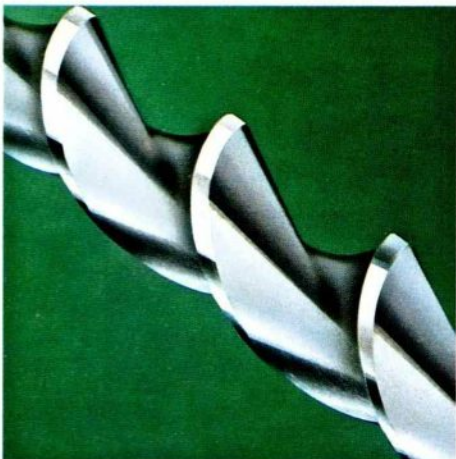




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Turboflute Jobbers Length Twist Drills

Straight Shank
High Speed Steel

Surface Treated
No. T-705-TF

Bright Finish
No. T-755-TF

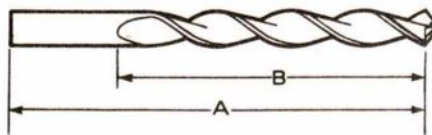
Besly Turboflute Drills have heavy duty parabolic profiled flutes for easy chip flow. Designed for automotive, aerospace, and other high volume metalworking industries, they give longer life and better drilled hole quality while allowing increased feed rates. Split point design seats itself, holds centers. Surface treated drills are intended for drilling stringy, low and medium strength steels below 120,000 p.s.i. ultimate tensile strength. Bright finish drills are for use in aluminum and other nonferrous materials.



135° Split Point



135° Split Point



Wire Gage Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-705-TF	T-755-TF
53	.0595	1%	7/8	12	20948	29781
52	.0635	1%	7/8	12	20947	29780
51	.0670	2	1	12	20946	29779
50	.0700	2	1	12	20939	29778
49	.0730	2	1	12	20938	29777
48	.0760	2	1	12	20937	29776
47	.0785	2	1	12	20936	29775
46	.0810	2%	1%	12	20929	29774
45	.0820	2%	1%	12	20928	29773
44	.0860	2%	1%	12	20927	29772
43	.0890	2%	1%	12	20926	29771
42	.0935	2%	1%	12	20919	29770
41	.0960	2%	1%	12	20918	29769
40	.0980	2%	1%	12	20501	29768
39	.0995	2%	1%	12	20500	29767
38	.1015	2%	1%	12	20495	29766
37	.1040	2%	1%	12	20494	29765
36	.1065	2%	1%	12	20493	29764
35	.1100	2%	1%	12	20492	29763
34	.1110	2%	1%	12	20491	29762
33	.1130	2%	1%	12	20490	29761
32	.1160	2%	1%	12	20603	29760
31	.1200	2%	1%	12	20602	29759
30	.1285	2%	1%	12	20601	29758
29	.1360	2%	1%	12	20600	29757
28	.1405	2%	1%	12	20595	29756
27	.1440	3	1%	12	20594	29755
26	.1470	3	1%	12	20593	29754

Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-705-TF	T-755-TF
25	.1495	3	1%	12	20592	29753
24	.1520	3%	2	12	20591	29752
23	.1540	3%	2	12	20590	29751
22	.1570	3%	2	12	20585	29750
21	.1590	3%	2%	12	20584	29749
20	.1610	3%	2%	12	20583	29748
19	.1660	3%	2%	12	20582	29747
18	.1695	3%	2%	12	20581	29746
17	.1730	3%	2%	12	20580	29745
16	.1770	3%	2%	12	20575	29744
15	.1800	3%	2%	12	20574	29743
14	.1820	3%	2%	12	20573	29742
13	.1850	3%	2%	12	20572	29741
12	.1890	3%	2%	12	20571	29740
11	.1910	3%	2%	12	20570	29739
10	.1935	3%	2%	12	20565	29738
9	.1960	3%	2%	12	20564	29737
8	.1990	3%	2%	12	20563	29736
7	.2010	3%	2%	12	20444	29735
6	.2040	3%	2%	12	20562	29734
5	.2055	3%	2%	12	20561	29733
4	.2090	3%	2%	12	20560	29732
3	.2130	3%	2%	12	20555	29731
2	.2210	3%	2%	12	20554	29730
1	.2280	3%	2%	12	20553	29729

Turboflute Jobbers Length Twist Drills Straight Shank High Speed Steel

Fractional Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

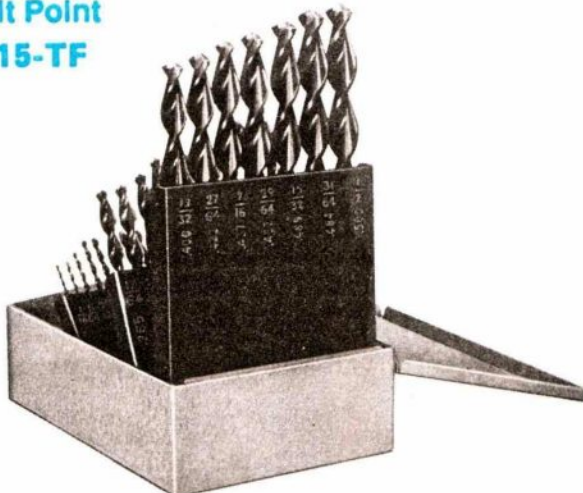
Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-705-TF	T-755-TF
1/16	.0625	1 1/8	7/8	12	20909	29700
3/64	.0781	2	1	12	20916	29701
3/32	.0938	2 1/4	1 1/4	12	20917	29702
7/64	.1094	2 1/2	1 1/2	12	20510	29703
1/8	.1250	2 3/4	1 5/8	12	20511	29704
9/64	.1406	2 3/4	1 3/4	12	20512	29705
5/32	.1562	3 1/4	2	12	20513	29706
11/64	.1719	3 1/4	2 1/8	12	20514	29707
3/16	.1875	3 1/2	2 1/8	12	20515	29708
13/64	.2031	3 3/4	2 1/4	12	20520	29709
7/32	.2188	3 3/4	2 1/2	12	20521	29710
15/64	.2344	3 3/4	2 3/8	12	20522	29711
1/4	.2500	4	2 3/4	12	20523	29712
17/64	.2656	4 1/4	2 3/4	12	20524	29713
9/32	.2812	4 1/4	2 5/8	12	20525	29714
19/64	.2969	4 1/4	3 1/8	6	20530	29715
5/16	.3125	4 1/2	3 1/8	6	20531	29716
21/64	.3281	4 3/4	3 1/8	6	20532	29717
11/32	.3438	4 3/4	3 1/4	6	20533	29718
23/64	.3594	4 3/4	3 1/2	6	20534	29719
3/8	.3750	5	3 3/8	6	20535	29720
25/64	.3906	5 1/4	3 3/4	6	20540	29721
13/32	.4062	5 1/4	3 3/4	6	20541	29722
27/64	.4219	5 1/4	3 5/8	6	20542	29723
7/16	.4375	5 1/2	4 1/8	6	20543	29724
29/64	.4531	5 1/2	4 1/4	6	20544	29725
15/32	.4688	5 1/2	4 1/4	6	20545	29726
31/64	.4844	5 1/2	4 3/8	6	20550	29727
1/2	.5000	6	4 1/2	6	20551	29728

Letter Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-705-TF	T-755-TF
A	.2340	3 3/8	2 5/8	12	29953	29782
B	.2380	4	2 3/4	12	29954	29783
C	.2420	4	2 3/4	12	29955	29784
D	.2460	4	2 3/4	12	29956	29785
E	.2500	4	2 3/4	12	20523	29712
F	.2570	4 1/8	2 3/8	12	29957	29786
G	.2610	4 1/8	2 3/8	12	29958	29787
H	.2660	4 1/8	2 3/8	12	29959	29788
I	.2720	4 1/8	2 3/8	12	29960	29789
J	.2770	4 1/8	2 3/8	12	29961	29790
K	.2810	4 1/4	2 15/16	12	29962	29791
L	.2900	4 1/4	2 15/16	12	29963	29792
M	.2950	4 3/8	3 1/8	6	29964	29793
N	.3020	4 3/8	3 1/8	6	29965	29794
O	.3160	4 1/2	3 3/8	6	29966	29795
P	.3230	4 3/8	3 5/8	6	29967	29796
Q	.3320	4 3/4	3 7/8	6	29968	29797
R	.3390	4 3/4	3 7/8	6	29969	29798
S	.3480	4 3/4	3 1/2	6	29970	29799
T	.3580	4 3/4	3 1/2	6	29971	29800
U	.3680	5	3 5/8	6	29972	29801
V	.3770	5	3 5/8	6	29973	29802
W	.3860	5 1/4	3 3/4	6	29974	29803
X	.3970	5 1/4	3 3/4	6	29975	29804
Y	.4040	5 1/4	3 3/8	6	29976	29805
Z	.4130	5 1/4	3 3/8	6	29977	29806

Surface Treated
135° Split Point
No. T-715-TF



Turboflute Jobbers Length Drill Sets

Set Number	Drill Sizes (with case)	EDP NUMBER
T-723C	Fractional Sizes 1/16 thru 3/8 by 64ths	25780
T-709C	Fractional Sizes 1/16 thru 1/2 by 64ths	25781
T-708C	Fractional Sizes 1/16 thru 1/2 by 32nds	25782
T-710C	Wire Gage Sizes 1 thru 53	25783
T-712C	Letter Sizes A thru Z	25784

Turboflute Taper Length Twist Drills

Straight Shank, Long Flute
High Speed Steel

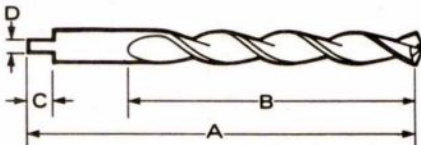


Surface Treated 135° Split Point

No. T-216-TF Tanged

Besly Turboflute Drills have heavy duty parabolic profiled flutes for easy chip flow. Designed for automotive and other high volume metal working industries, they give longer life and better drilled hole quality while allowing increased feed rates. Split point design seats itself, holds centers.

These heavier web drills are ideal for use in stringy, low and medium strength steels below 120,000 p.s.i. ultimate tensile strength, and for use in exotic and difficult-to-machine materials, ferrous and non-ferrous. For tang dimensions see page 13.

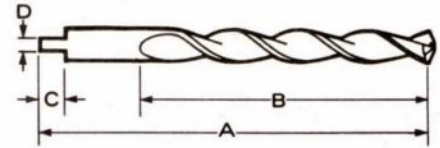


Fractional Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Qty.	EDP No.
1/16	.0625	3	2	12	28500
3/64	.0781	3 1/4	2 1/2	12	28501
1/32	.0938	4 1/4	2 13/16	12	28502
3/64	.1094	4 3/4	3 1/4	12	28503
1/8	.1250	5 1/4	3 3/8	12	28504
3/64	.1406	5 3/4	3 5/8	12	28505
1/32	.1562	5 3/4	3 3/4	12	28506
11/64	.1719	5 3/4	4 1/8	12	27998
3/16	.1875	5 3/4	4 1/8	12	27999
13/64	.2031	6	4 3/8	12	28507
1/32	.2188	6	4 3/8	12	28508
15/64	.2344	6 1/4	4 13/16	12	28509
1/4	.2500	6 1/4	4 13/16	12	28510
17/64	.2656	6 1/4	5	12	28511
1/32	.2812	6 1/4	5	12	28512
19/64	.2969	6 3/4	5 1/8	6	28513
3/16	.3125	6 3/4	5 1/8	6	28514
21/64	.3281	6 1/2	5 1/4	6	28515
11/32	.3438	6 1/2	5 1/4	6	28516
23/64	.3594	6 3/4	5 3/8	6	28517
3/8	.3750	6 3/4	5 3/8	6	28518
25/64	.3906	7	5 3/8	6	28519
13/32	.4062	7	5 3/8	6	28520
27/64	.4219	7 1/4	5 11/16	6	28521
7/16	.4375	7 1/4	5 11/16	6	28522
29/64	.4531	7 1/2	5 3/4	6	28523
15/32	.4688	7 1/2	5 3/4	6	28524
31/64	.4844	7 3/4	5 3/4	6	28525
1/2	.5000	7 3/4	5 3/4	6	28526
33/64	.5156	8	6	1	28527
17/32	.5312	8	6	1	28528
35/64	.5469	8 1/4	6 1/4	1	28529
19/32	.5938	8 3/4	6 1/2	1	28530
37/64	.5781	8 3/4	6 1/2	1	28531
21/32	.6562	9	6 3/4	1	28532
11/16	.6875	9 1/4	6 3/4	1	28533
23/32	.7188	9 1/2	7 1/8	1	28534
3/4	.7500	9 3/4	7 3/8	1	28535

Turboflute
Taper Length
Twist Drills
Straight Shank
High Speed Steel



Wire Gage Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Wire Gage Size	Decimal Equivalent	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP No.
40	.0980	4%	3 1/8	12	28605
39	.0995	4%	3 1/8	12	28606
38	.1015	4%	3 1/8	12	28607
37	.1040	4%	3 1/8	12	28608
36	.1065	4%	3 1/8	12	28609
35	.1100	5%	3 3/8	12	28610
34	.1110	5%	3 3/8	12	28611
33	.1130	5%	3 3/8	12	28612
32	.1160	5%	3 3/8	12	28613
31	.1200	5%	3 3/8	12	28614
30	.1285	5%	3 3/8	12	28615
29	.1360	5%	3 3/8	12	28616
28	.1405	5%	3 3/8	12	28617
27	.1440	5%	3 3/8	12	28618
26	.1470	5%	3 3/8	12	28619
25	.1495	5%	3 3/8	12	28620
24	.1520	5%	3 3/8	12	28621
23	.1540	5%	3 3/8	12	28622
22	.1570	5%	4 1/8	12	28623
21	.1590	5%	4 1/8	12	28624
20	.1610	5%	4 1/8	12	28625
19	.1660	5%	4 1/8	12	28626
18	.1695	5%	4 1/8	12	28627
17	.1730	5%	4 1/8	12	28628
16	.1770	5%	4 1/8	12	28629
15	.1800	5%	4 1/8	12	28630
14	.1820	5%	4 1/8	12	28631
13	.1850	5%	4 1/8	12	28632
12	.1890	6	4 3/8	12	28633
11	.1910	6	4 3/8	12	28634
10	.1935	6	4 3/8	12	28635
9	.1960	6	4 3/8	12	28636
8	.1990	6	4 3/8	12	28637
7	.2010	6	4 3/8	12	28638
6	.2040	6	4 3/8	12	28639
5	.2055	6	4 3/8	12	28640
4	.2090	6	4 3/8	12	28641
3	.2130	6	4 3/8	12	28642
2	.2210	6%	4 13/16	12	28643
1	.2280	6%	4 13/16	12	28644

Letter Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Letter Size	Decimal Equivalent	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP No.
A	.2340	6%	4 13/16	12	28645
B	.2380	6%	4 13/16	12	28646
C	.2420	6%	4 13/16	12	28647
D	.2460	6%	4 13/16	12	28648
F	.2570	6%	5	12	28649
G	.2610	6%	5	12	28650
H	.2660	6%	5	12	28651
I	.2720	6%	5	12	28652
J	.2770	6%	5	12	28653
K	.2810	6%	5	12	28654
L	.2900	6%	5 1/8	12	28655
M	.2950	6%	5 1/8	6	28656
N	.3020	6%	5 1/8	6	28657
O	.3160	6 1/2	5 1/4	6	28658
P	.3230	6 1/2	5 1/4	6	28659
Q	.3320	6 1/2	5 1/4	6	28660
R	.3390	6 1/2	5 1/4	6	28661
S	.3480	6%	5 3/8	6	28662
T	.3580	6%	5 3/8	6	28663
U	.3680	6%	5 3/8	6	28664
V	.3770	7	5 3/8	6	28665
W	.3860	7	5 3/8	6	28666
X	.3970	7	5 3/8	6	28667
Y	.4040	7	5 3/8	6	28668
Z	.4130	7%	5 11/16	6	28669

For tang dimensions see page 13.

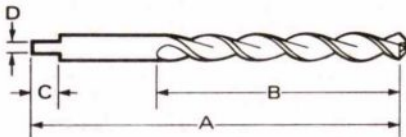
Turboflute Extra Length Twist Drills

Straight Shank
High Speed Steel



Bright Finish
135° Split Point
No. T-218-TF Tanged,

Besly Turboflute Drills handle hole depths up to 12 times their own diameter in a single pass. Flute design produces short chips, which pass out of the hole with no clogging and eliminate woodpeckering. Designed for drilling materials such as steels below 120,000 p.s.i. ultimate tensile strength and iron castings. For tang dimensions see page 13.

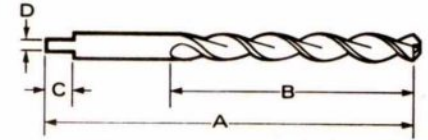


Fractional Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Overall Length A		8		9		10		12	
Flute Length B		5½		6½		7½		9	
Drill Size	Decimal Equiv.	Tang Length C	Tang Thickness D		Std. Pkg. Quan.	EDP NUMBER			
			Min.	Max.					
1/8	.1250	3/32	.090	.094	12	20005	20719	20749	20767
9/64	.1406	3/32	.090	.094	12	20010	20723	20756	20768
5/32	.1562	3/32	.090	.094	12	20011	20726	20757	20769
11/64	.1719	3/32	.090	.094	12	20012	20727	20758	20776
3/16	.1875	3/32	.090	.094	12	20013	20728	20759	20777
13/64	.2031	1/16	.118	.122	12	20014	20729	20764	20778
7/32	.2188	1/16	.118	.122	12	20015	20736	20765	20779
15/64	.2344	1/16	.118	.122	12	20020	20737	20766	20786
1/4	.2500	1/16	.118	.122	12	20680	20021	20034	20787
17/64	.2656	1/32	.158	.162	12	20682	20022	20040	20788
9/32	.2812	1/32	.158	.162	12	20683	20023	20042	20789
19/64	.2969	1/32	.158	.162	6	20684	20024	20052	20796
5/16	.3125	1/32	.158	.162	6	20685	20025	20502	20654
21/64	.3281	3/16	.199	.203	6	20690	20030	20503	20798
11/32	.3438	3/16	.199	.203	6	20691	20031	20072	20799
23/64	.3594	3/16	.199	.203	6	20670	20032	20073	20806
3/8	.3750	3/16	.199	.203	6	20692	20738	20473	20075
25/64	.3906	7/16	.239	.243	6	20693	20739	20474	20113
13/32	.4062	7/16	.239	.243	6	20716	20746	20475	20504
27/64	.4219	7/16	.239	.243	6	20717	20747	20480	20123
7/16	.4375	7/16	.239	.243	6	20718	20748	20481	20134
29/64	.4531	7/16	.239	.243	6			20482	20135
15/32	.4688	7/16	.239	.243	6			20483	20142
31/64	.4844	1/2	.297	.303	6			20484	20155
1/2	.5000	1/2	.297	.303	6			20485	20310
33/64	.5156	1/2	.297	.303	1				20311
17/32	.5312	1/2	.297	.303	1				20312
35/64	.5469	1/2	.297	.303	1				20313
9/16	.5625	1/2	.297	.303	1				20314
37/64	.5781	5/16	.367	.373	1				20315
19/32	.5938	5/16	.367	.373	1				20320
39/64	.6094	5/16	.367	.373	1				20321
5/8	.6250	5/16	.367	.373	1				20322
21/32	.6562	5/16	.367	.373	1				20323
11/16	.6875	3/8	.437	.443	1				20324
23/32	.7188	3/8	.437	.443	1				20325
3/4	.7500	3/8	.437	.443	1				20383

Turboflute Extra Length Twist Drills Straight Shank High Speed Steel



Wire Gage Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Overall Length A				6		8	
Flute Length B				4		5½	
Wire Gage Size	Decimal Equivalent	Tang Length C	Tang Thickness D		Std. Pkg. Quan.	EDP No.	EDP No.
			Min.	Max.			
40	.0980	½	.070	.073	12	20908	
39	.0995	½	.070	.073	12	20907	
38	.1015	½	.070	.073	12	20906	
37	.1040	½	.070	.073	12	20899	
36	.1065	½	.070	.073	12	20898	
35	.1100	⅙	.081	.085	12	20897	
34	.1110	⅙	.081	.085	12	20896	
33	.1130	⅙	.081	.085	12	20889	
32	.1160	⅙	.081	.085	12	20888	
31	.1200	⅙	.081	.085	12	20887	
30	.1285	½	.090	.094	12	20442	20384
29	.1360	½	.090	.094	12	20443	20385
28	.1405	½	.090	.094	12	20445	20390
27	.1440	½	.090	.094	12	20450	20391
26	.1470	½	.090	.094	12	20451	20392
25	.1495	½	.090	.094	12	20452	20393
24	.1520	½	.090	.094	12	20453	20394
23	.1540	½	.090	.094	12	20454	20395
22	.1570	½	.090	.094	12	20455	20400
21	.1590	½	.090	.094	12	20460	20401
20	.1610	½	.090	.094	12	20461	20402
19	.1660	½	.090	.094	12	20462	20403
18	.1695	½	.090	.094	12	20463	20412
17	.1730	½	.090	.094	12	20464	20413
16	.1770	½	.090	.094	12	20465	20414
15	.1800	½	.090	.094	12	20470	20415
14	.1820	½	.090	.094	12	20471	20420
13	.1850	½	.090	.094	12	20472	20421
12	.1890	⅙	.118	.122	12	20886	20422
11	.1910	⅙	.118	.122	12	20839	20423
10	.1935	⅙	.118	.122	12	20838	20424
9	.1960	⅙	.118	.122	12	20837	20425
8	.1990	⅙	.118	.122	12	20836	20430
7	.2010	⅙	.118	.122	12	20829	20431
6	.2040	⅙	.118	.122	12	20828	20432
5	.2055	⅙	.118	.122	12	20827	20433
4	.2090	⅙	.118	.122	12	20826	20434
3	.2130	⅙	.118	.122	12	20809	20435
2	.2210	⅙	.118	.122	12	20808	20440
1	.2280	⅙	.118	.122	12	20807	20441

Letter Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Overall Length A				6			
Flute Length B				4			
Letter Size	Decimal Equivalent	Tang Length C	Tang Thickness D		Std. Pkg. Quan.	EDP No.	
			Min.	Max.			
A	.2340	⅙	.118	.122	12	29978	
B	.2380	⅙	.118	.122	12	29979	
C	.2420	⅙	.118	.122	12	29980	
D	.2460	⅙	.118	.122	12	29981	
F	.2570	½	.158	.162	12	29982	
G	.2610	½	.158	.162	12	29983	
H	.2660	½	.158	.162	12	29984	
I	.2720	½	.158	.162	12	29985	
J	.2770	½	.158	.162	12	29986	
K	.2810	½	.158	.162	12	29987	
L	.2900	½	.158	.162	12	29988	
M	.2950	½	.158	.162	6	29989	
N	.3020	½	.158	.162	6	29990	
O	.3160	⅙	.199	.203	6	29991	
P	.3230	⅙	.199	.203	6	29992	
Q	.3320	⅙	.199	.203	6	29993	
R	.3390	⅙	.199	.203	6	29994	
S	.3480	⅙	.199	.203	6	28997	
T	.3580	⅙	.199	.203	6	29996	
U	.3680	⅙	.199	.203	6	29997	
V	.3770	⅙	.239	.243	6	29998	
W	.3860	⅙	.239	.243	6	29999	
X	.3970	⅙	.239	.243	6	29900	
Y	.4040	⅙	.239	.243	6	28999	
Z	.4130	⅙	.239	.243	6	28998	

Jobbers Length Twist Drills

Straight Shank
High Speed Steel

Surface Treated

No. T-105 General Purpose

General purpose drill designed with a conventional spiral to perform satisfactorily under as many different conditions as possible. This drill may be used as a high production tool for all jobs except those in which an unusual material or setup presents a difficult machining problem, requiring heavy duty construction.



No. T-105

118° Point

No. T-105-T Tanged, Automotive Series

General purpose drills of the same design and general dimensions as T-105 except for the addition of a tang to fit drill holders for the purpose of driving the drill. For tang dimensions see page 13.



No. T-105-T

118° Point

No. T-117 Heavy Duty

Heavy duty drill with heavy web for high production drilling in tough materials.



No. T-117

118° Point

Bright Finish

No. T-405 Fast Spiral

Fast spiral drills with open bright flutes for drilling aluminum, magnesium and die castings.



No. T-405

118° Point

No. T-1055 General Purpose

Drills with general purpose construction similar to T-105 but with bright finish for use in materials where smooth, bright flutes are required for optimum drilling performance, and chip removal.



No. T-1055

118° Point

Cobalt

No. T-805 Heavy Duty

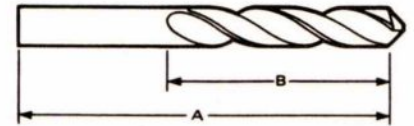
These drills are made of super cobalt steel for resistance against the high temperatures generated by drilling in tough, hard materials such as high temperature alloys and stainless steels. High drill hardness also makes these tools outstanding when used in highly abrasive materials. Sizes smaller than $\frac{1}{16}$ " and No. 53 do not have split point.



No. T-805

135° Split Point

Jobbers Length Twist Drills Straight Shank High Speed Steel

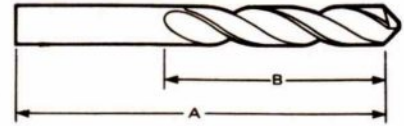


Fractional Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER					
					SURFACE TREATED			BRIGHT FINISH		COBALT
					T-105	T-105-T	T-117	T-405	T-1055	T-805
1/64	.0156	3/4	3/16	12	23992		28174		27292	27798
1/32	.0312	1 1/4	1/2	12	23993		28175	25973	27293	27799
3/64	.0469	1 3/4	5/8	12	23994		28180	25974	27294	22815
1/16	.0625	2	3/4	12	23995		28181	25975	27295	22820
1/64	.0781	2	1	12	24000		28182	25980	27300	22821
1/32	.0938	2 1/4	1 1/4	12	24001		28183	25981	27301	22822
3/64	.1094	2 3/4	1 1/2	12	24002		28184	25982	27302	22823
1/8	.1250	3	1 3/4	12	24003	20070	28185	25983	27303	22824
1/64	.1406	3 1/4	2	12	24004	20080	28190	25984	27304	22825
1/32	.1562	3 3/4	2 1/4	12	24005	20084	28191	25985	27305	22830
3/64	.1719	4	2 3/4	12	24010	20092	28192	25990	27310	22831
1/16	.1875	4 1/4	3	12	24011	20101	28193	25991	27311	22832
1/64	.2031	4 3/4	3 1/4	12	24012	20106	28194	25992	27312	22833
1/32	.2188	5	3 1/2	12	24013	20112	28195	25993	27313	22834
3/64	.2344	5 1/4	3 3/4	12	24014	20115	28200	25994	27314	22835
1/8	.2500	5 3/4	4	12	24015	20122	28201	25995	27315	22840
1/64	.2656	6	4 1/4	12	24020	20130	28202	26000	27320	22841
1/32	.2812	6 1/4	4 1/2	12	24021	20133	28203	26001	27321	22842
3/64	.2969	6 1/2	4 3/4	6	24022	20140	28204	26002	27322	22843
1/16	.3125	6 3/4	5	6	24023	20143	28205	26003	27323	22844
1/64	.3281	7	5 1/4	6	24024	20150	28210	26004	27324	22845
1/32	.3438	7 1/4	5 1/2	6	24025	20153	28211	26005	27325	22850
3/64	.3594	7 1/2	5 3/4	6	24030	20160	28212	26010	27330	22851
1/8	.3750	7 3/4	6	6	24031	20162	28213	26011	27331	22852
1/64	.3906	8	6 1/4	6	24032	20164	28214	26012	27332	22853
1/32	.4062	8 1/4	6 1/2	6	24033	20170	28215	26013	27333	22854
3/64	.4219	8 1/2	6 3/4	6	24034	20171	28220	26014	27334	22855
1/16	.4375	8 3/4	7	6	24035	20172	28221	26015	27335	22860
1/64	.4531	9	7 1/4	6	24040	20173	28222	26020	27340	22861
1/32	.4688	9 1/4	7 1/2	6	24041	20174	28223	26021	27341	22862
3/64	.4844	9 1/2	7 3/4	6	24042	20175	28224	26022	27342	22863
1/8	.5000	9 3/4	8	6	24043	20180	28225	26023	27343	22864
1/64	.5156	10	8 1/4	1	24044	20181	20181			
1/32	.5312	10 1/4	8 1/2	1	24045	20182	20182			
3/64	.5469	10 1/2	8 3/4	1	24050	20183	20183			
1/16	.5625	10 3/4	9	1	24051	20184	20184			
1/64	.5781	11	9 1/4	1	24052	20185	20185			
1/32	.5938	11 1/4	9 1/2	1	24053	20190	20190			
3/64	.6094	11 1/2	9 3/4	1	24054	20191	20191			
1/8	.6250	11 3/4	10	1	24055	20192	20192			
1/64	.6406	12	10 1/4	1	24060	20193	20193			
1/32	.6562	12 1/4	10 1/2	1	24061	20194	20194			
3/64	.6719	12 1/2	10 3/4	1	24062	20195	20195			
1/16	.6875	12 3/4	11	1	24063	20200	20200			

Jobbers Length
Twist Drills
Straight Shank
High Speed Steel



Wire Gage Sizes 80 thru 41

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER					
					SURFACE TREATED			BRIGHT FINISH		COBALT
					T-105	T-105-T	T-117	T-405	T-1055	T-805
80	.0135	3/8	3/16	12	24195				27551	
79	.0145	3/8	3/16	12	24194				27550	
78	.0160	3/8	3/16	12	24193				27545	
77	.0180	3/8	3/16	12	24192				27544	
76	.0200	3/8	3/16	12	24191				27543	
75	.0210	1	1/4	12	24190				27542	
74	.0225	1	1/4	12	24185				27541	
73	.0240	1 1/8	3/16	12	24184				27540	
72	.0250	1 1/8	3/16	12	24183				27535	
71	.0260	1 1/8	3/16	12	24182				27534	
70	.0280	1 1/8	3/16	12	24181				27533	
69	.0292	1 1/8	1/2	12	24180				27532	
68	.0310	1 1/8	1/2	12	24175				27531	
67	.0320	1 1/8	1/2	12	24174				27530	
66	.0330	1 1/8	1/2	12	24173				27525	
65	.0350	1 1/8	3/8	12	24172				27524	
64	.0360	1 1/8	3/8	12	24171				27523	
63	.0370	1 1/8	3/8	12	24170				27522	
62	.0380	1 1/8	3/8	12	24165				27521	
61	.0390	1 1/8	1/2	12	24164				27520	
60	.0400	1 1/8	1/2	12	24163		28325	25935	27515	22964
59	.0410	1 1/8	1/2	12	24162		28324	25934	27514	22963
58	.0420	1 1/8	1/2	12	24161		28323	25933	27513	22962
57	.0430	1 1/8	3/8	12	24160		28322	25932	27512	22961
56	.0465	1 1/8	3/8	12	24155		28321	25931	27511	22960
55	.0520	1 1/8	3/8	12	24154		28320	25930	27510	22955
54	.0550	1 1/8	3/8	12	24153		28315	25925	27505	22954
53	.0595	1 1/8	3/8	12	24152		28314	25924	27504	22953
52	.0635	1 1/8	3/8	12	24151		28313	25923	27503	22952
51	.0670	2	1	12	24150		28312	25922	27502	22951
50	.0700	2	1	12	24145		28311	25921	27501	22950
49	.0730	2	1	12	24144		28310	25920	27500	22945
48	.0760	2	1	12	24143		28305	25915	27495	22944
47	.0785	2	1	12	24142		28304	25914	27494	22943
46	.0810	2 1/8	1 1/8	12	24141		28303	25913	27493	22942
45	.0820	2 1/8	1 1/8	12	24140		28302	25912	27492	22941
44	.0860	2 1/8	1 1/8	12	24135		28301	25911	27491	22940
43	.0890	2 1/8	1 1/8	12	24134		28300	25910	27490	22935
42	.0935	2 1/8	1 1/8	12	24133		28295	25905	27485	22934
41	.0960	2 1/8	1 1/8	12	24132		28294	25904	27484	22933

Jobbers Length Twist Drills Straight Shank High Speed Steel



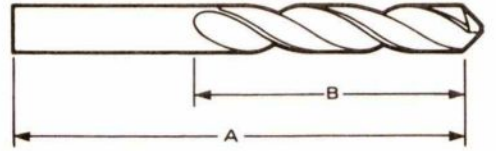
Wire Gage Sizes 40 thru 1

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER					
					SURFACE TREATED			BRIGHT FINISH		COBALT
					T-105	T-105-T	T-117	T-405	T-1055	T-805
40	.0980	2½	1¾	12	24131		28293	25903	27483	22932
39	.0995	2½	1¾	12	24130		28292	25902	27482	22931
38	.1015	2½	1¾	12	24125		28291	25901	27481	22930
37	.1040	2½	1¾	12	24124		28290	25900	27480	22925
36	.1065	2½	1¾	12	24123		28285	25895	27475	22924
35	.1100	2½	1½	12	24122		28284	25894	27474	22923
34	.1110	2½	1½	12	24121		28283	25893	27473	22922
33	.1130	2½	1½	12	24120		28282	25892	27472	22921
32	.1160	2½	1¾	12	24115		28281	25891	27471	22920
31	.1200	2½	1¾	12	24114		28280	25890	27470	22915
30	.1285	2½	1¾	12	24113	20071	28275	25885	27465	22914
29	.1360	2½	1¾	12	24112	20074	28274	25884	27464	22913
28	.1405	2½	1¾	12	24111	25409	28273	25883	27463	22912
27	.1440	3	1¾	12	24110	20081	28272	25882	27462	22911
26	.1470	3	1¾	12	24105	20082	28271	25881	27461	22910
25	.1495	3	1¾	12	24104	25408	28270	25880	27460	22905
24	.1520	3¾	2	12	24103	20083	28265	25875	27455	22904
23	.1540	3¾	2	12	24102	25407	28264	25874	27454	22903
22	.1570	3¾	2	12	24101	25406	28263	25873	27453	22902
21	.1590	3¾	2½	12	24100	25746	28262	25872	27452	22901
20	.1610	3¾	2½	12	24095	20085	28261	25871	27451	22900
19	.1660	3¾	2½	12	24094	20090	28260	25870	27450	22895
18	.1695	3¾	2½	12	24093	20091	28255	25865	27445	22894
17	.1730	3¾	2½	12	24092	20093	28254	25864	27444	22893
16	.1770	3¾	2¾	12	24091	20094	28253	25863	27443	22892
15	.1800	3¾	2¾	12	24090	20095	28252	25862	27442	22891
14	.1820	3¾	2¾	12	24085	25739	28251	25861	27441	22890
13	.1850	3¾	2¾	12	24084	20100	28250	25860	27440	22885
12	.1890	3½	2¾	12	24083	25738	28245	25855	27435	22884
11	.1910	3½	2¾	12	24082	20102	28244	25854	27434	22883
10	.1935	3½	2¾	12	24081	20103	28243	25853	27433	22882
9	.1960	3½	2¾	12	24080	20104	28242	25852	27432	22881
8	.1990	3½	2¾	12	24075	20105	28241	25851	27431	22800
7	.2010	3½	2¾	12	24074	25737	28240	25850	27430	22875
6	.2040	3½	2½	12	24073	25736	28235	25845	27425	22874
5	.2055	3½	2½	12	24072	25729	28234	25844	27424	22873
4	.2090	3¾	2½	12	24071	20110	28233	25843	27423	22872
3	.2130	3¾	2½	12	24070	20111	28232	25842	27422	22871
2	.2210	3¾	2½	12	24065	25399	28231	25841	27421	22870
1	.2280	3¾	2½	12	24064	20114	28230	25840	27420	22865

Jobbers Length Twist Drills Straight Shank High Speed Steel

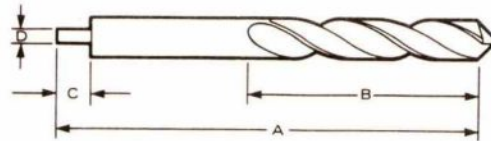
Letter Sizes



GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER					
					SURFACE TREATED			BRIGHT FINISH		COBALT
					T-105	T-105-T	T-117	T-405	T-1055	T-805
A	.234	3%	2 3/8	12	24200	25748	28362	25794	27752	29892
B	.238	4	2 3/4	12	24201	25749	28363	25795	27753	29893
C	.242	4	2 3/4	12	24202	25756	28364	25800	27754	29894
D	.246	4	2 3/4	12	24203	20121	28365	25801	27755	29895
E	.250	4	2 3/4	12	24015	20122	28201	25995	27315	22840
F	.257	4%	2 3/4	12	24205	20003	28371	25803	27761	29901
G	.261	4%	2 3/4	12	24210	20125	28372	25804	27762	29902
H	.266	4%	2 3/4	12	24211	25758	28373	25805	27763	29903
I	.272	4%	2 3/8	12	24212	20131	28374	25810	27764	29904
J	.277	4%	2 3/8	12	24213	20132	28375	25811	27765	29905
K	.281	4%	2 15/16	12	24214	25416	28380	25812	27770	29910
L	.290	4%	2 15/16	12	24215	25417	28381	25813	27771	29911
M	.295	4%	3 1/16	6	24220	25418	28382	25814	27772	29912
N	.302	4%	3 1/16	6	24221	20141	28383	25815	27773	29913
O	.316	4 1/2	3 3/16	6	24222	20144	28384	25820	27774	29914
P	.323	4%	3 5/16	6	24223	20145	28385	25821	27775	29915
Q	.332	4%	3 7/16	6	24224	20151	28390	25822	27780	29920
R	.339	4%	3 7/16	6	24225	20152	28391	25823	27781	29921
S	.348	4%	3 1/2	6	24230	20154	28392	25824	27782	29922
T	.358	4%	3 1/2	6	24231	25419	28393	25825	27783	29923
U	.368	5	3 5/8	6	24232	20161	28394	25830	27784	29924
V	.377	5	3 5/8	6	24233	25759	28395	25831	27785	29925
W	.386	5%	3 3/4	6	24234	20163	28400	25832	27790	29930
X	.397	5%	3 3/4	6	24235	20165	28401	25833	27791	29931
Y	.404	5%	3 3/4	6	24240	25766	28402	25834	27792	29932
Z	.413	5%	3 3/4	6	24241	25767	28403	25835	27793	29933

Tang Dimensions for Straight Shank Drills



Decimal Diameter	Thickness of Tang D		Length of Tang C
	Max.	Min.	
$\frac{1}{8}$ (.1250) through $\frac{3}{16}$ (.1875)	.094	.090	$\frac{9}{32}$
Over $\frac{3}{16}$ (.1875) through $\frac{1}{4}$ (.2500)	.122	.118	$\frac{5}{16}$
Over $\frac{1}{4}$ (.2500) through $\frac{5}{16}$ (.3125)	.162	.158	$1\frac{1}{32}$
Over $\frac{5}{16}$ (.3125) through $\frac{3}{8}$ (.3750)	.203	.199	$\frac{3}{8}$
Over $\frac{3}{8}$ (.3750) through $1\frac{1}{32}$ (.4688)	.243	.239	$\frac{7}{16}$
Over $1\frac{1}{32}$ (.4688) through $\frac{7}{16}$ (.5625)	.303	.297	$\frac{1}{2}$
Over $\frac{7}{16}$ (.5625) through $2\frac{1}{32}$ (.6562)	.373	.367	$\frac{9}{16}$
Over $2\frac{1}{32}$ (.6562) through $\frac{3}{4}$ (.7500)	.443	.437	$\frac{5}{8}$
Over $\frac{3}{4}$ (.7500) through $\frac{7}{8}$ (.8750)	.514	.508	$1\frac{1}{16}$
Over $\frac{7}{8}$ (.8750) through 1 (1.0000)	.609	.601	$\frac{3}{4}$
Over 1 (1.0000) through $1\frac{3}{16}$ (1.1875)	.700	.692	$1\frac{3}{16}$
Over $1\frac{3}{16}$ (1.1875) through $1\frac{1}{2}$ (1.3750)	.817	.809	$\frac{7}{8}$

Jobbers Length Twist Drills Metric Sizes

**Straight Shank
High Speed Steel**

Recognizing the growing need and demand for metric size drills, Besly has expanded its size range to include popular jobber drills from .95 mm. thru 17.50 mm. Supplied in general purpose plain shank style.

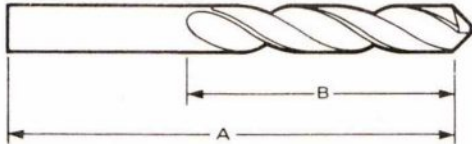
Surface Treated*



118° Point

No. T-105 General Purpose

General purpose drill designed with a conventional spiral to perform satisfactorily under as many different conditions as possible. This drill may be used as a high production tool for all jobs except those in which an unusual material or setup presents a particularly difficult machining problem, requiring heavy duty construction.



Metric Sizes .95 thru 2.35

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Size mm	Decimal Equiv.	Overall Length	Flute Length	Std. Pkg. Quan.	EDP NO.
		mm A	mm B		T-105
.95	.0374	38	16	12	24450
1.00	.0394	41	18	12	24451
1.05	.0413	41	18	12	24452
1.10	.0433	44	19	12	24453
1.15	.0453	44	19	12	24454
1.20	.0472	48	22	12	24455
1.25	.0492	48	22	12	24460
1.30	.0512	48	22	12	24461
1.35	.0531	48	22	12	24462
1.40	.0551	48	22	12	24463
1.45	.0571	48	22	12	24464
1.50	.0591	48	22	12	24465
1.55	.0610	48	22	12	24470
1.60	.0630	48	22	12	24471
1.65	.0650	51	25	12	24472
1.70	.0669	51	25	12	24473
1.75	.0689	51	25	12	24474
1.80	.0709	51	25	12	24475
1.85	.0728	51	25	12	24480
1.90	.0748	51	25	12	24481
1.95	.0768	51	25	12	24482
2.00	.0787	54	29	12	24483
2.05	.0807	54	29	12	24484
2.10	.0827	54	29	12	24485
2.15	.0846	54	29	12	24490
2.20	.0866	57	32	12	24491
2.25	.0886	57	32	12	24492
2.30	.0906	57	32	12	24493
2.35	.0925	57	32	12	24494

Jobbers Length Twist Drills

Metric Sizes 2.40 thru 17.50

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Size mm	Dec. Equiv.	Overall Length mm A	Flute Length mm B	Std. Pkg. Quan.	EDP NUMBER	
					T-105	
2.40	.0945	60	35	12	24495	
2.45	.0965	60	35	12	24500	
2.50	.0984	60	35	12	24501	
2.60	.1024	64	37	12	24502	
2.70	.1063	64	37	12	24503	
2.80	.1102	67	38	12	24505	
2.90	.1142	70	41	12	24510	
3.00	.1181	70	41	12	24511	
3.10	.1220	70	41	12	24512	
3.20	.1260	70	41	12	24513	
3.30	.1299	73	45	12	24515	
3.40	.1339	73	45	12	24520	
3.50	.1378	73	45	12	24521	
3.60	.1417	76	48	12	24522	
3.70	.1457	76	48	12	24523	
3.80	.1496	79	51	12	24525	
3.90	.1535	79	51	12	24530	
4.00	.1575	83	54	12	24531	
4.10	.1614	83	54	12	24532	
4.20	.1654	83	54	12	24533	
4.30	.1693	83	54	12	24535	
4.40	.1732	86	56	12	24540	
4.50	.1772	86	56	12	24541	
4.60	.1811	86	56	12	24542	
4.70	.1850	89	59	12	24543	
4.80	.1890	89	59	12	24545	
4.90	.1929	92	62	12	24550	
5.00	.1968	92	62	12	24551	
5.10	.2008	92	62	12	24552	
5.20	.2047	95	64	12	24553	
5.30	.2087	95	64	12	24555	
5.40	.2126	95	64	12	24560	
5.50	.2165	95	64	12	24561	
5.60	.2205	98	67	12	24562	
5.70	.2244	98	67	12	24563	
5.80	.2283	98	67	12	24565	
5.90	.2323	98	67	12	24570	
6.00	.2362	102	70	12	24571	
6.10	.2402	102	70	12	24572	
6.20	.2441	102	70	12	24573	
6.30	.2480	102	70	12	24575	
6.40	.2520	105	73	12	24580	
6.50	.2559	105	73	12	24581	
6.60	.2598	105	73	12	24582	
6.70	.2638	105	73	12	24583	
6.80	.2677	105	73	12	24585	
6.90	.2717	105	73	12	24590	
7.00	.2756	105	73	12	24591	
7.10	.2795	108	75	12	24592	
7.20	.2835	108	75	12	24593	
7.30	.2874	108	75	12	24595	
7.40	.2913	111	78	6	24600	
7.50	.2953	111	78	6	24601	
7.60	.2992	111	78	6	24602	
7.70	.3031	114	81	6	24603	

Size mm	Dec. Equiv.	Overall Length mm A	Flute Length mm B	Std. Pkg. Quan.	EDP NUMBER	
					T-105	
7.80	.3071	114	81	6	24605	
7.90	.3110	114	81	6	24610	
8.00	.3150	114	81	6	24611	
8.10	.3189	117	84	6	24612	
8.20	.3228	117	84	6	24613	
8.30	.3268	117	84	6	24615	
8.40	.3307	121	87	6	24620	
8.50	.3346	121	87	6	24621	
8.60	.3386	121	87	6	24622	
8.70	.3425	121	87	6	24623	
8.80	.3465	124	89	6	24625	
8.90	.3504	124	89	6	24630	
9.00	.3543	124	89	6	24631	
9.10	.3583	124	89	6	24632	
9.20	.3622	127	92	6	24633	
9.30	.3661	127	92	6	24635	
9.40	.3701	127	92	6	24640	
9.50	.3740	127	92	6	24641	
9.60	.3780	130	95	6	24642	
9.70	.3819	130	95	6	24643	
9.80	.3858	130	95	6	24645	
9.90	.3898	130	95	6	24650	
10.00	.3937	130	95	6	24651	
10.20	.4016	133	98	6	27107	
10.50	.4134	137	100	6	24652	
10.80	.4252	140	103	6	27108	
11.00	.4331	140	103	6	24653	
11.20	.4409	143	106	6	27109	
11.50	.4528	143	106	6	24654	
11.80	.4646	146	110	6	27116	
12.00	.4724	150	111	6	24655	
12.20	.4803	150	111	6	27117	
12.50	.4921	152	114	6	24660	
12.80	.5039	168	122	1	27118	
13.00	.5118	168	122	1	27119	
13.20	.5197	168	122	1	27126	
13.50	.5315	168	122	1	27127	
13.80	.5433	168	122	1	27128	
14.00	.5512	168	122	1	27129	
14.25	.5610	168	122	1	27136	
14.50	.5709	168	122	1	27137	
14.75	.5807	181	132	1	27138	
15.00	.5906	181	132	1	27139	
15.25	.6004	181	132	1	27146	
15.50	.6102	181	132	1	27147	
15.75	.6201	181	132	1	27148	
16.00	.6299	181	132	1	27149	
16.25	.6398	181	132	1	27156	
16.50	.6496	181	132	1	27157	
16.75	.6594	194	143	1	27158	
17.00	.6693	194	143	1	27159	
17.25	.6791	194	143	1	27166	
17.50	.6890	194	143	1	27167	

Taper Length Twist Drills

Straight Shank
High Speed Steel

Bright Finish

No. T-102 General Purpose

Long series straight shank general purpose drills for use on jobs where extended drill length is needed to produce deeper holes or where longer reach is needed to drill in difficult locations. Shank diameter same as drill size. Sizes $\frac{3}{64}$ " and larger are supplied surface treated.



No. T-102

118° Point

Surface Treated

No. T-102-T Tanged, Automotive Series

Long series straight shank general purpose drills with same dimensions and design as T-102, but with tangs to fit drill holders for the purpose of driving the drill. For tang dimensions see page 13.

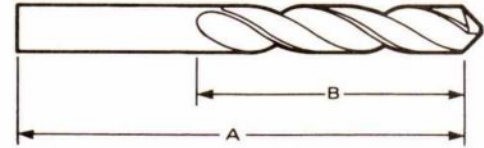


No. T-102-T

118° Point

Taper Length Twist Drills Straight Shank High Speed Steel

Fractional Sizes



GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER		
					Bright Finish		Surface Treated
					T-102	T-102-T	
3/64	.0469	2 1/4	1 1/8	12	23406		
1/16	.0625	3	1 3/8	12	23407		
5/64	.0781	3 3/8	2	12	23408		
3/32	.0938	4 1/4	2 1/4	12	23409		
7/64	.1094	4 3/8	2 1/2	15	23416		
1/8	.1250	5 1/8	2 3/4	12	25561	20201	
9/64	.1406	5 3/8	3	12	25562	20202	
5/32	.1562	5 3/8	3	12	25563	20203	
11/64	.1719	5 3/8	3 3/8	12	25564	20204	
3/16	.1875	5 3/4	3 3/8	12	25565	20205	
13/64	.2031	6	3 3/8	12	25570	20210	
7/32	.2188	6	3 3/8	12	25571	20211	
15/64	.2344	6 1/8	3 3/8	12	25572	20212	
1/4	.2500	6 1/2	3 3/4	12	25573	20213	
17/64	.2656	6 1/4	3 3/8	12	25574	20214	
9/32	.2812	6 1/4	3 3/8	12	25575	20215	
19/64	.2969	6 3/8	4	6	25580	20220	
5/16	.3125	6 3/8	4	6	25581	20221	
21/64	.3281	6 1/2	4 1/8	6	25582	20222	
11/32	.3438	6 1/2	4 1/8	6	25583	20223	
23/64	.3594	6 3/4	4 1/4	6	25584	20224	
3/8	.3750	6 3/4	4 1/4	6	25585	20225	
25/64	.3906	7	4 3/8	6	25590	20230	
13/32	.4062	7	4 3/8	6	25591	20231	
27/64	.4219	7 1/4	4 3/8	6	25592	20232	
7/16	.4375	7 1/4	4 3/8	6	25593	20233	
29/64	.4531	7 1/2	4 3/4	6	25594	20234	
15/32	.4688	7 1/2	4 3/4	6	25595	20235	
31/64	.4844	7 3/4	4 3/4	6	25600	20240	
1/2	.5000	7 3/4	4 3/4	6	25601	20241	
33/64	.5156	8	4 3/4	1	25602	20242	
17/32	.5312	8	4 3/4	1	25603	20243	
35/64	.5469	8 1/4	4 3/4	1	25604	20244	
9/16	.5625	8 1/4	4 3/4	1	25605	20245	
37/64	.5781	8 3/4	4 3/4	1	25610	20250	
19/32	.5938	8 3/4	4 3/4	1	25611	20251	
39/64	.6094	8 3/4	4 3/4	1	25612	20252	
5/8	.6250	8 3/4	4 3/4	1	25613	20253	
41/64	.6406	9	5 1/8	1	25614	20254	
21/32	.6562	9	5 1/8	1	25615	20255	
43/64	.6719	9 1/4	5 1/8	1	25620	20260	
11/16	.6875	9 1/4	5 1/8	1	25621	20261	
45/64	.7031	9 1/2	5 1/8	1	25622		
23/32	.7188	9 1/2	5 1/8	1	25623		
47/64	.7344	9 3/4	5 1/8	1	25624		

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NO.
					T-102
3/8	.7500	9 1/4	5 1/8	1	25625
49/64	.7656	9 1/2	6	1	25630
25/32	.7812	9 1/2	6	1	25631
51/64	.7969	10	6 1/8	1	25632
13/16	.8125	10	6 1/8	1	25633
53/64	.8281	10	6 1/8	1	25634
27/32	.8438	10	6 1/8	1	25635
55/64	.8594	10	6 1/8	1	25640
7/8	.8750	10	6 1/8	1	25641
57/64	.8906	10	6 1/8	1	25642
29/32	.9062	10	6 1/8	1	25643
59/64	.9219	10 1/4	6 1/8	1	25644
15/16	.9375	10 1/4	6 1/8	1	25645
61/64	.9537	11	6 3/8	1	25650
31/32	.9688	11	6 3/8	1	25651
63/64	.9844	11	6 3/8	1	25652
1	1.0000	11	6 3/8	1	25653
1 1/64	1.0151	11 1/8	6 1/2	1	25654
1 1/32	1.0312	11 1/8	6 1/2	1	25655
1 3/64	1.0469	11 1/4	6 3/8	1	25660
1 1/16	1.0625	11 1/4	6 3/8	1	25661
1 5/64	1.0781	11 1/2	6 3/8	1	25662
1 3/32	1.0938	11 1/2	6 3/8	1	25663
1 7/64	1.1094	11 1/2	7 1/8	1	25664
1 1/8	1.1250	11 1/2	7 1/8	1	25665
1 9/64	1.1406	11 3/4	7 1/4	1	25670
1 5/32	1.1562	11 3/4	7 1/4	1	25671
1 11/64	1.1719	12	7 3/8	1	25672
1 3/16	1.1875	12	7 3/8	1	25673
1 13/64	1.2031	12 1/8	7 1/2	1	25674
1 7/32	1.2188	12 1/8	7 1/2	1	25675
1 15/64	1.2344	12 1/2	7 3/8	1	25680
1 1/4	1.2500	12 1/2	7 3/8	1	25681
1 17/64	1.2656	12 3/4	7 3/4	1	25682
1 9/32	1.2812	14 1/4	8 1/2	1	25682
1 5/16	1.3125	14 1/4	8 3/8	1	25683
1 11/32	1.3438	14 1/2	8 3/8	1	25684
1 3/8	1.3750	14 1/2	8 3/8	1	25685
1 13/32	1.4062	14 3/4	9	1	25690
1 7/16	1.4375	14 3/4	9 1/8	1	25691
1 15/32	1.4688	14 3/4	9 1/8	1	25692
1 1/2	1.5000	15	9 1/8	1	25693
1 13/16	1.5625	15 1/4	9 3/8	1	25694
1 3/4	1.6250	15 1/2	9 3/8	1	25695
1 7/8	1.7500	16 1/4	10 1/8	1	25701

Taper Length Twist Drills

Straight Shank
High Speed Steel

Bright Finish

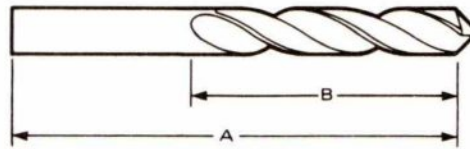
No. T-102 General Purpose

Long series straight shank general purpose drills for use on jobs where extended drill length is needed to produce deeper holes or where longer reach is needed to drill in difficult locations. Shank diameter same as drill size.



No. T-102

118° Point



Wire Gage Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-102	
60	.0400	2 1/4	1 1/4	12	25257	
59	.0410	2 1/4	1 1/4	12	25256	
58	.0420	2 1/4	1 1/4	12	25518	
57	.0430	2 1/4	1 1/4	12	25517	
56	.0465	2 1/4	1 1/4	12	25516	
55	.0520	3	1 1/4	12	25509	
54	.0550	3	1 1/4	12	25508	
53	.0595	3	1 1/4	12	25507	
52	.0635	3 3/4	2	12	25249	
51	.0670	3 3/4	2	12	25248	
50	.0700	3 3/4	2	12	25247	
49	.0730	3 3/4	2	12	25246	
48	.0760	3 3/4	2	12	25506	
47	.0785	4 1/4	2 1/4	12	25499	
46	.0810	4 1/4	2 1/4	12	25498	
45	.0820	4 1/4	2 1/4	12	25497	
44	.0860	4 1/4	2 1/4	12	25496	
43	.0890	4 1/4	2 1/4	12	25489	
42	.0935	4 1/4	2 1/4	12	25239	
41	.0960	4 1/4	2 1/4	12	25238	
40	.0980	4 1/4	2 1/2	12	25237	
39	.0995	4 1/4	2 1/2	12	25236	
38	.1015	4 1/4	2 1/2	12	25488	
37	.1040	4 1/4	2 1/2	12	25487	
36	.1065	4 1/4	2 1/2	12	25486	
35	.1100	5 1/4	2 1/4	12	25479	
34	.1110	5 1/4	2 1/4	12	25478	
33	.1130	5 1/4	2 1/4	12	25477	
32	.1160	5 1/4	2 1/4	12	25229	
31	.1200	5 1/4	2 1/4	12	25228	

Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-102	
30	.1285	5 1/4	3	12	25227	
29	.1360	5 1/4	3	12	25226	
28	.1405	5 1/4	3	12	25476	
27	.1440	5 1/4	3	12	25469	
26	.1470	5 1/4	3	12	25468	
25	.1495	5 1/4	3	12	25467	
24	.1520	5 1/4	3	12	25466	
23	.1540	5 1/4	3	12	25459	
22	.1570	5 1/4	3 3/4	12	25219	
21	.1590	5 1/4	3 3/4	12	25218	
20	.1610	5 1/4	3 3/4	12	25217	
19	.1660	5 1/4	3 3/4	12	25216	
18	.1695	5 1/4	3 3/4	12	25458	
17	.1730	5 1/4	3 3/4	12	25457	
16	.1770	5 1/4	3 3/4	12	25456	
15	.1800	5 1/4	3 3/4	12	25449	
14	.1820	5 1/4	3 3/4	12	25448	
13	.1850	5 1/4	3 3/4	12	25447	
12	.1890	6	3 3/4	12	25209	
11	.1910	6	3 3/4	12	25208	
10	.1935	6	3 3/4	12	25207	
9	.1960	6	3 3/4	12	25206	
8	.1990	6	3 3/4	12	25446	
7	.2010	6	3 3/4	12	25439	
6	.2040	6	3 3/4	12	25438	
5	.2055	6	3 3/4	12	25437	
4	.2090	6	3 3/4	12	25436	
3	.2130	6	3 3/4	12	25199	
2	.2210	6 1/4	3 3/4	12	25198	
1	.2280	6 1/4	3 3/4	12	25197	

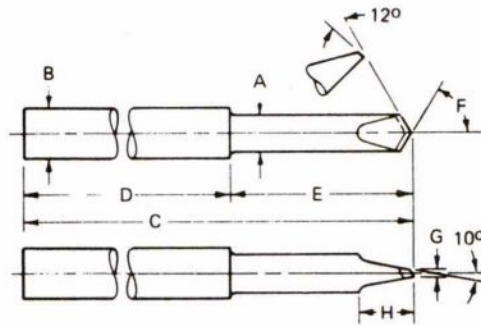
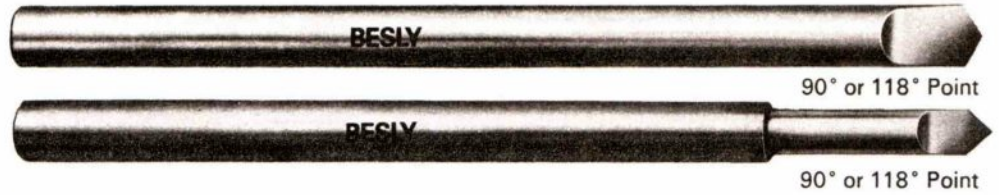
Spotting, Centering and Chamfering Drills

High Speed Steel

No. T-070

Spotting and Chamfering Drills

Provides N/C machining centers with a twofold advantage of accurately spotting holes to be drilled, plus chamfering of drilled holes.



GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Size	A	B	C	D	E	F	G	H	EDP NO.
3/8	.3750	.5000 .4995	7.75	6.00	1.75	45°	.03	.50	28048
3/8	.3750	.5000 .4995	7.75	6.00	1.75	59°	.03	.50	28049
1/2	.5000 .4995	.5000 .4995	7.75			45°	.03	.75	28046
1/2	.5000 .4995	.5000 .4995	7.75			59°	.03	.75	28047
3/4	.7500 .7495	.7500 .7495	7.50			45°	.04	1.00	28056
3/4	.7500 .7495	.7500 .7495	7.50			59°	.04	1.00	28057
1	1.0000 .9995	1.0000 .9995	8.50			45°	.06	1.50	28058
1	1.0000 .9995	1.0000 .9995	8.50			59°	.06	1.50	28059

Standard Package Quantity : 1 each.

Screw Machine Twist Drills

Straight Shank
High Speed Steel

Bright Finish



118° Point

No. T-122

Designed for use on automatic screw machines. Short flutes and short overall length provide economy and maximum rigidity without sacrifice of cutting ability. Sizes over 1" furnished with reduced shanks.

33/64 and larger
Surface Treated

Surface Treated



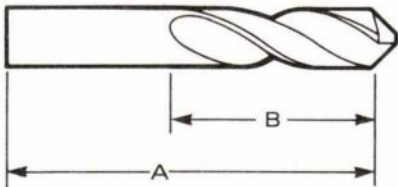
135° Split Point

No. T-190 Aircraft Drill, Type C

These drills are made to the A.I.A. NAS-907 Type C Standards for Aircraft Drills. They are designed for use in portable power tools or machines for drilling holes in hard and tough sheet metal alloys of the heat resistant, stainless and titanium types. Of sturdy construction, their split point allows ease of penetration and has made them popular in automobile body work and in the construction industry.

Fractional Sizes $\frac{3}{64}$ thru $\frac{1}{2}$

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)



Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-122	T-190
$\frac{3}{64}$	.0469	1 $\frac{3}{8}$	$\frac{1}{2}$	12	26480	
$\frac{1}{16}$	.0625	1 $\frac{1}{8}$	$\frac{5}{8}$	12	26481	
$\frac{5}{64}$	.0781	1 $\frac{1}{16}$	$\frac{11}{16}$	12	26482	
$\frac{3}{32}$	.0938	1 $\frac{1}{4}$	$\frac{3}{4}$	12	26483	
$\frac{7}{64}$	.1094	1 $\frac{1}{16}$	$\frac{13}{16}$	12	26484	23546
$\frac{1}{8}$	.1250	1 $\frac{1}{8}$	$\frac{7}{8}$	12	26485	23547
$\frac{9}{64}$	.1406	1 $\frac{1}{16}$	$\frac{15}{16}$	12	26490	23548
$\frac{5}{32}$	.1562	2 $\frac{1}{16}$	1	12	26491	23549
$\frac{11}{64}$	.1719	2 $\frac{1}{8}$	1 $\frac{1}{16}$	12	26492	23556
$\frac{3}{16}$	.1875	2 $\frac{3}{16}$	1 $\frac{1}{8}$	12	26493	23557
$\frac{13}{64}$	.2031	2 $\frac{1}{4}$	1 $\frac{3}{16}$	12	26494	23558
$\frac{7}{32}$	.2188	2 $\frac{1}{8}$	1 $\frac{1}{4}$	12	26495	23559
$\frac{15}{64}$	.2344	2 $\frac{7}{16}$	1 $\frac{5}{16}$	12	26500	23566
$\frac{1}{4}$	.2500	2 $\frac{1}{2}$	1 $\frac{3}{8}$	12	26501	23567
$\frac{17}{64}$	.2656	2 $\frac{3}{8}$	1 $\frac{7}{16}$	12	26502	23568
$\frac{9}{32}$	.2812	2 $\frac{1}{16}$	1 $\frac{1}{2}$	12	26503	23569
$\frac{19}{64}$	.2969	2 $\frac{3}{4}$	1 $\frac{9}{16}$	6	26504	23576
$\frac{5}{16}$	.3125	2 $\frac{1}{2}$	1 $\frac{1}{2}$	6	26505	23577
$\frac{21}{64}$	.3281	2 $\frac{5}{16}$	1 $\frac{11}{16}$	6	26510	23578
$\frac{11}{32}$	.3438	3	1 $\frac{11}{16}$	6	26511	23579
$\frac{23}{64}$	.3594	3 $\frac{1}{16}$	1 $\frac{3}{4}$	6	26512	23586
$\frac{3}{8}$	.3750	3 $\frac{1}{8}$	1 $\frac{13}{16}$	6	26513	23587
$\frac{25}{64}$	.3906	3 $\frac{1}{4}$	1 $\frac{7}{8}$	6	26514	23588
$\frac{13}{32}$	.4062	3 $\frac{3}{16}$	1 $\frac{15}{16}$	6	26515	23589
$\frac{27}{64}$	.4219	3 $\frac{1}{8}$	2	6	26520	23596
$\frac{7}{16}$	.4375	3 $\frac{1}{16}$	2 $\frac{1}{16}$	6	26521	23597
$\frac{29}{64}$	.4531	3 $\frac{1}{16}$	2 $\frac{1}{8}$	6	26522	23598
$\frac{15}{32}$	.4688	3 $\frac{1}{8}$	2 $\frac{1}{4}$	6	26523	23599
$\frac{31}{64}$	.4844	3 $\frac{1}{16}$	2 $\frac{3}{16}$	6	26524	23606
$\frac{1}{2}$	.5000	3 $\frac{3}{4}$	2 $\frac{1}{4}$	6	26525	23607

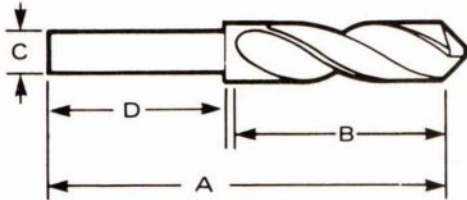
continued

Screw Machine Twist Drills Straight Shank High Speed Steel

Fractional Sizes $\frac{33}{64}$ thru 2

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Bright Finish
No. T-122



Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Shank Diameter C	Shank Length D	Std. Pkg. Quan.	EDP NO
							T-122
$\frac{33}{64}$	.5156	$3\frac{3}{8}$	$2\frac{3}{8}$			1	26710
$\frac{17}{32}$	.5312	$3\frac{3}{8}$	$2\frac{3}{8}$			1	26711
$\frac{35}{64}$	.5469	4	$2\frac{1}{2}$			1	26712
$\frac{9}{16}$	.5625	4	$2\frac{1}{2}$			1	26713
$\frac{37}{64}$	.5781	$4\frac{1}{8}$	$2\frac{3}{8}$			1	26714
$\frac{19}{32}$	.5938	$4\frac{1}{8}$	$2\frac{3}{8}$			1	26715
$\frac{39}{64}$	.6094	$4\frac{1}{8}$	$2\frac{3}{8}$			1	26720
$\frac{5}{8}$	.6250	$4\frac{1}{8}$	$2\frac{3}{8}$			1	26721
$\frac{41}{64}$	.6406	$4\frac{1}{2}$	$2\frac{3}{8}$			1	26722
$\frac{21}{32}$	.6562	$4\frac{1}{2}$	$2\frac{3}{8}$			1	26723
$\frac{43}{64}$	.6719	$4\frac{1}{2}$	$2\frac{3}{8}$			1	26724
$\frac{11}{16}$	.6875	$4\frac{1}{2}$	$2\frac{3}{8}$			1	26725
$\frac{45}{64}$	.7031	$4\frac{3}{4}$	3			1	26730
$\frac{23}{32}$	.7188	$4\frac{3}{4}$	3			1	26731
$\frac{47}{64}$	.7344	5	$3\frac{1}{8}$			1	26732
$\frac{3}{4}$	.7500	5	$3\frac{1}{8}$			1	26733
$\frac{49}{64}$	.7656	$5\frac{1}{8}$	$3\frac{1}{4}$			1	26734
$\frac{25}{32}$	.7812	$5\frac{1}{8}$	$3\frac{1}{4}$			1	26735
$\frac{51}{64}$	.7969	$5\frac{1}{8}$	$3\frac{3}{8}$			1	26740
$\frac{13}{16}$	.8125	$5\frac{1}{4}$	$3\frac{3}{8}$			1	26741
$\frac{53}{64}$	.8281	$5\frac{3}{8}$	$3\frac{1}{2}$			1	26742
$\frac{27}{32}$	.8438	$5\frac{3}{8}$	$3\frac{1}{2}$			1	26743
$\frac{55}{64}$	.8594	$5\frac{1}{2}$	$3\frac{1}{2}$			1	26744
$\frac{7}{8}$	.8750	$5\frac{1}{2}$	$3\frac{1}{2}$			1	26745
$\frac{57}{64}$	.8906	$5\frac{5}{8}$	$3\frac{5}{8}$			1	26750
$\frac{29}{32}$	.9062	$5\frac{5}{8}$	$3\frac{5}{8}$			1	26751
$\frac{59}{64}$	.9219	$5\frac{3}{4}$	$3\frac{3}{4}$			1	26752
$\frac{15}{16}$	.9375	$5\frac{3}{4}$	$3\frac{3}{4}$			1	26753
$\frac{61}{64}$	.9531	$5\frac{7}{8}$	$3\frac{7}{8}$			1	26754
$\frac{31}{32}$	.9688	$5\frac{7}{8}$	$3\frac{7}{8}$			1	26755
$\frac{63}{64}$	.9844	6	4			1	26760
1	1.0000	6	4			1	26761
$1\frac{1}{16}$	1.0625	$6\frac{1}{4}$	4	1	$2\frac{1}{4}$	1	26762
$1\frac{1}{8}$	1.1250	$6\frac{3}{8}$	4	1	$2\frac{1}{4}$	1	26763
$1\frac{3}{16}$	1.1875	$6\frac{5}{8}$	$4\frac{1}{4}$	1	$2\frac{1}{4}$	1	26764
$1\frac{1}{4}$	1.2500	$6\frac{3}{4}$	$4\frac{3}{8}$	1	$2\frac{1}{4}$	1	26765
$1\frac{5}{16}$	1.3125	7	$4\frac{3}{8}$	$1\frac{1}{4}$	$2\frac{1}{2}$	1	26770
$1\frac{3}{8}$	1.3750	$7\frac{1}{8}$	$4\frac{1}{2}$	$1\frac{1}{4}$	$2\frac{1}{2}$	1	26771
$1\frac{7}{16}$	1.4375	$7\frac{3}{8}$	$4\frac{3}{4}$	$1\frac{1}{4}$	$2\frac{1}{2}$	1	26772
$1\frac{1}{2}$	1.5000	$7\frac{1}{2}$	4	$1\frac{1}{4}$	$2\frac{1}{2}$	1	26773
$1\frac{5}{16}$	1.5625	$7\frac{3}{4}$	$4\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26774
$1\frac{3}{8}$	1.6250	$7\frac{3}{4}$	$4\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26775
$1\frac{11}{16}$	1.6875	8	$5\frac{1}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26780
$1\frac{3}{4}$	1.7500	8	$5\frac{1}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26781
$1\frac{13}{16}$	1.8125	$8\frac{1}{4}$	$5\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26782
$1\frac{7}{8}$	1.8750	$8\frac{1}{4}$	$5\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26783
$1\frac{15}{16}$	1.9375	$8\frac{3}{8}$	$5\frac{5}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26784
2	2.0000	$8\frac{1}{2}$	$5\frac{5}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	1	26785

Screw Machine Twist Drills

Straight Shank
High Speed Steel

Bright Finish

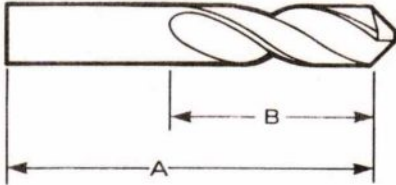
No. T-122

Designed for use on automatic screw machines. Short flutes and short overall length provide economy and maximum rigidity without sacrifice of cutting ability.



No. T-122

118° Point



Letter Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER
					T-122
A	.234	2 ⁷ / ₁₆	1 ¹ / ₁₆	12	26622
B	.238	2 ¹ / ₂	1 %	12	26623
C	.242	2 ¹ / ₂	1 %	12	26624
D	.246	2 ¹ / ₂	1 %	12	26625
E	.250	2 ¹ / ₂	1 %	12	26501
F	.257	2 %	1 ⁷ / ₁₆	12	26631
G	.216	2 %	1 ⁷ / ₁₆	12	26632
H	.266	2 ¹ / ₁₆	1 ¹ / ₂	12	26633
I	.272	2 ¹ / ₁₆	1 ¹ / ₂	12	26634
J	.277	2 ¹ / ₁₆	1 ¹ / ₂	12	26635
K	.281	2 ¹ / ₁₆	1 ¹ / ₂	12	26640
L	.290	2 %	1 %	12	26641
M	.295	2 ³ / ₄	1 ¹ / ₁₆	6	26642
N	.302	2 ³ / ₁₆	1 %	6	26643
O	.316	2 ¹ / ₁₆	1 ¹ / ₁₆	6	26644
P	.323	2 ¹ / ₁₆	1 ¹ / ₁₆	6	26645
Q	.332	3	1 ¹ / ₁₆	6	26650
R	.339	3	1 ¹ / ₁₆	6	26651
S	.348	3 ¹ / ₁₆	1 ³ / ₄	6	26652
T	.358	3 ¹ / ₁₆	1 %	6	26653
U	.368	3 ¹ / ₈	1 ¹ / ₁₆	6	26654
V	.377	3 ¹ / ₄	1 %	6	26655
W	.386	3 ¹ / ₄	1 %	6	26660
X	.397	3 ⁵ / ₁₆	1 ¹ / ₁₆	6	26661
Y	.404	3 ⁵ / ₁₆	1 ¹ / ₁₆	6	26662
Z	.413	3 %	2	6	26663

Wire Gage Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

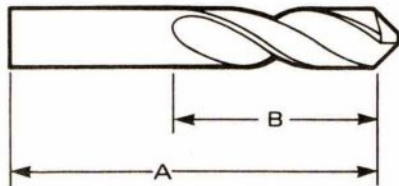
Screw Machine
Twist Drills
Straight Shank
High Speed Steel

Bright Finish

No. T-122

Surface Treated

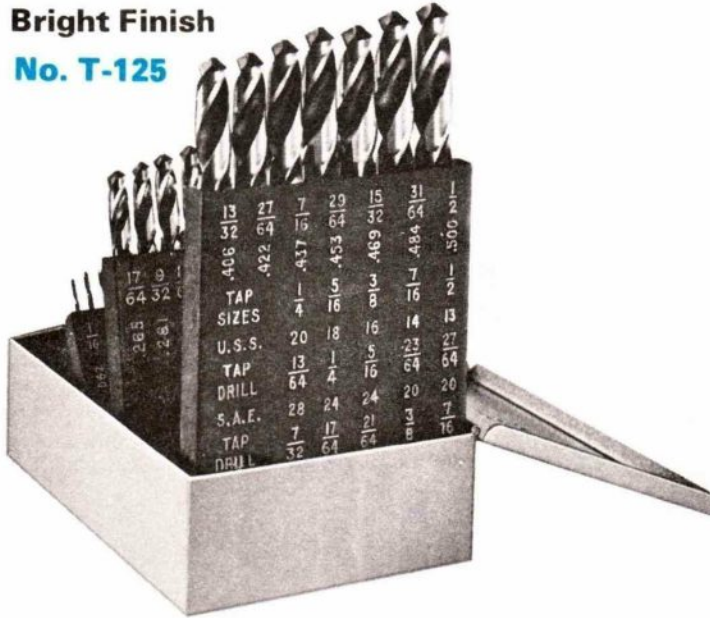
No. T-190 Aircraft Drill, Type C



Wire Gage Size	Decimal Equiv.	Overall Length A	Flute Length B	Std. Pkg. Quan.	EDP NUMBER	
					T-122	T-190
60	.0400	1 3/8	1/2	12	26311	
59	.0410	1 3/8	1/2	12	26310	
58	.0420	1 3/8	1/2	12	26305	
57	.0430	1 3/8	1/2	12	26304	
56	.0465	1 3/8	1/2	12	26303	
55	.0520	1 3/8	5/8	12	26302	
54	.0550	1 3/8	5/8	12	26301	
53	.0595	1 3/8	5/8	12	26300	
52	.0635	1 11/16	11/16	12	26295	
51	.0670	1 11/16	11/16	12	26294	
50	.0700	1 11/16	11/16	12	26293	
49	.0730	1 11/16	11/16	12	26292	
48	.0760	1 11/16	11/16	12	26291	
47	.0785	1 3/4	3/4	12	26290	
46	.0810	1 3/4	3/4	12	26285	
45	.0820	1 3/4	3/4	12	26284	
44	.0860	1 3/4	3/4	12	26283	
43	.0890	1 3/4	3/4	12	26282	
42	.0935	1 3/4	3/4	12	26281	
41	.0960	1 13/16	13/16	12	26280	
40	.0980	1 13/16	13/16	12	26275	23456
39	.0995	1 13/16	13/16	12	26274	23457
38	.1015	1 13/16	13/16	12	26273	23458
37	.1040	1 13/16	13/16	12	26272	23459
36	.1065	1 13/16	13/16	12	26271	23466
35	.1100	1 7/8	7/8	12	26270	23467
34	.1110	1 7/8	7/8	12	26265	23468
33	.1130	1 7/8	7/8	12	26264	23469
32	.1160	1 7/8	7/8	12	26263	23476
31	.1200	1 7/8	7/8	12	26262	23477
30	.1285	1 15/16	15/16	12	26261	23478
29	.1360	1 15/16	15/16	12	26260	23479
28	.1405	1 15/16	15/16	12	26255	23486
27	.1440	2 1/16	1	12	26254	23487
26	.1470	2 1/16	1	12	26253	23488
25	.1495	2 1/16	1	12	26252	23489
24	.1520	2 1/16	1	12	26251	23496
23	.1540	2 1/16	1	12	26250	23497
22	.1570	2 1/8	1 1/16	12	26245	23498
21	.1590	2 1/8	1 1/16	12	26244	23499
20	.1610	2 1/8	1 1/16	12	26243	23506
19	.1660	2 1/8	1 1/16	12	26242	23507
18	.1695	2 1/8	1 1/16	12	26241	23508
17	.1730	2 3/16	1 1/8	12	26240	23509
16	.1770	2 3/16	1 1/8	12	26235	23516
15	.1800	2 3/16	1 1/8	12	26234	23517
14	.1820	2 3/16	1 1/8	12	26233	23518
13	.1850	2 3/16	1 1/8	12	26232	23519
12	.1890	2 1/4	1 3/16	12	26231	23526
11	.1910	2 1/4	1 3/16	12	26230	23527
10	.1935	2 1/4	1 3/16	12	26225	23528
9	.1960	2 1/4	1 3/16	12	26224	23529
8	.1990	2 1/4	1 3/16	12	26223	23997
7	.2010	2 1/4	1 3/16	12	26222	23998
6	.2040	2 3/8	1 1/4	12	26221	23999
5	.2055	2 3/8	1 1/4	12	26220	24006
4	.2090	2 3/8	1 1/4	12	26215	23536
3	.2130	2 3/8	1 1/4	12	26214	23537
2	.2210	2 7/16	1 1/2	12	26213	23538
1	.2280	2 7/16	1 1/2	12	26212	23539

Twist Drill Sets Straight Shank High Speed Steel

Bright Finish
No. T-125



Screw Machine Twist Drill Sets

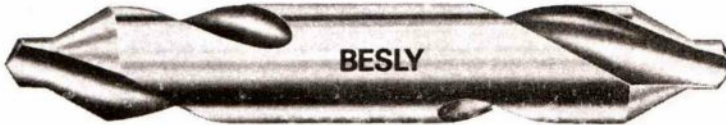
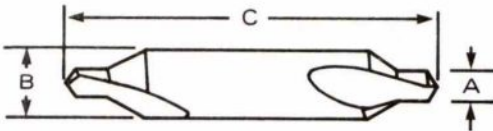
Drill Size	BRIGHT FINISH T-125			
	Drills Only		Complete with Case	
	Set No.	EDP NO.	Set No.	EDP NO.
Fractional Sizes 1/16 thru 1/2" by 64ths	T-282	25169	T-282C	25176

Combined Drills & Countersinks

Straight Shank
High Speed Steel

Bright Finish

No. T-174 Plain Type, Double End
Combined Drill and Countersink Center Drills are used for centering the ends of work where the work is subsequently to be revolved on machine centers. The angle of the countersink part is made the standard 60° included angle to fit standard centers.

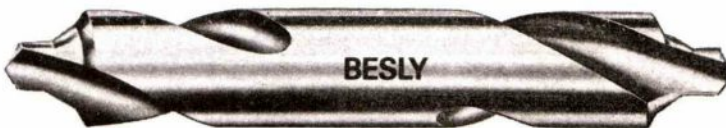
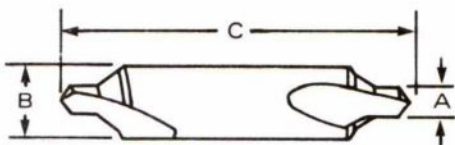


118° Point

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Drill Diameter A	Body Diameter B	Overall Length C	Std. Pkg. Quan.	EDP NUMBER
00	.025	1/8	1 1/32	12	23448
0	1/32	1/8	1 1/32	12	23449
1	3/64	1/8	1 1/4	12	26890
2	5/64	3/16	1 1/8	12	26891
3	3/64	1/4	2	12	26892
4	1/8	5/16	2 1/8	12	26893
5	3/16	7/16	2 3/4	12	26894
6	1/32	1/2	3	12	26895
7	1/4	5/8	3 1/4	6	26900
8	3/16	3/4	3 1/2	6	26901

No. T-174 Bell Type, Double End
On precision work, some users prefer the Bell Type, as the additional small 120° angular chamfer protects the edges of the center hole and reduces the danger of inaccuracies from marred center holes.



118° Point

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Drill Size	Drill Diameter A	Body Diameter B	Overall Length C	Std. Pkg. Quan.	EDP NUMBER
11	3/64	1/8	1 1/4	12	26874
12	1/16	3/16	1 1/8	12	26875
13	3/32	1/4	2	12	26880
14	1/64	5/16	2 1/8	12	26881
15	1/32	7/16	2 3/8	12	26882
16	3/16	1/2	3	12	26883
17	1/32	5/8	3 1/4	6	26884
18	1/4	3/4	3 1/2	6	26885

Counterbores

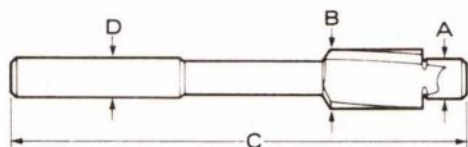
Straight Shank
High Speed Steel

For Socket Head Cap Screws

No. 966 Fractional



Besly Counterbores are of the solid two lipped type, designed for high production and long life. With only two cutting lips they are easily sharpened. Their spiral flutes give ample clearance and strength. Cutting like a twist drill, they eliminate chatter.



No. 968 Machine Screw



Machine Screw Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Machine Screw Size	Pilot* A	Cutting Size B	Overall Length C	Shank Diam. D	968 EDP No.
2	.085	.1550	2½	.1875	22418
3	.098	.1760	2½	.1875	22419
4	.111	.1980	2%	.2500	22426
5	.124	.2200	2%	.2500	22427
6	.137	.2410	2%	.2500	22428
8	.163	.2850	2%	.3125	22429
10	.189	.3280	2%	.3750	22436
12	.215	.3720	3	.3750	22437

* .001 - .002 under nominal screw size.

Standard Package Quantity: 966 - 1 each
968 - 12 each

Fractional Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

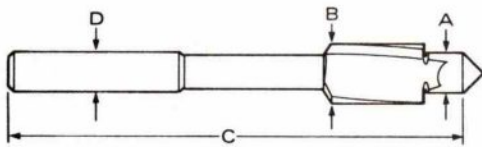
Screw Size	A	Cutting B	Overall C	Shank D	966 EDP No.
¼	¼	¾	3 ¾	.3125	22178
¼	¼	13/32	3 ¾	.3125	22179
¼	¾	13/32	3 ¾	.3125	22186
5/16	5/16	7/16	4	.3750	22187
5/16	* 5/16	15/32	4	.3750	22188
5/16	* 5/16	½	4	.3750	22189
5/16	* 11/32	15/32	4	.3750	22196
5/16	* 11/32	½	4	.3750	22197
¾	¾	9/16	4 ¾	.4375	22198
¾	¾	19/32	4 ¾	.4375	22199
¾	13/32	19/32	4 ¾	.4375	22206
7/16	7/16	5/8	4 ¾	.5000	22207
7/16	* 7/16	21/32	4 ¾	.5000	22208
7/16	* 7/16	11/16	4 ¾	.5000	22209
7/16	* 15/32	21/32	4 ¾	.5000	22216
7/16	* 15/32	11/16	4 ¾	.5000	22217
½	½	¾	5 ½	.5625	22218
½	½	29/32	5 ½	.5625	22219
½	17/32	29/32	5 ½	.5625	22226
9/16	9/16	13/16	5 9/16	.6250	22227
9/16	9/16	7/8	5 9/16	.6250	22228
9/16	9/16	27/32	5 9/16	.6250	22229
9/16	19/32	27/32	5 9/16	.6250	22236
9/16	19/32	7/8	5 9/16	.6250	22237
5/8	5/8	¾	5 ½	.6250	22238
5/8	5/8	29/32	5 ½	.6250	22239
5/8	* 5/8	15/16	5 ½	.6250	22246
5/8	* 5/8	31/32	5 ½	.6250	22247
5/8	21/32	29/32	5 ½	.6250	22248
5/8	* 21/32	31/32	5 ½	.6250	22249
¾	¾	1	5 1/16	.7500	22256

* For "1960 Series" Socket Head Cap Screws.

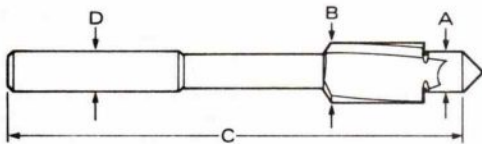
Counterbores

Straight Shank
High Speed Steel

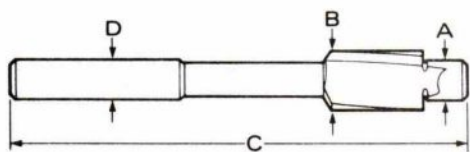
For 82° Flat Head Machine Screws
No. 971



For Socket Head Cap Screws
No. 964 Machine Screw
With clearance-drill size pilots



For Hex Head Screws & Nuts
No. 969 With Nominal Screw Size Pilots



Machine Screw Sizes

GENERAL DIMENSIONS AND ORDERING NUMBER (EDP)

Screw Size	Pilot* Size A	Cutting Size B	Overall Length C	Shank Diam. D	971
					EDP No.
2	.085	.172	2%	.1875	22496
3	.098	.199	2%	.2188	22497
4	.111	.225	2%	.2500	22498
5	.124	.252	2%	.2500	22499
6	.137	.279	2%	.2813	22506
8	.163	.332	2%	.3125	22507
10	.189	.385	3	.3750	22508
12	.215	.438	3 1/4	.3750	22509

Fractional Sizes

1/4	.249	.507	3 1/2	.4375	22516
5/16	.311	.636	3 3/4	.5000	22517
3/8	.374	.762	3 3/4	.5000	22518

* .001 – .002 under nominal screw size.

Machine Screw Sizes

Screw Size	Pilot* Size A	Cutting Size B	Overall Length C	Shank Diam. D	964
					EDP No.
2	.0928	.155	2 1/2	.1875	24846
3	.1055	.176	2 1/2	.1875	24847
4	.1190	.198	2%	.2500	24848
5	.1396	.220	2%	.2500	24849
6	.1530	.241	2%	.2500	24856
8	.1790	.285	2 1/4	.3125	24857
10	.2045	.328	2%	.3750	24858
12	.2334	.372	3	.3750	24859

* .001 – .002 under clearance-drill size.

Fractional Sizes

Pilot Size* A	Cutting Size B	Overall Length C	Shank Diam. D	969
				EDP No.
3/16	7/16	3 1/4	.3750	22438
1/4	19/32	3 3/8	.5000	22439
5/16	7/8	4	.5000	22446
3/8	27/32	4 3/8	.6250	22447
7/16	15/16	4 3/4	.6250	22448

* .001 – .002 under nominal screw size.

Standard Package Quantity: 964 – 12 each 971 – MS- 12 each
969 – 1 each 971 – Frac- 1 each

HIGH SPEED STEEL

Chucking Reamers

STRAIGHT SHANK
RIGHT HAND SPIRAL FLUTES
RIGHT HAND CUT
No. 712
FRACTIONAL SIZES



For use in materials that are ordinarily difficult to ream. Free-cutting design produces smooth, accurate holes.

DIMENSIONS					712
Size	Decimal Equivalent	Shank Diameter	Flute Length	Length Overall	EDP NO.
1/16	.0625	.0585	1/2	2 1/2	21083
5/64	.0781	.0720	3/4	3	21084
3/32	.0938	.0880	3/4	3	21085
7/64	.1094	.1030	3/8	3 1/2	21090
1/8	.1250	.1190	3/8	3 1/2	21091
9/64	.1406	.1350	1	4	21092
5/32	.1562	.1510	1	4	21093
11/64	.1719	.1645	1 1/4	4 1/2	21094
3/16	.1875	.1805	1 1/4	4 1/2	21095
13/64	.2031	.1945	1 1/4	5	21100
7/32	.2188	.2075	1 1/4	5	21101
15/64	.2344	.2265	1 1/2	6	21102
1/4	.2500	.2405	1 1/2	6	21103
17/64	.2656	.2485	1 1/2	6	21104
9/32	.2812	.2485	1 1/2	6	21105
19/64	.2969	.2792	1 1/2	6	21111
5/16	.3125	.2792	1 1/2	6	21110
21/64	.3281	.2792	1 1/2	6	21112
11/32	.3438	.2792	1 1/2	6	21113
23/64	.3594	.3105	1 3/4	7	21114
3/8	.3750	.3105	1 3/4	7	21115
25/64	.3906	.3105	1 3/4	7	21120
13/32	.4062	.3105	1 3/4	7	21121
27/64	.4219	.3730	1 3/4	7	21122
7/16	.4375	.3730	1 3/4	7	21123
29/64	.4531	.3730	1 3/4	7	21124
15/32	.4688	.3730	1 3/4	7	21125
31/64	.4844	.4355	2	8	21130
1/2	.5000	.4355	2	8	21131
17/32	.5312	.4355	2	8	21132
9/16	.5625	.4355	2	8	21133
19/32	.5938	.4355	2	8	21134
5/8	.6250	.5620	2 1/4	9	21135
21/32	.6562	.5620	2 1/4	9	21140
11/16	.6875	.5620	2 1/4	9	21141
23/32	.7188	.5620	2 1/4	9	21142
3/4	.7500	.6245	2 1/2	9 1/2	21143
25/32	.7812	.6245	2 1/2	9 1/2	21144
13/16	.8125	.6245	2 1/2	9 1/2	21145
27/32	.8438	.6245	2 1/2	9 1/2	21150
7/8	.8750	.7495	2 3/4	10	21151
29/32	.9062	.7495	2 3/4	10	21152
15/16	.9375	.7495	2 3/4	10	21153
31/32	.9688	.7495	2 3/4	10	21154
1	1.0000	.8745	2 3/4	10 1/2	21155
1-1/16	1.0625	.8745	2 3/4	10 1/2	21160
1-1/8	1.1250	.8745	2 3/4	11	21161
1-3/16	1.1875	.9995	2 3/4	11	21162
1-1/4	1.2500	.9995	3	11 1/2	21163
1-5/16	1.3125	.9995	3	11 1/2	21164
1-3/8	1.3750	.9995	3 1/4	12	21165
1-7/16	1.4375	1.2495	3 1/4	12	21170
1-1/2	1.5000	1.2495	3 1/2	12 1/2	21171

Chucking Reamers



STRAIGHT SHANK — STRAIGHT FLUTE

RIGHT HAND CUT

No. 731

FRACTIONAL SIZES

This machine reamer has relatively short straight flutes on which the peripheral lands are relieved. It has a slight back taper and a slight chamfer on the end. In use, best results are obtained in a floating holder.

DIMENSIONS					731 EDP NO.
Size	Decimal Equivalent	Shank Diameter	Flute Length	Length Overall	
3/64	.0469	.0455	1/2	2 1/2	21274
1/16	.0625	.0585	1/2	2 1/2	21275
5/64	.0781	.0720	3/4	3	21280
3/32	.0938	.0880	3/4	3	21281
7/64	.1094	.1030	7/8	3 1/2	21282
1/8	.1250	.1190	7/8	3 1/2	21283
9/64	.1406	.1350	1	4	21284
5/32	.1562	.1510	1	4	21285
11/64	.1719	.1645	1 1/8	4 1/2	21290
3/16	.1875	.1805	1 1/8	4 1/2	21291
13/64	.2031	.1945	1 1/4	5	21292
7/32	.2188	.2075	1 1/4	5	21293
15/64	.2344	.2265	1 1/2	6	21294
1/4	.2500	.2405	1 1/2	6	21295
17/64	.2656	.2485	1 1/2	6	21300
9/32	.2812	.2485	1 1/2	6	21301
19/64	.2969	.2792	1 1/2	6	21302
5/16	.3125	.2792	1 1/2	6	21303
21/64	.3281	.2792	1 1/2	6	21304
11/32	.3438	.2792	1 1/2	6	21305
23/64	.3594	.3105	1 3/4	7	21310
3/8	.3750	.3105	1 3/4	7	21311
25/64	.3906	.3105	1 3/4	7	21312
13/32	.4062	.3105	1 3/4	7	21313
27/64	.4219	.3730	1 3/4	7	21314
7/16	.4375	.3730	1 3/4	7	21315
29/64	.4531	.3730	1 3/4	7	21320
15/32	.4688	.3730	1 3/4	7	21321
31/64	.4844	.4355	2	8	21322
1/2	.5000	.4355	2	8	21323
17/32	.5312	.4355	2	8	21324
9/16	.5625	.4355	2	8	21325
19/32	.5938	.4355	2	8	21330
5/8	.6250	.5620	2 1/4	9	21331
21/32	.6562	.5620	2 1/4	9	21332
11/16	.6875	.5620	2 1/4	9	21333
23/32	.7188	.5620	2 1/4	9	21334
3/4	.7500	.6245	2 1/2	9 1/2	21335
25/32	.7812	.6245	2 1/2	9 1/2	21340
13/16	.8125	.6245	2 1/2	9 1/2	21341
27/32	.8438	.6245	2 1/2	9 1/2	21342
7/8	.8750	.7495	2 3/8	10	21343
29/32	.9062	.7495	2 3/8	10	21344
15/16	.9375	.7495	2 3/8	10	21345
31/32	.9688	.7495	2 3/4	10	21350
1	1.0000	.8745	2 3/4	10 1/2	21351
1-1/16	1.0625	.8745	2 3/4	10 1/2	21352
1-1/8	1.1250	.8745	2 3/8	11	21353
1-3/16	1.1875	.9995	2 7/8	11	21354
1-1/4	1.2500	.9995	3	11 1/2	21355
1-3/8	1.3750	.9995	3 1/4	12	21360
1-1/2	1.5000	1.2495	3 1/2	12 1/2	21361

Chucking Reamers



STRAIGHT SHANK STRAIGHT FLUTE
RIGHT HAND CUT No. 731
WIRE GAUGE SIZES

This machine reamer has relatively short straight flutes on which the peripheral lands are relieved. It has a slight back taper and a slight chamfer on the end. In use, best results are obtained in a floating holder.

DIMENSIONS					731
Size	Decimal Equivalent	Shank Diameter	Flute Length	Length Overall	EDP NO.
60	.0400	.0390	1/2	2 1/2	21461
59	.0410	.0390	1/2	2 1/2	21460
58	.0420	.0390	1/2	2 1/2	21455
57	.0430	.0390	1/2	2 1/2	21454
56	.0465	.0455	1/2	2 1/2	21453
55	.0520	.0510	1/2	2 1/2	21452
54	.0550	.0510	1/2	2 1/2	21451
53	.0595	.0585	1/2	2 1/2	21450
52	.0635	.0585	1/2	2 1/2	21445
51	.0670	.0660	3/4	3	21444
50	.0700	.0660	3/4	3	21443
49	.0730	.0660	3/4	3	21442
48	.0760	.0720	3/4	3	21441
47	.0785	.0720	3/4	3	21440
46	.0810	.0771	3/4	3	21435
45	.0820	.0771	3/4	3	21434
44	.0860	.0810	3/4	3	21433
43	.0890	.0810	3/4	3	21432
42	.0935	.0880	3/4	3	21431
41	.0960	.0928	7/8	3 1/2	21430
40	.0980	.0928	7/8	3 1/2	21425
39	.0995	.0928	7/8	3 1/2	21424
38	.1015	.0950	7/8	3 1/2	21423
37	.1040	.0950	7/8	3 1/2	21422
36	.1065	.1030	7/8	3 1/2	21421
35	.1100	.1030	7/8	3 1/2	21420
34	.1110	.1055	7/8	3 1/2	21415
33	.1130	.1055	7/8	3 1/2	21414
32	.1160	.1120	7/8	3 1/2	21413
31	.1200	.1120	7/8	3 1/2	21412
30	.1285	.1190	7/8	3 1/2	21411
29	.1360	.1275	1	4	21410
28	.1405	.1350	1	4	21405
27	.1440	.1350	1	4	21404
26	.1470	.1430	1	4	21403
25	.1495	.1430	1	4	21402
24	.1520	.1460	1	4	21401
23	.1540	.1460	1	4	21400
22	.1570	.1510	1	4	21395
21	.1590	.1530	1 1/8	4 1/2	21394
20	.1610	.1530	1 1/8	4 1/2	21393
19	.1660	.1595	1 1/8	4 1/2	21392
18	.1695	.1595	1 1/8	4 1/2	21391
17	.1730	.1645	1 1/8	4 1/2	21390
16	.1770	.1704	1 1/8	4 1/2	21385
15	.1800	.1755	1 1/8	4 1/2	21384
14	.1820	.1755	1 1/8	4 1/2	21383
13	.1850	.1805	1 1/8	4 1/2	21382
12	.1890	.1805	1 1/8	4 1/2	21381
11	.1910	.1860	1 1/4	5	21380
10	.1935	.1860	1 1/4	5	21375
9	.1960	.1895	1 1/4	5	21374
8	.1990	.1895	1 1/4	5	21373
7	.2010	.1945	1 1/4	5	21372
6	.2040	.1945	1 1/4	5	21371
5	.2055	.2016	1 1/4	5	21370
4	.2090	.2016	1 1/4	5	21365
3	.2130	.2075	1 1/4	5	21364
2	.2210	.2173	1 1/2	6	21363
1	.2280	.2173	1 1/2	6	21362

HIGH SPEED STEEL

Chucking Reamers

STRAIGHT SHANK — STRAIGHT FLUTE
RIGHT HAND CUT No. 731
LETTER SIZES



This machine reamer has relatively short straight flutes on which the peripheral lands are relieved. It has a slight back taper and a slight chamfer on the end. In use, best results are obtained in a floating holder.

DIMENSIONS					731
Size	Decimal Equivalent	Shank Diameter	Flute Length	Length Overall	EDP NO.
A	.2340	2265	1 1/2	6	21515
B	.2380	2329	1 1/2	6	21520
C	.2420	2329	1 1/2	6	21521
D	.2460	2329	1 1/2	6	21522
E	.2500	2405	1 1/2	6	21523
F	.2570	2485	1 1/2	6	21524
G	.2610	2485	1 1/2	6	21525
H	.2660	2485	1 1/2	6	21530
I	.2720	2485	1 1/2	6	21531
J	.2770	2485	1 1/2	6	21532
K	.2810	2485	1 1/2	6	21533
L	.2900	2792	1 1/2	6	21534
M	.2950	2792	1 1/2	6	21535
N	.3020	2792	1 1/2	6	21540
O	.3160	2792	1 1/2	6	21541
P	.3230	2792	1 1/2	6	21542
Q	.3320	2792	1 1/2	6	21543
R	.3390	2792	1 1/2	6	21544
S	.3480	3105	1 3/4	7	21545
T	.3580	3105	1 3/4	7	21550
U	.3680	3105	1 3/4	7	21551
V	.3770	3105	1 3/4	7	21552
W	.3860	3105	1 3/4	7	21553
X	.3970	3105	1 3/4	7	21554
Y	.4040	3105	1 3/4	7	21555
Z	.4130	3730	1 3/4	7	21560

HIGH SPEED STEEL

Chucking Reamers

STRAIGHT SHANK — STRAIGHT FLUTE
RIGHT HAND CUT
DECIMAL SIZES

No. 731



This machine reamer has relatively short straight flutes on which the peripheral lands are relieved. It has a slight back taper and a slight chamfer on the end. In use, best results are obtained in a floating holder.

DIMENSIONS				731
Size	Shank Diameter	Flute Length	Length Overall	EDP NO.
.124	.1190	3/8	3 1/2	21561
.126	.1190	3/8	3 1/2	21562
.1865	.1805	1 1/8	4 1/2	21563
.1885	.1805	1 1/8	4 1/2	21564
.249	.2405	1 1/2	6	21565
.251	.2405	1 1/2	6	21570
.3115	.2792	1 1/2	6	21571
.3135	.2792	1 1/2	6	21572
.374	.3105	1 3/4	7	21573
.376	.3105	1 3/4	7	21574
.4365	.3730	1 3/4	7	21575
.4385	.3730	1 3/4	7	21580
.499	.4355	2	8	21581
.501	.4355	2	8	21582

HIGH SPEED STEEL Taper Pin Reamers



Helical Flutes

No. 751

STRAIGHT SHANKS FAST SPIRAL

Besly Taper Pin Reamers have a 1/4-inch per foot taper. They are designed especially for producing pin holes by machine reaming.

DIMENSIONS						751
Size	Shank Diameter	Diameter Small End	Diameter Large End	Flute Length	Length Overall	EDP NO.
7/0	$\frac{3}{64}$	.0497	.0666	$1\frac{1}{8}$	$1\frac{1}{8}$	21584
6/0	$\frac{5}{64}$	.0611	.0806	$1\frac{1}{8}$	$1\frac{1}{8}$	21585
5/0	$\frac{7}{64}$	.0719	.0966	$1\frac{1}{8}$	$2\frac{1}{8}$	21590
4/0	$\frac{1}{8}$	.0869	.1142	$1\frac{1}{8}$	$2\frac{1}{8}$	21591
3/0	$\frac{3}{64}$	.1029	.1302	$1\frac{1}{8}$	$2\frac{1}{8}$	21592
2/0	$\frac{5}{64}$	.1137	.1462	$1\frac{1}{8}$	$2\frac{1}{8}$	21593
0	$\frac{11}{64}$	.1287	.1638	$1\frac{1}{8}$	$2\frac{1}{8}$	21594
1	$\frac{3}{16}$	.1447	.1798	$1\frac{1}{8}$	$2\frac{1}{8}$	21595
2	$\frac{13}{64}$	.1605	.2008	$1\frac{1}{8}$	$3\frac{1}{8}$	21600
3	$\frac{15}{64}$	.1813	.2294	$2\frac{3}{8}$	$3\frac{1}{8}$	21601
4	$\frac{17}{64}$	.2071	.2604	$2\frac{3}{8}$	$4\frac{1}{8}$	21602
5	$\frac{3}{16}$	.2409	.2994	$2\frac{3}{8}$	$4\frac{1}{8}$	21603
6	$\frac{23}{64}$	.2773	.354	$3\frac{1}{8}$	$5\frac{1}{8}$	21604
7	$\frac{19}{32}$	.3297	.422	$4\frac{1}{8}$	$6\frac{1}{8}$	21605
8	$\frac{7}{16}$	.3971	.505	$5\frac{1}{8}$	$7\frac{1}{8}$	21610
9	$\frac{9}{16}$	.4805	.6066	$6\frac{1}{8}$	$8\frac{1}{8}$	21611
10	$\frac{5}{8}$	.5799	.7216	$6\frac{1}{8}$	$9\frac{1}{8}$	21612

Straight Flutes No. 758



DIMENSIONS						758
Size	Shank Diameter	Diameter Small End	Diameter Large End	Flute Length	Length Overall	EDP NO.
7/0	$\frac{3}{64}$	.0497	.0666	$1\frac{1}{8}$	$1\frac{1}{8}$	21660
6/0	$\frac{5}{64}$	.0611	.0806	$1\frac{1}{8}$	$1\frac{1}{8}$	21661
5/0	$\frac{7}{64}$	.0719	.0966	$1\frac{1}{8}$	$2\frac{1}{8}$	21662
4/0	$\frac{1}{8}$	.0869	.1142	$1\frac{1}{8}$	$2\frac{1}{8}$	21663
3/0	$\frac{3}{64}$	.1029	.1302	$1\frac{1}{8}$	$2\frac{1}{8}$	21664
2/0	$\frac{5}{64}$	.1137	.1462	$1\frac{1}{8}$	$2\frac{1}{8}$	21665
0	$\frac{11}{64}$	.1287	.1638	$1\frac{1}{8}$	$2\frac{1}{8}$	21670
1	$\frac{3}{16}$	.1447	.1798	$1\frac{1}{8}$	$2\frac{1}{8}$	21671
2	$\frac{13}{64}$	.1605	.2008	$1\frac{1}{8}$	$3\frac{1}{8}$	21672
3	$\frac{15}{64}$	.1813	.2294	$2\frac{3}{8}$	$3\frac{1}{8}$	21673
4	$\frac{17}{64}$	.2071	.2604	$2\frac{3}{8}$	$4\frac{1}{8}$	21674
5	$\frac{3}{16}$	.2409	.2994	$2\frac{3}{8}$	$4\frac{1}{8}$	21675
6	$\frac{23}{64}$	.2773	.354	$3\frac{1}{8}$	$5\frac{1}{8}$	21680
7	$\frac{19}{32}$	.3297	.422	$4\frac{1}{8}$	$6\frac{1}{8}$	21681
8	$\frac{7}{16}$	.3971	.505	$5\frac{1}{8}$	$7\frac{1}{8}$	21682
9	$\frac{9}{16}$	.4805	.6066	$6\frac{1}{8}$	$8\frac{1}{8}$	21683
10	$\frac{5}{8}$	.5799	.7216	$6\frac{1}{8}$	$9\frac{1}{8}$	21684

Spiral Flutes No. 760



DIMENSIONS						760
Size	Shank Diameter	Diameter Small End	Diameter Large End	Flute Length	Length Overall	EDP NO.
7/0	$\frac{3}{64}$	.0497	.0666	$1\frac{1}{8}$	$1\frac{1}{8}$	21685
6/0	$\frac{5}{64}$	.0611	.0806	$1\frac{1}{8}$	$1\frac{1}{8}$	21690
5/0	$\frac{7}{64}$	.0719	.0966	$1\frac{1}{8}$	$2\frac{1}{8}$	21691
4/0	$\frac{1}{8}$	.0869	.1142	$1\frac{1}{8}$	$2\frac{1}{8}$	21692
3/0	$\frac{3}{64}$	.1029	.1302	$1\frac{1}{8}$	$2\frac{1}{8}$	21693
2/0	$\frac{5}{64}$	.1137	.1462	$1\frac{1}{8}$	$2\frac{1}{8}$	21694
0	$\frac{11}{64}$	.1287	.1636	$1\frac{1}{8}$	$2\frac{1}{8}$	21695
1	$\frac{3}{16}$	.1447	.1798	$1\frac{1}{8}$	$2\frac{1}{8}$	21700
2	$\frac{13}{64}$	.1605	.2008	$1\frac{1}{8}$	$3\frac{1}{8}$	21701
3	$\frac{15}{64}$	.1813	.2294	$2\frac{3}{8}$	$3\frac{1}{8}$	21702
4	$\frac{17}{64}$	.2071	.2604	$2\frac{3}{8}$	$4\frac{1}{8}$	21703
5	$\frac{3}{16}$	.2409	.2994	$2\frac{3}{8}$	$4\frac{1}{8}$	21704
6	$\frac{23}{64}$	.2773	.354	$3\frac{1}{8}$	$5\frac{1}{8}$	21705
7	$\frac{19}{32}$	.3297	.422	$4\frac{1}{8}$	$6\frac{1}{8}$	21710
8	$\frac{7}{16}$	.3971	.505	$5\frac{1}{8}$	$7\frac{1}{8}$	21711
9	$\frac{9}{16}$	.4805	.6066	$6\frac{1}{8}$	$8\frac{1}{8}$	21712
10	$\frac{5}{8}$	.5799	.7216	$6\frac{1}{8}$	$9\frac{1}{8}$	21713

CARBIDE TIPPED

expansion

Chucking Reamers



Straight Shank No. 805

The expansion reamer can be resized to offset wear. This feature assures the success of these tools on abrasive material, and is the principal advantage.

Resizing is done by expanding, circle grinding to size and clearing as necessary. This procedure may be repeated.

Order specific size required. Reamers should not be reduced in size except by grinding. Do not loosen expansion plug to reduce diameter.

DIMENSIONS						805
TOOL DIAMETER**		Number of Flutes	Flute Length	Length Overall	Shank Diameter	PART NO.
Size	Decimal Equivalent					
3/8	.3750	4	1	7	5/16	20006
13/32	.4062	4	1	7	5/16	20007
7/16	.4375	4	1	7	3/8	20008
15/32	.4687	4	1	7	3/8	20009
1/2	.5000	6	1	8	7/16	20016
17/32	.5312	6	1	8	7/16	20017
9/16	.5625	6	1 1/8	8	7/16	20018
19/32	.5937	6	1 1/8	8	7/16	20019
5/8	.6250	6	1 1/4	9	9/16	20026
21/32	.6562	6	1 1/4	9	9/16	20027
11/16	.6875	6	1 1/4	9	9/16	20028
23/32	.7187	6	1 1/4	9	9/16	20029
3/4	.7500	6	1 3/8	9 1/2	5/8	20036
25/32	.7812	6	1 3/8	9 1/2	5/8	20037
13/16	.8125	6	1 3/8	9 1/2	5/8	20038
27/32	.8437	6	1 3/8	9 1/2	5/8	20039
7/8	.8750	6	1 1/2	10	3/4	20046
29/32	.9062	6	1 1/2	10	3/4	20047
15/16	.9375	8	1 1/2	10	3/4	20048
31/32	.9687	8	1 1/2	10	3/4	20049
1	1.0000	8	1 5/8	10 1/2	7/8	20056
1-1/16	1.0625	8	1 5/8	10 1/2	7/8	20057
1-1/8	1.1250	8	1 3/4	11	7/8	20058
1-3/16	1.1875	8	1 3/4	11	1	20059
1-1/4	1.2500	8	1 7/8	11 1/2	1	20066
1-5/16	1.3125	8	1 7/8	11 1/2	1	20067
1-3/8	1.3750	8	2	12	1	20068
1-7/16	1.4375	8	2	12	1 1/4	20069
1-1/2	1.5000	8	2 1/8	12 1/2	1 1/4	20076

**Tools will be furnished to a .0003" tolerance (+ .0003" — .0000") unless otherwise specified.

Turboflute ... a new concept in drills

At Besly Cutting Tools, Inc., our many years of experience with drills and drilling, together with constant research into drilling problems has led to the development and refinement of deep hole Turboflute drills. These drills serve industry's needs for drills capable of drilling deep holes, from five to fifteen or more drill diameters in depth, efficiently and with few withdrawals or retractions.

These drills operate at penetration rates up to 100% faster than conventional drills in deep holes. In addition, "woodpeckering" or periodic withdrawal of the drill for chip removal is eliminated in many applications and materials, and the number of withdrawals reduced to about a third in other applications and materials.

Prime users for these drills are manufacturing plants that must drill holes greater than five diameters deep in a wide variety of materials. Examples are deep holes in parts such as automotive crankshaft forgings, cast iron engine blocks, and beryllium copper die molds.

The Turboflute drill is distinguished by a split point and the flute's parabolic profile. The split point holds the drill on center and the chips flow along the unusual flute design without clogging, and without preventing the flow of cutting fluid to the drill point.

Turboflute drills have heavy webs to provide stability and extended life between sharpenings. Resharpener is no more difficult than when regrinding ordinary split points.

These drills are also used in applications where they are required to drill straight holes with a minimum amount of stock left in the hole for reaming, either for straightness or for hole finish requirements or for both. The heavy web tends to make the Turboflute drills cut holes straighter, truer and closer to size than many other drills that might be used for this purpose.

Speeds and Feeds

Multiply speed, as given in the table of suggested speeds, by this multiplying factor to give a suggested starting speed based on the depth of the hole.

Do not reduce the feed.

In Turboflute drilling, it is important to maintain a constant, heavy feed, regardless of the depth of the hole.

DRILLING SPEED VS. DEPTH

Hole Depth (No. Drill Diams.)	Multiplying Factor
Up to 5	1.0
5 to 8	0.9
8 to 11	0.8
11 to 14	0.7
14 to 17	0.6
17 to 20	0.5

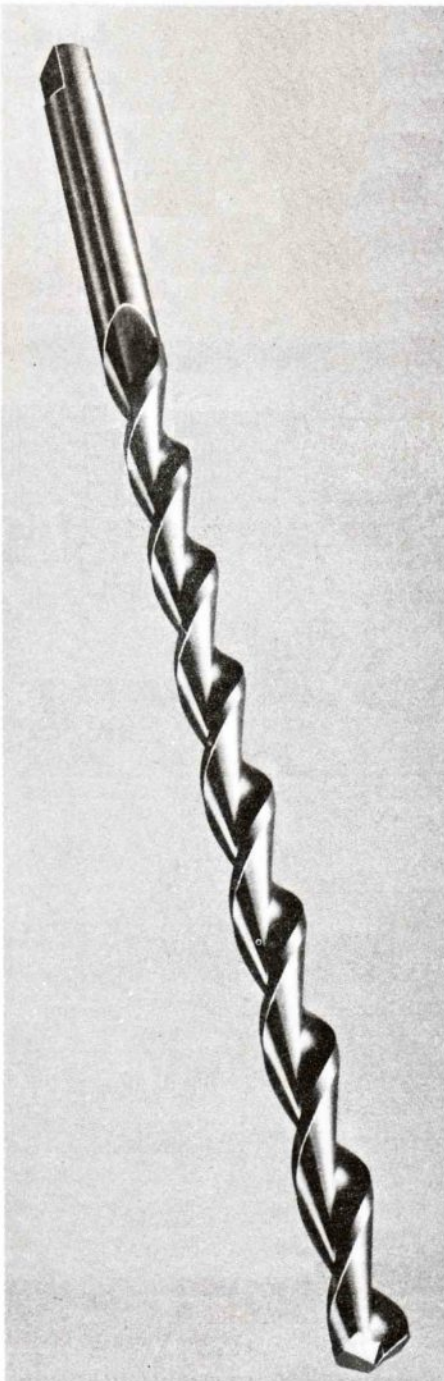
Number of Retractions

It is impossible to predict the number of retractions that might be necessary. However, a rough rule of thumb may be used, call it the "rule of three," if you will. Briefly this means that Turboflute drills should be able to drill three times as deep before retraction as conventional drills, and require only one-third, or less, of the total number of retractions required by conventional drills.

Cutting Fluid Recommendations

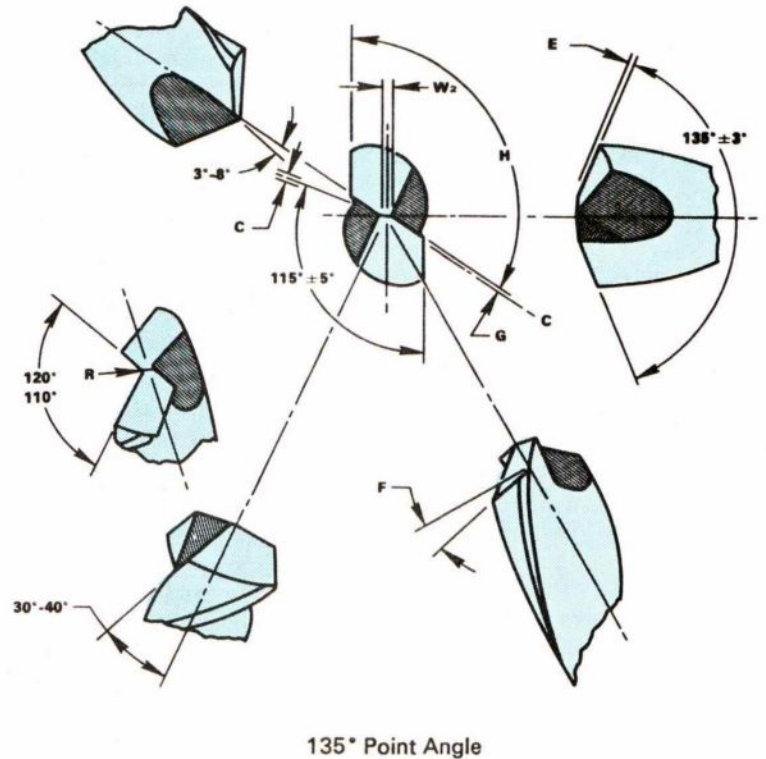
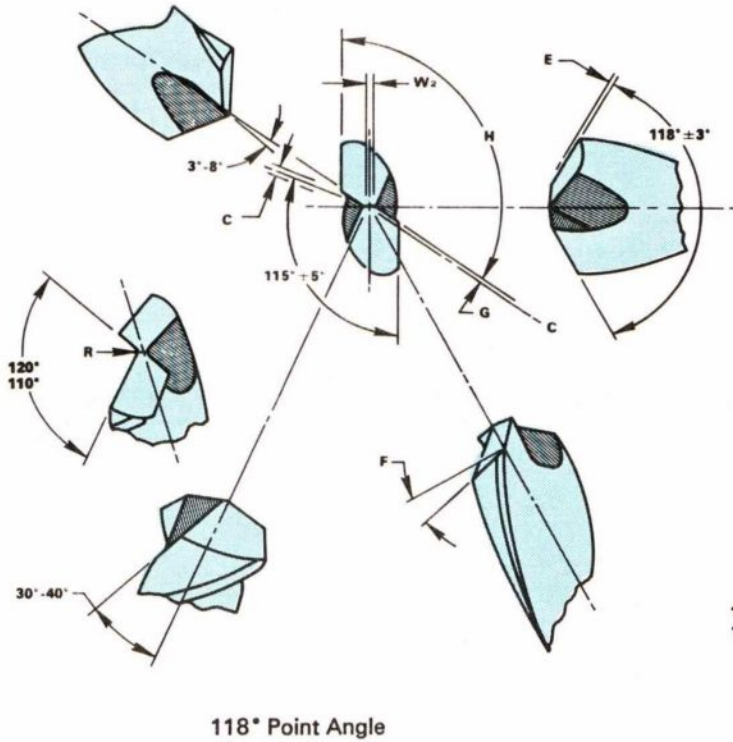
We feel generally, that a full flow of sulfur-base oil should be used in drilling the ferrous materials, and a full flow of water-soluble fluid be used for most of the nonferrous materials. However, many production plants now have centralized water-soluble systems and find it very difficult to set up for sulfur-base oils.

It is mandatory that a good full flow of cutting fluid be directed under pressure down the drilled hole remove as much heat build-up as possible.



Turboflute Drills

Point Dimensions and Tolerances
for Regrinding 118° Point Angle
and 135° Point Angle Drills



Size Range	Max. Radius In Notch R	Chisel Edge Centrality C	Web After Notching W ₂	Secondary Edge Angle H	Offset G	Lip Relief F		Lip Height E
						118° Point Angle	135° Point Angle	
1/16 to 41	.005	.0020	.002 to .004	120° to 125°	.001	17° to 23°	13° to 19°	.002 TIV
40 to 1/8	.007	.0020	.002 to .004	120° to 125°	.002	15° to 19°	12° to 16°	.002 TIV
Over 1/8 to 1/4	.010	.0030	.003 to .006	120° to 125°	.002	12° to 16°	10° to 14°	.003 TIV
Over 1/4 to 1/2	.015	.0040	.005 to .009	125° to 130°	.003	10° to 14°	10° to 14°	.004 TIV
Over 1/2 to 1	.015	.0050	.007 to .010	125° to 130°	.004	8° to 12°	8° to 12°	.005 TIV
Over 1 to 1 1/2	.020	.0060	.010 to .015	125° to 130°	.005	6° to 10°	6° to 10°	.006 TIV

Turboflute Drills are not just for deep hole drilling



Many manufacturers are reaping the many other benefits of Besly Turboflute Drills

One thing has made the Turboflute drill as successful as it is. It can drill deep holes. Up to 16 or more times its own diameter in one pass. Quite remarkable isn't it.

Equally remarkable, is the fact that most people think the Turboflute drill can be used only in deep hole drilling applications. The very design features that make the Turboflute drill an ideal deep hole drill allow it to be used most successfully in other drilling operations.

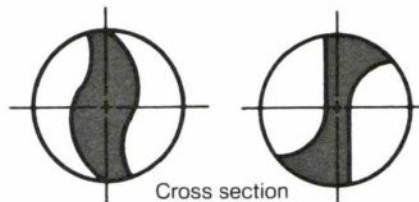
2x the normal feed rate.

The Turboflute drill operates at penetration rates 2x that of conventional drills. You are in and out of the hole faster. You get two hours of drilling work from a machine you used to get one hour. In many screw machine applications you could eliminate a secondary machining operation. Due to the increased feed rate you may free up a spindle for additional machining. Simply stated, you increase your productivity.

Parabolic flute design makes the difference.

The Turboflute parabolic flute design breaks the chips up into smaller

pieces and allows them to escape out of the hole more freely. There is no chip packing in the hole.



The increased feed rate which is allowed by the parabolic flute design, allows for a more efficient chip flow and eliminates withdrawal of the drill to clear the chips. Again, productivity is increased.

Center drilling can be eliminated.

In many cases, the center drilling operation is eliminated because the special split point design of the turboflute drill centers and seats itself. Productivity is increased.



Turboflute split point design

Drill life extended up to seven times average drills.

The parabolic flute design results in an unusually thick web that provides stability and extends life between sharpenings up to seven times average drills. That means you have less down time to change and sharpen drills. Production continues with fewer interruptions and greater productivity.

Strength and rigidity eliminates bushings and fixtures.

Costly bushings and fixtures can be eliminated because the Turboflute drill seats itself and does not have a tendency to "walk". You get a true, straight hole.

Productivity increased ... add it up.

- 2x feed rate
- fewer withdrawals
- center drilling operation eliminated
- 7x drill life — less down time to change drills
- bushings and fixtures eliminated

The Turboflute drill is available in almost any length and diameter to suit your needs. Whether it's for deep hole drills or high production screw machine operations, Besly has a Turboflute drill to fit your particular operation. Contact your Besly Representative for technical assistance for your specific drilling operation.

Drilling Speeds and Feeds

Speeds for Drilling

The speed of a drill is usually measured in terms of the rate at which the outside or periphery of the tool moves in relation to the work being drilled. The common term for this is "Surface Feet Per Minute," abbreviated to S.F.M. The relation of S.F.M. and Revolutions Per Minute, or R.P.M., is indicated by the following formulas:

$$\text{S.F.M.} = .26 \times \text{R.P.M.} \times \frac{\text{Drill Diameter in Inches}}{1}$$

$$\text{R.P.M.} = 3.8 \times \frac{\text{S.F.M.}}{\text{Drill Diameter in Inches}}$$

In general, when operating a drill at a speed anywhere within its range for the particular material involved, increases in speed result in fewer holes before regrinding becomes necessary, and reductions in speed permit more holes before the tool is dulled. As a result, on every job there is the problem of choosing a speed which will permit the highest rate of production without entailing excessive drill costs or down-time for tool sharpening. The most efficient speed for operating a drill will depend on many variables, some of which are:

1. Composition and hardness of material.
2. Depth of hole.
3. Efficiency of cutting fluid.
4. Type and condition of drilling machine.
5. Quality of holes desired.
6. Difficulty of set-up.

Feeds for Drilling

The feed of a drill is governed by the size of the tool and the material drilled. Since the feed partially determines the rate of production and also is a factor in tool life, it should be chosen carefully for each particular job. In general the most effective feeds will be found in the ranges shown in the table at the right.

Suggested Speeds for High Speed Steel Drills

Speeds shown in the following table indicate the approximate range for efficient operation under normal conditions. On most jobs, adjustments from these speeds will be required to reach peak efficiency.

Material	REGULAR DRILLS Speed, S.F.M.	TURBOFLUTE DRILLS Speed, S.F.M.
Alloy Steel below 260 Brinell	35 – 75	50 – 80
260 – 321 Brinell	15 – 25	15 – 25
Aluminum and Aluminum Alloys	200 – 300	200 – 300
Automotive Steel Forgings	40 – 50	40 – 50
Brass and Bronze, Common	200 – 300	200 – 300
Bronze, High Tensile	50 – 125	70 – 150
High Nickel Steel	40 – 50	40 – 50
Magnesium and Magnesium Alloys	150 – 350	200 – 400
Malleable Iron	80 – 120	80 – 120
Medium Hard Cast Iron	70 – 100	70 – 100
Monel	40 – 50	40 – 50
Low Carbon Steel	70 – 80	80 – 100
Soft Cast Iron	100 – 150	100 – 150
Stainless Steel	30 – 60	30 – 50
Thermoplastics	100 – 150	100 – 150
Titanium Alloys	20 – 50	20 – 50

To transfer the speeds given in "Surface Feet Per Minute" to R.P.M. for any size drill, see Tables on pages 80-81.

Suggested Feeds for High Speed Drills

Drill Diameter	REGULAR DRILLS	TURBOFLUTE DRILLS
	Feed/Rev. Inches	Feed/Rev. Inches
Under ¼	.001 – .002	.001 – .003
¼ to ½	.002 – .004	.003 – .008
½ to 1"	.004 – .007	.006 – .014
1" to 1 ½"	.007 – .015	.010 – .030
1 ½" and over	.015 – .025	.022 – .050

Heavy feed (H) Apply high side of feed range.
 Medium feed (M) Apply middle of feed range.
 Light feed (L) Apply low side of feed range.

Conversion Table

Decimal, Fractional, Wire Gage, Letter, Millimeter Sizes

Dec. Inch Wire mm.			Dec. Inch Wire mm.			Dec. Inch Wire mm.			Dec. Inch Letter mm.			Dec. Inch Letter mm.		
.0059	97		.0550	54		.1406	$\frac{1}{4}$		.2420	C		.3750	$\frac{3}{8}$	
.0063	96		.0551		1.40	.1417		3.60	.2441		6.20	.3770		V
.0067	95		.0571		1.45	.1440	27		.2460	D		.3780		9.60
.0071	94		.0591		1.50	.1457		3.70	.2461		6.25	.3819		9.70
.0075	93		.0595	53		.1470	26		.2480		6.30	.3839		9.75
.0079	92		.0610		1.55	.1476		3.75	.2500	$\frac{1}{4}$	E	.3858		9.80
.0083	91		.0625	$\frac{1}{16}$		.1495	25		.2520		6.40	.3860		W
.0087	90		.0630		1.60	.1496		3.80	.2559		6.50	.3898		9.90
.0091	89		.0635	52		.1520	24		.2570	F		.3906	$\frac{29}{64}$	
.0095	88		.0650		1.65	.1535		3.90	.2598		6.60	.3937		10.00
.0100	87		.0669		1.70	.1540	23		.2610	G		.3970		X
.0105	86		.0670	51		.1562	$\frac{1}{32}$		.2638		6.70	.4040		Y
.0110	85		.0689		1.75	.1570	22		.2656	$\frac{17}{64}$		.4062	$\frac{13}{32}$	Z
.0115	84		.0700	50		.1575		4.00	.2657		6.75	.4130		
.0120	83		.0709		1.80	.1590	21		.2660	H				
.0125	82		.0728		1.85	.1610	20		.2677		6.80			
.0130	81		.0730	49		.1614		4.10	.2717		6.90	.4134		10.50
.0135	80		.0748		1.90	.1654		4.20	.2720	I		.4219	$\frac{27}{64}$	
.0138		.35	.0760	48		.1660	19		.2756		7.00	.4331		11.00
.0145	79		.0768		1.95	.1673		4.25	.2770	J		.4375	$\frac{7}{16}$	
.0156	$\frac{1}{4}$		.0781	$\frac{1}{4}$		.1693		4.30	.2795		7.10	.4528		11.50
.0158		.40	.0785	47		.1695	18		.2810	K		.4531	$\frac{29}{64}$	
.0160	78		.0787		2.00	.1719	$\frac{11}{64}$		.2812	$\frac{1}{32}$		.4688	$\frac{19}{32}$	
.0177		.45	.0807		2.05	.1730	17		.2835		7.20	.4724		12.00
.0180	77		.0810	46		.1732		4.40	.2854		7.25	.4844	$\frac{31}{64}$	
.0197		.50	.0820	45		.1770	16		.2874		7.30	.4921		12.50
.0200	76		.0827		2.10	.1772		4.50	.2900	L		.5000	$\frac{1}{2}$	
.0210	75		.0846		2.15	.1800	15		.2913		7.40	.5118		13.00
.0217		.55	.0860	44		.1811		4.60	.2950	M		.5156	$\frac{33}{64}$	
.0225	74		.0866		2.20	.1820	14		.2953		7.50	.5312	$\frac{17}{32}$	
.0236		.60	.0886		2.25	.1850	13	4.70	.2969	$\frac{19}{64}$		.5315		13.50
.0240	73		.0890	43		.1870		4.75	.2992		7.60	.5469	$\frac{38}{64}$	
.0250	72		.0906		2.30	.1875	$\frac{3}{16}$		.3020	N		.5512		14.00
.0256		.65	.0925		2.35	.1890	12	4.80	.3031		7.70	.5625	$\frac{9}{16}$	
.0260	71		.0935	42		.1910	11		.3051		7.75	.5709		14.50
.0276		.70	.0938	$\frac{1}{32}$		.1929		4.90	.3071		7.80	.5781	$\frac{37}{64}$	
.0280	70		.0945		2.40	.1935	10		.3110		7.90	.5906		15.00
.0292	69		.0960	41		.1960	9		.3125	$\frac{1}{16}$		.5938	$\frac{19}{32}$	
.0295		.75	.0965		2.45	.1968		5.00	.3150		8.00	.6094	$\frac{39}{64}$	
.0310			.0980	40		.1990	8		.3160	O		.6102		15.50
.0312	$\frac{1}{32}$		.0984		2.50	.2008		5.10	.3189		8.10	.6250	$\frac{5}{8}$	
.0315		.80	.0995	39		.2010	7		.3228		8.20	.6299		16.00
.0320	67		.1015	38		.2031	$\frac{13}{64}$		.3230	P		.6406	$\frac{41}{64}$	
.0330	66		.1024		2.60	.2040	6		.3248		8.25	.6496		16.50
.0335		.85	.1040	37		.2047		5.20	.3268		8.30	.6562	$\frac{21}{32}$	
.0350	65		.1063		2.70	.2055	5		.3281	$\frac{21}{64}$		.6693		17.00
.0354		.90	.1065	36		.2067		5.25	.3307		8.40	.6719	$\frac{43}{64}$	
.0360	64		.1083		2.75	.2087		5.30	.3320	Q		.6875	$\frac{11}{16}$	
.0370	63		.1094	$\frac{1}{4}$		.2090	4		.3346		8.50	.6890		17.50
.0374		.95	.1100	35		.2126		5.40	.3386		8.60	.7031	$\frac{45}{64}$	
.0380	62		.1102		2.80	.2130	3		.3390	R		.7087		18.00
.0390	61		.1110	34		.2165		5.50	.3425		8.70	.7188	$\frac{23}{32}$	
.0394		1.00	.1130	33		.2188	$\frac{1}{32}$		.3438	$\frac{11}{32}$		.7283		18.50
.0400	60		.1142		2.90	.2205		5.60	.3445		8.75	.7344	$\frac{47}{64}$	
.0410	59		.1160	32		.2210	2		.3465		8.80	.7480		19.00
.0413		1.05	.1181		3.00	.2244		5.70	.3480	S		.7500	$\frac{3}{4}$	
.0420	58		.1200	31		.2264		5.75	.3504		8.90	.7656	$\frac{49}{64}$	
.0430	57		.1220		3.10	.2280	1		.3543		9.00	.7677		19.50
.0433		1.10	.1250	$\frac{1}{2}$		.2283		5.80	.3580	T		.7812	$\frac{25}{32}$	
.0453		1.15	.1260		3.20	.2323		5.90	.3583		9.10	.7874		20.00
.0465			.1280		3.25				.3594	$\frac{23}{64}$		.7969	$\frac{51}{64}$	
.0469	$\frac{3}{4}$		.1285	30					.3622		9.20	.8071		20.50
.0472		1.20	.1299		3.30	.2340		A	.3642		9.25	.8125	$\frac{13}{16}$	
.0492		1.25	.1339		3.40	.2344	$\frac{15}{64}$		.3661		9.30	.8268		21.00
.0512		1.30	.1360	29		.2362		6.00	.3680	U		.8281	$\frac{53}{64}$	
.0520	55		.1378		3.50	.2380	B		.3701		9.40	.8438	$\frac{27}{32}$	
.0531		1.35	.1405	28		.2402		6.10	.3740		9.50	.8465		21.50

Conversion Table

Decimal, Fractional, Wire Gage, Letter, Millimeter Sizes

Dec.	Inch	mm.	Dec.	Inch	mm.	Dec.	Inch	mm.	Dec.	Inch	mm.	Dec.	Inch	mm.
.8594	$\frac{53}{64}$		1.4375	$1\frac{1}{16}$		2.0276		51.50	2.6181		66.50	3.2031	$3\frac{1}{8}$	
.8661		22.00	1.4531	$1\frac{29}{64}$		2.0312	$2\frac{1}{32}$		2.6250	$2\frac{1}{8}$		3.2087		81.50
.8750	$\frac{7}{8}$		1.4567		37.00	2.0469	$2\frac{3}{64}$		2.6378		67.00	3.2188	$3\frac{1}{32}$	
.8858		22.50	1.4688	$1\frac{15}{32}$		2.0472		52.00	2.6406	$2\frac{41}{64}$		3.2283		82.00
.8906	$\frac{57}{64}$		1.4764		37.50	2.0625	$2\frac{1}{16}$		2.6562	$2\frac{21}{32}$		3.2344	$3\frac{19}{64}$	
.9055		23.00	1.4844	$1\frac{31}{64}$		2.0669		52.50	2.6575		67.50	3.2480		82.50
.9062	$\frac{29}{32}$		1.4961		38.00	2.0781	$2\frac{5}{64}$		2.6719	$2\frac{43}{64}$		3.2500	$3\frac{1}{4}$	
.9219	$\frac{59}{64}$		1.5000	$1\frac{1}{2}$		2.0866		53.00	2.6772		68.00	3.2656	$3\frac{17}{64}$	
.9252		23.50	1.5156	$1\frac{33}{64}$		2.0938	$2\frac{3}{32}$		2.6875	$2\frac{11}{16}$		3.2677		83.00
.9375	$\frac{15}{16}$		1.5157		38.50	2.1063		53.50	2.6968		68.50	3.2812	$3\frac{3}{32}$	
.9449		24.00	1.5312	$1\frac{17}{32}$		2.1094	$2\frac{7}{64}$		2.7031	$2\frac{45}{64}$		3.2874		83.50
.9531	$\frac{61}{64}$		1.5354		39.00	2.1250	$2\frac{1}{8}$		2.7165		69.00	3.2969	$3\frac{19}{64}$	
.9646		24.50	1.5469	$1\frac{35}{64}$		2.1260		54.00	2.7188	$2\frac{23}{32}$		3.3071		84.00
.9688	$\frac{31}{32}$		1.5551		39.50	2.1406	$2\frac{3}{64}$		2.7344	$2\frac{47}{64}$		3.3125	$3\frac{5}{16}$	
.9843		25.00	1.5625	$1\frac{9}{16}$		2.1457		54.50	2.7362		69.50	3.3268		84.50
.9844	$\frac{63}{64}$		1.5748		40.00	2.1562	$2\frac{1}{32}$		2.7500	$2\frac{3}{4}$		3.3281	$3\frac{21}{64}$	
1.0000	1		1.5781	$1\frac{37}{64}$		2.1654		55.00	2.7559		70.00	3.3438	$3\frac{11}{32}$	
1.0039		25.50	1.5938	$1\frac{19}{32}$		2.1719	$2\frac{11}{64}$		2.7656	$2\frac{49}{64}$		3.3465		85.00
1.0156	$1\frac{1}{64}$		1.5945		40.50	2.1850		55.50	2.7756		70.50	3.3594	$3\frac{23}{64}$	
1.0236		26.00	1.6094	$1\frac{39}{64}$		2.1875	$2\frac{3}{16}$		2.7812	$2\frac{29}{32}$		3.3661		85.50
1.0312	$1\frac{1}{32}$		1.6142		41.00	2.2031	$2\frac{13}{64}$		2.7953		71.00	3.3750	$3\frac{3}{8}$	
1.0433		26.50	1.6250	$1\frac{5}{8}$		2.2047		56.00	2.7969	$2\frac{51}{64}$		3.3858		86.00
1.0469	$1\frac{3}{64}$		1.6339		41.50	2.2188	$2\frac{1}{32}$		2.8125	$2\frac{17}{16}$		3.3906	$3\frac{29}{64}$	
1.0625	$1\frac{1}{16}$		1.6406	$1\frac{41}{64}$		2.2244		56.50	2.8150		71.50	3.4055		86.50
1.0630		27.00	1.6535		42.00	2.2344	$2\frac{15}{64}$		2.8281	$2\frac{53}{64}$		3.4062	$3\frac{13}{32}$	
1.0781	$1\frac{5}{64}$		1.6562	$1\frac{21}{32}$		2.2441		57.00	2.8346		72.00	3.4219	$3\frac{27}{64}$	
1.0827		27.50	1.6719	$1\frac{43}{64}$		2.2500	$2\frac{1}{4}$		2.8438	$2\frac{27}{32}$		3.4252		87.00
1.0938	$1\frac{3}{32}$		1.6732		42.50	2.2638		57.50	2.8543		72.50	3.4375	$3\frac{7}{16}$	
1.1024		28.00	1.6875	$1\frac{11}{16}$		2.2656	$2\frac{17}{64}$		2.8594	$2\frac{55}{64}$		3.4449		87.50
1.1094	$1\frac{7}{64}$		1.6929		43.00	2.2812	$2\frac{1}{32}$		2.8740		73.00	3.4531	$3\frac{29}{64}$	
1.1220		28.50	1.7031	$1\frac{45}{64}$		2.2835		58.00	2.8750	$2\frac{7}{8}$		3.4646		88.00
1.1250	$1\frac{1}{8}$		1.7126		43.50	2.2969	$2\frac{19}{64}$		2.8906	$2\frac{57}{64}$		3.4688	$3\frac{15}{32}$	
1.1406	$1\frac{3}{64}$		1.7188	$1\frac{23}{32}$		2.3031		58.50	2.8937		73.50	3.4842		88.50
1.1417		29.00	1.7323		44.00	2.3125	$2\frac{9}{16}$		2.9062	$2\frac{29}{32}$		3.4844	$3\frac{31}{64}$	
1.1562	$1\frac{5}{32}$		1.7344	$1\frac{47}{64}$		2.3228		59.00	2.9134		74.00	3.5000	$3\frac{1}{2}$	
1.1614		29.50	1.7500	$1\frac{3}{4}$		2.3281	$2\frac{21}{64}$		2.9219	$2\frac{59}{64}$		3.5039		89.00
1.1719	$1\frac{11}{64}$		1.7520		44.50	2.3425		59.50	2.9331		74.50	3.5236		89.50
1.1811		30.00	1.7656	$1\frac{49}{64}$		2.3438	$2\frac{11}{32}$		2.9375	$2\frac{15}{16}$		3.5433		90.00
1.1875	$1\frac{3}{16}$		1.7717		45.00	2.3594	$2\frac{23}{64}$		2.9528		75.00	3.5630		90.50
1.2008		30.50	1.7812	$1\frac{25}{32}$		2.3622		60.00	2.9531	$2\frac{61}{64}$		3.5827		91.00
1.2031	$1\frac{13}{64}$		1.7913		45.50	2.3750	$2\frac{3}{8}$		2.9688	$2\frac{31}{32}$		3.6024		91.50
1.2188	$1\frac{1}{32}$		1.7969	$1\frac{51}{64}$		2.3819		60.50	2.9724		75.50	3.6220		92.00
1.2205		31.00	1.8110		46.00	2.3906	$2\frac{25}{64}$		2.9844	$2\frac{63}{64}$		3.6417		92.50
1.2344	$1\frac{15}{64}$		1.8125	$1\frac{13}{16}$		2.4016		61.00	2.9921		76.00	3.6614		93.00
1.2402		31.50	1.8281	$1\frac{53}{64}$		2.4062	$2\frac{13}{32}$		3.0000	3		3.6811		93.50
1.2500	$1\frac{1}{4}$		1.8307		46.50	2.4213		61.50	3.0118		76.50	3.7008		94.00
1.2598		32.00	1.8438	$1\frac{27}{32}$		2.4219	$2\frac{27}{64}$		3.0156	$3\frac{1}{64}$		3.7205		94.50
1.2656	$1\frac{17}{64}$		1.8504		47.00	2.4375	$2\frac{1}{16}$		3.0312	$3\frac{1}{32}$		3.7402		95.00
1.2795		32.50	1.8594	$1\frac{55}{64}$		2.4409		62.00	3.0315		77.00	3.7598		95.50
1.2812	$1\frac{1}{32}$		1.8701		47.50	2.4531	$2\frac{29}{64}$		3.0469	$3\frac{3}{64}$		3.7795		96.00
1.2969	$1\frac{19}{64}$		1.8750	$1\frac{7}{8}$		2.4606		62.50	3.0512		77.50	3.7992		96.50
1.2992		33.00	1.8898		48.00	2.4688	$2\frac{15}{32}$		3.0625	$3\frac{1}{16}$		3.8189		97.00
1.3125	$1\frac{5}{16}$		1.8906	$1\frac{57}{64}$		2.4803		63.00	3.0709		78.00	3.8386		97.50
1.3189		33.50	1.9062	$1\frac{29}{32}$		2.4844	$2\frac{31}{64}$		3.0781	$3\frac{5}{64}$		3.8583		98.00
1.3281	$1\frac{21}{64}$		1.9094		48.50	2.5000	$2\frac{1}{2}$	63.50	3.0905		78.50	3.8779		98.50
1.3386		34.00	1.9219	$1\frac{59}{64}$		2.5156	$2\frac{33}{64}$		3.0938	$3\frac{3}{32}$		3.8974		99.00
1.3438	$1\frac{11}{32}$		1.9291		49.00	2.5197		64.00	3.1094	$3\frac{7}{64}$		3.9173		99.50
1.3583		34.50	1.9375	$1\frac{15}{16}$		2.5312	$2\frac{17}{32}$		3.1102		79.00	3.9370		100.00
1.3594	$1\frac{23}{64}$		1.9488		49.50	2.5394		64.50	3.1250	$3\frac{1}{8}$		4.0000		101.60
1.3750	$1\frac{3}{8}$		1.9531	$1\frac{61}{64}$		2.5469	$2\frac{35}{64}$		3.1299		79.50			
1.3780		35.00	1.9685		50.00	2.5591		65.00	3.1406	$3\frac{3}{64}$				
1.3906	$1\frac{25}{64}$		1.9688	$1\frac{31}{32}$		2.5625	$2\frac{9}{16}$		3.1496		80.00			
1.3976		35.50	1.9844	$1\frac{63}{64}$		2.5781	$2\frac{37}{64}$		3.1562	$3\frac{5}{32}$				
1.4062	$1\frac{13}{32}$		1.9882		50.50	2.5787		65.50	3.1693		80.50			
1.4173		36.00	2.0000	2		2.5938	$2\frac{19}{32}$		3.1719	$3\frac{11}{64}$				
1.4219	$1\frac{27}{64}$		2.0079		51.00	2.5984		66.00	3.1875	$3\frac{7}{16}$				
1.4370		36.50	2.0156	$2\frac{1}{64}$		2.6094	$2\frac{39}{64}$		3.1890		81.00			



TAP & DRILL SETS

SET #1 NC		SET #2 NF		SET #3 METRIC	
TAP	DRILL	TAP	DRILL	TAP	DRILL
6-32	#36	6-40	#33	M 2.5 X 0.45	2.05mm
8-32	#29	8-36	#29	M 3.0 X 0.50	2.50mm
10-24	#25	10-24	#25	M 3.5 X 0.60	2.90mm
10-32	#21	10-32	#21	M 4.0 X 0.70	3.30mm
1/4-20	#7	1/4-28	#3	M 5.0 X 0.80	4.20mm
5/16-18	"F"	5/16-24	"I"	M 6.0 X 1.00	5.00mm
3/8-16	5/16	3/8-24	"Q"	M 8.0 X 1.25	6.70mm
7/16-14	"U"	7/16-20	25/64	M 10 X 1.50	8.50mm
1/2-13	27/64	1/2-20	29/64	M 12 X 1.75	10.20mm

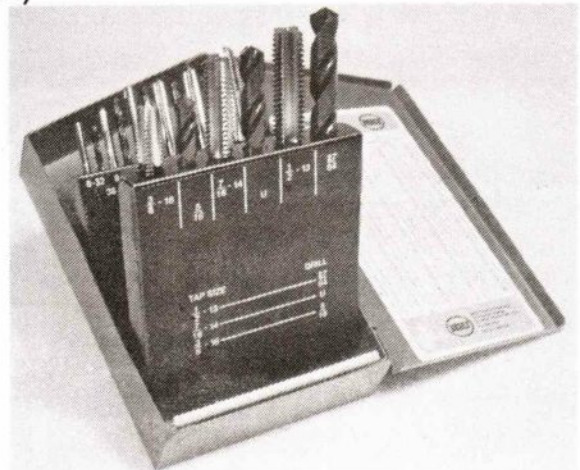
Set #1 NC & Set #2 NF Includes:

- HSS Taps (Straight Flute, Plug Chamfer, For Class 2B)
- HSS Drills (Jobbers Length, Surface Treated)
- Steel Index Case (For Easy Access and Storage)

Set #3 METRIC Includes:

- HSS Taps (Straight Flute, Plug Chamfer, For METRIC 6H)
- HSS Drills (Jobbers Length, Surface Treated)
- Steel Index Case (For Easy Access and Storage)

Set #1 NC EDP NUMBER 13134
 Set #2 NF EDP NUMBER 13135
 Set #3 METRIC EDP NUMBER 13136



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