	1-1/4"	9	DWRRS2-3/16	\$496.16	DWRRSS2-3/16	\$490.44
2-1/4"	3-3/4"	1-1/4"	9	DWRRS2-1/4	\$431.25	DWRRSS2-1/4	\$513.52
2-5/16"	3-3/4"	1-1/4"	9	DWRRS2-5/16	\$542.31	DWRRSS2-5/16	\$538.04
2-3/8"	3-3/4"	1-1/4"	9	DWRRS2-3/8	\$468.75	DWRRSS2-3/8	\$558.24
2-7/16"	3-3/4"	1-1/4"	9	DWRRS2-7/16	\$587.03	DWRRSS2-7/16	\$578.43
2-1/2"	3-3/4"	1-1/4"	9	DWRRS2-1/2	\$509.13	DWRRSS2-1/2	\$503.42
2-9/16"	4"	1-1/2"	10	DWRRS2-9/16	\$535.09	DWRRSS2-9/16	\$636.13
2-5/8"	4"	1-1/2"	10	DWRRS2-5/8	\$569.69	DWRRSS2-5/8	\$673.64
2-11/16"	4"	1-1/2"	10	DWRRS2-11/16	\$692.31	DWRRSS2-11/16	\$685.18
2-3/4"	4"	1-1/2"	10	DWRRS2-3/4	\$761.53	DWRRSS2-3/4	\$754.41
2-13/16"	4"	1-1/2"	10	DWRRS2-13/16	\$799.00	DWRRSS2-13/16	\$790.48
2-7/8"	4"	1-1/2"	10	DWRRS2-7/8	\$846.63	DWRRSS2-7/8	\$838.08
2-15/16"	4"	1-1/2"	10	DWRRS2-15/16	\$889.90	DWRRSS2-15/16	\$882.79
3"	4"	1-1/2"	10	DWRRS3INCH	\$787.50	DWRRSS3INCH	\$783.26



## SHELL REAMER ARBORS

### Straight Shank

### Taper Shank

Size	Fits Reamer Sized	Shank Diameter	O.A.L.	Part Number	List Price	Part Number	Shank	List Price
4	21/32"-25/32"	1/2"	9"	DWRSRA4SS	\$74.04	DWRSRA4TS	2MT	\$98.52
5	13/16"-1-1/32"	5/8"	9-1/2"	DWRSRA5SS	\$82.36	DWRSRA5TS	2MT	\$108.32
6	1-1/16"-1-9/32"	3/4"	10"	DWRSRA6SS	\$90.29	DWRSRA6TS	3MT	\$118.13
7	1-5/16"-1-21/32"	7/8"	11"	DWRSRA7SS	\$99.29	DWRSRA7TS	3MT	\$128.52
8	1-11/16"-2"	1-1/8"	12"	DWRSRA8SS	\$110.39	DWRSRA8TS	4MT	\$170.78
9	2-1/16"-2-1/2"	1-3/8"	13"	DWRSRA9SS	\$133.28	DWRSRA9TS	4MT	\$180.16
10	2-9/16"-3"	1-5/8"	14"	DWRSRA10SS	\$191.74	DWRSRA10TS	5MT	\$242.47
11	3-1/16"-3-1/2"	2"	15"	DWRSRA11SS	\$282.57	DWRSRA11TS	5MT	\$349.64
12	3-9/16"-4"	2-1/8"	16"	DWRSRA12SS	\$343.63	DWRSRA12TS	5MT	\$396.66



# HOLE SAWS

## BI-METAL HOLE SAWS

### DMS Series

Variable pitch teeth allow for cutting thru any wood, metal or plastic. Can be used in a wide variety of applications.

Part Number	Size	Size MM	List Price	Part Number	Size	Size MM	List Price
DMS04-1014	9/16"	14	\$10.11	DMS04-1059	2-5/16"	59	\$19.45
DMS04-1016	5/8"	16	\$10.11	DMS04-1060	2-3/8"	60	\$19.45
DMS04-1017	11/16"	17	\$10.11	DMS04-1064	2-1/2"	64	\$19.45
DMS04-1019	3/4"	19	\$10.11	DMS04-1065	2-9/16"	65	\$19.83
DMS04-1021	13/16"	21	\$10.11	DMS04-1067	2-5/8"	67	\$19.83
DMS04-1022	7/8"	22	\$10.11	DMS04-1070	2-3/4"	70	\$20.85
DMS04-1024	15/16"	24	\$10.11	DMS04-1073	2-7/8"	73	\$22.46
DMS04-1025	1"	25	\$10.11	DMS04-1076	3"	76	\$22.46
DMS04-1027	1-1/16"	27	\$11.32	DMS04-1079	3-1/8"	79	\$25.77
DMS04-1028	1-1/8"	28	\$11.32	DMS04-1083	3-1/4"	83	\$27.06
DMS04-1030	1-3/16"	30	\$11.32	DMS04-1086	3-3/8"	86	\$28.08
DMS04-1032	1-1/4"	32	\$11.49	DMS04-1089	3-1/2"	89	\$28.53
DMS04-1033	1-5/16"	33	\$11.49	DMS04-1092	3-5/8"	92	\$28.72
DMS04-1035	1-3/8"	35	\$12.31	DMS04-1095	3-3/4"	95	\$30.33
DMS04-1037	1-7/16"	37	\$12.31	DMS04-1098	3-7/8"	98	\$33.03
DMS04-1038	1-1/2"	38	\$12.31	DMS04-1102	4"	102	\$33.49
DMS04-1040	1-9/16"	40	\$12.31	DMS04-1105	4-1/8"	105	\$35.10
DMS04-1041	1-5/8"	41	\$12.31	DMS04-1108	4-1/4"	108	\$36.33
DMS04-1043	1-11/16"	43	\$12.31	DMS04-1111	4-3/8"	111	\$38.19
DMS04-1044	1-3/4"	44	\$15.18	DMS04-1114	4-1/2"	114	\$40.89
DMS04-1046	1-13/16"	46	\$15.18	DMS04-1121	4-3/4"	121	\$45.42
DMS04-1048	1-7/8"	48	\$15.18	DMS04-1127	5"	127	\$49.53
DMS04-1051	2"	51	\$15.18	DMS04-1133	5-1/4"	133	\$57.00
DMS04-1052	2-1/16"	52	\$17.77	DMS04-1140	5-1/2"	140	\$57.78
DMS04-1054	2-1/8"	54	\$17.77	DMS04-1146	5-3/4"	146	\$63.91
DMS04-1057	2-1/4"	57	\$18.36	DMS04-1152	6"	152	\$70.20



### ARBORS & PILOTS

Part Number	Shank Size	Description	List Price
DMS04-9002	7/16"	Hex Shank Arbor, Fits 1-1/4"-6	\$30.12
DMS04-9004	3/8"	Hex Shank Quick Lock Arbor, Fits 1-1/4"-6	\$25.55
DMS04-9005	1/4"	Round Shank Arbor, Fits 9/16"-1-1/8"	\$13.31
DMS04-9006	3/8"	Hex Shank Arbor, Fits 9/16"-1-1/8"	\$13.31
DMS04-9007	7/16"	Hex Shank Arbor, Fits 9/16"-1-1/8"	\$13.76
DMS04-9014	1/4"	4-1/2" O.A.L. Standard Pilot Bit	\$3.37



### KITS

Part Number	No. of Pieces	No. of Hole Saws	Range	No. Of Arbors	No. Of Pilots	List Price
DMS04-9108	9	6	7/8" - 2 1/2"	2	1	\$100.57
DMS04-9114	14	11	3/4" - 3"	2	1	\$159.84
DMS04-9115	16	11	7/8" - 4-1/2"	3	1	\$217.73
DMS04-9308	9	6	3/4" - 2-1/4"	2	1	\$95.26

#### Hole Saw sizes included in kit

#### ELECTRICIANS KIT

**DMS04-9108**  
7/8", 1-1/8", 1-3/8", 1-3/4", 2", 2-1/2"

#### INDUSTRIAL KIT

**DMS04-9114**  
3/4", 7/8", 1", 1-1/4", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2", 3"

#### MASTER ELECTRICIANS KIT

**DMS04-9115**  
7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/2", 3", 3-5/8", 4-1/8", 4-1/2"

#### PLUMBERS KIT

**DMS04-9308**  
3/4", 7/8", 1-1/8", 1-1/2", 1-3/4", 2-1/4"



# CUTTERS

## ANNULAR CUTTERS

1" DOC

2" DOC

3" DOC



### DWC Series - Annular Cutters

*Designed for fast, efficient hole making. Universal cutters cut only that material necessary to produce a quality hole.*

Size	Part Number	List Price	Part Number	List Price	Part Number	List Price
7/16"	DWC5-530-110	\$48.28	DWC5-530-210	\$64.94		
1/2"	DWC5-530-111	\$50.17	DWC5-530-211	\$65.99		
9/16"	DWC5-530-113	\$50.81	DWC5-530-213	\$71.05		
5/8"	DWC5-530-116	\$52.70	DWC5-530-216	\$77.37		
11/16"	DWC5-530-119	\$58.82	DWC5-530-219	\$81.80		
3/4"	DWC5-530-121	\$64.72	DWC5-530-221	\$87.08		
13/16"	DWC5-530-124	\$67.05	DWC5-530-224	\$93.82	DWC5-530-324	\$192.53
7/8"	DWC5-530-127	\$70.84	DWC5-530-227	\$101.63	DWC5-530-327	\$198.11
15/16"	DWC5-530-130	\$74.43	DWC5-530-230	\$106.89	DWC5-530-330	\$203.92
1"	DWC5-530-133	\$78.86	DWC5-530-233	\$113.22	DWC5-530-333	\$212.52
1-1/16"	DWC5-530-136	\$85.39	DWC5-530-236	\$125.87	DWC5-530-336	\$196.08
1-1/8"	DWC5-530-139	\$90.24	DWC5-530-239	\$134.52	DWC5-530-339	\$255.53
1-3/16"	DWC5-530-142	\$90.87	DWC5-530-242	\$139.58	DWC5-530-342	\$263.58
1-1/4"	DWC5-530-145	\$94.88	DWC5-530-245	\$144.84	DWC5-530-345	\$270.71
1-5/16"	DWC5-530-148	\$100.99	DWC5-530-248	\$152.64	DWC5-530-348	\$284.63
1-3/8"	DWC5-530-151	\$130.50	DWC5-530-251	\$160.66	DWC5-530-351	\$299.81
1-7/16"	DWC5-530-154	\$144.64	DWC5-530-254	\$221.24	DWC5-530-354	\$328.90
1-1/2"	DWC5-530-157	\$154.33	DWC5-530-257	\$192.28	DWC5-530-357	\$363.06
1-9/16"	DWC5-530-160	\$171.83	DWC5-530-260	\$216.11	DWC5-530-360	\$402.27
1-5/8"	DWC5-530-163	\$183.85	DWC5-530-263	\$226.64	DWC5-530-363	\$425.04
1-11/16"	DWC5-530-166	\$209.99	DWC5-530-266	\$259.33	DWC5-530-366	\$440.22
1-3/4"	DWC5-530-169	\$207.67	DWC5-530-269	\$251.94	DWC5-530-369	\$473.11
1-13/16"	DWC5-530-172	\$275.77	DWC5-530-272	\$326.37	DWC5-530-372	\$523.71
1-7/8"	DWC5-530-175	\$245.62	DWC5-530-275	\$333.96	DWC5-530-375	\$546.48
1-15/16"	DWC5-530-178	\$259.33	DWC5-530-278	\$349.14	DWC5-530-378	\$571.78
2"	DWC5-530-181	\$278.30	DWC5-530-281	\$304.66	DWC5-530-381	\$589.49
2-1/16"	DWC5-530-183	\$373.18	DWC5-530-283	\$437.69	DWC5-530-383	\$736.23
Pilot	DWC5-530-905	\$10.96	DWC5-530-915	\$11.93	DWC5-530-925	\$13.92



## T-SLOT CUTTERS

Bolt Size	Shank Dia.	O.A.L.	Part Number	List Price	Bolt Size	Shank Dia.	O.A.L.	Part Number	List Price
1/4"	1/2"	2-19/32"	DWCA1310	\$93.56	3/4"	1"	4-7/16"	DWCA1320	\$245.35
5/16"	1/2"	2-11/16"	DWCA1312	\$101.64	1"	1-1/4"	4-13/16"	DWCA1322	\$423.92
3/8"	3/4"	3-1/4"	DWCA1314	\$146.93	1-1/4"	1-1/4"	5-3/8"	DWCA1324	\$611.53
1/2"	3/4"	3-7/16"	DWCA1316	\$168.28	1-1/2"	1-1/4"	5-29/32"	DWCA1326	\$781.68
5/8"	1"	3-15/16"	DWCA1318	\$226.70					



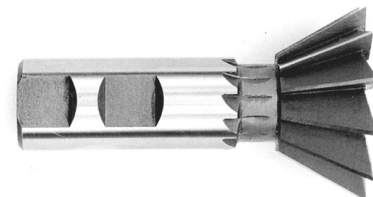
## SHANK TYPE WOODRUFF KEYSEAT 1/2" SHK

Dia.	Face Width	Part Number	List Price	Dia.	Face Width	Part Number	List Price	Dia.	Face Width	Part Number	List Price
1/4"	1/16"	DWCWC202	\$43.13	3/4"	5/32"	DWCWC506	\$48.13	1-1/4"	1/4"	DWCWC810	\$72.02
5/16"	1/16"	DWCWC202-1/2	\$43.13	7/8"	5/32"	DWCWC507	\$49.23	1-3/8"	1/4"	DWCWC811	\$70.77
3/8"	1/16"	DWCWC203	\$43.13	5/8"	3/16"	DWCWC605	\$43.13	1-1/2"	1/4"	DWCWC812	\$72.02
1/2"	1/16"	DWCWC204	\$43.13	3/4"	3/16"	DWCWC606	\$48.13	1"	5/16"	DWCWC1008	\$63.61
5/16"	3/32"	DWCWC302-1/2	\$43.13	7/8"	3/16"	DWCWC607	\$51.59	1-1/8"	5/16"	DWCWC1009	\$68.47
3/8"	3/32"	DWCWC303	\$43.13	1"	3/16"	DWCWC608	\$54.09	1-1/4"	5/16"	DWCWC1010	\$77.99
1/2"	3/32"	DWCWC304	\$43.13	1-1/8"	3/16"	DWCWC609	\$65.48	1-3/8"	5/16"	DWCWC1011	\$85.15
5/8"	3/32"	DWCWC305	\$43.13	1-1/4"	3/16"	DWCWC610	\$65.48	1-1/2"	5/16"	DWCWC1012	\$83.47
3/8"	1/8"	DWCWC403	\$43.13	1-1/4"	7/32"	DWCWC710	\$72.02	1"	3/8"	DWCWC1208	\$65.48
1/2"	1/8"	DWCWC404	\$43.13	3/4"	1/4"	DWCWC806	\$48.13	1-1/4"	3/8"	DWCWC1210	\$77.99
5/8"	1/8"	DWCWC405	\$43.13	7/8"	1/4"	DWCWC807	\$53.75	1-3/8"	3/8"	DWCWC1211	\$83.47
3/4"	1/8"	DWCWC406	\$43.13	1"	1/4"	DWCWC808	\$60.15	1-1/2"	3/8"	DWCWC1212	\$85.15
5/8"	5/32"	DWCWC505	\$43.13	1-1/8"	1/4"	DWCWC809	\$65.48				



## DOVETAIL CUTTERS

Cutter Dia.	Shank Dia.	O.A.L.	45° Part No.	60° Part No.	List Price
3/8"	3/8"	2-1/8"	DWCA1406-45	DWCA1406-60	\$61.88
1/2"	3/8"	2-1/8"	DWCA1408-45	DWCA1408-60	\$65.00
3/4"	3/8"	2-1/4"	DWCA1410-45	DWCA1410-60	\$68.75
1-3/8"	5/8"	2-7/8"	DWCA1420-45	DWCA1420-60	\$120.78
1-7/8"	7/8"	3-1/4"	DWCA1430-45	DWCA1430-60	\$223.00
2-1/4"	1"	3-3/4"	DWCA1440-45	DWCA1440-60	\$280.98



# MACHINE TOOL ACCESSORIES

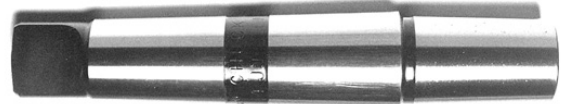
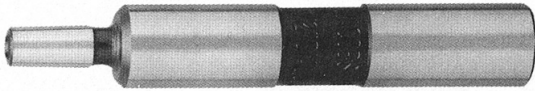
## DRILL CHUCK ARBORS **QUALITECH™**

### STRAIGHT SHANK TO JACOBS TAPER

Shank Dia.	Jacobs Taper	Part Number	List Price	Shank Dia.	Jacobs Taper	Part Number	List Price	Shank Dia.	Jacobs Taper	Part Number	List Price
1/2"	0JT	DEWA4000	\$16.93	5/8"	2JT	DEWA4102	\$16.93	3/4"	6JT	DEWA4206	\$26.81
1/2"	1JT	DEWA4001	\$16.93	5/8"	3JT	DEWA4103	\$16.93	3/4"	33JT	DEWA4233	\$26.81
1/2"	2JT	DEWA4002	\$16.93	5/8"	4JT	DEWA4104	\$16.93	1"	3JT	DEWA4303	\$30.06
1/2"	3JT	DEWA4003	\$16.93	5/8"	6JT	DEWA4106	\$16.93	1"	4JT	DEWA4304	\$30.06
1/2"	4JT	DEWA4004	\$16.93	5/8"	33JT	DEWA4133	\$16.93	1"	6JT	DEWA4306	\$30.06
1/2"	6JT	DEWA4006	\$16.93	3/4"	2JT	DEWA4202	\$26.81	1"	33JT	DEWA4333	\$30.06
1/2"	33JT	DEWA4033	\$16.93	3/4"	3JT	DEWA4203	\$26.81				
5/8"	1JT	DEWA4101	\$16.93	3/4"	4JT	DEWA4204	\$26.81				

**MORSE TAPER**

**JACOBS TAPER**

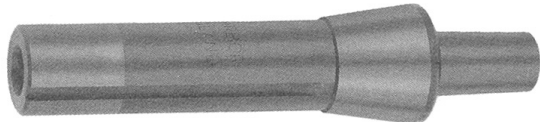


### TAPER SHANK TO JACOBS TAPER

Shank	Jacobs Taper	Part Number	List Price	Shank	Jacobs Taper	Part Number	List Price	Shank	Jacobs Taper	Part Number	List Price
1MT	1JT	DEWA0101	\$19.73	2MT	6JT	DEWA0206	\$24.58	4MT	3JT	DEWA0403	\$39.92
1MT	2JT	DEWA0102	\$19.73	2MT	33JT	DEWA0233	\$18.35	4MT	4JT	DEWA0404	\$39.92
1MT	3JT	DEWA0103	\$22.08	3MT	1JT	DEWA0301	\$24.58	4MT	5JT	DEWA0405	\$42.22
1MT	4JT	DEWA0104	\$22.08	3MT	2JT	DEWA0302	\$24.58	4MT	6JT	DEWA0406	\$39.92
1MT	6JT	DEWA0106	\$22.08	3MT	3JT	DEWA0303	\$24.58	4MT	33JT	DEWA0433	\$42.22
1MT	33JT	DEWA0133	\$22.08	3MT	4JT	DEWA0304	\$24.58	5MT	3JT	DEWA0503	\$67.90
2MT	0JT	DEWA0200	\$22.08	3MT	5JT	DEWA0305	\$24.58	5MT	4JT	DEWA0504	\$67.90
2MT	1JT	DEWA0201	\$19.29	3MT	6JT	DEWA0306	\$24.58	5MT	5JT	DEWA0505	\$67.90
2MT	2JT	DEWA0202	\$18.35	3MT	33JT	DEWA0333	\$24.58	5MT	6JT	DEWA0506	\$67.90
2MT	3JT	DEWA0203	\$18.35	4MT	2JT	DEWA0402	\$42.22				

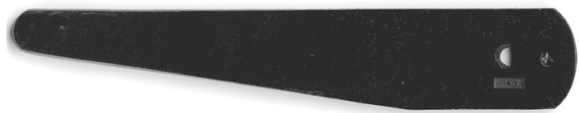
### R8 SHANK TO JACOBS TAPER

Jacobs Taper	Part Number	List Price
1JT	DEWA0801	\$51.11
2JT	DEWA0802	\$51.11
3JT	DEWA0803	\$51.11
4JT	DEWA0804	\$51.11
5JT	DEWA0805	\$51.11
6JT	DEWA0806	\$51.11
33JT	DEWA0833	\$51.11



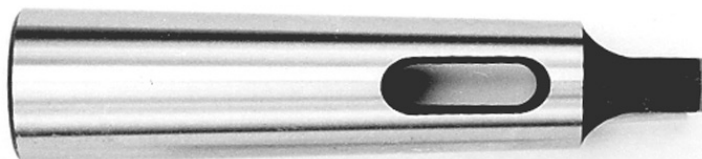
### DRIFT KEYS

Size	Hole Fitting	Length Inches	Part Number	List Price
NO.1	1	4-1/2"	DWDDRIFTS1	\$7.28
NO.2	2	5-1/4"	DWDDRIFTS2	\$7.80
NO.3	3	6"	DWDDRIFTS3	\$9.88
NO.4	4,5,6	7"	DWDDRIFTS4	\$12.48



### MORSE TAPER SLEEVES

Size No.	Hole Size	Shank Dia.	Part Number	List Price	Size No.	Hole Size	Shank Dia.	Part Number	List Price
1-2	1MT	2MT	DEWS1-2	\$11.74	2-5	2MT	5MT	DEWS2-5	\$40.31
1-3	1MT	3MT	DEWS1-3	\$16.25	3-4	3MT	4MT	DEWS3-4	\$25.18
1-4	1MT	4MT	DEWS1-4	\$25.18	3-5	3MT	5MT	DEWS3-5	\$40.31
1-5	1MT	5MT	DEWS1-5	\$40.31	4-5	4MT	5MT	DEWS4-5	\$40.31
2-3	2MT	3MT	DEWS2-3	\$16.25	4-6	4MT	6MT	DEWS4-6	\$115.17
2-4	2MT	4MT	DEWS2-4	\$25.18	5-6	5MT	6MT	DEWS5-6	\$124.55

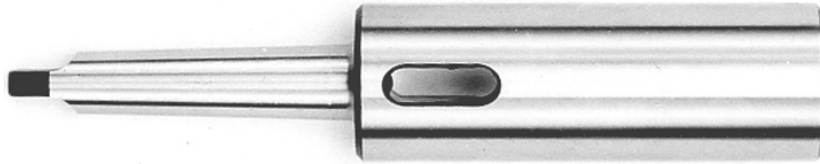


# MACHINE TOOL ACCESSORIES

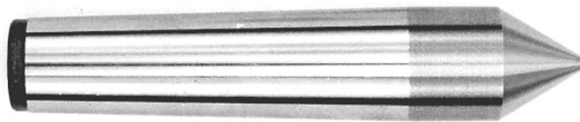
## EXTENSION SOCKETS **QUALITECH™**

Size No.	Hole Size	Shank Dia.	Part Number	List Price
1-2	1MT	2MT	DEWES1-2	\$37.36
1-3	1MT	3MT	DEWES1-3	\$40.62
1-4	1MT	4MT	DEWES1-4	\$57.18
1-5	1MT	5MT	DEWES1-5	\$81.87
2-1	2MT	1MT	DEWES2-1	\$37.36
2-2	2MT	2MT	DEWES2-2	\$37.36
2-3	2MT	3MT	DEWES2-3	\$40.62
2-4	2MT	4MT	DEWES2-4	\$51.25
2-5	2MT	5MT	DEWES2-5	\$95.17
3-1	3MT	1MT	DEWES3-1	\$51.25
3-2	3MT	2MT	DEWES3-2	\$51.25

Size No.	Hole Size	Shank Dia.	Part Number	List Price
3-3	3MT	3MT	DEWES3-3	\$51.25
3-4	3MT	4MT	DEWES3-4	\$51.25
3-5	3MT	5MT	DEWES3-5	\$95.17
4-2	4MT	2MT	DEWES4-2	\$81.87
4-3	4MT	3MT	DEWES4-3	\$81.87
4-4	4MT	4MT	DEWES4-4	\$81.87
4-5	4MT	5MT	DEWES4-5	\$95.17
4-6	4MT	6MT	DEWES4-6	\$240.48
5-4	5MT	4MT	DEWES5-4	\$182.98
5-5	5MT	5MT	DEWES5-5	\$182.98
5-6	5MT	6MT	DEWES5-6	\$240.48



### DEAD CENTERS



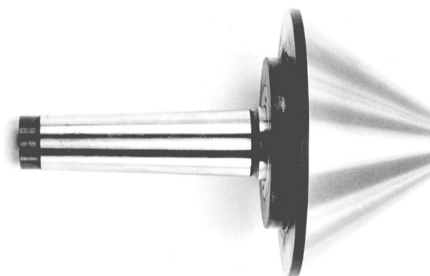
Taper #	Large End	Small End	Taper Length	O.A.L.	Carbide-Tipped Part Number	List Price	H.S.S. Part Number	List Price
1MT	.4750	.3760	2-1/8"	3-5/16"	DEWX712-1CT	\$29.11	DEWX712-1HS	\$29.11
2MT	.7000	.5790	2-9/16"	4-3/16"	DEWX714-2CT	\$35.35	DEWX714-2HS	\$34.37
3MT	.9380	.7850	3-3/16"	5-1/4"	DEWX716-3CT	\$64.58	DEWX716-3HS	\$62.79
4MT	1.2310	1.0270	4-1/16"	6-3/4"	DEWX718-4CT	\$98.90	DEWX718-4HS	\$91.66
5MT	1.7480	1.4820	5-3/16"	8-1/2"	DEWX720-5CT	\$158.78	DEWX720-5HS	\$157.20
6MT	2.4940	2.1300	7-1/8"	11-3/4"	DEWX722-6CT	\$407.50	DEWX722-6HS	\$443.90

### LIVE CENTERS



Taper #	Part Number	List Price
1MT	DEW1MT	\$91.38
2MT	DEW2MT	\$107.28
3MT	DEW3MT	\$126.05
4MT	DEW4MT	\$167.19
5MT	DEW5MT	\$285.18
6MT	DEW6MT	\$732.08

### BULL-NOSE LIVE CENTERS



Taper #	Small End	Large End	H.S.S. Part Number	List Price
2MT	7/8"	2-3/8"	DEW2MT-BULL	\$263.53
3MT	1-1/8"	4"	DEW3MT-BULL	\$341.32
4MT	2"	5"	DEW4MT-BULL	\$753.86
5MT	2"	6"	DEW5MT-BULL	\$975.70
6MT	2"	6"	DEW6MT-BULL	\$1,711.97

# H.S.S. END MILLS

## H.S.S. 4 FLUTE DOUBLE END



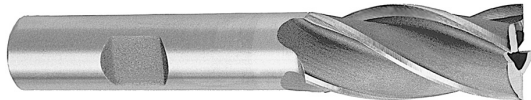
Size	Shank Dia.	Length Of Cut	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	3-1/8"	BRCF204	\$28.56
5/32"	3/8"	7/16"	3-1/8"	BRCF205	\$28.56
3/16"	3/8"	1/2"	3-1/4"	BRCF206	\$28.56
7/32"	3/8"	9/16"	3-1/4"	BRCF207	\$28.56
1/4"	3/8"	5/8"	3-3/8"	BRCF208	\$28.19
9/32"	3/8"	11/16"	3-3/8"	BRCF209	\$28.92
5/16"	3/8"	3/4"	3-1/2"	BRCF210	\$28.19
11/32"	3/8"	3/4"	3-1/2"	BRCF211	\$28.92
3/8"	3/8"	3/4"	3-1/2"	BRCF212	\$28.19
13/32"	1/2"	1"	4-1/8"	BRCF213	\$41.74
7/16"	1/2"	1"	4-1/8"	BRCF214	\$41.94
15/32"	1/2"	1"	4-1/8"	BRCF215	\$42.60
1/2"	1/2"	1"	4-1/8"	BRCF218	\$41.94
9/16"	5/8"	1-3/8"	5"	BRCF220	\$59.44
5/8"	5/8"	1-3/8"	5"	BRCF228	\$59.44
11/16"	3/4"	1-5/8"	5-5/8"	BRCF230	\$64.22
3/4"	3/4"	1-5/8"	5-5/8"	BRCF232	\$74.55
13/16"	7/8"	1-7/8"	6-1/8"	BRCF234	\$84.19
7/8"	7/8"	1-7/8"	6-1/8"	BRCF242	\$98.49
15/16"	1"	1-7/8"	6-3/8"	BRCF244	\$105.45
1"	1"	1-7/8"	6-3/8"	BRCF252	\$119.30

## H.S.S. 2 FLUTE DOUBLE END



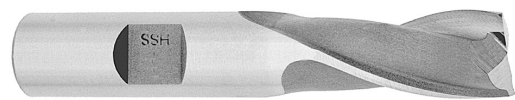
Size	Shank Dia.	Length Of Cut	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	3-1/8"	BRCT204	\$29.29
5/32"	3/8"	7/16"	3-1/8"	BRCT205	\$29.29
3/16"	3/8"	7/16"	3-1/8"	BRCT206	\$29.29
7/32"	3/8"	1/2"	3-1/8"	BRCT207	\$29.29
1/4"	3/8"	1/2"	3-1/8"	BRCT208	\$29.29
9/32"	3/8"	9/16"	3-1/8"	BRCT209	\$29.29
5/16"	3/8"	9/16"	3-1/8"	BRCT210	\$29.29
11/32"	3/8"	9/16"	3-1/8"	BRCT211	\$29.29
3/8"	3/8"	9/16"	3-1/8"	BRCT212	\$29.29
13/32"	1/2"	13/16"	3-3/4"	BRCT213	\$45.49
7/16"	1/2"	13/16"	3-3/4"	BRCT214	\$45.49
1/2"	1/2"	13/16"	3-3/4"	BRCT218	\$45.49
9/16"	5/8"	1-1/8"	4-1/2"	BRCT220	\$62.92
5/8"	5/8"	1-1/8"	4-1/2"	BRCT228	\$62.92
11/16"	3/4"	1-5/16"	5"	BRCT230	\$78.76
3/4"	3/4"	1-5/16"	5"	BRCT232	\$78.76
13/16"	7/8"	1-9/16"	5-1/2"	BRCT234	\$102.64
7/8"	7/8"	1-9/16"	5-1/2"	BRCT242	\$102.64
15/16"	1"	1-5/8"	5-7/8"	BRCT244	\$127.49
1"	1"	1-5/8"	5-7/8"	BRCT252	\$127.49

## H.S.S. MULTI FLUTE SINGLE END



Size	Shank Dia.	Length Of Cut	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	BRCF304	\$21.28
5/32"	3/8"	7/16"	2-3/8"	BRCF305	\$22.37
3/16"	3/8"	1/2"	2-3/8"	BRCF306	\$21.28
7/32"	3/8"	9/16"	2-7/16"	BRCF307	\$22.37
1/4"	3/8"	5/8"	2-7/16"	BRCF308	\$21.28
9/32"	3/8"	11/16"	2-1/2"	BRCF309	\$22.37
5/16"	3/8"	3/4"	2-1/2"	BRCF310	\$21.28
11/32"	3/8"	3/4"	2-1/2"	BRCF311	\$22.37
3/8"	3/8"	3/4"	2-1/2"	BRCF312	\$21.28
13/32"	3/8"	1"	2-11/16"	BRCF313	\$31.61
7/16"	3/8"	1"	2-11/16"	BRCF314	\$29.25
1/2"	3/8"	1"	2-11/16"	BRCF316	\$29.25
1/2"	1/2"	1-1/4"	3-1/4"	BRCF318	\$29.25
9/16"	1/2"	1-3/8"	3-3/8"	BRCF320	\$37.88
5/8"	1/2"	1-3/8"	3-3/8"	BRCF322	\$41.22
5/8"	5/8"	1-5/8"	3-3/4"	BRCF328	\$46.33
11/16"	5/8"	1-5/8"	3-3/4"	BRCF330	\$47.80
3/4"	1/2"	1-5/8"	3-5/8"	BRCF326	\$46.60
3/4"	5/8"	1-5/8"	3-3/4"	BRCF332	\$49.45
3/4"	3/4"	1-5/8"	3-7/8"	BRCF341	\$51.55
7/8"	5/8"	1-7/8"	4"	BRCF336	\$67.36
7/8"	3/4"	1-7/8"	4-1/8"	BRCF341B	\$66.27
7/8"	7/8"	1-7/8"	4-1/8"	BRCF342	\$66.27
15/16"	5/8"	1-7/8"	4"	BRCF338	\$75.71
1"	5/8"	1-7/8"	4"	BRCF340	\$76.61
1"	3/4"	1-7/8"	4-1/8"	BRCF345	\$75.39
1"	1"	2"	4-1/2"	BRCF352	\$76.61
1-1/8"	3/4"	2"	4-1/2"	BRCF347	\$109.93
1-1/8"	1"	2"	4-1/2"	BRCF354	\$109.93
1-1/4"	3/4"	2"	4-1/2"	BRCF349	\$118.55
1-1/4"	1"	2"	4-1/2"	BRCF356	\$119.66
1-1/4"	1-1/4"	2"	4-1/2"	BRCF362	\$119.66
1-3/8"	3/4"	2"	4-1/2"	BRCF351	\$147.05
1-1/2"	3/4"	2"	4-1/2"	BRCF351A	\$160.60

## H.S.S. 2 FLUTE SINGLE END



Size	Shank Dia.	Length Of Cut	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	BRCT304	\$20.04
5/32"	3/8"	3/8"	2-3/8"	BRCT305	\$20.04
3/16"	3/8"	7/16"	2-3/8"	BRCT306	\$20.04
7/32"	3/8"	7/16"	2-7/16"	BRCT307	\$20.04
1/4"	3/8"	1/2"	2-7/16"	BRCT308	\$20.04
9/32"	3/8"	9/16"	2-1/2"	BRCT309	\$22.39
5/16"	3/8"	9/16"	2-1/2"	BRCT310	\$20.04
3/8"	3/8"	9/16"	2-1/2"	BRCT312	\$20.04
7/16"	3/8"	13/16"	2-11/16"	BRCT314	\$25.96
1/2"	3/8"	13/16"	2-11/16"	BRCT316	\$25.96
1/2"	1/2"	1"	3-1/4"	BRCT318	\$29.26
9/16"	1/2"	1-1/8"	3-3/8"	BRCT320	\$36.73
5/8"	1/2"	1-1/8"	3-3/8"	BRCT322	\$41.10
5/8"	5/8"	1-5/16"	3-3/4"	BRCT328	\$41.10
11/16"	5/8"	1-5/16"	3-3/4"	BRCT330	\$44.43
3/4"	1/2"	1-5/16"	3-5/8"	BRCT326	\$47.41
3/4"	5/8"	1-5/16"	3-3/4"	BRCT332	\$47.41
3/4"	3/4"	1-5/16"	3-3/4"	BRCT341	\$47.41
7/8"	5/8"	1-1/2"	4"	BRCT336	\$61.14
7/8"	3/4"	1-1/2"	4-1/8"	BRCT341B	\$61.35
7/8"	7/8"	1-1/2"	4-1/4"	BRCT342	\$61.35
1"	5/8"	1-1/2"	4"	BRCT340	\$68.47
1"	3/4"	1-1/2"	4-1/8"	BRCT345	\$68.47
1"	1"	1-5/8"	4-1/2"	BRCT352	\$82.80
1-1/8"	1"	1-5/8"	4-1/2"	BRCT354	\$112.90
1-1/4"	1-1/4"	1-5/8"	4-1/2"	BRCT362	\$125.35
1-1/2"	1"	1-5/8"	4-1/2"	BRCT360	\$155.62
1-1/2"	1-1/4"	1-5/8"	4-1/2"	BRCT364	\$155.62
1-3/4"	1-1/4"	1-5/8"	4-1/2"	BRCT368	\$185.55
2"	1-1/4"	1-5/8"	4-1/2"	BRCT372	\$218.33

★★★ Mill America ★★★

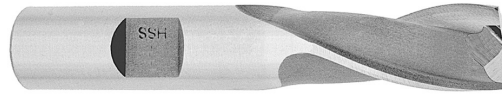
# H.S.S. END MILLS



## DWCT Series

These end mills are designed to machine most materials of medium hardness such as steel, brass, bronze and iron. The large core diameter provides rigidity and reduces deflection while the cutting geometry allows for rapid stock removal. They can be used for general-purpose milling including profiling, slotting, keyways and pockets. They will also plunge cut.

### H.S.S. 2 FLUTE SINGLE END



### CENTER CUTTING

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	DWCT304	\$8.97
5/32"	3/8"	7/16"	2-3/8"	DWCT305	\$10.25
3/16"	3/8"	1/2"	2-3/8"	DWCT306	\$8.97
7/32"	3/8"	9/16"	2-1/2"	DWCT307	\$10.25
1/4"	3/8"	5/8"	2-1/2"	DWCT308	\$8.97
9/32"	3/8"	11/16"	2-1/2"	DWCT309	\$10.39
5/16"	3/8"	3/4"	2-1/2"	DWCT310	\$9.10
11/32"	3/8"	3/4"	2-1/2"	DWCT311	\$10.39
3/8"	3/8"	3/4"	2-1/2"	DWCT312	\$9.10
13/32"	3/8"	1"	2-11/16"	DWCT313	\$14.50
7/16"	3/8"	1"	2-11/16"	DWCT314	\$13.22
15/32"	3/8"	1"	2-11/16"	DWCT315	\$14.50
1/2"	3/8"	1"	2-11/16"	DWCT316	\$13.22
1/2"	1/2"	1-1/4"	3-1/4"	DWCT318	\$14.00
9/16"	1/2"	1-3/8"	3-3/8"	DWCT320	\$16.59
5/8"	1/2"	1-3/8"	3-3/8"	DWCT322	\$18.51
5/8"	5/8"	1-5/8"	3-3/4"	DWCT328	\$18.85
11/16"	1/2"	1-5/8"	3-5/8"	DWCT324	\$20.08
11/16"	5/8"	1-5/8"	3-3/4"	DWCT330	\$20.04
3/4"	1/2"	1-5/8"	3-5/8"	DWCT326	\$21.46
3/4"	5/8"	1-5/8"	3-3/4"	DWCT332	\$21.46
3/4"	3/4"	1-5/8"	3-3/4"	DWCT341	\$21.50
13/16"	1/2"	1-5/8"	3-5/8"	DWCT333	\$28.98
13/16"	5/8"	1-7/8"	4"	DWCT334	\$26.83
13/16"	3/4"	1-7/8"	4-1/8"	DWCT341A	\$27.69
7/8"	1/2"	1-5/8"	3-5/8"	DWCT335	\$28.98
7/8"	5/8"	1-7/8"	4"	DWCT336	\$26.83
7/8"	3/4"	1-7/8"	4-1/8"	DWCT341B	\$27.17
7/8"	7/8"	1-7/8"	4-1/4"	DWCT342	\$28.14
15/16"	1/2"	1-7/8"	3-7/8"	DWCT337	\$33.67

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
15/16"	5/8"	1-7/8"	4"	DWCT338	\$33.58
15/16"	7/8"	1-7/8"	4-1/8"	DWCT344	\$33.58
1"	1/2"	1-7/8"	4"	DWCT339	\$35.18
1"	5/8"	1-7/8"	4"	DWCT340	\$31.91
1"	3/4"	1-7/8"	4-1/8"	DWCT345	\$31.91
1"	7/8"	1-7/8"	4-1/8"	DWCT346	\$31.91
1"	1"	2"	4-1/2"	DWCT352	\$34.65
1-1/16"	3/4"	2"	4-1/2"	DWCT346A	\$60.31
1-1/8"	3/4"	2"	4-1/2"	DWCT347	\$55.22
1-1/8"	7/8"	2"	4-1/2"	DWCT348	\$53.48
1-1/8"	1"	2"	4-1/2"	DWCT354	\$55.22
1-3/16"	3/4"	2"	4-1/2"	DWCT348A	\$54.29
1-1/4"	3/4"	2"	4-1/2"	DWCT349	\$53.48
1-1/4"	7/8"	2"	4-1/2"	DWCT350	\$67.27
1-1/4"	1"	2"	4-1/2"	DWCT356	\$60.55
1-1/4"	1-1/4"	2"	4-1/2"	DWCT362	\$63.49
1-5/16"	3/4"	2"	4-1/2"	DWCT350A	\$87.07
1-3/8"	3/4"	2"	4-1/2"	DWCT351	\$80.51
1-7/16"	3/4"	2"	4-1/2"	DWCT351X	\$88.99
1-1/2"	3/4"	2"	4-1/2"	DWCT351A	\$88.99
1-1/2"	1"	2"	4-1/2"	DWCT360	\$84.51
1-1/2"	1-1/4"	2"	4-1/2"	DWCT364	\$84.45
1-5/8"	3/4"	2"	4-1/2"	DWCT365	\$109.59
1-5/8"	1-1/4"	2"	4-1/2"	DWCT366	\$104.68
1-3/4"	3/4"	2"	4-1/2"	DWCT367	\$119.78
1-3/4"	1-1/4"	2"	4-1/2"	DWCT368	\$108.70
1-7/8"	3/4"	2"	4-1/2"	DWCT369	\$129.36
1-7/8"	1-1/4"	2"	4-1/2"	DWCT370	\$123.62
2"	3/4"	2"	4-1/2"	DWCT371	\$141.54
2"	1-1/4"	2"	4-1/2"	DWCT372	\$128.38

### H.S.S. 2 FLUTE DOUBLE END



### CENTER CUTTING

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	3-1/8"	DWCT204	\$12.13
9/64"	3/8"	7/16"	3-1/8"	DWCT204A	\$14.77
5/32"	3/8"	7/16"	3-1/8"	DWCT205	\$12.84
11/64"	3/8"	7/16"	3-1/8"	DWCT205A	\$14.77
3/16"	3/8"	7/16"	3-1/8"	DWCT206	\$12.13
13/64"	3/8"	1/2"	3-1/8"	DWCT206A	\$14.77
7/32"	3/8"	1/2"	3-1/8"	DWCT207	\$12.13
15/64"	3/8"	1/2"	3-1/8"	DWCT207A	\$14.77
1/4"	3/8"	1/2"	3-1/8"	DWCT208	\$12.37
17/64"	3/8"	9/16"	3-1/8"	DWCT208A	\$14.77
9/32"	3/8"	9/16"	3-1/8"	DWCT209	\$13.13
19/64"	3/8"	9/16"	3-1/8"	DWCT209A	\$14.77
5/16"	3/8"	9/16"	3-1/8"	DWCT210	\$12.13
21/64"	3/8"	9/16"	3-1/8"	DWCT210A	\$14.77
11/32"	3/8"	9/16"	3-1/8"	DWCT211	\$12.84
23/64"	3/8"	9/16"	3-1/8"	DWCT211A	\$14.77
3/8"	3/8"	9/16"	3-1/8"	DWCT212	\$12.37

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
25/64"	1/2"	13/16"	3-3/4"	DWCT212A	\$20.60
13/32"	1/2"	13/16"	3-3/4"	DWCT213	\$18.95
27/64"	1/2"	13/16"	3-3/4"	DWCT213A	\$20.60
7/16"	1/2"	13/16"	3-3/4"	DWCT214	\$18.28
29/64"	1/2"	13/16"	3-3/4"	DWCT214A	\$22.66
15/32"	1/2"	13/16"	3-3/4"	DWCT215	\$19.53
31/64"	1/2"	13/16"	3-3/4"	DWCT216	\$22.66
1/2"	1/2"	13/16"	3-3/4"	DWCT218	\$18.77
9/16"	5/8"	1-1/8"	4-1/2"	DWCT220	\$27.31
5/8"	5/8"	1-1/8"	4-1/2"	DWCT228	\$25.61
11/16"	3/4"	1-5/16"	5"	DWCT230	\$32.22
3/4"	3/4"	1-5/16"	5"	DWCT232	\$32.22
13/16"	7/8"	1-9/16"	5-1/2"	DWCT234	\$43.16
7/8"	7/8"	1-9/16"	5-1/2"	DWCT242	\$43.16
15/16"	1"	1-5/8"	5-7/8"	DWCT244	\$53.05
1"	1"	1-5/8"	5-7/8"	DWCT252	\$53.05

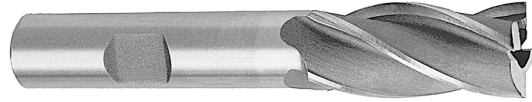
# H.S.S. END MILLS



## DWCF Series

These end mills are designed to machine most materials of medium hardness such as steel, brass, bronze and iron. The large core diameter provides rigidity and reduces deflection while the cutting geometry allows for rapid stock removal. They can be used for general-purpose milling including profiling and open-ended slots and keyways. They will **not** plunge cut.

### H.S.S. MULTI FLUTE SINGLE END



### NON CENTER CUTTING

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	DWCF304	\$8.66
5/32"	3/8"	7/16"	2-3/8"	DWCF305	\$9.51
3/16"	3/8"	1/2"	2-3/8"	DWCF306	\$8.66
7/32"	3/8"	9/16"	2-1/2"	DWCF307	\$9.51
1/4"	3/8"	5/8"	2-1/2"	DWCF308	\$8.66
9/32"	3/8"	11/16"	2-1/2"	DWCF309	\$9.51
5/16"	3/8"	3/4"	2-1/2"	DWCF310	\$8.66
11/32"	3/8"	3/4"	2-1/2"	DWCF311	\$9.51
3/8"	3/8"	3/4"	2-1/2"	DWCF312	\$8.66
13/32"	3/8"	1"	2-11/16"	DWCF313	\$10.57
7/16"	3/8"	1"	2-11/16"	DWCF314	\$11.69
15/32"	3/8"	1"	2-11/16"	DWCF315	\$11.93
1/2"	3/8"	1"	2-11/16"	DWCF316	\$11.69
1/2"	1/2"	1-1/4"	3-1/4"	DWCF318	\$11.93
9/16"	1/2"	1-3/8"	3-3/8"	DWCF320	\$15.01
5/8"	1/2"	1-3/8"	3-3/8"	DWCF322	\$16.43
5/8"	5/8"	1-5/8"	3-3/4"	DWCF328	\$17.84
11/16"	1/2"	1-5/8"	3-5/8"	DWCF324	\$17.77
11/16"	5/8"	1-5/8"	3-3/4"	DWCF330	\$18.95
3/4"	1/2"	1-5/8"	3-5/8"	DWCF326	\$19.67
3/4"	5/8"	1-5/8"	3-3/4"	DWCF332	\$19.82
3/4"	3/4"	1-5/8"	3-3/4"	DWCF341	\$20.38
13/16"	1/2"	1-5/8"	3-5/8"	DWCF333	\$26.59
13/16"	5/8"	1-7/8"	4"	DWCF334	\$26.66
13/16"	3/4"	1-7/8"	4-1/8"	DWCF341A	\$27.12
7/8"	1/2"	1-5/8"	3-5/8"	DWCF335	\$30.05
7/8"	5/8"	1-7/8"	4"	DWCF336	\$27.39
7/8"	3/4"	1-7/8"	4-1/8"	DWCF341B	\$28.37
7/8"	7/8"	1-7/8"	4-1/4"	DWCF342	\$27.39
15/16"	1/2"	1-7/8"	3-7/8"	DWCF337	\$30.05
15/16"	5/8"	1-7/8"	4"	DWCF338	\$30.20

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
15/16"	3/4"	1-7/8"	4-1/8"	DWCF343	\$39.27
15/16"	7/8"	1-7/8"	4-1/8"	DWCF344	\$32.32
1"	1/2"	1-7/8"	4"	DWCF339	\$32.32
1"	5/8"	1-7/8"	4"	DWCF340	\$31.44
1"	3/4"	1-7/8"	4-1/8"	DWCF345	\$30.83
1"	7/8"	2"	4-1/2"	DWCF346	\$30.83
1"	1"	2"	4-1/2"	DWCF352	\$32.64
1-1/16"	3/4"	2"	4-1/2"	DWCF346A	\$43.43
1-1/8"	3/4"	2"	4-1/2"	DWCF347	\$46.28
1-1/8"	7/8"	2"	4-1/2"	DWCF348	\$46.28
1-1/8"	1"	2"	4-1/2"	DWCF354	\$47.77
1-3/16"	3/4"	2"	4-1/2"	DWCF348A	\$55.36
1-1/4"	3/4"	2"	4-1/2"	DWCF349	\$50.24
1-1/4"	7/8"	2"	4-1/2"	DWCF350	\$50.24
1-1/4"	1"	2"	4-1/2"	DWCF356	\$52.13
1-1/4"	1-1/4"	2"	4-1/2"	DWCF362	\$55.78
1-5/16"	3/4"	2"	4-1/2"	DWCF350A	\$65.34
1-3/8"	3/4"	2"	4-1/2"	DWCF351	\$80.51
1-7/16"	3/4"	2"	4-1/2"	DWCF351X	\$81.65
1-1/2"	3/4"	2"	4-1/2"	DWCF351A	\$76.15
1-1/2"	1"	2"	4-1/2"	DWCF360	\$76.15
1-1/2"	1-1/4"	2"	4-1/2"	DWCF364	\$76.15
1-5/8"	3/4"	2"	4-1/2"	DWCF365	\$93.80
1-5/8"	1-1/4"	2"	4-1/2"	DWCF366	\$89.56
1-3/4"	3/4"	2"	4-1/2"	DWCF367	\$101.35
1-3/4"	1-1/4"	2"	4-1/2"	DWCF368	\$96.68
1-7/8"	3/4"	2"	4-1/2"	DWCF369	\$109.73
1-7/8"	1-1/4"	2"	4-1/2"	DWCF370	\$104.57
2"	3/4"	2"	4-1/2"	DWCF371	\$126.20
2"	1-1/4"	2"	4-1/2"	DWCF372	\$117.03

### H.S.S. 4 FLUTE DOUBLE END



### NON CENTER CUTTING

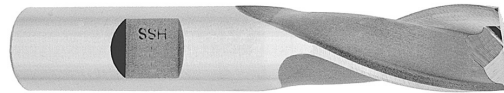
Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	3-1/4"	DWCF204	\$10.49
9/64"	3/8"	7/16"	3-1/4"	DWCF204A	\$14.33
5/32"	3/8"	7/16"	3-1/4"	DWCF205	\$10.49
11/64"	3/8"	1/2"	3-1/4"	DWCF205A	\$14.33
3/16"	3/8"	1/2"	3-1/4"	DWCF206	\$10.49
13/64"	3/8"	9/16"	3-1/4"	DWCF206A	\$14.33
7/32"	3/8"	9/16"	3-1/4"	DWCF207	\$12.37
15/64"	3/8"	5/8"	3-3/8"	DWCF207A	\$14.33
1/4"	3/8"	5/8"	3-3/8"	DWCF208	\$11.69
17/64"	3/8"	11/16"	3-3/8"	DWCF208A	\$14.33
9/32"	3/8"	11/16"	3-3/8"	DWCF209	\$12.37
19/64"	3/8"	3/4"	3-3/8"	DWCF209A	\$14.33
5/16"	3/8"	3/4"	3-3/8"	DWCF210	\$11.69
21/64"	3/8"	3/4"	3-3/8"	DWCF210A	\$14.33
11/32"	3/8"	3/4"	3-3/8"	DWCF211	\$12.37
23/64"	3/8"	3/4"	3-3/8"	DWCF211A	\$14.33
3/8"	3/8"	3/4"	3-3/8"	DWCF212	\$11.69

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
25/64"	1/2"	1"	4-1/8"	DWCF212A	\$19.42
13/32"	1/2"	1"	4-1/8"	DWCF213	\$16.76
27/64"	1/2"	1"	4-1/8"	DWCF213A	\$19.42
7/16"	1/2"	1"	4-1/8"	DWCF214	\$17.77
29/64"	1/2"	1"	4-1/8"	DWCF214A	\$21.38
15/32"	1/2"	1"	4-1/8"	DWCF215	\$18.41
31/64"	1/2"	1"	4-1/8"	DWCF216	\$21.38
1/2"	1/2"	1"	4-1/8"	DWCF218	\$17.92
9/16"	5/8"	1-3/8"	5"	DWCF220	\$24.45
5/8"	5/8"	1-3/8"	5"	DWCF228	\$23.97
11/16"	3/4"	1-5/8"	5-5/8"	DWCF230	\$30.53
3/4"	3/4"	1-5/8"	5-5/8"	DWCF232	\$30.80
13/16"	7/8"	1-7/8"	6-1/4"	DWCF234	\$41.37
7/8"	7/8"	1-7/8"	6-1/4"	DWCF242	\$41.02
15/16"	1"	1-7/8"	6-3/8"	DWCF244	\$49.20
1"	1"	1-7/8"	6-1/2"	DWCF252	\$49.20

# H.S.S. END MILLS



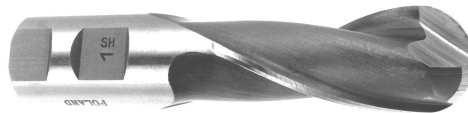
## 2 FLUTE SINGLE END LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	1-1/2"	3-1/4"	DWCTL308	\$18.01
5/16"	3/8"	1-1/2"	3-1/4"	DWCTL310	\$18.01
3/8"	3/8"	1-1/2"	3-1/4"	DWCTL312	\$18.01
1/2"	1/2"	2"	4"	DWCTL318	\$18.21
5/8"	5/8"	2"	4-1/8"	DWCTL328	\$26.79

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
3/4"	3/4"	2-1/4"	4-1/2"	DWCTL332	\$33.07
7/8"	7/8"	2-1/2"	4-3/4"	DWCTL342	\$44.45
1"	1"	3"	5-1/2"	DWCTL352	\$56.82
1-1/4"	1-1/4"	4-3/4"	7-1/4"	DWCTL354	\$89.70

## 2 FLUTE SINGLE END BALL



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-1/4"	DWCT1104	\$21.51
3/16"	3/8"	1/2"	2-3/8"	DWCT1106	\$21.51
1/4"	3/8"	5/8"	2-1/2"	DWCT1108	\$18.42
5/16"	3/8"	3/4"	2-9/16"	DWCT1110	\$20.39
3/8"	3/8"	3/4"	2-9/16"	DWCT1112	\$20.39
7/16"	1/2"	1"	3-1/16"	DWCT1114	\$28.38
1/2"	1/2"	1"	3-1/16"	DWCT1118	\$28.46
9/16"	1/2"	1"	3-1/16"	DWCT1120	\$41.08

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
5/8"	5/8"	1-3/8"	3-9/16"	DWCT1128	\$42.00
3/4"	3/4"	1-5/8"	3-15/16"	DWCT1132	\$50.53
7/8"	7/8"	2"	4-5/16"	DWCT1142	\$66.22
1"	1"	2-1/4"	4-13/16"	DWCT1152	\$83.95
1-1/8"	1"	2-1/4"	4-13/16"	DWCT1154	\$115.64
1-1/4"	1-1/4"	2-1/2"	5-1/16"	DWCT1162	\$129.34
1-1/2"	1-1/4"	2-1/2"	5-1/16"	DWCT1164	\$170.26

## 2 FLUTE DOUBLE END BALL



Size	Shank Dia.	Flute Length	Part Number	List Price
1/8"	3/8"	3/8"	DWC1/82FDEBALL	\$30.48
3/16"	3/8"	1/2"	DWC3/162FDEBALL	\$30.48
1/4"	3/8"	5/8"	DWC1/42FDEBALL	\$30.48
3/8"	3/8"	3/4"	DWC3/82FDEBALL	\$30.48
7/16"	1/2"	1"	DWC7/162FDEBALL	\$43.33

Size	Shank Dia.	Flute Length	Part Number	List Price
1/2"	1/2"	1"	DWC1/22FDEBALL	\$43.16
5/8"	5/8"	1-3/8"	DWC5/82FDEBALL	\$66.33
3/4"	3/4"	1-5/8"	DWC3/42FDEBALL	\$77.33
7/8"	7/8"	1-7/8"	DWC7/82FDEBALL	\$105.08

## 4 FLUTE SINGLE END LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	1-1/4"	3-1/16"	DWCF708	\$11.47
5/16"	3/8"	1-3/8"	3-1/8"	DWCF710	\$11.47
3/8"	3/8"	1-1/2"	3-1/4"	DWCF712	\$11.47
7/16"	1/2"	1-3/4"	3-3/4"	DWCF714	\$16.59
1/2"	1/2"	2"	4"	DWCF718	\$17.52
5/8"	5/8"	2-1/2"	4-5/8"	DWCF728	\$25.63
3/4"	3/4"	3"	5-1/4"	DWCF732	\$31.65
7/8"	7/8"	3-1/2"	5-3/4"	DWCF742	\$42.39

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1"	1"	4"	6-1/2"	DWCF752	\$54.37
1-1/8"	1"	4"	6-1/2"	DWCF754	\$85.78
1-1/4"	1"	4"	6-1/2"	DWCF756	\$97.92
1-1/4"	1-1/4"	4"	6-1/2"	DWCF762	\$97.92
1-1/2"	1"	4"	6-1/2"	DWCF760	\$125.89
1-1/2"	1-1/4"	4"	6-1/2"	DWCF764	\$130.20
1-3/4"	1-1/4"	4"	6-1/2"	DWCF768	\$183.40
2"	1-1/4"	4"	6-1/2"	DWCF772	\$223.87

# H.S.S. END MILLS



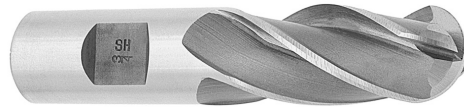
## 4 FLUTE SINGLE END EXTRA LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	1-3/4"	3-1/2"	DWCF908	\$15.42
5/16"	3/8"	2"	3-3/4"	DWCF910	\$16.70
3/8"	3/8"	2-1/2"	4-1/4"	DWCF912	\$17.17
1/2"	1/2"	3"	5"	DWCF918	\$23.32
5/8"	5/8"	4"	6-1/8"	DWCF928	\$35.86

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
3/4"	3/4"	4"	6-1/4"	DWCF932	\$45.47
7/8"	7/8"	5"	7-1/4"	DWCF942	\$61.27
1"	1"	6"	8-1/2"	DWCF952	\$74.84
1-1/4"	1-1/4"	6"	8-1/2"	DWCF962	\$134.12
1-1/2"	1-1/4"	8"	10-1/2"	DWCF964	\$230.87

## 4 FLUTE SINGLE END BALL



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
3/16"	3/8"	1/2"	2-3/8"	DWCF1106	\$31.17
1/4"	3/8"	5/8"	2-1/2"	DWCF1108	\$31.17
5/16"	3/8"	3/4"	2-9/16"	DWCF1110	\$31.17
3/8"	3/8"	3/4"	2-9/16"	DWCF1112	\$31.17
7/16"	1/2"	1"	3-1/16"	DWCF1114	\$40.23
1/2"	1/2"	1"	3-1/16"	DWCF1118	\$40.23
9/16"	1/2"	1"	3-1/16"	DWCF1120	\$54.95

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
5/8"	5/8"	1-3/8"	3-9/16"	DWCF1128	\$54.95
3/4"	3/4"	1-5/8"	3-15/16"	DWCF1132	\$63.68
7/8"	7/8"	2"	4-5/16"	DWCF1142	\$97.64
1"	1"	2-1/4"	4-13/16"	DWCF1152	\$112.36
1-1/4"	1-1/4"	2-1/2"	5-1/16"	DWCF1162	\$136.18
1-1/2"	1-1/4"	2-1/2"	5-1/16"	DWCF1164	\$200.37

## 4 FLUTE SINGLE END - CENTER CUTTING



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	DWCF304-CC	\$16.34
3/16"	3/8"	1/2"	2-3/8"	DWCF306-CC	\$16.34
1/4"	3/8"	5/8"	2-1/2"	DWCF308-CC	\$16.34
5/16"	3/8"	3/4"	2-1/2"	DWCF310-CC	\$16.34
3/8"	3/8"	3/4"	2-1/2"	DWCF312-CC	\$16.34
1/2"	1/2"	1-1/4"	3-1/4"	DWCF318-CC	\$27.02
9/16"	1/2"	1-3/8"	3-3/8"	DWCF320-CC	\$32.98
5/8"	5/8"	1-5/8"	3-3/4"	DWCF328-CC	\$29.96
3/4"	5/8"	1-5/8"	3-3/4"	DWCF332-CC	\$35.89

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
3/4"	3/4"	1-5/8"	3-3/4"	DWCF341-CC	\$35.89
7/8"	7/8"	1-7/8"	4-1/8"	DWCF342-CC	\$48.39
1"	5/8"	1-7/8"	4"	DWCF340-CC	\$56.80
1"	3/4"	1-7/8"	4-1/8"	DWCF345-CC	\$56.80
1"	1"	2"	4-1/2"	DWCF352-CC	\$56.80
1-1/8"	1"	2"	4-1/2"	DWCF354-CC	\$78.96
1-1/4"	1-1/4"	2"	4-1/2"	DWCF362-CC	\$93.32
1-1/2"	1-1/4"	2"	4-1/2"	DWCF364-CC	\$134.65

## 4 FLUTE SINGLE END LONG - CC

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	1"	3-1/16"	DWCF308-LCC	\$19.58
5/16"	3/8"	1-1/4"	3-5/16"	DWCF310-LCC	\$19.58
3/8"	3/8"	1-1/2"	3-1/4"	DWCF312-LCC	\$19.58

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/2"	1/2"	2"	4"	DWCF318-LCC	\$25.54
3/4"	3/4"	3-1/8"	5-3/8"	DWCF341-LCC	\$43.43
7/8"	7/8"	3-1/2"	5-3/4"	DWCF342-LCC	\$56.87

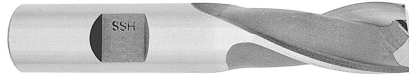
## 4 FLUTE SINGLE END EXTRA LONG - CC

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	1-3/4"	3-9/16"	DWCF308-XLCC	\$22.18
5/16"	3/8"	2"	3-3/4"	DWCF310-XLCC	\$23.32
3/8"	3/8"	2-1/2"	4-1/4"	DWCF312-XLCC	\$23.32

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/2"	1/2"	3"	5"	DWCF318-XLCC	\$31.51
5/8"	5/8"	4"	6-1/8"	DWCF328-XLCC	\$46.31
3/4"	3/4"	4"	6-1/4"	DWCF341-XLCC	\$51.14

# COBALT END MILLS

## 2 FLUTE SINGLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	DWCTXL304	\$20.33
3/16"	3/8"	3/8"	2-5/16"	DWCTXL306	\$20.33
1/4"	3/8"	1/2"	2-5/16"	DWCTXL308	\$20.33
5/16"	3/8"	9/16"	2-5/16"	DWCTXL310	\$20.33
3/8"	3/8"	9/16"	2-3/8"	DWCTXL312	\$20.33
7/16"	3/8"	13/16"	2-1/2"	DWCTXL314	\$31.04
1/2"	3/8"	13/16"	2-1/2"	DWCTXL316	\$31.04
1/2"	1/2"	1"	3"	DWCTXL318	\$28.85
9/16"	1/2"	1-1/8"	3-1/8"	DWCTXL320	\$38.61
5/8"	5/8"	1-5/16"	3-7/16"	DWCTXL328	\$44.32

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
3/4"	3/4"	1-5/16"	3-7/16"	DWCTXL341	\$56.12
7/8"	3/4"	1-1/2"	3-3/4"	DWCTXL341B	\$81.62
1"	1/2"	1-1/2"	3-1/2"	DWCTXL339	\$94.27
1"	5/8"	1-1/2"	3-5/8"	DWCTXL340	\$94.27
1"	3/4"	1-1/2"	3-3/4"	DWCTXL345	\$94.27
1-1/4"	3/4"	1-5/8"	3-7/8"	DWCTXL349	\$150.85
1-1/4"	1-1/4"	1-5/8"	4-1/8"	DWCTXL362	\$150.85
1-1/2"	3/4"	1-5/8"	3-7/8"	DWCTXL351A	\$202.98
1-1/2"	1"	1-5/8"	4-1/8"	DWCTXL360	\$202.98
1-3/4"	3/4"	1-5/8"	3-7/8"	DWCTXL367	\$341.73

## 4 FLUTE SINGLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	2-5/16"	DWCXL304	\$20.33
3/16"	3/8"	1/2"	2-3/8"	DWCXL306	\$20.33
1/4"	3/8"	5/8"	2-1/2"	DWCXL308	\$20.33
5/16"	3/8"	3/4"	2-1/2"	DWCXL310	\$20.33
3/8"	3/8"	3/4"	2-1/2"	DWCXL312	\$20.33
7/16"	3/8"	1"	3"	DWCXL314	\$34.77
1/2"	1/2"	1-1/4"	3-1/4"	DWCXL318	\$28.85
5/8"	5/8"	1-3/8"	3-3/8"	DWCXL328	\$49.16
3/4"	5/8"	1-5/8"	3-3/4"	DWCXL332	\$65.91

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
3/4"	3/4"	1-5/8"	3-3/4"	DWCXL341	\$65.91
7/8"	1/2"	1-7/8"	4"	DWCXL335	\$85.99
7/8"	3/4"	1-7/8"	4-1/8"	DWCXL341B	\$85.99
1"	1/2"	1-7/8"	4-1/8"	DWCXL339	\$96.15
1"	3/4"	1-7/8"	4-1/8"	DWCXL345	\$96.15
1"	1"	2"	4-1/2"	DWCXL352	\$96.15
1-1/4"	3/4"	2"	4-1/4"	DWCXL349	\$152.29
1-1/4"	1-1/4"	2"	4-1/2"	DWCXL362	\$152.29

## 4 FLUTE DOUBLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/8"	3/8"	3-1/16"	DWCXL204	\$26.18
5/32"	3/8"	7/16"	3-1/8"	DWCXL205	\$26.18
3/16"	3/8"	1/2"	3-1/4"	DWCXL206	\$26.18
1/4"	3/8"	5/8"	3-3/8"	DWCXL208	\$26.18
5/16"	3/8"	3/8"	3-1/2"	DWCXL210	\$26.18
3/8"	3/8"	3/4"	3-1/2"	DWCXL212	\$26.18
7/16"	1/2"	1"	4-1/8"	DWCXL214	\$43.41

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/2"	1/2"	1"	4-1/8"	DWCXL218	\$43.41
9/16"	5/8"	1-3/8"	5"	DWCXL220	\$65.96
5/8"	5/8"	1-3/8"	5"	DWCXL228	\$65.96
3/4"	3/4"	1-5/8"	5-5/8"	DWCXL232	\$84.15
7/8"	7/8"	1-7/8"	6-1/8"	DWCXL242	\$120.38
1"	1"	1-7/8"	6-3/8"	DWCXL252	\$137.53

## COBALT ROUGHING



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	5/8"	2-7/16"	DWC1/4	\$40.49
5/16"	3/8"	3/4"	2-1/2"	DWC5/16	\$40.49
3/8"	3/8"	3/4"	2-1/2"	DWC3/8	\$40.49
7/16"	1/2"	1-1/4"	3-1/4"	DWC7/16	\$52.76
1/2"	1/2"	1-1/4"	3-1/4"	DWC1/2	\$52.76
9/16"	1/2"	1-3/8"	3-3/8"	DWC9/16	\$65.62
5/8"	5/8"	1-5/8"	3-3/4"	DWC5/8	\$65.62
3/4"	5/8"	1-5/8"	3-3/4"	DWC3/4	\$79.90

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
7/8"	3/4"	1-5/8"	3-3/4"	DWC7/8	\$116.09
1"	3/4"	1-5/8"	3-3/4"	DWC1INCH	\$123.31
1"	1"	2"	4-1/2"	DWC1X1	\$123.31
1-1/8"	1"	1-7/8"	4-3/8"	DWC1-1/8	\$176.70
1-1/4"	1-1/4"	2"	4-1/2"	DWC1-1/4	\$237.25
1-1/2"	1-1/4"	2"	4-1/2"	DWC1-1/2	\$345.27
1-3/4"	1-1/4"	2"	4-1/2"	DWC1-3/4	\$456.09
2"	1-1/4"	2"	4-1/2"	DWC2INCH	\$533.97

## COBALT ROUGHING

★★★ Mill America ★★★

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/4"	3/8"	5/8"	2-7/16"	BRC1/4	\$44.69
5/16"	3/8"	3/4"	2-1/2"	BRC5/16	\$44.69
3/8"	3/8"	3/4"	2-1/2"	BRC3/8	\$44.69
1/2"	1/2"	1-1/4"	3-1/4"	BRC1/2	\$57.74

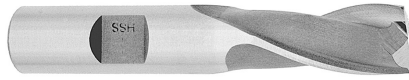
Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
5/8"	5/8"	1-5/8"	3-3/4"	BRC5/8	\$72.05
3/4"	5/8"	1-5/8"	3-3/4"	BRC3/4	\$85.69
1"	3/4"	1-5/8"	3-3/4"	BRC1INCH	\$128.51

# H.S.S. END MILLS

## METRIC SIZES



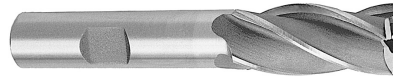
### 2 FLUTE SINGLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
4MM	3/8"	7/16"	2-5/16"	DWC4MM-2FSE	\$25.34
5MM	3/8"	1/2"	2-5/16"	DWC5MM-2FSE	\$25.34
6MM	3/8"	1/2"	2-5/16"	DWC6MM-2FSE	\$25.34
8MM	3/8"	9/16"	2-5/16"	DWC8MM-2FSE	\$25.34
10MM	3/8"	13/16"	2-1/2"	DWC10MM-2FSE	\$25.34
11MM	3/8"	13/16"	2-1/2"	DWC11MM-2FSE	\$29.27
12MM	3/8"	13/16"	2-1/2"	DWC12MM-2FSE	\$29.27

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
14MM	1/2"	1-1/8"	3-1/8"	DWC14MM-2FSE	\$40.82
16MM	3/8"	1-5/16"	3-7/16"	DWC16MM-2FSE	\$46.45
18MM	5/8"	1-5/16"	3-7/16"	DWC18MM-2FSE	\$50.68
20MM	3/4"	1-7/8"	4-1/8"	DWC20MM-2FSE	\$62.75
24MM	1"	2"	4-1/2"	DWC24MM-2FSE	\$71.52
26MM	1"	2"	4-1/2"	DWC26MM-2FSE	\$87.60

### 4 FLUTE SINGLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
4MM	3/8"	7/16"	2-5/16"	DWC4MM-4FSE	\$25.34
5MM	3/8"	1/2"	2-5/16"	DWC5MM-4FSE	\$25.34
6MM	3/8"	1/2"	2-5/16"	DWC6MM-4FSE	\$25.34
8MM	3/8"	9/16"	2-5/16"	DWC8MM-4FSE	\$25.34
10MM	3/8"	13/16"	2-1/2"	DWC10MM-4FSE	\$25.34
11MM	3/8"	13/16"	2-1/2"	DWC11MM-4FSE	\$29.27
12MM	3/8"	13/16"	2-1/2"	DWC12MM-4FSE	\$29.27

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
14MM	1/2"	1-1/8"	3-1/8"	DWC14MM-4FSE	\$40.82
16MM	5/8"	1-5/16"	3-7/16"	DWC16MM-4FSE	\$46.45
18MM	5/8"	1-5/8"	3-3/4"	DWC18MM-4FSE	\$50.68
20MM	3/4"	1-7/8"	4-1/8"	DWC20MM-4FSE	\$62.75
24MM	1"	2"	4-1/2"	DWC24MM-4FSE	\$71.52
26MM	1"	2"	4-1/2"	DWC26MM-4FSE	\$87.60

### 2 FLUTE DOUBLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
4MM	3/8"	7/16"	3-1/8"	DWC4MM-2FDE	\$36.73
5MM	3/8"	7/16"	3-1/8"	DWC5MM-2FDE	\$36.73
6MM	3/8"	1/2"	3-3/8"	DWC6MM-2FDE	\$36.73
7MM	3/8"	9/16"	3-1/2"	DWC7MM-2FDE	\$36.73
8MM	3/8"	9/16"	3-1/2"	DWC8MM-2FDE	\$36.73

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
10MM	1/2"	3/4"	3-3/4"	DWC10MM-2FDE	\$36.73
12MM	1/2"	1"	3-3/4"	DWC12MM-2FDE	\$42.43
16MM	5/8"	1-3/8"	5-1/2"	DWC16MM-2FDE	\$67.35
22MM	7/8"	1-7/8"	6"	DWC22MM-2FDE	\$106.51
24MM	1"	2"	6-1/2"	DWC24MM-2FDE	\$106.51

### 4 FLUTE DOUBLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
4MM	3/8"	7/16"	3-1/8"	DWC4MM-4FDE	\$36.73
5MM	3/8"	7/16"	3-1/8"	DWC5MM-4FDE	\$36.73
6MM	3/8"	1/2"	3-3/8"	DWC6MM-4FDE	\$36.73
7MM	3/8"	9/16"	3-1/2"	DWC7MM-4FDE	\$36.73

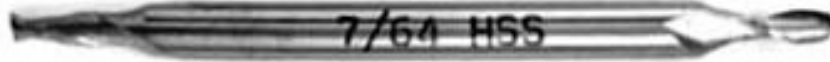
Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
8MM	3/8"	9/16"	3-1/2"	DWC8MM-4FDE	\$36.73
10MM	1/2"	13/16"	3-3/4"	DWC10MM-4FDE	\$36.73
12MM	1/2"	13/16"	3-3/4"	DWC12MM-4FDE	\$42.43

# H.S.S. END MILLS

## 3/16" SHANK MINIATURES



### 2 FLUTE DOUBLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	3/16"	3/32"	2-1/4"	DWCT11	\$19.20
3/64"	3/16"	9/64"	2-1/4"	DWCT111	\$19.20
1/16"	3/16"	3/16"	2-1/4"	DWCT12	\$19.20
5/64"	3/16"	15/64"	2-1/4"	DWCT12A	\$19.20
3/32"	3/16"	9/32"	2-1/4"	DWCT13	\$19.20
7/64"	3/16"	21/64"	2-1/4"	DWCT13A	\$19.20

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	3/16"	3/8"	2-1/4"	DWCT14	\$19.20
9/64"	3/16"	27/64"	2-1/4"	DWCT14A	\$19.20
5/32"	3/16"	7/16"	2-1/4"	DWCT15	\$19.20
11/64"	3/16"	1/2"	2-1/4"	DWCT15A	\$19.20
3/16"	3/16"	1/2"	2-1/4"	DWCT16	\$19.20

### 2 FLUTE DOUBLE END LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/16"	3/16"	7/32"	2-1/2"	DWCT102	\$20.94
5/64"	3/16"	7/32"	2-1/2"	DWCT102A	\$20.94
3/32"	3/16"	9/32"	2-5/8"	DWCT103	\$20.94
7/64"	3/16"	9/32"	2-5/8"	DWCT103A	\$20.94
1/8"	3/16"	3/4"	3-1/8"	DWCT104	\$20.94

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
9/64"	3/16"	3/4"	3-1/8"	DWCT104A	\$20.94
5/32"	3/16"	7/8"	3-1/4"	DWCT105	\$20.94
11/64"	3/16"	7/8"	3-1/4"	DWCT105A	\$20.94
3/16"	3/16"	1"	3-3/8"	DWCT106	\$20.94

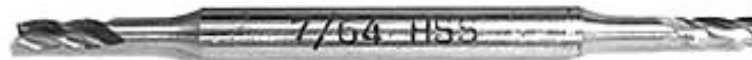
### 4 FLUTE DOUBLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/16"	3/16"	3/16"	2-1/4"	DWCF12	\$19.20
5/64"	3/16"	15/64"	2-1/4"	DWCF12A	\$19.20
3/32"	3/16"	9/32"	2-1/4"	DWCF13	\$19.20
7/64"	3/16"	21/64"	2-1/4"	DWCF13A	\$19.20
1/8"	3/16"	3/8"	2-1/4"	DWCF14	\$19.20

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
9/64"	3/16"	27/64"	2-1/4"	DWCF14A	\$19.20
5/32"	3/16"	7/16"	2-1/4"	DWCF15	\$19.20
11/64"	3/16"	1/2"	2-1/4"	DWCF15A	\$19.20
3/16"	3/16"	1/2"	2-1/4"	DWCF16	\$19.20

### 4 FLUTE DOUBLE END LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/16"	3/16"	7/32"	2-1/2"	DWCF102	\$20.94
3/32"	3/16"	9/32"	2-5/8"	DWCF103	\$20.94
7/64"	3/16"	9/32"	2-5/8"	DWCF103A	\$20.94
1/8"	3/16"	3/4"	3-1/8"	DWCF104	\$20.94

Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
9/64"	3/16"	3/4"	3-1/8"	DWCF104A	\$20.94
5/32"	3/16"	7/8"	3-1/4"	DWCF105	\$20.94
11/64"	3/16"	7/8"	3-1/4"	DWCF105A	\$20.94
3/16"	3/16"	1"	3-3/8"	DWCF106	\$20.94

# SOLID CARBIDE END MILLS

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## 2 FLUTE SINGLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/8"	1-1/2"	MMO1/32-2FSE	\$19.80	7/32"	1/4"	5/8"	2-1/2"	MMO7/32-2FSE	\$30.32
3/64"	1/8"	1/4"	1-1/2"	MMO3/64-2FSE	\$24.41	15/64"	1/4"	3/4"	2-1/2"	MMO15/64-2FSE	\$33.63
1/16"	1/8"	1/4"	1-1/2"	MMO1/16-2FSE	\$17.89	1/4"	1/4"	3/4"	2-1/2"	MMO1/4-2FSE	\$27.36
5/64"	1/8"	3/8"	1-1/2"	MMO5/64-2FSE	\$17.89	5/16"	5/16"	13/16"	2-1/2"	MMO5/16-2FSE	\$37.43
3/32"	1/8"	3/8"	1-1/2"	MMO3/32-2FSE	\$17.41	3/8"	3/8"	1"	2-1/2"	MMO3/8-2FSE	\$48.20
7/64"	1/8"	1/2"	1-1/2"	MMO7/64-2FSE	\$17.89	7/16"	7/16"	1"	2-3/4"	MMO7/16-2FSE	\$63.20
1/8"	1/8"	1/2"	1-1/2"	MMO1/8-2FSE	\$15.98	1/2"	1/2"	1"	3"	MMO1/2-2FSE	\$79.34
9/64"	3/16"	9/16"	2"	MMO9/64-2FSE	\$25.59	9/16"	9/16"	1-1/4"	3-1/2"	MMO9/16-2FSE	\$142.23
5/32"	3/16"	9/16"	2"	MMO5/32-2FSE	\$22.90	5/8"	5/18"	1-1/4"	3-1/2"	MMO5/8-2FSE	\$152.01
11/64"	3/16"	9/16"	2"	MMO11/64-2FSE	\$25.30	3/4"	3/4"	1-1/2"	4"	MMO3/4-2FSE	\$224.20
3/16"	3/16"	5/8"	2"	MMO3/16-2FSE	\$21.78	1"	1"	1-1/2"	4"	MMO1-2FSE	\$352.74
13/64"	1/4"	5/8"	2-1/2"	MMO13/64-2FSE	\$33.03						

## 2 FLUTE SINGLE END BALL



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/8"	1-1/2"	MMO1/32-2FSE-BN	\$29.99	1/4"	1/4"	3/4"	2-1/2"	MMO1/4-2FSE-BN	\$34.12
3/64"	1/8"	1/4"	1-1/2"	MMO3/64-2FSE-BN	\$29.99	5/16"	5/16"	13/16"	2-1/2"	MMO5/16-2FSE-BN	\$44.80
1/16"	1/8"	1/4"	1-1/2"	MMO1/16-2FSE-BN	\$22.52	3/8"	3/8"	1"	2-1/2"	MMO3/8-2FSE-BN	\$54.75
5/64"	1/8"	3/8"	1-1/2"	MMO5/64-2FSE-BN	\$22.97	1/2"	1/2"	1"	3"	MMO1/2-2FSE-BN	\$101.23
3/32"	1/8"	3/8"	1-1/2"	MMO3/32-2FSE-BN	\$22.52	5/8"	5/8"	1-1/4"	3-1/2"	MMO5/8-2FSE-BN	\$169.67
7/64"	1/8"	1/2"	1-1/2"	MMO7/64-2FSE-BN	\$22.97	3/4"	3/4"	1-1/2"	4"	MMO3/4-2FSE-BN	\$249.88
1/8"	1/8"	1/2"	1-1/2"	MMO1/8-2FSE-BN	\$20.37	1"	1"	1-1/2"	4"	MMO1-2FSE-BN	\$455.99
3/16"	3/16"	5/8"	2"	MMO3/16-2FSE-BN	\$26.87						

## 2 FLUTE DOUBLE END STUB



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/16"	1-1/2"	MMO1/32-2FDE-ST	\$28.58	1/8"	1/8"	1/4"	1-1/2"	MMO1/8-2FDE-ST	\$21.88
3/64"	1/8"	3/32"	1-1/2"	MMO3/64-2FDE-ST	\$28.58	3/16"	3/16"	3/8"	2"	MMO3/16-2FDE-ST	\$33.77
1/16"	1/8"	1/8"	1-1/2"	MMO1/16-2FDE-ST	\$26.05	1/4"	1/4"	1/2"	2-1/2"	MMO1/4-2FDE-ST	\$44.09
5/64"	1/8"	1/8"	1-1/2"	MMO5/64-2FDE-ST	\$26.05	5/16"	5/16"	1/2"	2-1/2"	MMO5/16-2FDE-ST	\$55.03
3/32"	1/8"	3/16"	1-1/2"	MMO3/32-2FDE-ST	\$26.05	3/8"	3/8"	9/16"	2-1/2"	MMO3/8-2FDE-ST	\$55.91
7/64"	1/8"	3/16"	1-1/2"	MMO7/64-2FDE-ST	\$26.05	1/2"	1/2"	5/8"	3"	MMO1/2-2FDE-ST	\$79.13

## 2 FLUTE DOUBLE END STUB BALL



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/16"	1-1/2"	MMO1/32-2FDE-ST-BN	\$36.34	1/8"	1/8"	1/4"	1-1/2"	MMO1/8-2FDE-ST-BN	\$33.46
3/64"	1/8"	3/32"	1-1/2"	MMO3/64-2FDE-ST-BN	\$36.34	3/16"	3/16"	3/8"	2"	MMO3/16-2FDE-ST-BN	\$45.09
1/16"	1/8"	1/8"	1-1/2"	MMO1/16-2FDE-ST-BN	\$33.46	1/4"	1/4"	1/2"	2-1/2"	MMO1/4-2FDE-ST-BN	\$56.52
5/64"	1/8"	1/8"	1-1/2"	MMO5/64-2FDE-ST-BN	\$36.34	5/16"	5/16"	1/2"	2-1/2"	MMO5/16-2FDE-ST-BN	\$74.36
3/32"	1/8"	3/16"	1-1/2"	MMO3/32-2FDE-ST-BN	\$33.46	3/8"	3/8"	9/16"	2-1/2"	MMO3/8-2FDE-ST-BN	\$79.17
7/64"	1/8"	3/16"	1-1/2"	MMO7/64-2FDE-ST-BN	\$36.34	1/2"	1/2"	5/8"	3"	MMO1/2-2FDE-ST-BN	\$131.17

# SOLID CARBIDE END MILLS

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## 4 FLUTE SINGLE END



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/8"	1-1/2"	MMO1/32-4FSE	\$19.80	7/32"	1/4"	5/8"	2-1/2"	MMO7/32-4FSE	\$30.32
3/64"	1/8"	1/4"	1-1/2"	MMO3/64-4FSE	\$24.41	15/64"	1/4"	3/4"	2-1/2"	MMO15/64-4FSE	\$33.63
1/16"	1/8"	1/4"	1-1/2"	MMO1/16-4FSE	\$17.89	1/4"	1/4"	3/4"	2-1/2"	MMO1/4-4FSE	\$27.36
5/64"	1/8"	3/8"	1-1/2"	MMO5/64-4FSE	\$17.89	5/16"	5/16"	13/16"	2-1/2"	MMO5/16-4FSE	\$37.43
3/32"	1/8"	3/8"	1-1/2"	MMO3/32-4FSE	\$17.41	3/8"	3/8"	1"	2-1/2"	MMO3/8-4FSE	\$48.20
7/64"	1/8"	1/2"	1-1/2"	MMO7/64-4FSE	\$17.89	7/16"	7/16"	1"	2-3/4"	MMO7/16-4FSE	\$63.20
1/8"	1/8"	1/2"	1-1/2"	MMO1/8-4FSE	\$15.98	1/2"	1/2"	1"	3"	MMO1/2-4FSE	\$79.34
9/64"	3/16"	9/16"	2"	MMO9/64-4FSE	\$25.59	9/16"	9/16"	1-1/4"	3-1/2"	MMO9/16-4FSE	\$142.23
5/32"	3/16"	9/16"	2"	MMO5/32-4FSE	\$22.90	5/8"	5/8"	1-1/4"	3-1/2"	MMO5/8-4FSE	\$152.01
11/64"	3/16"	9/16"	2"	MMO11/64-4FSE	\$25.30	3/4"	3/4"	1-1/2"	4"	MMO3/4-4FSE	\$224.20
3/16"	3/16"	5/8"	2"	MMO3/16-4FSE	\$21.78	1"	1"	1-1/2"	4"	MMO1-4FSE	\$352.74
13/64"	1/4"	5/8"	2-1/2"	MMO13/64-4FSE	\$33.03						

## 4 FLUTE SINGLE END BALL



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/8"	1-1/2"	MMO1/32-4FSE-BN	\$29.99	1/4"	1/4"	3/4"	2-1/2"	MMO1/4-4FSE-BN	\$34.12
3/64"	1/8"	1/4"	1-1/2"	MMO3/64-4FSE-BN	\$29.99	5/16"	5/16"	1/2"	2-1/2"	MMO5/16-4FSE-BN	\$44.80
1/16"	1/8"	1/4"	1-1/2"	MMO1/16-4FSE-BN	\$22.52	3/8"	3/8"	1"	2-1/2"	MMO3/8-4FSE-BN	\$54.75
5/64"	1/8"	3/8"	1-1/2"	MMO5/64-4FSE-BN	\$22.97	1/2"	1/2"	1"	3"	MMO1/2-4FSE-BN	\$101.23
3/32"	1/8"	3/8"	1-1/2"	MMO3/32-4FSE-BN	\$22.52	5/8"	5/8"	1-1/4"	3-1/2"	MMO5/8-4FSE-BN	\$169.67
1/8"	1/8"	1/2"	1-1/2"	MMO1/8-4FSE-BN	\$20.37	3/4"	3/4"	1-1/2"	4"	MMO3/4-4FSE-BN	\$249.88
3/16"	3/16"	5/8"	2"	MMO3/16-4FSE-BN	\$26.87	1"	1"	1-1/2"	4"	MMO1-4FSE-BN	\$455.99

## 4 FLUTE SINGLE END LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	1/8"	3/4"	2-1/4"	MMO1/8-4FSE-LONG	\$27.38	1/2"	1/2"	2"	4"	MMO1/2-4FSE-LONG	\$120.68
3/16"	3/16"	3/4"	2-1/2"	MMO3/16-4FSE-LONG	\$33.22	5/8"	5/8"	2-1/4"	5"	MMO5/8-4FSE-LONG	\$234.93
1/4"	1/4"	1-1/8"	3"	MMO1/4-4FSE-LONG	\$45.72	3/4"	3/4"	2-1/4"	5"	MMO3/4-4FSE-LONG	\$303.82
3/8"	3/8"	1-1/8"	3"	MMO3/8-4FSE-LONG	\$68.17	1"	1"	2-1/4"	5"	MMO1-4FSE-LONG	\$553.52

## 4 FLUTE SINGLE END EXTRA LONG



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/8"	1/8"	1"	3"	MMO1/8-4FSE-XLONG	\$35.53	1/2"	1/2"	3"	6"	MMO1/2-4FSE-XLONG	\$156.37
3/16"	3/16"	1-1/8"	3"	MMO3/16-4FSE-XLONG	\$37.13	5/8"	5/8"	3"	6"	MMO5/8-4FSE-XLONG	\$222.92
1/4"	1/4"	1-1/2"	4"	MMO1/4-4FSE-XLONG	\$49.87	3/4"	3/4"	3"	6"	MMO3/4-4FSE-XLONG	\$353.89
3/8"	3/8"	1-3/4"	4"	MMO3/8-4FSE-XLONG	\$71.93	1"	1"	3"	6"	MMO1-4FSE-XLONG	\$632.74

# SOLID CARBIDE END MILLS

## 4 FLUTE DOUBLE END STUB



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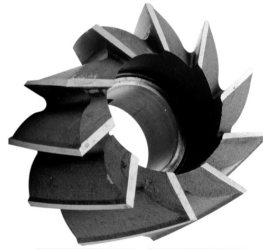
Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/16"	1-1/2"	MMO1/32-4FDE-ST	\$28.58	1/8"	1/8"	1/4"	1-1/2"	MMO1/8-4FDE-ST	\$21.95
3/64"	1/8"	3/32"	1-1/2"	MMO3/64-4FDE-ST	\$28.58	3/16"	3/16"	3/8"	2"	MMO3/16-4FDE-ST	\$33.77
1/16"	1/8"	1/8"	1-1/2"	MMO1/16-4FDE-ST	\$26.05	1/4"	1/4"	1/2"	2-1/2"	MMO1/4-4FDE-ST	\$44.09
5/64"	1/8"	1/8"	1-1/2"	MMO5/64-4FDE-ST	\$26.05	5/16"	5/16"	1/2"	2-1/2"	MMO5/16-4FDE-ST	\$55.03
3/32"	1/8"	3/16"	1-1/2"	MMO3/32-4FDE-ST	\$26.05	3/8"	3/8"	9/16"	2-1/2"	MMO3/8-4FDE-ST	\$55.91
7/64"	1/8"	3/16"	1-1/2"	MMO7/64-4FDE-ST	\$26.05	1/2"	1/2"	5/8"	3"	MMO1/2-4FDE-ST	\$79.13

## 4 FLUTE DOUBLE END STUB BALL



Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price	Size	Shank Dia.	Flute Length	O.A.L.	Part Number	List Price
1/32"	1/8"	1/16"	1-1/2"	MMO1/32-4FDE-ST-BN	\$36.34	1/8"	1/8"	1/4"	1-1/2"	MMO1/8-4FDE-ST-BN	\$33.46
3/64"	1/8"	3/32"	1-1/2"	MMO3/64-4FDE-ST-BN	\$36.34	3/16"	3/16"	3/8"	2"	MMO3/16-4FDE-ST-BN	\$45.09
1/16"	1/8"	1/8"	1-1/2"	MMO1/16-4FDE-ST-BN	\$33.46	1/4"	1/4"	1/2"	2-1/2"	MMO1/4-4FDE-ST-BN	\$56.52
5/64"	1/8"	1/8"	1-1/2"	MMO5/64-4FDE-ST-BN	\$36.34	5/16"	5/16"	1/2"	2-1/2"	MMO5/16-4FDE-ST-BN	\$74.36
3/32"	1/8"	3/16"	1-1/2"	MMO3/32-4FDE-ST-BN	\$33.46	3/8"	3/8"	9/16"	2-1/2"	MMO3/8-4FDE-ST-BN	\$79.17
7/64"	1/8"	3/16"	1-1/2"	MMO7/64-4FDE-ST-BN	\$36.34	1/2"	1/2"	9/16"	3"	MMO1/2-4FDE-ST-BN	\$131.17

# H.S.S. SHELL END MILLS

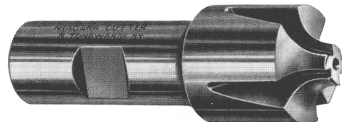


QUALITECH™

Size	Flute Length	Slot Width	Slot Depth	Hole Size	Part Number	List Price	Size	Flute Length	Slot Width	Slot Depth	Hole Size	Part Number	List Price
1-1/4"	1"	1/4"	5/32"	1/2"	DWCA1610	\$103.61	3"	1-3/4"	1/2"	9/32"	1-1/4"	DWCA1624	\$293.95
1-1/2"	1-1/8"	1/4"	5/32"	1/2"	DWCA1612	\$105.48	3-1/2"	1-7/8"	1/2"	9/32"	1-1/4"	DWCA1626	\$395.33
1-3/4"	1-1/4"	5/16"	3/16"	3/4"	DWCA1614	\$133.21	4"	2-1/4"	5/8"	3/8"	1-1/2"	DWCA1628	\$486.04
2"	1-3/8"	5/16"	3/16"	3/4"	DWCA1616	\$155.26	4-1/2"	2-1/4"	5/8"	3/8"	1-1/2"	DWCA1630	\$564.38
2-1/4"	1-1/2"	3/8"	7/32"	1"	DWCA1618	\$174.81	5"	2-1/4"	5/8"	3/8"	1-1/2"	DWCA1632	\$730.36
2-1/2"	1-5/8"	3/8"	7/32"	1"	DWCA1620	\$210.39	5-1/2"	2-1/4"	3/4"	7/16"	2"	DWCA1634	\$974.94
2-3/4"	1-5/8"	3/8"	7/32"	1"	DWCA1622	\$259.72	6"	2-1/4"	3/4"	7/16"	2"	DWCA1636	\$1,067.92

# H.S.S. CORNER ROUNDING END MILLS

QUALITECH™



Radius	Cutter Dia.	Shank	O.A.L.	Part Number	List Price	Radius	Cutter Dia.	Shank	O.A.L.	Part Number	List Price
1/16"	7/16"	3/8"	2-1/2"	DWCC402	\$51.43	3/8"	1-1/4"	3/4"	3-1/2"	DWCC411	\$96.87
3/32"	1/2"	3/8"	2-1/2"	DWCC403	\$56.47	3/8"	1-1/4"	7/8"	3-3/4"	DWCC412	\$96.87
1/8"	5/8"	1/2"	3"	DWCC404	\$62.63	7/16"	1-3/8"	3/4"	3-3/4"	DWCC413	\$131.11
5/32"	3/4"	1/2"	3"	DWCC405	\$69.10	7/16"	1-3/8"	1"	4"	DWCC414	\$131.11
3/16"	7/8"	3/4"	3-1/8"	DWCC406	\$79.33	1/2"	1-1/2"	3/4"	3-7/8"	DWCC416	\$147.18
1/4"	1"	3/4"	3-1/8"	DWCC408	\$69.73	5/8"	1-5/8"	3/4"	4"	DWCC420	\$284.94
5/16"	1-1/8"	3/4"	3-1/4"	DWCC409	\$96.87	5/8"	1-5/8"	1"	4-1/4"	DWCC422	\$284.94
5/16"	1-1/8"	7/8"	3-1/2"	DWCC410	\$96.87	3/4"	1-7/8"	3/4"	4-1/8"	DWCC424	\$333.42

# SOLID CARBIDE BURS

## DOUBLE CUT

### CYLINDRICAL

Cutting Diameter	Length Of Cut	Part Number	List Price
1/8"	1/2"	DULSA11	\$15.79
1/8"	5/8"	DULSA12	\$14.22
5/32"	5/8"	DULSA13	\$18.82
3/16"	5/8"	DULSA14	\$15.70
1/4"	5/8"	DULSA1	\$12.83
1/4"	1"	DULSA1A	\$16.18
5/16"	3/4"	DULSA2	\$16.75
5/16"	1"	DULSA2A	\$26.18
3/8"	3/4"	DULSA3	\$17.69
3/8"	1"	DULSA3A	\$23.16
3/8"	1 1/2"	DULSA3B	\$29.68
7/16"	1"	DULSA4	\$28.35
1/2"	1"	DULSA5	\$28.76
5/8"	1"	DULSA6	\$38.33
3/4"	1"	DULSA7	\$66.16
3/4"	3/4"	DULSA16	\$54.50
1"	1"	DULSA9	\$82.13



### CYLINDRICAL (END CUT)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/8"	1/2"	DULSB11	\$17.23
1/8"	5/8"	DULSB12	\$17.18
3/16"	5/8"	DULSB14	\$17.93
1/4"	5/8"	DULSB1	\$17.93
1/4"	1"	DULSB1A	\$22.36
5/16"	3/4"	DULSB2	\$21.66
5/16"	1"	DULSB2A	\$36.83
3/8"	3/4"	DULSB3	\$23.13
3/8"	1"	DULSB3A	\$31.96
3/8"	1-1/2"	DULSB3B	\$39.85
7/16"	1"	DULSB4	\$34.91
1/2"	1"	DULSB5	\$37.53
5/8"	1"	DULSB6	\$48.92
3/4"	1"	DULSB7	\$71.67
3/4"	3/4"	DULSB16	\$63.76
1"	1"	DULSB9	\$96.24



### CYLINDRICAL (RADIUS END)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/8"	1/2"	DULSC11	\$15.70
1/8"	5/8"	DULSC12	\$16.64
3/16"	5/8"	DULSC14	\$17.94
1/4"	5/8"	DULSC1	\$17.95
1/4"	1"	DULSC1A	\$21.03
5/16"	3/4"	DULSC2	\$21.66
5/16"	1"	DULSC2A	\$31.11
3/8"	3/4"	DULSC3	\$23.33
3/8"	1"	DULSC3A	\$27.65
3/8"	1-1/2"	DULSC3B	\$34.72
7/16"	1"	DULSC4	\$34.64
1/2"	1"	DULSC5	\$38.19
5/8"	1"	DULSC6	\$43.20
3/4"	1"	DULSC7	\$63.73
1"	1"	DULSC9	\$108.22



### BALL END

Cutting Diameter	Length Of Cut	Part Number	List Price
1/8"	3/32"	DULSD11	\$16.09
3/16"	1/4"	DULSD14	\$15.68
1/4"	3/16"	DULSD1	\$16.32
5/16"	1/4"	DULSD2	\$17.68
3/8"	5/16"	DULSD3	\$19.08
7/16"	3/8"	DULSD4	\$24.17
1/2"	7/16"	DULSD5	\$26.81
5/8"	9/16"	DULSD6	\$36.02
3/4"	1 1/16"	DULSD7	\$47.92
1"	1 5/16"	DULSD9	\$82.25



### TREE (RADIUS END)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/8"	1/2"	DULSF11	\$19.08
1/4"	5/8"	DULSF1	\$19.09
3/8"	3/4"	DULSF3	\$22.90
7/16"	1"	DULSF4	\$34.74
1/2"	1"	DULSF5	\$35.08
1/2"	3/4"	DULSF13	\$35.08
5/8"	1"	DULSF6	\$48.59
3/4"	1"	DULSF7	\$63.94
3/4"	1-1/4"	DULSF14	\$72.29
3/4"	1-1/2"	DULSF15	\$94.35



### OVAL

Cutting Diameter	Length Of Cut	Part Number	List Price
3/16"	5/16"	DULSE11	\$19.72
1/4"	3/8"	DULSE1	\$19.72
3/8"	5/8"	DULSE3	\$21.49
1/2"	7/8"	DULSE5	\$35.52
5/8"	1"	DULSE6	\$49.52
3/4"	1"	DULSE7	\$66.29



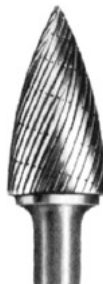
### FLAME

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	5/8"	DULSH1	\$21.66
5/16"	3/4"	DULSH2	\$22.89
1/2"	1-1/4"	DULSH5	\$49.55
5/8"	1-7/16"	DULSH6	\$70.16
3/4"	1-5/8"	DULSH7	\$91.06



### TREE (POINTED END)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	5/8"	DULSG1	\$19.08
5/16"	3/4"	DULSG2	\$22.05
3/8"	3/4"	DULSG3	\$24.39
1/2"	1"	DULSG5	\$34.64
1/2"	3/4"	DULSG13	\$35.54
5/8"	1"	DULSG6	\$47.94
3/4"	1"	DULSG7	\$63.94
3/4"	1-1/2"	DULSG15	\$94.35



### 60° (INCLUDED ANGLE)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	3/16"	DULSJ1	\$17.69
3/8"	5/16"	DULSJ3	\$21.76
1/2"	7/16"	DULSJ5	\$27.75
5/8"	1/2"	DULSJ6	\$34.91
3/4"	5/8"	DULSJ7	\$45.93
1"	3/4"	DULSJ9	\$73.68



# SOLID CARBIDE BURS

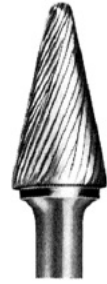
## 90° (INCLUDED ANGLE)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	1/8"	DULSK1	\$16.60
5/16"	3/16"	DULSK2	\$23.41
3/8"	3/16"	DULSK3	\$22.30
1/2"	1/4"	DULSK5	\$26.98
5/8"	5/16"	DULSK6	\$34.01
3/4"	3/8"	DULSK7	\$46.22
1"	1/2"	DULSK9	\$73.59



## CONE (RADIUS END 14° TAPER)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	5/8"	DULSL1	\$19.57
5/16"	7/8"	DULSL2	\$24.39
3/8"	1-1/16"	DULSL3	\$29.32
1/2"	1-1/8"	DULSL4	\$37.09
5/8"	1-3/16"	DULSL5	\$70.16
5/8"	1-5/16"	DULSL6	\$73.06
3/4"	1-1/2"	DULSL7	\$96.36



## CONE (POINTED END)

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	1/2"	DULSM1	\$19.14
1/4"	3/4"	DULSM2	\$20.38
1/4"	1"	DULSM3	\$22.07
1/4"	1-1/4"	DULSM3A	\$29.72
3/8"	5/8"	DULSM4	\$29.32
1/2"	7/8"	DULSM5	\$38.30
5/8"	1"	DULSM6	\$50.84



## INVERTED CONE

Cutting Diameter	Length Of Cut	Part Number	List Price
1/4"	5/16"	DULSN1	\$17.45
3/8"	3/8"	DULSN2	\$32.19
1/2"	1/2"	DULSN4	\$34.52
5/8"	3/4"	DULSN6	\$54.17
3/4"	5/8"	DULSN7	\$72.88



## 6" OVERALL

Cutting Diameter	Length Of Cut	Part Number	List Price
<b>CYLINDRICAL</b>			
1/4"	1/2"	DULSA1X6	\$28.16
3/8"	3/4"	DULSA3X6	\$32.02
1/2"	1"	DULSA5X6	\$43.77

## CYLINDRICAL (RADIUS END)

1/4"	1/2"	DULSC1X6	\$32.34
3/8"	3/4"	DULSC3X6	\$36.89
1/2"	1"	DULSC5X6	\$53.25

## BALL END

1/2"	7/16"	DULSD5X6	\$42.44
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## OVAL

1/4"	3/8"	DULSE1X6	\$34.24
3/8"	5/8"	DULSE3X6	\$38.51
1/2"	7/8"	DULSE5X6	\$48.22

Cutting Diameter	Length Of Cut	Part Number	List Price
<b>TREE (RADIUS END)</b>			
1/4"	1/2"	DULSF1X6	\$33.54
3/8"	3/4"	DULSF3X6	\$38.81
1/2"	1"	DULSF5X6	\$50.88

## TREE (POINTED END)

1/4"	1/2"	DULSG1X6	\$33.54
3/8"	3/4"	DULSG3X6	\$37.99
1/2"	1"	DULSG5X6	\$48.21

## FLAME

1/2"	1-1/4"	DULSH5X6	\$63.54
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## CONE (RADIUS END 14°)

3/8"	1-1/16"	DULSL3X6	\$43.11
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## ALUMINUM & NON-FERROUS

Cutting Diameter	Length Of Cut	Part Number	List Price
<b>CYLINDRICAL</b>			
3/8"	3/4"	DULSA3NF	\$25.09
1/2"	1"	DULSA5NF	\$39.46
3/4"	1"	DULSA7NF	\$69.08

## CYLINDRICAL (END CUT)

3/8"	3/4"	DULSB3NF	\$33.47
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## CYLINDRICAL (RADIUS END)

3/8"	3/4"	DULSC3NF	\$29.25
1/2"	1"	DULSC5NF	\$41.16
3/4"	1"	DULSC7NF	\$87.20

## BALL END

3/8"	3/8"	DULSD3NF	\$26.81
1/2"	1/2"	DULSD5NF	\$35.70
5/8"	5/8"	DULSD6NF	\$45.79



Cutting Diameter	Length Of Cut	Part Number	List Price
<b>OVAL</b>			
1/2"	7/8"	DULSE5NF	\$41.34
5/8"	1"	DULSE6NF	\$66.86

## TREE (RADIUS END)

1/4"	5/8"	DULSF1NF	\$26.60
3/8"	3/4"	DULSF3NF	\$31.73
1/2"	1"	DULSF5NF	\$42.20
5/8"	1"	DULSF6NF	\$59.53

## CONE (RADIUS END 14°)

3/8"	1-1/16"	DULSL3NF	\$35.41
1/2"	1-1/8"	DULSL4NF	\$45.17
5/8"	1-5/16"	DULSL6NF	\$90.20
3/4"	1-1/2"	DULSL7NF	\$134.99



# SOLID CARBIDE BURS

## MINIATURE

Cutting Diameter	Length Of Cut	Part Number	List Price
<b>CYLINDRICAL</b>			
1/16"	1/4"	DULSA41	\$8.01
3/32"	7/16"	DULSA42	\$8.01
1/8"	9/16"	DULSA43	\$8.01
1/4"	1/2"	DULSA51	\$15.21
5/32"	1/2"	DULSA52	\$15.21
3/16"	1/2"	DULSA53	\$15.21
3/32"	1/4"	DULSA61	\$7.95
3/32"	3/8"	DULSA63	\$7.95
3/16"	5/8"	DULSA81	\$16.68

<b>CYLINDRICAL (END CUT)</b>			
1/16"	1/4"	DULSB41	\$8.01
3/32"	7/16"	DULSB42	\$8.01
1/4"	3/16"	DULSB51	\$15.21

<b>CYLINDRICAL (RADIUS END)</b>			
3/32"	7/16"	DULSC41	\$8.01
1/8"	9/16"	DULSC42	\$8.01
1/4"	1/2"	DULSC51	\$15.21
5/32"	1/2"	DULSC52	\$15.21
3/16"	1/2"	DULSC53	\$15.21
3/32"	3/8"	DULSC61	\$7.95
3/16"	5/8"	DULSC81	\$16.68

<b>BALL END</b>			
3/32"	3/32"	DULSD41	\$8.01
1/8"	1/8"	DULSD42	\$8.01
1/4"	1/4"	DULSD51	\$15.21
3/16"	3/16"	DULSD53	\$15.21
3/32"	3/32"	DULSD61	\$7.95
3/16"	3/16"	DULSD81	\$16.68

<b>OVAL</b>			
1/8"	7/32"	DULSE41	\$8.01
1/4"	3/8"	DULSE51	\$15.21
3/16"	9/32"	DULSE53	\$15.21
3/32"	1/8"	DULSE61	\$7.95
3/16"	9/32"	DULSE81	\$16.68

<b>TREE (RADIUS END)</b>			
1/8"	1/4"	DULSF41	\$8.01
1/8"	1/2"	DULSF42	\$8.01
1/4"	1/2"	DULSF51	\$15.21
3/16"	1/2"	DULSF53	\$15.21
3/32"	1/4"	DULSF61	\$7.95
3/16"	1/2"	DULSF81	\$16.68

Cutting Diameter	Length Of Cut	Part Number	List Price
<b>TREE (POINTED END)</b>			
1/8"	1/4"	DULSG41	\$8.01
1/8"	3/8"	DULSG43	\$8.01
1/8"	1/2"	DULSG44	\$8.01
1/4"	1/2"	DULSG51	\$15.21
3/16"	1/2"	DULSG53	\$15.21
3/32"	1/4"	DULSG61	\$7.95
3/16"	1/2"	DULSG81	\$16.68

<b>FLAME</b>			
1/8"	1/4"	DULSH41	\$8.01
3/16"	3/8"	DULSH53	\$15.21

<b>60° (INCLUDED ANGLE)</b>			
1/8"	3/32"	DULSJ42	\$8.01
3/16"	3/16"	DULSJ81	\$16.68

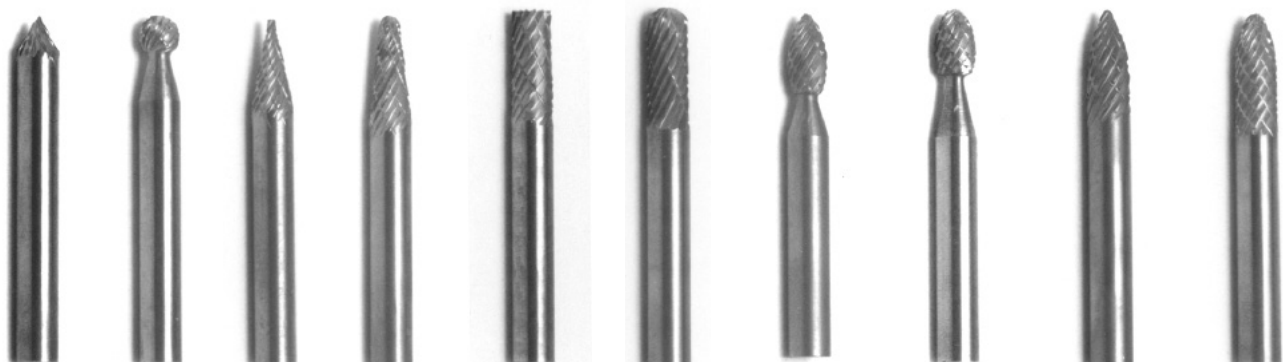
<b>90° (INCLUDED ANGLE)</b>			
1/8"	1/16"	DULSK42	\$8.01
3/16"	1/2"	DULSK81	\$16.68

<b>CONE (RADIUS END 14° TAPER)</b>			
1/8"	3/8"	DULSL41	\$8.01
1/8"	1/2"	DULSL42	\$8.01
3/16"	1/2"	DULSL53	\$15.21
3/16"	7/16"	DULSL81	\$16.68

<b>CONE (POINTED END)</b>			
1/8"	11/32"	DULSM41	\$8.01
1/8"	7/16"	DULSM42	\$8.01
1/8"	5/8"	DULSM43	\$8.01
1/4"	1/2"	DULSM51	\$15.21
3/16"	1/2"	DULSM53	\$15.21
3/32"	1/4"	DULSM61	\$7.95
3/16"	1/2"	DULSM81	\$16.68

<b>INVERTED CONE</b>			
3/32"	1/8"	DULSN41	\$8.01
1/8"	3/16"	DULSN42	\$8.01
1/4"	1/4"	DULSN51	\$15.21
3/16"	1/4"	DULSN53	\$15.21
3/32"	1/8"	DULSN61	\$7.95
3/16"	1/4"	DULSN81	\$17.40

**40 & 50 Series have 1/8" Shank Diameter.**  
**60 Series have 3/32" Shank Diameter.**  
**80 Series have 3/16" Shank Diameter.**



# FILES

## AMERICAN PATTERN FLAT FILES



Flat Files are used by machinists, machinery builders, ship and engine builders, repairmen and others who require rapid removal of metal. They are rectangular in cross section and taper slightly towards the point in both width and thickness. Double cut on both sides, single cut on both edges.

Length	Bastard	List Price	2nd Cut	List Price	Smooth	List Price
4"	DIC03367	\$6.30	DIC03401	\$6.62	DIC03434	\$7.87
6"	DIC03467	\$6.62	DIC03500	\$7.04	DIC03533	\$8.37
8"	DIC03566	\$8.23	DIC03599	\$9.11	DIC03632	\$9.71
10"	DIC03665	\$10.21	DIC03698	\$11.73	DIC03731	\$12.97
12"	DIC03764	\$13.98	DIC03797	\$15.87	DIC03830	\$17.57
14"	DIC03863	\$19.32	DIC03896	\$22.22	DIC03929	\$24.33
16"	DIC03980	\$25.48	DIC03981	\$30.54	DIC03982	\$43.52



## HALF ROUND FILES

Rounded on one side, flat on the other. Used on concave and convex as well as flat surfaces. The backs of all Half Round Bastard Files are double cut. The Backs of all Half Round Second Cut Files longer than 6 inches are double cut, the 4 and 6 inches files are single cut. The backs of all Half Round Smooth files are single cut. The flat sides of all Half Files are double cut.

Length	Bastard	List Price	2nd Cut	List Price	Smooth	List Price
4"	DIC04695	\$9.61	DIC04729	\$10.67	DIC04762	\$11.22
6"	DIC04795	\$9.98	DIC04828	\$11.36	DIC04861	\$11.78
8"	DIC04896	\$12.05	DIC04927	\$13.39	DIC04960	\$14.35
10"	DIC04995	\$15.00	DIC05026	\$16.33	DIC05059	\$17.16
12"	DIC05094	\$19.32	DIC05125	\$21.02	DIC05158	\$22.13
14"	DIC05194	\$25.12	DIC05225	\$27.14	DIC05258	\$29.30



## MILL FILES

For sharpening Mill or Circular Saws. Also for drawing, filing, and metals. All sizes tapered slightly in width, 12" and 14" slightly in thickness for about one-third of length. Two square edges. Single cut on sides and edges.

Length	Bastard	List Price	2nd Cut	List Price	Smooth	List Price
6"	DIC08354	\$4.51	DIC08385	\$6.53	DIC08416	\$6.95
8"	DIC08497	\$5.38	DIC08529	\$7.36	DIC08560	\$8.14
10"	DIC08642	\$6.95	DIC08673	\$9.38	DIC08704	\$9.98
12"	DIC08737	\$11.36	DIC08768	\$12.37	DIC08799	\$13.62
14"	DIC08832	\$15.32			DIC08894	\$18.81



## ROUND FILES

Principal use is to file circular opening or concave surfaces. Tapered slightly towards point. All 4", 6", 8" and 10" files are single cut. 12" bastard and second cut are double cut, 12" smooth is single cut and 14" bastard is double cut.

Length	Bastard	List Price	2nd Cut	List Price	Smooth	List Price
4"	DIC11526	\$5.29	DIC11559	\$5.80	DIC11592	\$6.35
6"	DIC11716	\$5.29	DIC11748	\$6.07	DIC11781	\$6.62
8"	DIC11904	\$6.07	DIC11936	\$7.04	DIC11969	\$7.87
10"	DIC12019	\$7.87	DIC12051	\$9.25	DIC12084	\$10.21
12"	DIC12134	\$10.90	DIC12166	\$12.42	DIC12199	\$13.52
14"	DIC12248	\$15.55	DIC12282	\$18.63	DIC12250	\$20.29



## SQUARE FILES

For filing slots, keyways and general surfaces filing. Larger sizes frequently preferred to corresponding Flat Files because of heavier section and for filing surfaces. Tapered slightly towards point. Double cut.

Length	Bastard	List Price	2nd Cut	List Price	Smooth	List Price
4"	DIC12790	\$7.04	DIC12824	\$7.87	DIC12857	\$8.23
6"	DIC12967	\$7.36	DIC13000	\$8.23	DIC13033	\$8.69
8"	DIC13081	\$8.69	DIC13114	\$9.89	DIC13147	\$10.95
10"	DIC13196	\$11.55	DIC13229	\$13.29	DIC13262	\$14.31
12"	DIC13310	\$16.38	DIC13343	\$18.40	DIC13376	\$20.15
14"	DIC13425	\$21.57	DIC13426	\$27.60	DIC13427	\$30.22
16"					DIC13428	\$19.32



## THREE SQUARE FILES

Three square Files are triangular in cross section, and are double cut and have fairly sharp corners that are slightly set and cut. These files are for general use by machinists for filing internal angles more than the right angle, for clearing out square comers and filing taps and cutters. Grading of cuts according to coarseness is same as Square File.

Length	Bastard	List Price	2nd Cut	List Price	Smooth	List Price
6"	DIC15925	\$8.79	DIC15958	\$9.89	DIC15991	\$9.98
8"	DIC16036	\$10.49	DIC16069	\$11.91	DIC16102	\$12.56
10"	DIC16147	\$13.11	DIC16180	\$14.26	DIC16213	\$15.09
12"	DIC16214	\$19.64	DIC16215	\$21.34	DIC16216	\$22.63

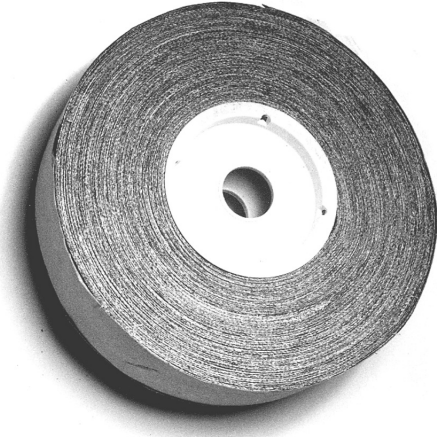


# ABRASIVES

## ALUMINUM OXIDE CLOTH ROLLS (HANDY ROLLS)

**QUALI**  **TECH™**

Handy Rolls, made of high grade, resin-bonded, J-wt. Cloth material, are packaged 50 Yards per Roll. The flexibility of these cloth rolls allows for contour work. They come packaged in storage containers for easy dispensing.



### 1"

Size	Grit	Part Number	List Price
1"	40	DEW140	\$32.26
1"	50	DEW150	\$30.91
1"	60	DEW160	\$29.57
1"	80	DEW180	\$29.57
1"	100	DEW1100	\$29.57
1"	120	DEW1120	\$29.57
1"	150	DEW1150	\$29.57
1"	180	DEW1180	\$29.57
1"	220	DEW1220	\$29.57
1"	240	DEW1240	\$29.57
1"	320	DEW1320	\$29.57
1"	400	DEW1400	\$29.57

### 1-1/2"

Size	Grit	Part Number	List Price
1-1/2"	40	DEW11240	\$42.34
1-1/2"	50	DEW11250	\$40.57
1-1/2"	60	DEW11260	\$38.81
1-1/2"	80	DEW11280	\$38.81
1-1/2"	100	DEW112100	\$38.81
1-1/2"	120	DEW112120	\$38.81
1-1/2"	150	DEW112150	\$38.81
1-1/2"	180	DEW112180	\$38.81
1-1/2"	220	DEW112220	\$38.81
1-1/2"	240	DEW112240	\$38.81
1-1/2"	320	DEW112320	\$38.81
1-1/2"	400	DEW112400	\$38.81

### 2"

Size	Grit	Part Number	List Price
2"	40	DEW240	\$53.20
2"	50	DEW250	\$51.07
2"	60	DEW260	\$48.94
2"	80	DEW280	\$48.94
2"	100	DEW2100	\$48.94
2"	120	DEW2120	\$48.94

Size	Grit	Part Number	List Price
2"	150	DEW2150	\$48.94
2"	180	DEW2180	\$48.94
2"	220	DEW2220	\$48.94
2"	240	DEW2240	\$48.94
2"	320	DEW2320	\$48.94
2"	400	DEW2400	\$48.94

# INDEXES & DISPENSERS

## DRILL INDEXES



Capacity	Description	Part Number	List Price
13 pc	1/16" to 1/4" x 64ths	HUT313	\$9.55
21 pc	1/16" to 3/8" x 64ths	HUT21	\$14.35
15 pc	1/16" to 1/2" x 32nds	HUT15	\$14.35
29 pc	1/16" to 1/2" x 64ths	HUT29	\$16.00
26 pc	Letter Sizes A to Z	HUT26	\$16.00
60 pc	Wire Gauge Sizes No. 1 to 60	HUT60	\$13.92
20 pc	Wire Gauge Sizes No. 61 to 80	HUT20	\$9.20
80 pc	Wire Gauge Sizes No. 1 to 80	HUT80	\$62.40
8 pc	9/16" to 1" x 16ths S & D	HUT88SD	\$54.00



## METRIC DRILL INDEXES

Capacity	Description	Part Number	List Price
11 pc	1 to 6mm x 0.5mm	HUT4011	\$11.40
13 pc	1 to 7mm x 0.5mm	HUT4013	\$11.40
19 pc	1 to 10mm x 0.5mm	HUT4019	\$16.00
25 pc	1 to 13mm x 0.5mm	HUT4025	\$18.00
50 pc	1 to 5.9mm x 0.1mm	HUT4050	\$23.28
41 pc	6 to 10mm x 0.1mm	HUT4041	\$59.52



## DRILL STANDS

Capacity	Description	Part Number	List Price
29 pc	1/16" to 1/2" x 64ths	HUT829	\$17.28
26 pc	Letter Sizes A to Z	HUT826	\$17.28
60 pc	Wire Gauge Sizes No. 1 to 60	HUT860	\$17.28
33 pc	S&D 1/2" to 1" x 64ths	HUT833SD	\$70.00



## DRILL DISPENSERS & DISPLAYS

Description	Part Number	List Price
For 1/16 to 1/2 x 64ths drills	HUT1	\$195.00
For No. 1 to 60 drills	HUT2	\$223.40
For A to Z drills	HUT3	\$195.00
For metric 1 to 13 by 0.5mm drills	HUT4	\$203.00
For metric 1 to 6.9 by 0.1mm drills	HUT5	\$254.40
1/16" to 1/2" x 64ths Counter display	HUT6	\$398.40
For Wire Gauge drills No. 1 to 60 Counter display	HUT7	\$641.85
For Letter drills A to Z Counter display	HUT8	\$417.60



# INDEXES & DISPENSERS

## COMBINATION INDEX



Description	Part Number	List Price
Holds 115 drills; 1/16" - 1/2" x64ths A - Z #1 - 60	HUT115	\$76.50



### TAPER SHANK & TAPER LENGTH INDEXES

Description	Part Number	List Price
1/16" to 1/2" x 64ths Taper Length	HUT329	\$49.32
33/64" to 3/4" x 64ths Taper Shank	HUT1016	\$172.80
49/64" to 1" x 64ths Taper Shank	HUT2016	\$201.60



### TAP DISPENSERS

Description	Part Number	List Price
For taps 1/4"-20 thru 1"-14	HUT13500	\$195.60
For taps 2-56 thru 12-28	HUT13550	\$235.20
For metric taps 3mm to 24mm	HUT13575	\$216.00



### BUR DISPENSER

Description	Part Number	List Price
Carbide Bur Dispenser	HUT13200	\$204.00



### DRILL GAUGES

Description	Part Number	List Price
1/16" to 1/2" x 64ths	HUT9092	\$6.58
Wire Gauge Sizes No. 1 to 60	HUT12260	\$17.28



# CARBIDE TIPPED TOOL BITS

GRADE C2 - General purpose for cast-iron and non-ferrous materials

GRADE C6 - General purpose for steel



## STYLE A & B, LEFT & RIGHT HAND



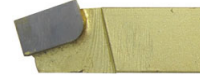
DEWAL



DEWAR



DEWBL



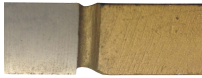
DEWBR

LEFT HAND		RIGHT HAND		List Price
Size	O.A.L.	Part Number	Part Number	
1/4"	2"	DEWAL-4C2	DEWAR-4C2	\$7.11
1/4"	2"	DEWAL-4C6	DEWAR-4C6	\$7.11
5/16"	2-1/4"	DEWAL-5C2	DEWAR-5C2	\$7.11
5/16"	2-1/4"	DEWAL-5C6	DEWAR-5C6	\$7.11
3/8"	2-1/2"	DEWAL-6C2	DEWAR-6C2	\$7.11
3/8"	2-1/2"	DEWAL-6C6	DEWAR-6C6	\$7.11
7/16"	3"	DEWAL-7C2	DEWAR-7C2	\$7.21
7/16"	3"	DEWAL-7C6	DEWAR-7C6	\$7.21
1/2"	3-1/2"	DEWAL-8C2	DEWAR-8C2	\$7.84
1/2"	3-1/2"	DEWAL-8C6	DEWAR-8C6	\$7.84
5/8"	4"	DEWAL-10C2	DEWAR-10C2	\$9.88
5/8"	4"	DEWAL-10C6	DEWAR-10C6	\$9.88
3/4"	4-1/2"	DEWAL-12C2	DEWAR-12C2	\$16.50
3/4"	4-1/2"	DEWAL-12C6	DEWAR-12C6	\$16.50
1"	7"	DEWAL-16C2	DEWAR-16C2	\$28.42
1"	7"	DEWAL-16C6	DEWAR-16C6	\$28.42

LEFT HAND		RIGHT HAND		List Price
Size	O.A.L.	Part Number	Part Number	
1/4"	2"	DEWBL-4C2	DEWBR-4C2	\$7.53
1/4"	2"	DEWBL-4C6	DEWBR-4C6	\$7.53
5/16"	2-1/4"	DEWBL-5C2	DEWBR-5C2	\$7.53
5/16"	2-1/4"	DEWBL-5C6	DEWBR-5C6	\$7.53
3/8"	2-1/2"	DEWBL-6C2	DEWBR-6C2	\$7.53
3/8"	2-1/2"	DEWBL-6C6	DEWBR-6C6	\$7.53
7/16"	3"	DEWBL-7C2	DEWBR-7C2	\$8.15
7/16"	3"	DEWBL-7C6	DEWBR-7C6	\$8.15
1/2"	3-1/2"	DEWBL-8C2	DEWBR-8C2	\$8.48
1/2"	3-1/2"	DEWBL-8C6	DEWBR-8C6	\$8.48
5/8"	4"	DEWBL-10C2	DEWBR-10C2	\$11.76
5/8"	4"	DEWBL-10C6	DEWBR-10C6	\$11.76
3/4"	4-1/2"	DEWBL-12C2	DEWBR-12C2	\$16.50
3/4"	4-1/2"	DEWBL-12C6	DEWBR-12C6	\$16.50
1"	7"	DEWBL-16C2	DEWBR-16C2	\$28.42

## CARBIDE TIPPED STYLE C, D, & E

### SQUARE NOSE



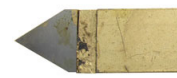
DEWC

### 80° POINT



DEWD

### 60° POINT



DEWE

Size	O.A.L.	Part Number	List Price
1/4"	2"	DEWC-4C2	\$7.53
1/4"	2"	DEWC-4C6	\$7.53
5/16"	2-1/4"	DEWC-5C2	\$7.53
5/16"	2-1/4"	DEWC-5C6	\$7.53
3/8"	2-1/2"	DEWC-6C2	\$7.53
3/8"	2-1/2"	DEWC-6C6	\$7.53
7/16"	3"	DEWC-7C2	\$8.15
7/16"	3"	DEWC-7C6	\$8.15
1/2"	3-1/2"	DEWC-8C2	\$8.48
1/2"	3-1/2"	DEWC-8C6	\$8.48
5/8"	4"	DEWC-10C2	\$11.76
5/8"	4"	DEWC-10C6	\$11.76
3/4"	4-1/2"	DEWC-12C2	\$19.12
3/4"	4-1/2"	DEWC-12C6	\$19.12
1"	7"	DEWC-16C2	\$29.77
1"	7"	DEWC-16C6	\$29.77

Size	O.A.L.	Part Number	List Price
1/4"	2"	DEWD-4C2	\$7.53
1/4"	2"	DEWD-4C6	\$7.53
5/16"	2-1/4"	DEWD-5C2	\$7.53
5/16"	2-1/4"	DEWD-5C6	\$7.53
3/8"	2-1/2"	DEWD-6C2	\$7.53
3/8"	2-1/2"	DEWD-6C6	\$7.53
7/16"	3"	DEWD-7C2	\$8.15
7/16"	3"	DEWD-7C6	\$8.15
1/2"	3-1/2"	DEWD-8C2	\$8.48
1/2"	3-1/2"	DEWD-8C6	\$8.48
5/8"	4"	DEWD-10C2	\$11.76
5/8"	4"	DEWD-10C6	\$11.76
3/4"	4-1/2"	DEWD-12C2	\$17.32
3/4"	4-1/2"	DEWD-12C6	\$17.32
1"	7"	DEWD-16C2	\$29.59
1"	7"	DEWD-16C6	\$29.59

Size	O.A.L.	Part Number	List Price
1/4"	2"	DEWE-4C2	\$7.53
1/4"	2"	DEWE-4C6	\$7.53
5/16"	2-1/4"	DEWE-5C2	\$7.53
5/16"	2-1/4"	DEWE-5C6	\$7.43
3/8"	2-1/2"	DEWE-6C2	\$7.53
3/8"	2-1/2"	DEWE-6C6	\$7.53
7/16"	3"	DEWE-7C2	\$8.15
7/16"	3"	DEWE-7C6	\$8.15
1/2"	3-1/2"	DEWE-8C2	\$8.48
1/2"	3-1/2"	DEWE-8C6	\$8.48
5/8"	4"	DEWE-10C2	\$11.76
5/8"	4"	DEWE-10C6	\$11.76
3/4"	4-1/2"	DEWE-12C2	\$16.39
3/4"	4-1/2"	DEWE-12C6	\$16.39

## H.S.S. & COBALT SQUARE TOOLBITS

Size	H.S.S.		Cobalt	
	Part Number	List Price	Part Number	List Price
1/8"x2-1/2"	DEWTBHS1/8	\$2.82	DEWTBCOB1/8	\$5.24
3/16"x2-1/2"	DEWTBHS3/16	\$2.82	DEWTBCOB3/16	\$5.24
1/4"x2-1/2"	DEWTBHS1/4	\$3.30	DEWTBCOB1/4	\$5.93
5/16"x2-1/2"	DEWTBHS5/16	\$4.62	DEWTBCOB5/16	\$7.40
3/8"x3"	DEWTBHS3/8	\$6.19	DEWTBCOB3/8	\$9.97
7/16"x3-1/2"	DEWTBHS7/16	\$9.10	DEWTBCOB7/16	\$15.55
1/2"x4"	DEWTBHS1/2	\$13.05	DEWTBCOB1/2	\$22.18
5/8"x4-1/2"	DEWTBHS5/8	\$19.33	DEWTBCOB5/8	\$34.38
3/4"x5"	DEWTBHS3/4	\$30.54	DEWTBCOB3/4	\$53.74
7/8"x6"	DEWTBHS7/8	\$50.16	DEWTBCOB7/8	\$86.46
1"x7"	DEWTBHS1INCH	\$72.38	DEWTBCOB1INCH	\$121.14
1-1/4"x7"	DEWTBHS1-1/4	\$136.31	DEWTBCOB1-1/4	\$241.39

## H.S.S. CUTOFF BLADES

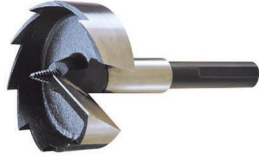
W	H	O.A.L.	Part Number	List Price
3/32"	1/2"	6"	DEWCOB3/32X1/2	\$21.01
3/32"	5/8"	6"	DEWCOB3/32X5/8	\$22.34
1/8"	3/4"	6"	DEWCOB1/8X3/4	\$26.74
1/8"	7/8"	6"	DEWCOB1/8X7/8	\$32.13
3/16"	1"	6-1/2"	DEWCOB3/16X1	\$38.25

## COBALT CUTOFF BLADES

W	H	O.A.L.	Part Number	List Price
3/32"	1/2"	6"	DEWCOBCO3/32X1/2	\$24.33
3/32"	5/8"	6"	DEWCOBCO3/32X5/8	\$31.20
1/8"	3/4"	6"	DEWCOBCO1/8X3/4	\$38.41
1/8"	7/8"	6"	DEWCOBCO1/8X7/8	\$47.10
3/16"	1"	6-1/2"	DEWCOBCO3/16X1	\$59.34

# WOOD WORKING

## SELF FEED BITS



Part Number	Size	List Price
DMS70-3002	1"	\$32.70
DMS70-3003	1-1/8"	\$32.70
DMS70-3005	1-1/4"	\$35.04
DMS70-3010	1-3/8"	\$41.06
DMS70-3020	1-1/2"	\$41.06
DMS70-3030	1-3/4"	\$41.06
DMS70-3033	2"	\$41.06
DMS70-3035	2-1/8"	\$50.40
DMS70-3040	2-1/4"	\$50.40
DMS70-3060	2-9/16"	\$59.73
DMS70-3065	3"	\$82.14
DMS70-3070	3-5/8"	\$106.40
DMS70-3080	4-5/8"	\$179.20

## SPADE BITS



Part Number	Size	List Price
DMS71-0003	3/8"X6"	\$2.94
DMS71-0004	1/2"X6"	\$3.10
DMS71-0006	5/8"X6"	\$3.62
DMS71-0008	3/4"X6"	\$3.94
DMS71-0009	7/8"X6"	\$4.48
DMS71-0011	1"X6"	\$5.06
DMS71-0013	1-1/8"X6"	\$5.18
DMS71-0015	1-1/4"X6"	\$5.82
DMS71-0016	1-3/8"X6"	\$6.56
DMS71-0018	1-1/2"X6"	\$7.14
DMS71-1040	6 PC. SET	\$17.71

## AUGER BITS



Part Number	Size	List Price
DMS73-0002	3/8 X 7"	\$16.10
DMS73-0004	1/2 X 7"	\$17.86
DMS73-0007	5/8 X 7"	\$20.43
DMS73-0009	3/4 X 7"	\$22.18
DMS73-0010	7/8 X 7"	\$26.62
DMS73-0011	1" X 7"	\$28.80
DMS73-0012	1-1/8"X7"	\$29.60
DMS73-0014	1-1/4"X7"	\$34.24
DMS73-0016	1-3/8"X7"	\$42.14
DMS73-0018	1-1/2"X7"	\$52.05

## LONG AUGER BITS

Part Number	Size	List Price
DMS73-4009	9/16" X 23"	\$109.71
DMS73-4010	5/8" X 23"	\$110.83
DMS73-4011	11/16" X 23"	\$123.20
DMS73-4012	3/4" X 23"	\$125.55
DMS73-4013	13/16" X 23"	\$128.75
DMS73-4014	7/8" X 23"	\$138.99
DMS73-4015	15/16" X 23"	\$149.07
DMS73-4016	1" X 23"	\$152.21
DMS73-5009	9/16" X 30"	\$291.47
DMS73-5010	5/8" X 30"	\$255.15
DMS73-5011	11/16" X 30"	\$258.08
DMS73-5012	3/4" X 30"	\$260.48
DMS73-5013	13/16" X 30"	\$265.60
DMS73-5014	7/8" X 30"	\$279.04
DMS73-5015	15/16" X 30"	\$280.69
DMS73-5016	1" X 30"	\$292.69
DMS73-5017	1-1/16" X 30"	\$326.29
DMS73-5018	1-1/8" X 30"	\$377.65
DMS73-5024	1-1/2" X 30"	\$787.84

## SHIP AUGER BITS



Part Number	Size	List Price
DMS73-1010	3/8" X 18"	\$20.70
DMS73-1020	1/2" X 18"	\$24.64
DMS73-1025	9/16" X 18"	\$28.00
DMS73-1030	5/8" X 18"	\$27.73
DMS73-1040	3/4" X 18"	\$29.06
DMS73-1050	7/8" X 18"	\$35.42
DMS73-1060	1" X 18"	\$42.56
DMS73-1070	1-1/8" X 18"	\$49.86
DMS73-1080	1-1/4" X 18"	\$57.86
DMS73-1090	1-3/8" X 18"	\$78.50
DMS73-1100	1-1/2" X 18"	\$87.58

## NAIL BUSTER AUGER BITS



Part Number	Size	List Price
DMS73-2030	3/8"X18"	\$40.70
DMS73-2050	1/2"X18"	\$42.82
DMS73-2070	5/8"X18"	\$47.58
DMS73-2090	3/4"X18"	\$56.54
DMS73-2100	7/8"X18"	\$62.72
DMS73-2120	1"X18"	\$78.77
DMS73-2130	1-1/8"X18"	\$85.86
DMS73-2140	1-1/4"X18"	\$86.67
DMS73-2150	1-3/8"X18"	\$115.90
DMS73-2160	1-1/2"X18"	\$125.98
DMS73-2510	1/2"X8"	\$27.78
DMS73-2530	5/8"X8"	\$29.79
DMS73-2550	3/4"X8"	\$31.46
DMS73-2570	7/8"X8"	\$38.03
DMS73-2590	1"X8"	\$48.32
DMS73-2600	1-1/8"X8"	\$52.58

# INSERT BITS

## INS Series

Economy insert and power bits.

### PHILLIPS

Size	O.A.L.	Part Number	List Price
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#### INSERT BITS W/ 1/4" HEX SHANK

P1	1"	INS27020	\$0.47
P2	1"	INS27021	\$0.47
P3	1"	INS27022	\$0.47
P4	1"	INS440-4	\$1.72

#### REDUCED INSERT BITS W/ 1/4" HEX SHANK

P1	1"	INS27035	\$0.47
P2	1"	INS27036	\$0.47

#### INSERT BITS W/ 5/16" HEX SHANK

P1	1-1/4"	INS27205	\$1.49
P2	1-1/4"	INS27206	\$1.49
P3	1-1/4"	INS27207	\$1.49
P4	1-1/4"	INS27208	\$1.49

#### POWER BITS W/ 1/4" HEX SHANK

P1	1-15/16"	INS27360	\$1.09
P2	1-15/16"	INS27361	\$1.25
P3	1-15/16"	INS27362	\$1.25
P1	2-3/4"	INS27363	\$1.40
P2	2-3/4"	INS27364	\$1.40
P3	2-3/4"	INS27365	\$1.40
P1	3-1/2"	INS27366	\$2.39
P2	3-1/2"	INS27367	\$2.24
P3	3-1/2"	INS27368	\$2.78
P1	6"	INS45794	\$8.91
P2	6"	INS45625	\$4.22
P3	6"	INS45626	\$4.22



### SLOTTED

Size	O.A.L.	Part Number	List Price
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#### SLOTTED INSERT BITS W/ 1/4" HEX SHANK

#4-5	1"	INS39534	\$0.62
#6-8	1"	INS39536	\$0.62
#8-10	1"	INS39537	\$0.62
#10-12	1"	INS39538	\$1.18

#### SLOTTED POWER BITS W/ 1/4" HEX SHANK

#4-5	1-15/16"	INS27463	\$1.09
#6-8	1-15/16"	INS27465	\$1.09
#8-12	1-15/16"	INS27466	\$1.09



### SQUARE

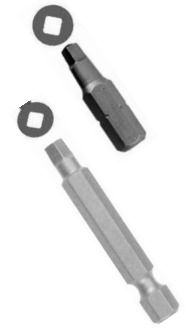
Size	O.A.L.	Part Number	List Price
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#### SQUARE DRIVE INSERT BIT W/ 1/4" HEX SHANK

R1	1"	INS29049	\$0.62
R2	1"	INS29050	\$0.62
R3	1"	INS29051	\$0.62

#### SQUARE DRIVE POWER BIT W/ 1/4" HEX SHANK

R1	1-15/16"	INS29052	\$0.97
R2	1-15/16"	INS29053	\$0.97
R3	1-15/16"	INS29054	\$0.97



### TORX

Size	O.A.L.	Part Number	List Price
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#### TORX INSERT BITS W/ 1/4" HEX SHANK

T8	1"	INS37153	\$0.72
T10	1"	INS37157	\$0.72
T15	1"	INS37159	\$0.72
T20	1"	INS37161	\$0.72
T25	1"	INS37163	\$0.72
T27	1"	INS37165	\$0.72
T30	1"	INS37167	\$0.72
T40	1"	INS37169	\$0.72

#### TORX INSERT BITS W/ 5/16" HEX SHANK

T30	1-1/4"	INS37171	\$4.79
T40	1-1/4"	INS37173	\$4.37
T45	1-1/4"	INS37175	\$2.40
T50	1-1/4"	INS37177	\$4.94
T55	1-1/4"	INS38333	\$3.15

#### TAMPER RESISTANT TORX INSERT BITS

T-10	1"	INS05-TT10	\$1.00
T-15	1"	INS05-TT15	\$1.00
T-20	1"	INS05-TT20	\$1.00
T-25	1"	INS05-TT25	\$1.00
T-27	1"	INS05-TT27	\$1.00
T-30	1"	INS05-TT30	\$1.00



### TORQ - SET

Size	O.A.L.	Shank	Part Number	List Price
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#### TORQ-SET INSERT BITS

#0	1"	1/4"	INS212-0	\$5.00
#1	1"	1/4"	INS212-1	\$5.00
#2	1"	1/4"	INS212-2	\$5.00
#3	1"	1/4"	INS212-3	\$5.00
#4	1"	1/4"	INS212-4	\$5.00
#5	1"	1/4"	INS212-5	\$5.00
#6	1"	1/4"	INS212-6	\$5.00
#8	1"	1/4"	INS212-8	\$5.00
#8	1-1/4"	5/16"	INS212-8A	\$11.63
#10	1"	1/4"	INS212-10	\$5.00
#10	1-1/4"	5/16"	INS212-10A	\$11.63
1/4"	1"	1/4"	INS212-1/4	\$5.00

#### POWER TORQ-SET BITS

#0	1-1/4"	1/4"	INS170-0	\$4.06
#1	1-1/4"	1/4"	INS170-1	\$4.06
#2	1-1/4"	1/4"	INS170-2	\$4.06
#3	1-1/4"	1/4"	INS170-3	\$4.06
#4	1-1/4"	1/4"	INS170-4	\$4.06
#5	1-1/4"	1/4"	INS170-5	\$4.06
#6	1-1/4"	1/4"	INS170-6	\$4.06
#8	1-1/4"	1/4"	INS170-8	\$4.06
#10	1-1/4"	1/4"	INS170-10	\$4.06
1/4"	1-1/4"	1/4"	INS170-1/4B	\$6.56
5/16"	1-1/4"	5/16"	INS170-5/16A	\$7.87
5/16"	1-1/4"	1/4"	INS170-5/16B	\$6.56
3/8"	1-1/4"	1/4"	INS170-3/8B	\$6.56



# INSERT BITS

## TRIWING

Size	O.A.L.	Part Number	List Price
<b>TRIWING INSERT BITS W/ 1/4" HEX SHANK</b>			
#0	1"	INSTWD-0	\$4.06
#1	1"	INSTWD-1	\$4.06
#2	1"	INSTWD-2	\$4.06
#3	1"	INSTWD-3	\$4.06
#4	1"	INSTWD-4	\$4.06
#5	1"	INSTWD-5	\$4.06
#6	1"	INSTWD-6	\$5.47
#7	1"	INSTWD-7	\$5.47
#8	1"	INSTWD-8	\$5.47

Size	O.A.L.	Part Number	List Price
<b>TRIWING POWER BITS W/ 1/4" HEX SHANK</b>			
#2	1-1/4"	INSTW-2	\$3.91
#3	1-1/4"	INSTW-3	\$3.91
#4	1-1/4"	INSTW-4	\$3.91
#5	1-1/4"	INSTW-5	\$3.91
#6	1-1/4"	INSTW-6	\$4.22



## MISCELLANEOUS

Size	O.A.L.	Part Number	List Price
<b>HI TORQUE BITS</b>			
#1	1"	INSHTS-1	\$20.56
#2	1"	INSHTS-2	\$20.56
#3	1"	INSHTS-3	\$20.56
#4	1"	INSHTS-4	\$20.56
#5	1"	INSHTS-5	\$37.50
#6	1"	INSHTS-6	\$37.50

Size	O.A.L.	Part Number	List Price
<b>SPANNER INSERT BITS W/ 1/4" HEX SHANK</b>			
#6	1"	INS05-SP6	\$1.40
#8	1"	INS05-SP8	\$1.40
#10	1"	INS05-SP10	\$1.40

Size	O.A.L.	Part Number	List Price
<b>BNAE INSERT BITS W/ 1/4" HEX SHANK</b>			
4MM	1-1/8"	INSBNAE-4	\$8.34
5MM	1-1/8"	INSBNAE-5	\$8.34
6MM	1-1/8"	INSBNAE-6	\$8.34
8MM	1-1/8"	INSBNAE-8	\$8.34



## ACCESSORIES

Description	O.A.L.	Part Number	List Price
<b>MAGNETIC BIT HOLDERS</b>			
STAINLESS STEEL	2-3/8"	INSBH-238	\$6.34
STAINLESS STEEL W/ CAP	3"	INSBH-300C	\$7.79
STAINLESS STEEL W/ RING	3"	INSBH-300S	\$8.80
STAINLESS STEEL W/ RING	6"	INSBH-600S	\$13.20



Size	O.A.L.	Part Number	List Price
<b>Magnetic Nut Setters</b>			
1/4"	1-3/4"	INSNS14-134	\$4.22
1/4"	2-9/16"	INSNS14-2916	\$4.51
1/4"	6"	INSNS14-6	\$11.00
5/16"	1-3/4"	INSNS56-134	\$4.22
5/16"	2-9/16"	INSNS56-2916	\$4.51
5/16"	6"	INSNS56-6	\$11.00
3/8"	1-3/4"	INSNS38-134	\$4.22
3/8"	2-9/16"	INSNS38-2916	\$4.51
3/8"	6"	INSNS38-6	\$11.00
7/16"	1-3/4"	INSNS76-134	\$6.16
7/16"	2-9/16"	INSNS76-2916	\$6.69



# INDEX

<b>A</b>			Drift Keys	96
Abrasives - Handy Rolls	113		Drill Chuck Arbors	96
Annular Cutters	95		Drill Dispensers	114 - 115
Arbors			Drill Gauges	115
Drill Chuck	96		Drill Indexes	114 - 115
Shell Reamer	93		Drills	
Auger Bits	117		Adapter - Threaded Shank	80 - 81
<b>B</b>			Aircraft Extension	
Bull Nose Live Centers	97		Cobalt 6 OAL Drill America	31 - 32
Burr Dispenser	115		Cobalt 12 OAL Drill America	33 - 34
Burrs	109 - 111		HS 6 OAL Drill America	31 - 32
<b>C</b>			HS 12 OAL Drill America	33
Carbide			HS 6 OAL Qualtech	31 - 32
Burrs	109 - 111		HS 12 OAL Qualtech	33 - 34
Drills	22 - 23		Aircraft Taper Router	81
Endmills	106 - 108		Carbide - Drill America	22 - 23
Centers			Carbide Tipped - Drill America	24
Bull Nose Live	97		Combined Drill & Countersink	
Dead	97		HS - Qualtech	79
Live	97		Long - Qualtech	79
Counterbores			Solid Carbide - Drill America	79
Aircraft (1/4 Shk)	72		Combined Drill & Tap	60
Capscrew	72		Concrete Screw Anchor - Drill America	36
Pilots	73		Die Drills - Drill America	23
Solid	71		Double End	
Straight Shank	71		Drill America	21
Taper Shank	72		Qualtech	21
Countersink Cages	78		Extra Length	
Countersinks			Reduced Shank	44
Combined Drill & Countersinks	79		Straight Shank 8,12,18 & 24	43 - 44
Single Flute	75		Glass & Tile	20
3 Flute (Center Reamers)	75		Jobber Length	
4 Flute (Machine)	75		Black & Gold Economy	6
6 Flute (Chatterless)	76		Blanks - Qualtech	16
Threaded Shank (Stop)	77		Carbide Tipped - Drill America	24
Weldon	74		Carded	30
Cutoff Blades	116		Cobalt	
Cutters			Drill America	9 - 11
Annular	95		Metric	13
Dovetail	95		Qualtech	9 - 11
Hollow	78		Killer Force Drills	6 - 8
T-Slot	95		Left Hand	15 - 16
Woodruff Keyseat - Shank Type	95		Metric	
<b>D</b>			Cobalt - Drill America	13
Dead Centers	97		HS - Qualtech	12 - 13
Die Stocks	70		Polished - HS	
Dies			Drill America	2 - 5
Hex Dies			Qualtech	2
Carbon Steel			Sets	45 - 49
8 Pitch	62		Split Point	
Left Hand	63		Drill America	6 - 8
Machine & Fractional Sizes	62		Qualtech	6 - 8
Metric	63		Surface Treated - HS	
Pipe - NPT	62		Drill America	2 - 5
High Speed Steel			Qualtech	2 - 5, 30
Machine & Fractional Sizes	62		Tin-Coated - Qualtech	14
Round Dies			Masonry - Carbide Tipped	
High Speed Adjustable			Concrete Screw Anchor	36
Left Hand	69		Round Shank - Drill America	35
Machine & Fractional			SDS Plus	36
Special	65 - 66		Mechanicals Length KFD	21
Standard	64		Reduced Shank	
Metric			1/4 Shank	
Special	67 - 68		HS Drill America	25
Standard	66		HS Qualtech	25
Pipe - NPT & NPS	70		3/8 Shank	
Square Dies - Carbon Steel			Cobalt Drill America	25
Bolt	61		HS - Drill America	25
NPT - Pipe	61		HS - Qualtech	25, 30
Dispensers and Indexes	114 - 115		KFD	25



# INDEX

Taps Continued	
NPT Taps	59
Nut Taps	58
Pipe Taps	59
Pulley	58
Spiral Pointed Taps	
Metric	55
Qualtech	55
Tap America	55
Tin Coated	56
Threaded Shank Countersinks	77
Threaded Shank Drills	80 - 81
Threaded Shank Piloted Reamers	82
Tool Bits	116
<b>W</b>	
Weldon Countersinks	74
Wood Working	117
Wrenches, Tap	60

