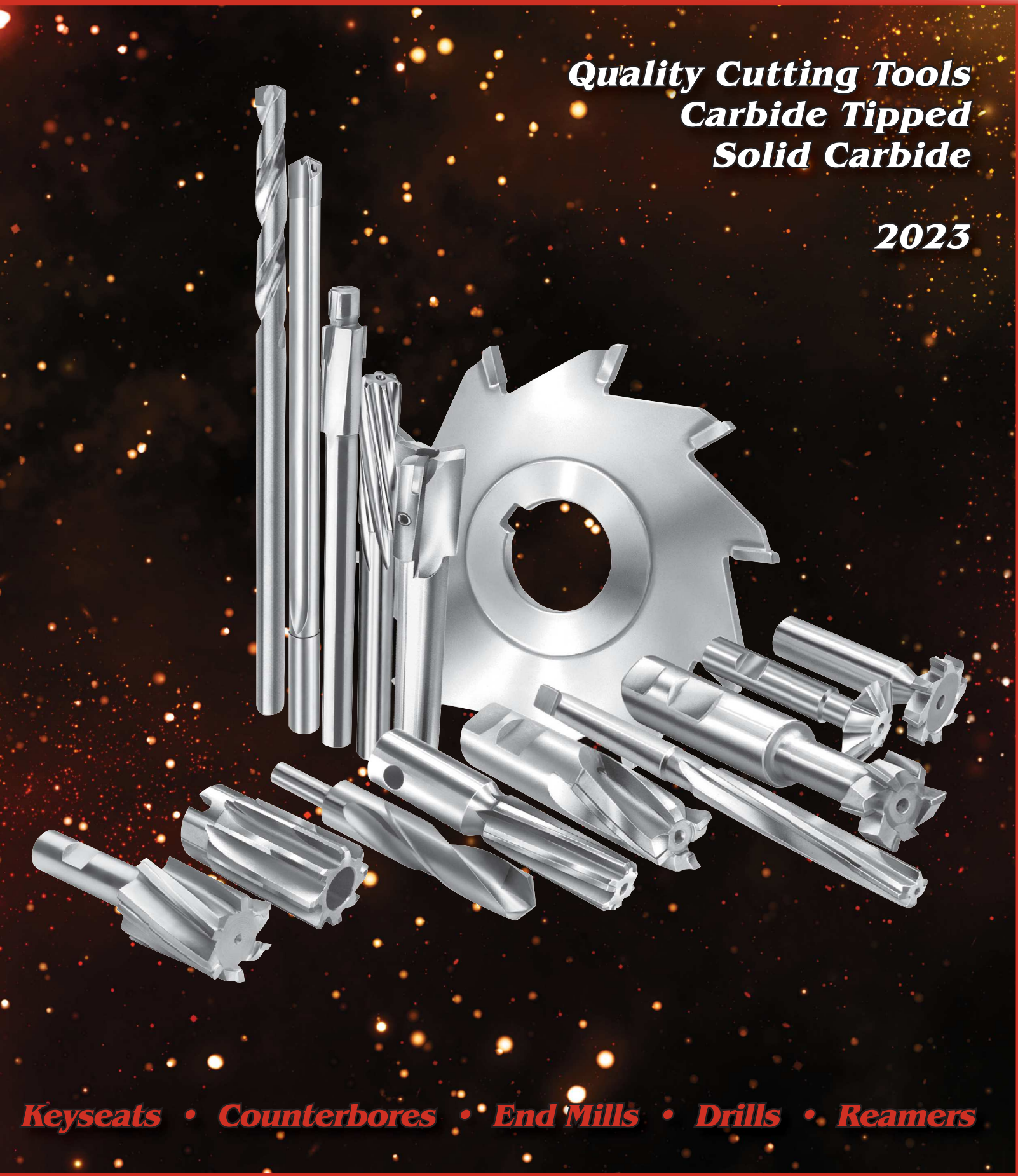
Super Tool, Inc.



INDEX OF PRODUCTS

INDEX BY TOOL NAME

CARBIDE TIPPED	PAGE
SHANK CUTTERS	
Chamfer Cutters	9
Corner Rounding Cutters	8
Double Angle Cutters	8
Dovetail Cutters	9
Keyseat Cutters	4-7
Keyseat Cutters for Aluminum	3
Port Contour Cutters	97
Radius Cutters	8
T-Slot Cutters	9
COUNTERBORES	
Capscrew Counterbores	15
Counterbore Pilots - All Sizes	10
Reduced Shank Counterbores	11
Straight & Taper Shank, For N.F. & C.I.	12-13
Straight & Taper Shank, For Steel	14
END MILLS	
Center Cutting	18
For Aluminum - High Performance	19
For Non-Ferrous, Cast Iron	20-21
For Finishing	19
For Steel	22
Reduced Shank	19
ARBOR MOUNT CUTTERS	
Double Angle	34
Shell End Mills	24
Side Milling Cutters	23
Side Milling Cutters - Decimal Size	26-29
Side Milling Cutters For Steel - Decimal Size	30-33
Single Angle	34
Slitting Saws	24-25
Staggered Tooth Side Milling Cutters	34
DRILLS	
Aircraft Extension	48

CARBIDE TIPPED	PAGE
CNC Spotting/Centering	43
Coolant Fed, Long Length Fractional & Metric	51
Coolant Fed, Short Length Fractional & Metric	50
Core Drills	52
Core Drills, Metric	53
Countersinks	18
Die Drills - Spade Type	41
Hard Steel Die Drills Fractional & Metric	41, 42
Jobber Length, Fractional	38, 42
Jobber Length, Metric	39
Jobbers Length, Tanged	40
Masonry	35
Reduced Shank Drills	42
Silver & Deming (Reduced Shank Diameter)	43
Stub Length Twist, Fractional	46, 42
Stub Length Twist, Metric	47
Taper Length, Fractional	44
Taper Length, Metric	45
Taper Shank Twist, Fractional	49
REAMERS	
.0005" Decimal Increments - Partial Flute Carbide	62-65
.0005" Decimal Increments - Full Flute Carbide	70-72
Barber-Colman Reamers (MetCut Type)	78
Coolant Fed, Straight Flute	90
Coolant Fed, LHS, RHS	91
Dowel Pin, General Purpose	61
Dowel Pin, For Steel	75
Expansion Reamers, Straight Shank	84
Expansion Reamers, Straight Shank, Metric	85
Expansion Reamers, Tapered Shank	86
Expansion Reamers, Tapered Shank, Metric	87
Extended Length Reamers	77
Flute Long Carbide, Straight Shank	68
Flute Long Carbide, Straight Shank, Metric	69

CARBIDE TIPPED	PAGE
Flute Long Carbide, Tapered Shank	82
Flute Long Carbide, Tapered Shank, Metric	83
For Steel	74-75
General Purpose Metric, Partial Flute Carbide, Str. Shank	66
General Purpose, Partial Flute Carbide, Str. Shank	60-61
Left Spiral Reamers	76
NAS Chucking Reamers	88-89
Over/Under, For Steel	75
Over/Under, General Purpose	61
Partial Flute Carbide, Tapered Shank	80
Partial Flute Carbide, Tapered Shank, Metric	81
Right Spiral Reamers	76
Semi-Finished Reamers	79
Shell Reamers & Arbors	67
Stub/Screw Machine Reamers	73
SINGLE POINT TOOLS	
All Styles	94-96
SOLID CARBIDE	**PAGE**
Combination Drill/Countersinks	35
Jobber Length Twist Drills, Frac, Wire, Letter	36
Jobber Length Twist Drills, Metric	37
REAMERS	
.0005" Decimal Increments	54-57
Fractional, Wire/Letter, Metric	58
RHS, LHS, Straight Flute, Decimal Sizes	59
Solid Carbide Head, Straight Flute	92
Solid Carbide Head, RHS, LHS	93
END MILLS	
Double End, Square	17
Single End, Square End, Long & X-Long Length	16
Single End, Square End, Regular Length	16
Single End, Square End, Regular Length, Metric	17
COBALT	**PAGE**
Jobber Length Twist Drills, Frac, Wire, Letter	35

INDEX BY LIST NO.

LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.	LIST NO.	PAGE NO.
301	39	4100	96	5420	41	5670	73	5859	24	5944	16-17	9337	19	9647	43	9726	34	9781	97
302	39	4110	94	5421	41	5680	90	5860	24	5950	16	9353	19	9648	43	9730	9	9786	97
303	47	4120	94	5423	41, 42	5681	90	5861	23	5951	16	9355	19	9649	43	9731	9	9787	97
304	47	4130	94	5424	41	5682	91	5862	23	5954	16	9408	88	9677	43	9732	9	9800	5
305	45	4140	94	5425	41, 42	5683	91	5863	23	5955	16	9458	89	9678	43	9733	9	9802	59
306	45	4150	95	5426	41	5685	78	5866	25	5958	21	9458EL	77	9679	43	9740	34	9803	59
307	41	4160	95	5454	52-53	5733	84-85	5867	25	5959	21	9476	61	9690	40	9742	34	9804	54-58
308	41	4170	95	5456	52-53	5734	86-87	5868	25, 30-33	5960	22	9478	61	9691	40	9744	34	9810	7
401	74-75	4180	95	5463	35	5776	10	5870	25-29	5962	21	9481	67	9699	35	9746	8	9812	59
428	18	4190	96	5464	35	5778	14	5895	17	5964	22	9486	75	9700	4	9747	8	9813	59
429	18	5171	50	5495	35	5779	12	5896	17	5965	22	9488	75	9704	3	9748	8	9822	59
430	18	5173	51	5625	67	5780	13	5921	20	5966	18	9513	15	9710	6	9749	8	9823	59
431	18	5302	49	5651	76	5781	14	5922	21	5991	20	9515	15	9714	34	9750	9		
432	18	5303	49	5653	76	5846	24	5923	20	5993	20	9522	11	9716	34	9751	9		
433	18	5314	44	5655	60-66	5847	24	5925	20	6800	92	9547	34	9718	8	9752	9		
434	18	5315	44	5656	80-81	5848	24	5927	22	6810	93	9610	48	9719	8	9753	9		
435	18	5330	38, 42	5659	68-72	5849	23	5935	18	6820	93	9611	48	9720	9	9756	8		
436	46, 42	5331	38, 42	5660	82-83	5850	24	5936	18	9322	19	9616	43	9721	9	9757	8		
437	46, 42	5374	36-37	5669	73	5858	24	5943	16-17	9323	19	9618	43	9724	34	9780	97		

Super Tool, Inc. reserves the right to make any changes on the specifications, prices or tolerances without notice.

WARNING - Because cutting tools may shatter or break, government regulations require the use of safety glasses and other safety equipment at all times in the vicinity of cutting tool use. Grinding of solid carbide or carbide tipped tools will produce carbide and braze dust that may be hazardous to your health. Use adequate ventilation and read the applicable "Material Safety Data Sheets."

LIMITED WARRANTY: Super Tool, Inc. does not give any warranty on its products except as follows: Super Tool, Inc. warrants to original equipment manufacturers, distributors and industrial and commercial users of its products that each new product manufactured or supplied by Super Tool, Inc. shall be free from defects in material and workmanship. Super Tool, Inc.'s sole obligation under this warranty is limited to furnishing, without additional charge, a replacement for, or at its option, repairing or issuing credit for any such product which shall within one year from the date of sale by Super Tool, Inc. be returned freight prepaid to Super Tool, Inc. and which upon inspection is determined by Super Tool, Inc. to be defective in materials or workmanship. The provisions of this warranty shall not apply to any product which has been subjected to misuse; improper operating conditions, machine setup or application of cutting fluid; or which has been repaired or altered if such repair or alteration in the judgment of Super Tool, Inc. would adversely affect performance of the product. Complete written information with respect to all such matters, including operating condition, machine setup, cutting fluid, cutting speed and feed rate, must be furnished to Super Tool, Inc. as a prerequisite to its consideration of any claim or complaint under this warranty.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Super Tool, Inc. shall have no liability or responsibility on any claim of any kind, whether in contract, tort or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery or use of any product sold hereunder, in excess of the cost of replacement or repair provided herein. IN NO EVENT SHALL Super Tool, Inc. BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Super Tool, Inc. makes no other warranty, expressed or implied, except the warranty against defects in material and workmanship set forth above; and Super Tool, Inc. neither assumes nor authorizes any other person or entity to assume for it any other obligation or liability in connection with any of its products.

KEYSEAT CUTTERS - FOR ALUMINUM

CARBIDE TIPPED

List No. 9704 - High Performance - For Aluminum

Use: For milling, slotting, grooving, snap rings, and O-rings. Also used in circular interpolation of spot facing, back spot facing, and counterboring. Designed specifically for the aluminum industry. High volume flute capacity for higher speeds and feeds and better finishes. The tool geometry includes clearance for cutting on all three surfaces. Starting point for Aluminum slotting: 1K-4K SFPM, 0.002-0.008 IPT. Reduce SFPM and IPT by 25% for widths under 0.0938. Tools up to 1½" diameter, ½" shank. Tools 1¾" diameter and larger, ¾" shank.

Face width tolerance: +.0005"/-.0005"
Tool diameter tolerance: +.020"/+.015"

AMERICAN STANDARD NO.	TOOL DIAM.	NO. OF TEETH	WIDTH	NECK DIAM.	LIST 9704 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE
-	⅝	2	1/16	.160	97042002	$128.05	.0575 - .0787
305	⅝	2	3/32	.191	97040305	128.05	.0788 - .1099
405	⅝	2	⅛	.223	97040405	128.05	.1100 - .1400
505	⅝	2	5/32	.252	97040505	128.05	.1401 - .1713
605	⅝	2	3/16	.279	97040605	128.05	.1714 - .2025
-	⅝	2	7/32	.342	97042007	128.05	.2026 - .2339
-	⅝	2	¼	.342	97042008	128.05	.2340 - .2650
-	¾	2	1/16	.160	97042402	134.45	.0575 - .0787
-	¾	2	3/32	.191	97042403	134.45	.0788 - .1099
406	¾	2	⅛	.217	97040406	134.45	.1100 - .1400
506	¾	2	5/32	.246	97040506	134.45	.1401 - .1713
606	¾	2	3/16	.279	97040606	134.45	.1714 - .2025
-	¾	2	7/32	.342	97042407	134.45	.2026 - .2339
806	¾	2	¼	.342	97040806	134.45	.2340 - .2650
-	⅞	2	1/16	.160	97042802	144.10	.0575 - .0787
-	⅞	2	3/32	.191	97042803	144.10	.0788 - .1099
-	⅞	2	⅛	.217	97042804	144.10	.1100 - .1400
507	⅞	2	5/32	.246	97040507	144.10	.1401 - .1713
607	⅞	2	3/16	.279	97040607	144.10	.1714 - .2025
707	⅞	2	7/32	.312	97040707	144.10	.2026 - .2339
807	⅞	2	¼	.342	97040807	144.10	.2340 - .2650
-	1	2	3/32	.191	97043203	152.10	.0788 - .1088
-	1	2	⅛	.217	97043204	152.10	.1089 - .1400
-	1	2	5/32	.246	97043205	152.10	.1401 - .1713
608	1	2	3/16	.279	97040608	152.10	.1714 - .2025
708	1	2	7/32	.312	97040708	152.10	.2026 - .2339
808	1	2	¼	.342	97040808	152.10	.2340 - .2650
-	1	2	9/32	.401	97043209	152.10	.2651 - .2968
1008	1	2	5/16	.401	97041008	152.10	.2969 - .3281
-	1	2	11/32	.467	97043211	152.10	.3282 - .3593
1208	1	2	⅜	.467	97041208	152.10	.3594 - .3900
-	1 ⅛	2	3/32	.217	97043603	152.10	.0788 - .1088
-	1 ⅛	2	⅛	.246	97043604	152.10	.1089 - .1400
-	1 ⅛	2	5/32	.279	97043605	152.10	.1401 - .1713
609	1 ⅛	2	3/16	.312	97040609	152.10	.1714 - .2025
709	1 ⅛	2	7/32	.342	97040709	152.10	.2026 - .2339
809	1 ⅛	2	¼	.374	97040809	152.10	.2340 - .2650
-	1 ⅛	2	9/32	.435	97043609	152.10	.2651 - .2968
1009	1 ⅛	2	5/16	.435	97041009	152.10	.2969 - .3281
-	1 ⅛	2	11/32	.467	97043611	152.10	.3282 - .3593
-	1 ⅛	2	⅜	.467	97043612	152.10	.3594 - .3900
-	1 ¼	3	3/32	.217	97044003	160.05	.0788 - .1088
-	1 ¼	3	⅛	.246	97044004	160.05	.1089 - .1400
-	1 ¼	3	5/32	.279	97044005	160.05	.1401 - .1713
610	1 ¼	3	3/16	.312	97040610	160.05	.1714 - .2025
710	1 ¼	3	7/32	.342	97040710	160.05	.2026 - .2339
810	1 ¼	3	¼	.374	97040810	160.05	.2340 - .2650
-	1 ¼	3	9/32	.435	97044009	160.05	.2651 - .2968
1010	1 ¼	3	5/16	.435	97041010	160.05	.2969 - .3281
-	1 ¼	3	11/32	.467	97044011	160.05	.3282 - .3593
1210	1 ¼	3	⅜	.467	97041210	160.05	.3594 - .3900

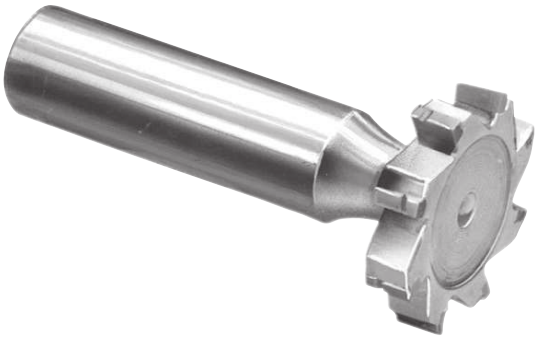
AMERICAN STANDARD NO.	TOOL DIAM.	NO. OF TEETH	WIDTH	NECK DIAM.	LIST 9704 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE
-	1 ⅜	3	3/32	.312	97044403	$176.10	.0788 - .1088
-	1 ⅜	3	⅛	.342	97044404	176.10	.1089 - .1400
-	1 ⅜	3	5/32	.374	97044405	176.10	.1401 - .1713
-	1 ⅜	3	3/16	.401	97044406	176.10	.1714 - .2025
-	1 ⅜	3	7/32	.401	97044407	176.10	.2026 - .2339
811	1 ⅜	3	¼	.401	97040811	176.10	.2340 - .2650
-	1 ⅜	3	9/32	.467	97044409	176.10	.2651 - .2968
1011	1 ⅜	3	5/16	.467	97041011	176.10	.2969 - .3281
-	1 ⅜	3	11/32	.467	97044411	176.10	.3282 - .3593
1211	1 ⅜	3	⅜	.467	97041211	176.10	.3594 - .3900
-	1 ½	3	3/32	.435	97044803	200.15	.0788 - .1088
-	1 ½	3	⅛	.435	97044804	200.15	.1089 - .1400
-	1 ½	3	5/32	.435	97044805	200.15	.1401 - .1713
-	1 ½	3	3/16	.435	97044806	200.15	.1714 - .2025
-	1 ½	3	7/32	.435	97044807	200.15	.2026 - .2339
812	1 ½	3	¼	.435	97040812	200.15	.2340 - .2650
-	1 ½	3	9/32	.467	97044809	200.15	.2651 - .2968
1012	1 ½	3	5/16	.467	97041012	200.15	.2969 - .3281
-	1 ½	3	11/32	.467	97044811	200.15	.3282 - .3593
1212	1 ½	3	⅜	.467	97041212	240.15	.3594 - .3900
-	1 ½	3	13/32	.467	97044813	240.15	.3901 - .4219
-	1 ½	3	7/16	.467	97044814	240.15	.4220 - .4531
-	1 ½	3	15/32	.467	97044815	240.15	.4532 - .4843
-	1 ½	3	½	.467	97044816	240.15	.4844 - .5150
-	1 ¾	4	⅛	.718	97045604	220.90	.1089 - .1400
-	1 ¾	4	5/32	.718	97045605	220.90	.1401 - .1713
-	1 ¾	4	3/16	.718	97045606	220.90	.1714 - .2025
-	1 ¾	4	7/32	.718	97045607	220.90	.2026 - .2339
-	1 ¾	4	¼	.718	97045608	220.90	.2340 - .2650
-	1 ¾	4	9/32	.718	97045609	220.90	.2651 - .2968
-	1 ¾	4	5/16	.718	97045610	220.90	.2969 - .3281
-	1 ¾	4	11/32	.718	97045611	220.90	.3282 - .3593
-	1 ¾	4	⅜	.718	97045612	259.40	.3594 - .3900
-	1 ¾	4	13/32	.718	97045613	259.40	.3901 - .4219
-	1 ¾	4	7/16	.718	97045614	259.40	.4220 - .4531
-	1 ¾	4	15/32	.718	97045615	259.40	.4532 - .4843
-	1 ¾	4	½	.718	97045616	259.40	.4844 - .5150
-	2	4	⅛	.718	97046404	256.10	.1089 - .1400
-	2	4	5/32	.718	97046405	256.10	.1401 - .1713
-	2	4	3/16	.718	97046406	256.10	.1714 - .2025
-	2	4	7/32	.718	97046407	256.10	.2026 - .2339
-	2	4	¼	.718	97046408	256.10	.2340 - .2650
-	2	4	9/32	.718	97046409	256.10	.2651 - .2968
-	2	4	5/16	.718	97046410	256.10	.2969 - .3281
-	2	4	11/32	.718	97046411	256.10	.3282 - .3593
-	2	4	⅜	.718	97046412	296.20	.3594 - .3900
-	2	4	13/32	.718	97046413	296.20	.3901 - .4219
-	2	4	7/16	.718	97046414	296.20	.4220 - .4531
-	2	4	15/32	.718	97046415	296.20	.4532 - .4843
-	2	4	½	.718	97046416	296.20	.4844 - .5150
-	-	-	-	-	-	-	-

KEYSEAT CUTTERS - NON-FERROUS

CARBIDE TIPPED

List No. 9700 - Straight Tooth - For Non-Ferrous

Use: For milling slots in cast iron, non-ferrous, plastic and non-metals. Chip breakers on List No. 9700 5/32" width and greater. Hardened alloy steel bodies with brazed on carbide tips. Decimal size cutters DO NOT have chip breakers.



Tool diameter tolerance: +.020"/+.015"
Face width tolerance: +0"/.-0005"
Shank: ½" diameter; 2" long

AMERICAN STANDARD NO.	TOOL DIAM.	NO. OF TEETH	WIDTH	NECK DIAM.	OAL	LIST 9700 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
									1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
204	½	6	1/16	.130	2 1/16	97000204	$104.45	.0575 - .0787	$140.70	$125.05	$119.85	$117.35	$114.70	$112.50
304	½	6	3/32	.160	2 3/32	97000304	104.45	.0788 - .1088	140.70	125.05	119.85	117.35	114.70	112.50
404	½	6	1/8	.191	2 1/8	97000404	104.45	.1089 - .1400	140.70	125.05	119.85	117.35	114.70	112.50
305	5/8	6	3/32	.191	2 3/32	97000305	108.25	.0788 - .1088	144.65	129.00	123.75	121.15	118.55	116.45
405	5/8	6	1/8	.223	2 1/8	97000405	108.25	.1089 - .1400	144.65	129.00	123.75	121.15	118.55	116.45
505	5/8	6	5/32	.252	2 5/32	97000505	108.25	.1401 - .1713	144.65	129.00	123.75	121.15	118.55	116.45
605	5/8	6	3/16	.279	2 3/16	97000605	108.25	.1714 - .2025	144.65	129.00	123.75	121.15	118.55	116.45
406	¾	6	1/8	.217	2 1/8	97000406	112.95	.1100 - .1400	149.60	133.95	128.65	126.20	123.55	121.40
506	¾	6	5/32	.246	2 5/32	97000506	112.95	.1401 - .1713	149.60	133.95	128.65	126.20	123.55	121.40
606	¾	6	3/16	.279	2 3/16	97000606	112.95	.1714 - .2025	149.60	133.95	128.65	126.20	123.55	121.40
-	¾	6	7/32	.342	2 7/32	97002407	123.75	.2026 - .2339	149.60	133.95	128.65	126.20	123.55	121.40
806	¾	6	1/4	.342	2 1/4	97000806	112.95	.2340 - .2650	149.60	133.95	128.65	126.20	123.55	121.40
507	7/8	6	5/32	.246	2 5/32	97000507	118.30	.1401 - .1713	155.15	139.55	134.25	131.85	129.15	126.95
607	7/8	6	3/16	.279	2 3/16	97000607	118.30	.1714 - .2025	155.15	139.55	134.25	131.85	129.15	126.95
707	7/8	6	7/32	.312	2 7/32	97000707	118.30	.2026 - .2339	155.15	139.55	134.25	131.85	129.15	126.95
807	7/8	6	1/4	.342	2 1/4	97000807	118.30	.2340 - .2650	155.15	139.55	134.25	131.85	129.15	126.95
608	1	8	3/16	.279	2 3/16	97000608	133.50	.1714 - .2025	171.05	155.45	150.10	147.65	145.00	142.85
708	1	8	7/32	.312	2 7/32	97000708	133.50	.2026 - .2339	171.05	155.45	150.10	147.65	145.00	142.85
808	1	8	1/4	.342	2 1/4	97000808	133.50	.2340 - .2650	171.05	155.45	150.10	147.65	145.00	142.85
-	1	8	9/32	.401	2 9/32	97003209	146.20	.2651 - .2968	171.05	155.45	150.10	147.65	145.00	142.85
1008	1	8	5/16	.401	2 5/16	97001008	133.50	.2969 - .3281	171.05	155.45	150.10	147.65	145.00	142.85
-	1	8	11/32	.467	2 11/32	97003211	146.20	.3282 - .3593	171.05	155.45	150.10	147.65	145.00	142.85
1208	1	8	3/8	.467	2 3/8	97001208	133.50	.3594 - .3900	171.05	155.45	150.10	147.65	145.00	142.85
609	1 1/8	8	3/16	.312	2 3/16	97000609	140.15	.1714 - .2025	178.05	162.50	157.20	154.70	152.05	149.90
709	1 1/8	8	7/32	.342	2 7/32	97000709	140.15	.2026 - .2339	178.05	162.50	157.20	154.70	152.05	149.90
809	1 1/8	8	1/4	.374	2 1/4	97000809	140.15	.2340 - .2650	178.05	162.50	157.20	154.70	152.05	149.90
-	1 1/8	8	9/32	.435	2 9/32	97003609	153.55	.2651 - .2968	178.05	162.50	157.20	154.70	152.05	149.90
1009	1 1/8	8	5/16	.435	2 5/16	97001009	140.15	.2969 - .3281	178.05	162.50	157.20	154.70	152.05	149.90
610	1 1/4	8	3/16	.312	2 3/16	97000610	147.15	.1714 - .2025	185.40	169.85	164.60	162.05	159.40	157.20
710	1 1/4	8	7/32	.342	2 7/32	97000710	147.15	.2026 - .2339	185.40	169.85	164.60	162.05	159.40	157.20
810	1 1/4	8	1/4	.374	2 1/4	97000810	147.15	.2340 - .2650	185.40	169.85	164.60	162.05	159.40	157.20
-	1 1/4	8	9/32	.435	2 9/32	97004009	161.20	.2651 - .2968	185.40	169.85	164.60	162.05	159.40	157.20
1010	1 1/4	8	5/16	.435	2 5/16	97001010	147.15	.2969 - .3281	185.40	169.85	164.60	162.05	159.40	157.20
-	1 1/4	8	11/32	.467	2 11/32	97004011	161.20	.3282 - .3593	185.40	169.85	164.60	162.05	159.40	157.20
1210	1 1/4	8	3/8	.467	2 3/8	97001210	147.15	.3594 - .3900	185.40	169.85	164.60	162.05	159.40	157.20
811	1 3/8	8	1/4	.401	2 1/4	97000811	154.65	.2340 - .2650	193.20	177.60	172.35	169.85	167.15	165.05
-	1 3/8	8	9/32	.467	2 9/32	97004409	169.35	.2651 - .2968	193.20	177.60	172.35	169.85	167.15	165.05
1011	1 3/8	8	5/16	.467	2 5/16	97001011	154.65	.2969 - .3281	193.20	177.60	172.35	169.85	167.15	165.05
-	1 3/8	8	11/32	.467	2 11/32	97004411	169.35	.3282 - .3593	193.20	177.60	172.35	169.85	167.15	165.05
1211	1 3/8	8	3/8	.467	2 3/8	97001211	154.65	.3594 - .3900	193.20	177.60	172.35	169.85	167.15	165.05
812	1 1/2	8	1/4	.435	2 1/4	97000812	162.35	.2340 - .2650	201.25	185.70	180.45	177.95	175.25	173.15
-	1 1/2	8	9/32	.467	2 9/32	97004809	177.85	.2651 - .2968	201.25	185.70	180.45	177.95	175.25	173.15
1012	1 1/2	8	5/16	.467	2 5/16	97001012	162.35	.2969 - .3281	201.25	185.70	180.45	177.95	175.25	173.15
-	1 1/2	8	11/32	.467	2 11/32	97004811	177.85	.3282 - .3593	201.25	185.70	180.45	177.95	175.25	173.15
1212	1 1/2	8	3/8	.467	2 3/8	97001212	162.35	.3594 - .3900	201.25	185.70	180.45	177.95	175.25	173.15
-	1 1/2	8	13/32	.467	2 13/32	97004813	177.85	.3901 - .4219	201.25	185.70	180.45	177.95	175.25	173.15
-	1 1/2	8	7/16	.467	2 7/16	97004814	177.85	.4220 - .4531	201.25	185.70	180.45	177.95	175.25	173.15
-	1 1/2	8	15/32	.467	2 15/32	97004815	177.85	.4532 - .4843	201.25	185.70	180.45	177.95	175.25	173.15
-	1 1/2	8	½	.467	2 ½	97004816	177.85	.4844 - .5150	201.25	185.70	180.45	177.95	175.25	173.15

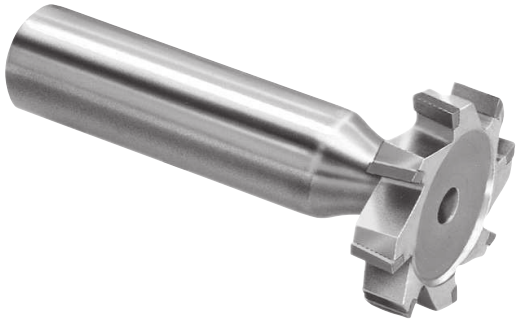
**Quantities of 15 or more: price of fractional size in same size range.*

KEYSEAT CUTTERS - NON-FERROUS

CARBIDE TIPPED

List No. 9800 - Staggered Tooth - For Non-Ferrous

Use: Alternate right and left hand axial rake for milling slots in cast iron, non-ferrous, plastic and non-metals. Hardened alloy steel bodies with brazed on carbide tips.



Tool diameter tolerance: +.020"/+.015"
Face width tolerance: +0"/-.0005"
Shank: ½" diameter; 2" long

AMERICAN STANDARD NO.	TOOL DIAM.	NO. OF TEETH	WIDTH	NECK DIAM.	OAL	LIST 9800 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
									1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
204	½	6	1/16	.130	2 1/16	97010204	$122.90	.0575 - .0787	$160.00	$144.40	$139.10	$136.65	$133.95	$131.85
304	½	6	3/32	.160	2 3/32	97010304	122.90	.0788 - .1088	160.00	144.40	139.10	136.65	133.95	131.85
404	½	6	⅛	.191	2 ⅛	97010404	122.90	.1089 - .1400	160.00	144.40	139.10	136.65	133.95	131.85
305	⅝	6	3/32	.191	2 3/32	97010305	127.30	.0788 - .1088	164.65	149.05	143.75	141.20	138.55	136.45
405	⅝	6	⅛	.223	2 ⅛	97010405	127.30	.1089 - .1400	164.65	149.05	143.75	141.20	138.55	136.45
505	⅝	6	5/32	.252	2 5/32	97010505	127.30	.1401 - .1713	164.65	149.05	143.75	141.20	138.55	136.45
605	⅝	6	3/16	.279	2 3/16	97010605	127.30	.1714 - .2025	164.65	149.05	143.75	141.20	138.55	136.45
406	¾	6	⅛	.217	2 ⅛	97010406	133.00	.1100 - .1400	170.60	155.00	149.70	147.15	144.60	142.45
506	¾	6	5/32	.246	2 5/32	97010506	133.00	.1401 - .1713	170.60	155.00	149.70	147.15	144.60	142.45
606	¾	6	3/16	.279	2 3/16	97010606	133.00	.1714 - .2025	170.60	155.00	149.70	147.15	144.60	142.45
-	¾	6	7/32	.342	2 7/32	97012407	145.70	.2026 - .2339	170.60	155.00	149.70	147.15	144.60	142.45
806	¾	6	¼	.342	2 ¼	97010806	133.00	.2340 - .2650	170.60	155.00	149.70	147.15	144.60	142.45
507	⅞	6	5/32	.246	2 5/32	97010507	139.10	.1401 - .1713	176.95	161.30	156.10	153.55	150.90	148.80
607	⅞	6	3/16	.279	2 3/16	97010607	139.10	.1714 - .2025	176.95	161.30	156.10	153.55	150.90	148.80
707	⅞	6	7/32	.312	2 7/32	97010707	139.10	.2026 - .2339	176.95	161.30	156.10	153.55	150.90	148.80
807	⅞	6	¼	.342	2 ¼	97010807	139.10	.2340 - .2650	176.95	161.30	156.10	153.55	150.90	148.80
608	1	8	3/16	.279	2 3/16	97010608	156.95	.1714 - .2025	195.70	180.00	174.80	172.25	169.60	167.55
708	1	8	7/32	.312	2 7/32	97010708	156.95	.2026 - .2339	195.70	180.00	174.80	172.25	169.60	167.55
808	1	8	¼	.342	2 ¼	97010808	156.95	.2340 - .2650	195.70	180.00	174.80	172.25	169.60	167.55
-	1	8	9/32	.401	2 9/32	97013209	171.95	.2651 - .2968	195.70	180.00	174.80	172.25	169.60	167.55
1008	1	8	5/16	.401	2 5/16	97011008	156.95	.2969 - .3281	195.70	180.00	174.80	172.25	169.60	167.55
-	1	8	11/32	.467	2 11/32	97013211	171.95	.3282 - .3593	195.70	180.00	174.80	172.25	169.60	167.55
1208	1	8	⅜	.467	2 ⅜	97011208	156.95	.3594 - .3900	195.70	180.00	174.80	172.25	169.60	167.55
609	1 ⅛	8	3/16	.312	2 3/16	97010609	164.80	.1714 - .2025	203.85	188.20	182.95	180.45	177.85	175.65
709	1 ⅛	8	7/32	.342	2 7/32	97010709	164.80	.2026 - .2339	203.85	188.20	182.95	180.45	177.85	175.65
809	1 ⅛	8	¼	.374	2 ¼	97010809	164.80	.2340 - .2650	203.85	188.20	182.95	180.45	177.85	175.65
-	1 ⅛	8	9/32	.435	2 9/32	97013609	180.45	.2651 - .2968	203.85	188.20	182.95	180.45	177.85	175.65
1009	1 ⅛	8	5/16	.435	2 5/16	97011009	164.80	.2969 - .3281	203.85	188.20	182.95	180.45	177.85	175.65
610	1 ¼	8	3/16	.312	2 3/16	97010610	173.10	.1714 - .2025	212.50	196.90	191.70	189.10	186.40	184.30
710	1 ¼	8	7/32	.342	2 7/32	97010710	173.10	.2026 - .2339	212.50	196.90	191.70	189.10	186.40	184.30
810	1 ¼	8	¼	.374	2 ¼	97010810	173.10	.2340 - .2650	212.50	196.90	191.70	189.10	186.40	184.30
-	1 ¼	8	9/32	.435	2 9/32	97014009	189.55	.2651 - .2968	212.50	196.90	191.70	189.10	186.40	184.30
1010	1 ¼	8	5/16	.435	2 5/16	97011010	173.10	.2969 - .3281	212.50	196.90	191.70	189.10	186.40	184.30
-	1 ¼	8	11/32	.467	2 11/32	97014011	189.55	.3282 - .3593	212.50	196.90	191.70	189.10	186.40	184.30
1210	1 ¼	8	⅜	.467	2 ⅜	97011210	173.10	.3594 - .3900	212.50	196.90	191.70	189.10	186.40	184.30
811	1 ⅜	8	¼	.401	2 ¼	97010811	181.80	.2340 - .2650	221.70	206.15	200.90	198.30	195.70	193.50
-	1 ⅜	8	9/32	.467	2 9/32	97014409	199.15	.2651 - .2968	221.70	206.15	200.90	198.30	195.70	193.50
1011	1 ⅜	8	5/16	.467	2 5/16	97011011	181.80	.2969 - .3281	221.70	206.15	200.90	198.30	195.70	193.50
-	1 ⅜	8	11/32	.467	2 11/32	97014411	199.15	.3282 - .3593	221.70	206.15	200.90	198.30	195.70	193.50
1211	1 ⅜	8	⅜	.467	2 ⅜	97011211	181.80	.3594 - .3900	221.70	206.15	200.90	198.30	195.70	193.50
812	1 ½	8	¼	.435	2 ¼	97010812	190.95	.2340 - .2650	231.20	215.60	210.35	207.90	205.20	203.05
-	1 ½	8	9/32	.467	2 9/32	97014809	209.15	.2651 - .2968	231.20	215.60	210.35	207.90	205.20	203.05
1012	1 ½	8	5/16	.467	2 5/16	97011012	190.95	.2969 - .3281	231.20	215.60	210.35	207.90	205.20	203.05
-	1 ½	8	11/32	.467	2 11/32	97014811	209.15	.3282 - .3593	231.20	215.60	210.35	207.90	205.20	203.05
1212	1 ½	8	⅜	.467	2 ⅜	97011212	190.95	.3594 - .3900	231.20	215.60	210.35	207.90	205.20	203.05
-	1 ½	8	13/32	.467	2 13/32	97014813	209.15	.3901 - .4219	231.20	215.60	210.35	207.90	205.20	203.05
-	1 ½	8	7/16	.467	2 7/16	97014814	209.15	.4220 - .4531	231.20	215.60	210.35	207.90	205.20	203.05
-	1 ½	8	15/32	.467	2 15/32	97014815	209.15	.4532 - .4843	231.20	215.60	210.35	207.90	205.20	203.05
-	1 ½	8	½	.467	2 ½	97014816	209.15	.4844 - .5150	231.20	215.60	210.35	207.90	205.20	203.05

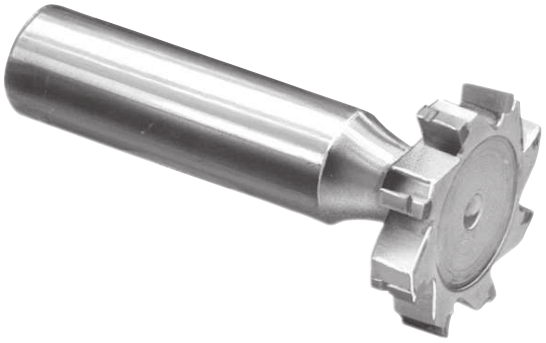
**Quantities of 15 or more: price of fractional size in same size range.*

KEYSEAT CUTTERS - STEEL

CARBIDE TIPPED

List No. 9710 - Straight Tooth - For Steel

Use: Appropriate carbide grade and straight flutes for milling slots in steel. Chip breakers on List No. 9710 5/32" width and greater. Hardened alloy steel bodies with brazed on carbide tips. Decimal size cutters DO NOT have chip breakers.



Tool diameter tolerance: +.020"/+.015"
Face width tolerance: +0"/-.0005"
Shank: ½" diameter; 2" long

AMERICAN STANDARD NO.	TOOL DIAM.	NO. OF TEETH	WIDTH	NECK DIAM.	OAL	LIST 9710 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
									1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
204	½	6	1/16	.130	2 1/16	97020204	$120.70	.0575 - .0787	$159.25	$142.85	$137.30	$134.70	$131.90	$129.65
304	½	6	3/32	.160	2 3/32	97020304	120.70	.0788 - .1088	159.25	142.85	137.30	134.70	131.90	129.65
404	½	6	⅛	.191	2 ⅛	97020404	120.70	.1089 - .1400	159.25	142.85	137.30	134.70	131.90	129.65
305	⅝	6	3/32	.191	2 3/32	97020305	125.05	.0788 - .1088	163.70	147.30	141.85	139.15	136.45	134.15
405	⅝	6	⅛	.223	2 ⅛	97020405	125.05	.1089 - .1400	163.70	147.30	141.85	139.15	136.45	134.15
505	⅝	6	5/32	.252	2 5/32	97020505	125.05	.1401 - .1713	163.70	147.30	141.85	139.15	136.45	134.15
605	⅝	6	3/16	.279	2 3/16	97020605	125.05	.1714 - .2025	163.70	147.30	141.85	139.15	136.45	134.15
406	¾	6	⅛	.217	2 ⅛	97020406	130.50	.1100 - .1400	169.55	153.15	147.60	144.90	142.15	139.90
506	¾	6	5/32	.246	2 5/32	97020506	130.50	.1401 - .1713	169.55	153.15	147.60	144.90	142.15	139.90
606	¾	6	3/16	.279	2 3/16	97020606	130.50	.1714 - .2025	169.55	153.15	147.60	144.90	142.15	139.90
-	¾	6	7/32	.342	2 7/32	97022407	142.90	.2026 - .2339	169.55	153.15	147.60	144.90	142.15	139.90
806	¾	6	¼	.342	2 ¼	97020806	130.50	.2340 - .2650	169.55	153.15	147.60	144.90	142.15	139.90
507	⅞	6	5/32	.246	2 5/32	97020507	136.70	.1401 - .1713	175.95	159.55	154.00	151.35	148.60	146.30
607	⅞	6	3/16	.279	2 3/16	97020607	136.70	.1714 - .2025	175.95	159.55	154.00	151.35	148.60	146.30
707	⅞	6	7/32	.312	2 7/32	97020707	136.70	.2026 - .2339	175.95	159.55	154.00	151.35	148.60	146.30
807	⅞	6	¼	.342	2 ¼	97020807	136.70	.2340 - .2650	175.95	159.55	154.00	151.35	148.60	146.30
608	1	8	3/16	.279	2 3/16	97020608	154.20	.1714 - .2025	194.20	177.90	172.30	169.70	166.95	164.70
708	1	8	7/32	.312	2 7/32	97020708	154.20	.2026 - .2339	194.20	177.90	172.30	169.70	166.95	164.70
808	1	8	¼	.342	2 ¼	97020808	154.20	.2340 - .2650	194.20	177.90	172.30	169.70	166.95	164.70
-	1	8	9/32	.401	2 9/32	97023209	168.90	.2651 - .2968	194.20	177.90	172.30	169.70	166.95	164.70
1008	1	8	5/16	.401	2 5/16	97021008	154.20	.2969 - .3281	194.20	177.90	172.30	169.70	166.95	164.70
-	1	8	11/32	.467	2 11/32	97023211	168.90	.3282 - .3593	194.20	177.90	172.30	169.70	166.95	164.70
1208	1	8	⅜	.467	2 ⅜	97021208	154.20	.3594 - .3900	194.20	177.90	172.30	169.70	166.95	164.70
609	1 ⅛	8	3/16	.312	2 3/16	97020609	161.95	.1714 - .2025	202.40	186.05	180.45	177.90	175.10	172.80
709	1 ⅛	8	7/32	.342	2 7/32	97020709	161.95	.2026 - .2339	202.40	186.05	180.45	177.90	175.10	172.80
809	1 ⅛	8	¼	.374	2 ¼	97020809	161.95	.2340 - .2650	202.40	186.05	180.45	177.90	175.10	172.80
-	1 ⅛	8	9/32	.435	2 9/32	97023609	177.35	.2651 - .2968	202.40	186.05	180.45	177.90	175.10	172.80
1009	1 ⅛	8	5/16	.435	2 5/16	97021009	161.95	.2969 - .3281	202.40	186.05	180.45	177.90	175.10	172.80
610	1 ¼	8	3/16	.312	2 3/16	97020610	170.00	.1714 - .2025	210.90	194.45	189.00	186.30	183.50	181.30
710	1 ¼	8	7/32	.342	2 7/32	97020710	170.00	.2026 - .2339	210.90	194.45	189.00	186.30	183.50	181.30
810	1 ¼	8	¼	.374	2 ¼	97020810	170.00	.2340 - .2650	210.90	194.45	189.00	186.30	183.50	181.30
-	1 ¼	8	9/32	.435	2 9/32	97024009	186.20	.2651 - .2968	210.90	194.45	189.00	186.30	183.50	181.30
1010	1 ¼	8	5/16	.435	2 5/16	97021010	170.00	.2969 - .3281	210.90	194.45	189.00	186.30	183.50	181.30
-	1 ¼	8	11/32	.467	2 11/32	97024011	186.20	.3282 - .3593	210.90	194.45	189.00	186.30	183.50	181.30
1210	1 ¼	8	⅜	.467	2 ⅜	97021210	170.00	.3594 - .3900	210.90	194.45	189.00	186.30	183.50	181.30
811	1 ⅜	8	¼	.401	2 ¼	97020811	178.60	.2340 - .2650	220.00	203.50	198.00	195.30	192.50	190.30
-	1 ⅜	8	9/32	.467	2 9/32	97024409	195.55	.2651 - .2968	220.00	203.50	198.00	195.30	192.50	190.30
1011	1 ⅜	8	5/16	.467	2 5/16	97021011	178.60	.2969 - .3281	220.00	203.50	198.00	195.30	192.50	190.30
-	1 ⅜	8	11/32	.467	2 11/32	97024411	195.55	.3282 - .3593	220.00	203.50	198.00	195.30	192.50	190.30
1211	1 ⅜	8	⅜	.467	2 ⅜	97021211	178.60	.3594 - .3900	220.00	203.50	198.00	195.30	192.50	190.30
812	1 ½	8	¼	.435	2 ¼	97020812	187.50	.2340 - .2650	229.25	212.90	207.40	204.75	201.90	199.75
-	1 ½	8	9/32	.467	2 9/32	97024809	205.35	.2651 - .2968	229.25	212.90	207.40	204.75	201.90	199.75
1012	1 ½	8	5/16	.467	2 5/16	97021012	187.50	.2969 - .3281	229.25	212.90	207.40	204.75	201.90	199.75
-	1 ½	8	11/32	.467	2 11/32	97024811	205.35	.3282 - .3593	229.25	212.90	207.40	204.75	201.90	199.75
1212	1 ½	8	⅜	.467	2 ⅜	97021212	187.50	.3594 - .3900	229.25	212.90	207.40	204.75	201.90	199.75
-	1 ½	8	13/32	.467	2 13/32	97024813	205.35	.3901 - .4219	229.25	212.90	207.40	204.75	201.90	199.75
-	1 ½	8	7/16	.467	2 7/16	97024814	205.35	.4220 - .4531	229.25	212.90	207.40	204.75	201.90	199.75
-	1 ½	8	15/32	.467	2 15/32	97024815	205.35	.4532 - .4843	229.25	212.90	207.40	204.75	201.90	199.75
-	1 ½	8	½	.467	2 ½	97024816	205.35	.4844 - .5150	229.25	212.90	207.40	204.75	201.90	199.75

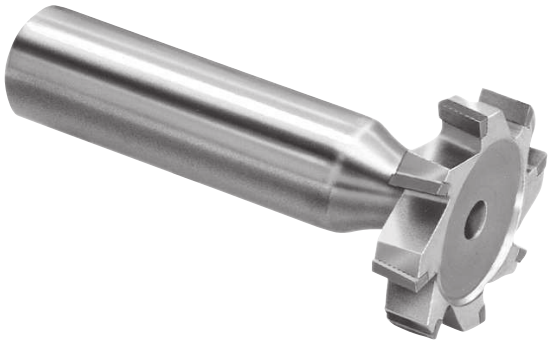
**Quantities of 15 or more: price of fractional size in same size range.*

KEYSEAT CUTTERS - STEEL

CARBIDE TIPPED

List No. 9810 - Staggered Tooth - For Steel

Use: Appropriate carbide grade with alternate right and left hand axial rake for milling slots in steel. Hardened alloy steel bodies with brazed on carbide tips.



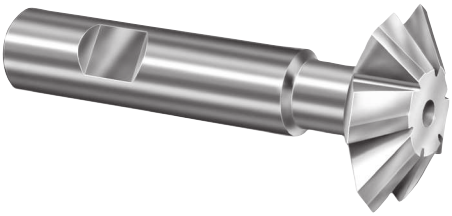
Tool diameter tolerance: +.020"/+.015"
Face width tolerance: +0"/-.0005"
Shank: ½" diameter; 2" long

AMERICAN STANDARD NO.	TOOL DIAM.	NO. OF TEETH	WIDTH	NECK DIAM.	OAL	LIST 9810 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
									1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
204	½	6	1/16	.130	2 1/16	97030204	$142.00	.0575 - .0787	$181.55	$165.15	$159.65	$156.95	$154.20	$152.00
304	½	6	3/32	.160	2 3/32	97030304	142.00	.0788 - .1088	181.55	165.15	159.65	156.95	154.20	152.00
404	½	6	⅛	.191	2 ⅛	97030404	142.00	.1089 - .1400	181.55	165.15	159.65	156.95	154.20	152.00
305	⅝	6	3/32	.191	2 3/32	97030305	147.00	.0788 - .1088	186.80	170.45	164.95	162.30	159.55	157.25
405	⅝	6	⅛	.223	2 ⅛	97030405	147.00	.1089 - .1400	186.80	170.45	164.95	162.30	159.55	157.25
505	⅝	6	5/32	.252	2 5/32	97030505	147.00	.1401 - .1713	186.80	170.45	164.95	162.30	159.55	157.25
605	⅝	6	3/16	.279	2 3/16	97030605	147.00	.1714 - .2025	186.80	170.45	164.95	162.30	159.55	157.25
406	¾	6	⅛	.217	2 ⅛	97030406	153.65	.1100 - .1400	193.75	177.40	171.90	169.25	166.40	164.15
506	¾	6	5/32	.246	2 5/32	97030506	153.65	.1401 - .1713	193.75	177.40	171.90	169.25	166.40	164.15
606	¾	6	3/16	.279	2 3/16	97030606	153.65	.1714 - .2025	193.75	177.40	171.90	169.25	166.40	164.15
-	¾	6	7/32	.342	2 7/32	97032407	168.25	.2026 - .2339	193.75	177.40	171.90	169.25	166.40	164.15
806	¾	6	¼	.342	2 ¼	97030806	153.65	.2340 - .2650	193.75	177.40	171.90	169.25	166.40	164.15
507	⅞	6	5/32	.246	2 5/32	97030507	160.75	.1401 - .1713	201.10	184.75	179.20	176.45	173.70	171.60
607	⅞	6	3/16	.279	2 3/16	97030607	160.75	.1714 - .2025	201.10	184.75	179.20	176.45	173.70	171.60
707	⅞	6	7/32	.312	2 7/32	97030707	160.75	.2026 - .2339	201.10	184.75	179.20	176.45	173.70	171.60
807	⅞	6	¼	.342	2 ¼	97030807	160.75	.2340 - .2650	201.10	184.75	179.20	176.45	173.70	171.60
608	1	8	3/16	.279	2 3/16	97030608	181.30	.1714 - .2025	222.65	206.35	200.80	198.15	195.35	193.15
708	1	8	7/32	.312	2 7/32	97030708	181.30	.2026 - .2339	222.65	206.35	200.80	198.15	195.35	193.15
808	1	8	¼	.342	2 ¼	97030808	181.30	.2340 - .2650	222.65	206.35	200.80	198.15	195.35	193.15
-	1	8	9/32	.401	2 9/32	97033209	198.65	.2651 - .2968	222.65	206.35	200.80	198.15	195.35	193.15
1008	1	8	5/16	.401	2 5/16	97031008	181.30	.2969 - .3281	222.65	206.35	200.80	198.15	195.35	193.15
-	1	8	11/32	.467	2 11/32	97033211	198.65	.3282 - .3593	222.65	206.35	200.80	198.15	195.35	193.15
1208	1	8	⅜	.467	2 ⅜	97031208	181.30	.3594 - .3900	222.65	206.35	200.80	198.15	195.35	193.15
609	1 ⅛	8	3/16	.312	2 3/16	97030609	190.30	.1714 - .2025	232.15	215.70	210.25	207.60	204.85	202.50
709	1 ⅛	8	7/32	.342	2 7/32	97030709	190.30	.2026 - .2339	232.15	215.70	210.25	207.60	204.85	202.50
809	1 ⅛	8	¼	.374	2 ¼	97030809	190.30	.2340 - .2650	232.15	215.70	210.25	207.60	204.85	202.50
-	1 ⅛	8	9/32	.435	2 9/32	97033609	208.40	.2651 - .2968	232.15	215.70	210.25	207.60	204.85	202.50
1009	1 ⅛	8	5/16	.435	2 5/16	97031009	190.30	.2969 - .3281	232.15	215.70	210.25	207.60	204.85	202.50
610	1 ¼	8	3/16	.312	2 3/16	97030610	199.90	.1714 - .2025	242.15	225.75	220.30	217.65	214.90	212.60
710	1 ¼	8	7/32	.342	2 7/32	97030710	199.90	.2026 - .2339	242.15	225.75	220.30	217.65	214.90	212.60
810	1 ¼	8	¼	.374	2 ¼	97030810	199.90	.2340 - .2650	242.15	225.75	220.30	217.65	214.90	212.60
-	1 ¼	8	9/32	.435	2 9/32	97034009	219.00	.2651 - .2968	242.15	225.75	220.30	217.65	214.90	212.60
1010	1 ¼	8	5/16	.435	2 5/16	97031010	199.90	.2969 - .3281	242.15	225.75	220.30	217.65	214.90	212.60
-	1 ¼	8	11/32	.467	2 11/32	97034011	219.00	.3282 - .3593	242.15	225.75	220.30	217.65	214.90	212.60
1210	1 ¼	8	⅜	.467	2 ⅜	97031210	199.90	.3594 - .3900	242.15	225.75	220.30	217.65	214.90	212.60
811	1 ⅜	8	¼	.401	2 ¼	97030811	210.10	.2340 - .2650	252.80	236.45	230.85	228.25	225.45	223.20
-	1 ⅜	8	9/32	.467	2 9/32	97034409	230.00	.2651 - .2968	252.80	236.45	230.85	228.25	225.45	223.20
1011	1 ⅜	8	5/16	.467	2 5/16	97031011	210.10	.2969 - .3281	252.80	236.45	230.85	228.25	225.45	223.20
-	1 ⅜	8	11/32	.467	2 11/32	97034411	230.00	.3282 - .3593	252.80	236.45	230.85	228.25	225.45	223.20
1211	1 ⅜	8	⅜	.467	2 ⅜	97031211	210.10	.3594 - .3900	252.80	236.45	230.85	228.25	225.45	223.20
812	1 ½	8	¼	.435	2 ¼	97030812	220.55	.2340 - .2650	263.80	247.40	241.90	239.25	236.45	234.30
-	1 ½	8	9/32	.467	2 9/32	97034809	241.55	.2651 - .2968	263.80	247.40	241.90	239.25	236.45	234.30
1012	1 ½	8	5/16	.467	2 5/16	97031012	220.55	.2969 - .3281	263.80	247.40	241.90	239.25	236.45	234.30
-	1 ½	8	11/32	.467	2 11/32	97034811	241.55	.3282 - .3593	263.80	247.40	241.90	239.25	236.45	234.30
1212	1 ½	8	⅜	.467	2 ⅜	97031212	220.55	.3594 - .3900	263.80	247.40	241.90	239.25	236.45	234.30
-	1 ½	8	13/32	.467	2 13/32	97034813	241.55	.3901 - .4219	263.80	247.40	241.90	239.25	236.45	234.30
-	1 ½	8	7/16	.467	2 7/16	97034814	241.55	.4220 - .4531	263.80	247.40	241.90	239.25	236.45	234.30
-	1 ½	8	15/32	.467	2 15/32	97034815	241.55	.4532 - .4843	263.80	247.40	241.90	239.25	236.45	234.30
-	1 ½	8	½	.467	2 ½	97034816	241.55	.4844 - .5150	263.80	247.40	241.90	239.25	236.45	234.30

**Quantities of 15 or more: price of fractional size in same size range.*

DOUBLE ANGLE CUTTERS

CARBIDE TIPPED



List No. 9746 - 60° Included Angle - For Non-Ferrous & Cast Iron
List No. 9747 - 60° Included Angle - For Steel
List No. 9748 - 90° Included Angle - For Non-Ferrous & Cast Iron
List No. 9749 - 90° Included Angle - For Steel

Corner radius: .010”-.015”

TOOL DIAM.	SHANK DIAM.	NO. OF TEETH	60° INCLUDED ANGLE						90° INCLUDED ANGLE					
			OAL	CUTTER WIDTH	LIST 9746 EDP NO.	PRICE EACH	LIST 9747 EDP NO.	PRICE EACH	OAL	CUTTER WIDTH	LIST 9748 EDP NO.	PRICE EACH	LIST 9749 EDP NO.	PRICE EACH
¾	⅜	6	2 ⅜	3/16	974624	$166.90	974724	$183.60	2 ⅜	¼	974824	$166.90	974924	$183.60
1	½	6	2 27/32	5/16	974632	197.10	974732	216.85	2 29/32	⅜	974832	197.10	974932	216.85
1 ⅜	⅝	6	3 7/32	7/16	974644	228.30	974744	251.20	3 9/32	½	974844	228.30	974944	251.20
1 ½	⅝	6	3 ⅜	½	974648	239.80	974748	263.75	3 7/16	9/16	974848	239.80	974948	263.75
1 ⅞	¾	6	3 25/32	⅝	974660	364.10	974760	400.55	3 25/32	⅝	974860	364.10	974960	400.55
2 ¼	⅞	6	4 5/32	¾	974672	492.85	974772	542.15	4 5/32	¾	974872	492.85	974972	542.15

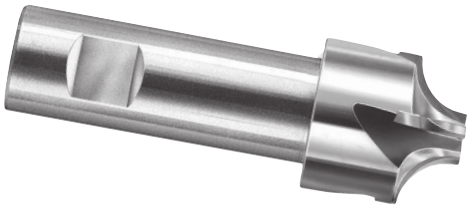
CORNER ROUNDING CUTTERS

CARBIDE TIPPED

List No. 9756 - For Non-Ferrous & Cast Iron
List No. 9757 - For Steel

Use: Milling round corners on square edges.

CIRCLE RADIUS	TOOL DIAM.	SHANK DIAM.	END DIAM.	CARB. LEN.	OAL	LIST 9756		LIST 9757	
						EDP NO.	PRICE EACH	EDP NO.	PRICE EACH
1/16	7/16	⅜	17/64	13/32	2 ¾	96602	$131.85	96702	$142.50
3/32	½	⅜	17/64	13/32	2 ¾	96603	131.85	96703	142.50
⅛	⅝	½	19/64	13/32	3	96604	136.55	96704	147.35
5/32	¾	½	23/64	13/32	3	96605	144.80	96705	156.35
3/16	⅞	¾	13/32	13/32	3 ¼	96606	153.20	96706	165.40
¼	1	¾	13/32	15/32	3 ¼	96608	174.60	96708	188.50
5/16	1 ⅛	⅞	13/32	19/32	3 ½	96610	179.35	96710	193.70
⅜	1 ¼	⅞	13/32	25/32	3 ¾	96612	186.30	96712	201.25
7/16	1 ⅜	1	13/32	⅞	4	96614	207.50	96714	224.10
½	1 ½	1	13/32	1	4	96616	230.90	96716	249.50
⅝	2	1 ¼	21/32	1 7/32	4 ¼	96620	284.15	96720	306.95



RADIUS CUTTERS

CARBIDE TIPPED

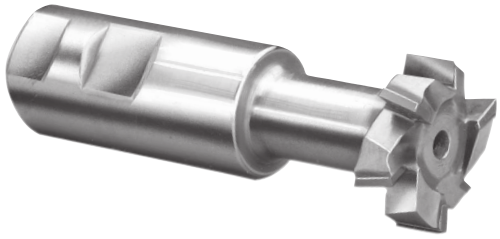
List No. 9718 - For Non-Ferrous & Cast Iron
List No. 9719 - For Steel

Right hand cut. Convex radius. Tool diameter tolerance: +.005”/-0.
Radius Tolerance thru ⅛” radius: +.001”/-.001”. Over ⅛” radius: +.002”/-.002”.

CUTTER RADIUS	TOOL DIAM.	SHANK DIAM.	NO. OF TEETH	CUTTER WIDTH	OAL	LIST 9718		LIST 9719	
						EDP NO.	PRICE EACH	EDP NO.	PRICE EACH
1/32	¾	½	6	1/16	3	971801	$208.20	971901	$229.05
1/16	¾	½	6	⅛	3	971802	208.20	971902	229.05
3/32	⅞	½	6	3/16	3	971803	227.65	971903	250.30
⅛	1 ¼	¾	6	¼	3 ½	971804	247.70	971904	272.55
5/32	1 5/16	¾	6	5/16	3 ½	971805	285.10	971905	313.55
3/16	1 ⅜	¾	6	⅜	3 ½	971806	301.65	971906	331.85
¼	1 ½	¾	6	½	4	971808	312.25	971908	343.55

T-SLOT - DOVETAIL - CHAMFER CUTTERS

CARBIDE TIPPED



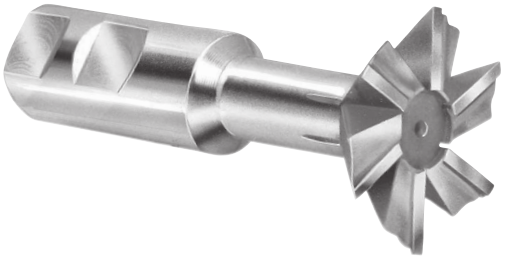
List No. 9720 - T-Slot - For Non-Ferrous & Cast Iron
List No. 9721 - T-Slot - For Steel

Use: Right and left hand helix with side cutting teeth for machining steel, cast iron and non-ferrous materials.

Standards available in high speed steel online at www.supertoolinc.com.

Tool diameter tolerance: +0"/-.010"

BOLT DIAMETER	TOOL DIAMETER	SHANK DIAMETER	CUTTER WIDTH	NECK DIAMETER	UNDERCUT LENGTH	NO. OF TEETH	OVERALL LENGTH	LIST 9720 EDP NO.	PRICE EACH	LIST 9721 EDP NO.	PRICE EACH
1/4	9/16	1/2	15/64	17/64	35/64	6	2 19/32	92008	$143.70	92108	$155.20
5/16	21/32	1/2	17/64	21/64	39/64	6	2 11/16	92010	141.95	92110	153.30
3/8	25/32	3/4	21/64	13/32	55/64	6	3 1/4	92012	178.65	92112	193.00
1/2	31/32	3/4	25/64	17/32	63/64	6	3 7/16	92016	194.25	92116	209.75
5/8	1 1/4	1	31/64	21/32	1 9/64	6	3 15/16	92020	257.80	92120	278.50
3/4	1 15/32	1	5/8	25/32	1 1/2	6	4 7/16	92024	288.10	92124	311.10
1	1 27/32	1 1/4	53/64	1 1/32	1 43/64	8	4 13/16	92032	411.30	92132	444.25
1 1/4	2 7/32	1 1/4	1 3/32	1 7/32	1 31/32	8	5 3/8	92040	519.05	92140	560.60
1 1/2	2 21/32	1 1/4	1 11/32	1 17/32	2 1/8	8	5 29/32	92048	601.05	92148	649.15



List No. 9752 - 45° Dovetail - For Non-Ferrous & Cast Iron
List No. 9753 - 45° Dovetail - For Steel

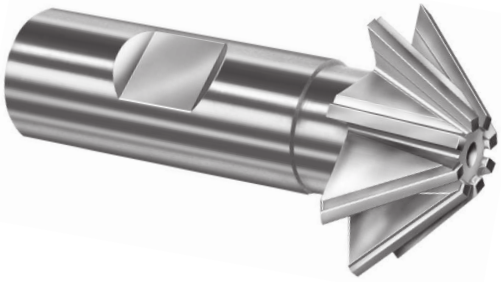
List No. 9750 - 60° Dovetail - For Non-Ferrous & Cast Iron
List No. 9751 - 60° Dovetail - For Steel

Use: For chamfering or dovetail applications.

Standards available in high speed steel online at www.supertoolinc.com

Tool diameter tolerance: +.015"/-0"; corner radius: .015"-.020"

TOOL DIAM.	SHANK DIAM.	NECK DIAM.	NO. OF TEETH	OVERALL LENGTH	45° ANGLE					60° ANGLE				
					CUTTER WIDTH	LIST 9752 EDP NO.	PRICE EACH	LIST 9753 EDP NO.	PRICE EACH	CUTTER WIDTH	LIST 9750 EDP NO.	PRICE EACH	LIST 9751 EDP NO.	PRICE EACH
1/2	3/8	3/16	3	2 1/8	5/32	96216	$143.90	96316	146.05	7/32	96016	$143.90	96116	$146.05
3/4	3/8	1/4	3	2 1/4	1/4	96224	155.25	96324	157.40	1/4	96024	155.25	96124	157.40
1	1/2	3/8	4	2 1/2	5/16	96232	166.05	96332	168.45	3/8	96032	166.05	96132	168.45
1 1/4	5/8	1/2	4	2 3/4	3/8	96240	188.80	96340	191.50	1/2	96040	188.80	96140	191.50
1 1/2	3/4	1/2	4	3 1/4	1/2	96248	220.55	96348	223.75	5/8	96048	220.55	96148	223.75
2	1	3/4	6	4 1/4	5/8	96264	354.40	96364	359.45	3/4	96064	354.40	96164	359.45
2 1/2	1 1/4	1	6	4 3/8	3/4	96280	479.30	96380	486.00	7/8	96080	479.30	96180	486.00
3	1 1/4	1	6	4 1/2	1	96296	565.15	96396	573.30	1 1/8	96096	565.15	96196	573.30



List No. 9730 - 45° Chamfer - For Non-Ferrous & Cast Iron
List No. 9731 - 45° Chamfer - For Steel

List No. 9732 - 60° Chamfer - For Non-Ferrous & Cast Iron
List No. 9733 - 60° Chamfer - For Steel

Use: For chamfering applications.

Standards available in high speed steel online at www.supertoolinc.com.

Tool diameter tolerance: +.015"/-0"

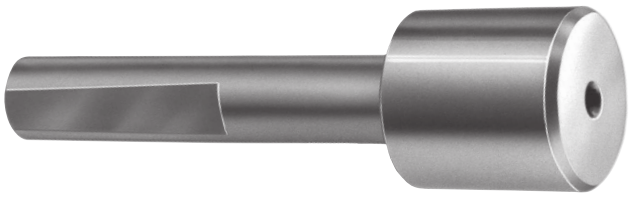
TOOL DIAM.	SHANK DIAM.	NO. OF TEETH	OVERALL LENGTH	45° ANGLE					60° ANGLE				
				CUTTER WIDTH	LIST 9730 EDP NO.	PRICE EACH	LIST 9731 EDP NO.	PRICE EACH	CUTTER WIDTH	LIST 9732 EDP NO.	PRICE EACH	LIST 9733 EDP NO.	PRICE EACH
1/2	3/8	4	2 1/8	1/8	973016	$175.80	973116	$193.30	7/32	973216	$175.80	973316	$193.30
3/4	3/8	6	2 1/8	3/16	973024	189.50	973124	208.40	5/16	973224	189.50	973324	208.40
1	1/2	6	2 1/2	5/16	973032	222.35	973132	244.50	7/16	973232	222.35	973332	244.50
1 1/2	3/4	8	2 3/4	1/2	973048	281.75	973148	310.10	5/8	973248	281.75	973348	310.10

COUNTERBORE PILOTS

CARBON STEEL

List No. 5776 - Counterbore Pilots

Use: For use with counterbores List No. 5778, 5779, 5780, 5781, & 9522; See pages 11-14.



PILOT HEAD DIAMETER	TOLERANCE
1/8" THRU 1/4"	-.001"/-.002"
OVER 1/4" THRU 7/8"	-.003"/-.004"
OVER 7/8" THRU 1 1/4"	-.005"/-.006"

PILOT HEAD DIAMETER		SHANK DIAMETER									ALL LIST PRICE	PRICE EACH - PILOT HEAD DIAMETER FINISHED TO DECIMAL SIZE					
		3/32	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2							
DEC.	FRAC.	.0938 EDP NO.	.1250 EDP NO.	.1562 EDP NO.	.1875 EDP NO.	.2500 EDP NO.	.3125 EDP NO.	.3750 EDP NO.	.4375 EDP NO.	.5000 EDP NO.		1 PC.	2 PC.	3 PC.	4 PC.	5-7	8+
.1250	1/8	56202	-	-	-	-	-	-	-	-	$24.15	$95.95	$60.10	$48.15	$42.25	$36.15	$31.15
.1562	5/32	56203	56305	-	-	-	-	-	-	-	19.60	91.35	55.55	43.55	37.50	31.60	26.60
.1875	3/16	56204	56306	56209	-	-	-	-	-	-	20.00	91.75	55.90	43.95	38.00	31.90	26.95
.2188	7/32	56205	56307	56210	56217	-	-	-	-	-	22.65	94.45	58.50	46.50	40.70	34.65	29.65
.2500	1/4	56206	56308	56211	56218	-	-	-	-	-	22.65	94.45	58.50	46.50	40.70	34.65	29.65
.2812	9/32	56207	56309	56212	56219	56327	-	-	-	-	24.15	95.95	60.10	48.15	42.25	36.15	31.15
.3125	5/16	56302	56310	56213	56220	56232	-	-	-	-	24.15	95.95	60.10	48.15	42.25	36.15	31.15
.3438	11/32	56303	56311	56214	56221	56233	56336	-	-	-	24.15	95.95	60.10	48.15	42.25	36.15	31.15
.3750	3/8	-	56312	56215	56222	56234	56342	-	-	-	26.60	98.45	62.55	50.55	44.55	38.60	33.70
.4062	13/32	-	56313	56201	56223	56235	56337	-	-	-	26.60	98.45	62.55	50.55	44.55	38.60	33.70
.4375	7/16	-	56314	56216	56224	56236	56343	56264	-	-	27.25	99.00	63.15	51.20	45.20	39.25	34.25
.4688	15/32	-	56315	-	56225	56237	56251	-	-	-	27.25	99.00	63.15	51.20	45.20	39.25	34.25
.5000	1/2	-	56316	-	56226	56238	56344	56266	56287	-	31.15	103.05	67.10	55.10	49.35	43.20	38.25
.5312	17/32	-	56317	-	56227	56239	56252	-	56288	-	36.35	108.15	72.30	60.40	54.40	48.35	43.45
.5625	9/16	-	56318	-	56228	56240	56345	56268	56289	56358	40.80	112.65	76.75	64.75	58.95	52.85	47.90
.5938	19/32	-	56319	-	-	56241	56338	-	56290	56359	44.85	116.60	80.75	68.75	62.75	56.75	51.85
.6250	5/8	-	56320	-	56230	56242	56346	56270	56291	56360	44.85	116.60	80.75	68.75	62.75	56.75	51.85
.6562	21/32	-	-	-	56231	56243	56254	-	56292	-	45.90	117.70	81.75	69.80	63.95	57.90	52.90
.6875	11/16	-	-	-	56321	56244	56347	56272	56293	56361	45.90	117.70	81.75	69.80	63.95	57.90	52.90
.7188	23/32	-	-	-	-	56328	56255	-	56294	56362	52.00	123.75	87.85	75.90	70.00	63.95	59.05
.7500	3/4	-	-	-	56322	56329	56256	56274	56295	56363	52.00	123.75	87.85	75.90	70.00	63.95	59.05
.7812	25/32	-	-	-	-	56330	56339	-	56349	56364	58.40	130.25	94.35	82.35	76.60	70.45	65.50
.8125	13/16	-	-	-	56323	56331	56257	56275	56296	56365	58.40	130.25	94.35	82.35	76.60	70.45	65.50
.8438	27/32	-	-	-	-	56332	-	-	-	-	64.65	136.45	100.55	88.60	82.55	76.65	71.65
.8750	7/8	-	-	-	56324	56333	56258	56276	56297	56366	64.65	136.45	100.55	88.60	82.55	76.65	71.65
.9375	15/16	-	-	-	56325	56334	56259	56277	56298	56367	68.20	139.95	104.10	92.15	86.20	80.15	75.25
1.0000	1	-	-	-	56326	56335	56260	56278	56299	56368	70.55	142.30	106.45	94.45	88.60	82.50	77.60
1.0625	1 1/16	-	-	-	-	-	56261	56279	56300	56369	73.15	144.90	108.95	97.00	91.00	85.15	80.15
1.1250	1 1/8	-	-	-	-	-	56262	56280	56301	56370	88.15	159.95	124.05	112.00	106.20	100.05	95.20
1.1875	1 3/16	-	-	-	-	-	56340	56281	56350	56371	90.85	162.55	126.65	114.75	108.85	102.80	97.85
1.2500	1 1/4	-	-	-	-	-	56341	56282	56351	56372	95.75	167.55	131.70	119.65	113.90	107.70	102.80
1.3125	1 5/16	-	-	-	-	-	-	56283	56352	56373	100.80	172.55	136.75	124.80	118.85	112.80	107.80
1.3750	1 3/8	-	-	-	-	-	56348	56284	56353	56374	110.05	182.00	146.10	134.15	128.15	122.15	117.20
1.4375	1 7/16	-	-	-	-	-	-	56285	56354	56375	111.45	183.20	147.25	135.25	129.45	123.30	118.45
1.5000	1 1/2	-	-	-	-	-	-	-	56355	56376	112.80	184.70	148.80	136.80	130.75	124.85	119.90
1.5625	1 9/16	-	-	-	-	-	-	-	56356	56377	114.15	186.15	150.25	138.25	132.25	126.25	121.30
1.6250	1 5/8	-	-	-	-	-	-	-	-	56378	115.40	187.15	151.30	139.25	133.40	127.30	122.50
1.6875	1 11/16	-	-	-	-	-	-	-	-	56379	116.95	188.65	152.80	140.75	134.90	128.80	123.95
1.7500	1 3/4	-	-	-	-	-	-	-	56357	56380	118.75	190.45	154.50	142.55	136.75	130.60	125.70
1.8750	1 7/8	-	-	-	-	-	-	-	-	56381	142.95	215.00	179.05	167.05	161.10	155.10	150.25
2.0000	2	-	-	-	-	-	-	-	-	56382	142.95	215.00	179.05	167.05	161.10	155.10	150.25

Shank diameter tolerance: +0"/-.0005"

COUNTERBORES - REDUCED SHANK - NON-FERROUS

CARBIDE TIPPED

List No. 9522 - Reduced Shank Counterbores - Right Hand Helix

Use: For counterbore and spotfacing in applications where machine requires a smaller shank. For use in non-ferrous materials, composites and non-metals. Polished flutes.

1⁄64" corner radius
For pilots see page 10
Tool diameter: +.001"/-0"
Shank diameter: +0"/-.001"

TOOL DIAMETER		MIN. CUT DIAM.	PILOT HOLE DIAM.	NO. OF FLUTES	SMALL SHANK DIAM.	OVERALL LENGTH	LIST 9522 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DECIMAL	FRAC.									1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	1/4	.125	3/32	3	1/4	2 3/8	52208	$62.30	.2381 - .2530	$105.95	$84.25	$76.85	$73.40	$69.70	$66.65
.2812	9/32	.125	3/32	3	1/4	2 3/8	52209	62.40	.2531 - .2840	106.05	84.30	77.00	73.45	69.75	66.75
.3125	5/16	.125	3/32	3	1/4	2 3/8	52210	64.05	.2841 - .3150	107.75	85.80	78.50	74.90	71.30	68.35
.3438	11/32	.125	3/32	3	1/4	2 3/8	52211	65.30	.3151 - .3470	109.00	87.05	79.85	76.25	72.60	69.65
.3750	3/8	.125	3/32	3	1/4	2 3/8	52212	65.50	.3471 - .3780	109.10	87.25	80.10	76.45	72.70	69.75
.4062	13/32	.156	1/8	3	1/4	2 3/4	52213	74.45	.3781 - .4090	118.00	96.35	88.95	85.45	81.70	78.80
.4375	7/16	.156	1/8	3	1/4	2 3/4	52214	80.25	.4091 - .4410	123.90	102.05	94.85	91.15	87.60	84.55
.4688	15/32	.156	1/8	3	1/4	2 3/4	52215	81.60	.4411 - .4720	125.25	103.40	96.15	92.65	88.90	85.90
.5000	1/2	.156	1/8	3	1/4	2 3/4	52216	82.60	.4721 - .5030	126.30	104.45	97.15	93.50	89.85	86.85
.5312	17/32	.156	1/8	3	1/4	2 3/4	52217	83.05	.5031 - .5340	126.65	104.80	97.55	93.95	90.25	87.25
.5625	9/16	.156	1/8	3	1/4	2 3/4	52218	83.40	.5341 - .5660	127.00	105.25	97.90	94.30	90.70	87.65
.5938	19/32	.156	1/8	3	1/4	2 3/4	52219	83.80	.5661 - .5970	127.55	105.70	98.50	94.85	91.10	88.10
.6250	5/8	.156	1/8	3	1/4	2 3/4	52220	84.75	.5971 - .6280	128.40	106.65	99.30	95.80	92.10	89.00
.6562	21/32	.219	3/16	3	1/4	2 3/4	52221	94.15	.6281 - .6590	137.80	115.95	108.80	105.25	101.50	98.55
.6875	11/16	.219	3/16	3	1/4	2 3/4	52222	98.95	.6591 - .6910	142.55	120.80	113.45	109.90	106.10	103.20
.7188	23/32	.219	3/16	3	1/4	2 3/4	52223	102.25	.6911 - .7220	145.80	124.10	116.75	113.30	109.50	106.60
.7500	3/4	.219	3/16	3	1/4	2 3/4	52224	103.55	.7221 - .7530	147.15	125.40	118.00	114.55	110.85	107.85
.7812	25/32	.219	3/16	3	1/4	2 3/4	52225	103.95	.7531 - .7840	147.65	125.80	118.55	114.85	111.25	108.25
.8125	13/16	.219	3/16	3	1/4	2 3/4	52226	104.85	.7841 - .8160	148.65	126.70	119.45	115.85	112.20	109.15
.8438	27/32	.219	3/16	3	1/4	2 3/4	52227	105.65	.8161 - .8470	149.30	127.30	120.10	116.55	112.85	109.90
.8750	7/8	.219	3/16	3	1/4	2 3/4	52228	106.65	.8471 - .8780	150.25	128.40	121.20	117.60	113.85	110.90
.9062	29/32	.219	3/16	3	1/4	2 3/4	52229	107.30	.8781 - .9090	151.00	129.20	122.00	118.35	114.65	111.65
.9375	15/16	.219	3/16	3	1/4	2 3/4	52230	108.35	.9091 - .9410	152.05	130.25	122.95	119.35	115.75	112.60
.9688	31/32	.219	3/16	3	1/4	2 3/4	52231	109.10	.9411 - .9720	152.75	130.90	123.75	120.05	116.40	113.40
1.0000	1	.219	3/16	3	1/4	2 3/4	52232	109.45	.9721 - 1.0030	153.15	131.30	123.95	120.40	116.65	113.70
1.0625	1 1/16	.219	3/16	3	3/8	2 3/4	52234	139.70	1.0031 - 1.0660	183.30	161.45	154.30	150.60	146.90	143.95
1.1250	1 1/8	.219	3/16	3	3/8	2 3/4	52236	149.05	1.0661 - 1.1280	192.65	170.85	163.65	160.05	156.30	153.30
1.1875	1 3/16	.219	3/16	3	3/8	2 3/4	52238	150.95	1.1281 - 1.1905	194.60	172.80	165.50	161.95	158.25	155.25
1.2500	1 1/4	.281	1/4	3	3/8	2 3/4	52240	153.75	1.1906 - 1.2530	197.55	175.60	168.25	164.70	161.15	158.10
1.3125	1 5/16	.281	1/4	3	3/8	2 3/4	52242	156.60	1.2531 - 1.3155	200.20	178.40	171.20	167.60	163.80	160.85
1.3750	1 3/8	.281	1/4	3	3/8	2 3/4	52244	158.40	1.3156 - 1.3780	202.15	180.40	173.05	169.40	165.80	162.70
1.4375	1 7/16	.281	1/4	3	3/8	2 3/4	52246	160.30	1.3781 - 1.4405	204.05	182.15	174.95	171.30	167.65	164.65
1.5000	1 1/2	.281	1/4	3	3/8	2 3/4	52248	168.80	1.4406 - 1.5030	214.00	191.40	183.85	180.15	176.25	173.25
1.5625	1 9/16	.343	5/16	3	1/2	3 1/16	52250	187.75	1.5031 - 1.5660	232.95	210.40	202.85	199.15	195.35	192.30
1.6250	1 5/8	.343	5/16	3	1/2	3 1/16	52252	190.20	1.5661 - 1.6280	235.50	212.85	205.40	201.65	197.80	194.65
1.6875	1 11/16	.343	5/16	3	1/2	3 1/16	52254	192.70	1.6281 - 1.6910	238.00	215.40	207.85	204.15	200.35	197.20
1.7500	1 3/4	.343	5/16	3	1/2	3 1/16	52256	195.70	1.6911 - 1.7530	240.95	218.25	210.75	207.00	203.25	200.15
1.8125	1 13/16	.343	5/16	3	1/2	3 1/16	52258	198.05	1.7531 - 1.8160	242.85	220.30	212.75	209.05	205.10	202.05
1.8750	1 7/8	.343	5/16	3	1/2	3 1/16	52260	199.45	1.8161 - 1.8780	244.75	222.10	214.50	210.90	207.00	203.90
1.9375	1 15/16	.343	5/16	3	1/2	3 1/16	52262	220.10	1.8781 - 1.9410	265.35	242.70	235.15	231.45	227.60	224.55
2.0000	2	.343	5/16	3	1/2	3 1/16	52264	273.85	1.9411 - 2.0030	319.30	296.65	289.10	285.35	281.50	278.35

**Quantities of 15 or more: price of fractional size in same size range.*

Carbide tipped counterbores offer excellent cost-per-hole benefits and provide greatly extended tool life over high speed steel tools. Counterboring is a continuous cut operation and therefore the application of certain coatings and use of coolant greatly enhances the performance. Tool diameter tolerance: +.001"/-0".

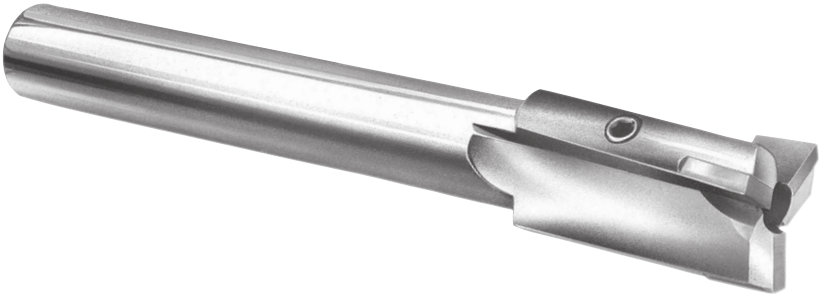
Counterbore Modifications Available	
Intermediate cutting diameter	Reduced diameter for step cutting
Closer tolerance (<.001")	Drive flats or tangs
Corner radius for improved finish	Reduced shank diameters or morse taper sizes
End chamfer	Shortened shanks
Other modifications available. Call, fax, or email your requests.	

COUNTERBORES - NON-FERROUS/CAST IRON

CARBIDE TIPPED

List No. 5779 - Straight Shank - Three/Four Flute - For Non-Ferrous

Use: Designed with right hand helix, proper grade carbide and cutting edge clearance for heavier feeds. Hardened alloy steel bodies with brazed on carbide tips.



For pilots see page 10.
Tool diameter tolerance: +.001”/-0”
Shank diameter tolerance: +0”/-.0005”

TOOL DIAMETER		MIN. CUT DIAM.	PILOT HOLE DIAM.	SHANK DIAM.	OAL	LIST 5779				PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.					NO. OF FLTS.	EDP NO.	NO. OF FLTS.	EDP NO.			1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	1/4	.114	3/32	15/64	3 13/16	-	-	3	56401	$77.25	.2381 - .2530	$120.90	$99.10	$91.85	$88.20	$84.50	$81.50
.2812	9/32	.114	3/32	17/64	3 13/16	-	-	3	5792812	94.45	.2531 - .2840	137.95	116.30	109.00	105.40	101.75	98.70
.3125	5/16	.114	3/32	19/64	3 13/16	-	-	3	56402	80.60	.2841 - .3150	121.50	101.10	94.30	90.90	87.45	84.60
.3438	11/32	.114	3/32	5/16	3 13/16	-	-	3	5793438	102.05	.3151 - .3470	142.90	122.40	115.60	112.25	108.80	105.90
.3750	3/8	.182	5/32	5/16	4 1/16	-	-	3	56403	85.45	.3471 - .3780	123.25	104.35	98.05	94.95	91.75	89.20
.4062	13/32	.182	5/32	3/8	4 1/16	-	-	3	5794062	96.35	.3781 - .4090	134.10	115.30	108.95	105.85	102.65	100.10
.4375	7/16	.182	5/32	3/8	4 1/16	-	-	3	56404	87.70	.4091 - .4410	125.45	106.55	100.25	97.25	93.95	91.40
.4688	15/32	.228	3/16	7/16	4 5/16	-	-	3	5794688	107.05	.4411 - .4720	144.80	125.90	119.70	116.60	113.30	110.75
.5000	1/2	.228	3/16	7/16	4 5/16	4	56405	3	59805	97.35	.4721 - .5030	135.05	116.10	109.95	106.75	103.60	101.05
.5312	17/32	.228	3/16	1/2	4 5/16	4	5775312	3	5795312	110.15	.5031 - .5340	147.90	129.10	122.80	119.70	116.45	113.85
.5625	9/16	.228	3/16	1/2	4 5/16	4	56406	3	59806	100.20	.5341 - .5660	137.95	119.05	112.80	109.60	106.50	103.80
.5938	19/32	.228	3/16	1/2	5 1/8	4	5775938	3	5795938	111.35	.5661 - .5970	149.05	130.20	123.95	120.80	117.55	115.00
.6250	5/8	.228	3/16	1/2	5 1/8	4	56407	3	59807	101.20	.5971 - .6280	138.90	119.95	113.70	110.65	107.40	104.85
.6562	21/32	.228	3/16	1/2	5 1/8	4	5776562	3	5796562	117.80	.6281 - .6590	155.50	136.70	130.35	127.25	124.10	121.50
.6875	11/16	.228	3/16	1/2	5 1/8	4	56408	3	59808	107.15	.6591 - .6910	144.90	126.00	119.75	116.65	113.50	110.80
.7188	23/32	.290	1/4	1/2	5 3/8	4	5777188	3	5797188	120.60	.6911 - .7220	158.25	139.45	133.15	130.15	126.85	124.30
.7500	3/4	.290	1/4	1/2	5 3/8	4	56409	3	59809	109.55	.7221 - .7530	147.35	128.45	122.15	119.05	115.90	113.20
.7812	25/32	.290	1/4	5/8	5 3/8	4	5777812	3	5797812	123.20	.7531 - .7840	160.85	141.95	135.75	132.60	129.35	126.80
.8125	13/16	.290	1/4	5/8	5 3/8	4	56410	3	59810	111.85	.7841 - .8160	149.60	130.70	124.45	121.25	118.20	115.60
.8438	27/32	.290	1/4	3/4	5 3/8	4	5778438	3	5798438	130.40	.8161 - .8470	168.20	149.25	143.05	139.90	136.75	134.10
.8750	7/8	.290	1/4	3/4	5 3/8	4	56411	3	59811	118.60	.8471 - .8780	156.35	137.50	131.25	128.05	124.90	122.25
.9062	29/32	.290	1/4	3/4	6 1/8	4	5779062	3	5799062	133.05	.8781 - .9090	170.85	151.95	145.65	142.60	139.40	136.80
.9375	15/16	.290	1/4	3/4	6 1/8	4	56412	3	59812	121.05	.9091 - .9410	158.85	139.90	133.65	130.50	127.30	124.70
.9688	31/32	.353	5/16	3/4	6 3/8	4	5779688	3	5799688	136.95	.9411 - .9720	174.65	155.75	149.50	146.40	143.25	140.65
1.0000	1	.353	5/16	3/4	6 3/8	4	56413	3	59813	124.50	.9721 - 1.0030	162.30	143.35	137.05	133.95	130.80	128.15
1.0625	1 1/16	.353	5/16	3/4	6 3/8	4	56414	3	59814	125.80	1.0031 - 1.0660	163.60	144.65	138.35	135.35	132.10	129.50
1.1250	1 1/8	.353	5/16	1	6 3/8	4	56415	3	59815	129.10	1.0661 - 1.1280	166.75	147.90	141.70	138.45	135.35	132.75
1.1875	1 3/16	.353	5/16	1	6 3/8	4	56416	3	59816	134.75	1.1281 - 1.1905	172.45	153.70	147.40	144.25	141.05	138.45
1.2500	1 1/4	.426	3/8	1	6 5/8	-	-	4	56417	150.10	1.1906 - 1.2530	190.95	170.60	163.75	160.40	156.85	154.20
1.3125	1 5/16	.426	3/8	1	6 5/8	-	-	4	56418	162.00	1.2531 - 1.3155	203.00	182.55	175.65	172.30	168.85	166.05
1.3750	1 3/8	.426	3/8	1	6 5/8	-	-	4	56419	170.50	1.3156 - 1.3780	211.35	190.85	184.00	180.60	177.25	174.40
1.4375	1 7/16	.426	3/8	1 1/4	7 7/8	-	-	4	56420	186.85	1.3781 - 1.4405	231.25	209.05	201.60	197.90	194.25	191.15
1.5000	1 1/2	.426	3/8	1 1/4	7 7/8	-	-	4	56421	216.00	1.4406 - 1.5030	262.15	239.00	231.35	227.65	223.70	220.50
1.5625	1 9/16	.489	7/16	1 1/4	8 1/8	-	-	4	56422	222.35	1.5031 - 1.5660	268.55	245.40	237.70	233.90	230.05	226.90
1.6250	1 5/8	.489	7/16	1 1/4	8 1/8	-	-	4	56423	227.00	1.5661 - 1.6280	273.20	250.10	242.50	238.65	234.75	231.60
1.6875	1 11/16	.489	7/16	1 1/4	8 1/8	-	-	4	56429	271.65	1.6281 - 1.6910	321.40	296.55	288.20	284.05	279.90	276.45
1.7500	1 3/4	.489	7/16	1 1/4	8 1/8	-	-	4	56424	271.65	1.6911 - 1.7530	321.40	296.55	288.20	284.05	279.90	276.45
1.8125	1 13/16	.489	7/16	1 1/2	8 1/8	-	-	4	56425	321.55	1.7531 - 1.8160	371.35	346.50	338.20	334.10	329.75	326.45
1.8750	1 7/8	.489	7/16	1 1/2	8 1/8	-	-	4	56426	321.55	1.8161 - 1.8780	371.35	346.50	338.20	334.10	329.75	326.45
1.9375	1 15/16	.489	7/16	1 1/2	8 1/8	-	-	4	56427	351.40	1.8781 - 1.9410	401.30	376.40	368.05	363.85	359.70	356.30
2.0000	2	.551	1/2	1 1/2	8 3/8	-	-	4	56428	351.40	1.9411 - 2.0030	401.30	376.40	368.05	363.85	359.70	356.30

**Quantities of 15 or more: price of fractional size in same size range.*

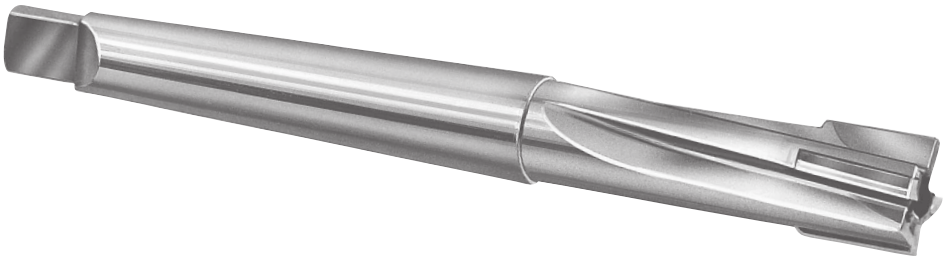
Specials & modifications see page 11.

COUNTERBORES - NON-FERROUS/CAST IRON

CARBIDE TIPPED

List No. 5780 - Tapered Shank - Three/Four Flute - For Non-Ferrous

Use: Designed with right hand helix, proper grade carbide and cutting edge clearance for heavier feeds. Hardened alloy steel bodies with brazed on carbide tips.



For pilots see page 10.
Tool diameter tolerance: +.001"/-0"

TOOL DIAMETER		MIN. CUT DIAM.	PILOT HOLE DIAM.	MORSE TAPER	OAL	LIST 5780				PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.					NO. OF FLTS.	EDP NO.	NO. OF FLTS.	EDP NO.			1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	1/4	.114	3/32	1	3 13/16	-	-	3	56451	$93.75	.2381 - .2530	$139.00	$116.40	$108.85	$105.10	$101.30	$98.20
.2812	9/32	.114	3/32	1	3 13/16	-	-	3	5982812	112.85	.2531 - .2840	157.95	135.30	127.80	124.10	120.40	117.15
.3125	5/16	.114	3/32	1	3 13/16	-	-	3	56452	96.35	.2841 - .3150	138.80	117.55	110.55	107.05	103.40	100.50
.3438	11/32	.114	3/32	1	3 13/16	-	-	3	5983438	118.75	.3151 - .3470	161.20	139.90	132.80	129.35	125.75	122.85
.3750	3/8	.182	5/32	1	4 1/16	-	-	3	56453	99.50	.3471 - .3780	138.50	119.05	112.45	109.30	106.00	103.35
.4062	13/32	.182	5/32	1	4 1/16	-	-	3	5984062	112.35	.3781 - .4090	151.50	131.90	125.45	122.15	118.90	116.20
.4375	7/16	.182	5/32	1	4 1/16	-	-	3	56454	102.15	.4091 - .4410	141.20	121.70	115.15	112.00	108.70	106.00
.4688	15/32	.228	3/16	1	4 5/16	-	-	3	5984688	124.05	.4411 - .4720	163.15	143.55	137.05	133.85	130.60	127.90
.5000	1/2	.228	3/16	1	4 5/16	4	56455	3	59855	112.80	.4721 - .5030	152.00	132.35	125.75	122.70	119.25	116.60
.5312	17/32	.228	3/16	1	4 5/16	4	5645312	3	5985312	126.30	.5031 - .5340	165.40	145.85	139.30	136.10	132.80	130.15
.5625	9/16	.228	3/16	1	4 5/16	4	56456	3	59856	114.85	.5341 - .5660	154.00	134.40	127.95	124.65	121.45	118.75
.5938	19/32	.228	3/16	2	5 1/8	4	5645938	3	5985938	129.75	.5661 - .5970	168.95	149.35	142.85	139.60	136.35	133.60
.6250	5/8	.228	3/16	2	5 1/8	4	56457	3	59857	117.95	.5971 - .6280	157.00	137.55	130.95	127.85	124.40	121.75
.6562	21/32	.228	3/16	2	5 1/8	4	5646562	3	5986562	137.00	.6281 - .6590	176.15	156.60	150.00	146.90	143.50	140.85
.6875	11/16	.228	3/16	2	5 1/8	4	56458	3	59858	124.40	.6591 - .6910	163.65	144.00	137.55	134.25	130.95	128.30
.7188	23/32	.290	1/4	2	5 3/8	4	5647188	3	5987188	139.25	.6911 - .7220	178.40	158.85	152.30	149.15	145.80	143.15
.7500	3/4	.290	1/4	2	5 3/8	4	56459	3	59859	126.60	.7221 - .7530	165.65	146.15	139.60	136.45	133.05	130.30
.7812	25/32	.290	1/4	2	5 3/8	4	5647812	3	5987812	141.65	.7531 - .7840	180.70	161.20	154.60	151.40	148.10	145.45
.8125	13/16	.290	1/4	2	5 3/8	4	56460	3	59860	128.75	.7841 - .8160	167.85	148.35	141.85	138.50	135.30	132.60
.8438	27/32	.290	1/4	2	5 3/8	4	5648438	3	5988438	148.85	.8161 - .8470	188.05	168.50	162.00	158.80	155.50	152.80
.8750	7/8	.290	1/4	2	5 3/8	4	56461	3	59861	135.35	.8471 - .8780	174.50	154.90	148.45	145.15	141.90	139.15
.9062	29/32	.290	1/4	3	6 1/8	4	5649062	3	5989062	152.95	.8781 - .9090	192.05	172.45	166.05	162.70	159.50	156.80
.9375	15/16	.290	1/4	3	6 1/8	4	56462	3	59862	139.05	.9091 - .9410	178.15	158.60	152.10	148.80	145.65	142.90
.9688	31/32	.353	5/16	3	6 3/8	4	5649688	3	5989688	156.55	.9411 - .9720	195.60	176.10	169.55	166.35	162.95	160.25
1.0000	1	.353	5/16	3	6 3/8	4	56463	3	59863	147.65	.9721 - 1.0030	188.30	167.95	161.20	157.90	154.35	151.60
1.0625	1 1/16	.353	5/16	3	6 3/8	4	56464	3	59864	149.60	1.0031 - 1.0660	190.10	169.85	163.10	159.75	156.25	153.50
1.1250	1 1/8	.353	5/16	3	6 3/8	4	56465	3	59865	154.30	1.0661 - 1.1280	194.95	174.70	167.80	164.50	161.05	158.30
1.1875	1 3/16	.353	5/16	3	6 3/8	4	56466	3	59866	159.55	1.1281 - 1.1905	200.30	179.90	173.05	169.80	166.35	163.55
1.2500	1 1/4	.426	3/8	3	6 5/8	-	-	4	56467	177.40	1.1906 - 1.2530	221.40	199.40	192.05	188.45	184.75	181.65
1.3125	1 5/16	.426	3/8	3	6 5/8	-	-	4	56468	190.10	1.2531 - 1.3155	234.30	212.10	204.85	201.15	197.55	194.45
1.3750	1 3/8	.426	3/8	3	6 5/8	-	-	4	56469	199.25	1.3156 - 1.3780	243.25	221.25	213.90	210.25	206.65	203.50
1.4375	1 7/16	.426	3/8	4	7 7/8	-	-	4	56470	221.65	1.3781 - 1.4405	269.55	245.60	237.50	233.60	229.60	226.30
1.5000	1 1/2	.426	3/8	4	7 7/8	-	-	4	56471	245.70	1.4406 - 1.5030	293.60	269.70	261.70	257.75	253.75	250.45
1.5625	1 9/16	.489	7/16	4	8 1/8	-	-	4	56472	264.00	1.5031 - 1.5660	314.15	289.15	280.85	276.60	272.45	269.05
1.6250	1 5/8	.489	7/16	4	8 1/8	-	-	4	56473	268.75	1.5661 - 1.6280	318.85	293.90	285.50	281.35	277.10	273.75
1.6875	1 11/16	.489	7/16	4	8 1/8	-	-	4	56479	321.55	1.6281 - 1.6910	375.75	348.70	339.70	335.25	330.60	326.90
1.7500	1 3/4	.489	7/16	4	8 1/8	-	-	4	56474	321.55	1.6911 - 1.7530	375.75	348.70	339.70	335.25	330.60	326.90
1.8125	1 13/16	.489	7/16	4	8 1/8	-	-	4	56475	380.60	1.7531 - 1.8160	434.70	407.70	398.65	394.15	389.60	385.80
1.8750	1 7/8	.489	7/16	4	8 1/8	-	-	4	56476	380.60	1.8161 - 1.8780	434.70	407.70	398.65	394.15	389.60	385.80
1.9375	1 15/16	.489	7/16	4	8 1/8	-	-	4	56477	415.85	1.8781 - 1.9410	470.05	442.95	433.85	429.45	424.90	421.15
2.0000	2	.551	1/2	4	8 3/8	-	-	4	56478	415.85	1.9411 - 2.0030	470.05	442.95	433.85	429.45	424.90	421.15

**Quantities of 15 or more: price of fractional size in same size range.*

Specials & modifications see page 11.

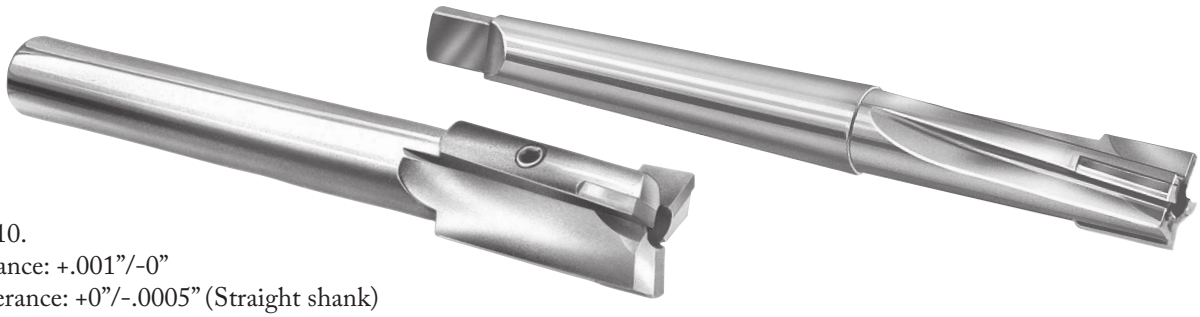
COUNTERBORES - STEEL

CARBIDE TIPPED

List No. 5778 - Straight Shank - Three/Four Flute - For Steel

List No. 5781 - Tapered Shank - Three/Four Flute - For Steel

Use: Designed with right hand helix, proper grade carbide and cutting edge clearance for heavier feeds. Hardened alloy steel bodies with brazed on carbide tips.



For pilots see page 10.
Tool diameter tolerance: +.001"/-0"
Shank diameter tolerance: +0"/-.0005" (Straight shank)

TOOL DIAMETER		MIN. CUT DIAM.	PILOT HOLE DIAM.	NO. OF FLTS.	OAL	STRAIGHT SHANK LIST 5778		TAPER SHANK LIST 5781		BOTH LIST PRICE	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.					SHANK DIAM.	EDP NO.	MORSE TAPER	EDP NO.			1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	¼	.114	3/32	3	3 13/16	15/64	59701	1	47401	$93.75	.2381 - .2530	$139.00	$116.40	$108.85	$105.10	$101.30	$98.20
.2812	9/32	.114	3/32	3	3 13/16	17/64	5972812	1	4742812	112.85	.2531 - .2840	157.95	135.30	127.80	124.10	120.40	117.15
.3125	5/16	.114	3/32	3	3 13/16	19/64	59702	1	47402	96.35	.2841 - .3150	138.80	117.55	110.55	107.05	103.40	100.50
.3438	11/32	.114	3/32	3	3 13/16	5/16	5973438	1	4743438	118.75	.3151 - .3470	161.20	139.90	132.80	129.35	125.75	122.85
.3750	3/8	.182	5/32	3	4 1/16	5/16	59703	1	47403	99.50	.3471 - .3780	138.50	119.05	112.45	109.30	106.00	103.35
.4062	13/32	.182	5/32	3	4 1/16	3/8	5974062	1	4744062	112.35	.3781 - .4090	151.50	131.90	125.45	122.15	118.90	116.20
.4375	7/16	.182	5/32	3	4 1/16	3/8	59704	1	47404	102.15	.4091 - .4410	141.20	121.70	115.15	112.00	108.70	106.00
.4688	15/32	.228	3/16	3	4 5/16	7/16	5974688	1	4744688	124.05	.4411 - .4720	163.15	143.55	137.05	133.85	130.60	127.90
.5000	½	.228	3/16	3	4 5/16	7/16	59705	1	47405	112.80	.4721 - .5030	152.00	132.35	125.75	122.70	119.25	116.60
.5312	17/32	.228	3/16	3	4 5/16	½	5975312	1	4745312	121.75	.5031 - .5340	159.45	140.60	134.30	131.25	128.00	125.45
.5625	9/16	.228	3/16	3	4 5/16	½	59707	1	47407	110.70	.5341 - .5660	148.45	129.50	123.30	120.05	117.00	114.35
.5938	19/32	.228	3/16	3	5 1/8	½	5975938	2	4745938	125.05	.5661 - .5970	162.75	143.95	137.65	134.50	131.40	128.70
.6250	5/8	.228	3/16	3	5 1/8	½	59709	2	47409	113.65	.5971 - .6280	151.40	132.55	126.25	123.20	119.90	117.35
.6562	21/32	.228	3/16	3	5 1/8	½	5976562	2	4746562	132.00	.6281 - .6590	169.70	150.85	144.55	141.45	138.25	135.75
.6875	11/16	.228	3/16	3	5 1/8	½	59711	2	47411	119.90	.6591 - .6910	157.70	138.80	132.55	129.35	126.25	123.55
.7188	23/32	.290	¼	3	5 3/8	½	5977188	2	4747188	134.20	.6911 - .7220	171.95	153.10	146.85	143.70	140.55	137.95
.7500	¾	.290	¼	3	5 3/8	½	59713	2	47413	122.00	.7221 - .7530	159.65	140.75	134.50	131.45	128.15	125.60
.7812	25/32	.290	¼	3	5 3/8	5/8	5977812	2	4747812	136.50	.7531 - .7840	174.15	155.35	149.05	145.85	142.75	140.15
.8125	13/16	.290	¼	3	5 3/8	5/8	59715	2	47415	124.10	.7841 - .8160	161.80	142.95	136.70	133.55	130.35	127.80
.8438	27/32	.290	¼	3	5 3/8	¾	5978438	2	4748438	143.45	.8161 - .8470	181.30	162.40	156.10	152.95	149.85	147.20
.8750	7/8	.290	¼	3	5 3/8	¾	59717	2	47417	130.40	.8471 - .8780	168.20	149.25	143.05	139.90	136.75	134.10
.9062	29/32	.290	¼	3	6 1/8	¾	5979062	3	4749062	147.40	.8781 - .9090	185.05	166.20	160.00	156.80	153.70	151.10
.9375	15/16	.290	¼	3	6 1/8	¾	59719	3	47419	133.95	.9091 - .9410	171.65	152.80	146.50	143.40	140.30	137.70
.9688	31/32	.353	5/16	3	6 3/8	¾	5979688	3	4749688	150.80	.9411 - .9720	188.45	169.65	163.35	160.25	156.95	154.45
1.0000	1	.353	5/16	3	6 3/8	¾	59721	3	47421	142.25	.9721 - 1.0030	181.50	161.90	155.35	152.15	148.70	146.15
1.0625	1 1/16	.353	5/16	3	6 3/8	¾	59723	3	47423	144.15	1.0031 - 1.0660	183.20	163.65	157.15	153.90	150.60	147.95
1.1250	1 1/8	.353	5/16	3	6 3/8	1	59725	3	47425	148.65	1.0661 - 1.1280	187.85	168.35	161.75	158.50	155.20	152.55
1.1875	1 3/16	.353	5/16	3	6 3/8	1	59727	3	47427	153.75	1.1281 - 1.1905	193.00	173.40	166.80	163.60	160.25	157.65
1.2500	1 ¼	.426	3/8	4	6 5/8	1	59729	3	47429	170.95	1.1906 - 1.2530	213.35	192.10	185.05	181.60	178.00	175.10
1.3125	1 5/16	.426	3/8	4	6 5/8	1	59730	3	47430	183.20	1.2531 - 1.3155	225.75	204.45	197.45	193.85	190.35	187.40
1.3750	1 3/8	.426	3/8	4	6 5/8	1	59731	3	47431	192.00	1.3156 - 1.3780	234.40	213.20	206.15	202.65	199.05	196.10
1.4375	1 7/16	.426	3/8	4	7 7/8	1 ¼	59732	4	47432	213.50	1.3781 - 1.4405	259.75	236.70	228.90	225.20	221.25	218.05
1.5000	1 ½	.426	3/8	4	7 7/8	1 ¼	59733	4	47433	245.70	1.4406 - 1.5030	293.60	269.70	261.70	257.75	253.75	250.45
1.5625	1 9/16	.489	7/16	4	8 1/8	1 ¼	59734	4	47434	264.00	1.5031 - 1.5660	314.15	289.15	280.85	276.60	272.45	269.05
1.6250	1 5/8	.489	7/16	4	8 1/8	1 ¼	59735	4	47435	268.75	1.5661 - 1.6280	318.85	293.90	285.50	281.35	277.10	273.75
1.6875	1 11/16	.489	7/16	4	8 1/8	1 ¼	59738	4	47438	321.55	1.6281 - 1.6910	375.75	348.70	339.70	335.25	330.60	326.90
1.7500	1 ¾	.489	7/16	4	8 1/8	1 ¼	59736	4	47436	321.55	1.6911 - 1.7530	375.75	348.70	339.70	335.25	330.60	326.90
1.8125	1 13/16	.489	7/16	4	8 1/8	1 ½	59739	4	47439	380.60	1.7531 - 1.8160	434.70	407.70	398.65	394.15	389.60	385.80
1.8750	1 7/8	.489	7/16	4	8 1/8	1 ½	59740	4	47440	380.60	1.8161 - 1.8780	434.70	407.70	398.65	394.15	389.60	385.80
1.9375	1 15/16	.489	7/16	4	8 1/8	1 ½	59741	4	47441	415.85	1.8781 - 1.9410	470.05	442.95	433.85	429.45	424.90	421.15
2.0000	2	.551	½	4	8 3/8	1 ½	59737	4	47437	415.85	1.9411 - 2.0030	470.05	442.95	433.85	429.45	424.90	421.15

**Quantities of 15 or more: price of fractional size in same size range.*

Made in the USA

Specials & modifications see page 11.

CAPSCREW COUNTERBORES

CARBIDE TIPPED

List No. 9513 - Straight Shank - For Non-Ferrous & Cast Iron
List No. 9515 - Straight Shank - For Steel

Use: Capscrew Counterbores are designed with the appropriate carbide grade and geometry for material being machined. Pilot is a built-in part of the tool's steel body construction. Pilot is manufactured in nominal as well as 1/64 and 1/32 over-size diameters. Carbide tips brazed on to hardened steel bodies. Smooth right spiral flutes.

Integral Pilot type.
Tool diameter tolerance: +.001"/-0"
Shank diameter tolerance: +0"/-.0005"

TOOL DIAMETER		PILOT DIAM.	PILOT LENGTH	SHANK DIAM.	OVERALL LENGTH	LIST 9513 - NON-FERR / C.I.		PRICE EACH	LIST 9515 - STEEL		PRICE EACH
DECIMAL	SCREW SIZE					NO. OF FLTS.	EDP NO.		NO. OF FLTS.	EDP NO.	
.3820	1/4	.2500	.3125	5/16	5 5/8	3	95132500	$89.85	3	95152500	$98.80
.3980	1/4	.2650	.3125	5/16	5 5/8	3	95132650	99.80	3	95152650	109.85
.4140	1/4	.2810	.3125	5/16	5 5/8	3	95132810	99.80	3	95152810	109.85
.4750	5/16	.3125	.3750	3/8	6 1/8	3	95133125	100.45	3	95153125	110.60
.4910	5/16	.3280	.3750	3/8	6 1/8	3	95133280	100.45	3	95153280	110.60
.5070	5/16	.3430	.3750	3/8	6 1/8	3	95133430	100.45	3	95153430	110.60
.5720	3/8	.3750	.5000	1/2	6 1/2	3	95133750	113.30	3	95153750	124.65
.5880	3/8	.3900	.5000	1/2	6 1/2	3	95133900	113.30	3	95153900	124.65
.6040	3/8	.4060	.5000	1/2	6 1/2	3	95134060	113.30	3	95154060	124.65
.6630	7/16	.4375	.5000	1/2	7	3	95134375	109.45	3	95154375	120.40
.6790	7/16	.4530	.5000	1/2	7	3	95134530	109.45	3	95154530	120.40
.6950	7/16	.4680	.5000	1/2	7	3	95134680	109.45	3	95154680	120.40
.7570	1/2	.5000	.5000	1/2	7 1/2	3	95135000	124.10	3	95155000	136.60
.7730	1/2	.5150	.5000	1/2	7 1/2	3	95135150	124.10	3	95155150	136.60
.7890	1/2	.5310	.5000	1/2	7 1/2	3	95135310	124.10	3	95155310	136.60
.8510	9/16	.5625	.5625	5/8	7 5/8	3	95135625	119.95	3	95155625	132.00
.8670	9/16	.5780	.5625	5/8	7 5/8	3	95135780	119.95	3	95155780	132.00
.8830	9/16	.5930	.5625	5/8	7 5/8	3	95135930	119.95	3	95155930	132.00
.9450	5/8	.6250	.6250	5/8	7 5/8	3	95136250	136.75	3	95156250	150.45
.9610	5/8	.6400	.6250	5/8	7 5/8	3	95136400	136.75	3	95156400	150.45
.9770	5/8	.6560	.6250	5/8	7 5/8	3	95136560	136.75	3	95156560	150.45
1.1330	3/4	.7500	.7500	3/4	7 3/4	3	95137500	134.80	3	95157500	148.30
1.1490	3/4	.7650	.7500	3/4	7 3/4	3	95137650	134.80	3	95157650	148.30
1.1650	3/4	.7810	.7500	3/4	7 3/4	3	95137810	134.80	3	95157810	148.30
1.3220	7/8	.8750	.8750	7/8	8 1/8	4	95138750	149.85	4	95158750	164.95
1.3380	7/8	.8910	.8750	7/8	8 1/8	4	95138910	149.85	4	95158910	164.95
1.3540	7/8	.9060	.8750	7/8	8 1/8	4	95139060	149.85	4	95159060	164.95
1.5100	1	1.0000	1.0000	1	8 1/2	4	95130000	171.60	4	95150000	188.80
1.5260	1	1.0150	1.0000	1	8 1/2	4	95130156	171.60	4	95150156	188.80
1.5420	1	1.0310	1.0000	1	8 1/2	4	95130313	171.60	4	95150313	188.80

List No. 9513 - Straight Shank - For Non-Ferrous & Cast Iron - Metric
List No. 9515 - Straight Shank - For Steel - Metric

METRIC

Same as above except metric sizes.

TOOL DIAMETER		PILOT DIAM. (MM)	PILOT LENGTH	SHANK DIAM.	OVERALL LENGTH	LIST 9513 - NON-FERR / C.I.		PRICE EACH	LIST 9515 - STEEL		PRICE EACH
DECIMAL	SCREW SIZE (MM)					NO. OF FLTS.	EDP NO.		NO. OF FLTS.	EDP NO.	
.3543	5	5.5	9/32	5/16	5 5/8	3	9513055	$99.55	3	9515055	$109.45
.4134	6	6.5	5/16	5/16	5 5/8	3	9513065	105.05	3	9515065	115.60
.5315	8	8.5	3/8	1/2	6 1/2	3	9513085	124.80	3	9515085	137.20
.6496	10	10.5	1/2	1/2	7	3	9513105	135.75	3	9515105	149.30
.7283	12	12.5	1/2	1/2	7 1/2	3	9513125	127.35	3	9515125	140.00
.8465	14	14.5	9/16	5/8	7 5/8	3	9513145	148.50	3	9515145	163.25
.9646	16	16.5	5/8	5/8	7 5/8	3	9513165	155.15	3	9515165	170.65
1.2008	20	20.5	3/4	7/8	8	3	9513205	143.90	3	9515205	158.25

Specials & modifications see page 11.

Made in the USA

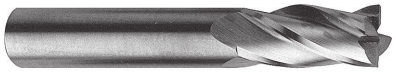
END MILLS - SINGLE END - SQUARE END

SOLID CARBIDE DISCONTINUED - WHILE SUPPLIES LAST

10% Cobalt Micrograin

List No. 5944 - 2 Flute - Regular Length
List No. 5943 - 4 Flute - Regular Length

Use: General purpose end mills. Two flute recommended for maximum chip clearance at higher feed rates. Best for use in aluminum, zinc, plastics, and non-metals. Four flute provides greater core strength reducing deflection. Both lists have a 30° spiral. AlTiN coating can significantly enhance tool life especially in hard steels, stainless steels, and carbon steels. Other sizes available upon request. Contact Super Tool for price and availability.



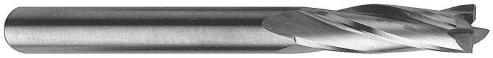
TOOL DIAM.	SHK. DIAM.	FLT. LEN.	OAL	LIST 5944 & 5943 UNCOATED			LIST 5944A & 5943A AlTiN COATED		
				2 FLT	4 FLT	PRICE EACH	2 FLT	4 FLT	PRICE EACH
1/32	1/8	3/32	1 1/2	58002	57902	$16.50	58002A	57902A	$20.10
3/64	1/8	9/64	1 1/2	58003	57903	16.50	58003A	57903A	20.10
1/16	1/8	3/16	1 1/2	58004	57904	14.85	58004A	57904A	18.50
5/64	1/8	1/4	1 1/2	58005	57905	14.85	58005A	57905A	18.50
3/32	1/8	3/8	1 1/2	58006	57906	14.25	58006A	57906A	17.85
7/64	1/8	3/8	1 1/2	58007	57907	14.25	58007A	57907A	17.85
1/8	1/8	1/2	1 1/2	58008	57908	13.15	58008A	57908A	16.35
9/64	3/16	9/16	2	58009	57909	19.55	58009A	57909A	24.15
5/32	3/16	9/16	2	58010	57910	19.55	58010A	57910A	24.15
11/64	3/16	5/8	2	58011	57911	19.55	58011A	57911A	24.15
3/16	3/16	5/8	2	58012	57912	18.45	58012A	57912A	22.60
13/64	1/4	5/8	2 1/2	58013	57913	24.35	58013A	57913A	30.60
7/32	1/4	5/8	2 1/2	58014	57914	24.35	58014A	57914A	30.60
15/64	1/4	3/4	2 1/2	58015	57915	24.35	58015A	57915A	30.60

TOOL DIAM.	SHK. DIAM.	FLT. LEN.	OAL	LIST 5944 & 5943 UNCOATED			LIST 5944A & 5943A AlTiN COATED		
				2 FLT	4 FLT	PRICE EACH	2 FLT	4 FLT	PRICE EACH
1/4	1/4	3/4	2 1/2	58016	57916	$21.70	58016A	57916A	$27.50
17/64	5/16	3/4	2 1/2	58017	57917	38.10	58017A	57917A	46.80
9/32	5/16	3/4	2 1/2	58018	57918	38.10	58018A	57918A	46.80
5/16	5/16	13/16	2 1/2	58020	57920	30.55	58020A	57920A	39.25
3/8	3/8	7/8	2 1/2	58024	57924	38.20	58024A	57924A	47.25
7/16	7/16	1	2 3/4	58028	57928	49.35	58028A	57928A	61.65
1/2	1/2	1	3	58032	57932	62.35	58032A	57932A	75.55
9/16	9/16	1 1/4	3 1/2	58036	57936	110.60	58036A	57936A	130.00
5/8	5/8	1 1/4	3 1/2	58040	57940	120.30	58040A	57940A	141.85
11/16	3/4	1 1/2	4	58044	57944	191.00	58044A	57944A	227.90
3/4	3/4	1 1/2	4	58048	57948	176.20	58048A	57948A	207.55
7/8	7/8	1 1/2	4	58056	57956	259.15	58056A	57956A	300.75
1	1	1 1/2	4	58064	57964	273.15	58064A	57964A	312.75
-	-	-	-	-	-	-	-	-	-

SOLID CARBIDE - SQUARE END

List No. 5954 - 2 Flute - Long Length
List No. 5955 - 4 Flute - Long Length

Use: For general purpose milling in applications where an extended reach is required. Two flute recommended for maximum chip clearance at higher feed rates. Best for use in aluminum, zinc, plastics, and non-metals. Four flute provides greater core strength reducing deflection. Both lists have a 30° spiral. AlTiN coating can significantly enhance tool life especially in hard steels, stainless steels, and carbon steels.



TOOL DIAM.	SHK. DIAM.	FLT. LEN.	OAL	LIST 5954 & 5955 UNCOATED			LIST 5954A & 5955A AlTiN COATED		
				2 FLT	4 FLT	PRICE EACH	2 FLT	4 FLT	PRICE EACH
1/8	1/8	3/4	2 1/4	54108	54208	$20.70	54108A	54208A	$23.85
3/16	3/16	3/4	2 1/2	54112	54212	26.50	54112A	54212A	32.35
1/4	1/4	1 1/8	3	54116	54216	32.65	54116A	54216A	40.15
5/16	5/16	1 1/8	3	54120	54220	43.55	54120A	54220A	54.70
3/8	3/8	1 1/8	3	54124	54224	50.80	54124A	54224A	63.05
7/16	7/16	2	4	54128	54228	82.60	54128A	54228A	99.10
1/2	1/2	2	4	54132	54232	88.20	54132A	54232A	105.45
5/8	5/8	2 1/4	5	54140	54240	169.90	54140A	54240A	206.45
3/4	3/4	2 1/4	5	54148	54248	226.30	54148A	54248A	270.85
1	1	2 1/4	5	54164	54264	429.35	54164A	54264A	503.35

SOLID CARBIDE - SQUARE END

DISCONTINUED - WHILE SUPPLIES LAST

List No. 5950 - 2 Flute - Extra Long Length
List No. 5951 - 4 Flute - Extra Long Length

Use: For general purpose milling in applications where an extended reach is required. Same as List 5954 and 5955 except with a longer overall length. Both lists have a 30° spiral. AlTiN coating can significantly enhance tool life especially in hard steels, stainless steels, and carbon steels.

TOOL DIAM.	SHK. DIAM.	FLT. LEN.	OAL	LIST 5950 & 5951 UNCOATED			LIST 5950A & 5951A AlTiN COATED		
				2 FLT	4 FLT	PRICE EACH	2 FLT	4 FLT	PRICE EACH
1/8	1/8	1	3	54308	54408	$28.15	54308A	54408A	$32.35
3/16	3/16	1 1/8	3	54312	54412	32.05	54312A	54412A	37.40
1/4	1/4	1 1/2	4	54316	54416	39.75	54316A	54416A	48.90
5/16	5/16	1 5/8	4	54320	54420	51.70	54320A	54420A	62.60
3/8	3/8	1 3/4	4	54324	54424	59.35	54324A	54424A	71.45
7/16	7/16	3	6	54328	54428	109.70	54328A	54428A	127.40
1/2	1/2	3	6	54332	54432	127.05	54332A	54432A	146.70
5/8	5/8	3	6	54340	54440	180.30	54340A	54440A	212.90
3/4	3/4	3	6	54348	54448	280.35	54348A	54448A	326.80
1	1	3	6	54364	54464	478.75	54364A	54464A	543.05

Tolerances on page 22.

END MILLS - SINGLE END - SQUARE END

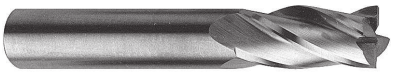
METRIC

SOLID CARBIDE DISCONTINUED - WHILE SUPPLIES LAST

10% Cobalt Micrograin

List No. 5944 - 2 Flute - Regular Length Metric
List No. 5943 - 4 Flute - Regular Length - Metric

Use: Same as list numbers 5944 and 5943 on page 16 except in metric sizes. Other metric sizes are available upon request. Contact Super Tool for price and availability.



TOOL DIAM. (mm)	SHK. DIAM. (mm)	FLT. LEN. (mm)	OAL (mm)	LIST 5944 & 5943 UNCOATED			
				2 FLT	PRICE EACH	4 FLT	PRICE EACH
1.5	3	6.0	38	5944015	$13.85	5943015	$16.60
2.0	3	9.0	38	5944020	13.85	5943020	14.55
2.5	3	9.5	38	5944025	13.50	5943025	14.05
3.0	3	12.0	38	5944030	13.40	5943030	13.40
3.5	4	14.0	50	5944035	19.05	5943035	19.05
4.0	4	14.0	50	5944040	19.20	5943040	19.20
4.5	5	16.0	50	5944045	19.75	5943045	19.75
5.0	5	16.0	50	5944050	20.95	5943050	20.95
6.0	6	19.0	63	5944060	22.40	5943060	22.40
7.0	8	19.0	63	5944070	33.50	5943070	33.50

TOOL DIAM. (mm)	SHK. DIAM. (mm)	FLT. LEN. (mm)	OAL (mm)	LIST 5944 & 5943 UNCOATED			
				2 FLT	PRICE EACH	4 FLT	PRICE EACH
8.0	8	20.0	63	5944080	$34.55	5943080	$34.55
9.0	10	22.0	72	5944090	47.35	5943090	47.35
10.0	10	25.0	72	5944100	48.80	5943100	48.80
12.0	12	25.0	76	5944120	65.05	5943120	65.05
14.0	14	32.0	83	-	-	5943140	115.10
16.0	16	32.0	89	5944160	129.10	5943160	129.10
18.0	18	38.0	100	-	-	5943180	192.05
20.0	20	38.0	100	5944200	227.90	5943200	227.90
22.0	22	38.0	100	-	-	5943220	284.70
25.0	25	38.0	100	-	-	5943250	291.65

DISCONTINUED - WHILE SUPPLIES LAST

SOLID CARBIDE - AlTiN COATED

TOOL DIAM. (mm)	SHK. DIAM. (mm)	FLT. LEN. (mm)	OAL (mm)	LIST 5944A & 5943A AlTiN COATED			
				2 FLT	PRICE EACH	4 FLT	PRICE EACH
1.5	3	6.0	38	5944015A	$17.75	5943015A	$20.60
2.0	3	9.0	38	5944020A	17.75	5943020A	17.70
2.5	3	9.5	38	5944025A	17.45	5943025A	17.25
3.0	3	12.0	38	5944030A	16.55	5943030A	16.55
3.5	4	14.0	50	5944035A	23.80	5943035A	23.80
4.0	4	14.0	50	5944040A	23.95	5943040A	23.95
4.5	5	16.0	50	5944045A	26.00	5943045A	26.00
5.0	5	16.0	50	5944050A	27.30	5943050A	27.30
6.0	6	19.0	63	5944060A	29.60	5943060A	29.60
7.0	8	19.0	63	5944070A	42.15	5943070A	42.15

SOLID CARBIDE - AlTiN COATED

TOOL DIAM. (mm)	SHK. DIAM. (mm)	FLT. LEN. (mm)	OAL (mm)	LIST 5944A & 5943A AlTiN COATED			
				2 FLT	PRICE EACH	4 FLT	PRICE EACH
8.0	8	20.0	63	5944080A	$43.15	5943080A	$43.15
9.0	10	22.0	72	5944090A	62.95	5943090A	62.95
10.0	10	25.0	72	5944100A	64.40	5943100A	64.40
12.0	12	25.0	76	5944120A	80.05	5943120A	80.05
14.0	14	32.0	83	-	-	5943140A	134.10
16.0	16	32.0	89	5944160A	149.45	5943160A	149.45
18.0	18	38.0	100	-	-	5943180A	213.80
20.0	20	38.0	100	5944200A	259.30	5943200A	259.30
22.0	22	38.0	100	-	-	5943220A	313.90
25.0	25	38.0	100	-	-	5943250A	320.85

END MILLS - DOUBLE END - SQUARE END

SOLID CARBIDE SQUARE END

DISCONTINUED - WHILE SUPPLIES LAST

List No. 5896 - 2 Flute - Regular Length
List No. 5895 - 4 Flute - Regular Length

Use: Two cutting ends on each tool with a flat in the center. Both lists have a 30° spiral.

TOOL DIAM.	SHK. DIAM.	FLUTE LEN.	OAL	LIST 5896 & 5895 UNCOATED		
				2 FLT	4 FLT	PRICE EACH
1/8	3/8	3/8	3 1/16	57158	57108	$53.75
5/32	3/8	7/16	3 1/8	57160	57110	57.00
3/16	3/8	1/2	3 1/4	57162	57112	59.15
7/32	3/8	9/16	3 3/8	57164	-	59.45
1/4	3/8	5/8	3 3/8	57166	57116	59.45

TOOL DIAM.	SHK. DIAM.	FLUTE LEN.	OAL	LIST 5896 & 5895 UNCOATED		
				2 FLT	4 FLT	PRICE EACH
5/16	3/8	3/4	3 1/2	57170	57120	$68.35
3/8	3/8	3/4	3 1/2	57174	57124	68.35
7/16	1/2	7/8	4	57178	57128	83.20
1/2	1/2	1	4	57182	57132	101.55
-	-	-	-	-	-	-

Tolerances on page 22.

END MILLS - CENTER CUTTING

CARBIDE TIPPED

List No. 5966 - 2 Flutes - 25° Right Hand Helix - For Non-Ferrous & Cast Iron

Use: For high speed, heavy feed, plunge-profile end milling operations in aluminum, magnesium alloys and other non-ferrous metals. Radial edged.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLUTES	FLUTE LENGTH	OVERALL LENGTH	LIST 5966 - 25° SPIRAL	
DEC.	FRAC.					EDP NO.	PRICE EACH
.5000	½	½	2	1	3	57751	$183.05
.6250	⅝	⅝	2	1 ¼	3 ⅜	57752	204.60
.7500	¾	¾	2	1 ¼	3 ⅜	57753	216.80
.8750	⅞	⅞	2	1 ½	3 ¾	57754	238.45
1.0000	1	1	2	1 ½	4	57755	274.00
1.2500	1 ¼	1 ¼	2	1 ¾	4 ¼	57756	372.45
1.5000	1 ½	1 ½	2	2	4 ¾	57757	434.60

List No. 5935 - 3 Straight Flutes - For Non-Ferrous & Cast Iron
List No. 5936 - 3 Straight Flutes - For Steel & Steel Alloys

Use: For plunge-traverse milling. Recommended for milling blind, closed slots or keyways. Appropriate grade of carbide and geometry for material being machined. All tools are radial edged.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLTS.	FLUTE LENGTH	OVERALL LENGTH	LIST 5935 FOR N-F & C.I.		LIST 5936 FOR STEEL	
DEC.	FRAC.					EDP NO.	PRICE EACH	EDP NO.	PRICE EACH
.3750	⅜	⅜	3	½	2 ½	57431	$109.45	57442	$113.75
.4375	7/16	⅜	3	¾	2 ½	57432	111.90	57443	116.30
.5000	½	½	3	¾	3	57433	114.85	57444	119.15
.5625	9/16	½	3	¾	3	57434	119.25	57445	123.90
.6250	⅝	⅝	3	¾	3 ¼	57435	139.60	57446	144.85
.7500	¾	⅝	3	¾	3 ⅜	57436	146.05	57447	151.70
.8750	⅞	⅞	3	¾	3 ¾	57437	170.50	57448	177.10
1.0000	1	⅞	3	¾	3 ¾	57438	187.30	57449	194.55
1.1250	1 ⅛	1	3	¾	4	57439	200.65	57450	208.25
1.2500	1 ¼	1	3	¾	4	57440	232.45	57451	241.50
1.5000	1 ½	1 ¼	3	¾	4	57441	276.40	57452	287.05

SPIRAL FLUTE COUNTERSINKS

CARBIDE TIPPED

List No. 433 - 60° Single Flute
List No. 434 - 82° Single Flute
List No. 435 - 90° Single Flute
List No. 428 - 100° Single Flute

Use: Right spiral flute minimizes chatter. Carbide tip brazed to hardened alloy steel body. Not recommended for portable tool use (use "three flutes" type).

List No. 430 - 60° Three Flutes
List No. 431 - 82° Three Flutes
List No. 432 - 90° Three Flutes
List No. 429 - 100° Three Flutes

Use: Right spiral flutes minimize chatter. Carbide tips brazed to hardened alloy steel body. Three flute design tends to center the tool in portable use and results in longer tool life.

TOOL DIAM.	SHANK DIAM.	MIN. CUT DIAM.	LIST 433 60° ANGLE EDP NO.	LIST 434 82° ANGLE EDP NO.	LIST 435 90° ANGLE EDP NO.	LIST 428 100° ANGLE EDP NO.	PRICE ALL TYPES
¼	3/16	1/16	43308	43408	43508	42808	$66.90
⅜	¼	5/64	43312	43412	43512	42812	66.90
½	⅜	3/32	43316	43416	43516	42816	79.45
¾	½	⅛	43324	43424	43524	42824	99.35
1	½	⅛	43332	43432	43532	42832	129.75
1 ¼	½	5/32	43340	43440	43540	42840	165.15
1 ½	½	3/16	43348	43448	43548	42848	185.15

TOOL DIAM.	SHANK DIAM.	MIN. CUT DIAM.	LIST 430 60° ANGLE EDP NO.	LIST 431 82° ANGLE EDP NO.	LIST 432 90° ANGLE EDP NO.	LIST 429 100° ANGLE EDP NO.	PRICE ALL TYPES
¼	3/16	5/64	43008	43108	43208	42908	$73.60
⅜	¼	7/64	43012	43112	43212	42912	73.60
½	⅜	9/64	43016	43116	43216	42916	87.40
⅝	⅜	9/64	43020	43120	43220	42920	91.95
¾	½	3/16	43024	43124	43224	42924	110.55
⅞	½	3/16	43028	43128	43228	42928	126.70
1	½	¼	43032	43132	43232	42932	138.20
1 ¼	½	5/16	43040	43140	43240	42940	171.90
1 ½	½	⅜	43048	43148	43248	42948	200.50

Tolerances on page 22.

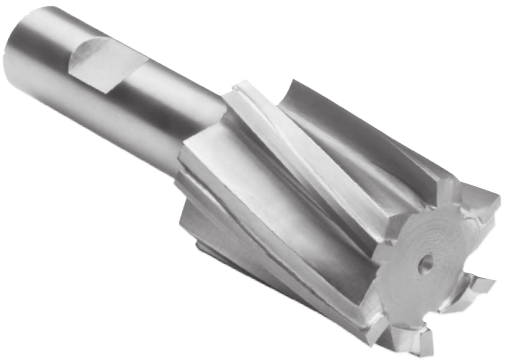
END MILLS - REDUCED SHANK

CARBIDE TIPPED

List No. 9323 - Reduced ¾" Shank Diameter - For Non-Ferrous & Cast Iron

List No. 9353 - Reduced ¾" Shank Diameter - For Steel

Use: Same as List No. 5922 on page 21, except with ¾" shank diameter for Bridgeport type machines. 15° right hand helix. Radial edged.



TOOL DIAMETER		SHANK DIAM.	FLUTE LENGTH	OVER ALL LENGTH	NO. OF FLUTES	N-F/C.I. LIST 9323 EDP NO.	STEEL LIST 9353 EDP NO.	BOTH LIST PRICE
DEC.	FRAC.							
.7500	¾	¾	1 ¼	3 ⅜	4	932324	935324	$139.95
.8750	⅞	¾	1 ½	3 ¾	4	932328	935328	160.25
1.0000	1	¾	1 ½	4	6	932332	935332	224.80
1.1250	1 ⅛	¾	1 ¾	4 ¼	6	932336	935336	264.45
1.2500	1 ¼	¾	1 ¾	4 ¼	6	932340	935340	303.15
1.5000	1 ½	¾	2	4 ½	6	932348	935348	348.80

END MILLS - CNC FINISHING

CARBIDE TIPPED

List No. 9322 - 15° Right Hand Helix - Finisher - For Non-Ferrous & Cast Iron

List No. 9355 - 15° Right Hand Helix - Finisher - For Steel

Use: Appropriate geometry and carbide grade for material being machined. CNC qualified right hand helix for fine finishes.

TOOL DIAMETER		SHANK DIAM.	FLUTE LENGTH	OVER ALL LENGTH	NO. OF FLUTES	N-F/C.I. LIST 9322 EDP NO.	STEEL LIST 9355 EDP NO.	BOTH LIST PRICE
DEC.	FRAC.							
.5000	½	½	1	3	4	932216	935516	$124.05
.6250	⅝	⅝	1 ¼	3 ⅜	4	932220	935520	143.25
.7500	¾	⅝	1 ¼	3 ⅜	4	932224	935524	159.55
1.0000	1	1	1 ½	4	6	932232	935532	256.20
1.1250	1 ⅛	1	1 ¾	4 ¼	6	932236	935536	301.45
1.2500	1 ¼	1	1 ¾	4 ¼	6	932240	935540	345.60
1.5000	1 ½	1 ¼	2	4 ½	6	932248	935548	397.65
1.7500	1 ¾	1 ¼	2	4 ½	8	932256	935556	500.20
2.0000	2	1 ¼	2	4 ½	8	932264	935564	565.05

END MILLS - CNC HIGH PERFORMANCE

CARBIDE TIPPED

List No. 9337 - 25° Right Hand Helix - For Aluminum & Other Non-Ferrous

Use: Upsharp, open flute design for high performance machining in aluminum and other soft non-ferrous and plastic materials. CNC qualified.

TOOL DIAMETER		SHANK DIAM.	FLUTE LENGTH	OVER ALL LENGTH	NO. OF FLUTES	LIST 9337 EDP NO.	PRICE EACH
DEC.	FRAC.						
.5000	½	½	1	3	2	933716	$124.05
.6250	⅝	⅝	1 ¼	3 ⅜	2	933720	143.25
.7500	¾	⅝	1 ¼	3 ⅜	2	933724	159.55
1.0000	1	1	1 ½	4	2	933732	211.00
1.2500	1 ¼	1	1 ¾	4 ¼	3	933740	306.40
1.5000	1 ½	1 ¼	2	4 ½	3	933748	371.20
2.0000	2	1 ¼	2	4 ½	3	933764	542.20

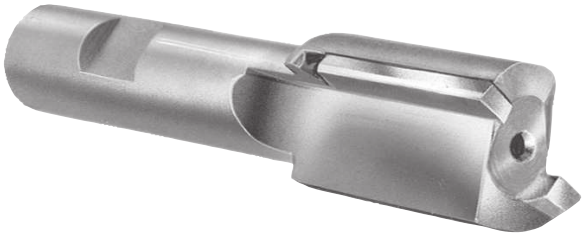
Tolerances on page 22.

END MILLS - FOR NON-FERROUS & CAST IRON

CARBIDE TIPPED

List No. 5923 - 2 Straight Flutes

Use: For milling most types of non-ferrous metals and non-metals, especially the free cutting, very ductile aluminum and zincs. Radial edged.

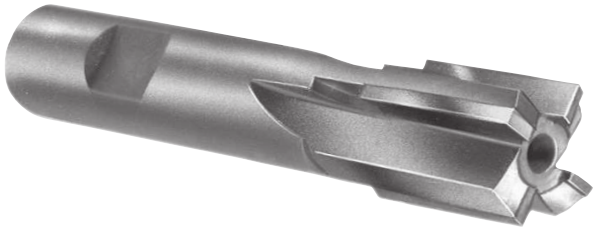


List No. 5925 - 4 or 6 Straight Flutes

Use: For general milling of cast iron, non-ferrous metals and non-metals. Radial edged.

List No. 5991 - Upsharp - Four Straight Flutes

Use: For higher horsepower machines when extra capacity is desired.



List No. 5921 - 6° Right Hand Helix

Use: For milling all types of non-ferrous metals and non-metals, especially the free cutting, very ductile aluminum and zincs. Radial edged.

List No. 5993 - Upsharp - 6° Right Spiral Flutes

Use: Heavier feeds and speeds can be used due to spiral flutes which aid in chip removal.

TOOL DIAMETER		SHANK DIAM.	FLUTE LEN.	OAL	LIST 5923 2 STRAIGHT FLUTES			LIST 5925 4 OR 6 STR. FLUTES			LIST 5991 UPSHARP 4 STR. FLUTES			LIST 5921 6° RIGHT SPIRAL FLUTES			LIST 5993 UPSHARP 6° RIGHT SPIRAL		
DEC.	FRAC.				NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH
.2500	¼	⅜	½	2 ½	2	57331	$59.50	4	57361	$60.05	4	39108	$60.05	2	57301	$60.85	2	39308	$64.50
.3125	5/16	⅜	⅝	2 ½	2	57332	61.75	4	57362	64.15	-	-	-	2	57302	63.00	-	-	-
.3750	⅜	⅜	⅝	2 ½	2	57333	66.25	4	57363	67.60	-	-	-	2	57303	67.45	-	-	-
.4375	7/16	⅜	1	2 11/16	2	57334	66.25	4	57364	67.60	4	39114	65.05	2	57304	67.45	2	39314	71.50
.5000	½	½	1	3 ¼	2	57335	67.90	4	57365	69.20	4	39116	69.10	2	57305	69.25	2	39316	73.30
.5625	9/16	½	1	3 ⅜	2	57336	75.05	4	57366	77.70	4	39118	77.55	2	57306	76.70	2	39318	81.10
.6250	⅝	½	1	3 ⅜	2	57337	75.05	4	57367	81.35	4	39120	81.25	4	57307	79.65	4	39320	84.30
.6875	11/16	⅝	1	3 ⅜	2	57338	81.25	4	57358	89.55	4	39122	89.35	-	-	-	-	-	-
.7500	¾	⅝	1	3 ⅝	2	57339	84.30	4	57368	83.75	4	39124	92.80	4	57308	91.00	4	39324	96.25
.8125	13/16	⅝	1	3 ⅝	2	57340	101.90	4	57359	98.95	4	39126	106.20	-	-	-	-	-	-
.8750	⅞	⅝	1 ¼	4	2	57341	102.55	4	57369	98.95	4	39128	109.85	4	57309	121.65	4	39328	128.90
.9375	15/16	⅞	1 ¼	4	2	57342	109.85	4	57360	109.90	4	39130	116.85	-	-	-	-	-	-
1.0000	1	⅞	1 ¼	4	2	57343	110.10	4	57370	114.30	4	39132	126.75	4	57310	140.55	4	39332	148.85
1.1250	1 ⅛	1	1 ¼	4 ¼	2	57344	113.00	4	57371	129.65	4	39136	143.60	4	57311	159.40	-	-	-
1.2500	1 ¼	1	1 ¼	4 ¼	2	57345	136.25	4	57372	145.80	4	39140	161.50	4	57312	179.15	4	39340	189.40
1.5000	1 ½	1 ¼	1 ½	4 ½	2	57346	168.75	4	57373	187.95	4	39148	200.05	4	57313	221.75	4	39348	226.15
1.7500	1 ¾	1 ¼	1 ½	4 ½	2	57347	200.05	6	57374	242.25	-	-	-	6	57314	286.25	-	-	-
2.0000	2	1 ¼	1 ½	4 ½	2	57348	223.15	6	57375	279.10	-	-	-	6	57315	329.60	6	39364	335.90

Tolerances on page 22.

END MILLS - FOR NON-FERROUS & CAST IRON

CARBIDE TIPPED

List No. 5922 - 15° Right Hand Helix - For Cast & Malleable Iron

Use: More flutes for use on cast iron and malleable iron. For general use on all materials except in steel. Radial edged.

List No. 5962 - 15° Right Hand Helix - For Non-Ferrous & Cast Iron

Use: Fewer flutes for use on applications where open flutes are desired. For general use on all materials except steel. Radial edged.

List No. 5958 - 25° Right Hand Helix - Radial Edged

Use: For high shear angle milling of all types of non-ferrous metals and non-metals. Large capacity 25° spiral flutes adapt these tools particularly well to the high feed rate milling of softer ductile materials.

List No. 5959 - 25° Right Hand Helix - Upsharp

Use: For high shear angle and sharp edged requirements in milling all types of non-ferrous metals and non-metals.

TOOL DIAMETER		SHANK DIAM.	FLUTE LEN.	OAL	LIST 5922 15° RIGHT SPIRAL			LIST 5962 15° RIGHT SPIRAL			LIST 5958 25° RIGHT SPIRAL			LIST 5959 25° RIGHT SPIRAL		
DEC.	FRAC.				NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH
.5000	½	⅜	1	3	-	-	-	2	57651	$100.25	2	57551	$108.80	-	-	-
.5000	½	½	1	3	4	47816	$108.80	2	57652	100.25	2	57552	108.80	-	-	-
.5625	9/16	½	1	3	-	-	-	2	57653	107.80	2	57553	116.85	-	-	-
.6250	⅝	½	1 ¼	3 ¼	-	-	-	2	57654	115.85	2	57554	125.80	-	-	-
.6250	⅝	⅝	1 ¼	3 ⅜	4	47820	125.80	2	57655	115.85	2	57555	125.80	2	47555	$125.80
.6875	11/16	½	1 ¼	3 ¼	-	-	-	2	57656	120.80	2	57556	131.05	-	-	-
.6875	11/16	⅝	1 ¼	3 ⅜	4	47822	131.05	2	57657	120.80	2	57557	131.05	-	-	-
.7500	¾	½	1 ¼	3 ¼	-	-	-	2	57658	128.95	2	57558	139.95	2	47558	139.95
.7500	¾	⅝	1 ¼	3 ⅜	4	47824	139.95	2	57659	128.95	2	57559	139.95	2	47559	139.95
.8125	13/16	⅝	1 ½	3 ⅝	4	47826	151.00	2	57660	139.15	2	57560	151.00	2	47560	151.00
.8750	⅞	⅝	1 ½	3 ⅝	-	-	-	2	57661	147.75	2	57561	160.25	-	-	-
.8750	⅞	⅞	1 ½	3 ¾	4	47828	160.25	2	57662	147.75	2	57562	160.25	-	-	-
.9375	15/16	⅝	1 ½	3 ¾	-	-	-	3	57663	218.75	2	57563	181.30	-	-	-
.9375	15/16	⅞	1 ½	3 ¾	-	-	-	3	57664	218.75	2	57564	181.30	-	-	-
1.0000	1	⅞	1 ½	3 ¾	-	-	-	3	57665	207.05	2	57565	185.05	2	47565	185.05
1.0000	1	1	1 ½	4	6	47832	224.80	3	57666	207.05	2	57566	185.05	2	47566	185.05
1.1250	1 ⅛	1	1 ¾	4 ¼	6	47836	264.55	3	57667	243.85	2	57567	202.65	-	-	-
1.2500	1 ¼	1	1 ¾	4 ¼	6	47840	303.20	4	57668	279.45	3	57568	268.75	3	47568	268.75
1.3750	1 ⅜	1	1 ¾	4 ¼	6	47844	354.25	4	57669	326.30	3	57569	291.40	3	47569	291.40
1.5000	1 ½	1 ¼	2	4 ½	6	47848	348.90	4	57670	321.55	3	57570	325.45	3	47570	325.45
1.6250	1 ⅝	1 ¼	2	4 ½	-	-	-	4	57671	393.25	3	57571	385.20	-	-	-
1.7500	1 ¾	1 ¼	2	4 ½	8	47856	438.70	4	57672	419.35	3	57572	413.30	-	-	-
1.8750	1 ⅞	1 ¼	2	4 ½	-	-	-	4	57673	448.55	3	57573	444.90	-	-	-
2.0000	2	1 ¼	2	4 ½	8	47864	495.70	4	57674	473.80	3	57574	475.60	3	47574	475.60

Tolerances on page 22.

END MILLS - FOR STEEL

CARBIDE TIPPED

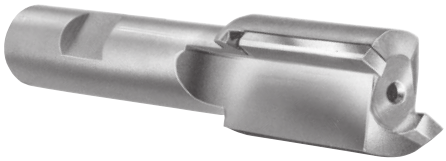
List No. 5960 - 15° Right Hand Helix

Use: For milling all types of steels. The 15° spiral flutes reduce cutting pressure and contribute to fast chip removal. Radial edged.

TOOL DIAMETER		SHANK DIAM.	FLUTE LENGTH	OVER ALL LEN.	LIST 5960 - 15° RIGHT HELIX		
DEC.	FRAC.				NO. OF FLTS.	LIST 5960 EDP NO.	PRICE EACH
.5000	½	⅜	1	3	4	57601	$108.80
.5000	½	½	1	3	4	57602	108.80
.5625	9/16	½	1	3	4	57603	116.85
.6250	⅝	½	1 ¼	3 ¼	4	57604	125.80
.6250	⅝	⅝	1 ¼	3 ⅜	4	57605	125.80
.6875	11/16	½	1 ¼	3 ¼	4	57606	131.05
.6875	11/16	⅝	1 ¼	3 ⅜	4	57607	131.05
.7500	¾	½	1 ¼	3 ¼	4	57608	139.95
.7500	¾	⅝	1 ¼	3 ⅜	4	57609	139.95
.8125	13/16	⅝	1 ½	3 ⅝	4	57610	151.00
.8750	⅞	⅝	1 ½	3 ⅝	4	57611	160.25
.8750	⅞	⅞	1 ½	3 ¾	4	57612	160.25
.9375	15/16	⅝	1 ½	3 ¾	4	57613	237.40
.9375	15/16	⅞	1 ½	3 ¾	4	57614	237.40
1.0000	1	⅞	1 ½	3 ¾	6	57615	224.80
1.0000	1	1	1 ½	4	6	57616	224.80
1.1250	1 ⅛	1	1 ¾	4 ¼	6	57617	264.55
1.2500	1 ¼	1	1 ¾	4 ¼	6	57618	303.20
1.3750	1 ⅜	1	1 ¾	4 ¼	6	57619	354.25
1.5000	1 ½	1 ¼	2	4 ½	6	57620	348.90
1.6250	1 ⅝	1 ¼	2	4 ½	8	57621	465.15
1.7500	1 ¾	1 ¼	2	4 ½	8	57622	496.10
1.8750	1 ⅞	1 ¼	2	4 ½	8	57623	530.55
2.0000	2	1 ¼	2	4 ½	8	57624	560.30

List No. 5927 - 2 Straight Flutes

Use: For milling most types of steel, including harder steels and tough steel alloys. Speeds & feeds should be reduced in proportion to the hardness of materials being machined. Radial edged.

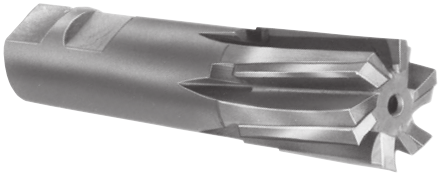


List No. 5965 - 6° Right Hand Helix

Use: Positive helical rake produces a better and more consistent finish than straight flutes. Radial edged.

List No. 5964 - 6° Left Hand Helix

Use: Left hand spiral design protects lead corner from shock when milling very hard steels and tough steel alloys. Radial edged.



TOOL DIAMETER		SHANK DIAM.	FLUTE LENGTH	OAL	LIST 5927 STRAIGHT FLUTES			LIST 5965 6° RIGHT HELIX			TYPE 5964 6° LEFT HELIX	
DEC.	FRAC.				NO. OF FLTS.	EDP NO.	PRICE EACH	NO. OF FLTS.	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH
.2500	¼	⅜	½	2 ½	2	57401	$68.40	2	47701	$70.40	57701	$70.40
.3125	5/16	⅜	⅝	2 ½	2	57402	71.25	2	47702	75.95	57702	75.95
.3750	⅜	⅜	⅝	2 ½	2	57403	76.05	2	47703	80.50	57703	80.50
.4375	7/16	⅜	1	2 11/16	2	57404	76.05	2	47704	80.50	57704	80.50
.5000	½	½	1	3 ¼	2	57405	77.80	4	47705	86.70	57705	86.70
.5625	9/16	½	1	3 ⅜	2	57406	86.30	4	47706	93.20	57706	93.20
.6250	⅝	½	1	3 ⅜	2	57407	86.30	4	47707	115.00	57707	115.00
.7500	¾	⅝	1	3 ⅝	2	57408	96.85	4	47708	128.10	57708	128.10
.8750	⅞	⅝	1 ¼	4	2	57409	114.45	4	47709	154.35	57709	154.35
1.0000	1	⅞	1 ¼	4	2	57410	126.45	6	47710	177.45	57710	177.45
1.1250	1 ⅛	1	1 ¼	4 ¼	2	57411	129.55	6	47711	188.20	57711	188.20
1.2500	1 ¼	1	1 ¼	4 ¼	2	57412	144.45	6	47712	227.45	57712	227.45
1.5000	1 ½	1 ¼	1 ½	4 ½	2	57413	186.05	6	47713	276.60	57713	276.60
1.7500	1 ¾	1 ¼	1 ½	4 ½	2	57414	208.65	8	47714	333.10	57714	333.10
2.0000	2	1 ¼	1 ½	4 ½	2	57415	249.15	8	47715	371.85	57715	371.85

END MILL TOLERANCES			
DIAMETERS	CARBIDE TIPPED	SOLID CARBIDE	SOLID CARBIDE METRIC (mm)
Radial Edged	+.002”/-0”	N/A	N/A
Tool Diameter/Sharp Edge	+.005”/-0”	+0”/-.002”	+0/-.050
Shank Diameter	-.0001”/-.0005”	-.0001”/-.0004”	-.0025/-.0100

SIDE MILLING CUTTERS - STRAIGHT TOOTH

CARBIDE TIPPED

List No. 5861 - For Non-Ferrous

Use: Large flute capacity allows for high feed rates. Designed for milling aluminum, copper, zinc and other non-ferrous metals and plastics.

List No. 5862 - For Cast Iron

Use: Greater number of flutes permit increased metal removal rates.

List No. 5863 - For Steel

Use: Constructed with steel cutting grade of carbide for heavy duty machining.

List No. 5849 - For Stainless

Use: Closer pitch for milling AISI types 200 thru 350 stainless steel.

Tool diameter tolerance: +1⁄16”/-0”
Face width tolerance: +.001”/-0”
Arbor hole tolerance: +.001”/-0”

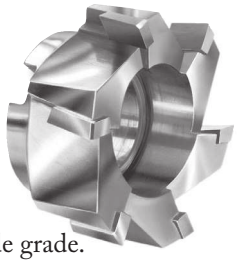
TOOL DIAM.	WIDTH		LIST 5861 FOR NON-FERROUS				LIST 5862 FOR CAST IRON				LIST 5863 FOR STEEL				LIST 5849 FOR STAINLESS STEEL			
	FRAC.	DEC.	NO. OF TEETH	1”ARB. EDP NO.	1¼”ARB. EDP NO.	PRICE EACH	NO. OF TEETH	1”ARB. EDP NO.	1¼”ARB. EDP NO.	PRICE EACH	NO. OF TEETH	1”ARB. EDP NO.	1¼”ARB. EDP NO.	PRICE EACH	NO. OF TEETH	1”ARB. EDP NO.	1¼”ARB. EDP NO.	PRICE EACH
3	¼	.2500	4	56801	-	135.75	6	56901	-	$169.80	6	57001	-	$167.65	8	56601	-	$209.10
3	5⁄16	.3125	4	56802	-	142.50	6	56902	-	170.55	6	57002	-	169.90	8	56602	-	219.10
3	⅜	.3750	4	56803	-	147.70	6	56903	-	173.90	6	57003	-	172.10	8	56603	-	222.05
3	7⁄16	.4375	4	56832	-	153.75	6	56932	-	188.05	6	57032	-	191.90	-	-	-	-
3	½	.5000	4	56805	-	161.20	6	56905	-	195.85	6	57005	-	194.45	8	56604	-	248.30
4	¼	.2500	4	56806	-	176.90	8	56906	-	219.35	8	57006	-	220.75	10	56605	-	261.50
4	5⁄16	.3125	4	56807	-	181.95	8	56907	-	226.70	8	57007	-	234.40	10	56606	-	274.70
4	⅜	.3750	4	56808	56809	186.70	8	56908	56909	238.20	8	57008	57009	234.40	10	56607	56608	280.85
4	7⁄16	.4375	4	56833	-	187.55	8	56933	-	243.05	8	57033	-	241.40	10	56633	-	304.95
4	½	.5000	4	56811	56812	187.55	8	56911	56912	251.05	8	57011	57012	249.75	10	56609	56610	307.25
4	9⁄16	.5625	4	56834	-	203.90	8	56934	-	258.00	8	57034	-	262.15	-	-	-	-
4	⅝	.6250	4	56814	56815	218.80	8	56914	56915	279.60	8	57014	57015	306.45	10	56611	56612	323.55
4	¾	.7500	4	56816	56817	245.15	8	56916	56917	279.60	8	57017	57018	310.30	10	56613	56614	333.25
5	¼	.2500	6	56835	-	247.15	10	56935	-	290.45	10	57035	-	290.60	-	-	-	-
5	5⁄16	.3125	-	-	-	-	10	56936	-	290.45	10	57036	-	290.60	-	-	-	-
5	⅜	.3750	-	-	-	-	10	-	56937	297.45	10	-	57037	305.10	-	-	-	-
5	7⁄16	.4375	6	-	56838	257.10	10	-	56938	298.95	10	-	57038	314.90	-	-	-	-
5	½	.5000	6	56819	56820	260.15	10	56919	56920	317.35	10	57020	57021	315.00	12	56615	56616	352.95
5	9⁄16	.5625	6	-	56839	268.50	10	-	56939	322.80	10	-	57039	328.90	-	-	-	-
5	⅝	.6250	6	-	56822	282.45	10	-	56922	343.55	10	-	57022	386.00	12	-	56617	385.50
5	¾	.7500	6	56840	56824	301.10	10	56940	56924	389.00	10	57040	57023	427.20	12	56640	56619	432.30
5	1	1.0000	6	-	56841	301.60	10	-	56941	423.35	10	-	57041	450.60	-	-	-	-
6	⅜	.3750	6	56842	-	265.20	12	-	56943	365.45	12	-	57043	386.10	-	-	-	-
6	½	.5000	6	56825	56826	290.45	12	56925	56926	388.10	12	57024	57025	397.65	14	56620	56621	454.05
6	⅝	.6250	6	-	56827	318.30	12	-	56927	424.15	12	-	57026	432.60	14	-	56644	457.70
6	¾	.7500	6	56844	56829	366.05	12	56944	56929	475.90	12	57044	57027	492.80	14	56622	56624	493.90
6	1	1.0000	6	-	56845	419.60	12	-	56945	480.90	12	-	57045	502.75	-	-	-	-
				1¼” ARBOR	1½” ARBOR			1¼” ARBOR	1½” ARBOR			1¼” ARBOR	1½” ARBOR			1¼” ARBOR	1½” ARBOR	
8	¾	.7500	8	56831	56846	476.20	12	56931	56946	499.45	12	57031	57046	518.10	14	56627	-	529.55
8	1	1.0000	8	56847	56848	516.80	12	56947	56948	520.50	12	57047	57048	539.25	-	-	-	-

For specials & modifications please contact us.

Made in the USA

SHELL END MILLS

CARBIDE TIPPED



List No. 5858 - For Non-Ferrous

Use: Large open right spiral flutes aid in chip removal.

List No. 5859 - For Cast Iron

Use: Large open right spiral flutes for machining cast iron, malleable iron, and soft cast iron.

List No. 5860 - For Steel

Use: Large open left spiral flutes absorb the impact shock when entering steel. Steel cutting carbide grade.

Tool diameter tolerance: +1/16"/-0"

TOOL DIAM.	ARBOR HOLE	CARB. LENGTH	OVERALL LENGTH	DRIVE SLOTS		LIST 5858 FOR NON-FERROUS			LIST 5859 FOR CAST IRON			LIST 5860 FOR STEEL		
				WIDTH	DEPTH	NO. OF TEETH	EDP NO.	PRICE EACH	NO. OF TEETH	EDP NO.	PRICE EACH	NO. OF TEETH	EDP NO.	PRICE EACH
1 1/4	1/2	1/2	1	1/4	5/32	4	56701	$202.95	4	56721	$202.95	4	56741	$211.10
1 1/2	1/2	1/2	1 1/8	1/4	5/32	4	56702	211.35	4	56722	211.35	4	56742	219.75
1 3/4	3/4	1/2	1 1/4	5/16	3/16	4	56703	263.35	4	56723	263.35	4	56743	273.80
2	3/4	5/8	1 3/8	5/16	3/16	4	56704	276.55	4	56724	294.25	4	56744	305.95
2 1/4	1	5/8	1 1/2	3/8	7/32	6	56705	292.15	6	56725	318.55	6	56745	331.30
2 1/2	1	5/8	1 5/8	3/8	7/32	6	56706	307.60	6	56726	347.20	6	56746	347.20
2 3/4	1	5/8	1 5/8	3/8	7/32	6	56707	324.60	6	56727	364.25	6	56747	364.25
3	1 1/4	3/4	1 3/4	1/2	9/32	6	56708	355.80	6	56728	396.15	6	56748	396.15
3 1/2	1 1/4	3/4	1 7/8	1/2	9/32	6	56709	435.55	8	56729	465.90	6	56749	492.50
4	1 1/2	3/4	2 1/4	5/8	3/8	6	56710	547.30	8	56730	576.40	6	56750	611.80

SLITTING SAWS - COARSE TOOTH

CARBIDE TIPPED

List No. 5846 - For Non-Ferrous

Use: For machining aluminum, plastics, bronze, zinc, brass, magnesium, and other non-metals.

List No. 5847 - For Cast Iron

Use: For machining cast and malleable iron. More teeth for higher removal rates

List No. 5848 - For Steel

Use: For machining steels. Steel carbide grade permits greater resistance to wear when used in steel.

List No. 5850 - For Stainless

Use: High number of teeth for machining stainless steels and related alloy steels.

Tool diameter tolerance: +1/16"/-0"; Face width tolerance: +.001"/-0"; Arbor hole tolerance: +.001"/-0"

TOOL DIAM.	WIDTH		ARBOR HOLE	LIST 5846 FOR NON-FERROUS			LIST 5847 FOR CAST IRON			LIST 5848 FOR STEEL			LIST 5850 FOR STAINLESS		
	FRAC.	DECIMAL		NO. OF TEETH	EDP NO.	PRICE EACH	NO. OF TEETH	EDP NO.	PRICE EACH	NO. OF TEETH	EDP NO.	PRICE EACH	NO. OF TEETH	EDP NO.	PRICE EACH
3	3/32	.0938	1	6	56498	$160.95	6	56522	$185.25	8	56542	$183.65	8	56671	$172.10
3	1/8	.1250	1	6	56499	165.80	6	56523	196.15	8	56543	205.55	8	56672	178.65
3	3/16	.1875	1	6	56500	172.35	6	56524	207.50	8	56544	207.50	8	56673	185.55
3	1/4	.2500	1	6	56510	117.20	6	56533	170.10	8	56556	170.10	8	56683	204.15
3	5/16	.3125	1	6	56511	123.15	6	56534	170.10	8	56557	170.10	8	56684	204.15
3	3/8	.3750	1	6	56512	125.55	6	56535	172.85	8	56558	172.85	8	56685	207.50
4	3/32	.0938	1	6	56501	197.60	8	56525	237.50	8	56545	237.50	10	56674	247.60
4	1/8	.1250	1	6	56502	203.45	8	56526	240.70	8	56546	240.70	10	56675	250.70
4	3/16	.1875	1	6	56503	206.50	8	56527	259.35	8	56547	259.35	10	56676	254.15
4	1/4	.2500	1	6	56513	150.65	8	56536	220.25	8	56559	220.25	10	56686	264.45
4	5/16	.3125	1	6	56514	154.90	8	56537	228.80	8	56560	228.80	10	56687	274.40
4	3/8	.3750	1	6	56515	159.00	8	56538	237.10	8	56561	237.10	10	56688	284.50
4	3/8	.3750	1 1/4	6	56516	159.00	8	56539	237.10	8	56562	237.10	10	56689	284.50
5	3/32	.0938	1	8	56517	213.80	10	56521	318.85	10	56553	318.85	12	56677	336.55
5	1/8	.1250	1	8	56497	213.80	10	56520	342.95	10	56554	342.95	12	56678	343.55
5	3/16	.1875	1	-	-	-	10	56519	386.10	10	56555	386.10	12	56679	357.25
6	1/8	.1250	1 1/4	8	56504	291.15	12	56528	418.55	12	56548	418.55	14	56680	401.90
6	3/16	.1875	1 1/4	8	56506	383.70	12	56529	432.35	12	56549	432.35	14	56681	412.25
6	1/4	.2500	1 1/4	8	56508	397.45	12	56530	441.40	12	56550	441.40	14	56682	419.00
8	1/8	.1250	1 1/4	10	56509	372.20	-	-	-	-	-	-	-	-	-
8	3/16	.1875	1 1/4	-	-	-	16	56531	595.00	16	56551	595.00	-	-	-
8	1/4	.2500	1 1/4	-	-	-	16	56532	617.75	16	56552	617.75	-	-	-

SLITTING SAWS - STANDARD TOOTH

CARBIDE TIPPED

List No. 5866 - For Non-Ferrous
List No. 5867 - For Cast Iron
List No. 5868 - For Steel
List No. 5870 - For Stainless

Use: Similar to slitting saws on page 27, except designed with more teeth for better finishes and higher feed rates. Tool geometry and carbide grade is appropriate for material being machined.

See page 23 for tolerances

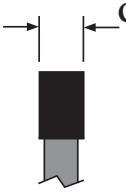
TOOL DIAM.	WIDTH		LIST 5866 FOR NON-FERROUS				LIST 5867 FOR CAST IRON				LIST 5868 FOR STEEL				LIST 5870 FOR STAINLESS STEEL			
	FRAC.	DEC.	NO. OF TEETH	1" ARBOR EDP NO.	1¼" ARBOR EDP NO.	PRICE EACH	NO. OF TEETH	1" ARBOR EDP NO.	1¼" ARBOR EDP NO.	PRICE EACH	NO. OF TEETH	1" ARBOR EDP NO.	1¼" ARBOR EDP NO.	PRICE EACH	NO. OF TEETH	1" ARBOR EDP NO.	1¼" ARBOR EDP NO.	PRICE EACH
3	1/16	.0625	12	60002	-	$253.60	12	60102	-	$253.60	16	60202	-	$303.20	12	60302	-	$285.25
3	5/64	.0781	12	60003	-	299.90	12	60103	-	299.90	16	60203	-	366.65	12	60303	-	319.50
3	3/32	.0938	12	60004	-	253.60	12	60104	-	253.60	16	60204	-	303.20	12	60304	-	285.25
3	7/64	.1094	12	60005	-	252.65	12	60105	-	252.65	16	60205	-	279.85	12	60305	-	272.25
3	1/8	.1250	12	60006	60007	203.90	12	60106	60107	203.90	16	60206	-	253.55	12	60306	60307	260.05
3	5/32	.1562	12	60008	-	243.00	12	60108	-	243.00	16	60208	-	266.30	12	60308	-	266.30
3	3/16	.1875	12	60009	-	217.30	12	60109	-	217.30	16	60209	-	279.15	12	60309	-	272.70
3	7/32	.2188	12	60010	-	251.40	12	60110	-	251.40	16	60210	-	291.95	12	60310	-	281.35
3	1/4	.2500	12	60011	-	264.35	12	60111	-	264.35	16	60211	-	304.85	12	60311	-	289.80
3	5/16	.3125	12	60012	-	289.80	12	60112	-	289.80	16	60212	-	334.20	12	60312	-	317.50
3	3/8	.3750	12	60013	-	315.40	12	60113	-	315.40	16	60213	-	363.70	12	60313	-	347.30
3	7/16	.4375	-	-	-	-	-	-	-	-	16	60280	-	404.15	12	60380	-	377.40
3	1/2	.5000	-	-	-	-	-	-	-	-	16	60281	-	449.10	12	60381	-	407.30
4	1/16	.0625	14	60060	60061	295.30	14	60160	-	295.30	20	60260	-	366.65	14	60360	60361	324.40
4	5/64	.0781	14	60062	60063	348.80	14	60162	60163	348.80	20	60262	60263	401.20	14	60362	60363	371.70
4	3/32	.0938	14	60064	60065	295.30	14	60164	60165	295.30	20	60264	60265	366.65	14	60364	60365	324.40
4	7/64	.1094	14	60066	60067	301.55	14	60166	60167	301.55	20	60266	60267	346.75	14	60366	60367	384.60
4	1/8	.1250	14	60014	60015	266.30	14	60114	60115	266.30	20	60214	60215	323.90	14	60314	60315	323.90
4	5/32	.1562	14	60016	60017	302.50	14	60116	60117	302.50	20	60216	60217	348.00	14	60316	60317	332.45
4	3/16	.1875	14	60018	60019	283.50	14	60118	60119	283.50	20	60218	60219	349.50	14	60318	60319	343.00
4	7/32	.2188	14	60020	60021	321.75	14	60120	60121	321.75	20	60220	60221	370.05	14	60320	60321	353.85
4	1/4	.2500	14	60022	60023	328.00	14	60122	60123	328.00	20	60222	60223	374.85	14	60322	60323	362.30
4	5/16	.3125	14	60024	60025	353.85	14	60124	60125	353.85	20	60224	60225	406.75	14	60324	60325	387.85
4	3/8	.3750	14	60026	60027	379.30	14	60126	60127	379.30	20	60226	60227	436.20	14	60326	60327	417.60
4	7/16	.4375	-	-	-	-	-	-	-	-	20	60282	-	484.65	14	60382	-	447.70
4	1/2	.5000	-	-	-	-	-	-	-	-	20	60283	-	538.60	14	60383	-	477.70
5	5/64	.0781	16	60068	60069	432.10	16	60168	60169	432.10	24	60268	60269	496.80	16	60368	60369	458.00
5	3/32	.0938	16	60070	60071	356.50	16	60170	60171	356.50	24	60270	60271	500.30	16	60370	60371	392.80
5	7/64	.1094	16	60072	60073	405.85	16	60172	60173	405.85	24	60272	60273	466.80	16	60372	60373	432.10
5	1/8	.1250	16	60028	60029	329.30	16	60128	60129	329.30	24	60228	60229	404.75	16	60328	60329	381.45
5	5/32	.1562	16	60030	60031	360.10	16	60130	60131	360.10	24	60230	60231	414.05	16	60330	60331	394.05
5	3/16	.1875	16	60032	60033	368.80	16	60132	60133	368.80	24	60232	60233	443.20	16	60332	60333	415.50
5	7/32	.2188	16	60034	60035	396.30	16	60134	60135	396.30	24	60234	60235	455.80	16	60334	60335	436.85
5	1/4	.2500	16	60036	60037	413.40	16	60136	60137	413.40	24	60236	60237	475.40	16	60336	60337	458.05
5	5/16	.3125	16	60038	60039	449.50	16	60138	60139	449.50	24	60238	60239	517.05	16	60338	60339	494.30
5	3/8	.3750	16	60040	60041	485.80	16	60140	60141	485.80	24	60240	60241	558.60	16	60340	60341	532.70
5	7/16	.4375	-	-	-	-	-	-	-	-	24	60284	-	620.75	16	60384	-	562.70
5	1/2	.5000	-	-	-	-	-	-	-	-	24	60285	-	689.70	16	60385	-	592.70
6	5/64	.0781	18	60074	60075	485.75	18	60174	60175	485.75	28	60274	60275	558.55	18	60374	60375	515.05
6	3/32	.0938	18	60076	60077	432.60	18	60176	60177	432.60	28	60276	60277	511.70	18	60376	60377	474.30
6	7/64	.1094	18	60078	60079	487.40	18	60178	60179	487.40	28	60278	60279	560.50	18	60378	60379	516.80
6	1/8	.1250	18	60042	60043	412.30	18	60142	60143	412.30	28	60242	60243	536.90	18	60342	60343	487.90
6	5/32	.1562	18	60044	60045	466.50	18	60144	60145	466.50	28	60244	60245	536.65	18	60344	60345	509.20
6	3/16	.1875	18	60046	60047	451.70	18	60146	60147	451.70	28	60246	60247	575.70	18	60346	60347	530.45
6	7/32	.2188	18	60048	60049	509.20	18	60148	60149	509.20	28	60248	60249	585.60	18	60348	60349	551.85
6	1/4	.2500	18	60050	60051	530.55	18	60150	60151	530.55	28	60250	60251	625.95	18	60350	60351	581.25
6	5/16	.3125	18	60052	60053	551.95	18	60152	60153	551.95	28	60252	60253	634.70	18	60352	60353	607.25
6	3/8	.3750	18	60054	60055	573.10	18	60154	60155	573.10	28	60254	60255	659.10	18	60354	60355	630.60
6	7/16	.4375	-	-	-	-	-	-	-	-	28	60286	-	732.25	18	60386	-	660.60
6	1/2	.5000	-	-	-	-	-	-	-	-	28	60287	-	813.65	18	60387	-	690.65
8	1/8	.1250	24	-	60056	684.55	24	-	60156	684.55	24	-	60256	723.65	24	-	60356	723.65
8	5/32	.1562	24	-	60057	692.70	24	-	60157	692.70	24	-	60257	731.85	24	-	60357	731.85
8	3/16	.1875	24	-	60058	700.85	24	-	60158	700.85	24	-	60258	739.95	24	-	60358	739.95
8	1/4	.2500	24	-	60059	743.10	24	-	60159	743.10	24	-	60259	782.30	24	-	60359	782.30

For specials & modifications please contact us.

Made in the USA

Width grinds between .0600" and .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
3	.0600-.0703	.0555	60302D	$350.65	$325.30	$320.95	$318.65	$317.30	$285.25
3	.0704-.0859	.0711	60303D	385.00	359.65	355.25	352.95	351.50	319.50
3	.0860-.1015	.0867	60304D	350.65	325.30	320.95	318.65	317.30	285.25
3	.1016-.1171	.1024	60305D	337.70	312.45	308.00	305.70	304.30	272.25
3	.1172-.1406	.1180	60306D	325.50	300.15	295.70	293.40	292.05	260.05
3	.1407-.1718	.1562	60308D	331.80	306.55	302.10	299.80	298.45	266.30
3	.1719-.2031	.1875	60309D	338.20	312.80	308.35	306.10	304.75	272.70
3	.2032-.2343	.2188	60310D	346.75	321.55	317.10	314.75	313.40	281.35
3	.2344-.2812	.2500	60311D	355.40	330.10	325.55	323.25	321.95	289.80
3	.2813-.3437	.3125	60312D	383.00	357.70	353.25	351.00	349.65	317.50
3	.3438-.4062	.3750	60313D	412.70	387.40	383.00	380.60	379.25	347.30
3	.4063-.4687	.4375	60380D	442.75	417.45	413.05	410.75	409.35	377.40
3	.4688-.5312	.5000	60381D	472.90	447.45	443.05	440.80	439.50	407.30



Width Grind

Cutter Notes (All cutters on page)
- 12 Teeth
- C-2(m) Carbide
- 5° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 363 Brinell (39Rc)
- Add 5% to match OD's on cutter sets within .001"

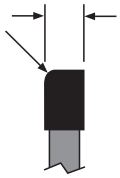
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

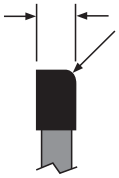
Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
3	.0600-.0703	.0555	60302R1	$367.80	$330.35	$325.30	$322.85	$321.35	$320.55
3	.0704-.0859	.0711	60303R1	402.15	364.65	359.65	357.10	355.55	354.80
3	.0860-.1015	.0867	60304R1	367.80	330.35	325.30	322.85	321.35	320.55
3	.1016-.1171	.1024	60305R1	354.90	317.40	312.45	309.90	308.30	307.50
3	.1172-.1406	.1180	60306R1	342.65	305.10	300.15	297.60	296.10	295.20
3	.1407-.1718	.1562	60308R1	348.90	311.45	306.55	303.90	302.40	301.55
3	.1719-.2031	.1875	60309R1	355.35	317.75	312.80	310.30	308.85	307.95
3	.2032-.2343	.2188	60310R1	363.85	326.55	321.55	318.85	317.40	316.50
3	.2344-.2812	.2500	60311R1	372.45	334.95	330.10	327.45	325.95	325.10
3	.2813-.3437	.3125	60312R1	400.10	362.70	357.70	355.10	353.65	352.70
3	.3438-.4062	.3750	60313R1	429.95	392.40	387.40	384.85	383.35	382.55
3	.4063-.4687	.4375	60380R1	459.90	422.45	417.45	414.90	413.40	412.55
3	.4688-.5312	.5000	60381R1	489.95	452.45	447.45	445.00	443.35	442.60

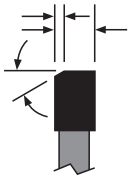
Specify side for radius or chamfer



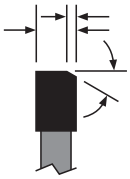
Radius Left Side



Radius Right Side



Chamfer Left Side

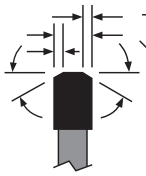


Chamfer Right Side

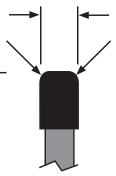
Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

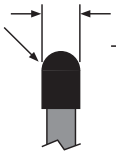
TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
3	.0600-.0703	.0555	60302R2	$376.95	$335.40	$329.90	$326.95	$325.25	$324.40
3	.0704-.0859	.0711	60303R2	411.30	369.65	364.20	361.30	359.50	358.55
3	.0860-.1015	.0867	60304R2	376.95	335.40	329.90	326.95	325.25	324.40
3	.1016-.1171	.1024	60305R2	364.15	322.40	316.95	314.10	312.35	311.40
3	.1172-.1406	.1180	60306R2	351.80	310.20	304.65	301.80	300.05	299.15
3	.1407-.1718	.1562	60308R2	358.15	316.45	311.00	308.15	306.45	305.45
3	.1719-.2031	.1875	60309R2	364.40	322.85	317.35	314.45	312.75	311.85
3	.2032-.2343	.2188	60310R2	373.20	331.45	326.00	323.15	321.40	320.55
3	.2344-.2812	.2500	60311R2	381.60	339.95	334.50	331.60	329.90	329.00
3	.2813-.3437	.3125	60312R2	409.30	367.65	362.10	359.30	357.65	356.70
3	.3438-.4062	.3750	60313R2	439.10	397.45	391.90	389.05	387.30	386.45
3	.4063-.4687	.4375	60380R2	469.05	427.50	422.00	419.05	417.40	416.45
3	.4688-.5312	.5000	60381R2	499.10	457.60	452.00	449.15	447.40	446.50



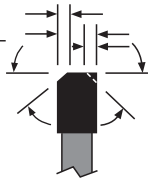
Chamfer Both Sides



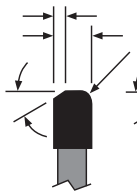
Radius Both Sides



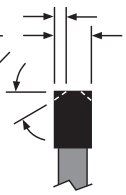
Full Radius



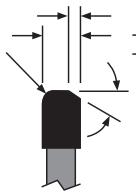
Alternating Right Left Chamfer



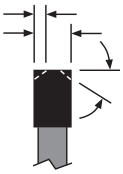
Radius Right Side Chamfer Left Side



Alternating Chamfer Both Sides



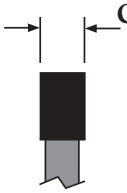
Radius Left Side Chamfer Right Side



Triple Tooth Grind

Width grinds between .0600" and .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
4	.0600-.0703	.0545	60360D	$401.50	$372.45	$367.15	$364.40	$362.75	$324.45
4	.0704-.0859	.0701	60362D	448.85	419.70	414.40	411.65	410.10	371.70
4	.0860-.1015	.0858	60364D	401.50	372.45	367.15	364.40	362.75	324.45
4	.1016-.1171	.1014	60366D	461.80	432.70	427.40	424.75	423.00	384.60
4	.1172-.1406	.1170	60314D	401.10	371.90	366.55	363.80	362.25	323.90
4	.1407-.1718	.1562	60316D	409.55	380.45	375.15	372.45	370.75	332.45
4	.1719-.2031	.1875	60318D	420.10	391.00	385.70	383.05	381.35	343.00
4	.2032-.2343	.2188	60320D	430.95	401.85	396.50	393.80	392.05	353.80
4	.2344-.2812	.2500	60322D	439.50	410.30	405.00	402.25	400.55	362.30
4	.2813-.3437	.3125	60324D	464.90	435.80	430.45	427.75	426.05	387.85
4	.3438-.4062	.3750	60326D	494.80	465.70	460.40	457.65	455.90	417.60
4	.4063-.4687	.4375	60382D	524.80	495.75	490.35	487.65	485.90	447.70
4	.4688-.5312	.5000	60383D	554.90	525.65	520.40	517.65	516.00	477.70



Cutter Notes (All cutters on page)
- 14 Teeth
- C-2(m) Carbide
- 5° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 363 Brinell (39Rc)
- Add 5% to match OD's on cutter sets within .001"

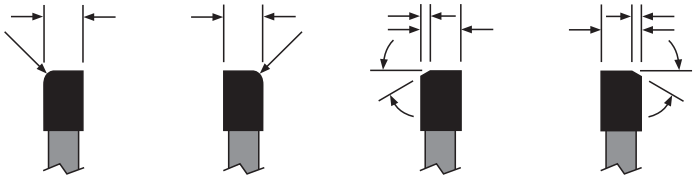
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
4	.0600-.0703	.0545	60360R1	$420.05	$377.90	$372.05	$368.90	$367.15	$366.15
4	.0704-.0859	.0701	60362R1	467.30	425.15	419.30	416.15	414.40	413.40
4	.0860-.1015	.0858	60364R1	420.05	377.90	372.05	368.90	367.15	366.15
4	.1016-.1171	.1014	60366R1	480.40	438.15	432.25	429.25	427.40	426.40
4	.1172-.1406	.1170	60314R1	419.60	377.40	371.50	368.40	366.55	365.60
4	.1407-.1718	.1562	60316R1	428.05	385.80	380.00	376.95	375.15	374.10
4	.1719-.2031	.1875	60318R1	438.70	396.50	390.60	387.50	385.70	384.65
4	.2032-.2343	.2188	60320R1	449.50	407.25	401.35	398.35	396.50	395.45
4	.2344-.2812	.2500	60322R1	457.95	415.70	409.80	406.75	405.00	404.00
4	.2813-.3437	.3125	60324R1	483.45	441.20	435.35	432.30	430.45	429.40
4	.3438-.4062	.3750	60326R1	513.25	471.05	465.15	462.10	460.40	459.30
4	.4063-.4687	.4375	60382R1	543.35	501.20	495.20	492.20	490.35	489.35
4	.4688-.5312	.5000	60383R1	573.40	531.25	525.35	522.25	520.40	519.45

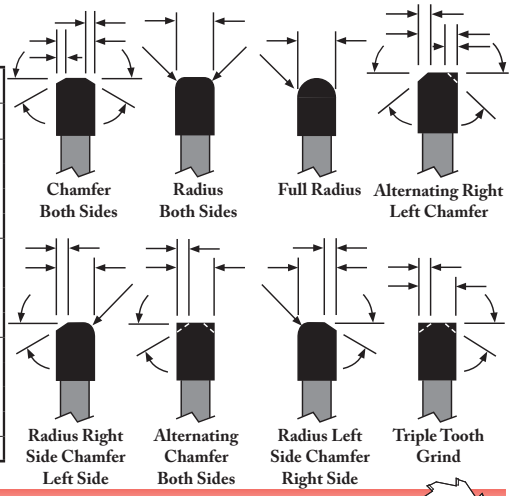
Specify side for radius or chamfer



Corner Radius or Chamfer on BOTH Sides OR a Full Radius

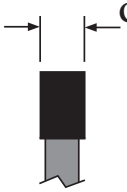
- Alternating Chamfers add 5%

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
4	.0600-.0703	.0545	60360R2	$429.95	$383.40	$376.85	$373.50	$371.50	$370.40
4	.0704-.0859	.0701	60362R2	477.05	430.60	424.10	420.75	418.65	417.60
4	.0860-.1015	.0858	60364R2	429.95	383.40	376.85	373.50	371.50	370.40
4	.1016-.1171	.1014	60366R2	490.10	443.65	437.05	433.80	431.70	430.60
4	.1172-.1406	.1170	60314R2	429.30	382.80	376.30	372.95	370.95	369.80
4	.1407-.1718	.1562	60316R2	437.85	391.40	384.80	381.50	379.35	378.30
4	.1719-.2031	.1875	60318R2	448.50	401.95	395.45	392.05	390.00	389.00
4	.2032-.2343	.2188	60320R2	459.25	412.70	406.25	402.90	400.90	399.80
4	.2344-.2812	.2500	60322R2	467.65	421.20	414.70	411.30	409.30	408.15
4	.2813-.3437	.3125	60324R2	493.20	446.70	440.20	436.85	434.75	433.75
4	.3438-.4062	.3750	60326R2	523.10	476.55	470.05	466.70	464.70	463.55
4	.4063-.4687	.4375	60382R2	553.10	506.60	500.15	496.70	494.65	493.70
4	.4688-.5312	.5000	60383R2	583.15	536.70	530.10	526.75	524.70	523.55



Width grinds between .0704" and .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
5	.0704-.0859	.0691	60368D	$536.90	$507.05	$501.60	$498.90	$497.25	$458.00
5	.0860-.1015	.0848	60370D	471.75	441.95	436.60	433.80	432.15	392.80
5	.1016-.1171	.1004	60372D	510.85	481.15	475.65	472.95	471.25	432.10
5	.1172-.1406	.1160	60328D	460.40	430.45	425.15	422.30	420.70	381.45
5	.1407-.1718	.1562	60330D	473.00	443.20	437.85	434.95	433.30	394.05
5	.1719-.2031	.1875	60332D	494.40	464.65	459.25	456.50	454.75	415.50
5	.2032-.2343	.2188	60334D	515.80	485.90	480.55	477.75	476.05	436.85
5	.2344-.2812	.2500	60336D	536.95	507.10	501.80	499.00	497.35	458.05
5	.2813-.3437	.3125	60338D	573.10	543.35	537.95	535.15	533.50	494.30
5	.3438-.4062	.3750	60340D	611.50	581.70	576.40	573.55	571.85	532.70
5	.4063-.4687	.4375	60384D	641.55	611.85	606.50	603.65	601.90	562.70
5	.4688-.5312	.5000	60385D	671.65	641.85	636.45	633.70	632.00	592.70



Width Grind

Cutter Notes (All cutters on page)
- 16 Teeth
- C-2(m) Carbide
- 5° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 363 Brinell (39Rc)
- Add 5% to match OD's on cutter sets within .001"

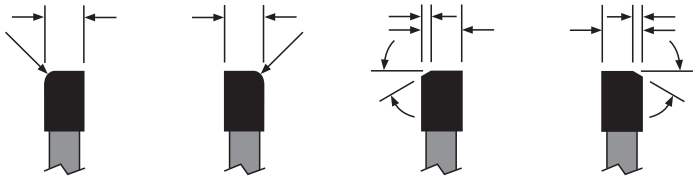
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
5	.0704-.0859	.0691	60368R1	$555.60	$512.50	$506.55	$503.35	$501.45	$500.50
5	.0860-.1015	.0848	60370R1	490.55	447.40	441.40	438.35	436.40	435.35
5	.1016-.1171	.1004	60372R1	529.65	486.60	480.55	477.45	475.50	474.55
5	.1172-.1406	.1160	60328R1	479.05	435.95	430.05	426.90	425.00	424.05
5	.1407-.1718	.1562	60330R1	491.75	448.60	442.65	439.60	437.60	436.70
5	.1719-.2031	.1875	60332R1	513.10	470.10	464.05	460.95	459.10	458.05
5	.2032-.2343	.2188	60334R1	534.45	491.40	485.40	482.35	480.40	479.40
5	.2344-.2812	.2500	60336R1	555.70	512.75	506.60	503.55	501.60	500.60
5	.2813-.3437	.3125	60338R1	591.90	548.75	542.80	539.65	537.85	536.80
5	.3438-.4062	.3750	60340R1	630.30	587.20	581.15	578.05	576.30	575.25
5	.4063-.4687	.4375	60384R1	660.35	617.30	611.25	608.15	606.25	605.25
5	.4688-.5312	.5000	60385R1	690.35	647.35	641.35	638.30	636.25	635.30

Specify side for radius or chamfer

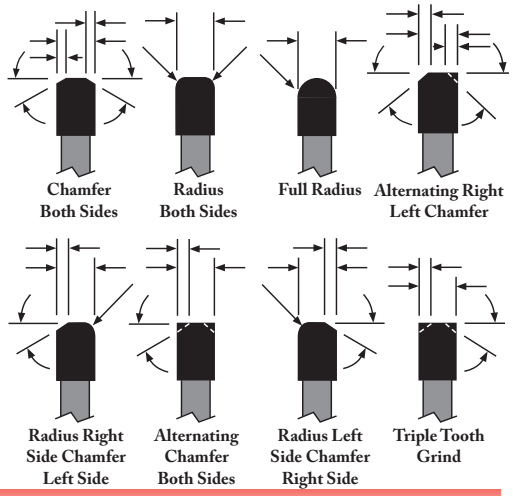


Radius Left Side | Radius Right Side | Chamfer Left Side | Chamfer Right Side

Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
5	.0704-.0859	.0691	60368R2	$575.15	$523.45	$516.20	$512.45	$510.20	$509.05
5	.0860-.1015	.0848	60370R2	510.05	458.30	451.10	447.35	445.10	443.95
5	.1016-.1171	.1004	60372R2	549.15	497.45	490.25	486.50	484.30	483.05
5	.1172-.1406	.1160	60328R2	498.60	446.90	439.70	435.90	433.75	432.50
5	.1407-.1718	.1562	60330R2	511.25	459.55	452.35	448.60	446.40	445.10
5	.1719-.2031	.1875	60332R2	532.70	481.00	473.70	470.05	467.80	466.60
5	.2032-.2343	.2188	60334R2	553.90	502.40	495.10	491.40	489.15	487.95
5	.2344-.2812	.2500	60336R2	575.25	523.50	516.25	512.60	510.45	509.20
5	.2813-.3437	.3125	60338R2	611.35	559.70	552.55	548.70	546.45	545.30
5	.3438-.4062	.3750	60340R2	649.85	598.10	590.95	587.15	584.90	583.80
5	.4063-.4687	.4375	60384R2	679.95	628.15	620.90	617.25	615.00	613.80
5	.4688-.5312	.5000	60385R2	709.90	658.25	651.05	647.35	645.00	643.80



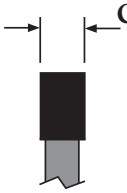
Chamfer Both Sides | Radius Both Sides | Full Radius | Alternating Right Left Chamfer
Radius Right Side Chamfer Left Side | Alternating Chamfer Both Sides | Radius Left Side Chamfer Right Side | Triple Tooth Grind

SUPER TOOL, INC. – Phone 800-237-1395 – Fax 941-756-6480

Made in the USA

Width grinds between .0704" up to .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
6	.0704-.0859	.0681	60374D	$597.45	$566.30	$560.70	$557.80	$555.95	$515.05
6	.0860-.1015	.0838	60376D	556.65	525.55	519.90	517.05	515.20	474.30
6	.1016-.1171	.0994	60378D	599.20	568.15	562.40	559.50	557.80	516.80
6	.1172-.1406	.1150	60342D	570.15	539.10	533.50	530.55	528.80	487.90
6	.1407-.1718	.1562	60344D	591.45	560.50	554.85	551.90	550.15	509.20
6	.1719-.2031	.1875	60346D	612.85	581.70	576.25	573.10	571.35	530.45
6	.2032-.2343	.2188	60348D	634.15	603.05	597.45	594.50	592.70	551.85
6	.2344-.2812	.2500	60350D	663.60	632.60	626.85	623.95	622.25	581.25
6	.2813-.3437	.3125	60352D	689.65	658.50	652.90	649.95	648.25	607.25
6	.3438-.4062	.3750	60354D	713.00	681.80	676.25	673.30	671.55	630.55
6	.4063-.4687	.4375	60386D	742.95	711.85	706.30	703.30	701.55	660.60
6	.4688-.5312	.5000	60387D	773.00	741.95	736.30	733.40	731.60	690.65



Width Grind

Cutter Notes (All cutters on page)
- 18 Teeth
- C-2(m) Carbide
- 5° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 363 Brinell (39Rc)
- Add 5% to match OD's on cutter sets within .001"

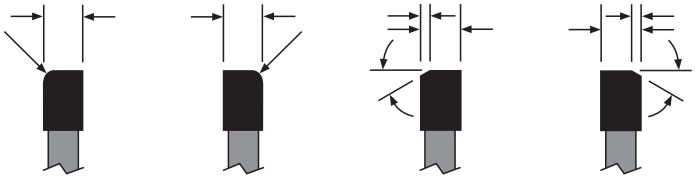
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
6	.0704-.0859	.0681	60374R1	$616.50	$571.75	$565.45	$562.30	$560.30	$559.25
6	.0860-.1015	.0838	60376R1	575.75	530.95	524.70	521.55	519.60	518.55
6	.1016-.1171	.0994	60378R1	618.35	573.50	567.20	564.00	562.00	561.00
6	.1172-.1406	.1150	60342R1	589.35	544.55	538.25	535.00	533.10	532.05
6	.1407-.1718	.1562	60344R1	610.70	565.95	559.60	556.50	554.45	553.40
6	.1719-.2031	.1875	60346R1	632.00	587.20	580.95	577.70	575.75	574.75
6	.2032-.2343	.2188	60348R1	653.30	608.55	602.35	598.95	597.15	596.05
6	.2344-.2812	.2500	60350R1	682.80	638.05	631.75	628.55	626.55	625.45
6	.2813-.3437	.3125	60352R1	708.75	664.00	657.80	654.55	652.55	651.45
6	.3438-.4062	.3750	60354R1	732.05	687.35	681.05	677.80	675.90	674.85
6	.4063-.4687	.4375	60386R1	762.10	717.45	711.15	707.90	705.90	704.90
6	.4688-.5312	.5000	60387R1	792.20	747.40	741.10	737.90	736.00	734.85

Specify side for radius or chamfer

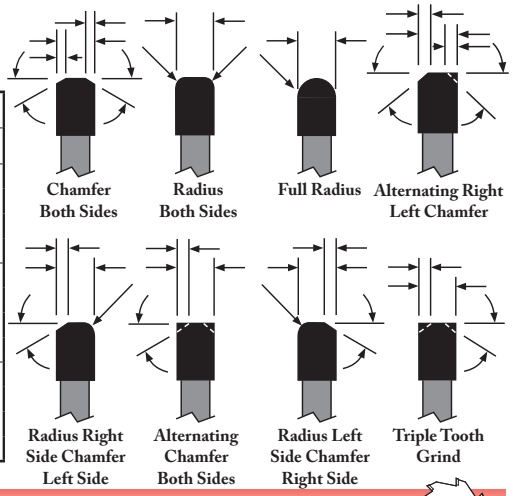


Radius Left Side | Radius Right Side | Chamfer Left Side | Chamfer Right Side

Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
6	.0704-.0859	.0681	60374R2	$636.10	$582.70	$575.25	$571.35	$569.00	$567.70
6	.0860-.1015	.0838	60376R2	595.30	541.95	534.45	530.60	528.30	526.95
6	.1016-.1171	.0994	60378R2	637.90	584.45	576.95	573.10	570.75	569.55
6	.1172-.1406	.1150	60342R2	608.95	555.55	548.00	544.15	541.85	540.55
6	.1407-.1718	.1562	60344R2	630.25	576.80	569.35	565.45	563.15	561.90
6	.1719-.2031	.1875	60346R2	651.45	598.10	590.65	586.85	584.55	583.25
6	.2032-.2343	.2188	60348R2	672.80	619.50	612.00	608.15	605.80	604.55
6	.2344-.2812	.2500	60350R2	702.30	648.90	641.45	637.55	635.20	634.05
6	.2813-.3437	.3125	60352R2	728.25	674.95	667.45	663.60	661.25	660.00
6	.3438-.4062	.3750	60354R2	751.55	698.25	690.80	686.95	684.60	683.40
6	.4063-.4687	.4375	60386R2	781.65	728.25	720.85	717.00	714.65	713.40
6	.4688-.5312	.5000	60387R2	811.70	758.35	750.90	747.10	744.75	743.45

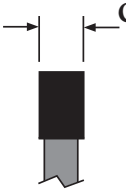


Chamfer Both Sides | Radius Both Sides | Full Radius | Alternating Right Left Chamfer | Radius Right Side Chamfer Left Side | Alternating Chamfer Both Sides | Radius Left Side Chamfer Right Side | Triple Tooth Grind

Made in the USA

Width grinds between .0600" and .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
3	.0600-.0703	.0555	60202D	$369.45	$344.50	$339.85	$337.55	$336.10	$303.20
3	.0704-.0859	.0711	60203D	432.80	407.85	403.30	401.05	399.60	366.65
3	.0860-.1015	.0867	60204D	369.45	344.50	339.85	337.55	336.10	303.20
3	.1016-.1171	.1024	60205D	345.90	320.90	316.35	314.10	312.60	279.85
3	.1172-.1406	.1180	60206D	319.65	294.70	290.20	287.95	286.35	253.55
3	.1407-.1718	.1562	60208D	332.50	307.55	303.00	300.70	299.15	266.30
3	.1719-.2031	.1875	60209D	345.30	320.35	315.80	313.50	312.00	279.15
3	.2032-.2343	.2188	60210D	358.05	333.15	328.65	326.25	324.90	291.95
3	.2344-.2812	.2500	60211D	371.00	346.00	341.50	339.25	337.70	304.85
3	.2813-.3437	.3125	60212D	400.40	375.35	370.90	368.60	367.10	334.25
3	.3438-.4062	.3750	60213D	429.95	405.00	400.40	398.10	396.60	363.70
3	.4063-.4687	.4375	60280D	470.25	445.30	440.80	438.50	437.00	404.15
3	.4688-.5312	.5000	60281D	515.20	490.25	485.75	483.45	481.95	449.10



Width Grind

Cutter Notes (All cutters on page)
- 16 Teeth
- C-5 Carbide
- 1° - 3° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 475 Brinell (50Rc)
- Add 5% to match OD's on cutter sets within .001"

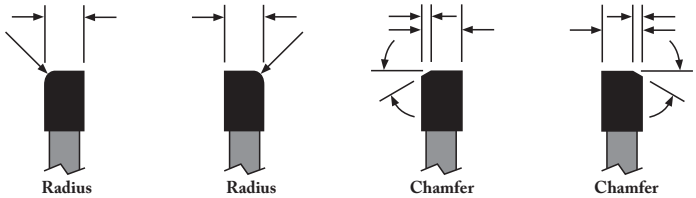
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
3	.0600-.0703	.0555	60202R1	$386.10	$349.60	$344.50	$341.80	$340.20	$339.40
3	.0704-.0859	.0711	60203R1	449.55	413.00	407.90	405.25	403.65	402.85
3	.0860-.1015	.0867	60204R1	386.10	349.60	344.50	341.80	340.20	339.40
3	.1016-.1171	.1024	60205R1	362.65	326.05	320.95	318.35	316.80	315.85
3	.1172-.1406	.1180	60206R1	336.40	299.85	294.75	292.15	290.50	289.65
3	.1407-.1718	.1562	60208R1	349.15	312.70	307.60	305.00	303.25	302.50
3	.1719-.2031	.1875	60209R1	362.05	325.50	320.45	317.75	316.20	315.35
3	.2032-.2343	.2188	60210R1	374.85	338.30	333.20	330.55	329.00	328.10
3	.2344-.2812	.2500	60211R1	387.75	351.15	346.05	343.50	341.80	340.95
3	.2813-.3437	.3125	60212R1	417.10	380.50	375.40	372.80	371.20	370.40
3	.3438-.4062	.3750	60213R1	446.55	410.15	405.05	402.35	400.70	399.90
3	.4063-.4687	.4375	60280R1	487.05	450.45	445.40	442.75	441.20	440.40
3	.4688-.5312	.5000	60281R1	532.00	495.45	490.35	487.75	486.05	485.35

Specify side for radius or chamfer

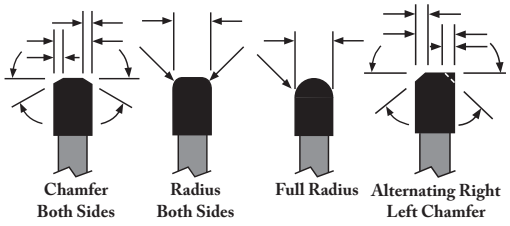


Radius Left Side | Radius Right Side | Chamfer Left Side | Chamfer Right Side

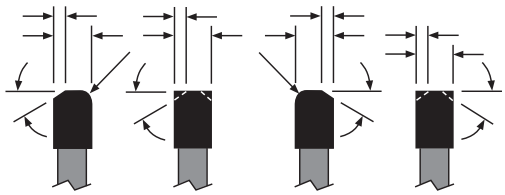
Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
3	.0600-.0703	.0555	60202R2	$395.30	$354.80	$349.05	$346.05	$344.40	$343.45
3	.0704-.0859	.0711	60203R2	458.80	418.20	412.45	409.55	407.80	406.75
3	.0860-.1015	.0867	60204R2	395.30	354.80	349.05	346.05	344.40	343.45
3	.1016-.1171	.1024	60205R2	371.80	331.25	325.50	322.60	320.85	319.90
3	.1172-.1406	.1180	60206R2	345.65	305.00	299.30	296.40	294.60	293.60
3	.1407-.1718	.1562	60208R2	358.40	317.75	312.15	309.25	307.40	306.50
3	.1719-.2031	.1875	60209R2	371.20	330.65	325.00	322.10	320.25	319.35
3	.2032-.2343	.2188	60210R2	384.15	343.50	337.75	334.85	333.10	332.05
3	.2344-.2812	.2500	60211R2	396.95	356.30	350.60	347.70	345.90	345.00
3	.2813-.3437	.3125	60212R2	426.35	385.70	380.00	377.05	375.30	374.35
3	.3438-.4062	.3750	60213R2	455.80	415.15	409.55	406.65	404.90	403.90
3	.4063-.4687	.4375	60280R2	496.25	455.65	450.00	447.10	445.25	444.30
3	.4688-.5312	.5000	60281R2	541.20	500.50	494.95	492.05	490.20	489.25



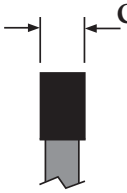
Chamfer Both Sides | Radius Both Sides | Full Radius | Alternating Right Left Chamfer



Radius Right Side Chamfer Left Side | Alternating Chamfer Both Sides | Radius Left Side Chamfer Right Side | Triple Tooth Grind

Width grinds between .0600" and .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
4	.0600-.0703	.0545	60260D	$444.75	$415.90	$410.45	$407.65	$405.95	$366.65
4	.0704-.0859	.0701	60262D	479.15	450.35	444.95	442.15	440.50	401.20
4	.0860-.1015	.0858	60264D	444.75	415.90	410.45	407.65	405.95	366.65
4	.1016-.1171	.1014	60266D	424.85	396.00	390.60	387.80	386.05	346.75
4	.1172-.1406	.1170	60214D	401.90	373.05	367.65	364.85	363.20	323.85
4	.1407-.1718	.1562	60216D	426.05	397.20	391.85	389.00	387.35	348.05
4	.1719-.2031	.1875	60218D	427.45	398.65	393.20	390.40	388.65	349.35
4	.2032-.2343	.2188	60220D	448.05	419.30	413.85	411.00	409.40	370.10
4	.2344-.2812	.2500	60222D	452.95	424.10	418.65	415.90	414.25	374.85
4	.2813-.3437	.3125	60224D	484.75	456.00	450.55	447.80	446.10	406.75
4	.3438-.4062	.3750	60226D	514.25	485.45	480.10	477.25	475.45	436.20
4	.4063-.4687	.4375	60282D	562.70	533.85	528.50	525.60	523.95	484.65
4	.4688-.5312	.5000	60283D	616.55	587.80	582.30	579.55	577.85	538.60



Width Grind

Cutter Notes (All cutters on page)
- 20 Teeth
- C-5 Carbide
- 1° - 3° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 475 Brinell (50Rc)
- Add 5% to match OD's on cutter sets within .001"

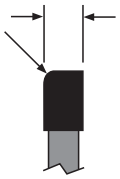
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

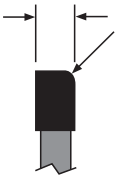
Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
4	.0600-.0703	.0545	60260R1	$462.75	$421.40	$415.50	$412.30	$410.40	$409.40
4	.0704-.0859	.0701	60262R1	497.30	456.00	450.00	446.75	444.95	443.90
4	.0860-.1015	.0858	60264R1	462.75	421.40	415.50	412.30	410.40	409.40
4	.1016-.1171	.1014	60266R1	442.80	401.55	395.60	392.45	390.55	389.55
4	.1172-.1406	.1170	60214R1	419.95	378.70	372.70	369.55	367.60	366.65
4	.1407-.1718	.1562	60216R1	444.15	402.85	396.90	393.70	391.85	390.80
4	.1719-.2031	.1875	60218R1	445.45	404.20	398.25	395.00	393.15	392.15
4	.2032-.2343	.2188	60220R1	466.20	424.90	418.90	415.70	413.85	412.85
4	.2344-.2812	.2500	60222R1	470.95	429.60	423.70	420.60	418.60	417.65
4	.2813-.3437	.3125	60224R1	502.80	461.65	455.50	452.40	450.55	449.50
4	.3438-.4062	.3750	60226R1	532.30	491.00	484.90	481.80	479.95	478.90
4	.4063-.4687	.4375	60282R1	580.75	539.45	533.50	530.35	528.40	527.45
4	.4688-.5312	.5000	60283R1	634.60	593.40	587.30	584.15	582.25	581.25

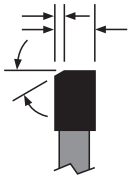
Specify side for radius or chamfer



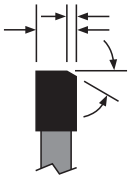
Radius Left Side



Radius Right Side



Chamfer Left Side

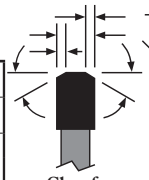


Chamfer Right Side

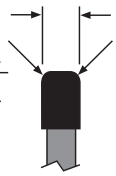
Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

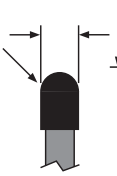
TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
4	.0600-.0703	.0545	60260R2	$472.55	$427.05	$420.45	$417.00	$414.85	$413.75
4	.0704-.0859	.0701	60262R2	507.05	461.65	455.05	451.45	449.40	448.25
4	.0860-.1015	.0858	60264R2	472.55	427.05	420.45	417.00	414.85	413.75
4	.1016-.1171	.1014	60266R2	452.65	407.20	400.50	397.10	394.95	393.85
4	.1172-.1406	.1170	60214R2	429.85	384.30	377.70	374.15	372.10	371.00
4	.1407-.1718	.1562	60216R2	454.00	408.45	401.85	398.35	396.25	395.15
4	.1719-.2031	.1875	60218R2	455.35	409.75	403.10	399.80	397.65	396.50
4	.2032-.2343	.2188	60220R2	476.05	430.45	423.95	420.35	418.30	417.15
4	.2344-.2812	.2500	60222R2	480.75	435.30	428.70	425.20	423.05	422.00
4	.2813-.3437	.3125	60224R2	512.75	467.20	460.55	457.05	455.10	453.80
4	.3438-.4062	.3750	60226R2	542.10	496.60	489.95	486.50	484.45	483.35
4	.4063-.4687	.4375	60282R2	590.60	545.05	538.35	534.95	532.90	531.75
4	.4688-.5312	.5000	60283R2	644.45	598.90	592.30	588.85	586.80	585.65



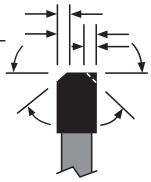
Chamfer Both Sides



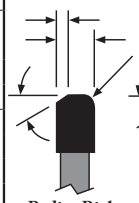
Radius Both Sides



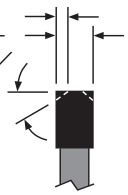
Full Radius



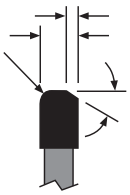
Alternating Right Left Chamfer



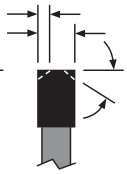
Radius Right Side Chamfer Left Side



Alternating Chamfer Both Sides



Radius Left Side Chamfer Right Side

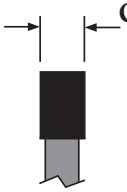


Triple Tooth Grind

Made in the USA

Width grinds between .0704" and .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
5	.0704-.0859	.0691	60268D	$576.55	$547.15	$541.70	$538.75	$537.05	$496.80
5	.0860-.1015	.0848	60270D	580.10	550.60	545.15	542.25	540.50	500.30
5	.1016-.1171	.1004	60272D	546.45	517.10	511.60	508.65	506.95	466.80
5	.1172-.1406	.1160	60228D	484.55	455.15	449.55	446.65	444.95	404.75
5	.1407-.1718	.1562	60230D	493.85	464.45	458.90	456.00	454.30	414.05
5	.1719-.2031	.1875	60232D	522.95	493.50	488.00	485.10	483.40	443.20
5	.2032-.2343	.2188	60234D	535.60	506.20	500.50	497.70	496.00	455.80
5	.2344-.2812	.2500	60236D	555.15	525.70	520.20	517.35	515.65	475.40
5	.2813-.3437	.3125	60238D	596.70	567.35	561.80	558.95	557.15	517.05
5	.3438-.4062	.3750	60240D	638.45	609.05	603.40	600.60	598.80	558.65
5	.4063-.4687	.4375	60284D	700.55	671.05	665.55	662.60	660.95	620.75
5	.4688-.5312	.5000	60285D	769.50	740.00	734.55	731.60	730.00	689.70



Width Grind

Cutter Notes (All cutters on page)
- 24 Teeth
- C-5 Carbide
- 1° - 3° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 475 Brinell (50Rc)
- Add 5% to match OD's on cutter sets within .001"

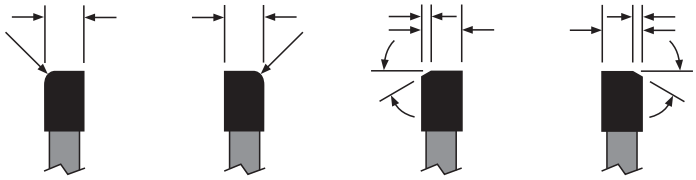
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
5	.0704-.0859	.0691	60268R1	$594.85	$552.75	$546.60	$543.40	$541.50	$540.45
5	.0860-.1015	.0848	60270R1	598.40	556.30	550.15	546.95	545.00	543.95
5	.1016-.1171	.1004	60272R1	564.80	522.65	516.50	513.30	511.45	510.45
5	.1172-.1406	.1160	60228R1	502.75	460.65	454.50	451.35	449.40	448.40
5	.1407-.1718	.1562	60230R1	512.15	470.05	463.90	460.65	458.80	457.70
5	.1719-.2031	.1875	60232R1	541.20	499.10	493.00	489.80	487.90	486.85
5	.2032-.2343	.2188	60234R1	553.85	511.75	505.55	502.45	500.40	499.45
5	.2344-.2812	.2500	60236R1	573.50	531.40	525.20	522.00	520.05	519.00
5	.2813-.3437	.3125	60238R1	615.05	572.90	566.85	563.65	561.70	560.70
5	.3438-.4062	.3750	60240R1	656.80	614.60	608.40	605.20	603.25	602.30
5	.4063-.4687	.4375	60284R1	718.75	676.70	670.50	667.35	665.45	664.40
5	.4688-.5312	.5000	60285R1	787.75	745.65	739.45	736.30	734.40	733.30

Specify side for radius or chamfer

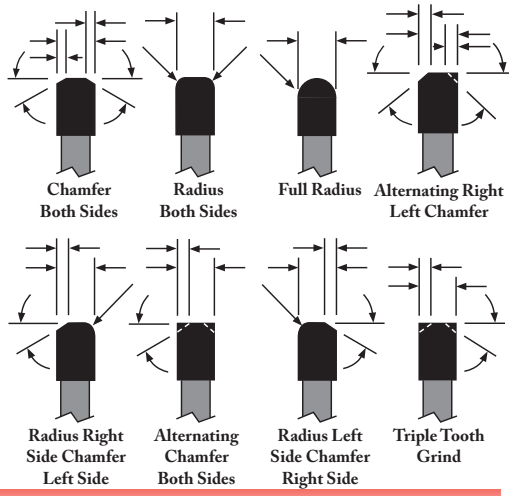


Radius Left Side | Radius Right Side | Chamfer Left Side | Chamfer Right Side

Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
5	.0704-.0859	.0691	60268R2	$614.45	$563.90	$556.60	$552.75	$550.45	$549.20
5	.0860-.1015	.0848	60270R2	618.00	567.45	560.10	556.15	553.85	552.70
5	.1016-.1171	.1004	60272R2	584.40	533.85	526.50	522.60	520.30	519.10
5	.1172-.1406	.1160	60228R2	522.40	471.85	464.50	460.60	458.30	457.10
5	.1407-.1718	.1562	60230R2	531.75	481.25	473.85	469.95	467.65	466.45
5	.1719-.2031	.1875	60232R2	560.85	510.30	502.90	499.10	496.80	495.50
5	.2032-.2343	.2188	60234R2	573.50	522.95	515.65	511.70	509.40	508.10
5	.2344-.2812	.2500	60236R2	593.05	542.50	535.15	531.35	529.00	527.75
5	.2813-.3437	.3125	60238R2	634.70	584.15	576.75	572.85	570.60	569.35
5	.3438-.4062	.3750	60240R2	676.25	625.80	618.40	614.50	612.20	611.00
5	.4063-.4687	.4375	60284R2	738.40	687.95	680.50	676.60	674.25	673.10
5	.4688-.5312	.5000	60285R2	807.35	756.85	749.40	745.60	743.35	742.10



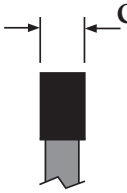
Chamfer Both Sides | Radius Both Sides | Full Radius | Alternating Right Left Chamfer
Radius Right Side Chamfer Left Side | Alternating Chamfer Both Sides | Radius Left Side Chamfer Right Side | Triple Tooth Grind

SUPER TOOL, INC. – Phone 800-237-1395 – Fax 941-756-6480

Made in the USA

Width grinds between .0704" up to .5312"

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH - FINISHED TO DECIMAL WIDTH					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
6	.0704-.0859	.0681	60274D	$647.95	$615.65	$609.35	$606.10	$604.15	$558.55
6	.0860-.1015	.0838	60276D	601.10	568.85	562.55	559.25	557.35	511.70
6	.1016-.1171	.0994	60278D	649.90	617.60	611.30	608.05	606.05	560.50
6	.1172-.1406	.1150	60242D	626.35	594.05	587.80	584.45	582.55	536.90
6	.1407-.1718	.1562	60244D	626.05	593.65	587.40	584.15	582.20	536.65
6	.1719-.2031	.1875	60246D	665.15	632.85	626.60	623.35	621.35	575.70
6	.2032-.2343	.2188	60248D	675.00	642.70	636.45	633.20	631.20	585.60
6	.2344-.2812	.2500	60250D	715.45	683.05	676.80	673.55	671.60	625.95
6	.2813-.3437	.3125	60252D	724.10	691.75	685.45	682.20	680.25	634.70
6	.3438-.4062	.3750	60254D	748.55	716.10	709.80	706.55	704.65	659.10
6	.4063-.4687	.4375	60286D	821.75	789.40	783.15	779.75	777.90	732.25
6	.4688-.5312	.5000	60287D	903.05	870.80	864.55	861.15	859.30	813.65



Width Grind

Cutter Notes (All cutters on page)
- 28 Teeth
- C-5 Carbide
- 1° - 3° Positve Radial Rake
- Width Tolerance: +.001"/-.000"
- OD tolerance: +.0313"/-.000"
- 1" Arbor hole +.001"/-.000"
- ANSI standard keyway dimensions
- Add 5% to grind the hub width thinner
- Not designed to be used on heat treated materials greater than 475 Brinell (50Rc)
- Add 5% to match OD's on cutter sets within .001"

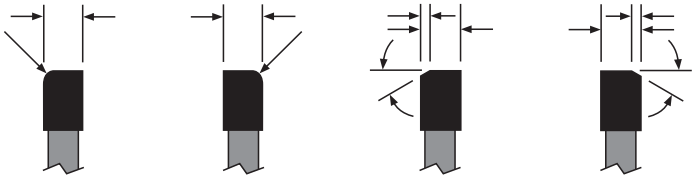
Radius Notes
- Maximum radius on one side is .2656"
- Full radius and maximum radius on both sides is ½ the width of the cutter
- A non-tangent radii must be quoted

Chamfer Notes
- Chamfer Angles can range from 0° to 45°
- Chamfer is measured off of the OD
- Maximum chamfer is the LESSER of ⅓ the width of the cutter OR .2656" length of angle when measured across the OD
- Chamfer Angle Tolerance: +/- ½°
- Chamfers greater than 45° must be quoted

Corner Radius or Chamfer on ONE Side

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE EACH FINISHED WITH RADIUS OR CHAMFER					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
6	.0704-.0859	.0681	60274R1	$667.30	$621.75	$614.85	$611.15	$609.05	$607.85
6	.0860-.1015	.0838	60276R1	620.35	574.95	568.00	564.35	562.15	560.95
6	.1016-.1171	.0994	60278R1	669.15	623.65	616.70	613.15	610.95	609.75
6	.1172-.1406	.1150	60242R1	645.55	600.15	593.20	589.55	587.35	586.15
6	.1407-.1718	.1562	60244R1	645.35	599.85	592.90	589.25	587.10	585.95
6	.1719-.2031	.1875	60246R1	684.45	638.95	632.00	628.30	626.20	625.05
6	.2032-.2343	.2188	60248R1	694.35	648.85	641.85	638.30	636.10	634.90
6	.2344-.2812	.2500	60250R1	734.70	689.20	682.20	678.65	676.50	675.30
6	.2813-.3437	.3125	60252R1	743.45	697.85	690.95	687.35	685.20	684.00
6	.3438-.4062	.3750	60254R1	767.75	722.20	715.30	711.70	709.50	708.30
6	.4063-.4687	.4375	60286R1	841.00	795.40	788.50	784.85	782.75	781.55
6	.4688-.5312	.5000	60287R1	922.35	876.80	869.90	866.25	864.05	862.95

Specify side for radius or chamfer

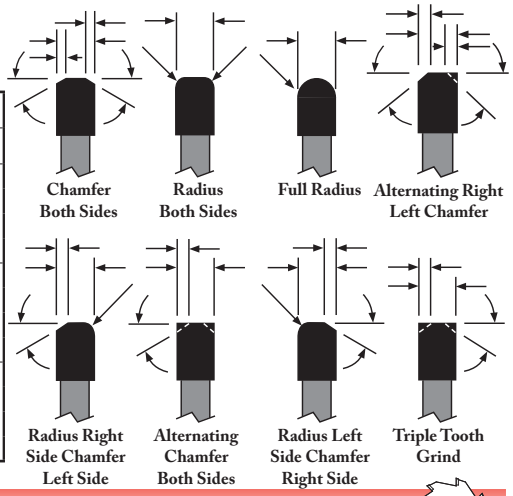


Radius Left Side | Radius Right Side | Chamfer Left Side | Chamfer Right Side

Corner Radius or Chamfer on BOTH Sides OR a Full Radius

- Alternating Chamfers add 5%

TOOL DIAM.	FACE WIDTH RANGE	HUB WIDTH	1" ARBOR EDP NO.	PRICE WITH RADII, CHAMFERS OR COMBINATION					
				1 PC.	2 PC.	3 PC.	4 PC.	5 PC.	6 PC.
6	.0704-.0859	.0681	60274R2	$688.20	$633.95	$625.55	$621.35	$618.75	$617.35
6	.0860-.1015	.0838	60276R2	641.35	587.05	578.75	574.45	571.85	570.50
6	.1016-.1171	.0994	60278R2	690.10	635.80	627.55	623.15	620.70	619.20
6	.1172-.1406	.1150	60242R2	666.55	612.20	603.95	599.60	597.15	595.70
6	.1407-.1718	.1562	60244R2	666.25	612.00	603.75	599.35	596.80	595.40
6	.1719-.2031	.1875	60246R2	705.35	651.10	642.75	638.45	635.90	634.45
6	.2032-.2343	.2188	60248R2	715.25	660.95	652.65	648.35	645.85	644.40
6	.2344-.2812	.2500	60250R2	755.55	701.30	693.10	688.70	686.15	684.70
6	.2813-.3437	.3125	60252R2	764.35	710.05	701.75	697.45	694.90	693.45
6	.3438-.4062	.3750	60254R2	788.65	734.40	726.10	721.70	719.25	717.75
6	.4063-.4687	.4375	60286R2	861.85	807.60	799.30	795.00	792.45	791.05
6	.4688-.5312	.5000	60287R2	943.30	889.00	880.70	876.40	873.85	872.40



Chamfer Both Sides | Radius Both Sides | Full Radius | Alternating Right Left Chamfer
Radius Right Side Chamfer Left Side | Alternating Chamfer Both Sides | Radius Left Side Chamfer Right Side | Triple Tooth Grind

Made in the USA

SINGLE & DOUBLE ANGLE MILLING CUTTERS

CARBIDE TIPPED

(Left hand shown)

List No. 9714 - Single 45° Right Angle
List No. 9716 - Single 45° Left Angle
List No. 9724 - Single 60° Right Angle
List No. 9726 - Single 60° Left Angle

Use: For milling ratchet teeth or dovetails. Carbide tipped improves tool life.
Standards available in high speed steel online at www.supertoolinc.com.

TOOL DIAM.	WIDTH	ARBOR HOLE	NO. OF TEETH	RIGHT 45° LIST 9714 EDP NO.	LEFT 45° LIST 9716 EDP NO.	RIGHT 60° LIST 9724 EDP NO.	LEFT 60° LIST 9726 EDP NO.	ALL LIST PRICE
3	½	1	8	971408	971608	972408	972608	$423.75
4	½	1 ¼	10	971416	971616	972416	972616	524.40
4	¾	1 ¼	10	971424	971624	972424	972624	568.90

List No. 9740 - Double Angle - 45° Included
List No. 9742 - Double Angle - 60° Included
List No. 9744 - Double Angle - 90° Included

Use: For milling grooves, notches, serrations or threads.
Standards available in high speed steel online at www.supertoolinc.com.

TOOL DIAM.	WIDTH	ARBOR HOLE	NO. OF TEETH	45° LIST 9740 EDP NO.	60° LIST 9742 EDP NO.	90° LIST 9744 EDP NO.	ALL LIST PRICE
2 ¾	½	1	8	-	974207	974407	$356.75
3	½	1	8	974008	974208	974408	444.90
4	½	1 ¼	10	974016	974216	974416	550.60
4	¾	1 ¼	10	974024	974224	974424	597.25
4	1	1 ¼	10	-	974232	974432	699.00

Tool diameter tolerance: +1/16"/-.000". Arbor hole tolerance: +.001"/-.000".

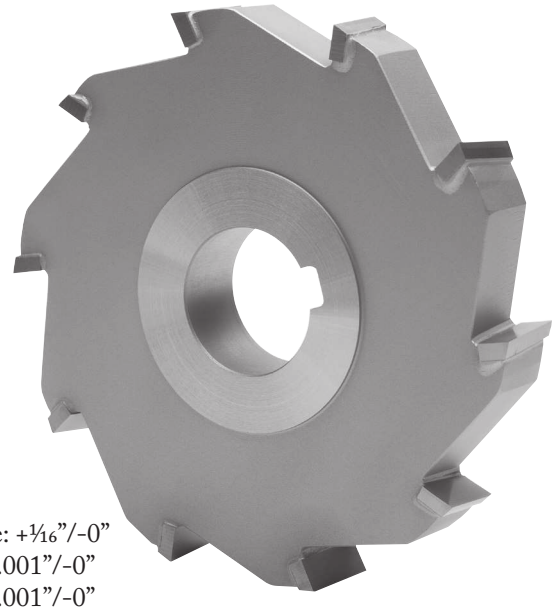
SIDE MILLING CUTTERS - STAGGERED TOOTH

CARBIDE TIPPED

List No. 9547 - General Purpose

Use: For milling most types of materials including steels, stainless steels, cast irons, aluminums, and composite materials. Alternating right and left hand axial rake. (Herringbone Stagger). Carbide extends across the entire length of each tooth.

TOOL DIAM.	WIDTH		LIST 9547 GENERAL PURPOSE			
	FRAC.	DEC.	NO. OF TEETH	1"ARB. EDP NO.	1¼"ARB. EDP NO.	PRICE EACH
3	3/16	.1875	8	954710	-	$434.10
3	¼	.2500	8	954712	-	444.45
3	5/16	.3125	8	954714	-	448.40
3	⅜	.3750	8	954716	-	450.20
3	½	.5000	8	954718	-	464.20
3	⅝	.6250	8	954720	-	496.95
4	3/16	.1875	10	954722	-	471.65
4	¼	.2500	10	954724	-	477.55
4	5/16	.3125	10	954726	-	483.30
4	⅜	.3750	10	954728	-	489.15
4	½	.5000	10	954730	-	496.00
4	⅝	.6250	10	954732	-	505.25
4	¾	.7500	10	954734	-	510.95
6	¼	.2500	14	-	954750	613.15
6	5/16	.3125	14	-	954752	617.80
6	⅜	.3750	14	-	954754	618.65
6	½	.5000	14	-	954756	626.75
6	⅝	.6250	14	-	954758	630.30
6	¾	.7500	14	-	954760	650.85
6	1	1.0000	14	-	954762	696.85



Tool diameter tolerance: +1/16"/-0"
Face width tolerance: +.001"/-0"
Arbor hole tolerance: +.001"/-0"

COBALT JOBBER LENGTH DRILLS FOR STEEL

COBALT DISCONTINUED WHILE SUPPLIES LAST

List No. 9699 - 135° Split Point - Straight Shank

Use: Recommended for drilling steels and steel alloys.

Standard package qty up to .3020 is 12.
Standard package qty over .3020 is 6.

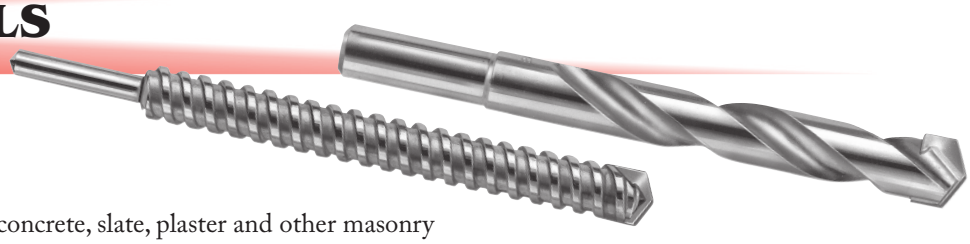
DEC. SIZE	WIRE LTR. FRAC	OAL	LIST 9699 EDP NO.	PRICE EACH
.0400	60	1 5/8	96990400	$2.40
.0410	59	1 5/8	96990410	2.40
.0420	58	1 5/8	96990420	2.40
.0430	57	1 3/4	96990430	2.40
.0465	56	1 3/4	96990465	2.40
.0520	55	1 7/8	96990520	2.05
.0550	54	1 7/8	96990550	2.05
.0595	53	1 7/8	96990595	2.05
.0625	1/16	1 7/8	969904	1.90
.0635	52	1 7/8	96990635	1.90
.0670	51	2	96990670	1.90
.0700	50	2	96990700	1.90
.0730	49	2	96990730	1.90
.0760	48	2	96990760	1.90
.0781		2	969905	1.90
.0785	47	2	96990785	1.90
.0810	46	2 1/8	96990810	1.90
.0820	45	2 1/8	96990820	1.90
.0860	44	2 1/8	96990860	1.90
.0890	43	2 1/4	96990890	1.90
.0935	42	2 1/4	96990935	1.90
.0938		2 1/4	969906	1.90
.0960	41	2 3/8	96990960	1.90
.0980	40	2 3/8	96990980	1.95
.0995	39	2 3/8	96990995	1.95
.1015	38	2 1/2	96991015	1.95
.1040	37	2 1/2	96991040	2.05
.1065	36	2 1/2	96991065	2.05

DEC. SIZE	WIRE LTR. FRAC	OAL	LIST 9699 EDP NO.	PRICE EACH
.1094	7/64	2 5/8	969907	$2.00
.1100	35	2 5/8	96991100	2.05
.1110	34	2 5/8	96991110	2.05
.1130	33	2 5/8	96991130	2.05
.1160	32	2 3/4	96991160	2.20
.1200	31	2 3/4	96991200	2.20
.1250	1/8	2 3/4	969908	2.45
.1285	30	2 3/4	96991285	2.25
.1360	29	2 7/8	96991360	2.40
.1405	28	2 7/8	96991405	2.45
.1406	9/64	2 7/8	969909	2.45
.1440	27	3	96991440	2.60
.1470	26	3	96991470	2.60
.1495	25	3	96991495	2.60
.1520	24	3 1/8	96991520	2.95
.1540	23	3 1/8	96991540	2.95
.1562	5/32	3 1/8	969910	2.75
.1570	22	3 1/8	96991570	2.95
.1590	21	3 1/4	96991590	2.95
.1610	20	3 1/4	96991610	2.95
.1660	19	3 1/4	96991660	2.95
.1695	18	3 1/4	96991695	3.00
.1719	11/64	3 1/4	969911	2.85
.1730	17	3 3/8	96991730	3.30
.1770	16	3 3/8	96991770	3.35
.1800	15	3 3/8	96991800	3.60
.1820	14	3 3/8	96991820	3.60
.1850	13	3 1/2	96991850	3.60

DEC. SIZE	WIRE LTR. FRAC	OAL	LIST 9699 EDP NO.	PRICE EACH
.1875	3/16	3 1/2	969912	$3.25
.1890	12	3 1/2	96991890	3.80
.1910	11	3 1/2	96991910	3.80
.1935	10	3 5/8	96991935	3.80
.1960	9	3 5/8	96991960	3.80
.1990	8	3 5/8	96991990	3.80
.2010	7	3 5/8	96992010	3.80
.2031	13/64	3 5/8	969913	3.90
.2040	6	3 3/4	96992040	4.90
.2055	5	3 3/4	96992055	4.90
.2090	4	3 3/4	96992090	4.90
.2130	3	3 3/4	96992130	4.90
.2188	7/32	3 3/4	969914	4.25
.2210	2	3 7/8	96992210	5.20
.2280	1	3 7/8	96992280	5.20
.2340	A	3 7/8	96992340	6.00
.2344	15/64	3 7/8	969915	4.50
.2380	B	4	96992380	6.90
.2420	C	4	96992420	6.90
.2460	D	4	96992460	6.95
.2500	1/4	4	969916	4.80
.2570	F	4 1/8	96992570	7.25
.2610	G	4 1/8	96992610	7.50
.2656	17/64	4 1/8	969917	5.50
.2660	H	4 1/8	96992660	7.75
.2720	I	4 1/8	96992720	7.80
.2770	J	4 1/8	96992770	8.00
.2810	K	4 1/4	96992810	8.15

DEC. SIZE	WIRE LTR. FRAC	OAL	LIST 9699 EDP NO.	PRICE EACH
.2812	9/32	4 1/4	969918	$5.75
.2900	L	4 1/4	96992900	8.80
.2950	M	4 3/8	96992950	9.35
.2969	19/64	4 3/8	969919	7.00
.3020	N	4 3/8	96993020	9.35
.3125	5/16	4 1/2	969920	7.45
.3160	O	4 1/2	96993160	10.30
.3230	P	4 5/8	96993230	11.00
.3281	21/64	4 5/8	969921	8.25
.3320	Q	4 3/4	96993320	11.35
.3390	R	4 3/4	96993390	11.35
.3438	11/32	4 3/4	969922	9.05
.3480	S	4 7/8	96993480	13.90
.3594	23/64	4 7/8	969923	9.95
.3580	T	4 7/8	96993580	13.90
.3680	U	5	96993680	13.90
.3750	3/8	5	969924	10.30
.3770	V	5	96993770	15.30
.3860	W	5 1/8	96993860	15.30
.3960	25/64	5 1/8	969925	11.85
.3970	X	5 1/8	96993970	15.30
.4040	Y	5 1/4	96994040	16.25
.4062	13/32	5 1/4	969926	12.30
.4130	Z	5 1/4	96994130	17.70
.4210	27/64	5 3/8	969927	13.60
.4375	7/16	5 1/2	969928	13.90
.4531	29/64	5 5/8	969929	16.70
.4688	15/32	5 3/4	969930	17.00
.4844	31/64	5 7/8	969931	17.55
.5000	1/2	6	969932	17.70

MASONRY DRILLS



CARBIDE TIPPED

List No. 5463 - Regular Helix
List No. 5464 - High Helix

Use: For drilling in brick, stone, concrete, slate, plaster and other masonry materials. Especially effective in removing dust and grit from the hole.

TOOL DIAMETER DECIMAL	TOOL DIAMETER FRAC.	SHANK DIAM.	OVERALL LENGTH	REGULAR LIST 5463 EDP NO.	HIGH HELIX LIST 5464 EDP NO.	BOTH LIST PRICE
.1250	1/8	1/8	3	53401	53451	$5.10
.1875	3/16	3/16	3	53402	53452	5.10
.2500	1/4	1/4	4	53403	53453	5.10
.2500	1/4	1/4	6	53404	53454	5.80
.3125	5/16	1/4	4	53405	53455	5.80
.3125	5/16	1/4	6	53406	53456	6.30
.3750	3/8	1/4	4	53407	53457	6.30
.3750	3/8	1/4	6	53408	53458	6.30
.4375	7/16	1/4	4	53419	53459	6.95
.4375	7/16	1/4	6	53409	53460	7.15
.5000	1/2	1/4	4	53420	53462	7.70
.5000	1/2	1/4	6	53410	53463	7.70
.5000	1/2	3/8	6	53411	53464	7.70
.5625	9/16	3/8	6	53412	53465	10.40
.6250	5/8	1/2	6	53413	53466	11.05
.6875	11/16	1/2	6	53414	53467	12.55
.7500	3/4	1/2	6	53415	53468	13.70
.8750	7/8	1/2	6	53416	53469	17.10
1.0000	1	1/2	6	53417	53470	21.15

TWIST DRILLS - STANDARD LENGTH

SOLID CARBIDE

List No. 5374 - 118° Split Point

Use: For general purpose drilling of steel, cast iron, aluminum, plastics and other non-ferrous materials.

Smaller sizes available. Call for pricing.

TOOL DIAMETER FRAC., WIRE & LETTER	TOOL DIAMETER DEC.	FLT. LEN.	OAL	LIST 5374 EDP NO.	PRICE EACH
60	.0400	¾	1 ½	51023	14.05
59	.0410	¾	1 ½	51024	14.05
58	.0420	¾	1 ½	51025	14.05
57	.0430	¾	1 ½	51026	14.05
56	.0465	¾	1 ½	51027	14.05
3/64	.0469	¾	1 ½	51028	14.05
55	.0520	¾	1 ½	51029	14.05
54	.0550	¾	1 ½	51030	14.05
53	.0595	¾	1 ½	51031	14.05
1/16	.0625	¾	1 ½	51032	13.30
52	.0635	¾	1 ½	51033	14.05
51	.0670	¾	1 ½	51034	14.05
50	.0700	⅞	1 ¾	51035	14.45
49	.0730	⅞	1 ¾	51036	14.80
48	.0760	⅞	1 ¾	51037	14.95
5/64	.0781	⅞	1 ¾	51038	14.75
47	.0785	⅞	1 ¾	51039	14.95
46	.0810	⅞	1 ¾	51040	14.95
45	.0820	⅞	1 ¾	51041	15.35
44	.0860	1	2	51042	15.80
43	.0890	1	2	51043	15.80
42	.0935	1	2	51044	15.95
3/32	.0938	1	2	51045	15.30
41	.0960	1	2	51046	16.00
40	.0980	1	2	51047	16.10
39	.0995	1 ¼	2 ¼	51048	16.30
38	.1015	1 ¼	2 ¼	51049	16.30
37	.1040	1 ¼	2 ¼	51050	16.30
36	.1065	1 ¼	2 ¼	51051	16.30
7/64	.1094	1 ¼	2 ¼	51052	16.70
35	.1100	1 ¼	2 ¼	51053	16.70
34	.1110	1 ¼	2 ¼	51054	17.10
33	.1130	1 ¼	2 ¼	51055	17.10
32	.1160	1 ¼	2 ¼	51056	17.50
31	.1200	1 ¼	2 ¼	51057	17.80
⅛	.1250	1 ¼	2 ¼	51058	17.30
30	.1285	1 ¼	2 ¼	51059	18.50
29	.1360	1 ⅜	2 ½	51060	18.65
28	.1405	1 ⅜	2 ½	51061	19.15
9/64	.1406	1 ⅜	2 ½	51062	20.60

TOOL DIAMETER FRAC., WIRE & LETTER	TOOL DIAMETER DEC.	FLT. LEN.	OAL	LIST 5374 EDP NO.	PRICE EACH
27	.1440	1 ⅜	2 ½	51063	19.95
26	.1470	1 ⅜	2 ½	51064	20.25
25	.1495	1 ⅜	2 ½	51065	20.50
24	.1520	1 ⅜	2 ½	51066	20.95
23	.1540	1 ⅜	2 ½	51067	21.85
5/32	.1562	1 ⅜	2 ½	51068	21.50
22	.1570	1 ⅜	2 ½	51069	23.15
21	.1590	1 ⅜	2 ½	51070	23.45
20	.1610	1 ⅜	2 ½	51071	23.65
19	.1660	1 ⅝	2 ¾	51072	24.60
18	.1695	1 ⅝	2 ¾	51073	24.80
11/64	.1719	1 ⅝	2 ¾	51074	25.25
17	.1730	1 ⅝	2 ¾	51075	25.25
16	.1770	1 ⅝	2 ¾	51076	25.75
15	.1800	1 ⅝	2 ¾	51077	25.90
14	.1820	1 ⅝	2 ¾	51078	25.80
13	.1850	1 ⅝	2 ¾	51079	26.35
3/16	.1875	1 ⅝	2 ¾	51080	25.30
12	.1890	1 ⅝	2 ¾	51081	26.70
11	.1910	1 ⅝	2 ¾	51082	27.20
10	.1935	1 ⅝	2 ¾	51083	27.60
9	.1960	1 ¾	3	51084	28.20
8	.1990	1 ¾	3	51085	28.95
7	.2010	1 ¾	3	51086	29.30
13/64	.2031	1 ¾	3	51087	30.90
6	.2040	1 ¾	3	51088	30.45
5	.2055	1 ¾	3	51089	30.90
4	.2090	1 ¾	3	51090	31.65
3	.2130	1 ¾	3	51091	32.50
7/32	.2188	1 ¾	3	51092	31.90
2	.2210	1 ¾	3	51093	33.80
1	.2280	1 ¾	3	51094	35.55
A	.2340	2	3 ¼	51095	39.40
15/64	.2344	2	3 ¼	51096	35.40
B	.2380	2	3 ¼	51097	40.45
C	.2420	2	3 ¼	51098	40.55
D	.2460	2	3 ¼	51099	41.65
E, ¼	.2500	2	3 ¼	51100	36.15
F	.2570	2	3 ¼	51102	44.25
G	.2610	2 ⅛	3 ½	51103	44.95

TOOL DIAMETER FRAC., WIRE & LETTER	TOOL DIAMETER DEC.	FLT. LEN.	OAL	LIST 5374 EDP NO.	PRICE EACH
17/64	.2656	2 ⅛	3 ½	51104	39.45
H	.2660	2 ⅛	3 ½	51105	46.15
I	.2720	2 ⅛	3 ½	51106	47.15
J	.2770	2 ⅛	3 ½	51107	48.25
K	.2810	2 ⅛	3 ½	51108	48.65
9/32	.2812	2 ⅛	3 ½	51109	42.65
L	.2900	2 ⅛	3 ½	51110	51.05
M	.2950	2 ⅜	3 ¾	51111	52.80
19/64	.2969	2 ⅜	3 ¾	51112	48.50
N	.3020	2 ⅜	3 ¾	51113	55.95
5/16	.3125	2 ⅜	3 ¾	51114	51.50
O	.3160	2 ⅜	3 ¾	51115	59.25
P	.3230	2 ⅜	3 ¾	51116	61.15
21/64	.3281	2 ½	4	51117	56.15
Q	.3320	2 ½	4	51118	64.90
R	.3390	2 ½	4	51119	66.95
11/32	.3438	2 ½	4	51120	62.25
S	.3480	2 ½	4	51121	73.45
T	.3580	2 ¾	4 ¼	51122	76.15
23/64	.3594	2 ¾	4 ¼	51123	67.95
U	.3680	2 ¾	4 ¼	51124	77.65
⅜	.3750	2 ¾	4 ¼	51125	73.75
V	.3770	2 ¾	4 ¼	51126	85.70
W	.3860	2 ⅞	4 ½	51127	90.90
25/64	.3906	2 ⅞	4 ½	51128	83.40
X	.3970	2 ⅞	4 ½	51129	98.35
Y	.4040	2 ⅞	4 ½	51130	97.55
13/32	.4062	2 ⅞	4 ½	51131	92.45
Z	.4130	2 ⅞	4 ½	51132	107.75
27/64	.4219	2 ⅞	4 ½	51133	101.20
7/16	.4375	2 ⅞	4 ½	51134	109.55
29/64	.4531	3	4 ¾	51135	118.75
15/32	.4688	3	4 ¾	51136	127.80
31/64	.4844	3	4 ¾	51137	131.55
½	.5000	3	4 ¾	51138	134.85
9/16	.5625	3 ¼	5	51139	248.00
⅝	.6250	3 ¼	5	51140	299.65
¾	.7500	3 ¾	6	51141	363.60
-	-	-	-	-	-
-	-	-	-	-	-

DRILLS

Always use the shortest drill available for the application. A maximum of three times the diameter for depth of the hole is the general rule of thumb when using non-coolant fed drills. Coolant fed drills allow a greater depth of hole to diameter. If using a spot drill, use a point angle GREATER than the production drill point angle to prevent edge chipping.

DRILL DIAMETER RANGE (INCH)	DRILL DIAMETER TOLERANCES	INCLUDED ANGLE	LIP HEIGHT T.I.V.
Solid Carbide Drills	+.0000"/-.0005"	+2°/-2°	.0030"
THRU ⅛"	+.0000"/-.0005"	+5°/-5°	.0020"
OVER ⅛" THRU ¼"	+.0000"/-.0007"	+5°/-5°	.0030"
OVER ¼" THRU ½"	+.0000"/-.0010"	+5°/-5°	.0040"
OVER ½" THRU 1"	+.0000"/-.0012"	+3°/-3°	.0050"
OVER 1" THRU 1½"	+.0000"/-.0015"	+3°/-3°	.0060"

ALL DIMENSIONAL & ELEMENT TOLERANCES CONFORM TO ONE OR MORE OF THE FOLLOWING STANDARDS, UNLESS OTHERWISE SHOWN ON SELECTED SIZES.

- ASME/ANSI B94.11M
- ISO - INTERNATIONAL STANDARDS ORGANIZATION
- NAS 907 - NATIONAL AEROSPACE STANDARDS
- USCTI - UNITED STATES CUTTING TOOL INSTITUTE

TWIST DRILLS - STANDARD LENGTH

METRIC

SOLID CARBIDE

List No. 5374 - 118° Split. Point

Use: For general purpose drilling of steel, cast iron, aluminum, plastics and other non-ferrous materials.

TOOL DIAMETER		FLT. LEN.	OAL	LIST 5374 EDP NO.	PRICE EACH
mm	DEC.				
1.00	.0394	16	38	51205	$16.85
1.10	.0433	19	38	51201	20.75
1.20	.0472	19	38	51203	20.90
1.30	.0512	19	38	51206	21.35
1.40	.0551	19	38	51208	21.70
1.50	.0591	19	38	51213	16.80
1.60	.0630	19	38	51211	20.85
1.70	.0669	19	38	51214	21.20
1.80	.0709	22	44	51216	21.45
1.90	.0748	22	44	51218	21.70
2.00	.0787	22	44	51220	17.85
2.10	.0827	22	44	51222	17.50
2.20	.0866	25	50	51224	17.50
2.30	.0906	25	50	51227	17.85
2.40	.0945	25	50	51229	18.05
2.50	.0984	25	50	51226	18.40
2.60	.1024	31	57	51231	19.65
2.70	.1063	31	57	51232	19.65
2.80	.1102	31	57	51235	19.95
2.90	.1142	31	57	51236	20.70
3.00	.1181	32	57	51233	20.50
3.10	.1220	31	57	51237	21.20
3.20	.1260	31	57	51239	21.50
3.30	.1299	31	57	51241	21.70
3.40	.1339	34	63	51242	21.70
3.50	.1378	35	63	51238	21.50
3.60	.1417	34	63	51243	22.15
3.70	.1457	34	63	51245	23.10
3.80	.1496	34	63	51247	24.15
3.90	.1535	34	63	51248	25.15
4.00	.1575	35	63	51244	25.75
4.10	.1614	34	63	51249	26.50

TOOL DIAMETER		FLT. LEN.	OAL	LIST 5374 EDP NO.	PRICE EACH
mm	DEC.				
4.20	.1654	41	70	51250	$27.20
4.30	.1693	41	70	51253	27.55
4.40	.1732	41	70	51254	28.10
4.50	.1772	41	70	51252	28.40
4.60	.1811	41	70	51255	29.05
4.70	.1850	41	70	51256	29.30
4.80	.1890	41	70	51258	30.30
4.90	.1929	41	70	51259	31.20
5.00	.1969	44	75	51260	31.70
5.10	.2008	44	76	51261	33.55
5.20	.2047	44	76	51262	34.05
5.30	.2087	44	76	51264	35.55
5.40	.2126	44	76	51265	36.35
5.50	.2165	44	75	51267	35.75
5.60	.2205	44	76	51266	37.95
5.70	.2244	44	76	51268	37.90
5.80	.2283	44	76	51270	38.65
5.90	.2323	51	82	51271	40.25
6.00	.2362	50	82	51275	39.70
6.10	.2402	51	82	51272	42.85
6.20	.2441	51	82	51273	43.75
6.30	.2480	51	82	51276	44.80
6.40	.2520	51	82	51365	50.30
6.50	.2559	50	82	51282	47.10
6.60	.2598	54	89	51277	47.20
6.70	.2638	54	89	51278	46.05
6.80	.2677	54	89	51280	48.60
6.90	.2717	54	89	51281	49.55
7.00	.2756	54	89	51289	52.60
7.10	.2795	54	89	51283	50.90
7.20	.2835	54	89	51284	53.75
7.30	.2874	54	89	51286	56.35

TOOL DIAMETER		FLT. LEN.	OAL	LIST 5374 EDP NO.	PRICE EACH
mm	DEC.				
7.40	.2913	60	95	51287	$57.50
7.50	.2953	60	95	51296	57.50
7.60	.2992	60	95	51288	58.90
7.70	.3031	60	95	51290	59.55
7.80	.3071	60	95	51292	62.85
7.90	.3110	60	95	51293	62.85
8.00	.3150	60	95	51301	58.40
8.10	.3189	60	95	51294	64.00
8.20	.3228	60	95	51295	64.90
8.30	.3268	63	101	51298	67.20
8.40	.3307	63	101	51299	68.20
8.50	.3346	63	100	51305	69.30
8.60	.3386	63	101	51300	70.45
8.70	.3425	63	101	51302	71.25
8.80	.3465	63	101	51304	74.10
8.90	.3504	63	101	51306	76.45
9.00	.3543	70	100	51309	78.95
9.10	.3583	70	108	51307	81.35
9.20	.3622	70	108	51308	81.35
9.30	.3661	70	108	51311	84.30
9.40	.3701	70	108	51312	86.35
9.50	.3740	70	108	51315	81.65
9.60	.3780	70	108	51313	90.85
9.70	.3819	70	108	51314	93.55
9.80	.3858	70	108	51317	97.30
9.90	.3900	73	114	51318	99.50
10.00	.3937	73	114	51323	97.15
10.50	.4134	73	114	51325	111.15
11.00	.4331	73	114	51331	124.05
11.50	.4528	76	120	51337	135.45
12.00	.4724	76	120	51338	144.05
12.50	.4921	76	120	51349	160.00

JOBBERS LENGTH DRILLS

CARBIDE TIPPED

List No. 5330 - 118° Standard Point

Use: The most popular tool for general purpose drilling.

List No. 5331 - 135° Split Point

Use: For drilling tough & abrasive materials.

Not recommended for use in steel.

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 5330 EDP NO.	PRICE EACH	LIST 5331 EDP NO.	PRICE EACH
.0980		40*	1	2	50347	$21.60	-	-
.0995		39*	1 ¼	2 ¼	50348	21.60	-	-
.1015		38*	1 ¼	2 ¼	50349	21.60	-	-
.1040		37*	1 ¼	2 ¼	50350	21.60	-	-
.1065		36*	1 ¼	2 ¼	50351	21.60	-	-
.1094	7/64*		1 ¼	2 ¼	50352	21.60	-	-
.1100		35*	1 ¼	2 ¼	50353	21.60	-	-
.1110		34*	1 ¼	2 ¼	50354	21.60	-	-
.1130		33*	1 ¼	2 ¼	50355	21.60	-	-
.1160		32	1 ⅝	2 ¾	50356	17.45	50556	$20.45
.1200		31	1 ⅝	2 ¾	50357	15.80	50557	18.40
.1250	⅛		1 ⅝	2 ¾	50358	16.15	50558	18.85
.1285		30	1 ⅝	2 ¾	50359	16.50	50559	19.15
.1360		29	1 ¾	2 ⅞	50360	17.10	50560	19.70
.1405		28	1 ¾	2 ⅞	50361	17.20	50561	20.10
.1406	9/64		1 ¾	2 ⅞	50362	17.45	50562	20.35
.1440		27	1 ⅞	3	50363	17.70	50563	20.50
.1470		26	1 ⅞	3	50364	16.40	50564	19.15
.1495		25	1 ⅞	3	50365	16.40	50565	19.15
.1520		24	2	3 ⅛	50366	17.70	50566	20.50
.1540		23	2	3 ⅛	50367	17.20	50567	20.10
.1562	5/32		2	3 ⅛	50368	17.15	50568	20.10
.1570		22	2	3 ⅛	50369	18.95	50569	22.20
.1590		21	2 ⅛	3 ¼	50370	18.25	50570	21.25
.1610		20	2 ⅛	3 ¼	50371	18.70	50571	21.60
.1660		19	2 ⅛	3 ¼	50372	18.70	50572	21.60
.1695		18	2 ⅛	3 ¼	50373	18.70	50573	21.60
.1719	11/64		2 ⅛	3 ¼	50374	18.70	50574	21.60
.1730		17	2 3/16	3 ⅜	50375	18.70	50575	21.60
.1770		16	2 3/16	3 ⅜	50376	18.25	50576	21.25
.1800		15	2 3/16	3 ⅜	50377	18.95	50577	22.20
.1820		14	2 3/16	3 ⅜	50378	18.25	50578	21.25
.1850		13	2 5/16	3 ½	50379	20.10	50579	21.25
.1875	3/16		2 5/16	3 ½	50380	18.25	50580	21.25
.1890		12	2 5/16	3 ½	50381	21.00	50581	22.20
.1910		11	2 5/16	3 ½	50382	19.40	50582	22.40
.1935		10	2 7/16	3 ⅝	50383	18.95	50583	22.20
.1960		9	2 7/16	3 ⅝	50384	19.40	50584	22.40
.1990		8	2 7/16	3 ⅝	50385	19.40	50585	22.40
.2010		7	2 7/16	3 ⅝	50386	19.40	50586	22.40
.2031	13/64		2 7/16	3 ⅝	50387	20.05	50587	23.05
.2040		6	2 ½	3 ¾	50388	19.80	50588	23.00
.2055		5	2 ½	3 ¾	50389	20.05	50589	22.40
.2090		4	2 ½	3 ¾	50390	19.80	50590	23.00
.2130		3	2 ½	3 ¾	50391	20.05	50591	22.40
.2188	7/32		2 ½	3 ¾	50392	20.05	50592	23.05
.2210		2	2 ⅝	3 ⅞	50393	20.90	50593	24.10
.2280		1	2 ⅝	3 ⅞	50394	20.45	50594	23.75
.2340		A	2 ⅝	3 ⅞	50395	22.70	50595	26.30
.2344	15/64		2 ⅝	3 ⅞	50396	21.50	50596	25.00
.2380		B	2 ¾	4	50397	22.70	50597	26.30
.2420		C	2 ¾	4	50398	22.70	50598	26.30
.2460		D	2 ¾	4	50399	22.15	50599	25.75
.2500	¼	E	2 ¾	4	50401	21.50	50601	25.00

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 5330 EDP NO.	PRICE EACH	LIST 5331 EDP NO.	PRICE EACH
.2570		F	2 ⅞	4 ⅛	50402	$25.45	50602	$29.50
.2610		G	2 ⅞	4 ⅛	50403	26.10	50603	30.20
.2656	17/64		2 ⅞	4 ⅛	50404	23.95	50604	27.40
.2660		H	2 ⅞	4 ⅛	50405	26.60	50605	30.90
.2720		I	2 ⅞	4 ⅛	50406	26.10	50606	30.20
.2770		J	2 ⅞	4 ⅛	50407	26.60	50607	30.90
.2810		K	2 15/16	4 ¼	50408	26.60	50608	30.90
.2812	9/32		2 15/16	4 ¼	50409	25.40	50609	29.35
.2900		L	2 15/16	4 ¼	50410	26.60	50610	30.90
.2950		M	3 1/16	4 ⅜	50411	29.30	50611	34.10
.2969	19/64		3 1/16	4 ⅜	50412	28.10	50612	32.50
.3020		N	3 1/16	4 ⅜	50413	28.60	50613	33.35
.3125	5/16		3 3/16	4 ½	50414	27.50	50614	31.85
.3160		O	3 3/16	4 ½	50415	28.25	50615	32.65
.3230		P	3 5/16	4 ⅝	50416	30.10	50616	34.80
.3281	21/64		3 5/16	4 ⅝	50417	29.10	50617	33.85
.3320		Q	3 7/16	4 ¾	50418	30.65	50618	35.75
.3390		R	3 7/16	4 ¾	50419	30.10	50619	34.80
.3438	11/32		3 7/16	4 ¾	50420	29.10	50620	33.85
.3480		S	3 ½	4 ⅞	50421	32.35	50621	37.55
.3580		T	3 ½	4 ⅞	50422	33.00	50622	38.45
.3594	23/64		3 ½	4 ⅞	50423	31.00	50623	36.05
.3680		U	3 ⅝	5	50424	31.75	50624	36.85
.3750	⅜		3 ⅝	5	50425	31.00	50625	36.05
.3770		V	3 ⅝	5	50426	32.35	50626	37.55
.3860		W	3 ¾	5 ⅛	50427	35.50	50627	41.10
.3906	25/64		3 ¾	5 ⅛	50428	33.70	50628	39.25
.3970		X	3 ¾	5 ⅛	50429	34.00	50629	39.40
.4040		Y	3 ⅞	5 ¼	50430	35.50	50630	41.10
.4062	13/32		3 ⅞	5 ¼	50431	33.70	50631	39.25
.4130		Z	3 ⅞	5 ¼	50432	39.30	50632	45.50
.4219	27/64		3 15/16	5 ⅜	50433	36.65	50633	42.60
.4375	7/16		4 1/16	5 ½	50434	36.65	50634	42.60
.4531	29/64		4 3/16	5 ⅝	50435	42.20	50635	48.85
.4688	15/32		4 5/16	5 ¾	50436	41.20	50636	47.75
.4844	31/64		4 ⅜	5 ⅞	50437	46.15	50637	53.45
.5000	½		4 ½	6	50438	50.65	50638	53.45
.5156	33/64		4 13/16	6 ⅝	50439	66.00	50639	76.70
.5312	17/32		4 13/16	6 ⅝	50440	66.00	50640	76.70
.5469	35/64		4 13/16	6 ⅝	50441	66.60	50641	77.35
.5625	9/16		4 13/16	6 ⅝	50442	66.60	50642	77.35
.5781	37/64		4 13/16	6 ⅝	50443	73.55	50643	85.50
.5938	19/32		5 3/16	7 ⅛	50444	71.50	50644	83.10
.6094	39/64		5 3/16	7 ⅛	50445	84.55	50645	98.15
.6250	⅝		5 3/16	7 ⅛	50446	81.05	50646	94.00
.6406	41/64		5 3/16	7 ⅛	50447	93.50	50647	108.60
.6562	21/32		5 3/16	7 ⅛	50448	82.45	50648	95.65
.6719	43/64		5 ⅝	7 ⅝	50449	107.30	50649	124.55
.6875	11/16		5 ⅝	7 ⅝	50450	84.05	50650	97.50
.7031	45/64		5 ⅝	7 ⅝	50451	98.15	50651	109.20
.7188	23/32		5 ⅝	7 ⅝	50452	99.20	50652	110.20
.7344	47/64		5 ⅝	7 ⅝	50453	99.70	50653	110.80
.7500	¾		5 13/16	8	50454	101.20	50654	112.55
-	-		-	-	-	-	-	-

*Solid carbide.

Overall length tolerance +¼" / -⅛". All other tolerances on page 36.

JOBBERS LENGTH DRILLS

METRIC

CARBIDE TIPPED

List No. 301 - 118° Standard Point

Use: The most popular tool for general purpose drilling.
Sames as List No. 5330 except in metric sizes.

List No. 302 - 135° Split Point

Use: For drilling tough & abrasive materials.
Sames as List No. 5331 except in metric sizes.

Not recommended for use in steel.

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		135° POINT	
mm	INCH	mm	INCH	mm	INCH	LIST 301 EDP NO.	PRICE EACH	LIST 302 EDP NO.	PRICE EACH
3.0	.1181	41	1 5/8	70	2 3/4	301030	$21.65	302030	$22.20
3.1	.1220	41	1 5/8	70	2 3/4	301031	22.75	302031	23.00
3.2	.1260	41	1 5/8	70	2 3/4	301032	22.75	302032	23.00
3.3	.1299	44	1 3/4	73	2 7/8	301033	22.75	302033	23.00
3.4	.1339	44	1 3/4	73	2 7/8	301034	22.75	302034	23.00
3.5	.1378	44	1 3/4	73	2 7/8	301035	21.00	302035	21.65
3.6	.1417	48	1 7/8	76	3	301036	21.65	302036	22.20
3.7	.1457	48	1 7/8	76	3	301037	21.65	302037	22.20
3.8	.1496	48	1 7/8	76	3	301038	21.65	302038	22.20
3.9	.1535	51	2	79	3 1/8	301039	21.65	302039	22.20
4.0	.1575	54	2 1/8	83	3 1/4	301040	20.45	302040	21.00
4.1	.1614	54	2 1/8	83	3 1/4	301041	19.70	302041	22.40
4.2	.1654	54	2 1/8	83	3 1/4	301042	21.00	302042	22.40
4.3	.1693	54	2 1/8	83	3 1/4	301043	21.00	302043	22.40
4.4	.1732	56	2 3/16	86	3 3/8	301044	21.00	302044	22.40
4.5	.1772	56	2 3/16	86	3 3/8	301045	21.65	302045	22.40
4.6	.1811	56	2 3/16	86	3 3/8	301046	23.70	302046	24.00
4.7	.1850	59	2 5/16	89	3 1/2	50379	20.10	50579	21.25
4.8	.1890	59	2 5/16	89	3 1/2	50381	21.00	50581	22.20
4.9	.1929	62	2 7/16	92	3 5/8	301049	23.70	302049	24.00
5.0	.1969	62	2 7/16	92	3 5/8	301050	22.75	302050	23.40
5.1	.2008	62	2 7/16	92	3 5/8	301051	24.70	302051	25.00
5.2	.2047	64	2 1/2	95	3 3/4	301052	24.70	302052	25.00
5.3	.2087	64	2 1/2	95	3 3/4	301053	24.70	302053	25.00
5.4	.2126	64	2 1/2	95	3 3/4	301054	24.70	302054	25.00
5.5	.2165	64	2 1/2	95	3 3/4	301055	24.10	302055	24.30
5.6	.2205	67	2 5/8	98	3 7/8	301056	25.40	302056	25.80
5.7	.2244	67	2 5/8	98	3 7/8	301057	25.40	302057	25.80
5.8	.2283	67	2 5/8	98	3 7/8	301058	25.40	302058	25.80
5.9	.2323	67	2 5/8	98	3 7/8	301059	25.40	302059	25.80
6.0	.2362	70	2 3/4	102	4	301060	25.00	302060	26.45
6.1	.2402	70	2 3/4	102	4	301061	26.45	302061	27.20
6.2	.2441	70	2 3/4	102	4	301062	26.45	302062	27.20
6.3	.2480	70	2 3/4	102	4	301063	26.45	302063	27.20
6.4	.2520	73	2 7/8	105	4 1/8	301064	26.45	302064	27.20
6.5	.2559	73	2 7/8	105	4 1/8	301065	25.85	302065	26.45
6.6	.2598	73	2 7/8	105	4 1/8	301066	27.65	302066	31.00
6.7	.2638	73	2 7/8	105	4 1/8	301067	27.65	302067	31.00
6.8	.2677	73	2 7/8	105	4 1/8	301068	27.65	302068	31.00
6.9	.2717	73	2 7/8	105	4 1/8	301069	27.65	302069	31.00
7.0	.2756	73	2 7/8	105	4 1/8	301070	27.10	302070	31.00
7.1	.2795	75	2 15/16	108	4 1/4	301071	28.40	302071	31.00
7.2	.2835	75	2 15/16	108	4 1/4	301072	28.40	302072	31.00
7.3	.2874	75	2 15/16	108	4 1/4	301073	28.40	302073	31.00
7.4	.2913	78	3 1/16	111	4 3/8	301074	28.40	302074	33.60
7.5	.2953	78	3 1/16	111	4 3/8	301075	28.40	302075	33.60
7.6	.2992	78	3 1/16	111	4 3/8	301076	29.75	302076	33.60
7.7	.3031	81	3 3/16	114	4 1/2	301077	29.75	302077	33.60
7.8	.3071	81	3 3/16	114	4 1/2	301078	29.75	302078	33.60
7.9	.3110	81	3 3/16	114	4 1/2	301079	29.75	302079	33.60
8.0	.3150	81	3 3/16	114	4 1/2	301080	29.05	302080	33.60
8.1	.3189	84	3 5/16	117	4 5/8	301081	31.75	302081	35.75
8.2	.3228	84	3 5/16	117	4 5/8	301082	31.75	302082	35.75

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		135° POINT	
mm	INCH	mm	INCH	mm	INCH	LIST 301 EDP NO.	PRICE EACH	LIST 302 EDP NO.	PRICE EACH
8.3	.3268	84	3 5/16	117	4 5/8	301083	$31.75	302083	$35.75
8.4	.3307	87	3 7/16	121	4 3/4	301084	31.75	302084	35.75
8.5	.3346	87	3 7/16	121	4 3/4	301085	30.35	302085	35.75
8.6	.3386	87	3 7/16	121	4 3/4	301086	31.75	302086	35.75
8.7	.3425	87	3 7/16	121	4 3/4	301087	31.75	302087	35.75
8.8	.3465	89	3 1/2	124	4 7/8	301088	31.75	302088	35.75
8.9	.3504	89	3 1/2	124	4 7/8	301089	31.75	302089	38.05
9.0	.3543	89	3 1/2	124	4 7/8	301090	31.00	302090	38.05
9.1	.3583	89	3 1/2	124	4 7/8	301091	34.40	302091	38.05
9.2	.3622	92	3 5/8	127	5	301092	34.40	302092	38.05
9.3	.3661	92	3 5/8	127	5	301093	34.40	302093	38.05
9.4	.3701	92	3 5/8	127	5	301094	34.40	302094	38.05
9.5	.3740	92	3 5/8	127	5	301095	33.70	302095	38.05
9.6	.3780	95	3 3/4	130	5 1/8	301096	34.85	302096	41.45
9.7	.3819	95	3 3/4	130	5 1/8	301097	34.85	302097	41.45
9.8	.3858	95	3 3/4	130	5 1/8	301098	34.85	302098	41.45
9.9	.3898	95	3 3/4	130	5 1/8	301099	34.85	302099	41.45
10.0	.3937	95	3 3/4	130	5 1/8	301100	34.85	302100	41.45
10.1	.3976	98	3 7/8	133	5 1/4	301101	41.60	302101	42.70
10.2	.4016	98	3 7/8	133	5 1/4	301102	41.60	302102	42.70
10.3	.4055	98	3 7/8	133	5 1/4	301103	41.60	302103	42.70
10.4	.4094	98	3 7/8	133	5 1/4	301104	41.60	302104	44.90
10.5	.4134	98	3 7/8	133	5 1/4	301105	40.20	302105	44.90
10.6	.4173	100	3 15/16	137	5 3/8	301106	45.55	302106	46.40
10.7	.4213	100	3 15/16	137	5 3/8	301107	45.55	302107	46.40
10.8	.4252	103	4 1/16	140	5 1/2	301108	45.55	302108	46.40
10.9	.4291	103	4 1/16	140	5 1/2	301109	45.55	302109	46.40
11.0	.4331	103	4 1/16	140	5 1/2	301110	43.60	302110	44.90
11.1	.4370	103	4 1/16	140	5 1/2	301111	50.90	302111	51.65
11.2	.4409	106	4 3/16	143	5 5/8	301112	50.90	302112	52.10
11.3	.4449	106	4 3/16	143	5 5/8	301113	50.90	302113	52.10
11.4	.4488	106	4 3/16	143	5 5/8	301114	50.90	302114	50.50
11.5	.4528	106	4 3/16	143	5 5/8	301115	48.90	302115	50.50
11.6	.4567	110	4 5/16	146	5 3/4	301116	55.40	302116	56.20
11.7	.4606	110	4 5/16	146	5 3/4	301117	55.40	302117	56.20
11.8	.4646	110	4 5/16	146	5 3/4	301118	55.40	302118	56.20
11.9	.4685	110	4 5/16	146	5 3/4	301119	55.40	302119	56.20
12.0	.4724	111	4 3/8	149	5 7/8	301120	53.00	302120	56.60
12.1	.4764	111	4 3/8	149	5 7/8	301121	57.60	302121	58.50
12.2	.4803	111	4 3/8	149	5 7/8	301122	57.60	302122	58.50
12.3	.4843	111	4 3/8	149	5 7/8	301123	57.60	302123	58.50
12.4	.4882	114	4 1/2	152	6	301124	57.60	302124	58.50
12.5	.4921	114	4 1/2	152	6	301125	54.90	302125	56.60
12.6	.4961	114	4 1/2	152	6	301126	59.65	302126	60.35
12.7	.5000	114	4 1/2	152	6	50438	50.65	50638	53.45
12.8	.5039	114	4 1/2	152	6	301128	65.45	302128	83.30
12.9	.5079	114	4 1/2	152	6	301129	65.45	302129	83.30
13.0	.5118	114	4 1/2	152	6	301130	65.45	302130	83.30
13.5	.5315	122	4 13/16	168	6 5/8	301135	84.80	302135	91.40
14.0	.5512	122	4 13/16	168	6 5/8	301140	89.80	302140	96.85
14.5	.5709	122	4 13/16	168	6 5/8	301145	96.30	302145	104.05
15.0	.5906	132	5 3/16	181	7 1/8	301150	96.30	302150	104.05
16.0	.6299	132	5 3/16	181	7 1/8	301160	99.35	302160	107.30

Tolerances on page 36.

Made in the USA

JOBBERS LENGTH DRILLS TANGED

CARBIDE TIPPED

List No. 9690 - 118° Standard Point

Use: Sames as List No. 5330 on page 38 except with a tang on the shank. For use in ASA split sleeve drivers. For general purpose drilling.

List No. 9691 - 135° Split Point

Use: Same as List No. 5331 on page 38 except with a tang on the shank. For use in ASA split sleeve drivers. For drilling tough & abrasive materials.

Not recommended for use in steel.

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 9690 EDP NO.	PRICE EACH	LIST 9691 EDP NO.	PRICE EACH
.1250	1/8		1 5/8	2 3/4	969008	19.40	969108	$22.80
.1285		30	1 5/8	2 3/4	969230	19.90	969330	23.10
.1360		29	1 3/4	2 7/8	969229	20.60	969329	23.75
.1405		28	1 3/4	2 7/8	969228	20.75	969328	24.25
.1406	9/64		1 3/4	2 7/8	969009	21.05	969109	24.70
.1440		27	1 7/8	3	969227	21.35	969327	24.90
.1470		26	1 7/8	3	969226	19.85	969326	23.10
.1495		25	1 7/8	3	969225	19.85	969325	23.10
.1520		24	2	3 1/8	969224	21.35	969324	24.90
.1540		23	2	3 1/8	969223	20.75	969323	24.25
.1562	5/32		2	3 1/8	969010	20.70	969110	24.25
.1570		22	2	3 1/8	969222	23.05	969322	26.75
.1590		21	2 1/8	3 1/4	969221	22.00	969321	25.55
.1610		20	2 1/8	3 1/4	969220	22.55	969320	26.30
.1660		19	2 1/8	3 1/4	969219	22.55	969319	26.30
.1695		18	2 1/8	3 1/4	969218	22.55	969318	26.30
.1719	11/64		2 1/8	3 1/4	969011	22.55	969111	26.30
.1730		17	2 3/16	3 3/8	969217	22.55	969317	26.30
.1770		16	2 3/16	3 3/8	969216	22.00	969316	25.55
.1800		15	2 3/16	3 3/8	969215	23.05	969315	26.75
.1820		14	2 3/16	3 3/8	969214	22.00	969314	25.55
.1850		13	2 5/16	3 1/2	969213	24.25	969313	25.55
.1875	3/16		2 5/16	3 1/2	969012	22.00	969112	25.55
.1890		12	2 5/16	3 1/2	969212	25.20	969312	26.75
.1910		11	2 5/16	3 1/2	969211	23.40	969311	27.00
.1935		10	2 7/16	3 5/8	969210	23.05	969310	26.75
.1960		9	2 7/16	3 5/8	969209	23.40	969309	27.00
.1990		8	2 7/16	3 5/8	969208	23.40	969308	27.00
.2010		7	2 7/16	3 5/8	969207	23.40	969307	27.00
.2031	13/64		2 7/16	3 5/8	969013	24.10	969113	27.85
.2040		6	2 1/2	3 3/4	969206	23.80	969306	27.80
.2055		5	2 1/2	3 3/4	969205	24.20	969305	27.00
.2090		4	2 1/2	3 3/4	969204	23.80	969304	27.80
.2130		3	2 1/2	3 3/4	969203	24.20	969303	27.00
.2188	7/32		2 1/2	3 3/4	969014	24.10	969114	28.10
.2210		2	2 5/8	3 7/8	969202	25.10	969302	29.10
.2280		1	2 5/8	3 7/8	969201	24.85	969301	28.75
.2340		A	2 5/8	3 7/8	969401	27.40	969501	31.70
.2344	15/64		2 5/8	3 7/8	969015	26.00	969115	30.25
.2380		B	2 3/4	4	969402	27.40	969502	31.70
.2420		C	2 3/4	4	969403	27.40	969503	31.70
.2460		D	2 3/4	4	969404	26.70	969504	31.00
.2500	1/4	E	2 3/4	4	969016	26.00	969116	30.25
.2570		F	2 7/8	4 1/8	969406	30.65	969506	35.80
.2610		G	2 7/8	4 1/8	969407	31.55	969507	36.40
.2656	17/64		2 7/8	4 1/8	969017	28.90	969117	33.00
.2660		H	2 7/8	4 1/8	969408	32.10	969508	37.30
.2720		I	2 7/8	4 1/8	969409	31.55	969509	36.40

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 9690 EDP NO.	PRICE EACH	LIST 9691 EDP NO.	PRICE EACH
.2770		J	2 7/8	4 1/8	969410	$32.10	969510	$37.30
.2810		K	2 15/16	4 1/4	969411	32.10	969511	37.30
.2812	9/32		2 15/16	4 1/4	969018	30.55	969118	35.40
.2900		L	2 15/16	4 1/4	969412	32.10	969512	37.30
.2950		M	3 1/16	4 3/8	969413	35.35	969513	41.20
.2969	19/64		3 1/16	4 3/8	969019	33.95	969119	39.25
.3020		N	3 1/16	4 3/8	969414	34.60	969514	40.25
.3125	5/16		3 3/16	4 1/2	969020	33.10	969120	38.50
.3160		O	3 3/16	4 1/2	969415	34.00	969515	39.30
.3230		P	3 5/16	4 5/8	969416	36.35	969516	42.20
.3281	21/64		3 5/16	4 5/8	969021	35.15	969121	40.90
.3320		Q	3 7/16	4 3/4	969417	37.20	969517	43.10
.3390		R	3 7/16	4 3/4	969418	36.35	969518	42.20
.3438	11/32		3 7/16	4 3/4	969022	35.15	969122	40.90
.3480		S	3 1/2	4 7/8	969419	39.10	969519	45.50
.3580		T	3 1/2	4 7/8	969420	39.90	969520	46.30
.3594	23/64		3 1/2	4 7/8	969023	37.45	969123	43.55
.3680		U	3 5/8	5	969421	38.45	969521	44.40
.3750	3/8		3 5/8	5	969024	37.45	969124	43.55
.3770		V	3 5/8	5	969422	39.10	969522	45.50
.3860		W	3 3/4	5 1/8	969423	42.90	969523	49.70
.3906	25/64		3 3/4	5 1/8	969025	40.70	969125	47.35
.3970		X	3 3/4	5 1/8	969424	41.05	969524	47.65
.4040		Y	3 7/8	5 1/4	969425	42.90	969525	49.70
.4062	13/32		3 7/8	5 1/4	969026	40.70	969126	47.35
.4130		Z	3 7/8	5 1/4	969426	47.50	969526	55.00
.4219	27/64		3 15/16	5 3/8	969027	44.30	969127	51.40
.4375	7/16		4 1/16	5 1/2	969028	44.30	969128	51.40
.4531	29/64		4 3/16	5 5/8	969029	50.75	969129	58.85
.4688	15/32		4 5/16	5 3/4	969030	49.85	969130	57.60
.4844	31/64		4 3/8	5 7/8	969031	55.60	969131	64.60
.5000	1/2		4 1/2	6	969032	61.25	969132	64.60
.5156	33/64		4 13/16	6 5/8	969033	79.70	969133	92.60
.5312	17/32		4 13/16	6 5/8	969034	79.70	969134	92.60
.5469	35/64		4 13/16	6 5/8	969035	80.45	969135	93.50
.5625	9/16		4 13/16	6 5/8	969036	80.45	969136	93.50
.5781	37/64		4 13/16	6 5/8	969037	88.80	969137	103.20
.5938	19/32		5 3/16	7 1/8	969038	86.50	969138	100.30
.6094	39/64		5 3/16	7 1/8	969039	102.10	969139	118.55
.6250	5/8		5 3/16	7 1/8	969040	97.90	969140	113.50
.6406	41/64		5 3/16	7 1/8	969041	112.90	969141	131.15
.6562	21/32		5 3/16	7 1/8	969042	99.50	969142	115.50
.6719	43/64		5 5/8	7 5/8	969043	129.60	969143	150.50
.6875	11/16		5 5/8	7 5/8	969044	101.45	969144	117.65
.7031	45/64		5 5/8	7 5/8	969045	118.70	969145	131.95
.7188	23/32		5 5/8	7 5/8	969046	119.80	969146	133.00
.7344	47/64		5 5/8	7 5/8	969047	120.40	969147	134.00
.7500	3/4		5 13/16	8	969048	122.45	969148	135.85

Overall length tolerance +1/4" / –1/8". All other tolerances on page 36.

DIE DRILLS FOR HARDENED STEEL

CARBIDE TIPPED

List No. 5425 - 118° Negative Point

DISCONTINUED WHILE SUPPLIES LAST (BELOW)

List No. 5423 - 118° Positive Point
List No. 5426 - 140° Negative Point
List No. 5424 - 140° Positive Point
List No. 307 - 118° Negative Point - Metric
List No. 308 - 118° Positive Point - Metric

Use: For drilling hardened steel from 35 to 65 rockwell C. **Positive point** tools are for use on machines with less spindle horsepower - the thinned web permits higher feed rates than otherwise possible. **Negative point** tools are for higher hardness materials. **118° point** tools are for general duty work. **140° point** tools are for drilling tough & abrasive materials. In all applications, use copious amounts of coolant, use light feed (.001-.002 IPR) with steady pressure, and keep the workpiece clear of chips. Run at 75-100 SFPM.

TOOL DIAM.		FLT. LEN.	OAL	118° POINT		BOTH LIST PRICE	140° POINT		BOTH LIST PRICE
DEC.	FRAC.			NEG. LIST 5425 EDP NO.	POS. LIST 5423 EDP NO.		NEG. LIST 5426 EDP NO.	POS. LIST 5424 EDP NO.	
.0625	1/16*	-	1 1/2	52104	-	$32.60	42304	-	$32.60
.0781	5/64*	-	1 1/2	52105	-	32.60	42305	-	32.60
.0938	3/32*	-	2	52106	-	35.80	42306	-	35.80
.1094	7/64*	-	2	52107	-	35.80	42307	-	35.80
.1250	1/8*	-	2	52108	-	36.85	42308	-	36.85
.1406	9/64*	-	2	52109	-	36.85	42309	-	36.85
.1562	5/32*	-	2	52110	-	38.80	42310	-	38.80
.1719	11/64*	-	2 3/8	52111	-	38.80	42311	-	38.80
.1875	3/16	1 1/2	3 1/2	52112	42212	35.20	42312	42412	35.20
.2031	13/64	1 1/2	3 1/2	52113	42213	35.20	42313	42413	35.20
.2188	7/32	1 3/4	3 3/4	52114	42214	36.35	42314	42414	36.35
.2344	15/64	1 3/4	3 3/4	52115	42215	37.50	42315	42415	37.50
.2500	1/4	2	4	52116	42216	37.50	42316	42416	37.50
.2656	17/64	2	4	52117	42217	39.65	42317	42417	39.65
.2812	9/32	2 1/4	4 1/4	52118	42218	39.65	42318	42418	39.65
.2969	19/64	2 1/4	4 1/4	52119	42219	41.50	42319	42419	41.50
.3125	5/16	2 1/2	4 1/2	52120	42220	41.50	42320	42420	41.50
.3281	21/64	2 1/2	4 1/2	52121	42221	44.20	42321	42421	44.20
.3438	11/32	2 3/4	4 3/4	52122	42222	44.20	42322	42422	44.20
.3594	23/64	2 3/4	4 3/4	52123	42223	47.60	42323	42423	47.60
.3750	3/8	3	5	52124	42224	47.60	42324	42424	47.60
.3906	25/64	3	5	52125	42225	53.65	42325	42425	53.65
.4062	13/32	3	5 1/4	52126	42226	55.60	42326	42426	55.60
.4219	27/64	3	5 1/4	52127	42227	60.10	42327	42427	60.10
.4375	7/16	3	5 1/2	52128	42228	64.60	42328	42428	64.60
.4531	29/64	3	5 1/2	52129	42229	67.75	42329	42429	67.75
.4688	15/32	3 1/4	5 3/4	52130	42230	71.00	42330	42430	71.00
.4844	31/64	3 1/4	5 3/4	52131	42231	86.05	42331	42431	86.05
.5000	1/2	3 1/2	6	52132	42232	83.20	42332	42432	83.20
.5312	17/32	3 1/2	6	52134	42234	95.40	42334	42434	95.40
.5625	9/16	3 1/2	6	52136	42236	98.70	42336	42436	98.70
.5938	19/32	4	7	52138	42238	104.45	42338	42438	104.45
.6250	5/8	4	7	52140	42240	107.65	42340	42440	107.65
.6562	21/32	4 1/2	7 1/2	52142	42242	115.25	42342	42442	115.25
.6875	11/16	4 1/2	7 1/2	52144	42244	118.25	42344	42444	118.25
.7188	23/32	4 3/4	8	52146	42246	123.95	42346	42446	123.95
.7500	3/4	4 3/4	8	52148	42248	127.40	42348	42448	127.40
.7812	25/32	4 3/4	8	52150	42250	245.95	42350	42450	245.95
.8125	13/16	4 3/4	8	52152	42252	228.30	42352	42452	228.30
.8750	7/8	4 3/4	8	52156	42256	233.05	42356	42456	233.05
.9375	15/16	4 3/4	8	52160	42260	259.55	42360	42460	259.55
1.0000	1	4 3/4	8	52164	42264	275.35	42364	42464	275.35

Positive point

METRIC

Negative point

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		BOTH LIST PRICE
mm	INCH	mm	INCH	mm	INCH	NEG. LIST 307 EDP NO.	POS. LIST 308 EDP NO.	
5.0	.1969	38	1 1/2	89	3 1/2	307050	308050	$32.90
5.5	.2165	45	1 3/4	95	3 3/4	307055	308055	36.55
6.0	.2362	51	2	102	4	307060	308060	36.80
6.5	.2559	51	2	102	4	307065	308065	38.95
7.0	.2756	57	2 1/4	108	4 1/4	307070	308070	38.95
7.5	.2953	57	2 1/4	108	4 1/4	307075	308075	40.70
8.0	.3150	64	2 1/2	114	4 1/2	307080	308080	43.90
8.5	.3346	70	2 3/4	121	4 3/4	307085	308085	43.90
9.0	.3543	70	2 3/4	121	4 3/4	307090	308090	46.80
9.5	.3740	76	3	127	5	307095	308095	44.40
10.0	.3937	76	3	133	5 1/4	307100	308100	54.60
10.5	.4134	76	3	133	5 1/4	307105	308105	63.30
11.0	.4331	76	3	140	5 1/2	307110	308110	89.10
11.5	.4528	76	3	140	5 1/2	307115	308115	66.65
12.0	.4724	83	3 1/4	146	5 3/4	307120	308120	81.50
12.5	.4921	89	3 1/2	152	6	307125	308125	81.50
13.0	.5118	89	3 1/2	152	6	307130	308130	93.50
13.5	.5315	89	3 1/2	152	6	307135	308135	93.50
14.0	.5512	89	3 1/2	152	6	307140	308140	96.85

DISCONTINUED WHILE SUPPLIES LAST

List No. 5420 - 120° Point - Spade Type

Use: For general purpose drilling. Drill body smaller than tip.

List No. 5421 - 140° Point - Spade Type

Use: For drilling tough abrasive materials.

For shallow holes, not more than 2 diameters deep.

TOOL DIAMETER		OVERALL LENGTH	120° POINT LIST 5420 EDP NO.	140° POINT LIST 5421 EDP NO.	BOTH LIST PRICE
DECIMAL	FRAC.				
.0938	3/32*	2	52006	52056	$20.80
.1094	7/64*	2	52007	52057	21.25
.1250	1/8*	2	52008	52058	21.25
.1406	9/64*	2	52009	52059	23.00
.1562	5/32*	2	52010	52060	26.45
.1719	11/64*	3	52011	52061	28.25
.1875	3/16*	3	52012	52062	33.40
.2031	13/64*	3	52013	52063	37.60

**Solid carbide full length.*

Drill tolerances on page 36.

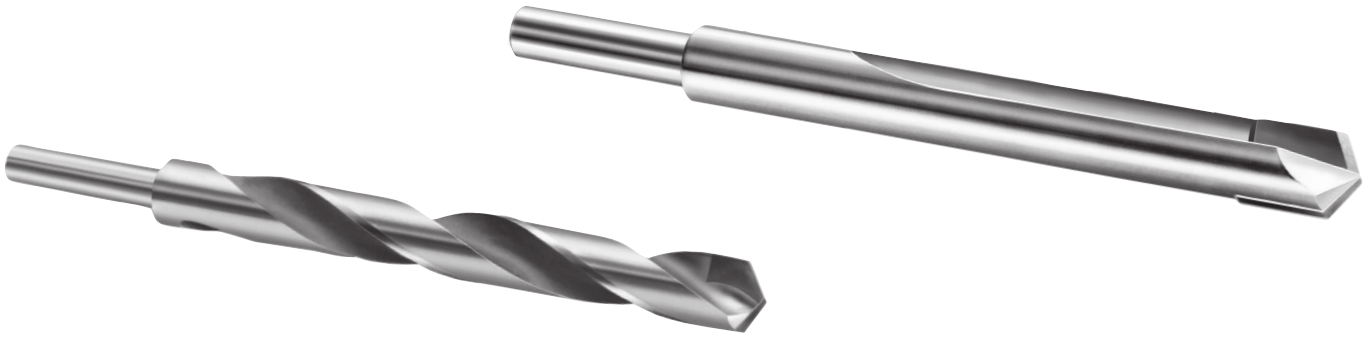
Made in the USA

REDUCED SHANK DIAMETER DRILLS

CARBIDE TIPPED

Stub Length, Jobbers Length, & Hard Steel Die Drills
¼", ⅜", ½" or ¾" Shank Diameter

Use: These drills can be used in a variety of drill chucks with diameter limitations.

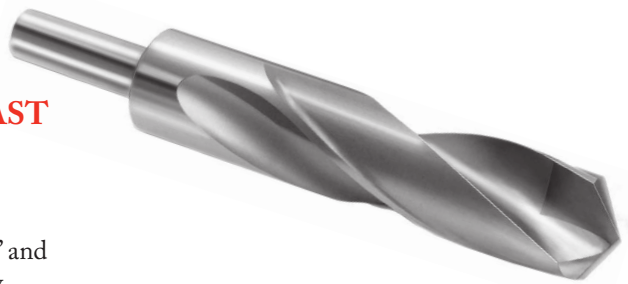


SHANK DIAM.	TOOL DIAM		STUB LENGTH DRILLS					JOBBERS LENGTH DRILLS					HARD STEEL DIE DRILLS		
	DEC.	FRAC.	OAL	118° POINT LIST 436 EDP NO.	118° POINT PRICE EACH	135° POINT LIST 437 EDP NO.	135° POINT PRICE EACH	OAL	118° POINT LIST 5330 EDP NO.	118° POINT PRICE EACH	135° POINT. LIST 5331 EDP NO.	135° POINT. PRICE EACH	OAL	NEG. 118° PT. LIST 5425 EDP NO.	PRICE EACH
¼	.2812	9/32	2 11/16	9640618	$38.45	9641618	$44.65	4 ¼	9600618	$38.05	9601618	$44.10	-	-	-
	.3125	5/16	2 13/16	9640620	40.85	9641620	47.50	4 ½	9600620	41.10	9601620	47.80	4 ½	9670620	$62.30
	.3438	11/32	3	9640622	47.60	9641622	55.10	4 ¾	9600622	43.70	9601622	50.90	4 ¾	9670622	66.35
	.3750	⅜	3 ⅛	9640624	48.70	9641624	56.60	5	9600624	46.45	9601624	54.05	5	9670624	71.30
	.4062	13/32	3 5/16	9640626	57.80	9641626	67.25	5 ¼	9600626	50.50	9601626	58.80	5 ¼	9670626	83.60
	.4375	7/16	3 7/16	9640628	61.75	9641628	68.50	5 ½	9600628	55.00	9601628	63.85	5 ½	9670628	96.85
	.4688	15/32	3 ⅝	9640630	87.90	9641630	102.25	5 ¾	9600630	61.85	9601630	71.65	5 ¾	9670630	106.40
	.5000	½	3 ¾	9640632	84.10	9641632	97.80	6	9600632	76.10	9601632	80.15	6	9670632	124.80
⅜	.4062	13/32	3 5/16	9640726	57.80	9641726	67.25	5 ¼	9600726	50.50	9601726	58.80	-	-	-
	.4375	7/16	3 7/16	9640728	61.75	9641728	68.50	5 ½	9600728	55.00	9601728	63.85	5 ½	9670728	96.85
	.4688	15/32	3 ⅝	9640730	87.90	9641730	102.25	5 ¾	9600730	61.85	9601730	71.65	5 ¾	9670730	106.40
	.5000	½	3 ¾	9640732	84.10	9641732	97.80	6	9600732	76.10	9601732	80.15	6	9670732	124.80
	.5312	17/32	3 ⅞	9640734	104.90	9641734	118.15	6 ⅝	9600734	99.05	9601734	115.10	6	9670734	143.15
	.5625	9/16	4	9640736	104.90	9641736	118.15	6 ⅝	9600736	100.00	9601736	116.10	6	9670736	148.10
	.5938	19/32	4 ⅛	9640738	120.30	9641738	135.60	7 ⅛	9600738	107.40	9601738	124.55	7	9670738	156.70
	.6250	⅝	4 ¼	9640740	120.30	9641740	135.60	7 ⅛	9600740	121.70	9601740	141.05	7	9670740	161.50
	.6562	21/32	4 ½	9640742	144.65	9641742	163.15	7 ⅛	9600742	123.65	9601742	143.45	7 ½	9670742	172.80
	.6875	11/16	4 ⅝	9640744	148.40	9641744	167.45	7 ⅝	9600744	126.05	9601744	146.20	7 ½	9670744	177.50
	.7188	23/32	4 ¾	9640746	168.30	9641746	195.40	7 ⅝	9600746	148.80	9601746	165.50	8	9670746	185.95
	.7500	¾	5	9640748	168.70	9641748	190.00	8	9600748	151.90	9601748	168.85	8	9670748	190.90
½	.5312	17/32	3 ⅞	9640834	104.90	9641834	118.15	6 ⅝	9600834	99.05	9601834	115.10	-	-	-
	.5625	9/16	4	9640836	104.90	9641836	118.15	6 ⅝	9600836	100.00	9601836	116.10	6	9670836	148.10
	.5938	19/32	4 ⅛	9640838	120.30	9641838	135.60	7 ⅛	9600838	107.40	9601838	124.55	7	9670838	156.70
	.6250	⅝	4 ¼	9640840	120.30	9641840	135.60	7 ⅛	9600840	121.70	9601840	141.05	7	9670840	161.50
	.6562	21/32	4 ½	9640842	144.65	9641842	163.15	7 ⅛	9600842	123.65	9601842	143.45	7 ½	9670842	172.80
	.6875	11/16	4 ⅝	9640844	148.40	9641844	167.45	7 ⅝	9600844	126.05	9601844	146.20	7 ½	9670844	177.50
	.7188	23/32	4 ¾	9640846	168.30	9641846	195.40	7 ⅝	9600846	148.80	9601846	165.50	8	9670846	185.95
	.7500	¾	5	9640848	168.70	9641848	190.00	8	9600848	151.90	9601848	168.85	8	9670848	190.90
	.8125	13/16	5 ¼	9640852	208.45	9641852	235.30	-	-	-	-	-	8	9670852	342.35
	.8750	⅞	5 ½	9640856	228.85	9641856	257.95	-	-	-	-	-	8	9670856	349.50
	.9375	15/16	5 ¾	9640860	245.65	9641860	277.10	-	-	-	-	-	8	9670860	389.45
	1.0000	1	6	9640864	259.50	9641864	292.80	-	-	-	-	-	8	9670864	413.15
¾	.8125	13/16	5 ¼	9640952	208.45	9641952	235.30	-	-	-	-	-	8	9670952	342.35
	.8750	⅞	5 ½	9640956	228.85	9641956	257.95	-	-	-	-	-	8	9670956	349.50
	.9375	15/16	5 ¾	9640960	245.65	9641960	277.10	-	-	-	-	-	8	9670960	389.45
	1.0000	1	6	9640964	259.50	9641964	292.80	-	-	-	-	-	8	9670964	413.15
	1.0625	1 1/16	6 ¼	9640968	325.20	9641968	366.65	-	-	-	-	-	-	-	-
	1.1250	1 ⅛	6 ⅜	9640972	361.10	9641972	407.10	-	-	-	-	-	-	-	-
	1.1875	1 3/16	6 ⅝	9640976	440.60	9641976	493.90	-	-	-	-	-	-	-	-
	1.2500	1 ¼	6 ¾	9640980	440.60	9641980	493.90	-	-	-	-	-	-	-	-

SILVER & DEMING - REDUCED SHANK DRILLS

CARBIDE TIPPED

List No. 9616 - 118° Standard Point
List No. 9618 - 135° Split Point - DISCONTINUED WHILE SUPPLIES LAST



Use: The 9616 series is designed for drilling cast iron, non-ferrous metals, and non-metals. The 9618 series is designed for drilling tough abrasive materials. ½" by 2¼" long shank allows larger diameter drills to be used in drill chucks ½" and larger. Precision ground to insure concentricity of tip and body.

Not recommended for use in steel.

TOOL DIAMETER		FLUTE LENGTH	OVERALL LENGTH	118° POINT		135° POINT	
DECIMAL	FRAC.			LIST 9616 EDP NO.	PRICE EACH	LIST 9618 EDP NO.	PRICE EACH
.5000	½	3 ⅛	6	961632	$63.80	961832	$67.00
.5312	17/32	3 ⅛	6	961634	93.30	961834	98.05
.5625	9/16	3 ⅛	6	961636	96.70	961836	101.60
.5938	19/32	3 ⅛	6	961638	100.55	961838	105.60
.6250	⅝	3 ⅛	6	961640	111.80	961840	117.30
.6562	21/32	3 ⅛	6	961642	121.20	961842	127.20
.6875	11/16	3 ⅛	6	961644	125.90	961844	132.30
.7188	23/32	3 ⅛	6	961646	130.60	961846	137.15
.7500	¾	3 ⅛	6	961648	136.85	961848	143.80
.7812	25/32	3 ⅛	6	961650	150.90	961850	158.45
.8125	13/16	3 ⅛	6	961652	151.30	961852	158.90
.8438	27/32	3 ⅛	6	961654	151.30	961854	158.90
.8750	⅞	3 ⅛	6	961656	157.40	961856	165.25

TOOL DIAMETER		FLUTE LENGTH	OVERALL LENGTH	118° POINT		135° POINT	
DECIMAL	FRAC.			LIST 9616 EDP NO.	PRICE EACH	LIST 9618 EDP NO.	PRICE EACH
.9062	29/32	3 ⅛	6	961658	$161.15	961858	$169.25
.9375	15/16	3 ⅛	6	961660	162.80	961860	170.90
.9688	31/32	3 ⅛	6	961662	168.30	961862	176.65
1.0000	1	3 ⅛	6	961664	171.90	961864	180.55
1.0312	1 1/32	3 ⅛	6	961666	165.90	961866	174.25
1.0625	1 1/16	3 ⅛	6	961668	179.95	961868	188.90
1.0938	1 3/32	3 ⅛	6	961670	184.20	961870	193.45
1.1250	1 ⅛	3 ⅛	6	961672	187.85	961872	197.15
1.1562	1 5/32	3 ⅛	6	961674	227.95	961874	239.40
1.1875	1 3/16	3 ⅛	6	961676	232.10	961876	243.70
1.2188	1 7/32	3 ⅛	6	961678	243.65	961878	255.95
1.2500	1 ¼	3 ⅛	6	961680	222.50	961880	233.65
-	-	-	-	-	-	-	-

CNC SPOTTING/CENTERING DRILLS

CARBIDE TIPPED

DISCONTINUED WHILE SUPPLIES LAST

List No. 9677 - 90° Point Regular Length
List No. 9678 - 120° Point Regular Length
List No. 9679 - 140° Point Regular Length
List No. 9647 - 90° Point Short Length
List No. 9648 - 120° Point Short Length
List No. 9649 - 140° Point Short Length

Use: For accurate centering and chamfering. An excellent CNC spot facing tool. Drill wandering is minimized. These tools cut only to the depth of the point and are not for drilling holes. The tool diameter is not cleared. Accurately ground point and polished flutes. Carbide tips brazed to hardened tool steel bodies. Lists 9647 through 9649 are the same as types 9677 through 9679 except they are a shorter length.

TOOL DIAMETER		FLUTE LENGTH	OAL	90° POINT TYPE 9677 EDP NO.	120° POINT TYPE 9678 EDP NO.	140° POINT TYPE 9679 EDP NO.	ALL TYPES PRICE
DECIMAL	FRAC.						
.2500	¼	1	4	967716	967816	967916	$90.25
.3750	⅜	1 ⅛	5	967724	967824	967924	105.35
.5000	½	1 ½	6	967732	967832	967932	141.65
.6250	⅝	1 ⅝	7	967740	967840	967940	205.15
.7500	¾	1 ⅞	8	967748	967848	967948	238.00
1.0000	1	2 ¼	8	967764	967864	967964	315.55

TOOL DIAMETER		FLUTE LENGTH	OAL	90° POINT TYPE 9647 EDP NO.	120° POINT TYPE 9648 EDP NO.	140° POINT TYPE 9649 EDP NO.	ALL TYPES PRICE
DECIMAL	FRAC.						
.2500	¼	1	2 ½	964716	964816	964916	$85.75
.3750	⅜	1 ⅛	3 ⅛	964724	964824	964924	100.10
.5000	½	1 ½	3 ¾	964732	964832	964932	134.65
.6250	⅝	1 ⅝	4 ¼	964740	964840	964940	194.95
.7500	¾	1 ⅞	5	964748	964848	964948	226.15
1.0000	1	2 ¼	6	964764	964864	964964	299.70

Tolerances on page 36.

TAPER LENGTH TWIST DRILLS

CARBIDE TIPPED

List No. 5314 - 118° Standard Point Use: For general purpose drilling.

List No. 5315 - 135° Split Point Use: For tough & abrasive materials - **DISCONTINUED - WHILE SUPPLIES LAST**

Not recommended for use in steel.

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 5314 EDP NO.	PRICE EACH	LIST 5315 EDP NO.	PRICE EACH
.1250	1/8		2 3/4	5 1/8	50208	$21.65	50265	$24.65
.1285		30	3	5 3/8	51630	30.30	51730	29.90
.1360		29	3	5 3/8	51629	30.30	51729	29.90
.1405		28	3	5 3/8	51628	30.30	51728	29.90
.1406	9/64		3	5 3/8	50209	25.00	50266	26.05
.1440		27	3	5 3/8	51627	30.30	51727	29.90
.1470		26	3	5 3/8	51626	30.30	51726	29.90
.1495		25	3	5 3/8	51625	30.30	51725	29.90
.1520		24	3	5 3/8	51624	30.30	51724	29.90
.1540		23	3	5 3/8	51623	30.30	51723	29.90
.1562	5/32		3	5 3/8	50210	23.00	50267	26.05
.1570		22	3 3/8	5 3/4	51622	31.40	51722	31.00
.1590		21	3 3/8	5 3/4	51621	31.40	51721	31.00
.1610		20	3 3/8	5 3/4	51620	31.40	51720	31.00
.1660		19	3 3/8	5 3/4	51619	31.40	51719	31.00
.1695		18	3 3/8	5 3/4	51618	31.40	51718	31.00
.1719	11/64		3 3/8	5 3/4	50211	23.40	50268	27.00
.1730		17	3 3/8	5 3/4	51617	31.40	51717	31.00
.1770		16	3 3/8	5 3/4	51616	31.40	51716	31.00
.1800		15	3 3/8	5 3/4	51615	31.40	51715	31.00
.1820		14	3 3/8	5 3/4	51614	31.40	51714	31.00
.1850		13	3 3/8	5 3/4	51613	31.40	51713	31.00
.1875	3/16		3 3/8	5 3/4	50212	23.40	50269	27.00
.1890		12	3 5/8	6	51612	33.10	51712	32.70
.1910		11	3 5/8	6	51611	33.10	51711	32.70
.1935		10	3 5/8	6	51610	33.10	51710	32.70
.1960		9	3 5/8	6	51609	33.10	51709	32.70
.1990		8	3 5/8	6	51608	33.10	51708	32.70
.2010		7	3 5/8	6	51607	33.10	51707	32.70
.2031	13/64		3 5/8	6	50213	24.80	50270	28.45
.2040		6	3 5/8	6	51606	33.10	51706	32.70
.2055		5	3 5/8	6	51605	33.10	51705	32.70
.2090		4	3 5/8	6	51604	33.10	51704	32.70
.2130		3	3 5/8	6	51603	33.10	51703	32.70
.2188	7/32		3 5/8	6	50214	24.80	50271	28.45
.2210		2	3 3/4	6 1/8	51602	37.50	51702	37.10
.2280		1	3 3/4	6 1/8	51601	37.50	51701	37.10
.2340		A	3 3/4	6 1/8	51650	37.50	51750	37.10
.2344	15/64		3 3/4	6 1/8	50215	28.10	50321	32.15
.2380		B	3 3/4	6 1/8	51651	37.50	51751	37.10
.2420		C	3 3/4	6 1/8	51652	37.50	51752	37.10
.2460		D	3 3/4	6 1/8	51653	37.50	51753	37.10
.2500	1/4	E	3 3/4	6 1/8	50216	28.10	50272	32.15
.2570		F	3 7/8	6 1/4	51654	41.95	51754	41.45
.2610		G	3 7/8	6 1/4	51655	41.95	51755	41.45
.2656	17/64		3 7/8	6 1/4	50217	31.40	50273	36.00
.2660		H	3 7/8	6 1/4	51656	41.95	51756	41.45
.2720		I	3 7/8	6 1/4	51657	41.95	51757	41.45
.2770		J	3 7/8	6 1/4	51658	41.95	51758	41.45
.2810		K	3 7/8	6 1/4	51659	41.95	51759	41.45
.2812	9/32		3 7/8	6 1/4	50218	31.40	50274	36.00
.2900		L	4	6 3/8	51660	45.50	51760	44.75
.2950		M	4	6 3/8	51661	45.50	51761	44.75
.2969	19/64		4	6 3/8	50219	33.85	50275	38.95
.3020		N	4	6 3/8	51662	45.50	51762	44.75
.3125	5/16		4	6 3/8	50220	33.85	50276	38.95

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 5314 EDP NO.	PRICE EACH	LIST 5315 EDP NO.	PRICE EACH
.3160		O	4 1/8	6 1/2	51663	$51.60	51763	$50.90
.3230		P	4 1/8	6 1/2	51664	51.60	51764	50.90
.3281	21/64		4 1/8	6 1/2	50221	37.30	50277	44.35
.3320		Q	4 1/8	6 1/2	51665	51.60	51765	50.90
.3390		R	4 1/8	6 1/2	51666	51.60	51766	50.90
.3438	11/32		4 1/8	6 1/2	50222	37.30	50278	44.75
.3480		S	4 1/4	6 3/4	51667	56.45	51767	55.75
.3580		T	4 1/4	6 3/4	51668	56.45	51768	55.75
.3594	23/64		4 1/4	6 3/4	50223	42.05	50279	48.50
.3680		U	4 1/4	6 3/4	51669	56.45	51769	55.75
.3750	3/8		4 1/4	6 3/4	50224	42.05	50280	48.50
.3770		V	4 3/8	7	51670	60.40	51770	59.70
.3860		W	4 3/8	7	51671	60.40	51771	59.70
.3906	25/64		4 3/8	7	50225	45.10	50281	51.95
.3970		X	4 3/8	7	51672	60.40	51772	59.70
.4040		Y	4 3/8	7	51673	60.40	51773	59.70
.4062	13/32		4 3/8	7	50226	45.10	50282	51.95
.4130		Z	4 5/8	7 1/4	51674	69.70	51774	68.70
.4219	27/64		4 5/8	7 1/4	50227	52.10	50283	59.70
.4375	7/16		4 5/8	7 1/4	50228	52.10	50284	59.70
.4531	29/64		4 3/4	7 1/2	50229	57.85	50285	67.20
.4688	15/32		4 3/4	7 1/2	50230	57.85	50286	67.20
.4844	31/64		4 3/4	7 3/4	50231	60.65	50287	69.40
.5000	1/2		4 3/4	7 3/4	50232	66.60	50288	69.40
.5156	33/64		4 3/4	8	50233	86.90	50289	99.55
.5312	17/32		4 3/4	8	50234	86.90	50290	99.55
.5469	35/64		4 7/8	8 1/4	50235	87.60	50291	100.40
.5625	9/16		4 7/8	8 1/4	50236	87.60	50292	100.40
.5781	37/64		4 7/8	8 3/4	50237	96.70	50293	111.00
.5938	19/32		4 7/8	8 3/4	50238	94.00	50294	107.80
.6094	39/64		4 7/8	8 3/4	50239	111.20	50295	127.40
.6250	5/8		4 7/8	8 3/4	50240	106.60	50296	122.05
.6406	41/64		5 1/8	9	50241	122.95	50297	141.00
.6562	21/32		5 1/8	9	50242	108.40	50298	124.15
.6719	43/64		5 3/8	9 1/4	50243	141.05	50299	161.70
.6875	11/16		5 3/8	9 1/4	50244	110.45	50300	126.55
.7031	45/64		5 5/8	9 1/2	50245	128.95	50301	141.70
.7188	23/32		5 5/8	9 1/2	50246	130.45	50302	143.10
.7344	47/64		5 7/8	9 3/4	50247	131.15	50303	143.90
.7500	3/4		5 7/8	9 3/4	50248	133.10	50304	146.10
.7656	49/64		6	9 7/8	50249	135.85	50305	149.15
.7812	25/32		6	9 7/8	50250	138.60	50306	152.20
.7969	51/64		6 1/8	10	50251	141.35	50307	155.30
.8125	13/16		6 1/8	10	50252	144.10	50308	158.35
.8281	53/64		6 1/8	10	50253	146.90	50309	161.40
.8438	27/32		6 1/8	10	50254	149.65	50310	164.45
.8594	55/64		6 1/8	10	50255	152.40	50311	167.50
.8750	7/8		6 1/8	10	50256	155.15	50312	170.60
.8906	57/64		6 1/8	10	50257	157.90	50313	173.65
.9062	29/32		6 1/8	10	50258	160.70	50314	176.70
.9219	59/64		6 1/8	10 3/4	50259	163.45	50315	179.75
.9375	15/16		6 1/8	10 3/4	50260	166.20	50316	182.80
.9531	61/64		6 3/8	11	50261	168.95	50317	185.90
.9688	31/32		6 3/8	11	50262	171.70	50318	188.95
.9844	63/64		6 3/8	11	50263	174.50	50319	192.00
1.0000	1		6 3/8	11	50264	177.25	50320	195.05

Made in the USA

Overall length tolerance +1/4" / -1/8". All other tolerances on page 36.

TAPER LENGTH TWIST DRILLS

METRIC

CARBIDE TIPPED

List No. 305 - 118° Standard Point

List No. 306 - 135° Split Point - DISCONTINUED - WHILE SUPPLIES LAST

Use: Same as List No. 5314 & 5315 except in metric sizes.

Not recommended for use in steel.

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		135° POINT	
mm	INCH	mm	INCH	mm	INCH	LIST 305 EDP NO.	PRICE EACH	LIST 306 EDP NO.	PRICE EACH
3.2	.1260	76	3	137	5 ⅜	305032	$27.95	306032	$27.55
3.3	.1299	76	3	137	5 ⅜	305033	27.95	306033	27.55
3.4	.1339	76	3	137	5 ⅜	305034	27.95	306034	27.55
3.5	.1378	76	3	137	5 ⅜	305035	27.10	306035	26.95
3.6	.1417	76	3	137	5 ⅜	305036	27.10	306036	26.95
3.7	.1457	76	3	137	5 ⅜	305037	27.10	306037	26.95
3.8	.1496	76	3	137	5 ⅜	305038	27.10	306038	26.95
3.9	.1535	76	3	137	5 ⅜	305039	27.10	306039	26.95
4.0	.1575	86	3 ⅜	146	5 ¾	305040	26.50	306040	26.20
4.1	.1614	86	3 ⅜	146	5 ¾	305041	27.95	306041	27.55
4.2	.1654	86	3 ⅜	146	5 ¾	305042	27.95	306042	27.55
4.3	.1693	86	3 ⅜	146	5 ¾	305043	27.95	306043	27.55
4.4	.1732	86	3 ⅜	146	5 ¾	305044	29.50	306044	29.00
4.5	.1772	86	3 ⅜	146	5 ¾	305045	29.50	306045	29.00
4.6	.1811	86	3 ⅜	146	5 ¾	305046	29.50	306046	29.00
4.7	.1850	86	3 ⅜	146	5 ¾	51613	31.40	51713	31.00
4.8	.1890	92	3 ⅝	152	6	51612	33.10	51712	32.70
4.9	.1929	92	3 ⅝	152	6	305049	29.50	306049	29.00
5.0	.1969	92	3 ⅝	152	6	305050	29.35	306050	29.00
5.1	.2008	92	3 ⅝	152	6	305051	30.55	306051	30.20
5.2	.2047	92	3 ⅝	152	6	305052	26.30	306052	30.20
5.3	.2087	92	3 ⅝	152	6	305053	30.55	306053	30.20
5.4	.2126	92	3 ⅝	152	6	305054	30.55	306054	30.20
5.5	.2165	92	3 ⅝	152	6	305055	31.30	306055	30.20
5.6	.2205	95	3 ¾	156	6 ⅛	305056	30.55	306056	30.20
5.7	.2244	95	3 ¾	156	6 ⅛	305057	30.55	306057	30.20
5.8	.2283	95	3 ¾	156	6 ⅛	305058	30.55	306058	30.20
5.9	.2323	95	3 ¾	156	6 ⅛	305059	31.85	306059	31.55
6.0	.2362	95	3 ¾	156	6 ⅛	305060	32.50	306060	32.75
6.1	.2402	95	3 ¾	156	6 ⅛	305061	33.95	306061	33.40
6.2	.2441	95	3 ¾	156	6 ⅛	305062	33.95	306062	33.40
6.3	.2480	95	3 ¾	156	6 ⅛	305063	33.95	306063	33.40
6.4	.2520	98	3 ⅞	159	6 ¼	305064	37.30	306064	36.80
6.5	.2559	98	3 ⅞	159	6 ¼	305065	33.70	306065	36.80
6.6	.2598	98	3 ⅞	159	6 ¼	305066	38.45	306066	37.80
6.7	.2638	98	3 ⅞	159	6 ¼	305067	38.45	306067	37.80
6.8	.2677	98	3 ⅞	159	6 ¼	305068	38.45	306068	37.80
6.9	.2717	98	3 ⅞	159	6 ¼	305069	38.45	306069	37.80
7.0	.2756	98	3 ⅞	159	6 ¼	305070	35.15	306070	36.80
7.1	.2795	98	3 ⅞	159	6 ¼	305071	38.45	306071	37.80
7.2	.2835	102	4	162	6 ⅜	305072	38.45	306072	37.80
7.3	.2874	102	4	162	6 ⅜	305073	38.45	306073	37.80
7.4	.2913	102	4	162	6 ⅜	305074	38.45	306074	37.80
7.5	.2953	102	4	162	6 ⅜	305075	37.25	306075	39.80
7.6	.2992	102	4	162	6 ⅜	305076	40.25	306076	39.80
7.7	.3031	102	4	162	6 ⅜	305077	40.25	306077	39.80
7.8	.3071	102	4	162	6 ⅜	305078	40.25	306078	39.80
7.9	.3110	102	4	162	6 ⅜	305079	40.25	306079	39.80
8.0	.3150	105	4 ⅛	165	6 ½	305080	37.80	306080	39.80
8.1	.3189	105	4 ⅛	165	6 ½	305081	40.25	306081	39.80
8.2	.3228	105	4 ⅛	165	6 ½	305082	42.90	306082	42.25
8.3	.3268	105	4 ⅛	165	6 ½	305083	42.90	306083	42.25
8.4	.3307	105	4 ⅛	165	6 ½	305084	42.90	306084	42.25
8.5	.3346	105	4 ⅛	165	6 ½	305085	39.60	306085	45.05

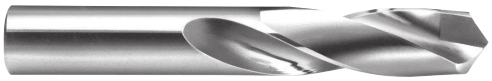
TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		135° POINT	
mm	INCH	mm	INCH	mm	INCH	LIST 305 EDP NO.	PRICE EACH	LIST 306 EDP NO.	PRICE EACH
8.6	.3386	105	4 ⅛	165	6 ½	305086	$45.70	306086	$45.05
8.7	.3425	105	4 ⅛	165	6 ½	305087	45.70	306087	45.05
8.8	.3465	108	4 ¼	171	6 ¾	305088	45.70	306088	45.05
8.9	.3504	108	4 ¼	171	6 ¾	305089	45.70	306089	45.05
9.0	.3543	108	4 ¼	171	6 ¾	305090	42.80	306090	49.45
9.1	.3583	108	4 ¼	171	6 ¾	305091	50.05	306091	49.45
9.2	.3622	108	4 ¼	171	6 ¾	305092	50.05	306092	49.45
9.3	.3661	108	4 ¼	171	6 ¾	305093	50.05	306093	49.45
9.4	.3701	108	4 ¼	171	6 ¾	305094	50.05	306094	49.45
9.5	.3740	108	4 ¼	171	6 ¾	305095	43.80	306095	49.45
9.6	.3780	111	4 ⅜	178	7	305096	52.55	306096	51.85
9.7	.3819	111	4 ⅜	178	7	305097	52.55	306097	51.85
9.8	.3858	111	4 ⅜	178	7	305098	52.55	306098	51.85
9.9	.3898	111	4 ⅜	178	7	305099	52.55	306099	51.85
10.0	.3937	111	4 ⅜	178	7	305100	46.10	306100	53.10
10.1	.3976	111	4 ⅜	178	7	305101	53.80	306101	53.10
10.2	.4016	111	4 ⅜	178	7	305102	56.10	306102	55.30
10.3	.4055	111	4 ⅜	178	7	305103	56.10	306103	55.30
10.4	.4094	117	4 ⅝	184	7 ¼	305104	58.60	306104	57.65
10.5	.4134	117	4 ⅝	184	7 ¼	305105	52.45	306105	57.65
10.6	.4173	117	4 ⅝	184	7 ¼	305106	61.40	306106	60.60
10.7	.4213	117	4 ⅝	184	7 ¼	305107	61.40	306107	60.60
10.8	.4252	117	4 ⅝	184	7 ¼	305108	61.40	306108	60.60
10.9	.4291	117	4 ⅝	184	7 ¼	305109	61.40	306109	60.60
11.0	.4331	117	4 ⅝	184	7 ¼	305110	56.70	306110	60.85
11.5	.4528	121	4 ¾	190	7 ½	305115	63.65	306115	67.30
12.0	.4724	121	4 ¾	197	7 ¾	305120	69.65	306120	70.80
12.5	.4921	121	4 ¾	197	7 ¾	305125	72.25	306125	70.80
13.0	.5118	121	4 ¾	203	8	305130	86.90	306130	99.55
13.5	.5315	121	4 ¾	203	8	305135	87.60	306135	100.40
14.0	.5512	124	4 ⅞	210	8 ¼	305140	87.60	306140	100.40
14.5	.5709	124	4 ⅞	222	8 ¾	305145	96.70	306145	111.00
15.0	.5906	124	4 ⅞	222	8 ¾	305150	96.70	306150	111.00
15.5	.6102	124	4 ⅞	222	8 ¾	305155	111.20	306155	127.40
16.0	.6299	130	5 ⅛	229	9	305160	122.95	306160	141.00
16.5	.6496	130	5 ⅛	229	9	305165	122.95	306165	141.00
17.0	.6693	137	5 ⅜	235	9 ¼	305170	141.05	306170	161.70
17.5	.6890	143	5 ⅝	241	9 ½	305175	128.95	306175	141.70
18.0	.7087	143	5 ⅝	241	9 ½	305180	130.45	306180	143.10
18.5	.7283	149	5 ⅞	248	9 ¾	305185	131.15	306185	143.90
19.0	.7480	149	5 ⅞	248	9 ¾	305190	133.10	306190	146.10
19.5	.7677	152	6	251	9 ⅞	305195	138.60	306195	152.20
20.0	.7874	156	6 ⅛	254	10	305200	141.35	306200	155.30
20.5	.8071	156	6 ⅛	254	10	305205	144.10	306205	158.35
21.0	.8268	156	6 ⅛	254	10	305210	146.90	306210	161.40
21.5	.8465	156	6 ⅛	254	10	305215	152.40	306215	167.50
22.0	.8661	156	6 ⅛	254	10	305220	155.15	306220	170.60
22.5	.8858	156	6 ⅛	254	10	305225	157.90	306225	173.65
23.0	.9055	156	6 ⅛	254	10	305230	160.70	306230	176.70
23.5	.9252	156	6 ⅛	273	10 ¾	305235	166.20	306235	182.80
24.0	.9449	162	6 ⅜	279	11	305240	168.95	306240	185.90
24.5	.9646	162	6 ⅜	279	11	305245	171.70	306245	188.95
25.0	.9843	162	6 ⅜	279	11	305250	174.50	306250	192.00
-	-	-	-	-	-	-	-	-	-

Overall length tolerance +¼" / -⅛". All other tolerances on page 36.

Made in the USA

CNC STUB LENGTH TWIST DRILLS

CARBIDE TIPPED



List No. 436 - 118° Standard Point Use: For general purpose drilling.

List No. 437 - 135° Split Point Use: For tough & abrasive materials.

Good starting drill. CNC machining center drill. Shallow hole drill. **Not recommended for use in steel.**

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 436 EDP NO.	PRICE EACH	LIST 437 EDP NO.	PRICE EACH
.1160		32	7/8	1 7/8	43808	$24.30	43908	$27.00
.1200		31	7/8	1 7/8	43809	24.30	43909	27.00
.1250	1/8		7/8	1 7/8	43608	18.25	43708	19.70
.1285		30	15/16	1 15/16	43810	25.75	43910	28.40
.1360		29	15/16	1 15/16	43811	25.75	43911	28.40
.1405		28	15/16	1 15/16	43812	25.75	43912	28.40
.1406	9/64		15/16	1 15/16	43609	22.10	43709	26.00
.1440		27	1	2 1/16	43813	25.75	43913	28.40
.1470		26	1	2 1/16	43814	25.75	43914	28.40
.1495		25	1	2 1/16	43815	25.75	43915	28.40
.1520		24	1	2 1/16	43816	25.75	43916	28.40
.1540		23	1	2 1/16	43817	25.75	43917	28.40
.1562	5/32		1	2 1/16	43610	19.30	43710	21.00
.1570		22	1 1/16	2 1/8	43818	25.75	43918	28.40
.1590		21	1 1/16	2 1/8	43819	25.75	43919	28.40
.1610		20	1 1/16	2 1/8	43820	29.90	43920	33.30
.1660		19	1 1/16	2 1/8	43821	29.90	43921	33.30
.1695		18	1 1/16	2 1/8	43822	29.90	43922	33.30
.1719	11/64		1 1/16	2 1/8	43611	26.30	43711	28.25
.1730		17	1 1/8	2 3/16	43823	30.50	43923	33.85
.1770		16	1 1/8	2 3/16	43824	30.50	43924	33.85
.1800		15	1 1/8	2 3/16	43825	30.50	43925	33.85
.1820		14	1 1/8	2 3/16	43826	30.50	43926	33.85
.1850		13	1 1/8	2 3/16	43827	30.50	43927	33.85
.1875	3/16		1 1/8	2 3/16	43612	20.30	43712	22.25
.1890		12	1 3/16	2 1/4	43828	30.30	43928	33.60
.1910		11	1 3/16	2 1/4	43829	30.30	43929	33.60
.1935		10	1 3/16	2 1/4	43830	30.30	43930	33.60
.1960		9	1 3/16	2 1/4	43831	30.30	43931	33.60
.1990		8	1 3/16	2 1/4	43832	30.30	43932	33.60
.2010		7	1 3/16	2 1/4	43600	26.60	43700	31.90
.2031	13/64		1 3/16	2 1/4	43613	26.30	43713	28.25
.2040		6	1 1/4	2 3/8	43833	30.50	43933	33.85
.2055		5	1 1/4	2 3/8	43834	30.50	43934	33.85
.2090		4	1 1/4	2 3/8	43835	30.50	43935	33.85
.2130		3	1 1/4	2 3/8	43601	26.60	43701	31.90
.2188	7/32		1 1/4	2 3/8	43614	21.85	43714	24.20
.2210		2	1 5/16	2 7/16	43836	30.30	43936	33.60
.2280		1	1 5/16	2 7/16	43602	26.60	43702	33.60
.2340		A	1 5/16	2 7/16	43837	30.30	43937	33.60
.2344	15/64		1 5/16	2 7/16	43615	24.20	43715	28.90
.2380		B	1 3/8	2 1/2	43838	30.30	43938	33.60
.2420		C	1 3/8	2 1/2	43603	30.30	43703	33.60
.2460		D	1 3/8	2 1/2	43604	26.60	43704	31.90
.2500	1/4	E	1 3/8	2 1/2	43616	22.20	43716	25.60
.2570		F	1 7/16	2 5/8	43605	30.95	43705	37.20
.2610		G	1 7/16	2 5/8	43606	30.95	43706	37.20
.2656	17/64		1 7/16	2 5/8	43617	27.00	43717	32.05
.2660		H	1 1/2	2 11/16	43607	29.95	43707	38.90
.2720		I	1 1/2	2 11/16	43681	30.95	43781	37.20
.2770		J	1 1/2	2 11/16	43839	35.00	43939	38.90
.2810		K	1 1/2	2 11/16	43840	35.00	43940	38.90
.2812	9/32		1 1/2	2 11/16	43618	25.55	43718	29.75
.2900		L	1 9/16	2 3/4	43841	36.10	43941	40.00
.2950		M	1 9/16	2 3/4	43842	36.10	43942	40.00
.2969	19/64		1 9/16	2 3/4	43619	30.95	43719	36.65
.3020		N	1 5/8	2 13/16	43843	41.40	43943	46.10
.3125	5/16		1 5/8	2 13/16	43620	27.20	43720	31.70
.3160		O	1 11/16	2 15/16	43682	38.10	43782	45.95
.3230		P	1 11/16	2 15/16	43844	43.30	43944	48.10
.3281	21/64		1 11/16	2 15/16	43621	33.60	43721	39.00

TOOL DIAMETER			FLUTE LENGTH	OAL	118° POINT		135° POINT	
DEC.	FRAC.	WIRE LETTER			LIST 436 EDP NO.	PRICE EACH	LIST 437 EDP NO.	PRICE EACH
.3320		Q	1 11/16	3	43683	$38.10	43783	$45.95
.3390		R	1 11/16	3	43684	38.10	43784	45.95
.3438	11/32		1 11/16	3	43622	31.75	43722	36.65
.3480		S	1 3/4	3 1/16	43845	43.75	43945	48.65
.3580		T	1 3/4	3 1/16	43846	43.75	43946	48.65
.3594	23/64		1 3/4	3 1/16	43623	34.60	43723	40.25
.3680		U	1 13/16	3 1/8	43685	39.20	43785	47.10
.3750	3/8		1 13/16	3 1/8	43624	32.50	43724	37.60
.3770		V	1 7/8	3 1/4	43847	50.45	43947	56.00
.3860		W	1 7/8	3 1/4	43686	44.50	43786	53.50
.3906	25/64		1 7/8	3 1/4	43625	38.50	43725	44.75
.3970		X	1 15/16	3 5/16	43687	44.50	43787	56.00
.4040		Y	1 15/16	3 5/16	43848	50.45	43948	56.00
.4062	13/32		1 15/16	3 5/16	43626	38.50	43726	44.75
.4130		Z	2	3 3/8	43849	57.35	43949	63.80
.4219	27/64		2	3 3/8	43627	42.70	43727	48.65
.4375	7/16		2 1/16	3 7/16	43628	41.20	43728	45.70
.4531	29/64		2 1/8	3 9/16	43629	54.90	43729	70.55
.4688	15/32		2 1/8	3 5/8	43630	58.60	43730	68.15
.4844	31/64		2 3/16	3 11/16	43631	52.55	43731	67.55
.5000	1/2		2 1/4	3 3/4	43632	56.10	43732	65.20
.5156	33/64		2 3/8	3 7/8	43633	83.70	43733	93.20
.5312	17/32		2 3/8	3 7/8	43634	69.90	43734	78.90
.5469	35/64		2 1/2	4	43635	83.70	43735	93.20
.5625	9/16		2 1/2	4	43636	69.90	43736	78.90
.5781	37/64		2 5/8	4 1/8	43637	97.75	43737	108.70
.5938	19/32		2 5/8	4 1/8	43638	80.15	43738	90.40
.6094	39/64		2 3/4	4 1/4	43639	97.75	43739	108.70
.6250	5/8		2 3/4	4 1/4	43640	80.15	43740	90.40
.6406	41/64		2 7/8	4 1/2	43641	116.70	43741	129.85
.6562	21/32		2 7/8	4 1/2	43642	96.35	43742	108.80
.6719	43/64		2 7/8	4 5/8	43643	119.65	43743	133.00
.6875	11/16		2 7/8	4 5/8	43644	99.00	43744	111.60
.7031	45/64		3	4 3/4	43645	135.25	43745	150.25
.7188	23/32		3	4 3/4	43646	112.10	43746	130.20
.7344	47/64		3 1/8	5	43647	135.40	43747	150.65
.7500	3/4		3 1/8	5	43648	112.50	43748	126.65
.7656	49/64		3 1/4	5 1/8	43649	144.85	43749	161.20
.7812	25/32		3 1/4	5 1/8	43650	138.95	43750	161.30
.7969	51/64		3 3/8	5 1/4	43651	162.10	43751	180.35
.8125	13/16		3 3/8	5 1/4	43652	139.10	43752	156.85
.8281	53/64		3 1/2	5 3/8	43653	158.90	43753	176.60
.8438	27/32		3 1/2	5 3/8	43654	152.20	43754	176.80
.8594	55/64		3 1/2	5 1/2	43655	177.90	43755	197.90
.8750	7/8		3 1/2	5 1/2	43656	152.60	43756	171.95
.8906	57/64		3 5/8	5 5/8	43657	170.65	43757	189.70
.9062	29/32		3 5/8	5 5/8	43658	163.60	43758	189.80
.9219	59/64		3 3/4	5 3/4	43659	190.90	43759	212.45
.9375	15/16		3 3/4	5 3/4	43660	163.80	43760	184.70
.9531	61/64		3 7/8	5 7/8	43661	190.90	43761	212.45
.9688	31/32		3 7/8	5 7/8	43662	172.80	43762	200.65
.9844	63/64		4	6	43663	201.85	43763	224.60
1.0000	1		4	6	43664	173.05	43764	195.25
1.0312	1 1/32*		4	6 1/4	43850	252.90	43950	281.20
1.0625	1 1/16*		4	6 1/4	43668	216.70	43768	244.55
1.0938	1 3/32*		4	6 3/8	43851	280.60	43951	312.20
1.1250	1 1/8*		4	6 3/8	43672	240.65	43772	271.25
1.1562	1 5/32*		4 1/4	6 5/8	43852	342.50	43952	381.10
1.1875	1 3/16*		4 1/4	6 5/8	43676	293.75	43776	329.20
1.2188	1 7/32*		4 3/8	6 3/4	43853	342.50	43953	381.10
1.2500	1 1/4*		4 3/8	6 3/4	43680	293.75	43780	329.20

*1" shank diameter, 2 1/4" long. Tolerances on page 36.

CNC STUB LENGTH TWIST DRILLS

METRIC

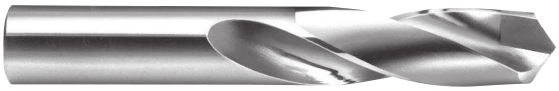
CARBIDE TIPPED

List No. 303 - 118° Standard Point

Use: For general purpose drilling.

List No. 304 - 135° Split Point

Use: For tough & abrasive materials.
Good starting drill. CNC machining center drill.
Shallow hole drill.



DISCONTINUED - WHILE SUPPLIES LAST

Not recommended for use in steel.

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		135° POINT	
mm	INCH	mm	INCH	mm	INCH	LIST 303 EDP NO.	PRICE EACH	LIST 304 EDP NO.	PRICE EACH
3.0	.1181	22	7/8	48	1 7/8	303030	$24.20	304030	$26.65
3.1	.1220	22	7/8	48	1 7/8	303031	24.20	304031	26.65
3.2	.1260	24	15/16	49	1 15/16	303032	24.20	304032	26.65
3.3	.1299	24	15/16	49	1 15/16	303033	24.20	304033	26.65
3.4	.1339	24	15/16	49	1 15/16	303034	24.20	304034	26.65
3.5	.1378	24	15/16	49	1 15/16	303035	20.70	304035	23.70
3.6	.1417	25	1	52	2 1/16	303036	24.20	304036	26.65
3.7	.1457	25	1	52	2 1/16	303037	24.20	304037	26.65
3.8	.1496	25	1	52	2 1/16	303038	24.20	304038	26.65
3.9	.1535	25	1	52	2 1/16	303039	24.20	304039	38.80
4.0	.1575	27	1 1/16	54	2 1/8	303040	20.70	304040	23.75
4.1	.1614	27	1 1/16	54	2 1/8	303041	28.85	304041	31.75
4.2	.1654	27	1 1/16	54	2 1/8	303042	28.85	304042	31.75
4.3	.1693	27	1 1/16	54	2 1/8	303043	28.85	304043	31.75
4.4	.1732	29	1 1/8	56	2 3/16	303044	28.85	304044	31.75
4.5	.1772	29	1 1/8	56	2 3/16	303045	24.65	304045	28.30
4.6	.1811	29	1 1/8	56	2 3/16	303046	28.85	304046	31.75
4.7	.1850	29	1 1/8	56	2 3/16	43827	30.50	43927	33.85
4.8	.1890	30	1 3/16	57	2 1/4	43828	30.30	43928	33.60
4.9	.1929	30	1 3/16	57	2 1/4	303049	28.85	304049	31.75
5.0	.1969	30	1 3/16	57	2 1/4	303050	24.65	304050	28.30
5.1	.2008	30	1 3/16	57	2 1/4	303051	28.85	304051	31.75
5.2	.2047	32	1 1/4	60	2 3/8	303052	28.85	304052	31.75
5.3	.2087	32	1 1/4	60	2 3/8	303053	28.85	304053	31.75
5.4	.2126	32	1 1/4	60	2 3/8	303054	28.85	304054	31.75
5.5	.2165	32	1 1/4	60	2 3/8	303055	24.65	304055	28.30
5.6	.2205	33	1 5/16	62	2 7/16	303056	28.85	304056	31.75
5.7	.2244	33	1 5/16	62	2 7/16	303057	28.85	304057	31.75
5.8	.2283	33	1 5/16	62	2 7/16	303058	28.85	304058	31.75
5.9	.2323	33	1 5/16	62	2 7/16	303059	28.85	304059	31.75
6.0	.2362	35	1 3/8	64	2 1/2	303060	23.05	304060	26.40
6.1	.2402	35	1 3/8	64	2 1/2	303061	29.75	304061	33.00
6.2	.2441	35	1 3/8	64	2 1/2	303062	29.75	304062	33.00
6.3	.2480	35	1 3/8	64	2 1/2	303063	29.75	304063	33.00
6.4	.2520	37	1 7/16	67	2 5/8	303064	29.75	304064	33.00
6.5	.2559	37	1 7/16	67	2 5/8	303065	25.55	304065	29.30
6.6	.2598	37	1 7/16	67	2 5/8	303066	29.75	304066	33.00
6.7	.2638	37	1 7/16	67	2 5/8	303067	29.75	304067	33.00
6.8	.2677	38	1 1/2	68	2 11/16	303068	29.75	304068	33.00
6.9	.2717	38	1 1/2	68	2 11/16	303069	29.75	304069	33.00
7.0	.2756	38	1 1/2	68	2 11/16	303070	25.55	304070	29.30
7.1	.2795	38	1 1/2	68	2 11/16	303071	29.75	304071	33.00
7.2	.2835	40	1 9/16	70	2 3/4	303072	34.20	304072	37.75
7.3	.2874	40	1 9/16	70	2 3/4	303073	34.20	304073	37.75
7.4	.2913	40	1 9/16	70	2 3/4	303074	34.20	304074	37.75
7.5	.2953	40	1 9/16	70	2 3/4	303075	29.35	304075	33.50
7.6	.2992	41	1 5/8	71	2 13/16	303076	34.20	304076	37.75
7.7	.3031	41	1 5/8	71	2 13/16	303077	34.20	304077	37.75
7.8	.3071	41	1 5/8	71	2 13/16	303078	34.20	304078	37.75
7.9	.3110	41	1 5/8	71	2 13/16	303079	34.20	304079	37.75
8.0	.3150	43	1 11/16	75	2 15/16	303080	29.35	304080	33.50

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		118° POINT		135° POINT	
mm	INCH	mm	INCH	mm	INCH	LIST 303 EDP NO.	PRICE EACH	LIST 304 EDP NO.	PRICE EACH
8.1	.3189	43	1 11/16	75	2 15/16	303081	$36.80	304081	$40.30
8.2	.3228	43	1 11/16	75	2 15/16	303082	36.80	304082	40.30
8.3	.3268	43	1 11/16	75	2 15/16	303083	36.80	304083	40.30
8.4	.3307	43	1 11/16	76	3	303084	36.80	304084	40.30
8.5	.3346	43	1 11/16	76	3	303085	31.55	304085	35.65
8.6	.3386	43	1 11/16	76	3	303086	36.80	304086	40.30
8.7	.3425	43	1 11/16	76	3	303087	37.40	304087	41.20
8.8	.3465	44	1 3/4	78	3 1/16	303088	37.40	304088	41.20
8.9	.3504	44	1 3/4	78	3 1/16	303089	37.40	304089	41.20
9.0	.3543	44	1 3/4	78	3 1/16	303090	32.10	304090	36.80
9.1	.3583	44	1 3/4	78	3 1/16	303091	37.40	304091	41.20
9.2	.3622	46	1 13/16	79	3 1/8	303092	37.40	304092	41.20
9.3	.3661	46	1 13/16	79	3 1/8	303093	37.40	304093	41.20
9.4	.3701	46	1 13/16	79	3 1/8	303094	37.40	304094	41.20
9.5	.3740	46	1 13/16	79	3 1/8	303095	32.10	304095	36.80
9.6	.3780	48	1 7/8	83	3 1/4	303096	41.60	304096	45.90
9.7	.3819	48	1 7/8	83	3 1/4	303097	41.60	304097	45.90
9.8	.3858	48	1 7/8	83	3 1/4	303098	41.60	304098	45.90
9.9	.3898	48	1 7/8	83	3 1/4	303099	41.60	304099	45.90
10.0	.3937	49	1 15/16	84	3 5/16	303100	35.70	304100	40.85
10.5	.4134	51	2	86	3 3/8	303105	39.90	304105	44.45
11.0	.4331	52	2 1/16	87	3 7/16	303110	39.90	304110	44.45
11.5	.4528	54	2 1/8	90	3 9/16	303115	56.15	304115	62.20
12.0	.4724	56	2 3/16	94	3 11/16	303120	53.70	304120	59.60
12.5	.4921	57	2 1/4	95	3 3/4	303125	53.70	304125	59.60
13.0	.5118	60	2 3/8	98	3 7/8	303130	66.35	304130	72.05
13.5	.5315	60	2 3/8	98	3 7/8	303135	65.10	304135	72.05
14.0	.5512	64	2 1/2	102	4	303140	65.10	304140	72.05
14.5	.5709	67	2 5/8	105	4 1/8	303145	91.70	304145	101.05
15.0	.5906	67	2 5/8	105	4 1/8	303150	91.70	304150	101.05
15.5	.6102	70	2 3/4	108	4 1/4	303155	103.40	304155	114.00
16.0	.6299	73	2 7/8	114	4 1/2	303160	116.50	304160	128.45
16.5	.6496	73	2 7/8	114	4 1/2	303165	116.50	304165	128.45
17.0	.6693	73	2 7/8	117	4 5/8	303170	116.50	304170	128.45
17.5	.6890	76	3	121	4 3/4	303175	128.50	304175	141.60
18.0	.7087	76	3	121	4 3/4	303180	128.50	304180	141.60
18.5	.7283	79	3 1/8	127	5	303185	140.40	304185	154.75
19.0	.7480	79	3 1/8	127	5	303190	140.40	304190	154.75
19.5	.7677	83	3 1/4	130	5 1/8	303195	155.30	304195	171.20
20.0	.7874	86	3 3/8	133	5 1/4	303200	173.65	304200	191.20
20.5	.8071	86	3 3/8	133	5 1/4	303205	173.65	304205	191.20
21.0	.8268	89	3 1/2	137	5 3/8	303210	190.60	304210	209.95
21.5	.8465	89	3 1/2	140	5 1/2	303215	190.60	304215	209.95
22.0	.8661	89	3 1/2	140	5 1/2	303220	190.60	304220	209.95
22.5	.8858	92	3 5/8	143	5 5/8	303225	196.15	304225	216.05
23.0	.9055	92	3 5/8	143	5 5/8	303230	196.15	304230	216.05
23.5	.9252	95	3 3/4	146	5 3/4	303235	201.00	304235	221.35
24.0	.9449	98	3 7/8	149	5 7/8	303240	204.70	304240	225.65
24.5	.9646	98	3 7/8	149	5 7/8	303245	204.70	304245	225.65
25.0	.9843	102	4	152	6	303250	216.25	304250	238.00
-	-	-	-	-	-	-	-	-	-

Tolerances on page 36.

Made in the USA

AIRCRAFT EXTENSION DRILLS

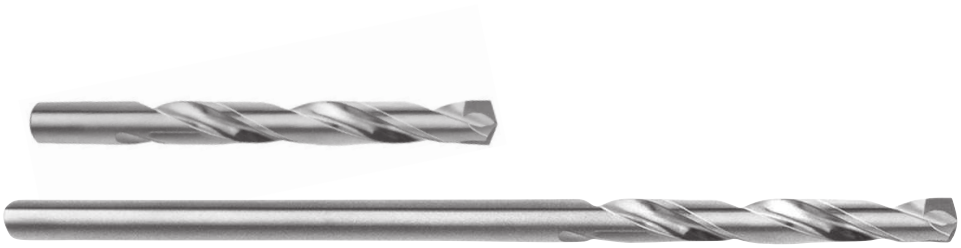
CARBIDE TIPPED

List No. 9610 - 6" Overall Length - 135° Split Point

Use: Drilling where additional reach beyond jobbers or taper length drills is required. Conforms with specification NAS 907. Not recommended for deep hole applications because of relatively short flute length.

List No. 9611 - 12" Overall Length - 135° Split Point

Use: Same as List No. 9610 except 12" overall length.



Not recommended for use in steel.

TOOL DIAMETER			FLUTE LENGTH	6" OVERALL LENGTH		12" OVERALL LENGTH	
DEC.	FRAC.	WIRE LETTER		LIST 9610 EDP NO.	PRICE EACH	LIST 9611 EDP NO.	PRICE EACH
.1160		32	1 5/8	61232	$30.55	61332	$36.10
.1200		31	1 5/8	61231	27.40	61331	32.20
.1250	1/8		1 5/8	61008	21.25	61108	25.00
.1285		30	1 5/8	61230	28.90	61330	33.95
.1360		29	1 3/4	61229	29.80	61329	35.10
.1405		28	1 3/4	61228	30.30	61328	35.75
.1406	9/64		1 3/4	61009	23.05	61109	27.10
.1440		27	1 7/8	61227	31.00	61327	36.40
.1470		26	1 7/8	61226	30.30	61326	35.75
.1495		25	1 7/8	61225	30.30	61325	35.75
.1520		24	2	61224	31.00	61324	36.40
.1540		23	2	61223	30.30	61323	35.75
.1562	5/32		2	61010	22.55	61110	26.60
.1570		22	2	61222	33.10	61322	39.00
.1590		21	2 1/8	61221	32.10	61321	37.85
.1610		20	2 1/8	61220	32.95	61320	38.70
.1660		19	2 1/8	61219	32.95	61319	38.70
.1695		18	2 1/8	61218	32.95	61318	38.70
.1719	11/64		2 1/8	61011	24.70	61111	29.00
.1730		17	2 3/16	61217	32.95	61317	38.70
.1770		16	2 3/16	61216	32.10	61316	37.85
.1800		15	2 3/16	61215	33.10	61315	39.00
.1820		14	2 3/16	61214	32.10	61314	37.85
.1850		13	2 5/16	61213	32.10	61313	37.85
.1875	3/16		2 5/16	61012	24.05	61112	28.40
.1890		12	2 5/16	61212	33.50	61312	39.35
.1910		11	2 5/16	61211	33.85	61311	39.95
.1935		10	2 7/16	61210	33.50	61310	39.35
.1960		9	2 7/16	61209	33.85	61309	39.95
.1990		8	2 7/16	61208	33.85	61308	39.95
.2010		7	2 7/16	61207	33.85	61307	39.95
.2031	13/64		2 7/16	61013	26.40	61113	31.00
.2040		6	2 1/2	61206	34.80	61306	41.00
.2055		5	2 1/2	61205	33.85	61305	39.95
.2090		4	2 1/2	61204	31.85	61304	37.50
.2130		3	2 1/2	61203	33.85	61303	39.95
.2188	7/32		2 1/2	61014	26.40	61114	31.00
.2210		2	2 5/8	61202	33.35	61302	39.20
.2280		1	2 5/8	61201	32.95	61301	38.70
.2340		A	2 5/8	61401	39.60	61501	46.45
.2344	15/64		2 5/8	61015	28.40	61115	33.40

TOOL DIAMETER			FLUTE LENGTH	6" OVERALL LENGTH		12" OVERALL LENGTH	
DEC.	FRAC.	WIRE LETTER		LIST 9610 EDP NO.	PRICE EACH	LIST 9611 EDP NO.	PRICE EACH
.2380		B	2 3/4	61402	$39.60	61502	$46.45
.2420		C	2 3/4	61403	39.60	61503	46.45
.2460		D	2 3/4	61404	38.90	61504	45.70
.2500	1/4	E	2 3/4	61016	28.40	61116	33.40
.2570		F	2 7/8	61406	40.60	61506	47.75
.2610		G	2 7/8	61407	41.50	61507	48.90
.2656	17/64		2 7/8	61017	30.30	61117	35.75
.2660		H	2 7/8	61408	42.40	61508	49.90
.2720		I	2 7/8	61409	41.50	61509	48.90
.2770		J	2 7/8	61410	42.40	61510	49.90
.2810		K	2 15/16	61411	42.40	61511	49.90
.2812	9/32		2 15/16	61018	30.30	61118	35.75
.2900		L	2 15/16	61412	42.40	61512	49.90
.2950		M	3 1/16	61413	46.75	61513	55.00
.2969	19/64		3 1/16	61019	32.95	61119	38.70
.3020		N	3 1/16	61414	45.70	61514	53.80
.3125	5/16		3 3/16	61020	32.95	61120	38.70
.3160		O	3 3/16	61415	43.50	61515	51.10
.3230		P	3 5/16	61416	46.25	61516	54.35
.3281	21/64		3 5/16	61021	35.00	61121	41.20
.3320		Q	3 7/16	61417	47.50	61517	55.85
.3390		R	3 7/16	61418	46.25	61518	54.35
.3438	11/32		3 7/16	61022	35.00	61122	41.20
.3480		S	3 1/2	61419	50.00	61519	58.75
.3580		T	3 1/2	61420	51.25	61520	60.25
.3594	23/64		3 1/2	61023	37.30	61123	43.75
.3680		U	3 5/8	61421	49.25	61521	58.00
.3750	3/8		3 5/8	61024	37.30	61124	43.75
.3770		V	3 5/8	61422	50.00	61522	58.75
.3860		W	3 3/4	61423	53.65	61523	63.05
.3906	25/64		3 3/4	61025	38.30	61125	45.10
.3970		X	3 3/4	61424	50.75	61524	59.75
.4040		Y	3 7/8	61425	52.70	61525	62.00
.4062	13/32		3 7/8	61026	37.80	61126	44.40
.4130		Z	3 7/8	61426	59.45	61526	69.90
.4219	27/64		3 15/16	61027	41.50	61127	48.90
.4375	7/16		4 1/16	61028	41.50	61128	48.90
.4531	29/64		4 3/16	61029	47.70	61129	56.15
.4688	15/32		4 5/16	61030	46.75	61130	55.00
.4844	31/64		4 3/8	61031	52.45	61131	61.70
.5000	1/2		4 1/2	61032	52.45	61132	61.70

Tolerances on page 36.

TAPER SHANK TWIST DRILLS

CARBIDE TIPPED

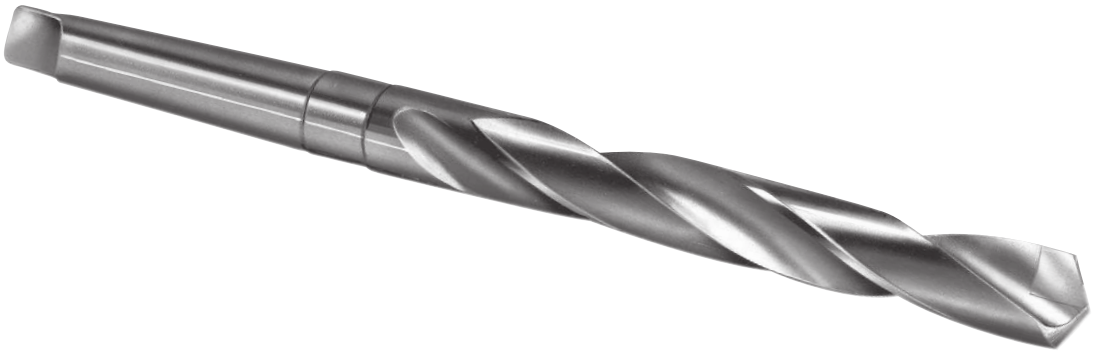
List No. 5302 - 118° Standard Point

Use: For drilling cast iron or non-ferrous materials. Taper shank drive fits directly into tapered machine spindles, drive sleeves or sockets.

List No. 5303 - 135° Split Point

Use: Same taper as above except with 135° split point for drilling tough & abrasive materials.

DISCONTINUED - WHILE SUPPLIES LAST



Not recommended for use in steel.

TOOL DIAM.		MORSE TAPER	FLT. LEN.	OAL	118° POINT		135° POINT	
DEC.	FRAC.				LIST 5302 EDP NO.	PRICE EACH	LIST 5303 EDP NO.	PRICE EACH
.2500	1/4	1	2 7/8	6 1/8	50109	$49.90	50709	$56.60
.2656	17/64	1	3	6 1/4	50110	N/A	50710	N/A
.2812	9/32	1	3	6 1/4	50111	N/A	50711	N/A
.2969	19/64	1	3 1/8	6 3/8	50112	N/A	50712	N/A
.3125	5/16	1	3 1/8	6 3/8	50113	51.05	50713	57.85
.3281	21/64	1	3 1/4	6 1/2	50114	65.00	50714	73.45
.3438	11/32	1	3 1/4	6 1/2	50115	65.00	50715	73.45
.3594	23/64	1	3 1/2	6 3/4	50116	65.00	50716	73.45
.3750	3/8	1	3 1/2	6 3/4	50117	65.00	50717	73.45
.3906	25/64	1	3 5/8	7	50118	75.20	50718	85.20
.4062	13/32	1	3 5/8	7	50119	75.20	50719	85.20
.4219	27/64	1	3 7/8	7 1/4	50120	75.20	50720	85.20
.4375	7/16	1	3 7/8	7 1/4	50121	65.75	50721	74.60
.4531	29/64	1	4 1/8	7 1/2	50122	79.90	50722	90.60
.4688	15/32	1	4 1/8	7 1/2	50123	79.90	50723	90.60
.4844	31/64	2	4 3/8	8 1/4	50124	79.90	50724	90.60
.5000	1/2	2	4 3/8	8 1/4	50125	62.90	50725	83.75
.5156	33/64	2	4 5/8	8 1/2	50126	81.20	50726	97.45
.5312	17/32	2	4 5/8	8 1/2	50127	66.35	50727	86.15
.5469	35/64	2	4 7/8	8 3/4	50128	82.40	50728	98.80
.5625	9/16	2	4 7/8	8 3/4	50129	66.90	50729	87.35
.5781	37/64	2	4 7/8	8 3/4	50130	86.15	50730	103.50
.5938	19/32	2	4 7/8	8 3/4	50131	73.80	50731	96.65
.6094	39/64	2	4 7/8	8 3/4	50132	99.85	50732	119.90
.6250	5/8	2	4 7/8	8 3/4	50133	81.30	50733	105.85
.6406	41/64	2	5 1/8	9	50134	101.45	50734	121.75
.6562	21/32	2	5 1/8	9	50135	79.25	50735	107.65
.6719	43/64	2	5 3/8	9 1/4	50136	102.65	50736	123.30
.6875	11/16	2	5 3/8	9 1/4	50137	81.80	50737	108.90
.7031	45/64	2	5 5/8	9 1/2	50138	105.50	50738	126.55
.7188	23/32	2	5 5/8	9 1/2	50139	90.90	50739	121.40

TOOL DIAM.		MORSE TAPER	FLT. LEN.	OAL	118° POINT		135° POINT	
DEC.	FRAC.				LIST 5302 EDP NO.	PRICE EACH	LIST 5303 EDP NO.	PRICE EACH
.7344	47/64	2	5 7/8	9 3/4	50140	$107.60	50740	$129.10
.7500	3/4	2	5 7/8	9 3/4	50141	93.05	50741	117.40
.7656	49/64	2	6	9 7/8	50142	114.40	50742	137.40
.7812	25/32	2	6	9 7/8	50143	110.80	50743	137.35
.7969	51/64	3	6 1/8	10 3/4	50144	115.60	50744	138.70
.8125	13/16	3	6 1/8	10 3/4	50145	112.00	50745	138.80
.8281	53/64	3	6 1/8	10 3/4	50146	125.40	50746	150.55
.8438	27/32	3	6 1/8	10 3/4	50147	114.35	50747	138.80
.8594	55/64	3	6 1/8	10 3/4	50148	N/A	50748	N/A
.8750	7/8	3	6 1/8	10 3/4	50149	121.60	50749	146.65
.8906	57/64	3	6 1/8	10 3/4	50150	131.00	50750	157.00
.9062	29/32	3	6 1/8	10 3/4	50151	131.90	50751	152.80
.9219	59/64	3	6 1/8	10 3/4	50152	133.40	50752	159.90
.9375	15/16	3	6 1/8	10 3/4	50153	133.80	50753	147.90
.9531	61/64	3	6 3/8	11	50154	N/A	50754	N/A
.9688	31/32	3	6 3/8	11	50155	139.60	50755	161.75
.9844	63/64	3	6 3/8	11	50156	146.10	50756	175.30
1.0000	1	3	6 3/8	11	50157	131.70	50757	159.10
1.0312	1 1/32	3	6 1/2	11 1/8	50158	N/A	50758	N/A
1.0625	1 1/16	3	6 5/8	11 1/4	50159	170.65	50759	216.25
1.0938	1 3/32	4	6 7/8	12 1/2	50160	0.00	50760	0.00
1.1250	1 1/8	4	7 1/8	12 3/4	50161	188.95	50761	239.80
1.1562	1 5/32	4	7 1/4	12 7/8	50162	N/A	50762	N/A
1.1875	1 3/16	4	7 3/8	13	50163	216.50	50763	274.45
1.2188	1 7/32	4	7 1/2	13 1/8	50164	N/A	50764	N/A
1.2500	1 1/4	4	7 7/8	13 1/2	50165	231.65	50765	294.00
1.3125	1 5/16	4	8 5/8	14 1/4	50166	327.70	50766	371.15
1.3750	1 3/8	4	8 7/8	14 1/2	50167	367.25	50767	416.05
1.4375	1 7/16	4	9 1/8	14 3/4	50168	N/A	50768	N/A
1.5000	1 1/2	4	9 3/8	15	50169	402.85	50769	456.55
-	-	-	-	-	-	-	-	-

Tolerances on page 36.

Made in the USA

COOLANT FED DRILLS

CARBIDE TIPPED

List No. 5171 - 125° Four Facet Self-Centering Point - Short Length

DISCONTINUED - WHILE SUPPLIES LAST

Use: For increased feeds in low to medium strength materials. Shank diameter same as tip.

Reasons for coolant feeding:

- Directing the coolant through the tool to the cutting edge improves lubricity and reduces the temperature at the point of contact.
- Reduced heat build-up and improved lubricity lead to lower wear and tear on the drill, thereby improving tool life and reducing cost per hole.
- Depending on application, improved lubricity and reduced heat build-up enable the operator to increase feeds and speeds, thereby reducing cost per hole.
- Hole finishes are improved due to the flushing of the chips away from the drill/workpiece interface, thereby reducing scarring of the workpiece by previously cut chips.

Polished straight flutes.
Tip and shank diameter tolerance: +0"/-.001".
Two coolant passages; Shank coolant hole is not tapped.

TOOL DIAMETER DEC.	TOOL DIAMETER FRAC.	FLT. LEN.	OAL	LIST 5171 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE*
.2500	1/4	2 1/2	4 29/32	31716	$175.30	.2490 - .2530
.2656	17/64	2 3/4	5 5/32	31717	175.30	-
.2812	9/32	2 3/4	5 5/32	31718	175.30	.2640 - .2840
.2969	19/64	3 3/16	5 19/32	31719	175.30	-
.3125	5/16	3 3/16	5 19/32	31720	175.30	.2950 - .3160
.3281	21/64	3 7/16	5 27/32	31721	175.30	-
.3438	11/32	3 7/16	5 27/32	31722	175.30	.3260 - .3460
.3594	23/64	3 5/8	6 1/32	31723	177.20	-
.3750	3/8	3 5/8	6 1/32	31724	177.20	.3540 - .3770
.3906	25/64	3 7/8	6 9/32	31725	181.60	-
.4062	13/32	3 7/8	6 9/32	31726	181.60	.3850 - .4080
.4219	27/64	4 1/16	6 15/32	31727	187.75	-
.4375	7/16	4 1/16	6 15/32	31728	187.75	.4100 - .4390
.4531	29/64	4 5/16	6 23/32	31729	199.90	-
.4688	15/32	4 5/16	6 23/32	31730	199.90	.4391 - .4724
.4844	31/64	4 1/2	6 29/32	31731	205.75	-
.5000	1/2	4 1/2	6 29/32	31732	205.75	.4725 - .5030
.5312	17/32	4 13/16	7 7/32	31734	218.00	.5031 - .5330
.5625	9/16	4 13/16	7 7/32	31736	230.10	.5331 - .5650
.5938	19/32	5 3/16	7 19/32	31738	275.60	.5651 - .5950
.6250	5/8	5 3/16	7 19/32	31740	275.60	.5951 - .6270
.6406	41/64	5 3/16	7 19/32	31741	290.60	-
.6562	21/32	5 3/16	7 19/32	31742	290.60	.6271 - .6570
.6719	43/64	5 5/8	8 1/32	31743	314.40	-
.6875	11/16	5 5/8	8 1/32	31744	314.80	.6571 - .6900
.7031	45/64	5 5/8	8 1/32	31745	323.75	-
.7188	23/32	5 5/8	8 1/32	31746	323.75	.6901 - .7220
.7344	47/64	6 1/16	8 15/32	31747	327.00	-
.7500	3/4	6 1/16	8 15/32	31748	327.00	.7221 - .7530
.7812	25/32	6 1/16	8 9/16	31750	348.20	.7531 - .7840
.8125	13/16	6 1/16	8 9/16	31752	354.00	.7841 - .8160
.8438	27/32	6 1/2	9	31754	375.35	.8161 - .8470
.8750	7/8	6 1/2	9	31756	384.40	.8471 - .8780
.9062	29/32	6 15/16	9 7/16	31758	411.35	.8781 - .9090
.9375	15/16	6 15/16	9 7/16	31760	441.90	.9091 - .9390
.9688	31/32	6 15/16	9 7/16	31762	460.00	.9391 - .9700
1.0000	1	7 3/8	9 7/8	31764	472.10	.9701 - 1.0030
-	-	-	-	-	-	-

*Call for decimal size pricing.

METRIC

TOOL DIAMETER mm	TOOL DIAMETER INCH	FLUTE LENGTH mm	FLUTE LENGTH INCH	OVERALL LENGTH mm	OVERALL LENGTH INCH	LIST 5171 EDP NO.	PRICE EACH	METRIC SIZE RANGE*
**6.5	.2559	64	2 1/2	125	4 29/32	319065	$226.50	-
7.0	.2756	70	2 3/4	131	5 5/32	319070	226.50	6.706 - 7.214
7.5	.2953	81	3 3/16	142	5 19/32	319075	226.50	7.493 - 8.026
8.0	.3150	81	3 3/16	142	5 19/32	319080	226.50	-
8.5	.3346	87	3 7/16	148	5 27/32	319085	218.70	8.280 - 8.788
9.0	.3543	92	3 5/8	153	6 1/32	319090	218.70	8.992 - 9.576
9.5	.3740	92	3 5/8	153	6 1/32	319095	218.70	-
10.0	.3937	98	3 7/8	159	6 9/32	319100	218.70	9.779 - 10.363
10.5	.4134	103	4 1/16	164	6 15/32	319105	226.50	10.414 - 11.151
11.0	.4331	103	4 1/16	164	6 15/32	319110	226.50	-
11.5	.4528	109	4 5/16	171	6 23/32	319115	244.80	11.153 - 12.000
12.0	.4724	109	4 5/16	171	6 23/32	319120	244.80	-
12.5	.4921	114	4 1/2	175	6 29/32	319125	250.00	12.002 - 12.776
13.0	.5118	122	4 13/16	183	7 7/32	319130	265.55	12.779 - 13.538
13.5	.5315	122	4 13/16	183	7 7/32	319135	265.55	-
14.0	.5512	122	4 13/16	183	7 7/32	319140	278.60	13.541 - 14.351
14.5	.5709	131	5 3/16	193	7 19/32	319145	338.45	14.354 - 15.113
15.0	.5906	131	5 3/16	193	7 19/32	319150	338.45	-
15.5	.6102	131	5 3/16	193	7 19/32	319155	338.45	15.116 - 15.926
16.0	.6299	131	5 3/16	193	7 19/32	319160	346.20	15.928 - 16.688
16.5	.6496	131	5 3/16	193	7 19/32	319165	346.20	-
17.0	.6693	143	5 5/8	204	8 1/32	319170	369.65	16.690 - 17.526
17.5	.6890	143	5 5/8	204	8 1/32	319175	369.65	-
18.0	.7087	143	5 5/8	204	8 1/32	319180	388.00	17.529 - 18.339
18.5	.7283	154	6 1/16	215	8 15/32	319185	390.50	18.341 - 19.126
19.0	.7480	154	6 1/16	215	8 15/32	319190	390.50	-
19.5	.7677	154	6 1/16	217	8 9/16	319195	414.05	19.129 - 19.914
20.0	.7874	154	6 1/16	217	8 9/16	319200	419.30	19.916 - 20.726
20.5	.8071	154	6 1/16	217	8 9/16	319205	419.30	-
21.0	.8268	165	6 1/2	229	9	319210	442.60	20.729 - 21.514
21.5	.8465	165	6 1/2	229	9	319215	442.60	-
22.0	.8661	165	6 1/2	229	9	319220	453.05	21.516 - 22.301
22.5	.8858	176	6 15/16	240	9 7/16	319225	499.90	22.304 - 23.089
23.0	.9055	176	6 15/16	240	9 7/16	319230	499.90	-
23.5	.9252	176	6 15/16	240	9 7/16	319235	518.15	23.091 - 23.851
24.0	.9449	176	6 15/16	240	9 7/16	319240	538.90	23.853 - 24.638
24.5	.9646	176	6 15/16	240	9 7/16	319245	534.40	-
25.0	.9843	187	7 3/8	251	9 7/8	319250	538.90	24.641 25.476

**6.5mm tool diameter has 6.35 mm shank diameter.

SUPER TOOL, INC. – Phone 800-237-1395 – Fax 941-756-6480

Made in the USA

Tolerances on page 36.

COOLANT FED DRILLS

CARBIDE TIPPED

List No. 5173 - 125° Four Facet Self-Centering Point - Long Length

Use: For increased feeds in low to medium strength materials. Shank & tip same diameter, undersize drill body.

DISCONTINUED - WHILE SUPPLIES LAST

Two coolant passages.
Tip and shank diameter tolerance: +0"/-.001".
Shank coolant hole is not tapped. Polished straight flutes.

TOOL DIAMETER		FLT. LEN.	OAL	LIST 5173 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE*
DECIMAL	FRAC.					
.2500	¼	4 ⅝	6 ⅛	31516	$192.00	.2490 - .2530
.2656	17/64	4 ¾	6 ¼	31517	192.00	-
.2812	9/32	4 ¾	6 ¼	31518	192.00	.2640 - .2840
.2969	19/64	4 ⅞	6 ⅜	31519	192.00	-
.3125	5/16	4 ⅞	6 ⅜	31520	192.00	.2950 - .3160
.3281	21/64	5	6 ½	31521	184.80	-
.3438	11/32	5	6 ½	31522	184.80	.3260 - .3460
.3594	23/64	5 ¼	6 ¾	31523	180.05	-
.3750	⅜	5 ¼	6 ¾	31524	187.00	.3540 - .3770
.3906	25/64	5 ½	7	31525	184.80	-
.4062	13/32	5 ½	7	31526	184.80	.3850 - .4080
.4219	27/64	5 ¾	7 ¼	31527	190.80	-
.4375	7/16	5 ¾	7 ¼	31528	190.80	.4100 - .4390
.4531	29/64	5 ¾	7 ½	31529	202.80	-
.4688	15/32	5 ¾	7 ½	31530	202.80	.4391 - .4724
.4844	31/64	5 ¾	7 ¾	31531	208.85	-
.5000	½	5 ¾	7 ¾	31532	208.85	.4725 - .5030
.5156	33/64	6	8	31533	224.10	-

TOOL DIAMETER		FLT. LEN.	OAL	LIST 5173 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE*
DECIMAL	FRAC.					
.5312	17/32	6	8	31534	$224.10	.5031 - .5330
.5625	9/16	6 ¼	8 ¼	31536	236.05	.5331 - .5650
.5938	19/32	6 ¾	8 ¾	31538	284.20	.5651 - .5950
.6250	⅝	6 ¾	8 ¾	31540	284.20	.5951 - .6270
.6562	21/32	7	9	31542	299.65	.6271 - .6570
.6875	11/16	7 ¼	9 ¼	31544	320.90	.6571 - .6900
.7188	23/32	7 ½	9 ½	31546	332.90	.6901 - .7220
.7500	¾	7 ¾	9 ¾	31548	335.90	.7221 - .7530
.7656	49/64	7 ⅞	9 ⅞	31549	357.10	-
.7812	25/32	7 ⅞	9 ⅞	31550	357.10	.7531 - .7840
.8125	13/16	8	10	31552	363.10	.7841 - .8160
.8438	27/32	8	10	31554	384.40	.8161 - .8470
.8750	⅞	8	10	31556	393.50	.8471 - .8780
.9062	29/32	8	10	31558	435.90	.8781 - .9090
.9375	15/16	8 ¾	10 ¾	31560	453.95	.9091 - .9390
.9688	31/32	9	11	31562	458.35	.9391 - .9700
1.0000	1	9	11	31564	458.35	.9701 - 1.0030
-	-	-	-	-	-	-

**Call for decimal size pricing.*

List No. 5173 - 125° Four Facet Self-Centering Point - Long Length

Use: Same as above except in metric sizes.

METRIC

DISCONTINUED - WHILE SUPPLIES LAST

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		LIST 5173 EDP NO.	PRICE EACH	METRIC SIZE RANGE*
mm	INCH	mm	INCH	mm	INCH			
**6.5	.2559	117	4 ⅝	156	6 ⅛	313065	$200.10	-
7.0	.2756	121	4 ¾	159	6 ¼	313070	200.10	6.706 - 7.214
7.5	.2953	124	4 ⅞	162	6 ⅜	313075	200.10	7.493 - 8.026
8.0	.3150	124	4 ⅞	162	6 ⅜	313080	200.10	-
8.5	.3346	127	5	165	6 ½	313085	193.25	8.280 - 8.788
9.0	.3543	133	5 ¼	171	6 ¾	313090	193.25	8.992 - 9.576
9.5	.3740	133	5 ¼	171	6 ¾	313095	193.25	-
10.0	.3937	140	5 ½	178	7	313100	193.25	9.779 - 10.363
10.5	.4134	146	5 ¾	184	7 ¼	313105	200.10	10.414 - 11.151
11.0	.4331	146	5 ¾	184	7 ¼	313110	200.10	-
11.5	.4528	146	5 ¾	191	7 ½	313115	216.25	11.153 - 12.000
12.0	.4724	146	5 ¾	191	7 ½	313120	216.25	-
12.5	.4921	146	5 ¾	197	7 ¾	313125	220.85	12.002 - 12.776
13.0	.5118	152	6	203	8	313130	234.60	12.779 - 13.538
13.5	.5315	152	6	203	8	313135	234.60	-
14.0	.5512	159	6 ¼	210	8 ¼	313140	246.10	13.541 - 14.351
14.5	.5709	171	6 ¾	222	8 ¾	313145	298.90	14.354 - 15.113
15.0	.5906	171	6 ¾	222	8 ¾	313150	298.90	-
15.5	.6102	171	6 ¾	222	8 ¾	313155	298.90	15.116 - 15.926

***6.5mm tool diameter has 6.35 mm shank diameter.*

TOOL DIAMETER		FLUTE LENGTH		OVERALL LENGTH		LIST 5173 EDP NO.	PRICE EACH	METRIC SIZE RANGE*
mm	INCH	mm	INCH	mm	INCH			
16.0	.6299	178	7	229	9	313160	$305.90	15.928 - 16.688
16.5	.6496	178	7	229	9	313165	305.90	-
17.0	.6693	184	7 ¼	235	9 ¼	313170	326.50	16.690 - 17.526
17.5	.6890	184	7 ¼	235	9 ¼	313175	326.50	-
18.0	.7087	191	7 ½	241	9 ½	313180	342.70	17.529 - 18.339
18.5	.7283	197	7 ¾	248	9 ¾	313185	344.95	18.341 - 19.126
19.0	.7480	197	7 ¾	248	9 ¾	313190	344.95	-
19.5	.7677	200	7 ⅞	251	9 ⅞	313195	365.75	19.129 - 19.914
20.0	.7874	203	8	254	10	313200	370.40	19.916 - 20.726
20.5	.8071	203	8	254	10	313205	370.40	-
21.0	.8268	203	8	254	10	313210	391.00	20.729 - 21.514
21.5	.8465	203	8	254	10	313215	391.00	-
22.0	.8661	203	8	254	10	313220	400.20	21.516 - 22.301
22.5	.8858	203	8	254	10	313225	441.60	22.304 - 23.089
23.0	.9055	203	8	254	10	313230	441.60	-
23.5	.9252	222	8 ¾	273	10 ¾	313235	457.70	23.091 - 23.851
24.0	.9449	229	9	279	11	313240	476.10	23.853 - 24.638
24.5	.9646	229	9	279	11	313245	476.10	-
25.0	.9843	229	9	279	11	313250	476.10	24.641 - 25.476

**Call for decimal size pricing.*

Tolerances on page 36.

Made in the USA

CORE DRILLS - 4 FLUTE

CARBIDE TIPPED

List No. 5456 - Straight Shank - 118° Included Chamfer Angle
List No. 5454 - Taper Shank - 118° Included Chamfer Angle

Use: For enlarging cored or cast holes in cast iron and other similar abrasive materials. Balanced four flute design enhances cutting action often eliminating final reaming or boring operations. For removal of up to 30% of hole diameter.

Diameter tolerance: +0"/-.001".

TOOL DIAMETER		MIN. CUT DIAM.	LENGTH			LIST 5456		LIST 5454		BOTH LIST PRICE	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.		FLT	CARB	OAL	SHANK DIAM.	EDP NO.	MORSE TAPER	EDP NO.			1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.5000	½	.350	4 ⅜	¾	8 ¼	½	53232	2	53032	$105.55	.4721 - .5030	$144.10	$124.70	$118.30	$115.25	$111.85	$109.40
.5312	17/32	.372	4 ⅜	¾	8 ¼	17/32	53234	2	53034	105.95	.5031 - .5340	144.65	125.30	118.75	115.75	112.40	109.70
.5625	9/16	.394	4 ⅜	¾	8 ¼	9/16	53236	2	53036	105.95	.5341 - .5660	144.65	125.30	118.75	115.75	112.40	109.70
.5938	19/32	.416	4 ⅜	¾	8 ¼	19/32	53238	2	53038	111.30	.5661 - .5970	149.85	130.50	124.10	121.00	117.70	115.15
.6250	⅝	.438	4 ⅜	¾	8 ¼	⅝	53240	2	53040	111.30	.5971 - .6280	149.85	130.50	124.10	121.00	117.70	115.15
.6562	21/32	.459	4 ⅜	¾	8 ¼	21/32	53242	2	53042	112.55	.6281 - .6590	151.20	131.85	125.45	122.25	119.10	116.45
.6875	11/16	.481	4 ⅜	⅞	8 ¼	11/16	53244	2	53044	113.60	.6591 - .6910	152.20	132.90	126.35	123.30	120.00	117.35
.7188	23/32	.503	4 ⅜	⅞	8 ¼	23/32	53246	2	53046	113.60	.6911 - .7220	152.20	132.90	126.35	123.30	120.00	117.35
.7500	¾	.525	4 ⅜	⅞	8 ¼	¾	53248	2	53048	113.60	.7221 - .7530	152.20	132.90	126.35	123.30	120.00	117.35
.7812	25/32	.547	4 ⅜	⅞	8 ¼	25/32	53250	2	53050	116.05	.7531 - .7840	154.65	135.35	128.90	125.80	122.55	119.90
.8125	13/16	.569	4 ⅞	⅞	9 ½	13/16	53252	3	53052	119.30	.7841 - .8160	157.95	138.65	132.10	129.10	125.65	123.20
.8438	27/32	.591	4 ⅞	⅞	9 ½	27/32	53254	3	53054	125.65	.8161 - .8470	164.30	145.00	138.50	135.40	132.10	129.50
.8750	⅞	.612	4 ⅞	⅞	9 ½	⅞	53256	3	53056	125.65	.8471 - .8780	164.30	145.00	138.50	135.40	132.10	129.50
.9062	29/32	.634	4 ⅞	⅞	9 ½	29/32	53258	3	53058	126.45	.8781 - .9090	165.05	145.80	139.25	136.20	132.95	130.30
.9375	15/16	.656	4 ⅞	⅞	9 ½	15/16	53260	3	53060	126.45	.9091 - .9410	165.05	145.80	139.25	136.20	132.95	130.30
.9688	31/32	.678	4 ⅞	⅞	9 ½	31/32	53262	3	53062	131.25	.9411 - .9720	169.70	150.35	144.00	140.95	137.55	135.00
1.0000	1	.700	4 ⅞	⅞	9 ½	1	53264	3	53064	133.65	.9721 - 1.0030	172.25	152.90	146.35	143.35	140.00	137.40
1.0312	1 1/32	.722	4 ⅞	⅞	9 ½	1 1/32	53302	3	53102	134.75	1.0031 - 1.0340	173.30	153.90	147.55	144.40	141.15	138.50
1.0625	1 1/16	.744	4 ⅞	⅞	9 ½	1 1/16	53304	3	53104	136.60	1.0341 - 1.0660	175.25	155.85	149.40	146.30	142.95	140.40
1.0938	1 3/32	.766	4 ⅞	1	10 ½	1 3/32	53306	4	53106	159.10	1.0661 - 1.0970	197.65	178.40	171.90	168.85	165.50	162.90
1.1250	1 ⅛	.787	4 ⅞	1	10 ½	1 ⅛	53308	4	53108	159.10	1.0971 - 1.1280	197.65	178.40	171.90	168.85	165.50	162.90
1.1562	1 5/32	.809	4 ⅞	1	10 ½	1 5/32	53310	4	53110	173.70	1.1281 - 1.1590	212.25	193.00	186.55	183.45	180.15	177.50
1.1875	1 3/16	.831	4 ⅞	1	10 ½	1 3/16	53312	4	53112	178.75	1.1591 - 1.1905	217.30	198.10	191.50	188.45	185.20	182.60
1.2188	1 7/32	.853	4 ⅞	1	10 ½	1 7/32	53314	4	53114	179.40	1.1906 - 1.2220	218.00	198.65	192.25	189.10	185.75	183.20
1.2500	1 ¼	.875	4 ⅞	1	10 ½	1 ¼	53316	4	53116	180.15	1.2221 - 1.2530	218.75	199.40	192.95	189.80	186.55	183.90
1.2812	1 9/32	.897	4 ⅞	1	10 ½	1 9/32	53318	4	53118	193.00	1.2531 - 1.2840	231.60	212.20	205.80	202.65	199.40	196.70
1.3125	1 5/16	.919	4 ⅞	1	10 ½	1 5/16	53320	4	53120	198.35	1.2841 - 1.3150	237.00	217.65	211.10	208.10	204.75	202.10
1.3438	1 11/32	.940	4 ⅞	1	10 ½	1 11/32	53322	4	53122	202.50	1.3151 - 1.3470	241.10	221.80	215.30	212.20	209.00	206.25
1.3750	1 ⅜	.962	4 ⅞	1	10 ½	1 ⅜	53324	4	53124	207.45	1.3471 - 1.3780	246.00	226.70	220.20	217.15	213.85	211.15
1.4062	1 13/32	.984	4 ⅞	1	10 ½	1 13/32	53326	4	53126	212.15	1.3781 - 1.4090	250.75	231.50	224.90	221.85	218.55	215.95
1.4375	1 7/16	1.006	4 ⅞	1	10 ½	1 7/16	53328	4	53128	218.35	1.4091 - 1.4410	257.00	237.70	231.15	228.10	224.80	222.20
1.4688	1 15/32	1.025	4 ⅞	1	10 ½	1 15/32	53330	4	53130	224.85	1.4411 - 1.4720	263.40	244.10	237.70	234.60	231.20	228.70
1.5000	1 ½	1.050	4 ⅞	1	10 ½	1 ½	53332	4	53132	229.75	1.4721 - 1.5030	268.30	248.90	242.50	239.40	236.05	233.55

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 36.

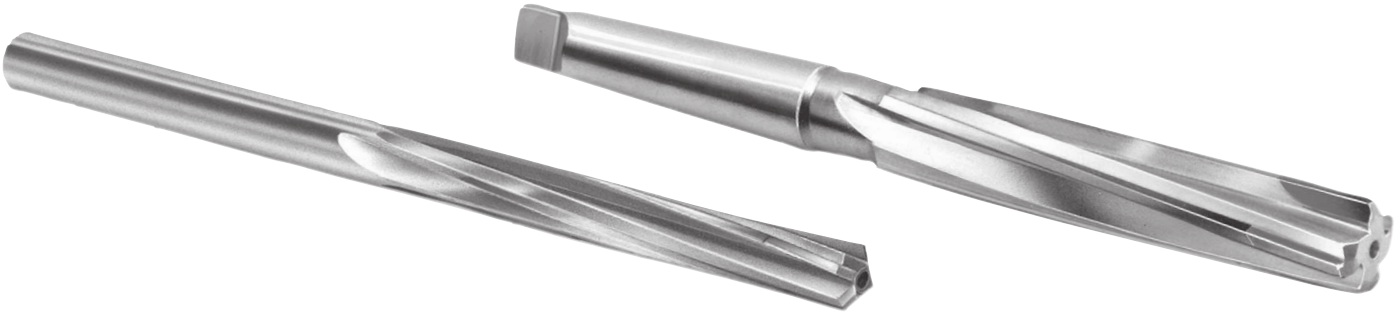
CORE DRILLS - 4 FLUTE

METRIC

CARBIDE TIPPED

List No. 5456 - Straight Shank - 118° Included Chamfer Angle - Metric
List No. 5454 - Taper Shank - 118° Included Chamfer Angle - Metric

Use: For enlarging cored or cast holes in cast iron and other similar abrasive materials. Balanced four flute design enhances cutting action often eliminating final reaming or boring operations. For removal of up to 30% of hole diameter.



TOOL DIAMETER		MIN. CUT DIAM.	LENGTH			LIST 5456		LIST 5454		BOTH LIST PRICE	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	INCH		FLT	CARB	OAL	SHANK DIAM.	EDP NO.	MORSE TAPER	EDP NO.			1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
* 9.0	.3543	.262	3 ½	⅝	6 ¾	⅜	5456090	1	5454090	$118.30	8.815 - 9.601	$147.35	$128.10	$121.55	$118.40	$115.25	$112.50	$108.80
*10.0	.3937	.284	3 ⅝	⅝	7	13/32	5456100	1	5454100	118.30	9.602 - 10.389	147.35	128.10	121.55	118.40	115.25	112.50	108.80
*11.0	.4331	.306	3 ⅞	¾	7 ¼	7/16	5456110	1	5454110	118.30	10.390 - 11.201	147.35	128.10	121.55	118.40	115.25	112.50	108.80
* -	-	.328	4 ⅛	¾	7 ½	15/32	5456119	1	5454119	-	11.202 - 11.989	147.35	128.10	121.55	118.40	115.25	112.50	108.80
12.0	.4724	.350	4 ⅜	¾	8 ¼	½	5456120	2	5454120	118.30	11.990 - 12.776	147.35	128.10	121.55	118.40	115.25	112.50	108.80
13.0	.5118	.372	4 ⅜	¾	8 ¼	17/32	5456130	2	5454130	118.75	12.777 - 13.564	147.75	128.60	122.10	119.05	115.75	113.05	109.40
14.0	.5512	.394	4 ⅜	¾	8 ¼	9/16	5456140	2	5454140	118.75	13.565 - 14.376	147.75	128.60	122.10	119.05	115.75	113.05	109.40
15.0	.5906	.416	4 ⅜	¾	8 ¼	19/32	5456150	2	5454150	124.10	14.377 - 15.164	153.15	133.85	127.40	124.25	121.00	118.30	114.60
-	-	.438	4 ⅜	¾	8 ¼	⅝	5456159	2	5454159	-	15.165 - 15.951	153.15	133.85	127.40	124.25	121.00	118.30	114.60
16.0	.6299	.459	4 ⅜	¾	8 ¼	21/32	5456160	2	5454160	125.45	15.952 - 16.739	154.50	135.20	128.70	125.55	122.25	119.55	115.95
17.0	.6693	.481	4 ⅜	⅞	8 ¼	11/16	5456170	2	5454170	126.35	16.740 - 17.551	155.45	136.10	129.60	126.45	123.30	120.55	116.85
18.0	.7087	.503	4 ⅜	⅞	8 ¼	23/32	5456180	2	5454180	126.35	17.552 - 18.339	155.45	136.10	129.60	126.45	123.30	120.55	116.85
19.0	.7480	.525	4 ⅜	⅞	8 ¼	¾	5456190	2	5454190	126.35	18.340 - 19.126	155.45	136.10	129.60	126.45	123.30	120.55	116.85
-	-	.547	4 ⅜	⅞	8 ¼	25/32	5456199	2	5454199	-	19.127 - 19.914	157.95	138.75	132.30	129.10	125.80	123.20	119.40
20.0	.7874	.569	4 ⅞	⅞	9 ½	13/16	5456200	3	5454200	132.10	19.915 - 20.726	161.15	141.95	135.40	132.35	129.10	126.35	122.65
21.0	.8268	.591	4 ⅞	⅞	9 ½	27/32	5456210	3	5454210	138.50	20.727 - 21.514	167.60	148.30	141.85	138.75	135.40	132.80	129.10
22.0	.8661	.612	4 ⅞	⅞	9 ½	⅞	5456220	3	5454220	138.50	21.515 - 22.301	167.60	148.30	141.85	138.75	135.40	132.80	129.10
23.0	.9055	.634	4 ⅞	⅞	9 ½	29/32	5456230	3	5454230	139.25	22.302 - 23.089	168.35	149.10	142.70	139.40	136.20	133.60	129.85
-	-	.656	4 ⅞	⅞	9 ½	15/16	5456239	3	5454239	-	23.090 - 23.901	168.35	149.10	142.70	139.40	136.20	133.60	129.85
24.0	.9449	.678	4 ⅞	⅞	9 ½	31/32	5456240	3	5454240	144.00	23.902 - 24.689	173.00	153.75	147.30	144.10	140.95	138.15	134.45
25.0	.9843	.700	4 ⅞	⅞	9 ½	1	5456250	3	5454250	146.35	24.690 - 25.476	175.45	156.20	149.75	146.55	143.35	140.65	136.95
26.0	1.0236	.722	4 ⅞	⅞	9 ½	1 1/32	5456260	3	5454260	147.55	25.477 - 26.264	176.55	157.30	150.85	147.65	144.40	141.80	138.00
27.0	1.0630	.744	4 ⅞	⅞	9 ½	1 1/16	5456270	3	5454270	149.40	26.265 - 27.076	178.55	159.15	152.70	149.60	146.30	143.65	139.95
-	-	.766	4 ⅞	1	10 ½	1 3/32	5456279	4	5454279	-	27.077 - 27.864	200.95	181.65	175.25	172.00	168.85	166.10	162.50
28.0	1.1024	.787	4 ⅞	1	10 ½	1 ⅛	5456280	4	5454280	171.90	27.865 - 28.651	200.95	181.65	175.25	172.00	168.85	166.10	162.50
29.0	1.1417	.809	4 ⅞	1	10 ½	1 5/32	5456290	4	5454290	186.55	28.652 - 29.439	215.55	196.35	189.80	186.70	183.45	180.70	176.95
30.0	1.1811	.831	4 ⅞	1	10 ½	1 3/16	5456300	4	5454300	191.50	29.440 - 30.239	220.60	201.30	194.95	191.60	188.45	185.75	182.10
31.0	1.2205	.853	4 ⅞	1	10 ½	1 7/32	5456310	4	5454310	192.25	30.240 - 31.039	221.25	201.95	195.55	192.35	189.10	186.35	182.70
-	-	.875	4 ⅞	1	10 ½	1 ¼	5456319	4	5454319	-	31.040 - 31.826	221.90	202.65	196.30	193.10	189.80	187.15	183.45
32.0	1.2598	.897	4 ⅞	1	10 ½	1 9/32	5456320	4	5454320	205.80	31.827 - 32.614	234.90	215.55	209.10	205.95	202.65	200.00	196.35
33.0	1.2992	.919	4 ⅞	1	10 ½	1 5/16	5456330	4	5454330	211.10	32.615 - 33.401	240.15	220.85	214.40	211.25	208.10	205.40	201.70
34.0	1.3386	.940	4 ⅞	1	10 ½	1 11/32	5456340	4	5454340	215.30	33.402 - 34.214	244.45	225.20	218.65	215.50	212.20	209.60	205.90
35.0	1.3780	.962	4 ⅞	1	10 ½	1 ⅜	5456350	4	5454350	220.20	34.215 - 35.001	249.35	230.00	223.55	220.35	217.15	214.40	210.80
-	-	.984	4 ⅞	1	10 ½	1 13/32	5456359	4	5454359	-	35.002 - 35.789	254.00	234.80	228.20	225.20	221.85	219.20	215.50
36.0	1.4173	1.006	4 ⅞	1	10 ½	1 7/16	5456360	4	5454360	231.15	35.790 - 36.601	260.25	240.95	234.55	231.25	228.10	225.40	221.75
37.0	1.4567	1.025	4 ⅞	1	10 ½	1 15/32	5456370	4	5454370	237.70	36.602 - 37.389	266.70	247.45	240.95	237.85	234.60	231.85	228.15
38.0	1.4961	1.050	4 ⅞	1	10 ½	1 ½	5456380	4	5454380	242.50	37.390 - 38.176	271.50	252.25	245.85	242.60	239.40	236.70	232.95

**3 Flutes*

Tolerances on page 36.

Made in the USA

SOLID CARBIDE - CHUCKING REAMERS

SOLID CARBIDE

List No. 9804 - Straight Shank - Straight Flutes

Use: For general purpose reaming of all materials. .0005" increments, standard decimal diameter reamers. For fractional wire, letter, and metric sizes see page 58. For decimal sizes, left, and right spiral flute styles see page 59

Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".

STOCKED DECIMAL TOOL DIAMETERS .0280" THRU .1475"

DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH
.0280	98040280	$25.50	.0520	98040520	$24.90	.0760	98040760	$25.00	.1000	98041000	$27.75	.1240	98041240	$29.95
.0285	98040285	26.95	.0525	98040525	26.25	.0765	98040765	26.25	.1005	98041005	27.75	.1245	98041245	29.95
.0290	98040290	26.95	.0530	98040530	26.25	.0770	98040770	26.25	.1010	98041010	27.75	.1250	980408	26.25
.0295	98040295	25.50	.0535	98040535	26.25	.0775	98040775	26.25	.1015	98041015	26.45	.1255	98041255	29.95
.0300	98040300	26.95	.0540	98040540	26.25	.0780	98040780	26.25	.1020	98041020	28.00	.1260	9804032	28.45
.0305	98040305	26.95	.0545	98040545	26.25	.0785	98040785	25.05	.1025	98041025	28.10	.1265	98041265	30.05
.0310	98040310	25.50	.0550	98040550	24.90	.0790	98040790	26.35	.1030	98041030	28.10	.1270	98041270	30.05
.0315	9804008	25.50	.0555	98040555	26.25	.0795	98040795	26.35	.1035	98041035	28.10	.1275	98041275	30.05
.0320	98040320	25.50	.0560	98040560	26.25	.0800	98040800	26.35	.1040	98041040	28.10	.1280	98041280	28.50
.0325	98040325	26.95	.0565	98040565	26.25	.0805	98040805	26.35	.1045	98041045	28.10	.1285	98041285	28.50
.0330	98040330	25.50	.0570	98040570	26.25	.0810	98040810	25.05	.1050	98041050	28.10	.1290	98041290	30.05
.0335	98040335	25.50	.0575	98040575	26.25	.0815	98040815	26.45	.1055	98041055	28.10	.1295	98041295	30.05
.0340	98040340	26.00	.0580	98040580	26.25	.0820	98040820	25.20	.1060	98041060	28.10	.1300	98041300	30.05
.0345	98040345	26.00	.0585	98040585	26.25	.0825	98040825	26.45	.1065	98041065	26.70	.1305	98041305	30.05
.0350	98040350	24.75	.0590	98040590	22.85	.0830	98040830	26.45	.1070	98041070	28.50	.1310	98041310	30.05
.0355	98040355	26.00	.0595	98040595	24.10	.0835	98040835	26.45	.1075	98041075	28.50	.1315	98041315	30.05
.0360	98040360	24.75	.0600	98040600	26.10	.0840	98040840	26.45	.1080	98041080	28.50	.1320	98041320	30.05
.0365	98040365	26.00	.0605	98040605	26.10	.0845	98040845	26.45	.1085	98041085	28.90	.1325	98041325	30.05
.0370	98040370	24.75	.0610	98040610	24.70	.0850	98040850	26.45	.1090	98041090	28.90	.1330	98041330	30.05
.0375	98040375	26.00	.0615	98040615	26.10	.0855	98040855	26.45	.1095	98041095	28.90	.1335	98041335	30.05
.0380	98040380	24.75	.0620	98040620	26.10	.0860	98040860	25.20	.1100	98041100	27.50	.1340	98041340	30.05
.0385	98040385	26.00	.0625	980404	22.75	.0865	98040865	26.45	.1105	98041105	29.30	.1345	98041345	30.05
.0390	98040390	24.75	.0630	9804016	24.70	.0870	98040870	26.45	.1110	98041110	28.00	.1350	98041350	30.05
.0395	98040395	26.00	.0635	98040635	24.70	.0875	98040875	26.45	.1115	98041115	29.85	.1355	98041355	30.05
.0400	98040400	24.75	.0640	98040640	26.10	.0880	98040880	26.45	.1120	98041120	29.85	.1360	98041360	28.50
.0405	98040405	26.00	.0645	98040645	26.10	.0885	98040885	26.45	.1125	98041125	29.85	.1365	98041365	30.05
.0410	98040410	24.75	.0650	98040650	26.25	.0890	98040890	25.60	.1130	98041130	28.35	.1370	98041370	30.05
.0415	98040415	26.00	.0655	98040655	26.25	.0895	98040895	27.10	.1135	98041135	29.85	.1375	98041375	30.05
.0420	98040420	24.75	.0660	98040660	26.25	.0900	98040900	27.10	.1140	98041140	29.85	.1380	98041380	30.60
.0425	98040425	26.00	.0665	98040665	26.25	.0905	98040905	27.10	.1145	98041145	29.85	.1385	98041385	30.60
.0430	98040430	24.75	.0670	98040670	25.00	.0910	98040910	27.20	.1150	98041150	29.85	.1390	98041390	30.60
.0435	98040435	26.25	.0675	98040675	26.25	.0915	98040915	27.20	.1155	98041155	29.85	.1395	98041395	30.60
.0440	98040440	26.25	.0680	98040680	26.25	.0920	98040920	27.20	.1160	98041160	28.35	.1400	98041400	30.60
.0445	98040445	26.25	.0685	98040685	26.25	.0925	98040925	25.70	.1165	98041165	29.85	.1405	98041405	28.90
.0450	98040450	26.25	.0690	98040690	26.25	.0930	98040930	27.20	.1170	98041170	29.85	.1410	98041410	31.75
.0455	98040455	26.25	.0695	98040695	26.25	.0935	98040935	25.70	.1175	98041175	29.85	.1415	98041415	31.75
.0460	98040460	26.25	.0700	98040700	25.00	.0940	98040940	27.20	.1180	98041180	29.85	.1420	98041420	31.75
.0465	98040465	24.90	.0705	98040705	26.25	.0945	9804024	25.70	.1185	98041185	29.95	.1425	98041425	31.75
.0470	98040470	26.25	.0710	98040710	26.25	.0950	98040950	27.50	.1190	98041190	29.95	.1430	98041430	31.75
.0475	98040475	26.25	.0715	98040715	26.25	.0955	98040955	27.50	.1195	98041195	29.95	.1435	98041435	31.75
.0480	98040480	26.25	.0720	98040720	26.25	.0960	98040960	26.25	.1200	98041200	28.45	.1440	98041440	30.20
.0485	98040485	26.25	.0725	98040725	26.25	.0965	98040965	26.25	.1205	98041205	29.95	.1445	98041445	31.90
.0490	98040490	26.25	.0730	98040730	25.00	.0970	98040970	27.50	.1210	98041210	29.95	.1450	98041450	31.95
.0495	98040495	26.25	.0735	98040735	26.25	.0975	98040975	27.50	.1215	98041215	29.95	.1455	98041455	31.95
.0500	98040500	26.25	.0740	98040740	26.25	.0980	98040980	26.25	.1220	9804031	28.45	.1460	98041460	32.80
.0505	98040505	26.25	.0745	98040745	26.25	.0985	98040985	27.75	.1225	98041225	29.95	.1465	98041465	32.80
.0510	98040510	26.25	.0750	98040750	26.25	.0990	98040990	27.75	.1230	98041230	29.95	.1470	98041470	31.10
.0515	98040515	26.25	.0755	98040755	26.25	.0995	98040995	26.45	.1235	98041235	29.95	.1475	98041475	32.80

SOLID CARBIDE

List No. 9804 - Straight Shank - Straight Flutes

Use: For general purpose reaming of all materials. .0005" increments, standard decimal diameter reamers. For fractional wire, letter, and metric sizes see page 58. For decimal sizes, left, and right spiral flute styles see page 59.

Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".

STOCKED DECIMAL TOOL DIAMETERS .1480" THRU .2675"

DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH
.1480	98041480	$32.85	.1720	98041720	$38.10	.1960	98041960	$42.35	.2200	98042200	$51.60	.2440	98042440	$55.10
.1485	98041485	32.85	.1725	98041725	38.10	.1965	98041965	44.35	.2205	9804056	48.95	.2445	98042445	55.10
.1490	98041490	32.85	.1730	98041730	36.25	.1970	98041970	44.85	.2210	98042210	48.95	.2450	98042450	55.10
.1495	98041495	31.25	.1735	98041735	38.65	.1975	98041975	44.85	.2215	98042215	53.65	.2455	98042455	55.10
.1500	98041500	32.85	.1740	98041740	38.65	.1980	98041980	44.85	.2220	98042220	53.65	.2460	98042460	52.45
.1505	98041505	32.85	.1745	98041745	38.65	.1985	98041985	44.85	.2225	98042225	53.65	.2465	98042465	55.10
.1510	98041510	32.85	.1750	98041750	38.65	.1990	98041990	42.55	.2230	98042230	53.65	.2470	98042470	55.10
.1515	98041515	32.85	.1755	98041755	39.05	.1995	98041995	46.15	.2235	98042235	53.65	.2475	98042475	55.10
.1520	98041520	31.25	.1760	98041760	39.05	.2000	98042000	46.15	.2240	98042240	53.65	.2480	9804063	52.45
.1525	98041525	34.30	.1765	98041765	39.05	.2005	98042005	46.15	.2245	98042245	53.65	.2485	98042485	55.10
.1530	98041530	34.30	.1770	98041770	37.15	.2010	98042010	43.95	.2250	98042250	53.65	.2490	98042490	55.10
.1535	9804039	32.60	.1775	98041775	39.15	.2015	98042015	46.15	.2255	98042255	53.65	.2495	98042495	55.10
.1540	98041540	32.60	.1780	98041780	39.15	.2020	98042020	46.15	.2260	98042260	53.65	.2500	980416	47.70
.1545	98041545	34.30	.1785	98041785	39.15	.2025	98042025	46.15	.2265	98042265	54.20	.2505	98042505	55.10
.1550	98041550	34.30	.1790	98041790	39.15	.2030	98042030	46.15	.2270	98042270	54.20	.2510	98042510	55.10
.1555	98041555	32.60	.1795	98041795	39.15	.2035	98042035	46.15	.2275	98042275	54.20	.2515	98042515	55.10
.1560	98041560	34.30	.1800	98041800	37.30	.2040	98042040	43.95	.2280	98042280	51.45	.2520	9804064	57.80
.1565	98041565	35.50	.1805	98041805	39.45	.2045	98042045	46.15	.2285	98042285	54.20	.2525	98042525	57.80
.1570	98041570	33.70	.1810	98041810	39.50	.2050	98042050	46.15	.2290	98042290	54.20	.2530	98042530	55.10
.1575	9804040	30.80	.1815	98041815	39.70	.2055	98042055	43.95	.2295	98042295	54.20	.2535	98042535	60.85
.1580	98041580	36.25	.1820	98041820	37.85	.2060	98042060	46.15	.2300	98042300	54.20	.2540	98042540	60.85
.1585	98041585	36.25	.1825	98041825	39.95	.2065	98042065	46.15	.2305	98042305	54.20	.2545	98042545	60.85
.1590	98041590	34.55	.1830	98041830	39.95	.2070	98042070	46.15	.2310	98042310	54.20	.2550	98042550	60.85
.1595	98041595	36.85	.1835	98041835	40.05	.2075	98042075	46.15	.2315	98042315	54.20	.2555	98042555	60.85
.1600	98041600	36.85	.1840	98041840	40.05	.2080	98042080	46.15	.2320	98042320	54.20	.2560	98042560	60.85
.1605	98041605	36.85	.1845	98041845	40.05	.2085	98042085	46.15	.2325	98042325	54.20	.2565	98042565	60.85
.1610	98041610	35.00	.1850	9804047	38.10	.2090	98042090	46.15	.2330	98042330	54.20	.2570	98042570	57.75
.1615	98041615	36.85	.1855	98041855	42.15	.2095	98042095	46.15	.2335	98042335	54.20	.2575	98042575	60.85
.1620	98041620	36.85	.1860	98041860	42.15	.2100	98042100	46.15	.2340	98042340	51.45	.2580	98042580	60.85
.1625	98041625	36.85	.1865	98041865	42.15	.2105	98042105	46.15	.2345	98042345	54.20	.2585	98042585	60.85
.1630	98041630	36.85	.1870	98041870	40.15	.2110	98042110	46.15	.2350	98042350	54.20	.2590	98042590	60.85
.1635	98041635	36.95	.1875	980412	36.55	.2115	98042115	46.15	.2355	98042355	54.20	.2595	98042595	60.85
.1640	98041640	36.85	.1880	98041880	42.25	.2120	98042120	46.15	.2360	98042360	54.20	.2600	98042600	60.85
.1645	98041645	36.85	.1885	98041885	42.25	.2125	98042125	46.15	.2365	98042365	55.10	.2605	98042605	60.85
.1650	98041650	36.85	.1890	9804048	40.15	.2130	98042130	43.95	.2370	98042370	55.10	.2610	98042610	57.75
.1655	98041655	36.85	.1895	98041895	42.70	.2135	98042135	46.15	.2375	98042375	55.10	.2615	98042615	60.85
.1660	98041660	35.20	.1900	98041900	42.70	.2140	98042140	46.15	.2380	98042380	52.45	.2620	98042620	60.85
.1665	98041665	37.30	.1905	98041905	42.70	.2145	98042145	46.15	.2385	98042385	55.10	.2625	98042625	60.85
.1670	98041670	37.30	.1910	98041910	40.65	.2150	98042150	46.15	.2390	98042390	55.10	.2630	98042630	60.85
.1675	98041675	37.30	.1915	98041915	42.80	.2155	98042155	46.15	.2395	98042395	55.10	.2635	98042635	60.85
.1680	98041680	37.30	.1920	98041920	42.80	.2160	98042160	46.15	.2400	98042400	55.10	.2640	98042640	60.85
.1685	98041685	37.30	.1925	98041925	42.80	.2165	9804055	40.15	.2405	98042405	55.10	.2645	98042645	60.85
.1690	98041690	37.30	.1930	98041930	43.25	.2170	98042170	46.15	.2410	98042410	55.10	.2650	98042650	60.85
.1695	98041695	35.55	.1935	98041935	40.90	.2175	98042175	46.15	.2415	98042415	55.10	.2655	98042655	60.85
.1700	98041700	38.10	.1940	98041940	43.25	.2180	98042180	46.15	.2420	98042420	52.45	.2660	98042660	57.75
.1705	98041705	38.10	.1945	98041945	43.25	.2185	98042185	43.95	.2425	98042425	55.10	.2665	98042665	60.85
.1710	98041710	38.10	.1950	98041950	44.35	.2190	98042190	51.60	.2430	98042430	55.10	.2670	98042670	60.85
.1715	98041715	38.10	.1955	98041955	44.35	.2195	98042195	51.60	.2435	98042435	55.10	.2675	98042675	60.85

SOLID CARBIDE

List No. 9804 - Straight Shank - Straight Flutes

Use: For general purpose reaming of all materials. .0005" increments, standard decimal diameter reamers. For fractional wire, letter, and metric sizes see page 58. For decimal sizes, left, and right spiral flute styles see page 59.

Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".

STOCKED DECIMAL TOOL DIAMETERS .2680" THRU .3875"

DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH
.2680	98042680	$60.85	.2920	98042920	$71.30	.3160	98043160	$74.15	.3400	98043400	$90.45	.3640	98043640	$92.75
.2685	98042685	60.85	.2925	98042925	71.30	.3165	98043165	78.95	.3405	98043405	90.45	.3645	98043645	92.75
.2690	98042690	60.85	.2930	98042930	71.30	.3170	98043170	78.95	.3410	98043410	90.45	.3650	98043650	92.75
.2695	98042695	60.85	.2935	98042935	71.30	.3175	98043175	78.95	.3415	98043415	90.45	.3655	98043655	92.75
.2700	98042700	60.85	.2940	98042940	71.30	.3180	98043180	78.95	.3420	98043420	90.45	.3660	98043660	92.75
.2705	98042705	60.85	.2945	98042945	71.30	.3185	98043185	78.95	.3425	9804087	90.25	.3665	98043665	92.75
.2710	98042710	60.85	.2950	98042950	67.80	.3190	98043190	78.95	.3430	98043430	90.45	.3670	98043670	92.75
.2715	98042715	60.85	.2955	98042955	71.30	.3195	98043195	78.95	.3435	98043435	90.45	.3675	98043675	92.75
.2720	98042720	57.75	.2960	98042960	71.30	.3200	98043200	78.95	.3440	98043440	90.65	.3680	98043680	88.20
.2725	98042725	60.85	.2965	98042965	71.30	.3205	98043205	78.95	.3445	98043445	90.65	.3685	98043685	93.65
.2730	98042730	60.85	.2970	98042970	74.15	.3210	98043210	78.95	.3450	98043450	90.65	.3690	98043690	93.85
.2735	98042735	60.85	.2975	98042975	74.15	.3215	98043215	78.95	.3455	98043455	90.65	.3695	98043695	93.65
.2740	98042740	60.85	.2980	98042980	74.15	.3220	98043220	78.95	.3460	98043460	90.65	.3700	98043700	93.65
.2745	98042745	60.85	.2985	98042985	74.15	.3225	98043225	78.95	.3465	9804088	90.65	.3705	98043705	93.65
.2750	98042750	60.85	.2990	98042990	74.15	.3230	98043230	75.05	.3470	98043470	90.65	.3710	98043710	93.65
.2755	98042755	60.85	.2995	98042995	74.15	.3235	98043235	78.95	.3475	98043475	90.65	.3715	98043715	93.65
.2760	98042760	60.85	.3000	98043000	74.15	.3240	98043240	90.45	.3480	98043480	86.30	.3720	98043720	93.65
.2765	98042765	60.85	.3005	98043005	74.15	.3245	98043245	90.45	.3485	98043485	90.65	.3725	98043725	93.65
.2770	98042770	57.75	.3010	98043010	74.15	.3250	98043250	90.45	.3490	98043490	90.65	.3730	98043730	93.65
.2775	98042775	60.85	.3015	98043015	74.15	.3255	98043255	90.45	.3495	98043495	90.65	.3735	98043735	93.65
.2780	98042780	65.85	.3020	98043020	70.60	.3260	98043260	90.45	.3500	98043500	90.65	.3740	9804095	88.70
.2785	98042785	65.85	.3025	98043025	74.15	.3265	98043265	90.45	.3505	98043505	90.65	.3745	98043745	93.65
.2790	98042790	65.85	.3030	98043030	74.15	.3270	98043270	90.45	.3510	98043510	90.65	.3750	980424	81.20
.2795	9804071	65.75	.3035	98043035	74.15	.3275	98043275	90.45	.3515	98043515	90.65	.3755	98043755	111.00
.2800	98042800	65.85	.3040	98043040	74.15	.3280	98043280	90.45	.3520	98043520	90.65	.3760	98043760	111.10
.2805	98042805	65.85	.3045	98043045	74.15	.3285	98043285	90.45	.3525	98043525	90.65	.3765	98043765	111.00
.2810	98042810	62.60	.3050	98043050	74.15	.3290	98043290	90.45	.3530	98043530	90.65	.3770	98043770	105.35
.2815	98042815	65.85	.3055	98043055	74.15	.3295	98043295	90.45	.3535	98043535	90.65	.3775	98043775	111.00
.2820	98042820	71.30	.3060	98043060	74.15	.3300	98043300	90.45	.3540	98043540	90.65	.3780	9804096	110.75
.2825	98042825	71.30	.3065	98043065	74.15	.3305	98043305	90.45	.3545	98043545	90.65	.3785	98043785	111.00
.2830	98042830	71.30	.3070	98043070	74.15	.3310	98043310	87.30	.3550	98043550	91.05	.3790	98043790	111.00
.2835	9804072	71.05	.3075	98043075	74.15	.3315	98043315	90.45	.3555	98043555	91.05	.3795	98043795	111.00
.2840	98042840	71.30	.3080	98043080	74.15	.3320	98043320	85.90	.3560	98043560	91.05	.3800	98043800	111.00
.2845	98042845	71.30	.3085	98043085	74.15	.3325	98043325	90.45	.3565	98043565	91.05	.3805	98043805	111.00
.2850	98042850	71.30	.3090	98043090	74.15	.3330	98043330	90.45	.3570	98043570	91.05	.3810	98043810	111.00
.2855	98042855	71.30	.3095	98043095	74.15	.3335	98043335	90.45	.3575	98043575	91.05	.3815	98043815	111.00
.2860	98042860	71.30	.3100	98043100	74.15	.3340	98043340	90.45	.3580	98043580	86.65	.3820	98043820	111.00
.2865	98042865	71.30	.3105	98043105	74.15	.3345	98043345	90.45	.3585	98043585	91.05	.3825	98043825	111.00
.2870	98042870	71.30	.3110	9804079	74.15	.3350	98043350	90.45	.3590	98043590	91.75	.3830	98043830	111.00
.2875	98042875	71.30	.3115	98043115	74.15	.3355	98043355	90.45	.3595	98043595	92.75	.3835	98043835	111.00
.2880	98042880	71.30	.3120	98043120	74.15	.3360	98043360	90.45	.3600	98043600	92.75	.3840	98043840	111.00
.2885	98042885	71.30	.3125	980420	64.55	.3365	98043365	90.45	.3605	98043605	92.75	.3845	98043845	111.00
.2890	98042890	71.30	.3130	98043130	74.15	.3370	98043370	90.45	.3610	98043610	92.75	.3850	98043850	111.00
.2895	98042895	71.30	.3135	98043135	74.15	.3375	98043375	90.45	.3615	98043615	92.75	.3855	98043855	111.00
.2900	98042900	67.80	.3140	98043140	74.15	.3380	98043380	90.45	.3620	98043620	92.75	.3860	98043860	105.65
.2905	98042905	71.30	.3145	98043145	74.15	.3385	98043385	90.45	.3625	98043625	92.75	.3865	98043865	116.65
.2910	98042910	71.30	.3150	9804080	64.55	.3390	98043390	85.90	.3630	98043630	92.75	.3870	98043870	116.65
.2915	98042915	71.30	.3155	98043155	74.15	.3395	98043395	90.45	.3635	98043635	92.75	.3875	98043875	116.65

SOLID CARBIDE

List No. 9804 - Straight Shank - Straight Flutes

Use: For general purpose reaming of all materials. .0005" increments, standard decimal diameter reamers. For fractional wire, letter, and metric sizes see page 58. For decimal sizes, left, and right spiral flute styles see page 59.

Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".

STOCKED DECIMAL TOOL DIAMETERS .3880" THRU .5150"

DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH	DEC. SIZE	EDP NO.	PRICE EACH
.3880	98043880	$116.65	.4135	98044135	$119.80	.4390	98044390	$131.20	.4645	98044645	$131.20	.4900	98044900	$142.75
.3885	98043885	116.65	.4140	98044140	119.80	.4395	98044395	131.20	.4650	98044650	131.20	.4905	98044905	142.75
.3890	98043890	116.65	.4145	98044145	119.80	.4400	98044400	131.20	.4655	98044655	131.20	.4910	98044910	142.75
.3895	98043895	116.65	.4150	98044150	119.80	.4405	98044405	131.20	.4660	98044660	131.20	.4915	98044915	142.75
.3900	98043900	116.65	.4155	98044155	119.80	.4410	98044410	131.20	.4665	98044665	131.20	.4920	98044920	142.75
.3905	98043905	116.65	.4160	98044160	119.80	.4415	98044415	131.20	.4670	98044670	131.20	.4925	98044925	142.75
.3910	98043910	116.65	.4165	98044165	119.80	.4420	98044420	131.20	.4675	98044675	131.20	.4930	98044930	142.75
.3915	98043915	116.65	.4170	98044170	119.80	.4425	98044425	131.20	.4680	98044680	131.20	.4935	98044935	142.75
.3920	98043920	116.65	.4175	98044175	119.80	.4430	98044430	131.20	.4685	9804119	131.20	.4940	98044940	142.75
.3925	98043925	116.65	.4180	98044180	119.80	.4435	98044435	131.20	.4690	98044690	131.20	.4945	98044945	142.75
.3930	98043930	116.65	.4185	98044185	119.80	.4440	98044440	131.20	.4695	98044695	131.20	.4950	98044950	142.75
.3935	98043935	116.65	.4190	98044190	119.80	.4445	98044445	131.20	.4700	98044700	131.20	.4955	98044955	142.75
.3940	98043940	116.65	.4195	98044195	119.80	.4450	98044450	131.20	.4705	98044705	131.20	.4960	98044960	142.75
.3945	98043945	116.65	.4200	98044200	119.80	.4455	98044455	131.20	.4710	98044710	131.20	.4965	98044965	142.75
.3950	98043950	116.65	.4205	98044205	119.80	.4460	98044460	131.20	.4715	98044715	131.20	.4970	98044970	142.75
.3955	98043955	116.65	.4210	98044210	119.80	.4465	98044465	131.20	.4720	98044720	131.20	.4975	98044975	142.75
.3960	98043960	116.65	.4215	98044215	119.80	.4470	98044470	131.20	.4725	98044725	142.75	.4980	98044980	142.75
.3965	98043965	116.65	.4220	98044220	119.80	.4475	98044475	131.20	.4730	98044730	142.75	.4985	98044985	142.75
.3970	98043970	111.10	.4225	98044225	119.80	.4480	98044480	131.20	.4735	98044735	142.75	.4990	98044990	142.75
.3975	98043975	116.65	.4230	98044230	119.80	.4485	98044485	131.20	.4740	98044740	142.75	.4995	98044995	135.00
.3980	98043980	116.65	.4235	98044235	119.80	.4490	98044490	131.20	.4745	98044745	142.75	.5000	980432	135.00
.3985	98043985	116.65	.4240	98044240	119.80	.4495	98044495	131.20	.4750	98044750	142.75	.5005	98045005	169.45
.3990	98043990	116.65	.4245	98044245	119.80	.4500	98044500	131.20	.4755	98044755	142.75	.5010	98045010	169.45
.3995	98043995	116.65	.4250	98044250	119.80	.4505	98044505	131.20	.4760	98044760	142.75	.5015	98045015	169.45
.4000	98044000	116.65	.4255	98044255	119.80	.4510	98044510	131.20	.4765	98044765	142.75	.5020	98045020	169.45
.4005	98044005	116.65	.4260	98044260	119.80	.4515	98044515	131.20	.4770	98044770	142.75	.5025	98045025	169.45
.4010	98044010	116.65	.4265	98044265	119.80	.4520	98044520	131.20	.4775	98044775	142.75	.5030	98045030	169.45
.4015	98044015	116.65	.4270	98044270	119.80	.4525	98044525	131.20	.4780	98044780	142.75	.5035	98045035	169.45
.4020	98044020	116.65	.4275	98044275	119.80	.4530	98044530	131.20	.4785	98044785	142.75	.5040	98045040	169.45
.4025	98044025	116.65	.4280	98044280	119.80	.4535	98044535	131.20	.4790	98044790	142.75	.5045	98045045	169.45
.4030	98044030	116.65	.4285	98044285	119.80	.4540	98044540	131.20	.4795	98044795	142.75	.5050	98045050	169.45
.4035	98044035	116.65	.4290	98044290	119.80	.4545	98044545	131.20	.4800	98044800	142.75	.5055	98045055	169.45
.4040	98044040	111.10	.4295	98044295	119.80	.4550	98044550	131.20	.4805	98044805	142.75	.5060	98045060	169.45
.4045	98044045	116.65	.4300	98044300	119.80	.4555	98044555	131.20	.4810	98044810	142.75	.5065	98045065	169.45
.4050	98044050	116.65	.4305	98044305	119.80	.4560	98044560	131.20	.4815	98044815	142.75	.5070	98045070	169.45
.4055	9804103	116.65	.4310	98044310	119.80	.4565	98044565	131.20	.4820	98044820	142.75	.5075	98045075	169.45
.4060	98044060	116.65	.4315	98044315	119.80	.4570	98044570	131.20	.4825	98044825	142.75	.5080	98045080	169.45
.4065	98044065	116.65	.4320	98044320	119.80	.4575	98044575	131.20	.4830	98044830	142.75	.5085	98045085	169.45
.4070	98044070	116.65	.4325	98044325	119.80	.4580	98044580	131.20	.4835	98044835	142.75	.5090	98045090	169.45
.4075	98044075	116.65	.4330	98044330	119.80	.4585	98044585	131.20	.4840	98044840	142.75	.5095	98045095	169.45
.4080	98044080	116.65	.4335	98044335	119.80	.4590	98044590	131.20	.4845	98044845	142.75	.5100	98045100	169.45
.4085	98044085	116.65	.4340	98044340	119.80	.4595	98044595	131.20	.4850	98044850	142.75	.5105	98045105	169.45
.4090	98044090	116.65	.4345	98044345	119.80	.4600	98044600	131.20	.4855	98044855	142.75	.5110	98045110	169.45
.4095	98044095	116.65	.4350	98044350	119.80	.4605	98044605	131.20	.4860	98044860	142.75	.5115	98045115	169.45
.4100	98044100	116.65	.4355	98044355	119.80	.4610	98044610	131.20	.4865	98044865	142.75	.5120	98045120	169.45
.4105	98044105	116.65	.4360	98044360	119.80	.4615	98044615	131.20	.4870	98044870	142.75	.5125	98045125	169.45
.4110	98044110	116.65	.4365	98044365	119.80	.4620	98044620	131.20	.4875	98044875	142.75	.5130	98045130	169.45
.4115	98044115	116.65	.4370	9804111	119.80	.4625	98044625	131.20	.4880	98044880	142.75	.5135	98045135	169.45
.4120	98044120	116.65	.4375	980428	114.05	.4630	98044630	131.20	.4885	98044885	142.75	.5140	98045140	169.45
.4125	98044125	116.65	.4380	98044380	131.20	.4635	98044635	131.20	.4890	98044890	142.75	.5145	98045145	169.45
.4130	98044130	111.10	.4385	98044385	131.20	.4640	98044640	131.20	.4895	98044895	142.75	.5150	98045150	169.45

SOLID CARBIDE

List No. 9804 - Straight Shank - Straight Flutes

For dimensional details for .0591" and above, see types 9802 and 9803 on page 59.
For additional solid carbide reamer sizes (including wire #52-70), see pages 54-57.
Call for standard sizes up to 13mm.

TOOL DIAMETER				EDP NO.	PRICE EACH
DEC.	FRAC.	WIRE LTR.	mm		
*.0312	1/32			980402	$23.50
*.0394			1.0	9804010	22.50
*.0433			1.1	9804011	24.75
*.0469	3/64			980403	24.90
*.0472			1.2	9804012	24.90
*.0512			1.3	9804013	24.90
*.0551			1.4	9804014	24.90
.0591			1.5	9804015	22.10
.0625	1/16			980404	22.75
.0630			1.6	9804016	24.70
.0669			1.7	9804017	25.00
.0670		51		98040670	25.00
.0700		50		98040700	25.00
.0709			1.8	9804018	25.00
.0730		49		98040730	25.00
.0748			1.9	9804019	25.00
.0760		48		98040760	25.00
.0781	5/64			980405	25.00
.0785		47		98040785	25.05
.0787			2.0	9804020	23.05
.0810		46		98040810	25.05
.0820		45		98040820	25.20
.0827			2.1	9804021	25.20
.0860		44		98040860	25.20
.0866			2.2	9804022	25.20
.0890		43		98040890	25.60
.0906			2.3	9804023	25.60
.0935		42		98040935	25.70
.0938	3/32			980406	23.70
.0945			2.4	9804024	25.70
.0960		41		98040960	26.25
.0980		40		98040980	26.25
.0984			2.5	9804025	23.95
.0995		39		98040995	26.45
.1015		38		98041015	26.45
.1024			2.6	9804026	26.55
.1040		37		98041040	28.10
.1063			2.7	9804027	26.70
.1065		36		98041065	26.70
.1094	7/64			980407	27.50
.1100		35		98041100	27.50
.1102			2.8	9804028	27.50
.1110		34		98041110	28.00
.1130		33		98041130	28.35
.1142			2.9	9804029	28.35
.1160		32		98041160	28.35
.1181			3.0	9804030	26.25
.1200		31		98041200	28.45
.1220			3.1	9804031	28.45
.1250	1/8			980408	26.25
.1260			3.2	9804032	28.45
.1285		30		98041285	28.50
.1299			3.3	9804033	28.50
.1339			3.4	9804034	28.50
.1360		29		98041360	28.50
.1378			3.5	9804035	26.55
.1405		28		98041405	28.90
.1406	9/64			980409	29.85
.1417			3.6	9804036	30.20
.1440		27		98041440	30.20

TOOL DIAMETER				EDP NO.	PRICE EACH
DEC.	FRAC.	WIRE LTR.	mm		
.1457			3.7	9804037	$30.60
.1470		26		98041470	31.10
.1495		25		98041495	31.25
.1496			3.8	9804038	32.85
.1520		24		98041520	31.25
.1535			3.9	9804039	32.60
.1540		23		98041540	32.60
.1562	5/32			980410	30.80
.1570		22		98041570	33.70
.1575			4.0	9804040	30.80
.1590		21		98041590	34.55
.1610		20		98041610	35.00
.1614			4.1	9804041	35.00
.1654			4.2	9804042	35.20
.1660		19		98041660	35.20
.1693			4.3	9804043	35.55
.1695		18		98041695	35.55
.1719	11/64			980411	36.25
.1730		17		98041730	36.25
.1732			4.4	9804044	36.25
.1770		16		98041770	37.15
.1772			4.5	9804045	33.70
.1800		15		98041800	37.30
.1811			4.6	9804046	37.80
.1820		14		98041820	37.85
.1850		13	4.7	9804047	38.10
.1875	3/16			980412	36.55
.1890		12	4.8	9804048	40.15
.1910		11		98041910	40.65
.1929			4.9	9804049	40.65
.1935		10		98041935	40.90
.1960		9		98041960	42.35
.1969			5.0	9804050	38.65
.1990		8		98041990	42.55
.2008			5.1	9804051	43.95
.2010		7		98042010	43.95
.2031	13/64			980413	43.95
.2040		6		98042040	43.95
.2047			5.2	9804052	43.95
.2055		5		98042055	43.95
.2087			5.3	9804053	43.95
.2090		4		98042090	46.15
.2126			5.4	9804054	43.95
.2130		3		98042130	43.95
.2165			5.5	9804055	40.15
.2188	7/32			980414	40.05
.2205			5.6	9804056	48.95
.2210		2		98042210	48.95
.2244			5.7	9804057	50.85
.2280		1		98042280	51.45
.2283			5.8	9804058	51.45
.2323			5.9	9804059	51.45
.2340		A		98042340	51.45
.2344	15/64			980415	51.45
.2362			6.0	9804060	47.70
.2380		B		98042380	52.45
.2402			6.1	9804061	52.45
.2420		C		98042420	52.45
.2441			6.2	9804062	52.45
.2460		D		98042460	52.45

TOOL DIAMETER				EDP NO.	PRICE EACH
DEC.	FRAC.	WIRE LTR.	mm		
.2480			6.3	9804063	$52.45
.2500	1/4	E		980416	47.70
.2520			6.4	9804064	57.80
.2559			6.5	9804065	57.75
.2570		F		98042570	57.75
.2598			6.6	9804066	60.60
.2610		G		98042610	57.75
.2638			6.7	9804067	60.60
.2656	17/64			980417	57.75
.2660		H		98042660	57.75
.2677			6.8	9804068	60.60
.2717			6.9	9804069	60.60
.2720		I		98042720	57.75
.2756			7.0	9804070	52.70
.2770		J		98042770	57.75
.2795			7.1	9804071	65.75
.2810		K		98042810	62.60
.2812	9/32			980418	57.25
.2835			7.2	9804072	71.05
.2874			7.3	9804073	71.05
.2900		L		98042900	67.80
.2913			7.4	9804074	71.05
.2950		M		98042950	67.80
.2953			7.5	9804075	67.80
.2969	19/64			980419	67.80
.2992			7.6	9804076	74.15
.3020		N		98043020	70.60
.3031			7.7	9804077	74.15
.3071			7.8	9804078	74.15
.3110			7.9	9804079	74.15
.3125	5/16			980420	64.55
.3150			8.0	9804080	64.55
.3160		O		98043160	74.15
.3189			8.1	9804081	78.90
.3228			8.2	9804082	78.90
.3230		P		98043230	75.05
.3268			8.3	9804083	90.25
.3281	21/64			980421	85.90
.3307			8.4	9804084	90.25
.3320		Q		98043320	85.90
.3346			8.5	9804085	85.90
.3386			8.6	9804086	90.25
.3390		R		98043390	85.90
.3425			8.7	9804087	90.25
.3438	11/32			980422	85.90
.3465			8.8	9804088	90.65
.3480		S		98043480	86.30
.3504			8.9	9804089	90.65
.3543			9.0	9804090	79.35
.3580		T		98043580	86.65
.3583			9.1	9804091	91.50
.3594	23/64			980423	87.10
.3622			9.2	9804092	92.60
.3661			9.3	9804093	92.60
.3680		U		98043680	88.20
.3701			9.4	9804094	93.05
.3740			9.5	9804095	88.70
.3750	3/8			980424	81.20
.3770		V		98043770	105.35
.3780			9.6	9804096	110.75

**Dimensions thru .0590": # of flutes = 4; flute length = 3/8" (except for .0312" & .0394" tool diameters, flute length = 1/4"); OAL = 1 1/2".*

Tolerances on page 59.

SOLID CARBIDE - CHUCKING REAMERS

SOLID CARBIDE

List No. 9803 - Straight Shank - Straight Flutes - For Non-Ferrous
List No. 9802 - Straight Shank - Straight Flutes - For Cast Iron & Steel

Appropriate tool geometry for material being machined. Solid carbide head and shank.
For stocked general purpose solid carbide reamers in decimal sizes see pages 54-57.

DECIMAL SIZE RANGE	MAX. SHANK DIAM.	NO. OF FLUTES	FLUTE LENGTH	OVERALL LENGTH	NON-FERR. TYPE 9803 EDP NO.	C.I./STEEL TYPE 9802 EDP NO.	PRICE EACH - FINISHED TO DECIMAL SIZE						
							1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
* .0591 - .0660	.0580	4	⅜	1 ½	-	980204	$76.25	$47.50	$37.85	$33.35	$28.40	$24.50	$18.85
* .0661 - .0740	.0650	4	½	1 ¾	-	980245	76.55	47.70	38.10	33.50	28.60	24.70	19.10
* .0741 - .0810	.0730	4	½	1 ¾	-	980205	76.65	47.80	38.15	33.70	28.65	24.90	19.15
* .0811 - .0890	.0800	4	½	2	-	980255	77.05	48.35	38.70	34.15	29.25	25.35	19.70
* .0891 - .0970	.0880	4	½	2	-	980206	77.60	48.75	39.15	34.60	29.75	25.70	20.20
* .0971 - .1120	.0943	4	⅝	2 ¼	980307	980207	77.85	49.00	39.45	34.85	29.95	26.10	20.45
.1121 - .1280	.1099	4	⅝	2 ¼	980308	980208	79.25	50.40	40.80	36.25	31.25	27.40	21.80
.1281 - .1435	.1255	4	¾	2 ½	980309	980209	79.75	51.00	41.35	36.85	31.90	28.05	22.35
.1436 - .1590	.1411	4	¾	2 ½	980310	980210	81.15	52.30	42.70	38.15	33.30	29.30	23.70
.1591 - .1750	.1567	4	⅞	2 ¾	980311	980211	84.20	55.35	45.75	41.25	36.30	32.45	26.75
.1751 - .1910	.1724	4	⅞	2 ¾	980312	980212	86.25	57.40	47.80	43.30	38.25	34.50	28.80
.1911 - .2210	.1880	6	1	3	980314	980214	89.80	61.00	51.40	46.85	42.00	38.05	32.45
.2211 - .2530	.2193	6	1	3	980316	980216	95.90	67.15	57.50	53.00	48.05	44.15	38.55
.2531 - .2840	.2505	6	1 ⅛	3 ¼	980318	980218	103.05	74.20	64.60	60.05	55.15	51.25	45.65
.2841 - .3150	.2817	6	1 ⅛	3 ¼	980320	980220	110.90	82.10	72.35	67.95	63.00	59.10	53.50
.3151 - .3470	.3130	6	1 ¼	3 ½	980322	980222	122.50	93.75	84.15	79.60	74.70	70.65	65.20
.3471 - .3780	.3443	6	1 ¼	3 ½	980324	980224	124.00	95.30	85.75	81.15	76.20	72.25	66.65
.3781 - .4090	.3755	6	1 ⅜	3 ¾	980326	980226	134.30	105.50	95.90	91.25	86.40	82.50	76.85
.4091 - .4410	.4067	6	1 ⅜	3 ¾	980328	980228	135.45	106.65	97.05	92.50	87.60	83.65	78.00
.4411 - .4720	.4380	6	1 ½	4	980330	980230	143.70	114.90	105.25	100.75	95.80	91.95	86.30
.4721 - .5150	.4693	6	1 ½	4	980332	980232	151.70	122.90	113.20	108.75	103.85	99.95	94.30

**Provided with male centers*

List No. 9813 - Straight Shank - Right Spiral Flutes - For Non-Ferrous
List No. 9812 - Straight Shank - Right Spiral Flutes - For Cast Iron & Steel
List No. 9823 - Straight Shank - Left Spiral Flutes - For Non-Ferrous
List No. 9822 - Straight Shank - Left Spiral Flutes - For Cast Iron & Steel

Spiral flutes ground for reaming holes with interruptions such as keyways, slots or intersecting holes.
Left spiral flutes should not be used on blind holes. Solid carbide head and shank.

ALL TYPES ON THIS PAGE:
Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".
For closer tool diameter pricing, see page 60.

DECIMAL SIZE RANGE	MAX. SHANK DIAM.	NO. OF FLTS.	FLT. LEN.	OVER ALL LEN.	RIGHT SPIRAL		LEFT SPIRAL		PRICE EACH - FINISHED TO DECIMAL SIZE						
					NON-FERR. TYPE 9813 EDP NO.	C.I./STEEL TYPE 9812 EDP NO.	NON-FERR. TYPE 9823 EDP NO.	C.I./STEEL TYPE 9822 EDP NO.	1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
*.0971 - .1120	.0943	4	⅝	2 ¼	981307	981207	982307	982207	$80.80	$51.75	$42.00	$37.40	$32.35	$28.40	$22.70
.1121 - .1280	.1099	4	⅝	2 ¼	981308	981208	982308	982208	82.35	53.20	43.45	38.95	33.85	29.90	24.25
.1281 - .1435	.1255	4	¾	2 ½	981309	981209	982309	982209	87.15	56.65	46.45	41.55	36.35	32.20	26.15
.1436 - .1590	.1411	4	¾	2 ½	981310	981210	982310	982210	88.80	58.20	47.95	43.15	37.90	33.75	27.85
.1591 - .1750	.1567	4	⅞	2 ¾	981311	981211	982311	982211	92.35	61.80	51.55	46.65	41.50	37.30	31.30
.1751 - .1910	.1724	4	⅞	2 ¾	981312	981212	982312	982212	94.65	64.15	53.85	49.00	43.75	39.65	33.65
.1911 - .2210	.1880	6	1	3	981314	981214	982314	982214	103.55	71.55	60.85	55.75	50.25	45.90	39.65
.2211 - .2530	.2193	6	1	3	981316	981216	982316	982216	111.15	79.00	68.25	63.30	57.75	53.50	47.25
.2531 - .2840	.2505	6	1 ⅛	3 ¼	981318	981218	982318	982218	119.85	87.80	77.10	72.10	66.50	62.25	55.95
.2841 - .3150	.2817	6	1 ⅛	3 ¼	981320	981220	982320	982220	129.30	97.30	86.55	81.50	76.05	71.65	65.35
.3151 - .3470	.3130	6	1 ¼	3 ½	981322	981222	982322	982222	143.60	111.60	100.85	95.80	90.30	85.90	79.65
.3471 - .3780	.3443	6	1 ¼	3 ½	981324	981224	982324	982224	145.55	113.50	102.80	97.65	92.25	87.85	81.60
.3781 - .4090	.3755	6	1 ⅜	3 ¾	981326	981226	982326	982226	149.60	117.50	106.75	101.65	96.20	91.85	85.65
.4091 - .4410	.4067	6	1 ⅜	3 ¾	981328	981228	982328	982228	150.85	118.70	107.95	102.95	97.45	93.10	86.90
.4411 - .4720	.4380	6	1 ½	4	981330	981230	982330	982230	160.00	127.90	117.20	112.20	106.70	102.35	96.05
.4721 - .5150	.4693	6	1 ½	4	981332	981232	982332	982232	168.85	136.80	126.10	121.10	115.50	111.20	104.95

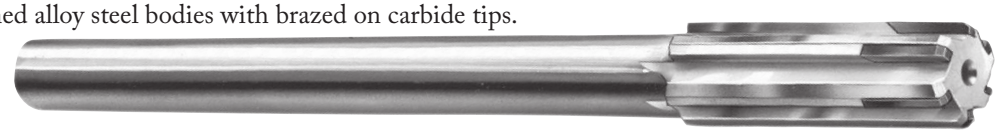
**Provided with male centers*

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5655 - Straight Shank - Partial Flute Length Carbide

Use: For general purpose reaming of most types of materials, including steel, cast iron, non-ferrous and non-metals. Hardened alloy steel bodies with brazed on carbide tips.



TOOL DIAMETER		SHANK DIAM.	NO. OF FLUTES	LENGTH			LIST 5655 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLUTE	CAR-BIDE	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.1562	5/32	.151	4	1	1/2	4	55210	$43.40	.1560 - .1769	$82.05	$62.40	$56.10	$53.00	$49.70	$47.15
.1719	11/64	.151	4	1	1/2	4	55211	43.40	-	-	-	-	-	-	-
.1875	3/16	11/64	4	1 1/8	1/2	4 1/2	55212	39.80	.1770 - .2040	77.00	58.35	52.25	49.10	46.00	43.45
.1875	3/16	11/64	4	1 1/4	1/2	5	55201	42.15	.1770 - .2040	79.35	60.70	54.65	51.50	48.35	45.85
.2031	13/64	11/64	4	1 1/8	1/2	4 1/2	55213	42.15	-	-	-	-	-	-	-
.2188	7/32	13/64	4	1 1/4	1/2	5	55214	39.80	.2041 - .2210	77.00	58.35	52.25	49.10	46.00	43.45
.2344	15/64	7/32	4	1 1/2	1/2	6	55215	42.15	.2211 - .2380	79.35	60.70	54.65	51.50	48.35	45.85
.2500	1/4	15/64	4	1 1/2	1/2	6	55216	39.80	.2381 - .2530	77.00	58.35	52.25	49.10	46.00	43.45
.2656	17/64	15/64	4	1 1/2	1/2	6	55217	43.10	-	-	-	-	-	-	-
.2812	9/32	15/64	4	1 1/2	1/2	6	55218	40.70	.2531 - .2840	77.85	59.25	53.05	50.05	46.80	44.30
.2969	19/64	9/32	4	1 1/2	1/2	6	55219	43.10	-	-	-	-	-	-	-
.3125	5/16	9/32	4	1 1/2	1/2	6	55220	40.70	.2841 - .3150	77.85	59.25	53.05	50.05	46.80	44.30
.3281	21/64	9/32	4	1 1/2	5/8	6	55221	44.70	-	-	-	-	-	-	-
.3438	11/32	9/32	4	1 1/2	5/8	6	55222	42.10	.3151 - .3470	79.30	60.65	54.40	51.45	48.30	45.75
.3594	23/64	5/16	4	1 3/4	5/8	7	55223	44.70	-	-	-	-	-	-	-
.3750	3/8	5/16	4	1 3/4	5/8	7	55224	42.10	.3471 - .3780	79.30	60.65	54.40	51.45	48.30	45.75
.3906	25/64	5/16	4	1 3/4	5/8	7	55225	47.00	-	-	-	-	-	-	-
.4062	13/32	5/16	4	1 3/4	5/8	7	55226	44.20	.3781 - .4090	81.35	62.75	56.50	53.50	50.30	47.85
.4219	27/64	3/8	4	1 3/4	5/8	7	55227	50.00	-	-	-	-	-	-	-
.4375	7/16	3/8	4	1 3/4	5/8	7	55228	47.20	.4091 - .4410	84.35	65.75	59.40	56.50	53.25	50.85
.4531	29/64	3/8	4	1 3/4	5/8	7	55229	50.80	-	-	-	-	-	-	-
.4688	15/32	3/8	4	1 3/4	5/8	7	55230	47.85	.4411 - .4720	85.05	66.40	60.15	57.15	54.00	51.45
.4844	31/64	7/16	6	2	5/8	8	55231	54.85	-	-	-	-	-	-	-
.5000	1/2	7/16	6	2	5/8	8	55232	56.90	.4721 - .5030	97.85	77.40	70.45	67.25	63.65	60.90
.5156	33/64	7/16	6	2	5/8	8	55233	61.90	-	-	-	-	-	-	-
.5312	17/32	7/16	6	2	5/8	8	55234	61.90	.5031 - .5340	102.95	82.45	75.55	72.25	68.70	65.95
.5469	35/64	7/16	6	2	5/8	8	55235	61.90	-	-	-	-	-	-	-
.5625	9/16	7/16	6	2	5/8	8	55236	61.90	.5341 - .5660	102.95	82.45	75.55	72.25	68.70	65.95
.5781	37/64	7/16	6	2	5/8	8	55237	64.45	-	-	-	-	-	-	-
.5938	19/32	7/16	6	2	5/8	8	55238	64.45	.5661 - .5970	105.45	84.85	78.00	74.80	71.20	68.55
.6094	39/64	9/16	6	2 1/4	5/8	9	55239	64.45	-	-	-	-	-	-	-
.6250	5/8	9/16	6	2 1/4	5/8	9	55240	64.45	.5971 - .6280	105.45	84.85	78.00	74.80	71.20	68.55
.6406	41/64	9/16	6	2 1/4	5/8	9	55241	65.60	-	-	-	-	-	-	-
.6562	21/32	9/16	6	2 1/4	5/8	9	55242	65.60	.6281 - .6590	106.50	85.90	79.10	75.90	72.30	69.60
.6719	43/64	9/16	6	2 1/4	5/8	9	55243	65.60	-	-	-	-	-	-	-
.6875	11/16	9/16	6	2 1/4	5/8	9	55244	65.60	.6591 - .6910	106.50	85.90	79.10	75.90	72.30	69.60
.7031	45/64	9/16	6	2 1/4	5/8	9	55245	68.65	-	-	-	-	-	-	-
.7188	23/32	9/16	6	2 1/4	5/8	9	55246	68.65	.6911 - .7220	109.55	89.15	82.20	79.00	75.40	72.70
.7344	47/64	5/8	6	2 1/2	3/4	9 1/2	55247	68.65	-	-	-	-	-	-	-
.7500	3/4	5/8	6	2 1/2	3/4	9 1/2	55248	68.65	.7221 - .7530	109.55	89.15	82.20	79.00	75.40	72.70
.7656	49/64	5/8	6	2 1/2	3/4	9 1/2	55249	70.90	-	-	-	-	-	-	-
.7812	25/32	5/8	6	2 1/2	3/4	9 1/2	55250	70.90	.7531 - .7840	111.80	91.30	84.50	81.25	77.70	74.90

**Quantities of 15 or more: price of fractional size in same size range.*

Reamer Expedite Fees: Order must be recieved by 3:00 PM EST (Exceptions may apply)
Does not apply to types 5625, 5685, or Extended Length Reamers
18 pieces max per diameter, 4 diameters max per order, 1 fee per diameter
Does NOT require air shipment of the product

REAMER DIAMETER	SERVICE	FEE
Up to 1.0000"	24 Hour	$75.00
Up to 1.0000"	48 Hour	50.00
Over 1.0000"	48 Hour	75.00
Over 1.0000"	72 Hour	50.00

TOOL TYPE	TOOL DIAMETER TOLERANCES		CLOSER TOLERANCE PRICING		
			.0001"	.0002"	.0003"
NAS 897	.0000" THRU .5000"	+.0002"/-.0000"	$3.00	-	-
	.5001" THRU .7500"	+.0003"/-.0000"	$3.00	$1.00	-
	.7501" AND UP	+.0004"/-.0000"	$5.00	$3.00	$1.00
ALL OTHER REAMERS	.0000" THRU 1.5000"	+.0003"/-.0000"	$3.00	$1.00	-
	1.5001" AND UP	+.0004"/-.0000"	$5.00	$3.00	$1.00

TOOL TYPE	SHANK DIAMETER TOLERANCES (BASED ON DIAMETER)	
NAS 897 & COOLANT	UP TO 23/32"	+.0000"/-.0010"
	OVER 23/32"	+.0000"/-.0015"
ALL OTHER REAMERS	ALL SIZES -.0005"/-.0015"	

SUPER TOOL, INC. – Phone 800-237-1395 – Fax 941-756-6480

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5655 - Straight Shank - Partial Flute Length Carbide

Continued from previous page.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLUTES	LENGTH			LIST 5655 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLUTE	CAR-BIDE	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.7969	51/64	5/8	6	2 1/2	3/4	9 1/2	55251	$70.90	-	-	-	-	-	-	-
.8125	13/16	5/8	6	2 1/2	3/4	9 1/2	55252	70.90	.7841 - .8160	$111.80	$91.30	$84.50	$81.25	$77.70	$74.90
.8281	53/64	5/8	6	2 1/2	3/4	9 1/2	55253	73.75	-	-	-	-	-	-	-
.8438	27/32	5/8	6	2 1/2	3/4	9 1/2	55254	73.75	.8161 - .8470	114.70	94.15	87.35	84.05	80.50	77.75
.8594	55/64	3/4	6	2 5/8	3/4	10	55255	73.75	-	-	-	-	-	-	-
.8750	7/8	3/4	6	2 5/8	3/4	10	55256	76.55	.8471 - .8780	118.95	97.75	90.65	87.25	83.50	80.65
.8906	57/64	3/4	6	2 5/8	3/4	10	55257	89.15	-	-	-	-	-	-	-
.9062	29/32	3/4	6	2 5/8	3/4	10	55258	89.15	.8781 - .9090	131.60	110.30	103.25	99.85	96.15	93.30
.9219	59/64	3/4	8	2 5/8	3/4	10	55259	89.15	-	-	-	-	-	-	-
.9375	15/16	3/4	8	2 5/8	3/4	10	55260	89.15	.9091 - .9410	131.60	110.30	103.25	99.85	96.15	93.30
.9531	61/64	3/4	8	2 5/8	3/4	10	55261	93.40	-	-	-	-	-	-	-
.9688	31/32	3/4	8	2 5/8	3/4	10	55262	93.40	.9411 - .9720	135.95	114.65	107.65	104.20	100.45	97.60
.9844	63/64	7/8	8	2 3/4	3/4	10 1/2	55263	93.40	-	-	-	-	-	-	-
1.0000	1	7/8	8	2 3/4	3/4	10 1/2	55264	93.40	.9721 - 1.0030	135.95	114.65	107.65	104.20	100.45	97.60
1.0625	1 1/16	7/8	8	2 3/4	3/4	10 1/2	55304	96.60	1.0031 - 1.0660	137.40	117.00	110.10	106.95	103.40	100.60
1.1250	1 1/8	7/8	8	2 7/8	7/8	11	55308	104.40	1.0661 - 1.1280	145.20	124.80	118.05	114.75	111.15	108.45
1.1875	1 3/16	1	8	2 7/8	7/8	11	55312	109.85	1.1281 - 1.1905	150.50	130.15	123.30	120.00	116.60	113.75
1.2500	1 1/4	1	8	3	7/8	11 1/2	55316	116.05	1.1906 - 1.2530	156.85	136.55	129.60	126.40	122.85	120.05
1.3125	1 5/16	1	8	3	7/8	11 1/2	55320	122.15	1.2531 - 1.3155	162.85	142.45	135.55	132.40	128.85	126.15
1.3750	1 3/8	1	8	3 1/4	7/8	12	55324	129.60	1.3156 - 1.3780	170.25	149.95	143.15	139.85	136.45	133.70
1.4375	1 7/16	1 1/4	8	3 1/4	7/8	12	55328	144.40	1.3781 - 1.4405	185.20	164.80	157.95	154.70	151.20	148.45
1.5000	1 1/2	1 1/4	8	3 1/2	7/8	12 1/2	55332	152.70	1.4406 - 1.5030	193.40	173.00	166.10	162.95	159.45	156.65
1.5625	1 9/16	1 1/4	8	3 1/2	7/8	12 1/2	55265	226.75	1.5031 - 1.5660	267.45	247.10	240.30	237.00	233.55	230.75
1.6250	1 5/8	1 1/4	8	3 3/4	7/8	13	55266	234.55	1.5661 - 1.6280	275.15	254.85	248.00	244.75	241.25	238.50
1.6875	1 11/16	1 1/4	8	3 3/4	7/8	13	55267	263.75	1.6281 - 1.6910	304.55	284.15	277.30	274.10	270.65	267.85
1.7500	1 3/4	1 1/4	10	4	7/8	13 1/2	55268	263.75	1.6911 - 1.7530	304.55	284.15	277.30	274.10	270.65	267.85
1.8125	1 13/16	1 1/2	10	4	7/8	13 1/2	55269	263.75	1.7531 - 1.8160	304.55	284.15	277.30	274.10	270.65	267.85
1.8750	1 7/8	1 1/2	10	4 1/4	7/8	14	55270	276.45	1.8161 - 1.8780	317.10	296.70	289.80	286.60	283.10	280.30
1.9375	1 15/16	1 1/2	10	4 1/4	7/8	14	55271	276.45	1.8781 - 1.9410	317.10	296.70	289.80	286.60	283.10	280.30
2.0000	2	1 1/2	12	4 1/4	7/8	14	55272	276.45	1.9411 - 2.0030	317.10	296.70	289.80	286.60	283.10	280.30

Tolerances on page 60.

**Quantities of 15 or more: price of fractional size in same size range.*

DOWEL PIN & OVER/UNDER SIZE REAMERS

CARBIDE TIPPED

List No. 9476 - Dowel Pin Sizes - Straight Flute & Shank

Use: When used in pairs, these reamers allow disassembly of dies and molds keeping dowel pins on the same side. Pairs are .0005" & .002" under standard dowel pin diameters.

Special tool diameter tolerance: +.0"/-.0002"

TOOL DIAMETER	SHANK DIAM.	NO. OF FLTS.	LENGTH			LIST 9476 EDP NO.	PRICE EACH
			FLT	CARB	OAL		
.1855	11/64	4	1 1/8	1/2	4 1/2	947617	$50.10
.1870	11/64	4	1 1/8	1/2	4 1/2	947618	50.10
.2480	15/64	4	1 1/2	1/2	6	947623	50.10
.2495	15/64	4	1 1/2	1/2	6	947624	50.10
.3105	9/32	4	1 1/2	1/2	6	947630	51.20
.3120	9/32	4	1 1/2	1/2	6	947631	51.20
.3730	5/16	4	1 3/4	5/8	7	947636	53.10
.3745	5/16	4	1 3/4	5/8	7	947637	53.10
.4355	3/8	4	1 3/4	5/8	7	947642	59.35
.4370	3/8	4	1 3/4	5/8	7	947643	59.35
.4980	7/16	6	2	5/8	8	947648	65.05
.4995	7/16	6	2	5/8	8	947649	65.05

List No. 9478 - Over/Under Sizes - Straight Flute & Shank

Use: For finishing accurate holes in a wide variety of materials.

Tool diameter tolerance: +.0002"/-0"

TOOL DIAMETER	SHANK DIAM.	NO. OF FLTS.	LENGTH			LIST 9478 EDP NO.	PRICE EACH
			FLT	CARB	OAL		
.1865	11/64	4	1 1/8	1/2	4 1/2	947818	$50.10
.1885	11/64	4	1 1/8	1/2	4 1/2	947819	50.10
.2490	15/64	4	1 1/2	1/2	6	947824	50.10
.2510	15/64	4	1 1/2	1/2	6	947825	50.10
.3115	9/32	4	1 1/2	1/2	6	947831	51.20
.3135	9/32	4	1 1/2	1/2	6	947832	51.20
.3740	5/16	4	1 3/4	5/8	7	947837	53.10
.3760	5/16	4	1 3/4	5/8	7	947838	53.10
.4365	3/8	4	1 3/4	5/8	7	947843	59.35
.4385	3/8	4	1 3/4	5/8	7	947844	59.35
.4990	7/16	6	2	5/8	8	947849	65.05
.5010	7/16	6	2	5/8	8	947850	65.05

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

STOCKED DECIMAL TOOL DIAMETERS .1560" THRU .3055"

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.1560	56551560	$56.10	.1860	56551860	$52.25	.2160	56552160	$52.25	.2460	56552460	$52.25	.2760	56552760	$53.05
.1565	56551565	56.10	.1865	947818	50.10	.2165	5655055	52.25	.2465	56552465	52.25	.2765	56552765	53.05
.1570	56551570	56.10	.1870	56551870	52.25	.2170	56552170	52.25	.2470	56552470	52.25	.2770	56552770	53.05
.1575	5655040	56.10	.1875	55212	39.80	.2175	56552175	52.25	.2475	56552475	52.25	.2775	56552775	53.05
.1580	56551580	56.10	.1880	56551880	52.25	.2180	56552180	52.25	.2480	5655063	52.25	.2780	56552780	53.05
.1585	56551585	56.10	.1885	947819	50.10	.2185	56552185	52.25	.2485	56552485	52.25	.2785	56552785	53.05
.1590	56551590	56.10	.1890	5655048	52.25	.2190	56552190	52.25	.2490	947824	50.10	.2790	56552790	53.05
.1595	56551595	56.10	.1895	56551895	52.25	.2195	56552195	52.25	.2495	56552495	52.25	.2795	5655071	53.05
.1600	56551600	56.10	.1900	56551900	52.25	.2200	56552200	52.25	.2500	55216	39.80	.2800	56552800	53.05
.1605	56551605	56.10	.1905	56551905	52.25	.2205	5655056	52.25	.2505	56552505	52.25	.2805	56552805	53.05
.1610	56551610	56.10	.1910	56551910	52.25	.2210	56552210	52.25	.2510	947825	50.10	.2810	56552810	53.05
.1615	56551615	56.10	.1915	56551915	52.25	.2215	56552215	54.65	.2515	56552515	52.25	.2815	56552815	53.05
.1620	56551620	56.10	.1920	56551920	52.25	.2220	56552220	54.65	.2520	5655064	52.25	.2820	56552820	53.05
.1625	56551625	56.10	.1925	56551925	52.25	.2225	56552225	54.65	.2525	56552525	52.25	.2825	56552825	53.05
.1630	56551630	56.10	.1930	56551930	52.25	.2230	56552230	54.65	.2530	56552530	52.25	.2830	56552830	53.05
.1635	56551635	56.10	.1935	56551935	52.25	.2235	56552235	54.65	.2535	56552535	53.05	.2835	5655072	53.05
.1640	56551640	56.10	.1940	56551940	52.25	.2240	56552240	54.65	.2540	56552540	53.05	.2840	56552840	53.05
.1645	56551645	56.10	.1945	56551945	52.25	.2245	56552245	54.65	.2545	56552545	53.05	.2845	56552845	53.05
.1650	56551650	56.10	.1950	56551950	52.25	.2250	56552250	54.65	.2550	56552550	53.05	.2850	56552850	53.05
.1655	56551655	56.10	.1955	56551955	52.25	.2255	56552255	54.65	.2555	56552555	53.05	.2855	56552855	53.05
.1660	56551660	56.10	.1960	56551960	52.25	.2260	56552260	54.65	.2560	56552560	53.05	.2860	56552860	53.05
.1665	56551665	56.10	.1965	56551965	52.25	.2265	56552265	54.65	.2565	56552565	53.05	.2865	56552865	53.05
.1670	56551670	56.10	.1970	56551970	52.25	.2270	56552270	54.65	.2570	56552570	53.05	.2870	56552870	53.05
.1675	56551675	56.10	.1975	56551975	52.25	.2275	56552275	54.65	.2575	56552575	53.05	.2875	56552875	53.05
.1680	56551680	56.10	.1980	56551980	52.25	.2280	56552280	54.65	.2580	56552580	53.05	.2880	56552880	53.05
.1685	56551685	56.10	.1985	56551985	52.25	.2285	56552285	54.65	.2585	56552585	53.05	.2885	56552885	53.05
.1690	56551690	56.10	.1990	56551990	52.25	.2290	56552290	54.65	.2590	56552590	53.05	.2890	56552890	53.05
.1695	56551695	56.10	.1995	56551995	52.25	.2295	56552295	54.65	.2595	56552595	53.05	.2895	56552895	53.05
.1700	56551700	56.10	.2000	56552000	52.25	.2300	56552300	54.65	.2600	56552600	53.05	.2900	56552900	53.05
.1705	56551705	56.10	.2005	56552005	52.25	.2305	56552305	54.65	.2605	56552605	53.05	.2905	56552905	53.05
.1710	56551710	56.10	.2010	56552010	52.25	.2310	56552310	54.65	.2610	56552610	53.05	.2910	56552910	53.05
.1715	56551715	56.10	.2015	56552015	52.25	.2315	56552315	54.65	.2615	56552615	53.05	.2915	56552915	53.05
.1720	56551720	56.10	.2020	56552020	52.25	.2320	56552320	54.65	.2620	56552620	53.05	.2920	56552920	53.05
.1725	56551725	56.10	.2025	56552025	52.25	.2325	56552325	54.65	.2625	56552625	53.05	.2925	56552925	53.05
.1730	56551730	56.10	.2030	56552030	52.25	.2330	56552330	54.65	.2630	56552630	53.05	.2930	56552930	53.05
.1735	56551735	56.10	.2035	56552035	52.25	.2335	56552335	54.65	.2635	56552635	53.05	.2935	56552935	53.05
.1740	56551740	56.10	.2040	56552040	52.25	.2340	56552340	54.65	.2640	56552640	53.05	.2940	56552940	53.05
.1745	56551745	56.10	.2045	56552045	52.25	.2345	56552345	54.65	.2645	56552645	53.05	.2945	56552945	53.05
.1750	56551750	56.10	.2050	56552050	52.25	.2350	56552350	54.65	.2650	56552650	53.05	.2950	56552950	53.05
.1755	56551755	56.10	.2055	56552055	52.25	.2355	56552355	54.65	.2655	56552655	53.05	.2955	56552955	53.05
.1760	56551760	56.10	.2060	56552060	52.25	.2360	56552360	54.65	.2660	56552660	53.05	.2960	56552960	53.05
.1765	56551765	56.10	.2065	56552065	52.25	.2365	56552365	54.65	.2665	56552665	53.05	.2965	56552965	53.05
.1770	56551770	52.25	.2070	56552070	52.25	.2370	56552370	54.65	.2670	56552670	53.05	.2970	56552970	53.05
.1775	56551775	52.25	.2075	56552075	52.25	.2375	56552375	54.65	.2675	56552675	53.05	.2975	56552975	53.05
.1780	56551780	52.25	.2080	56552080	52.25	.2380	56552380	54.65	.2680	56552680	53.05	.2980	56552980	53.05
.1785	56551785	52.25	.2085	56552085	52.25	.2385	56552385	52.25	.2685	56552685	53.05	.2985	56552985	53.05
.1790	56551790	52.25	.2090	56552090	52.25	.2390	56552390	52.25	.2690	56552690	53.05	.2990	56552990	53.05
.1795	56551795	52.25	.2095	56552095	52.25	.2395	56552395	52.25	.2695	56552695	53.05	.2995	56552995	53.05
.1800	56551800	52.25	.2100	56552100	52.25	.2400	56552400	52.25	.2700	56552700	53.05	.3000	56553000	53.05
.1805	56551805	52.25	.2105	56552105	52.25	.2405	56552405	52.25	.2705	56552705	53.05	.3005	56553005	53.05
.1810	56551810	52.25	.2110	56552110	52.25	.2410	56552410	52.25	.2710	56552710	53.05	.3010	56553010	53.05
.1815	56551815	52.25	.2115	56552115	52.25	.2415	56552415	52.25	.2715	56552715	53.05	.3015	56553015	53.05
.1820	56551820	52.25	.2120	56552120	52.25	.2420	56552420	52.25	.2720	56552720	53.05	.3020	56553020	53.05
.1825	56551825	52.25	.2125	56552125	52.25	.2425	56552425	52.25	.2725	56552725	53.05	.3025	56553025	53.05
.1830	56551830	52.25	.2130	56552130	52.25	.2430	56552430	52.25	.2730	56552730	53.05	.3030	56553030	53.05
.1835	56551835	52.25	.2135	56552135	52.25	.2435	56552435	52.25	.2735	56552735	53.05	.3035	56553035	53.05
.1840	56551840	52.25	.2140	56552140	52.25	.2440	56552440	52.25	.2740	56552740	53.05	.3040	56553040	53.05
.1845	56551845	52.25	.2145	56552145	52.25	.2445	56552445	52.25	.2745	56552745	53.05	.3045	56553045	53.05
.1850	5655047	52.25	.2150	56552150	52.25	.2450	56552450	52.25	.2750	56552750	53.05	.3050	56553050	53.05
.1855	56551855	52.25	.2155	56552155	52.25	.2455	56552455	52.25	.2755	56552755	53.05	.3055	56553055	53.05

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

STOCKED DECIMAL TOOL DIAMETERS .3060" THRU .4555"

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.3060	56553060	$53.05
.3065	56553065	53.05
.3070	56553070	53.05
.3075	56553075	53.05
.3080	56553080	53.05
.3085	56553085	53.05
.3090	56553090	53.05
.3095	56553095	53.05
.3100	56553100	53.05
.3105	56553105	53.05
.3110	5655079	53.05
.3115	947831	51.20
.3120	56553120	53.05
.3125	55220	40.70
.3130	56553130	53.05
.3135	947832	51.20
.3140	56553140	53.05
.3145	56553145	53.05
.3150	5655080	53.05
.3155	56553155	54.40
.3160	56553160	54.40
.3165	56553165	54.40
.3170	56553170	54.40
.3175	56553175	54.40
.3180	56553180	54.40
.3185	56553185	54.40
.3190	56553190	54.40
.3195	56553195	54.40
.3200	56553200	54.40
.3205	56553205	54.40
.3210	56553210	54.40
.3215	56553215	54.40
.3220	56553220	54.40
.3225	56553225	54.40
.3230	56553230	54.40
.3235	56553235	54.40
.3240	56553240	54.40
.3245	56553245	54.40
.3250	56553250	54.40
.3255	56553255	54.40
.3260	56553260	54.40
.3265	56553265	54.40
.3270	56553270	54.40
.3275	56553275	54.40
.3280	56553280	54.40
.3285	56553285	54.40
.3290	56553290	54.40
.3295	56553295	54.40
.3300	56553300	54.40
.3305	56553305	54.40
.3310	56553310	54.40
.3315	56553315	54.40
.3320	56553320	54.40
.3325	56553325	54.40
.3330	56553330	54.40
.3335	56553335	54.40
.3340	56553340	54.40
.3345	56553345	54.40
.3350	56553350	54.40
.3355	56553355	54.40

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.3360	56553360	$54.40
.3365	56553365	54.40
.3370	56553370	54.40
.3375	56553375	54.40
.3380	56553380	54.40
.3385	56553385	54.40
.3390	56553390	54.40
.3395	56553395	54.40
.3400	56553400	54.40
.3405	56553405	54.40
.3410	56553410	54.40
.3415	56553415	54.40
.3420	56553420	54.40
.3425	5655087	54.40
.3430	56553430	54.40
.3435	56553435	54.40
.3440	56553440	54.40
.3445	56553445	54.40
.3450	56553450	54.40
.3455	56553455	54.40
.3460	56553460	54.40
.3465	5655088	54.40
.3470	56553470	54.40
.3475	56553475	54.40
.3480	56553480	54.40
.3485	56553485	54.40
.3490	56553490	54.40
.3495	56553495	54.40
.3500	56553500	54.40
.3505	56553505	54.40
.3510	56553510	54.40
.3515	56553515	54.40
.3520	56553520	54.40
.3525	56553525	54.40
.3530	56553530	54.40
.3535	56553535	54.40
.3540	56553540	54.40
.3545	56553545	54.40
.3550	56553550	54.40
.3555	56553555	54.40
.3560	56553560	54.40
.3565	56553565	54.40
.3570	56553570	54.40
.3575	56553575	54.40
.3580	56553580	54.40
.3585	56553585	54.40
.3590	56553590	54.40
.3595	56553595	54.40
.3600	56553600	54.40
.3605	56553605	54.40
.3610	56553610	54.40
.3615	56553615	54.40
.3620	56553620	54.40
.3625	56553625	54.40
.3630	56553630	54.40
.3635	56553635	54.40
.3640	56553640	54.40
.3645	56553645	54.40
.3650	56553650	54.40
.3655	56553655	54.40

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.3660	56553660	$54.40
.3665	56553665	54.40
.3670	56553670	54.40
.3675	56553675	54.40
.3680	56553680	54.40
.3685	56553685	54.40
.3690	56553690	54.40
.3695	56553695	54.40
.3700	56553700	54.40
.3705	56553705	54.40
.3710	56553710	54.40
.3715	56553715	54.40
.3720	56553720	54.40
.3725	56553725	54.40
.3730	56553730	54.40
.3735	56553735	54.40
.3740	947837	53.10
.3745	56553745	54.40
.3750	55224	42.10
.3755	56553755	54.40
.3760	947838	53.10
.3765	56553765	54.40
.3770	56553770	54.40
.3775	56553775	54.40
.3780	5655096	54.40
.3785	56553785	56.50
.3790	56553790	56.50
.3795	56553795	56.50
.3800	56553800	56.50
.3805	56553805	56.50
.3810	56553810	56.50
.3815	56553815	56.50
.3820	56553820	56.50
.3825	56553825	56.50
.3830	56553830	56.50
.3835	56553835	56.50
.3840	56553840	56.50
.3845	56553845	56.50
.3850	56553850	56.50
.3855	56553855	56.50
.3860	56553860	56.50
.3865	56553865	56.50
.3870	56553870	56.50
.3875	56553875	56.50
.3880	56553880	56.50
.3885	56553885	56.50
.3890	56553890	56.50
.3895	56553895	56.50
.3900	56553900	56.50
.3905	56553905	56.50
.3910	56553910	56.50
.3915	56553915	56.50
.3920	56553920	56.50
.3925	56553925	56.50
.3930	56553930	56.50
.3935	56553935	56.50
.3940	56553940	56.50
.3945	56553945	56.50
.3950	56553950	56.50
.3955	56553955	56.50

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.3960	56553960	$56.50
.3965	56553965	56.50
.3970	56553970	56.50
.3975	56553975	56.50
.3980	56553980	56.50
.3985	56553985	56.50
.3990	56553990	56.50
.3995	56553995	56.50
.4000	56554000	56.50
.4005	56554005	56.50
.4010	56554010	56.50
.4015	56554015	56.50
.4020	56554020	56.50
.4025	56554025	56.50
.4030	56554030	56.50
.4035	56554035	56.50
.4040	56554040	56.50
.4045	56554045	56.50
.4050	56554050	56.50
.4055	5655103	56.50
.4060	56554060	56.50
.4065	56554065	56.50
.4070	56554070	56.50
.4075	56554075	56.50
.4080	56554080	56.50
.4085	56554085	56.50
.4090	56554090	56.50
.4095	56554095	59.40
.4100	56554100	59.40
.4105	56554105	59.40
.4110	56554110	59.40
.4115	56554115	59.40
.4120	56554120	59.40
.4125	56554125	59.40
.4130	56554130	59.40
.4135	56554135	59.40
.4140	56554140	59.40
.4145	56554145	59.40
.4150	56554150	59.40
.4155	56554155	59.40
.4160	56554160	59.40
.4165	56554165	59.40
.4170	56554170	59.40
.4175	56554175	59.40
.4180	56554180	59.40
.4185	56554185	59.40
.4190	56554190	59.40
.4195	56554195	59.40
.4200	56554200	59.40
.4205	56554205	59.40
.4210	56554210	59.40
.4215	56554215	59.40
.4220	56554220	59.40
.4225	56554225	59.40
.4230	56554230	59.40
.4235	56554235	59.40
.4240	56554240	59.40
.4245	56554245	59.40
.4250	56554250	59.40
.4255	56554255	59.40

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.4260	56554260	$59.40
.4265	56554265	59.40
.4270	56554270	59.40
.4275	56554275	59.40
.4280	56554280	59.40
.4285	56554285	59.40
.4290	56554290	59.40
.4295	56554295	59.40
.4300	56554300	59.40
.4305	56554305	59.40
.4310	56554310	59.40
.4315	56554315	59.40
.4320	56554320	59.40
.4325	56554325	59.40
.4330	56554330	59.40
.4335	56554335	59.40
.4340	56554340	59.40
.4345	56554345	59.40
.4350	56554350	59.40
.4355	56554355	59.40
.4360	56554360	59.40
.4365	947843	59.35
.4370	5655111	59.40
.4375	55228	47.20
.4380	56554380	59.40
.4385	947844	59.35
.4390	56554390	59.40
.4395	56554395	59.40
.4400	56554400	59.40
.4405	56554405	59.40
.4410	56554410	59.40
.4415	56554415	60.15
.4420	56554420	60.15
.4425	56554425	60.15
.4430	56554430	60.15
.4435	56554435	60.15
.4440	56554440	60.15
.4445	56554445	60.15
.4450	56554450	60.15
.4455	56554455	60.15
.4460	56554460	60.15
.4465	56554465	60.15
.4470	56554470	60.15
.4475	56554475	60.15
.4480	56554480	60.15
.4485	56554485	60.15
.4490	56554490	60.15
.4495	56554495	60.15
.4500	56554500	60.15
.4505	56554505	60.15
.4510	56554510	60.15
.4515	56554515	60.15
.4520	56554520	60.15
.4525	56554525	60.15
.4530	56554530	60.15
.4535	56554535	60.15
.4540	56554540	60.15
.4545	56554545	60.15
.4550	56554550	60.15
.4555	56554555	60.15

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

STOCKED DECIMAL TOOL DIAMETERS .4560" THRU .6055"

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.4560	56554560	$60.15	.4860	56554860	$70.45	.5160	56555160	$75.55	.5460	56555460	$75.55	.5760	56555760	$78.00
.4565	56554565	60.15	.4865	56554865	70.45	.5165	56555165	75.55	.5465	56555465	75.55	.5765	56555765	78.00
.4570	56554570	60.15	.4870	56554870	70.45	.5170	56555170	75.55	.5470	56555470	75.55	.5770	56555770	78.00
.4575	56554575	60.15	.4875	56554875	70.45	.5175	56555175	75.55	.5475	56555475	75.55	.5775	56555775	78.00
.4580	56554580	60.15	.4880	56554880	70.45	.5180	56555180	75.55	.5480	56555480	75.55	.5780	56555780	78.00
.4585	56554585	60.15	.4885	56554885	70.45	.5185	56555185	75.55	.5485	56555485	75.55	.5785	56555785	78.00
.4590	56554590	60.15	.4890	56554890	70.45	.5190	56555190	75.55	.5490	56555490	75.55	.5790	56555790	78.00
.4595	56554595	60.15	.4895	56554895	70.45	.5195	56555195	75.55	.5495	56555495	75.55	.5795	56555795	78.00
.4600	56554600	60.15	.4900	56554900	70.45	.5200	56555200	75.55	.5500	56555500	75.55	.5800	56555800	78.00
.4605	56554605	60.15	.4905	56554905	70.45	.5205	56555205	75.55	.5505	56555505	75.55	.5805	56555805	78.00
.4610	56554610	60.15	.4910	56554910	70.45	.5210	56555210	75.55	.5510	56555510	75.55	.5810	56555810	78.00
.4615	56554615	60.15	.4915	56554915	70.45	.5215	56555215	75.55	.5515	56555515	75.55	.5815	56555815	78.00
.4620	56554620	60.15	.4920	56554920	70.45	.5220	56555220	75.55	.5520	56555520	75.55	.5820	56555820	78.00
.4625	56554625	60.15	.4925	56554925	70.45	.5225	56555225	75.55	.5525	56555525	75.55	.5825	56555825	78.00
.4630	56554630	60.15	.4930	56554930	70.45	.5230	56555230	75.55	.5530	56555530	75.55	.5830	56555830	78.00
.4635	56554635	60.15	.4935	56554935	70.45	.5235	56555235	75.55	.5535	56555535	75.55	.5835	56555835	78.00
.4640	56554640	60.15	.4940	56554940	70.45	.5240	56555240	75.55	.5540	56555540	75.55	.5840	56555840	78.00
.4645	56554645	60.15	.4945	56554945	70.45	.5245	56555245	75.55	.5545	56555545	75.55	.5845	56555845	78.00
.4650	56554650	60.15	.4950	56554950	70.45	.5250	56555250	75.55	.5550	56555550	75.55	.5850	56555850	78.00
.4655	56554655	60.15	.4955	56554955	70.45	.5255	56555255	75.55	.5555	56555555	75.55	.5855	56555855	78.00
.4660	56554660	60.15	.4960	56554960	70.45	.5260	56555260	75.55	.5560	56555560	75.55	.5860	56555860	78.00
.4665	56554665	60.15	.4965	56554965	70.45	.5265	56555265	75.55	.5565	56555565	75.55	.5865	56555865	78.00
.4670	56554670	60.15	.4970	56554970	70.45	.5270	56555270	75.55	.5570	56555570	75.55	.5870	56555870	78.00
.4675	56554675	60.15	.4975	56554975	70.45	.5275	56555275	75.55	.5575	56555575	75.55	.5875	56555875	78.00
.4680	56554680	60.15	.4980	56554980	70.45	.5280	56555280	75.55	.5580	56555580	75.55	.5880	56555880	78.00
.4685	5655119	60.15	.4985	56554985	70.45	.5285	56555285	75.55	.5585	56555585	75.55	.5885	56555885	78.00
.4690	56554690	60.15	.4990	947849	65.05	.5290	56555290	75.55	.5590	56555590	75.55	.5890	56555890	78.00
.4695	56554695	60.15	.4995	56554995	70.45	.5295	56555295	75.55	.5595	56555595	75.55	.5895	56555895	78.00
.4700	56554700	60.15	.5000	55232	56.90	.5300	56555300	75.55	.5600	56555600	75.55	.5900	56555900	78.00
.4705	56554705	60.15	.5005	56555005	70.45	.5305	56555305	75.55	.5605	56555605	75.55	.5905	56555905	78.00
.4710	56554710	60.15	.5010	947850	65.05	.5310	56555310	75.55	.5610	56555610	75.55	.5910	56555910	78.00
.4715	56554715	60.15	.5015	56555015	70.45	.5315	5655135	75.55	.5615	56555615	75.55	.5915	56555915	78.00
.4720	56554720	60.15	.5020	56555020	70.45	.5320	56555320	75.55	.5620	56555620	75.55	.5920	56555920	78.00
.4725	56554725	70.45	.5025	56555025	70.45	.5325	56555325	75.55	.5625	55236	61.90	.5925	56555925	78.00
.4730	56554730	70.45	.5030	56555030	70.45	.5330	56555330	75.55	.5630	5655143	75.55	.5930	56555930	78.00
.4735	56554735	70.45	.5035	56555035	75.55	.5335	56555335	75.55	.5635	56555635	75.55	.5935	56555935	78.00
.4740	56554740	70.45	.5040	56555040	75.55	.5340	56555340	75.55	.5640	56555640	75.55	.5940	56555940	78.00
.4745	56554745	70.45	.5045	56555045	75.55	.5345	56555345	75.55	.5645	56555645	75.55	.5945	5655151	78.00
.4750	56554750	70.45	.5050	56555050	75.55	.5350	56555350	75.55	.5650	56555650	75.55	.5950	56555950	78.00
.4755	56554755	70.45	.5055	56555055	75.55	.5355	56555355	75.55	.5655	56555655	75.55	.5955	56555955	78.00
.4760	56554760	70.45	.5060	56555060	75.55	.5360	56555360	75.55	.5660	56555660	75.55	.5960	56555960	78.00
.4765	56554765	70.45	.5065	56555065	75.55	.5365	56555365	75.55	.5665	56555665	78.00	.5965	56555965	78.00
.4770	56554770	70.45	.5070	56555070	75.55	.5370	56555370	75.55	.5670	56555670	78.00	.5970	56555970	78.00
.4775	56554775	70.45	.5075	56555075	75.55	.5375	56555375	75.55	.5675	56555675	78.00	.5975	56555975	78.00
.4780	56554780	70.45	.5080	56555080	75.55	.5380	56555380	75.55	.5680	56555680	78.00	.5980	56555980	78.00
.4785	56554785	70.45	.5085	56555085	75.55	.5385	56555385	75.55	.5685	56555685	78.00	.5985	56555985	78.00
.4790	56554790	70.45	.5090	56555090	75.55	.5390	56555390	75.55	.5690	56555690	78.00	.5990	56555990	78.00
.4795	56554795	70.45	.5095	56555095	75.55	.5395	56555395	75.55	.5695	56555695	78.00	.5995	56555995	78.00
.4800	56554800	70.45	.5100	56555100	75.55	.5400	56555400	75.55	.5700	56555700	78.00	.6000	56556000	78.00
.4805	56554805	70.45	.5105	56555105	75.55	.5405	56555405	75.55	.5705	56555705	78.00	.6005	56556005	78.00
.4810	56554810	70.45	.5110	56555110	75.55	.5410	56555410	75.55	.5710	56555710	78.00	.6010	56556010	78.00
.4815	56554815	70.45	.5115	56555115	75.55	.5415	56555415	75.55	.5715	56555715	78.00	.6015	56556015	78.00
.4820	56554820	70.45	.5120	56555120	75.55	.5420	56555420	75.55	.5720	56555720	78.00	.6020	56556020	78.00
.4825	56554825	70.45	.5125	56555125	75.55	.5425	56555425	75.55	.5725	56555725	78.00	.6025	56556025	78.00
.4830	56554830	70.45	.5130	56555130	75.55	.5430	56555430	75.55	.5730	56555730	78.00	.6030	56556030	78.00
.4835	56554835	70.45	.5135	56555135	75.55	.5435	56555435	75.55	.5735	56555735	78.00	.6035	56556035	78.00
.4840	56554840	70.45	.5140	56555140	75.55	.5440	56555440	75.55	.5740	56555740	78.00	.6040	56556040	78.00
.4845	56554845	70.45	.5145	56555145	75.55	.5445	56555445	75.55	.5745	56555745	78.00	.6045	56556045	78.00
.4850	56554850	70.45	.5150	56555150	75.55	.5450	56555450	75.55	.5750	56555750	78.00	.6050	56556050	78.00
.4855	56554855	70.45	.5155	56555155	75.55	.5455	56555455	75.55	.5755	56555755	78.00	.6055	56556055	78.00

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

STOCKED DECIMAL TOOL DIAMETERS .6060" THRU .7555"

DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5655 EDP NO.	PRICE EACH
.6060	56556060	$78.00	.6360	56556360	$79.10	.6660	56556660	$79.10	.6960	56556960	$82.20	.7260	56557260	$82.20
.6065	56556065	78.00	.6365	56556365	79.10	.6665	56556665	79.10	.6965	56556965	82.20	.7265	56557265	82.20
.6070	56556070	78.00	.6370	56556370	79.10	.6670	56556670	79.10	.6970	56556970	82.20	.7270	56557270	82.20
.6075	56556075	78.00	.6375	56556375	79.10	.6675	56556675	79.10	.6975	56556975	82.20	.7275	56557275	82.20
.6080	56556080	78.00	.6380	56556380	79.10	.6680	56556680	79.10	.6980	56556980	82.20	.7280	56557280	82.20
.6085	56556085	78.00	.6385	56556385	79.10	.6685	56556685	79.10	.6985	56556985	82.20	.7285	56557285	82.20
.6090	56556090	78.00	.6390	56556390	79.10	.6690	56556690	79.10	.6990	56556990	82.20	.7290	56557290	82.20
.6095	56556095	78.00	.6395	56556395	79.10	.6695	56556695	79.10	.6995	56556995	82.20	.7295	56557295	82.20
.6100	56556100	78.00	.6400	56556400	79.10	.6700	56556700	79.10	.7000	56557000	82.20	.7300	56557300	82.20
.6105	56556105	78.00	.6405	56556405	79.10	.6705	56556705	79.10	.7005	56557005	82.20	.7305	56557305	82.20
.6110	56556110	78.00	.6410	56556410	79.10	.6710	56556710	79.10	.7010	56557010	82.20	.7310	56557310	82.20
.6115	56556115	78.00	.6415	56556415	79.10	.6715	56556715	79.10	.7015	56557015	82.20	.7315	56557315	82.20
.6120	56556120	78.00	.6420	56556420	79.10	.6720	56556720	79.10	.7020	56557020	82.20	.7320	56557320	82.20
.6125	56556125	78.00	.6425	56556425	79.10	.6725	56556725	79.10	.7025	56557025	82.20	.7325	56557325	82.20
.6130	56556130	78.00	.6430	56556430	79.10	.6730	56556730	79.10	.7030	56557030	82.20	.7330	56557330	82.20
.6135	56556135	78.00	.6435	56556435	79.10	.6735	56556735	79.10	.7035	56557035	82.20	.7335	56557335	82.20
.6140	56556140	78.00	.6440	56556440	79.10	.6740	56556740	79.10	.7040	56557040	82.20	.7340	56557340	82.20
.6145	56556145	78.00	.6445	56556445	79.10	.6745	56556745	79.10	.7045	56557045	82.20	.7345	56557345	82.20
.6150	56556150	78.00	.6450	56556450	79.10	.6750	56556750	79.10	.7050	56557050	82.20	.7350	56557350	82.20
.6155	56556155	78.00	.6455	56556455	79.10	.6755	56556755	79.10	.7055	56557055	82.20	.7355	56557355	82.20
.6160	56556160	78.00	.6460	56556460	79.10	.6760	56556760	79.10	.7060	56557060	82.20	.7360	56557360	82.20
.6165	56556165	78.00	.6465	56556465	79.10	.6765	56556765	79.10	.7065	56557065	82.20	.7365	56557365	82.20
.6170	56556170	78.00	.6470	56556470	79.10	.6770	56556770	79.10	.7070	56557070	82.20	.7370	56557370	82.20
.6175	56556175	78.00	.6475	56556475	79.10	.6775	56556775	79.10	.7075	56557075	82.20	.7375	56557375	82.20
.6180	56556180	78.00	.6480	56556480	79.10	.6780	56556780	79.10	.7080	56557080	82.20	.7380	56557380	82.20
.6185	56556185	78.00	.6485	56556485	79.10	.6785	56556785	79.10	.7085	56557085	82.20	.7385	56557385	82.20
.6190	56556190	78.00	.6490	56556490	79.10	.6790	56556790	79.10	.7090	56557090	82.20	.7390	56557390	82.20
.6195	56556195	78.00	.6495	56556495	79.10	.6795	56556795	79.10	.7095	56557095	82.20	.7395	56557395	82.20
.6200	56556200	78.00	.6500	56556500	79.10	.6800	56556800	79.10	.7100	56557100	82.20	.7400	56557400	82.20
.6205	56556205	78.00	.6505	56556505	79.10	.6805	56556805	79.10	.7105	56557105	82.20	.7405	56557405	82.20
.6210	56556210	78.00	.6510	56556510	79.10	.6810	56556810	79.10	.7110	56557110	82.20	.7410	56557410	82.20
.6215	56556215	78.00	.6515	56556515	79.10	.6815	56556815	79.10	.7115	56557115	82.20	.7415	56557415	82.20
.6220	5655158	78.00	.6520	56556520	79.10	.6820	56556820	79.10	.7120	56557120	82.20	.7420	56557420	82.20
.6225	56556225	78.00	.6525	56556525	79.10	.6825	56556825	79.10	.7125	56557125	82.20	.7425	56557425	82.20
.6230	56556230	78.00	.6530	56556530	79.10	.6830	56556830	79.10	.7130	56557130	82.20	.7430	56557430	82.20
.6235	56556235	78.00	.6535	5655166	79.10	.6835	56556835	79.10	.7135	56557135	82.20	.7435	56557435	82.20
.6240	947862	78.00	.6540	56556540	79.10	.6840	56556840	79.10	.7140	56557140	82.20	.7440	56557440	82.20
.6245	56556245	78.00	.6545	56556545	79.10	.6845	56556845	79.10	.7145	56557145	82.20	.7445	56557445	82.20
.6250	55240	64.45	.6550	56556550	79.10	.6850	5655174	79.10	.7150	56557150	82.20	.7450	56557450	82.20
.6255	56556255	78.00	.6555	56556555	79.10	.6855	56556855	79.10	.7155	56557155	82.20	.7455	56557455	82.20
.6260	947863	78.00	.6560	56556560	79.10	.6860	56556860	79.10	.7160	56557160	82.20	.7460	56557460	82.20
.6265	56556265	78.00	.6565	56556565	79.10	.6865	56556865	79.10	.7165	5655182	82.20	.7465	56557465	82.20
.6270	56556270	78.00	.6570	56556570	79.10	.6870	56556870	79.10	.7170	56557170	82.20	.7470	56557470	82.20
.6275	56556275	78.00	.6575	5655167	79.10	.6875	55244	65.60	.7175	56557175	82.20	.7475	56557475	82.20
.6280	56556280	78.00	.6580	56556580	79.10	.6880	56556880	79.10	.7180	56557180	82.20	.7480	5655190	82.20
.6285	56556285	79.10	.6585	56556585	79.10	.6885	56556885	79.10	.7185	56557185	82.20	.7485	56557485	82.20
.6290	56556290	79.10	.6590	56556590	79.10	.6890	5655175	79.10	.7190	56557190	82.20	.7490	947874	82.20
.6295	56556295	79.10	.6595	56556595	79.10	.6895	56556895	79.10	.7195	56557195	82.20	.7495	56557495	82.20
.6300	56556300	79.10	.6600	56556600	79.10	.6900	56556900	79.10	.7200	56557200	82.20	.7500	55248	68.65
.6305	56556305	79.10	.6605	56556605	79.10	.6905	56556905	79.10	.7205	5655183	82.20	.7505	56557505	82.20
.6310	56556310	79.10	.6610	56556610	79.10	.6910	56556910	79.10	.7210	56557210	82.20	.7510	947875	82.20
.6315	56556315	79.10	.6615	56556615	79.10	.6915	56556915	82.20	.7215	56557215	82.20	.7515	56557515	82.20
.6320	56556320	79.10	.6620	56556620	79.10	.6920	56556920	82.20	.7220	56557220	82.20	.7520	5655191	82.20
.6325	56556325	79.10	.6625	56556625	79.10	.6925	56556925	82.20	.7225	56557225	82.20	.7525	56557525	82.20
.6330	56556330	79.10	.6630	56556630	79.10	.6930	56556930	82.20	.7230	56557230	82.20	.7530	56557530	82.20
.6335	56556335	79.10	.6635	56556635	79.10	.6935	56556935	82.20	.7235	56557235	82.20	.7535	56557535	84.50
.6340	56556340	79.10	.6640	56556640	79.10	.6940	56556940	82.20	.7240	56557240	82.20	.7540	56557540	84.50
.6345	56556345	79.10	.6645	56556645	79.10	.6945	56556945	82.20	.7245	56557245	82.20	.7545	56557545	84.50
.6350	56556350	79.10	.6650	56556650	79.10	.6950	56556950	82.20	.7250	56557250	82.20	.7550	56557550	84.50
.6355	56556355	79.10	.6655	56556655	79.10	.6955	56556955	82.20	.7255	56557255	82.20	.7555	56557555	84.50

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

METRIC

CARBIDE TIPPED

List No. 5655 - Straight Shank - Partial Flute Length Carbide - Metric

Use: Same as page 60 except in metric sizes.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLTS	LENGTH			EDP NO.	PRICE EACH	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	DEC.			FLT	CARB	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
4.0	.1575	.151	4	1	½	4	5655040	$56.10	3.962 - 4.493	$84.75	$65.75	$59.30	$56.15	$53.00	$50.25	$46.65
4.5	.1772	11/64	4	1 ⅛	½	4 ½	5655045	52.25	4.494 - 5.182	80.15	61.60	55.40	52.35	49.10	46.60	43.05
5.0	.1969	11/64	4	1 ⅛	½	4 ½	5655050	52.25	-	-	-	-	-	-	-	-
5.5	.2165	13/64	4	1 ¼	½	5	5655055	52.25	5.183 - 5.613	80.15	61.60	55.40	52.35	49.10	46.60	43.05
6.0	.2362	7/32	4	1 ½	½	6	5655060	54.65	5.614 - 6.045	82.55	64.00	57.70	54.70	51.50	48.95	45.35
6.3	.2480	15/64	4	1 ½	½	6	5655063	52.25	6.046 - 6.426	80.15	61.60	55.40	52.35	49.10	46.60	43.05
6.5	.2559	15/64	4	1 ½	½	6	5655065	53.05	6.427 - 7.214	81.10	62.40	56.25	53.15	50.05	47.40	43.85
7.0	.2756	15/64	4	1 ½	½	6	5655070	53.05	-	-	-	-	-	-	-	-
7.5	.2953	9/32	4	1 ½	½	6	5655075	53.05	7.215 - 8.001	81.10	62.40	56.25	53.15	50.05	47.40	43.85
8.0	.3150	9/32	4	1 ½	½	6	5655080	53.05	-	-	-	-	-	-	-	-
8.5	.3346	9/32	4	1 ½	⅝	6	5655085	54.40	8.002 - 8.814	82.50	63.90	57.65	54.65	51.45	48.90	45.30
9.0	.3543	5/16	4	1 ¾	⅝	7	5655090	54.40	8.815 - 9.601	82.50	63.90	57.65	54.65	51.45	48.90	45.30
9.5	.3740	5/16	4	1 ¾	⅝	7	5655095	54.40	-	-	-	-	-	-	-	-
10.0	.3937	5/16	4	1 ¾	⅝	7	5655100	56.50	9.602 - 10.389	84.50	65.90	59.70	56.65	53.50	50.95	47.35
10.5	.4134	⅜	4	1 ¾	⅝	7	5655105	59.40	10.390 - 11.201	87.45	68.90	62.70	59.60	56.50	53.95	50.30
11.0	.4331	⅜	4	1 ¾	⅝	7	5655110	59.40	-	-	-	-	-	-	-	-
11.5	.4528	⅜	4	1 ¾	⅝	7	5655115	60.15	11.202 - 11.989	88.10	69.60	63.35	60.35	57.15	54.65	51.05
12.0	.4724	7/16	6	2	⅝	8	5655120	70.45	11.990 - 12.776	101.30	80.80	74.00	70.75	67.25	64.40	60.45
12.5	.4921	7/16	6	2	⅝	8	5655125	70.45	-	-	-	-	-	-	-	-
13.0	.5118	7/16	6	2	⅝	8	5655130	75.55	12.777 - 13.564	106.30	85.85	79.05	75.65	72.25	69.40	65.50
13.5	.5315	7/16	6	2	⅝	8	5655135	75.55	-	-	-	-	-	-	-	-
14.0	.5512	7/16	6	2	⅝	8	5655140	75.55	13.565 - 14.376	106.30	85.85	79.05	75.65	72.25	69.40	65.50
14.5	.5709	7/16	6	2	⅝	8	5655145	78.00	14.377 - 15.164	108.85	88.40	81.50	78.20	74.80	71.95	67.95
15.0	.5906	7/16	6	2	⅝	8	5655150	78.00	-	-	-	-	-	-	-	-
15.5	.6102	9/16	6	2 ¼	⅝	9	5655155	78.00	15.165 - 15.951	108.85	88.40	81.50	78.20	74.80	71.95	67.95
16.0	.6299	9/16	6	2 ¼	⅝	9	5655160	79.10	15.952 - 16.739	110.00	89.50	82.60	79.20	75.90	73.00	69.00
16.5	.6496	9/16	6	2 ¼	⅝	9	5655165	79.10	-	-	-	-	-	-	-	-
17.0	.6693	9/16	6	2 ¼	⅝	9	5655170	79.10	16.740 - 17.551	110.00	89.50	82.60	79.20	75.90	73.00	69.00
17.5	.6890	9/16	6	2 ¼	⅝	9	5655175	79.10	-	-	-	-	-	-	-	-
18.0	.7087	9/16	6	2 ¼	⅝	9	5655180	82.20	17.552 - 18.339	113.00	92.60	85.75	82.45	79.00	76.10	72.15
18.5	.7283	⅝	6	2 ½	¾	9 ½	5655185	82.20	18.340 - 19.126	113.00	92.60	85.75	82.45	79.00	76.10	72.15
19.0	.7480	⅝	6	2 ½	¾	9 ½	5655190	82.20	-	-	-	-	-	-	-	-
19.5	.7677	⅝	6	2 ½	¾	9 ½	5655195	84.50	19.127 - 19.914	115.25	94.90	88.00	84.60	81.25	78.35	74.45
20.0	.7874	⅝	6	2 ½	¾	9 ½	5655200	84.50	19.915 - 20.726	115.25	94.90	88.00	84.60	81.25	78.35	74.45
20.5	.8071	⅝	6	2 ½	¾	9 ½	5655205	84.50	-	-	-	-	-	-	-	-
21.0	.8268	⅝	6	2 ½	¾	9 ½	5655210	87.35	20.727 - 21.514	118.15	97.60	90.85	87.45	84.05	81.25	77.30
21.5	.8465	⅝	6	2 ½	¾	9 ½	5655215	87.35	-	-	-	-	-	-	-	-
22.0	.8661	¾	6	2 ⅝	¾	10	5655220	87.35	21.515 - 22.301	118.15	97.60	90.85	87.45	84.05	81.25	77.30
22.5	.8858	¾	6	2 ⅝	¾	10	5655225	103.25	22.302 - 23.089	135.20	113.95	106.85	103.40	99.85	96.90	92.80
23.0	.9055	¾	6	2 ⅝	¾	10	5655230	103.25	-	-	-	-	-	-	-	-
23.5	.9252	¾	8	2 ⅝	¾	10	5655235	103.25	23.090 - 23.901	135.20	113.95	106.85	103.40	99.85	96.90	92.80
24.0	.9449	¾	8	2 ⅝	¾	10	5655240	107.65	23.902 - 24.689	139.55	118.25	111.15	107.75	104.20	101.25	97.15
24.5	.9646	¾	8	2 ⅝	¾	10	5655245	107.65	-	-	-	-	-	-	-	-
25.0	.9843	⅞	8	2 ¾	¾	10 ½	5655250	107.65	24.690 - 25.476	139.55	118.25	111.15	107.75	104.20	101.25	97.15
25.5	1.0039	⅞	8	2 ¾	¾	10 ½	5655255	110.10	25.477 - 27.076	140.85	120.45	113.65	110.30	106.95	104.15	100.10
26.0	1.0236	⅞	8	2 ¾	¾	10 ½	5655260	110.10	-	-	-	-	-	-	-	-
27.0	1.0630	⅞	8	2 ¾	¾	10 ½	5655270	110.10	-	-	-	-	-	-	-	-
28.0	1.1024	⅞	8	2 ⅞	⅞	11	5655280	118.05	27.077 - 28.651	148.60	128.30	121.45	118.15	114.75	111.90	107.95
29.0	1.1417	1	8	2 ⅞	⅞	11	5655290	123.30	28.652 - 30.239	153.90	133.70	126.70	123.45	120.00	117.20	113.30
30.0	1.1811	1	8	2 ⅞	⅞	11	5655300	123.30	-	-	-	-	-	-	-	-
31.0	1.2205	1	8	3	⅞	11 ½	5655310	129.60	30.240 - 31.826	160.25	139.90	133.10	129.80	126.40	123.55	119.70
32.0	1.2598	1	8	3	⅞	11 ½	5655320	135.55	31.827 - 33.414	166.30	146.00	139.10	135.85	132.40	129.50	125.55
33.0	1.2992	1	8	3	⅞	11 ½	5655330	135.55	-	-	-	-	-	-	-	-
34.0	1.3386	1	8	3 ¼	⅞	12	5655340	143.15	33.415 - 35.001	173.70	153.45	146.55	143.30	139.85	137.00	133.10
35.0	1.3780	1	8	3 ¼	⅞	12	5655350	143.15	-	-	-	-	-	-	-	-
36.0	1.4173	1 ¼	8	3 ¼	⅞	12	5655360	157.95	35.002 - 36.589	188.60	168.25	161.45	158.05	154.70	151.80	147.95
37.0	1.4567	1 ¼	8	3 ½	⅞	12 ½	5655370	166.10	36.590 - 38.176	196.85	176.50	169.65	166.35	162.95	160.10	156.20

Diameters up to 50mm – call us for price & availability.

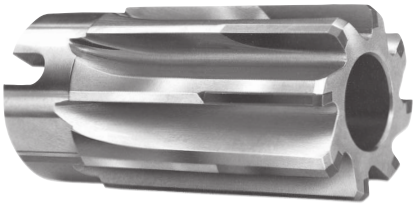
Tolerances on page 60.

SHELL REAMERS

CARBIDE TIPPED

List No. 5625 - Straight Flutes

Use: For general purpose reaming of most types of materials. Can be particularly useful and cost effective for machining large diameter holes. Hardened alloy steel bodies with brazed on carbide tips.



TOOL DIAMETER		HOLE DIAM. LG. END	FITS ARBOR NO.	NO. OF FLTS.	LENGTH			LIST 5625 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.				FLT	CARB	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.7500	¾	⅜	4	6	1 ¾	1	2 ¼	55026	$189.45	.7221 - .7530	$268.00	$228.70	$215.50	$209.20	$202.50	$197.25
.7812	25/32	⅜	4	6	1 ¾	1	2 ¼	55063	193.15	.7531 - .7840	271.65	232.25	219.25	212.90	206.20	200.95
.8125	13/16	½	5	6	1 15/16	1	2 ½	55027	193.15	.7841 - .8160	271.65	232.25	219.25	212.90	206.20	200.95
.8750	⅞	½	5	6	1 15/16	1	2 ½	55028	215.90	.8161 - .8780	297.35	256.50	242.75	236.40	229.35	223.80
.9375	15/16	½	5	8	1 15/16	1	2 ½	55029	215.90	.8781 - .9410	297.35	256.50	242.75	236.40	229.35	223.80
1.0000	1	½	5	8	1 15/16	1	2 ½	55030	219.75	.9411 - 1.0030	301.25	260.40	246.80	240.30	233.25	227.75
1.0625	1 1/16	⅝	6	8	2 ⅛	1	2 ¾	55031	227.50	1.0031 - 1.0660	308.90	268.10	254.30	247.90	240.95	235.35
1.1250	1 ⅛	⅝	6	8	2 ⅛	1	2 ¾	55032	231.25	1.0661 - 1.1280	312.70	271.95	258.20	251.80	244.75	239.30
1.1875	1 3/16	⅝	6	8	2 ⅛	1 ⅛	2 ¾	55033	235.20	1.1281 - 1.1905	316.50	275.85	262.15	255.70	248.60	243.20
1.2500	1 ¼	⅝	6	8	2 ⅛	1 ⅛	2 ¾	55034	250.60	1.1906 - 1.2530	332.00	291.20	277.60	271.00	264.10	258.55
1.3125	1 5/16	¾	7	8	2 ¼	1 ⅛	3	55035	254.30	1.2531 - 1.3155	335.80	295.05	281.40	274.90	268.00	262.40
1.3750	1 ⅜	¾	7	8	2 ¼	1 ⅛	3	55036	262.10	1.3156 - 1.3780	343.55	302.70	289.10	282.50	275.55	270.10
1.4375	1 7/16	¾	7	8	2 ¼	1 ⅛	3	55037	269.80	1.3781 - 1.4405	351.20	310.45	296.85	290.35	283.20	277.85
1.5000	1 ½	¾	7	8	2 ¼	1 ⅛	3	55038	281.40	1.4406 - 1.5030	362.85	322.05	308.35	301.85	294.85	289.40
1.5625	1 9/16	¾	7	10	2 ¼	1 ⅛	3	55039	325.80	1.5031 - 1.5660	410.75	368.25	353.95	347.10	339.80	334.10
1.6250	1 ⅝	¾	7	10	2 ¼	1 ⅛	3	55040	341.80	1.5661 - 1.6280	426.90	384.30	370.00	363.20	355.95	350.20
1.6875	1 11/16	1	8	10	2 ¾	1 ⅛	3 ½	55041	370.05	1.6281 - 1.6910	455.15	412.50	398.25	391.45	384.20	378.45
1.7500	1 ¾	1	8	10	2 ¾	1 ⅛	3 ½	55042	370.05	1.6911 - 1.7530	455.15	412.50	398.25	391.45	384.20	378.45
1.8125	1 13/16	1	8	10	2 ¾	1 ⅛	3 ½	55043	398.15	1.7531 - 1.8160	483.05	440.55	426.30	419.55	412.20	406.45
1.8750	1 ⅞	1	8	10	2 ¾	1 ⅛	3 ½	55044	398.15	1.8161 - 1.8780	483.05	440.55	426.30	419.55	412.20	406.45
1.9375	1 15/16	1	8	10	2 ¾	1 ⅛	3 ½	55045	426.40	1.8781 - 1.9410	511.25	468.70	454.50	447.80	440.45	434.70
2.0000	2	1	8	10	2 ¾	1 ⅛	3 ½	55046	426.40	1.9411 - 2.0030	511.25	468.70	454.50	447.80	440.45	434.70
2.0625	2 1/16	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55047	458.50	2.0031 - 2.0660	543.45	500.95	486.60	479.90	472.55	466.90
2.1250	2 ⅛	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55048	458.50	2.0661 - 2.1280	543.45	500.95	486.60	479.90	472.55	466.90
2.1875	2 3/16	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55049	498.70	2.1281 - 2.1905	583.70	541.10	526.85	520.05	512.85	507.00
2.2500	2 ¼	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55050	498.70	2.1906 - 2.2530	583.70	541.10	526.85	520.05	512.85	507.00
2.3125	2 5/16	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55051	526.85	2.2531 - 2.3155	611.90	569.25	555.05	548.20	540.95	535.20
2.3750	2 ⅜	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55052	526.85	2.3156 - 2.3780	611.90	569.25	555.05	548.20	540.95	535.20
2.4375	2 7/16	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55053	555.10	2.3781 - 2.4405	640.10	597.50	583.25	576.45	569.15	563.40
2.5000	2 ½	1 ¼	9	12	2 ⅞	1 ⅛	3 ¾	55054	555.10	2.4406 - 2.5030	640.10	597.50	583.25	576.45	569.15	563.40
2.5625	2 9/16	1 ½	10	14	3 ⅛	1 ⅛	4	55055	609.30	2.5031 - 2.5660	694.25	651.70	637.45	630.65	623.40	617.65
2.6250	2 ⅝	1 ½	10	14	3 ⅛	1 ⅛	4	55056	631.90	2.5661 - 2.6280	716.85	674.20	660.10	653.20	645.95	640.20
2.6875	2 11/16	1 ½	10	14	3 ⅛	1 ⅛	4	55057	656.45	2.6281 - 2.6910	741.40	698.90	684.60	677.85	670.50	664.75
2.7500	2 ¾	1 ½	10	14	3 ⅛	1 ⅛	4	55058	679.25	2.6911 - 2.7530	764.25	721.60	707.35	700.65	693.35	687.55
2.8125	2 13/16	1 ½	10	14	3 ⅛	1 ⅛	4	55059	703.10	2.7531 - 2.8160	788.05	745.55	731.30	724.50	717.20	711.55
2.8750	2 ⅞	1 ½	10	14	3 ⅛	1 ⅛	4	55060	731.30	2.8161 - 2.8780	816.15	773.75	759.40	752.70	745.35	739.65
2.9375	2 15/16	1 ½	10	14	3 ⅛	1 ⅛	4	55061	759.55	2.8781 - 2.9410	844.50	801.90	787.65	780.95	773.65	767.85
3.0000	3	1 ½	10	14	3 ⅛	1 ⅛	4	55062	787.75	2.9411 - 3.0030	872.65	830.15	815.90	809.20	801.85	796.10

**Quantities of 15 or more: price of fractional size in same size range.*

SHELL REAMER ARBORS

List No. 9481 - Shell Reamer Arbors

ARBOR NO.	FITS REAMER TOOL DIAM.	OVER ALL LEN.	STRAIGHT SHANK			TAPER SHANK		
			SHANK DIAM.	LIST 9481 EDP NO.	PRICE EACH	TAPER SHANK NO.	LIST 9481 EDP NO.	PRICE EACH
4	.7221 - .7840	9	½	948104	$120.30	2	948114	$143.45
5	.7841 - 1.0030	9 ½	⅝	948105	134.20	2	948115	171.25
6	1.0031 - 1.2530	10	¾	948106	148.15	3	948116	185.10
7	1.2531 - 1.6280	11	⅞	948107	162.00	3	948117	203.70
8	1.6281 - 2.0030	12	1 ⅛	948108	180.50	4	948118	226.85
9	2.0031 - 2.5030	13	1 ⅜	948109	217.50	4	948119	254.60
10	2.5031 - 3.0030	14	1 ⅝	948110	282.85	5	948120	322.95

Straight Shank

Taper Shank

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5659 - Straight Shank - Full Flute Length Carbide

Use: For general purpose reaming of most types of materials, including steel, cast iron, non-ferrous and non-metals. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLUTES	LENGTH		LIST 5659 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DECIMAL	FRAC.			FLUTE	OVERALL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.1875	3/16	11/64	4	1 1/2	6	55512	$47.65	.1770 - .2040	$85.85	$66.70	$60.45	$57.30	$54.00	$51.40
.2188	7/32	13/64	4	1 1/2	6	55514	47.65	.2041 - .2210	85.85	66.70	60.45	57.30	54.00	51.40
.2344	15/64	7/32	4	1 1/2	6	55515	47.65	.2211 - .2380	85.85	66.70	60.45	57.30	54.00	51.40
.2500	1/4	15/64	4	1 1/2	6	55516	47.65	.2381 - .2530	85.85	66.70	60.45	57.30	54.00	51.40
.2812	9/32	15/64	4	1 1/2	6	55518	48.75	.2531 - .2840	86.90	67.75	61.35	58.30	54.95	52.45
.3125	5/16	9/32	4	1 1/2	6	55520	48.75	.2841 - .3150	86.90	67.75	61.35	58.30	54.95	52.45
.3438	11/32	9/32	4	1 1/2	6	55522	50.40	.3151 - .3470	88.65	69.60	63.05	60.10	56.80	54.20
.3750	3/8	5/16	4	1 3/4	7	55524	50.40	.3471 - .3780	88.65	69.60	63.05	60.10	56.80	54.20
.4062	13/32	5/16	4	1 3/4	7	55526	53.00	.3781 - .4090	91.10	72.10	65.65	62.65	59.30	56.70
.4375	7/16	3/8	4	1 3/4	7	55528	57.30	.4091 - .4410	95.50	76.30	69.90	66.95	63.60	61.05
.4688	15/32	3/8	4	1 3/4	7	55530	61.85	.4411 - .4720	100.10	81.05	74.50	71.45	68.20	65.65
.5000	1/2	7/16	6	2	8	55532	66.25	.4721 - .5030	107.20	86.70	79.95	76.60	73.15	70.25
.5312	17/32	7/16	6	2	8	55534	68.15	.5031 - .5340	109.10	88.60	81.75	78.40	74.90	72.15
.5625	9/16	7/16	6	2	8	55536	68.15	.5341 - .5660	109.10	88.60	81.75	78.40	74.90	72.15
.5938	19/32	7/16	6	2	8	55538	70.85	.5661 - .5970	111.75	91.15	84.40	81.20	77.60	74.85
.6250	5/8	9/16	6	2	9	55540	70.85	.5971 - .6280	111.75	91.15	84.40	81.20	77.60	74.85
.6562	21/32	9/16	6	2	9	55542	72.10	.6281 - .6590	113.00	92.55	85.70	82.45	78.85	76.10
.6875	11/16	9/16	6	2	9	55544	72.10	.6591 - .6910	113.00	92.55	85.70	82.45	78.85	76.10
.7188	23/32	9/16	6	2	9	55546	75.40	.6911 - .7220	116.30	95.85	89.00	85.75	82.20	79.40
.7500	3/4	5/8	6	2	9 1/2	55548	75.40	.7221 - .7530	116.30	95.85	89.00	85.75	82.20	79.40
.7812	25/32	5/8	6	2	9 1/2	55550	78.00	.7531 - .7840	118.90	98.45	91.65	88.35	84.80	82.05
.8125	13/16	5/8	6	2	9 1/2	55552	78.00	.7841 - .8160	118.90	98.45	91.65	88.35	84.80	82.05
.8438	27/32	5/8	6	2	9 1/2	55554	81.20	.8161 - .8470	122.10	101.50	94.65	91.40	87.95	85.10
.8750	7/8	3/4	6	2 1/4	10	55556	84.20	.8471 - .8780	126.65	105.45	98.30	94.85	91.15	88.35
.9062	29/32	3/4	6	2 1/4	10	55558	98.00	.8781 - .9090	140.45	119.20	112.05	108.70	105.05	102.15
.9375	15/16	3/4	8	2 1/4	10	55560	98.00	.9091 - .9410	140.45	119.20	112.05	108.70	105.05	102.15
.9688	31/32	3/4	8	2 1/4	10	55562	102.65	.9411 - .9720	145.15	123.90	116.80	113.40	109.70	106.85
1.0000	1	7/8	8	2 1/4	10 1/2	55564	102.65	.9721 - 1.0030	145.15	123.90	116.80	113.40	109.70	106.85
1.0625	1 1/16	7/8	8	2 1/4	10 1/2	55334	106.25	1.0031 - 1.0660	147.00	126.55	119.75	116.45	113.00	110.25
1.1250	1 1/8	7/8	8	2 1/4	11	55338	115.00	1.0661 - 1.1280	155.65	135.35	128.45	125.20	121.65	118.90
1.1875	1 3/16	1	8	2 1/4	11	55565	120.30	1.1281 - 1.1905	160.95	140.60	133.80	130.50	127.00	124.30
1.2500	1 1/4	1	8	2 1/2	11 1/2	55566	140.45	1.1906 - 1.2530	181.10	160.80	153.90	150.65	147.15	144.40
1.3125	1 5/16	1	8	2 1/2	11 1/2	55567	140.45	1.2531 - 1.3155	181.10	160.80	153.90	150.65	147.15	144.40
1.3750	1 3/8	1	8	2 1/2	12	55568	142.50	1.3156 - 1.3780	183.20	162.85	155.95	152.75	149.25	146.45
1.4375	1 7/16	1 1/4	8	2 1/2	12	55569	157.45	1.3781 - 1.4405	198.20	177.65	170.95	167.70	164.20	161.45
1.5000	1 1/2	1 1/4	8	2 1/2	12 1/2	55570	189.00	1.4406 - 1.5030	229.70	209.25	202.50	199.25	195.75	193.05
1.5625	1 9/16	1 1/4	8	2 1/2	12 1/2	55571	249.50	1.5031 - 1.5660	290.20	269.75	262.95	259.70	256.25	253.50
1.6250	1 5/8	1 1/4	8	2 3/4	13	55572	258.00	1.5661 - 1.6280	298.70	278.20	271.45	268.30	264.70	262.00
1.6875	1 11/16	1 1/4	8	2 3/4	13	55573	283.20	1.6281 - 1.6910	324.00	303.65	296.85	293.50	290.05	287.35
1.7500	1 3/4	1 1/4	10	3	13 1/2	55574	283.20	1.6911 - 1.7530	324.00	303.65	296.85	293.50	290.05	287.35
1.8125	1 13/16	1 1/2	10	3	13 1/2	55575	289.80	1.7531 - 1.8160	330.65	310.25	303.30	300.15	296.60	293.90
1.8750	1 7/8	1 1/2	10	3 1/4	14	55576	303.95	1.8161 - 1.8780	344.65	324.25	317.50	314.20	310.65	307.95
1.9375	1 15/16	1 1/2	10	3 1/4	14	55577	322.30	1.8781 - 1.9410	362.95	342.50	335.75	332.50	329.05	326.25
2.0000	2	1 1/2	12	3 1/4	14	55578	322.30	1.9411 - 2.0030	362.95	342.50	335.75	332.50	329.05	326.25

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

METRIC

CARBIDE TIPPED

List No. 5659 - Straight Shank - Full Flute Length Carbide - Metric

Use: Same as page 68 except in metric sizes.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLTS	LENGTH		EDP NO.	PRICE EACH	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	DEC.			FLUTE	OVERALL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
4.5	.1772	11/64	4	1 ½	6	5659045	$60.45	4.494 - 5.182	$89.15	$70.05	$63.60	$60.50	$57.30	$54.65	$50.95
5.0	.1969	11/64	4	1 ½	6	5659050	60.45	-	-	-	-	-	-	-	-
5.5	.2165	13/64	4	1 ½	6	5659055	60.45	5.183 - 5.613	89.15	70.05	63.60	60.50	57.30	54.65	50.95
6.0	.2362	7/32	4	1 ½	6	5659060	60.45	5.614 - 6.045	89.15	70.05	63.60	60.50	57.30	54.65	50.95
6.3	.2480	15/64	4	1 ½	6	5659063	60.45	6.046 - 6.426	89.15	70.05	63.60	60.50	57.30	54.65	50.95
6.5	.2559	15/64	4	1 ½	6	5659065	61.35	6.427 - 7.214	90.00	71.00	64.60	61.50	58.30	55.55	52.00
7.0	.2756	15/64	4	1 ½	6	5659070	61.35	-	-	-	-	-	-	-	-
7.5	.2953	9/32	4	1 ½	6	5659075	61.35	7.215 - 8.001	90.00	71.00	64.60	61.50	58.30	55.55	52.00
8.0	.3150	9/32	4	1 ½	6	5659080	61.35	-	-	-	-	-	-	-	-
8.5	.3346	9/32	4	1 ½	6	5659085	63.05	8.002 - 8.814	91.85	72.85	66.40	63.30	60.10	57.45	53.75
9.0	.3543	5/16	4	1 ¾	7	5659090	63.05	8.815 - 9.601	91.85	72.85	66.40	63.30	60.10	57.45	53.75
9.5	.3740	5/16	4	1 ¾	7	5659095	63.05	-	-	-	-	-	-	-	-
10.0	.3937	5/16	4	1 ¾	7	5659100	65.65	9.602 - 10.389	94.40	75.35	68.90	65.80	62.65	59.95	56.25
10.5	.4134	3/8	4	1 ¾	7	5659105	69.90	10.390 - 11.201	98.75	79.55	73.20	70.10	66.95	64.20	60.55
11.0	.4331	3/8	4	1 ¾	7	5659110	69.90	-	-	-	-	-	-	-	-
11.5	.4528	3/8	4	1 ¾	7	5659115	74.50	11.202 - 11.989	103.30	84.20	77.85	74.75	71.45	68.80	65.15
12.0	.4724	7/16	6	2	8	5659120	79.95	11.990 - 12.776	110.65	90.30	83.40	80.05	76.60	73.75	69.80
12.5	.4921	7/16	6	2	8	5659125	79.95	-	-	-	-	-	-	-	-
13.0	.5118	7/16	6	2	8	5659130	81.75	12.777 - 13.564	112.55	92.10	85.25	81.85	78.40	75.55	71.65
13.5	.5315	7/16	6	2	8	5659135	81.75	-	-	-	-	-	-	-	-
14.0	.5512	7/16	6	2	8	5659140	81.75	13.565 - 14.376	112.55	92.10	85.25	81.85	78.40	75.55	71.65
14.5	.5709	7/16	6	2	8	5659145	84.40	14.377 - 15.164	115.20	94.70	87.95	84.55	81.20	78.25	74.35
15.0	.5906	7/16	6	2	8	5659150	84.40	-	-	-	-	-	-	-	-
15.5	.6102	9/16	6	2	9	5659155	84.40	15.165 - 15.951	115.20	94.70	87.95	84.55	81.20	78.25	74.35
16.0	.6299	9/16	6	2	9	5659160	85.70	15.952 - 16.739	116.35	96.05	89.20	85.80	82.45	79.50	75.55
16.5	.6496	9/16	6	2	9	5659165	85.70	-	-	-	-	-	-	-	-
17.0	.6693	9/16	6	2	9	5659170	85.70	16.740 - 17.551	116.35	96.05	89.20	85.80	82.45	79.50	75.55
17.5	.6890	9/16	6	2	9	5659175	85.70	-	-	-	-	-	-	-	-
18.0	.7087	9/16	6	2	9	5659180	89.00	17.552 - 18.339	119.80	99.25	92.55	89.20	85.75	82.85	79.00
18.5	.7283	5/8	6	2	9 ½	5659185	89.00	18.340 - 19.126	119.80	99.25	92.55	89.20	85.75	82.85	79.00
19.0	.7480	5/8	6	2	9 ½	5659190	89.00	-	-	-	-	-	-	-	-
19.5	.7677	5/8	6	2	9 ½	5659195	91.65	19.127 - 19.914	122.35	102.05	95.10	91.75	88.35	85.45	81.50
20.0	.7874	5/8	6	2	9 ½	5659200	91.65	19.915 - 20.726	122.35	102.05	95.10	91.75	88.35	85.45	81.50
20.5	.8071	5/8	6	2	9 ½	5659205	91.65	-	-	-	-	-	-	-	-
21.0	.8268	5/8	6	2	9 ½	5659210	94.65	20.727 - 21.514	125.50	105.05	98.20	94.90	91.40	88.60	84.60
21.5	.8465	5/8	6	2	9 ½	5659215	94.65	-	-	-	-	-	-	-	-
22.0	.8661	¾	6	2 ¼	10	5659220	94.65	21.515 - 22.301	125.50	105.05	98.20	94.90	91.40	88.60	84.60
22.5	.8858	¾	6	2 ¼	10	5659225	112.05	22.302 - 23.089	144.05	122.85	115.75	112.20	108.70	105.65	101.55
23.0	.9055	¾	6	2 ¼	10	5659230	112.05	-	-	-	-	-	-	-	-
23.5	.9252	¾	8	2 ¼	10	5659235	112.05	23.090 - 23.901	144.05	122.85	115.75	112.20	108.70	105.65	101.55
24.0	.9449	¾	8	2 ¼	10	5659240	116.80	23.902 - 24.689	148.65	127.55	120.35	116.90	113.40	110.45	106.40
24.5	.9646	¾	8	2 ¼	10	5659245	116.80	-	-	-	-	-	-	-	-
25.0	.9843	7/8	8	2 ¼	10 ½	5659250	116.80	24.690 - 25.476	148.65	127.55	120.35	116.90	113.40	110.45	106.40
25.5	1.0039	7/8	8	2 ¼	10 ½	5659255	119.75	25.477 - 27.076	150.35	130.10	123.25	119.90	116.45	113.65	109.70
26.0	1.0236	7/8	8	2 ¼	10 ½	5659260	119.75	-	-	-	-	-	-	-	-
27.0	1.0630	7/8	8	2 ¼	10 ½	5659270	119.75	-	-	-	-	-	-	-	-
28.0	1.1024	7/8	8	2 ¼	11	5659280	128.45	27.077 - 28.651	159.10	138.80	131.90	128.65	125.20	122.35	118.40
29.0	1.1417	1	8	2 ¼	11	5659290	133.80	28.652 - 30.239	164.35	144.15	137.25	133.90	130.50	127.70	123.85
30.0	1.1811	1	8	2 ¼	11	5659300	133.80	-	-	-	-	-	-	-	-
31.0	1.2205	1	8	2 ½	11 ½	5659310	153.90	30.240 - 31.826	184.60	164.25	157.45	154.20	150.65	147.75	143.95
32.0	1.2598	1	8	2 ½	11 ½	5659320	153.90	31.827 - 33.414	184.60	164.25	157.45	154.20	150.65	147.75	143.95
33.0	1.2992	1	8	2 ½	11 ½	5659330	153.90	-	-	-	-	-	-	-	-
34.0	1.3386	1	8	2 ½	12	5659340	155.95	33.415 - 35.001	186.70	166.35	159.50	156.20	152.75	149.95	146.05
35.0	1.3780	1	8	2 ½	12	5659350	155.95	-	-	-	-	-	-	-	-
36.0	1.4173	1 ¼	8	2 ½	12	5659360	170.95	35.002 - 36.589	201.55	181.30	174.40	171.05	167.70	164.85	160.90
37.0	1.4567	1 ¼	8	2 ½	12 ½	5659370	202.50	36.590 - 38.176	233.05	212.80	205.95	202.65	199.25	196.40	192.45
38.0	1.4961	1 ¼	8	2 ½	12 ½	5659380	202.50	-	-	-	-	-	-	-	-

Diameters up to 50mm – call us for price & availability.

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5659 - Straight Shank - Full Flute Length Carbide

Use: Same as page 68.

STOCKED DECIMAL TOOL DIAMETERS .1770" THRU .3265"

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.1770	56591770	$60.45	.2070	56592070	$60.45	.2370	56592370	$60.45	.2670	56592670	$61.35	.2970	56592970	$61.35
.1775	56591775	60.45	.2075	56592075	60.45	.2375	56592375	60.45	.2675	56592675	61.35	.2975	56592975	61.35
.1780	56591780	60.45	.2080	56592080	60.45	.2380	56592380	60.45	.2680	56592680	61.35	.2980	56592980	61.35
.1785	56591785	60.45	.2085	56592085	60.45	.2385	56592385	60.45	.2685	56592685	61.35	.2985	56592985	61.35
.1790	56591790	60.45	.2090	56592090	60.45	.2390	56592390	60.45	.2690	56592690	61.35	.2990	56592990	61.35
.1795	56591795	60.45	.2095	56592095	60.45	.2395	56592395	60.45	.2695	56592695	61.35	.2995	56592995	61.35
.1800	56591800	60.45	.2100	56592100	60.45	.2400	56592400	60.45	.2700	56592700	61.35	.3000	56593000	61.35
.1805	56591805	60.45	.2105	56592105	60.45	.2405	56592405	60.45	.2705	56592705	61.35	.3005	56593005	61.35
.1810	56591810	60.45	.2110	56592110	60.45	.2410	56592410	60.45	.2710	56592710	61.35	.3010	56593010	61.35
.1815	56591815	60.45	.2115	56592115	60.45	.2415	56592415	60.45	.2715	56592715	61.35	.3015	56593015	61.35
.1820	56591820	60.45	.2120	56592120	60.45	.2420	56592420	60.45	.2720	56592720	61.35	.3020	56593020	61.35
.1825	56591825	60.45	.2125	56592125	60.45	.2425	56592425	60.45	.2725	56592725	61.35	.3025	56593025	61.35
.1830	56591830	60.45	.2130	56592130	60.45	.2430	56592430	60.45	.2730	56592730	61.35	.3030	56593030	61.35
.1835	56591835	60.45	.2135	56592135	60.45	.2435	56592435	60.45	.2735	56592735	61.35	.3035	56593035	61.35
.1840	56591840	60.45	.2140	56592140	60.45	.2440	56592440	60.45	.2740	56592740	61.35	.3040	56593040	61.35
.1845	56591845	60.45	.2145	56592145	60.45	.2445	56592445	60.45	.2745	56592745	61.35	.3045	56593045	61.35
.1850	5659047	60.45	.2150	56592150	60.45	.2450	56592450	60.45	.2750	56592750	61.35	.3050	56593050	61.35
.1855	56591855	60.45	.2155	56592155	60.45	.2455	56592455	60.45	.2755	56592755	61.35	.3055	56593055	61.35
.1860	56591860	60.45	.2160	56592160	60.45	.2460	56592460	60.45	.2760	56592760	61.35	.3060	56593060	61.35
.1865	56591865	60.45	.2165	5659055	60.45	.2465	56592465	60.45	.2765	56592765	61.35	.3065	56593065	61.35
.1870	56591870	60.45	.2170	56592170	60.45	.2470	56592470	60.45	.2770	56592770	61.35	.3070	56593070	61.35
.1875	55512	47.65	.2175	56592175	60.45	.2475	56592475	60.45	.2775	56592775	61.35	.3075	56593075	61.35
.1880	56591880	60.45	.2180	56592180	60.45	.2480	5659063	60.45	.2780	56592780	61.35	.3080	56593080	61.35
.1885	56591885	60.45	.2185	56592185	60.45	.2485	56592485	60.45	.2785	56592785	61.35	.3085	56593085	61.35
.1890	5659048	60.45	.2190	56592190	60.45	.2490	56592490	60.45	.2790	56592790	61.35	.3090	56593090	61.35
.1895	56591895	60.45	.2195	56592195	60.45	.2495	56592495	60.45	.2795	5659071	61.35	.3095	56593095	61.35
.1900	56591900	60.45	.2200	56592200	60.45	.2500	55516	47.65	.2800	56592800	61.35	.3100	56593100	61.35
.1905	56591905	60.45	.2205	5659056	60.45	.2505	56592505	60.45	.2805	56592805	61.35	.3105	56593105	61.35
.1910	56591910	60.45	.2210	56592210	60.45	.2510	56592510	60.45	.2810	56592810	61.35	.3110	5659079	61.35
.1915	56591915	60.45	.2215	56592215	60.45	.2515	56592515	60.45	.2815	56592815	61.35	.3115	56593115	61.35
.1920	56591920	60.45	.2220	56592220	60.45	.2520	5659064	60.45	.2820	56592820	61.35	.3120	56593120	61.35
.1925	56591925	60.45	.2225	56592225	60.45	.2525	56592525	60.45	.2825	56592825	61.35	.3125	55520	48.75
.1930	56591930	60.45	.2230	56592230	60.45	.2530	56592530	60.45	.2830	56592830	61.35	.3130	56593130	61.35
.1935	56591935	60.45	.2235	56592235	60.45	.2535	56592535	61.35	.2835	5659072	61.35	.3135	56593135	61.35
.1940	56591940	60.45	.2240	56592240	60.45	.2540	56592540	61.35	.2840	56592840	61.35	.3140	56593140	61.35
.1945	56591945	60.45	.2245	56592245	60.45	.2545	56592545	61.35	.2845	56592845	61.35	.3145	56593145	61.35
.1950	56591950	60.45	.2250	56592250	60.45	.2550	56592550	61.35	.2850	56592850	61.35	.3150	5659080	61.35
.1955	56591955	60.45	.2255	56592255	60.45	.2555	56592555	61.35	.2855	56592855	61.35	.3155	56593155	63.05
.1960	56591960	60.45	.2260	56592260	60.45	.2560	56592560	61.35	.2860	56592860	61.35	.3160	56593160	63.05
.1965	56591965	60.45	.2265	56592265	60.45	.2565	56592565	61.35	.2865	56592865	61.35	.3165	56593165	63.05
.1970	56591970	60.45	.2270	56592270	60.45	.2570	56592570	61.35	.2870	56592870	61.35	.3170	56593170	63.05
.1975	56591975	60.45	.2275	56592275	60.45	.2575	56592575	61.35	.2875	56592875	61.35	.3175	56593175	63.05
.1980	56591980	60.45	.2280	56592280	60.45	.2580	56592580	61.35	.2880	56592880	61.35	.3180	56593180	63.05
.1985	56591985	60.45	.2285	56592285	60.45	.2585	56592585	61.35	.2885	56592885	61.35	.3185	56593185	63.05
.1990	56591990	60.45	.2290	56592290	60.45	.2590	56592590	61.35	.2890	56592890	61.35	.3190	56593190	63.05
.1995	56591995	60.45	.2295	56592295	60.45	.2595	56592595	61.35	.2895	56592895	61.35	.3195	56593195	63.05
.2000	56592000	60.45	.2300	56592300	60.45	.2600	56592600	61.35	.2900	56592900	61.35	.3200	56593200	63.05
.2005	56592005	60.45	.2305	56592305	60.45	.2605	56592605	61.35	.2905	56592905	61.35	.3205	56593205	63.05
.2010	56592010	60.45	.2310	56592310	60.45	.2610	56592610	61.35	.2910	56592910	61.35	.3210	56593210	63.05
.2015	56592015	60.45	.2315	56592315	60.45	.2615	56592615	61.35	.2915	56592915	61.35	.3215	56593215	63.05
.2020	56592020	60.45	.2320	56592320	60.45	.2620	56592620	61.35	.2920	56592920	61.35	.3220	56593220	63.05
.2025	56592025	60.45	.2325	56592325	60.45	.2625	56592625	61.35	.2925	56592925	61.35	.3225	56593225	63.05
.2030	56592030	60.45	.2330	56592330	60.45	.2630	56592630	61.35	.2930	56592930	61.35	.3230	56593230	63.05
.2035	56592035	60.45	.2335	56592335	60.45	.2635	56592635	61.35	.2935	56592935	61.35	.3235	56593235	63.05
.2040	56592040	60.45	.2340	56592340	60.45	.2640	56592640	61.35	.2940	56592940	61.35	.3240	56593240	63.05
.2045	56592045	60.45	.2345	56592345	60.45	.2645	56592645	61.35	.2945	56592945	61.35	.3245	56593245	63.05
.2050	56592050	60.45	.2350	56592350	60.45	.2650	56592650	61.35	.2950	56592950	61.35	.3250	56593250	63.05
.2055	56592055	60.45	.2355	56592355	60.45	.2655	56592655	61.35	.2955	56592955	61.35	.3255	56593255	63.05
.2060	56592060	60.45	.2360	56592360	60.45	.2660	56592660	61.35	.2960	56592960	61.35	.3260	56593260	63.05
.2065	56592065	60.45	.2365	56592365	60.45	.2665	56592665	61.35	.2965	56592965	61.35	.3265	56593265	63.05

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5659 - Straight Shank - Full Flute Length Carbide

Use: Same as page 68.

STOCKED DECIMAL TOOL DIAMETERS .3270" THRU .4765"

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.3270	56593270	$63.05
.3275	56593275	63.05
.3280	56593280	63.05
.3285	56593285	63.05
.3290	56593290	63.05
.3295	56593295	63.05
.3300	56593300	63.05
.3305	56593305	63.05
.3310	56593310	63.05
.3315	56593315	63.05
.3320	56593320	63.05
.3325	56593325	63.05
.3330	56593330	63.05
.3335	56593335	63.05
.3340	56593340	63.05
.3345	56593345	63.05
.3350	56593350	63.05
.3355	56593355	63.05
.3360	56593360	63.05
.3365	56593365	63.05
.3370	56593370	63.05
.3375	56593375	63.05
.3380	56593380	63.05
.3385	56593385	63.05
.3390	56593390	63.05
.3395	56593395	63.05
.3400	56593400	63.05
.3405	56593405	63.05
.3410	56593410	63.05
.3415	56593415	63.05
.3420	56593420	63.05
.3425	5659087	63.05
.3430	56593430	63.05
.3435	56593435	63.05
.3440	56593440	63.05
.3445	56593445	63.05
.3450	56593450	63.05
.3455	56593455	63.05
.3460	56593460	63.05
.3465	5659088	63.05
.3470	56593470	63.05
.3475	56593475	63.05
.3480	56593480	63.05
.3485	56593485	63.05
.3490	56593490	63.05
.3495	56593495	63.05
.3500	56593500	63.05
.3505	56593505	63.05
.3510	56593510	63.05
.3515	56593515	63.05
.3520	56593520	63.05
.3525	56593525	63.05
.3530	56593530	63.05
.3535	56593535	63.05
.3540	56593540	63.05
.3545	56593545	63.05
.3550	56593550	63.05
.3555	56593555	63.05
.3560	56593560	63.05
.3565	56593565	63.05

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.3570	56593570	$63.05
.3575	56593575	63.05
.3580	56593580	63.05
.3585	56593585	63.05
.3590	56593590	63.05
.3595	56593595	63.05
.3600	56593600	63.05
.3605	56593605	63.05
.3610	56593610	63.05
.3615	56593615	63.05
.3620	56593620	63.05
.3625	56593625	63.05
.3630	56593630	63.05
.3635	56593635	63.05
.3640	56593640	63.05
.3645	56593645	63.05
.3650	56593650	63.05
.3655	56593655	63.05
.3660	56593660	63.05
.3665	56593665	63.05
.3670	56593670	63.05
.3675	56593675	63.05
.3680	56593680	63.05
.3685	56593685	63.05
.3690	56593690	63.05
.3695	56593695	63.05
.3700	56593700	63.05
.3705	56593705	63.05
.3710	56593710	63.05
.3715	56593715	63.05
.3720	56593720	63.05
.3725	56593725	63.05
.3730	56593730	63.05
.3735	56593735	63.05
.3740	5659095	63.05
.3745	56593745	63.05
.3750	55524	50.40
.3755	56593755	63.05
.3760	56593760	63.05
.3765	56593765	63.05
.3770	56593770	63.05
.3775	56593775	63.05
.3780	5659096	63.05
.3785	56593785	65.65
.3790	56593790	65.65
.3795	56593795	65.65
.3800	56593800	65.65
.3805	56593805	65.65
.3810	56593810	65.65
.3815	56593815	65.65
.3820	56593820	65.65
.3825	56593825	65.65
.3830	56593830	65.65
.3835	56593835	65.65
.3840	56593840	65.65
.3845	56593845	65.65
.3850	56593850	65.65
.3855	56593855	65.65
.3860	56593860	65.65
.3865	56593865	65.65

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.3870	56593870	$65.65
.3875	56593875	65.65
.3880	56593880	65.65
.3885	56593885	65.65
.3890	56593890	65.65
.3895	56593895	65.65
.3900	56593900	65.65
.3905	56593905	65.65
.3910	56593910	65.65
.3915	56593915	65.65
.3920	56593920	65.65
.3925	56593925	65.65
.3930	56593930	65.65
.3935	56593935	65.65
.3940	56593940	65.65
.3945	56593945	65.65
.3950	56593950	65.65
.3955	56593955	65.65
.3960	56593960	65.65
.3965	56593965	65.65
.3970	56593970	65.65
.3975	56593975	65.65
.3980	56593980	65.65
.3985	56593985	65.65
.3990	56593990	65.65
.3995	56593995	65.65
.4000	56594000	65.65
.4005	56594005	65.65
.4010	56594010	65.65
.4015	56594015	65.65
.4020	56594020	65.65
.4025	56594025	65.65
.4030	56594030	65.65
.4035	56594035	65.65
.4040	56594040	65.65
.4045	56594045	65.65
.4050	56594050	65.65
.4055	5659103	65.65
.4060	56594060	65.65
.4065	56594065	65.65
.4070	56594070	65.65
.4075	56594075	65.65
.4080	56594080	65.65
.4085	56594085	65.65
.4090	56594090	65.65
.4095	56594095	69.90
.4100	56594100	69.90
.4105	56594105	69.90
.4110	56594110	69.90
.4115	56594115	69.90
.4120	56594120	69.90
.4125	56594125	69.90
.4130	56594130	69.90
.4135	56594135	69.90
.4140	56594140	69.90
.4145	56594145	69.90
.4150	56594150	69.90
.4155	56594155	69.90
.4160	56594160	69.90
.4165	56594165	69.90

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.4170	56594170	$69.90
.4175	56594175	69.90
.4180	56594180	69.90
.4185	56594185	69.90
.4190	56594190	69.90
.4195	56594195	69.90
.4200	56594200	69.90
.4205	56594205	69.90
.4210	56594210	69.90
.4215	56594215	69.90
.4220	56594220	69.90
.4225	56594225	69.90
.4230	56594230	69.90
.4235	56594235	69.90
.4240	56594240	69.90
.4245	56594245	69.90
.4250	56594250	69.90
.4255	56594255	69.90
.4260	56594260	69.90
.4265	56594265	69.90
.4270	56594270	69.90
.4275	56594275	69.90
.4280	56594280	69.90
.4285	56594285	69.90
.4290	56594290	69.90
.4295	56594295	69.90
.4300	56594300	69.90
.4305	56594305	69.90
.4310	56594310	69.90
.4315	56594315	69.90
.4320	56594320	69.90
.4325	56594325	69.90
.4330	56594330	69.90
.4335	56594335	69.90
.4340	56594340	69.90
.4345	56594345	69.90
.4350	56594350	69.90
.4355	56594355	69.90
.4360	56594360	69.90
.4365	56594365	69.90
.4370	5659111	69.90
.4375	55528	57.30
.4380	56594380	69.90
.4385	56594385	69.90
.4390	56594390	69.90
.4395	56594395	69.90
.4400	56594400	69.90
.4405	56594405	69.90
.4410	56594410	69.90
.4415	56594415	74.60
.4420	56594420	74.60
.4425	56594425	74.60
.4430	56594430	74.60
.4435	56594435	74.60
.4440	56594440	74.60
.4445	56594445	74.60
.4450	56594450	74.60
.4455	56594455	74.60
.4460	56594460	74.60
.4465	56594465	74.60

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.4470	56594470	$74.60
.4475	56594475	74.60
.4480	56594480	74.60
.4485	56594485	74.60
.4490	56594490	74.60
.4495	56594495	74.60
.4500	56594500	74.60
.4505	56594505	74.60
.4510	56594510	74.60
.4515	56594515	74.60
.4520	56594520	74.60
.4525	56594525	74.60
.4530	56594530	74.60
.4535	56594535	74.60
.4540	56594540	74.60
.4545	56594545	74.60
.4550	56594550	74.60
.4555	56594555	74.60
.4560	56594560	74.60
.4565	56594565	74.60
.4570	56594570	74.60
.4575	56594575	74.60
.4580	56594580	74.60
.4585	56594585	74.60
.4590	56594590	74.60
.4595	56594595	74.60
.4600	56594600	74.60
.4605	56594605	74.60
.4610	56594610	74.60
.4615	56594615	74.60
.4620	56594620	74.60
.4625	56594625	74.60
.4630	56594630	74.60
.4635	56594635	74.60
.4640	56594640	74.60
.4645	56594645	74.60
.4650	56594650	74.60
.4655	56594655	74.60
.4660	56594660	74.60
.4665	56594665	74.60
.4670	56594670	74.60
.4675	56594675	74.60
.4680	56594680	74.60
.4685	5659119	74.60
.4690	56594690	74.60
.4695	56594695	74.60
.4700	56594700	74.60
.4705	56594705	74.60
.4710	56594710	74.60
.4715	56594715	74.60
.4720	56594720	74.60
.4725	56594725	80.00
.4730	56594730	80.00
.4735	56594735	80.00
.4740	56594740	80.00
.4745	56594745	80.00
.4750	56594750	80.00
.4755	56594755	80.00
.4760	56594760	80.00
.4765	56594765	80.00

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5659 - Straight Shank - Full Flute Length Carbide

Use: Same as page 68.

STOCKED DECIMAL TOOL DIAMETERS .4770" THRU .6265"

DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH	DEC. SIZE	LIST 5659 EDP NO.	PRICE EACH
.4770	56594770	$80.00	.5070	56595070	$81.75	.5370	56595370	$81.75	.5670	56595670	$84.40	.5970	56595970	$84.40
.4775	56594775	80.00	.5075	56595075	81.75	.5375	56595375	81.75	.5675	56595675	84.40	.5975	56595975	84.40
.4780	56594780	80.00	.5080	56595080	81.75	.5380	56595380	81.75	.5680	56595680	84.40	.5980	56595980	84.40
.4785	56594785	80.00	.5085	56595085	81.75	.5385	56595385	81.75	.5685	56595685	84.40	.5985	56595985	84.40
.4790	56594790	80.00	.5090	56595090	81.75	.5390	56595390	81.75	.5690	56595690	84.40	.5990	56595990	84.40
.4795	56594795	80.00	.5095	56595095	81.75	.5395	56595395	81.75	.5695	56595695	84.40	.5995	56595995	84.40
.4800	56594800	80.00	.5100	56595100	81.75	.5400	56595400	81.75	.5700	56595700	84.40	.6000	56596000	84.40
.4805	56594805	80.00	.5105	56595105	81.75	.5405	56595405	81.75	.5705	56595705	84.40	.6005	56596005	84.40
.4810	56594810	80.00	.5110	56595110	81.75	.5410	56595410	81.75	.5710	56595710	84.40	.6010	56596010	84.40
.4815	56594815	80.00	.5115	56595115	81.75	.5415	56595415	81.75	.5715	56595715	84.40	.6015	56596015	84.40
.4820	56594820	80.00	.5120	56595120	81.75	.5420	56595420	81.75	.5720	56595720	84.40	.6020	56596020	84.40
.4825	56594825	80.00	.5125	56595125	81.75	.5425	56595425	81.75	.5725	56595725	84.40	.6025	56596025	84.40
.4830	56594830	80.00	.5130	56595130	81.75	.5430	56595430	81.75	.5730	56595730	84.40	.6030	56596030	84.40
.4835	56594835	80.00	.5135	56595135	81.75	.5435	56595435	81.75	.5735	56595735	84.40	.6035	56596035	84.40
.4840	56594840	80.00	.5140	56595140	81.75	.5440	56595440	81.75	.5740	56595740	84.40	.6040	56596040	84.40
.4845	56594845	80.00	.5145	56595145	81.75	.5445	56595445	81.75	.5745	56595745	84.40	.6045	56596045	84.40
.4850	56594850	80.00	.5150	56595150	81.75	.5450	56595450	81.75	.5750	56595750	84.40	.6050	56596050	84.40
.4855	56594855	80.00	.5155	56595155	81.75	.5455	56595455	81.75	.5755	56595755	84.40	.6055	56596055	84.40
.4860	56594860	80.00	.5160	56595160	81.75	.5460	56595460	81.75	.5760	56595760	84.40	.6060	56596060	84.40
.4865	56594865	80.00	.5165	56595165	81.75	.5465	56595465	81.75	.5765	56595765	84.40	.6065	56596065	84.40
.4870	56594870	80.00	.5170	56595170	81.75	.5470	56595470	81.75	.5770	56595770	84.40	.6070	56596070	84.40
.4875	56594875	80.00	.5175	56595175	81.75	.5475	56595475	81.75	.5775	56595775	84.40	.6075	56596075	84.40
.4880	56594880	80.00	.5180	56595180	81.75	.5480	56595480	81.75	.5780	56595780	84.40	.6080	56596080	84.40
.4885	56594885	80.00	.5185	56595185	81.75	.5485	56595485	81.75	.5785	56595785	84.40	.6085	56596085	84.40
.4890	56594890	80.00	.5190	56595190	81.75	.5490	56595490	81.75	.5790	56595790	84.40	.6090	56596090	84.40
.4895	56594895	80.00	.5195	56595195	81.75	.5495	56595495	81.75	.5795	56595795	84.40	.6095	56596095	84.40
.4900	56594900	80.00	.5200	56595200	81.75	.5500	56595500	81.75	.5800	56595800	84.40	.6100	56596100	84.40
.4905	56594905	80.00	.5205	56595205	81.75	.5505	56595505	81.75	.5805	56595805	84.40	.6105	56596105	84.40
.4910	56594910	80.00	.5210	56595210	81.75	.5510	56595510	81.75	.5810	56595810	84.40	.6110	56596110	84.40
.4915	56594915	80.00	.5215	56595215	81.75	.5515	56595515	81.75	.5815	56595815	84.40	.6115	56596115	84.40
.4920	56594920	80.00	.5220	56595220	81.75	.5520	56595520	81.75	.5820	56595820	84.40	.6120	56596120	84.40
.4925	56594925	80.00	.5225	56595225	81.75	.5525	56595525	81.75	.5825	56595825	84.40	.6125	56596125	84.40
.4930	56594930	80.00	.5230	56595230	81.75	.5530	56595530	81.75	.5830	56595830	84.40	.6130	56596130	84.40
.4935	56594935	80.00	.5235	56595235	81.75	.5535	56595535	81.75	.5835	56595835	84.40	.6135	56596135	84.40
.4940	56594940	80.00	.5240	56595240	81.75	.5540	56595540	81.75	.5840	56595840	84.40	.6140	56596140	84.40
.4945	56594945	80.00	.5245	56595245	81.75	.5545	56595545	81.75	.5845	56595845	84.40	.6145	56596145	84.40
.4950	56594950	80.00	.5250	56595250	81.75	.5550	56595550	81.75	.5850	56595850	84.40	.6150	56596150	84.40
.4955	56594955	80.00	.5255	56595255	81.75	.5555	56595555	81.75	.5855	56595855	84.40	.6155	56596155	84.40
.4960	56594960	80.00	.5260	56595260	81.75	.5560	56595560	81.75	.5860	56595860	84.40	.6160	56596160	84.40
.4965	56594965	80.00	.5265	56595265	81.75	.5565	56595565	81.75	.5865	56595865	84.40	.6165	56596165	84.40
.4970	56594970	80.00	.5270	56595270	81.75	.5570	56595570	81.75	.5870	56595870	84.40	.6170	56596170	84.40
.4975	56594975	80.00	.5275	56595275	81.75	.5575	56595575	81.75	.5875	56595875	84.40	.6175	56596175	84.40
.4980	56594980	80.00	.5280	56595280	81.75	.5580	56595580	81.75	.5880	56595880	84.40	.6180	56596180	84.40
.4985	56594985	80.00	.5285	56595285	81.75	.5585	56595585	81.75	.5885	56595885	84.40	.6185	56596185	84.40
.4990	56594990	80.00	.5290	56595290	81.75	.5590	56595590	81.75	.5890	56595890	84.40	.6190	56596190	84.40
.4995	56594995	80.00	.5295	56595295	81.75	.5595	56595595	81.75	.5895	56595895	84.40	.6195	56596195	84.40
.5000	55532	66.25	.5300	56595300	81.75	.5600	56595600	81.75	.5900	56595900	84.40	.6200	56596200	84.40
.5005	56595005	80.00	.5305	56595305	81.75	.5605	56595605	81.75	.5905	56595905	84.40	.6205	56596205	84.40
.5010	56595010	80.00	.5310	56595310	81.75	.5610	56595610	81.75	.5910	56595910	84.40	.6210	56596210	84.40
.5015	56595015	80.00	.5315	5659135	81.75	.5615	56595615	81.75	.5915	56595915	84.40	.6215	56596215	84.40
.5020	56595020	80.00	.5320	56595320	81.75	.5620	56595620	81.75	.5920	56595920	84.40	.6220	5659158	84.40
.5025	56595025	80.00	.5325	56595325	81.75	.5625	55536	68.15	.5925	56595925	84.40	.6225	56596225	84.40
.5030	56595030	80.00	.5330	56595330	81.75	.5630	5659143	81.75	.5930	56595930	84.40	.6230	56596230	84.40
.5035	56595035	81.75	.5335	56595335	81.75	.5635	56595635	81.75	.5935	56595935	84.40	.6235	56596235	84.40
.5040	56595040	81.75	.5340	56595340	81.75	.5640	56595640	81.75	.5940	56595940	84.40	.6240	56596240	84.40
.5045	56595045	81.75	.5345	56595345	81.75	.5645	56595645	81.75	.5945	5659151	84.40	.6245	56596245	84.40
.5050	56595050	81.75	.5350	56595350	81.75	.5650	56595650	81.75	.5950	56595950	84.40	.6250	55540	70.85
.5055	56595055	81.75	.5355	56595355	81.75	.5655	56595655	81.75	.5955	56595955	84.40	.6255	56596255	84.40
.5060	56595060	81.75	.5360	56595360	81.75	.5660	56595660	81.75	.5960	56595960	84.40	.6260	5659159	84.40
.5065	56595065	81.75	.5365	56595365	81.75	.5665	56595665	84.40	.5965	56595965	84.40	.6265	56596265	84.40

Tolerances on page 60.

CNC STUB/SCREW MACHINE REAMERS

CARBIDE TIPPED

List No. 5670 - Straight Flute - Full Flute Length Carbide

Use: Recommended for use in horizontal reaming in blind holes where chips are a problem. Full flute length carbide for close tolerances, smooth finishes, and extra regrinds. Hardened alloy steel bodies with brazed on carbide tips.

List No. 5669 - Left Hand Spiral - Full Flute Length Carbide

Use: Left hand spiral flutes for better finishes on heat treated steels and other hard materials. Left spiral flutes tend to bridge interruptions (e.g., elongated slots, perforations). Use in through holes only. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		SHANK DIAM.	PIN HOLE DIAM.	NO. OF FLTS.	FLT. LEN.	OAL	STRAIGHT LIST 5670 EDP NO.	LEFT SPIRAL LIST 5669 EDP NO.	BOTH LIST PRICE	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.										1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14**
*.1875	3/16	1/4	3/32	4	1	2 1/4	59276	59226	$52.00	.1770 - .2040	$90.10	$71.00	$64.60	$61.60	$58.30	55.70
*.2188	7/32	1/4	3/32	4	1	2 1/4	59277	59227	52.00	.2041 - .2210	90.10	71.00	64.60	61.60	58.30	55.70
*.2344	15/64	1/4	3/32	4	1	2 1/4	59278	59228	52.00	.2211 - .2380	90.10	71.00	64.60	61.60	58.30	55.70
*.2500	1/4	1/4	3/32	4	1	2 1/4	59279	59229	52.00	.2381 - .2530	90.10	71.00	64.60	61.60	58.30	55.70
*.2812	9/32	3/8	1/8	4	1	2 1/4	59251	59201	52.00	.2531 - .2840	90.10	71.00	64.60	61.60	58.30	55.70
.3125	5/16	3/8	1/8	4	1	2 1/4	59252	59202	60.45	.2841 - .3150	98.55	79.40	73.10	70.05	66.70	64.15
.3438	11/32	3/8	1/8	4	1 1/4	2 1/2	59253	59203	60.90	.3151 - .3470	99.10	80.05	73.60	70.65	67.25	64.70
.3750	3/8	3/8	1/8	4	1 1/4	2 1/2	59254	59204	66.10	.3471 - .3780	104.30	85.20	78.80	75.65	72.40	69.80
.4062	13/32	1/2	3/16	4	1 1/4	2 1/2	59255	59205	67.05	.3781 - .4090	105.30	86.00	79.70	76.65	73.35	70.85
.4375	7/16	1/2	3/16	4	1 1/4	2 1/2	59256	59206	79.35	.4091 - .4410	117.60	98.45	92.00	89.00	85.75	83.20
.4688	15/32	1/2	3/16	4	1 1/4	2 1/2	59257	59207	79.35	.4411 - .4720	117.60	98.45	92.00	89.00	85.75	83.20
.5000	1/2	1/2	3/16	4	1 1/4	2 1/2	59258	59208	86.90	.4721 - .5030	126.15	106.50	99.90	96.80	93.35	90.80
.5312	17/32	5/8	1/4	6	1 1/2	3	59259	59209	86.90	.5031 - .5340	126.15	106.50	99.90	96.80	93.35	90.80
.5625	9/16	5/8	1/4	6	1 1/2	3	59260	59210	91.60	.5341 - .5660	130.70	111.10	104.45	101.40	98.00	95.30
.5938	19/32	5/8	1/4	6	1 1/2	3	59261	59211	91.60	.5661 - .5970	130.70	111.10	104.45	101.40	98.00	95.30
.6250	5/8	5/8	1/4	6	1 1/2	3	59262	59212	94.00	.5971 - .6280	133.25	113.60	107.00	103.80	100.45	97.85
.6562	21/32	5/8	1/4	6	1 1/2	3	59263	59213	94.00	.6281 - .6590	133.25	113.60	107.00	103.80	100.45	97.85
.6875	11/16	5/8	1/4	6	1 1/2	3	59264	59214	98.40	.6591 - .6910	137.55	117.95	111.40	108.20	104.85	102.20
.7188	23/32	3/4	5/16	6	1 1/2	3	59265	59215	98.40	.6911 - .7220	137.55	117.95	111.40	108.20	104.85	102.20
.7500	3/4	3/4	5/16	6	1 1/2	3	59266	59216	100.95	.7221 - .7530	140.00	120.45	113.85	110.70	107.35	104.75
.7812	25/32	3/4	5/16	6	1 1/2	3	59267	59217	100.95	.7531 - .7840	140.00	120.45	113.85	110.70	107.35	104.75
.8125	13/16	3/4	5/16	6	1 1/2	3	59268	59218	109.55	.7841 - .8160	148.75	129.20	122.55	119.45	116.05	113.50
.8438	27/32	3/4	5/16	6	1 1/2	3	59269	59219	109.55	.8161 - .8470	148.75	129.20	122.55	119.45	116.05	113.50
.8750	7/8	3/4	5/16	6	1 1/2	3	59270	59220	119.75	.8471 - .8780	160.45	139.95	133.15	129.90	126.45	123.70
.9062	29/32	3/4	5/16	6	1 1/2	3	59271	59221	119.75	.8781 - .9090	160.45	139.95	133.15	129.90	126.45	123.70
.9375	15/16	3/4	5/16	6	1 1/2	3	59272	59222	131.85	.9091 - .9410	172.50	152.20	145.35	142.10	138.65	135.90
.9688	31/32	3/4	5/16	8	1 1/2	3	59273	59223	131.85	.9411 - .9720	172.50	152.20	145.35	142.10	138.65	135.90
1.0000	1	3/4	5/16	8	1 1/2	3	59274	59224	138.30	.9721 - 1.0030	179.05	158.70	151.80	148.60	145.05	142.35
1.0625	1 1/16	3/4	5/16	8	1 1/2	3	59275	59225	138.30	1.0031 - 1.0660	179.05	158.70	151.80	148.60	145.05	142.35
1.1250	1 1/8	3/4	5/16	8	1 1/2	3	59286	59236	161.95	1.0661 - 1.1280	202.65	182.15	175.35	172.20	168.65	165.90
1.1875	1 3/16	3/4	5/16	8	1 1/2	3	59287	59237	168.80	1.1281 - 1.1905	209.60	189.15	182.25	179.05	175.60	172.80
1.2500	1 1/4	3/4	5/16	8	1 1/2	3	59288	59238	197.75	1.1906 - 1.2530	238.50	218.10	211.35	208.00	204.60	201.80
1.3125	1 5/16	3/4	5/16	8	1 1/2	3	59289	59239	197.75	1.2531 - 1.3155	238.50	218.10	211.35	208.00	204.60	201.80
1.3750	1 3/8	3/4	5/16	8	1 1/2	3	59280	59230	200.60	1.3156 - 1.3780	241.30	220.90	214.20	210.85	207.50	204.70
1.4375	1 7/16	3/4	5/16	8	1 1/2	3	59281	59231	233.85	1.3781 - 1.4405	274.65	254.15	247.40	244.10	240.65	237.95
1.5000	1 1/2	3/4	5/16	8	1 1/2	3	59282	59232	280.85	1.4406 - 1.5030	321.55	301.25	294.40	291.15	287.55	284.80

*½" carbide length.

**Quantities of 15 or more: price of fractional size in same size range.

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 401 - Straight Shank - Full Flute Length Carbide - For Steel & Steel Alloys

Use: The geometry and carbide grade of this reamer work especially well in steel and the flute long carbide ensures straighter holes. Hardened alloy steel bodies with brazed on C-6 carbide tips.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLUTES	FLUTE LENGTH	OVERALL LENGTH	LIST 401 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.								1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.1875	3/16	.1805	4	1 1/8	4 1/2	401012	$57.15	.1770 - .2040	$95.35	$76.25	$69.80	$66.80	$63.55	$60.90
.2031	13/64	.1805	4	1 1/8	4 1/2	401013	57.15	-	-	-	-	-	-	-
.2188	7/32	.2075	4	1 1/4	5	401014	57.15	.2041 - .2210	95.35	76.25	69.80	66.80	63.55	60.90
.2344	15/64	.2265	4	1 1/2	6	401015	57.15	.2211 - .2380	95.35	76.25	69.80	66.80	63.55	60.90
.2500	1/4	.2405	4	1 1/2	6	401016	57.15	.2381 - .2530	95.35	76.25	69.80	66.80	63.55	60.90
.2656	17/64	.2485	4	1 1/2	6	401017	58.40	-	-	-	-	-	-	-
.2812	9/32	.2485	4	1 1/2	6	401018	58.40	.2531 - .2840	96.60	77.55	71.05	68.10	64.75	62.25
.2969	19/64	.2792	4	1 1/2	6	401019	58.40	-	-	-	-	-	-	-
.3125	5/16	.2792	4	1 1/2	6	401020	58.40	.2841 - .3150	96.60	77.55	71.05	68.10	64.75	62.25
.3281	21/64	.2792	4	1 1/2	6	401021	60.55	-	-	-	-	-	-	-
.3438	11/32	.2792	4	1 1/2	6	401022	60.55	.3151 - .3470	98.80	79.55	73.20	70.15	66.95	64.35
.3594	23/64	.3105	4	1 3/4	7	401023	60.55	-	-	-	-	-	-	-
.3750	3/8	.3105	4	1 3/4	7	401024	60.55	.3471 - .3780	98.80	79.55	73.20	70.15	66.95	64.35
.3906	25/64	.3105	4	1 3/4	7	401025	63.55	-	-	-	-	-	-	-
.4062	13/32	.3105	4	1 3/4	7	401026	63.55	.3781 - .4090	101.65	82.60	76.20	73.15	69.80	67.25
.4219	27/64	.3730	6	1 3/4	7	401027	73.60	-	-	-	-	-	-	-
.4375	7/16	.3730	6	1 3/4	7	401028	73.60	.4091 - .4410	111.80	92.65	86.30	83.25	80.00	77.40
.4531	29/64	.3730	6	1 3/4	7	401029	74.25	-	-	-	-	-	-	-
.4688	15/32	.3730	6	1 3/4	7	401030	74.25	.4411 - .4720	112.55	93.30	87.00	83.95	80.60	78.05
.4844	31/64	.4355	6	2	8	401031	79.55	-	-	-	-	-	-	-
.5000	1/2	.4355	6	2	8	401032	79.55	.4721 - .5030	120.55	100.05	93.20	89.90	86.40	83.65
.5156	33/64	.4355	6	2	8	401033	81.85	-	-	-	-	-	-	-
.5312	17/32	.4355	6	2	8	401034	81.85	.5031 - .5340	122.80	102.25	95.35	92.15	88.65	85.85
.5469	35/64	.4355	6	2	8	401035	81.85	-	-	-	-	-	-	-
.5625	9/16	.4355	6	2	8	401036	81.85	.5341 - .5660	122.80	102.25	95.35	92.15	88.65	85.85
.5781	37/64	.4355	6	2	8	401037	84.95	-	-	-	-	-	-	-
.5938	19/32	.4355	6	2	8	401038	84.95	.5661 - .5970	125.90	105.45	98.50	95.25	91.75	89.00
.6094	39/64	.5615	6	2 1/4	9	401039	84.95	-	-	-	-	-	-	-
.6250	5/8	.5615	6	2 1/4	9	401040	84.95	.5971 - .6280	125.90	105.45	98.50	95.25	91.75	89.00
.6406	41/64	.5615	6	2 1/4	9	401041	86.55	-	-	-	-	-	-	-
.6562	21/32	.5615	6	2 1/4	9	401042	86.55	.6281 - .6590	127.55	107.00	100.10	96.85	93.30	90.60
.6719	43/64	.5615	6	2 1/4	9	401043	86.55	-	-	-	-	-	-	-
.6875	11/16	.5615	6	2 1/4	9	401044	86.55	.6591 - .6910	127.55	107.00	100.10	96.85	93.30	90.60
.7031	45/64	.5615	6	2 1/4	9	401045	90.50	-	-	-	-	-	-	-
.7188	23/32	.5615	6	2 1/4	9	401046	90.50	.6911 - .7220	131.45	110.85	104.15	100.85	97.30	94.50
.7344	47/64	.6245	6	2 1/2	9 1/2	401047	90.50	-	-	-	-	-	-	-

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 401 - Straight Shank - Full Flute Length Carbide - For Steel & Steel Alloys

Continued from previous page.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLUTES	LENGTH		LIST 401 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DECIMAL	FRAC.			FLUTE	OVER-ALL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.7500	¾	.6245	6	2 ½	9 ½	401048	$90.50	.7221 - .7530	$131.45	$110.85	$104.15	$100.85	$97.30	$94.50
.7656	49/64	.6245	6	2 ½	9 ½	401049	93.70	-	-	-	-	-	-	-
.7812	25/32	.6245	6	2 ½	9 ½	401050	93.70	.7531 - .7840	134.50	114.00	107.15	103.80	100.35	97.55
.7969	51/64	.6245	6	2 ½	9 ½	401051	93.70	-	-	-	-	-	-	-
.8125	13/16	.6245	6	2 ½	9 ½	401052	93.70	.7841 - .8160	134.50	114.00	107.15	103.80	100.35	97.55
.8281	53/64	.6245	6	2 ½	9 ½	401053	97.40	-	-	-	-	-	-	-
.8438	27/32	.6245	6	2 ½	9 ½	401054	97.40	.8161 - .8470	138.25	117.70	110.85	107.70	104.20	101.35
.8594	55/64	.7495	6	2 ⅝	10	401055	97.40	-	-	-	-	-	-	-
.8750	⅞	.7495	6	2 ⅝	10	401056	101.10	.8471 - .8780	143.45	122.20	115.10	111.70	108.00	105.15
.8906	57/64	.7495	6	2 ⅝	10	401057	117.65	-	-	-	-	-	-	-
.9062	29/32	.7495	6	2 ⅝	10	401058	117.65	.8781 - .9090	160.15	138.90	131.65	128.30	124.65	121.75
.9219	59/64	.7495	8	2 ⅝	10	401059	117.65	-	-	-	-	-	-	-
.9375	15/16	.7495	8	2 ⅝	10	401060	117.65	.9091 - .9410	160.15	138.90	131.65	128.30	124.65	121.75
.9531	61/64	.7495	8	2 ⅝	10	401061	123.30	-	-	-	-	-	-	-
.9688	31/32	.7495	8	2 ⅝	10	401062	123.30	.9411 - .9720	165.80	144.55	137.30	133.90	130.30	127.40
.9844	63/64	.8745	8	2 ¾	10 ½	401063	123.30	-	-	-	-	-	-	-
1.0000	1	.8745	8	2 ¾	10 ½	401064	123.30	.9721 - 1.0030	165.80	144.55	137.30	133.90	130.30	127.40
1.0625	1 1/16	.8745	8	2 ¾	10 ½	401068	127.45	1.0031 - 1.0660	168.20	147.70	141.00	137.70	134.20	131.50
1.1250	1 ⅛	.8745	8	2 ⅞	11	401072	138.10	1.0661 - 1.1280	178.75	158.35	151.50	148.30	144.80	142.00
1.1875	1 3/16	.9995	8	2 ⅞	11	401076	151.20	1.1281 - 1.1905	191.95	171.50	164.70	161.45	157.95	155.20
1.2500	1 ¼	.9995	8	3	11 ½	401080	168.50	1.1906 - 1.2530	209.20	188.80	181.95	178.75	175.25	172.45

**Quantities of 15 or more: price of fractional size in same size range.*

DOWEL PIN & OVER/UNDER SIZE REAMERS

CARBIDE TIPPED

List No. 9486 - Dowel Pin Sizes - Straight Flute & Shank - For Steel & Steel Alloys

Use: When used in pairs, these reamers allow disassembly of dies and molds keeping dowel pins on the same side. Pairs are .0005" & .002" under standard dowel pin diameters.

Special tool diameter tolerance: +0"/-.0002"

TOOL DIAMETER	MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		LIST 9486 EDP NO.	PRICE EACH
			FLT	OAL		
.1855	.1805	4	1 ⅛	4 ½	948617	$71.45
.1870	.1805	4	1 ⅛	4 ½	948618	71.45
.2480	.2405	4	1 ½	6	948623	71.45
.2495	.2405	4	1 ½	6	948624	71.45
.3105	.2792	4	1 ½	6	948630	72.75
.3120	.2792	4	1 ½	6	948631	72.75
.3730	.3105	4	1 ¾	7	948636	74.85
.3745	.3105	4	1 ¾	7	948637	74.85
.4355	.3730	6	1 ¾	7	948642	87.95
.4370	.3730	6	1 ¾	7	948643	87.95
.4980	.4355	6	2	8	948648	94.95
.4995	.4355	6	2	8	948649	94.95
CASED SET OF ABOVE 12 REAMERS					948600	899.55

List No. 9488 - Over/Under Sizes - Straight Flute & Shank - For Steel & Steel Alloys

Use: For finishing accurate holes in steel and steel alloys.

Tool diameter tolerance: +.0002"/-0"

TOOL DIAMETER	MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		LIST 9488 EDP NO.	PRICE EACH
			FLT	OAL		
.1865	.1805	4	1 ⅛	4 ½	948818	$71.45
.1885	.1805	4	1 ⅛	4 ½	948819	71.45
.2490	.2405	4	1 ½	6	948824	71.45
.2510	.2405	4	1 ½	6	948825	71.45
.3115	.2792	4	1 ½	6	948831	72.75
.3135	.2792	4	1 ½	6	948832	72.75
.3740	.3105	4	1 ¾	7	948837	74.85
.3760	.3105	4	1 ¾	7	948838	74.85
.4365	.3730	6	1 ¾	7	948843	87.95
.4385	.3730	6	1 ¾	7	948844	87.95
.4990	.4355	6	2	8	948849	94.95
.5010	.4355	6	2	8	948850	94.95
CASED SET OF ABOVE 12 REAMERS					948800	899.55

Tolerances on page 60.

CHUCKING REAMERS - SPIRAL FLUTE

CARBIDE TIPPED

List No. 5653 - Straight Shank - Right Hand Spiral - Partial Flute Length Carbide

Use: For blind holes. For reaming ductile and abrasive materials. Hardened alloy steel bodies with brazed on carbide tips.

List No. 5651 - Straight Shank - Left Hand Spiral - Partial Flute Length Carbide

Use: For through holes. For reaming heat treated steels, castings and other hard materials. NOT to be used in blind hole reaming applications. Automotive tang available upon request. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		SHANK DIAM.	NO. OF FLTS.	LENGTH			LIST 5653 RIGHT EDP NO.	LIST 5651 LEFT EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT.	CARB.	OVER-ALL					1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.1875	3/16	11/64	4	1 1/8	1/2	4 1/2	55148	55098	$56.10	.1770 - .2040	$92.55	$74.25	$68.15	$65.20	$62.10	$59.70
.2188	7/32	13/64	4	1 1/4	1/2	5	55149	55099	56.10	.2041 - .2210	92.55	74.25	68.15	65.20	62.10	59.70
.2344	15/64	7/32	4	1 1/2	1/2	6	55150	55100	56.10	.2211 - .2380	92.55	74.25	68.15	65.20	62.10	59.70
.2500	1/4	15/64	4	1 1/2	1/2	6	55151	55101	56.10	.2381 - .2530	92.55	74.25	68.15	65.20	62.10	59.70
.2812	9/32	15/64	4	1 1/2	1/2	6	55152	55102	56.30	.2531 - .2840	92.65	74.40	68.25	65.35	62.25	59.80
.3125	5/16	9/32	4	1 1/2	1/2	6	55153	55103	56.30	.2841 - .3150	92.65	74.40	68.25	65.35	62.25	59.80
.3438	11/32	9/32	4	1 1/2	5/8	6	55154	55104	61.90	.3151 - .3470	98.35	80.05	73.95	71.05	67.95	65.55
.3750	3/8	5/16	4	1 3/4	5/8	7	55155	55105	62.50	.3471 - .3780	98.90	80.65	74.50	71.70	68.60	66.10
.4062	13/32	5/16	4	1 3/4	5/8	7	55156	55106	65.30	.3781 - .4090	101.75	83.50	77.40	74.45	71.30	68.90
.4375	7/16	3/8	4	1 3/4	5/8	7	55157	55107	67.95	.4091 - .4410	104.30	86.05	80.00	77.10	73.95	71.50
.4688	15/32	3/8	4	1 3/4	5/8	7	55158	55108	72.10	.4411 - .4720	108.50	90.30	84.20	81.25	78.20	75.60
.5000	1/2	7/16	6	2	5/8	8	55159	55109	74.85	.4721 - .5030	112.15	93.35	87.15	84.20	81.05	78.45
.5312	17/32	7/16	6	2	5/8	8	55168	55118	77.10	.5031 - .5340	114.50	95.75	89.50	86.50	83.35	80.75
.5625	9/16	7/16	6	2	5/8	8	55160	55110	77.10	.5341 - .5660	114.50	95.75	89.50	86.50	83.35	80.75
.5938	19/32	7/16	6	2	5/8	8	55169	55119	79.40	.5661 - .5970	116.75	98.05	91.75	88.75	85.55	83.00
.6250	5/8	9/16	6	2 1/4	5/8	9	55161	55111	79.40	.5971 - .6280	116.75	98.05	91.75	88.75	85.55	83.00
.6562	21/32	9/16	6	2 1/4	5/8	9	55170	55120	81.65	.6281 - .6590	119.10	100.35	94.05	91.05	87.80	85.40
.6875	11/16	9/16	6	2 1/4	5/8	9	55162	55112	87.00	.6591 - .6910	124.30	105.55	99.30	96.30	93.15	90.65
.7188	23/32	9/16	6	2 1/4	5/8	9	55171	55121	88.15	.6911 - .7220	125.50	106.75	100.50	97.55	94.35	91.80
.7500	3/4	5/8	6	2 1/2	3/4	9 1/2	55163	55113	89.55	.7221 - .7530	126.90	108.20	101.95	98.95	95.75	93.20
.7812	25/32	5/8	6	2 1/2	3/4	9 1/2	55172	55122	91.80	.7531 - .7840	129.25	110.55	104.25	101.25	98.05	95.50
.8125	13/16	5/8	6	2 1/2	3/4	9 1/2	55164	55114	91.80	.7841 - .8160	129.25	110.55	104.25	101.25	98.05	95.50
.8438	27/32	5/8	6	2 1/2	3/4	9 1/2	55173	55123	96.85	.8161 - .8470	134.30	115.50	109.30	106.30	103.05	100.50
.8750	7/8	3/4	6	2 5/8	3/4	10	55165	55115	100.50	.8471 - .8780	139.30	119.90	113.30	110.30	106.95	104.30
.9062	29/32	3/4	6	2 5/8	3/4	10	55174	55124	117.10	.8781 - .9090	155.85	136.50	130.00	126.85	123.50	120.95
.9375	15/16	3/4	8	2 5/8	3/4	10	55166	55116	117.10	.9091 - .9410	155.85	136.50	130.00	126.85	123.50	120.95
.9688	31/32	3/4	8	2 5/8	3/4	10	55175	55125	122.80	.9411 - .9720	161.60	142.15	135.75	132.55	129.20	126.65
1.0000	1	7/8	8	2 3/4	3/4	10 1/2	55167	55117	122.80	.9721 - 1.0030	161.60	142.15	135.75	132.55	129.20	126.65
1.0625	1 1/16	7/8	8	2 3/4	3/4	10 1/2	55176	55126	131.75	1.0031 - 1.0660	170.55	151.10	144.65	141.45	138.15	135.55
1.1250	1 1/8	7/8	8	2 7/8	7/8	11	55177	55127	135.85	1.0661 - 1.1280	174.55	155.20	148.65	145.55	142.20	139.65
1.1875	1 3/16	1	8	2 7/8	7/8	11	55178	55128	142.75	1.1281 - 1.1905	181.50	162.05	155.55	152.40	149.15	146.50
1.2500	1 1/4	1	8	3	7/8	11 1/2	55179	55129	151.05	1.1906 - 1.2530	189.80	170.35	163.90	160.80	157.45	154.90
1.3125	1 5/16	1	8	3	7/8	11 1/2	55180	55130	167.10	1.2531 - 1.3155	205.95	186.55	179.90	176.90	173.55	170.95
1.3750	1 3/8	1	8	3 1/4	7/8	12	55181	55131	183.15	1.3156 - 1.3780	221.90	202.50	196.00	192.95	189.55	186.95
1.4375	1 7/16	1 1/4	8	3 1/4	7/8	12	55182	55132	194.00	1.3781 - 1.4405	232.80	213.35	206.85	203.85	200.45	197.80
1.5000	1 1/2	1 1/4	8	3 1/2	7/8	12 1/2	55183	55133	204.95	1.4406 - 1.5030	243.70	224.25	217.85	214.60	211.40	208.75

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

CHUCKING REAMERS - EXTENDED LENGTH

CARBIDE TIPPED

List No. 9458EL - Straight Shank - Straight Flute - Extended Overall Length

Use: Extended length versions of type 9458 on page 89. Specify the overall length and the diameter when ordering. Centers are supplied at the maximum overall length only. Controlled shank provided on all extended length reamers. Excellent for reaming holes where more reach is required than a standard size reamer can provide. Full flute length carbide. For use in most materials including steels, stainless steels, cast irons, aluminums, and many composites including graphite, epoxy based, and metal matrix. Conforms with specification NAS 897 - Type C. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER DECIMAL SIZE RANGE	MAX. SHANK DIAM.	NO. OF FLTS.	FLUTE LENGTH	LIST 9458EL EDP NO.	OVERALL LENGTH RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
						1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14**
*.1121 - .1280	.1099	4	1 ½	645804EL	2 9/32 - 6	$275.05	$240.90	$229.40	$224.00	$218.20	$213.50
*.1281 - .1435	.1255	4	1 ½	6458045EL	2 17/32 - 6 ½	276.00	241.90	230.45	224.90	219.05	214.50
*.1436 - .1590	.1411	4	1 ½	645805EL	2 17/32 - 7	280.60	246.40	234.95	229.45	223.65	219.00
*.1591 - .1750	.1567	4	1 ½	6458055EL	2 25/32 - 8	285.90	251.65	240.30	234.80	228.95	224.35
*.1751 - .1910	.1724	4	1 ½	645806EL	4 17/32 - 9	293.45	259.30	247.80	242.45	236.50	231.90
*.1911 - .2210	.1880	4	1 ½	645807EL	5 1/32 - 10	303.30	269.25	257.80	252.35	246.45	241.90
*.2211 - .2530	.2193	4	1 ½	645808EL	6 1/32 - 12	322.95	288.75	277.40	271.95	266.10	261.50
*.2531 - .2840	.2505	4	1 ½	645809EL	6 1/32 - 12	339.80	305.65	294.25	288.70	282.90	278.20
.2841 - .3150	.2792	4	1 ½	645810EL	6 1/32 - 12	241.10	206.95	195.55	190.05	184.20	179.65
.3151 - .3470	.2792	4	1 ½	645811EL	6 1/32 - 12	241.10	206.95	195.55	190.05	184.20	179.65
.3471 - .3780	.3105	4	1 ¾	645812EL	7 1/32 - 14	249.00	214.90	203.45	197.90	192.10	187.45
.3781 - .4090	.3105	4	1 ¾	645813EL	7 1/32 - 14	249.00	214.90	203.45	197.90	192.10	187.45
.4091 - .4410	.3730	6	1 ¾	645814EL	7 1/32 - 14	256.95	222.70	211.35	205.80	200.00	195.35
.4411 - .4720	.3730	6	1 ¾	645815EL	7 1/32 - 14	256.95	222.70	211.35	205.80	200.00	195.35
.4721 - .5030	.4355	6	2	645816EL	8 1/32 - 16	262.25	228.00	216.60	211.15	205.35	200.70
.5031 - .5340	.4355	6	2	645817EL	8 1/32 - 16	262.25	228.00	216.60	211.15	205.35	200.70
.5341 - .5660	.4355	6	2	645818EL	8 1/32 - 16	267.15	232.90	221.50	216.05	210.20	205.60
.5661 - .5970	.4355	6	2	645819EL	8 1/32 - 16	267.15	232.90	221.50	216.05	210.20	205.60
.5971 - .6280	.5615	6	2 ¼	645820EL	9 1/32 - 18	272.75	238.55	227.10	221.70	215.90	211.25
.6281 - .6590	.5615	6	2 ¼	645821EL	9 1/32 - 18	272.75	238.55	227.10	221.70	215.90	211.25
.6591 - .6910	.5615	6	2 ¼	645822EL	9 1/32 - 18	273.55	239.35	227.85	222.45	216.60	212.00
.6911 - .7220	.5615	6	2 ¼	645823EL	9 1/32 - 18	273.55	239.35	227.85	222.45	216.60	212.00
.7221 - .7530	.6245	6	2 ½	645824EL	9 17/32 - 18	293.60	259.40	247.90	242.55	236.75	232.10
.7531 - .7840	.6245	6	2 ½	645825EL	9 17/32 - 18	356.30	323.75	312.80	307.70	302.10	297.75
.7841 - .8160	.6245	6	2 ½	645826EL	9 17/32 - 18	367.65	335.05	324.15	319.05	313.45	309.05
.8161 - .8470	.6245	6	2 ½	645827EL	9 17/32 - 18	371.90	339.35	328.40	323.25	317.70	313.35
.8471 - .8780	.7495	6	2 ⅝	645828EL	10 1/32 - 18	379.80	347.15	336.25	331.15	325.55	321.10
.8781 - .9090	.7495	6	2 ⅝	645829EL	10 1/32 - 18	395.75	363.15	352.25	347.10	341.55	337.15
.9091 - .9410	.7495	8	2 ⅝	645830EL	10 1/32 - 18	399.75	367.10	356.20	351.05	345.45	341.15
.9411 - .9720	.7495	8	2 ⅝	645831EL	10 1/32 - 18	403.50	370.95	360.05	354.90	349.30	344.90
.9721 - 1.0030	.8745	8	2 ¾	645832EL	10 17/32 - 18	412.90	380.35	369.45	364.30	358.65	354.30

*Solid Carbide.

**Contact Super Tool for quantities of 15 or more.

Tolerances on page 60.

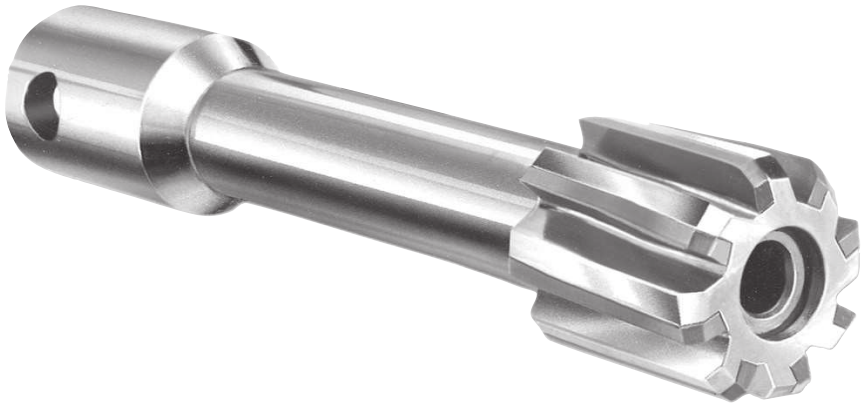
Made in the USA

COOLANT FED REAMERS

CARBIDE TIPPED

List No. 5685 - Straight Shank - Right Hand Spiral Flutes - Full Flute Length Carbide - Center Fed

Use: Similar to the Barber-Colman and Metcut OFC Reamer. Center fed coolant reamers are for blind holes so the chips will be forced out through the top of the hole. Hardened alloy steel bodies with brazed on carbide tips. Pin cross hole located in the shank. 2° to 5° right hand spiral. Not for use in Steel. 22.5° chamfer angle.



Tool diameter tolerance: +.0003"/-.0000".

TOOL DIAMETER		SHANK DIAM.	SHANK LENGTH	NO. OF FLTS.	LENGTH		PRICE EACH	LIST 5681 FLUTE FED EDP NO.	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.				FLT.	OVER-ALL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.3750	3/8	3/8	3/4	6	1/2	2 1/2	$127.30	48012	.3181-.3800	$205.75	$166.40	$153.30	$147.05	$140.30	$135.00
.4062	13/32	3/8	3/4	6	1/2	2 5/8	129.20	48013	.3801-.4090	207.65	168.35	155.15	148.85	142.15	136.90
.4375	7/16	3/8	3/4	6	1/2	2 5/8	129.20	48014	.4091-.4410	207.65	168.35	155.15	148.85	142.15	136.90
.4688	15/32	5/8	1	6	5/8	3 1/2	132.70	48015	.4411-.4720	211.15	171.90	158.80	152.40	145.65	140.40
.5000	1/2	5/8	1	6	5/8	3 1/2	132.70	48016	.4721-.5050	211.15	171.90	158.80	152.40	145.65	140.40
.5625	9/16	5/8	1	6	3/4	3 3/4	145.05	48018	.5051-.5660	223.50	184.10	171.05	164.80	158.05	152.75
.6250	5/8	5/8	1	6	3/4	3 3/4	145.05	48020	.5661-.6300	223.50	184.10	171.05	164.80	158.05	152.75
.6875	11/16	5/8	1	6	3/4	4 1/4	160.90	48022	.6301-.6910	239.40	200.10	186.95	180.60	173.95	168.60
.7500	3/4	5/8	1	6	3/4	4 1/4	160.90	48024	.6911-.7550	239.40	200.10	186.95	180.60	173.95	168.60
.8125	13/16	5/8	1	6	7/8	4 3/4	169.70	48026	.7551-.8160	248.25	209.00	195.75	189.45	182.75	177.50
.8750	7/8	5/8	1	6	7/8	4 3/4	176.15	48028	.8161-.8800	257.65	216.80	203.10	196.60	189.70	184.10
.9375	15/16	1	1 1/2	8	1	5 1/2	211.10	48030	.8801-.9410	292.55	251.80	238.10	231.60	224.65	219.10
1.0000	1	1	1 1/2	8	1	5 1/2	211.10	48032	.9411-1.0050	292.55	251.80	238.10	231.60	224.65	219.10
1.0625	1 1/16	1	1 1/2	8	1 1/4	6	233.65	48034	1.0051-1.0660	318.55	275.95	261.80	254.95	247.65	241.95
1.1250	1 1/8	1	1 1/2	8	1 1/4	6	233.65	48036	1.0661-1.1300	318.55	275.95	261.80	254.95	247.65	241.95
1.1875	1 3/16	1	1 1/2	8	1 1/4	6	239.40	48038	1.1301-1.1900	324.40	281.80	267.55	260.75	253.55	247.70
1.2500	1 1/4	1	1 1/2	8	1 1/4	6	239.40	48040	1.1901-1.2550	324.40	281.80	267.55	260.75	253.55	247.70
1.3125	1 5/16	1	1 1/2	8	1 1/4	6	256.70	48042	1.2551-1.3155	341.70	299.10	284.80	278.00	270.75	265.05
1.3750	1 3/8	1	1 1/2	8	1 1/4	6	256.70	48044	1.3156-1.3800	341.70	299.10	284.80	278.00	270.75	265.05
1.4375	1 7/16	1	1 1/2	8	1 1/4	6	273.90	48046	1.3801-1.4405	358.95	316.30	302.00	295.30	288.05	282.25
1.5000	1 1/2	1	1 1/2	8	1 1/4	6	273.90	48048	1.4406-1.5050	358.95	316.30	302.00	295.30	288.05	282.25
1.5625	1 9/16	1	1 1/2	10	1 1/4	6	287.25	48050	1.5051-1.5660	372.25	329.65	315.45	308.65	301.35	295.65
1.6250	1 5/8	1	1 1/2	10	1 1/4	6	287.25	48052	1.5661-1.6300	372.25	329.65	315.45	308.65	301.35	295.65
1.6875	1 11/16	1	1 1/2	10	1 1/4	6	304.55	48054	1.6301-1.6910	389.55	346.95	332.75	325.95	318.65	312.90
1.7500	1 3/4	1	1 1/2	10	1 1/4	6	304.55	48056	1.6911-1.7550	389.55	346.95	332.75	325.95	318.65	312.90
1.8125	1 13/16	1	1 1/2	10	1 1/4	6	319.85	48058	1.7551-1.8160	404.90	362.25	348.00	341.25	334.00	328.15
1.8750	1 7/8	1	1 1/2	10	1 1/4	6	319.85	48060	1.8161-1.8800	404.90	362.25	348.00	341.25	334.00	328.15
1.9375	1 15/16	1	1 1/2	10	1 1/4	6	335.25	48062	1.8801-1.9410	420.05	377.50	363.30	356.55	349.15	343.55
2.0000	2	1	1 1/2	10	1 1/4	6	335.25	48064	1.9411-2.0150	420.05	377.50	363.30	356.55	349.15	343.55

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

CHUCKING REAMERS - SEMI-FINISHED

CARBIDE TIPPED

Semi-finished reamers are furnished with a potential cutting diameter above the largest diameter indicated in the size range column below.

Before semi-finished reamers can be used, the cutting diameter must be finish ground and relieved and the reamer's end must be faced and chamfered.

Semi-finished reamers are purchased by regrind shops, distributors or users with regrind facilities.

For detailed descriptions of each specific types, see page indicated in table below.

SEMI-FINISHED TOOL DIAMETER RANGE	LIST 5655 PAGES 60-66		LIST 5656 PAGE 80		LIST 5653 PAGE 76		LIST 5670 PAGE 73	LIST 5669 PAGE 73	BOTH LIST PRICE	LIST 5659 PAGES 68-72		LIST 5733 PAGE 84-85	
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	EDP NO.	EDP NO.		EDP NO.	PRICE EACH	EDP NO.	PRICE EACH
.1770 - .2040	59001	$33.90	-	-	59551	$47.75	59351	59451	$44.20	59101	$40.55	-	-
.2041 - .2210	59002	33.90	-	-	59552	47.75	59352	59452	44.20	59102	40.55	-	-
.2211 - .2380	59003	35.80	-	-	59553	47.75	59353	59453	44.20	59103	40.55	-	-
.2381 - .2530	59004	33.90	59054	$39.10	59554	47.75	59354	59454	44.20	59104	40.55	-	-
.2531 - .2840	59005	34.55	59055	39.70	59555	47.85	59355	59455	44.20	59105	41.50	-	-
.2841 - .3150	59006	34.55	59056	39.70	59556	47.85	59356	59456	51.30	59106	41.50	59606	$62.60
.3151 - .3470	59007	35.75	59057	41.15	59557	52.60	59357	59457	51.85	59107	42.90	59607	62.60
.3471 - .3780	59008	32.80	59058	37.85	59558	53.10	59358	59458	56.15	59108	42.90	59608	58.55
.3781 - .4090	59009	37.50	59059	43.15	59559	55.50	59359	59459	56.90	59109	45.00	59609	62.10
.4091 - .4410	59010	39.95	59060	46.00	59560	57.70	59360	59460	67.50	59110	48.75	59610	62.10
.4411 - .4720	59011	40.70	59061	47.30	59561	61.30	59361	59461	67.50	59111	52.60	59611	65.85
.4721 - .5030	59012	48.45	59062	55.65	59562	63.60	59362	59462	73.80	59112	56.45	59612	65.85
.5031 - .5340	59013	52.60	59063	60.15	59563	65.60	59363	59463	73.80	59113	57.85	59613	67.50
.5341 - .5660	59014	52.60	59064	60.15	59564	65.60	59364	59464	77.85	59114	57.85	59614	67.50
.5661 - .5970	59015	54.75	59065	62.90	59565	67.50	59365	59465	77.85	59115	60.30	59615	70.45
.5971 - .6280	59016	54.75	59066	62.90	59566	67.50	59366	59466	79.95	59116	60.30	59616	70.45
.6281 - .6590	59017	55.70	59067	64.10	59567	69.40	59367	59467	79.95	59117	61.30	59617	77.10
.6591 - .6910	59018	55.70	59068	64.10	59568	73.95	59368	59468	83.60	59118	61.30	59618	77.10
.6911 - .7220	59019	58.30	59069	67.05	59569	74.95	59369	59469	83.60	59119	64.10	59619	80.05
.7221 - .7530	59020	58.30	59070	67.05	59570	76.15	59370	59470	85.75	59120	64.10	59620	80.05
.7531 - .7840	59021	60.35	59071	69.05	59571	78.05	59371	59471	85.75	59121	66.25	59621	86.30
.7841 - .8160	59022	60.35	59072	69.05	59572	78.05	59372	59472	93.15	59122	66.25	59622	86.30
.8161 - .8470	59023	62.75	59073	72.10	59573	82.30	59373	59473	93.15	59123	68.95	59623	89.55
.8471 - .8780	59024	65.05	59074	74.80	59574	85.45	59374	59474	101.80	59124	71.60	59624	92.95
.8781 - .9090	59025	75.95	59075	87.75	59575	99.60	59375	59475	101.80	59125	83.35	59625	98.95
.9091 - .9410	59026	75.95	59076	87.75	59576	99.60	59376	59476	112.05	59126	83.35	59626	98.95
.9411 - .9720	59027	79.50	59077	91.30	59577	104.35	59377	59477	112.05	59127	87.35	59627	102.75
.9721 - 1.0030	59028	79.50	59078	91.30	59578	104.35	59378	59478	117.65	59128	87.35	59628	102.75

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5656 - Taper Shank - Partial Flute Length Carbide

Use: For general purpose reaming of most types of materials, including steel, cast iron, non-ferrous, plastics, and non-metals. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		MORSE TAPER	NO. OF FLUTES	LENGTH			LIST 5656 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT	CARB	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	¼	1	4	1 ½	½	6	55416	$45.90	.2381 - .2530	$83.00	$64.45	$58.25	$55.30	$52.20	$49.65
.2812	9/32	1	4	1 ½	½	6	55418	46.75	.2531 - .2840	83.95	65.30	59.15	56.10	53.00	50.35
.3125	5/16	1	4	1 ½	½	6	55420	46.75	.2841 - .3150	83.95	65.30	59.15	56.10	53.00	50.35
.3438	11/32	1	4	1 ½	⅝	6	55422	48.50	.3151 - .3470	85.70	67.05	60.75	57.80	54.70	52.25
.3750	⅜	1	4	1 ¾	⅝	7	55424	44.50	.3471 - .3780	78.60	61.55	55.75	53.10	50.15	47.85
.4062	13/32	1	4	1 ¾	⅝	7	55426	50.90	.3781 - .4090	88.05	69.40	63.15	60.30	57.05	54.55
.4375	7/16	1	4	1 ¾	⅝	7	55428	54.15	.4091 - .4410	91.30	72.70	66.45	63.50	60.35	57.75
.4688	15/32	1	4	1 ¾	⅝	7	55430	55.55	.4411 - .4720	92.80	74.15	67.90	64.95	61.75	59.25
.5000	½	1	6	2	⅝	8	55432	65.50	.4721 - .5030	106.40	85.85	79.05	75.85	72.25	69.55
.5312	17/32	1	6	2	⅝	8	55434	70.75	.5031 - .5340	111.65	91.05	84.20	81.05	77.45	74.60
.5625	9/16	1	6	2	⅝	8	55436	70.75	.5341 - .5660	111.65	91.05	84.20	81.05	77.45	74.60
.5938	19/32	1	6	2	⅝	8	55438	74.10	.5661 - .5970	115.05	94.50	87.65	84.40	80.80	78.15
.6250	⅝	2	6	2 ¼	⅝	9	55440	74.10	.5971 - .6280	115.05	94.50	87.65	84.40	80.80	78.15
.6562	21/32	2	6	2 ¼	⅝	9	55442	75.40	.6281 - .6590	116.30	95.85	89.00	85.75	82.20	79.40
.6875	11/16	2	6	2 ¼	⅝	9	55444	75.40	.6591 - .6910	116.30	95.85	89.00	85.75	82.20	79.40
.7188	23/32	2	6	2 ¼	⅝	9	55446	78.85	.6911 - .7220	119.80	99.20	92.35	89.20	85.70	82.85
.7500	¾	2	6	2 ½	¾	9 ½	55448	78.85	.7221 - .7530	119.80	99.20	92.35	89.20	85.70	82.85
.7812	25/32	2	6	2 ½	¾	9 ½	55450	81.30	.7531 - .7840	122.20	101.65	94.90	91.65	88.05	85.30
.8125	13/16	2	6	2 ½	¾	9 ½	55452	81.30	.7841 - .8160	122.20	101.65	94.90	91.65	88.05	85.30
.8438	27/32	2	6	2 ½	¾	9 ½	55454	84.80	.8161 - .8470	125.70	105.15	98.40	95.10	91.65	88.75
.8750	⅞	2	6	2 ⅝	¾	10	55456	88.05	.8471 - .8780	130.40	109.25	102.10	98.60	95.05	92.15
.9062	29/32	2	6	2 ⅝	¾	10	55458	103.25	.8781 - .9090	145.65	124.35	117.25	113.85	110.25	107.35
.9375	15/16	3	8	2 ⅝	¾	10	55460	103.25	.9091 - .9410	145.65	124.35	117.25	113.85	110.25	107.35
.9688	31/32	3	8	2 ⅝	¾	10	55462	107.65	.9411 - .9720	150.00	128.70	121.55	118.20	114.60	111.70
1.0000	1	3	8	2 ¾	¾	10 ½	55464	107.65	.9721 - 1.0030	150.00	128.70	121.55	118.20	114.60	111.70
1.0625	1 1/16	3	8	2 ¾	¾	10 ½	55466	147.70	1.0031 - 1.0660	188.45	168.10	161.30	158.00	154.45	151.70
1.1250	1 ⅛	3	8	2 ⅞	⅞	11	55468	157.40	1.0661 - 1.1280	198.10	177.60	170.85	167.55	164.15	161.40
1.1875	1 3/16	3	8	2 ⅞	⅞	11	55470	166.70	1.1281 - 1.1905	207.50	186.95	180.25	176.85	173.40	170.70
1.2500	1 ¼	4	8	3	⅞	11 ½	55472	185.25	1.1906 - 1.2530	225.95	205.55	198.75	195.40	192.00	189.20
1.3125	1 5/16	4	8	3	⅞	11 ½	55474	199.75	1.2531 - 1.3155	240.40	220.05	213.20	209.95	206.45	203.70
1.3750	1 ⅜	4	8	3 ¼	⅞	12	55476	207.80	1.3156 - 1.3780	248.50	228.10	221.30	218.05	214.50	211.90
1.4375	1 7/16	4	8	3 ¼	⅞	12	55477	212.10	1.3781 - 1.4405	252.85	232.50	225.55	222.40	218.80	216.10
1.5000	1 ½	4	8	3 ½	⅞	12 ½	55478	222.65	1.4406 - 1.5030	263.40	243.10	236.20	232.95	229.40	226.65
1.5625	1 9/16	4	8	3 ½	⅞	12 ½	55479	240.35	1.5031 - 1.5660	281.05	260.70	253.80	250.60	247.10	244.35
1.6250	1 ⅝	4	8	3 ¾	⅞	13	55480	248.60	1.5661 - 1.6280	289.40	269.05	262.15	258.90	255.45	252.65
1.6875	1 11/16	4	8	3 ¾	⅞	13	55481	279.60	1.6281 - 1.6910	320.35	299.90	293.20	289.80	286.45	283.70
1.7500	1 ¾	4	10	4	⅞	13 ½	55482	279.60	1.6911 - 1.7530	320.35	299.90	293.20	289.80	286.45	283.70
1.8125	1 13/16	4	10	4	⅞	13 ½	55483	279.60	1.7531 - 1.8160	320.35	299.90	293.20	289.80	286.45	283.70
1.8750	1 ⅞	4	10	4 ¼	⅞	14	55484	293.00	1.8161 - 1.8780	333.65	313.30	306.45	303.15	299.75	296.95
1.9375	1 15/16	4	10	4 ¼	⅞	14	55485	293.00	1.8781 - 1.9410	333.65	313.30	306.45	303.15	299.75	296.95
2.0000	2	4	12	4 ¼	⅞	14	55486	293.00	1.9411 - 2.0030	333.65	313.30	306.45	303.15	299.75	296.95

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

METRIC

CARBIDE TIPPED

List No. 5656 - Taper Shank - Partial Flute Length Carbide - Metric

Use: Same as List No. 5656 on page 80.

TOOL DIAMETER		MORSE TAPER	NO. OF FLTS.	LENGTH			LIST 5656 EDP NO.	PRICE EACH	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	INCH			FLT	CARB	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
6.0	.2362	1	4	1 ½	½	6	5656060	$58.25	6.000 - 6.426	$86.30	$67.65	$61.50	$58.35	$55.30	$52.60	$49.05
6.5	.2559	1	4	1 ½	½	6	5656065	59.15	6.427 - 7.214	87.05	68.55	62.30	59.25	56.10	53.50	50.00
7.0	.2756	1	4	1 ½	½	6	5656070	59.15	-	-	-	-	-	-	-	-
7.5	.2953	1	4	1 ½	½	6	5656075	59.15	7.215 - 8.001	87.05	68.55	62.30	59.25	56.10	53.50	50.00
8.0	.3150	1	4	1 ½	½	6	5656080	59.15	-	-	-	-	-	-	-	-
8.5	.3346	1	4	1 ½	⅝	6	5656085	60.75	8.002 - 8.814	88.75	70.20	64.05	60.90	57.80	55.30	51.65
9.0	.3543	1	4	1 ¾	⅝	7	5656090	55.75	8.815 - 9.601	81.45	64.45	58.80	55.95	53.10	50.80	47.40
9.5	.3740	1	4	1 ¾	⅝	7	5656095	55.75	-	-	-	-	-	-	-	-
10.0	.3937	1	4	1 ¾	⅝	7	5656100	63.15	9.602 - 10.389	91.10	72.55	66.40	63.35	60.30	57.65	54.10
10.5	.4134	1	4	1 ¾	⅝	7	5656105	66.45	10.390 - 11.201	94.45	75.95	69.65	66.65	63.50	60.85	57.40
11.0	.4331	1	4	1 ¾	⅝	7	5656110	66.45	-	-	-	-	-	-	-	-
11.5	.4528	1	4	1 ¾	⅝	7	5656115	67.90	11.202 - 11.989	95.85	77.40	71.05	68.10	64.95	62.35	58.85
12.0	.4724	1	6	2	⅝	8	5656120	79.05	11.990 - 12.776	109.70	89.45	82.55	79.15	75.85	72.95	68.95
12.5	.4921	1	6	2	⅝	8	5656125	79.05	-	-	-	-	-	-	-	-
13.0	.5118	1	6	2	⅝	8	5656130	84.20	12.777 - 13.564	115.05	94.60	87.75	84.40	81.05	78.15	74.15
13.5	.5315	1	6	2	⅝	8	5656135	84.20	-	-	-	-	-	-	-	-
14.0	.5512	1	6	2	⅝	8	5656140	84.20	13.565 - 14.376	115.05	94.60	87.75	84.40	81.05	78.15	74.15
14.5	.5709	1	6	2	⅝	8	5656145	87.65	14.377 - 15.164	118.40	98.00	91.10	87.85	84.40	81.50	77.60
15.0	.5906	1	6	2	⅝	8	5656150	87.65	-	-	-	-	-	-	-	-
15.5	.6102	2	6	2 ¼	⅝	9	5656155	87.65	15.165 - 15.951	118.40	98.00	91.10	87.85	84.40	81.50	77.60
16.0	.6299	2	6	2 ¼	⅝	9	5656160	89.00	15.952 - 16.739	119.80	99.25	92.55	89.20	85.75	82.85	79.00
16.5	.6496	2	6	2 ¼	⅝	9	5656165	89.00	-	-	-	-	-	-	-	-
17.0	.6693	2	6	2 ¼	⅝	9	5656170	89.00	16.740 - 17.551	119.80	99.25	92.55	89.20	85.75	82.85	79.00
17.5	.6890	2	6	2 ¼	⅝	9	5656175	89.00	-	-	-	-	-	-	-	-
18.0	.7087	2	6	2 ¼	⅝	9	5656180	92.35	17.552 - 18.339	123.25	102.75	96.00	92.60	89.20	86.35	82.45
18.5	.7283	2	6	2 ½	¾	9 ½	5656185	92.35	18.340 - 19.126	123.25	102.75	96.00	92.60	89.20	86.35	82.45
19.0	.7480	2	6	2 ½	¾	9 ½	5656190	92.35	-	-	-	-	-	-	-	-
19.5	.7677	2	6	2 ½	¾	9 ½	5656195	94.90	19.127 - 19.914	125.60	105.15	98.40	95.05	91.65	88.70	84.80
20.0	.7874	2	6	2 ½	¾	9 ½	5656200	94.90	19.915 - 20.726	125.60	105.15	98.40	95.05	91.65	88.70	84.80
20.5	.8071	2	6	2 ½	¾	9 ½	5656205	94.90	-	-	-	-	-	-	-	-
21.0	.8268	2	6	2 ½	¾	9 ½	5656210	98.40	20.727 - 21.514	129.20	108.80	101.85	98.50	95.10	92.20	88.35
21.5	.8465	2	6	2 ½	¾	9 ½	5656215	98.40	-	-	-	-	-	-	-	-
22.0	.8661	2	6	2 ⅝	¾	10	5656220	98.40	21.515 - 22.301	129.20	108.80	101.85	98.50	95.10	92.20	88.35
22.5	.8858	2	6	2 ⅝	¾	10	5656225	117.25	22.302 - 23.089	149.25	128.05	120.95	117.40	113.85	110.85	106.85
23.0	.9055	2	6	2 ⅝	¾	10	5656230	117.25	-	-	-	-	-	-	-	-
23.5	.9252	3	8	2 ⅝	¾	10	5656235	117.25	23.090 - 23.901	149.25	128.05	120.95	117.40	113.85	110.85	106.85
24.0	.9449	3	8	2 ⅝	¾	10	5656240	121.55	23.902 - 24.689	153.65	132.45	125.20	121.75	118.20	115.25	111.15
24.5	.9646	3	8	2 ⅝	¾	10	5656245	121.55	-	-	-	-	-	-	-	-
25.0	.9843	3	8	2 ¾	¾	10 ½	5656250	121.55	24.690 - 25.476	153.65	132.45	125.20	121.75	118.20	115.25	111.15
25.5	1.0039	3	8	2 ¾	¾	10 ½	5656255	161.30	25.477 - 27.076	191.95	171.55	164.80	161.45	158.00	155.20	151.35
26.0	1.0236	3	8	2 ¾	¾	10 ½	5656260	161.30	-	-	-	-	-	-	-	-
27.0	1.0630	3	8	2 ¾	¾	10 ½	5656270	161.30	-	-	-	-	-	-	-	-
28.0	1.1024	3	8	2 ⅞	⅞	11	5656280	170.85	27.077 - 28.651	201.50	181.10	174.30	171.00	167.55	164.80	160.85
29.0	1.1417	3	8	2 ⅞	⅞	11	5656290	180.25	28.652 - 30.239	210.80	190.50	183.75	180.35	176.85	174.15	170.15
30.0	1.1811	3	8	2 ⅞	⅞	11	5656300	180.25	-	-	-	-	-	-	-	-
31.0	1.2205	4	8	3	⅞	11 ½	5656310	198.75	30.240 - 31.826	229.35	209.10	202.25	198.85	195.40	192.60	188.70
32.0	1.2598	4	8	3	⅞	11 ½	5656320	213.20	31.827 - 33.414	243.80	223.55	216.65	213.35	209.95	207.05	203.25
33.0	1.2992	4	8	3	⅞	11 ½	5656330	213.20	-	-	-	-	-	-	-	-
34.0	1.3386	4	8	3 ¼	⅞	12	5656340	221.30	33.415 - 35.001	251.90	231.60	224.80	221.45	218.05	215.20	211.35
35.0	1.3780	4	8	3 ¼	⅞	12	5656350	221.30	-	-	-	-	-	-	-	-
36.0	1.4173	4	8	3 ¼	⅞	12	5656360	225.55	35.002 - 36.589	256.30	235.90	229.15	225.85	222.40	219.55	215.60
37.0	1.4567	4	8	3 ½	⅞	12 ½	5656370	236.20	36.590 - 38.176	266.85	246.55	239.65	236.40	232.95	230.10	226.30
38.0	1.4961	4	8	3 ½	⅞	12 ½	5656380	236.20	-	-	-	-	-	-	-	-
39.0	1.5354	4	8	3 ½	⅞	12 ½	5656390	253.80	38.177 - 39.776	284.50	264.15	257.30	254.05	250.60	247.70	243.80
40.0	1.5748	4	8	3 ¾	⅞	13	5656400	262.15	39.777 - 41.351	292.80	272.50	265.65	262.30	258.90	256.05	252.10
41.0	1.6142	4	8	3 ¾	⅞	13	5656410	262.15	-	-	-	-	-	-	-	-

Diameters up to 50mm – call us for price & availability.

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - STRAIGHT FLUTE

CARBIDE TIPPED

List No. 5660 - Taper Shank - Full Flute Length Carbide

Use: For general purpose reaming of most types of materials, including steel, cast iron, non-ferrous and non-metals. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		MORSE TAPER	NO. OF FLUTES	LENGTH		LIST 5660 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DECIMAL	FRAC.			FLUTE	OVERALL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	¼	1	4	1 ½	6	55616	$54.85	.2381 - .2530	$93.10	$73.95	$67.50	$64.45	$61.20	$58.55
.2812	9/32	1	4	1 ½	6	55618	55.55	.2531 - .2840	93.85	74.75	68.25	65.20	61.90	59.35
.3125	5/16	1	4	1 ½	6	55620	55.55	.2841 - .3150	93.85	74.75	68.25	65.20	61.90	59.35
.3438	11/32	1	4	1 ½	6	55622	56.85	.3151 - .3470	95.10	76.00	69.60	66.45	63.15	60.60
.3750	⅜	1	4	1 ¾	7	55624	57.50	.3471 - .3780	95.75	76.60	70.15	67.10	63.80	61.30
.4062	13/32	1	4	1 ¾	7	55626	60.55	.3781 - .4090	98.80	79.55	73.20	70.15	66.95	64.35
.4375	7/16	1	4	1 ¾	7	55628	64.50	.4091 - .4410	102.70	83.60	77.20	74.15	70.90	68.25
.4688	15/32	1	4	1 ¾	7	55630	65.85	.4411 - .4720	104.15	84.85	78.55	75.45	72.20	69.65
.5000	½	1	6	2	8	55632	71.00	.4721 - .5030	111.85	91.40	84.55	81.30	77.75	75.05
.5312	17/32	1	6	2	8	55634	77.75	.5031 - .5340	118.75	98.20	91.30	88.05	84.55	81.75
.5625	9/16	1	6	2	8	55636	77.75	.5341 - .5660	118.75	98.20	91.30	88.05	84.55	81.75
.5938	19/32	1	6	2	8	55638	81.35	.5661 - .5970	122.25	101.80	94.95	91.70	88.15	85.40
.6250	⅝	2	6	2	9	55640	81.35	.5971 - .6280	122.25	101.80	94.95	91.70	88.15	85.40
.6562	21/32	2	6	2	9	55642	82.85	.6281 - .6590	123.90	103.30	96.35	93.20	89.65	86.95
.6875	11/16	2	6	2	9	55644	82.85	.6591 - .6910	123.90	103.30	96.35	93.20	89.65	86.95
.7188	23/32	2	6	2	9	55646	84.05	.6911 - .7220	125.05	104.45	97.55	94.35	90.85	88.05
.7500	¾	2	6	2	9 ½	55648	86.70	.7221 - .7530	127.70	107.15	100.30	97.00	93.40	90.80
.7812	25/32	2	6	2	9 ½	55650	87.40	.7531 - .7840	128.40	107.85	101.00	97.60	94.15	91.40
.8125	13/16	2	6	2	9 ½	55652	89.45	.7841 - .8160	130.30	109.70	103.00	99.70	96.20	93.35
.8438	27/32	2	6	2	9 ½	55654	93.30	.8161 - .8470	134.30	113.75	106.85	103.65	100.10	97.40
.8750	⅞	2	6	2 ¼	10	55656	96.90	.8471 - .8780	139.40	118.10	110.85	107.65	103.80	101.10
.9062	29/32	2	6	2 ¼	10	55658	109.10	.8781 - .9090	151.55	130.30	123.25	119.80	116.05	113.30
.9375	15/16	3	8	2 ¼	10	55660	113.50	.9091 - .9410	155.85	134.65	127.55	124.10	120.45	117.65
.9688	31/32	3	8	2 ¼	10	55662	118.15	.9411 - .9720	160.65	139.40	132.20	128.85	125.15	122.35
1.0000	1	3	8	2 ¼	10 ½	55664	118.15	.9721 - 1.0030	160.65	139.40	132.20	128.85	125.15	122.35
1.0625	1 1/16	3	8	2 ¼	10 ½	55666	161.95	1.0031 - 1.0660	202.65	182.15	175.35	172.20	168.65	165.90
1.1250	1 ⅛	3	8	2 ¼	11	55668	174.40	1.0661 - 1.1280	215.10	194.70	187.95	184.65	181.10	178.40
1.1875	1 3/16	3	8	2 ¼	11	55670	187.40	1.1281 - 1.1905	228.10	207.70	200.90	197.60	194.20	191.35
1.2500	1 ¼	4	8	2 ½	11 ½	55672	199.15	1.1906 - 1.2530	239.80	219.45	212.70	209.30	205.80	203.10
1.3125	1 5/16	4	8	2 ½	11 ½	55674	224.85	1.2531 - 1.3155	265.55	245.25	238.25	235.15	231.60	228.85
1.3750	1 ⅜	4	8	2 ½	12	55676	256.95	1.3156 - 1.3780	297.60	277.25	270.35	267.15	263.60	260.90
1.4375	1 7/16	4	8	2 ½	12	55677	268.15	1.3781 - 1.4405	308.90	288.50	281.65	278.50	274.90	272.15
1.5000	1 ½	4	8	2 ½	12 ½	55678	279.35	1.4406 - 1.5030	320.05	299.75	292.90	289.65	286.10	283.35

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

CHUCKING REAMERS - STRAIGHT FLUTE

METRIC

CARBIDE TIPPED

List No. 5660 - Taper Shank - Full Flute Length Carbide - Metric

Use: Same as List No. 5660 on page 82.

TOOL DIAMETER		MORSE TAPER	NO. OF FLUTES	LENGTH		LIST 5660 EDP NO.	PRICE EACH	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	INCH			FLT	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
6.0	.2362	1	4	1 ½	6	5660060	$67.50	6.000 - 6.426	$96.25	$77.20	$70.85	$67.65	$64.45	$61.80	$58.15
6.5	.2559	1	4	1 ½	6	5660065	68.25	6.427 - 7.214	97.00	78.00	71.60	68.50	65.20	62.65	58.90
7.0	.2756	1	4	1 ½	6	5660070	68.25	-	-	-	-	-	-	-	-
7.5	.2953	1	4	1 ½	6	5660075	68.25	7.215 - 8.001	97.00	78.00	71.60	68.50	65.20	62.65	58.90
8.0	.3150	1	4	1 ½	6	5660080	68.25	-	-	-	-	-	-	-	-
8.5	.3346	1	4	1 ½	6	5660085	69.60	8.002 - 8.814	98.35	79.20	72.85	69.70	66.45	63.80	60.15
9.0	.3543	1	4	1 ¾	7	5660090	70.15	8.815 - 9.601	98.95	79.95	73.40	70.25	67.10	64.45	60.70
9.5	.3740	1	4	1 ¾	7	5660095	70.15	-	-	-	-	-	-	-	-
10.0	.3937	1	4	1 ¾	7	5660100	73.20	9.602 - 10.389	102.05	82.85	76.45	73.35	70.15	67.50	63.80
10.5	.4134	1	4	1 ¾	7	5660105	77.20	10.390 - 11.201	105.90	86.90	80.50	77.40	74.15	71.45	67.85
11.0	.4331	1	4	1 ¾	7	5660110	77.20	-	-	-	-	-	-	-	-
11.5	.4528	1	4	1 ¾	7	5660115	78.55	11.202 - 11.989	107.30	88.15	81.80	78.70	75.45	72.85	69.05
12.0	.4724	1	6	2	8	5660120	84.55	11.990 - 12.776	115.35	94.95	88.05	84.70	81.30	78.40	74.50
12.5	.4921	1	6	2	8	5660125	84.55	-	-	-	-	-	-	-	-
13.0	.5118	1	6	2	8	5660130	91.30	12.777 - 13.564	122.15	101.65	94.90	91.60	88.05	85.25	81.30
13.5	.5315	1	6	2	8	5660135	91.30	-	-	-	-	-	-	-	-
14.0	.5512	1	6	2	8	5660140	91.30	13.565 - 14.376	122.15	101.65	94.90	91.60	88.05	85.25	81.30
14.5	.5709	1	6	2	8	5660145	94.95	14.377 - 15.164	125.70	105.40	98.45	95.10	91.70	88.75	84.85
15.0	.5906	1	6	2	8	5660150	94.95	-	-	-	-	-	-	-	-
15.5	.6102	2	6	2	9	5660155	94.95	15.165 - 15.951	125.70	105.40	98.45	95.10	91.70	88.75	84.85
16.0	.6299	2	6	2	9	5660160	96.35	15.952 - 16.739	127.25	106.75	99.95	96.60	93.20	90.40	86.40
16.5	.6496	2	6	2	9	5660165	96.35	-	-	-	-	-	-	-	-
17.0	.6693	2	6	2	9	5660170	96.35	16.740 - 17.551	127.25	106.75	99.95	96.60	93.20	90.40	86.40
17.5	.6890	2	6	2	9	5660175	96.35	-	-	-	-	-	-	-	-
18.0	.7087	2	6	2	9	5660180	97.55	17.552 - 18.339	128.45	107.95	101.20	97.80	94.35	91.60	87.50
18.5	.7283	2	6	2	9 ½	5660185	100.30	18.340 - 19.126	131.15	110.65	103.75	100.40	97.00	94.15	90.30
19.0	.7480	2	6	2	9 ½	5660190	100.30	-	-	-	-	-	-	-	-
19.5	.7677	2	6	2	9 ½	5660195	101.00	19.127 - 19.914	131.75	111.40	104.45	101.20	97.60	94.90	90.90
20.0	.7874	2	6	2	9 ½	5660200	103.00	19.915 - 20.726	133.80	113.30	106.50	103.15	99.70	96.85	92.95
20.5	.8071	2	6	2	9 ½	5660205	103.00	-	-	-	-	-	-	-	-
21.0	.8268	2	6	2	9 ½	5660210	106.85	20.727 - 21.514	137.70	117.25	110.45	107.05	103.65	100.85	96.85
21.5	.8465	2	6	2	9 ½	5660215	106.85	-	-	-	-	-	-	-	-
22.0	.8661	2	6	2 ¼	10	5660220	106.85	21.515 - 22.301	137.70	117.25	110.45	107.05	103.65	100.85	96.85
22.5	.8858	2	6	2 ¼	10	5660225	123.25	22.302 - 23.089	155.15	133.90	126.80	123.35	119.80	116.85	112.85
23.0	.9055	2	6	2 ¼	10	5660230	123.25	-	-	-	-	-	-	-	-
23.5	.9252	3	8	2 ¼	10	5660235	127.55	23.090 - 23.901	159.50	138.25	131.25	127.70	124.10	121.15	117.10
24.0	.9449	3	8	2 ¼	10	5660240	132.20	23.902 - 24.689	164.20	142.95	135.90	132.45	128.85	125.90	121.75
24.5	.9646	3	8	2 ¼	10	5660245	132.20	-	-	-	-	-	-	-	-
25.0	.9843	3	8	2 ¼	10 ½	5660250	132.20	24.690 - 25.476	164.20	142.95	135.90	132.45	128.85	125.90	121.75
25.5	1.0039	3	8	2 ¼	10 ½	5660255	175.35	25.477 - 27.076	206.10	185.75	178.85	175.60	172.20	169.35	165.45
26.0	1.0236	3	8	2 ¼	10 ½	5660260	175.35	-	-	-	-	-	-	-	-
27.0	1.0630	3	8	2 ¼	10 ½	5660270	175.35	-	-	-	-	-	-	-	-
28.0	1.1024	3	8	2 ¼	11	5660280	187.95	27.077 - 28.651	218.55	198.25	191.35	188.05	184.65	181.80	177.95
29.0	1.1417	3	8	2 ¼	11	5660290	200.90	28.652 - 30.239	231.55	211.25	204.35	201.05	197.60	194.80	190.90
30.0	1.1811	3	8	2 ¼	11	5660300	200.90	-	-	-	-	-	-	-	-
31.0	1.2205	4	8	2 ½	11 ½	5660310	212.70	30.240 - 31.826	243.25	222.95	216.10	212.80	209.30	206.50	202.65
32.0	1.2598	4	8	2 ½	11 ½	5660320	238.25	31.827 - 33.414	269.05	248.60	241.90	238.50	235.15	232.20	228.30
33.0	1.2992	4	8	2 ½	11 ½	5660330	238.25	-	-	-	-	-	-	-	-
34.0	1.3386	4	8	2 ½	12	5660340	270.35	33.415 - 35.001	301.00	280.75	273.90	270.65	267.15	264.35	260.40
35.0	1.3780	4	8	2 ½	12	5660350	270.35	-	-	-	-	-	-	-	-
36.0	1.4173	4	8	2 ½	12	5660360	281.65	35.002 - 36.589	312.25	291.95	285.20	281.80	278.50	275.55	271.55
37.0	1.4567	4	8	2 ½	12 ½	5660370	292.90	36.590 - 38.176	323.55	303.15	296.35	293.15	289.65	286.85	282.95
38.0	1.4961	4	8	2 ½	12 ½	5660380	292.90	-	-	-	-	-	-	-	-

Tolerances on page 60.

Made in the USA

EXPANSION CHUCKING REAMERS

CARBIDE TIPPED

List No. 5733 - Straight Shank - Full Flute Length Carbide

Use: For reaming abrasive materials. When the diameter wears down to the low limit, it may be expanded oversize, reground to size and recleared. The expansion screw should NEVER BE LOOSENED in an attempt to use the reamer for a size smaller than that to which the tool was originally finish ground. Alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER	MINIMUM EXPANSION
5/16" - 15/32"	.006"
1/2" - 31/32"	.010"
1" - 1 1/2"	.013"
1 9/16" - 2 1/2"	.015"

TOOL DIAMETER		SHANK DIAM.	NO. OF FLUTES	LENGTH		LIST 5733 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.3125	5/16	9/32	4	1	6	56001	$73.45	.2841 - .3150	$111.75	$92.60	$86.05	$83.20	$79.95	$77.30
.3438	11/32	9/32	4	1	6	56002	73.45	.3151 - .3470	111.75	92.60	86.05	83.20	79.95	77.30
.3750	3/8	5/16	4	1	7	56003	68.90	.3471 - .3780	104.80	86.80	80.70	77.90	74.85	72.40
.4062	13/32	5/16	4	1	7	56035	73.15	.3781 - .4090	108.90	90.95	84.95	82.10	79.05	76.60
.4375	7/16	3/8	4	1	7	56004	73.15	.4091 - .4410	108.90	90.95	84.95	82.10	79.05	76.60
.4688	15/32	3/8	4	1	7	56036	77.55	.4411 - .4720	113.20	95.30	89.40	86.50	83.45	81.10
.5000	1/2	7/16	6	1	8	56005	77.55	.4721 - .5030	113.20	95.30	89.40	86.50	83.45	81.10
.5312	17/32	7/16	6	1	8	56006	79.40	.5031 - .5340	115.30	97.35	91.30	88.50	85.40	82.95
.5625	9/16	7/16	6	1 1/8	8	56007	79.40	.5341 - .5660	115.30	97.35	91.30	88.50	85.40	82.95
.5938	19/32	7/16	6	1 1/8	8	56008	82.90	.5661 - .5970	118.75	100.85	94.85	91.95	88.85	86.45
.6250	5/8	9/16	6	1 1/4	9	56009	82.90	.5971 - .6280	118.75	100.85	94.85	91.95	88.85	86.45
.6562	21/32	9/16	6	1 1/4	9	56010	90.70	.6281 - .6590	126.45	108.50	102.55	99.70	96.60	94.15
.6875	11/16	9/16	6	1 1/4	9	56011	90.70	.6591 - .6910	126.45	108.50	102.55	99.70	96.60	94.15
.7188	23/32	9/16	6	1 1/4	9	56012	94.00	.6911 - .7220	129.90	111.85	105.85	103.05	99.95	97.55
.7500	3/4	5/8	6	1 3/8	9 1/2	56013	94.00	.7221 - .7530	129.90	111.85	105.85	103.05	99.95	97.55
.7812	25/32	5/8	6	1 3/8	9 1/2	56014	101.35	.7531 - .7840	137.20	119.25	113.15	110.40	107.30	104.90
.8125	13/16	5/8	6	1 3/8	9 1/2	56015	101.35	.7841 - .8160	137.20	119.25	113.15	110.40	107.30	104.90
.8438	27/32	5/8	6	1 3/8	9 1/2	56016	105.40	.8161 - .8470	141.10	123.25	117.20	114.30	111.35	108.85
.8750	7/8	3/4	6	1 1/2	10	56017	109.35	.8471 - .8780	146.40	127.85	121.55	118.70	115.45	112.95
.9062	29/32	3/4	6	1 1/2	10	56018	116.35	.8781 - .9090	153.55	134.85	128.70	125.75	122.55	120.00
.9375	15/16	3/4	8	1 1/2	10	56019	116.35	.9091 - .9410	153.55	134.85	128.70	125.75	122.55	120.00
.9688	31/32	3/4	8	1 1/2	10	56020	120.95	.9411 - .9720	158.00	139.45	133.15	130.25	127.00	124.50
1.0000	1	7/8	8	1 5/8	10 1/2	56021	120.95	.9721 - 1.0030	158.00	139.45	133.15	130.25	127.00	124.50
1.0312	1 1/32	7/8	8	1 5/8	10 1/2	56048	132.50	-	-	-	-	-	-	-
1.0625	1 1/16	7/8	8	1 5/8	10 1/2	56023	132.50	1.0031 - 1.0660	169.65	151.05	144.80	141.85	138.65	136.10
1.0938	1 3/32	7/8	8	1 3/4	11	56049	132.50	-	-	-	-	-	-	-
1.1250	1 1/8	7/8	8	1 3/4	11	56025	132.50	1.0661 - 1.1280	169.65	151.05	144.80	141.85	138.65	136.10
1.1875	1 3/16	1	8	1 3/4	11	56026	144.60	1.1281 - 1.1905	181.75	163.10	156.85	153.90	150.65	148.30
1.2500	1 1/4	1	8	1 7/8	11 1/2	56027	144.60	1.1906 - 1.2530	181.75	163.10	156.85	153.90	150.65	148.30
1.3125	1 5/16	1	8	1 7/8	11 1/2	56028	160.25	1.2531 - 1.3155	197.50	178.85	172.70	169.65	166.45	164.05
1.3750	1 3/8	1	8	2	12	56029	167.85	1.3156 - 1.3780	205.00	186.35	180.15	177.30	173.95	171.50
1.4375	1 7/16	1 1/4	8	2	12	56030	198.35	1.3781 - 1.4405	238.00	218.10	211.45	208.25	204.85	202.25
1.5000	1 1/2	1 1/4	8	2 1/8	12 1/2	56031	204.10	1.4406 - 1.5030	243.80	223.85	217.30	214.20	210.75	208.00
1.5625	1 9/16	1 1/4	8	2 1/8	12 1/2	56037	268.10	1.5031 - 1.5660	307.70	287.95	281.15	277.95	274.65	271.95
1.6250	1 5/8	1 1/4	8	2 1/4	13	56038	268.10	1.5661 - 1.6280	307.70	287.95	281.15	277.95	274.65	271.95
1.6875	1 11/16	1 1/4	8	2 1/4	13	56039	296.90	1.6281 - 1.6910	336.55	316.65	310.10	306.85	303.55	300.75
1.7500	1 3/4	1 1/4	10	2 3/8	13 1/2	56032	296.90	1.6911 - 1.7530	336.55	316.65	310.10	306.85	303.55	300.75
1.8125	1 13/16	1 1/2	10	2 3/8	13 1/2	56040	351.60	1.7531 - 1.8160	391.15	371.30	364.70	361.50	358.15	355.45
1.8750	1 7/8	1 1/2	10	2 1/2	14	56041	351.60	1.8161 - 1.8780	391.15	371.30	364.70	361.50	358.15	355.45
1.9375	1 15/16	1 1/2	10	2 1/2	14	56042	384.15	1.8781 - 1.9410	423.70	403.90	397.20	394.00	390.70	387.95
2.0000	2	1 1/2	12	2 1/2	14	56043	384.15	1.9411 - 2.0030	423.70	403.90	397.20	394.00	390.70	387.95
2.1250	2 1/8	1 1/2	12	2 3/4	14 1/2	56044	623.90	2.0031 - 2.1280	663.55	643.70	637.05	633.95	630.50	627.75
2.2500	2 1/4	1 3/4	12	2 3/4	14 1/2	56045	670.10	2.1281 - 2.2530	709.60	689.80	683.15	680.00	676.60	673.90
2.3750	2 3/8	1 3/4	12	3	15	56046	693.40	2.2531 - 2.3780	733.10	713.25	706.55	703.35	700.00	697.25
2.5000	2 1/2	1 3/4	12	3	15	56047	693.40	2.3781 - 2.5030	733.10	713.25	706.55	703.35	700.00	697.25

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

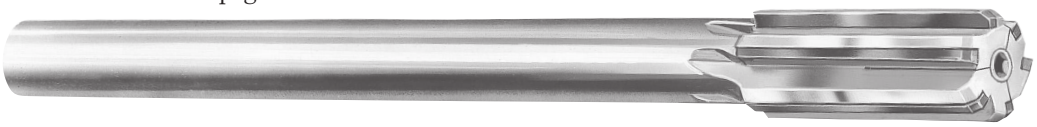
EXPANSION CHUCKING REAMERS

METRIC

CARBIDE TIPPED

List No. 5733 - Straight Shank - Straight Flute Long Carbide - Metric

Use: Same as list No. 5733 on page 84.



TOOL DIAMETER		SHANK DIAM.	NO. OF FLUTES	LENGTH		LIST 5733 EDP NO.	PRICE EACH	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	INCH			FLT	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
7.5	.2953	9/32	4	1	6	5733075	$86.05	7.215 - 8.001	$115.00	$95.85	$89.45	$86.40	$83.20	$80.50	$76.75
8.0	.3150	9/32	4	1	6	5733080	86.05	-	-	-	-	-	-	-	-
8.5	.3346	9/32	4	1	6	5733085	86.05	8.002 - 8.814	115.00	95.85	89.45	86.40	83.20	80.50	76.75
9.0	.3543	5/16	4	1	7	5733090	80.70	8.815 - 9.601	107.80	89.85	83.80	81.05	77.90	75.45	72.00
9.5	.3740	5/16	4	1	7	5733095	80.70	-	-	-	-	-	-	-	-
10.0	.3937	5/16	4	1	7	5733100	84.95	9.602 - 10.389	111.85	94.00	88.05	85.10	82.10	79.55	76.20
10.5	.4134	3/8	4	1	7	5733105	84.95	10.390 - 11.201	111.85	94.00	88.05	85.10	82.10	79.55	76.20
11.0	.4331	3/8	4	1	7	5733110	84.95	-	-	-	-	-	-	-	-
11.5	.4528	3/8	4	1	7	5733115	89.40	11.202 - 11.989	116.25	98.45	92.35	89.50	86.50	84.00	80.55
12.0	.4724	7/16	6	1	8	5733120	89.40	11.990 - 12.776	116.25	98.45	92.35	89.50	86.50	84.00	80.55
12.5	.4921	7/16	6	1	8	5733125	89.40	-	-	-	-	-	-	-	-
13.0	.5118	7/16	6	1	8	5733130	91.30	12.777 - 13.564	118.30	100.40	94.40	91.55	88.50	85.95	82.55
13.5	.5315	7/16	6	1	8	5733135	91.30	-	-	-	-	-	-	-	-
14.0	.5512	7/16	6	1 1/8	8	5733140	91.30	13.565 - 14.376	118.30	100.40	94.40	91.55	88.50	85.95	82.55
14.5	.5709	7/16	6	1 1/8	8	5733145	94.85	14.377 - 15.164	121.75	103.80	97.85	94.95	91.95	89.45	85.95
15.0	.5906	7/16	6	1 1/8	8	5733150	94.85	-	-	-	-	-	-	-	-
15.5	.6102	9/16	6	1 1/4	9	5733155	94.85	15.165 - 15.951	121.75	103.80	97.85	94.95	91.95	89.45	85.95
16.0	.6299	9/16	6	1 1/4	9	5733160	102.55	15.952 - 16.739	129.45	111.65	105.60	102.65	99.70	97.25	93.80
16.5	.6496	9/16	6	1 1/4	9	5733165	102.55	-	-	-	-	-	-	-	-
17.0	.6693	9/16	6	1 1/4	9	5733170	102.55	16.740 - 17.551	129.45	111.65	105.60	102.65	99.70	97.25	93.80
17.5	.6890	9/16	6	1 1/4	9	5733175	102.55	-	-	-	-	-	-	-	-
18.0	.7087	9/16	6	1 1/4	9	5733180	105.85	17.552 - 18.339	132.90	115.00	108.95	106.10	103.05	100.60	97.15
18.5	.7283	5/8	6	1 3/8	9 1/2	5733185	105.85	18.340 - 19.126	132.90	115.00	108.95	106.10	103.05	100.60	97.15
19.0	.7480	5/8	6	1 3/8	9 1/2	5733190	105.85	-	-	-	-	-	-	-	-
19.5	.7677	5/8	6	1 3/8	9 1/2	5733195	113.15	19.127 - 19.914	140.25	122.35	116.25	113.30	110.40	107.90	104.40
20.0	.7874	5/8	6	1 3/8	9 1/2	5733200	113.15	19.915 - 20.726	140.25	122.35	116.25	113.30	110.40	107.90	104.40
20.5	.8071	5/8	6	1 3/8	9 1/2	5733205	113.15	-	-	-	-	-	-	-	-
21.0	.8268	5/8	6	1 3/8	9 1/2	5733210	117.20	20.727 - 21.514	144.15	126.30	120.25	117.35	114.30	111.80	108.40
21.5	.8465	5/8	6	1 3/8	9 1/2	5733215	117.20	-	-	-	-	-	-	-	-
22.0	.8661	3/4	6	1 1/2	10	5733220	117.20	21.515 - 22.301	144.15	126.30	120.25	117.35	114.30	111.80	108.40
22.5	.8858	3/4	6	1 1/2	10	5733225	128.70	22.302 - 23.089	156.65	138.15	131.85	128.85	125.75	123.20	119.55
23.0	.9055	3/4	6	1 1/2	10	5733230	128.70	-	-	-	-	-	-	-	-
23.5	.9252	3/4	8	1 1/2	10	5733235	128.70	23.090 - 23.901	156.65	138.15	131.85	128.85	125.75	123.20	119.55
24.0	.9449	3/4	8	1 1/2	10	5733240	133.15	23.902 - 24.689	161.15	142.60	136.45	133.30	130.25	127.60	124.05
24.5	.9646	3/4	8	1 1/2	10	5733245	133.15	-	-	-	-	-	-	-	-
25.0	.9843	7/8	8	1 5/8	10 1/2	5733250	133.15	24.690 - 25.476	161.15	142.60	136.45	133.30	130.25	127.60	124.05
25.5	1.0039	7/8	8	1 5/8	10 1/2	5733255	144.80	25.477 - 27.076	172.80	154.25	147.95	144.90	141.85	139.25	135.65
26.0	1.0236	7/8	8	1 5/8	10 1/2	5733260	144.80	-	-	-	-	-	-	-	-
27.0	1.0630	7/8	8	1 5/8	10 1/2	5733270	144.80	-	-	-	-	-	-	-	-
28.0	1.1024	7/8	8	1 3/4	11	5733280	144.80	27.077 - 28.651	172.80	154.25	147.95	144.90	141.85	139.25	135.65
29.0	1.1417	1	8	1 3/4	11	5733290	156.85	28.652 - 30.239	184.85	166.30	160.10	156.95	153.90	151.40	147.70
30.0	1.1811	1	8	1 3/4	11	5733300	156.85	-	-	-	-	-	-	-	-
31.0	1.2205	1	8	1 7/8	11 1/2	5733310	156.85	30.240 - 31.826	184.85	166.30	160.10	156.95	153.90	151.40	147.70
32.0	1.2598	1	8	1 7/8	11 1/2	5733320	172.70	31.827 - 33.414	200.55	182.00	175.85	172.80	169.65	167.10	163.55
33.0	1.2992	1	8	1 7/8	11 1/2	5733330	172.70	-	-	-	-	-	-	-	-
34.0	1.3386	1	8	2	12	5733340	180.15	33.415 - 35.001	208.10	189.55	183.30	180.35	177.30	174.60	171.00
35.0	1.3780	1	8	2	12	5733350	180.15	-	-	-	-	-	-	-	-
36.0	1.4173	1 1/4	8	2	12	5733360	211.45	35.002 - 36.589	241.25	221.50	214.90	211.60	208.25	205.55	201.75
37.0	1.4567	1 1/4	8	2 1/8	12 1/2	5733370	217.30	36.590 - 38.176	247.15	227.40	220.75	217.40	214.20	211.40	207.60
38.0	1.4961	1 1/4	8	2 1/8	12 1/2	5733380	217.30	-	-	-	-	-	-	-	-
39.0	1.5354	1 1/4	8	2 1/8	12 1/2	5733390	281.15	38.177 - 39.776	311.05	291.20	284.55	281.35	277.95	275.15	271.45
40.0	1.5748	1 1/4	8	2 1/4	13	5733400	281.15	39.777 - 41.351	311.05	291.20	284.55	281.35	277.95	275.15	271.45
41.0	1.6142	1 1/4	8	2 1/4	13	5733410	281.15	-	-	-	-	-	-	-	-
42.0	1.6535	1 1/4	8	2 1/4	13	5733420	310.10	41.352 - 42.951	339.85	320.05	313.45	310.25	306.85	304.10	300.25
43.0	1.6929	1 1/4	10	2 3/8	13 1/2	5733430	310.10	42.952 - 44.526	339.85	320.05	313.45	310.25	306.85	304.10	300.25
44.0	1.7323	1 1/4	10	2 3/8	13 1/2	5733440	310.10	-	-	-	-	-	-	-	-

Diameters up to 63mm - call us for price & availability.

Tolerances on page 60.

Made in the USA

EXPANSION CHUCKING REAMERS

CARBIDE TIPPED

List No. 5734 - Taper Shank - Full Flute Length Carbide

Use: For reaming abrasive materials. When the diameter wears down to the low limit, it may be expanded oversize, reground to size and recleared. The expansion screw should NEVER BE LOOSENED in an attempt to use the reamer for a size smaller than that to which the tool was originally finish ground. Alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER	MINIMUM EXPANSION
5/16" - 15/32"	.006"
1/2" - 31/32"	.010"
1" - 1 1/2"	.013"
1 9/16" - 2 1/2"	.015"

TOOL DIAMETER		MORSE TAPER	NO. OF FLUTES	LENGTH		LIST 5734 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.3125	5/16	1	4	1	6	56050	$82.80	.2841 - .3150	$121.05	$101.85	$95.50	$92.35	$89.20	$86.55
.3438	11/32	1	4	1	6	56051	82.80	.3151 - .3470	121.05	101.85	95.50	92.35	89.20	86.55
.3750	3/8	1	4	1	7	56053	77.65	.3471 - .3780	113.50	95.50	89.50	86.65	83.60	81.20
.4062	13/32	1	4	1	7	56094	80.05	.3781 - .4090	115.85	97.85	91.85	89.00	85.90	83.50
.4375	7/16	1	4	1	7	56054	80.05	.4091 - .4410	115.85	97.85	91.85	89.00	85.90	83.50
.4688	15/32	1	4	1	7	56084	83.95	.4411 - .4720	119.80	101.85	95.80	92.95	89.85	87.45
.5000	1/2	1	6	1	8	56055	83.95	.4721 - .5030	119.80	101.85	95.80	92.95	89.85	87.45
.5312	17/32	1	6	1	8	56056	86.50	.5031 - .5340	122.35	104.35	98.40	95.50	92.35	89.95
.5625	9/16	1	6	1 1/8	8	56057	86.50	.5341 - .5660	122.35	104.35	98.40	95.50	92.35	89.95
.5938	19/32	1	6	1 1/8	8	56058	89.95	.5661 - .5970	125.80	107.90	101.95	99.05	96.05	93.55
.6250	5/8	2	6	1 1/4	9	56059	89.95	.5971 - .6280	125.80	107.90	101.95	99.05	96.05	93.55
.6562	21/32	2	6	1 1/4	9	56060	101.30	.6281 - .6590	137.15	119.10	113.10	110.30	107.20	104.85
.6875	11/16	2	6	1 1/4	9	56061	101.30	.6591 - .6910	137.15	119.10	113.10	110.30	107.20	104.85
.7188	23/32	2	6	1 1/4	9	56062	101.50	.6911 - .7220	137.40	119.50	113.50	110.65	107.45	105.10
.7500	3/4	2	6	1 3/8	9 1/2	56063	101.50	.7221 - .7530	137.40	119.50	113.50	110.65	107.45	105.10
.7812	25/32	2	6	1 3/8	9 1/2	56064	109.05	.7531 - .7840	144.90	126.90	121.00	118.15	115.00	112.60
.8125	13/16	2	6	1 3/8	9 1/2	56065	109.05	.7841 - .8160	144.90	126.90	121.00	118.15	115.00	112.60
.8438	27/32	2	6	1 3/8	9 1/2	56066	113.65	.8161 - .8470	149.45	131.50	125.50	122.60	119.55	117.10
.8750	7/8	2	6	1 1/2	10	56067	118.00	.8471 - .8780	155.05	136.55	130.25	127.30	124.05	121.50
.9062	29/32	2	6	1 1/2	10	56068	124.70	.8781 - .9090	161.90	143.30	137.00	134.05	130.85	128.40
.9375	15/16	3	8	1 1/2	10	56069	124.70	.9091 - .9720	161.90	143.30	137.00	134.05	130.85	128.40
1.0000	1	3	8	1 5/8	10 1/2	56071	129.25	.9721 - 1.0030	166.35	147.70	141.45	138.50	135.40	132.80
1.0312	1 1/32	3	8	1 5/8	10 1/2	56072	141.35	-	-	-	-	-	-	-
1.0625	1 1/16	3	8	1 5/8	10 1/2	56073	141.35	1.0031 - 1.0660	178.70	160.00	153.75	150.80	147.60	145.05
1.0938	1 3/32	3	8	1 3/4	11	56099	141.35	-	-	-	-	-	-	-
1.1250	1 1/8	3	8	1 3/4	11	56075	141.35	1.0661 - 1.1280	178.70	160.00	153.75	150.80	147.60	145.05
1.1875	1 3/16	3	8	1 3/4	11	56076	159.05	1.1281 - 1.1905	196.15	177.55	171.35	168.40	165.25	162.70
1.2500	1 1/4	4	8	1 7/8	11 1/2	56077	161.20	1.1906 - 1.2530	198.35	179.75	173.55	170.60	167.30	164.85
1.3125	1 5/16	4	8	1 7/8	11 1/2	56078	176.20	1.2531 - 1.3155	213.35	194.70	188.45	185.55	182.45	179.80
1.3750	1 3/8	4	8	2	12	56079	193.05	1.3156 - 1.3780	230.10	211.55	205.35	202.35	199.15	196.60
1.4375	1 7/16	4	8	2	12	56080	216.65	1.3781 - 1.4405	256.30	236.45	229.80	226.60	223.20	220.55
1.5000	1 1/2	4	8	2 1/8	12 1/2	56081	224.35	1.4406 - 1.5030	264.05	244.10	237.40	234.35	230.90	228.20
1.5625	1 9/16	4	8	2 1/8	12 1/2	56085	308.25	1.5031 - 1.5660	347.95	328.05	321.45	318.30	314.80	312.15
1.6250	1 5/8	4	8	2 1/4	13	56086	308.25	1.5661 - 1.6280	347.95	328.05	321.45	318.30	314.80	312.15
1.6875	1 11/16	4	8	2 1/4	13	56087	341.40	1.6281 - 1.6910	381.10	361.25	354.55	351.35	348.00	345.30
1.7500	1 3/4	4	10	2 3/8	13 1/2	56088	341.40	1.6911 - 1.7530	381.10	361.25	354.55	351.35	348.00	345.30
1.8125	1 13/16	4	10	2 3/8	13 1/2	56089	404.20	1.7531 - 1.8160	443.90	424.10	417.45	414.25	410.80	408.15
1.8750	1 7/8	4	10	2 1/2	14	56090	404.20	1.8161 - 1.8780	443.90	424.10	417.45	414.25	410.80	408.15
1.9375	1 15/16	4	10	2 1/2	14	56091	441.80	1.8781 - 1.9410	481.35	461.50	454.80	451.70	448.25	445.70
2.0000	2	4	12	2 1/2	14	56092	441.80	1.9411 - 2.0030	481.35	461.50	454.80	451.70	448.25	445.70
2.1250	2 1/8	5	12	2 3/4	14 1/2	56095	661.40	2.0031 - 2.1280	701.00	681.20	674.50	671.35	668.00	665.25
2.2500	2 1/4	5	12	2 3/4	14 1/2	56096	710.25	2.1281 - 2.2530	749.95	730.05	723.45	720.20	716.85	714.20
2.3750	2 3/8	5	12	3	15	56097	734.95	2.2531 - 2.3780	774.55	754.80	748.05	745.00	741.55	738.90
2.5000	2 1/2	5	12	3	15	56098	734.95	2.3781 - 2.5030	774.55	754.80	748.05	745.00	741.55	738.90

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

EXPANSION CHUCKING REAMERS

METRIC

CARBIDE TIPPED

List No. 5734 - Taper Shank - Straight Flute Long Carbide - Metric

Use: Same as List No. 5734 on page 86.

TOOL DIAMETER		MORSE TAPER	NO. OF FLUTES	LENGTH		LIST 5734 EDP NO.	PRICE EACH	METRIC SIZE RANGE	PRICE EACH - FINISHED TO METRIC SIZE						
mm	INCH			FLT	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14	15+
7.5	.2953	1	4	1	6	5734075	$95.50	7.215 - 8.001	$124.25	$105.15	$98.80	$95.65	$92.35	$89.75	$86.00
8.0	.3150	1	4	1	6	5734080	95.50	-	-	-	-	-	-	-	-
8.5	.3346	1	4	1	6	5734085	95.50	8.002 - 8.814	124.25	105.15	98.80	95.65	92.35	89.75	86.00
9.0	.3543	1	4	1	7	5734090	89.50	8.815 - 9.601	116.45	98.55	92.60	89.65	86.65	84.15	80.65
9.5	.3740	1	4	1	7	5734095	89.50	-	-	-	-	-	-	-	-
10.0	.3937	1	4	1	7	5734100	91.85	9.602 - 10.389	118.80	101.00	94.95	92.00	89.00	86.50	83.00
10.5	.4134	1	4	1	7	5734105	91.85	10.390 - 11.201	118.80	101.00	94.95	92.00	89.00	86.50	83.00
11.0	.4331	1	4	1	7	5734110	91.85	-	-	-	-	-	-	-	-
11.5	.4528	1	4	1	7	5734115	95.80	11.202 - 11.989	122.80	104.90	98.95	96.05	92.95	90.50	87.00
12.0	.4724	1	6	1	8	5734120	95.80	11.990 - 12.776	122.80	104.90	98.95	96.05	92.95	90.50	87.00
12.5	.4921	1	6	1	8	5734125	95.80	-	-	-	-	-	-	-	-
13.0	.5118	1	6	1	8	5734130	98.40	12.777 - 13.564	125.40	107.40	101.40	98.50	95.50	93.10	89.55
13.5	.5315	1	6	1	8	5734135	98.40	-	-	-	-	-	-	-	-
14.0	.5512	1	6	1 ⅛	8	5734140	98.40	13.565 - 14.376	125.40	107.40	101.40	98.50	95.50	93.10	89.55
14.5	.5709	1	6	1 ⅛	8	5734145	101.95	14.377 - 15.164	128.85	110.90	105.00	102.10	99.05	96.50	93.15
15.0	.5906	1	6	1 ⅛	8	5734150	101.95	-	-	-	-	-	-	-	-
15.5	.6102	2	6	1 ¼	9	5734155	101.95	15.165 - 15.951	128.85	110.90	105.00	102.10	99.05	96.50	93.15
16.0	.6299	2	6	1 ¼	9	5734160	113.10	15.952 - 16.739	140.15	122.20	116.20	113.20	110.30	107.85	104.35
16.5	.6496	2	6	1 ¼	9	5734165	113.10	-	-	-	-	-	-	-	-
17.0	.6693	2	6	1 ¼	9	5734170	113.10	16.740 - 17.551	140.15	122.20	116.20	113.20	110.30	107.85	104.35
17.5	.6890	2	6	1 ¼	9	5734175	113.10	-	-	-	-	-	-	-	-
18.0	.7087	2	6	1 ¼	9	5734180	113.50	17.552 - 18.339	140.45	122.55	116.60	113.65	110.65	108.10	104.70
18.5	.7283	2	6	1 ⅜	9 ½	5734185	113.50	18.340 - 19.126	140.45	122.55	116.60	113.65	110.65	108.10	104.70
19.0	.7480	2	6	1 ⅜	9 ½	5734190	113.50	-	-	-	-	-	-	-	-
19.5	.7677	2	6	1 ⅜	9 ½	5734195	121.00	19.127 - 19.914	147.90	130.10	124.05	121.10	118.15	115.60	112.15
20.0	.7874	2	6	1 ⅜	9 ½	5734200	121.00	19.915 - 20.726	147.90	130.10	124.05	121.10	118.15	115.60	112.15
20.5	.8071	2	6	1 ⅜	9 ½	5734205	121.00	-	-	-	-	-	-	-	-
21.0	.8268	2	6	1 ⅜	9 ½	5734210	125.50	20.727 - 21.514	152.40	134.60	128.60	125.60	122.60	120.05	116.75
21.5	.8465	2	6	1 ⅜	9 ½	5734215	125.50	-	-	-	-	-	-	-	-
22.0	.8661	2	6	1 ½	10	5734220	125.50	21.515 - 22.301	152.40	134.60	128.60	125.60	122.60	120.05	116.75
22.5	.8858	2	6	1 ½	10	5734225	137.00	22.302 - 23.089	165.00	146.40	140.25	137.15	134.05	131.50	127.90
23.0	.9055	2	6	1 ½	10	5734230	137.00	-	-	-	-	-	-	-	-
23.5	.9252	3	8	1 ½	10	5734235	137.00	23.090 - 23.901	165.00	146.40	140.25	137.15	134.05	131.50	127.90
24.0	.9449	3	8	1 ½	10	5734240	141.45	23.902 - 24.689	169.50	151.00	144.75	141.75	138.50	135.95	132.45
24.5	.9646	3	8	1 ½	10	5734245	141.45	-	-	-	-	-	-	-	-
25.0	.9843	3	8	1 ⅝	10 ½	5734250	141.45	24.690 - 25.476	169.50	151.00	144.75	141.75	138.50	135.95	132.45
25.5	1.0039	3	8	1 ⅝	10 ½	5734255	153.75	25.477 - 27.076	181.75	163.15	156.90	153.90	150.80	148.30	144.65
26.0	1.0236	3	8	1 ⅝	10 ½	5734260	153.75	-	-	-	-	-	-	-	-
27.0	1.0630	3	8	1 ⅝	10 ½	5734270	153.75	-	-	-	-	-	-	-	-
28.0	1.1024	3	8	1 ¾	11	5734280	153.75	27.077 - 28.651	181.75	163.15	156.90	153.90	150.80	148.30	144.65
29.0	1.1417	3	8	1 ¾	11	5734290	171.35	28.652 - 30.239	199.30	180.80	174.55	171.50	168.40	165.80	162.15
30.0	1.1811	3	8	1 ¾	11	5734300	171.35	-	-	-	-	-	-	-	-
31.0	1.2205	4	8	1 ⅞	11 ½	5734310	173.55	30.240 - 31.826	201.55	182.95	176.70	173.65	170.60	167.95	164.35
32.0	1.2598	4	8	1 ⅞	11 ½	5734320	188.45	31.827 - 33.414	216.45	197.85	191.75	188.65	185.55	182.95	179.40
33.0	1.2992	4	8	1 ⅞	11 ½	5734330	188.45	-	-	-	-	-	-	-	-
34.0	1.3386	4	8	2	12	5734340	205.35	33.415 - 35.001	233.25	214.80	208.50	205.50	202.35	199.75	196.15
35.0	1.3780	4	8	2	12	5734350	205.35	-	-	-	-	-	-	-	-
36.0	1.4173	4	8	2	12	5734360	229.80	35.002 - 36.589	259.60	239.80	233.15	229.95	226.60	223.80	220.10
37.0	1.4567	4	8	2 ⅛	12 ½	5734370	237.40	36.590 - 38.176	267.35	247.50	240.95	237.70	234.35	231.60	227.75
38.0	1.4961	4	8	2 ⅛	12 ½	5734380	237.40	-	-	-	-	-	-	-	-
39.0	1.5354	4	8	2 ⅛	12 ½	5734390	321.45	38.177 - 39.776	351.20	331.45	324.90	321.55	318.30	315.50	311.70
40.0	1.5748	4	8	2 ¼	13	5734400	321.45	39.777 41.351	351.20	331.45	324.90	321.55	318.30	315.50	311.70
41.0	1.6142	4	8	2 ¼	13	5734410	321.45	-	-	-	-	-	-	-	-
42.0	1.6535	4	8	2 ¼	13	5734420	354.55	41.352 - 42.951	384.40	364.65	358.00	354.80	351.35	348.70	344.75
43.0	1.6929	4	10	2 ⅜	13 ½	5734430	354.55	42.952 - 44.526	384.40	364.65	358.00	354.80	351.35	348.70	344.75
44.0	1.7323	4	10	2 ⅜	13 ½	5734440	354.55	-	-	-	-	-	-	-	-

Diameters up to 63mm – call us for price & availability.

Tolerances on page 60.

Made in the USA

CHUCKING REAMERS - NAS 897

CARBIDE TIPPED

List No. 9408 - Straight Shank - Straight Flute - Partial Flute Length Carbide

Use: For use in many composite materials including graphite, epoxy based, and metal matrix. Conforms with specification NAS 897 - Type C. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH			LIST 9408 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT	CARB	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.2500	1/4	.2405	4	1 1/2	1/2	6	41008	$48.15	.2381 - .2530	$85.30	$66.70	$60.50	$57.50	$54.25	$51.80
.2812	9/32	.2485	4	1 1/2	1/2	6	41009	49.05	.2531 - .2840	86.35	67.65	61.50	58.40	55.30	52.65
.3125	5/16	.2792	4	1 1/2	1/2	6	41010	49.05	.2841 - .3150	86.35	67.65	61.50	58.40	55.30	52.65
.3438	11/32	.2792	4	1 1/2	5/8	6	41011	50.95	.3151 - .3470	88.10	69.55	63.30	60.35	57.10	54.65
.3750	3/8	.3105	4	1 3/4	5/8	7	41012	46.75	.3471 - .3780	80.80	63.75	58.10	55.35	52.40	50.10
.4062	13/32	.3105	4	1 3/4	5/8	7	41013	53.40	.3781 - .4090	90.60	71.95	65.75	62.75	59.45	57.05
.4375	7/16	.3730	6	1 3/4	5/8	7	41014	56.90	.4091 - .4410	94.10	75.45	69.30	66.25	63.05	60.60
.4688	15/32	.3730	6	1 3/4	5/8	7	41015	57.75	.4411 - .4720	94.95	76.30	70.10	67.10	64.00	61.50
.5000	1/2	.4355	6	2	5/8	8	41016	68.25	.4721 - .5030	109.30	88.70	81.85	78.60	75.10	72.30
.5312	17/32	.4355	6	2	5/8	8	41017	74.35	.5031 - .5340	115.25	94.70	87.95	84.60	81.20	78.35
.5625	9/16	.4355	6	2	5/8	8	41018	74.35	.5341 - .5660	115.25	94.70	87.95	84.60	81.20	78.35
.5938	19/32	.4355	6	2	5/8	8	41019	77.40	.5661 - .5970	118.30	97.80	90.90	87.65	84.15	81.35
.6250	5/8	.5615	6	2 1/4	5/8	9	41020	77.40	.5971 - .6280	118.30	97.80	90.90	87.65	84.15	81.35
.6562	21/32	.5615	6	2 1/4	5/8	9	41021	78.70	.6281 - .6590	119.70	99.10	92.20	89.00	85.45	82.75
.6875	11/16	.5615	6	2 1/4	5/8	9	41022	78.70	.6591 - .6910	119.70	99.10	92.20	89.00	85.45	82.75
.7188	23/32	.5615	6	2 1/4	5/8	9	41023	82.45	.6911 - .7220	123.35	102.75	96.00	92.65	89.20	86.40
.7500	3/4	.6245	6	2 1/2	3/4	9 1/2	41024	82.45	.7221 - .7530	123.35	102.75	96.00	92.65	89.20	86.40
.7812	25/32	.6245	6	2 1/2	3/4	9 1/2	41025	85.05	.7531 - .7840	126.00	105.50	98.60	95.30	91.80	89.15
.8125	13/16	.6245	6	2 1/2	3/4	9 1/2	41026	85.05	.7841 - .8160	126.00	105.50	98.60	95.30	91.80	89.15
.8438	27/32	.6245	6	2 1/2	3/4	9 1/2	41027	88.50	.8161 - .8470	129.35	108.90	102.10	98.80	95.25	92.55
.8750	7/8	.7495	6	2 5/8	3/4	10	41028	91.80	.8471 - .8780	134.30	113.00	105.85	102.55	98.95	96.05
.9062	29/32	.7495	6	2 5/8	3/4	10	41029	106.95	.8781 - .9090	149.40	128.10	121.05	117.65	113.95	111.05
.9375	15/16	.7495	8	2 5/8	3/4	10	41030	106.95	.9091 - .9410	149.40	128.10	121.05	117.65	113.95	111.05
.9688	31/32	.7495	8	2 5/8	3/4	10	41031	112.00	.9411 - .9720	154.45	133.15	126.10	122.60	118.95	116.05
1.0000	1	.8745	8	2 3/4	3/4	10 1/2	41032	112.00	.9721 - 1.0030	154.45	133.15	126.10	122.60	118.95	116.05
1.0625	1 1/16	.8745	8	2 3/4	3/4	10 1/2	41034	115.95	1.0031 - 1.0660	156.65	136.35	129.45	126.20	122.65	119.95
1.1250	1 1/8	.8745	8	2 7/8	7/8	11	41036	125.40	1.0661 - 1.1280	166.05	145.65	138.90	135.55	132.10	129.35
1.1875	1 3/16	.9995	8	2 7/8	7/8	11	41038	131.75	1.1281 - 1.1905	172.45	152.15	145.30	142.00	138.50	135.85
1.2500	1 1/4	.9995	8	3	7/8	11 1/2	41040	139.25	1.1906 - 1.2530	180.00	159.65	152.75	149.50	146.05	143.30
1.3125	1 5/16	.9995	8	3	7/8	11 1/2	41042	146.55	1.2531 - 1.3155	187.30	167.00	160.10	156.85	153.30	150.55
1.3750	1 3/8	.9995	8	3 1/4	7/8	12	41044	155.50	1.3156 - 1.3780	196.30	175.85	168.95	165.80	162.15	159.50
1.4375	1 7/16	.9995	8	3 1/4	7/8	12	41046	173.30	1.3781 - 1.4405	214.15	193.60	186.85	183.65	180.05	177.40
1.5000	1 1/2	1.2495	8	3 1/2	7/8	12 1/2	41048	183.20	1.4406 - 1.5030	223.95	203.55	196.65	193.50	189.95	187.20

**Quantities of 15 or more: price of fractional size in same size range.*

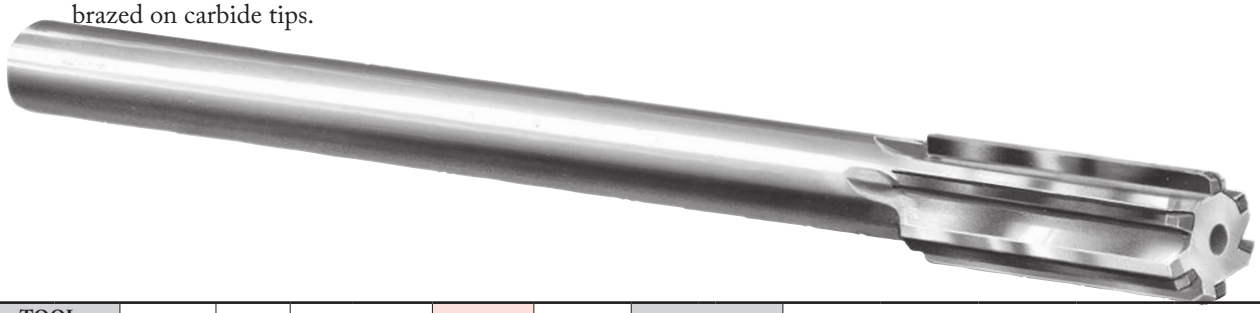
Tolerances on page 60.

CHUCKING REAMERS - NAS 897

CARBIDE TIPPED

List No. 9458 - Straight Shank - Straight Flute - Full Flute Length Carbide

Use: For use in many composite materials including graphite, epoxy based, and metal matrix. Conforms with specification NAS 897 - Type C. Hardened alloy steel bodies with brazed on carbide tips.



TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		LIST 9458 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT	OAL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.1875	3/16	.1805	4	1 1/8	4 1/2	44106	57.15	.1770 - .2040	$95.35	$76.25	$69.80	$66.80	$63.55	$60.90
.2188	7/32	.2075	4	1 1/4	5	44107	57.15	.2041 - .2210	95.35	76.25	69.80	66.80	63.55	60.90
.2344	15/64	.2265	4	1 1/2	6	4412344	57.15	.2211 - .2380	95.35	76.25	69.80	66.80	63.55	60.90
.2500	1/4	.2405	4	1 1/2	6	44108	57.15	.2381 - .2530	95.35	76.25	69.80	66.80	63.55	60.90
.2812	9/32	.2485	4	1 1/2	6	44109	58.40	.2531 - .2840	96.60	77.55	71.05	68.10	64.75	62.25
.3125	5/16	.2792	4	1 1/2	6	44110	58.40	.2841 - .3150	96.60	77.55	71.05	68.10	64.75	62.25
.3438	11/32	.2792	4	1 1/2	6	44111	60.55	.3151 - .3470	98.80	79.55	73.20	70.15	66.95	64.35
.3750	3/8	.3105	4	1 3/4	7	44112	60.55	.3471 - .3780	98.80	79.55	73.20	70.15	66.95	64.35
.4062	13/32	.3105	4	1 3/4	7	44113	63.55	.3781 - .4090	101.65	82.60	76.20	73.15	69.80	67.25
.4375	7/16	.3730	6	1 3/4	7	44114	68.75	.4091 - .4410	106.95	87.85	81.40	78.35	75.10	72.45
.4688	15/32	.3730	6	1 3/4	7	44115	74.25	.4411 - .4720	112.55	93.30	87.00	83.95	80.60	78.05
.5000	1/2	.4355	6	2	8	44116	79.55	.4721 - .5030	120.55	100.05	93.20	89.90	86.40	83.65
.5312	17/32	.4355	6	2	8	44117	81.85	.5031 - .5340	122.80	102.25	95.35	92.15	88.65	85.85
.5625	9/16	.4355	6	2	8	44118	81.85	.5341 - .5660	122.80	102.25	95.35	92.15	88.65	85.85
.5938	19/32	.4355	6	2	8	44119	84.95	.5661 - .5970	125.90	105.45	98.50	95.25	91.75	89.00
.6250	5/8	.5615	6	2 1/4	9	44120	84.95	.5971 - .6280	125.90	105.45	98.50	95.25	91.75	89.00
.6562	21/32	.5615	6	2 1/4	9	44121	86.55	.6281 - .6590	127.55	107.00	100.10	96.85	93.30	90.60
.6875	11/16	.5615	6	2 1/4	9	44122	86.55	.6591 - .6910	127.55	107.00	100.10	96.85	93.30	90.60
.7188	23/32	.5615	6	2 1/4	9	44123	90.50	.6911 - .7220	131.45	110.85	104.15	100.85	97.30	94.50
.7500	3/4	.6245	6	2 1/2	9 1/2	44124	90.50	.7221 - .7530	131.45	110.85	104.15	100.85	97.30	94.50
.7812	25/32	.6245	6	2 1/2	9 1/2	44125	93.70	.7531 - .7840	134.50	114.00	107.15	103.80	100.35	97.55
.8125	13/16	.6245	6	2 1/2	9 1/2	44126	93.70	.7841 - .8160	134.50	114.00	107.15	103.80	100.35	97.55
.8438	27/32	.6245	6	2 1/2	9 1/2	44127	97.40	.8161 - .8470	138.25	117.70	110.85	107.70	104.20	101.35
.8750	7/8	.7495	6	2 5/8	10	44128	101.10	.8471 - .8780	143.45	122.20	115.10	111.70	108.00	105.15
.9062	29/32	.7495	6	2 5/8	10	44129	117.65	.8781 - .9090	160.15	138.90	131.65	128.30	124.65	121.75
.9375	15/16	.7495	8	2 5/8	10	44130	117.65	.9091 - .9410	160.15	138.90	131.65	128.30	124.65	121.75
.9688	31/32	.7495	8	2 5/8	10	44131	123.30	.9411 - .9720	165.80	144.55	137.30	133.90	130.30	127.40
1.0000	1	.8745	8	2 3/4	10 1/2	44132	123.30	.9721 - 1.0030	165.80	144.55	137.30	133.90	130.30	127.40
1.0625	1 1/16	.8745	8	2 3/4	10 1/2	44134	127.45	1.0031 - 1.0660	168.20	147.70	141.00	137.70	134.20	131.50
1.1250	1 1/8	.8745	8	2 7/8	11	44136	138.10	1.0661 - 1.1280	178.75	158.35	151.50	148.30	144.80	142.00
1.1875	1 3/16	.9995	8	2 7/8	11	44138	144.30	1.1281 - 1.1905	185.05	164.70	157.85	154.65	151.10	148.35
1.2500	1 1/4	.9995	8	3	11 1/2	44140	155.95	1.1906 - 1.2530	196.65	176.40	169.45	166.30	162.75	160.00
1.3125	1 5/16	.9995	8	3	11 1/2	44142	160.30	1.2531 - 1.3155	201.05	180.70	173.80	170.60	167.10	164.30
1.3750	1 3/8	.9995	8	3 1/4	12	44144	171.00	1.3156 - 1.3780	211.65	191.30	184.50	181.30	177.65	175.05
1.4375	1 7/16	.9995	8	3 1/4	12	44146	185.20	1.3781 - 1.4405	225.90	205.50	198.65	195.35	191.95	189.15
1.5000	1 1/2	1.2495	8	3 1/2	12 1/2	44148	190.55	1.4406 - 1.5030	231.25	210.85	204.05	200.80	197.35	194.60
1.5625	1 9/16	1.2495	8	3 1/2	12 1/2	44150	299.30	1.5031 - 1.5660	340.10	319.75	312.90	309.60	306.10	303.30
1.6250	1 5/8	1.2495	8	3 1/2	13	44152	309.55	1.5661 - 1.6280	350.35	330.00	323.15	319.90	316.35	313.60
1.6875	1 11/16	1.2495	8	3 1/2	13	44154	339.90	1.6281 - 1.6910	380.70	360.35	353.45	350.25	346.70	343.95
1.7500	1 3/4	1.2495	10	3 1/2	13 1/2	44156	339.90	1.6911 - 1.7530	380.70	360.35	353.45	350.25	346.70	343.95
1.8125	1 13/16	1.4995	10	3 1/2	13 1/2	44158	347.85	1.7531 - 1.8160	388.60	368.25	361.40	358.15	354.55	351.90
1.8750	1 7/8	1.4995	10	3 1/2	14	44160	364.80	1.8161 - 1.8780	405.60	385.20	378.30	375.15	371.60	368.85
1.9375	1 15/16	1.4995	10	3 1/2	14	44162	386.70	1.8781 - 1.9410	427.50	407.10	400.30	397.05	393.50	390.80
2.0000	2	1.4995	12	3 1/2	14	44164	386.15	1.9411 - 2.0030	427.00	406.55	399.80	396.50	393.00	390.25
2.1250	2 1/8	1.4995	12	3 1/2	14 1/2	44168	717.50	2.0031 - 2.1280	758.30	737.85	731.00	727.85	724.25	721.55
2.2500	2 1/4	1.7495	12	3 1/2	14 1/2	44172	770.60	2.1281 - 2.2530	811.40	790.95	784.20	780.95	777.40	774.70
2.3750	2 3/8	1.7495	12	3 1/2	15	44176	797.40	2.2531 - 2.3780	838.15	817.75	810.90	807.75	804.15	801.45
2.5000	2 1/2	1.7495	12	3 1/2	15	44180	797.40	2.3781 - 2.5030	838.15	817.75	810.90	807.75	804.15	801.45

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

Made in the USA

COOLANT FED REAMERS

CARBIDE TIPPED

List No. 5680 - Straight Shank - Straight Flute - Full Flute Length Carbide - Center Fed

Use: Center fed coolant reamers are for blind holes so the chips will be forced out through the top of the hole. Hardened alloy steel bodies with brazed on carbide tips.

List No. 5681 - Straight Shank - Straight Flute - Full Flute Length Carbide - Flute Fed

Use: Flute fed coolant reamers are for through holes so the chips will be forced out through the bottom of the hole. Hardened alloy steel bodies brazed on carbide tips.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		LIST 5680 CENTER FED EDP NO.	PRICE EACH	LIST 5681 FLUTE FED EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT.	OVER-ALL						1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14*
.1875	3/16	.1805	4	1 1/4	5	46106	$131.00	46406	$135.95	.1770-.2040	$176.85	$156.50	$149.50	$146.25	$142.75	$139.90
.2188	7/32	.2075	4	1 1/4	5	46107	131.00	46407	135.95	.2041-.2210	176.85	156.50	149.50	146.25	142.75	139.90
.2344	15/64	.2265	4	1 1/2	6	46101	131.00	46401	135.95	.2211-.2380	176.85	156.50	149.50	146.25	142.75	139.90
.2500	1/4	.2405	4	1 1/2	6	46108	131.00	46408	135.95	.2381-.2530	176.85	156.50	149.50	146.25	142.75	139.90
.2812	9/32	.2485	4	1 1/2	6	46109	139.05	46409	139.05	.2531-.2840	180.00	159.50	152.60	149.30	145.80	143.10
.3125	5/16	.2792	4	1 1/2	6	46110	146.90	46410	150.85	.2841-.3150	191.85	171.25	164.35	161.15	157.70	154.90
.3438	11/32	.2792	4	1 1/2	6	46111	148.00	46411	150.85	.3151-.3470	191.85	171.25	164.35	161.15	157.70	154.90
.3750	3/8	.3105	4	1 3/4	7	46112	149.50	46412	150.85	.3471-.3780	191.85	171.25	164.35	161.15	157.70	154.90
.4062	13/32	.3105	4	1 3/4	7	46113	150.00	46413	154.55	.3781-.4090	195.55	175.10	168.25	164.90	161.45	158.60
.4375	7/16	.3730	6	1 3/4	7	46114	151.50	46414	158.35	.4091-.4410	199.30	178.80	172.00	168.65	165.25	162.40
.4688	15/32	.3730	6	1 3/4	7	46115	152.80	46415	158.35	.4411-.4720	199.30	178.80	172.00	168.65	165.25	162.40
.5000	1/2	.4355	6	2	8	46116	154.55	46416	158.35	.4721-.5030	199.30	178.80	172.00	168.65	165.25	162.40
.5312	17/32	.4355	6	2	8	46117	158.05	46417	167.50	.5031-.5340	208.40	187.95	181.10	177.85	174.25	171.55
.5625	9/16	.4355	6	2	8	46118	160.30	46418	169.90	.5341-.5660	210.80	190.35	183.40	180.15	176.60	173.85
.5938	19/32	.4355	6	2	8	46119	163.65	46419	171.40	.5661-.5970	212.30	191.90	185.00	181.70	178.20	175.40
.6250	5/8	.5615	6	2 1/4	9	46120	166.75	46420	171.40	.5971-.6280	212.30	191.90	185.00	181.70	178.20	175.40
.6562	21/32	.5615	6	2 1/4	9	46121	184.60	46421	190.00	.6281-.6590	231.05	210.45	203.55	200.35	196.75	194.10
.6875	11/16	.5615	6	2 1/4	9	46122	188.35	46422	190.00	.6591-.6910	231.05	210.45	203.55	200.35	196.75	194.10
.7188	23/32	.5615	6	2 1/4	9	46123	196.45	46423	203.05	.6911-.7220	244.00	223.50	216.65	213.40	209.80	207.05
.7500	3/4	.6245	6	2 1/2	9 1/2	46124	196.45	46424	203.05	.7221-.7530	244.00	223.50	216.65	213.40	209.80	207.05
.7812	25/32	.6245	6	2 1/2	9 1/2	46125	202.30	46425	203.05	.7531-.7840	244.00	223.50	216.65	213.40	209.80	207.05
.8125	13/16	.6245	6	2 1/2	9 1/2	46126	202.30	46426	203.05	.7841-.8160	244.00	223.50	216.65	213.40	209.80	207.05
.8438	27/32	.6245	6	2 1/2	9 1/2	46127	209.20	46427	209.20	.8161-.8470	250.10	229.70	222.70	219.50	216.00	213.15
.8750	7/8	.7495	6	2 5/8	10	46128	217.15	46428	217.15	.8471-.8780	259.60	238.25	231.15	227.75	224.15	221.25
.9062	29/32	.7495	6	2 5/8	10	46129	241.05	46429	243.75	.8781-.9090	286.20	264.95	257.85	254.40	250.70	247.90
.9375	15/16	.7495	8	2 5/8	10	46130	241.05	46430	249.50	.9091-.9410	291.85	270.65	263.45	260.10	256.40	253.60
.9688	31/32	.7495	8	2 5/8	10	46131	242.00	46431	249.50	.9411-.9720	291.85	270.65	263.45	260.10	256.40	253.60
1.0000	1	.8745	8	2 3/4	10 1/2	46132	242.00	46432	249.50	.9721-1.0030	291.85	270.65	263.45	260.10	256.40	253.60
1.0625	1 1/16	.8745	8	2 3/4	10 1/2	46134	248.90	46434	263.75	1.0031-1.0660	306.25	285.10	277.90	274.50	270.85	268.05
1.1250	1 1/8	.8745	8	2 7/8	11	46136	257.55	46436	264.90	1.0661-1.1280	307.40	286.05	278.90	275.55	271.95	269.05
1.1875	1 3/16	.9995	8	2 7/8	11	46138	275.85	46438	275.85	1.1281-1.1905	318.35	297.00	289.80	286.55	282.90	280.05
1.2500	1 1/4	.9995	8	3	11 1/2	46140	279.40	46440	279.40	1.1906-1.2530	322.00	300.65	293.50	290.20	286.55	283.70
1.3125	1 5/16	.9995	8	3	11 1/2	46142	287.45	46442	287.45	1.2531-1.3155	330.00	308.65	301.55	298.05	294.50	291.65
1.3750	1 3/8	.9995	8	3 1/4	12	46144	299.10	46444	299.10	1.3156-1.3780	341.60	320.25	313.20	309.80	306.15	303.20
1.4375	1 7/16	.9995	8	3 1/4	12	46146	308.40	46446	308.40	1.3781-1.4405	351.00	329.65	322.60	319.20	315.50	312.70
1.5000	1 1/2	1.2495	8	3 1/2	12 1/2	46148	318.75	46448	318.75	1.4406-1.5030	361.30	340.00	332.90	329.50	325.85	322.95
1.5625	1 9/16	1.2495	8	3 1/2	12 1/2	46150	339.40	46450	358.40	1.5031-1.5660	398.90	378.60	371.80	368.65	365.05	362.40
1.6250	1 5/8	1.2495	8	3 1/2	13	46152	371.60	46452	394.05	1.5661-1.6280	434.55	414.35	407.45	404.25	400.75	398.10
1.6875	1 11/16	1.2495	8	3 1/2	13	46154	379.40	46454	400.90	1.6281-1.6910	441.40	421.15	414.35	411.10	407.55	404.95
1.7500	1 3/4	1.2495	10	3 1/2	13 1/2	46156	415.55	46456	438.10	1.6911-1.7530	478.60	458.35	451.50	448.35	444.85	442.10
1.8125	1 13/16	1.4995	10	3 1/2	13 1/2	46158	432.50	46458	456.20	1.7531-1.8160	496.65	476.45	469.60	466.35	462.85	460.25
1.8750	1 7/8	1.4995	10	3 1/2	14	46160	456.60	46460	480.30	1.8161-1.8780	520.85	500.50	493.75	490.55	487.00	484.30
1.9375	1 15/16	1.4995	10	3 1/2	14	46162	484.10	46462	510.95	1.8781-1.9410	551.45	531.25	524.35	521.15	517.65	515.00
2.0000	2	1.4995	12	3 1/2	14	46164	502.70	46464	529.50	1.9411-2.0030	570.00	549.75	542.95	539.75	536.15	533.55

**Quantities of 15 or more: price of fractional size in same size range.*

Tolerances on page 60.

COOLANT FED REAMERS

CARBIDE TIPPED

List No. 5682 - Straight Shank - Right Hand Spiral Flutes - Full Flute Length Carbide - Center Fed

Use: Center fed coolant reamers are for blind holes so the chips will be forced out through the top of the hole. Hardened alloy steel bodies with brazed on carbide tips.

List No. 5683 - Straight Shank - Left Hand Spiral Flutes - Full Flute Length Carbide - Flute Fed

Use: Flute fed coolant reamers are for through holes so the chips will be forced out through the bottom of the hole. Hardened alloy steel bodies with brazed on carbide tips.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		LIST 5682 CENTER FED EDP NO.	PRICE EACH	LIST 5683 FLUTE FED EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DEC.	FRAC.			FLT.	OVER-ALL						1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14**
*.2500	¼	.2405	4	1 ½	6	49108	$134.60	49408	$166.70	.2381 - .2530	$207.65	$187.10	$180.30	$176.90	$173.45	$170.70
*.2812	9/32	.2485	4	1 ½	6	49109	137.65	49409	176.75	.2531 - .2840	217.65	197.25	190.40	187.10	183.65	180.85
.3125	5/16	.2792	4	1 ½	6	49110	150.85	49410	186.80	.2841 - .3150	227.70	207.10	200.35	197.10	193.50	190.80
.3438	11/32	.2792	4	1 ½	6	49111	151.95	49411	188.25	.3151 - .3470	229.05	208.55	201.75	198.50	195.00	192.15
.3750	⅜	.3105	4	1 ¾	7	49112	153.55	49412	190.05	.3471 - .3780	231.10	210.55	203.70	200.40	196.85	194.20
.4062	13/32	.3105	4	1 ¾	7	49113	153.95	49413	190.85	.3781 - .4090	231.80	211.35	204.45	201.20	197.60	194.95
.4375	7/16	.3730	6	1 ¾	7	49114	155.55	49414	192.65	.4091 - .4410	233.65	213.10	206.25	203.00	199.55	196.65
.4688	15/32	.3730	6	1 ¾	7	49115	156.90	49415	194.35	.4411 - .4720	235.25	214.85	207.95	204.70	201.20	198.40
.5000	½	.4355	6	2	8	49116	163.05	49416	196.85	.4721 - .5030	237.90	217.30	210.45	207.10	203.70	200.95
.5312	17/32	.4355	6	2	8	49117	168.95	49417	201.00	.5031 - .5340	241.95	221.40	214.55	211.35	207.80	205.00
.5625	9/16	.4355	6	2	8	49118	168.95	49418	203.90	.5341 - .5660	244.85	224.35	217.45	214.25	210.70	207.95
.5938	19/32	.4355	6	2	8	49119	175.65	49419	208.15	.5661 - .5970	249.05	228.65	221.75	218.50	215.00	212.20
.6250	⅝	.5615	6	2 ¼	9	49120	175.65	49420	212.05	.5971 - .6280	252.95	232.50	225.55	222.35	218.80	216.05
.6562	21/32	.5615	6	2 ¼	9	49121	198.50	49421	234.80	.6281 - .6590	275.80	255.25	248.40	245.15	241.60	238.80
.6875	11/16	.5615	6	2 ¼	9	49122	198.50	49422	239.55	.6591 - .6910	280.55	260.05	253.10	249.90	246.40	243.65
.7188	23/32	.5615	6	2 ¼	9	49123	207.05	49423	244.70	.6911 - .7220	285.60	265.10	258.20	254.95	251.45	248.65
.7500	¾	.6245	6	2 ½	9 ½	49124	194.55	49424	249.90	.7221 - .7530	290.80	270.35	263.40	260.25	256.65	253.95
.7812	25/32	.6245	6	2 ½	9 ½	49125	223.20	49425	254.15	.7531 - .7840	295.05	274.65	267.65	264.45	260.90	258.15
.8125	13/16	.6245	6	2 ½	9 ½	49126	225.90	49426	257.20	.7841 - .8160	298.05	277.70	270.80	267.50	264.05	261.20
.8438	27/32	.6245	6	2 ½	9 ½	49127	230.10	49427	261.90	.8161 - .8470	302.95	282.40	275.50	272.20	268.70	266.00
.8750	⅞	.7495	6	2 ⅝	10	49128	242.55	49428	276.15	.8471 - .8780	318.65	297.40	290.25	286.85	283.15	280.25
.9062	29/32	.7495	6	2 ⅝	10	49129	257.00	49429	292.40	.8781 - .9090	334.90	313.55	306.50	303.10	299.50	296.60
.9375	15/16	.7495	8	2 ⅝	10	49130	269.30	49430	306.70	.9091 - .9410	349.10	327.90	320.75	317.35	313.60	310.85
.9688	31/32	.7495	8	2 ⅝	10	49131	270.10	49431	307.50	.9411 - .9720	349.90	328.70	321.50	318.10	314.45	311.60
1.0000	1	.8745	8	2 ¾	10 ½	49132	270.50	49432	307.90	.9721 - 1.0030	350.35	329.10	322.00	318.55	314.85	312.00
1.0625	1 1/16	.8745	8	2 ¾	10 ½	49133	278.00	49433	325.50	1.0031 - 1.0660	367.95	346.70	339.55	336.15	332.55	329.65
1.1250	1 ⅛	.8745	8	2 ⅞	11	49134	287.65	49434	326.90	1.0661 - 1.1280	369.40	348.05	340.95	337.55	334.00	331.05
1.1875	1 3/16	.9995	8	2 ⅞	11	49135	308.20	49435	340.45	1.1281 - 1.1905	382.80	361.50	354.45	351.05	347.45	344.55
1.2500	1 ¼	.9995	8	3	11 ½	49136	312.15	49436	344.85	1.1906 - 1.2530	387.35	366.05	359.00	355.55	351.90	349.05
1.3125	1 5/16	.9995	8	3	11 ½	49137	321.20	49437	354.85	1.2531 - 1.3155	397.30	376.00	368.80	365.45	361.85	359.00
1.3750	1 ⅜	.9995	8	3 ¼	12	49138	334.25	49438	369.05	1.3156 - 1.3780	411.65	390.35	383.15	379.85	376.20	373.30
1.4375	1 7/16	.9995	8	3 ¼	12	49139	344.65	49439	380.60	1.3781 - 1.4405	423.20	401.85	394.75	391.40	387.80	384.85
1.5000	1 ½	1.2495	8	3 ½	12 ½	49140	356.30	49440	393.45	1.4406 - 1.5030	435.90	414.70	407.50	404.10	400.45	397.60

*½" carbide length.

**Quantities of 15 or more: price of fractional size in same size range.

Tolerances on page 60.

Made in the USA

SOLID CARBIDE HEAD REAMERS

SOLID CARBIDE HEAD

List No. 6800 - Straight Steel Shank - Straight Flutes - For Cast Iron & Steel

Solid carbide head brazed to hardened alloy steel shank on tool diameters .1911" and larger. Tool geometry appropriate for material being machined. Diameters 7/64" and below provided with male centers.

Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".
For closer tool diameter tolerance pricing see page 60.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		LIST 6800 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DECIMAL	FRAC.			FLUTE	OVERALL				1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14**
* -	-	.0800	4	3/4	3	680099	-	.0811 - .0890	$81.10	$59.95	$52.65	$49.40	$45.65	$42.90
*.0938	3/32	.0880	4	3/4	3	680006	$38.75	.0891 - .0970	81.10	59.95	52.65	49.40	45.65	42.90
*.1094	7/64	.0943	4	7/8	3 1/2	680007	38.75	.0971 - .1120	81.10	59.95	52.65	49.40	45.65	42.90
*.1250	1/8	.1099	4	7/8	3 1/2	680008	38.75	.1121 - .1280	81.10	59.95	52.65	49.40	45.65	42.90
*.1406	9/64	.1255	4	7/8	3 1/2	680009	44.30	.1281 - .1435	86.65	65.40	58.25	54.90	51.30	48.40
*.1562	5/32	.1411	4	1	4	680010	45.55	.1436 - .1590	87.85	66.70	59.50	56.20	52.50	49.80
*.1719	11/64	.1567	4	1	4	680011	51.35	.1591 - .1750	93.60	72.55	65.40	62.00	58.40	55.55
*.1875	3/16	.1724	4	1 1/8	4 1/2	680012	52.45	.1751 - .1910	94.80	73.60	66.40	63.10	59.45	56.70
.2031	13/64	.1880	6	1 1/4	5	680013	55.90	-	-	-	-	-	-	-
.2188	7/32	.1880	6	1 1/4	5	680014	55.90	.1911 - .2210	98.25	77.10	70.00	66.55	62.90	60.15
.2344	15/64	.2193	6	1 1/2	6	680015	59.45	-	-	-	-	-	-	-
.2500	1/4	.2193	6	1 1/2	6	680016	59.45	.2211 - .2530	101.80	80.55	73.50	70.20	66.40	63.65
.2656	17/64	.2505	6	1 1/2	6	680017	63.95	-	-	-	-	-	-	-
.2812	9/32	.2505	6	1 1/2	6	680018	63.95	.2531 - .2840	106.20	85.10	77.95	74.65	71.00	68.15
.2969	19/64	.2817	6	1 5/8	6	680019	66.55	-	-	-	-	-	-	-
.3125	5/16	.2817	6	1 5/8	6	680020	66.55	.2841 - .3150	108.85	87.70	80.55	77.20	73.60	70.70
.3281	21/64	.3130	6	1 5/8	6	680021	71.25	-	-	-	-	-	-	-
.3438	11/32	.3130	6	1 5/8	6	680022	71.25	.3151 - .3470	113.50	92.30	85.15	81.75	78.20	75.40
.3594	23/64	.3443	6	1 3/4	7	680023	76.60	-	-	-	-	-	-	-
.3750	3/8	.3443	6	1 3/4	7	680024	76.60	.3471 - .3780	118.85	97.65	90.55	87.25	83.60	80.80
.3906	25/64	.3755	6	1 3/4	7	680025	87.50	-	-	-	-	-	-	-
.4062	13/32	.3755	6	1 3/4	7	680026	87.50	.3781 - .4090	129.80	108.60	101.60	98.20	94.55	91.65
.4219	27/64	.4067	6	1 3/4	7	680027	93.00	-	-	-	-	-	-	-
.4375	7/16	.4067	6	1 3/4	7	680028	93.00	.4091 - .4410	135.25	114.00	107.00	103.65	99.95	97.05
.4531	29/64	.4380	6	1 3/4	8	680029	98.55	-	-	-	-	-	-	-
.4688	15/32	.4380	6	1 3/4	8	680030	98.55	.4411 - .4720	140.90	119.65	112.60	109.25	105.65	102.70
.4844	31/64	.4693	6	1 3/4	8	680031	105.80	-	-	-	-	-	-	-
.5000	1/2	.4693	6	1 3/4	8	680032	105.80	.4721 - .5030	148.20	126.95	119.75	116.45	112.80	110.00
.5156	33/64	.5005	6	1 7/8	9	680033	136.50	-	-	-	-	-	-	-
.5312	17/32	.5005	6	1 7/8	9	680034	136.50	.5031 - .5340	178.75	157.55	150.55	147.15	143.45	140.60
.5469	35/64	.5005	6	1 7/8	9	680035	161.10	-	-	-	-	-	-	-
.5625	9/16	.5005	6	1 7/8	9	680036	158.20	.5341 - .5660	199.70	178.80	171.85	168.60	165.00	162.25
.5781	37/64	.5630	6	1 7/8	9	680037	179.50	-	-	-	-	-	-	-
.5938	19/32	.5630	6	1 7/8	9	680038	179.50	.5661 - .5970	221.05	200.25	193.25	189.90	186.40	183.55
.6094	39/64	.5630	6	1 7/8	9	680039	181.55	-	-	-	-	-	-	-
.6250	5/8	.5630	6	1 7/8	9	680040	181.55	.5971 - .6280	223.00	202.15	195.35	192.00	188.45	185.55
.6562	21/32	.6255	6	2	9 1/2	680042	262.60	.6281 - .6590	302.10	282.30	275.70	272.55	269.55	266.45
.6875	11/16	.6255	6	2	9 1/2	680044	262.60	.6591 - .6910	302.10	282.30	275.70	272.55	269.55	266.45
.7188	23/32	.6880	6	2	9 1/2	680046	295.50	.6911 - .7220	335.00	315.15	308.60	305.40	302.45	299.35
.7500	3/4	.6880	6	2	9 1/2	680048	295.50	.7221 - .7530	335.00	315.15	308.60	305.40	302.45	299.35
.7812	25/32	.7505	8	2	10	680050	328.05	.7531 - .7840	367.50	347.70	341.10	337.95	334.90	331.80
.8125	13/16	.7817	8	2	10	680052	357.90	.7841 - .8160	397.40	377.55	371.00	367.85	364.85	361.75
.8438	27/32	.8130	8	2	10	680054	377.45	.8161 - .8470	416.95	397.15	390.55	387.40	384.35	381.30
.8750	7/8	.8440	8	2	10	680056	369.55	.8471 - .8780	409.05	389.20	382.65	379.50	376.45	373.35
.9062	29/32	.8755	8	2	10	680058	432.40	.8781 - .9090	471.90	452.05	445.50	442.35	439.30	436.25
.9375	15/16	.9067	8	2	10	680060	454.55	.9091 - .9410	494.00	474.20	467.60	464.45	461.45	458.35
.9688	31/32	.9380	8	2	10	680062	476.10	.9411 - .9720	515.60	495.80	489.20	486.05	483.00	479.90
1.0000	1	.9693	8	2	10	680064	494.05	.9721 - 1.0030	533.55	513.75	507.15	504.00	501.00	497.90

**Solid carbide head and shank (.0811" - .1910" tool diameters).*

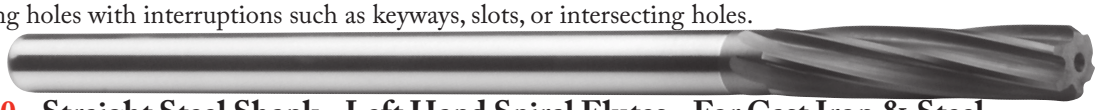
***Quantities of 15 or more: price of fractional size in same size range.*

SOLID CARBIDE HEAD REAMERS

SOLID CARBIDE HEAD

List No. 6810 - Straight Steel Shank - Right Hand Spiral Flutes - For Cast Iron & Steel

Use: For blind holes. Solid carbide brazed to hardened alloy steel shank on tool diameters of .1911" and larger. Tool geometry appropriate for material being machined. Ground with spiral flutes for reaming holes with interruptions such as keyways, slots, or intersecting holes.



List No. 6820 - Straight Steel Shank - Left Hand Spiral Flutes - For Cast Iron & Steel

Use: For through holes. Same as List No. 6810 except with left hand spiral flutes. Left spiral flutes should not be used on blind holes.

Tool diameter tolerance thru .2500": +.0002"/-.0000".
over .2500": +.0003"/-.0000".
Shank diameter tolerance: +.0000"/-.0010".
For closer tool diameter tolerance pricing see page 60.

TOOL DIAMETER		MAX. SHANK DIAM.	NO. OF FLTS.	LENGTH		RIGHT SPIRAL LIST 6810 EDP NO.	LEFT SPIRAL LIST 6820 EDP NO.	PRICE EACH	DECIMAL SIZE RANGE	PRICE EACH - FINISHED TO DECIMAL SIZE					
DECIMAL	FRAC.			FLUTE	OVERALL					1 PC.	2 PC.	3 PC.	4 PC.	5-7	8-14**
* .1250	1/8	.1099	4	7/8	3 1/2	681008	682008	$39.55	.1121 - .1280	$75.05	$57.30	$51.25	$48.45	$45.35	$43.05
* .1406	9/64	.1255	4	7/8	3 1/2	681009	682009	45.15	.1281 - .1435	80.65	62.85	56.90	54.10	51.10	48.70
* .1562	5/32	.1411	4	1	4	681010	682010	46.65	.1436 - .1590	82.10	64.25	58.30	55.50	52.40	50.05
* .1719	11/64	.1567	4	1	4	681011	682011	57.70	.1591 - .1750	96.85	77.25	70.65	67.60	64.25	61.70
* .1875	3/16	.1724	4	1 1/8	4 1/2	681012	682012	58.95	.1751 - .1910	97.90	78.45	71.85	68.80	65.45	62.80
.2031	13/64	.1880	6	1 1/4	5	681013	682013	62.80	-	-	-	-	-	-	-
.2188	7/32	.1880	6	1 1/4	5	681014	682014	68.15	.1911 - .2210	110.45	89.25	82.20	78.90	75.10	72.30
.2344	15/64	.2193	6	1 1/2	6	681015	682015	72.60	-	-	-	-	-	-	-
.2500	1/4	.2193	6	1 1/2	6	681016	682016	72.60	.2211 - .2530	114.90	93.60	86.65	83.15	79.50	76.65
.2656	17/64	.2505	6	1 1/2	6	681017	682017	77.95	-	-	-	-	-	-	-
.2812	9/32	.2505	6	1 1/2	6	681018	682018	77.95	.2531 - .2840	120.30	99.15	91.95	88.60	84.95	82.20
.2969	19/64	.2817	6	1 5/8	6	681019	682019	81.30	-	-	-	-	-	-	-
.3125	5/16	.2817	6	1 5/8	6	681020	682020	81.30	.2841 - .3150	123.50	102.35	95.30	91.85	88.20	85.35
.3281	21/64	.3130	6	1 5/8	6	681021	682021	86.75	-	-	-	-	-	-	-
.3438	11/32	.3130	6	1 5/8	6	681022	682022	86.75	.3151 - .3470	129.05	107.95	100.75	97.35	93.70	90.95
.3594	23/64	.3443	6	1 3/4	7	681023	682023	93.45	-	-	-	-	-	-	-
.3750	3/8	.3443	6	1 3/4	7	681024	682024	93.45	.3471 - .3780	135.60	114.40	107.40	104.10	100.40	97.45
.3906	25/64	.3755	6	1 3/4	7	681025	682025	106.80	-	-	-	-	-	-	-
.4062	13/32	.3755	6	1 3/4	7	681026	682026	106.80	.3781 - .4090	149.05	127.80	120.75	117.30	113.80	110.85
.4219	27/64	.4067	6	1 3/4	7	681027	682027	113.30	-	-	-	-	-	-	-
.4375	7/16	.4067	6	1 3/4	7	681028	682028	113.30	.4091 - .4410	155.55	134.30	127.30	123.95	120.30	117.40
.4531	29/64	.4380	6	1 3/4	8	681029	682029	120.25	-	-	-	-	-	-	-
.4688	15/32	.4380	6	1 3/4	8	681030	682030	120.25	.4411 - .4720	162.45	141.30	134.20	130.85	127.25	124.35
.4844	31/64	.4693	6	1 3/4	8	681031	682031	128.95	-	-	-	-	-	-	-
.5000	1/2	.4693	6	1 3/4	8	681032	682032	128.95	.4721 - .5030	171.25	150.10	143.00	139.60	136.05	133.15
.5156	33/64	.5005	6	1 7/8	9	681033	682033	153.30	-	-	-	-	-	-	-
.5312	17/32	.5005	6	1 7/8	9	681034	682034	150.45	.5031 - .5340	188.85	169.60	163.15	160.10	156.85	154.35
.5469	35/64	.5005	6	1 7/8	9	681035	682035	177.75	-	-	-	-	-	-	-
.5625	9/16	.5005	6	1 7/8	9	681036	682036	177.75	.5341 - .5660	216.10	196.85	190.40	187.35	184.05	181.45
.5781	37/64	.5630	6	1 7/8	9	681037	682037	201.65	-	-	-	-	-	-	-
.5938	19/32	.5630	6	1 7/8	9	681038	682038	201.65	.5661 - .5970	239.90	220.80	214.40	211.30	208.00	205.45
.6094	39/64	.5630	6	1 7/8	9	681039	682039	204.00	-	-	-	-	-	-	-
.6250	5/8	.5630	6	1 7/8	9	681040	682040	204.00	.5971 - .6280	242.35	223.20	216.65	213.65	210.35	207.75
.6562	21/32	.6255	6	2	9 1/2	681042	682042	295.35	.6281 - .6590	339.80	317.50	310.10	306.50	303.15	299.65
.6875	11/16	.6255	6	2	9 1/2	681044	682044	295.35	.6591 - .6910	339.80	317.50	310.10	306.50	303.15	299.65
.7188	23/32	.6880	6	2	9 1/2	681046	682046	332.30	.6911 - .7220	376.80	354.35	347.00	343.50	340.05	336.55
.7500	3/4	.6880	6	2	9 1/2	681048	682048	332.30	.7221 - .7530	376.80	354.35	347.00	343.50	340.05	336.55
.7812	25/32	.7505	8	2	10	681050	682050	368.90	.7531 - .7840	413.30	391.00	383.55	380.00	376.55	373.15
.8125	13/16	.7817	8	2	10	681052	682052	402.45	.7841 - .8160	446.90	424.60	417.20	413.60	410.20	406.70
.8438	27/32	.8130	8	2	10	681054	682054	424.40	.8161 - .8470	468.85	446.60	439.15	435.65	432.20	428.70
.8750	7/8	.8440	8	2	10	681056	682056	415.55	.8471 - .8780	460.00	437.75	430.30	426.70	423.35	419.85
.9062	29/32	.8755	8	2	10	681058	682058	486.30	.8781 - .9090	530.70	508.45	500.95	497.40	494.00	490.55
.9375	15/16	.9067	8	2	10	681060	682060	511.10	.9091 - .9410	555.50	533.25	525.85	522.25	518.85	515.40
.9688	31/32	.9380	8	2	10	681062	682062	535.35	.9411 - .9720	579.75	557.50	550.15	546.55	543.15	539.70
1.0000	1	.9693	8	2	10	681064	682064	555.55	.9721 - 1.0030	600.00	577.70	570.35	566.85	563.35	559.95

***Quantities of 15 or more: price of fractional size in same size range.*

**Solid carbide head and shank (.1121" - .1910" tool diameters).*

CARBIDE TIPPED

List No. 4110 - Style AR - 0° Side Angle

Use: For machining to a square shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
AR-4	70102	$11.45	70103	$8.35	¼	¼	2	12
AR-5	70108	10.10	70109	8.90	5/16	5/16	2 ¼	12
AR-6	70114	10.30	70115	9.05	⅜	⅜	2 ½	12
AR-7	70120	11.10	70121	9.85	7/16	7/16	3	12
AR-8	70126	9.50	70127	9.50	½	½	3 ½	12
AR-10	70132	14.10	70133	13.05	⅝	⅝	4	12
AR-12	70138	18.10	70139	16.20	¾	¾	4 ½	12
AR-16	70144	33.20	70145	32.35	1	1	7	6
AR-20	70150	CALL US	70151	CALL US	1 ¼	1 ¼	8	1
AR-44	70162	CALL US	70163	CALL US	½	1	7	12

List No. 4110 - Style AL - 0° Side Angle

Use: For machining to a square shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
AL-4	70202	$11.45	70203	$8.35	¼	¼	2	12
AL-5	70208	10.10	70209	8.90	5/16	5/16	2 ¼	12
AL-6	70214	10.30	70215	9.05	⅜	⅜	2 ½	12
AL-7	70220	11.10	70221	9.85	7/16	7/16	3	12
AL-8	70226	9.50	70227	9.50	½	½	3 ½	12
AL-10	70232	13.35	70233	13.05	⅝	⅝	4	12
AL-12	70238	17.25	70239	17.10	¾	¾	4 ½	12
AL-16	70244	33.65	70245	33.65	1	1	7	6
AL-20	-	-	70251	CALL US	1 ¼	1 ¼	8	1
AL-44	70262	CALL US	70263	CALL US	½	1	7	12

List No. 4120 - Style BR - 15° Side Angle

Use: For rough turning.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
BR-4	70302	$11.45	70303	$8.35	¼	¼	2	12
BR-5	70308	10.10	70309	8.90	5/16	5/16	2 ¼	12
BR-6	70314	10.30	70315	9.05	⅜	⅜	2 ½	12
BR-7	70320	11.10	70321	9.85	7/16	7/16	3	12
BR-8	70326	9.50	70327	9.50	½	½	3 ½	12
BR-10	70332	14.10	70333	13.05	⅝	⅝	4	12
BR-12	70338	18.10	70339	16.20	¾	¾	4 ½	12
BR-16	70344	33.20	70345	32.35	1	1	7	6
BR-20	70350	CALL US	70351	CALL US	1 ¼	1 ¼	8	1
BR-44	70362	CALL US	70363	CALL US	½	1	7	12

List No. 4120 - Style BL - 15° Side Angle

Use: For rough turning.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
BL-4	70402	$11.45	70403	$8.35	¼	¼	2	12
BL-5	70408	10.10	70409	8.90	5/16	5/16	2 ¼	12
BL-6	70414	10.30	70415	9.05	⅜	⅜	2 ½	12
BL-7	70420	11.10	70421	9.85	7/16	7/16	3	12
BL-8	70426	9.50	70427	9.50	½	½	3 ½	12
BL-10	70432	13.35	70433	13.05	⅝	⅝	4	12
BL-12	70438	17.25	70439	17.10	¾	¾	4 ½	12
BL-16	70444	33.65	70445	33.65	1	1	7	6
BL-20	70450	CALL US	70451	CALL US	1 ¼	1 ¼	8	1
BL-44	70462	CALL US	70463	CALL US	½	1	7	12

List No. 4130 - Style C - 0° Side Nose

Use: No nose radius.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
C-4	70502	$7.55	70503	$7.55	¼	¼	2	12
C-5	70508	8.30	70509	8.00	5/16	5/16	2 ¼	12
C-6	70514	10.75	70515	8.90	⅜	⅜	2 ½	12
C-7	70520	8.20	70521	11.35	7/16	7/16	3	12
C-8	70526	13.20	70527	12.20	½	½	3 ½	12
C-10	70532	14.85	70533	16.20	⅝	⅝	4	12
C-12	70538	20.50	70539	23.25	¾	¾	4 ½	12
C-16	70544	42.55	70545	40.85	1	1	7	6
C-20	70550	CALL US	70551	CALL US	1 ¼	1 ¼	8	1
C-44	70556	CALL US	70557	CALL US	½	1	7	12

List No. 4140 - Style D - 40° Side Angle

Use: 80° pointed nose.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
D-4	70602	$7.00	70603	$7.00	¼	¼	2	12
D-5	70608	8.10	70609	8.35	5/16	5/16	2 ¼	12
D-6	70614	8.30	70615	8.95	⅜	⅜	2 ½	12
D-7	70620	11.35	70621	13.80	7/16	7/16	3	12
D-8	70626	10.90	70627	11.55	½	½	3 ½	12
D-10	70632	15.25	70633	16.90	⅝	⅝	4	12
D-12	70638	21.80	70639	19.15	¾	¾	4 ½	12
D-16	70644	32.40	70645	33.45	1	1	7	6

Some sizes not available in premium grade carbide. Prices subject to change.

CARBIDE TIPPED

List No. 4150 - Style E - 60° Included

Use: For threading, chamfering, notching or undercutting.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
E-4	70701	$7.00	70702	$7.00	¼	¼	2	12
E-5	70705	7.65	70706	7.65	5/16	5/16	2 ¼	12
E-6	70709	7.95	70710	7.75	⅜	⅜	2 ½	12
E-7	70711	12.30	70712	14.75	7/16	7/16	3	12
E-8	70713	18.25	70714	9.80	½	½	3 ½	12
E-10	70717	15.15	70718	13.75	⅝	⅝	4	12
E-12	70721	18.80	70722	19.05	¾	¾	4 ½	12
E-16	70723	32.95	70724	31.70	1	1	7	6

List No. 4160 - Style ER - Offset 30°

Use: For threading or boring to a shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
ER-4	70801	$8.70	70802	$7.00	¼	¼	2	12
ER-5	70804	8.70	70805	7.80	5/16	5/16	2 ¼	12
ER-6	70807	8.85	70808	8.00	⅜	⅜	2 ½	12
ER-8	70810	15.60	70811	15.60	½	½	3 ½	12
ER-10	70813	17.00	70814	17.00	⅝	⅝	4	12
ER-12	70815	18.40	70816	19.95	¾	¾	4 ½	12

List No. 4170 - Style FR - 0° End Cutting

Use: For facing to a square shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
FR-8	70902	$13.10	70903	$12.90	½	½	3 ½	12
FR-10	70907	19.00	70908	18.05	⅝	⅝	4	12
FR-12	70912	24.55	70913	24.20	¾	¾	4 ½	6
FR-16	70917	51.30	70918	54.00	1	1	7	4
FR-44	70919	CALL US	70920	CALL US	½	1	6	6

List No. 4180 - Style GR - 0° Side Cutting

Use: For facing or turning to a square shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
GR-8	71002	$13.20	71003	$12.55	½	½	3 ½	12
GR-10	71007	19.80	71008	18.05	⅝	⅝	4	12
GR-12	71012	25.45	71013	22.50	¾	¾	4 ½	6
GR-16	71017	53.60	71018	54.00	1	1	7	4
GR-20	71022	CALL US	71023	CALL US	1 ¼	1 ¼	8	1
GR-44	71024	CALL US	71025	CALL US	½	1	6	6

List No. 4160 - Style EL - Offset 30°

Use: For threading or boring to a shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
EL-4	70855	$10.00	70856	$7.00	¼	¼	2	12
EL-5	70865	10.00	70866	9.60	5/16	5/16	2 ¼	12
EL-6	70857	10.00	70858	9.70	⅜	⅜	2 ½	12
EL-8	70860	15.60	70861	17.15	½	½	3 ½	12
EL-10	70863	17.00	70864	18.75	⅝	⅝	4	12
EL-12	70867	18.40	70868	19.95	¾	¾	4 ½	12

List No. 4170 - Style FL - 0° End Cutting

Use: For facing to a square shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
FL-8	70954	$13.20	70953	$12.55	½	½	3 ½	12
FL-10	70957	19.80	70958	18.05	⅝	⅝	4	12
FL-12	70962	25.45	70963	22.50	¾	¾	4 ½	6
FL-16	70967	47.85	70968	54.00	1	1	7	4
FL-44	70969	CALL US	70970	CALL US	½	1	6	6

List No. 4180 - Style GL - 0° Side Cutting

Use: For facing or turning to a square shoulder.

TOOL TYPE & SIZE NO.	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION			STD. PKG. QTY.
	EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L	
GL-8	71052	$13.10	71053	$12.90	½	½	3 ½	12
GL-10	71057	19.00	71058	18.05	⅝	⅝	4	12
GL-12	71062	24.55	71063	24.20	¾	¾	4 ½	6
GL-16	71067	52.00	71068	54.00	1	1	7	4
GL-20	71072	CALL US	71073	CALL US	1 ¼	1 ¼	8	1
GL-44	71074	CALL US	71075	CALL US	½	1	6	6

Some sizes not available in premium grade carbide. Prices subject to change.

Made in the USA

CUT-OFF TOOLS

CARBIDE TIPPED

List No. 4190 - Style CT

Use: For stock cut-off or grooving solid bars.

Standard package quantity is 6.

TOOL TYPE & SIZE NO.	CUT-OFF WIDTH	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION		
		EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L
CT-111	⅛	71101	$16.95	71102	$17.65	½	1	5
CT-122	3⁄16	71104	17.45	71105	18.00	½	1	5
CT-121	¼	71107	18.05	71108	18.65	½	1	5
CT-120	5⁄16	71110	18.00	71111	18.65	½	1	5
CT-130	⅜	71113	21.80	71114	23.20	⅝	1 ¼	5
CT-140	⅜	71115	24.15	71116	25.00	¾	1 ½	6

**Some sizes not available in premium grade carbide. Prices subject to change.*

List No. 4190 - Style CTL

Use: For stock cut-off or grooving solid bars.

Standard package quantity is 6.

TOOL TYPE & SIZE NO.	CUT-OFF WIDTH	883 / PREMIUM C2*		370 / PREMIUM C5-C6*		SHANK DIMENSION		
		EDP NO.	PRICE EACH	EDP NO.	PRICE EACH	W	H	L
CTL-111	⅛	71151	$16.95	71152	$17.65	½	1	5
CTL-122	3⁄16	71154	17.45	71155	18.00	½	1	5
CTL-121	¼	71157	18.05	71158	18.65	½	1	5
CTL-120	5⁄16	71160	18.00	71161	18.65	½	1	5
CTL-130	⅜	71163	21.80	71164	23.20	⅝	1 ¼	5
CTL-140	⅜	71165	24.15	71166	25.00	¾	1 ½	6

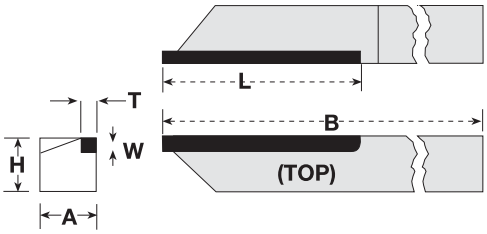
S.A. SERIES SWISS AUTOMATIC TOOLS

CARBIDE TIPPED

List No. 4100 - Style C - Left Hand

Use: For cut-off, forming or turning. Extra large carbide inserts. Shanks are fractionally sized to fit American and foreign tool holders. Requires finish grind on carbide. Tips are C2 carbide.

The 4 shank sides are ground to +0"/-.002"



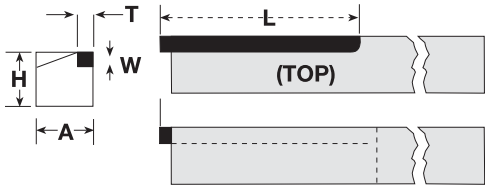
Standard package quantity is 10.

TOOL TYPE & SIZE NO.	EDP NO.	PRICE EACH*	SHANK DIMENSION			CARBIDE DIMENSION		
			A	H	B	T	W	L
SA6C	70021	$15.35	¼	¼	6	⅛	3⁄32	1 ¼
SA7C	70022	16.45	9⁄32	9⁄32	6	⅛	3⁄32	1 ¼
SA8C	70023	17.95	5⁄16	5⁄16	6	⅛	3⁄32	1 ¼
SA9C	70024	19.05	⅜	⅜	6	⅛	3⁄32	1 ¼
SA10C	70025	20.60	13⁄32	13⁄32	6	⅛	3⁄32	1 ¼
SA11C	70026	21.35	7⁄16	7⁄16	6	3⁄32	⅛	1 ¼
SA11.5C	70027	21.50	15⁄32	15⁄32	6	3⁄32	⅛	1 ¼
SA12C	70028	22.80	½	½	6	3⁄32	⅛	1 ¼

List No. 4100 - Style T - Left Hand

Use: For cut-off, forming or turning. Extra large carbide inserts. Shanks are fractionally sized to fit American and foreign tool holders. Requires finish grind on carbide. Tips are C2 carbide.

The 4 shank sides are ground to +0"/-.002"



Standard package quantity is 10.

TOOL TYPE & SIZE NO.	EDP NO.	PRICE EACH*	SHANK DIMENSION			CARBIDE DIMENSION		
			A	H	B	T	W	L
SA6T	70001	$15.35	¼	¼	6	3⁄32	⅛	1 ¼
SA7T	70002	16.45	9⁄32	9⁄32	6	3⁄32	⅛	1 ¼
SA8T	70003	17.95	5⁄16	5⁄16	6	3⁄32	3⁄16	1 ¼
SA9T	70004	19.05	⅜	⅜	6	3⁄32	3⁄16	1 ¼
SA10T	70005	20.60	13⁄32	13⁄32	6	3⁄32	3⁄16	1 ¼
SA11T	70006	21.35	7⁄16	7⁄16	6	⅛	¼	1
SA11.5T	70007	21.50	15⁄32	15⁄32	6	⅛	¼	1
SA12T	70008	22.80	½	½	6	⅛	¼	1

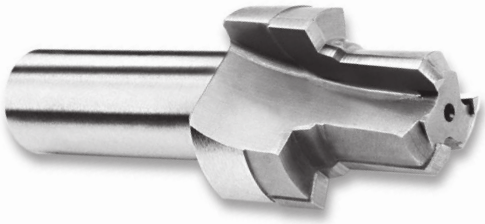
Prices subject to change.

PORT CONTOUR CUTTERS

CARBIDE TIPPED

A port contour cutter can produce the form and finish required on internal straight thread o-ring ports in a single operation. All cutters have heat treated bodies. All tolerances are within military specifications. All cutters have negative radial rake and 5° axial rake. Coatings and tool modifications are available upon request.

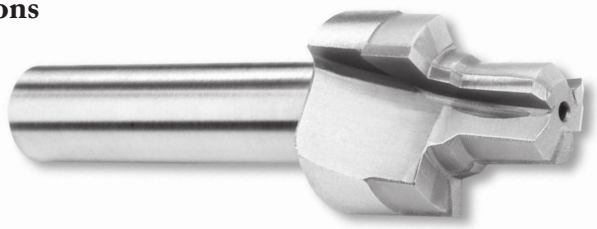
S.A.E. Ports - MS 16142 • J514F • J1926 - Straight Shank
List No. 9780 - For Non-Ferrous Materials and Cast Irons
List No. 9781 - For Steels



TUBE		DIMENSIONS									TYPE 9780 N-F/CI EDP NO.	TYPE 9781 STEEL EDP NO.	BOTH TYPES PRICE
NO.	SIZE	THREAD SIZE	DIAMETER			SEALING SEAT ANGLE	LENGTH						
			REAMER	SPOT-FACE	SHANK		SHANK	REAMER	HEAD	OVERALL			
2	⅛	5/16-24	.2720	.6820	.5000	12°	2	.4730	1 ⅛	3 ⅛	978002	978102	$332.75
3	3/16	⅜-24	.3350	.7600	.5000	12°	2	.4730	1 ¼	3 ¼	978003	978103	332.75
4	¼	7/16-20	.3890	.8380	.5000	12°	2	.5520	1 ¼	3 ¼	978004	978104	332.75
5	5/16	½-20	.4520	.9160	.5000	12°	2	.5520	1 ¼	3 ¼	978005	978105	343.25
6	⅜	9/16-18	.5090	.9790	.5000	12°	2	.6140	1 ¼	3 ¼	978006	978106	343.25
8	½	¾-16	.6890	1.1980	.7500	15°	2	.6930	1 ⅜	3 ⅜	978008	978108	375.65
10	⅝	⅞-14	.8060	1.3540	.7500	15°	2	.7860	1 ⅝	3 ⅝	978010	978110	424.85
12	¾	1 1/16-12	.9810	1.6350	.7500	15°	2 ¼	.9110	1 ⅞	4 ⅛	978012	978112	458.30
14	⅞	1 3/16-12	1.1060	1.7750	.7500	15°	2 ¼	.9110	1 ⅞	4 ⅛	978014	978114	465.70
16	1	1 5/16-12	1.2310	1.9200	.7500	15°	2 ¼	.9110	1 ⅞	4 ⅛	978016	978116	501.25
20	1 ¼	1 ⅝-12	1.5440	2.2800	1.0000	15°	2 ¼	.9110	2	4 ¼	978020	978120	552.20
24	1 ½	1 ⅞-12	1.7940	2.5700	1.0000	15°	2 ¼	.9110	2	4 ¼	978024	978124	679.10
32	2	2 ½-12	2.4190	3.4900	1.0000	15°	2 ¼	.9110	2 ¼	4 ½	978032	978132	886.90

ISO6149-1 Metric Port Without I.D. Groove - Straight Shank
List No. 9786 - For Non-Ferrous Materials and Cast Irons
List No. 9787 - For Steel

Use: See above.



THREAD SIZE	DIMENSIONS									TYPE 9786 N-F/CI EDP NO.	TYPE 9787 STEEL EDP NO.	BOTH TYPES PRICE
	DIAMETER			NO. OF FLTS.	SEALING SEAT ANGLE	LENGTH						
	REAMER	SPOT-FACE	SHANK			SHANK	REAMER	HEAD	OVERALL			
M 8X1	.2770	.6690	.5000	3	12°	2	.4530	1 ⅛	3 ⅛	9786080	9787080	$357.75
M 10X1	.3560	.7870	.5000	3	12°	2	.4530	1 ¼	3 ¼	9786100	9787100	357.75
M 12X1.5	.4150	.9060	.5000	3	15°	2	.5510	1 ¼	3 ¼	9786120	9787120	374.70
M 14X1.5	.4930	.9840	.5000	3	15°	2	.5510	1 ¼	3 ¼	9786140	9787140	374.70
M 16X1.5	.5720	1.1020	.5000	3	15°	2	.6100	1 ¼	3 ¼	9786160	9787160	412.60
M 18X1.5	.6510	1.1810	.7500	3	15°	2	.6690	1 ⅜	3 ⅜	9786180	9787180	412.60
M 20X1.5	.7300	1.2600	.7500	3	15°	2	.6890	1 ⅜	3 ⅜	9786200	9787200	428.55
M 22X1.5	.8080	1.3390	.7500	3	15°	2	.7090	1 ⅝	3 ⅝	9786220	9787220	444.40
M 27X2	.9850	1.5750	.7500	3	15°	2 ¼	.8660	1 ⅞	4 ⅛	9786270	9787270	480.40
M 33X2	1.2210	1.9290	.7500	3	15°	2 ¼	.8660	1 ⅞	4 ⅛	9786330	9787330	552.55
M 42X2	1.5760	2.3620	1.0000	3	15°	2 ¼	.8860	1 ⅞	4 ⅛	9786420	9787420	603.80
M 48X2	1.8120	2.5890	1.0000	4	15°	2 ¼	.9840	2	4 ¼	9786480	9787480	638.35
M 60X2	2.2840	2.9920	1.0000	4	15°	2 ¼	1.0830	2	4 ¼	9786600	9787600	722.05

2023
Quality Cutting Tools
Keyseats • Counterbores • End Mills • Drills • Reamers

Carbide Tipped
- Milling Cutters
- Counterbores
- Angle Cutters
- Single Points
- Slitting Saws
- Core Drills
- Dovetails
- End Mills
- Keyseats
- Reamers
- T-Slots
- Drills

Solid Carbide
- Slitting Saws
- End Mills
- Keyseats
- Reamers
- Drills

Made in the USA

No restocking charge for standard tools returned within one year
No minimum order requirement
Many coatings available
Thru-Coolant tools

Special Tools quoted by blueprint, part print or description

Super Tool, Inc.
PO Box 20849, Bradenton, FL 34204
2951 63rd Avenue East, Bradenton, FL 34203
800-237-1395 • 941-751-9677 • Fax: 941-756-6480
www.supertoolinc.com
Email: sales@supertoolinc.com

®2023 Super Tool, Inc. • All Rights Reserved • Printed in the USA