

Center Drills

High Speed Steel — Bright Finish
118° Point

Feature short flute length, short overall length and no body clearance. Can be chucked close to the point for maximum rigidity in centering and spotting applications



List No. 1443

STANDARD 1/16" thru 3/8" — 6 each
PACKAGE 1/2" — 1" — 1 each

SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	EDP NO.	LIST PRICE
5/64	.0781	5/8	1 1/8	10276*	\$1.45
7/64	.1094	13/16	1 1/4	10278*	1.63
1/8	.1250	13/16	1 1/4	10279*	1.81
9/64	.1406	13/16	1 1/4	10280*	1.81
1 1/64	.1719	1	1 1/2	10282*	2.16
1 3/64	.2031	1	1 1/2	10284*	2.20

SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	EDP NO.	LIST PRICE
5/32	.2812	1	1 1/2	10287*	\$4.86
3/8	.3750	1	2	16001	9.79
1/2	.5000	1	2	16002	16.91
5/8	.6250	1 1/8	2 1/4	16003	26.88
3/4	.7500	1 1/8	2 1/4	16004	38.33
1	1.0000	1 1/4	2 1/2	16005	61.79

*Available While Supplies Last

NC Spotting Drills

High Speed Steel — Bright Finish
90° and 120° Points

Ideal for close tolerance NC spotting operations. Provides a more accurate and faster spotting location for follow-up drilling. Eliminates wandering.



List No. 1441

STANDARD 1/4" & 3/8" — 6 each
PACKAGE 1/2" — 1" — 1 each

Short Length

SIZE	DEC. EQUIV.	L.O.F.	OAL	90° EDP NO.	90° LIST PRICE	120° EDP NO.	120° LIST PRICE
1/4	.2500	3/4	2 1/2	11900	\$19.74	11906	\$22.31
3/8	.3750	1 1/8	3 1/8	11901	24.31	11907	29.46
1/2	.5000	1 3/8	3 3/4	11902	34.32	11908	45.19

SIZE	DEC. EQUIV.	L.O.F.	OAL	90° EDP NO.	90° LIST PRICE	120° EDP NO.	120° LIST PRICE
5/8	.6250	1 1/8	4 3/8	11903	\$44.33	11909	\$60.92
3/4	.7500	1 1/8	5	11904	56.63	11910	63.78
1	1.0000	2 1/4	6	11905	85.80	11911	90.09

Regular Length

SIZE	DEC. EQUIV.	L.O.F.	OAL	90° EDP NO.	90° LIST PRICE	120° EDP NO.	120° LIST PRICE
1/4	.2500	3/4	4	11912	\$42.90	11918	\$48.62
3/8	.3750	1 1/8	5	11913	45.76	11919	51.48
1/2	.5000	1 3/8	6	11914	51.05	11920	59.49

SIZE	DEC. EQUIV.	L.O.F.	OAL	90° EDP NO.	90° LIST PRICE	120° EDP NO.	120° LIST PRICE
5/8	.6250	1 1/8	7	11915	\$56.35	11921	\$67.50
3/4	.7500	1 1/8	8	11916	68.65	11922	87.23
1	1.0000	2 1/4	8	11917	105.54	11923	125.27

Long Length

SIZE	DEC. EQUIV.	L.O.F.	OAL	90° EDP NO.	90° LIST PRICE	120° EDP NO.	120° LIST PRICE
3/8	.3750	1 1/8	7	—	—	11931*	\$69.32

SIZE	DEC. EQUIV.	L.O.F.	OAL	90° EDP NO.	90° LIST PRICE	120° EDP NO.	120° LIST PRICE
3/4	.7500	1 1/8	10	—	—	11934*	\$109.04
1	1.0000	2 1/4	10	—	—	11935*	156.59

*Available While Supplies Last

Combined Drills and Countersinks

High Speed Steel — Bright Finish
60° Included Angle

Often called “center drills”. Designed for drilling center holes in the ends of work pieces to be held between standard 60° centers. **Bell Type** features an additional 120° chamfer at the body diameter to form a protected 60° center hole.

STANDARD PACKAGE Plain Type & Bell Type
All Sizes — 6 each
Long Plain Type
1 thru 3 — 6 each
4 thru 8 — 1 each

List No. 1495 Plain Type

SIZE	DRILL DIA.	BODY DIA.	OAL	EDP NO.	LIST PRICE
3/0	.021	1/8	1 1/4	25049	\$10.94
2/0	.025	1/8	1 1/4	25050	8.52
0	.032	1/8	1 1/4	25051	8.52
1	3/64	1/8	1 1/4	25041	6.41
2	5/64	3/16	1 7/8	25042	6.71
3	7/64	1/4	2	25043	7.07
4	1/8	5/16	2 1/8	25044	7.37
5	3/16	7/16	2 3/4	25045	12.03
6	7/32	1/2	3	25046	17.82
7	1/4	5/8	3 1/4	25047	30.86
8	5/16	3/4	3 1/2	25048	40.07

List No. 1499 Long Plain Type

SIZE	DRILL DIA.	BODY DIA.	OAL	EDP NO.	LIST PRICE
1	3/64	1/8	3	25010	\$21.09
1	3/64	1/8	4	25011	22.01
2	5/64	3/16	4	25012	24.16
2	5/64	3/16	5	25013	30.62
3	7/64	1/4	4	25014	25.52
3	7/64	1/4	5	25015	33.45
4	1/8	5/16	4	25016	27.90
4	1/8	5/16	5	25017	35.73
4	1/8	5/16	6	25018	41.29
5	3/16	7/16	5	25019	40.94
5	3/16	7/16	6	25020	45.82
6	7/32	1/2	5	25021	49.51
6	7/32	1/2	6	25022	52.17
7	1/4	5/8	6	25023	96.23
8	5/16	3/4	6	25024	105.66

Solid Carbide Combined Drills and Countersinks

Plain Type – 60° Included Angle

Solid Carbide offers excellent wear resistance, heat resistance and rigidity. Recommended for abrasive materials, difficult-to-drill materials and increased tool life in production applications.

STANDARD PACKAGE All sizes — 1 each



List No. 1495 Plain Type



List No. 1498 Bell Type



List No. 1499 Long Plain Type

List No. 1498 Bell Type

SIZE	DRILL DIA.	BODY DIA.	OAL	EDP NO.	LIST PRICE
11	3/64	1/8	1 1/4	25081	\$8.83
12	1/16	3/16	1 7/8	25082	9.08
13	3/32	1/4	2	25083	9.29
14	7/64	5/16	2 1/8	25084	9.59
15	5/32	7/16	2 3/4	25085	14.68
16	3/16	1/2	3	25086	21.51
17	7/32	5/8	3 1/4	25087	38.26
18	1/4	3/4	3 1/2	25088	50.69

Combined Drill and Countersink Set

High Speed Steel

Includes Nos. 1, 2, 3, 4, and 5, Style 1495, Plain Type



List No. 8500

SIZE RANGE	SET NO.	EDP NO.	LIST PRICE
1-5	51H	25059	\$40.83



List No. 5495

SIZE	DRILL DIA.	BODY DIA.	OAL	EDP NO.	LIST PRICE
1	3/64	1/8	1 1/4	53901	\$17.96
2	5/64	3/16	1 7/8	53902	28.00
3	7/64	1/4	2	53903	33.39
4	1/8	5/16	2 1/8	53904	45.78
5	3/16	7/16	2 3/4	53905	69.39
6	7/32	1/2	3	53906	100.87

M42 8% Cobalt Zero Flute Countersink & Deburring Tools



List No. 1753

For countersinking and deburring in a wide range of ferrous and non-ferrous materials. Radially relieved single cutting edge for fast stock removal without chatter in portable and machine applications.

M42 8% Cobalt offers increased wear and heat resistance in alloy steels, stainless steels and other abrasive and difficult materials. Longer tool life in all production applications.

Tools can be re-sharpened using an axial relief sharpening fixture or with a mounted grinding wheel inserted into the hole.

SIZE	DIA. OF CUT		BODY DIA.	SHANK DIA.	OAL	EDP NO. INCLUDED ANGLE			LIST PRICE
	MIN.	MAX.				60°	82°	90°	
DOUBLE END									
#0	.09	.23	¼	¼	1¾	25600	25610	25620	\$20.61
SINGLE END									
#1	.15	.40	7/16	¼	1¾	25601	25611	25621	25.39
#2	.19	.52	9/16	¼	2	25602	25612	25622	31.63
#3	.28	.75	1½	½	2¾	25603	25613	25623	56.98
#4	.46	1.08	1½	½	3½	25604	25614	25624	95.92
5-Piece Set, Sizes #0 - #4 In Plastic Case						25609	25619	25629	218.97

STANDARD PACKAGE All sizes — 1 each

Single Flute Countersinks

High Speed Steel

For chamfering, deburring, and countersinking. Also to enlarge existing holes in thin sheet metal.

Designed for light portable work as well as machine use. Single flute construction provides smoother surface finish. Can be used when multi-flute countersinks chatter.

STANDARD PACKAGE All sizes — 1 each



List No. 1752

SIZE	SHANK DIA.	EDP NO.				LIST PRICE
		60°	82°	90°	100°	
¼	¼	25571	25572	25573	25574	\$11.88
3/8	¼	25575	25576	25577	25578	13.55
½	¼	25579	25580	25581	25582	17.31
5/8	½	25583	25584	25585	25586	23.90
¾	½	25587	25588	25589	25590	31.90
1	½	25591	25592	25593	25594	54.79

Carbide Single Flute Countersinks

For countersinking, chamfering, and deburring holes. Produces a smoother finish. Can be used when multi-flute countersinks chatter.

The 1/8 and 1/4 diameters are solid carbide. The larger diameters are brazed construction.

Carbide offers excellent wear resistance, heat resistance and rigidity. Recommended for abrasive materials, difficult-to-drill materials and increased tool life in production applications



List No. 5752

STANDARD PACKAGE All sizes — 1 each

SIZE	SHANK DIA.	EDP NO.			LIST PRICE
		60°	82°	90°	
1/8	1/8	56101	56102	56103	\$10.15
¼	¼	56104	56105	56106	16.65
3/8	¼	56107	56108	56109	31.75
½	¼	56110	56111	56112	45.80
¾	3/8	56113	56114	56115	85.30

Center Reamers

High Speed Steel - 3-Flute

Designed for countersinking holes for rivets, flat head screws and centers.



List No. 1750

STANDARD PACKAGE All sizes — 1 each

SIZE	SHANK DIA.	SHANK LENGTH	OAL	EDP NO.				LIST PRICE
				60°	82°	90°	100°	
¼	¼	¾	1½	23501	23502	23503	23504	\$11.49
3/8	¼	7/8	1¾	23505	23506	23507	23508	13.58
½	3/8	1	2	23509	23510	23511	23512	17.44
5/8	3/8	1	2¼	23513	23514	23515	23516	25.29
¾	½	1¼	2¾	23517	23518	23519	23520	33.56

Machine Countersinks

High Speed Steel – 4-Flute

Designed primarily for countersinking holes. The longer shank length is ideal for use in turret lathes for screw machine work.

STANDARD PACKAGE All sizes — 1 each



List No. 1751

SIZE	SHANK DIA.	SHANK LENGTH	OAL	EDP NO.		LIST PRICE
				60°	82°	
1/2	1/2	2 1/4	3 7/8	25551	25552	\$37.98
5/8	1/2	2 1/4	4	25553	25554	42.74
3/4	1/2	2 1/4	4 1/8	25555	25556	54.60
7/8	1/2	2 1/4	4 1/4	25557	25558	68.89
1	1/2	2 1/4	4 3/8	25559	25560	76.71

Interchangeable Pilot Counterbores

Short Series — High Speed Steel

For use with interchangeable pilots (list no. 776). For general purpose counterboring and spot facing.



List No. 1772 Straight Shank



List No. 1771 Taper Shank

STANDARD PACKAGE All sizes — 1 each

COUNTER-BORE SIZE	NO. OF FLUTES	OAL	ACCEPTS PILOT SH. DIA.	RANGE OF PILOTS DIA.	SHANK DIA.	LIST NO. 1772		MORSE TAPER NO.	LIST NO. 1771	
						EDP NO.	LIST PRICE		EDP NO.	LIST PRICE
3/16	3	3	3/32	1/8-3/16	15/64	25811	\$49.72	—	—	—
7/32	3	3	3/32	1/8-7/32	15/64	25812	49.72	—	—	—
1/4	3	3 13/16	3/32	1/8-3/16	15/64	25813	51.26	1	25761*	\$57.42
9/32	3	3 13/16	3/32	1/8-7/32	17/64	25814	51.26	1	25762*	57.42
5/16	3	3 13/16	3/32	1/8-1/4	19/64	25815	51.26	1	25763*	58.61
1 1/32	3	3 13/16	3/32	1/8-9/32	9/16	25816	53.89	1	25764*	60.20
3/8	3	4 1/16	5/32	3/16-5/16	9/16	25817	53.89	1	25765*	58.74
13/32	3	4 1/16	5/32	3/16-1 1/32	3/8	25818	56.97	1	25766*	62.15
7/16	3	4 1/16	5/32	3/16-3/8	3/8	25819	56.97	1	25767*	62.18
15/32	3	4 5/16	3/16	1/4-13/32	7/16	25820	60.19	1	25768*	65.73
1/2	3	4 5/16	3/16	1/4-7/16	7/16	25821	61.88	1	25769*	63.82
17/32	3	4 5/16	3/16	1/4-15/32	1/2	25822	66.94	1	25770*	71.48
9/16	3	4 5/16	3/16	1/4-1/2	1/2	25823	66.94	1	25771*	71.51
19/32	3	5 1/8	3/16	1/4-17/32	1/2	25824	71.40	2	25772*	76.27
5/8	3	5 1/8	3/16	1/4-9/16	1/2	25825	71.40	2	25773*	76.30
2 1/32	3	5 1/8	3/16	1/4-5/8	1/2	25826	79.72	2	25774*	84.37
1 1/16	3	5 1/8	3/16	1/4-5/8	1/2	25827	79.72	2	25775*	83.78
23/32	3	5 3/8	1/4	5/16-2 1/32	1/2	25828	82.09	2	25776*	86.88
3/4	3	5 3/8	1/4	5/16-1 1/16	1/2	25829	82.09	2	25777*	86.78
25/32	3	5 3/8	1/4	5/16-23/32	5/8	25830	86.66	2	25778*	91.75
13/16	3	5 3/8	1/4	5/16-3/4	5/8	25831	83.97	2	25779*	91.77
7/8	3	5 3/8	1/4	5/16-13/16	3/4	25833	87.67	2	25780*	96.08
15/16	3	6 1/8	1/4	5/16-7/8	3/4	25835	92.28	3	25781*	100.70
1	3	6 3/8	5/16	3/8-15/16	3/4	25837	110.63	3	25782*	120.64
1 1/16	3	6 3/8	5/16	3/8-1 1/16	3/4	25838	129.30	3	25783*	134.96
1 1/8	3	6 3/8	5/16	3/8-1 1/16	1	25839	134.65	3	25784*	140.72
1 3/16	3	6 3/8	5/16	3/8-1 1/8	1	25840	141.15	3	25785*	145.73
1 1/4	5	6 3/8	3/8	7/16-13/16	1	25841	165.62	3	25786*	172.87
1 5/16	5	6 3/8	3/8	7/16-13/16	—	—	—	3	25787*	183.37
1 3/8	5	6 3/8	3/8	7/16-13/16	1	25842	188.47	—	—	—
1 1/2	5	7 7/8	3/8	7/16-17/16	1 1/4	25843	211.24	4	25789*	213.96
1 5/8	5	8 1/8	7/16	1/2-1 9/16	1 1/4	25844	287.84	4	25790*	291.40
1 3/4	5	8 1/8	7/16	1/2-1 11/16	1 1/4	25845	309.52	4	25791*	313.53
1 7/8	5	8 1/8	7/16	1/2-1 13/16	1 1/2	25846	340.59	4	25792*	344.95

*Available While Supplies last

(continued)

Interchangeable Pilot Counterbores (continued)

List No. 1771, 1772

COUNTER-BORE SIZE	NO. OF FLUTES	OAL	ACCEPTS PILOT SH. DIA.	RANGE OF PILOTS DIA.	SHANK DIA.	LIST NO. 1772	LIST PRICE	MORSE TAPER NO.	LIST NO. 1771	LIST PRICE
						EDP NO.			EDP NO.	
2	5	8 $\frac{3}{8}$	$\frac{1}{2}$	$\frac{9}{16}$ -1 $\frac{15}{16}$	1 $\frac{1}{2}$	25847	\$384.43	4	25793*	\$390.17
2 $\frac{1}{8}$	5	9 $\frac{7}{8}$	$\frac{1}{2}$	$\frac{9}{16}$ -2 $\frac{1}{16}$	—	—	—	5	25794*	484.76
2 $\frac{1}{4}$	5	9 $\frac{7}{8}$	$\frac{1}{2}$	$\frac{9}{16}$ -2 $\frac{3}{16}$	—	—	—	5	25795*	516.48
2 $\frac{3}{8}$	5	9 $\frac{7}{8}$	$\frac{1}{2}$	$\frac{9}{16}$ -2 $\frac{5}{16}$	—	—	—	5	25796*	554.29
2 $\frac{1}{2}$	5	9 $\frac{7}{8}$	$\frac{1}{2}$	$\frac{9}{16}$ -2 $\frac{7}{16}$	—	—	—	5	25797*	590.15

* Available While Supplies Last

Carbide Tipped Interchangeable Pilot Counterbores

For use with interchangeable pilots (list no. 776).

Carbide Tipped offers excellent wear resistance. Recommended for counterboring and spot facing in cast iron, non-ferrous metals and other abrasive non-ferrous materials.

NOT FOR USE IN STEEL

STANDARD TOLERANCE — plus .001" minus .0000".



List No. 5779 Straight Shank



List No. 5780 Taper Shank

STANDARD PACKAGE All sizes — 1 each

COUNTER-BORE SIZE	FLUTE LENGTH	OAL	ACCEPTS PILOT SHANK DIA.	MINIMUM DIA. AT CENTER	SHANK DIA.	LIST NO. 5779	LIST PRICE	MORSE TAPER NO.	LIST NO. 5780	LIST PRICE
						EDP NO.			EDP NO.	
$\frac{1}{4}$	$\frac{3}{4}$	3 $\frac{11}{16}$	$\frac{3}{32}$	.114	1 $\frac{5}{64}$	56401	\$88.91	1	56451	\$104.10
$\frac{5}{16}$	$\frac{3}{4}$	3 $\frac{11}{16}$	$\frac{3}{32}$	.114	1 $\frac{9}{64}$	56402	98.78	1	56452	113.74
$\frac{3}{8}$	1	4 $\frac{1}{16}$	$\frac{5}{32}$	.187	$\frac{5}{16}$	56403	113.61	1	56453	127.42
$\frac{7}{16}$	1	4 $\frac{1}{16}$	$\frac{5}{32}$	.187	$\frac{3}{8}$	56404	121.11	1	56454	135.91
$\frac{1}{2}$	1 $\frac{1}{4}$	4 $\frac{5}{16}$	$\frac{3}{16}$	.245	$\frac{7}{16}$	56405	134.26	1	56455	150.08
$\frac{9}{16}$	1 $\frac{1}{4}$	4 $\frac{5}{16}$	$\frac{3}{16}$	.245	$\frac{1}{2}$	56406	138.36	1	56456	152.86
$\frac{5}{8}$	1 $\frac{1}{4}$	5 $\frac{1}{8}$	$\frac{3}{16}$	.245	$\frac{1}{2}$	56407	142.20	2	56457	156.92
1 $\frac{1}{16}$	1 $\frac{1}{4}$	5 $\frac{1}{8}$	$\frac{3}{16}$	.245	$\frac{1}{2}$	56408	147.97	2	56458	165.66
$\frac{3}{4}$	1 $\frac{1}{4}$	5 $\frac{3}{8}$	$\frac{1}{4}$	.245	$\frac{1}{2}$	56409	151.40	2	56459	168.41
1 $\frac{3}{16}$	1 $\frac{1}{4}$	5 $\frac{3}{8}$	$\frac{1}{4}$	.307	$\frac{5}{8}$	56410	154.49	2	56460	171.29
$\frac{7}{8}$	1 $\frac{1}{4}$	5 $\frac{3}{8}$	$\frac{1}{4}$	.307	$\frac{3}{4}$	56411	163.76	2	56461	180.13
1 $\frac{5}{16}$	1 $\frac{1}{4}$	6 $\frac{1}{8}$	$\frac{1}{4}$	.307	$\frac{3}{4}$	56412	167.20	3	56462	184.99
1	1 $\frac{3}{8}$	6 $\frac{3}{8}$	$\frac{5}{16}$	.370	$\frac{3}{4}$	56413	171.95	3	56463	189.44
1 $\frac{1}{16}$	1 $\frac{3}{8}$	6 $\frac{3}{8}$	$\frac{5}{16}$	.370	1	56414	173.84	3	56464	191.85
1 $\frac{1}{8}$	1 $\frac{3}{8}$	6 $\frac{3}{8}$	$\frac{5}{16}$	.370	1	56415	178.24	3	56465	197.82
1 $\frac{3}{16}$	1 $\frac{3}{8}$	6 $\frac{3}{8}$	$\frac{5}{16}$	.432	1	56416	185.51	3	56466	204.67
1 $\frac{1}{4}$	1 $\frac{1}{2}$	6 $\frac{5}{8}$	$\frac{3}{8}$	.432	1	56417	191.09	3	56467	209.61
1 $\frac{5}{16}$	1 $\frac{1}{2}$	6 $\frac{5}{8}$	$\frac{3}{8}$	.432	1	56418	198.58	3	56468	216.49
1 $\frac{3}{8}$	1 $\frac{1}{2}$	6 $\frac{5}{8}$	$\frac{3}{8}$	.432	1	56419	208.95	3	56469	236.37
1 $\frac{7}{16}$	1 $\frac{1}{2}$	7 $\frac{7}{8}$	$\frac{3}{8}$	.432	1 $\frac{1}{4}$	56420	210.64	4	56470	232.20
1 $\frac{1}{2}$	1 $\frac{1}{2}$	7 $\frac{7}{8}$	$\frac{3}{8}$	.432	1 $\frac{1}{4}$	56421	226.11	4	56471	247.88
1 $\frac{9}{16}$	1 $\frac{3}{4}$	8 $\frac{1}{8}$	$\frac{7}{16}$	.495	1 $\frac{1}{4}$	56422*	232.73	—	—	—
1 $\frac{5}{8}$	1 $\frac{3}{4}$	8 $\frac{1}{8}$	$\frac{7}{16}$	.495	1 $\frac{1}{4}$	56423*	237.60	4	56473*	258.81

* Available While Supplies Last

Interchangeable Pilots For Counterbores

Carbon Steel



List No. 776

STANDARD
PACKAGE

All sizes — 1 each

SHANK DIAMETER

PILOT SIZE	3/32		5/32		3/16		1/4		5/16		3/8		7/16	
	EDP NO.	LIST PRICE	EDP NO.	LIST PRICE	EDP NO.	LIST PRICE	EDP NO.	LIST PRICE	EDP NO.	LIST PRICE	EDP NO.	LIST PRICE	EDP NO.	LIST PRICE
1/8	26002	\$17.68												
5/32	26003	14.36												
3/16	26004	14.68	26009	\$14.68										
7/32	26005	16.61	26010	16.61										
1/4	26006	16.61	26011	16.61	26018	\$16.61								
9/32	26007	17.68	26012	17.68	26019	17.68								
5/16			26013	17.68	26020	17.68	26032	\$17.68						
11/32			26014	17.68	26021	17.68	26033	17.68						
3/8			26015	19.50	26022	19.50	26034	19.50	26050	\$19.50				
13/32					26023	19.50	26035	19.50						
7/16					26024	19.93	26036	19.93	26052	19.93				
15/32					26025	19.93	26037	19.93	26053	19.93				
1/2					26026	22.82	26038	22.82	26054	22.82	26072	\$22.82		
17/32					26027	26.57	26039	26.57	26055	26.57	26073*	26.57		
9/16					26028	29.89	26040	29.89	26056	29.89				
19/32					26029*	32.79	26041*	32.79						
5/8					26030	32.79	26042	32.79	26058	32.79				
21/32							26043	33.54	26059	33.54				
11/16							26044	33.54	26060	33.54	26078	33.54		
23/32									26061	38.04				
3/4							26046	38.04	26062	38.04	26080	38.04		
13/16							26047	42.75	26063	42.75	26081	42.75	26102	\$42.75
7/8							26048	47.25	26064	47.25	26082	47.25	26103	47.25
15/16									26065	49.82	26083	49.82		
1									26066	51.64				
1 1/16											26085	53.46		
1 1/8											26086	64.50		

*Available While Supplies Last

With MORSE® Modifications Why Start From Scratch?

When standard cutting tools aren't quite right for your application, let **Morse® Modifications** make them perfect for the task. Morse®-modified off-the-shelf standard cutting tools let you start with a standard tool at a standard price. Add a little for modifications, and save by not having to go with expensive custom-designed special cutting tools.

With MORSE® Specials Fast Delivery on Custom Tools.

When your application requires special custom designed cutting tools, **Morse® Specials** offers complete tool design and manufacturing services. Fast quotes, quick delivery, specifically designed for your machining application. Engineered cutting tools optimized for lower overall machining costs.

Cap Screw Counterbores

High Speed Steel — Straight Shank — 4-Flute



For producing counterbored clearance holes for the heads of socket head cap screws. Recommended for a wide range of material types.

List No. 1766

STANDARD PACKAGE All sizes — 1 each

Bold indicates standard pilot tolerance.

CUTTER DIA.	FOR CAP SCREW SIZE	PILOT TOLERANCE	PILOT DIA.	PILOT LENGTH	CUTTER DIA. FLUTE LENGTH	SHANK DIA.	OAL	EDP NUMBER	LIST PRICE
.183	4	Standard	.1120	1/8	9/16	.1562	37/8	25718	\$24.48
.215	4	+1/32 Over	.1430	1/8	9/16	.1562	37/8	25719	24.48
.205	5	Standard	.1250	5/32	5/8	.1875	4 1/8	25720	24.48
.237	5	+1/32 Over	.1560	5/32	5/8	.1875	4 1/8	25721	24.48
.227	6	Standard	.1380	3/16	3/4	.2188	4 5/8	25722	25.92
.259	6	+1/32 Over	.1690	3/16	3/4	.2188	4 5/8	25723	25.92
.270	8	Standard	.1640	7/32	3/4	.2500	5	25724	27.77
.302	8	+1/32 Over	.1950	7/32	3/4	.2500	5	25725	27.77
.312	10	Standard	.1900	1/4	7/8	.2812	5 1/4	25726	28.38
.344	10	+1/32 Over	.2210	1/4	7/8	.2812	5 1/4	25727	28.38
.380	1/4	Standard	.2500	9/32	1	.3125	5 5/8	25741	29.83
.412	1/4	+1/32 Over	.2810	9/32	1	.3125	5 5/8	25728	29.83
.474	5/16	Standard	.3125	5/16	1	.3750	6 1/8	25742	37.24
.504	5/16	+1/32 Over	.3430	5/16	1	.3750	6 1/8	25729	37.24
.569	3/8	Standard	.3750	3/8	1 1/4	.5000	6 1/2	25743	40.72
.601	3/8	+1/32 Over	.4060	3/8	1 1/4	.5000	6 1/2	25730	40.72
.661	7/16	Standard	.4370	7/16	1 1/4	.5000	7	25744	48.95
.691	7/16	+1/32 Over	.4680	7/16	1 1/4	.5000	7	25731	48.95
.755	1/2	Standard	.5000	1/2	1 1/2	.5000	7 1/2	25745	56.06
.787	1/2	+1/32 Over	.5310	1/2	1 1/2	.5000	7 1/2	25732	56.06
.969	5/8	Standard	.6250	5/8	1 1/2	.6250	7 5/8	25733	91.45
1.000	5/8	+1/32 Over	.6560	5/8	1 1/2	.6250	7 5/8	25734	91.45
1.156	3/4	Standard	.7500	3/4	1 5/8	.7500	7 3/4	25735	106.38
1.188	3/4	+1/32 Over	.7810	3/4	1 5/8	.7500	7 3/4	25736	106.38
1.344	7/8	Standard	.8750	7/8	1 7/8	.8750	8	25737	129.58
1.375	7/8	+1/32 Over	.9060	7/8	1 7/8	.8750	8	25738	129.58
1.531	1	Standard	1.0000	1	2	1.0000	8 1/2	25739	164.36
1.563	1	+1/32 Over	1.0310	1	2	1.0000	8 1/2	25740	164.36

List No. 1766 — Metric

CUTTER DIA.	FOR CAP SCREW SIZE	PILOT DIA.	PILOT LENGTH	CUTTER DIA. FLUTE LENGTH	SHANK DIA.	OAL	EDP NUMBER	LIST PRICE
.2362	3mm	.1377	5/32	5/8	.1875	4 1/8	25746	\$24.86
.2953	4mm	.1772	7/32	3/4	.2500	5	25747	28.20
.3543	5mm	.2165	9/32	1	.3125	5 5/8	25748	30.29
.4134	6mm	.2559	5/16	1	.3750	6 1/8	25749	37.81
.5315	8mm	.3346	3/8	1 1/4	.5000	6 1/2	25750	41.35
.6496	10mm	.4134	7/16	1 1/4	.5000	7	25751	49.70
.7283	12mm	.4921	1/2	1 1/2	.5000	7 1/2	25752	56.91
.9645	16mm	.6500	5/8	1 1/2	.6250	7 5/8	25754	92.85
1.2010	20mm	.8070	7/8	1 7/8	.8750	8	25756	131.56
1.4370	24mm	.9650	1	2	1.0000	8 1/2	25758	166.89