



TRI-CHEM

We've got your back.

TOOLING CATALOG





At Tri-Chem, we don't believe in being average, doing the minimum or clocking out at 5 p.m. We love challenges, giving a little extra and sticking around to make sure our products are top-notch and our customers are 100% satisfied, every time.

This catalog has all the basics and then some. Drills, Taps, Reamers, End Mills, Countersinks, Burrs, Dies, Boring Bars, Step Drills and a lot more. It also showcases some products that you can't find anywhere else but here. Our Tri Ultra Cut super premium drills are made with a special high molybdenum tool steel that is hardened to a 66 Rockwell C. The tighter specification yields a more consistent drill. Check them out on page 6. There is no better anti-fatigue matting on the planet than our Tri-Mats. Are you welding? We have a mat for that. Do you need non-slip? We have a mat for that. Do you have electro-static issues? We have a mat for that. Check them out on page 50. Concrete polishing is the latest and greatest "Green" way to protect your floors. Our Tri-Polishing Wheels are a D-I-Y system that achieves professional results. All you need is a floor scrubber. Check them out on page 262.

We say "Bring It On" when companies have a problem they think can't be solved. We're always ready to dig in, analyze the situation and design a customized solution. Tri-Chem is a corporation that gets fired up about putting its experience, expertise and know-how to work for you.



We've got the big brains to solve any of your machining and safety problems. Science counts. Experience counts. Listening to our customers counts even more. At Tri-Chem, we have combined science, experience and customer service to develop some of the industry's best tooling and safety products. Instead of patting ourselves on the back, we asked our customers to tell our story. Read on to find out what Tri-Chem Corporation is really made of.

"I have been working in a manufacturing environment for almost 20 years & have used almost every brand of cutting tools available. When I was originally contacted & listened to the pitch on how much better the Tri Ultra Cut drills would perform I was still hesitant to try them. Perhaps, due to the fact that I have listened to several vendors with similar stories in the past. The first time I personally used one of these drills I was genuinely impressed! I was using another vendor's cobalt drill first that I burned up quite easily. Not only did the Tri-Ultra Cut drill the same part without burning, but it was in such good condition I returned it to our Tool Room for future use."

Gregory - Accurate Screw Machine Co.

"I run a tooling and manufacturing company that designs, builds and maintains large stamping dies. We have been using Tri-Chem products for many years. I have been happy with the Tri-Chem coolant products that we have used. The Klear Kut coolant that I use in the cnc lathes and mills has worked extremely well. We have saved money by not having to change coolant as often with Tri-chem products. My employees are happier because they do not experience the foul smell with the Tri-Chem product like the competitors coolant. The tooling wear that we are getting with the Tri-Chem products is as good if not better than any product we have used. I have used Tri-Chem products for 20 years and have been happy with their company."

Robert - A.I. Rose Manufacturing Company

"Tri-Tuff and Tri-Duro Mats: This has turned out to be a good investment for Vermeer's, they're not the cheapest mats to buy but they are the best mats on the market that I have seen. All the employees that use them, either on the weld side or the machining side, like them. I have also used these mats by tool repair and in the maintenance department, and my guys love them."

Scott - Vermeer Corporation



TABLE OF CONTENTS

Tri Ultra Cut	6 – 39	Solid Carbide	162-163
Bandsaw Blades	40-44	Carbide Tipped	164-172
Filters	45-49	Threaded Shank Adapter	173-174
Tri-Mats	50-64	Countersinks.....	175
Carbide Burs.....	65-99	Pilot Drills.....	175
End Mills	100	Combined Drills & Countersinks	175-177
Single End	100-105	Single Flute Countersink.....	178
Double End.....	106	Three Flute Countersink	179
TIN Coated.....	107-109	Four Flute Machine Countersink.....	179
Ball End.....	110	Six Flute Chatterless Countersink	180
Chipmaster Cobalt Roughing	111	Step Drills.....	181-182
M42- Cobalt	112-113	Counterbores	183
Solid Micro-Grain Carbide.....	114-117	Solid Pilot Counterbores.....	183
Corner Rounding	118	Interchangeable Counterbores	184-185
Drill Bits	119	Interchangeable Pilots.....	186
Jobber Length.....	119-127	Machine Tool Accessories.....	187-188
Left Hand	128-132	Reamers.....	189
Screw Machine Length	133-136	Chucking Reamers	189-194
Taper Length.....	137-141	Adjustable Hand Reamers.....	195
Reduced Shank.....	142-144	Hand Reamers	195
Aircraft Extension.....	145-146	Jobber Reamers	196
Extra Length.....	147-148	Taper Pipe Reamers.....	196
Taper Shank	149-155	Taper Pin Reamers.....	197
Extra Length.....	156-159	Finishing Reamers.....	197
Oil Hole.....	160-161		

TABLE OF CONTENTS CONT.

Taps	198	Cutters.....	220
Hand Taps.....	198-200	Hole Cutters.....	220
Spiral Pointed Taps	201-202	"T" Slot Cutters	221
Spiral Fluted Taps.....	203	Dovetail Cutters	221
Metric Taps	204-205	Uni-Kut Fly Tool Cutters	221
Left Hand Taps	206	Woodruff Keyseat Cutters.....	222
+ .005 Oversized Taps	206	Single Angle Chamfering Cutter	223
Pipe Taps.....	207	Double Angle Chamfering Cutter.....	223
Pulley Taps.....	208	Boring Bars	224-229
BSPT	208	Tool Bits	230
6" Extension Taps	209	Square	230
Combined Tap & Drill Threadrill	209	Rectangular.....	230
HSS Thread Forming Chipless Tap	210	Cut-Off Blades	231
Solid Carbide Taps	210	Brazed Single Point Tools AR - TRE.....	232-236
Screw Extractors	211	Cut-Off & Grooving	237-239
Tap & Die Sets	212-213	Tool Holders	240-244
Dies.....	214	Inserts	245-258
Round Die Stock.....	214	Vinyl Colored Floor Tape	259
Hex Die Adapters.....	214	Electronic Digital Caliper	260
Round Adjustable Split Dies	215-217	Twist Off Socket Set	261
Hexagon Rethreading Dies.....	218-219	Polishing System	262
		Other Popular Products	263

SUPER PREMIUM CUTTING TOOLS



- ▶ **Twist Drills**
- ▶ **Taps**
- ▶ **Reamers**
- ▶ **Core Drills**
- ▶ **Dies**
- ▶ **Countersinks**

Welcome to the world of Tri Ultra Cut super premium twist drills.

These heavy duty drills are recommended for use in work hardening grades of stainless steel and other tough metal drilling applications.

- *Substantially longer cutting life* – The nitro-carburized flute has an increased Rockwell hardness (up to 66 Rockwell Hardness).
- *Cuts harder materials* – The flatter point takes a smaller chip. More torque is directed to a smaller area. This allows drilling into materials with hardness of over 30 on the Rockwell “C” scale.
- *Stops drill walking* – The split point design gives accurate starting without the use of a center punch.
- *Holds tighter hole size* – The split point design is self centering. This limits the normal oversize drilling characteristics.
- *Outstanding quality appearance* – The rich amber gold color sets it apart from the commodity cutting tools.
- *Runs cooler, uses less torque* – 135° point takes a smaller chip in less heat. Friction is reduced by amber gold surface treatment.

TRI ULTRA CUT VS. COBALT

The Tri Ultra Cut drills will substantially outperform cobalt drills in work hardening stainless steel applications.

Tri Ultra Cut drills are made of special hi-moly tool steel, which is much tougher than cobalt steel. The web on a Tri Ultra Cut drill can be thinned considerably due to the toughness of this steel.

A Tri Ultra Cut drill, with its thin web, will penetrate the work hardening stainless fast enough to continually cut beneath the chip which is hardening from deformation. This means the drill is cutting softer steel.

We begin the manufacturing process of TRI ULTRA CUT Super Premium drills with a special **high molybdenum tool steel** and harden the steel to a range of 66 to 69 Rockwell C. This tighter specification yields a **more consistent drill** with a **higher average hardness** and therefore more **resistance to wear**.

In the process of transforming this hardened hi-moly blank into a finished TRI ULTRA CUT Super Premium drill there is a series of grinding operations. The first major step is grinding of the flutes. We hold to **½ of industry standard tolerances** when grinding flutes. For example: If standard tolerances are $\pm .002$, we hold $\pm .001$.

Tighter tolerances for flutes mean **more accuracy** and **consistency** in subsequent grinding operations, such as clearance grinding, pointing and split pointing. These three operations all use locating pins to sense the side of the flute. This determines where the machines begin their grinding process and this increased accuracy in flute width translates directly into **more accurate** and **consistent** clearance, points, and splits. The major beneficiary of these tighter

tolerances is the user, who will see **more consistency** from drill to drill.

The flute has a very thin case of **nitro-carburized surface** to provide **extra wear resistance** along the cutting edge of the point. A full nitro-carburized treatment would result in added brittleness, which is not desirable in maintenance applications and other hand held drill uses.

The split point is the final grinding process and it is very important in that it provides the drill with **self-centering/ non-walking** characteristics. The split also **reduces** the **thrust required** to penetrate a work piece.

The last manufacturing step is a low temperature **stress relieving** process which imparts a straw **gold** color to the drills and **improves lubricity**.

The TRI ULTRA CUT ½ shank S & D drill, has a unique radial split, which follows the shape of the flute. This split allows us to **increase the angle** of the split and provide **greater chip clearance** without grinding away large portions of the heel of the point

TRI ULTRA CUT

as we would with a conventional split. Large diameter drills are used with **increased feed rates** which require more **torsional stiffness** and **greater chip clearance**. The standard or conventional split with an angle greater than 50 would weaken the point due to the large amount of steel removed from the heel of the point. The radial split allows the performance advantage of greater chip clearance without a decrease in **torsional stiffness**.

Our mechanics length drills as well as our S & D drills have **3 flats on the shank**. These flats allow for a **strong positive chuck grip** of the shank and **virtually eliminate** the potential for the drill to **slip in the chuck**, even if all 3 jaws have not been tightened securely. Flats are a very strong feature for maintenance and associated **hand drilling** applications.

The TRI ULTRA CUT is an **effective replacement** for **cobalt drills** in work hardening stainless applications. The key to TRI ULTRA CUT performance success **against cobalt** is the difference in the **point and web construction**. The cobalt drill

has a very thick web at the point. The TRI ULTRA CUT web is about $\frac{1}{2}$ the cobalt web thickness. The thicker the web of the drills, the greater the thrust required to cut a given type of metal. The cobalt drill, with its **thick web**, requires substantially **more feed force** to cut than the TRI ULTRA CUT drill.

In work hardening steels such as 304, 306 and 316 stainless, the **cobalt drill cannot penetrate fast** enough to cut the chip before the chip hardens. The result is that the cobalt drill continually drills into semi-hardened material. The TRI ULTRA CUT drill with its **thin web** can be **fed faster** and cuts beneath the chip before it hardens. The TRI ULTRA CUT drill will be cutting softer material and have a **longer life** than the cobalt drill. **It is recommended that the feed rate be increased 30%** when switching from cobalt to TRI ULTRA CUT drills in work hardening applications. This switch also requires that **RPMs be reduced 30%** for TRI ULTRA CUT drills.

JOBBER LENGTH DRILLS



Special Hi-Molybdenum tool steel. 135° split point for fast penetration and accurate starting without a center punch. Precision ground point, flutes, body, clearance and drill diameter for the ultimate in accuracy and performance. Body and clearance are gold surface treated for maximum lubricity. Drills are heat treated at 2185° F and then nitro-carburize finished at 950°F to be measurably harder than high-speed steel. Space age nitro-carburized steel withstands substantially higher drilling temperatures while maintaining sharpness. Recommended for use in work hardening grades of stainless steel and other hard metal drilling applications. Sizes smaller than #52 have non-split points.

FRACTIONAL 1/16 - 9/32 12/pack 19/64 - 1/2 6/pack 33/64 - 3/4 1/pack

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
805580	1/16	1-7/8	7/8
805590	5/64	2	1
805600	3/32	2-1/4	1-1/4
805610	7/64	2-5/8	1-1/2
805620	1/8	2-3/4	1-5/8
805630	9/64	2-7/8	1-3/4
805640	5/32	3-1/8	2
805650	11/64	3-1/4	2-1/8
805660	3/16	3-1/2	2-5/16
805670	13/64	3-5/8	2-7/16
805680	7/32	3-3/4	2-1/2
805690	15/64	3-7/8	2-5/8
805700	1/4	4	2-3/4
805710	17/64	4-1/8	2-7/8
805720	9/32	4-1/4	2-15/16
805730	19/64	4-3/8	3-1/16
805740	5/16	4-1/2	3-3/16
805750	21/64	4-5/8	3-5/16
805760	11/32	4-3/4	3-7/16
805770	23/64	4-7/8	3-1/2
805780	3/8	5	3-5/8
805790	25/64	5-1/8	3-3/4
805800	13/32	5-1/4	3-7/8

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
805810	27/64	5-3/8	3-15/16
805820	7/16	5-1/2	4-1/16
805830	29/64	5-5/8	4-3/16
805840	15/32	5-3/4	4-5/16
805850	31/64	5-7/8	4-3/8
805860	1/2	6	4-1/2
822210	33/64	6-5/8	4-13/16
822220	17/32	6-5/8	4-13/16
822230	35/64	6-5/8	4-13/16
822240	9/16	6-5/8	4-13/16
822250	37/64	6-5/8	4-13/16
822260	19/32	7-1/8	5-3/16
822270	39/64	7-1/8	5-3/16
822280	5/8	7-1/8	5-3/16
822290	41/64	7-1/8	5-3/16
822300	21/32	7-1/8	5-3/16
822310	43/64	7-3/8	5-5/8
822320	11/16	7-3/8	5-5/8
822330	45/64	7-3/8	5-5/8
822340	23/32	7-3/8	5-5/8
822350	47/64	7-3/8	5-5/8
822360	3/4	7-3/8	5-5/8

LETTER A-L 12/pack M-Z 6/pack

EDP #	Letter Size	Overall Length (Inches)	Flute Length (Inches)
839460	A	3-7/8	2-5/8
839470	B	4	2-3/4
839480	C	4	2-3/4
839490	D	4	2-3/4
839500	E	4	2-3/4
839510	F	4-1/8	2-7/8
839520	G	4-1/8	2-7/8
839530	H	4-1/8	2-7/8
839540	I	4-1/8	2-7/8
839550	J	4-1/8	2-7/8
839560	K	4-1/4	2-15/16
839570	L	4-1/4	2-15/16
839580	M	4-3/8	3-1/16

EDP #	Letter Size	Overall Length (Inches)	Flute Length (Inches)
839590	N	4-3/8	3-1/16
839600	O	4-1/2	3-3/16
839610	P	4-5/8	3-5/16
839620	Q	4-3/4	3-7/16
839630	R	4-3/4	3-7/16
839640	S	4-7/8	3-1/2
839650	T	4-7/8	3-1/2
839660	U	5	3-5/8
839670	V	5	3-5/8
839680	W	5-1/8	3-3/4
839690	X	5-1/8	3-3/4
839700	Y	5-1/4	3-7/8
839710	Z	5-1/4	3-7/8

JOBBER LENGTH DRILLS

WIRE 1-60 12/pack

EDP #	Wire Gauge	Overall Length (Inches)	Flute Length (Inches)
838940	1	3-7/8	2-5/8
838950	2	3-7/8	2-5/8
838960	3	3-3/4	2-1/2
838970	4	3-3/4	2-1/2
838980	5	3-3/4	2-1/2
838990	6	3-3/4	2-1/2
839000	7	3-5/8	2-7/16
839010	8	3-5/8	2-7/16
839020	9	3-5/8	2-7/16
839030	10	3-5/8	2-7/16
839040	11	3-1/2	2-5/16
839050	12	3-1/2	2-5/16
839060	13	3-1/2	2-5/16
839070	14	3-3/8	2-3/16
839080	15	3-3/8	2-3/16
839090	16	3-3/8	2-3/16
839100	17	3-3/8	2-3/16
839110	18	3-1/4	2-1/8
839120	19	3-1/4	2-1/8
839130	20	3-1/4	2-1/8
839140	21	3-1/4	2-1/8
839150	22	3-1/8	2
839160	23	3-1/8	2
839170	24	3-1/8	2
839180	25	3	1-7/8
839190	26	3	1-7/8
839200	27	3	1-7/8
839210	28	2-7/8	1-3/4
839220	29	2-7/8	1-3/4
839230	30	2-3/4	1-5/8

EDP #	Wire Gauge	Overall Length (Inches)	Flute Length (Inches)
892310	31	2-3/4	1-5/8
892300	32	2-3/4	1-5/8
892290	33	2-5/8	1-1/2
892280	34	2-5/8	1-1/2
892270	35	2-5/8	1-1/2
892260	36	2-1/2	1-7/16
892250	37	2-1/2	1-7/16
892240	38	2-1/2	1-7/16
892230	39	2-3/8	1-3/8
892220	40	2-3/8	1-3/8
888420	41	2-3/8	1-3/8
888410	42	2-1/4	1-1/4
888400	43	2-1/4	1-1/4
888390	44	2-1/8	1-1/8
888380	45	2-1/8	1-1/8
888370	46	2-1/8	1-1/8
888360	47	2	1
888350	48	2	1
888340	49	2	1
888330	50	2	1
888320	51	2	1
888310	52	1-7/8	7/8
888300	53	1-7/8	7/8
888290	54	1-7/8	7/8
888280	55	1-7/8	7/8
888270	56	1-3/4	3/4
888260	57	1-3/4	3/4
888250	58	1-5/8	11/16
888240	59	1-5/8	11/16
888230	60	1-5/8	11/16

SETS

EDP #	Set #	Contents
844110	SP-13	1/16-1/4x64ths
844120	SP-15	1-16-1/2x32nds
844130	SP-21	1/16-3/8x64ths
892170	SP-21R	1/16-1/4x64ths 9/32-1/2x32nds 3/8shk
888660	SP-26	A-Z

EDP #	Set #	Contents
844150	SP-29	1/16-1/2x64ths
888640	SP-60	1-60
893840	SP-115	1/16-1/2x64ths
806510	TRI-1SP	A-Z & 1-60 1/16-1/4x64ths

JOBBER LENGTH DRILLS

METRIC



Special Hi-Molybdenum tool steel. 135° split point, for fast penetration and accurate starting without a center punch. Precision ground point, flutes, body, clearance and drill diameter for the ultimate in accuracy and performance. Body and clearance are gold surface treated for maximum lubricity. Drills are heat treated at 2185° F and then nitro-carburize finished at 950°F to be measurably harder than high-speed steel. Space age nitro-carburized steel withstands substantially higher drilling temperatures while maintaining sharpness. Recommended for use in work hardening grades of stainless steel and other hard metal drilling applications. Sizes smaller than 1.6mm have non-split points.

.70-7.40 10/P ACK

7.50-13.00 5/PACK

EDP #	Diameter (MM)	Overall Length (MM) Inch	Flute Length (MM) Inch
848760	0.70	32 1-1/4	10 25/64
848780	0.80	35 1-3/8	13 1/2
848790	0.85	38 1-1/2	16 5/8
848800	0.90	38 1-1/2	16 5/8
849990	0.95	38 1-1/2	16 5/8
848690	0.98	38 1-1/2	16 5/8
848820	1.00	41 1-5/8	17 11/16
848750	1.05	41 1-5/8	17 11/16
848840	1.10	44 1-3/4	19 3/4
848850	1.15	44 1-3/4	19 3/4
823270	1.18	44 1-3/4	19 3/4
848860	1.20	48 1-7/8	22 7/8
848870	1.25	48 1-7/8	22 7/8
848880	1.30	48 1-7/8	22 7/8
848890	1.35	48 1-7/8	22 7/8
848900	1.40	48 1-7/8	22 7/8
848910	1.45	48 1-7/8	22 7/8
848920	1.50	48 1-7/8	22 7/8
848930	1.55	48 1-7/8	22 7/8
848940	1.60	48 1-7/8	22 7/8
848950	1.65	51 2	25 1
848960	1.70	51 2	25 1
848970	1.75	51 2	25 1
848980	1.80	51 2	25 1
849000	1.90	51 2	25 1
849020	2.00	51 2	25 1
849030	2.05	54 2-1/8	29 1-5/32
849040	2.10	54 2-1/8	29 1-5/32
849060	2.20	57 2-1/4	32 1-1/4
849080	2.30	57 2-1/4	32 1-1/4
849100	2.40	60 2-23/64	35 1-3/8
849120	2.50	60 2-23/64	35 1-3/8
849130	2.60	64 2-1/2	37 1-29/64
849140	2.70	64 2-1/2	37 1-15/32
849150	2.80	67 2-5/8	38 1-1/2
849160	2.90	70 2-3/4	41 1-5/8
849170	3.00	70 2-3/4	41 1-5/8
849180	3.10	70 2-3/4	41 1-5/8
849190	3.20	70 2-3/4	41 1-5/8
849200	3.30	73 2-7/8	45 1-3/4
849210	3.40	73 2-7/8	45 1-3/4
849220	3.50	73 2-7/8	45 1-3/4
849230	3.60	76 3	48 1-7/8
849240	3.70	76 3	48 1-7/8
849250	3.80	76 3	48 1-7/8
849260	3.90	79 3-1/8	51 2
849270	4.00	83 3-1/4	54 2-1/8

EDP #	Diameter (MM)	Overall Length (MM) Inch	Flute Length (MM) Inch
849280	4.10	83 3-1/4	54 2-1/8
849290	4.20	83 3-1/4	54 2-1/8
849300	4.30	83 3-1/4	54 2-1/8
849310	4.40	86 3-3/8	56 2-13/64
849320	4.50	86 3-3/8	56 2-13/64
849330	4.60	86 3-3/8	56 2-13/64
849340	4.70	89 3-1/2	59 2-21/64
849350	4.80	89 3-1/2	59 2-21/64
849360	4.90	92 3-5/8	62 2-7/16
849370	5.00	92 3-5/8	62 2-7/16
849380	5.10	92 3-5/8	62 2-7/16
849390	5.20	95 3-3/4	64 2-1/2
849400	5.30	95 3-3/4	64 2-1/2
849410	5.40	95 3-3/4	64 2-1/2
849420	5.50	95 3-3/4	64 2-1/2
849430	5.60	98 3-7/8	67 2-5/8
849440	5.70	98 3-7/8	67 2-5/8
849450	5.80	98 3-7/8	67 2-5/8
849460	5.90	98 3-7/8	67 2-5/8
849470	6.00	102 4	70 2-3/4
849480	6.10	102 4	70 2-3/4
849490	6.20	102 4	70 2-3/4
849500	6.30	102 4	70 2-3/4
849510	6.40	105 4-1/8	73 2-7/8
849520	6.50	105 4-1/8	73 2-7/8
849530	6.60	105 4-1/8	73 2-7/8
849540	6.70	105 4-1/8	73 2-7/8
849550	6.80	105 4-1/8	73 2-7/8
849560	6.90	105 4-1/8	73 2-7/8
849570	7.00	105 4-1/8	73 2-7/8
849580	7.10	108 4-1/4	75 2-61/64
849590	7.20	108 4-1/4	75 2-61/64
849600	7.30	108 4-1/4	75 2-61/64
849610	7.40	111 4-3/8	78 3
849620	7.50	111 4-3/8	78 3
849630	7.60	111 4-3/8	78 3
849640	7.70	114 4-1/2	81 3-3/16
849650	7.80	114 4-1/2	81 3-3/16
849660	7.90	114 4-1/2	81 3-3/16
849670	8.00	114 4-1/2	81 3-3/16
849680	8.10	117 4-9/16	84 3-5/16
849690	8.20	117 4-9/16	84 3-5/16
849700	8.30	117 4-9/16	84 3-5/16
849710	8.40	121 4-3/4	87 3-27/64
849720	8.50	121 4-3/4	87 3-27/64
849730	8.60	121 4-3/4	87 3-27/64
849740	8.70	121 4-3/4	87 3-27/64

JOBBER LENGTH DRILLS

EDP #	Diameter (MM)	Overall Length (MM) Inch	Flute Length (MM) Inch
849750	8.80	124 4-7/8	89 3-1/2
849760	8.90	124 4-7/8	89 3-1/2
849770	9.00	124 4-7/8	89 3-1/2
849780	9.10	124 4-7/8	89 3-1/2
849790	9.20	127 5	92 3-5/8
849800	9.30	127 5	92 3-5/8
849810	9.40	127 5	92 3-5/8
849820	9.50	127 5	92 3-5/8
849830	9.60	130 5-1/8	95 3-3/4
849840	9.70	130 5-1/8	95 3-3/4
849850	9.80	130 5-1/8	95 3-3/4
849860	9.90	130 5-1/8	95 3-3/4
849870	10.00	130 5-1/8	95 3-3/4
812450	10.10	130 5-1/8	95 3-3/4
849880	10.20	133 5-1/4	98 3-5/8
812510	10.30	133 5-1/4	98 3-5/8
850220	10.40	133 5-1/4	98 3-5/8
849890	10.50	133 5-1/4	98 3-5/8
812460	10.60	133 5-1/4	98 3-5/8
850230	10.70	133 5-1/4	98 3-5/8
849900	10.80	140 5-1/2	103 4-1/16

EDP #	Diameter (MM)	Overall Length (MM) Inch	Flute Length (MM) Inch
812470	10.90	140 5-1/2	103 4-1/16
849910	11.00	140 5-1/2	103 4-1/16
812480	11.10	140 5-1/2	103 4-1/16
849920	11.20	143 5-5/8	106 4-7/32
812490	11.40	143 5-5/8	106 4-7/32
849930	11.50	143 5-5/8	106 4-7/32
812500	11.60	143 5-5/8	106 4-7/32
850250	11.70	146 5-3/4	110 4-11/32
849940	11.80	146 5-3/4	110 4-11/32
812520	11.90	146 5-3/4	110 4-11/32
849950	12.00	149 5-7/8	111 4-3/8
812530	12.10	149 5-7/8	111 4-3/8
849960	12.20	149 5-7/8	111 4-3/8
850260	12.30	149 5-7/8	111 4-3/8
812540	12.40	149 5-7/8	111 4-3/8
849970	12.50	152 6	114 4-1/2
812550	12.60	152 6	114 4-1/2
812570	12.70	152 6	114 4-1/2
850270	12.80	152 6	114 4-1/2
812560	12.90	152 6	114 4-1/2
849980	13.00	152 6	114 4-1/2

SETS

EDP #	Set #	Contents
858650	SP-11M	1.0m-6.0mmx0.5mm
858920	SP-19M	1.0mm-10.0mmx0.5mm
858660	SP-25M	1.0mm-13.0mmx0.5mm

JOBBER LENGTH DRILLS

TYPE XGT-J



Gold surface treated for maximum lubricity. Heavy-duty construction, 135° split point, no center punch needed -- will not walk. Gyroidal Torsion flute and land construction yields exceptional performance in deep hole drilling applications. Recommended for a wide range of steels, castings and other hard metal drilling applications. The cobalt steel is very abrasion and heat resistant. These drills will drill 15 diameters deep or more without drill removal to clear chips. Feed rates may be twice that of standard flute drills.

1.00-7.40 10/PACK 7.50-13.00 5/PACK

EDP #	MM	Frac/ Wire/ Letter	Overall Length (MM) Inch	Flute Length (MM) Inch
800200	1.00		41 1-5/8	17 11/16
800201	1.02	60	41 1-5/8	17 11/16
800202	1.04	59	41 1-5/8	17 11/16
800203	1.05		41 1-5/8	17 11/16
800204	1.07	58	41 1-5/8	17 11/16
800210	1.09	57	44 1-3/4	19 3/4
800211	1.10		44 1-3/4	19 3/4
800212	1.15		44 1-3/4	19 3/4
800213	1.18	56	44 1-3/4	19 3/4
800214	1.19	3/64	44 1-3/4	19 3/4
800220	1.20		48 1-7/8	22 7/8
800221	1.25		48 1-7/8	22 7/8
800222	1.30		48 1-7/8	22 7/8
800223	1.32	55	48 1-7/8	22 7/8
800224	1.35		48 1-7/8	22 7/8
800230	1.40	54	48 1-7/8	22 7/8
800232	1.45		48 1-7/8	22 7/8
800233	1.50		48 1-7/8	22 7/8
800234	1.51	53	48 1-7/8	22 7/8
800240	1.55		48 1-7/8	22 7/8
800241	1.59	1/16	48 1-7/8	22 7/8
800242	1.60		48 1-7/8	22 7/8
800243	1.61	52	48 1-7/8	22 7/8
800244	1.65		51 2	25 1
800250	1.70	51	51 2	25 1
800252	1.75		51 2	25 1
800253	1.78	50	51 2	25 1
800254	1.80		51 2	25 1
800260	1.85	49	51 2	25 1
800262	1.90		51 2	25 1
800263	1.93	48	51 2	25 1
800264	1.95		51 2	25 1
800270	1.98	5/64	51 2	25 1
800271	1.99	47	51 2	25 1
800272	2.00		51 2	25 1
800273	2.05		54 2-1/8	29 1-5/32
800274	2.06	46	54 2-1/8	29 1-5/32
800280	2.08	45	54 2-1/8	29 1-5/32
800281	2.10		54 2-1/8	29 1-5/32
800282	2.15		54 2-1/8	29 1-5/32
800283	2.18	44	54 2-1/8	29 1-5/32
800284	2.20		57 2-1/4	32 1-1/4
800290	2.25		57 2-1/4	32 1-1/4
800291	2.26	43	57 2-1/4	32 1-1/4
800292	2.30		57 2-1/4	32 1-1/4
800293	2.35		57 2-1/4	32 1-1/4
800294	2.37	42	57 2-1/4	30 1-3/16

EDP #	MM	Frac/ Wire/ Letter	Overall Length (MM) Inch	Flute Length (MM) Inch
800300	2.38	3/32	57 2-1/4	30 1-3/16
800301	2.40		57 2-1/4	30 1-3/16
800302	2.44	41	57 2-1/4	30 1-3/16
800303	2.45		57 2-1/4	30 1-3/16
800304	2.49	40	57 2-1/4	30 1-3/16
800310	2.50		57 2-1/4	30 1-3/16
800311	2.53	39	57 2-1/4	30 1-3/16
800321	2.55		57 2-1/4	30 1-3/16
800312	2.58	38	57 2-1/4	30 1-3/16
800313	2.60		57 2-1/4	30 1-3/16
800314	2.64	37	57 2-1/4	30 1-3/16
800251	2.65		57 2-1/4	30 1-3/16
800320	2.70		61 2-13/32	33 1-19/64
800321	2.71	36	61 2-13/32	33 1-19/64
800261	2.75		61 2-13/32	33 1-19/64
800322	2.78	7/64	61 2-13/32	33 1-19/64
800323	2.79	35	61 2-13/32	33 1-19/64
800324	2.80		61 2-13/32	33 1-19/64
800330	2.82	34	61 2-13/32	33 1-19/64
800360	2.85		61 2-13/32	33 1-19/64
800331	2.87	33	61 2-13/32	33 1-19/64
800332	2.90		61 2-13/32	33 1-19/64
800333	2.95	32	61 2-13/32	33 1-19/64
800334	3.00		61 2-13/32	33 1-19/64
800340	3.05	31	65 2-9/16	36 1-7/16
800341	3.10		65 2-9/16	36 1-7/16
800342	3.17	1/8	65 2-9/16	36 1-7/16
800343	3.20		65 2-9/16	36 1-7/16
800371	3.25		65 2-9/16	36 1-7/16
800344	3.26	30	65 2-9/16	36 1-7/16
800350	3.30		65 2-9/16	36 1-7/16
800351	3.40		70 2-3/4	39 1-17/32
800352	3.45	29	70 2-3/4	39 1-17/32
800353	3.50		70 2-3/4	39 1-17/32
800354	3.57	9/64-28	70 2-3/4	39 1-17/32
800361	3.60		70 2-3/4	39 1-17/32
800362	3.66	27	70 2-3/4	39 1-17/32
800363	3.70		70 2-3/4	39 1-17/32
800364	3.73	26	70 2-3/4	39 1-17/32
800370	3.80	25	75 2-15/16	43 1-11/16
800372	3.86	24	75 2-15/16	43 1-11/16
800373	3.90		75 2-15/16	43 1-11/16
800374	3.91	23	75 2-15/16	43 1-11/16
800380	3.97	5/32	75 2-15/16	43 1-11/16
800381	3.99	22	75 2-15/16	43 1-11/16
800382	4.00		75 2-15/16	43 1-11/16
800383	4.04	21	75 2-15/16	43 1-11/16

JOBBER LENGTH DRILLS

TYPE XGT-J CONT.

EDP #	MM	Frac/ Wire/ Letter	Overall Length (MM) Inch	Flute Length (MM) Inch
800384	4.09	20	75 2-15/16	43 1-11/16
800390	4.10		75 2-15/16	43 1-11/16
800391	4.15		75 2-15/16	43 1-11/16
800392	4.20		75 2-15/16	43 1-11/16
800393	4.22	19	75 2-15/16	43 1-11/16
800480	4.25		75 2-15/16	43 1-11/16
800394	4.30		80 3-5/32	47 1-27/32
800680	4.31	18	80 3-5/32	47 1-27/32
800400	4.37	11/64	80 3-5/32	47 1-27/32
800401	4.39	17	80 3-5/32	47 1-27/32
800402	4.40		80 3-5/32	47 1-27/32
800403	4.50	16	80 3-5/32	47 1-27/32
800404	4.55		80 3-5/32	47 1-27/32
800410	4.57	15	80 3-5/32	47 1-27/32
800411	4.60		80 3-5/32	47 1-27/32
800412	4.62	14	80 3-5/32	47 1-27/32
800413	4.70	13	80 3-5/32	47 1-27/32
800414	4.75		80 3-5/32	47 1-27/32
800420	4.76	3/16	86 3-3/8	52 2-1/16
800421	4.80	12	86 3-3/8	52 2-1/16
800423	4.85	11	86 3-3/8	52 2-1/16
800424	4.90		86 3-3/8	52 2-1/16
800430	4.91	10	86 3-3/8	52 2-1/16
800431	4.98	9	86 3-3/8	52 2-1/16
800432	5.00		86 3-3/8	52 2-1/16
800433	5.05	8	86 3-3/8	52 2-1/16
800434	5.10		86 3-3/8	52 2-1/16
800440	5.11	7	86 3-3/8	52 2-1/16
800441	5.16	13/64	86 3-3/8	52 2-1/16
800442	5.18	6	86 3-3/8	52 2-1/16
800443	5.20		86 3-3/8	52 2-1/16
800444	5.22	5	86 3-3/8	52 2-1/16
800481	5.25		86 3-3/8	52 2-1/16
800450	5.30		93 3-21/32	57 2-7/32
800451	5.31	4	93 3-21/32	57 2-7/32
800452	5.40		93 3-21/32	57 2-7/32
800453	5.41	3	93 3-21/32	57 2-7/32
800454	5.50		93 3-21/32	57 2-7/32
800460	5.56	7/32	93 3-21/32	57 2-7/32
800461	5.60		93 3-21/32	57 2-7/32
800462	5.61	2	93 3-21/32	57 2-7/32
800463	5.70		93 3-21/32	57 2-7/32
800482	5.75		93 3-21/32	57 2-7/32
800464	5.79	1	93 3-21/32	57 2-7/32
800470	5.80		93 3-21/32	57 2-7/32
800471	5.90		93 3-21/32	57 2-7/32
800472	5.94	A	93 3-21/32	57 2-7/32
800473	5.95	15/64	93 3-21/32	57 2-7/32
800474	6.00		93 3-21/32	57 2-7/32
800483	6.05	B	101 3-31/32	63 2-15/32
800484	6.10		101 3-31/32	63 2-15/32
800490	6.15	C	101 3-31/32	63 2-15/32
800491	6.20		101 3-31/32	63 2-15/32
800492	6.25	D	101 3-31/32	63 2-15/32
800493	6.30		101 3-31/32	63 2-15/32

EDP #	MM	Frac/ Wire/ Letter	Overall Length (MM) Inch	Flute Length (MM) Inch
800494	6.35	1/4-E	101 3-31/32	63 2-15/32
800500	6.40		101 3-31/32	63 2-15/32
800501	6.50		101 3-31/32	63 2-15/32
800502	6.53	F	101 3-31/32	63 2-15/32
800503	6.60		101 3-31/32	63 2-15/32
800504	6.63	G	101 3-31/32	63 2-15/32
800510	6.70		101 3-31/32	63 2-15/32
800511	6.75	17/64H	109 4-9/32	69 2-23/32
800513	6.80		109 4-9/32	69 2-23/32
800514	6.90	I	109 4-9/32	69 2-23/32
800520	7.00		109 4-9/32	69 2-23/32
800521	7.04	J	109 4-9/32	69 2-23/32
800522	7.10		109 4-9/32	69 2-23/32
800524	7.14	9/32-K	109 4-9/32	69 2-23/32
800530	7.20		109 4-9/32	69 2-23/32
800531	7.30		109 4-9/32	69 2-23/32
800532	7.37	L	109 4-9/32	69 2-23/32
800533	7.40		109 4-9/32	69 2-23/32
800540	7.50	M	109 4-9/32	69 2-23/32
800541	7.54	19/64	117 4-19/32	75 2-15/16
800542	7.60		117 4-19/32	75 2-15/16
800543	7.67	N	117 4-19/32	75 2-15/16
800544	7.70		117 4-19/32	75 2-15/16
800550	7.80		117 4-19/32	75 2-15/16
800551	7.90		117 4-19/32	75 2-15/16
800552	7.94	5/16	117 4-19/32	75 2-15/16
800553	8.00	O	117 4-19/32	75 2-15/16
800554	8.03		117 4-19/32	75 2-15/16
800560	8.10	P	117 4-19/32	75 2-15/16
800561	8.20		117 4-19/32	75 2-15/16
800562	8.30	21/64	117 4-19/32	75 2-15/16
800563	8.33		117 4-19/32	75 2-15/16
800564	8.40		117 4-19/32	75 2-15/16
800570	8.43	Q	117 4-19/32	75 2-15/16
800571	8.50		117 4-19/32	75 2-15/16
800572	8.60	R	125 4-29/32	81 3-3/16
800573	8.70		125 4-29/32	81 3-3/16
800574	8.73	11/32	125 4-29/32	81 3-3/16
800580	8.80		125 4-29/32	81 3-3/16
800581	8.84	S	125 4-29/32	81 3-3/16
800582	8.90		125 4-29/32	81 3-3/16
800583	9.00		125 4-29/32	81 3-3/16
800584	9.10	T	125 4-29/32	81 3-3/16
800590	9.13	23/64	125 4-29/32	81 3-3/16
800591	9.20		125 4-29/32	81 3-3/16
800592	9.30		125 4-29/32	81 3-3/16
800593	9.35	U	125 4-29/32	81 3-3/16
800594	9.40		125 4-29/32	81 3-3/16
800600	9.50		125 4-29/32	81 3-3/16
800601	9.52	3/8	133 5-1/4	87 3-7/16
800602	9.58	V	133 5-1/4	87 3-7/16
800603	9.60		133 5-1/4	87 3-7/16
800604	9.70		133 5-1/4	87 3-7/16
800610	9.80	W	133 5-1/4	87 3-7/16
800611	9.90		133 5-1/4	87 3-7/16

JOBBER LENGTH DRILLS

TYPE XGT-J CONT.

EDP#	MM	Frac/ Wire/ Letter	Overall Length (MM) Inch	Flute Length (MM) Inch
800612	9.92	25/64	133 5-1/4	87 3-7/16
800613	10.00		133 5-1/4	87 3-7/16
800614	10.08	X	133 5-1/4	87 3-7/16
800620	10.10		133 5-1/4	87 3-7/16
800621	10.20		133 5-1/4	87 3-7/16
800622	10.26	Y	133 5-1/4	87 3-7/16
800623	10.30		133 5-1/4	87 3-7/16
800624	10.32	13/32	133 5-1/4	87 3-7/16
800630	10.40		133 5-1/4	87 3-7/16
800631	10.50	Z	133 5-1/4	87 3-7/16
800632	10.60		133 5-1/4	87 3-7/16
800633	10.70		142 5-19/32	94 3-11/16
800634	10.72	27/64	142 5-19/32	94 3-11/16
800640	10.80		142 5-19/32	94 3-11/16
800641	10.90		142 5-19/32	94 3-11/16
800642	11.00		142 5-19/32	94 3-11/16
800643	11.10		142 5-19/32	94 3-11/16
800644	11.11	7/16	142 5-19/32	94 3-11/16
800650	11.20		142 5-19/32	94 3-11/16
800651	11.30		142 5-19/32	94 3-11/16
800652	11.40		142 5-19/32	94 3-11/16
800653	11.50		142 5-19/32	94 3-11/16

EDP #	MM	Frac/ Wire/ Letter	Overall Length (MM) Inch	Flute Length (MM) Inch
800654	11.51	29/64	142 5-19/32	94 3-11/16
800660	11.60		142 5-19/32	94 3-11/16
800661	11.70		142 5-19/32	94 3-11/16
800662	11.75		142 5-19/32	94 3-11/16
800663	11.80		142 5-19/32	94 3-11/16
800664	11.91	15/32	151 5-15/16	101 3-31/32
800670	12.00		151 5-15/16	101 3-31/32
800671	12.30	31/64	151 5-15/16	101 3-31/32
800672	12.50		151 5-15/16	101 3-31/32
800673	12.70	1/2	151 5-15/16	101 3-31/32
800674	13.00		151 5-15/16	101 3-31/32

Sizes 1.5mm and smaller are high speed steel with TiN coating. Points are 135° non-split. Sizes 2.35mm and smaller are manufactured to U.S specifications. Sizes 2.36 mm and larger are manufactured to DIN 338 specifications. All sizes are stock items.

JOBBER LENGTH DRILLS

LEFT HAND SPIRAL



- Special Hi-Molybdenum tool steel.
- 135° split point for fast penetration and accurate starting without center punch.
- Precision ground point, flutes, body, clearance and drill diameter for the ultimate in accuracy and performance.
- Body and clearance are gold surface treated for maximum lubricity.
- Ideal for drilling broken studs.
- Need for screw and bolt extractor may be eliminated.
- Left hand spiral drill may loosen and bolt stud while drilling a hole for use of the screw and bolt extractor.

EDP#	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)	Standard Package
892430	1/16	1-7/8	7/8	6
823150	5/64	2	1	6
889290	3/32	2-1/4	1-1/4	6
823160	7/64	2-5/8	1-1/2	6
892440	1/8	2-3/4	1-5/8	6
892441	9/64	2-7/8	1-3/4	6
823170	5/32	3-1/8	2	6
892442	11/64	3-1/4	2-1/8	6
892450	3/16	3-1/2	2-5/16	6
892443	13/64	3-5/8	2-7/16	6
892444	7/32	3-3/4	2-1/2	6
892451	15/64	3-7/8	2-5/8	6
892460	1/4	4	2-3/4	6
892452	17/64	4-1/8	2-7/8	6
892453	9/32	4-1/4	2-15/16	6
823180	19/64	4-3/8	3-1/16	3
892470	5/16	4-1/2	3-3/16	3
892480	3/8	5	3-5/8	3
892490	7/16	5-1/2	4-1/16	3
892500	1/2	6	4-1/2	3
EDP#	SETS			
887650	LF-8	8 pc. Set: 1/16" thru 1/2" by 16ths in metal index		
887651	LF-12	12 pc. Set: 1/16" thru 5/16" by 32nds + 3/8", 7/16", & 1/2"		
887652	LF-13	13 pc. Set: 1/16" thru 1/4" by 64ths		
887853	LF-17	17 pc. Set: 1/16" thru 1/4" by 64ths + 5/16" thru 1/2" by 16ths		

BRAD POINT DRILLS BURROUT SUPER PREMIUM



5/64 - 1/4 12/PACK 3/16 - 1/2 6/PACK

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
801041	5/64	2	1
801051	3/32	2-1/4	1-1/4
801061	7/64	2-5/8	1-1/2
801071	1/8	2-3/4	1-5/8
801081	9/64	2-7/8	1-3/4
801091	5/32	3-1/8	2
801101	11/64	3-1/4	2-1/8
801111	3/16	3-1/2	2-5/16
801131	7/32	3-3/4	2-1/2
801151	1/4	4	2-3/4
801191	5/16	4-1/2	3-3/16
801231	3/8	5	3-5/8
801271	7/16	5-1/2	4-1/16
801311	1/2	6	4-1/2

These high performance drills made from hi-moly tool steel will cut holes in sheet metal, wood or plastics and leave no burr. They will also drill splinter free holes in wood. The special BURROUT point cuts at a circumference of the hole to avoid the break through burr problems common with standard point drills. When drilling into higher tensile strength metals such as cold rolled steel, a small pilot hole may prove helpful, since the center spur does not cut aggressively.

SETS		
EDP #	Set #	Description
842001	BF-10	5/64--3/16x64ths+7/32&1/4
842031	BF-15	5/64--3/16x64ths+7/32&1/4--1/2x16ths
7/16" and 1/2" sizes have 3/8" shanks		

MECHANIC LENGTH DRILLS

3/8" SHANK 3 FLATS ON SHANK, 3/16" & LARGER



- Special Hi-Molybdenum tool steel.
- 135° split point for past penetration and accurate starting without center punch.
- Precision ground points, flutes, body, clearance and drill diameter for the ultimate in accuracy and performance.
- Body and clearance are gold surface treated for maximum lubricity.
- Heat-treated at 2185° F and then nitro-carburize finished at 950° F to be measurably harder than high speed steel.
- Space age nitro-carburized steel withstands substantially higher drilling temperatures while maintaining sharpness.
- Especially designed for hand held drills.
- Flats on shank give positive chuck-grip.
- Recommended for use in work hardening grades of stainless steel and other hard metal drilling applications.
- 25/64 250-UB drills with flats will fit 3/8" chuck without reducing the shank diameter.

250-UB 12/PACK

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
822860	1/16	1-7/8	7/8
822870	5/64	2	1
822880	3/32	2-1/4	1-1/4
886950	7/64	2-3/8	1-5/16
886960	1/8	2-1/2	1-7/16
886970	9/64	2-5/8	1-9/16
886980	5/32	2-3/4	1-11/16
886990	11/64	2-7/8	1-13/16
887000	3/16	3	1-1/2
887010	13/64	3-1/8	1-5/8
887020	7/32	3-1/4	1-3/4
887030	15/64	3-3/8	1-7/8
887040	1/4	3-1/2	2
887050	17/64	3-5/8	2-1/8
887060	9/32	3-3/4	2-1/4

250-UB 258-UB 6/PACK

EDP #	EDP # 3/8 shk	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
887070		19/64	3-7/8	2-3/8
887080		5/16	4	2-1/2
887090		21/64	4-1/16	2-9/16
887100		11/32	4-1/8	2-5/8
887110		23/64	4-3/16	2-11/16
887120		3/8	4-1/4	2-11/16
887130		25/64	4-5/16	2-3/4
887140	881560	13/32	4-3/8	2-13/16
887150	881570	27/64	4-7/16	2-7/8
887160	881580	7/16	4-1/2	2-15/16
887170	881590	29/64	4-5/8	3
887180	881600	15/32	4-3/4	3-1/8
887190	881610	31/64	4-7/8	3-1/4
887200	881620	1/2	5	3-3/8

SETS

EDP #	Set #	Contents	Drill Type
866460	SPM-13	1/16--1/4x64ths	250-UB
866470	SPM-15	1/16--1/2x32nds	250-UB
857810	SPM-21	1/16--3/8x64ths	250-UB
892340	SPM-21R	1/16--1/4x64ths	250/258-UB
		9/32--1/2x32nds--3/8 shk.	
866480	SPM-29	1/16--1/2x64ths	250-UB
857910	RSPM-15	1/16--1/2x32nds--3/8 shk.	250/258-UB
857920	RSPM-29	1/16--1/2x64ths--3/8 shk.	250/258-UB

REDUCED SHANK DRILLS

3/8" SHANK



Hi-Molybdenum tool steel. 135° split point, for fast penetration and accurate starting without center punch. Precision ground point, flutes, body, clearance and drill diameter for the ultimate in accuracy and performance. Body and clearance are gold surface treated for maximum lubricity, heat-treated at 2185°F and then nitro-carburize finished at 950°F to be measurably harder than high speed steel. Space age nitro-carburized steel withstands substantially higher drilling temperatures while maintaining sharpness. Recommended for use in work hardening grades of stainless steel and other hard metal drilling applications.

25/64 - 1/2 6/PACK 17/32 - 5/8 1/PACK

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
859200	25/64	5-1/8	3-3/4
859210	13/32	5-1/4	3-7/8
859220	27-64	5-3/8	3-15/16
859230	7/16	5-1/2	4-1/16
859240	29/64	5-5/8	4-3/16
859250	15/32	5-3/4	4-5/16

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
859260	31/64	5-7/8	4-3/8
859270	1/2	6	4-1/2
859280	17/32	6	4-1/4
859290	9/16	6	4-1/4
859300	19/32	6	4-1/4
859310	5/8	6	4-1/4

1/2" SHANK S & D 3 FLATS ON SHANK



Special Hi-Molybdenum tool steel. 135° split point, for fast penetration and accurate starting without center punch. Precision ground point, flutes, body, clearance and drill diameter for the ultimate in accuracy and performance. Body and clearance are gold surface treated for maximum lubricity, heat-treated at 2185°F and then nitro-carburize finished at 950°F to be measurably harder than high speed steel. Space age nitro-carburized steel withstands substantially higher drilling temperatures while maintaining sharpness. Recommended for use in work hardening grades of stainless steel and other hard metal drilling applications. Sizes larger than 3/4" diameter have 118° split point.

FRACTIONAL

Packaged individually in tubes

EDP #	Diameter (Inches/MM)	EDP #	Diameter (Inches/MM)	EDP#	Diameter (Inches/MM)	EDP#	Diameter (Inches/MM)
829550	33/64	829660	11/16	829770	55/64	829880	1-1/16
829560	17-32	829670	45/64	829780	7/8	829890	1-3/32
829570	35/64	829680	23/32	829790	57/64	829900	1-1/8
829580	9/16	829690	47/64	829800	29/32	829910	1-5/32
829590	37/64	829700	3/4	829810	59/64	829920	1-3/16
829600	19/32	829710	49/64	829820	15/16	829930	1-7/32
829610	39/64	829720	25/32	829830	61/64	829940	1-1/4
829620	5/8	829730	51/64	829840	31/32	829950	1-5/16
829630	41/64	829740	13/16	829850	63/64	829960	1-3/8
829640	21/32	829750	53/64	829860	1 inch	829970	1-7/16
829650	43/64	829760	27/32	829870	1-1/32	829980	1-1/2

METRIC

825500	14mm	825510	17mm	825520	20mm	825530	23mm
825502	15mm	825512	18mm	825522	21mm	825532	24mm
825504	16mm	825514	19mm	825524	22mm	825534	25mm

REDUCED SHANK DRILLS

SETS

EDP #	Set #	Contents	Drill Type
892100	RSP-29	1/16-1/2X64ths	240-UB/278-UB
892110	RSP-15	1-16-1/2X32nds	240-UB/278-UB
892170	SP-21R	1/16-1/4X64ths,	
		9/32-1/2X32nds, 3/8" shank	240-UB/278-UB
892400	S&D8-SP	9/16-1X16ths, 1/2" shank	280-UB
812250	S&D4-SP	9/16, 5/8, 3/4 & 1", 1/2" shank	280-UB
892401	S&D-33	1/2" - 1"X64ths, 1/2" shank	280-UB

3/4" SHANK

These are high performance, close tolerance, tight runout spec. tools designed for drilling with Bridgeport style or other production machines with 3/4" chucks.

Special Hi-Molybdenum tool steel. 135° split point, for fast penetration and accurate starting without center punch. Precision ground point, body, and drill diameter for the ultimate in accuracy and performance. Body and margin are gold surface treated for maximum lubricity, heat treated at 2185° F and then nitro-carburize finished at 950° F to be measurably harder than high speed steel. Space age nitro-carburized steel withstands substantially higher drilling temperatures while maintaining sharpness. Recommended for use in work hardening grades of stainless steel and other hard metal drilling applications.

EDP #	Diameter	Flute Length	Overall Length
829741	13/16	3-1/4	5-1/2
829781	7/8	3-1/4	5-1/2
829821	15/16	3-1/4	5-1/2
829861	1"	3-1/4	5-1/2
829901	1-1/8	3-1/2	5-27/32
829941	1-1/4	3-1/2	5-7/8
829961	1-3/16	3-1/2	5-29/32
829981	1-1/2	3-1/2	5-15/16

Individually tubed

STUB LENGTH DRILLS



Special Hi-Molybdenum tool steel. Gold surface treated body and clearance for maximum lubricity. Heavy duty construction, 135° split point, no center punch needed--will not walk. Recommended for work hardening grades of stainless steel and other hard metal drilling applications.

FRACTIONAL

1/16 - 9/32 12/PACK 19/64 - 1/2 6/PACK 33/64 - 3/4 3/PACK

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
887710	1/16	1-5/8	5/8
887720	5/64	1-11/16	11/16
887730	3/32	1-3/4	3/4
887740	7/64	1-13/16	13/16
887750	1/8	1-7/8	7/8
887760	9/64	1-15/16	15/16
887770	5/32	2-1/16	1
887780	11/64	2-1/8	1-1/16
887790	3/16	2-3/16	1-1/8
887800	13/64	2-1/4	1-3/16
887810	7/32	2-3/8	1-1/4
887820	15/64	2-7/16	1-5/16
887830	1/4	2-1/2	1-3/8
887840	17/64	2-5/8	1-7/16
887850	9/32	2-11/16	1-1/2
887860	19/64	2-3/4	1-9/16
887870	5/16	2-13/16	1-5/8
887880	21/64	2-15/16	1-11/16
887890	11/32	3	1-11/16
887900	23/64	3-1/16	1-3/4
887910	3/8	3-1/8	1-13/16
887920	25/64	3-1/4	1-7/8
887930	13/32	3-5/16	1-15/16

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)
887940	27/64	3-3/8	2
887950	7/16	3-7/16	2-1/16
887960	29/64	3-9/16	2-1/8
887970	15/32	3-5/8	2-1/8
887980	31/64	3-11/16	2-3/16
887990	1/2	3-3/4	2-1/4
888000	33/64	3-7/8	2-3/8
888010	17/32	3-7/8	2-3/8
888020	35/64	4	2-1/2
888030	9/16	4	2-1/2
888040	37/64	4-1/8	2-5/8
888050	19/32	4-1/8	2-5/8
888060	39/64	4-1/4	2-3/4
888070	5/8	4-1/4	2-3/4
888080	41/64	4-1/2	2-7/8
888090	21/32	4-1/2	2-7/8
889210	43/64	4-1/2	2-7/8
889220	11/16	4-1/2	2-7/8
889230	45/64	4-3/4	3
889240	23/32	4-3/4	3
889250	47/64	5	3-1/8
889260	3/4	5	3-1/8

STUB LENGTH DRILLS

WIRE 1-60 12/PACK

EDP #	Wire Gauge	Overall Length (Inches)	Flute Length (Inches)
887600	1	2-7/16	1-5/16
887590	2	2-7/16	1-5/16
887580	3	2-3/8	1-1/4
887570	4	2-3/8	1-1/4
887560	5	2-3/8	1-1/4
887550	6	2-3/8	1-1/4
887540	7	2-1/4	1-3/16
887530	8	2-1/4	1-3/16
887520	9	2-1/4	1-3/16
887510	10	2-1/4	1-3/16
887500	11	2-1/4	1-3/16
887490	12	2-1/4	1-3/16
887480	13	2-3/16	1-1/8
887470	14	2-3/16	1-1/8
887460	15	2-3/16	1-1/8
887450	16	2-3/16	1-1/8
887440	17	2-3/16	1-1/8
887430	18	2-1/8	1-1/16
887420	19	2-1/8	1-1/16
887410	20	2-1/8	1-1/16
887400	21	2-1/8	1-1/16
887390	22	2-1/8	1-1/16
887380	23	2-1/16	1
887370	24	2-1/16	1
887360	25	2-1/16	1
887350	26	2-1/16	1
887340	27	2-1/16	1
887330	28	1-15/16	15/16
887320	29	1-15/16	15/16
887310	30	1-15/16	15/16

EDP #	Wire Gauge	Overall Length (Inches)	Flute Length (Inches)
887300	31	1-7/8	7/8
887290	32	1-7/8	7/8
887280	33	1-7/8	7/8
887270	34	1-7/8	7/8
887260	35	1-7/8	7/8
887250	36	1-13/16	13/16
887240	37	1-13/16	13/16
887230	38	1-13/16	13/16
887220	39	1-13/16	13/16
887210	40	1-13/16	13/16
823360	41	1-13/16	13/16
823370	42	1-3/4	3/4
823380	43	1-3/4	3/4
823390	44	1-3/4	3/4
823400	45	1-3/4	3/4
823410	46	1-3/4	3/4
823420	47	1-3/4	3/4
823430	48	1-11/16	11/16
823440	49	1-11/16	11/16
823450	50	1-11/16	11/16
823460	51	1-11/16	11/16
823470	52	1-11/16	11/16
823480	53	1-5/8	5/8
823490	54	1-5/8	5/8
823500	55	1-5/8	5/8
823510	56	1-3/8	1/2
823520	57	1-3/8	1/2
823530	58	1-3/8	1/2
823540	59	1-3/8	1/2
823550	60	1-3/8	1/2

LETTER A-L 12/PACK

EDP #	Letter Size	Overall Length (Inches)	Flute Length (Inches)
823601	A	2-7/16	1-5/16
823611	B	2-1/2	1-3/8
823621	C	2-1/2	1-3/8
823631	D	2-1/2	1-3/8
823641	E	2-1/2	1-3/8
823651	F	2-5/8	1-7/16
823661	G	2-5/8	1-7/16
823671	H	2-11/16	1-1/2
823681	I	2-11/16	1-1/2
823691	J	2-11/16	1-1/2
823701	K	2-11/16	1-1/2
823711	L	2-3/4	1-9/16
823721	M	2-3/4	1-9/16

M-Z 6/PACK

EDP #	Letter Size	Overall Length (Inches)	Flute Length (Inches)
823731	N	2-13/16	1-5/8
823741	O	2-15/16	1-11/16
823751	P	2-15/16	1-11/16
823761	Q	3	1-11/16
823771	R	3	1-11/16
823781	S	3-1/16	1-3/4
823791	T	3-1/16	1-3/4
823801	U	3-1/8	1-13/16
823811	V	3-1/4	1-7/8
823821	W	3-1/4	1-7/8
823831	X	3-5/16	1-15/16
823841	Y	3-5/16	1-15/16
823851	Z	3-3/8	2

SETS

EDP #	Set #	Contents	Drill Type
866490	SPT-29	1/16-1/2X64ths	260-UB
823560	SPT-60	#1-60	260-UB

EXTRA LENGTH DRILLS



Special Hi-Molybdenum tool steel. Gold surface treated for maximum lubricity. Heavy duty construction, 135° split point, no center punch needed--will not walk. Gyroidal Torsion flute and land construction yields exceptional performance in deep hole drilling applications. Recommended for work hardening grades of stainless steel and other hard metal drilling applications. These drills will drill 15 diameters deep without drill removal to clear chips. Feed rates may be twice that of standard drills.

EDP #	Size	Overall Length (Inches)	Flute Length (Inches)
839240	1/8x6	6	4
839250	#29x6	6	4
839260	9/64x6	6	4
839270	5/32x6	6	4
839280	11/64x6	6	4
839300	3/16x6	6	4
839310	#10x6	6	4
839320	13/64x6	6	4
839330	7/32x6	6	4
839340	#1x6	6	4
839350	15/64x6	6	4
839360	1/4x6	6	4
839370	Fx6	6	4
839380	9/32x6	6	4
839390	5/16x6	6	4
839400	11/32x6	6	4
839410	3/8x6	6	4
839420	13/32x6	6	4
839430	7/16x6	6	4
839440	1/2x6	6	4

EDP #	Size	Overall Length (Inches)	Flute Length (Inches)
840780	1/8x9	9	6
840790	5/32x9	9	6
840800	3/16x9	9	6
840810	7/32x9	9	6
840820	1/4x9	9	6
840830	9/32x9	9	6
840840	5/16x9	9	6
840850	11/32x9	9	6
840860	3/8x9	9	6
840870	7/16x9	9	6
840880	1/2x9	9	6
843050	1/8x12	12	9
843060	5/32x12	12	9
843070	3/16x12	12	9
843080	7/32x12	12	9
843090	1/4x12	12	9
843100	9/32x12	12	9
843110	5/16x12	12	9
843120	11/32x12	12	9
843130	3/8x12	12	9
843140	7/16x12	12	9
843150	1/2x12	12	9

EDP #'s 840860 - 840880, 839410 - 839440, AND 843130 - 843150 ARE 1/PACK, ALL OTHERS 3/PACK

MULTI-DIAMETER STEP DRILLS

3 FLATS ON SHANK



Special moly alloy steel. Gold surface treated for maximum lubricity. Dual flute construction drills clean accurate holes in thin materials quickly and easily. Use for all thin metals and rigid plastics; such as Plexiglass and wood or composite materials with a thickness equal to or less than the step thickness. When drilling steel with 1/8" or greater thickness, a starter hole of the smallest step diameter will speed up the drilling process.

EDP #	Size	# of Hole Sizes	Range	Shank Size	Step Increments	Step Thickness
800700	1/8-1/2	13	1/8-1/2	1/4	1/32	1/8
800701	3/16A	6	3/16-1/2	1/4	1/16	3/8
800702	3/16B	12	3/16-7/8	3/8	1/16	1/8
800703	1/4-3/4	9	1/4-3/4	3/8	1/16	5/32
800704	9/16-1	8	9/16-1"	3/8	1/16	5/32
800710	13/16	10	13/16-1-3/8	3/8	1/32	5/32
800711	1/4 KO	10	1/4-1-3/8	3/8	1/8	See Note

Note: EDP #800711

Extra length steps at

7/8, 1-1/8 & 1-3/8

For conduit knock-outs

- Step drills make the job easy with accurate incremental steps that reduce the potential for burrs.
- 3 flats on shank for positive chuck grip-no slide.
- Gold surface treatment for added lubricity and rich quality appearance.
- Wide range of sizes to cover almost all common hole diameters.
- All flute, diameter and point surfaces are finish ground from hardened blanks for long lasting cutting edges.
- Double flute construction virtually eliminates drill walking.

MULTI-DIAMETER STEP DRILL SET IN WOODEN BLOCK

	Content	- Size	Drill Type
702834	1 pc	1/8-1/2	78-UB
	1 pc	3/16A	78-UB
	1 pc	3/16B	78-UB
	1 pc	1/4 -3/4	78-UB
	1 pc	9/16 - 1	78-UB
	1 pc	13/16	78-UB



ACRYLIC DRILLS

CHIPFREE POINT



Special Hi-Molybdenum tool steel, gold surface treated body, flute and point for maximum lubricity. Super Chipfree point is precision ground at a 60° angle for gradual penetration to avoid cracking and chipping of the acrylic material. Special 0° rake angle on cutting edge eliminates “grabbing” when drill breaks through plastic, acrylic or laminate surfaces. All sizes over 1/4” have 1/4” shanks.

1/8 - 1/4 12/PACK 5/16 - 1/2 6/PACK

EDP #	Diameter (Inches)	Overall Length (Inches)	Flute Length (Inches)	Std. Pack
831500	1/8	2-1/2	1-3/8	12
831510	5/32	2-7/8	1-3/4	12
831520	3/16	3-3/16	2	12
831530	1/4	3-9/16	2-5/16	12
831540	5/16	3-5/16	1-5/8	6
831550	3/8	3-5/8	1-15/16	6
831560	7/16	4	2-3/16	6
831570	1/2	4-1/4	2-7/16	6
831580	AD-7	7pc set: 1/8" thru 1/2" by 16ths in metal index.		

STANDARD SPIRAL FAST SPIRAL HOLE BUSTER, 3 FLATS ON SHANK STOP COLLAR



Special Hi-Tungsten tool steel, gold surface treated body and clearance for maximum lubricity. These reamers are especially designed for the reaming of structural steel plate commonly found in truck frames, rail cars, bridges and pressure vessels. For use only to enlarge previously formed or drilled holes. All tools are constructed with left hand spiral and right hand cut. The left hand spiral eliminates the tendency of the reamer to hog into holes. The 51-UB, with the fast spiral, is the more aggressive of the two styles. It also will fit the needs of users who prefer a stop collar.

ALL SIZES COME 1/PACK

EDP # Standard	EDP # Fast	Diameter (Inches)	Point Diameter	Minimum Starting Hole Size	Overall Length	Shank Diameter
806390	806391	3/8	.250	5/16	4-5/8	3/8
806400	806401	1/2	.281	3/8	5-7/8	1/2
806410	806411	9/16	.343	7/16	5-7/8	1/2
806420	806421	5/8	.343	7/16	6-3/8	1/2
806430	806431	11/16	.375	15/32	6-3/8	1/2
806440	806441	3/4	.406	1/2	6-7/8	1/2
806450	806451	13/16	.468	35/64	6-7/8	1/2
806460	806461	7/8	.500	19/32	6-7/8	1/2
806470	806471	15/16	.585	5/8	6-7/8	1/2
806480	806481	1"	.594	7/8	6-7/8	1/2
806484	806482	1-1/4	.719	1"	6-7/8	1/2

SET
EDP #: 812270
Set #: CR-4SP
Contains: 3/8, 1/2, 5/8, & 3/4

COUNTERSINKS AND DEBURRING

CHATTERPROOF

Special Hi-Molybdenum tool steel, gold surface treated points for maximum lubricity and chatterproof finish. These high performance, fluteless tools are: free cutting-for ease of use; single cutting edge-for fast stock removal; chatterproof-for a micro smooth finish; easily resharpened-for extra long life; wide selection of styles and angles-a tool for any job. Recommended for superior finishes on metal, plastic and wood applications.

82° PILOTED COUNTERSINKS TYPE: 82-UB

EDP #	Size	Style	Diameter of Cut		Screw Size	A	Shank Dia. B	Overall Length C	D	E	F
			Min.	Max.							
867010	CS1/4	1			1/4	1/4	3/8	2	33/64	1	5/32
867020	CS1/4A	1			1/4	17/64	3/8	2	33/64	1	5/32
867030	CS5/16	1			5/16	5/16	3/8	2-3/16	41/64	1-3/16	5/32
867040	CS5/16A	1			5/16	21/64	3/8	2-3/16	41/64	1-3/16	5/32
867050	CS3/8	1			3/8	3/8	1/2	2-5/8	49/64	1-3/8	5/32
867060	CS3/8A	1			3/8	25/64	1/2	2-5/8	49/64	1-3/8	5/32
867070	CS7/16	1			7/16	7/16	1/2	2-3/4	53/64	1-1/2	7/32
867080	CS7/16A	1			7/16	29/64	1/2	2-3/4	53/64	1-1/2	7/32
867090	CS1/2	1			1/2	1/2	1/2	2-13/16	15/16	1-9/16	1/4
867100	CS1/2A	1			1/2	33/64	1/2	2-13/16	15/16	1-9/16	1/4

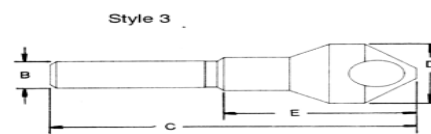
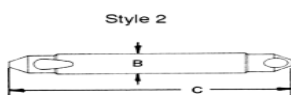
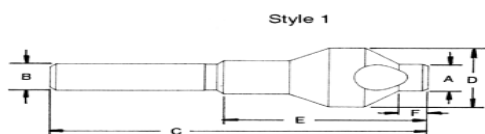
82° PILOTLESS COUNTERSINKS TYPE: 82-UB

867110	CS073	2	0.73	15/64			1/4	1-3/4			
867120	CS3/16	3	3/16	17/32			1/4	1-7/8	9/16	1	
867130	CS307	3	.307	25/32			1/2	2-5/8	13/16	1-3/8	
867140	CS307A	3	.307	25/32			1/4	2-1/16	13/16	1-1/4	
867150	CS431	3	.431	7/8			1/2	2-13/16	1-1/8	1-9/16	
867160	CS1/2B	3	1/2	1-15/32			1/2	3-1/2	1-1/2	2-1/8	
867170	CS5S	3			Nos 4,5		1/4	1-1/2	17/64	5/8	
867180	CS6S	3			No 6		1/4	1-1/2	19/64	5/8	
867190	CS8S	3			No 8		1/4	1-5/8	11/32	3/4	
867200	CS10S	3			No 10		1/4	1-5/8	25/64	3/4	

90° DEBURRING TOOLS TYPE: 90-UB

867210	DB1/64	2	1/64	11/64			3/16	1-1/2			
867220	DB1/16	2	1/16	11/64			3/16	1-1/2			
867230	DB1/8	2	1/8	15/64			1/4	1-3/4			
867240	DB5/32	3	5/32	13/32			1/4	1-11/16	7/16	13/16	
867250	DB3/16	3	3/16	17/32			1/4	1-7/8	9/16	1	
867260	DB5/16	3	5/16	25/32			1/2	2-19/32	13/16	1-3/8	
867270	DB5/16C	3	5/16	25/32			1/4	2-1/32	13/16	1-5/32	
867280	DB9/16	3	9/16	1-3/32			1/2	2-13/16	1-1/8	1-9/16	
867290	DB1/2	3	1/2	1-15/32			1/2	3-1/2	1-1/2	2-1/8	

All tools individually packaged



SETS IN FINISHED WOODEN INDEXES

SP-4CS Set EDP #: 810440	Contains: 82-UB C/S Sizes: CS5S, CS6S, CS8S & CS10S.	SP-9CS Set EDP #: 810443	Contains: 82-UB C/S Sizes: CS5S, CS6S, CS8S, CS10S, CS1/4, CS 5/16, CS3/8, CS7/16, & CS1/2.	SP-6DB EDP #: 810450	Contains: 90-UB DB Tool sizes: DB1/16, DB1/8, DB5/32, DB3/16, DB5/16, & DB9/16.
SP-4ACS Set EDP #: 810442	Contains: 82-UB C/S Sizes: CS6S, CS8S, CS10S & CS3/16.				

PLUG STYLE



Special Hi-Tungsten and Hi-Molybdenum tool steels, gold surface treated for maximum lubricity. Spiral point construction drives chips ahead of the tap, permitting higher speeds and faster cutting with less torque. Precision ground threads for the ultimate in accuracy and performance. Recommended for stainless and other hard metals. Plug style spiral pointed taps are ideal for production tapping of through holes.

5/8-11 - 3/4-16 1/PACK

ALL OTHER SIZES 3/PACK

EDP #	Size	# of Flutes	GH Limit
860100	0-80	2	2
860110	1-64	2	2
860120	1-72	2	2
860130	2-56	2	2
860140	2-64	2	2
860150	3-48	2	2
860160	3-56	2	2
860170	4-40	2	2
860180	4-48	2	2
860190	4-36	2	2
860200	5-40	2	2
860210	5-44	2	2
860220	6-32	2	3
860230	6-40	2	2
860240	8-32	2	3
860250	8-36	2	2
860260	10-24	2	3

EDP #	Size	# of Flutes	GH Limit
860270	10-32	2	3
860280	12-24	2	3
860290	12-28	2	3
860320	1/4-20	2	3
860330	1/4-28	2	3
860340	5/16-18	2	3
860350	5/16-24	2	3
860360	3/8-16	3	3
860370	3/8-24	3	3
860380	7/16-14	3	3
860390	7/16-20	3	3
860400	1/2-13	3	3
860410	1/2-20	3	3
860420	5/8-11	3	3
860430	5/8-18	3	3
860440	3/4-10	3	3
860450	3/4-16	3	3

PLUG STYLE METRIC

14.0X2.00 - 18.0X2.00 1/PACK

ALL OTHER SIZES 3/PACK

EDP #	Size & Pitch	# of Flutes	Pitch Diameter Limits	Inch Equivalent
860500	2.5x0.45	2	D3	.0984x56.44
860510	3.0x0.50	2	D3	.1182x50.80
860520	3.5x0.60	2	D4	.1378x42.33
860530	4.0x0.70	2	D4	.1575x36.29
860550	5.0x0.80	2	D4	.1969x31.75
860560	6.0x1.00	2	D5	.2363x25.40
860580	8.0x1.25	2	D5	.3150x20.32
860600	10.0x1.5	3	D6	.3937x16.93
860620	12.0x1.75	3	D6	.4725x14.51
860630	14.0x2.00	3	D7	.5512x12.70
860640	16.0x2.00	3	D7	.6299x12.70
860650	18.0x2.50	3	D7	.7087x10.16

HEXAGON DIES



Special Hi-Molybdenum tool steel, polished gold finish flats with black surface treated threads for long life and rich appearance. These dies are used for threading rods, bolts, studs and other pieces requiring external threads. The outside hex configuration allows both wrench and die stock use in threading.

4-40 - 1/2-20 AND 3.0MMX0.50 - 12.0MMX1.75 3/PACK

9/16-12 - 1/4-18 AND 14.0MMX1.50 1/PACK

EDP #	Size	Across Flats
861000	4-40	1"
861010	6-32	1"
861020	8-32	1"
861030	10-24	1"
861040	10-32	1"
861050	12-24	1"
861060	1/4-20	1"
861070	1/4-28	1"
861080	5/16-18	1"
861090	5/16-24	1"
861100	3/8-16	1"
861110	3/8-24	1"
861120	7/16-14	1"
861130	7/16x20	1"
861140	1/2-13	1"
861150	1/2-20	1"

EDP #	Size	Across Flats
861160	9/16-12	1-7/16"
861170	9/16-18	1-7/16"
861180	5/8-11	1-7/16"
861190	5/8-18	1-7/16"
861200	3/4-10	1-7/16"
861210	3/4-16	1-7/16"
861220	1/8-27	1"
861230	1/4-18	1-7/16"
860511	3.0mmx0.50	1"
860521	3.5mmx0.60	1"
860531	4.0mmx0.70	1"
860551	5.0mmx0.80	1"
860561	6.0mmx1.00	1"
860581	8.0mmx1.25	1"
860601	10.0mmx1.50	1"
860621	12.0mmx1.75	1"
860622	14.0mmx1.50	1-7/16"

STRAIGHT FLUTE TAPS

TAPER, PLUG, BOTTOMING & SETS

Special Hi-Tungsten and Hi-Molybdenum tool steels, gold surface treated for maximum lubricity. For general use in production tapping or hand operations. Precision ground threads for the ultimate in accuracy and performance. Taper, plug and bottoming styles provide great versatility in tough materials, both blind and through holes. These high performance taps are available in complete sets of one taper, plug and bottoming tap of the same size.

2-56 -1/2-20 3/PACK 9/16-12 - 1 1/2-12 1/PACK

EDP Number				Size	# of Flutes	GH Limit
Taper 23-UB	Plug 24-UB	Bottoming 25-UB	Sets 26-UB			
860660	860661	860662	860663	2-56	3	2
860680	860681	860682	860683	3-48	3	2
860700	860701	860702	860703	4-40	3	2
860730	860731	860732	860733	5-40	3	2
860750	860751	860752	860753	6-32	3	3
860760	860761	860762	860763	6-40	3	2
860770	860771	860772	860773	8-32	4	3
860780	860781	860782	860783	8-36	4	3
860790	860791	860792	860793	10-24	4	3
860800	860801	860802	860803	10-32	4	3
860810	860811	860812	860813	12-24	4	3
860820	860821	860822	860823	12-28	4	3
860830	860831	860832	860833	1/4-20	4	3
860840	860841	860842	860843	1/4-28	4	3
860850	860851	860852	860853	5/16-18	4	3
860860	860861	860862	860863	5/16-24	4	3
860870	860871	860872	860873	3/8-16	4	3
860880	860881	860882	860883	3/8-24	4	3
860890	860891	860892	860893	7/16-14	4	3
860900	860901	860902	860903	7/16-20	4	3
860910	860911	860912	860913	1/2-13	4	3
860920	860921	860922	860923	1/2-20	4	3
860950	860951	860952	860953	9/16-12	4	3
860960	860961	860962	860963	9/16-18	4	3
860970	860971	860972	860973	5/8-11	4	3
860980	860981	860982	860983	5/8-18	4	3
860990	860991	860992	860993	3/4-10	4	4
861400	861401	861402	861403	3/4-16	4	4
861410	861411	861412	861413	7/8-9	4	4
861420	861421	861422	186423	7/8-14	4	4
861430	861431	861432	861433	1"-8	4	4
861440	861441	861442	861443	1"-12	4	4
827570	827571	827572	827573	1"-14	4	4
861450	861451	861452	861453	1 1/8-7	4	4
861460	861461	861462	861463	1 1/8-12	4	4
861470	861471	861472	861473	1 1/4-7	4	4
861480	861481	861482	861483	1 1/4-12	6	4
861490	861491	861492	861493	1 3/8-6	4	4
861500	861501	861502	861503	1 3/8-12	6	4
861510	861511	861512	861513	1 1/2-6	4	4
861520	861521	861522	861523	1 1/2-12	6	4

Taper Style

Starts the thread square with the workpiece



Plug Style

Generally used in thru holes or in blind holes with sufficient clearance



Bottoming Style

Generates the thread to the bottom of blind holes.



STRAIGHT FLUTE TAPS

TRI ULTRA CUT SUPER PREMIUM TAP SETS

Straight flute or spiral point taps in a rugged black steel index.

SP-19T Set	Contains: 20-UB	SP-10T Set	Contains: 20-UB	SF-10T Set	Contains: 24-UB
EDP #861600	Tap Sizes: 0-80, 1-64, 1-72, 2-56, 2-64, 3-48, 3-56, 4-40, 4-48, 5-40, 5-44, 6-32, 6-40, 8-32, 8-36, 10-24, 10-32, 12-24 & 12-28.	EDP #861610	Tap Sizes: 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 & 1/2-20.	EDP #861620	Tap Sizes: 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 & 1/2-20.

TAPER, PLUG, & BOTTOMING LEFT HAND THREAD

Special Hi-Tungsten and Hi-Molybdenum tool steels, gold surface treated for maximum lubricity. For general use in production tapping or hand operations. Precision ground threads for the ultimate in accuracy and performance. Taper, plug and bottoming styles provide great versatility in tough materials, both blind and through holes.

6-32 - 1/2-20 3/PACK 9/16-12 - 1 1/2-12 1/PACK

EDP Number			Size	# of Flutes	GH Limit
Taper 23LUB	Plug 24LUB	Bottoming 25LUB			
860223	860222	860224	6-32	3	3
860243	860242	860244	8-32	4	3
860263	860262	860264	10-24	4	3
860273	860272	860274	10-32	4	3
860323	860322	860324	1/4-20	4	3
860333	860332	860334	1/4-28	4	3
860343	860342	860344	5/16-18	4	3
860353	860352	860354	5/16-24	4	3
860363	860362	860364	3/8-16	4	3
860373	860372	860374	3/8-24	4	3
860383	860382	860384	7/16-14	4	3
860393	860392	860394	7/16-20	4	3
860403	860402	860404	1/2-13	4	3
860413	860412	860414	1/2-20	4	3
860423	860422	860424	9/16-12	4	3
860433	860432	860434	9/16-18	4	3
860443	860442	860444	5/8-11	4	3
860453	860452	860454	5/8-18	4	3
860463	860462	860464	1 1/16-11	4	3
860473	860472	860474	1 1/16-16	4	3
860483	860482	860484	3/4-10	4	3
860493	860492	860494	3/4-16	4	3
860503	860502	860504	7/8-9	4	4
860513	860512	860514	7/8-14	4	4
860523	860522	860524	1"-8	4	4
860533	860532	860534	1"-12	4	4
860543	860542	860544	1"-14	4	4
860553	860552	860554	1 1/8-7	4	4
860563	860562	860564	1 1/8-12	6	4
860573	860572	860574	1 1/4-7	4	4
860583	860582	860584	1 1/4-12	6	4
860593	860592	860594	1 3/8-6	4	4
860603	860602	860604	1 3/8-12	6	4
860613	860612	860614	1 1/2-6	4	4
860609	860619	860599	1 1/2-12	6	4

TAP AND DRILL SETS

TRI ULTRA CUT SUPER PREMIUM TAP & DRILL SETS

SP12TD Set EDP #858501	Contains: 240-UB Drill Sizes: #36, 29, 25, 21, 7 & F. 20-UB Tap Sizes: 6-32, 8-32, 10-24, 10-32, 1/4-20 & 5/16-18.	SF18TDC Set EDP #860930	Contains: 240-UB Drill Sizes: #36, 29, 25, 21, 7, F, 5/16, U & 27/64. 24-UB Tap Sizes: 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 & 1/2-13.
SP18TD Set EDP #857580	Contains: 240-UB Drill Sizes: #36, 29, 25, 21, 7, F, 5/16, U, & 27/64. 20-UB Tap Sizes: 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 & 1/2-13.	SF18TDF Set EDP #860940	Contains: 240-UB Drill Sizes: #33, 29, 25, 21, 3, 1, Q, 25/64, & 29/64. 24-UB Tap Sizes: 6-40, 8-36, 10-24, 10-32, 1/4-28, 5/16-24, 3/8-24, 7/16-20, & 1/2-20.
SP18TDF Set EDP #858010	Contains: 240-UB Drill Sizes #33, 29, 25, 21, 3, 1, Q, 25/64 & 29/64. 20-UB Tap Sizes: 6-40, 8-36, 10-24, 10-32, 1/4-28, 5/16-24, 3/8-24, 7/16-20 & 1/2-20.	SP-10TD Set EDP #858500	Contains: 240-UB Drill Size: 31/64. 280-UB Drill Sizes: 17/32, 21/32, 49/64 & 7/8. 24-UB Tap Sizes: 9/16-12, 5/8-11, 3/4-10, 7/8-9 & 1-8.
SP18TDM Set EDP #857990	Contains: 643-UB Drill Sizes (mm): 2.05, 2.50, 2.90, 3.30, 4.20, 5.00, 6.70, 8.50 & 10.20. 21-UB Tap Sizes (mm): 2.5-.45, 3.0-.50, 3.5-.60, 4.0-.70, 5.0-.80, 6.0-1.00, 8.0-1.25, 10.0-1.5 & 12.0-1.75.		

TAPER PIPE TAP



Special Hi-Tungsten and Hi-Molybdenum tool steels, black surface treated threads for wear resistance and gold surface treated body for rich, high quality appearance. Precision ground threads for the ultimate in accuracy and performance. Available in plug style with 3 to 3 & 1/2 thread chamfer.

EDP #	Size	# of Flutes	Tap Drill Size	Std. Pack
861240	1/8-27*	4	11/32	3
861250	1/8-27	4	11/32	3
861260	1/4-18	4	7/16	3
861270	3/8-18	4	37/64	1
861280	1/2-14	4	23/32	1
861290	3/4-14	5	59/64	1
861300	1-11-1/2	5	1-5/32	1
861310	1-1/4 -11-1/2	5	1-1/2	1
861320	1-1/2 -11-1/2	7	1-47/64	1
861330	2-11-1/2	7	2-7/32	1

* Small Shank .3125

STRAIGHT FLUTE TAPS-METRIC

TAPER, PLUG AND BOTTOMING

Special Hi-Tungsten and Hi-Molybdenum tool steels, gold surface treated for maximum lubricity. For general use in production tapping or hand operations. Precision ground threads for the ultimate in accuracy and performance. Taper, plug and bottoming styles provide great versatility in tough materials, both blind and through holes.

Part Number			Size (MM)	Number Of Flutes	Pitch Diameter Limit
Taper	Plug	Bottoming			
860379	861629	861681	2.5-.45	3	D-3
860389	861631	861682	3.0-.50	3	D-3
860519	861632	861683	3.5-.60	3	D-4
860529	861633	861684	4.0-.70	4	D-4
860369	861634	861689	4.5-.75	4	D-4
860539	861639	861691	5.0-.80	4	D-4
860549	861641	861692	6.0-1.00	4	D-5
860559	861642	861693	7.0-1.00	4	D-5
860569	861643	861694	8.0-1.00	4	D-5
860579	861644	861699	8.0-1.25	4	D-5
860589	861649	861701	10.0-1.25	4	D-6
860611	861651	861702	10.0-1.50	4	D-6
861601	861652	861703	12.0-1.25	4	D-6
861602	861653	861704	12.0-1.75	4	D-6
861603	861654	861709	14.0-1.50	4	D-7
861604	861659	861711	14.0-2.00	4	D-7
861609	861661	861712	16.0-1.50	4	D-7
861611	861662	861713	16.0-2.00	4	D-7
861612	861663	861714	18.0-2.50	4	D-7
861613	861664	861719	20.0-2.50	4	D-7
861614	861669	861721	24.0-3.00	4	D-8
861619	861671	861722	27.0-3.00	4	D-8
861621	861672	861723	30.0-3.50	4	D-8
861622	861673	861724	33.0-3.50	4	D-8
861623	861674	861729	36.0-4.00	4	D-8
861624	861679	861731	39.0-4.00	4	D-8

2.5-.45 - 14.0 2.00 3/PACK

16.0-1.50 - 39.0-4.00 1/PACK

Taper Style

Starts the thread square with the workpiece

Plug Style

Generally used in thru holes or in blind holes with sufficient clearance.

Bottoming Style

Generates the thread to the bottom of blind holes

SCREW & PIPE EXTRACTORS

HIGH CARBON STEEL SPIRAL STYLE



Remove broken screws, bolts, threaded parts and pipes. Drill a hole in broken part, insert extractor and turn to the left. Broken piece is extracted without damage to threads.

5/PACK

EDP #	Screw Extractor #	To Remove Diameter Screw	Diameter of Screw Extractor Shank Point		Drill Size
857100	EX 1	3/32 to 5/32	1/8	.060	5/64
857110	EX 2	5/32 to 7/32	3/16	.080	7/64
857120	EX 3	7/32 to 9/32	1/4	1/8	5/32
857130	EX 4	9/32 to 3/8 and 1/8 pipe	5/16	3/16	1/4
857140	EX 5	3/8 to 5/8 and 1/4 pipe	7/16	1/4	17/64

3/PACK

EDP #	Screw Extractor #	To Remove Diameter Screw	Diameter of Screw Extractor Shank Point		Drill Size
857150	EX 6	5/8 to 7/8 and 3/8 pipe	5/8	3/8	13/32
857160	EX 7	7/8 to 1-1/8 and 1/2 pipe	7/8	15/32	17/32
857170	EX 8	1-1/8 to 1-3/8 and 3/4 pipe	11/32	3/4	13/16
857180	EX 9	1-3/8 up and 1" pipe	1-9/32	1	1-1/8

SETS

EDP #	Set #	Contents
847170	SE-4	Type 420-UB EX 2, 3, 4 & 5
847180	SE-5	Type 420-UB EX 1, 2, 3, 4 & 5
888550	BR-8	Type 420-UB EX 1, 2, 3 & 4 + Type 240-AL Drills 3/32, 1/8, 3/16 & 1/4
858510	BR-10	Type 420-UB EX 1, 2, 3, 4 & 5 Type 240-AL Drills 3/32, 1/8, 3/16, 1/4 & 5/16

BOLT REMOVER SETS

A unique combination of left hand spiral drills and bolt/screw extractors. Both BR sets provide these benefits: (Also see BR-8SQ below)

- Fast and easy stud removal.
- Left hand spiral drills often eliminate the need for bolt and screw extractors.
- Drill may loosen bolt stud with counter clockwise rotation.
- 135° split point drill will cut harder metals than 118° point drill.
- Most broken studs are work hardened during the breaking process.

SCREW, STUD, & PIPE EXTRACTORS

STUD OUT, FORGED HI-CARBON STEEL, GOLD FINISH

The square shape of these extractors gives the tools the ability to remove broken bolts, screws and pipes with minimum deformation of the broken part. The forged construction imparts an extra degree of toughness, which reduces extractor breakage. To remove the broken threaded part: Drill a hole in the end of the broken part (left hand spiral heavy duty drills are recommended for this drilling operation), insert extractor and turn counter clockwise using a wrench on the exposed end of the extractor. The broken part should unscrew without damage to threads. These forged extractors will not chew up or expand the object being removed.

DRILL SIZE 5/32 - 3/8 5/PACK

DRILL SIZE 1/2 - 11/16 1/PACK

EDP #	Screw Extractor #	To Remove Diameter Screw	Size of Screw Extractor Shank Point		Drill Size
870760	E 2	3/16-9/32	3/16	1/8	5/32
870770	E 3	9/32-11/32	1/4	11/64	3/16
870780	E 4	11/32-1/2	5/16	7/32	1/4
870800	E 5	1/2-3/4	3/8	9/32	5/16
870810	E 6	5/8-7/8	7/16	21/64	3/8
870820	E 7	7/8-1"	1/2	7/16	1/2
870830	E 8	1"-1 1/4	5/8	1/2	9/16
870860	E 9	1 1/8-1 1/2	3/4	9/16	5/8
870870	E 10	1 1/4-1 3/4	7/8	5/8	11/16

EDP #	Set #	Contents
870840	SQE-4	Type 421-UB E 2, 3, 4 & 5
870850	BR-8SQ	Type 421-UB E 2, 3, 4 & 5 Type 240-AL Drills 5/32, 3/16, 1/4 & 5/16

TAP, DIE, & DRILL ASSORTMENTS

Special Hi-Tungsten and Hi-Molybdenum tool steels, gold surface treated for maximum lubricity. Recommended for use in production tapping and drilling of work hardening grades of stainless steel and other hard metal applications. Precision ground tap threads for the ultimate in accuracy and performance.

SUPER PREMIUM TAP & DRILL DISPENSER ASSORTMENT

67 piece spiral point taps and jobber length tap drills.

67-SP Assortment contains: Super premium jobber drill sizes: 6 each #36, 29, 25, 21; 3 each #7, F & 5/16; 2 each #3, I, Q, U, 25/64, 27/64 & 29/64. Super premium spiral point plug tap sizes: 3 each 1/4-20; 2 each 6/32, 8/32, 10-24, 10-32; and 1 each 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 & 1/2-20.

Includes 3 drawer stocking cabinet.

EDP #835121

SUPER PREMIUM TAP & DRILL DISPENSER ASSORTMENT

123 piece spiral point taps and jobber length tap drills

123-SP Assortment contains: Super premium jobber drill sizes: 12 each #36, 29, 25, 21; 6 each #7, F & 5/16; 3 each #3, I, Q, U, 25/64, 27/64 & 29/64. Super premium spiral point plug tap sizes: 6 each 1/4-20; 3 each 6-32, 8-32, 10-24, 10-32, 5/16-18 & 3/8-16; and 2 each 1/4-28, 5/16-24, 3/8-24, 7/16-14 & 1/2-13; 1 each 7/16-20 & 1/2-20.

Includes 3 drawer stocking cabinet.

EDP #835120

SUPER PREMIUM TAP & DRILL DISPENSER ASSORTMENT

123 piece, straight flute taps and jobber length tap drills

123-SF Assortment contains: Super premium jobber drill sizes: 12 each #36, 29, 25, 21; 6 each #7, F & 5/16; 3 each #3, I, Q, U, 25/64, 27/64 & 29/64. Super premium straight flute plug tap sizes: 6 each 1/4-20; 3 each 6-32, 8-32, 10-24, 10-32, 5/16-18 & 3/8-16; 2 each 1/4-28, 5/16-24, 3/8-24, 7/16-14 & 1/2-13; 1 each 7/16-20 & 1/2-20.

Includes 3 drawer stocking cabinet.

EDP # 835110

SUPER PREMIUM TAP & DIE COUNTER TOP DISPENSER

53 piece, straight flute taps & hex dies

53-SF Assortment contains: Super premium straight flute plug tap sizes: 3 each 6-32, 8-32, 10-24, 10-32 & 1/4-20; 2 each 5/16-18, 3/8-16, 7/16-14 & 1/2-13; 1 each 4-40, 12-24, 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20, 9/16-12, 5/8-11 & 3/4-10. Super premium hex die sizes: 1 each 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 9/16-12, 5/8-11 & 3/4-10; 2 each 1/4-20.

Includes glass front stocking cabinet.

EDP #835150

SUPER PREMIUM TAP & DIE COUNTER TOP DISPENSER

55 piece, spiral point taps & hex dies

55-SP Assortment contains: Super premium spiral point tap sizes: 3 each 6-32, 8-32, 10-24, 10-32 & 1/4-20; 2 each 5/16-18, 3/8-16, 7/16-14 & 1/2-13; 1 each 4-40, 12-24, 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20, 5/8-11, 5/8-18, 3/4-10 & 3/4-16. Super premium hex die sizes: 1 each 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 5/8-11, 5/8-18, 3/4-10 & 3/4-16; 2 each 1/4-20.

Includes glass front stocking cabinet

EDP #835160

TAP, DIE, & DRILL ASSORTMENTS

SUPER PREMIUM TAP & DIE SET METRIC TOOLS

14 piece, spiral point taps & hex dies

Set contains: HSS spiral point taps sizes: 2.5-.45, 3.0-.50, 3.5-.60, 4.0-.70, 5.0-.80 & 6.0-1.00. HSS hex dies sizes: 3.0-.50, 3.5-.60, 4.0-.70, 5.0-.80 & 6.0-1.00. T-handle tap wrench: 0-1/4". Economy die stock & screw pitch gauge. Supplied in black plastic case with clear sliding cover.

EDP #835172

SUPER PREMIUM TAP & DIE SET

15 piece, spiral point taps & hex dies.

Set contains: HSS spiral point taps & HSS hex dies sizes: 6-32, 8-32, 10-24, 10-32, 12-24 & 1/4-20.

T-Handle tap wrench: 0-1/4". Economy die stock & screw pitch gauge. Supplied in black plastic case with clear sliding cover.

EDP #835174

SUPER PREMIUM TAP & DIE SET METRIC TOOLS

23 piece, spiral point taps & hex dies.

Set contains: HSS spiral point taps & HSS hex dies sizes: 3.0-.50, 3.5-.60, 4.0-.70, 5.0-.80, 6.0-1.00, 8.0-1.25, 10.0-1.50 & 12.0-1.75. HSS pipe tap and hex die size 1/8-27NPT. T-Handle wrenches: 0-1/4" & 3/16"-1/2". Straight handle tap wrench: #4-1/2". Die stock & screw pitch gauge. Supplied in sturdy red plastic case.

EDP #835170

SUPER PREMIUM TAP & DIE SET

25 piece, spiral point taps & hex dies.

Set contains: HSS spiral point taps & HSS hex dies sizes: 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 & 1/2-20. HSS pipe tap and hex die size 1/8-27NPT. T-Handle tap wrench: 3/16"-1/2". Die stock & screw pitch gauge. Supplied in sturdy red plastic case.

EDP #835173

TAP, DIE, & DRILL ASSORTMENTS

SUPER PREMIUM TAP & DIE SET

40 piece, spiral point taps & hex dies.

Set contains: HSS spiral point taps & HSS hex dies sizes: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 & 1/2-20. HSS pipe tap and hex die size 1/8-27NPT. T-Handle tap wrenches: 0-1/4" & 3/16"-1/2". Straight handle tap wrench: #4-1/2". Die stock, screw pitch gauge and screw driver. Supplied in sturdy red plastic case.

EDP #835181

SUPER PREMIUM TAP & DIE SET

40 piece, straight flute taps & hex dies.

Set contains: HSS straight flute taps & HSS hex dies sizes: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 & 1/2-20. HSS pipe tap and hex die size 1/8-27NPT. T-Handle tap wrenches: 0-1/4" & 3/16"-1/2". Straight handle tap wrench: #4-1/2". Die stock, screw pitch gauge & screw driver. Supplied in sturdy red plastic case.

EDP # 835171

SUPER PREMIUM LARGE TAP & DIE SET

58 piece, straight flute taps & hex dies.

Set contains: HSS straight flute taps & HSS hex dies sizes: 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 9/16-12, 9/16-18, 5/8-11, 5/8-18, 3/4-10, 3/4-16, 1/8-27NPT & 1/4-18NPT. Straight handle tap wrenches #4-1/2" & 1/4"-3/4". Die stocks MED R/H & 1" R/H, T-Handle tap wrench 0-1/4". Screw pitch gauge, screw driver & spiral flute extractors sizes: EX 1 thru EX 5.

EDP #861680



DRILL SETS

4 pc	5/16, 3/8, 7/16 & 1/2
5 pc	1/4, 5/16, 3/8, 7/16 & 1/2
7 pc	1/16, 3/32, 1/8, 5/32, 3/16, 7/32 & 1/4 or 1/8 thru 1/2 by 64ths
8 pc	1/16 thru 1/2 by 16ths
10 pc	1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32 & 1/4
11 pc	1/16 thru 3/8 by 32nds or 1.0mm thru 6.0mm by .5mm
13 pc	1/16 thru 1/4 by 64ths
14 pc	1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8, 7/16, & 1/2. Sizes 5/16 & up have 1/4 shank
15 pc	1/16 thru 1/2 by 32nds
20 pc	61 thru 80

21 pc	1/16 thru 3/8 by 64ths
21 pc	1/16 thru 1/4 by 64ths, 9/32 thru 1/2 by 32nds
25 pc	1.0mm thru 13.0mm by .5mm
26 pc	A thru Z
29 pc	1/16 thru 1/2 by 64ths
60 pc	1 thru 60
115 pc	1/16 thru 1/2 by 64ths, A thru Z, 1 thru 60
S&D 4	9/16, 5/8, 3/4 & 1"
S&D 8	9/16 thru 1 inch by 16ths silver and deming
S&D 33	1/2" thru 1 inch by 64ths silver and deming
TRI-1	1/16 thru 1/4 by 64ths in hang up index

EDP #	SET QTY	EDP #	SET QTY	EDP #	SET QTY	EDP #	SET QTY	EDP #	SET QTY
831580	7	844110	13	887650	8	866460	13	857910	15
ACRYLIC DRILLS		844120	15	LEFT HAND SPIRAL		866470	15	892340	21R
		844130	21			857810	21	857920	29
		888660	26			866480	29	MECHANIC LGTH	
		844150	29		MECHANIC LGTH		ALL DRILLS WILL		
		888640	60		3 FLATS ON		FIT 3/8" CHUCK		
		893840	115		SHANK 3/16"		3 FLATS ON SHK		
		806510	13		AND LARGER		3/16" AND LARGER		

EDP #	EDP #	EDP #	SET #	EDP #	SET #	EDP #	SET #
866490	29	892110	15	858650	11M	812260	S&D-4
823560	60	892100	29	858660	25M	843200	S&D-8
SCREW MACH. LENGTH		892170	21R	METRIC		843201	S&D-33
		ALL DRILLS WILL FIT 3/8" CHUCK				812250	S&D-4SP
						892400	S&D-8SP
						892401	S&D-33SP



DECIMAL EQUIVALENTS

• FRACTIONAL • WIRE • METRIC • LETTER SIZES

Drill Size	Decimal	Drill Size	Decimal	Drill Size	Decimal	Drill Size	Decimal	Drill Size	Decimal
00.10	.0039	54	.0550	25	.1495	H	.2660	29/64	.4531
97	.0059	01.40	.0551	03.80	.1496	06.80	.2677	11.80	.4646
96	.0063	01.45	.0571	24	.1520	06.90	.2717	15/32	.4688
95	.0067	01.50	.0591	03.90	.1535	I	.2720	12.00	.4724
94	.0071	53	.0595	23	.1540	07.00	.2756	12.20	.4803
93	.0075	01.55	.0610	5/32	.1562	J	.2770	31/64	.4844
92	.0079	1/16	.0625	22	.1570	07.10	.2795	12.50	.4921
00.20	.0079	01.60	.0630	04.00	.1575	K	.2810	1/2	.5000
91	.0083	52	.0635	21	.1590	9/32	.2812	1300	.5118
90	.0087	01.65	.0650	20	.1610	07.20	.2835	33/64	.5156
89	.0091	01.70	.0669	04.10	.1614	07.30	.2874	17/32	.5312
88	.0095	51	.0670	04.20	.1654	L	.2900	13.50	.5315
87	.0100	01.75	.0689	19	.1660	07.40	.2913	35/64	.5469
86	.0105	50	.0700	04.30	.1693	M	.2950	14.00	.5512
85	.0110	01.80	.0709	18	.1695	07.50	.2953	9/16	.5625
84	.0115	01.85	.0728	11/64	.1719	19/64	.2969	14.50	.5709
00.30	.0118	49	.0730	17	.1730	07.60	.2992	37/64	.5781
83	.0120	01.90	.0748	04.40	.1732	N	.3020	15.00	.5906
82	.0125	48	.0760	16	.1770	07.70	.3031	19/32	.5938
81	.0130	01.95	.0768	04.50	.1772	07.80	.3071	39/64	.6094
80	.0135	5/64	.0781	15	.1800	07.90	.3110	15.50	.6102
00.35	.0138	47	.0785	04.60	.1811	5/16	.3125	5/8	.6250
79	.0145	02.00	.0787	14	.1820	08.00	.3150	16.00	.6299
1/64	.0156	02.05	.0807	13	.1850	O	.3160	41/64	.6406
00.40	.0157	46	.0810	04.70	.1850	08.10	.3189	16.50	.6496
78	.0160	45	.0820	3/16	.1875	08.20	.3228	21/32	.6562
00.45	.0177	02.10	.0827	12	.1890	P	.3230	17.00	.6693
77	.0180	02.15	.0846	04.80	.1890	08.30	.3268	43/64	.6719
00.50	.0197	44	.0860	11	.1910	21/64	.3281	11/16	.6875
76	.0200	02.20	.0866	04.90	.1929	08.40	.3307	17.50	.6890
75	.0210	02.25	.0886	10	.1935	Q	.3320	45/64	.7031
00.55	.0217	43	.0890	9	.1960	08.50	.3346	18.00	.7087
74	.0225	02.30	.0906	05.00	.1969	08.60	.3386	23/32	.7188
00.60	.0236	02.35	.0925	8	.1990	R	.3390	18.50	.7283
73	.0240	42	.0935	05.10	.2008	08.70	.3425	47/64	.7344
72	.0250	3/32	.0938	7	.2010	11/32	.3438	19.00	.7480
00.65	.0256	02.40	.0945	13/64	.2031	08.80	.3465	3/4	.7500
71	.0260	41	.0960	6	.2040	S	.3480	49/64	.7656
00.70	.0276	02.45	.0965	05.20	.2047	08.90	.3504	19.50	.7677
70	.0280	40	.0980	5	.2055	09.00	.3543	25/32	.7812
69	.0292	02.50	.0984	05.30	.2087	T	.3580	20.00	.7874
00.75	.0295	39	.0995	4	.2090	09.10	.3583	51/64	.7969
68	.0310	38	.1015	05.40	.2126	23/64	.3594	20.50	.8071
1/32	.0312	02.60	.1024	3	.2130	09.20	.3622	13/16	.8125
00.80	.0315	37	.1040	05.50	.2165	09.30	.3661	21.00	.8268
67	.0320	02.70	.1063	7/32	.2188	U	.3680	53/64	.8281
66	.0330	36	.1065	05.60	.2205	09.40	.3701	27/32	.8438
00.85	.0335	7/64	.1094	2	.2210	09.50	.3740	21.50	.8465
65	.0350	35	.1100	05.70	.2244	3/8	.3750	55/64	.8594
00.90	.0354	02.80	.1102	1	.2280	V	.3770	22.00	.8661
64	.0360	34	.1110	05.80	.2283	09.60	.3780	7/8	.8750
63	.0370	33	.1130	05.90	.2323	09.70	.3819	22.50	.8858
00.95	.0374	02.90	.1142	A	.2340	09.80	.3858	57/64	.8906
62	.0380	32	.1160	15/64	.2344	W	.3860	23.00	.9055
61	.0390	03.00	.1181	06.00	.2362	09.90	.3898	29/32	.9062
01.00	.0394	31	.1200	B	.2380	25/64	.3906	54/64	.9219
60	.0400	03.10	.1220	06.10	.2402	10.00	.3937	23.50	.9252
59	.0410	1/8	.1250	C	.2420	X	.3970	15/16	.9375
01.05	.0413	03.20	.1260	06.20	.2441	10.20	.4016	24.00	.9449
58	.0420	30	.1285	D	.2460	Y	.4040	61/64	.9531
57	.0430	03.30	.1299	06.30	.2480	10.30	.4055	24.50	.9646
01.10	.0433	03.40	.1339	1/4	.2500	13/32	.4062	31/32	.9688
01.15	.0453	29	.1360	E	.2500	Z	.4130	25.00	.9843
56	.0465	03.50	.1378	06.40	.2520	10.50	.4134	63/64	.9844
3/64	.0469	28	.1405	06.50	.2559	27/64	.4219	1	1.0000
01.20	.0472	9/64	.1406	F	.2570	10.80	.4252		
01.25	.0492	03.60	.1417	06.60	.2598	11.00	.4331		
0.130	.0512	27	.1440	G	.2610	7/16	.4375		
55	.0520	03.70	.1457	06.70	.2638	11.20	.4409		
01.35	.0531	26	.1470	17/64	.2656	11.50	.4528		

BAND SAW BLADES

Bi-Metal

M42

- Material no. 1.3247
- hardness approx.
67-69 HRC

M51

- material no. 1.3207
- hardness approx. 69 HRC, with high tungsten and cobalt content

Flexible:

- The blade back of our Bi-Metal Band Saw Blade consists of a special alloyed spring steel. Highly flexible at a hardness of about 50 HRC. The ideal basis for long fatigue life and excellent cutting performance.

Hard and Wear Resistant

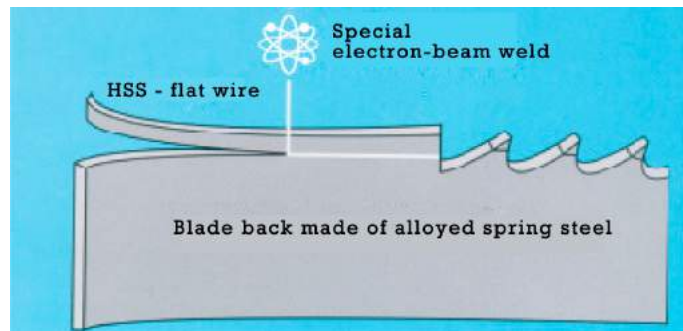
- Tooth tips made of hardened HSS-Steel in M42 or M51 quality

Perfectly Joint:

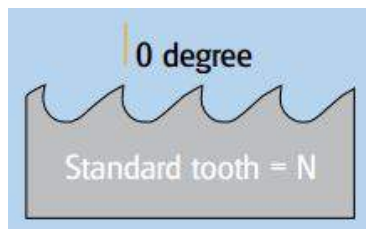
- Both materials are undetachably welded together

Advantages:

The high quality Bi-Metal band combines the flexibility of the spring steel backing with the enormous wear resistance of high speed steel. Each tooth tip of the finished band is of hardened HSS-steel, extremely durable for best performance.



Tooth Forms



Designed for:

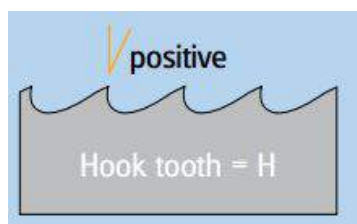
- Short chipping materials
- Light wall thickness

Data:

- Rake angle 0°
- 4 to 18 tpi

Article-groups:

100, 110, 420



Designed for:

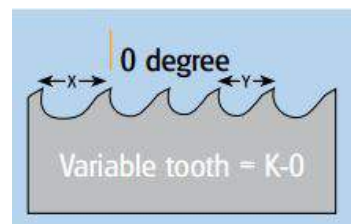
- Long chipping materials
- Large cross sections

Data:

- Positive rake angle
- 1.25 to 6 tpi

Article-groups:

100, 110, 421, 426, 427



Designed for:

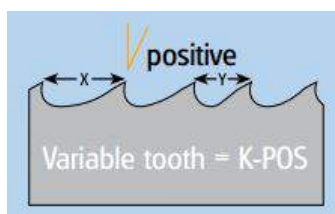
- Low vibration cutting
- Structurals

Data:

- Rake angle 0°
- Variable tooth pitch of 3/4 to 10/14 tpi

Article-groups:

430



Designed for:

- Low Vibration cutting
- Solid Materials

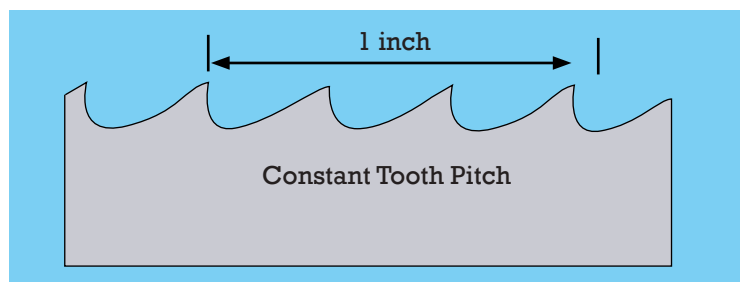
Data:

- Positive rake angle
- Variable tooth pitch of 0.75/1.25 to 4/6 tpi

Article-groups:

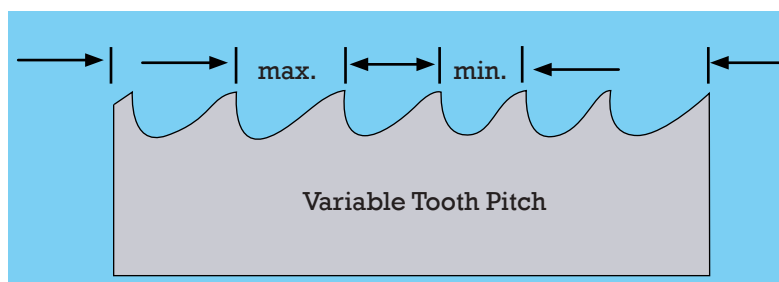
431, 434, 435, 436,
437, 438, 531, 537

Tooth Pitch



The tooth distance is equally spaced. The number of teeth per inch (25.4 mm) denotes the tooth of the saw blade.

The tooth distances vary within a group of teeth. The smallest and the longest tooth pitch denotes the variable tooth of the saw blade.



BAND SAW BLADES

M42-Sprint



Structural- Professional for light and medium wall thickness

Single bundle cuts, non ferrous structurals and sheet metal

General purpose blade

TPI 3/4, 4/6, 5/8, 6/10, 8/12, 10/14

Dimension

inch

1/4 x 0,035

3/8 x 0,035

1/2 x 0,025

1/2 x 0,035

3/4 x 0,035

1 1/16 x 0,035

1 1/4 x 0,042

1 1/2 x 0,050

2 x 0,050

2 x 0,063

Variable tooth

	3/4	4/6	5/8	6/10	8/12	10/14
1/4 x 0,035						K
3/8 x 0,035						K
1/2 x 0,025				K	K	K
1/2 x 0,035				K	K	K
3/4 x 0,035		K	K	K	K	K
1 1/16 x 0,035	K	K	K	K	K	K
1 1/4 x 0,042	K	K	K	K	K	K
1 1/2 x 0,050	K	K	K	K		
2 x 0,050	K	K				
2 x 0,063	K	K				

K = Variable tooth

M42-Sprint Plus



Solid material of medium and large dimensions

Heavy wall tubes, single and bundle cuts, non ferrous material

TPI .75/1.25, 1/2, 2/3, 3/4, 4/6

Dimension

inch

3/4 x 0,035

1 x 0,035

1 1/4 x 0,042

1 1/2 x 0,050

2 x 0,050

2 x 0,063

2 5/8 x 0,063

3 1/8 x 0,063

Variable tooth

	0,75/1,25	1/2	2/3	3/4	4/6
3/4 x 0,035					K
1 x 0,035			K	K	K
1 1/4 x 0,042			K	K	K
1 1/2 x 0,050		K	K	K	K
2 x 0,050		K	K	K	K
2 x 0,063		K	K	K	K
2 5/8 x 0,063	K	K	K	K	
3 1/8 x 0,063	K	K	K		

K = Variable tooth

BAND SAW BLADES

M42- Profiler Sprint



Outstanding performance for heavy fabricators

Medium to large H-Beams, angles and similar shapes

TPI 2/3. 3/4. 4/6

Dimension

inch

1 1/4 x 0,042

1 1/2 x 0,050

2 x 0,050

2 x 0,063

2 5/8 x 0,063

Variable tooth

2/3	3/4	4/6
K	K	K
K	K	K
K	K	
K	K	K
K	K	K

K = Variable tooth

M42- Maxima Sprint



Outstanding in tough alloys and difficult materials, long chipping steels, stainless steels, titanium base alloys, special bronze, copper alloys, nickel base alloys, exotic difficult to cut alloys, solid material of many sections.

Dimension

inch

1 1/4 x 0,042

1 1/2 x 0,050

2 x 0,050

2 x 0,063

Variable tooth

2/3	3/4
K	K
K	K
K	
K	K

K = Variable tooth

BAND SAW BLADES

M42- Star



Dimension inch	Teeth per inch					
	4	6	8	10	14	18
1/4 x 0.035				N	N	
3/8 x 0.035				N	N	
1/2 x 0.025				N	N	N
1/2 x 0.035				N	N	
3/4 x 0.035	N	N	N	N	N-W	
1 x 0.035	N	N	N	N	N-W	
1 1/4 x 0.042	N	N				
1 1/2 x 0.050	N	N				

All purpose blade for small dimension solid steel cross sections up to 4" and non ferrous metals

TPI 4, 6, 8, 10, 14, 18

M42- Star Plus



Dimension inch	Teeth per inch				
	1.25	2	3	4	6
1/4 x 0.035					H
3/8 x 0.035				H	H
1/2 x 0.025					H
1/2 x 0.035			H	H	H
3/4 x 0.035			H	H	
1 x 0.035		H	H	H	H
1 1/4 x 0.042	H	H	H		
1 1/2 x 0.050	H	H	H		
2 x 0.050	H	H	H		
2 x 0.063	H	H	H		
2 5/8 x 0.063	H	H	H		
3 1/8 x 0.063	H	H	H		

H = Hook tooth

For larger solid bars, cross sections over 4", non ferrous metals

TPI 1.25, 2, 3, 4, 6

Disposable Fiberglass Panel Filter



Heavy-duty one piece frame is bonded to industrial grade media with either metal retainer grill or scrim on one side.

- Available in 1/2", 1" and 2" nominal thicknesses

- Also available in a polyester media version

Pleated Panel Filter



Filter offers significantly higher efficiencies, longer life and better dust-holding capacities than conventional flat panel filters.

- Moisture resistant 100% synthetic media

- Extended surface filters are available in many efficiencies, capacities, and thicknesses

- Premium grade meets the ASHRAE 52.2 MERV 11 standard

Residential Products & Media Replacement



High efficiency replacement media packs for Honeywell, Spaceguard and General air cleaners.

- Proprietary air cleaners cabinet incorporates an attractive beige steel housing and is designed for quick and easy maintenance
- Replacement media packs provide higher efficiency than traditional filters and are easy to install

Electrostatic Filters



Filters will remove up to 90% by weight of common indoor contaminants. No electrical hook-up required and no moving parts.

- Inexpensive to purchase, use and maintain
- Excellent replacements for low efficiency furnace type filters

Polyester Media, Rolls and Pads



Premium commercial and industrial grade media provides extra protection for HVAC coils and equipment

- Wide Variety of widths, thicknesses, lengths and media grades
- High efficiency media is available in a variety of sizes

Foam Media, Rolls and Pads



Washable media stocked in various widths, thicknesses and lengths

- Standard 1/4", 1/2" and 1" thicknesses
- Available in hog hair and synthetic media
- Rigid media can be cut into any pad size

Fiberglass Media, Rolls and Pads



Complete line of various widths, thicknesses, lengths and media grades

- Widely used in hammock-style furnaces
- Available in utility rolls and pads

pads

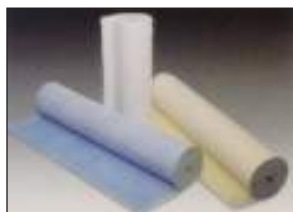
Paint and Finishing Products



Expanded paper, synthetic and fiberglass media are designed to collect paint over-spray without face loading and clogging

- Available in virtually any size
- Wide variety of air intake filters for any paint and spray booth application

Automatic Roll Filters



Fiberglass and polyester media are both offered in a variety of grades and styles

- Heavy-duty paper trailers and leaders are standard for easy installation and disposal
- Standard 45' and 65' lengths
- Universal replacement for all makes and models

Panels and Links Filter



High loft synthetic filter media heat-sealed around an internal wire frame

- Wide variety of media grades, efficiencies and layers
- Available as panels or connected links
- Self-gasketing perimeter
- Rust resistant galvanized wire

Cube Filters



These medium efficient synthetic filters offer high dust-holding capacity and a self sealing perimeter

- Galvanized steel header is optional
- Standard or unitized cube construction

Filters



Extended surface medium & high efficiency bag-type air filters are available in four efficiencies, a wide variety of sizes and pocket configurations

- Available in fiberglass or synthetic media
- Standard or stiff pocket configurations
- Stitched construction or sonically welded

Rigid Cell Filters



Rigid compact design is not affected by variation in air flow. Commonly used in both side access and built-up filter banks

- Extended surface pleat construction is available in many efficiency ranges with or without a header
- Synthetic and fiberglass media options

FP Filters



Compact mini pleat design is only 12" deep, yet large filter surface area (193 sq. ft.) offers extremely long service life, low pressure drop and high dust holding capacity

- Offered in many efficiencies and sizes
- Filters rated up to 3,000 CFM
- Available in gas phase models
- Can replace bag and box style filters

Mini-Pleat Filters



Our 4" deep mini-pleated filter will remove air contaminants such as fine dust, smoke, vapor, soot, pollen and bacteria

- Extended surface pleat construction is available in many efficiency ranges with or without a header
- Synthetic and fiberglass media options

ASHRAE Cartridge Filters



Features include high dust holding, with moisture resistant media and compact 12" depth.

- Available in three different efficiencies and a wide range of sizes
- Header is standard, high temp models available
- Galvanizes steel frame provides exceptional strength

ASHRAE Cartridge Filters



Filters are used when the highest possible degree of air purification is necessary

- HEPA and ULPA efficiencies available
- Wide variety of sizes and configurations

HV (High Volume) HEPA Filters



Extremely rugged compact construction offers 366 sq. ft. of effective filter surface area in a durable frame

- Pressure drop of 1" w.g. at 2,000 CFM
- Available in HEPA efficiencies (99.97% and 99.99% at 3.0 micron)

Bio-Safety



Corrugated aluminum separator designs with sturdy wood or aluminum frames

- Available in HEPA and ULPA efficiencies
- Sturdy galvanized aluminum or wood frames
- Custom sizes and configurations

Cleanrooms



Comprehensive product line includes cleanroom panels, replaceable and ducted modules

- Available in HEPA and ULPA efficiencies
- Durable extruded aluminum frame
- Gas phase and high efficiency complimentary filters available

Gas Phase Filters



We offer a wide variety of gas sorbent products and can custom design a filter to meet your specific needs

- Products utilize a variety of media types, brands and grades.
- Wide range of sizes, configurations and sorbent levels

Inner Seal Housing



Durable housing in a leak proof design can replace most standard filter housings. Designed with a 1 3/8" flange to simplify the mounting to existing ductwork

- 1", 2" & 4" track options available
- No extra clips or gasketing needed

Baffle Grease Filters



Baffles are positioned to eliminate direct passage of flame through filter and to ensure removal of grease

- Designed for commercial-type kitchens
- Meets NFPA std. 96 and UL

Washable Metal Filters



Heavy-duty galvanized steel, aluminum, or stainless steel mesh filters are available in 1/2", 1" and 2" thicknesses

- Can be used as roughing filters in air handling units or as grease filters in kitchen exhaust installations
- Air and grease applications

Holding Frames and Clips



All holding frames are provided with pre-punched mounting holes that are self-aligning for quick and easy assembly

- All common styles of filter clips are available
- Pad holding frames are made of a durable galvanized metal
- Available in 1/2", 1" and 2" thicknesses

Dust Bags



Complete line of replacement and custom bags to fit all manufactures bag housings

- Wide variety of woven and non-woven media for reverse air, shaker, pulse and envelope style dust collectors
- Snap band, corded cuff or metal band clamp models

Pleated Dust Bags and Cartridges



A variety of media available, such as cellulose/ synthetic blend.

- Low life cycle cost
- Specialty finishes available
- Variety of caps and end plates

Power Systems



Complete line of gas turbine pre-filters, barrier filters and pulse cartridges. Durably built to withstand a variety of demanding power system applications

- Filters designed for low-pressure drop applications with high dust holding properties
- No rivets, bolts or other metal fastening devices which can damage gas turbine equipment

Liquid Filter Bags



Complete line of micron-rated liquid filter bags and media

- Designed to ensure easy installation, change-out and disposal
- Universal replacements for most leading brands

Liquid Vessels and Systems



- Code and non-code bag and stainer filter vessels
- Single, duplex, multiple units for flowrates 1 to 45,000 GPM
- User-friendly designs
- Complete line of filter bags

Tri-Mat II Casino

The World's Leading Industrial Matting for Gaming Table Dealers



Features:

- Very user friendly, light weight, easy to clean
- National Floor Safety Institute approved, non-slip quality tested 40% higher than any other sponge mat
- Non-allergenic, latex and silicone free
- Tri-Mats are complete with safety bevel, all service carts roll over our mats with ease
- Excellent in wet or dry areas

Benefits:

- Promotes employee wellness
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Deli counters and restaurants
- Cashiers
- Gaming tables
- Front desk
- And many more usage areas for standing workers

Warranty:

- The Tri-Mat II Casino is guaranteed against defects in materials and workmanship for 18 months, including premature wear
- Life expectancy 3-6 years

Cleaning:

- Very light weight, easy to lift and clean. Can be cleaned with eXtreme clean, Tri-Clean Super, Tri-Orange or Orange Solve



Tri-Mat II Casino

2 ft. (W) x 3 ft. (L) x 3/4"

Also available in larger sizes

EDP # TM2003
(available in black only)

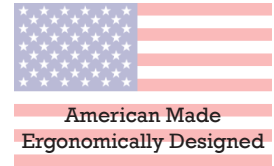
Thickness and sizes:

- Approximately 3/4"
- All mats are approximate in size + or - to 1". Sponge products are not zero tolerance materials due to expansion and contraction.

Please Note: Tri-Mat II Casino has been specifically designed to reduce the risk of slips and falls, while increasing safety and comfort in the work place. Tri-Chem accepts no responsibility for damages involving the use of our products. No products can guarantee that accidents will not happen. Suitability to tasks and operations in all aspects must be determined by the user of the mat.

Tri-Mat I

**The world's leading Anti-Microbial Hospitality Matting.
Famous for Hospitals, Food Prep Areas, Hotels and Casinos.**



Features:

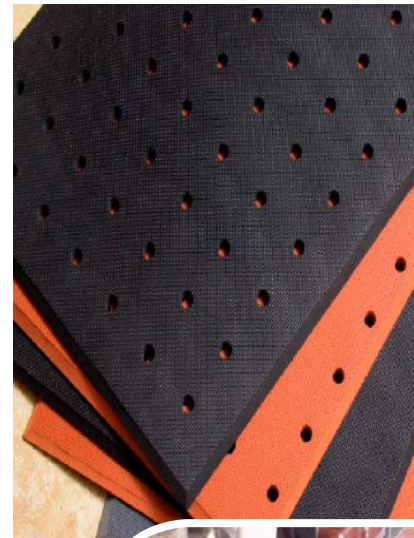
- Works well in all areas, great in wet or oily applications. Closed cell feature eliminates absorption of liquids and fluids
- Very user friendly, light weight, easy to clean
- National Floor Safety Institute approved, non-slip quality tested 40% higher than any other sponge mat
- Non-allergenic, latex and silicone free
- Tri-Mats are complete with safety bevel. All service carts roll over our mats with ease

Benefits:

- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Automotive manufacturing, assembly lines, chemical plants
- Furniture manufacturers, service counters, shipping & receiving mats
- Factory and fabrication, mechanic areas, steel factory
- Bucket trucks, parts manufacturing, and many more usage areas for standing workers



Non-Slip Properties:

- Excellent
- Wet or dry applications
- Oily and slippery surfaces
- NFSI tested and approved

Tri-Mat I:

- Standard width 22", 24", 42", 48" 60", 72"
- Factory bonded every 72" or when necessary
- Beveled edge on all sides for ease of cart traffic and added safety

Tri-Mat I Cont.

Warranty:

- The Tri-Mat I is guaranteed against defects in materials and workmanship for 2 years, including premature wear
- Life expectancy 3-8 years

Patterns:

- Original aggressive bottom for oily areas. Smooth top for easy hand cleaning and for dry areas

Burn Test:

- UL94 HBF Extinguished in 10 Sec., burned 1/4"

Chemical Resistance:

- Excellent
- The Tri-Mat I will not be affected by petroleum products, chemicals, animal or vegetable fats
- Recent chemical testing of : methylene-chloride, acetone, methanol, ethanol, hexane, sodium bisulfate, trichlorethylene. Tri-Mat I showed minimal degradation while maintaining its integrity and non-slip surface

Cleaning:

- Very light weight, easy to lift and clean. Can be cleaned with Multi-Tri cleaner (to be used in steam cleaning applications) or use Tri-Clean Extreme
- Maximum temperature of 250 degrees
- For disinfectant cleaning follow your normal protocol

Raw Material:

- Fabricated from superior closed cell virgin nitrile rubber with an antimicrobial compound added as part of the manufacturing process to prevent mold, mildew and bacterial growth.

Tri-Mat I In-Stock Sizes

Item #	Size
M10000 - B or G	20" x 24" x 3/4"
M10001 - B or G	20" x 33" x 3/4"
M10002 - B or G	22" x 48" x 3/4"
M10003 - B or G	22" x 72" x 3/4"
M10010 - B or G	24" x 36" x 3/4"
M10004 - B or G	24" x 42" x 3/4"
M10005 - B or G	30" x 36" x 3/4"
M10011 - B or G	36" x 36" x 3/4"
M10007 - B or G	36" x 42" x 3/4"
M10006 - B or G	36" x 60" x 3/4"
M10008 - B or G	40" x 48" x 3/4"
M10009 - B or G	42" x 72" x 3/4"

B=black
G=gray

The following sizes are available with
3/4" drain holes

Item #	Size
M10012 - B or G	2' x 3' x 3/4"
M10013 - B or G	30" x 3' x 3/4"
M10014 - B or G	3' x 3' x 3/4"
M10015 - B or G	3' x 5' x 3/4"

CUSTOM LENGTHS AVAILABLE

B=black
G=gray

Thickness and sizes:

- Approximately 3/4"
- All mats are approximate in size + or - to 1".
Sponge products are not zero tolerance materials due to expansion and contraction.
- 3" yellow safety stripe available, This is a bonded yellow material, not paint.

Please Note: Tri-Mat I has been specifically designed to reduce the risk of slips and falls, while increasing safety and comfort in the work place. Tri-Chem accepts no responsibility for damages involving the use of our products. No products can guarantee that accidents will not happen. Suitability to tasks and operations in all aspects must be determined by the user of the mat.

Tri-Mat II

The World's Leading Industrial Matting



Features:

- Works well in all areas, great in wet or oily applications. Closed cell feature eliminates absorption of liquids and fluids
- Very user friendly, light weight, easy to clean
- National Floor Safety Institute approved, non-slip quality tested 40% higher than any other sponge mat
- Non-allergenic, latex and silicone free
- Tri-Mats are complete with safety bevel. All service carts roll over our mats with ease

Benefits:

- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Automotive manufacturing, assembly lines, chemical plants
- Furniture manufacturers, service counters, shipping & receiving mats
- Factory and fabrication, mechanic areas, steel factory
- Bucket trucks, parts manufacturing, and many more usage areas for standing workers



Non-Slip Properties:

- Excellent
- Wet or dry applications
- Oily and slippery surfaces
- NFSI tested and approved

Edge:

- Beveled on all sides for ease of cart traffic and added safety

Tri-Mat II Cont.

Warranty:

- The Tri-Mat II is guaranteed against defects in materials and workmanship for 18 months, including premature wear
- Life expectancy 3-6 years

Patterns:

- Original aggressive top and bottom for oily and wet areas.

Burn Test:

- UL94 HBF Extinguished in 10 Sec., burned 1/4"

Chemical Resistance:

- Good
- The Tri-Mat II is resistant to petroleum products, chemicals, animal or vegetable fats. For superior durability refer to Tri-Mat I

Cleaning:

- Very light weight, easy to lift and clean. Can be cleaned with Multi-Tri cleaner (to be used in steam cleaning applications) or use Tri-Clean Extreme
- Maximum temperature of 200 degrees
- For disinfectant cleaning follow your normal protocol

Raw Material:

- Fabricated from superior closed cell virgin nitrile rubber
- For food service, food processing or sterile areas, such as medical facilities or restaurants, please refer to Tri-Mat I material with anti-microbial and its superior closed cell values

Tri-Mat II

Material by the foot

Standard widths available in continuous lengths up to 75 feet

Available in black only

3" yellow safety stripe available.
This is a bonded yellow material, not paint

Standard width

0'-2'

2'-3'

3'-4'

Thickness and sizes:

- Approximately 3/4"
- All mats are approximate in size + or - to 1".
Sponge products are not zero tolerance materials due to expansion and contraction.

Please Note: Tri-Mat II has been specifically designed to reduce the risk of slips and falls, while increasing safety and comfort in the work place. Tri-Chem accepts no responsibility for damages involving the use of our products. No products can guarantee that accidents will not happen. Suitability to task and operations in all aspects must be determined by the user of the mat.

Electro-Static Discharge Tri-Mat

This product was designed for protection against Electro-Static Discharge. The rubber mat is conductive for a rapid discharge to ground. These anti-fatigue mats are scientifically and ergonomically designed to reduce strains, pains, and works compensation claims related to prolonged standing.



American Made
Ergonomically Designed

Features:

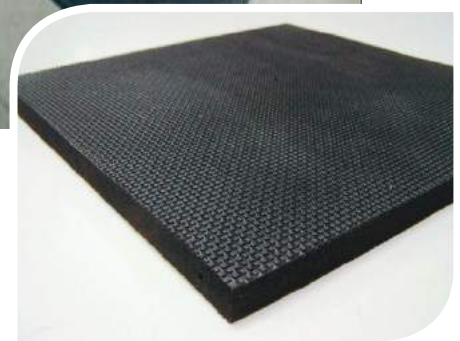
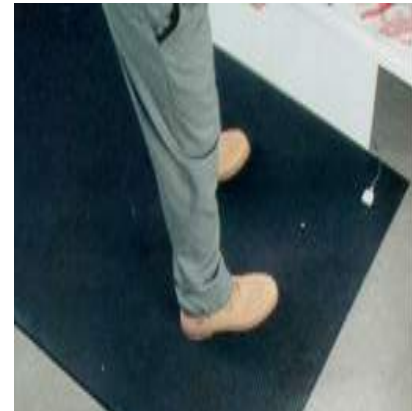
- Works well in all areas, great in wet or oily applications. Closed cell feature eliminates absorption of liquids and fluids
- Very user friendly, light weight, easy to clean
- National Floor Safety Institute approved, non-slip quality tested 40% higher than any other sponge mat
- Non-allergenic, latex and silicone free
- Tri-Mats are complete with safety bevel. All service carts roll over our mats with ease

Benefits:

- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Automotive manufacturing, assembly lines, chemical plants
- Furniture manufacturers, service counters, shipping & receiving mats
- Factory and fabrication, mechanic areas, steel factory
- Bucket trucks, parts manufacturing, clean room applications
- Computer manufacturers, computer equipment repair, cellular phone manufacturers
- Electronic production and repair, graphic arts, ammunition manufacturers
- Electrical equipment, semi-conductor manufacturing



Non-Slip Properties:

- Excellent
- Wet or dry applications
- Oily and slippery surfaces
- NFSI tested and approved

Edge:

- Beveled on all sides for ease of cart traffic and added safety

Electro-Static Discharge Tri-Mat Cont.

Warranty:

- The EDS is guaranteed against defects in materials and workmanship for 18 months, including premature wear
- Life expectancy 3-8 years

Patterns:

- Original aggressive top and bottom for oily and wet areas.

Chemical Resistance:

- Excellent
- The EDS Tri-Mat will not be affected by petroleum products or chemicals
- We will proudly provide samples for testing

Cleaning:

- Very light weight, easy to lift and clean. Can be cleaned with Multi-Tri cleaner (to be used in steam cleaning applications) or use Tri-Clean Extreme
- Maximum temperature of 200 degrees
- For disinfectant cleaning follow your normal protocol

Raw Material:

- Fabricated from superior closed cell virgin nitrile rubber

Physical and Electrical Specifications:

- Closed cell non absorbent

Resistance point to point, bottom layer, same; 5×10^5 OHMS

Charge decay time, 5000 volts to 100 volts, FTMS 101C, Method 4046; <0.01 Second

Durometer, shore 00, ASTM D-2240; 50 Seconds

Burn Test, UL94HBF; Passed, Extinguished in 10 sec., burned 1/4"

ESD Material

Size	EDP #'s
22" x 3'	E10000
36" x 30"	E10001
36" x 5'	E10002

The above sizes can be cut to a custom width and length. Runners are available in 3' width. Factory bonded every 5' or when necessary.

3/8" Male or Female grounding snaps are available upon request. Ground cord not supplied.

Grounding snaps

E10003-M

E10003-F

Thickness and sizes:

- Approximately 5/8"
- All mats are approximate in size + or - to 1".
Sponge products are not zero tolerance materials due to expansion and contraction.

Please Note: EDS Tri-Mat has been specifically designed to reduce the risk of slips and falls, while increasing safety and comfort in the work place. Tri-Chem accepts no responsibility for damages involving the use of our products. No products can guarantee that accidents will not happen. Suitability to tasks and operations in all aspects must be determined by the user of the mat.

Tri-Duro Mat

The Human Resource Manager's solution to slip and falls. Reduction of stains, pains, and worker's compensation claims related to prolonged standing. The softest, most comfortable mat on the planet, the Tri-Duro Mat is impervious to acids, chemicals and petroleum products.



Features:

- Tri-Duro Mat features fire-retardant, self-extinguishing, hard top or bottom
- Works well in all areas, great in wet or oily applications. Closed cell feature eliminates absorption of liquids and fluids
- Very user friendly, light weight, easy to clean
- National Floor Safety Institute approved
- Non-allergenic, latex and silicone free
- Tri-Duro Mats are complete with safety bevel, all service carts roll over our mats with ease

Benefits:

- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Machinist areas, maintenance areas, automotive applications
- Welding shops, automotive manufacturing, assembly lines
- Factory & fabrication, mechanic areas, steel factories
- And many more usage for standing workers



Non-Slip Properties:

- Excellent
- Wet or dry applications
- Oily and slippery surfaces
- NFSI tested and approved

Edge:

- Beveled on all sides for ease of cart traffic and added safety

Tri-Duro Mat Cont.

Warranty:

- The Tri-Duro Mat is guaranteed against defects in materials and workmanship for 18 months, including premature wear
- Life expectancy 3-8 years

Tri-Duro Mat Runners:

- Standard widths 2', 3', 4'
- Custom sizes and shapes available, ask for a free quote

Patterns:

- Original Tri-Mat I pattern with excellent non-slip quality on bottom. Etched non-slip pattern on top

Temperature:

- Maximum temperature of 200 degrees for sponge part of mat. Up to 3,000 degrees on top surface of mat

Chemical Resistance:

- Excellent
- The Tri-Duro Mat will not be affected by commonly used acids, bleaches, and other chemicals

Cleaning:

- Light and easy to clean and transport. Withstands all types of cleaning including chemicals, steam and high pressure water cleaning
- Can be cleaned with Multi-Tri cleaner (to be used in steam cleaning applications) or Tri-Clean Extreme

Raw Material:

- Fabricated from superior closed cell virgin nitrile rubber with durable neoprene hard top

Tri-Duro Mat

The ultimate anti-fatigue solution for machinist and welder applications. This orthopedic wonder works well in all areas of the industrial work place.

Order by the foot

2' Wide
3' Wide
4' Wide

Comes in black only

Custom sizes available

Tri-Duro Mat's protective top surface will with-stand hot metal sparks, and is metal chip resistant

Thickness and sizes:

- Approximately 3/4" to 9/16"
- All mats are approximate in size + or - to 1". Sponge products are not zero tolerance materials due to expansion and contraction.

Please Note: Tri-Duro Mat has been specifically designed to reduce trauma caused by prolonged standing while increasing safety and comfort in the work place. Tri-Chem Corp. accepts no responsibility for damages involving the use of our products. No product can guarantee that accidents will not happen. Suitability to tasks and operations in all aspects must be determined by the user of the mat.

Tri-Tuff Mat

The world's leading anti-fatigue matting and one of the most durable coatings in existence combine to give you one of the most unique mats on the market today; making this the last mat you will EVER buy!



Features:

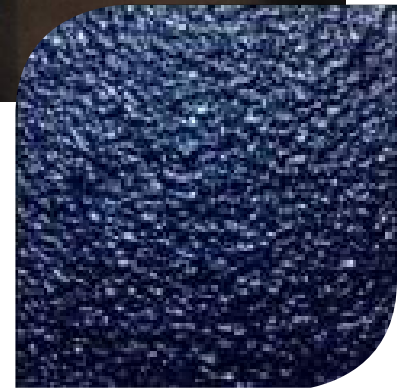
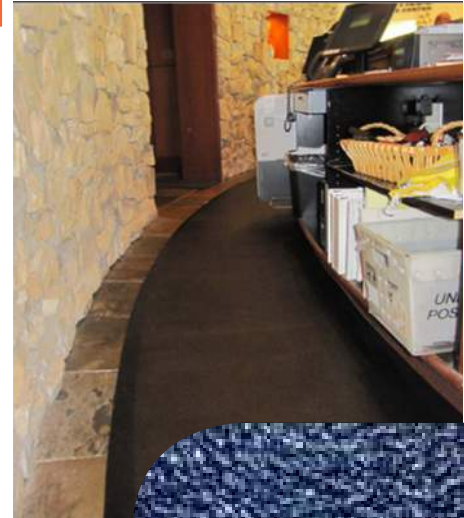
- Ultra durable top coat
- Seamless top coat to avoid mat separation and tripping
- Manufactured with virgin Ortho Mat closed cell NBR sponge
- High heel friendly
- Works best in dry applications
- Easy to clean surface
- Chair & carts roll over this mat with ease
- Non-allergenic, latex, and silicone free

Benefits:

- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Industrial work cell/stations, hotel front end departments
- Security and ticket booths, cashier and counting cages
- Gyms and golf service area, table top mats, stand up forklift pads
- Equipment box liners, And many more applications



TRI-TUFF Surface

Non-Slip Properties:

- The Tri-Tuff Mat is excellent for dry applications
- For wet or oily surfaces, refer to Tri-Anti Slip Mat

Edge:

- TRI-TUFF MAT is complete with a 2" safety bevel on all sides for ease of cart traffic & added safety

Tri-Tuff Mat Cont.

Warranty:

- The Tri-Tuff Mat is guaranteed against defects in materials and workmanship for 18 months, including premature wear
- Life expectancy 5-8 years

Top Surface Options:

- Tuff Mat protective coating available in black, tan, light and dark gray
- Surface does not shed, making it perfect for clean room usage

Flooring:

- Wall to wall Tri-Tuff mat flooring should be ordered over-size and cut to fit on location to match exact room dimensions

Customize your Tri-Tuff Mat:

- Custom sizes, shapes and die cut pieces available. Have your Tri-Chem sales representative submit your diagram for a factory quote. Custom mats are subject to a longer lead time.

Cleaning:

- Easy to clean surface
- For disinfectant cleaning follow your normal protocol

Guarantee:

- The Tri-Tuff Mat is endorsed by Chiropractors & Orthopedic Surgeons
- Tri-Tuff mat welcomes the opportunity to be compared. We will proudly provide samples for testing

Tri-Tuff Mat

This amazing flooring product can be fabricated to any shape or size. Please submit drawing with dimensions and beveling specifications to your Tri-Chem sales representative for a quote.

Yellow or Red 2" safety borders available

Size	Weight
2' x 3'	4.50 lbs
3' x 3'	6.75 lbs
3' x 4'	9.00 lbs
3' x 5'	11.25 lbs

Thickness and sizes:

- Approximately 3/4"
- All mats are approximate in size + or - to 1". Sponge products are not zero tolerance materials due to expansion and contraction.

Please Note: Tri-Tuff Mat has been specifically designed to reduce the risk of slips and falls, while increasing safety and comfort in the work place. Tri-Chem accepts no responsibility for damages involving the use of our products. No products can guarantee that accidents will not happen. Suitability to tasks and operations in all aspects must be determined by the user of the mat.

Tri-Duro Kneeling Pad

Features:

- Tri-Duro Kneeling Pad features fire-retardant, self-extinguishing, hard top or bottom
- Works well in all areas, great in wet or oily applications. Closed cell feature eliminates absorption of liquids and fluids
- Very user friendly, light weight, easy to clean
- National Floor Safety Institute approved
- Non-allergenic, latex and silicone free

Areas of Use:

- Working in and around boilers
- Machinist areas, maintenance areas, automotive applications
- Welding shops, automotive manufacturing, assembly lines
- Factory & fabrication, mechanic areas, steel factories

Non-Slip Properties:

- Excellent
- Wet or dry applications
- Oily and slippery surfaces
- NFSI tested and approved



Warranty:

- The Tri-Duro Kneeling Pad is guaranteed against defects in materials and workmanship for 2 years, including premature wear
- Life expectancy 3-8 years

Patterns:

- Original Tri-Mat I pattern with excellent non-slip quality on bottom. Etched non-slip pattern on top

Temperature:

- Maximum temperature of 200 degrees for sponge part of mat. Up to 3,000 degrees on top surface of mat

Chemical Resistance:

- Excellent
- The Tri-Duro Kneeling Pad will not be affected by commonly used acids, bleaches, and other chemicals



Back of Kneeling Pad



Front of Kneeling Pad

Kneeling Pads

Features and Benefits:

- Works well in all areas, great in wet or oily applications. Closed cell feature eliminates absorption of liquids and fluids.
- Very user friendly, light weight, easy to clean.
- National Floor Safety Institute approved, non-slip quality tested 40% higher than any other sponge mat.
- Non-allergenic, latex and silicone free.
- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort.

10" x 18" x $\frac{3}{4}$ "	Rounded, Non-Beveled, Black Tri-Mat I
14" x 21" x $\frac{3}{4}$ "	Square, Beveled, Gray Tri-Mat I
14" x 21" x $\frac{3}{4}$ "	Square, Beveled, Black Tri-Mat I
14" x 21" x $\frac{3}{4}$ "	Square, Beveled, Black Tri-Mat II



Tri-Square Plastic Matting

"Build your own" tile flooring system

Features:

- Anti-fatigue- 1" thick tile supported by 81 "mini shock absorbers"
- Modular Design- Tiles fit snugly together to create any mat size
- Excellent Drainage- Waffle grid design allows maximum drainage
- Top is available in Standard, Carbide Grit Top, Encapsulated Dura Grit and Anti-Static
- Available in Plain, Hard, Super Soft, and Ultra Soft
- Credit toward new product when old matting is returned after 5 year warranty expires
- Available in a variety of colors

Benefits:

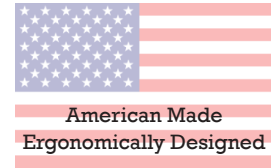
- Promotes employee wellness
- Immediate increase in productivity and employee morale due to work place comfort
- Guaranteed increased reduction of exposure to prolonged cold, heat and vibration
- Reduces spinal compression
- Increases circulation
- Ergonomically designed guaranteed reduction of back, leg, foot and ankle fatigue

Areas of Use:

- Workstations, ADA ramps, walkways, tool rooms
- Chemical prep rooms, remote bathrooms, cafeterias
- Fluid filling areas, conveyor lines, machining operations
- And many more usage areas for standing workers

Conductive or Static Dissipative Features:

- Conductive Resistivity 10^4 - 10^6 ASTM D-257
- Static Dissipative Resistivity 10^6 - 10^9 ASTM D-257



Edge:

- 1" thick beveled ramps available

Non-Slip Properties:

- Excellent
- Wet or dry applications
- Oily and slippery surfaces
- NFSI tested and approved

Tri-Square Plastic Matting Cont.

Available Slip Resistance:

- Plain- textured vinyl (good)
- DuraGrit- Polyurethane grit (better)
- Grit Top- Carbide grit (best)

Chemical Resistance:

- Excellent
- The Tri-Square Plastic Mat is resistant to petroleum products, chemicals, animal or vegetable fats.
- We will proudly provide samples for testing. Tri-Square Plastic Mat welcomes the opportunity to be compared.

Cleaning:

- Very light weight, easy to lift and clean. Can be cleaned with eXtreme clean.
- For disinfectant cleaning follow your normal protocol

Warranty:

- The Tri-Square Plastic Mat is guaranteed against defects in materials and workmanship for 5 years, including premature wear

Raw Material:

- Made from 100% recycled materials

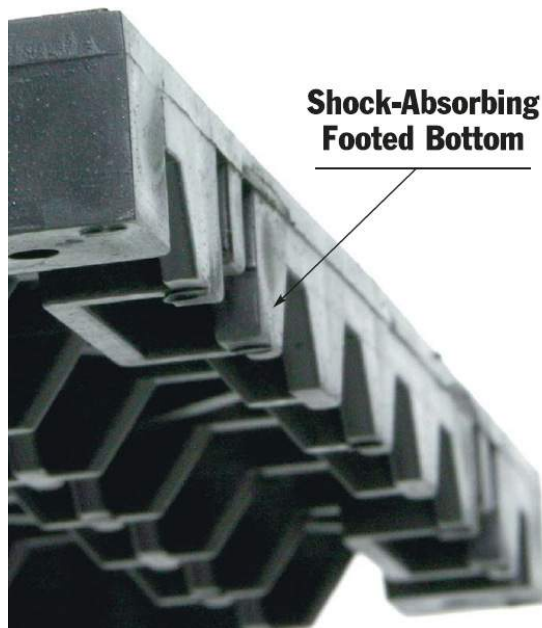
Thickness and sizes:

- Approximately 1"
- Each interlocking tile is 12" x 12" x 1"

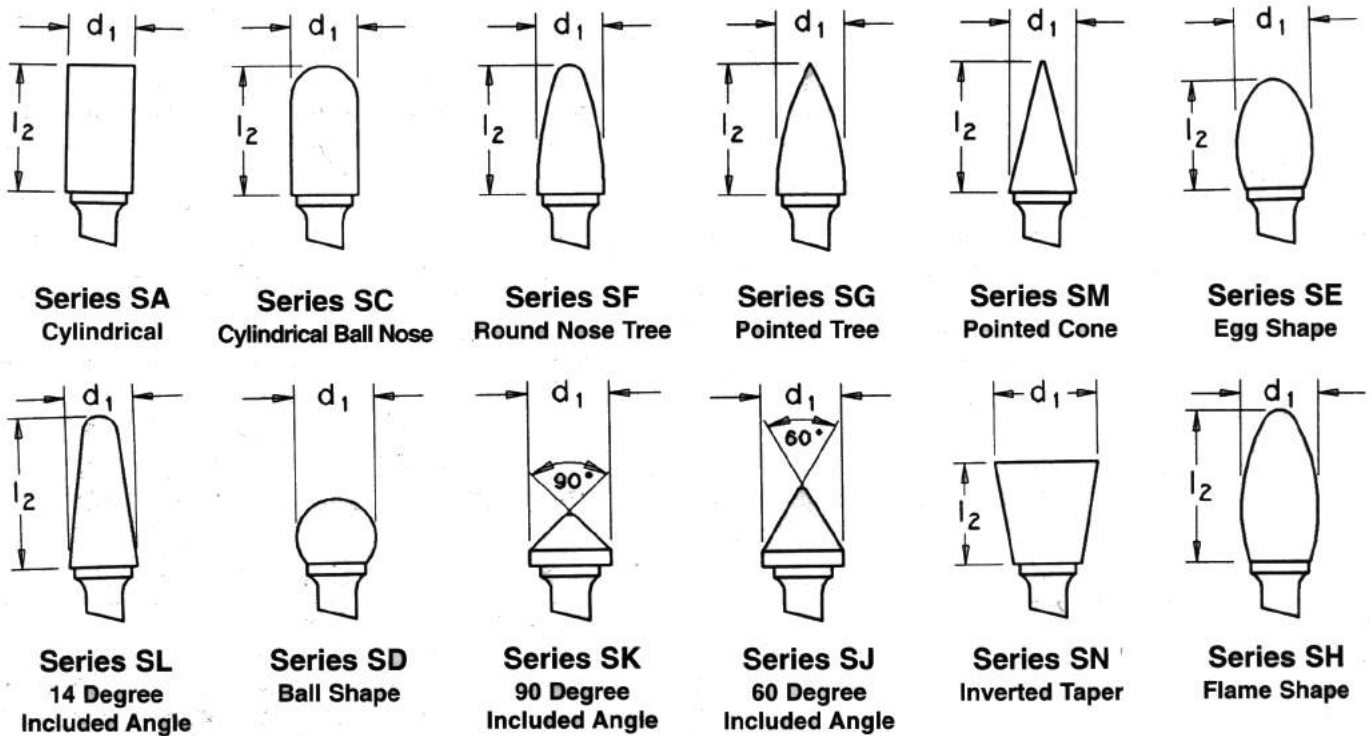
Please Note: Tri-Square Plastic Mats has been specifically designed to reduce the risk of slips and falls, while increasing safety and comfort in the work place. Tri-Chem accepts no responsibility for damages involving the use of our products. No products can guarantee that accidents will not happen. Suitability to task and operations in all aspects must be determined by the user of the mat.

Also Available:

- Mezzo Mat- For mezzanines
- Grate Mat- For platforms
- Step Mat- For grate stairs



Shapes and SCTI identification



Styles of Cut



Medium Tough Cut

Engineered specifically for tough applications. Tough cut insures faster, splinter free cutting in weld and alloy casting with increased tool life.



Medium Right Hand Spiral

General Purpose, recommended where fair stock removal and smooth finish are required.



Aluminum Cut

Designed for use on aluminum, non-ferrous metals, soft steel, reinforced plastics and other soft materials.

Recommended Cutting Speed for Carbide Burs

Diameter	R.P.M	Max. R.P.M
1/16"	55,000 - 85,000	90,000
3/32"	50,000 - 60,000	85,000
1/8"	35,000 - 65,000	80,000
3/16"	30,000 - 55,000	75,000
1/4"	25,000 - 50,000	70,000
5/16"	18,000 - 38,000	65,000
3/8"	17,000 - 38,000	63,000
7/16"	13,000 - 37,000	55,000
1/2"	14,000 - 36,000	50,000
5/8"	11,000 - 23,000	40,000
3/4"	8,000 - 19,000	30,000
1"	7,000 - 18,000	25,000

NOTE: Use lower speeds when cutting harder ferrous materials and higher speeds for softer non-ferrous materials

CARBIDE BUR SET

1/4" Shank

Available in many individual shapes and sizes.

MADE IN THE USA

Single Cut Set EDP# 329240

Double Cut Set EDP# 329250



Head Dia.	Head Length	Overall Length	Shank	SCTI	Description
1/2"	1"	2 3/4"	1/4"	SA5	Cyl/Plain
1/4"	5/8"	2"	1/4"	SC1	Cyl/Radius
3/8"	3/4"	2 1/2"	1/4"	SC3	Cyl/Radius
3/8"	5/16"	2 1/16"	1/4"	SD3	Ball
1/2"	7/8"	2 5/8"	1/4"	SE5	Oval
1/4"	5/8"	2"	1/4"	SG1	Tree/Pointed
1/2"	1"	2 3/4"	1/4"	SF5	Tree/Radius
1/2"	1/4"	2"	1/4"	SK5	90° Deburring



1/8" Shank

Available in many individual shapes and sizes.

MADE IN THE USA

Single Cut Set EDP# 329260

Double Cut Set EDP# 329290

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Description
1/8"	1/2"	1 1/2"		1/8"	SA43	Cyl/Plain
1/4"	1/2"	2"		1/8"	SA51	Cyl/Plain
1/8"	1/2"	1 1/2"		1/8"	SC42	Cyl/Radius
1/4"	1/2"	2"		1/8"	SC51	Cyl/Radius
1/8"	1/8"	1 1/2"		1/8"	SD42	Ball
1/4"	1/4"	1 3/4"		1/8"	SD51	Ball
1/8"	3/8"	1 1/2"		1/8"	SG43	Tree/Pointed
1/4"	1/2"	2"		1/8"	SF51	Tree/Radius
1/8"	1/2"	1 1/2"	7°	1/8"	SL42	Cone/Radius
1/8"	1/8"	1 1/2"	14°	1/8"	SN42	Inverted Cone
1/4"	1/4"	1 3/4"	10°	1/8"	SN51	Inverted Cone
1/4"	1/2"	2"	22°	1/8"	SM51	Cone

SHIPYARD BUR SET



1/4" Shank

The most aggressive bur on the market, outperforms even a diamond cut bur.

MADE IN THE USA

EDP# 709053

Head Dia.	Head Length	Overall Length	Shank	SCTI	Description
1/2"	1"	2 3/4"	1/4"	SA5	Cyl/Plain
1/2"	1"	2 3/4"	1/4"	SC5	Cyl/Radius
1/2"	7/8"	2 5/8"	1/4"	SE5	Oval
3/8"	1 1/16"	2 13/16"	1/4"	SL3	Cone/Radius
1/2"	1 1/8"	2 7/8"	1/4"	SL4	Cone/Radius
3/8"	3/4"	2 1/2"	1/4"	SF3	Tree/Radius
1/2"	1"	2 3/4"	1/4"	SF5	Tree/Radius
1/2"	1"	2 3/4"	1/4"	SG5	Tree/Pointed

CARBIDE BURS

1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

EDP #	SCTI	d ₁	l ₂
980107	SA-11*	1/8	1/2
980121	SA-14*	3/16	5/8
980125	SA-1*	1/4	5/8
980129	SA-2	5/16	3/4
980143	SA-3	3/8	3/4
980147	SA-4	7/16	1
981310	SA-5F	1/2	1/2
980161	SA-5	1/2	1
980168	SA-6	5/8	1
980181	SA-16	3/4	3/4
981339	SA-7	3/4	1
980189	SA-9	1	1

Series 801- Cylindrical Medium Tough Cut



Series 802- Cylindrical Ball Nose Medium Tough Cut



EDP #	SCTI	d ₁	l ₂
980207	SC-11*	1/8	1/2
980221	SC-14*	3/16	5/8
980225	SC-1*	1/4	5/8
980229	SC-2	5/16	3/4
980243	SC-3	3/8	3/4
980247	SC-4	7/16	1
980261	SC-5	1/2	1
980268	SC-6	5/8	1
980281	SC-7	3/4	1

Series 803-Round Nose Tree Medium Tough Cut

EDP #	SCTI	d ₁	l ₂
980325	SF-1*	1/4	5/8
980343	SF-3	3/8	3/4
983310	SF-13	1/2	3/4
980361	SF-5	1/2	1
980368	SF-6	5/8	1
980381	SF-7	3/4	1
983811	SF-14	3/4	1 1/4
983812	SF-15	3/4	1 1/2



1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

EDP #	SCTI	d ₁	l ₂
990107	SA-11*	1/8	1/2
990121	SA-14*	3/16	5/8
990125	SA-1*	1/4	5/8
990129	SA-2	5/16	3/4
990143	SA-3	3/8	3/4
990147	SA-4	7/16	1
991310	SA-5F	1/2	1/2
990161	SA-5	1/2	1
990168	SA-6	5/8	1
990181	SA-16	3/4	3/4
991339	SA-7	3/4	1
990189	SA-9	1	1

Series 901- Cylindrical Medium Right Hand Spiral



Series 902- Cylindrical Ball Nose Medium Right Hand Spiral



EDP #	SCTI	d ₁	l ₂
990207	SC-11*	1/8	1/2
990221	SC-14*	3/16	5/8
990225	SC-1*	1/4	5/8
990229	SC-2	5/16	3/4
990243	SC-3	3/8	3/4
990247	SC-4	7/16	1
990261	SC-5	1/2	1
990268	SC-6	5/8	1
990281	SC-7	3/4	1

Series 903-Round Nose Tree Medium Right Hand Spiral

EDP #	SCTI	d ₁	l ₂
990325	SF-1*	1/4	5/8
990343	SF-3	3/8	3/4
993310	SF-13	1/2	3/4
990361	SF-5	1/2	1
990368	SF-6	5/8	1
990381	SF-7	3/4	1
993811	SF-14	3/4	1 1/4
993812	SF-15	3/4	1 1/2



CARBIDE BURS

1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

EDP #	SCTI	d ₁	l ₂
980425	SG-1*	1/4	5/8
980429	SG-2	5/16	3/4
980443	SG-3	3/8	3/4
984310	SG-13	1/2	3/4
980461	SG-5	1/2	1
980468	SG-6	5/8	1
980481	SG-7	3/4	1
984811	SG-7A	3/4	1 1/2

Series 804- Pointed Tree Medium Tough Cut



Series 805- Pointed Cone Medium Tough Cut



EDP #	SCTI	d ₁	l ₂
980525	SM-1*	1/4	1/2
980562	SM-2*	1/4	3/4
980527	SM-3*	1/4	1
980543	SM-4	3/8	5/8
980561	SM-5	1/2	7/8
980568	SM-6	5/8	1

Series 806- Egg Shape Medium Tough Cut

EDP #	SCTI	d ₁	l ₂
980625	SE-1*	1/4	3/8
980643	SE-3	3/8	5/8
980661	SE-5	1/2	7/8
980668	SE-6	5/8	1
980681	SE-7	3/4	1



1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

EDP #	SCTI	d ₁	l ₂
990425	SG-1*	1/4	5/8
990429	SG-2	5/16	3/4
990443	SG-3	3/8	3/4
994310	SG-13	1/2	3/4
990461	SG-5	1/2	1
990468	SG-6	5/8	1
990481	SG-7	3/4	1
994811	SG-7A	3/4	1 1/2

Series 904- Pointed Tree Medium Right Hand Spiral



Series 905- Pointed Cone Medium Right Hand Spiral



EDP #	SCTI	d ₁	l ₂
990525	SM-1*	1/4	1/2
990562	SM-2*	1/4	3/4
990527	SM-3*	1/4	1
990543	SM-4	3/8	5/8
990561	SM-5	1/2	7/8
990568	SM-6	5/8	1

Series 906- Egg Shape Medium Right Hand Spiral

EDP #	SCTI	d ₁	l ₂
990625	SE-1*	1/4	3/8
990643	SE-3	3/8	5/8
990661	SE-5	1/2	7/8
990668	SE-6	5/8	1
990681	SE-7	3/4	1



CARBIDE BURS

1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

Series 807- 14 Degree included Angle Medium Tough Cut

EDP #	SCTI	d ₁	l ₂	IAD
980725	SL-1*	1/4	5/8	14
980729	SL-2	5/16	7/8	14
980743	SL-3	3/8	1 1/16	14
980761	SL-4	1/2	1 1/8	14
980768	SL-5	5/8	1 5/16	14
980781	SL-7	3/4	1 1/2	14



Series 808- Ball Shape Medium Tough Cut



EDP #	SCTI	d ₁
980807	SD-11*	1/8
980821	SD-14*	3/16
980825	SD-1*	1/4
980829	SD-2	5/16
980843	SD-3	3/8
980861	SD-5	1/2
980868	SD-6	5/8
980881	SD-7	3/4
980889	SD-9	1

Series 849- 90 Degree Cone Medium Tough Cut

EDP #	SCTI	d ₁	IAD
984925	SK-1*	1/4	90
984943	SK-3	3/8	90
984961	SK-4	1/2	90
984968	SK-5	5/8	90
984981	SK-7	3/4	90
984989	SK-9	1	90



1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

Series 907- 14 Degree included Angle Medium Right Hand Spiral

EDP #	SCTI	d ₁	l ₂	IAD
990725	SL-1*	1/4	5/8	14
990729	SL-2	5/16	7/8	14
990743	SL-3	3/8	1 1/16	14
990761	SL-4	1/2	1 1/8	14
990768	SL-5	5/8	1 5/16	14
990781	SL-7	3/4	1 1/2	14



Series 908- Ball Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁
990807	SD-11*	1/8
990821	SD-14*	3/16
990825	SD-1*	1/4
990829	SD-2	5/16
990843	SD-3	3/8
990861	SD-5	1/2
990868	SD-6	5/8
990881	SD-7	3/4
990889	SD-9	1

Series 949- 90 Degree cone Medium Right Hand Spiral

EDP #	SCTI	d ₁	IAD
994925	SK-1*	1/4	90
994943	SK-3	3/8	90
994961	SK-4	1/2	90
994968	SK-5	5/8	90
994981	SK-7	3/4	90
984989	SK-9	1	90



CARBIDE BURS

1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

Series 850- 60 Degree Cone Medium Tough Cut

EDP #	SCTI	d ₁	IAD
985025	SJ-1*	1/4	60
985043	SJ-3	3/8	60
985061	SJ-5	1/2	60
985068	SJ-6	5/8	60
985081	SJ-7	3/4	60
985089	SJ-9	1	60



Series 851- Flame Shape Medium Tough Cut



EDP #	SCTI	d ₁	l ₂
985129	SH-2	5/16	3/4
985161	SH-5	1/2	1 1/4
985168	SH-6	5/8	1 7/16
985181	SH-7	3/4	1 5/8

Series 852- Inverted Taper Medium Tough Cut

EDP #	SCTI	d ₁	l ₂	IAD
985225	SN-1*	1/4	5/16	10
985243	SN-2	3/8	3/8	13
985261	SN-4	1/2	1/2	28
985268	SN-6	5/8	3/4	18
985281	SN-7	3/4	5/8	30



1/4" Shank

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)

Series 950- 60 Degree Cone Medium Right Hand Spiral

EDP #	SCTI	d ₁	IAD
995025	SJ-1*	1/4	60
998029	SJ-3	3/8	60
995043	SJ-5	1/2	60
995061	SJ-6	5/8	60
995068	SJ-7	3/4	60
995081	SJ-9	1	60



Series 951- Flame Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁	l ₂
995129	SH-2	5/16	3/4
995161	SH-5	1/2	1 1/4
995168	SH-6	5/8	1 7/16
995181	SH-7	3/4	1 5/8

Series 952- Inverted Taper Medium Right Hand Spiral

EDP #	SCTI	d ₁	l ₂	IAD
995225	SN-1*	1/4	5/16	10
995243	SN-2	3/8	3/8	13
995261	SN-4	1/2	1/2	28
995268	SN-6	5/8	3/4	18
995281	SN-7	3/4	5/8	30



CARBIDE BURS LONG SHANK

**1/4" Shank Diameter
6" Long Steel Shank**

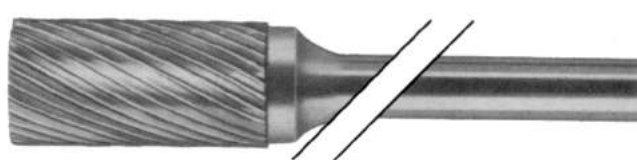
Series 861- Cylindrical Medium Tough Cut

EDP#	SCTI	d ₁	l ₂
986143	SA-3L6	3/8	3/4
986161	SA-5L6	1/2	1



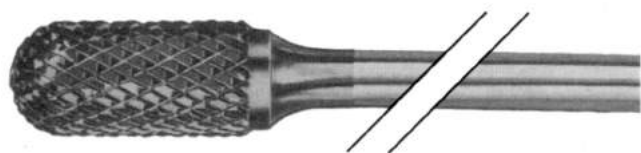
Series 961- Cylindrical Medium Right Hand Spiral

EDP#	SCTI	d ₁	l ₂
996143	SA-3L6	3/8	3/4
996161	SA-5L6	1/2	1



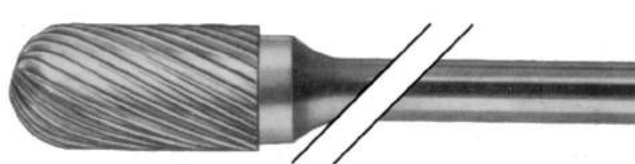
Series 862- Cylindrical Ball Nose Medium Tough Cut

EDP#	SCTI	d ₁	l ₂
986243	SC-3L6	3/8	3/4
986261	SC-5L6	1/2	1



Series 962- Cylindrical Ball Nose Medium Right Hand Spiral

EDP#	SCTI	d ₁	l ₂
996243	SC-3L6	3/8	3/4
996261	SC-5L6	1/2	1



Series 863- Round Nose Tree Medium Tough Cut

EDP#	SCTI	d ₁	l ₂
986343	SF-3L6	3/8	3/4
986361	SF-5L6	1/2	1



Series 963- Round Nose Tree Medium Right Hand Spiral

EDP#	SCTI	d ₁	l ₂
996343	SF-3L6	3/8	3/4
996361	SF-5L6	1/2	1



CARBIDE BURS LONG SHANK

**1/4" Shank Diameter
6" Long Steel Shank**

Series 867- 14 Degree Included Angle Medium Tough Cut

EDP#	SCTI	d ₁	l ₂
986743	SL-3L6	3/8	1 1/16
986761	SL-5L6	1/2	1 1/8



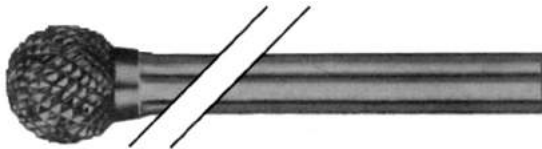
Series 967- 14 Degree Included Angle Medium Right Hand Spiral

EDP#	SCTI	d ₁	l ₂
996743	SL-3L6	3/8	1 1/16
996761	SL-5L6	1/2	1 1/8



Series 868- Ball Shape Medium Tough Cut

EDP#	SCTI	d ₁
986843	SD-3L6	3/8
986861	SD-5L6	1/2



Series 968- Ball Shape Medium Right Hand Spiral

EDP#	SCTI	d ₁
996843	SD-3L6	3/8
996861	SD-5L6	1/2



CARBIDE BURS ALUMINUM CUT

1/4" Shank

Aluminum cut burs are designed for use on: aluminum, non-ferrous metals, soft steel, reinforced plastics, other soft materials.

Also provides excellent work finish with minimum loading when cutting soft, sticky materials

EDP #	SCTI	d ₁	l ₂
988125	SA-1A	1/4	5/8
988143	SA-3A	3/8	3/4
988161	SA-5A	1/2	1
988168	SA-6A	5/8	1
988181	SA-7A	3/4	1

Series 881- Cylindrical Medium Tough Cut



Series 883- Round Nose Tree Medium Tough Cut



EDP #	SCTI	d ₁	l ₂
988325	SF-1A	1/4	5/8
988343	SF-3A	3/8	3/4
988361	SF-5A	1/2	1
988368	SF-6A	5/8	1
988381	SF-14A	3/4	1 1/4

Series 885- Flame Shape Medium Tough Cut

EDP #	SCTI	d ₁	d ₂
988525	SH-5A	1/2	1 1/16
988568	SH-6A	5/8	1 7/16
988581	SH-7A	3/4	1 5/8



CARBIDE BURS ALUMINUM CUT

Series 887- 14 Degree Included Angle Medium Tough Cut

* indicates solid 1/4" carbide 2" O.A.L., all others have 1/4" diameter hardened steel shank. (3/8" diameter shanks available)



EDP #	SCTI	d ₁	l ₂
988743	SL-3A	3/8	1 1/16
988761	SL-5A	1/2	1 1/8
988768	SL-6A	5/8	1 5/16
988781	SL-7A	3/4	1 1/2

Series 883- Cylindrical Ball Nose Medium Right Hand Spiral



EDP #	SCTI	d ₁	l ₂
988225	SC-1A*	1/4	5/8
988243	SC-3A	3/8	3/4
988261	SC-5A	1/2	1
988268	SC-6A	5/8	1
988281	SC-7A	3/4	1

Series 886- Egg Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁	d ₂
988643	SE-3A	3/8	5/8
988661	SE-5A	1/2	7/8
988668	SE-6A	5/8	1
988681	SE-7A	3/4	1

Series 888- Ball Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁
988825	SD-1A*	1/4
988843	SD-3A	3/8
988861	SD-5A	1/2
988868	SD-6A	5/8

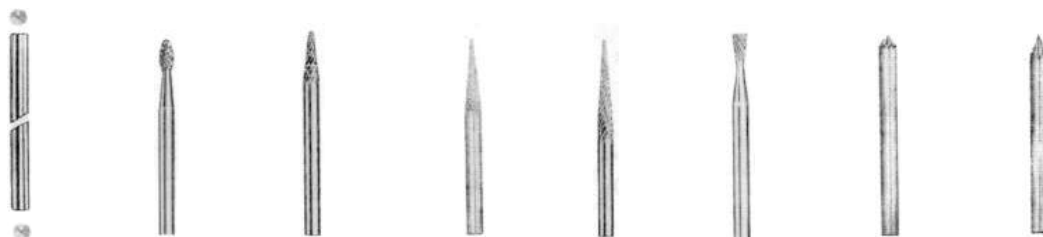
CARBIDE BURS

**1/8" Shank Diameter
1 1/2" Overall Length**

SERIES 800- TOUGH CUT



SCTI	SA-42	SA-43	SB-43	SC-42	SG-44	SF-42	SC-41	SA-41
SIZE	3/32x7/16	1/8x9/16	1/8x9/16	1/8x9/16	1/8x1/2	1/8x1/2	3/32x7/16	1/16x1/4
EDP#	980001	980002	980003	980004	980005	980006	980007	980008



SCTI	SB-ECO	SE-41	SM-41	SM-42	SM-43	SN-42	SJ-42	SK-42
SIZE	1/8	1/8x7/32	1/8x11/32	1/8x7/16	1/8x5/8	1/8x3/16	1/8x3/32	1/8x1/16
TAP. DEG			12	14	7	10 INVER	60	90
EDP#	980009	980010	980011	980012	980013	980014	980015	980016



SCTI	SL-42	SD-41	SD-42	SH-41
SIZE	1/8x1/2	3/32	1/8	1/8x1/4
TAP. DEG	8			
EDP#	980017	980018	980019	980020

**1/8" Shank Diameter
1 1/2" Overall Length**

SERIES 900- MEDIUM RIGHT HAND SPIRAL



SCTI	SA-42	SA-43	SB-43	SC-42	SG-44	SF-42	SC-41	SA-41
SIZE	3/32x7/16	1/8x9/16	1/8x9/16	1/8x9/16	1/8x1/2	1/8x1/2	3/32x7/16	1/16x1/4
EDP#	990001	990002	990003	990004	990005	990006	990007	990008



SCTI	SB-ECO	SE-41	SM-41	SM-42	SM-43	SN-42	SJ-42	SK-42
SIZE	1/8	1/8x7/32	1/8x11/32	1/8x7/16	1/8x5/8	1/8x3/16	1/8x3/32	1/8x1/16
TAP. DEG			12	14	7	10 INVER	60	90
EDP#	990009	990010	990011	990012	990013	990014	990015	990016

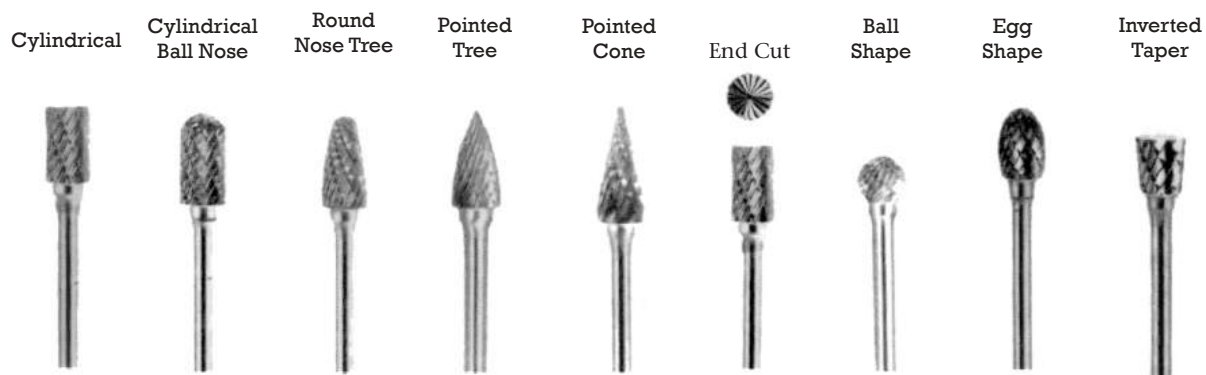


SCTI	SL-42	SD-41	SD-42	SH-41
SIZE	1/8x1/2	3/32	1/8	1/8x1/4
TAP. DEG	8			
EDP#	990017	990018	990019	990020

CARBIDE BURS

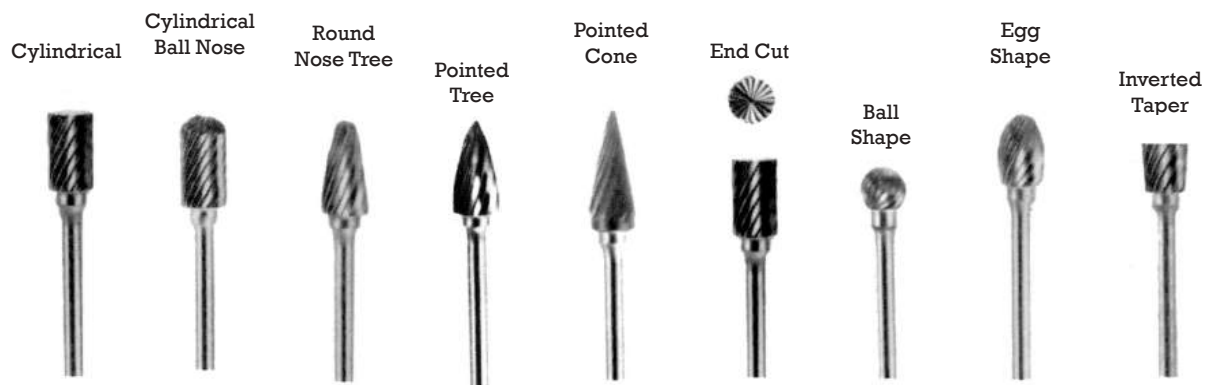
1/4" Diameter Carbide Burs
1/8" Hardened Steel Shank

SERIES 815 TOUGH CUT



SCTI	SA-51	SC-51	SF-51	SG-51	SM-51	SB-51	SD-51	SE-51	SN-51
SIZE	1/4x1/2	1/4x1/2	1/4x1/2	1/4x1/2	1/4x1/2	1/4x3/16	1/4	1/4x3/8	1/4x1/4
TAP. DEG						22			10 INVER
EDP#	981510	981520	981530	981540	981550	981560	981570	981580	981590

SERIES 915- MEDIUM RIGHT HAND SPIRAL



SCTI	SA-51	SC-51	SF-51	SG-51	SM-51	SB-51	SD-51	SE-51	SN-51
SIZE	1/4x1/2	1/4x1/2	1/4x1/2	1/4x1/2	1/4x1/2	1/4x3/16	1/4	1/4x3/8	1/4x1/4
TAP. DEG						22			10 INVER
EDP#	991510	991520	991530	991540	991550	991560	991570	991580	991590

**1/8" Shank Diameter
1 1/2" Overall Length
SERIES 820- TOUGH CUT**



SCTI	SA-52	SA-53	SC-52	SC-53	SF-53	SG-53	SM-53	SE-53
SIZE	5/32x1/2	3/16x1/2	5/32x1/2	3/16x1/2	3/16x1/2	3/16x1/2	3/16x1/2	3/16x9/32
EDP#	982001	982011	982002	982012	982003	982004	982005	982006
TAP.DEG							16	



SCTI	SL-53	SA-53	SC-52	SC-53
SIZE	3/16x1/2	3/16	3/16x3/8	3/16x1/4
EDP#	982007	982008	982009	982010
TAP.DEG				10 INVER

SERIES 920- MEDIUM RIGHT HAND SPIRAL



SCTI	SA-52	SA-53	SC-52	SC-53	SF-53	SG-53	SM-53	SE-53
SIZE	5/32x1/2	3/16x1/2	5/32x1/2	3/16x1/2	3/16x1/2	3/16x1/2	3/16x1/2	3/16x9/32
EDP#	992001	992011	992002	992012	992003	992004	992005	982006
TAP.DEG							16	



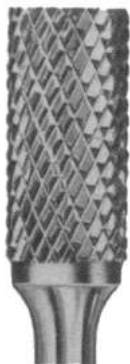
SCTI	SL-53	SA-53	SC-52	SC-53
SIZE	3/16x1/2	3/16	3/16x3/8	3/16x1/4
EDP#	992007	992008	992009	992010
TAP.DEG				10 INVER

CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

Series 801- Cylindrical Medium Tough Cut



EDP #	SCTI	d ₁ mm	l ₂ mm
980114	SA-11*	3	12
980118	SA-14*	4	16
980130	SA-1*	6	16
980134	SA-2	8	19
980137	SA-3	9	19
980150	SA-4	11	25
981309	SA-5F	12	12
980153	SA-5	12	25
980170	SA-6	16	25
980176	SA-16	19	19
981338	SA-7	19	25
980198	SA-9	25	25

Series 802- Cylindrical Ball Nose Medium Tough Cut



EDP #	SCTI	d ₁ mm	l ₂ mm
980207	SC-11*	3	12
980221	SC-14*	4	16
980225	SC-1*	6	16
980229	SC-2	8	19
980243	SC-3	9	19
980247	SC-4	11	25
980261	SC-5	12	25
980268	SC-6	16	25
980281	SC-7	19	25

Series 803-Round Nose Tree Medium Tough Cut

EDP #	SCTI	d ₁ mm	l ₂ mm
980325	SF-1*	6	16
980343	SF-3	9	19
983310	SF-13	12	19
980361	SF-5	12	25
980368	SF-6	16	25
980381	SF-7	19	25
983811	SF-14	19	31
983812	SF-15	19	38



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

EDP #	SCTI	d ₁ mm	l ₂ mm
990114	SA-11*	3	12
990118	SA-14*	5	16
990130	SA-1*	6	16
990134	SA-2	8	19
990137	SA-3	9	19
990150	SA-4	11	25
991309	SA-5F	12	12
990153	SA-5	12	25
990170	SA-6	16	25
990176	SA-16	19	19
991338	SA-7	19	25
990198	SA-9	25	25

Series 901- Cylindrical Medium Right Hand Spiral



Series 902- Cylindrical Ball Nose Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm	l ₂ mm
990214	SC-11*	3	12
990218	SC-14*	5	16
990230	SC-1*	6	16
990234	SC-2	8	19
990237	SC-3	9	19
990250	SC-4	11	25
990253	SC-5	12	25
990270	SC-6	16	25
990276	SC-7	19	25

Series 903-Round Nose Tree Medium Right Hand Spiral

EDP #	SCTI	d ₁ mm	l ₂ mm
990330	SF-1*	6	16
990337	SF-3	9	19
993309	SF-13	12	19
990353	SF-5	12	25
990370	SF-6	16	25
990376	SF-7	19	25
993761	SF-14	19	32
993762	SF-15	19	38



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

EDP #	SCTI	d ₁ mm	l ₂ mm
980430	SG-1*	6	16
980434	SG-2	8	19
980437	SG-3	9	19
984309	SG-13	12	19
980453	SG-5	12	25
980470	SG-6	16	25
980476	SG-7	19	25
984761	SG-7A	19	38

Series 804- Pointed Tree Medium Tough Cut



Series 805- Pointed Cone Medium Tough Cut



EDP #	SCTI	d ₁ mm	l ₂ mm	IAD
980525	SM-1*	6	12	22
980562	SM-2*	6	19	14
980527	SM-3*	6	25	10
980537	SM-4	9	16	28
980553	SM-5	12	22	28
980570	SM-6	16	25	31

Series 806- Egg Shape Medium Tough Cut

EDP #	SCTI	d ₁ mm	l ₂ mm
980625	SE-1*	6	9
980637	SE-3	9	16
980653	SE-5	12	22
980670	SE-6	16	25
980676	SE-7	19	25



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

EDP #	SCTI	d ₁ mm	l ₂ mm
990430	SG-1*	6	16
990434	SG-2	8	19
990437	SG-3	9	19
994309	SG-13	12	19
990453	SG-5	12	25
990470	SG-6	16	25
990476	SG-7	19	25
994761	SG-7A	19	38

Series 904- Pointed Tree Medium Right Hand Spiral



Series 905- Pointed Cone Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm	l ₂ mm	IAD
990525	SM-1*	6	12	22
990562	SM-2*	6	19	14
990527	SM-3*	6	25	10
990543	SM-4	9	16	28
990561	SM-5	12	22	28
990568	SM-6	16	25	31

Series 906- Egg Shape Medium Right Hand Spiral

EDP #	SCTI	d ₁ mm	l ₂ mm
990625	SE-1*	6	6
990637	SE-3	9	16
990653	SE-5	12	22
990670	SE-6	16	25
990676	SE-7	19	25



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

Series 807- 14 Degree included Angle Medium Tough Cut

EDP #	SCTI	d ₁ mm	l ₂ mm	IAD
980725	SL-1*	6	16	14
980734	SL-2	8	22	14
980737	SL-3	9	26	14
980753	SL-4	12	28	14
980770	SL-5	16	33	14
980776	SL-7	19	38	14



Series 808- Ball Shape Medium Tough Cut



EDP #	SCTI	d ₁ mm
980814	SD-11*	3
980818	SD-14*	4
980825	SD-1*	6
980834	SD-2	8
980837	SD-3	9
980853	SD-5	12
980870	SD-6	16
980876	SD-7	19
980898	SD-9	25

Series 849- 90 Degree Cone Medium Tough Cut

EDP #	SCTI	d ₁ mm	IAD
984925	SK-1*	6	90
984937	SK-3	9	90
984953	SK-4	12	90
984970	SK-5	16	90
984976	SK-7	19	90
984998	SK-9	25	90



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

Series 907- 14 Degree included Angle Medium Right Hand Spiral

EDP #	SCTI	d ₁ mm	l ₂ mm	IAD
990725	SL-1*	6	16	14
990734	SL-2	8	22	14
990737	SL-3	9	26	14
990753	SL-4	12	28	14
990770	SL-5	16	33	14
990776	SL-7	19	38	14



Series 908- Ball Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm
990814	SD-11*	3
990818	SD-14*	4
990825	SD-1*	6
990834	SD-2	8
990837	SD-3	9
990853	SD-5	12
990870	SD-6	16
990876	SD-7	19
990898	SD-9	25

Series 949- 90 Degree cone Medium Right Hand Spiral

EDP #	SCTI	d ₁ mm	IAD
994925	SK-1*	6	90
994937	SK-3	9	90
994953	SK-4	12	90
994970	SK-5	16	90
994976	SK-7	19	90
984998	SK-9	25	90



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

Series 850- 60 Degree Cone Medium Tough Cut

EDP #	SCTI	d ₁ mm	IAD
985025	SJ-1*	6	60
985037	SJ-3	9	60
985053	SJ-5	12	60
985070	SJ-6	16	60
985076	SJ-7	19	60
985098	SJ-9	25	60



Series 851- Flame Shape Medium Tough Cut



EDP #	SCTI	d ₁ mm	l ₂ mm
985134	SH-2	8	19
985153	SH-5	12	31
985170	SH-6	16	36
985176	SH-7	19	41

Series 852- Inverted Taper Medium Tough Cut

EDP #	SCTI	d ₁ mm	l ₂ mm	IAD
985225	SN-1*	6	8	10
985237	SN-2	9	9	13
985253	SN-4	12	12	28
985270	SN-6	16	19	18
985276	SN-7	19	16	30



CARBIDE BURS METRIC

6mm Shank

* indicates solid 6mm carbide 50mm O.A.L., all others have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

Series 950- 60 Degree Cone Medium Right Hand Spiral

EDP #	SCTI	d ₁ mm	IAD
995025	SJ-1*	6	60
995037	SJ-3	9	60
995053	SJ-5	12	60
995070	SJ-6	16	60
995076	SJ-7	19	60
995098	SJ-9	25	60



Series 951- Flame Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm	l ₂ mm
995134	SH-2	8	19
995153	SH-5	12	31
995170	SH-6	16	36
995176	SH-7	19	41

Series 952- Inverted Taper Medium Right Hand Spiral

EDP #	SCTI	d ₁ mm	l ₂ mm	IAD
995225	SN-1*	6	8	10
995237	SN-2	9	9	13
995253	SN-4	12	12	28
995270	SN-6	16	19	18
995276	SN-7	19	16	30



CARBIDE BURS LONG SHANK METRIC

**6mm Shank Diameter
152 mm Long Steel Shank**

Series 861- Cylindrical Medium Tough Cut

EDP#	SCTI	d ₁ mm	l ₂ mm
986137	SA-3L6	9	19
986153	SA-5L6	12	25



Series 961- Cylindrical Medium Right Hand Spiral

EDP#	SCTI	d ₁ mm	l ₂ mm
996137	SA-3L6	9	19
996153	SA-5L6	12	25



Series 862- Cylindrical Ball Nose Medium Tough Cut

EDP#	SCTI	d ₁ mm	l ₂ mm
986237	SC-3L6	9	19
986253	SC-5L6	12	25



Series 962- Cylindrical Ball Nose Medium Right Hand Spiral

EDP#	SCTI	d ₁ mm	l ₂ mm
996237	SC-3L6	9	19
996253	SC-5L6	12	25



Series 863- Round Nose Tree Medium Tough Cut

EDP#	SCTI	d ₁ mm	l ₂ mm
986337	SF-3L6	9	19
986353	SF-5L6	12	25



Series 963- Round Nose Tree Medium Right Hand Spiral

EDP#	SCTI	d ₁ mm	l ₂ mm
996337	SF-3L6	9	19
996353	SF-5L6	12	25



CARBIDE BURS LONG SHANK METRIC

**6mm Shank Diameter
152 mm Long Steel Shank**

Series 867- 14 Degree Included Angle Medium Tough Cut

EDP#	SCTI	d ₁ mm	l ₂ mm
986743	SL-3L6	9	26
986761	SL-5L6	12	28



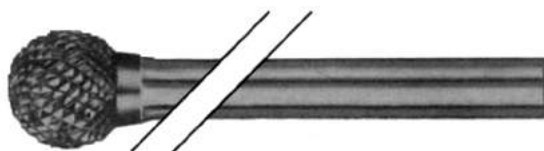
Series 967- 14 Degree Included Angle Medium Right Hand Spiral

EDP#	SCTI	d ₁ mm	l ₂ mm
996743	SL-3L6	9	26
996761	SL-5L6	12	28



Series 868- Ball Shape Medium Tough Cut

EDP#	SCTI	d ₁ mm
986843	SD-3L6	9
986861	SD-5L6	12



Medium Right Hand Spiral Series 968- Ball Shape

EDP#	SCTI	d ₁ mm
996843	SD-3L6	9
996861	SD-5L6	12



CARBIDE BURS ALUMINUM CUT METRIC

6mm Shank

Aluminum cut burs are designed for use on: aluminum, non-ferrous metals, soft steel, reinforced plastics, other soft materials.

Also provides excellent work finish with minimum loading when cutting soft, sticky materials

EDP #	SCTI	d ₁ mm	l ₂ mm
988130	SA-1MA	6	16
988134	SA-3MA	8	19
988137	SA-5MA	9	19
988153	SA-6MA	12	25
988170	SA-7MA	16	25
988176	SA-7MA	19	25

Series 881- Cylindrical Medium Tough Cut



Series 883- Round Nose Tree Medium Tough Cut



EDP #	SCTI	d ₁ mm	l ₂ mm
988330	SF-1MA	6	16
988337	SF-3MA	9	19
988353	SF-5MA	12	25
988370	SF-6MA	16	25
9883766	SF-14MA	19	32

Series 885- Flame Shape Medium Tough Cut

EDP #	SCTI	d ₁ mm	d ₂ mm
988553	SH-5MA	12	32
988570	SH-6MA	16	67
988576	SH-7MA	19	41



CARBIDE BURS ALUMINUM CUT METRIC

Series 887- 14 Degree Included Angle Medium Tough Cut



* indicates solid 6mm carbide 50mm O.A.L., all other have 6mm diameter hardened steel shank. (9mm" diameter shanks available)

EDP #	SCTI	d ₁ mm	l ₂ mm
988737	SL-3MA	9	27
988753	SL-5MA	12	29
988770	SL-6MA	16	33
988776	SL-7MA	19	38

Series 883- Cylindrical Ball Nose Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm	l ₂ mm
988230	SC-1MA*	6	19
988237	SC-3MA	9	19
988253	SC-5MA	12	25
988270	SC-6MA	16	25
988276	SC-7MA	19	25

Series 886- Egg Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm	d ₂ mm
988637	SE-3MA	9	16
988653	SE-5MA	12	22
988670	SE-6MA	16	25
988676	SE-7MA	19	25

Series 888- Ball Shape Medium Right Hand Spiral



EDP #	SCTI	d ₁ mm
988830	SD-1MA*	6
988834	SD-3MA	8
988837	SD-5MA	9
988853	SD-6MA	12
988870	SD-6MA	16

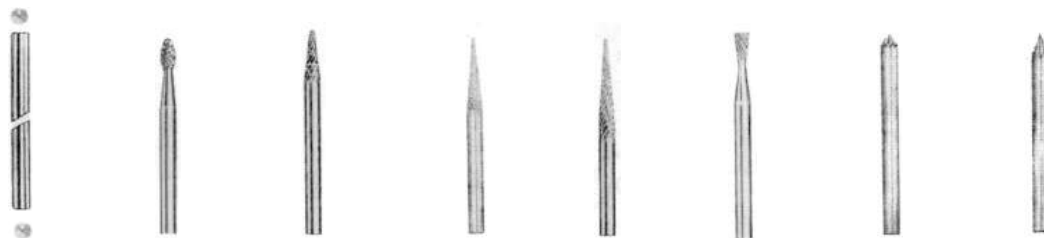
CARBIDE BURS METRIC

**3mm Shank Diameter
38 mm Overall Length**

SERIES 800- TOUGH CUT



SCTI	SA-42	SA-43	SB-43	SC-42	SG-44	SF-42	SC-41	SA-41
SIZE	2.5x11	3x14	3x14	3x14	3x12	3x12	2.5x14	1.5x6
EDP#	980081	980082	980083	980084	980085	980086	980087	980088



SCTI	SB-ECO	SE-41	SM-41	SM-42	SM-43	SN-42	SJ-42	SK-42
SIZE	3	3x5.5	3x8	3x11	3x16	3x5	3x2.5	3x1.5
TAP. DEG			12	14	7	10 INVER	60	90
EDP#	980089	980080	980031	980032	980033	980034	980035	980036



SCTI	SL-42	SD-41	SD-42	SH-41
SIZE	3x12	2.5	3	3x6
TAP. DEG	8			
EDP#	980037	980038	980039	980030

CARBIDE BURS METRIC

SERIES 900- MEDIUM RIGHT HAND SPIRAL



SCTI	SA-42	SA-43	SB-43	SC-42	SG-44	SF-42	SC-41	SA-41
SIZE	2.5x11	3x14	3x14	3x14	3x12	3x12	2.5x14	1.5x6
EDP#	990081	990082	990083	990084	990085	990086	990087	990088



SCTI	SB-ECO	SE-41	SM-41	SM-42	SM-43	SN-42	SJ-42	SK-42
SIZE	3	3x5.5	3x8	3x11	3x16	3x5	3x2.5	3x1.5
TAP. DEG			12	14	7	10 INVER	60	90
EDP#	990089	990080	990031	990032	990033	990034	990035	990036

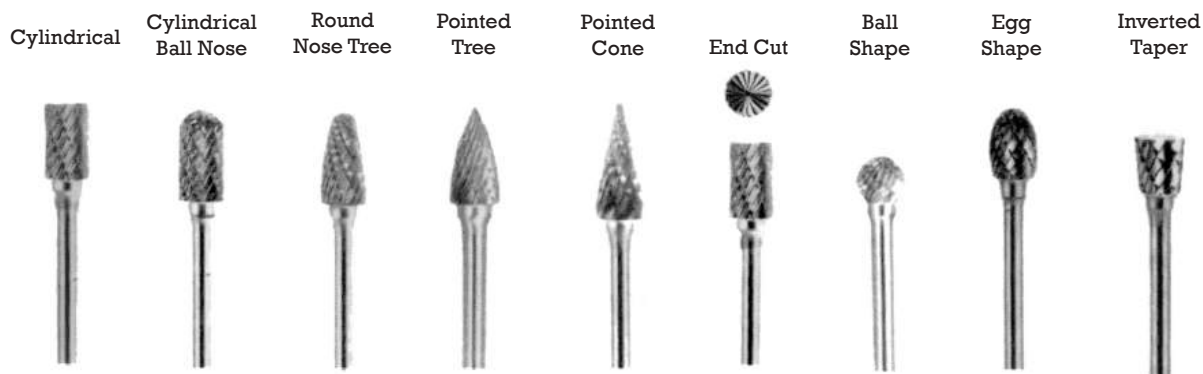


SCTI	SL-42	SD-41	SD-42	SH-41
SIZE	3x12	2.5	3	3x6
TAP. DEG	8			
EDP#	990037	990038	990039	990030

CARBIDE BURS METRIC

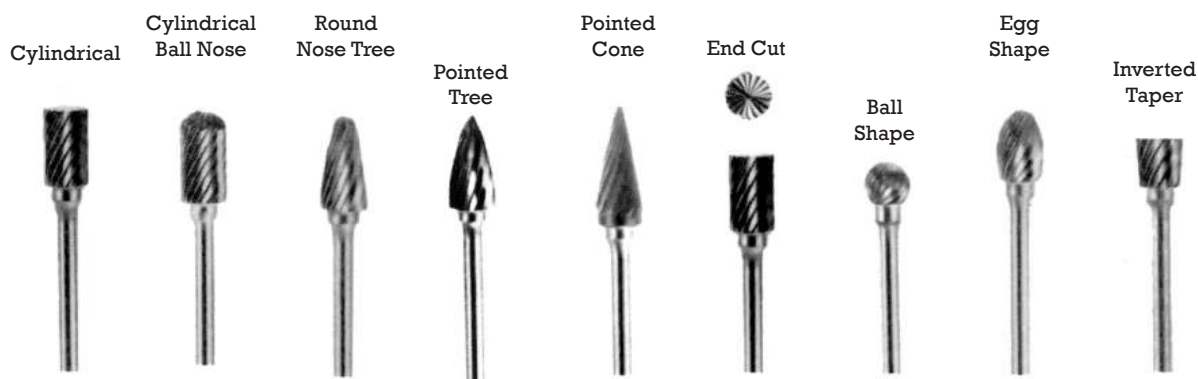
**6mm Diameter Carbide Burs
3mm Hardened Steel Shank**

SERIES 815 TOUGH CUT



SCTI	SA-51	SC-51	SF-51	SG-51	SM-51	SB-51	SD-51	SE-51	SN-51
SIZE	6x12	6x12	6x12	6x12	6x12	6x5	6	6x9	6x6
TAP. DEG						22			10 INVER
EDP#	981513	981523	981533	981543	981553	981563	981573	981583	981593

SERIES 915- MEDIUM RIGHT HAND SPIRAL



SCTI	SA-51	SC-51	SF-51	SG-51	SM-51	SB-51	SD-51	SE-51	SN-51
SIZE	6x12	6x12	6x12	6x12	6x12	6x5	6	6x9	6x6
TAP. DEG						22			10 INVER
EDP#	991513	991523	991533	991543	991553	991563	991573	991583	991593

CARBIDE BURS METRIC

**3mm Shank Diameter
38mm Overall Length-Solid Carbide**

SERIES 820- TOUGH CUT



SCTI	SA-52	SA-53	SC-52	SC-53	SF-53	SG-53	SM-53	SE-53
SIZE	4x12	5x12	4x12	5x12	5x12	4x12	5x12	4x12
EDP#	982013	982015	982023	982016	982033	982043	982053	982063
TAP.DEG							16	



SCTI	SL-53	SA-53	SC-52	SC-53
SIZE	4x12	5	5x9	5x6
EDP#	982073	982083	982093	982014
TAP.DEG				10 INVER

SERIES 920- MEDIUM RIGHT HAND SPIRAL



SCTI	SA-52	SA-53	SC-52	SC-53	SF-53	SG-53	SM-53	SE-53
SIZE	4x12	5x12	4x12	5x12	5x12	5x12	4x12	5x12
EDP#	992013	992015	992023	992016	992033	992043	992053	982063
TAP.DEG							16	



SCTI	SL-53	SA-53	SC-52	SC-53
SIZE	4x12	5	5x9	5x6
EDP#	992073	992083	992093	992014
TAP.DEG				10 INVER

Single End End Mills Multi-Flute, Regular Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. Of Flutes	EDP NO. Non-Center Cutting	EDP NO. Center Cutting
1/8	3/8	3/8	2-5/16	4	202856	203656
5/32	3/8	3/8	2-5/16	4	202857	-
3/16	3/8	1/2	2-3/8	4	202859	203658
7/32	3/8	1/2	2-3/8	4	202860	-
1/4	3/8	5/8	2-7/16	4	202862	203660
9/32	3/8	11/16	2-1/2	4	202864	-
5/16	3/8	3/4	2-1/2	4	202865	203665
11/32	3/8	3/4	2-1/2	4	202869	-
3/8	3/8	3/4	2-1/2	4	202870	203670
13/32	3/8	3/4	2-1/2	4	202875	-
7/16	3/8	1	2-11/16	4	202876	-
15/32	3/8	1	2-11/16	4	202881	-
1/2	3/8	1	2-11/16	4	202883	-
1/2	1/2	1-1/4	3-1/4	4	202884	203684
17/32	1/2	1-3/8	3-3/8	4	202888	-
9/16	1/2	1-1/4	3-1/4	4	202889	-
5/8	1/2	1-3/8	3-3/8	4	202891	-
5/8	5/8	1-5/8	3-3/4	4	202892	203692
11/16	1/2	1-5/8	3-5/8	4	202896	-
11/16	5/8	1-5/8	3-3/4	4	202897	-
3/4	1/2	1-5/8	3-5/8	4	202899	-
3/4	5/8	1-5/8	3-3/4	4	202900	-
3/4	3/4	1-5/8	3-7/8	4	202901	203701
13/16	5/8	1-7/8	4	6	202905	-
13-16	3/4	1-7/8	4-1/8	4	202906	-
7/8	5/8	1-7/8	4	6	202908	-
7/8	3/4	1-7/8	4-1/8	4	202909	-
7/8	7/8	1-7/8	4-1/8	4	202910	203710
15/16	5/8	1-7/8	4	6	202914	-
15/16	3/4	1-7/8	4-1/8	4	202915	-
15/16	7/8	1-7/8	4-1/8	4	202916	-
1	5/8	1-7/8	4	6	202918	-
1	3/4	1-7/8	4-1/8	4	202919	-
1	7/8	1-7/8	4-1/8	4	202921	-
1	1	2	4-1/4	4	202922	203722
1-1/8	7/8	2	4-1/2	6	202926	-
1-1/8	1	2	4-1/4	6	202927	203727
1-1/4	7/8	2	4-1/2	6	202929	-
1-1/4	1-1/4	2	4-1/2	6	202932	203732
1-3/8	1	2	4-1/2	6	202935	-
1-1/2	1	2	4-1/2	6	202938	-
1-1/2	1-1/4	2	4-1/2	6	202940	203740
1-5/8	1-1/4	2	4-1/2	6	202943	-
1-3/4	1-1/4	2	4-1/2	6	202945	203744
1-7/8	1-1/4	2	4-1/2	6	202946	-
2	1-1/4	2	4-1/2	8	202950	203749

Single End End Mills Multi-Flute, Regular Length

3/8" Shanks
6 piece set
Contains 1 piece of each: 1/8", 3/16", 1/4", 5/16", 3/8", and 1/2"
Supplied in wood block
EDP No. 173605

3/4" Shanks
6 piece set
Contains 1 piece of each: 3/4", 7/8", 1", 1-1/8", 1-1/4", and 1-1/2"
Supplied in wood block
EDP No. 173605

Single End End Mills Multi-Flute, Non-Center Cutting, Short Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP No
3/16	3/8	9/32	2-3/16	202858
1/4	3/8	3/8	2-1/4	202861

Single End End Mills Multi-Flute, Non-Center Cutting, Medium Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP No
1	1	3	5-1/2	203223
1-1/4	1-1/4	3	5-1/2	203232
1-1/2	1-1/4	3	5-1/2	203240
1-3/4	1-1/4	3	5-1/2	203245
2	1-1/4	3	5-1/2	203249

Single End End Mills Multi-Flute, Center Cutting, Medium Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. of Flutes	EDP No
1	1	3	5-1/2	4	203723
1-1/4	1-1/4	3	5-1/2	4	203733
1-1/4	1-1/4	3	5-1/2	6	203734
1-1/2	1-1/4	3	5-1/2	4	203741
1-1/2	1-1/4	3	5-1/2	6	203742
2	1-1/4	3	5-1/2	6	203750

Single End End Mills Multi-Flute

Long Flute

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. Of Flutes	EDP NO. Non-Center Cutting	EDP NO. Center Cutting
1/4	3/8	1-1/4	3-1/16	4	203262	203862
5/16	3/8	1-3/8	3-1/8	4	203267	203867
3/8	3/8	1-1/2	3-1/4	4	203272	203872
7/16	1/2	1-3/4	3-3/4	4	203279	-
1/2	1/2	2	4	4	203286	203886
9/16	1/2	2	4	4	203289	-
5/8	5/8	2-1/2	4-5/8	4	203294	203894
11/16	5/8	2-1/2	4-5/8	4	203297	-
3/4	3/4	3	5-1/4	4	203303	203903
13/16	3/4	3-1/2	5-3/4	4	203306	-
7/8	7/8	3-1/2	5-3/4	4	203312	203912
1	1	4		4	203324	203924
1-1/8	1	4	6-1/2	6	203327	-
1-1/4	1	4	6-1/2	6	203330	-
1-1/4	1-1/4	4	6-1/2	6	203333	203934
1-3/8	1	4	6-1/2	6	203335	-
1-1/2	1	4	6-1/2	6	203338	-
1-1/2	1-1/4	4	6-1/2	4	203341	203941
1-3/4	1-1/4	4	6-1/2	6	203345	-
2	1-1/4	4	6-1/2	8	203350	203950

Extra Long Flute

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. Of Flutes	EDP NO. Non-Center Cutting	EDP NO. Center Cutting
1/4	3/8	1-3/4	3-9/16	4	203463	204063
5/16	3/8	2	3-3/4	4	203468	204068
3/8	3/8	2-1/2	4-1/4	4	203473	204073
1/2	1/2	3	5	4	203487	204087
9/16	1/2	4	6-1/8	4	203489	-
5/8	5/8	4	6-1/8	4	203495	204095
3/4	3/4	4	6-1/4	4	203504	204104
13/16	3/4	5	6-1/4	4	203542	-
7/8	7/8	5	7-1/4	4	203513	204113
1	1	6	8-1/2	4	203525	204125
1-1/4	1-1/4	6	8-1/2	6	203534	204134
1-1/2	1-1/4	6	8-1/2	6	203541	204141

Single End End Mills Multi-Flute

Heavy Duty with Combination Shanks

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. Of Flutes	EDP NO.
2	2	2	5-3/4	6	202957
2	2	3	6-3/4	2	197558
2	2	3	6-3/4	3	200758
2	2	3	6-3/4	6	202959
2	2	4	7-3/4	2	197560
2	2	4	7-3/4	3	200760
2	2	4	7-3/4	4	202960
2	2	4	7-3/4	6	202961
2	2	6	9-3/4	2	197564
2	2	6	9-3/4	3	200764
2	2	6	9-3/4	4	202964
2	2	6	9-3/4	2	197564
2	2	6	9-3/4	6	202965
2	2	8	11-3/4	6	202967
2	2	10	13-3/4	6	202969
2-1/2	2	4	7-3/4	4	202976
2-1/2	2	4	7-3/4	2	197576
2-1/2	2	6	9-3/4	2	197580
2-1/2	2	6	9-3/4	6	202981
2-1/2	2	8	11-3/4	4	202982
2-1/2	2-1/2	4	8	3	200792
2-1/2	2-1/2	4	8	4	202992
2-1/2	2-1/2	4	8	6	202993
2-1/2	2	6	9-3/4	4	202980
2-1/2	2-1/2	6	10	2	197596
2-1/2	2-1/2	6	10	3	200796
2-1/2	2-1/2	6	10	4	202996
3	2-1/2	4	9-3/4	8	203009
3	2-1/2	6	9-3/4	6	203012

Single End End Mills Two Flute

Two Flute, Regular Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	2-5/16	197457
5/32	3/8	3/8	2-5/16	197458
3/16	3/8	7/16	2-5/16	197460
7/32	3/8	7/16	2-5/16	197461
1/4	3/8	1/2	2-5/16	197463
9/32	3/8	1/2	2-5/16	197464
5/16	3/8	9/16	2-5/16	197465
3/8	3/8	9/16	2-5/16	197470
7/16	3/8	13/16	2-1/2	197476
1/2	3/8	13/16	2-1/2	197483
1/2	1/2	1	3	197484
9/16	1/2	1-1/8	3-1/8	197489
5/8	5/8	1-5/16	3-7/16	197492
5/8	1/2	1-1/8	3-1/8	197491
11/16	5/8	1-5/16	3-7/16	197497
11/16	1/2	1-5/16	3-5/16	197496
3/4	1/2	1-5/16	3-5/16	197499
3/4	5/8	1-5/16	3-7/16	197500
3/4	3/4	1-5/16	3-9/16	197501
13/16	5/8	1-1/2	3-5/8	197505
13/16	3/4	1-1/2	3-3/4	197506

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
7/8	5/8	1-1/2	3-5/8	197508
7/8	3/4	1-1/2	3-3/4	197509
7/8	7/8	1-1/2	3-3/4	197510
15/16	5/8	1-1/2	3-5/8	197514
15/16	3/4	1-1/2	3-3/4	197515
15/16	7/8	1-1/2	3-3/4	197516
1	5/8	1-1/2	3-5/8	197518
1	3/4	1-1/2	3-3/4	197519
1	7/8	1-1/2	3-3/4	197521
1	1	1-5/8	4-1/8	197522
1-1/8	1	1-5/8	4-1/8	197527
1-1/8	7/8	1-5/8	3-7/8	197526
1-1/4	7/8	1-5/8	3-7/8	197529
1-1/4	1-1/4	1-5/8	4-1/8	197531
1-1/4	1	1-5/8	4-1/8	197530
1-3/8	1	1-5/8	4-1/8	197535
1-1/2	1	1-5/8	4-1/8	197538
1-1/2	1-1/4	1-5/8	4-1/8	197539
1-5/8	1-1/4	1-5/8	4-1/8	197543
1-3/4	1-1/4	1-5/8	4-1/8	197544
1-7/8	1-1/4	1-5/8	4-1/8	197546
2	1-1/4	1-5/8	4-1/8	197548

Two Flute, Long Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/4	3/8	1-1/2	3-5/16	198062
5/16	3/8	1-1/2	3-1/4	198067
3/8	3/8	1-1/2	3-1/4	198072
1/2	1/2	2	4	198086
5/8	5/8	2	4-1/8	198094
3/4	3/4	2-1/4	4-1/2	198103
7/8	7/8	2-1/2	4-3/4	198112
1	1	3	5-1/2	198124
1-1/8	1	3	5-1/2	198127
1-1/4	1	3	5-1/2	198130
1-1/4	1-1/4	3	5-1/2	198133
1-3/8	1	3	5-1/2	198135
1-1/2	1-1/4	3	5-1/2	198141
1-5/8	1-1/4	3	5-1/2	198143
1-3/4	1-1/4	3	5-1/2	198144
1-7/8	1-1/4	3	5-1/2	198146
2	1-1/4	3	5-1/2	198150

Titanium Nitrate Coating available. Please Inquire.

Single End End Mills

Two Flute

Two Flute, Extension Type

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	2-3/8	198256
3/16	3/8	1/2	2-11/16	198258
1/4	3/8	5/8	3-1/16	198260
5/16	3/8	3/4	3-5/16	198265
3/8	3/8	3/4	3-5/16	198270
1/2	1/2	1	4	198284
5/8	5/8	1-3/8	4-5/8	198292
3/4	3/4	1-5/8	5-3/8	198301
7/8	7/8	2	6-1/16	198310
1	1	2-1/2	7-1/4	198322
1-1/4	1-1/4	3	7-1/4	198331

Titanium Nitrate Coating available. Please Inquire.

Two Flute, Medium Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/4	3/8	1	2-13/16	197861
5/16	3/8	1	2-3/4	197866
3/8	3/8	1	2-3/4	197871
1/2	1/2	1-1/2	3-1/2	197885
5/8	5/8	1-5/8	3-3/4	197893
3/4	3/4	1-3/4	4	197902
7/8	7/8	2	4-1/4	197911
1	1	2-1/4	4-3/4	197923
1-1/8	1	2-1/4	4-3/4	197927
1-1/4	1	2-1/4	4-3/4	197930
1-1/4	1-1/4	2-1/4	4-3/4	197932
1-3/8	1	2-1/4	4-3/4	197935
1-1/2	1-1/4	2-1/4	4-3/4	197940
1-5/8	1-1/4	2-1/4	4-3/4	197943
1-3/4	1-1/4	2-1/4	4-3/4	197944
1-7/8	1-1/4	2-1/4	4-3/4	197946
2	1-1/4	2-1/4	4-3/4	197949

Titanium Nitrate Coating available. Please Inquire.

Double End End Mills Regular Length

Two Flute, Center Cutting

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
7/64	3/8	3/8	3-1/16	195661
1/8	3/8	3/8	3-1/16	195662
9/64	3/8	7/16	3-1/8	195663
5/32	3/8	7/16	3-1/8	195664
11/64	3/8	7/16	3-1/8	195665
3/16	3/8	7/16	3-1/8	195666
13/64	3/8	1/2	3-1/8	195667
7/32	3/8	1/2	3-1/8	195668
15/64	3/8	1/2	3-1/8	195669
1/4	3/8	1/2	3-1/8	195670
17/64	3/8	9/16	3-1/8	195671
9/32	3/8	9/16	3-1/8	195672
19/64	3/8	9/16	3-1/8	195673
5/16	3/8	9/16	3-1/8	195674
21/64	3/8	9/16	3-1/8	195675
11/32	3/8	9/16	3-1/8	195676
23/64	3/8	9/16	3-1/8	195677

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
3/8	7/8	9/16	3-3/4	195678
25/64	1/2	13/16	3-3/4	195679
13/32	1/2	13/16	3-3/4	195680
27/64	1/2	13/16	3-3/4	195681
7/16	1/2	13/16	3-3/4	195682
29/64	1/2	13/16	3-3/4	195683
15/32	1/2	13/16	3-3/4	195684
31/64	1/2	13/16	3-3/4	195685
1/2	1/2	13/16	3-3/4	195686
9/16	5/8	1-1/8	4-1/2	195690
5/8	5/8	1-1/8	4-1/2	195694
11/16	3/4	1-5/16	5	195698
3/4	3/4	1-5/16	5	195702
13/16	7/8	1-9/16	5-1/2	195706
7/8	7/8	1-9/16	5-1/2	195710
15/16	1	1-5/8	5-7/8	195714
1	1	1-5/8	5-7/8	195718

Four Flute, Center and Non-Center Cutting

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO. Non-Ctr Cut	EDP NO. Center Cut
7/64	3/8	3/8	3-1/16	201461	-
1/8	3/8	3/8	3-1/16	201462	204456
9/64	3/8	7/16	3-1/8	201463	-
5/32	3/8	7/16	3-1/8	201464	-
11/64	3/8	1/2	3-1/4	201465	-
3/16	3/8	1/2	3-1/4	201466	204458
13/64	3/8	9/16	3-1/4	201467	-
7/32	3/8	9/16	3-1/4	201468	-
15/64	3/8	5/8	3-3/8	201469	-
1/4	3/8	5/8	3-3/8	201470	204460
17/64	3/8	11/16	3-3/8	201471	-
9/32	3/8	11/16	3-3/8	201472	-
19/64	3/8	3/4	3-1/2	201473	-
5/16	3/8	3/4	3-1/2	201474	204465
21/64	3/8	3/4	3-1/2	201475	-
11/32	3/8	3/4	3-1/2	201476	-
23/64	3/8	3/4	3-1/2	201477	-

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO. Non-Ctr Cut	EDP NO. Center Cut
3/8	3/8	3/4	3-1/2	201478	204470
25/64	1/2	1	4-1/8	201479	-
13/32	1/2	1	4-1/8	201480	-
27/64	1/2	1	4-1/2	201481	-
7/16	1/2	1	4-1/8	201482	-
29/64	1/2	1	4-1/8	201483	-
15/32	1/2	1	4-1/8	201484	-
31/64	1/2	1	4-1/8	201485	-
1/2	1/2	1	4-1/8	201486	204484
9/16	5/8	1-3/8	5	201490	-
5/8	5/8	1-3/8	5	201494	204492
11-16	3/4	1-5/8	5-5/8	201498	-
3/4	3/4	1-5/8	5-5/8	201502	204501
13/16	7/8	1-7/8	6-1/8	201506	-
7/8	7/8	1-7/8	6-1/8	201510	204510
15/16	1	1-7/8	6-3/8	201514	-
1	1	1-7/8	6-3/8	201518	204522

Titanium Coated Single-End, Regular Length

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	2-5/16	209656
5/32	3/8	3/8	2-5/16	197468
3/16	3/8	7/16	2-5/16	209658
7/32	3/8	7/16	2-5/16	209659
1/4	3/8	1/2	2-5/16	209660
9/32	3/8	1/2	2-5/16	197477
5/16	3/8	9/16	2-5/16	209665
3/8	3/8	9/16	2-5/16	209670
7/16	3/8	13/16	2-1/2	197479
1/2	3/8	13/16	2-1/2	197481
1/2	1/2	1	3	209684
9/16	1/2	1-1/8	3-1/8	197485
5/8	1/2	1-1/8	3-1/8	197487
5/8	5/8	1-5/16	3-7/16	197493
11/16	5/8	1-5/16	3-7/16	197502
11/16	1/2	1-5/16	3-5/16	197520
3/4	5/8	1-5/16	3-7/16	197524
3/4	1/2	1-5/16	3-5/16	197511
3/4	3/4	1-5/16	3-9/16	197532
13/16	3/4	1-1/2	3-3/4	197541
13/16	5/8	1-1/2	3-5/8	197536
7/8	3/4	1-1/2	3-3/4	197553
7/8	5/8	1-1/2	3-5/8	197550
7/8	7/8	1-1/2	3-3/4	197561
15/16	7/8	1-1/2	3-3/4	197579
15/16	5/8	1-1/2	3-5/8	197565
15/16	3/4	1-1/2	3-3/4	197572
1	7/8	1-1/2	3-3/4	197593
1	5/8	1-1/2	3-5/8	197583
1	3/4	1-1/2	3-3/4	197587
1	1	1-5/8	4-1/8	197597
1-1/8	1	1-5/8	3-7/8	197605
1-1/8	7/8	1-5/8	3-7/8	197601
1-1/4	7/8	1-5/8	3-7/8	197609
1-1/4	1	1-5/8	4-1/8	197613
1-1/4	1-1/4	1-5/8	4-1/8	197617
1-3/8	1	1-5/8	4-1/8	197621
1-1/2	1	1-5/8	4-1/8	197625
1-1/2	1-1/4	1-5/8	4-1/8	197629
1-5/8	1-1/4	1-5/8	4-1/8	197633
1-3/4	1-1/4	1-5/8	4-1/8	197637
1-7/8	1-1/4	1-5/8	4-1/8	197641
2	1-1/4	1-5/8	4-1/8	197645

Length of Cut	Overall Length	No. of Flutes	EDP NO. Non-Ctr Cut	EDP NO. Center Cut
3/8	2-5/16	4	210156	203663
1/2	2-3/8	4	202933	-
1/2	2-3/8	4	210158	-
5/8	2-7/16	4	210159	203663
11/16	1/2	4	210160	-
3/4	2-1/2	4	202951	203661
3/4	2-1/2	4	210165	203666
1	2-11/16	4	210170	203671
1	2-11/16	4	202877	
1-1/4	3-1/4	4	202953	-
1-3/8	3-3/8	4	210184	203685
1-3/8	3-3/8	4	202898	-
1-5/8	3-3/4	4	202907	-
1-5/8	3-3/4	4	202893	-
1-5/8	3-5/8	4	202917	-
1-5/8	3-3/4	4	202925	203693
1-5/8	3-5/8	4	202947	-
1-5/8	3-7/8	4	202962	-
1-7/8	4-1/8	4	202902	-
1-7/8	4	6	202978	203702
1-7/8	4-1/8	4	202973	-
1-7/8	4	6	202986	-
1-7/8	4-1/8	4	202984	-
1-7/8	4-1/8	4	202911	-
1-7/8	4	6	202994	203711
1-7/8	4-1/8	4	202988	-
1-7/8	4-1/8	4	202990	-
1-7/8	4	6	203010	-
1-7/8	4-1/8	4	203004	-
1-7/8	4-1/8	4	203006	-
2	4-1/2	4	202923	-
2	4-1/2	4	-	202682
-	-	-	-	203728
-	-	-	-	-
-	-	-	-	-
2	4-1/2	4	-	203695
-	-	-	-	-
-	-	-	-	-
2	4-1/2	4	-	203706
-	-	-	-	-
2	4-1/2	6	-	203745
-	-	-	-	-
2	4-1/2	6	-	203715

Titanium Coated Single-End, Regular Length

3/8" Shanks
6 piece set
Contains 1 piece of each: 1/8", 3/16", 1/4", 5/16",
3/8", and 1/2"
Supplied in wood block

Two Flute
EDP No. 173603

Multi-Flute
EDP No. 173605

3/4" Shanks
6 piece set
Contains 1 piece of each: 3/4", 7/8", 1", 1-1/8", 1-1/4",
and 1-1/2"
Supplied in wood block

Two Flute
EDP No. 173604

Multi-Flute
EDP No. 173606

Titanium Coated Double-End, Regular Length, Two Flute

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	3-1/16	209556
5/32	3/8	7/16	3-1/8	209557
3/16	3/8	7/16	3-1/8	209558
7/32	3/8	1/2	3-1/8	209559
1/4	3/8	1/2	3-1/8	209560
9/32	3/8	9/16	3-1/8	209564
5/16	3/8	9/16	3-1/8	206565
11/32	3/8	9/16	3-1/8	209569
3/8	3/8	9/16	3-1/8	209570
13/32	1/2	13/16	3-3/4	195741
7/16	1/2	13/16	3-3/4	209577
15/32	1/2	13/16	3-3/4	195747
1/2	1/2	13/16	3-3/4	209584
9/16	5/8	1-1/8	4-1/2	195691
5/8	5/8	1-1/8	4-1/2	195695
11/16	3/4	1-5/16	5	195699
3/4	3/4	1-5/16	5	195703
13/16	7/8	1-9/16	5-1/2	195707
7/8	7/8	1-9/16	5-1/2	195711
15/16	1	1-5/8	5-7/8	195715
1	1	1-5/8	5-7/8	195719

Titanium Coated Double-End, Regular Length, Four Flute

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO. Non-Ctr Cut	EDP NO. Center Cut
1/8	3/8	3/8	3-1/16	210056	204463
5/32	3/8	7/16	3-1/8	210057	-
3/16	3/8	1/2	3-1/4	210058	204468
7/32	3/8	9/16	3-1/4	210059	-
1/4	3/8	5/8	3-3/8	210060	204461
9/32	3/8	11/16	3-3/8	210064	-
5/16	3/8	3/4	3-1/2	210065	204466
11/32	3/8	3/4	3-1/2	210069	-
3/8	3/8	3/4	3-1/2	210070	204471
13/32	1/2	1	4-1/2	201519	-
7/16	1/2	1	4-1/8	210077	-
15/32	1/2	1	4-1/8	201526	-
1/2	1/2	1	4-1/8	210084	204485
9/16	5/8	1-3/8	5	201532	-
5/8	5/8	1-3/8	5	201534	204493
11/16	3/4	1-5/8	5-5/8	201536	-
3/4	3/4	1-5/8	5-5/8	201539	204502
13/16	7/8	1-7/8	6-1/8	201542	-
7/8	7/8	1-7/8	6-1/8	201544	204511
15/16	1	1-7/8	6-3/8	201546	-
1	1	1-7/8	6-3/8	201548	204523

Titanium Coated Sets

3/8" Shanks- Multi Flute
6 piece set- Single End
Contains 1 piece of each: 1/8", 3/16",
1/4", 5/16", 3/8", and 1/2"
Supplied in wood block
EDP No. 173605

3/8" Shanks- Two Flute
6 piece set- Single End
Contains 1 piece of each: 1/8", 3/16",
1/4", 5/16", 3/8", and 1/2"
Supplied in wood block
EDP No. 173603

3/4" Shanks- Two Flute
6 piece set- Single End
Contains 1 piece of each: 3/4", 7/8",
1", 1-1/8", 1-1/4", and 1-1/2"
Supplied in wood block
EDP No. 173604

3/4" Shanks- Multi Flute
6 piece set- Single End
Contains 1 piece of each: 3/4", 7/8",
1", 1-1/8", 1-1/4", and 1-1/2"
Supplied in wood block
EDP No. 173606

3/8" Shanks- Four Flute
6 piece set- Single End
Contains 1 piece of each: 1/8", 5/32",
3/16", 1/4", 5/16", and 3/8"
Supplied in wood block
EDP No. 173608

3/8" Shanks- Two Flute
6 piece set- Single End
Contains 1 piece of each: 1/8", 5/32",
3/16", 1/4", 5/16", and 3/8"
Supplied in wood block
EDP No. 173607

Ball-End End Mills Single End

Diameter of Cut	Shank Diameter	Two Flute Regular Length			Two Flute Extension		
		Length of Cut	Overall Length	EDP NO.	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	2-5/16	198456	3/8	2-3/8	198656
3/16	3/8	1/2	2-3/8	198458	1/8	2-11/16	198658
1/4	3/8	5/8	2-7/16	198460	5/8	3-1/16	198660
5/16	3/8	3/4	2-1/2	198465	3/4	3-5/16	198665
3/8	3/8	3/4	2-1/2	198470	3/4	3-5/16	198670
7/16	1/2	1	3	198477	1	3-11/16	198677
1/2	1/2	1	3	198484	1	4	198684
9/16	1/2	1-1/8	3-1/8	198489	-	-	-
5/8	1/2	1-1/8	3-1/8	198491	-	-	-
5/8	5/8	1-3/8	3-1/2	198492	1-3/8	4-5/8	198692
3/4	1/2	1-5/16	3-5/16	198499	-	-	-
3/4	3/4	1-5/8	3-7/8	198501	1-5/8	5-3/8	198701
7/8	7/8	2	4-1/4	198510	2	6-1/16	198710
1	1	2-1/4	4-3/4	198522	2-1/2	7-1/4	198722
1-1/8	1	2-1/4	4-3/4	198527	-	-	-
1-1/4	1-1/4	2-1/2	5	198531	3	7-1/4	198731
1-3/8	1-1/4	2-1/2	5	198536	-	-	-
1-1/2	1-1/4	2-1/2	5	198539	-	-	-

Diameter of Cut	Shank Diameter	Four Flute Regular Length			Four Flute Long Length		
		Length of Cut	Overall Length	EDP NO.	Length of Cut	Overall Length	EDP NO.
1/4	3/8	3/4	2-9/16	204860	1-1/4	3-1/16	204862
5/16	3/8	1	2-3/4	204865	1-1/2	3-5/16	204867
3/8	3/8	1	2-3/4	204870	1-1/2	3-5/16	204872
1/2	1/2	1	3	204884	2	4	204886
5/8	5/8	1-1/4	3-3/8	204892	2-1/2	4-5/8	204894
3/4	3/4	1-1/2	3-3/4	204901	3	5-1/4	204903
1	1	2	4-1/2	204922	4	6-1/2	204924
1-1/4	1-1/4	2	4-1/2	204931	-	-	-
1-1/2	1-1/4	2	4-1/2	204939	4	6-1/2	204941

Ball End Cobalt Roughing End Mills

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. of Flutes	EDP NO.
1/2	1/2	1-1/4	3-1/4	4	218684
1/2	1/2	2	4	4	218886
5/8	5/8	1-5/8	3-3/4	4	218692
5/8	5/8	2-1/2	4-5/8	4	218900
3/4	3/4	1-5/8	3-7/8	4	218701
3/4	3/4	3	5-1/4	4	218903

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	No. of Flutes	EDP NO.
1	1	2	4-1/2	5	218722
1	1	4	6-1/2	6	218924
1-1/4	1-1/4	2	4-1/2	6	218731
1-1/4	1-1/4	4	6-1/2	6	218933
1-1/4	1-1/4	2	4-1/2	6	218739
1-1/2	1-1/4	4	6-1/2	6	218741

Chipmaster Cobalt Roughing End Mills

Shank Type - Rough Profile: For deeper spotting or heavy side cuts.
Recommended for general purpose applications in steel.

Shank Type - Fine Profile: For shallow slotting or peripheral milling.
Recommended for use in exotic materials.

Shank Type					Rough Profile	Fine Profile
Shank Type - Standard Length						
Dia. of Cut	Shank Dia.	Length of Cut	Overall Length	No. of Flutes	EDP NO.	EDP NO.
1/4	3/8	5/8	2-7/16	3	216860	219560
5/16	3/8	3/4	2-1/2	3	216865	219565
3/8	3/8	3/4	2-1/2	4	216870	219570
1/2	1/2	1-1/4	3-1/4	4	216885	219575
5/8	5/8	1-5/8	3-3/4	4	216892	219585
3/4	3/4	1-5/8	3-3/4	4	216901	219592
7/8	3/4	1-5/8	4-1/8	5	216910	219601
1	1	2	4-1/2	5	216922	219610
1-1/8	1	2	4-1/2	6	216927	219622
1-1/4	1-1/4	2	4-1/2	6	216931	219627
1-1/2	1-1/4	2	4-1/2	6	216939	219631
1-3/4	1-1/4	2	4-1/2	6	216945	219639
2	1-1/4	2	4-1/2	8	216948	219645
2*	2	3	6-3/4	8	216959	219648
2*	2	4	7-3/4	8	216961	219853
2*	2	5	8-3/4	8	216963	219854
2*	2	6	9-3/4	8	216965	219855
2*	2	7	10-3/4	8	216966	-
2*	2	8	11-3/4	8	216967	-
2*	2	10	13-3/4	8	216969	-
2*	2	12	15-3/4	8	216971	-
2-1/2*	2	4	7-3/4	8	216977	-
2-1/2*	2	6	9-3/4	8	216981	-
2-1/2*	2	8	11-3/4	8	216983	-
2-1/2*	2	10	13-3/4	8	216985	-
2-1/2*	2	12	15-3/4	8	216987	-
3*	2-1/2	4	7-3/4	10	217009	-
3*	2-1/2	6	9-3/4	10	217013	-
3*	2-1/2	8	11-3/4	10	217015	-
3*	2-1/2	10	13-3/4	10	217017	-
3*	2-1/2	12	15-3/4	10	217019	-
Shank Type - Medium Length						
1	1	3	5-1/2	5	217429	219723
1-1/4	1-1/4	3	5-1/2	6	217432	219732
1-1/2	1-1/4	3	5-1/2	6	217440	219740
2*	2	5	8-3/4	8	217963	219641
2*	2	6	9-3/4	8	217965	219652
2-1/2*	2	6	9-3/4	8	217981	-

Shank Type					Rough Profile	Fine Profile
Shank Type - Long Length						
Dia. of Cut	Shank Dia.	Length of Cut	Overall Length	No. of Flutes	EDP NO.	EDP NO.
1/2	1/2	2	4	4	217385	219685
5/8	5/8	2-1/2	4-5/8	4	217393	219693
3/4	3/4	3	5-1/4	4	217402	219702
7/8	3/4	3-1/2	5-3/4	4	217411	219711
1	1	4	6-1/2	5	217424	219724
1-1/4	1-1/4	4	6-1/2	6	217433	219733
1-1/2	1-1/4	4	6-1/2	6	217441	219741
1-3/4	1-1/4	4-1/4	7	6	217445	219745
2*	1-1/4	4	6-1/2	8	217449	219749
2*	2	7	10-3/4	8	216966	219653
2*	2	8	11-3/4	8	216967	219654
2*	2	10	13-3/4	8	216969	-
2*	2	12	15-3/4	8	216971	-
2-1/2*	2	8	11-3/4	8	216983	-

* Supplied with Combination Shanks

M-42 Cobalt End Mills

Single End, Two Flute, Regular Length-Center Cutting

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	2-5/16	205456
3/16	3/8	7/16	2-5/16	205458
1/4	3/8	1/2	2-5/16	205460
5/16	3/8	9/16	2-5/16	205465
3/8	3/8	9/16	2-5/16	205470
7/16	3/8	13/16	2-1/2	205476
1/2	3/8	13/16	2-1/2	205483
1/2	1/2	1	3	205484
9/16	1/2	1-1/8	3-1/8	205489
5/8	1/2	1-1/8	3-1/8	205491
5/8	5/8	1-5/16	3-7/16	205492

Diameter of Cut	Shank Diameter	Length of Cut	Overall Length	EDP NO.
3/4	1/2	1-5/16	3-5/16	205499
3/4	5/8	1-5/16	3-7/16	205500
3/4	3/4	1-5/16	3-9/16	205501
7/8	3/4	1-1/2	3-3/4	205508
7/8	7/8	1-1/4	3-3/4	205510
1	3/4	1-1/2	3-3/4	205519
1	1	1-5/8	4-1/8	205522
1-1/8	1	1-5/8	4-1/8	205518
1-1/4	1-1/4	1-5/8	4-1/8	205531
1-1/2	1-1/4	1-5/8	4-1/8	205539
2	1-1/4	1-5/8	4-1/8	205548

M-42 Cobalt End Mills

Single End, Two Flute, Regular, Long and Extra Long Length-Center Cutting

Diameter of Cut	Shank Diameter	Regular Length				Long Length			Extra Long Length		
		No. of Flutes	Flute Length	Overall Length	EDP NO.	Flute Length	Overall Length	EDP NO.	Flute Length	Overall Length	EDP NO.
1/8	3/8	4	3/8	2-5/16	207256	-	-	-	-	-	-
3/16	3/8	4	1/2	2-3/8	207258	-	-	-	-	-	-
1/4	3/8	4	5/8	2-7/16	207260	1-1/4	3-1/16	207362	1-3/4	3-9/16	207563
5/16	3/8	4	3/4	2-1/2	207265	1-3/8	3-1/8	207367	2	3-3/4	207568
3/8	3/8	4	3/4	2-1/2	207270	1-1/2	3-1/4	207372	2-1/2	4-1/4	207573
1/2	1/2	4	1-1/4	3-1/4	207284	2	4	207386	3	5	207587
1/2	1/2	6	1-1/4	3-1/4	207285	-	-	-	-	-	-
5/8	5/8	4	1-5/8	3-3/4	207292	2-1/2	4-5/8	207394	4	6-1/8	207595
5/8	5/8	6	1-5/8	3-3/4	207293	-	-	-	-	-	-
3/4	3/4	4	1-5/8	3-7/8	207301	3	5-1/4	207403	4	6-1/4	207603
3/4	3/4	6	1-5/8	3-7/8	207302	3	5-1/4	207404	4	6-1/4	207604
7/8	7/8	4	1-7/8	4-1/8	207310	-	-	-	-	-	-
1	1	4	2	4-1/2	207322	4	6-1/2	207424	6	8-1/2	207624
1	1	6	2	4-1/2	207323	4	6-1/2	207425	-	-	-
1-1/4	1-1/4	4	2	4-1/2	207331	4	6-1/2	207433	6	8-1/2	207633
1-1/4	1-1/4	4/6	2	4-1/2	207332	4	6-1/2	207434	6	8-1/2	207634
1-1/2	1-1/4	4	2	4-1/2	207339	4	-	-	-	-	-
1-1/2	1-1/4	6	2	4-1/2	207340	4	6-1/2	207441	8	10-1/2	207640
1-3/4	1-1/4	6	2	4-1/2	207345	-	-	-	-	-	-
2	1-1/4	6	2	4-1/2	207348	4	-	-	-	-	-

M-42 Cobalt End Mills Double End, Two Flute and Four Flute Center and Non-Center Cutting

Diameter of Cut	Shank Diameter	Two Flute Center Cutting			Four Flute			
		Length of Cut	Overall Length	EDP NO.	Length of Cut	Overall Length	EDP NO. Center Cutting	EDP NO. Non-Center Cutting
1/8	3/8	3/8	3-1/16	205356	3/8	3-1/16	207156	206356
5/32	3/8	7/16	3-1/8	205357	7/16	3-1/8	-	206356
3/16	3/8	7/16	3-1/8	205358	1/2	3-1/4	207158	206358
7/32	3/8	1/2	3-1/8	205359	9/16	3-1/4	-	206359
1/4	3/8	1/2	3-1/8	205360	5/8	3-3/8	207160	206360
9/32	3/8	9/16	3-1/8	205364	11/16	3-3/8	-	206364
5/16	3/8	9/16	3-1/8	205365	3/4	3-1/2	207165	206365
11/32	3/8	3/4	3-1/2	205369	3/4	3-1/2	-	206369
3/8	3/8	9/16	3-1/8	205370	3/4	3-1/2	207170	206370
7/16	1/2	13/16	3-3/4	205377	1	4-1/8	-	206377
1/2	1/2	13/16	3-3/4	205384	1	4-1/8	207184	206384
9/16	5/8	1-1/8	4-1/2	205390	1-3/8	5	-	206390
5/8	5/8	1-1/8	4-1/2	205392	1-3/8	5	207192	206392
3/4	3/4	1-5/16	5	205401	1-5/8	5-5/8	207201	206401
7/8	7/8	1-9/16	5-1/2	205410	1-7/8	6-1/8	-	206410
1	1	1-5/8	5-7/8	205422	1-7/8	6-3/8	-	206422

M-42 Cobalt End Mills Single End, Ball End End, Two Flute and Four Flute Center Cutting

Diameter of Cut	Shank Diameter	Two Flute Center Cutting			Four Flute Center Cutting		
		Length of Cut	Overall Length	EDP NO.	Length of Cut	Overall Length	EDP NO.
1/8	3/8	3/8	2-5/16	206156	3/8	2-5/16	207756
3/16	3/8	1/2	2-3/8	206158	1/2	2-3/8	207758
1/4	3/8	5/8	2-7/16	206160	5/8	2-7/16	207760
5/16	3/8	3/4	2-1/2	206165	3/4	2-1/2	207765
3/8	3/8	3/4	2-1/2	206170	3/4	2-1/2	207770
7/16	1/2	3/4	3	206177	-	-	-
1/2	1/2	1	3	206184	1-1/4	3-1/4	207784
5/8	5/8	1-3/8	3-1/2	206192	1-5/8	3-3/4	207792
3/4	3/4	1-5/8	3-7/8	206201	1-5/8	3-7/8	207801
7/8	7/8	2	4-1/4	206210	-	-	-
1	1	2-1/4	4-3/4	206222	2	4-1/2	207822
1-1/4	1-1/4	2-1/2	5	206231	2	4-1/2	207831
1-1/2	1-1/4	2-1/2	5	206239	2	4-1/2	207840

Solid Micro-Grain Carbide End Mills Single End, Regular Length, Two and Four Flute, Center Cutting

EDP NO.							
Diameter of Cut	Shank Diameter	Flute Length	Overall Length	Square End		Ball End	
				Two Flute	Four Flute	Two Flute	Four Flute
3/64	1/8	9/64	1-1/2	153457	153657	153557	153757
1/16	1/8	3/16	1-1/2	153458	153658	153558	153758
5/64	1/8	1/4	1-1/2	153459	153659	153559	153759
3/32	1/8	3/8	1-1/2	153460	153660	153560	153760
7/64	1/8	3/8	1-1/2	153461	153661	153561	153761
1/8	1/8	1/2	1-1/2	153462	153662	153562	153762
9/64	3/16	1/2	2	153463	153663	153563	153763
5/32	3/16	9/16	2	153464	153664	153564	153764
11/64	3/16	9/16	2	153464	153665	153565	153765
3/16	3/16	5/8	2	153466	153666	153566	153766
13/64	1/4	5/8	2-1/2	153467	153667	153567	153767
7/32	1/4	5/8	2-1/2	153468	153668	153568	153768
1/4	1/4	3/4	2-1/2	153469	153669	153569	153769
9/32	5/16	1	2-1/2	153470	153670	153570	153770
5/16	5/16	13/16	2-1/2	153471	153671	153571	153771
11/32	3/8	1	2-1/2	153472	153672	153572	153772
3/8	3/8	7/8	2-1/2	153473	153673	153573	153773
13/32	7/16	1	2-3/4	153474	153674	153574	153774
7/16	7/16	1	2-3/4	153475	153675	153575	153775
1/2	1/2	1	3	153476	153676	153576	153776
9/16	9/16	1-1/4	3-1/2	153477	153677	153577	153777
5/8	5/8	1-1/4	3-1/2	153478	153678	153578	153778
11/16	3/4	1-1/2	4	153479	153679	153579	153779
3/4	3/4	1-1/2	4	153480	153680	153580	153780
7/8	7/8	1-1/2	4	153481	153681	153581	153781
1	1	1-1/2	4	153482	153682	153582	153782

Solid Micro-Grain Carbide End Mills

Single End, Long Length, Two and Four Flute, Center Cutting

EDP NO.							
Diameter of Cut	Shank Diameter	Flute Length	Overall Length	Two Flute		Four Flute	
				Square End	Ball End	Square End	Ball End
1/8	1/8	3/4	2-1/4	154757	154857	154957	155057
3/16	3/16	3/4	2-1/4	154758	154858	154958	155058
1/4	1/4	1-1/8	3	154759	154859	154959	155059
5/16	5/16	1-1/8	3	154760	154860	154960	155060
3/8	3/8	1-1/8	3	154761	154861	154961	155061
7/16	7/16	2	4	154762	154862	154962	155062
1/2	1/2	2	4	154763	154863	154963	155063
5/8	5/8	2-1/4	5	154764	154864	154964	155064
3/4	3/4	2-1/4	5	154765	154865	154965	155065
1	1	2-1/4	5	154766	154866	154966	155066

Solid Micro-Grain Carbide End Mills

Single End, Extra Long Length, Two and Four Flute, Center Cutting

EDP NO.							
Diameter of Cut	Shank Diameter	Flute Length	Overall Length	Two Flute		Four Flute	
				Square End	Ball End	Square End	Ball End
1/8	1/8	1	3	155157	155257	155357	155457
3/16	3/16	1-1/8	3	155158	155258	155358	155458
1/4	1/4	1-1/2	4	155159	155259	155359	155459
5/16	5/16	1-5/8	4	155160	155260	155360	155460
3/8	3/8	1-3/4	4	155161	155261	155361	155461
7/16	7/16	3	6	155162	155262	155362	155462
1/2	1/2	3	6	155163	155263	155363	155463
5/8	5/8	3	6	155164	155264	155364	155464
3/4	3/4	3	6	155165	155265	155365	155465
1	1	3	6	155166	155266	155366	155466

Solid Micro-Grain Carbide End Mills Double End, Two and Four Flute, Center Cutting

EDP NO.							
Two Flute							
Diameter of Cut	Shank Diameter	Flute Length	Overall Length	Square End		Ball End	
				Regular Length	3/8" Weldon	Regular Length	3/8" Weldon
1/8	3/8	3/8	3-1/16	153857	153600	153957	153700
5/32	3/8	7/16	3-1/8	153858	153601	153958	153701
3/16	3/8	1/2	3-1/4	153859	153602	153959	153702
7/32	3/8	9/16	3-3/8	153860	153603	153960	153703
1/4	3/8	5/8	3-3/8	153861	153604	153961	153704
9/32	3/8	11/16	3-3/8	153862	153605	153962	153705
5/16	3/8	3/4	3-1/2	153863	153606	153963	153706
11/32	3/8	3/4	3-1/2	153864	153607	153964	153707
3/8	3/8	3/4	3-1/2	153865	153608	153965	153708
7/16	1/2	7/8	4	153866	153609	153966	153709
1/2	1/2	1	4	153867	153610	153967	-

EDP NO.							
Four Flute							
Diameter of Cut	Shank Diameter	Flute Length	Overall Length	Square End		Ball End	
				Regular Length	3/8" Weldon	Regular Length	3/8" Weldon
1/8	3/8	3/8	3-1/16	154057	154200	154157	154300
5/32	3/8	7/16	3-1/8	154058	154201	154158	154301
3/16	3/8	1/2	3-1/4	154059	154202	154159	154302
7/32	3/8	9/16	3-3/8	154060	154203	154160	154303
1/4	3/8	5/8	3-3/8	154061	154205	154161	154304
9/32	3/8	11/16	3-3/8	154062	154206	154162	154305
5/16	3/8	3/4	3-1/2	154063	154207	154163	154306
11/32	3/8	3/4	3-1/2	154064	154208	154164	154307
3/8	3/8	3/4	3-1/2	154065	154209	154165	154308
7/16	1/2	7/8	4	154066	154210	154166	154309
1/2	1/2	1	4	154067	154211	154167	-

Solid Micro-Grain Carbide End Mills

Double End, Stub Length, Two and Four Flute, Center Cutting

EDP NO.							
Diameter of Cut	Shank Diameter	Flute Length	Overall Length	Two Flute		Four Flute	
				Square End	Ball End	Square End	Ball End
1/32	1/8	5/64	1-1/2	154257	154357	154457	154557
3/64	1/8	3/32	1-1/2	154258	154358	154458	154558
1/16	1/8	1/8	1-1/2	154259	154359	154459	154559
5/64	1/8	5/32	1-1/2	154260	154360	154460	154560
3/32	1/8	3/16	1-1/2	154261	154361	154461	154561
7/64	1/8	7/32	1-1/2	154262	154362	154462	154562
1/8	1/8	1/4	1-1/2	154263	154363	154463	154563
9/64	3/16	9/32	2	154264	154364	154464	154564
5/32	3/16	5/16	2	154265	154365	154465	154565
3/16	3/16	3/8	2	154266	154366	154466	154566
7/32	1/4	1/2	2-1/2	154267	154367	154467	154567
1/4	1/4	1/2	2-1/2	154268	154368	154468	154568
5/16	5/16	1/2	2-1/2	154269	154369	154469	154569
3/8	3/8	1/2	2-1/2	154270	154370	154470	154570
7/16	7/16	9/16	2-3/4	154271	154371	154471	154571
1/2	1/2	5/8	3	154272	154372	154472	154572

Corner Rounding End Mills

High speed steel

Cobalt

Radius	Shank Dia.	Cutter Dia.	Overall Length	EDP NO.	
				H.S.S.	Cobalt
1/32	3/8	3/8	2-1/2	311416	-
1/16	3/8	7/16	2-1/2	311417	311439
3/32	3/8	1/2	2-1/2	311418	311440
1/8	1/2	5/8	3	311419	311441
5/32	1/2	3/4	3	311420	311442
3/16	1/2	7/8	3	311421	311443
3/16	3/4	7/8	3-1/8	311422	311444
1/4	1/2	1	3	311423	311445
1/4	3/4	1	3-1/4	311424	311446
5/16	1/2	1-1/8	3-1/4	311425	311447
5/16	3/4	1-1/2	3-1/2	311426	311448
5/16	7/8	1-1/8	3-1/2	311427	311449
3/8	1/2	1-1/4	3-1/2	311428	311450
3/8	3/4	1-1/4	3-1/2	311429	311451
3/8	7/8	1-1/4	3-3/4	311430	311452
7/16	3/4	1-3/8	4	311431	311453
7/16	1	1-3/8	4	311432	-
1/2	3/4	1-1/2	3-7/8	311433	311454
1/2	1	1-1/2	4-1/8	311434	311455
5/8	3/4	1-5/8	4	311435	311456
5/8	1	1-5/8	4	311436	-
3/4	3/4	1-7/8	4	311437	311457
3/4	1	1-7/8	4	311438	-

Jobber Length, General Purpose, 118° Point, Fractional Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish		
					Oxide Finsh	Bright Finsh	Titanium Nitride Coated
1/64	.0156	3/16	3/4	12	144700	144116	144132
1/32	.0312	1/2	1-3/8	12	144701	144117	144133
3/64	.0469	3/4	1-3/4	12	144702	144118	144134
1/16	.0625	7/8	1-7/8	12	144160	144460	145326
5/64	.0781	1	2	12	144161	144461	145327
3/32	.0938	1-1/4	2-1/4	12	144162	144462	145328
7/64	.1094	1-1/2	2-5/8	12	144163	144463	145329
1/8	.1250	1-5/8	2-3/4	12	144164	144464	145330
9/64	.1406	1-3/4	2-7/8	12	144165	144465	145331
5/32	.1562	2	3-1/8	12	144166	144466	145332
11/64	.1719	2-1/8	3-1/4	12	144167	144467	145333
3/16	.1875	2-5/16	3-1/2	12	144168	144468	145334
13/64	.2031	2-7/16	3-5/8	12	144169	144469	145335
7/32	.2188	2-1/2	3-3/4	12	144170	144470	145336
15/64	.2344	2-5/8	3-7/8	12	144171	144471	145337
1/4	.2500	2-3/4	4	12	144172	144472	145338
17/64	.2656	2-7/8	4-1/8	12	144173	144473	145339
9/32	.2812	2-15/16	4-1/4	6	144174	144474	145340
19/64	.2969	3-1/16	4-3/8	6	144175	144475	145341
5/16	.3125	3-3/16	4-1/2	6	144176	144476	145342
21/64	.3281	3-5/16	4-5/8	6	144177	144477	145343
11/32	.3438	3-7/16	4-3/4	6	144178	144478	145344
23/64	.3594	3-1/2	4-7/8	6	144179	144479	145345
3/8	.3750	3-5/8	5	6	144180	144480	145346
25/64	.3906	3-3/4	5-1/8	6	144181	144481	145347
13/32	.4062	3-7/8	5-1/4	6	144182	144482	145348
27/64	.4219	3-15/16	5-3/8	6	144183	144483	145349
7/16	.4375	4-1/16	5-1/2	6	144184	144484	145350
29/64	.4531	4-3/16	5-5/8	6	144185	144485	145351
15/32	.4688	4-5/16	5-3/4	6	144186	144486	145352
31/64	.4844	4-3/8	5-7/8	6	144187	144487	145353
1/2	.5000	4-1/2	6	6	144188	144488	145354
33/64	.5156	4-13/16	6-5/8	1	144703	144719	144735
17/32	.5312	4-13/16	6-5/8	1	144704	144720	144736
35/64	.5469	4-13/16	6-5/8	1	144705	144721	144737
9/16	.5625	4-13/16	6-5/8	1	144706	144722	144738
37/64	.5781	4-13/16	6-5/8	1	144707	144723	144739
19/32	.5938	5-3/16	7-1/8	1	144708	144724	144740
39/64	.6094	5-3/16	7-1/8	1	144709	144725	144741
5/8	.6250	5-3/16	7-1/8	1	144710	144726	144742
41/64	.6406	5-3/16	7-1/8	1	144711	144727	144743
21/32	.6562	5-3/16	7-1/8	1	144712	144728	144744
43/64	.6719	5-5/8	7-5/8	1	144713	144729	144745
11/16	.6875	5-5/8	7-5/8	1	144714	144730	144746
3/4	.7500	5-5/8	7-5/8	1	144715	144731	144747

Jobber Length, General Purpose, 118° Point, Letter Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish		
					Oxide Finsh	Bright Finsh	Titanium Nitride Coated
A	.2340	2-5/8	3-7/8	12	144357	144657	148415
B	.2380	2-3/4	4	12	144358	144658	148416
C	.2420	2-3/4	4	12	144359	144659	148417
D	.2460	2-3/4	4	12	144360	144660	148418
E	.2500	2-3/4	4	12	144361	144661	148419
F	.2570	2-7/8	4-1/8	12	144362	144662	148420
G	.2610	2-7/8	4-1/8	12	144363	144663	148421
H	.2660	2-7/8	4-1/8	12	144364	144664	148422
I	.2720	2-7/8	4-1/8	6	144365	144665	148423
J	.2770	2-7/8	4-1/8	6	144366	144666	148424
K	.2810	2-15/16	4-1/4	6	144367	144667	148425
L	.2900	2-15/16	4-1/4	6	144368	144668	148426
M	.2950	3-1/16	4-3/8	6	144369	144669	148427
N	.3020	3-1/16	4-3/8	6	144370	144670	148428
O	.3160	3-3/16	4-1/2	6	144371	144671	148429
P	.3230	3-5/16	4-5/8	6	144372	144672	148430
Q	.3320	3-7/16	4-3/4	6	144373	144673	148431
R	.3390	3-7/16	4-3/4	6	144374	144674	148432
S	.3480	3-1/2	4-7/8	6	144375	144675	148433
T	.3580	3-1/2	4-7/8	6	144376	144676	148434
U	.3680	3-5/8	5	6	144377	144677	148435
V	.3770	3-5/8	5	6	144378	144678	148436
W	.3860	3-3/4	5-1/8	6	144379	144679	148437
X	.3970	3-3/4	5-1/8	6	144380	144680	148438
Y	.4040	3-7/8	5-1/4	6	144381	144681	148439
Z	.4130	3-7/8	5-1/4	6	144382	144682	148440

Jobber Length, General Purpose, 118° Point, Wire Gauge Sizes 12 Drills per package

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO. and Finish		
				Oxide Finsh	Bright Finsh	Titanium Nitride Coated
1	.2280	2-5/8	3-7/8	144257	144557	145355
2	.2210	2-5/8	3-7/8	144258	144558	145356
3	.2130	2-1/2	3-3/4	144259	144559	145357
4	.2090	2-1/2	3-3/4	144260	144560	145358
5	.2055	2-1/2	3-3/4	144261	144561	145359
6	.2040	2-1/2	3-3/4	144262	144562	145360
7	.2010	2-7/16	3-5/8	144263	144563	145361
8	.1990	2-7/16	3-5/8	144264	144564	145362
9	.1960	2-7/16	3-5/8	144265	144565	145363
10	.1935	2-7/16	3-5/8	144266	144566	145364
11	.1910	2-5/16	3-1/2	144267	144567	145365
12	.1890	2-5/16	3-1/2	144268	144568	145366
13	.1850	2-5/16	3-1/2	144269	144569	145367
14	.1820	2-3/16	3-3/8	144270	144570	145368
15	.1800	2-3/16	3-3/8	144271	144571	145369
16	.1770	2-3/16	3-3/8	144272	144572	145370
17	.1730	2-3/16	3-3/8	144273	144573	145371
18	.1695	2-1/8	3-1/4	144274	144574	145372
19	.1660	2-1/8	3-1/4	144275	144575	145373
20	.1610	2-1/8	3-1/4	144276	144576	145374
21	.1590	2-1/8	3-1/4	144277	144577	145375
22	.1570	2	3-1/8	144278	144578	145376
23	.1540	2	3-1/8	144279	144579	145377
24	.1520	2	3-1/8	144280	144580	145378
25	.1495	1-7/8	3	144281	144581	145379
26	.1470	1-7/8	3	144282	144582	145380
27	.1440	1-7/8	3	144283	144583	145381
28	.1405	1-3/4	2-7/8	144284	144584	145382
29	.1360	1-3/4	2-7/8	144285	144585	145383
30	.1285	1-5/8	2-3/4	144286	144586	145384
31	.1200	1-5/8	2-3/4	144284	144587	145385
32	.1160	1-5/8	2-3/4	144288	144588	145386
33	.1130	1-1/2	2-5/8	144289	144589	145387
34	.1110	1-1/2	2-5/8	144290	144590	145388
35	.1100	1-1/2	2-5/8	144291	144591	145389
36	.1065	1-7/16	2-1/2	144292	144592	145390
37	.1040	1-7/16	2-1/2	144293	144593	145391
38	.1015	1-7/16	2-1/2	144294	144594	145392
39	.0995	1-3/8	2-3/8	144295	144595	145393
40	.9080	1-3/8	2-3/8	144296	144596	145394

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO. and Finish		
				Oxide Finsh	Bright Finsh	Titanium Nitride Coated
41	.0960	1-3/8	2-3/8	144297	144597	145395
42	.0935	1-1/4	2-1/4	144298	144598	145396
43	.0890	1-1/4	2-1/4	144299	144599	145397
44	.0860	1-1/8	2-1/8	144300	144600	145398
45	.0820	1-1/8	2-1/8	144301	144601	145399
46	.0810	1-1/8	2-1/8	144302	144602	145400
47	.0785	1	2	144303	144603	145401
48	.0760	1	2	144304	144604	145402
49	.0730	1	2	144305	144605	145403
50	.0700	1	2	144306	144606	145404
51	.0670	1	2	144307	144607	145405
52	.0635	7/8	1-7/8	144308	144608	145406
53	.0595	7/8	1-7/8	144309	144609	145407
54	.0550	7/8	1-7/8	144310	144610	145408
55	.0520	7/8	1-7/8	144311	144611	145409
56	.0465	3/4	1-3/4	144312	144612	145410
57	.0430	3/4	1-3/4	144313	144613	145411
58	.0420	11/16	1-5/8	144314	144614	145412
59	.0410	11/16	1-5/8	144315	144615	145413
60	.0400	11/16	1-5/8	144316	144616	145414
61	.0390	11/16	1-5/8	144800	144820	144840
62	.0380	5/8	1-1/2	144801	144821	144841
63	.0370	5/8	1-1/2	144802	144822	144842
64	.0360	5/8	1-1/2	144803	144823	144843
65	.0350	5/8	1-1/2	144804	144824	144844
66	.0330	1/2	1-3/8	144805	144825	144845
67	.0320	1/2	1-3/8	144806	144826	144846
68	.0310	1/2	1-3/8	144807	144827	144847
69	.0292	1/2	1-3/8	144808	144828	144848
70	.0280	3/8	1-1/4	144809	144829	144849
71	.0260	3/8	1-1/4	144810	144830	144850
72	.0250	5/16	1-1/8	144811	144831	144851
73	.0240	5/16	1-1/8	144812	144832	144852
74	.0225	1/4	1	144813	144833	144853
75	.0210	1/4	1	144814	144834	144854
76	.0200	3/16	7/8	144815	144835	144855
77	.0180	3/16	7/8	144816	144836	144856
78	.0160	3/16	7/8	144817	144837	144857
79	.0145	1/8	3/4	144818	144838	144858
80	.0135	1/8	3/4	144819	144839	144859

DRILL BITS

Jobber Length, General Purpose, 118° Point, Micro Drills, Bright Finish Only
12 Drills per package

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
81	.0130	3/32	3/4	303108
82	.0125	3/32	3/4	303109
83	.0120	3/32	3/4	303110
84	.0115	3/32	3/4	303111
85	.0110	5/64	3/4	303112
86	.0105	5/64	3/4	303113
87	.0100	5/64	3/4	303114
88	.0095	5/64	3/4	303115
89	.0091	1/16	3/4	303116
90	.0087	1/16	3/4	303117
91	.0083	1/16	3/4	303118
92	.0079	1/16	3/4	303119
93	.0075	1/16	3/4	303120
94	.0071	1/16	3/4	303121
95	.0067	1/16	3/4	303122
96	.0063	3/64	3/4	303123
97	.0059	3/64	3/4	303124

Cobalt Jobber Length, Heavy Duty, 135° Split Point, Fractional Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
1/64	.0156	3/16	3/4	12	145415
1/32	.0312	1/2	1-3/8	12	145416
3/64	.0469	3/4	1-3/4	12	145417
1/16	.0625	7/8	1-7/8	12	145418
5/64	.0781	1	2	12	145419
3/32	.0938	1-1/4	2-1/4	12	145420
7/64	.1094	1-1/2	2-5/8	12	145421
1/8	.1250	1-5/8	2-3/4	12	145422
9/64	.1406	1-3/4	2-7/8	12	145423
5/32	.1562	2	3-1/8	12	145424
11/64	.1719	2-1/8	3-1/4	12	145425
3/16	.1875	2-5/16	3-1/2	12	145426
13/64	.2031	2-7/16	3-5/8	12	145427
7/32	.2188	2-1/2	3-3/4	12	145428
15/64	.2344	2-5/8	3-7/8	12	145429
1/4	.2500	2-3/4	4	12	145430
17/64	.2656	2-7/8	4-1/8	12	145431
9/32	.2812	2-15/16	4-1/4	6	145432
19/64	.2969	3-1/16	4-3/8	6	145433
5/16	.3125	3-3/16	4-1/2	6	145434
21/64	.3281	3-5/16	4-5/8	6	145435
11/32	.3438	3-7/16	4-3/4	6	145436
23/64	.3594	3-1/2	4-7/8	6	145437
3/8	.3750	3-5/8	5	6	145438
25/64	.3906	3-3/4	5-1/8	6	145439
13/32	.4062	3-7/8	5-1/4	6	145440
27/64	.4219	3-15/16	5-3/8	6	145441
7/16	.4375	4-1/16	5-1/2	6	145442
29/64	.4531	4-3/16	5-5/8	6	145443
15/32	.4688	4-5/16	5-3/4	6	145444
31/64	.4844	4-3/8	5-7/8	6	145445
1/2	.5000	4-1/2	6	6	145446
33/64	.5156	4-13/16	6-5/8	1	145447
17/32	.5312	4-13/16	6-5/8	1	145448
35/64	.5469	4-13/16	6-5/8	1	145449
9/16	.5625	4-13/16	6-5/8	1	145450
37/64	.5781	4-13/16	6-5/8	1	145451
19/32	.5938	5-3/16	7-1/8	1	145452
39/64	.6094	5-3/16	7-1/8	1	145453
5/8	.6250	5-3/16	7-1/8	1	145454
41/64	.6406	5-3/16	7-1/8	1	145455
21/32	.6562	5-3/16	7-1/8	1	145456
43/64	.6719	5-5/8	7-5/8	1	145457
11/16	.6875	5-5/8	7-5/8	1	145458

Cobalt drills display higher red hardness and are especially effective in drilling hard or abrasive materials

Cobalt Jobber Length, Heavy Duty, 135° Split Point, Letter Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
A	.2340	2-5/8	3-7/8	12	145459
B	.2380	2-3/4	4	12	145460
C	.2420	2-3/4	4	12	145461
D	.2460	2-3/4	4	12	145462
E	.2500	2-3/4	4	12	145463
F	.2570	2-7/8	4-1/8	12	145464
G	.2610	2-7/8	4-1/8	12	145465
H	.2660	2-7/8	4-1/8	12	146466
I	.2720	2-7/8	4-1/8	6	145467
J	.2770	2-7/8	4-1/8	6	145468
K	.2810	2-15/16	4-1/4	6	145469
L	.2900	2-15/16	4-1/4	6	145470
M	.2950	3-1/16	4-3/8	6	145471
N	.3020	3-1/16	4-3/8	6	145472
O	.3160	3-3/16	4-1/2	6	145473
P	.3230	3-5/16	4-5/8	6	145474
Q	.3320	3-7/16	4-3/4	6	145475
R	.3390	3-7/16	4-3/4	6	145476
S	.3480	3-1/2	4-7/8	6	145477
T	.3580	3-1/2	4-7/8	6	145478
U	.3680	3-5/8	5	6	145479
V	.3770	3-5/8	5	6	145480
W	.3860	3-3/4	5-1/8	6	145481
X	.3970	3-3/4	5-1/8	6	145482
Y	.4040	3-7/8	5-1/4	6	145483
Z	.4130	3-7/8	5-1/4	6	145484

Jobber Length, General Purpose, 118° Point, Wire Gauge Sizes 12 Drills per package

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1	.2280	2-5/8	3-7/8	145485
2	.2210	2-5/8	3-7/8	145486
3	.2130	2-1/2	3-3/4	145487
4	.2090	2-1/2	3-3/4	145488
5	.2055	2-1/2	3-3/4	145489
6	.2040	2-1/2	3-3/4	145490
7	.2010	2-7/16	3-5/8	145491
8	.1990	2-7/16	3-5/8	145492
9	.1960	2-7/16	3-5/8	145493
10	.1935	2-7/16	3-5/8	145494
11	.1910	2-5/16	3-1/2	145495
12	.1890	2-5/16	3-1/2	145496
13	.1850	2-5/16	3-1/2	145497
14	.1820	2-3/16	3-3/8	145498
15	.1800	2-3/16	3-3/8	145499
16	.1770	2-3/16	3-3/8	145500
17	.1730	2-3/16	3-3/8	145501
18	.1695	2-1/8	3-1/4	145502
19	.1660	2-1/8	3-1/4	145503
20	.1610	2-1/8	3-1/4	145504
21	.1590	2-1/8	3-1/4	145505
22	.1570	2	3-1/8	145506
23	.1540	2	3-1/8	145507
24	.1520	2	3-1/8	145508
25	.1495	1-7/8	3	145509
26	.1470	1-7/8	3	145510
27	.1440	1-7/8	3	145511
28	.1405	1-3/4	2-7/8	145512
29	.1360	1-3/4	2-7/8	145513
30	.1285	1-5/8	2-3/4	145514
31	.1200	1-5/8	2-3/4	145515
32	.1160	1-5/8	2-3/4	145516
33	.1130	1-1/2	2-5/8	145517
34	.1110	1-1/2	2-5/8	145518
35	.1100	1-1/2	2-5/8	145519
36	.1065	1-7/16	2-1/2	145520
37	.1040	1-7/16	2-1/2	145521
38	.1015	1-7/16	2-1/2	145522
39	.0995	1-3/8	2-3/8	145523
40	.9080	1-3/8	2-3/8	145524

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
41	.0960	1-3/8	2-3/8	145525
42	.0935	1-1/4	2-1/4	145526
43	.0890	1-1/4	2-1/4	145527
44	.0860	1-1/8	2-1/8	145528
45	.0820	1-1/8	2-1/8	145529
46	.0810	1-1/8	2-1/8	145530
47	.0785	1	2	145531
48	.0760	1	2	145532
49	.0730	1	2	145533
50	.0700	1	2	145534
51	.0670	1	2	145535
52	.0635	7/8	1-7/8	145536
53	.0595	7/8	1-7/8	145537
54	.0550	7/8	1-7/8	145538
55	.0520	7/8	1-7/8	145539
56	.0465	3/4	1-3/4	145540
57	.0430	3/4	1-3/4	145541
58	.0420	11/16	1-5/8	145542
59	.0410	11/16	1-5/8	145543
60	.0400	11/16	1-5/8	145544
61	.0390	11/16	1-5/8	145545
62	.0380	5/8	1-1/2	145546
63	.0370	5/8	1-1/2	145547
64	.0360	5/8	1-1/2	145548
65	.0350	5/8	1-1/2	145549
66	.0330	1/2	1-3/8	145550
67	.0320	1/2	1-3/8	145551
68	.0310	1/2	1-3/8	145552
69	.0292	1/2	1-3/8	145553
70	.0280	3/8	1-1/4	145554
71	.0260	3/8	1-1/4	145555
72	.0250	5/16	1-1/8	145556
73	.0240	5/16	1-1/8	145557
74	.0225	1/4	1	145558
75	.0210	1/4	1	145559
76	.0200	3/16	7/8	145560
77	.0180	3/16	7/8	145561
78	.0160	3/16	7/8	145562
79	.0145	1/8	3/4	145563
80	.0135	1/8	3/4	145564

Cobalt sizes smaller than 1/16" furnished with 135° point- NOT split

DRILL BITS

Millimeter Jobber Length- High Speed Steel, General Purpose, 118° Point Super Cobalt, Heavy Duty, 135° Split Point

.15 mm-.740 mm-12 pc. per pkg

7.50 mm-14.00 mm- 6 pc. per pkg

14.50 mm-19.50 mm- 1 pc. per pkg

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.	
				HHS	Cobalt
.15	.0059	3/64	3/4	145704	-
.16	.0063	3/64	3/4	145705	-
.17	.0067	1/16	3/4	145706	-
.18	.0071	1/16	3/4	145707	-
.19	.0075	1/16	3/4	145708	-
.20	.0079	1/16	3/4	145709	-
.22	.0087	1/16	3/4	145710	-
.25	.0098	5/64	3/4	145711	-
.26	.0102	5/64	3/4	145712	-
.27	.0106	5/64	3/4	145713	-
.28	.0110	5/64	3/4	145714	-
.29	.0114	5/64	3/4	145715	-
.30	.0118	3/32	3/4	145716	-
.32	.0126	3/32	3/4	145717	-
.35	.0138	1/8	3/4	145718	-
.38	.0150	3/16	3/4	145719	-
.40	.0158	3/16	7/8	145720	-
.42	.0165	3/16	7/8	145721	-
.44	.0173	3/16	7/8	145722	-
.45	.0177	3/16	7/8	145723	-
.48	.0189	3/16	7/8	145724	-
.50	.0197	3/16	7/8	145725	-
.55	.0217	1/4	1	145726	-
.60	.0236	5/16	1-1/8	145727	-
.65	.0256	3/8	1-1/4	145728	-
.70	.0295	3/8	1-1/4	145729	-
.75	.0296	1/2	1-3/8	145730	-
.80	.0315	1/2	1-3/8	145731	-
.85	.0335	5/8	1-1/2	145732	-
.90	.0355	5/8	1-1/2	145733	-
.95	.0374	5/8	1-1/2	145734	-
1.00	.0394	11/16	1-5/8	145735	145914
1.05	.0413	11/16	1-5/8	145736	-
1.10	.0433	3/4	1-3/4	145737	145916
1.15	.0453	3/4	1-3/4	145738	145917
1.20	.0472	7/8	1-7/8	145739	145918
1.25	.0492	7/8	1-7/8	145740	-
1.30	.0512	7/8	1-7/8	145741	-
1.35	.0531	7/8	1-7/8	145742	-
1.40	.0551	7/8	1-7/8	145743	-
1.45	.0571	7/8	1-7/8	145744	145923
1.50	.0591	7/8	1-7/8	145745	145924
1.55	.0610	7/8	1-7/8	145746	-
1.60	.0630	7/8	1-7/8	145747	-
1.65	.0650	1	2	145748	145927

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.	
				HHS	Cobalt
1.70	.0669	1	2	145749	-
1.75	.0689	1	2	145750	-
1.80	.0709	1	2	145751	145930
1.85	.0728	1	2	145752	145931
1.90	.0748	1	2	145753	145932
1.95	.0768	1	2	145754	145933
2.00	.0787	1	2-1/8	145755	145934
2.05	.0807	1-1/8	2-1/8	145759	145935
2.10	.0827	1-1/8	2-1/8	145757	-
2.15	.0846	1-1/8	2-1/8	145758	145937
2.20	.0866	1-1/4	2-1/4	145759	145938
2.25	.0886	1-1/4	2-1/4	145760	-
2.30	.0906	1-1/4	2-1/4	145761	-
2.35	.0925	1-1/4	2-1/4	145762	145941
2.40	.0945	1-3/8	2-3/8	145763	145942
2.45	.0965	1-3/8	2-3/8	145764	-
2.50	.0984	1-3/8	2-3/8	145765	145944
2.60	.1024	1-7/16	2-1/2	145766	145945
2.70	.1063	1-7/16	2-1/2	145767	145946
2.75	.1083	1-1/2	2-5/8	145768	-
2.80	.1102	1-1/2	2-5/8	145769	145948
2.90	.1142	1-5/8	2-3/4	145770	145949
3.00	.1181	1-5/8	2-3/4	145771	145950
3.10	.1220	1-5/8	2-3/4	145772	145951
3.20	.1260	1-5/8	2-3/4	145773	145952
3.25	.1280	1-5/8	2-3/4	145774	-
3.30	.1299	1-3/4	2-7/8	145775	145954
3.40	.1339	1-3/4	2-7/8	145776	145955
3.50	.1378	1-3/4	2-7/8	145777	145956
3.60	.1417	1-7/8	3	145778	145957
3.70	.1457	1-7/8	3	145779	-
3.75	.1476	1-7/8	3	145780	-
3.80	.1496	1-7/8	3	145781	145960
3.90	.1535	2	3-1/8	145782	-
4.00	.1575	2-1/8	3-1/4	145783	145962
4.10	.1614	2-1/8	3-1/4	145784	-
4.20	.1654	2-1/8	3-1/4	145785	145964
4.25	.1673	2-1/8	3-1/4	145786	-
4.30	.1693	2-1/8	3-1/4	145787	-
4.40	.1732	2-3/16	3-3/8	145788	145967
4.50	.1772	2-3/16	3-3/8	145789	145968
4.60	.1811	2-3/16	3-3/8	145790	145969
4.70	.1850	2-5/16	3-1/2	145791	-
4.75	.1870	2-5/16	3-1/2	145792	-
4.80	.1890	2-5/16	3-1/2	145793	145972

Millimeter Jobber Length- High Speed Steel, General Purpose, 118° Point Super Cobalt, Heavy Duty, 135° Split Point

.15 mm-7.40 mm-12 pc. per pkg

7.50 mm-14.00 mm- 6 pc. per pkg

14.50 mm-19.50 mm- 1 pc. per pkg

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.	
				HHS	Cobalt
4.90	.1929	2-7/16	3-5/8	145794	-
5.00	.1968	2-7/16	3-5/8	145795	145974
5.10	.2008	2-7/16	3-5/8	145796	-
5.20	.2047	2-1/2	3-3/4	145797	145976
5.25	.2067	2-1/2	3-3/4	145798	-
5.30	.2087	2-1/2	3-3/4	145799	145978
5.40	.2126	2-1/2	3-3/4	145800	-
5.50	.2165	2-1/2	3-3/4	145801	145980
5.60	.2205	2-5/8	3-7/8	145802	145981
5.70	.2244	2-5/8	3-7/8	145803	145982
5.75	.2264	2-5/8	3-7/8	145804	-
5.80	.2283	2-5/8	3-7/8	145805	145984
5.90	.2323	2-5/8	3-7/8	145806	-
6.00	.2362	2-3/4	4	145807	145986
6.10	.2402	2-3/4	4	145808	-
6.20	.2441	2-3/4	4	145809	-
6.25	.2461	2-3/4	4	145810	-
6.30	.2480	2-3/4	4	145811	-
6.40	.2520	2-7/8	4-1/8	145812	145991
6.50	.2559	2-7/8	4-1/8	145813	145992
6.60	.2598	2-7/8	4-1/8	145814	-
6.70	.2638	2-7/8	4-1/8	145815	-
6.75	.2657	2-7/8	4-1/8	145816	-
6.80	.2677	2-7/8	4-1/8	145817	-
6.90	.2717	2-7/8	4-1/8	145818	-
7.00	.2756	2-7/8	4-1/8	145819	145998
7.10	.2795	2-15/16	4-1/4	145820	-
7.20	.2835	2-15/16	4-1/4	145821	-
7.25	.2854	2-15/16	4-1/4	145822	-
7.30	.2874	2-15/16	4-1/4	145823	-
7.40	.2913	3-1/16	4-3/8	145824	-
7.50	.2953	3-1/16	4-3/8	145825	146004
7.60	.2992	3-1/16	4-3/8	145826	-
7.70	.3031	3-3/16	4-1/2	145827	146007
7.75	.3051	3-3/16	4-1/2	145828	-
7.80	.3071	3-3/16	4-1/2	145829	146009
7.90	.3110	3-3/16	4-1/2	145830	146010
8.00	.3150	3-3/16	4-1/2	145831	146011
8.10	.3189	3-5/16	4-5/8	145832	146012
8.20	.3228	3-5/16	4-5/8	145833	-
8.25	.3248	3-5/16	4-5/8	145834	-
8.30	.3268	3-5/16	4-5/8	145835	-
8.40	.3307	3-7/16	4-3/4	145836	-
8.50	.3346	3-7/16	4-3/4	145837	146017
8.60	.3386	3-7/16	4-3/4	145838	146018

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.	
				HHS	Cobalt
8.70	.3425	3-7/16	4-3/4	145839	146019
8.75	.3445	3-1/2	4-7/8	145840	-
8.80	.3465	3-1/2	4-7/8	145841	-
8.90	.3504	3-1/2	4-7/8	145842	-
9.00	.3543	3-1/2	4-7/8	145843	146023
9.10	.3583	3-1/2	4-7/8	145844	-
9.20	.3622	3-5/8	5	145845	-
9.25	.3642	3-5/8	5	145846	-
9.30	.3661	3-5/8	5	145847	-
9.40	.3701	3-5/8	5	145848	-
9.50	.3740	3-5/8	5	145849	146029
9.60	.3780	3-3/4	5-1/8	145850	-
9.70	.3819	3-3/4	5-1/8	145851	-
9.75	.3839	3-3/4	5-1/8	145852	-
9.80	.3858	3-3/4	5-1/8	145853	146033
9.90	.3898	3-3/4	5-1/8	145854	-
10.00	.3937	3-3/4	5-1/8	145855	146036
10.20	.4016	3-7/8	5-1/4	145856	-
10.50	.4134	3-15/16	5-3/8	145857	146037
10.80	.4252	4-1/16	5-1/2	145858	-
11.00	.4331	4-1/16	5-1/2	145859	146039
11.20	.4409	4-3/16	5-5/8	145860	-
11.25	.4429	4-3/16	5-5/8	145861	-
11.50	.4528	4-3/16	5-5/8	145862	146042
12.00	.4724	4-3/8	5-7/8	145863	146043
12.20	.4803	4-3/8	5-7/8	145864	-
12.25	.4823	4-3/8	5-7/8	145865	-
12.50	.4921	4-1/2	6	145866	146046
12.75	.5020	4-1/2	6	145867	-
13.00	.5118	4-1/2	6	145868	-
13.50	.5315	4-13/16	6-5/8	145869	-
13.80	.5433	4-13/16	6-5/8	145870	-
14.00	.5512	4-13/16	6-5/8	145871	-
14.50	.5709	4-13/16	6-5/8	145872	-
15.00	.5906	5-3/16	7-1/8	145873	-
15.25	.6004	5-3/16	7-1/8	145874	-
15.50	.6102	5-3/16	7-1/8	145875	-
16.00	.6299	5-3/16	7-1/8	145876	-
16.50	.6490	5-3/16	7-1/8	145877	-
17.00	.6693	5-5/8	7-5/8	145878	-
17.50	.6890	5-5/8	7-5/8	145879	-
18.00	.7087	5-5/8	7-5/8	145880	-
19.00	.7480	5-5/8	7-5/8	145881	-
19.50	.7677	5-5/8	7-5/8	145882	-

DRILL BITS

Left Hand Drills, Jobber Length, 118° Point

Fractional Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
1/64	.0156	3/16	3/4	12	146063
1/32	.0312	1/2	1-3/8	12	146064
3/64	.0469	3/4	1-3/4	12	146065
1/16	.0625	7/8	1-7/8	12	146066
5/64	.0781	1	2	12	146067
3/32	.0938	1-1/4	2-1/4	12	146068
7/64	.1094	1-1/2	2-5/8	12	146069
1/8	.1250	1-5/8	2-3/4	12	146070
9/64	.1406	1-3/4	2-7/8	12	146071
5/32	.1562	2	3-1/8	12	146072
11/64	.1719	2-1/8	3-1/4	12	146073
3/16	.1875	2-5/16	3-1/2	12	146074
13/64	.2031	2-7/16	3-5/8	12	146075
7/32	.2188	2-1/2	3-3/4	12	146076
15/64	.2344	2-5/8	3-7/8	12	146077
1/4	.2500	2-3/4	4	12	146078
17/64	.2656	2-7/8	4-1/8	12	146076

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
9/32	.2812	2-15/16	4-1/4	6	146080
19/64	.2969	3-1/16	4-3/8	6	146081
5/16	.3125	3-3/16	4-1/2	6	146082
21/64	.3281	3-5/16	4-5/8	6	146083
11/32	.3438	3-7/16	4-3/4	6	146084
23/64	.3594	3-1/2	4-7/8	6	146085
3/8	.3750	3-5/8	5	6	146086
25/64	.3906	3-3/4	5-1/8	6	146087
13/32	.4062	3-7/8	5-1/4	6	146088
27/64	.4219	3-15/16	5-3/8	6	146089
7/16	.4375	4-1/16	5-1/2	6	146090
29/64	.4531	4-3/16	5-5/8	6	146091
15/32	.4688	4-5/16	5-3/4	6	146092
31/64	.4844	4-3/8	5-7/8	6	146093
1/2	.5000	4-1/2	6	6	146094

Letter Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
A	.2340	2-5/8	3-7/8	12	146096
B	.2380	2-3/4	4	12	146097
C	.2420	2-3/4	4	12	146098
D	.2460	2-3/4	4	12	146099
E	.2500	2-3/4	4	12	146100
F	.2570	2-7/8	4-1/8	12	146101
G	.2610	2-7/8	4-1/8	12	146102
H	.2660	2-7/8	4-1/8	12	146103
I	.2720	2-7/8	4-1/8	6	146104
J	.2770	2-7/8	4-1/8	6	146105
K	.2810	2-15/16	4-1/4	6	146106
L	.2900	2-15/16	4-1/4	6	146107
M	.2950	3-1/16	4-3/8	6	146108
N	.3020	3-1/16	4-3/8	6	146109

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
O	.3160	3-3/16	4-1/2	6	146110
P	.3230	3-5/16	4-5/8	6	146111
Q	.3320	3-7/16	4-3/4	6	146112
R	.3390	3-7/16	4-3/4	6	146113
S	.3480	3-1/2	4-7/8	6	146114
T	.3580	3-1/2	4-7/8	6	146115
U	.3680	3-5/8	5	6	146116
V	.3770	3-5/8	5	6	146117
W	.3860	3-3/4	5-1/8	6	146118
X	.3970	3-3/4	5-1/8	6	146119
Y	.4040	3-7/8	5-1/4	6	146120
Z	.4130	3-7/8	5-1/4	6	146121

Left Hand Drills, Jobber Length, 118° Point

Wire Gauge Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
1	.2280	2-5/8	3-7/8	12	146122
2	.2210	2-5/8	3-7/8	12	146123
3	.2130	2-1/2	3-3/4	12	146124
4	.2090	2-1/2	3-3/4	12	146125
5	.2055	2-1/2	3-3/4	12	146126
6	.2010	2-1/2	3-3/4	12	146127
7	.2010	2-7/16	3-5/8	12	146128
8	.1990	2-7/16	3-5/8	12	146129
9	.1960	2-7/16	3-5/8	12	146130
10	.1935	2-7/16	3-5/8	12	146131
11	.1910	2-5/16	3-1/2	12	146132
12	.1890	2-5/16	3-1/2	12	146133
13	.1850	2-5/16	3-1/2	12	146134
14	.1820	2-3/16	3-3/8	12	146135
15	.1800	2-3/16	3-3/8	12	146136
16	.1770	2-3/16	3-3/8	12	146137
17	.1730	2-3/16	3-3/8	12	146138
18	.1695	2-1/8	3-1/4	12	146139
19	.1660	2-1/8	3-1/4	12	146140
20	.1610	2-1/2	3-1/4	12	146141
21	.1590	2-1/8	3-1/4	12	146142
22	.1570	2	3-1/8	12	146143
23	.1540	2	3-1/8	12	146144
24	.1520	2	3-1/8	12	146145
25	.1495	1-7/8	3	12	146146
26	.1470	1-7/8	3	12	146147
27	.1440	1-7/8	3	12	146148
28	.1405	1-3/4	2-7/8	12	146149
29	.1360	1-3/4	2-7/8	12	146150
30	.1285	1-5/8	2-3/4	12	146151
31	.1200	1-5/8	2-3/4	12	146152
32	.1160	1-5/8	2-3/4	12	146153
33	.1130	1-1/2	2-5/8	12	146154
34	.1110	1-1/2	2-5/8	12	146155
35	.1100	1-1/2	2-5/8	12	146156
36	.1065	1-7/16	2-1/2	12	145157
37	.1040	1-7/16	2-1/2	12	146158
38	.1015	1-7/16	2-1/2	12	146159
39	.0995	1-3/8	2-3/8	12	146160
40	.0980	1-3/8	2-3/8	12	146161

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
41	.0960	1-3/8	2-3/8	12	146162
42	.0935	1-1/4	2-1/4	12	146163
43	.0890	1-1/4	2-1/4	12	146164
44	.0860	1-1/8	2-1/8	12	146165
45	.0820	1-1/8	2-1/8	12	146166
46	.0810	1-1/8	2-1/8	12	146167
47	.0785	1	2	12	146168
48	.0760	1	2	12	146169
49	.0730	1	2	12	146170
50	.0700	1	2	12	146171
51	.0670	1	2	12	146172
52	.0635	7/8	1-17/8	12	146173
53	.0595	7/8	1-7/8	12	146174
54	.0550	7/8	1-7/8	12	145175
55	.0520	7/8	1-7/8	12	146176
56	.0465	3/4	1-3/4	12	146177
57	.0430	3/4	1-3/4	12	146178
58	.0420	11/16	1-5/8	12	146179
59	.0410	11/16	1-5/8	12	146180
60	.0400	11/16	1-5/8	12	146181
61	.0390	11/16	1-5/8	12	146182
62	.0380	5/8	1-1/2	12	146183
63	.0370	5/8	1-1/2	12	146184
64	.0360	5/8	1-1/2	12	146185
65	.0350	5/8	1-1/2	12	146186
66	.0330	1/2	1-3/8	12	146187
67	.0320	1/2	1-3/8	12	146188
68	.0310	1/2	1-3/8	12	146189
69	.0292	1/2	1-3/8	12	146190
70	.0280	3/8	1-1/4	12	146191
71	.0260	3/8	1-1/4	12	146192
72	.0250	5/16	1-1/8	12	146193
73	.0240	5/16	1-1/8	12	146194
74	.0225	1/4	1	12	146195
75	.0210	1/4	1	12	146196
76	.0200	3/16	7/8	12	146197
77	.0180	3/16	7/8	12	146198
78	.0160	3/16	7/8	12	146199
79	.0145	1/8	3/4	12	146200
80	.0135	1/8	3/4	12	146201

Left Hand Drills, Screw Machine Length, 118° Point

Fractional Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
3/64	.0469	1/2	1-3/8	12	146202
1/16	.0625	5/8	1-5/8	12	146203
5/64	.0781	11/16	1-11/16	12	146204
3/32	.0938	3/4	1-3/4	12	146205
7/64	.1094	13/16	1-13/16	12	146206
1/8	.1250	7/8	1-7/8	12	146207
9/64	.1406	15/16	1-15/16	12	146208
5/32	.1562	1	2-1/16	12	146209
11/16	.1719	1-1/16	2-1/8	12	146210
3/16	.1875	1-1/8	2-3/16	12	146211
13/64	.2031	1-3/16	2-1/4	12	146212
7/32	.2188	1-1/4	2-3/8	12	146213
15/64	.2344	1-5/16	2-7/16	12	146214
1/4	.2500	1-3/8	2-1/2	12	146215
17/64	.2656	1-7/16	2-5/8	12	146216
9/32	.2812	1-1/2	2-11/16	6	146217
19/64	.2969	1-9/16	2-3/4	6	146218
5/16	.3125	1-5/8	2-13/16	6	146219
21/64	.3281	1-11/16	2-15/16	6	146220
11/32	.3438	1-11/16	3	6	146221
23/64	.3594	1-3/4	3-1/16	6	146222
3/8	.3750	1-13/16	3-1/8	6	146223
25/64	.3906	1-7/8	3-1/4	6	146224
13/32	.4062	1-15/16	3-5/16	6	146225
27/64	.4219	2	3-3/8	6	146226
7/16	.4375	2-1/16	3-7/16	6	146227
29/64	.4531	2-1/8	3-9/16	6	146228
15/32	.4688	2-1/8	3-5/8	6	146229
31/64	.4844	2-3/16	3-11/16	6	146230
1/2	.5000	2-1/4	3-3/4	6	146231
33/64	.5156	2-3/8	3-7/8	1	146232
17/32	.5312	2-3/8	3-7/8	1	146233
35/64	.5469	2-1/2	4	1	146234

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
9/16	.5625	2-1/2	4	1	146235
37/64	.5781	2-5/8	4-1/8	1	146236
19/32	.5938	2-5/8	4-1/8	1	146237
39/64	.6094	2-3/4	4-1/4	1	146238
5/8	.6250	2-3/4	4-1/4	1	146239
41/64	.6406	2-7/8	4-1/2	1	146240
21/32	.6562	2-7/8	4-1/2	1	146241
43/64	.6719	2-7/8	4-5/8	1	146242
11/16	.6875	2-7/8	4-5/8	1	146243
45/64	.7031	3	4-3/4	1	146244
23/32	.7188	3	4-3/4	1	146245
47/64	.7344	3-1/8	5	1	146246
3/4	.7500	3-1/8	5	1	146247
49/64	.7656	3-1/4	5-1/8	1	146248
25/32	.7812	3-1/4	5-1/8	1	146249
51/64	.7969	3-3/8	5-1/4	1	146250
13/16	.8125	3-3/8	5-1/4	1	146251
53/64	.8281	3-1/2	5-3/8	1	146252
27/32	.8438	3-1/2	5-3/8	1	146253
55/64	.8594	3-1/2	5-1/2	1	146254
7/8	.8750	3-1/2	5-1/2	1	146255
57/64	.8906	3-5/8	5-5/8	1	146256
29/32	.9062	3-5/8	5-5/8	1	146257
59/64	.9219	3-3/4	5-3/4	1	146258
15/16	.9375	3-3/4	5-3/4	1	146259
61/64	.9531	3-7/8	5-7/8	1	146260
31/32	.9688	3-7/8	5-7/8	1	146261
63/64	.9844	4	6	1	146262
1	1.0000	4	6	1	146263
1-1/16	1.0625	4	6-1/4	1	146264
1-1/8	1.1250	4	6-3/8	1	146265
1-3/16	1.1875	4-1/4	6-5/8	1	146266
1-1/4	1.2500	4-3/8	6-3/4	1	146267

Left Hand Drills, Screw Machine Length, 118° Point

Letter Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
A	.2340	1-5/16	2-7/16	12	146268
B	.2380	1-3/8	2-1/2	12	146269
C	.2420	1-3/8	2-1/2	12	146270
D	.2460	1-3/8	2-1/2	12	146271
E	.2500	1-3/8	2-1/2	12	146272
F	.2570	1-7/16	2-5/8	12	146273
G	.2610	1-7/16	2-5/8	12	146274
H	.2660	1-1/2	2-11/16	12	146275
I	.2720	1-1/2	2-11/16	6	146276
J	.2770	1-1/2	2-11/16	6	146277
K	.2810	1-1/2	2-11/16	6	146278
L	.2900	1-9/16	2-3/4	6	146279
M	.2950	1-9/16	2-3/4	6	146280

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
N	.3020	1-5/8	2-13/16	6	146281
O	.3160	1-11/16	2-15/16	6	146282
P	.3230	1-11/16	2-15/16	6	146283
Q	.3320	1-11/16	3	6	146284
R	.3390	1-11/16	3	6	146285
S	.3480	1-3/4	3-1/16	6	146286
T	.3580	1-3/4	3-1/16	6	146287
U	.3680	1-13/16	3-1/8	6	146288
V	.3770	1-7/8	3-1/4	6	146289
W	.3860	1-7/8	3-1/4	6	146290
X	.3970	1-15/16	3-5/16	6	146291
Y	.4040	1-15/16	3-5/16	6	146292
Z	.4130	2	3-3/8	6	146293

Left Hand Drills, Screw Machine Length, 118° Point

Wire Gauge Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
1	.2280	1-5/16	2-7/16	12	146294
2	.2210	1-5/16	2-7/16	12	146295
3	.2130	1-1/4	2-3/8	12	146296
4	.2090	1-1/4	2-3/8	12	146297
5	.2055	1-1/4	2-3/8	12	146298
6	.2010	1-1/4	2-3/8	12	146299
7	.2010	1-3/16	2-1/4	12	146300
8	.1990	1-3/16	2-1/4	12	146301
9	.1960	1-3/16	2-1/4	12	146302
10	.1935	1-3/16	2-1/4	12	146303
11	.1910	1-3/16	2-1/4	12	146304
12	.1890	1-3/16	2-1/4	12	146305
13	.1850	1-1/8	2-3/16	12	146306
14	.1820	1-1/8	2-3/16	12	146307
15	.1800	1-1/8	2-3/16	12	146308
16	.1770	1-1/8	2-3/16	12	146309
17	.1730	1-1/8	2-3/16	12	146310
18	.1695	1-1/16	2-1/8	12	146311
19	.1660	1-1/16	2-1/8	12	146312
20	.1610	1-1/16	2-1/8	12	146313
21	.1590	1-1/16	2-1/8	12	146314
22	.1570	1-1/16	2-1/8	12	146315
23	.1540	1	2-1/16	12	146316
24	.1520	1	2-1/16	12	146317
25	.1495	1	2-1/16	12	146318
26	.1470	1	2-1/16	12	146319
27	.1440	1	2-1/16	12	146320
28	.1405	15/16	1-15/16	12	146321
29	.1360	15/16	1-15/16	12	146322
30	.1285	15/16	1-15/16	12	146323
31	.1200	7/8	1-7/8	12	146324
32	.1160	7/8	1-7/8	12	146325

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
33	.1130	7/8	1-7/8	12	146326
34	.1110	7/8	1-7/8	12	146327
35	.1100	7/8	1-7/8	12	146328
36	.1065	13/16	1-13/16	12	146329
37	.1040	13/16	1-13/16	12	146330
38	.1015	13/16	1-13/16	12	146331
39	.0995	13/16	1-13/16	12	146332
40	.0980	13/16	1-13/16	12	146333
41	.0960	13/16	1-13/16	12	146334
42	.0935	3/4	1-3/4	12	146335
43	.0890	3/4	1-3/4	12	146336
44	.0860	3/4	1-3/4	12	146337
45	.0820	3/4	1-3/4	12	146338
46	.0810	3/4	1-3/4	12	146339
47	.0785	3/4	1-3/4	12	146340
48	.0760	11/16	1-11/16	12	146341
49	.0730	11/16	1-11/16	12	146342
50	.0700	11/16	1-11/16	12	146343
51	.0670	11/16	1-11/16	12	146344
52	.0635	11/16	1-11/16	12	146345
53	.0595	5/8	1-5/8	12	146346
54	.0550	5/8	1-5/8	12	146347
55	.0520	5/8	1-5/8	12	146348
56	.0465	1/2	1-3/8	12	146349
57	.0430	1/2	1-3/8	12	146350
58	.0420	1/2	1-3/8	12	146351
59	.0410	1/2	1-3/8	12	146352
60	.0400	1/2	1-3/8	12	146353
73	.0240	3/16	15/16	12	146354
77	.0180	3/16	15/16	12	146355
80	.0135	/	15/16	12	146356

Screw Machine Length Drills

High speed steel, bright finish, 118° standard point

High speed steel, oxide finish, 135° split point (NAS 907 type C)

Super cobalt, heavy duty, 135° split point

Please order in package quantity

Screw machine drills are popular in the automotive and construction industries. Their short flute and overall length provide maximum rigidity. They are often used in screw machine set-ups where spindle clearance is limited.

Shank Diameter

Drill Size	Shank Diameter
Up to 1" inclusive	Same as Drill Diameter
Over 1 to 1-1/4 inclusive	1
Over 1-1/4 to 1-1/2 inclusive	1-1/4
Over 1-1/2 to 2-1/2 inclusive	1-1/2

Fractional sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish		
					HHS Bright	HHS Oxide*	Cobalt*
3/64	.0469	1/2	1-3/8	12	146357	146456	146555
1/16	.0625	5/8	1-5/8	12	146358	146457	146556
5/64	.0781	11/16	1-11/16	12	146359	146458	146557
3/32	.0938	3/4	1-3/4	12	146360	146459	146558
7/64	.1094	13/16	1-13/16	12	146361	146460	146559
1/8	.1250	7/8	1-7/8	12	146362	146461	146560
9/64	.1406	15/16	1-15/16	12	146363	146462	146561
5/32	.1562	1	2-1/16	12	146364	146463	146562
11/64	.1719	1-1/16	2-1/8	12	146365	146464	146563
3/16	.1875	1-1/8	2-3/16	12	146366	146465	146564
13/64	.2031	1-3/16	2-1/4	12	146367	146466	146565
7/32	.2188	1-1/4	2-3/8	12	146368	146467	146566
15/64	.2344	1-5/16	2-7/16	12	146369	146468	146567
1/4	.2500	1-3/8	2-1/2	12	146370	146469	146568
17/64	.2656	1-7/16	2-5/8	12	146371	146470	146569
9/32	.2812	1-1/2	2-11/16	6	146372	146471	146570
19/64	.2969	1-9/16	2-3/4	6	146373	146472	146571
5/16	.3125	1-5/8	2-13/16	6	146374	146473	146572
21/64	.3281	1-11/16	2-15/16	6	146375	146474	146573
11/32	.3438	1-11/16	3	6	146376	146475	146574
23/64	.3594	1-3/4	3-1/16	6	146377	146476	146575
3/8	.3750	1-13/16	3-1/8	6	146378	146477	146576
25/64	.3906	1-7/8	3-1/4	6	146379	146478	146577
13/32	.4062	1-15/16	3-5/16	6	146380	146479	146578
27/64	.4219	2	3-3/8	6	146381	146480	146579

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish		
					HHS Bright	HHS Oxide*	Cobalt*
7/16	.4375	2-1/16	3-7/16	6	146382	146481	146580
29/64	.4531	2-1/8	3-9/16	6	146383	146482	146581
15/32	.4688	2-1/8	3-5/8	6	146384	146483	146582
31/64	.4844	2-3/16	3-11/16	6	146385	146484	146583
1/2	.5000	2-1/4	3-3/4	6	146386	146485	146584
33/64	.5156	2-3/8	3-7/8	1	146387	-	146585
17/32	.5312	2-3/8	3-7/8	1	146388	-	146586
35/64	.5469	2-1/2	4	1	146389	-	146587
9/16	.5625	2-1/2	4	1	146390	-	146588
37/64	.5781	2-5/8	4-1/8	1	145391	-	146589
19/32	.5938	2-5/8	4-1/8	1	146392	-	146590
39/64	.6094	2-3/4	4-1/4	1	146393	-	146591
5/8	.6250	2-3/4	4-1/4	1	146394	146493	146592
41/64	.6406	2-7/8	4-1/2	1	146395	-	146593
21/32	.6562	2-7/8	4-1/2	1	146396	-	146594
43/64	.6719	2-7/8	4-5/8	1	146397	-	146595
11/16	.6875	2-7/8	4-5/8	1	146398	-	146596
45/64	.7031	3	4-3/4	1	146399	-	146597
23/32	.7188	3	4-3/4	1	146400	-	146598
47/64	.7344	3-1/8	5	1	146401	-	146599
3/4	.7500	3-1/8	5	1	146402	-	146600
49/64	.7656	3-1/4	5-1/8	1	146403	-	146601
25/32	.7812	3-1/4	5-1/8	1	146404	-	146602
51/64	.7969	3-3/8	5-1/4	1	146405	-	146603
13/16	.8125	3-3/8	5-1/4	1	146406	-	146604

DRILL BITS

Screw Machine Length Drills

Fractional sizes cont.

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish	
					HHS Bright	Cobalt*
53/64	.8281	3-1/2	5-3/8	1	146407	146605
27/32	.8438	3-1/2	5-3/8	1	146408	146606
55/64	.8594	3-1/2	5-1/2	1	146409	146607
7/8	.8750	3-1/2	5-1/2	1	146410	146608
57/64	.8906	3-5/8	5-5/8	1	146411	146609
29/32	.9062	3-5/8	5-5/8	1	146412	146610
59/64	.9219	3-3/4	5-3/4	1	146413	146611
15/16	.9375	3-3/4	5-3/4	1	146414	146612
61/64	.9531	3-7/8	5-7/8	1	146415	146613
31/32	.9688	3-7/8	5-7/8	1	146416	146614
63/64	.9844	4	6	1	146417	146615
1	1.0000	4	6	1	146418	146616
1-1/32	1.0312	4	6-1/4	1	146419	-
1-1/16	1.0625	4	6-1/4	1	146420	-
1-3/32	1.0938	4	6-3/8	1	146421	-
1-1/8	1.1250	4	6-3/8	1	146422	-
1-5/32	1.1562	4-1/4	6-5/8	1	146423	-
1-3/16	1.1875	4-1/4	6-5/8	1	146424	-
1-7/32	1.2188	4-3/8	6-3/4	1	146425	-
1-1/4	1.2500	4-3/8	6-3/4	1	146426	-
1-9/32	1.2812	4-3/8	7	1	146427	-
1-5/16	1.3125	4-3/8	7	1	146428	-
1-11/32	1.3438	4-1/2	7-1/8	1	146429	-
1-3/8	1.3750	4-1/2	7-1/8	1	146430	-
1-13/32	1.4062	4-3/4	7-3/8	1	146431	-

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish	
					HHS Bright	Cobalt
1-7/16	1.4375	4-3/4	7-3/8	1	146432	-
1-15/32	1.4688	4-7/8	7-1/2	1	146433	-
1-1/2	1.5000	4-7/8	7-1/2	1	146434	-
1-17/32	1.5312	4-7/8	7-3/4	1	146435	-
1-9/16	1.5625	4-7/8	7-3/4	1	146436	-
1-19/32	1.5938	4-7/8	7-3/4	1	146437	-
1-5/8	1.6250	4-7/8	7-3/4	1	146438	-
1-21/32	1.6562	5-1/8	8	1	146439	-
1-11/16	1.6875	5-1/8	8	1	146440	-
1-23/32	1.7188	5-1/8	8	1	146441	-
1-3/4	1.7500	5-1/8	8	1	146442	-
1-25/32	1.7812	5-3/8	8-1/4	1	146443	-
1-13/16	1.8125	5-3/8	8-1/4	1	146444	-
1-27/32	1.8438	5-3/8	8-1/4	1	146445	-
1-7/8	1.8750	5-3/8	8-1/4	1	146446	-
1-29/32	1.9062	5-5/8	8-1/2	1	146447	-
1-15/16	1.9375	5-5/8	8-1/2	1	146448	-
2	2.0000	5-5/8	8-1/2	1	146449	-
2-1/16	2.0625	5-5/8	8-1/2	1	146450	-
2-1/8	2.1250	5-5/8	8-1/2	1	146451	-
2-3/16	2.1875	5-5/8	8-1/2	1	146453	-
2-3/8	2.3750	5-5/8	8-1/2	1	146454	-
2-1/2	2.5000	5-5/8	8-1/2	1	146455	-

* High speed steel and cobalt sizes under 1/16 are furnished with 135° - NOT split

* Cobalt sizes over 1/2 furnished with notched point

Screw Machine Length Drills

Letter sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish		
					HSS Bright	HSS Oxide	Cobalt
A	.2340	1-5/16	2-7/16	12	146828	146854	146880
B	.2380	1-3/8	2-1/2	12	146829	146855	146881
C	.2420	1-3/8	2-1/2	12	146830	146856	146882
D	.2460	1-3/8	2-1/2	12	146831	146857	146883
E	.2500	1-3/8	2-1/2	12	146832	146858	146884
F	.2570	1-7/16	2-5/8	12	146833	146859	146885
G	.2610	1-7/16	2-5/8	12	146834	146860	146886
H	.2660	1-1/2	2-11/16	12	146835	146861	146887
I	.2720	1-1/2	2-11/16	6	146836	146862	146888
J	.2770	1-1/2	2-11/16	6	146837	146863	146889
K	.2810	1-1/2	2-11/16	6	146838	146864	146890
L	.2900	1-9/16	2-3/4	6	146839	146865	146891
M	.2950	1-9/16	2-3/4	6	146840	146866	146892
N	.3020	1-5/8	2-13/16	6	146841	146867	146893
O	.3160	1-11/16	2-15/16	6	146842	146868	146894
P	.3230	1-11/16	2-15/16	6	146843	146869	146895
Q	.3320	1-11/16	3	6	146844	146870	146896
R	.3390	1-11/16	3	6	146845	146871	146897
S	.3480	1-3/4	3-1/16	6	146846	146872	146898
T	.3580	1-3/4	3-1/16	6	146847	146873	146899
U	.3680	1-13/16	3-1/8	6	146848	146874	146900
V	.3770	1-7/8	3-1/4	6	146849	146875	146901
W	.3860	1-7/8	3-1/4	6	146850	146876	146902
X	.3970	1-15/16	3-5/16	6	146851	146877	146903
Y	.4040	1-15/16	3-5/16	6	146852	146878	146904
Z	.4130	2	3-3/8	6	146853	146879	146905

DRILL BITS

Screw Machine Length Drills

Wire Gauge Size

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.		
				HSS Bright	HSS Oxide.	Cobalt
1	.2280	1-5/16	2-7/16	146645	146706	146767
2	.2210	1-5/16	2-7/16	146646	146707	146768
3	.2130	1-1/4	2-3/8	146647	146708	146769
4	.2090	1-1/4	2-3/8	146648	146709	146770
5	.2055	1-1/4	2-3/8	146649	146710	146771
6	.2010	1-1/4	2-3/8	146650	146711	146772
7	.2010	1-3/16	2-1/4	146651	146712	146773
8	.1990	1-3/16	2-1/4	146652	146713	146774
9	.1960	1-3/16	2-1/4	146653	146714	146775
10	.1935	1-3/16	2-1/4	146654	146715	146776
11	.1910	1-3/16	2-1/4	146655	146716	146777
12	.1890	1-3/16	2-1/4	146656	146717	146778
13	.1850	1-1/8	2-3/16	146657	146718	146779
14	.1820	1-1/8	2-3/16	146658	146719	146780
15	.1800	1-1/8	2-3/16	146659	146720	146781
16	.1770	1-1/8	2-3/16	146660	146721	146782
17	.1730	1-1/8	2-3/16	146661	146722	146783
18	.1695	1-1/16	2-1/8	146662	146723	146784
19	.1660	1-1/16	2-1/8	146663	146724	146785
20	.1610	1-1/16	2-1/8	146664	146725	146786
21	.1590	1-1/16	2-1/8	146665	146726	146787
22	.1570	1-1/16	2-1/8	146666	146727	146788
23	.1540	1	2-1/16	146667	146728	146789
24	.1520	1	2-1/16	146668	146729	146790
25	.1495	1	2-1/16	146669	146790	146791
26	.1470	1	2-1/16	146670	146731	146792
27	.1440	1	2-1/16	146671	146732	146793
28	.1405	15/16	1-15/16	146672	146733	146794
29	.1360	15/16	1-15/16	146673	146734	146795
30	.1285	15/16	1-15/16	146674	146735	146796
31	.1200	7/8	1-7/8	146675	146736	146797

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.		
				HSS Bright	HSS Oxide*	Cobalt*
32	.1160	7/8	1-7/8	146676	146737	146798
33	.1130	7/8	1-7/8	146677	146738	146799
34	.1110	7/8	1-7/8	146678	146739	146800
35	.1100	7/8	1-7/8	146679	146740	146801
36	.1065	13/16	1-13/16	146680	146741	146802
37	.1040	13/16	1-13/16	146681	146742	146803
38	.1015	13/16	1-13/16	146682	146743	146804
39	.0995	13/16	1-13/16	146683	146744	146805
40	.0980	13/16	1-13/16	146684	146745	146806
41	.0960	13/16	1-13/16	146685	146746	146807
42	.0935	3/4	1-3/4	146686	146747	146808
43	.0890	3/4	1-3/4	146687	146748	146809
44	.0860	3/4	1-3/4	146688	146749	146810
45	.0820	3/4	1-3/4	146689	146750	146811
46	.0810	3/4	1-3/4	146690	146751	146812
47	.0785	3/4	1-3/4	146691	146752	146813
48	.0760	11/16	1-11/16	146692	146753	146814
49	.0730	11/16	1-11/16	146693	146754	146815
50	.0700	11/16	1-11/16	146694	146755	146816
51	.0670	11/16	1-11/16	146695	146756	146817
52	.0635	11/16	1-11/16	146696	146757	146818
53	.0595	5/8	1-5/8	146697	146758	146819
54	.0550	5/8	1-5/8	146698	146759	146820
55	.0520	5/8	1-5/8	146699	146760	146821
56	.0465	1/2	1-3/8	146700	146761	146822
57	.0430	1/2	1-3/8	146701	146762	146823
58	.0420	1/2	1-3/8	146702	146763	146824
59	.0410	1/2	1-3/8	146703	146764	146825
60	.0400	1/2	1-3/8	146704	146765	146826
61	.0390	1/2	1-1/4	146705	146766	146827

* High speed steel and cobalt sizes 53-61 are furnished with 135° - NOT split

Taper Length Drills

High speed steel, general purpose, 118° point

Super cobalt, heavy duty, 135° split point

Please order in package quantity

Taper length drills are designed for general purpose drilling where long length is required. Used in production drilling, they have the same flute length as Taper shank drills.

Fractional sizes

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish	
					HHS	Cobalt*
1/64	.0156	5/16	1-1/2	12	304176	-
1/32	.0312	3/4	2	12	304177	-
3/64	.0469	1-1/8	2-1/4	12	304178	304314
1/16	.0625	1-3/4	3	12	304179	304315
5/64	.0781	2	3-3/4	12	304180	304316
3/32	.0938	2-1/4	4-1/4	12	304181	304317
7/64	.1094	2-1/2	4-5/8	12	304182	304318
1/8	.1250	2-3/4	5-1/8	12	304183	304319
9/64	.1406	3	5-3/8	12	304184	304320
5/32	.1562	3	5-3/8	12	304185	304321
11/64	.1719	3-3/8	5-3/4	12	304186	304322
3/16	.1875	3-3/8	5-3/4	12	304187	304323
13/64	.2031	3-5/8	6	12	304188	304324
7/32	.2188	3-5/8	6	12	304189	304325
15/64	.2344	3-3/4	6-1/8	12	304190	304326
1/4	.2500	3-3/4	6-1/8	12	304191	304327
17/64	.2656	3-7/8	6-1/4	12	304192	304328
9/32	.2812	3-7/8	6-1/4	6	304193	304329
19/64	.2969	4	6-3/8	6	304194	304330
5/16	.3125	4	6-3/8	6	304195	304331
21/64	.3281	4-1/8	6-1/2	6	304196	304332
11/32	.3438	4-1/8	6-1/2	6	304197	304333
23/64	.3594	4-1/4	6-3/4	6	304198	304334
3/8	.3750	4-1/4	6-3/4	6	304199	304335
25/64	.3906	4-3/8	7	6	304200	304336
13/32	.4062	4-3/8	7	6	304201	304337
27/64	.4219	4-5/8	7-1/4	6	304202	304338
7/16	.4375	4-5/8	7-1/4	6	304203	304339
29/64	.4531	4-3/4	7-1/2	6	304204	304340
15/32	.4688	4-3/4	7-1/2	6	304205	304341
31/64	.4844	4-3/4	7-3/4	6	304206	304342
1/2	.5000	4-3/4	7-3/4	6	304207	304343

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish	
					HHS	Cobalt*
33/64	.5156	4-3/4	8	1	304208	304344
17/32	.5312	4-3/4	8	1	304209	304345
35/64	.5469	4-7/8	8-1/4	1	304210	304346
9/16	.5625	4-7/8	8-1/4	1	304211	304347
37/64	.5781	4-7/8	8-3/4	1	304212	304348
19/32	.5938	4-7/8	8-3/4	1	304213	304349
39/64	.6094	4-7/8	8-3/4	1	304214	304350
5/8	.6250	4-7/8	8-3/4	1	304215	304351
41/64	.6406	5-1/8	9	1	304216	304352
21/32	.6562	5-1/8	9	1	304217	304353
43/64	.6719	5-3/8	9-1/4	1	304218	304354
11/16	.6875	5-3/8	9-1/4	1	304219	304355
45/64	.7031	5-5/8	9-1/2	1	304596	304356
23/32	.7188	5-5/8	9-1/2	1	304597	304357
47/64	.7344	5-7/8	9-3/4	1	304598	304358
3/4	.7500	5-7/8	9-3/4	1	304599	304359
49/64	.7656	6	9-7/8	1	304360	304408
25/32	.7812	6	9-7/8	1	304361	304409
51/64	.7969	6-1/8	10	1	304362	304410
13/16	.8125	6-1/8	10	1	304363	304411
53/64	.8281	6-1/8	10	1	304364	304412
27/32	.8438	6-1/8	10	1	304365	304413
55/64	.8594	6-1/8	10	1	304366	304414
7/8	.8750	6-1/8	10	1	304367	304415
57/64	.8906	6-1/8	10	1	304368	304416
29/32	.9062	6-1/8	10	1	304369	304417
59/64	.9219	6-1/8	10-3/4	1	304370	304418
15/16	.9375	6-1/8	10-3/4	1	304371	304419
61/64	.9531	6-3/8	11	1	304372	304420
31/32	.9688	6-3/8	11	1	304373	304421
63/64	.9844	6-3/8	11	1	304374	304422
1	1.000	6-3/8	11	1	304375	304423

DRILL BITS

Taper Length Drills

Fractional sizes cont.

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish	
					HSS Bright	Cobalt*
1-1/64	1.0156	6-1/2	11-1/8	1	304376	-
1-1/32	1.0312	6-1/2	11-1/8	1	304377	-
1-3/64	1.0469	6-5/8	11-1/4	1	304378	-
1-1/16	1.0625	6-5/8	11-1/4	1	304379	-
1-5/64	1.0781	6-7/8	11-1/2	1	304380	-
1-3/32	1.0938	6-7/8	11-1/2	1	304381	-
1-7/64	1.1094	7-1/8	11-3/4	1	304382	-
1-1/8	1.1250	7-1/8	11-3/4	1	304383	-
1-9/64	1.1406	7-1/4	11-7/8	1	304384	-
1-5/32	1.1562	7-1/4	11-7/8	1	304385	-
1-11/64	1.1719	7-3/8	12	1	304386	-
1-3/16	1.1875	7-3/8	12	1	304387	-
1-13/64	1.2031	7-1/2	12-1/8	1	304388	-
1-7/32	1.2188	7-1/2	12-1/8	1	304389	-
1-15/64	1.2344	7-7/8	12-1/2	1	304390	-
1-1/4	1.2500	7-7/8	12-1/2	1	304391	-

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO. and Finish	
					HSS Bright	Cobalt*
1-9/32	1.2812	8-1/2	14-1/8	1	304392	-
1-5/16	1.3125	8-5/8	14-1/4	1	304393	-
1-11/32	1.3438	8-3/4	14-3/8	1	304394	-
1-3/8	1.3750	8-7/8	14-1/2	1	304395	-
1-13/32	1.4062	9	14-5/8	1	304396	-
1-7/16	1.4375	9-1/8	14-3/4	1	304397	-
1-15/32	1.4688	9-1/4	14-7/8	1	304398	-
1-1/2	1.5000	9-3/8	15	1	304399	-
1-9/16	1.5625	9-5/8	15-1/4	1	304400	-
1-5/8	1.6250	9-7/8	15-5/8	1	304401	-
1-11/16	1.6875	10-1/8	16	1	304402	-
1-3/4	1.7500	10-1/2	16-1/4	1	304403	-
1-13/16	1.8125	10-1/2	16-1/4	1	304404	-
1-7/8	1.8700	10-5/8	16-1/4	1	304405	-
1-15/16	1.9375	10-3/4	16-5/8	1	304406	-
2	2.000	10-3/4	17-1/4	1	304407	-

Letter Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.	
					HSS	Cobalt
A	.2340	3-3/4	6-1/8	12	304544	304557
B	.2380	3-3/4	6-1/8	12	304545	304558
C	.2420	3-3/4	6-1/8	12	304546	304559
D	.2460	3-3/4	6-1/8	12	304547	304560
E	.2500	3-3/4	6-1/8	12	304548	304561
F	.2570	3-7/8	6-1/4	12	304549	304562
G	.2610	3-7/8	6-1/4	12	304550	304563
H	.2660	3-7/8	6-1/4	12	304551	304564
I	.2720	3-7/8	6-1/4	12	304552	304565
J	.2770	3-7/8	6-1/4	6	304553	304566
K	.2810	3-7/8	6-1/4	6	304554	304567
L	.2900	4	6-3/8	6	304555	304568
M	.2950	4	6-3/8	6	304556	304569

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.	
					HSS	Cobalt
N	.3020	4	6-3/8	6	304570	304583
O	.3160	4-1/8	6-1/2	6	304571	304584
P	.3230	4-1/8	6-1/2	6	304572	304585
Q	.3320	4-1/8	6-1/2	6	304573	304586
R	.3390	4-1/8	6-1/2	6	304574	304587
S	.3480	4-1/4	6-3/4	6	304575	305588
T	.3580	4-1/4	6-3/4	6	304576	305589
U	.3680	4-1/4	6-3/4	6	304577	304590
V	.3770	4-3/8	7	6	304578	304591
W	.3860	4-3/8	7	6	304579	304592
X	.3970	4-3/8	7	6	304580	304593
Y	.4040	4-3/8	7	6	304581	304594
Z	.4130	4-5/8	7-1/4	6	304582	304595

Taper Length Drills

Wire Gauge Size

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.	
					HHS	Cobalt
1	.2280	3-3/4	6-1/8	12	304424	304464
2	.2210	3-3/4	6-1/8	12	304425	304465
3	.2130	3-5/8	6	12	304426	304466
4	.2090	3-5/8	6	12	304427	304467
5	.2055	3-5/8	6	12	304428	304468
6	.2010	3-5/8	6	12	304429	304469
7	.2010	3-5/8	6	12	304430	304470
8	.1990	3-5/8	6	12	304431	304471
9	.1960	3-5/8	6	12	304432	304472
10	.1935	3-5/8	6	12	304433	304473
11	.1910	3-5/8	6	12	304434	304474
12	.1890	3-5/8	6	12	304435	304475
13	.1850	3-3/8	5-3/4	12	304436	304476
14	.1820	3-3/8	5-3/4	12	304437	304477
15	.1800	3-3/8	5-3/4	12	304438	304478
16	.1770	3-3/8	5-3/4	12	304439	304479
17	.1730	3-3/8	5-3/4	12	304440	304480
18	.1695	3-3/8	5-3/4	12	304441	304481
19	.1660	3-3/8	5-3/4	12	304442	304482
20	.1610	3-3/8	5-3/4	12	304443	304483
21	.1590	3-3/8	5-3/4	12	304444	304484
22	.1570	3-3/8	5-3/4	12	304445	304485
23	.1540	3	5-3/8	12	304446	304486
24	.1520	3	5-3/8	12	304447	304487
25	.1495	3	5-3/8	12	304448	304488
26	.1470	3	5-3/8	12	304449	304489
27	.1440	3	5-3/8	12	304450	304490
28	.1405	3	5-3/8	12	304451	304491
29	.1360	3	5-3/8	12	304452	304492
30	.1285	3	5-3/8	12	304453	304493
31	.1200	2-3/4	5-1/8	12	304454	304494
32	.1160	2-3/4	5-1/8	12	304455	304495
33	.1130	2-3/4	5-1/8	12	304456	304496
34	.1110	2-3/4	5-1/8	12	304457	304497
35	.1100	2-3/4	5-1/8	12	304458	304498
36	.1065	2-1/2	4-5/8	12	304459	304499
37	.1040	2-1/2	4-5/8	12	304460	304500
38	.1015	2-1/2	4-5/8	12	304461	304501
39	.0995	2-1/2	4-5/8	12	304462	304502
40	.0980	2-1/2	4-5/8	12	304463	304503

Size	Dec. Equiv.	Flute Length	Overall Length	Pkg. Qty.	EDP NO.
					HHS
41	.0960	2-1/2	4-5/8	12	304504
42	.0935	2-1/4	4-1/4	12	304505
43	.0890	2-1/4	4-1/4	12	304506*
44	.0860	2-1/4	4-1/4	12	304507
45	.0820	2-1/4	4-1/4	12	304508
46	.0810	2-1/4	4-1/4	12	304509
47	.0785	2-1/4	4-1/4	12	304510
48	.0760	2	3-3/4	12	304511
49	.0730	2	3-3/4	12	304512
50	.0700	2	3-3/4	12	304513
51	.0670	2	3-3/4	12	304514
52	.0635	2	3-3/4	12	304515
53	.0595	1-3/4	3	12	304516
54	.0550	1-3/4	3	12	304517
55	.0520	1-3/4	3	12	304518
56	.0465	1-1/8	2-1/4	12	304519*
57	.0430	1-1/8	2-1/4	12	304520*
58	.0420	1-1/8	2-1/4	12	304521
59	.0410	1-1/8	2-1/4	12	304522
60	.0400	1-1/8	2-1/4	12	304523
61	.0390	1-1/8	2-1/4	12	304524
62	.0380	3/4	2	12	304525
63	.0370	3/4	2	12	304526
64	.0360	3/4	2	12	304527
65	.0350	3/4	2	12	304528
66	.0330	3/4	2	12	304529
67	.0320	3/4	2	12	304530
68	.0310	3/4	2	12	304531
69	.0292	3/4	2	12	304532
70	.0280	3/4	2	12	304533
71	.0260	3/4	2	12	304534
72	.0250	5/16	1-1/2	12	304535
73	.0240	5/16	1-1/2	12	304536
74	.0225	5/16	1-1/2	12	304537
75	.0210	5/16	1-1/2	12	304538
76	.0200	5/16	1-1/2	12	304539
77	.0180	5/16	1-1/2	12	304540
78	.0160	5/16	1-1/2	12	304541
79	.0145	5/16	1-1/2	12	304542
80	.0135	5/16	1-1/2	12	304543

Millimeter Taper Length- High Speed Steel, General Purpose, 118° Point

.15 mm-.740 mm-12 pc. per pkg

7.50 mm-14.00 mm- 6 pc. per pkg

14.50 mm-19.50 mm- 1 pc. per pkg

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1.00	.0394	1-1/8	2-1/4	303880
1.05	.0413	1-1/8	2-1/4	303881
1.10	.0433	1-1/8	2-1/4	303882
1.15	.0453	1-1/8	2-1/4	303883
1.20	.0472	1-3/4	3	303884
1.25	.0492	1-3/4	3	303885
1.30	.0512	1-3/4	3	303886
1.35	.0531	1-3/4	3	303923
1.40	.0551	1-3/4	3	303924
1.45	.0571	1-3/4	3	303925
1.50	.0591	1-3/4	3	303926
1.55	.0610	1-3/4	3	303927
1.60	.0630	2	3-3/4	303928
1.65	.0650	2	3-3/4	303929
1.70	.0669	2	3-3/4	303930
1.75	.0689	2	3-3/4	303931
1.80	.0709	2	3-3/4	303932
1.85	.0728	2	3-3/4	303933
1.90	.0748	2	3-3/4	303934
1.95	.0768	2	3-3/4	303935
2.00	.0787	2-1/4	4-1/4	303936
2.05	.0807	2-1/4	4-1/4	303937
2.10	.0827	2-1/4	4-1/4	303938
2.15	.0846	2-1/4	4-1/4	303939
2.20	.0866	2-1/4	4-1/4	303940
2.25	.0886	2-1/4	4-1/4	303941
2.30	.0906	2-1/4	4-1/4	303942
2.35	.0925	2-1/4	4-1/4	303943
2.40	.0945	2-1/2	4-5/8	303944
2.45	.0965	2-1/2	4-5/8	303945
2.50	.0984	2-1/2	4-5/8	303946
2.60	.1024	2-1/2	4-5/8	303947
2.70	.1063	2-1/2	4-5/8	303948
2.80	.1102	2-3/4	5-1/8	303949
2.90	.1142	2-3/4	5-1/8	303950
3.00	.1181	2-3/4	5-1/8	303951
3.10	.1220	2-3/4	5-1/8	303952
3.20	.1260	3	5-3/8	303953
3.30	.1299	3	5-3/8	303954
3.40	.1339	3	5-3/8	303955
3.50	.1378	3	5-3/8	303956
3.60	.1417	3	5-3/8	303957
3.70	.1457	3	5-3/8	303958
3.80	.1496	3	5-3/8	303959
3.90	.1535	3	5-3/8	303960

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
4.00	.1575	3-3/8	5-3/4	303961
4.10	.1614	3-3/8	5-3/4	303962
4.20	.1654	3-3/8	5-3/4	303963
4.30	.1693	3-3/5	5-3/4	303964
4.40	.1732	3-3/8	5-3/4	303965
4.50	.1772	3-3/8	5-3/4	303966
4.60	.1811	3-3/8	5-3/4	303967
4.70	.1850	3-3/8	5-3/4	303968
4.80	.1890	3-5/8	6	303969
4.90	.1929	3-5/8	6	303970
5.00	.1968	3-5/8	6	303971
5.20	.2047	3-5/8	6	303973
5.30	.2087	3-5/8	6	303974
5.40	.2126	3-5/8	6	303975
5.50	.2165	3-5/8	6	303976
5.60	.2205	3-3/4	6-1/8	303977
5.70	.2244	3-3/4	6-1/8	303978
5.80	.2283	3-3/4	6-1/8	303979
5.90	.2323	3-3/4	6-1/8	303980
6.00	.2362	3-3/4	6-1/8	303981
6.10	.2402	3-3/4	6-1/8	303982
6.20	.2441	3-3/4	6-1/8	303983
6.30	.2480	3-3/4	6-1/8	303984
6.40	.2520	3-7/8	6-1/4	303985
6.50	.2559	3-7/8	6-1/4	303986
6.80	.2677	3-7/8	6-1/4	303987
7.00	.2756	3-7/8	6-1/4	303988
7.20	.2835	4	6-3/8	303989
7.50	.2953	4	6-3/8	303990
7.80	.3071	4	6-3/8	303991
8.00	.3150	4-1/8	6-1/2	303992
8.20	.3228	4-1/8	6-1/2	303993
8.50	.3346	4-1/8	6-1/2	303994
8.80	.3465	4-1/4	6-3/4	303995
9.00	.3543	4-1/4	6-3/4	303996
9.20	.3622	4-1/4	6-3/4	303997
9.50	.3740	4-1/4	6-3/4	303998
9.80	.3858	4-3/8	7	303999
10.00	.3937	4-3/8	7	304000
10.20	.4016	4-3/8	7	304001
10.50	.4134	4-5/8	7-1/4	304002
10.80	.4252	4-5/8	7-1/4	304003
11.00	.4331	4-5/8	7-1/4	304004
11.20	.4409	4-3/4	7-1/2	304005
11.50	.4528	4-3/4	7-1/2	304006

Millimeter Taper Length- High Speed Steel, General Purpose, 118° Point

.15 mm-7.40 mm-12 pc. per pkg

7.50 mm-14.00 mm- 6 pc. per pkg

14.50 mm-19.50 mm- 1 pc. per pkg

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
11.80	.4646	4-3/4	7-1/2	304007
12.00	.4724	4-3/4	7-3/4	304008
12.20	.4803	4-3/4	7-3/4	304009
12.50	.4921	4-3/4	7-3/4	304010
12.80	.5039	4-3/4	8	304011
13.00	.5118	4-3/4	8	304012
13.20	.5197	4-3/4	8	304013
13.50	.5315	4-3/4	8	304014
13.80	.5433	4-7/8	8-1/4	304015
14.00	.5512	4-7/8	8-1/4	304016
14.25	.5610	4-7/8	8-1/4	304017
14.50	.5709	4-7/8	8-3/4	304018
14.75	.5807	4-7/8	8-3/4	304019
15.00	.5906	4-7/8	8-3/4	304020
15.25	.6004	4-7/8	8-3/4	304021
15.50	.6102	4-7/8	8-3/4	304124
15.75	.6201	4-7/8	8-3/4	304125
16.00	.6299	5-1/8	9	304126
16.25	.6398	5-1/8	9	304127
16.50	.6496	5-1/8	9	304128
16.75	.6594	5-3/8	9-1/4	304129
17.00	.6693	5-3/8	9-1/4	304130
17.25	.6791	5-3/8	9-1/4	304131
17.50	.6890	5-5/8	9-1/2	304132
17.75	.6988	5-5/8	9-1/2	304133
18.00	.7087	5-5/8	9-1/2	304134
18.50	.7283	5-7/8	9-3/4	304135
19.00	.7480	5-7/8	9-3/4	304136
19.20	.7559	6	9-7/8	304137
19.50	.7677	6	9-7/8	304138
20.00	.7874	6-1/8	10	304139
20.50	.8071	6-1/8	10	304140
21.00	.8268	6-1/8	10	304141
21.50	.8465	6-1/8	10	304142

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
22.00	.8661	6-1/8	10	304143
22.50	.8858	6-1/8	10	304144
23.00	.9055	6-1/8	10	304145
23.50	.9252	6-1/8	10-3/4	304146
24.00	.9449	6-3/8	11	304147
24.50	.9646	6-3/8	11	304148
25.00	.9843	6-3/8	11	304149
25.50	1.0039	6-1/2	11-1/8	304150
26.00	1.0236	6-1/2	11-1/8	304151
26.50	1.0433	6-5/8	11-1/4	304152
27.00	1.0630	6-5/8	11-1/4	304153
27.50	1.0827	6-7/8	11-1/2	304154
28.00	1.1024	7-1/8	11-3/4	304155
28.50	1.1220	7-1/8	11-3/4	304156
29.00	1.1417	7-1/4	11-7/8	304157
29.50	1.1614	7-3/8	12	304158
30.00	1.1811	7-3/8	12	304159
30.50	1.2008	7-1/2	12-1/8	304160
31.00	1.2205	7-7/8	12-1/2	304161
31.50	1.2402	7-7/8	12-1/2	304162
32.00	1.2598	8-1/2	14-1/8	304163
32.50	1.2795	8-1/2	14-1/8	304164
33.00	1.2992	8-5/8	14-1/4	304165
33.50	1.3189	8-3/4	14-3/8	304166
34.00	1.3386	8-3/4	14-3/8	304167
34.50	1.3583	8-7/8	14-1/2	304168
35.00	1.3780	9	14-5/8	304169
35.50	1.3976	9	14-5/8	304170
36.00	1.4173	9-1/8	14-3/4	304171
36.50	1.4370	9-1/8	14-3/4	304172
37.00	1.4567	9-1/4	14-7/8	304173
37.50	1.4764	9-3/8	15	304174
38.00	1.4961	9-3/8	15	304175

Reduced Shank Drills

1/2" Shanks - Silver and Deming
All sizes 6" overall with 3" flute length

High speed steel, 118° point, 1/2" Standard Shank
Cobalt, 135° notched point, 1/2" Standard Shank

High speed steel, 118° point, flatted shank, 3 equal flats for positive holding in 3 jaw chucks
Cobalt, 135° notched point, flatted shank, 3 equal flats for positive holding in 3 jaw chucks

Size	Dec. Equiv.	Standard 1/2" shank		Flatted Shank	
		EDP NO.			
		HHS	Cobalt	HHS	Cobalt
1/2	.5000	146906	-	147036	147101
33/64	.5156	146907	146972	147037	147102
17/32	.5312	146908	146973	147038	147103
35/64	.5469	146909	146974	147039	147104
9/16	.5625	146910	146975	147040	147105
37/64	.5781	146911	146976	147041	147106
19/32	.5938	146912	146977	147042	147107
39/64	.6094	146913	146978	147043	147108
5/8	.6250	146914	146979	147044	147109
41/64	.6406	146915	146980	147045	147110
21/32	.6562	146916	146981	147046	147111
43/64	.6719	146917	146982	147047	147112
11/16	.6875	146918	146983	147048	147113
45/64	.7031	146919	146984	147049	147114
23/32	.7188	146920	146985	147050	147115
47/64	.7344	146921	146986	147051	147116
3/4	.7500	146922	146987	147052	147117
49/64	.7656	146923	146988	147053	147118
25/32	.7812	146924	146989	147054	147119
51/64	.7969	146925	146990	147055	147120
13/16	.8125	146926	146991	147056	147121
53/64	.8281	146927	146992	147057	147122
27/32	.8438	146928	146993	147058	147123
55/64	.8594	146929	146994	147059	147124
7/8	.8750	146930	146995	147060	147125
57/64	.8906	146931	146996	147061	147126
29/32	.9062	146932	146997	147062	147127
59/64	.9219	146933	146998	147063	147128
15/16	.9375	146934	146999	147064	147129
61/64	.9531	146935	147000	147065	147130
31/32	.9688	146936	147001	147066	147131
63/64	.9844	146937	147002	147067	147132
1	1.000	146938	147003	147068	147133

Size	Dec. Equiv.	Standard 1/2" Shank		Flatted Shank	
		EDP NO.			
		HHS	Cobalt	HHS	Cobalt
1-1/64	1.0156	146939	-	147069	147134
1-1/32	1.0312	146940	147005	147070	147135
1-3/64	1.0469	146941	-	147071	147136
1-1/16	1.0625	146942	147072	147072	147137
1-5/64	1.0781	146943	-	147073	147138
1-3/32	1.0938	146944	147009	147074	147139
1-7/64	1.1094	146945	-	147075	147140
1-1/8	1.1250	146946	147011	147076	147141
1-9/64	1.1406	146947	-	147077	147142
1-5/32	1.1562	146948	147013	147078	147143
1-11/64	1.1719	146949	-	147079	147144
1-3/16	1.1875	146950	147015	147080	147145
1-13/64	1.2031	146951	-	147081	147146
1-7/32	1.2188	146952	147017	147082	147147
1-15/64	1.2344	146953	-	147083	147148
1-1/4	1.2500	146954	147019	147084	147149
1-17/64	1.2656	146955	-	147085	147150
1-9/32	1.2812	146956	147021	147086	147151
1-19/64	1.2969	146957	-	147087	147152
1-5/16	1.3125	146958	147023	147088	147153
1-21/64	1.3281	146959	-	147089	147154
1-11/32	1.3438	146960	147025	147090	147155
1-23/64	1.3594	146961	-	147091	147156
1-3/8	1.3750	146962	147027	147092	147157
1-25/64	1.3906	146963	-	147093	147158
1-13/32	1.4062	146964	147029	147094	147159
1-27/64	1.4219	146965	-	147095	147160
1-7/16	1.4375	146966	147031	147096	147161
1-29/64	1.4531	146967	-	147097	147162
1-15/32	1.4688	146968	147033	147098	147163
1-31/64	1.4844	146969	-	147099	147164
1-1/2	1.5000	146970	147035	147100	147165

Reduced Shank Drills

High speed steel and Cobalt Reduced Shank Drill Set

Pcs. Per Set	Set Description	Type of Holder	High Speed Steel Standard 1/2" Shanks	Cobalt Standard 1/2" Shanks
			EDP NO.	EDP NO.
8	9/16" thru 1" by 16ths	Metal Index	173546	173559
8	1-1/16" thru 1-1/2" by 16ths	Wood Block	173547	173555
10	9/16" thru 1" by 16ths, 1-1/8" and 1-1/4"	Wood Block	173548	173554
13	17/32" thru 3/4" by 32nds, 13/16", 7/8", 15/16", 31/32" and 1"	Wood Block	173549	173556
32	33/64" thru 1" by 64ths	Wood Block	173550	173557

1/2" Shank - Silver and Deming

Metric Sizes

All sizes 6" overall with 3" flute length

High Speed Steel, 1 18° Point

Size	Dec. Equiv.	EDP NO.
14.00	.5512	147166
15.00	.5906	147167
16.00	.6299	147168
17.00	.6693	147169
18.00	.7087	147170
19.00	.7480	147171
20.00	.7874	147172
21.00	.8268	147173

Size	Dec. Equiv.	EDP NO.
22.00	.8661	147174
24.00	.9499	147175
26.00	1.0236	147176
27.00	1.0630	147177
28.00	1.1024	147178
29.00	1.1417	147179
30.00	1.1811	147180
31.00	1.2205	147181

1/4" Shank - Metal Working

High Speed Steel, 1 18° Point

Size	Dec. Equiv.	EDP NO.
17/64	.2656	147182
9/32	.2812	147183
19/64	.2969	147184
5/16	.3125	147185
21/64	.3281	147186
11/32	.3438	147187
23/64	.3594	147188
3/8	.3750	147189

Size	Dec. Equiv.	EDP NO.
25/64	.3906	147190
13/32	.4062	147191
27/64	.4219	147192
7/16	.4375	147193
29/64	.4531	147194
15/32	.4688	149195
31/64	.4844	147196
1/2	.5000	147197

DRILL BITS

Reduced Shank Drills

1/4" Shank - Metal Working

High Speed Steel, 118° Point

Size	Dec. Equiv.	EDP NO.	
		HHS	Cobalt
25/32	.7812	147245	147277
13/16	.8125	147246	147278
27/32	.8438	147247	147279
7/8	.8750	147248	147280
29/32	.9062	147249	147281
15/16	.9375	147250	147282
31/32	.9688	147251	147283
1	1.0000	147252	147284
1-1/32	1.0312	147253	147285
1-1/16	1.0625	147254	147286
1-3/32	1.0938	147255	147287
1-1/8	1.1250	147256	147288
1-5/32	1.1562	147257	147289
1-3/16	1.1875	147258	147290
1-7/32	1.2188	147259	147291
1-1/4	1.2500	147260	147292

Size	Dec. Equiv.	EDP NO.	
		HHS	Cobalt
1-9/32	1.2812	147261	147293
1-5/16	1.3125	147262	147294
1-11/32	1.3438	147263	147295
1-3/8	1.3750	147264	147296
1-13/32	1.4062	147265	147297
1-7/16	1.4375	147266	147298
1-15/32	1.4688	147267	147299
1-1/2	1.5000	147268	147300
1-9/16	1.5625	147269	147301
1-5/8	1.6250	147270	147302
1-11/16	1.6875	147271	147303
1-3/4	1.7500	147272	147304
1-13/16	1.8125	147273	147305
1-7/8	1.8750	147274	147306
1-15/16	1.9375	147275	147307
2	2.000	147276	147308

High Speed Steel and Cobalt Reduced Shank Drill Set

Pcs. Per Set	Type	Set Description	Type of Holder	EDP NO.
5	HSS	1", 1-1/8", 1-1/4", 1-3/8", 1-1/2"	Wood Block	173551
5	HSS	1", 1-1/4", 1-1/2", 1-3/4", 2"	Wood Block	176552
5	Cobalt	1", 1-1/8", 1-1/4", 1-3/8", 1-1/2"	Wood Block	173558
5	Cobalt	1", 1-1/4", 1-1/2", 1-3/4", 2"	Wood Block	173559

Aircraft Extension Drills

Split Point

6" Overall Length - HSS and Cobalt

12" Overall Length - HSS and Cobalt

Size	Dec. Equiv.	Flute Length	HSS EDP NO.		Cobalt EDP NO.	
			6" OAL	12" OAL	6" OAL	12" OAL
60	.0400	11/16	304606	304722	304838	-
59	.0410	11/16	304607	304723	304839	-
58	.0420	11/16	304608	304724	-	-
57	.0430	3/4	304609	304725	-	-
56	.0465	3/4	304610	304726	304840	-
3/64	.0469	3/4	304611	304727	-	-
55	.0520	7/8	304612	304728	304841	-
54	.0550	7/8	304613	304729	-	-
53	.0595	7/8	304614	304730	304842	-
1/16	.0625	7/8	304615	304731	304843	304917
52	.0635	7/8	304616	304732	304844	304918
51	.0670	1	304617	304733	304845	304919
50	.0700	1	304618	304734	304846	304920
49	.0730	1	304619	304735	304847	304921
48	.0760	1	304620	304736	304848	304922
5/64	.0781	1	304621	304737	304849	304923
47	.0785	1	304622	304738	304850	304924
46	.0810	1-1/8	304623	304739	304851	304925
45	.0820	1-1/8	304624	304740	304852	304926
44	.0860	1-1/8	304625	304741	304853	304927
43	.0890	1-1/4	304626	304742	304854	304928
42	.0935	1-1/4	304627	304743	304855	304929
3/32	.0938	1-1/4	304628	304744	304856	304930
41	.0960	1-3/8	304629	304745	304857	304931
40	.0980	1-3/8	304630	304746	304858	304932
39	.0995	1-3/8	304631	304747	304859	304933
38	.1015	1-7/16	304632	304748	304860	304934
37	.1040	1-7/16	304633	304749	304861	304935
36	.1065	1-7/16	304634	304750	304862	304936
7/64	.1094	1-1/2	304635	304751	304863	304937
35	.1100	1-1/2	304636	304752	304864	304938
34	.1110	1-1/2	304637	304753	304865	304939
33	.1130	1-1/2	304638	304754	304866	304940
32	.1160	1-5/8	304639	304755	304867	304941
31	.1200	1-5/8	304640	304756	304868	304942
1/8	.1250	1-5/8	304641	304757	304869	304943
30	.1285	1-5/8	304642	304758	304870	304944
29	.1360	1-3/4	304643	304759	304871	304945
28	.1405	1-3/4	304644	304760	304882	304946
9/64	.1406	1-3/4	304645	304761	304883	304947

Size	Dec. Equiv.	Flute Length	HSS EDP NO.		Cobalt EDP NO.	
			6" OAL	12" OAL	6" OAL	12" OAL
27	.1440	1-7/8	304646	304762	304884	304948
26	.1470	1-7/8	304647	304763	304885	304949
25	.1495	1-7/8	304648	304764	304886	304950
24	.1520	2	304649	304765	304887	304951
23	.1540	2	304650	304766	304888	304952
5/32	.1562	2	304651	304767	304889	304953
22	.1570	2	304652	304768	304890	304954
21	.1590	2-1/8	304653*	304769	304891	304955
20	.1610	2-1/8	304654	304770	304892	304956
19	.1660	2-1/8	304655	304771	304893	304957
18	.1695	2-1/8	304656	304772	304894	304958
11/64	.1719	2-1/8	304657	304773	304895	304959
17	.1730	2-3/16	304658	304774	304896	304960
16	.1770	2-3/16	304659	304775	304897	304961
15	.1800	2-3/16	304660	304776	304898	304962
14	.1820	2-3/16	304661	304777	304899	304963
13	.1850	2-5/16	304662	304778	304900	304964
3/16	.1875	2-5/16	304663	304779	304901	304965
12	.1890	2-5/16	304664	304780	304942	304966
11	.1910	2-5/16	304665	304781	304943	304967
10	.1935	2-7/16	304666	304782	304944	304968
9	.1960	2-7/16	304667	304783	304945	304969
8	.1990	2-7/16	304668	304784	304946	304970
7	.2010	2-7/16	304669	304785	304947	304971
13/64	.2031	2-7/16	304670	304786	304948	304972
6	.2040	2-1/2	304671	304787	304949	304973
5	.2055	2-1/2	304672	304788	304940	304974
4	.2090	2-1/2	304673	304789	304941	304975
3	.2130	2-1/2	304674	304790	304902	304976
7/32	.2188	2-1/2	304675	304791	304903	304977
2	.2210	2-5/8	304676	304792	304904	304978
1	.2280	2-5/8	304677	304793	304905	304979
A	.2340	2-5/8	304678	304794	-	-
15/64	.2344	2-5/8	304679	304795	304906	304980
B	.2380	2-3/4	304680	304796	-	-
C	.2420	2-3/4	304681	304797	304907	-
D	.2460	2-3/4	304682	304798	304908	-
1/4	.2500	2-3/4	304683	304799	304910	304981
E	.2500	2-3/4	304684	304800	304911	304982
F	.2570	2-7/8	304685	304801	304912	-

Aircraft Extension Drills Cont.

Size	Dec. Equiv.	Flute Length	HSS EDP NO.		Cobalt EDP NO.	
			6" OAL	12" OAL	6" OAL	12" OAL
G	.2610	2-7/8	304686	304802	-	-
17/64	.2656	2-7/8	304687	304803	304913	304983
H	.2660	2-7/8	304688	304804	-	-
I	.2720	2-7/8	304689	304805	-	-
J	.2770	2-7/8	304690	304806	-	-
K	.2810	2-15/16	304691	304807	304914	-
9/32	.2812	2-15/16	304692	304808	304915	304984
L	.2900	2-15/16	304693	304809	-	-
M	.2950	3-1/16	304964	304810	-	-
19/64	.2969	3-1/16	304695	304811	304916	304985
N	.3020	3-1/16	304696	304812	-	-
5/16	.3125	3-3/16	304697	304813	309482	304986
O	.3160	3-3/16	304698	304814	-	-
P	.3230	3-5/16	304699	304815	-	-
21/64	.3281	3-5/16	304700	304816	-	304987
Q	.3320	3-7/16	304701	304817	-	-
R	.3390	3-7/16	304702	304818	-	-
11/32	.3438	3-7/16	304703	304819	-	304988

Size	Dec. Equiv.	Flute Length	HSS EDP NO.		Cobalt EDP NO.	
			6" OAL	12" OAL	6" OAL	12" OAL
S	.3480	3-1/2	304704	304820	-	-
T	.3580	3-1/2	304705	304821	-	-
23/64	.3594	3-1/2	304706	304822	309483	304989
U	.3680	3-5/8	304707	304823	-	-
3/8	.3750	3-5/8	304708	304824	-	304990
V	.3770	3-5/8	304709	304825	-	-
W	.3860	3-3/4	304710	304826	-	-
25/64	.3906	3-3/4	304711	304827	-	-
X	.3970	3-3/4	304712	304828	-	304991
Y	.4040	3-7/8	304713	304829	-	-
13/32	.4062	3-7/8	304714	304830	-	304992
Z	.4130	3-7/8	304715	304831	-	-
27/64	.4219	3-15/16	304716	304832	-	-
7/16	.4375	4-1/16	304717	304833	-	304993
29/64	.4531	4-3/16	304718	304834	-	304994
15/32	.4688	4-5/16	304719	304835	-	304995
31/64	.4844	4-3/8	304720	304836	-	304996
1/2	.5000	4-1/2	304721	304837	-	304997

Extra Length Drills

Straight Shank, 118° Point

Size	Dec. Equiv.	EDP NO.										
		6" OAL 4" Flute	8" OAL 5 1/2" Flute	9" OAL 6 1/2" Flute	10" OAL 7 1/2" Flute	12" OAL 9" Flute	12" OAL 9" Flute 1/2" shk	16" OAL 12" Flute	18" OAL 12" Flute	18" OAL 12" Flute 1/2" shk	24" OAL 18" Flute	48" OAL 5 1/2" Flute
1/16	.0625	304998	-	-	-	-	-	-	-	-	-	-
5/64	.0781	304999	-	-	-	-	-	-	-	-	-	-
3/32	.0938	305000	305007	-	-	-	-	-	-	-	-	-
7/64	.1094	305001	305008	-	-	-	-	-	-	-	-	-
1/8	.1250	305002	305009	-	305040	305066	-	-	-	-	-	-
9/64	.1406	305003	305010	-	305041	305067	-	-	-	-	-	-
5/32	.1562	305004	305011	-	305042	305068	-	-	-	-	-	-
11/64	.1719	305005	305012	-	3045043	305069	-	-	-	-	-	-
3/16	.1875	305006	305013	-	305044	305070	-	305155	305169	-	-	-
13/64	.2031	-	305014	-	305045	305071	-	-	305170	-	-	-
7/32	.2188	-	305015	-	305046	305072	-	-	305171	-	-	-
15/64	.2344	-	304016	-	305047	305073	-	-	305172	-	-	-
1/4	.2500	-	304017	-	305048	305074	-	-	305173	-	305259	305277
F	.2570	-	305018	-	-	-	-	-	-	-	-	-
17/64	.2656	-	305019	-	305049	305075	-	-	305174	-	-	-
9/32	.2812	-	305020	-	305050	305076	-	-	305175	-	-	-
19/64	.2969	-	305021	-	305051	305077	-	-	305176	-	-	-
5/16	.3125	-	305022	-	305052	305078	-	-	305177	-	305260	305278
21/64	.3281	-	305023	-	305053	305079	-	-	305178	-	-	-
11/32	.3438	-	305024	-	305054	305080	-	305156	305179	-	-	-
23/64	.3594	-	305025	-	305055	305081	-	305157	305180	-	-	-
3/8	.3750	-	305026	-	305056	305082	-	-	305181	-	305261	305279
25/64	.3906	-	305027	-	305057	305083	-	-	305182	-	-	-
13/32	.4062	-	305028	-	305058	305084	-	-	305183	-	-	-
27/64	.4219	-	-	305034	305059	305085	-	-	305184	-	-	-
11mm	.4331	-	-	-	305060	-	-	305158	305185	305226	-	-
7/16	.4375	-	305029	305035	305061	305086	-	305159	305186	-	305262	305280
29/64	.4513	-	305030	305036	305062	305087	-	305160	305187	-	-	-
15/32	.4688	-	305031	-	305063	305088	-	305161	305188	-	-	-
31/64	.4844	-	305032	305037	305064	305089	-	-	305189	-	-	-
1/2	.5000	-	305033	305038	305065	305090	-	305162	305190	-	305263	305281
33/64	.5156	-	-	-	-	305091	305123	-	305191	305227	-	-
17/32	.5312	-	-	305039	-	305092	305124	305163	305192	305228	-	-

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
19/64	.2969	5"	8"	305284
5/16	.3125	5"	8"	305285
13/32	.4062	6-1/2"	8"	305286
27/64	.4219	6-3/4"	8"	305287
27/64	.4219	6-1/2"	9"	305288
7/16	.4375	9-3/4"	12"	305289
9/16	.5625	9"	11"	305290
43/64	.6719	9-3/4"	13"	305291
11/16	.6875	9"	12"	305292

Extra Length Cobalt Drills

DRILL BITS

Extra Length Drills Cont.

Size	Dec. Equiv.	EDP NO.										
		6" OAL 4" Flute	8" OAL 5 1/2" Flute	9" OAL 6 1/2" Flute	10" OAL 7 1/2" Flute	12" OAL 9" Flute	12" OAL 9" Flute 1/2" shk	16" OAL 12" Flute	18" OAL 12" Flute	18" OAL 12" Flute 1/2" shk	24" OAL 18" Flute	48" OAL 5 1/2" Flute
35/64	.5469	-	-	-	-	305093	305125	305164	305193	305229	-	-
9/16	.5625	-	-	-	-	305094	305126	305165	305194	305230	305264	-
37/64	.5781	-	-	-	-	305095	305127	-	305195	305231	-	-
19/32	.5938	-	-	-	-	305096	305128	305166	305196	305232	-	-
39/64	.6094	-	-	-	-	305097	305129	-	305197	305233	-	-
5/8	.6250	-	-	-	-	305098	305130	-	305198	305234	305265	305282
41/64	.6406	-	-	-	-	305099	305131	-	305199	305235	-	-
21/32	.6562	-	-	-	-	305100	305132	305167	305200	305236	-	-
43/64	.6719	-	-	-	-	305101	305133	-	305201	305237	-	-
11/16	.6875	-	-	-	-	305102	305134	305168	305202	305238	305266	-
45/64	.7031	-	-	-	-	305103	305135	-	305203	305239	-	-
23/32	.7188	-	-	-	-	305104	305136	-	305204	305240	-	-
47/64	.7344	-	-	-	-	305105	305137	-	305205	305241	-	-
3/4	.7500	-	-	-	-	305106	305138	-	305206	305242	305267	305283
49/64	.7656	-	-	-	-	305107	305139	-	305207	305243	-	-
25/32	.7812	-	-	-	-	305108	305140	-	305208	305244	305268	-
51/64	.7969	-	-	-	-	305109	305141	-	305209	305245	-	-
13/16	.8125	-	-	-	-	305110	305142	-	305210	305246	305269	-
53/64	.8281	-	-	-	-	305111	305143	-	305211	305247	-	-
27/32	.8438	-	-	-	-	305112	305144	-	305212	305248	305270	-
55/64	.8594	-	-	-	-	305113	305145	-	305213	305249	-	-
7/8	.8750	-	-	-	-	305114	305146	-	305214	305250	305271	-
57/64	.8906	-	-	-	-	305115	305147	-	305215	305251	-	-
29/32	.9062	-	-	-	-	305116	305148	-	305216	305252	-	-
59/64	.9219	-	-	-	-	305117	305149	-	305217	305253	-	-
15/16	.9375	-	-	-	-	305118	305150	-	305218	305254	305272	-
61/64	.9531	-	-	-	-	305119	305151	-	305219	305255	-	-
31/32	.9688	-	-	-	-	305120	305152	-	305220	305256	-	-
63/64	.9844	-	-	-	-	305121	305153	-	305221	305257	-	-
1	1.0000	-	-	-	-	305122	305154	-	305222	305258	305273	-
1-1/8	1.1250	-	-	-	-	-	-	-	305223	-	305274	-
1-3/16	1.1875	-	-	-	-	-	-	-	305224	-	305275	-
1-1/4	1.2500	-	-	-	-	-	-	-	305225	-	305276	-

Extra Length Drill Sets

Overall Length	Set Description	Pieces Per Set	EDP NO.
8"	1/8" thru 3/8" by 64ths	17	173538
10"	3/16" thru 1/2" by 64ths	21	173539
12"	1/8" thru 1/2" by 64ths	25	173540
12-1/2" shk	17/32" thru 1" by 32nds	16	305296
18"	3/16" thru 1/2" by 32nds	11	173541
18-1/2" shk	17/32 thru 1" by 32nds	16	305298

Taper Shank Drills

General Purpose, 118° Point, Standard Shanks, Fraction Size

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
1/16	.0625	1-1/4	4-5/8	1	305300
5/64	.0781	1-3/8	4-3/4	1	305301
1/8	.1250	1-7/8	5-1/8	1	305302
9/64	.1406	2-1/8	5-3/8	1	305303
5/32	.1562	2-1/8	5-3/8	1	305304
11/64	.1719	2-1/2	5-3/4	1	305305
3/16	.1875	2-1/2	5-3/4	1	305306
13/64	.2031	2-3/4	6	1	305307
7/32	.2188	2-3/4	6	1	305308
15/64	.2344	2-7/8	6-1/8	1	305309
1/4	.2500	2-7/8	6-1/8	1	305310
17/64	.2656	3	6-1/4	1	305311
9/32	.2812	3	6-1/4	1	305312
19/64	.2969	3-1/8	6-3/8	1	305313
5/16	.3125	3-1/8	6-3/8	1	305314
21/64	.3281	3-1/4	6-1/2	1	305315
11/32	.3438	3-1/4	6-1/2	1	305316
23/64	.3594	3-1/2	6-3/4	1	305317
3/8	.3750	3-1/2	6-3/4	1	305318
25/64	.3906	3-5/8	7	1	305319
13/32	.4062	3-5/8	7	1	305320
27/64	.4219	3-7/8	7-1/4	1	305321
7/16	.4375	3-7/8	7-1/4	1	305322
29/64	.4531	4-1/8	7-1/2	1	305323
15/32	.4688	4-1/8	7-1/2	1	305324
31/64	.4844	4-3/8	8-1/4	2	305325
1/2	.5000	4-3/8	8-1/4	2	305326
33/64	.5156	4-5/8	8-1/2	2	305327
17/32	.5312	4-5/8	8-1/2	2	305328
35/64	.5469	4-7/8	8-3/4	2	305329
9/16	.5625	4-7/8	8-3/4	2	305330
37/64	.5781	4-7/8	8-3/4	2	305331
19/32	.5938	4-7/8	8-3/4	2	305332
39/64	.6094	4-7/8	8-3/4	2	305333
5/8	.6250	4-7/8	8-3/4	2	305334
41/64	.6406	5-1/8	9	2	305335
21/32	.6562	5-1/8	9	2	305336
43/64	.6719	5-3/8	9-1/4	2	305337
11/16	.6875	5-3/8	9-1/4	2	305338
45/64	.7031	5-5/8	9-1/2	2	305339
23/32	.7188	5-5/8	9-1/2	2	305340
47/64	.7344	5-7/8	9-3/4	2	305341
3/4	.7500	5-7/8	9-3/4	2	305342
49/64	.7656	6	9-7/8	2	305343
25/32	.7812	6	9-7/8	2	305344

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
51/64	.7969	6-1/8	10-3/4	3	305345
13/16	.8125	6-1/8	10-3/4	3	305346
53/64	.8281	6-1/8	10-3/4	3	305347
27/32	.8438	6-1/8	10-3/4	3	305348
55/64	.8594	6-1/8	10-3/4	3	305349
7/8	.8750	6-1/8	10-3/4	3	305350
57/64	.8906	6-1/8	10-3/4	3	305351
29/32	.9062	6-1/8	10-3/4	3	305352
59/64	.9219	6-1/8	10-3/4	3	305353
15/16	.9375	6-1/8	10-3/4	3	305354
61/64	.9531	6-3/8	11	3	305355
31/32	.9688	6-3/8	11	3	305356
63/64	.9844	6-3/8	11	3	305357
1	1.0000	6-3/8	11	3	305358
1-1/64	1.0156	6-1/2	11-1/8	3	305359
1-1/32	1.0312	6-1/2	11-1/8	3	305360
1-3/64	1.0469	6-5/8	11-1/4	3	305361
1-1/16	1.0625	6-5/8	11-1/4	3	305362
1-5/64	1.0781	6-7/8	12-1/2	4	305363
1-3/32	1.0938	6-7/8	12-1/2	4	305364
1-7/64	1.1094	7-1/8	12-3/4	4	305365
1-1/8	1.1250	7-1/8	12-3/4	4	305366
1-9/64	1.1406	7-1/4	12-7/8	4	305367
1-5/32	1.1562	7-1/4	12-7/8	4	305368
1-11/64	1.1719	7-3/8	13	4	305369
1-3/16	1.1875	7-3/8	13	4	305370
1-13/64	1.2031	7-1/2	13-1/8	4	305371
1-7/32	1.2188	7-1/2	13-1/8	4	305372
1-15/64	1.2344	7-7/8	13-1/2	4	305373
1-1/4	1.2500	7-7/8	13-1/2	4	305374
1-17/64	1.2656	8-1/2	14-1/8	4	305375
1-9/32	1.2812	8-1/2	14-1/8	4	305376
1-19/64	1.2969	8-5/8	14-1/4	4	305377
1-5/16	1.3125	8-5/8	14-1/4	4	305378
1-21/64	1.3281	8-3/4	14-3/8	4	305379
1-11/32	1.3438	8-3/4	14-3/8	4	305380
1-23/64	1.3594	8-7/8	14-1/2	4	305381
1-3/8	1.3750	8-7/8	14-1/2	4	305382
1-25/64	1.3906	9	14-5/8	4	305383
1-13/32	1.4062	9	14-5/8	4	305384
1-27/64	1.4219	9-1/8	14-3/4	4	305385
1-7/16	1.4375	9-1/8	14-3/4	4	305386
1-29/64	1.4531	9-1/4	14-7/8	4	305387
1-15/32	1.4688	9-1/4	14-7/8	4	305388
1-31/64	1.4844	9-3/8	15	4	305389

Taper Shank Drills Cont.

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
1-1/2	1.5000	9-3/8	15	4	305390
1-33/64	1.5156	9-3/8	16-3/8	5	305391
1-17/32	1.5312	9-3/8	16-3/8	5	305392
1-35/64	1.5469	9-5/8	16-5/8	5	305393
1-9/16	1.5625	9-5/8	16-5/8	5	305394
1-37/64	1.5781	9-7/8	16-7/8	5	305395
1-19/32	1.5938	9-7/8	16-7/8	5	305396
1-39/64	1.6094	10	17	5	305397
1-5/8	1.6250	10	17	5	305398
1-41/64	1.6406	10-1/8	17-1/8	5	305399
1-21/32	1.6562	10-1/8	17-1/8	5	305400
1-43/64	1.6719	10-1/8	17-1/8	5	305401
1-11/16	1.6875	10-1/8	17-1/8	5	305402
1-45/64	1.7031	10-1/8	17-1/8	5	305403
1-23/32	1.7188	10-1/8	17-1/8	5	305404
1-47/64	1.7344	10-1/8	17-1/8	5	305405
1-3/4	1.7500	10-1/8	17-1/8	5	305406
1-25/32	1.7812	10-1/8	17-1/8	5	305407
1-13/16	1.8125	10-1/8	17-1/8	5	305409
1-27/32	1.8438	10-1/8	17-1/8	5	305409
1-7/8	1.8750	10-3/8	17-3/8	5	305410
1-29/32	1.9062	10-3/8	17-3/8	5	305411
1-15/16	1.9375	10-3/8	17-3/8	5	305412
1-31/32	1.9688	10-3/8	17-3/8	5	305413
2	2.0000	10-3/8	17-3/8	5	305414
2-1/32	2.0312	10-3/8	17-3/8	5	305415
2-1/16	2.0625	10-1/4	17-3/8	5	305416
2-3/32	2.0938	10-1/4	17-3/8	5	305417
2-1/8	2.1250	10-1/4	17-3/8	5	305418
2-5/32	2.1562	10-1/4	17-3/8	5	305419
2-3/16	2.1875	10-1/4	17-3/8	5	305420
2-7/32	2.2188	10-1/8	17-3/8	5	305421

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
2-1/4	2.2500	10-1/8	17-3/8	5	305422
2-9/32	2.2812	10-1/8	17-3/8	5	305423
2-5/16	2.3125	10-1/8	17-3/8	5	305424
2-11/32	2.3438	10-1/8	17-3/8	5	305425
2-3/8	2.3750	10-1/8	17-3/8	5	305426
2-13/32	2.4062	11-1/4	18-3/4	5	305427
2-7/16	2.4375	11-1/4	18-3/4	5	305428
2-15/32	2.4688	11-1/4	18-3/4	5	305429
2-1/2	2.5000	11-1/4	18-3/4	5	305430
2-17/32	2.5312	11-7/8	19-1/2	5	305431
2-9/16	2.5625	11-7/8	19-1/2	5	305432
2-5/8	2.6250	11-7/8	19-1/2	5	305433
2-11/16	2.6875	12-3/4	20-3/8	5	305434
2-23/32	2.7188	12-3/4	20-3/8	5	305435
2-3/4	2.7500	12-3/4	20-3/8	5	305436
2-13/16	2.8125	13-3/8	21-1/8	5	305437
2-27/32	2.8438	13-3/8	21-1/8	5	305438
2-7/8	2.8750	13-3/8	21-1/8	5	305439
2-15/16	2.9375	14	21-3/4	5	305440
3	3.0000	14	21-3/4	5	305441
3-1/16	3.0625	14-5/8	24-1/2	6	305442
3-1/8	3.1250	14-5/8	24-1/2	6	305443
3-3/16	3.1875	14-5/8	24-1/2	6	305444
3-1/4	3.2500	15-1/2	25-1/2	6	305445
3-5/16	3.3125	15-1/2	25-1/2	6	305446
3-3/8	3.3750	15-1/2	25-1/2	6	305447
3-7/16	3.4375	15-1/2	25-1/2	6	305448
3-1/2	3.5000	16-3/8	26-1/2	6	305449
3-5/8	3.6250	16-3/8	26-1/2	6	305450
3-3/4	3.7500	16-3/8	26-1/2	6	305451
3-7/8	3.8750	16-3/8	26-1/2	6	305452
4	4.0000	17-1/2	27-1/2	6	305453

Taper Shank Drills

Letter Sizes, Furnished with #1 Morse Taper Shank

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
A	.2340	2-7/8	6-1/8	305555
B	.2380	2-7/8	6-1/8	305556
C	.2420	2-7/8	6-1/8	305557
D	.2460	2-7/8	6-1/8	305558
E	.2500	2-7/8	6-1/8	305559
F	.2570	3	6-1/4	305560
G	.2610	3	6-1/4	305561
H	.2660	3	6-1/4	305562
I	.2720	3	6-1/4	305563
J	.2770	3	6-1/4	305564
K	.2810	3	6-1/4	305565
L	.2900	3-1/8	6-3/8	305566
M	.2950	3-1/8	6-3/8	305567

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
N	.3020	3-1/8	6-3/8	305568
O	.3160	3-1/4	6-1/2	305569
P	.3230	3-1/4	6-1/2	305570
Q	.3320	3-1/4	6-1/2	305571
R	.3390	3-1/4	6-1/2	305572
S	.3480	3-1/2	6-3/4	305573
T	.3580	3-1/2	6-3/4	305574
U	.3680	3-1/2	6-3/4	305575
V	.3770	3-5/8	7	305576
W	.3860	3-5/8	7	305577
X	.3970	3-5/8	7	305578
Y	.4040	3-5/8	7	305579
Z	.4130	3-7/8	7-1/4	305580

Wire Gauge Sizes, Furnished with #1 Morse Taper Shank. Flute length and overall length are approximately the same as corresponding fractional.

Size	Dec. Equiv.	EDP NO.
1	.2280	305581
2	.2210	305582
3	.2130	305583
4	.2090	305584
5	.2055	305585
6	.2010	305586
7	.2010	305587
8	.1990	305588
9	.1960	305589
10	.1935	305590
11	.1910	305591
12	.1890	305592
13	.1850	305593
14	.1820	305594
15	.1800	305595
16	.1770	305596
17	.1730	305597
18	.1695	305598
19	.1660	305599
20	.1610	305600
21	.1590	305601
22	.1570	305602
23	.1540	305603

Size	Dec. Equiv.	EDP NO.
24	.1520	305604
25	.1495	305605
26	.1470	305606
27	.1440	305607
28	.1405	305608
29	.1360	305609
30	.1285	305610
31	.1200	305611
37	.1040	305612
39	.0995	305613
40	.0980	305614
44	.0860	305615
47	.0785	305616

Taper Shank Drills

Millimeter Sizes. Flute length and overall length are approximately the same as corresponding fractional.

Size	Dec. Equiv.	Morse Taper No.	EDP NO.
3.00	.1181	1	305617
3.20	.1260	1	305618
3.50	.1378	1	305619
3.80	.1496	1	305620
4.00	.1575	1	305621
4.20	.1654	1	305622
4.50	.1772	1	305623
4.80	.1890	1	305624
5.00	.1969	1	305625
5.20	.2047	1	305626
5.50	.2165	1	305627
5.80	.2283	1	305628
6.00	.2362	1	305629
6.20	.2441	1	305630
6.50	.2559	1	305631
6.80	.2677	1	305632
7.00	.2756	1	305633
7.20	.2835	1	305634
7.50	.2953	1	305635
7.80	.3071	1	305636
8.00	.3150	1	305637
8.20	.3228	1	305638
8.50	.3346	1	305639
8.80	.3465	1	305640
9.00	.3543	1	305641
9.20	.3622	1	305642
9.50	.3740	1	305643
9.80	.3858	1	305644
10.00	.3937	1	305645
10.20	.4016	1	305646
10.50	.4134	1	305647
10.80	.4252	1	305648
11.00	.4331	1	305649
11.20	.4409	1	305650
11.50	.4528	1	305651
11.80	.4646	1	305652
12.00	.4724	2	305653
12.20	.4803	2	305654
12.50	.4921	2	305655
12.80	.5039	2	305656

Size	Dec. Equiv.	Morse Taper No.	EDP NO.
13.00	.5118	2	305657
13.20	.5197	2	305658
13.50	.5315	2	305659
13.80	.5433	2	305660
14.00	.5512	2	305661
14.25	.5610	2	305662
14.50	.5709	2	305663
14.75	.5807	2	305664
15.00	.5906	2	305665
15.25	.6004	2	305666
15.50	.6102	2	305667
15.75	.6201	2	305668
16.00	.6299	2	305669
16.25	.6398	2	305670
16.50	.6496	2	305671
16.75	.6594	2	305672
17.00	.6693	2	305673
17.25	.6791	2	305674
17.50	.6890	2	305675
18.00	.7087	2	305676
18.50	.7283	2	305677
19.00	.7480	2	305678
19.50	.7677	2	305679
20.00	.7874	3	305680
20.50	.8071	3	305681
21.00	.8268	3	305682
21.50	.8465	3	305683
22.00	.8661	3	305684
22.50	.8858	3	305685
23.00	.9055	3	305686
23.50	.9252	3	305687
24.00	.9449	3	305688
24.50	.9646	3	305689
25.00	.9843	3	305690
25.50	1.0039	3	305691
26.00	1.0236	3	305692
26.50	1.0433	3	305693
27.00	1.0630	3	305694
27.50	1.0827	4	305695
28.00	1.1024	4	305696

Size	Dec. Equiv.	Morse Taper No.	EDP NO.
28.50	1.1220	4	305697
29.00	1.1417	4	305698
29.50	1.1614	4	305699
30.00	1.1811	4	305700
30.50	1.2008	4	305701
31.00	1.2205	4	305702
31.50	1.2402	4	305703
32.00	1.2498	4	305704
32.50	1.2795	4	305705
33.00	1.2992	4	305706
33.50	1.3189	4	305707
34.00	1.3386	4	305708
34.50	1.3583	4	305709
35.00	1.3780	4	305710
35.50	1.3976	4	305711
36.00	1.4173	4	305712
36.50	1.4370	4	305713
37.00	1.4567	4	305714
37.50	1.4764	4	305715
38.00	1.4961	4	305716
39.00	1.5354	5	305717
40.00	1.5748	5	305718
41.00	1.6142	5	305719
42.00	1.6535	5	305720
43.00	1.6929	5	305721
44.00	1.7323	5	305722
45.00	1.7717	5	305723
46.00	1.8110	5	305724
47.00	1.8504	5	305725
48.00	1.8898	5	305726
49.00	1.9291	5	305727
50.00	1.9685	5	305728
51.00	2.0079	5	305729
57.00	2.2441	5	305730
59.00	2.3228	5	305731
65.00	2.5591	5	305732
66.00	2.5984	5	305733
69.00	2.7165	5	305734
70.00	2.7559	5	305735
72.00	2.8346	5	305736

Titanium Nitride Coated Taper Shank Drills

118° Point

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
5/16	3-1/8	6-3/8	1	305737
3/8	3-1/2	6-3/4	1	305738
7/16	3-7/8	7-1/4	1	30573
1/2	4-3/8	8-1/4	2	305740
33/64	4-5/8	8-1/2	2	305741
17/32	4-5/8	8-1/2	2	305742
9/16	4-7/8	8-3/4	2	305743
19/32	4-7/8	8-3/4	2	305744
5/8	4-7/8	8-3/4	2	305745
21/32	5-1/8	9	2	305746
11/16	5-3/8	9-1/4	2	305747
23/32	5-5/8	9-1/2	2	305748
3/4	5-7/8	9-3/4	2	305749
25/32	6	9-7/8	2	305750
13/16	6-1/8	10-3/4	3	305751
27/32	6-1/8	10-3/4	3	305752
7/8	6-1/8	10-3/4	3	305753

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
29/32	6-1/8	10-3/4	3	305754
15/16	6-1/8	10-3/4	3	305755
31/32	6-3/8	11	3	305756
63/64	6-3/8	11	3	305757
1	6-3/8	11	3	305758
1-1/32	6-1/2	11-1/8	3	305759
1-1/16	6-5/8	11-1/4	3	305760
1-3/32	6-7/8	12-1/2	4	305761
1-1/8	7-1/8	12-3/4	4	305762
1-5/32	7-1/4	12-7/8	4	305763
1-3/16	7-3/8	13	4	304764
1-7/32	7-1/2	13-1/8	4	305765
1-1/4	7-7/8	13-1/2	4	305766
1-5/16	8-5/8	14-1/4	4	305767
1-3/8	8-7/8	14-1/2	4	305768
1-1/2	9-3/8	15	4	305769

Stub Length Taper Shank Drills

118° Point

Because of their short overall and flute length, stub length taper shank drills are recommended for use in boring mills, screw machines and lathes or where short projection is required.

Size	Dec. Equiv.	Approx. Flute Length	Approx. Overall Length	Morse Taper NO.	EDP NO.
2	2.0000	5	11	4	305770
2	2.0000	5	12	5	305771
2-1/16	2.0625	5	11	4	305772
2-1/16	2.0625	5	12	5	305773
2-1/8	2.1250	5	11	4	305774
2-1/8	2.1250	5	12	5	305775
2-3/16	2.1875	5	11	4	305776
2-3/16	2.1875	5	12	5	305777
2-1/4	2.2500	5	11	4	305778
2-1/4	2.2500	5	12	5	305779
2-5/16	2.3125	5	11	4	305780

Size	Dec. Equiv.	Approx. Flute Length	Approx. Overall Length	Morse Taper NO.	EDP NO.
2-5/16	2.3125	5	12	5	305781
2-3/8	2.3750	5	11	4	305782
2-3/8	2.3750	5	12	5	305783
2-7/16	2.4375	5	12	5	305784
2-1/2	2.5000	5	11	4	305785
2-1/2	2.5000	5	12	5	305786
2-5/8	2.6250	5	12	5	305787
2-3/4	2.7500	5	12	5	305788
2-7/8	2.8750	5	12	5	305789
3	3.0000	5	12	5	305790
3-1/4	3.2500	5	12	5	305791

Cobalt Taper Shank Drills

Super Cobalt, Heavy Duty, 135° Notched Point

These premium cobalt drills exhibit greater toughness, abrasion resistance and higher red hardness than the standard high speed drills. They are recommended for use on hard-to-machine materials where longer tool life is desired.

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
1/4	2-7/8	6-1/8	1	305792
17/64	3	6-1/4	1	305793
9/32	3	6-1/4	1	305794
19/64	3-1/8	6-3/8	1	305795
5/16	3-1/8	6-3/8	1	305796
21/64	3-1/4	6-1/2	1	305797
11/32	3-1/4	6-1/2	1	305798
23/64	3-1/2	6-3/4	1	305799
3/8	3-1/2	6-3/4	1*	305800
3/8	3-1/2	7-3/8	2	305801
25/64	3-5/8	7-1/2	2	305802
13/32	3-5/8	7-1/2	2	305803
27/64	3-7/8	7-3/4	2	305804
7/16	3-7/8	7-3/4	2	305805
29/64	4-1/8	8	2	305806
15/32	4-1/8	8	2	305807
31/64	4-3/8	8-1/4	2	305808
1/2	4-3/8	8-1/4	2	305809
33/64	4-5/8	8-1/2	2	305810
17/32	4-5/8	8-1/2	2	305811
35/64	4-7/8	8-3/4	2	305812
9/16	4-7/8	8-3/4	2	305813
37/64	4-7/8	8-3/4	2	305814
19/32	4-7/8	8-3/4	2	305815
39/64	4-7/8	8-3/4	2	305816
5/8	4-7/8	8-3/4	2	305817
41/64	5-1/8	9-3/4	2	305818
21/32	5-1/8	9-3/4	3	305819
43/64	5-3/8	10	3	305820
11/16	5-3/8	10	3	305821
45/64	5-5/8	10-1/4	3	305822
23/32	5-5/8	10-1/4	3	305823
47/64	5-7/8	10-1/2	3	305824
3/4	5-7/8	10-1/2	3	305825
49/64	6	10-5/8	3	305826
25/32	6	9-7/8	2*	305827
25/32	6	10-5/8	3	305828
51/64	6-1/8	10-3/4	3	305829
13/16	6-1/8	10	2*	305830

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
13/16	6-1/8	10-3/4	3	305831
53/64	6-1/8	10-3/4	3	305832
27/32	6-1/8	10-3/4	3	305833
55/64	6-1/8	10-3/4	3	305834
7/8	6-1/8	10-3/4	3	305835
57/64	6-1/8	10-3/4	3	305836
29/32	6-1/8	10-3/4	3	305837
59/64	6-1/8	10-3/4	3	305838
15/16	6-1/8	10-3/4	3	305839
61/64	6-3/8	11	3	305840
31/32	6-3/8	11	3	305841
63/64	6-3/8	11	3	305842
1	6-3/8	11	3	305843
1-1/64	6-1/2	12-1/8	4	305844
1-1/32	6-1/2	12-1/8	4	305845
1-3/64	6-5/8	12-1/4	4	305846
1-1/16	6-5/8	12-1/4	4	305847
1-5/64	6-7/8	12-1/2	4	305848
1-3/32	6-7/8	12-1/2	4	305849
1-7/64	7-1/8	12-3/4	4	305850
1-1/8	7-1/8	12-3/4	4	305851
1-9/64	7-1/4	12-7/8	4	305852
1-5/32	7-1/4	12-7/8	4	305853
1-11/64	7-3/8	13	4	305854
1-3/16	7-3/8	12	3*	305855
1-13/64	7-1/2	13-1/8	4	305857
1-7/32	7-1/2	13-1/8	4	305858
1-15/64	7-7/8	13-1/2	4	305859
1-1/4	7-7/8	13-1/2	4	305860
1-17/64	8-1/2	14-1/8	4	305861
1-9/32	8-1/2	14-1/8	4	305862
1-19/64	8-5/8	14-1/4	4	305863
1-5/16	8-5/8	14-1/4	4*	305864
1-5/16	8-5/8	15-7/8	5	305865
1-21/64	8-3/4	14-3/8	4	305866
1-11/32	8-3/4	14-3/8	4	305867
1-23/64	8-7/8	14-1/2	4	305868
1-3/8	8-7/8	14-1/2	4*	305869
1-3/8	8-7/8	15-7/8	5	305870

Cobalt Taper Shank Drills Cont.

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
1-25/64	9	14-5/8	4	305871
1-13/32	9	14-5/8	4	305872
1-27/64	9-1/8	14-3/4	4	305873
1-7/16	9-1/8	14-3/4	4*	305874
1-7/16	9-1/8	16-1/8	5	305875
1-29/64	9-1/4	14-7/8	4	305876
1-15/32	9-1/4	14-7/8	4	305877

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
1-31/64	9-3/8	15	4	305878
1-1/2	9-3/8	15	4*	305879
1-1/2	9-3/8	16-3/8	5	305880
1-5/8	10	17	5	305881
1-3/4	10-1/8	17-1/8	5	305882
1-13/16	10-1/8	17-1/8	5	305883
2	10-3/8	17-3/8	5	305884

Extra Length Drills

Taper shank, 118° Point

Size	Dec. Equiv.	Morse Taper No.	8" OAL		10" OAL		12" OAL		14" OAL		15" OAL		18" OAL	
			Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.
1/8	.1250	1	5	305885	-	-	9	305927	-	-	-	-	-	-
9/64	.1406	1	5	305886	-	-	-	-	-	-	-	-	-	-
5/32	.1562	1	5	316000	7	305903	-	-	-	-	-	-	-	-
11/64	.1719	1	5	316001	7	305904	9	305928	-	-	-	-	-	-
3/16	.1875	1	5	305889	-	-	9	305929	-	-	12	306003	-	-
13/64	.2031	1	5	305890	7	305905	9	305930	-	-	12	306004	-	-
7/32	.2188	1	5	305891	7	305906	9	305931	-	-	12	306005	-	-
15/64	.2344	1	5	305892	7	305907	9	305932	-	-	12	306006	-	-
1/4	.2500	1	5	305893	7	305908	9	305933	-	-	12	306007	15	306067
17/64	.2656	1	5	305894	-	-	9	305934	-	-	12	305008	15	306068
9/32	.2812	1	5	305895	7	305909	9	305935	-	-	12	305009	15	306069
19/64	.2969	1	5	305896	7B	305910	9	305936	-	-	12	306010	15	306070
5/16	.3125	1	5B	305897	-	-	9	305937	-	-	12	306011	15	306071
21/64	.3218	1	5	305898	7	305911	9	305938	-	-	12	306012	15	306072
R	.3390	1	-	-	-	-	-	-	-	-	-	-	15	306073
11/32	.3438	1	5	305899	-	-	9	305939	-	-	12	306013	15	306074
23/64	.3594	1	5	305900	7	305912	9	305940	-	-	12	306014	15	306075
3/8	.3750	1	5	305901	7	305913	9	305941	-	-	12	305015	15	306076
25/64	.3906	1	-	-	-	-	9	305942	-	-	12	306016	15	306177
13/32	.4062	1	-	-	-	-	9	305943	-	-	12	306017	15	306078
27/64	.4219	1	-	-	-	-	9	305944	-	-	12	306018	15	306079
7/16	.4375	1	-	-	7	305914	9	305945	-	-	12	306019	15	306080
29/64	.4531	1	-	-	7	305915	9	305946	11	305980	12	306020	15	306081
15/32	.4688	1	5	305902	7	305916	9	305947	11	305981	12	306021	15	306082
31/64	.4844	2	-	-	6	305917	8	305948	10	305982	11	306022	14	306083
1/2	.5000	2	-	-	6A	305918	8	305949	10	305983	11	306023	14	306084
33/64	.5156	2	-	-	6	305919	8	305950	10	305984	11	306024	14	306085

Extra Length Drills

Taper shank, 118° Point

Size	Dec. Equiv.	Morse Taper No.	8" OAL		10" OAL		12" OAL		14" OAL		15" OAL		18" OAL	
			Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.
17/32	.5312	2	-	-	6	305920	8	305951	-	-	11	306025	14	306086
35/64	.5469	2	-	-	6	305921	8	305952	10	305985	11	306026	14	306087
9/16	.5625	2	-	-	6	305922	8	305953	10	305986	11	306027	14	306088
37/64	.5781	2	-	-	6	305923	8	305954	10	305987	11	306028	14	306089
19/32	.5938	2	-	-	6	305924	8	305955	-	-	11	306029	14	306090
39/64	.6084	2	-	-	6	305925	8	305956	10	305988	11	306030	14	306091
5/8	.6250	2	-	-	-	-	8	305957	10	305989	11	306031	14	306092
41/64	.6406	2	-	-	-	-	8	305958	10	305990	11	306032	14	306093
21/32	.6562	2	-	-	-	-	8	305959	10	305991	11	306033	14	304094
43/64	.6719	2	-	-	-	-	8	305960	-	-	11	306034	14	306095
11/16	.6875	2	-	-	-	-	8	305961	-	-	11	306035	14	306096
45/64	.7031	2	-	-	-	-	8	305962	10	305992	11	306036	14	306097
23/32	.7188	2	-	-	-	-	8	305963	10	305993	11	306037	14	306098
47/64	.7344	-	-	-	-	-	8	305964	10	305994	11	306038	14	306099
3/4	.7500	2	-	-	-	-	8	305965	10	305995	11	306039	14	306100
49/64	.7656	2	-	-	-	-	8	305966	10	305996	11	306040	14	306101
25/32	.7812	2	-	-	-	-	8	305967	10	305997	11	306041	14	306102
51/64	.7969	3	-	-	-	-	7	305968	-	-	10	306042	13	306103
13/16	.8125	3-	-	-	-	-	7	305969	-	-	10	306043	14	306104
53/64	.8218	3	-	-	-	-	7	305970	-	-	10	306044	13	306105
27/32	.8438	3	-	-	-	-	7	305971	9	305998	10	306045	13	306106
55/64	.8594	3	-	-	-	-	7	305972	-	-	10	306046	13	306107
7/8	.8750	3	-	-	-	-	7	305973	9	305999	10	306047	13	306108
57/64	.8906	3	-	-	-	-	7	305974	9	306000	10	306048	13	306109
29/32	.9062	3	-	-	-	-	7	305975	-	-	10	306049	13	306110
59/64	.9219	3	-	-	-	-	7	305976	-	-	10	306050	13	306111
15/16	.9375	3	-	-	-	-	7	305977	-	-	10	306051	13	306112
61/64	.9531	3	-	-	-	-	-	-	-	-	10	306052	13	306113
31/32	.9688	3	-	-	-	-	7	305978	9	306001	10	306053	13	306114
63/64	.9844	3	-	-	-	-	-	-	9	306002	10	306054	13	306115
1	1.0000	3	-	-	-	-	7	305979	-	-	10	305055	13	306116
1-1/32	1.0312	3	-	-	-	-	-	-	-	-	10	306056	13	306117
1-3/64	1.0469	3	-	-	-	-	-	-	-	-	10	306057	13	306118
1-1/16	1.0625	3	-	-	-	-	-	-	-	-	10	306058	13	306119
1-5/64	1.0781	4	-	-	-	-	-	-	-	-	9	305059	12	306120
1-3/32	1.0938	4	-	-	-	-	-	-	-	-	10*	306060	12	306121
1-1/8	1.250	4	-	-	-	-	-	-	-	-	10*	306061	12	306122
1-5/32	1.1562	4	-	-	-	-	-	-	-	-	10*	306062	12	306123
1-11/64	1.1719	4	-	-	-	-	-	-	-	-	10*	306063	12	306124
1-3/16	1.1875	4	-	-	-	-	-	-	-	-	10*	306064	12	306125
1-7/32	1.2188	4	-	-	-	-	-	-	-	-	9	306065	12	306126
1-15/64	1.2344	4	-	-	-	-	-	-	-	-	-	-	12	306127
1-1/4	1.2500	4	-	-	-	-	-	-	--	-	9	306066	12	306128

Extra Length Drills Cont.

Size	Dec. Equiv.	Morse Taper No.	8" OAL		10" OAL		12" OAL		14" OAL		15" OAL		18" OAL	
			Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.
1-9/32	1.2813	4	-	-	-	-	-	-	-	-	-	-	12	306129
1-5/16	1.3125	4	-	-	-	-	-	-	-	-	-	-	12	306130
1-11/32	1.3438	4	-	-	-	-	-	-	-	-	-	-	12	306131
1-23/64	1.3594	4	-	-	-	-	-	-	-	-	-	-	12	306132
1-3/8	1.3750	4	-	-	-	-	-	-	-	-	-	-	12	306133
1-13/32	1.4062	4	-	-	-	-	-	-	-	-	-	-	12	306134
1-7/16	1.4375	4	-	-	-	-	-	-	-	-	-	-	12	306135
1-15/32	1.4688	4	-	-	-	-	-	-	-	-	-	-	12	306136
1-1/2	1.5000	4	-	-	-	-	-	-	-	-	-	-	12	306137
1-9/16	1.5625	5	-	-	-	-	-	-	-	-	-	-	10	306138
1-5/8	1.6250	5	-	-	-	-	-	-	-	-	-	-	10	306139
1-11/16	1.6875	5	-	-	-	-	-	-	-	-	-	-	10	306140
1-3/4	1.7500	5	-	-	-	-	-	-	-	-	-	-	10	306141
1-7/8	1.8750	5	-	-	-	-	-	-	-	-	-	-	10	306142

Size	Dec. Equiv.	Morse Taper No.	20" OAL		24" OAL		30" OAL		36" OAL	
			Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.
3/8	.3750	1	-	-	21	306165	-	-	-	-
25/64	.3906	1	-	-	21	306166	-	-	-	-
13/32	.4062	1	-	-	21	306167	-	-	-	-
27/64	.4219	1	-	-	21	306168	-	-	-	-
7/16	.4375	1	-	-	21	306169	-	-	-	-
29/64	.4531	1	-	-	21	306170	-	-	-	-
15/32	.4688	1	-	-	21	306171	-	-	-	-
31/64	.4844	2	-	-	20	306172	-	-	-	-
1/2	.5000	2	-	-	20	306173	-	-	-	-
33/64	.5156	2	16	306143	20	306174	-	-	-	-
17/32	.5312	2	-	-	20	306175	-	-	-	-
35/64	.5469	2	-	-	20	306176	-	-	-	-
9/16	.5625	2	-	-	20	306177	-	-	-	-
37/64	.5781	2	-	-	20	306178	-	-	-	-
19/32	.5938	2	-	-	20	306179	-	-	-	-
39/64	.6094	2	-	-	20	306180	-	-	-	-
5/8	.6250	2	-	-	20	306181	-	-	-	-
41/64	.6406	2	-	-	20	306182	-	-	-	-
21/32	.6562	2	16	306144	20	306183	-	-	-	-
43/64	.6719	2	-	-	20	306184	-	-	-	-
11/16	.6875	2	-	-	20	306185	-	-	-	-
45/64	.7031	2	-	-	20	306186	-	-	-	-
23/32	.7188	2	-	-	20	306187	-	-	-	-

Extra Length Drills Cont.

Size	Dec. Equiv.	Morse Taper No.	20" OAL		24" OAL		30" OAL		36" OAL	
			Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.
47/64	.7344	2	16	306145	20	306188	-	-	-	-
3/4	.7500	2	-	-	20	306189	26	306250	-	-
49/64	.7656	2	-	-	20	306190	-	-	-	-
25/32	.7812	2	-	-	20	306191	-	-	-	-
51/64	.7969	3	-	-	19	306192	-	-	-	-
13/16	.8125	3	15	306146	19	306193	25	306251	-	-
53/64	.8281	3	-	-	19	306194	-	-	-	-
27/32	.8438	3	15	306147	19	306195	-	-	-	-
55/64	.8594	3	-	-	19	306196	-	-	-	-
7/8	.8750	3	15	306148	19	306197	25	306252	-	-
57/64	.8906	3	-	-	19	306198	-	-	-	-
29/32	.9062	3	15	306149	19	306199	-	-	-	-
59/64	.9219	3	-	-	19	306200	-	-	-	-
15/16	.9375	3	15	306150	19	306201	25	306253	-	-
61/64	.9531	3	-	-	19	306202	-	-	-	-
31/32	.9688	3	15	306151	19	306203	-	-	-	-
63/64	.9844	3	-	-	19	306204	-	-	-	-
1	1.0000	3	-	-	19	306205	25	306254	-	-
1-1/32	1.0312	3	-	-	19	306206	-	-	-	-
1-3/64	1.0469	3	-	-	19	306207	-	-	-	-
1-1/16	1.0625	3	15	306152	19	306208	25	306255	-	-
1-5/64	1.0781	4	-	-	18	306209	-	-	-	-
1-3/32	1.0938	4	14	306153	18	306210	-	-	-	-
1-1/8	1.1250	4	14	306154	18	306211	24	306256	-	-
1-5/32	1.1562	4	14	306155	18	306212	-	-	-	-
1-11/64	1.1719	4	-	-	18	306213	-	-	-	-
1-3/16	1.1875	4	14	306156	18	306214	24	306257	-	-
1-7/32	1.2188	4	14	306157	18	306215	-	-	-	-
1-15/64	1.2344	4	-	-	18	306216	-	-	-	-
1-1/4	1.2500	4	14	306158	18	306217	24	306258	-	-
1-9/32	1.2813	4	-	-	18	306218	-	-	-	-
1-5/16	1.3125	4	-	-	18	306219	24	306259	-	-
1-11/32	1.3438	4	14	306159	-	-	-	-	-	-
1-23/64	1.3594	4	-	-	18	306220	-	-	-	-
1-3/8	1.3750	4	14	306160	18	306221	24	306260	-	-
1-13/32	1.4062	4	14	306161	18	306222	-	-	-	-
1-7/16	1.4375	4	14	306162	18	306223	24	306261	-	-
1-15/32	1.4688	4	-	-	18	306224	-	-	-	-
1-1/2	1.5000	4	-	-	18	306225	24	306262	29	306283
1-9/16	1.5625	5	-	-	17	306226	-	-	-	-
1-5/8	1.6250	5	-	-	17	306227	23	306263	-	-
1-11/16	1.6875	5	-	-	17	306228	-	-	-	-
1-3/4	1.7500	5	-	-	17	306229	23	306264	29	306284
1-25/32	1.7812	5	13	306163	-	-	-	-	-	-

Extra Length Drills Cont.

Size	Dec. Equiv.	Morse Taper No.	20" OAL		24" OAL		30" OAL		36" OAL	
			Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.	Flt. Lng.	EDP NO.
1-7/8	1.8750	5	-	-	17	306230	23	306265	-	-
1-15/16	1.9375	5	-	-	17	306231	-	-	-	-
2	2.0000	5	-	-	17	306232	23	306266	29	306285
2-1/16	2.0625	5	-	-	17	306233	23	306267	-	-
2-1/8	2.1250	5	-	-	17	306234	23	306268	29	306286
2-3/16	2.1875	5	-	-	17	306235	-	-	-	-
2-7/32	2.2188	5	13	306164	17	306236	-	-	-	-
2-1/4	2.2500	5	-	-	17	306237	23	306269	29	306287
2-5/16	2.3125	5	-	-	17	306238	23	306270	-	-
2-3/8	2.3750	5	-	-	17	306239	23	306271	29	306288
2-7/16	2.4375	5	-	-	17	306240	23	306272	-	-
2-1/2	2.5000	5	-	-	17	306241	23	306273	29	306289
2-9/16	2.5625	5	-	-	17	306242	23	306274	-	-
2-5/8	2.6250	5	-	-	17	306243	23	306275	29	306290
2-11/16	2.6875	5	-	-	17	306244	-	-	-	-
2-3/4	2.7500	5	-	-	17	306245	23	306276	29	306291
2-13/16	2.8125	5	-	-	17	306246	-	-	-	-
2-7/8	2.8750	5	-	-	17	306247	23	306277	-	-
2-15/16	2.9375	5	-	-	17	306248	-	-	-	-
3	3.0000	5	-	-	17	306249	23	306278	29	306292
3-1/8	3.1250	5	-	-	-	-	23	306279	29	306293
3-1/4	3.2500	5	-	-	-	-	23	306280	29	306294
3-3/8	3.3750	5	-	-	-	-	23	306281	29	306295
3-1/2	3.5000	5	-	-	-	-	23	306282	29	306296

Oil Hole Drills

Taper Shank, Standard Length, 118° Notched Point

Oil Hole Drills feature coolant passages throughout the length of the body. These allow a coolant (air, oil or vapor mist) to reach the cutting edges. The resulting flow cools and lubricates the cutting edges and also aids in the extraction of chips.

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
3/8	.3750	3-1/2	7-5/8	2	306436
25/64	.3906	3-5/8	8	2	306437
13/32	.4062	3-5/8	8	2	306438
27/64	.4219	3-7/8	8-1/8	2	306439
7/16	.4375	3-7/8	8-3/8	2	306440
29/64	.4531	4-1/8	8-3/4	2	306441
15/32	.4688	4-1/8	8-3/4	3	306442
31/64	.4844	4-3/8	9	3	306443
1/2	.5000	4-3/8	9	3	306444
33/64	.5156	4-5/8	9-1/4	3	306445
17/32	.5312	4-5/8	9-1/4	3	306446
35/64	.5469	4-7/8	9-1/2	3	306447
9/16	.5625	4-7/8	9-1/2	3	306448
37/64	.5781	4-7/8	9-1/2	3	306449
19/32	.5938	4-7/8	9-1/2	3	306450
39/64	.6094	4-7/8	9-1/2	3	306451
5/8	.6250	4-7/8	9-1/2	3	306452
41/64	.6406	5-1/8	9-3/4	3	306453
21/32	.6562	5-1/8	9-3/4	3	306454
43/64	.6719	5-3/8	10	3	306455
11/16	.6875	5-3/8	10	3	306456
45/64	.7031	5-5/8	10-1/4	3	306457
23/32	.7188	5-5/8	10-1/4	3	306458
47/64	.7344	5-7/8	10-1/2	3	306459
3/4	.7500	5-7/8	10-1/2	3	306460
49/64	.7656	6	10-5/8	3	306461
25/32	.7812	6	10-5/8	3	306462
51/64	.7969	6-1/8	10-3/4	3	306463
13/16	.8125	6-1/8	10-3/4	3	306464
53/64	.8281	6-1/8	10-3/4	3	306465
27/32	.8438	6-1/8	10-3/4	3	306466
55/64	.8594	6-1/8	10-3/4	3	306467
7/8	.8750	6-1/8	10-3/4	3	306468
57/64	.8906	6-1/8	10-3/4	3	306469
29/32	.9062	6-1/8	10-3/4	3	306470
59/64	.9219	6-1/8	10-3/4	3	306471
15/16	.9375	6-1/8	10-3/4	3	306472
61/64	.9531	6-3/8	11	3	306473
31/32	.9688	6-3/8	11	3	306474

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
63/64	.9844	6-3/8	11	3	306475
1	1.0000	6-3/8	11	3	306476
1-1/64	1.0156	6-1/2	11-1/8	3	306477
1-1/32	1.0312	6-1/2	11-1/8	3	306478
1-3/64	1.0469	6-5/8	11-1/4	3	306479
1-1/16	1.0625	6-5/8	11-1/4	3	306480
1-1/16	1.0625	6-5/8	11-1/4	4*	306481
1-5/64	1.0781	6-7/8	12-1/2	4	306482
1-3/32	1.0938	6-7/8	12-1/2	4	306483
1-7/64	1.1094	7-1/8	12-3/4	4	306484
1-1/8	1.1250	7-1/8	12-3/4	4	306485
1-9/64	1.1406	7-1/4	12-7/8	4	306486
1-5/32	1.1562	7-1/4	12-7/8	4	306487
1-11/64	1.1719	7-3/8	13	4	306488
1-3/16	1.1875	7-3/8	13	4	306489
1-13/64	1.2031	7-1/2	13-1/8	4	306490
1-7/32	1.2188	7-1/2	13-1/8	4	306491
1-15/64	1.2344	7-7/8	13-1/2	4	306492
1-1/4	1.2500	7-7/8	13-1/2	4	306493
1-17/64	1.2656	8-1/2	14-1/8	4	306494
1-9/32	1.2812	8-1/2	14-1/8	4	306495
1-19/64	1.2969	8-5/8	14-1/4	4	306496
1-5/16	1.3125	8-5/8	14-1/4	4	306497
1-23/64	1.3594	8-7/8	14-1/2	4	306500
1-3/8	1.3750	8-7/8	14-1/2	4	306501
1-13/32	1.4062	9	14-5/8	4	306502
1-7/16	1.4375	9-1/8	14-3/4	4	306503
1-15/32	1.4688	9-1/4	14-7/8	4	306504
1-1/2	1.5000	9-3/8	15	4	306505
1-9/16	1.5625	9-5/8	15-1/4	4	306506
1-5/8	1.6250	10	15-5/8	4	306507
1-11/16	1.6875	10-1/8	15-3/4	4	306508
1-3/4	1.7500	10-1/8	16	4	306509
1-13/16	1.8125	10-1/8	17-1/8	5	306510
1-7/8	1.8750	10-3/8	17-3/8	5	306511
1-15/16	1.9375	10-3/8	17-3/8	5	306512
2	2.0000	10-3/8	17-3/8	5	306513

* Shank larger than standard

Oil Hole Drills

Taper Shank, Extra Length, 118° Notched Point

Size	Dec. Equiv.	Morse Taper No.	EDP NO.		
			10-1/2 OAL 6" Flute	12-1/2" OAL 8" Flute	14-1/2" OAL 10" Flute
31/64	.4844	3	306514	-	-
1/2	.5000	3	306515	306518	306531
33/64	.5156	3	306516	306519	306532
17/32	.5312	3	306517	306520	306533
9/16	.5625	3	-	306521	306534
19/32	.5938	3	-	306522	306535
5/8	.6250	3	-	306523	306536
41/64	.6406	3	-	306524	306537
21/32	.6562	3	-	306525	306538
11/16	.6875	3	-	306526	306539
23/32	.7188	3	-	306527	306540
47/64	.7344	3	-	306528	306541
3/4	.7500	3	-	306529	306542
49/64	.7656	3	-	306530	306543
25/32	.7812	3	-	306544	306554
13/16	.8125	3	-	306545	306555
27/32	.8438	3	-	306546	306556
7/8	.8750	3	-	306547	306557
29/32	.9062	3	-	306548	306558
15/16	.9375	3	-	306549	306559
31/32	.9688	3	-	306550	306560
63/64	.9844	3	-	306551	306561
1	1.0000	3	-	306552	306562
1-1/32	1.0312	3	-	306553	306563
1-1/16	1.0625	3	-	-	306564
1-1/8*	1.1250	4	-	-	306565
1-3/16*	1.1875	4	-	-	306566
1-1/4*	1.2500	4	-	-	306567

* 15-1/2" overall length

DRILL BITS

Solid Carbide Drills

Standard Length

Solid carbide drills are designed for drilling abrasive materials when drilling accuracy must be maintained. They are also used in high temperature drilling applications. Solid carbide drills are used for drilling cast iron, aluminum, copper, plastics, bronze and other similar materials. Solid carbide drills are NOT recommended for drilling steel.

Fractional Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1/64	.0156	1/4	1-1/4	311230
1/32	.0312	5/16	1-1/4	311231
3/64	.0469	3/4	1-1/2	143458
1/16	.0625	3/4	1-1/2	143462
5/64	.0781	7/8	1-3/4	143468
3/32	.0938	1	2	143475
7/64	.1094	1-1/4	2-1/4	143482
1/8	.1250	1-1/4	2-1/4	143488
9/64	.1406	1-3/8	2-1/2	143492
5/32	.1562	1-3/8	2-1/2	143498
11/64	.1719	1-5/8	2-3/4	143504

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
3/16	.1875	1-5/8	2-3/4	143510
13/64	.2031	1-3/4	3	143517
7/32	.2188	1-3/4	3	143522
15/64	.2344	2	3-1/4	143526
1/4	.2500	2	3-1/4	143531
17/64	.2656	2-1/8	3-1/2	143534
9/32	.2812	2-1/8	3-1/2	143539
19/64	.2969	2-3/8	3-3/4	143542
5/16	.3125	2-3/8	3-3/4	143544
21/64	.3281	2-1/2	4	143547
11/32	.3438	2-1/2	4	143550

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
23/64	.3594	2-3/4	4-1/4	143553
3/8	.3750	2-3/4	4-1/4	143555
25/64	.3906	2-7/8	4-1/2	143558
13/32	.4062	2-7/8	4-1/2	143561
27/64	.4219	2-7/8	4-1/2	143563
7/16	.4375	2-7/8	4-1/2	143564
29/64	.4531	3	4-3/4	143565
15/32	.4688	3	4-3/4	143566
31/64	.4844	3	4-3/4	143567
1/2	.5000	3	4-3/4	143568

Letter Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
A	.2340	2	3-1/4	143525
B	.2380	2	3-1/4	143527
C	.2420	2	3-1/4	143528
D	.2460	2	3-1/4	143529
E	.2500	2	3-1/4	143530
F	.2570	2	3-1/4	143532
G	.2610	2-1/8	3-1/2	143533
H	.2660	2-1/8	3-1/2	143535
I	.2720	2-1/8	3-1/2	143536
J	.2770	2-1/8	3-1/2	143537
K	.2810	2-1/8	3-1/2	143538
L	.2900	2-1/8	3-1/2	143540
M	.2950	2-3/8	3-3/4	143541

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
N	.3020	2-3/8	3-3/4	143543
O	.3160	2-3/8	3-3/4	143545
P	.3230	2-3/8	3-3/4	143546
Q	.3320	2-1/2	4	143548
R	.3390	2-1/2	4	143549
S	.3480	2-1/2	4	143551
T	.3580	2-3/4	4-1/4	143552
U	.3680	2-3/4	4-1/4	143554
V	.3770	2-3/4	4-1/4	143556
W	.3860	2-7/8	4-1/2	143557
X	.3970	2-7/8	4-1/2	143559
Y	.4040	2-7/8	4-1/2	143560
Z	.4130	2-7/8	4-1/2	143562

13 Piece Solid Carbide Fractional 1/8 - 1/2 by 32nds in Metal Case
EDP NO. - 173801

Solid Carbide Drills Cont.

Wire Gauge Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1	.2280	1-3/4	3	143524
2	.2210	1-3/4	3	143523
3	.2130	1-3/4	3	143521
4	.2090	1-3/4	3	143520
5	.2055	1-3/4	3	143519
6	.2010	1-3/4	3	143518
7	.2010	1-3/4	3	143516
8	.1990	1-3/4	3	143515
9	.1960	1-3/4	3	143514
10	.1935	1-5/8	2-3/4	143513
11	.1910	1-5/8	2-3/4	143512
12	.1890	1-5/8	2-3/4	143511
13	.1850	1-5/8	2-3/4	143509
14	.1820	1-5/8	2-3/4	143508
15	.1800	1-5/8	2-3/4	143507
16	.1770	1-5/8	2-3/4	143506
17	.1730	1-5/8	2-3/4	143505
18	.1695	1-5/8	2-3/4	143503
19	.1660	1-3/8	2-3/4	143502
20	.1610	1-3/8	2-1/2	143501
21	.1590	1-3/8	2-1/2	143500
22	.1570	1-3/8	2-1/2	143499
23	.1540	1-3/8	2-1/2	143497
24	.1520	1-3/8	2-1/2	143496
25	.1495	1-3/8	2-1/2	143495
26	.1470	1-3/8	2-1/2	143494
27	.1440	1-3/8	2-1/2	143493
28	.1405	1-3/8	2-1/2	143491
29	.1360	1-3/8	2-1/2	143490
30	.1285	1-1/4	2-1/4	143489
31	.1200	1-1/4	2-1/4	143487
32	.1160	1-1/4	2-1/4	143486
33	.1130	1-1/4	2-1/4	143485
34	.1110	1-1/4	2-1/4	143484
35	.1100	1-1/4	2-1/4	143483
36	.1065	1-1/4	2-1/4	143481
37	.1040	1-1/4	2-1/4	143480
38	.1015	1-1/4	2-1/4	143479
39	.0995	1-1/4	2-1/4	143478
40	.0980	1	2	143477

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
41	.0960	1	2	143476
42	.0935	1	2	143474
43	.0890	1	2	143473
44	.0860	1	2	143472
45	.0820	7/8	1-3/4	143471
46	.0810	7/8	1-3/4	143470
47	.0785	7/8	1-3/4	143469
48	.0760	7/8	1-3/4	143467
49	.0730	7/8	1-3/4	143466
50	.0700	7/8	1-3/4	143465
51	.0670	3/4	1-1/2	143464
52	.0635	3/4	1-1/2	143463
53	.0595	3/4	1-1/2	146461
54	.0550	3/4	1-1/2	143460
55	.0520	3/4	1-1/2	143459
56	.0465	3/4	1-1/2	143457
57	.0430	3/4	1-1/2	311344
58	.0420	3/4	1-1/2	311345
59	.0410	3/4	1-1/2	311346
60	.0400	3/4	1-1/2	311347
61	.0390	5/8	1-1/2	311348
62	.0380	5/8	1-1/2	311349
63	.0370	5/8	1-1/2	311350
64	.0360	5/8	1-1/2	311351
65	.0350	5/8	1-1/2	311352
66	.0330	5/16	1-1/4	311353
67	.0320	5/16	1-1/4	311354
68	.0310	5/16	1-1/4	311355
69	.0292	5/16	1-1/4	311356
70	.0280	5/16	1-1/4	311357
71	.0260	5/16	1-1/4	311358
72	.0250	5/16	1-1/4	311359
73	.0240	1/4	1-1/4	311360
74	.0225	1/4	1-1/4	311361
75	.0210	1/4	1-1/4	311362
76	.0200	1/4	1-1/4	311363
77	.0180	1/4	1-1/4	311364
78	.0160	1/4	1-1/4	311365
79	.0145	1/4	1-1/4	311366
80	.0135	1/4	1-1/4	311367

DRILL BITS

Carbide Tipped Drills

Jobber Length, 118° Point

These carbide tipped drills are designed for drilling abrasive and non-ferrous materials such as castings, hard rubber, and copper alloys. They are NOT recommended for drilling steel or other ferrous materials.

Fractional Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1/8	.1250	1-5/8	2-3/4	143759
9/64	.1406	1-3/4	2-7/8	143763
5/32	.1562	2	3-1/8	143769
11/64	.1719	2-1/8	3-1/4	143775
3/16	.1875	2-5/16	3-1/2	143781
13/64	.2031	2-7/16	3-5/8	143788
7/32	.2188	2-1/2	3-3/4	143793
15/64	.2344	2-5/8	3-7/8	143797
1/4	.2500	2-3/4	4	143802
17/64	.2656	2-7/8	4-1/8	143805
9/32	.2812	2-15/16	4-1/4	143810
19/64	.2969	3-1/16	4-3/8	143813
5/16	.3125	3-3/16	4-1/2	143815
21/64	.3281	3-5/16	4-5/8	143818
11/32	.3438	3-7/16	4-3/4	143821
23/64	.3594	3-1/2	4-7/8	143824
3/8	.3750	3-5/8	5	143825
25/64	.3906	3-3/4	5-1/8	143829

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
13/32	.4062	3-7/8	5-1/4	143832
27/64	.4219	3-15/16	5-3/8	143834
7/16	.4375	4-1/16	5-1/2	143835
29/64	.4531	4-3/16	5-5/8	143836
15/32	.4688	4-5/16	5-3/4	143837
31/64	.4844	4-3/8	5-7/8	143838
1/2	.5000	4-1/2	6	143839
33/64	.5156	4-13/16	6-5/8	143840
17/32	.5312	4-13/16	6-5/8	143841
35/64	.5469	4-13/16	6-5/8	143842
9/16	.5625	4-13/16	6-5/8	143843
37/64	.5781	4-13/16	6-5/8	143844
19/32	.5938	5-3/16	7-1/8	143845
39/64	.6094	5-3/16	7-1/8	143846
5/8	.6250	5-3/16	7-1/8	143847
41/64	.6406	5-3/16	7-1/8	143848
21/32	.6562	5-3/16	7-1/8	143849
43/64	.6719	5-5/8	7-5/8	143850
11/16	.6875	5-5/8	7-5/8	143851

Letter Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
A	.2340	2-5/8	3-7/8	143796
B	.2380	2-3/4	4	143798
C	.2420	2-3/4	4	143799
D	.2460	2-3/4	4	143800
E	.2500	2-3/4	4	143801
F	.2570	2-7/8	4-1/8	143803
G	.2610	2-7/8	4-1/8	143804
H	.2660	2-7/8	4-1/8	143806
I	.2720	2-7/8	4-1/8	143807
J	.2770	2-7/8	4-1/8	143808
K	.2810	2-15/16	4-1/4	143809
L	.2900	2-15/16	4-1/4	143811
M	.2950	3-1/16	4-3/8	143812

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
N	.3020	3-1/16	4-3/8	143814
O	.3160	3-3/16	4-1/2	143816
P	.3230	3-5/16	4-5/8	143817
Q	.3320	3-7/16	4-3/4	143819
R	.3390	3-7/16	4-3/4	143820
S	.3480	3-1/2	4-7/8	143822
T	.3580	3-1/2	4-7/8	143823
U	.3680	3-5/8	5	143825
V	.3770	3-5/8	5	143827
W	.3860	3-3/4	5-1/8	143828
X	.3970	3-3/4	5-1/8	143830
Y	.4040	3-7/8	5-1/4	143831
Z	.4130	3-7/8	5-1/4	143833

Carbide Tipped Drills Cont.

Wire Gauge Sizes

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1	.2280	2-5/8	3-7/8	143795
2	.2210	2-5/8	3-7/8	143794
3	.2130	2-1/2	3-3/4	143792
4	.2090	2-1/2	3-3/4	143791
5	.2055	2-1/2	3-3/4	143790
6	.2010	2-1/2	3-3/4	143789
7	.2010	2-7/16	3-5/8	143787
8	.1990	2-7/16	3-5/8	143786
9	.1960	2-7/16	3-5/8	143785
10	.1935	2-7/16	3-5/8	143784
11	.1910	2-5/16	3-1/2	143783
12	.1890	2-5/16	3-1/2	143782
13	.1850	2-5/16	3-1/2	143780
14	.1820	2-3/16	3-3/8	143779
15	.1800	2-3/16	3-3/8	143778
16	.1770	2-3/16	3-3/8	143777
17	.1730	2-3/16	3-3/8	143776
18	.1695	2-1/8	3-1/4	143774
19	.1660	2-1/8	3-1/4	143773
20	.1610	2-1/8	3-1/4	143772
21	.1590	2-1/8	3-1/4	143771
22	.1570	2	3-1/8	143770
23	.1540	2	3-1/8	143768
24	.1520	2	3-1/8	143767
25	.1495	1-7/8	3	143766
26	.1470	1-7/8	3	143765
27	.1440	1-7/8	3	143764
28	.1405	1-3/4	2-7/8	143762
29	.1360	1-3/4	2-7/8	143761
30	.1285	1-5/8	2-3/4	143760
31	.1200	1-5/8	2-3/4	143758
32	.1160	1-5/8	2-3/4	143757

Carbide Tipped Drills

Taper Length, 118° Point

Size	Flute Length	Overall Length	EDP NO.
1/8	2-3/4	5-1/8	143957
9/64	3	5-3/8	143958
5/32	3	5-3/8	143959
11/64	3-3/8	5-3/4	143960
3/16	3-3/8	5-3/4	143961
5.00	3-1/2	6-1/4	306955
13/64	3-5/8	6	143962
7/32	3-5/8	6	143963
15/64	3-3/4	6-1/8	143964
C	3-1/2	6-1/4	306956
6.30	3-1/2	6-1/4	306957
1/4	3-3/4	6-1/8	143965
F	3-1/2	6-1/4	306958
17/64	3-7/8	6-1/4	143966
9/32	3-7/8	6-1/4	143967
19/64	4	6-3/8	143968
5/16	4	6-3/8	143969
O	3-1/2	6-1/4	306959
21/64	4-1/8	6-1/2	143970
11/32	4-1/8	6-1/2	143971
23/64	4-1/4	6-3/4	143972
9.40	4	7	306960
3/8	4-1/4	6-3/4	143973
25/64	4-3/8	7	143974
13/32	4-3/8	7	143975
27/64	4-5/8	7-1/4	143976
7/16	4-5/8	7-1/4	143977
29/64	4-3/4	7-1/2	143978
15/32	4-3/4	7-1/2	143979
12.00	5-1/2	7-1/4	306961
31/64	4-3/4	7-3/4	143980
1/2	4-3/4	7-3/4	143981

Size	Flute Length	Overall Length	EDP NO.
33/64	4-3/4	8	143982
17/32	4-3/4	8	143983
35/64	4-7/8	8-1/4	143984
9/16	4-7/8	8-1/4	143985
37/64	4-7/8	8-1/4	143986
19/32	4-7/8	8-3/4	143987
39/64	4-7/8	8-3/4	143988
5/8	4-7/8	8-3/4	143989
41/64	5-1/8	8-3/4	143990
21/32	5-1/8	9	143991
43/64	5-3/8	9	143992
11/16	5-3/8	9-1/4	143993
45/64	5-5/8	9-1/4	143994
23/32	5-5/8	9-1/2	143995
47/64	5-7/8	9-1/2	143996
3/4	5-7/8	9-3/4	143997
49/64	6	9-3/4	306962
25/32	6	9-7/8	306963
51/64	6-1/8	9-7/8	306964
13/16	6-1/8	10	143999
53/64	6-1/8	10	306965
27/32	6-1/8	10	306966
55/64	6-1/8	10	306967
7/8	6-1/8	10	144001
57/64	6-1/8	10	306968
29/32	6-1/8	10	306969
59/64	6-1/8	10-3/4	306970
15/16	6-1/8	10-3/4	144003
61/64	6-3/8	11	306971
31/32	6-3/8	11	306972
63/64	6-3/8	11	306973
1	6-3/8	11	144005

Carbide Tipped Drills

Taper Shank, 118° Point

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
1/4	2-7/8	6-1/8	1	144057
17/64	3	6-1/4	1	144058
9/32	3	6-1/4	1	144059
19/64	3-1/8	6-3/8	1	144060
5/16	3-1/8	6-3/8	1	144061
21/64	3-1/4	6-1/2	1	144062
11/32	3-1/4	6-1/2	1	144063
23/64	3-1/2	6-3/4	1	144064
3/8	3-1/2	6-3/4	1	144065
25/64	3-5/8	7	1	144066
13/32	3-5/8	7	1	144067
27/64	3-7/8	7-1/4	1	144068
7/16	3-7/8	7-1/4	1	144069
29/64	4-1/8	7-1/2	1	144070
15/32	4-1/8	7-1/2	1	144071
31/64	4-3/8	8-1/4	2	144072
1/2	4-3/8	8-1/4	2	144073
33/64	4-5/8	8-1/2	2	144074
17/32	4-5/8	8-1/2	2	144075
35/64	4-7/8	8-3/4	2	144076
9/16	4-7/8	8-3/4	2	144077
37/64	4-7/8	8-3/4	2	144078
19/32	4-7/8	8-3/4	2	144079
39/64	4-7/8	8-3/4	2	144080
5/8	4-7/8	8-3/4	2	144081
41/64	5-1/8	9	2	144082
21/32	5-1/8	9	2	144083
43/64	5-3/8	9-1/4	2	144084
11/16	5-3/8	9-1/4	2	144085

Size	Flute Length	Overall Length	Morse Taper NO.	EDP NO.
45/64	5-5/8	9-1/2	2	144086
23/32	5-5/8	9-1/2	2	144087
47/64	5-7/8	9-3/4	2	144088
3/4	5-7/8	9-3/4	2	144089
49/64	6	9-7/8	2	144090
25/32	6-1/8	9-7/8	2	306974
51/64	6-1/8	10-3/4	3	306975
13/16	6-1/8	10-3/4	3	144091
53/64	6-1/8	10-3/4	3	306976
27/32	6-1/8	10-3/4	3	144092
55/64	6-1/8	10-3/4	3	306977
7/8	6-1/8	10-3/4	3	144093
57/64	6-1/8	10-3/4	3	306978
29/32	6-1/8	10-3/4	3	144094
59/64	6-1/8	10-3/4	3	306979
15/16	6-1/8	10-3/4	3	144095
61/64	6-3/8	11	3	306980
31/32	6-3/8	11	3	144096
63/64	6-3/8	11	3	306981
1	6-3/8	11	3	144097
1-1/32	6-1/2	11-1/8	3	306982
1-1/16	6-5/8	11-1/4	4	144098
1-3/32	6-7/8	12-1/2	4	306983
1-1/8	7-1/8	12-3/4	4	144099
1-5/32	7-1/4	12-7/8	4	306984
1-3/16	7-3/8	13	4	144100
1-7/32	7-1/2	13-1/8	4	306985
1-1/4	7-7/8	13-1/2	4	144101

DRILL BITS

Carbide Tipped Drills

Die Drills

Negative angle cutting edge for extra strength and for drilling hardened steel.

Size	Flute Length	Overall Length	EDP NO.
1/16*	-	1-1/2	306986
5/64*	-	1-1/2	306987
3/32*	-	2	306988
7/64*	-	2	306989
1/8*	-	2	306990
9/64*	-	2	306991
5/32*	-	2	306992
11/64	1-1/2	3-1/2	306993
3/16	1-1/2	3-1/2	306994
13/64	1-3/4	3-3/4	306995
7/32	1-3/4	3-3/4	306996
15/64	2	4	306997
1/4	2	4	306998

Size	Flute Length	Overall Length	EDP NO.
17/64	2-1/4	4-1/4	306999
9/32	2-1/4	4-1/4	307000
19/64	2-1/2	4-1/2	307011
5/16	2-1/2	4-1/2	307002
21/64	2-3/4	4-3/4	307003
11/32	2-3/4	4-3/4	307004
23/64	3	5	307005
3/8	3	5	307006
25/64	3	5-1/4	307007
13/32	3	5-1/4	307008
27/64	3	5-1/2	307009
7/16	3	5-1/2	307010
29/64	3-1/4	5-3/4	307011

Size	Flute Length	Overall Length	EDP NO.
15/32	3-1/4	5-3/4	307012
31/64	3-1/2	6	307013
1/2	3-1/2	6	307014
17/32	3-1/2	6	307015
9/16	3-1/2	6	307016
19/32	4	7	307017
5/8	4	7	307018
21/32	4-1/2	7-1/2	307019
11/16	4-1/2	7-1/2	307020
23/32	4-3/4	8	307021
3/4	4-3/4	8	307022
13/16	4-3/4	8	307023
7/8	4-3/4	8	307024
15/16	4-3/4	8	307025

Carbide Tipped Drills

RC 65 straight flute drills

For drilling and center drilling heat treated high speed steel up to 65 Rc. The special point design provides a free cutting action that minimizes heat and produces a smooth finish.

Size	Flute Length	Overall Length	Approx. RPM	EDP NO.
1/8	1/2	3	2000	307027
5/32	1/2	3	1800	307028
3/16	3/4	3-1/4	1600	320422
7/32	1-1/4	3-1/4	1400	307029
1/4	1-1/2	3-1/2	1200	307030
5/16	1-3/4	3-3/4	1000	307031
3/8	2	4	800	307032
7/16	2-1/4	4-1/2	800	307033
1/2	2-1/2	5	700	307034
5/8	2-1/2	5	700	307035

Carbide Tipped Drills

Screw machine drills

Size	Flute Length	Overall Length	EDP NO.
1/8	7/8	1-7/8	307037
9/64	15/16	1-15/16	307038
5/32	1	2-1/16	307039
3/16	1-1/8	2-3/16	307040
7/32	1-1/4	2-3/8	307041
1/4	1-3/8	2-1/2	307042
9/32	1-1/2	2-11/16	307043
5/16	1-5/8	2-13/16	307044
3/8	1-13/16	3-1/8	307045
7/16	2-1/16	3-7/16	307046
1/2	2-1/4	3-3/4	307047

Carbide Tipped Masonry Drills Straight Shank

4" OVERALL		
Size	Shank Size	EDP NO.
1/8 (3" OAL)	1/8	307049
5/32 (3" OAL)	5/32	307050
11/64 (3" OAL)	11/64	307051
3/16	3/16	307052
7/32	7/32	307053
1/4	1/4	307054
9/32	1/4	307055
5/16	1/4	307056
3/8	1/4	307057
1/2	1/4	307058

Available in fast and slow spiral.

6" OVERALL		
Size	Shank Size	EDP NO.
1/8	1/8	307059
3/16	3/16	307060
1/4	1/4	307061
9/32	1/4	307062
5/16	1/4	307063
3/8	1/4	307064
7/16	1/4	307065
7/16	3/8	307066
1/2	1/4	307067
1/2	3/8	307068
9/16	3/8	307069
9/16	1/2	307070
5/8	1/2	307071
11/16	1/2	307072
3/4	1/2	307073
7/8	1/2	307074
1	1/2	307075
1-1/8	1/2	307076
1-1/4	1/2	307077
1-3/8	1/2	307078
1-1/2	1/2	307079

Available in fast and slow spiral.

12" OVERALL		
Size	Shank Size	EDP NO.
1/8	1/8	307080
3/16	3/16	307081
1/4	1/4	307082
5/16	1/4	307083
3/8	1/4	307084
7/16	3/8	307085
1/2	3/8	307086
9/16	1/2	307087
5/8	1/2	307088
11/16	1/2	307089
3/4	1/2	307090
7/8	1/2	307091
1	1/2	307092
1-1/8	1/2	307093

18" OVERALL		
Size	Shank Size	EDP NO.
1/4	1/4	307094
3/16	3/16	307095
5/16	1/4	307096
3/8	5/16	307097
7/16	3/8	307098
1/2	3/8	307099
9/16	1/2	307100
5/8	1/2	307101
11/16	1/2	307102
3/4	1/2	307103
7/8	1/2	307104
1	1/2	307105
1-1/8	1/2	307106
1-1/4	1/2	307107
1-1/2	1/2	307048

Carbide Tipped Masonry Drills Hammer Drills

SDS Bits

To fit popular hammer drills

Size	EDP NO.		
	6" OAL	12" OAL	18" OAL
5/32	307108	-	-
3/16	307109	-	-
7/32	307110	-	-
1/4	307111	-	-
5/16	307112	307122	-
3/8	307113	307123	-
7/16	307114	307124	307130
1/2	307115	307125	307131
9/16	307116	307126	307132
5/8	307117	307127	307133
11/16	307118	-	-
3/4	307119	307128	307134
7/8	307120	307129	307135
1	-	-	307136

Spline Bits

Heavy duty spline shanks to fit popular hammer drills

Size	EDP NO.		
	12" OAL	18" OAL	24" OAL
3/8	307137	307145	-
1/2	307138	307146	307155
9/16	307139	307147	-
5/8	307140	307148	307156
11/16	307141	-	-
3/4	307142	307149	307157
7/8	307143	307150	307158
1	307144	307151	307159
1-1/8	-	307152	307160
1-1/4	-	307153	307161
1-1/2	-	307154	307162

Carbide Tipped Impact Hammer Drills

Percussion type drills

For use in Hammer drills equipped with conventional chucks

Size	Shank Diameter	Overall Length	EDP NO.
1/8	1/8	3	307163
1/8	1/8	6	307164
5/32	9/64	3	307165
11/64	9/64	3	307166
3/16	3/16	3	307167
3/16	3/16	6	307168
3/16	3/16	8	307169
1/4	1/4	4	307170
1/4	1/4	6	307171
1/4	1/4	13	307172
1/4	1/4	18	307173
9/32	1/4	4	307174

Size	Shank Diameter	Overall Length	EDP NO.
5/16	1/4	4	307176
5/16	1/4	6	307175
3/8	1/4	4	307177
3/8	1/4	6	307178
7/16	1/4	6	307179
1/2	3/8	6	307180
9/16	1/2	6	307181
5/8	1/2	6	307182
11/16	1/2	6	307183
3/4	1/2	6	307184
7/8	1/2	6	307185
1	1/2	6	307186

Carbide Tipped Glass and Tile Drills

For drilling glass and ceramic tile. Liquid coolant recommended.

Size	Overall Length	EDP NO.
1/8	2-1/2	307187
5/32	2-1/2	307188
3/16	2-1/2	307189
1/4	2-1/2	307190
5/16	2-1/2	307191
3/8	3	307192
1/2	3	307193

Carbide Tipped Standard "A" Taper Shanks

Percussion type drills

Size	EDP NO.			
	4-1/2" OAL	6" OAL	9" OAL	12" OAL
1/4	307194*	307199	-	307208
5/16	307195	307200	-	-
3/8	307196	307201	307203	307209
7/16	307197	-	-	-
1/2	307198	307202	307204	307210
9/16	-	-	307205	-
5/8	-	-	307206	307211
3/4	-	-	307207	307212

* 4" Overall Length

Carbide Tipped Drills

These drills can also be used effectively in many drilling applications using bakelite composites and other similar non-metallic material.

Silver and Deming Bowling Ball- 1/2" straight shank, 3-7/8" Flute, 6-1/4" Overall

Taper Shank Bowling Ball- 2 morse taper shank, 4-1/8" Flute, 7-1/2" Overall

Size	Dec. Equiv.	EDP NO.	
		S.S. Style	T.S. Style
7/16	.4375	307213	307225
1/2	.5000	307214	307226
9/16	.5625	307215	307227
5/8	.6250	307216	307228
21/32	.6562	307214	307229
11/16	.6875	307218	307230
23/32	.7188	307219	307231
3/4	.7500	307220	307232
25/32	.7812	307221	307233
13/16	.8125	307222	307234
27/32	.8438	307223	307235
7/8	.8750	307224	307236

Size	Dec. Equiv.	EDP NO.	
		S.S. Style	T.S. Style
29/32	.9062	307237	307249
15/16	.9375	307238	307250
61/64	.9531	307239	307251
31/32	.9688	307240	307252
63/64	.9844	307241	307253
1	1.0000	307242	307254
1-1/64	1.0156	307243	307255
1-1/32	1.0312	307244	307256
1-1/16	1.0625	307245	307257
1-3/32	1.0938	307249	307258
1-1/8	1.1250	307247	307259
1-1/4	1.2500	307248	307260

Threaded Shank Adapter Drills

135° Split Point (NAS965) Spec.
1/4-28 Threaded Shank

High Speed - Cobalt Stub Series

Size	Dec. Equiv.	Flute Length	Overall Length*	EDP NO. HSS	EDP NO. Cobalt
60	.0400	5/16	1/2	320070	-
55	.0520	5/16	1/2	320071	-
54	.0550	5/16	1/2	307549	-
53	.0595	5/16	1/2	307550	-
50	.0700	5/16	1/2	307551	-
40	.0980	5/16	1/2	307552	307562
38	.1015	5/16	1/2	307553	307563
1/8	.1250	5/16	1/2	307554	307564
30	.1285	5/16	9/16	307555	307565
29	.1360	5/16	9/16	307556	307566
28	.1405	5/16	9/16	307557	307567
27	.1440	5/16	9/16	307558	307568
5/32	.1562	5/16	9/16	307559	307569
21	.1590	5/16	9/16	307560	307570
20	.1610	5/16	9/16	307561	307571

Size	Dec. Equiv.	Flute Length	Overall Length*	EDP NO. HSS	EDP NO. Cobalt
19	.1660	5/16	9/16	307572	307586
16	.1770	5/16	9/16	307573	307587
13	.1850	5/16	9/16	307574	307588
3/16	.1875	5/16	9/16	307575	307589
12	.1890	5/16	9/16	307576	307590
11	.1910	5/16	9/16	307577	307591
10	.1935	5/16	9/16	307578	307592
6	.2040	5/16	9/16	307579	307593
3	.2130	5/16	9/16	307580	307594
7/32	.2188	5/16	5/8	307581	307595
B	.2380	5/16	5/8	307582	307596
9/32	.2812	5/16	5/8	307583	307597
21/64	.3281	5/16	5/8	307584	-
11/32	.3438	5/16	5/8	307585	-

High Speed - Cobalt Short Series

Size	Dec. Equiv.	Flute Length	Overall Length*	EDP NO. HSS	EDP NO. Cobalt
40	.0980	9/16	1	307598	307616
38	.1015	9/16	1	307599	307617
1/8	.1250	9/16	1	307600	307618
30	.1285	9/16	1-1/4	307601	307619
29	.1360	9/16	1-1/4	307602	307620
28	.1405	9/16	1-1/4	307603	307621
27	.1440	9/16	1-1/4	307604	307622
9/64	.1406	9/16	1-1/4	307605	307623
5/32	.1562	9/16	1-1/4	307606	307624
22	.1570	9/16	1-1/4	307607	307625
21	.1590	9/16	1-1/4	307608	307626
20	.1610	9/16	1-1/4	307609	307627
19	.1660	9/16	1-1/4	307610	307628
11/64	.1719	9/16	1-1/4	307611	307629
17	.1730	9/16	1-1/4	307612	307630
16	.1770	9/16	1-1/4	307613	307631
13	.1850	9/16	1-1/4	307614	307632
3/16	.1875	9/16	1-1/4	307615	307633

Size	Dec. Equiv.	Flute Length	Overall Length*	EDP NO. HSS	EDP NO. Cobalt
12	.1890	9/16	1-1/4	307634	307652
11	.1910	9/16	1-1/4	307635	307653
10	.1935	9/16	1-1/4	307636	307654
9	.1960	9/16	1-1/4	307637	307655
8	.1990	9/16	1-1/4	307638	307656
6	.2040	9/16	1-1/4	307639	307657
5	.2055	9/16	1-1/4	307640	307658
7/32	.2188	9/16	1-1/4	307641	307659
1	.2280	9/16	1-1/4	307642	307660
15/64	.2344	9/16	1-1/4	307643	307661
B	.2380	9/16	1-1/4	307644	307662
D	.2460	9/16	1-1/4	307645	307663
1/4	.2500	9/16	1-1/4	307646	307664
I	.2720	9/16	1-1/4	307647	307665
9/32	.2812	9/16	1-1/4	307648	307666
21/64	.3281	9/16	1-1/4	307649	307667
11/32	.3438	9/16	1-1/4	307650	307668
3/8	.3750	9/16	1-1/4	307651	307669

* Not including threads

Threaded Shank Adapter Drills Cont.

High Speed - Cobalt Long Series

Size	Dec. Equiv.	Flute Length	Overall Length*	EDP NO. HSS	EDP NO. Cobalt
49	.0730	7/8	2-1/8	307670	-
5/64	.0781	7/8	2-1/8	307671	-
45	.0820	7/8	2-1/8	307672	-
43	.0890	7/8	2-1/8	307673	-
42	.0935	7/8	2-1/8	307674	-
41	.0960	7/8	2-1/8	307675	-
40	.0980	7/8	2-1/8	307676	307692
39	.0995	7/8	2-1/8	307677	307693
7/64	.1094	7/8	2-1/8	307678	307694
31	.1200	7/8	2-1/8	307679	307695
1/8	.1250	7/8	2-1/8	307680	307696
30	.1285	1-1/8	2-1/8	307681	307697
29	.1360	1-1/8	2-1/8	307682	307698
9/64	.1406	1-1/8	2-1/8	307683	307699
27	.1440	1-1/8	2-1/8	307684	307700
25	.1495	1-1/8	2-1/8	307685	307701
23	.1540	1-1/8	2-1/8	307686	307702
5/32	.1562	1-1/8	2-1/8	307687	307703
21	.1590	1-1/8	2-1/8	307688	307704
20	.1610	1-1/8	2-1/8	307689	307705
19	.1660	1-1/8	2-1/8	307690	307706
18	.1695	1-1/8	2-1/8	307691	307707

Size	Dec. Equiv.	Flute Length	Overall Length*	EDP NO. HSS	EDP NO. Cobalt
11/64	.1719	1-1/8	2-1/8	307708	307729
16	.1770	1-1/8	2-1/8	307709	307730
15	.1800	1-1/8	2-1/8	307710	307731
14	.1820	1-1/8	2-1/8	307711	307732
13	.1850	1-1/8	2-1/8	307712	307733
3/16	.1875	1-1/8	2-1/8	307713	307734
12	.1890	1-1/8	2-1/8	307714	307735
11	.1910	1-1/8	2-1/8	307715	307736
10	.1935	1-1/8	2-1/8	307716	307737
8	.1990	1-1/8	2-1/8	307717	307738
5	.2055	1-1/8	2-1/8	307718	307739
3	.2130	1-1/8	2-1/8	307719	307740
7/32	.2128	1-1/8	2-1/8	307720	307741
C	.2420	1-1/8	2-1/8	307721	307742
D	.2460	1-1/8	2-1/8	307722	307743
1/4	.2500	1-1/8	2-1/8	307723	307744
J	.2770	1-1/8	2-1/8	307724	307745
M	.2950	1-1/8	2-1/8	307725	307746
21/64	.3281	1-1/8	2-1/8	307726	307747
11/32	.3438	1-1/8	2-1/8	307727	307748
3/8	.3750	1-1/8	2-1/8	307728	320418

* Not including threads

5/16-24, 10-32 shanks available in some sizes. Please inquire

Pilot Drills

Pilot drill with single flat
For use in hole cutters on previous page

135° Split Point
3/16" Diameter - EDP NO. 307935
1/4" Diameter - EDP NO. 307936

Pilot drill with two whistle notches
For use in hole saws, hole cutters, and other pilot tools.

Split Point
4" Overall, 1-1/4" Flute Length
1/4" Diameter - EDP NO. 307937
Other sizes available by special order

Combined Drills and Countersinks

Plain type - 60° Countersink angle
High speed steel, Cobalt and Carbide

Size	Body Dia.	Drill Dia. & Length	Overall Length	EDP NO.		
				HSS	Cobalt	Carbide
1	1/8	3/64	1-1/4	307938	307948	143857
2	3/16	5/64	1-7/8	307939	307949	143858
3	1/4	7/64	2	307940	307950	143859
4	5/16	1/8	2-1/8	307941	307951	143860
5	7/16	3/16	2-3/4	307942	307952	143861
6	1/2	7/32	3	307943	307953	143862
7	5/8	1/4	3-1/4	307944	307954	-
8	3/4	5/16	3-1/2	307945	307956	-
9	7/8	11/32	3-5/8	307946	-	-
10	1	3/8	3-3/4	307947	-	-

Bell type - 60° Countersink angle
High speed steel and Cobalt

Size	Body Dia.	Drill Dia. & Length	Overall Length	Bell Dia.	EDP NO.	
					HSS	Cobalt
11	1/8	3/64	1-1/4	.1000	307962	307972
12	3/16	1/16	1-7/8	.1500	307963	307973
13	1/4	3/32	2	.2000	307964	307974
14	5/16	7/64	2-1/8	.2500	307965	307975
15	7/16	5/32	2-3/4	.3500	307966	307976
16	1/2	3/16	3	.4000	307967	307977
17	5/8	7/32	3-1/4	.5000	307968	307978
18	3/4	1/4	3-1/2	.6000	307969	307979
19	7/8	5/16	3-5/8	.7000	307970	-
20	1	3/8	3-3/4	.8000	307971	-

Combined Drills and Countersinks

Long Series

High speed steel

Size	Body Dia.	Drill Dia.	Overall Length	EDP NO.
1	1/8	3/64	3	307980
1	1/8	3/64	4	307981
1	1/8	3/64	5	307982
1	1/8	3/64	6	307983
2	3/16	5/64	4	307984
2	3/16	5/64	5	307985
2	3/16	5/64	6	307986
3	1/4	7/64	4	307987
3	1/4	7/64	5	307988
3	1/4	7/64	6	307989
4	5/16	1/8	4	307990
4	5/16	1/8	5	307991

Size	Body Dia.	Drill Dia.	Overall Length	EDP NO.
4	5/16	1/8	6	307992
4-1/2	3/8	9/64	4	307993
4-1/2	3/8	9/64	5	307994
4-1/2	3/8	9/64	6	307995
5	7/16	3/16	4	307996
5	7/16	3/16	5	307997
5	7/16	3/16	6	307998
6	1/2	7/32	5	307999
6	1/2	7/32	6	308000
7	5/8	1/4	6	308001
8	3/4	5/16	6	308002

Metric Series

Plain type- 60° Countersink angle

High speed steel

Size	Body Dia.	Drill Dia. & Length	Overall Length	EDP NO.
.50*	.0197	1/8	13/16	308003
.80*	.0315	1/8	13/16	308004
1.00	.0394	1/8	1-1/4	308005
1.25	.0492	1/8	1-1/4	308006
1.60	.0630	5/32	1-5/16	308007
2.00	.0787	.1969	1-9/16	308008
2.50	.0984	1/4	1-3/4	308009
3.15	.1240	.3150	2	308010
4.00	.1575	.3937	2-1/4	308011
5.00	.1969	.4921	2-1/2	308012
6.30	.2480	.6299	2-3/4	308013
8.00	.3150	.7874	3-1/8	308014

*Single End

Combined Drills and Countersinks

Missile & Aircraft Series

High speed steel

Size	Body Dia.	Drill Dia.	Drill Length	Overall Length	EDP NO.
000	1/8	.020	.020	1-1/4	308015
00	1/8	.025	.025	1-1/4	308016
0	1/8	1/32	1/32	1-1/4	308017

Carbide tipped combined drill & countersinks

120° Point - 60° Countersink angle

These drills are used for center drilling hardened high speed steel in the range up to 65R

Size	Body Dia.	Drill Dia.	Overall Length	EDP NO.
4-1	5/16	3/32	2-1/8	308018
4-2	5/16	1/8	2-1/8	308019
6-1	1/2	7/32	3	308020
6-2	1/2	9/32	3	308021

Single Flute Countersinks

For use in chamfering, deburring, countersinking and enlarging holes in sheet metal while providing a smooth surface finish. Will make countersink holes much smaller than other styles and should be operated at comparatively high speeds.

60° Point Angle

82° Point Angle

90° Point Angle

100° Point Angle

SINGLE TOOLS													
Size	Shank Dia.	Overall Length	EDP NO.				Size	Shank Dia.	Overall Length	EDP NO.			
			60°	82°	90°	100°				60°	82°	90°	100°
1/8	1/8	1-1/4	308310	316130	316137	316144	3/4	1/2	2-5/8	308246	316151	316158	316165
3/16	3/16	1-1/2	308311	316131	316138	316145	7/8	1/2	2-3/4	308247	316152	316159	316166
1/4	1/4	1-1/2	308312	316132	316139	316145	1	1/2	2-3/4	308248	316153	316160	316167
5/16	1/4	1-5/8	308313	316133	316140	316147	1-1/4	1/2	2-3/4	308249	316154	316161	316168
3/8	1/4	1-3/4	308314	316134	316141	316148	1-1/2	3/4	2-7/8	308250	316155	316162	316169
1/2	1/4	2	308315	316135	316142	316149	2	3/4	3-1/4	308251	316156	316163	316170
5/8	3/8	2-1/4	308316	316136	316143	316150							

SETS

5 piece sets

Contain 1 piece of each: 1/4", 3/8", 1/2", 5/8", 3/4"

60° - EDP NO. 173582

82° - EDP NO. 173583

90° - EDP NO. 173584

100° - EDP NO. 173585

Supplied in a wood block

Three Flute Center Reamers

Engineered to give chatter-free performance. They are comparatively free-cutting and should be operated at low speeds.

60° Point Angle

82° Point Angle

90° Point Angle

100° Point Angle

120° Point Angle

SINGLE TOOLS							
Size	Shank Dia.	Overall Length	EDP NO.				
			60°	82°	90°	100°	120°
1/4	3/16	1-1/2	308254	316171	316176	316181	316186
3/8	1/4	1-3/4	308255	316172	316177	316182	316187
1/2	3/8	2	308256	316173	316178	316183	316188
5/8	3/8	2-1/4	308257	316175	316179	316184	316189
3/4	1/2	2-5/8	308258	316175	316180	316185	316190
1	1/2	2-3/4	308259	316191	316196	316201	316206
1-1/4	1/2	3	308260	316192	316197	316202	316207
1-1/2	3/4	3	308261	316193	316198	316203	316208
2	3/4	3-1/4	308262	316194	316199	316204	316209

SETS

5 piece sets

Contain 1 piece of each: 1/4", 3/8", 1/2", 5/8", 3/4"

60° - EDP NO. 173575

82° - EDP NO. 173576

90° - EDP NO. 173577

100° - EDP NO. 173578

Supplied in a wood block

Four Flute Machine Countersinks

60° Point Angle

82° Point Angle

SINGLE TOOLS				
Size	Shank Dia.	Overall Length	EDP NO.	
			60°	82°
1/2	1/2	3-7/8	308263	316210
5/8	1/2	4	308264	316211
3/4	1/2	4-1/8	308265	316212
7/8	1/2	4-1/4	308266	316213
1	1/2	4-1/4	308267	316214
1-1/4	1/2	4-3/8	308268	316215
1-1/2	1/2	4-1/2	308269	316216

Six Flute Chatterless Countersinks

Designed for fast shearing cut

60° Point Angle

82° Point Angle

90° Point Angle

SINGLE TOOLS					
Size	Shank Dia.	Overall Length	EDP NO.		
			60°	82°	90°
1/4	1/4	2	320539	316217	316223
5/16	1/4	2	320540	316218	316224
3/8	1/4	2	320541	316219	316225
1/2	1/4	2	320542	316220	316226
5/8	1/2	2-3/4	320543	316221	316227
3/4	1/2	2-3/4	320544	316222	316228
7/8	1/2	2-3/4	320545	316229	316235
1	1/2	2-3/4	320546	316230	316236
1-1/4	3/4	3-3/8	320547	316231	316237
1-1/2	3/4	3-1/2	320548	316232	316238
1-3/4	1	4-1/4	320549	316233	316239
2	1	4-3/4	320550	316234	316240

SETS

5 piece sets

Contain 1 piece of each: 1/4", 3/8", 1/2", 5/8", 3/4"

60° - EDP NO. 173579

82° - EDP NO. 173580

90° - EDP NO. 173581

Supplied in a wood block

Standard Step Drills

Jobber Length - Taper Length

Only Tri-Chem stocks these tools as a standard, off the shelf for immediate delivery.

An essential tool for every tool room. One tool does two jobs in a single pass. They can be sharpened repeatedly and are easily modified for a special length-of-step.

NOTE: Special step drills available-Please inquire.

For drilling and counterboring cap screw clearance holes Jobber length - Taper length

Screw Size	Minor Dia.	Major Dia.	Step Length	Jobber Length			Taper Length		
				Flute Length	Overall Length	EDP NO.	Flute Length	Overall Length	EDP NO.
No. 5	.141	No. 1	3/8	2-5/8	3-7/8	317620	-	-	-
No. 6	.150	1/4	1/2	2-3/4	4	317621	3-3/4	6-1/8	317630
No. 8	.178	"L"	1/2	2-15/16	4-1/4	317622	4	3-6/8	317631
No. 10	.204	"Q"	5/8	3-7/16	4-3/4	317623	4-1/8	6-1/2	317632
1/4	9/32	13/32	11/16	3-7/8	5-1/4	317624	4-3/8	7	317633
5/16	11/32	1/2	3/4	4-1/2	6	317625	4-3/4	7-3/4	317634
3/8	13/32	19/32	7/8	5-3/16	7-1/8	317626	4-7/8	8-3/4	317635
7/16	15/32	21/32	1	5-3/16	7-1/8	317627	-	-	-
1/2	17/32	25/32	1	3-1/4	5-1/8*	317628	6	9-7/8	317636
5/8	21/32	31/32	1	3-5/8	5-5/8*	317629	6-1/8	10	317637

SETS

Cap Screw Sets
No. 6 thru 3/8 screw sizes
(6 tools in wood stand)

Jobber Length
EDP NO. 173567

Taper Length
EDP NO. 173568

For drilling and countersinking 82° flat head machine screw clearance holes Jobber length

Screw Size	Minor Dia.	Major Dia.	Step Length	Jobber Length		
				Flute Length	Overall Length	EDP NO.
No. 5	.128	"F"	3/8	2-7/8	4-1/8	317638
No. 6	.142	9/32	1/2	2-15/16	4-1/4	317639
No. 8	.169	"Q" 1/2	1/2	3-7/16	4-3/4	317640
No. 10	.196	"W"	5/8	3-3/4	5-1/8	317641
1/4	.257	1/2	11/16	4-1/2	6	317642
5/16	.320	5/8	3/4	5-3/4	7-1/8	317643
3/8	.383	3/4	7/8	5-5/8	7-5/8	317644
7/16	.446	13/16	1	3-3/4	5-1/4*	317645
1/2	.510	7/8	1	3-1/2	5-1/2*	317646

* Shorter than jobber length

SET

Flat Head Set
No. 6 thru 3/8 screw sizes
(6 tools in wood stand)

Jobber Length
EDP NO. 173566

STEP DRILLS

Standard Step Drills

For drilling 45° Chamfered holes to be tapped (To produce approx. 70% thread)
Jobber length - Taper length

Screw Size	Minor Dia.	Major Dia.	Step Length	Jobber Length			Taper Length		
				Flute Length	Overall Length	EDP NO.	Flute Length	Overall Length	EDP NO.
5-40	.101	9/64	1/2	1-3/4	2-7/8	317647	3	5-3/8	317665
6-32	.109	5/32	1/2	2	3-1/8	317648	3	5-3/8	317666
8-32	.136	3/16	1/2	5-15/16	3-1/2	317649	3-3/8	5-3/4	317667
8-36	.136	3/16	1/2	2-5/16	3-1/2	317650	3-3/8	5-3/4	317668
10-24	.152	1/4	5/8	2-3/4	4	317651	3-3/4	6-1/8	317669
10-32	.161	1/4	5/8	2-3/4	4	317652	3-3/4	6-1/8	317670
12-24	.179	9/32	11/16	2-5/16	4-1/4	317653	-	-	-
1/4-20	.204	21/64	13/16	3-5/16	4-5/8	317654	4-1/8	6-1/2	317671
1/4-28	.218	21/64	13/16	3-5/16	4-5/8	317655	4-1/8	6-1/2	317672
5/16-18	.261	13/32	15/16	3-7/8	5-1/4	317656	4-3/8	7	317673
5/16-24	.272	13/32	15/16	3-7/8	5-1/4	317657	4-3/8	7	317674
3/8-16	.316	31/64	0	4-3/8	5-7/8	317658	4-3/4	7-3/4	317675
3/8-24	.339	31/64	1	4-3/8	5-7/8	317659	4-3/4	7-3/4	317676
7/16-14	.375	17/32	1-1/16	4-13/16	6-5/8	317660	4-3/4	8	317677
7/16-20	.390	17/32	1-1/16	4-13/16	6-5/8	317661	4-3/4	8	317678
1/2-13	.437	5/8	1-1/16	5-3/16	7-1/8	317662	4-7/8	8-3/4	317679
1/2-20	.452	5/8	1-1/16	5-3/16	7-1/8	317663	4-7/8	8-3/4	317680
5/8-11	.531	3/4	1-1/16	5-5/8	7-5/8	317664	-	-	-

SETS

Tap Drill Sets
No. 6 thru 3/8 NC Tap sizes
(6 tools in wood stand)

Jobber Length
EDP NO. 173569

Taper Length
EDP NO. 173570

Solid Pilot Counterbores

Socket cap screw

Solid pilot counterbores are .001-.002 undersize for ease of entry.

Three flute, straight shank

Three flute, taper shank

Screw Size	Pilot Diameter	Cutting Diameter	Shank Diameter	Overall Length	Straight Shank EDP NO.	Morse Taper NO.	Taper Shank EDP NO.
No. 5	.141	.221	3-16	3	316250	-	-
No. 6	.150	.242	7/32	3	316251	-	-
No. 8	11/64	19/64	1/4	3	316252	-	-
No. 10	13/64	21/64	5/16	3-1/2	316253	-	-
1/4	9/32	13/32	3/8	3	316254	2	316263
5/16	11/32	1/2	7/16	5	316255	2	316264
3/8	13/32	19/32	1/2	6	316256	2	316265
7/16	15/32	11/16	1/2	7	316257	2	316266
1/2	17/32	25/32	1/2	7-1/2	316258	2	316267
5/8	21/32	31/32	3/4	7-1/2	316259	2	316268
3/4	13/16	1-3/16	1	8	316260	3	316269
7/8	15/16	1-3/8	1	8	316261	3	316270
1	1-1/16	1-9/16	1	10	316262	3	316271

SET:

- 4 Piece Straight Shank Set

- Contains 1 piece of each:
No. 8, No. 10, 1/4, and 3/8

- Supplied in wood block

- EDP NO. 173456

Interchangeable Counterbores

Short series

Straight shank - Taper shank

Counterbore Size	Pilot Hole Sizes	Range of Pilot Sizes	NO. of Flutes	Overall Length	Straight Shank		Taper Shank	
					Shank Dia.	EDP NO.	Morse Taper NO.	EDP NO.
3/16	3/32	1/8 - 5/32	3	3-1/2	15/64	316272	-	-
7/32	3/32	1/8 - 3/16	3	3-5/8	15/64	316273	-	-
15/64	3/32	1/8-3/16	3	3-5/8	15/64	316274	-	-
1/4	3/32	1/8-3/16	3	3-13/16	15/64	316275	1	316328
17/64	3/32	1/8-3/16	3	3-13/16	17/64	316276	-	-
9/32	3/32	1/8-7/32	3	3-13/16	17/64	316277	1	316329
19/64	3/32	1/8-7/32	3	3-13/16	17/64	316278	-	-
5/16	3/32	1/8-1/4	3	3-13/16	19/64	316279	1	316330
11/32	3/32	1/8-9/32	3	3-13/16	5/16	316280	1	316331
3/8	5/32	3/16-5/16	3	4-1/16	5/16	316281	1	316332
25/64	5/32	3/16-5/16	3	4-1/16	3/8	316282	-	-
13/32	5/32	3/16-11/32	3	4-1/16	3/8	316283	1	316333
7/16	5/32	3/16-3/8	3	4-1/16	3/8	316284	1	316334
15/32	3/16	1/4-13/32	3	4-5/16	7/16	316285	1	316335
31/64	3/16	1/4-7/16	3	4-5/16	7/16	316286	-	-
1/2	3/16	1/4-7/16	3	4-5/16	7/16	316287	1	316336
17/32	3/16	1/4-15/32	3	4-5/16	182	316288	1	316337
9/16	3/16	1/4-1/2	3	4-5/16	1/2	316289	1	316338
37/64	3/16	1/4-1/2	3	5-1/8	1/2	316290	-	-
19/32	3/16	1/4-17/32	3	5-1/8	1/2	316291	2	316339
5/8	3/16	1/4-9/16	3	5-1/8	1/2	316292	2	316340
41/64	3/16	1/4-9/16	3	5-1/8	1/2	316293	-	-
21/32	3/16	1/4-19/32	3	5-1/8	1/2	316294	2	316341
11/16	3/16	1/4-5/8	3	5-1/8	1/2	316295	2	316342
22/32	1/4	5/16-21/32	3	5-3/8	1/2	316296	2	316343
3/4	1/4	5/16-11/16	3	5-3/8	1/2	316297	2	316344
25/32	1/4	5/16-23/32	3	5-3/8	5/8	316298	2	316345
13/16	1/4	5/16-3/4	3	5-3/8	5/8	316299	2	316346
27/32	1/4	5/16-25/32	3	5-3/8	3/4	316300	2	316347
7/8	1/4	5/16-13/16	3	5-3/8	3/4	316301	2	316348
29/32	1/4	5/16-27/32	3	6-1/8	3/4	316302	3	308442
15/16	1/4	5/16-7/8	3	6-1/8	3/4	316303	3	308443
31/32	5/16	3/8-15/16	3	6-3/8	3/4	316304	3	308444
1	5/16	3/8-15/16	3	6-3/8	3/4	316305	3	308445
1-1/16	5/16	3/8-1	3	6-3/8	3/4	316306	3	308446
1-1/8	5/16	3/8-1-1/16	3	6-3/8	1	316307	3	308447
1-3/16	5/16	3/8-1-1/8	3	6-3/8	1	316308	3	308448
1-1/4	3/8	7/16-1-3/16	5	6-5/8	1	316309	3	308449

Interchangeable Counterbores

Counter-bore Size	Pilot Hole Sizes	Range of Pilot Sizes	No. of Flutes	Overall Length	Straight Shank		Taper Shank	
					Shank Dia.	EDP NO.	Morse Taper NO.	EDP NO.
1-5/16	3/8	7/16-1-1/4	5	6-5/8	1	316310	3	308450
1-3/8	3/8	7/16-1-5/16	5	6-5/8	1	316311	3	308451
1-7/16	3/8	7/16-1-3/8	5	7-7/8	1-1/4	316312	4	3088452
1-1/2	3/8	7/16-1-7/16	5	7-7/8	1-1/4	316313	4	308453
1-5/8	7/16	1/2-1-9/16	5	8-1/8	1-1/4	316314	4	308454
1-11/16	7/16	1/2-1-5/8	5	8-1/8	1-1/4	316315	4	308455
1-3/4	7/16	1/2-1-11/16	5	8-1/8	1-1/4	316316	4	308456
1-13/16	7/16	1/2-1-3/4	5	8-1/8	1-1/2	316317	4	308457
1-7/8	7/16	1/2-1-13/16	5	8-1/8	1-1/2	316318	4	308458
2	1/2	9/16-1-15/16	5	8-3/8	1-1/2	316319	4	308459
2-1/8	1/2	9/16-2-1/16	5	9-7/8	1-1/2	316320	5	308460
2-1/4	1/2	9/16-2-3/16	5	9-7/8	1-1/2	316321	5	308461
2-3/8	1/2	9/16-2-5/16	5	9-7/8	1-1/2	316322	5	308462
2-1/2	1/2	9/16-2-7/16	5	9-7/8	1-1/2	316323	5	308463
2-5/8	1/2	9/16-2-9/16	5	9-7/8	3-3/4	316324	5	308464
2-3/4	1/2	9/16-2-11/16	5	9-7/8	1-3/4	316325	5	308465
2-7/8	1/2	9/16-2-13/16	5	9-7/8	1-3/4	316326	5	308466
3	1/2	9/16-2-15/16	5	9-7/8	1-3/4	316327	5	308467

Interchangeable Pilots

Pilot Dia.	EDP NO. - Shank Diameter								
	3/32	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2
1/8	308468	308476	-	-	-	-	-	-	-
5/32	308469	308477	308490	-	-	-	-		
3/16	308470	308478	308491	308500	-	-	-		
7/32	308471	308479	308492	308501	-	-	-		
1/4	308472	308480	308493	308502	-	-	-		
9/32	308473	308481	308494	308503	308522	-	-		
5/16	308474	308482	308495	308504	308523	-	-		
11/32	308475	308483	308496	308505	308524	308543	-		
3/8	-	308484	308497	308506	308525	308544	-		
13/32	-	308485	308498	308507	308526	308545	308568		
7/16	-	308486	308499	308508	308527	308546	308569		
15/32	-	308487	-	308509	308528	308547	308570		
1/2	-	308488	-	308510	308529	308548	308571	308595	
17/32	-	-	-	308511	308530	308549	308572	308596	308623
9/16	-	308489	-	308512	308531	308550	308573	308597	308624
19/32	-	-	-	308513	308532	308551	308574	308598	308625
5/8	-	-	-	308514	308533	308552	308575	308599	308626
21/32	-	-	-	308515	308534	308553	308576	308600	308627
11/16	-	-	-	308516	308535	308554	308577	308601	308628
23/32	-	-	-	-	308536	308555	308578	308602	308629
3/4	-	-	-	308517	308537	308556	308579	308603	308630
25/32	-	-	-	308518	308538	308557	308580	308604	-
13/16	-	-	-	-	308539	308558	308581	308605	308631
27/32	-	-	-	-	308540	308559	308582	-	-
7/8	-	-	-	308519	308541	308560	308583	308606	308632
29/32	-	-	-	-	308542	308561	308584	-	-
15/16	-	-	-	308520	-	308562	308585	308607	308633
31/32	-	-	-	-	-	308563	308586	-	-
1	-	-	-	308521	-	308564	308587	308608	308634
1-1/16	-	-	-	-	-	308565	308588	308609	308635
1-1/8	-	-	-	-	-	308566	308589	308610	308636
1-3/16	-	-	-	-	-	308567	308590	308611	308637
1-1/4	-	-	-	-	-	-	308591	308612	308638
1-5/16	-	-	-	-	-	-	308592	308613	308639
1-3/8	-	-	-	-	-	-	308593	308614	308640
1-7/16	-	-	-	-	-	-	308594	308615	308641
1-1/2	-	-	-	-	-	-	-	308616	308642
1-9/16	-	-	-	-	-	-	-	308617	308643
1-5/8	-	-	-	-	-	-	-	308618	308644
1-11/16	-	-	-	-	-	-	-	308619	308645
1-3/4	-	-	-	-	-	-	-	308620	308646
1-13/16	-	-	-	-	-	-	-	308621	308647
1-7/8	-	-	-	-	-	-	-	308622	308648
1-15/16	-	-	-	-	-	-	-	-	308649
2	-	-	-	-	-	-	-	-	308650

Short series

Pilots of different diameters can be used with each counterbore.

MACHINE TOOL ACCESSORIES

Morse Taper Sleeves - Available with Hardened Tang or Hardened and Ground Throughout

Morse Taper Extension Sockets - With hardened Tang

SLEEVES AND SOCKETS							
Size	Morse Taper NO.		Morse Taper Sleeves			Morse Taper Extension Socket	
	Internal	External	Overall Length	Hard Tang Only	Hard & Ground	Overall Length	EDP NO.
				EDP NO.	EDP NO.		
1 to 1	1	1	-	-	-	6-1/4	306799
1 to 2	1	2	3-9/16	306775	306787	6-1/4	306800
1 to 3	1	3	3-15/16	306776	306788	6-7/8	306801
1 to 4	1	4	4-7/8	306777	306789	7-1/2	306802
1 to 5	1	5	6-1/8	306778	306790	9-1/16	306803
2 to 1	2	1	-	-	-	6-1/4	306804
2 to 2	2	2	-	-	-	6-7/8	306805
2 to 3	2	3	4-7/16	306779	306791	7-5/8	306806
2 to 4	2	4	4-7/8	306780	306792	8-1/2	306807
2 to 5	2	5	6-1/8	306781	306793	9-3/4	306808
3 to 1	3	1	-	-	-	7-1/4	306809
3 to 2	3	2	-	-	-	7-3/4	306810
3 to 3	3	3	-	-	-	8-1/2	306811
3 to 4	3	4	5-3/8	306782	306794	9-1/2	306812
3 to 5	3	5	6-1/8	306783	306795	10-1/2	306813
4 to 2	4	2	-	-	-	8-1/2	306814
4 to 3	4	3	-	-	-	9-1/2	306815
4 to 4	4	4	-	-	-	10-1/2	306816
4 to 5	4	5	6-5/8	306784	306796	11-7/8	306817
4 to 6	4	6	8-5/8	306785	306797	14	306818
5 to 3	5	3	-	-	-	10-1/2	306819
5 to 4	5	4	-	-	-	11-3/8	306820
5 to 5	5	5	-	-	-	13-3/4	306821
5 to 6	5	6	8-5/8	306786	306798	15-3/8	306822

Drill Drifts or Center Keys
Drop Forged and Hardened

DRILL DRIFTS		
Size	For use with taper number	EDP NO.
1	1	306823
2	2	306824
3	3	306825
4	4,5,6	306826

MACHINE TOOL ACCESSORIES

Solid Sockets with Morse Taper Holes

Hardened and Ground Throughout

For adapting tools with morse taper shanks to machines with straight holes.

SOLID SOCKETS			
Size	Inside Morse Taper NO.	Outside Dia.	EDP NO.
1	1	1	306827
2	1	1-1/4	306828
3	1	1-1/2	306829
4	2	1	306830
5	2	1-1/4	306831
6	2	1-1/2	306832
7	2	1-3/4	306833
8	2	2	306834
9	3	1-1/4	306835

SOLID SOCKETS			
Size	Inside Morse Taper NO.	Outside Dia.	EDP NO.
10	3	1-1/2	306836
11	3	1-3/4	306837
12	3	2	306838
13	4	1-1/2	306839
14	4	1-3/4	306840
15	4	2	306841
16	5	2-1/4	306842
17	5	2-1/2	306843
18	6	3-1/4	306844

Milling Machine Adapters

Hardened and Ground

For changing a larger national standard taper to a smaller one

REDUCING TYPE		
Outside Taper	Inside Taper	EDP NO.
40	30	306853
50	30	306854
50	40	306855

R-8 ADAPTERS FOR MORSE TAPERS	
Inside Taper	EDP NO.
#2 Morse	306858
#3 Morse	306859

Chuckling Reamers

Straight Shank, Straight Flute and Spiral Flute

Fractional Size

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.	
				Strt. Flute	Spiral Flute
3/64	.0469	1/2	2-1/2	309000	309026
1/16	.0625	1/2	2-1/2	309001	309027
5/64	.0781	3/4	3	309002	309028
3/32	.0938	3/4	3	309003	309029
7/64	.1094	7/8	3-1/2	309004	309030
1/8	.1250	7/8	3-1/2	309005	309031
9/64	.1406	1	4	309006	309032
5/32	.1562	1	4	309007	309033
11/64	.1719	1-1/8	4-1/2	309008	309034
3/16	.1875	1-1/8	4-1/2	309009	309035
13/64	.2031	1-1/4	5	309010	309036
7/32	.2188	1-1/4	5	309011	309037
15/64	.2344	1-1/2	6	309012	309038
1/4	.2500	1-1/2	6	309013	309039
17/64	.2656	1-1/2	6	309014	309040
9/32	.2812	1-1/2	6	309015	309041
19/64	.2969	1-1/2	6	309016	309042
5/16	.3125	1-1/2	6	309017	309043
21/64	.3281	1-1/2	6	309018	309044
11/32	.3438	1-1/2	6	309019	309045
23/64	.3594	1-3/4	7	309020	309046
3/8	.3750	1-3/4	7	309021	309047
25/64	.3906	1-3/4	7	309022	309048
13/32	.4062	1-3/4	7	309023	309049
27/64	.4219	1-3/4	7	309024	309050
7/16	.4375	1-3/4	7	309025	309051
29/64	.4531	1-3/4	7	309052	309078
15/32	.4688	1-3/4	7	309053	309079
31/64	.4844	2	8	309054	309080
1/2	.5000	2	8	309055	309081
33/64	.5156	2	8	309056	309082
17/32	.5312	2	8	309057	309083
35/64	.5469	2	8	309058	309084
9/16	.5625	2	8	309059	309085
37/64	.5781	2	8	309060	309086
19/32	.5938	2	8	309061	309087
39/64	.6094	2-1/4	9	309062	309088
5/8	.6250	2-1/4	9	309063	309089
41/64	.6406	2-1/4	9	309064	309090
21/32	.6562	2-1/4	9	309065	309091

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.	
				Strt. Flute	Spiral Flute
43/64	.6719	2-1/4	9	309066	309120
11/16	.6875	2-1/4	9	309067	309092
45/64	.7031	2-1/4	9	309068	309121
23/32	.7188	2-1/4	9	309069	309093
47/64	.7344	2-1/2	9-1/2	309070	309094
3/4	.7500	2-1/2	9-1/2	309071	309095
49/64	.7656	2-1/2	9-1/2	309072	309122
25/32	.7812	2-1/2	9-1/2	309073	309096
51/64	.7969	2-1/2	9-1/2	309074	309123
13/16	.8125	2-1/2	9-1/2	309075	309097
53/64	.8281	2-1/2	9-1/2	309076	309124
27/32	.8438	2-1/2	9-1/2	309077	309098
55/64	.8594	2-5/8	10	309099	309125
7/8	.8750	2-5/8	10	309100	309126
57/64	.8906	2-5/8	10	309101	312357
29/32	.9062	2-5/8	10	309102	309127
59/64	.9219	2-5/8	10	309103	312358
15/16	.9375	2-5/8	10	309104	309128
61/64	.9531	2-5/8	10	309105	312359
31/32	.9688	2-5/8	10	309106	309129
63/64	.9844	2-3/4	10-1/2	309107	312360
1	1.0000	2-3/4	10-1/2	309108	309130
1-1/32	1.0312	2-3/4	10-1/2	309109	312361
1-1/16	1.0625	2-3/4	10-1/2	309110	309131
1-3/32	1.0938	2-7/8	11	309111	312362
1-1/8	1.1250	2-7/8	11	309112	309132
1-5/32	1.1562	2-7/8	11	309113	312363
1-3/16	1.1875	2-7/8	11	309114	309133
1-1/4	1.2500	3	11-1/2	309115	309134
1-5/16	1.3125	3	11-1/2	309116	309135
1-3/8	1.3750	3-1/4	12	309117	309136
1-7/16	1.4375	3-1/4	12	309118	309137
1-1/2	1.5000	3-1/2	12-1/2	309119	309138

Chucking Reamers

Straight Shank, Straight Flute

Wire Gauge Size

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1	.2280	1-1/2	6	309139
2	.2210	1-1/2	6	309140
3	.2130	1-1/4	5	309141
4	.2090	1-1/4	5	309142
5	.2055	1-1/4	5	309143
6	.2010	1-1/4	5	309144
7	.2010	1-1/4	55	309145
8	.1990	1-1/4	5	309146
9	.1960	1-1/4	5	309147
10	.1935	1-1/4	5	309148
11	.1910	1-1/4	5	309149
12	.1890	1-1/8	4-1/2	309150
13	.1850	1-1/8	4-1/2	309151
14	.1820	1-1/8	4-1/2	309152
15	.1800	1-1/8	4-1/2	309153
16	.1770	1-1/8	4-1/2	309154
17	.1730	1-1/8	4-1/2	309155
18	.1695	1-1/8	4-1/2	309156
19	.1660	1-1/8	4-1/2	309157
20	.1610	1-1/8	4-1/2	309158
21	.1590	1-1/8	4-1/2	309159
22	.1570	1	4	309160
23	.1540	1	4	309161
24	.1520	1	4	309162
25	.1495	1	4	309163
26	.1470	1	4	309164
27	.1440	1	4	309165
28	.1405	1	4	309166
29	.1360	1	4	309167
30	.1285	7/8	3-1/2	309168
31	.1200	7/8	3-1/2	309169
32	.1160	7/8	3-1/2	309170

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
33	.1130	7/8	3-1/2	309171
34	.1110	7/8	3-1/2	309172
35	.1100	7/8	3-1/2	309173
36	.1065	7/8	3-1/2	309174
37	.1040	7/8	3-1/2	309175
38	.1015	7/8	3-1/2	309176
39	.0995	7/8	3-1/2	309177
40	.0980	7/8	3-1/2	309178
41	.0960	7/8	3-1/2	309179
42	.0935	3/4	3	309180
43	.0890	3/4	3	309181
44	.0860	3/4	3	309182
45	.0820	3/4	3	309183
46	.0810	3/4	3	309184
47	.0785	3/4	3	309185
48	.0760	3/4	3	309186
49	.0730	3/4	3	309187
50	.0700	3/4	3	309188
51	.0670	3/4	3	309189
52	.0635	1/2	2-1/2	309190
53	.0595	1/2	2-1/2	309191
54	.0550	1/2	2-1/2	309192
55	.0520	1/2	2-1/2	309193
56	.0465	1/2	2-1/2	309194
57	.0430	1/2	2-1/2	309195
58	.0420	1/2	2-1/2	309196
59	.0410	1/2	2-1/2	309197
60	.0400	1/2	2-1/2	309198

Chucking Reamers

Straight Shank, Straight Flute

Letter Size

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
A	.2340	1-1/2	6	309199
B	.2380	1-1/2	6	309200
C	.2420	1-1/2	6	309201
D	.2460	1-1/2	6	309202
E	.2500	1-1/2	6	309203
F	.2570	1-1/2	6	309204
G	.2610	1-1/2	6	309205
H	.2660	1-1/2	6	309206
I	.2720	1-1/2	6	309207
J	.2770	1-1/2	6	309208
K	.2810	1-1/2	6	309209
L	.2900	1-1/2	6	309210
M	.2950	1-1/2	6	309211

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
N	.3020	1-1/2	6	309212
O	.3160	1-1/2	6	309213
P	.3230	1-1/2	6	309214
Q	.3320	1-1/2	6	309215
R	.3390	1-1/2	6	309216
S	.3480	1-3/4	7	309217
T	.3580	1-3/4	7	309218
U	.3680	1-3/4	7	309219
V	.3770	1-3/4	7	309220
W	.3860	1-3/4	7	309221
X	.3970	1-3/4	7	309222
Y	.4040	1-3/4	7	309223
Z	.4130	1-3/4	7	309224

Over and under sizes and dowel pin sizes

Size	Flute Length	Overall Length	EDP NO.
.1230	7/8	3-1/2	309225
.1240	7/8	3-1/2	309226
.1247	7/8	3-1/2	309227
.1260	7/8	3-1/2	309228
.1855	1-1/8	4-1/2	309229
.1865	1-1/8	4-1/2	309230
.1870	1-1/8	4-1/2	309231
.1885	1-1/8	4-1/2	309232
.2480	1-1/2	6	309233
.2490	1-1/2	6	309234
.2495	1-1/2	6	309235
.2510	1-1/2	6	309236
.3105	1-1/2	6	309237
.3115	1-1/2	6	309238
.3120	1-1/2	6	309239
.3135	1-1/2	6	309240
.3730	1-3/4	7	309241
.3740	1-3/4	7	309242

Size	Flute Length	Overall Length	EDP NO.
.3745	1-3/4	7	309243
.3760	1-3/4	7	309244
.4355	1-3/4	7	309245
.4365	1-3/4	7	309246
.4370	1-3/4	7	309247
.4385	1-3/4	7	309248
.4980	2	8	309249
.4990	2	8	308250
.4995	2	8	309251
.5010	2	8	309252
.6240	2-1/4	9	309253
.6260	2-1/4	9	309254
.7490	2-1/2	9-1/2	309255
.7510	2-1/2	9-1/2	309256
.8470	2-5/8	10	309257
.8760	2-5/8	10	309258
.9990	2-3/4	10-1/2	309259
1.0010	2-3/4	10-1/2	309260

Metric Chucking Reamers

Straight Shank, Straight Flute

Size	Dec. Equiv.	EDP NO.
2.0	.0787	309261
2.5	.0984	309262
3.0	.1181	309263
3.5	.1378	309264
4.0	.1575	309265
4.5	.1772	309266
5.0	.1968	309267
5.5	.2365	309268
6.0	.2362	309269
6.5	.2559	309270
7.0	.2756	309271
7.5	.2953	309272
8.0	.3150	309273
8.5	.3346	309274
9.0	.3543	309275
9.5	.3740	309276

Size	Dec. Equiv.	EDP NO.
10.0	.3937	309277
10.5	.4134	309278
11.0	.4331	309279
11.5	.4528	309280
12.0	.4724	309281
12.5	.4921	309282
13.0	.5118	309283
13.5	.5315	309284
14.0	.5512	309285
14.5	.5709	309286
15.0	.5906	309287
15.5	.6102	309288
16.0	.6299	309289
16.5	.6496	309290
17.0	.6693	309291
17.5	.6890	309292

Size	Dec. Equiv.	EDP NO.
18.0	.7087	309293
18.5	.7283	309294
19.0	.7480	309295
19.5	.7677	309296
20.0	.7874	309297
20.5	.8071	309298
21.0	.8268	309299
21.5	.8465	309300
22.0	.8661	309301
22.5	.8858	309302
23.0	.9055	309303
23.5	.9252	309304
24.0	.9449	309305
24.5	.9646	309306
25.0	.9843	309307
26.0	1.0236	309308

Metric Chucking Reamer Sets

Straight Shank, Straight Flute

Pieces per set	Set Description	Type of Holder	EDP NO.
29	Fractional sizes - 1/16" thru 1/2" by 64ths	Metal Index	173682
26	Letter sizes - A thru Z	Metal Index	173683
60	Wire Gauge Sizes - #1 thru #60	Plastic Pouch	173684
14	Over and under sizes - .1240 thru .5010	Metal Index	173685
14	Dowel pin sizes - .1230 thru .4995	Metal Index	173686

Cobalt Chucking Reamers

Straight Shank, Straight Flute

Fractional Size

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
3/64	.0469	1/2	2-1/2	309314
1/16	.0625	1/2	2-1/2	309315
5/64	.0781	3/4	3	309316
3/32	.0938	3/4	3	309317
7/64	.1094	7/8	3-1/2	309318
1/8	.1250	7/8	3-1/2	309319
9/64	.1406	1	4	309320
5/32	.1562	1	4	309321
11/64	.1719	1-1/8	4-1/2	309322
3/16	.1875	1-1/8	4-1/2	309323
13/64	.2031	1-1/4	5	309324
7/32	.2188	1-1/4	5	309325
15/64	.2344	1-1/2	6	309326
1/4	.2500	1-1/2	6	309327

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
17/64	.2656	1-1/2	6	309328
9/32	.2812	1-1/2	6	309329
19/64	.2969	1-1/2	6	309330
5/16	.3125	1-1/2	6	309331
21/64	.3281	1-1/2	6	309332
11/32	.3438	1-1/2	6	309333
23/64	.3594	1-3/4	7	309334
3/8	.3750	1-3/4	7	309335
25/64	.3906	1-3/4	7	309336
13/32	.4062	1-3/4	7	309337
27/64	.4219	1-3/4	7	309338
7/16	.4375	1-3/4	7	309339
29/64	.4531	1-3/4	7	309340
15/32	.4688	1-3/4	7	309341
31/64	.4844	2	8	309342
1/2	.5000	2	8	309343

Carbide Tipped Chucking Reamers

Straight Shank, Straight Flute

Fractional Size

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
3/16	.1875	1-1/8	4-1/2	309344
7/32	.2188	1-1/4	5	309345
1/4	.2500	1-1/2	6	309346
17/64	.2656	1-1/2	6	309347
9/32	.2812	1-1/2	6	309348
5/16	.3125	1-1/2	6	309349
11/32	.3438	1-1/2	6	309350
3/8	.3750	1-3/4	7	309351
13/32	.4062	1-3/4	7	309352
7/16	.4375	1-3/4	7	309353
15/32	.4688	1-3/4	7	309354
1/2	.5000	2	8	309355
17/32	.5312	2	8	309356
9/16	.5625	2	8	309357
19/32	.5938	2	8	309358

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
5/8	.6250	2-1/4	9	309359
21/32	.6562	2-1/4	9	309360
11/16	.6875	2-1/4	9	309361
3/4	.7500	2-1/2	9-1/2	309362
13/16	.8125	2-1/2	9-1/2	309363
7/8	.8750	2-5/8	10	309364
15/16	.9375	2-5/8	10	309365
1	1.0000	2-3/4	10-1/2	309366
1-1/16	1.0625	2-3/4	10-1/2	309367
1-1/8	1.1250	2-7/8	11	309368
1-3/16	1.1875	2-7/8	11	309369
1-1/4	1.2500	3	11-1/2	309370
1-5/16	1.3125	3	11-1/2	309371
1-3/8	1.3750	3-1/4	12	309372
1-1/2	1.5000	3-1/2	12-1/2	309373

Solid Carbide Chucking Reamers

Straight Shank, Straight Flute

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
1/16	.0625	3/8	1-1/2	158459
5/64	.0781	1/2	1-3/4	158460
3/32	.0938	1/2	2	158461
7/64	.1094	5/8	2-1/4	158462
1/8	.1250	5/8	2-1/4	158463
9/64	.1406	3/4	2-1/4	158464
5/32	.1562	3/4	2-1/2	158465
11/64	.1719	7/8	2-3/4	158466
3/16	.1875	7/8	2-3/4	158467
13/64	.2031	1	3	158468
7/32	.2188	1	3	158469
15/64	.2344	1	3	158470
1/4 & E	.2500	1	3	158471
17/64	.2656	1-1/8	3-1/4	158472
9/32	.2812	1-1/8	3-1/4	158473
19/64	.2969	1-1/8	3-1/4	158474
5/16	.3125	1-1/8	3-1/4	158475
21/64	.3281	1-1/4	3-1/2	158476
11/32	.3438	1-1/4	3-1/2	158477
23/64	.3594	1-1/4	3-1/2	157478
3/8	.3750	1-1/4	3-1/2	157479
1	.2280	1	3	158480
2	.2210	1	3	158481
3	.2130	1	3	158482
4	.2090	1	3	158483
5	.2055	1	3	158484
6	.2040	1	3	158485
7	.2010	1	3	158486
8	.1990	1	3	158487
9	.1960	1	3	158488
10	.1935	7/8	2-3/4	158489
11	.1910	7/8	2-3/4	158490
12	.1890	7/8	2-3/4	158491
13	.1850	7/8	2-3/4	158492
14	.1820	7/8	2-3/4	158493
15	.1800	7/8	2-3/4	158494

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
16	.1770	7/8	2-3/4	158495
17	.1730	7/8	2-3/4	158496
18	.1695	7/8	2-3/4	158497
19	.1660	7/8	2-3/4	158498
20	.1610	3/4	2-3/4	158499
21	.1590	3/4	2-3/4	158500
22	.1570	3/4	2-3/4	158501
23	.1540	3/4	2-3/4	158502
24	.1520	3/4	2-3/4	158503
25	.1495	3/4	2-1/2	158504
26	.1470	3/4	2-1/2	158505
27	.1440	3/4	2-1/2	158506
28	.1405	3/4	2-1/2	158507
29	.1360	3/4	2-1/2	158508
30	.1285	5/8	2-1/4	158509
31	.1200	5/8	2-1/4	158510
32	.1160	5/8	2-1/4	158511
33	.1130	5/8	2-1/4	158512
34	.1110	5/8	2-1/4	158513
35	.1100	5/8	2-1/4	158514
36	.1065	5/8	2-1/4	158515
37	.1040	5/8	2-1/4	158516
38	.1015	5/8	2-1/4	158517
39	.0995	1/2	2	158518
40	.0980	1/2	2	158519
41	.0960	1/2	2	158520
42	.0935	1/2	2	158521
43	.0890	1/2	2	158522
44	.0860	1/2	2	158523
45	.0820	1/2	1-3/4	158524
46	.0810	1/2	1-3/4	158525
47	.0785	1/2	1-3/4	158526
48	.0760	1/2	1-3/4	158527
49	.0730	1/2	1-3/4	158528
50	.0700	3/8	1-1/2	158529
51	.0670	3/8	1-1/2	158530

Size	Dec. Equiv.	Flute Length	Overall Length	EDP NO.
52	.0635	3/8	1-1/2	158531
53	.0595	3/8	1-1/2	158532
54	.0550	1/4	1-1/2	158533
55	.0520	1/4	1-1/2	158534
56	.0465	1/4	1-1/2	158535
57	.0430	1/4	1-1/2	158536
58	.0420	1/4	1-1/2	158537
59	.0410	1/4	1-1/2	158538
60	.0400	1/4	1-1/4	158539

Adjustable Hand Reamers

Blades are adjusted by loosening one nut and tightening the other. Each reamer expands to the next size.

Size	Range of Adjustment	Blade Length	Overall Length	EDP NO.
4/A	3/8 to 13/32	1-1/2	4-3/4	308655
3/A	13/32 to 7/16	1-1/2	5	308656
2/A	7/16 to 15/32	1-5/8	5-1/4	308657
A	15/32 to 17/32	1-5/8	5-1/2	308658
B	17/32 to 19/32	1-13/16	5-3/4	308659
C	19/32 to 21/32	2-1/16	6-1/2	308660
D	21/32 to 23/32	2-3/16	6-3/4	308661
E	23/32 to 25/32	2-1/2	7	308662
F	25/32 to 27/32	2-5/8	7-3/8	308663
G	27/32 to 15/16	3	8	308664
H	15/16 to 1-1/16	3-1/4	9	308665
I	1-1/16 to 1-3/16	3-3/8	10	308666
J	1-3/16 to 1-11/32	3-7/8	11	308667
K	1-11/32 to 1-1/2	4-1/4	12	308668
L	1-1/2 to 1-13/16	4-7/16	14	308669
M	1-13/16 to 2-7/32	5	16	308670
N	2-7/32 to 2-3/4	4-13/16	18	308671
O	2-3/4 to 3-11/32	5-3/16	20	308672

Hand Reamers

Spiral Flute, Straight Flute

Size	EDP NO.	
	Straight Flute	Spiral Flute
1/8	308676	308690
9/64	308677	308691
5/32	308678	308692
11/64	308679	-
3/16	308680	308693
7/32	308681	308694
15/64	308682	308695
1/4	308683	308696
9/32	308684	308697
19/64	308685	-
5/16	308686	308698
11/32	308687	308699
23/64	308688	308700
3/8	308689	308701

Size	EDP NO.	
	Straight Flute	Spiral Flute
13/32	308703	308717
7/16	308704	308718
29/64	308705	-
15/32	308706	308719
31/64	308707	-
1/2	308708	308720
17/32	308709	308721
9/16	308710	308722
37/64	308711	308723
19/32	308712	308724
39/64	308713	308725
5/8	308714	308726
21/32	308715	308727
43/64	308716	308728

Size	EDP NO.	
	Straight Flute	Spiral Flute
11/16	308729	308743
45/64	308730	-
23/32	308731	308744
3/4	308732	308745
51/64	308733	-
13/16	308734	308746
27/32	308735	308747
7/8	308736	308748
57/64	308737	-
29/32	308738	308749
59/64	308739	308750
15/16	308740	308751
1	308741	308752
1-1/16	308742	308753

Size	EDP NO.	
	Straight Flute	Spiral Flute
1-1/8	308754	308768
1-3/16	308755	308769
1-1/4	308756	308770
1-5/16	308757	308771
1-3/8	308758	308772
1-7/16	308759	308773
1-1/2	308760	308774
1-11/16	308761	-
1-3/4	308762	-
1-13/16	308763	-
1-7/8	308764	-
1-15/16	308765	-
2	308766	-
2-1/2	308767	-

Jobber Reamers

Taper Shank, Straight Flute

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper No.	EDP No.
1/4	.2500	2	5-3/16	1	308974
9/32	.2812	2	5-3/16	1	308975
5/16	.3125	2-1/4	5-1/2	1	308976
11/32	.3438	2-1/4	5-1/2	1	308977
3/8	.3750	2-1/2	5-13/16	1	308978
13/32	.4062	2-1/2	5-13/16	1	308979
7/16	.4375	2-3/4	6-1/8	1	308980
15/32	.4688	2-3/4	6-1/8	1	308981
1/2	.5000	3	6-7/16	1	308982
17/32	.5312	3	6-7/16	1	308983
9/16	.5625	3-1/4	6-3/4	1	308984
19/32	.5938	3-1/4	6-3/4	1	308985
5/8	.6250	3-1/2	7-9/16	2	308986
21/32	.6562	3-1/2	7-9/16	2	308987
11/16	.6875	3-7/8	8	2	308988
23/32	.7188	3-7/8	8	2	308989

Size	Dec. Equiv.	Flute Length	Overall Length	Morse Taper No.	EDP No.
3/4	.7500	4-3/16	8-3/8	2	308990
25/32	.7812	4-3/16	8-3/8	2	308991
13/16	.8125	4-9/16	8-13/16	2	308992
27/32	.8438	4-7/8	9-13/16	2	308993
7/8	.8750	4-7/8	9-13/16	2	308994
15/16	.9375	5-1/8	10	3	308995
1	1.0000	5-7/16	10-3/8	3	308996
1-1/16	1.0625	5-5/8	10-5/8	3	308997
1-1/8	1.1250	5-13/16	10-7/8	3	308998
1-3/16	1.1875	6	11-1/8	3	308999
1-1/4	1.2500	6-1/8	12-9/16	4	309484
1-5/16	1.3125	6-1/4	12-11/16	4	309485
1-3/8	1.3750	6-5/16	12-13/16	4	309486
1-7/16	1.4375	6-7/16	13	4	309487
1-1/2	1.5000	6-1/2	13-1/8	4	309488
1-5/8	1.6250	6-1/2	13-1/8	4	309489
1-3/4	1.7500	6-3/4	13-5/8	4	309490

Taper Pipe Reamers

Spiral Flute, Straight Flute

Size	Diameter		Flute Length	Overall Length	Shank Size	EDP NO.	
	Small End	Large End				Straight Flute	Spiral Flute
1/16	-	.2910	3/4	2	-	309491	309503
1/8	.3160	.3620	3/4	2-1/8	.4375	309492	309504
1/4	.4060	.4620	1-1/16	2-7/16	.5625	309493	309505
3/8	.5400	.6060	1-1/16	2-9/16	.7000	309494	309506
1/2	.6650	.7510	1-3/8	3-1/8	.6875	309495	309507
3/4	.8760	.9620	1-3/8	3-1/4	.9063	309496	309508
1	1.1030	1.2120	1-3/4	3-3/4	1.1250	309497	309509
1-1/4	1.4440	1.5530	1-3/4	4	1.3125	309498	309510
1-1/2	1.6840	1.7930	1-3/4	4-1/4	1.5000	309499	309511
2	2.1590	2.2680	1-3/4	4-1/2	1.8750	309500	309512
2-1/2	2.5610	2.7220	2-5/8	5-1/2	2.2050	309501	309513
3	3.2020	3.3800	2-3/4	6	2.6250	309502	309514

Taper Pin Reamers

Straight Flute, Spiral Flute, Helical Flute

Size	Diameter		Flute Length	Overall Length	Shank Size	EDP NO.		
	Small End	Large End				Straight Flute	Spiral Flute	Helical Flute
7/0	.0497	.0666	13/16	1-13/16	5/64	309515	309536	309557
6/0	.0611	.0806	15/16	1-15/16	3/32	309516	309537	309558
5/0	.0719	.0966	1-3/16	2-3/16	7/64	309517	309538	309559
4/0	.0869	.1142	1-5/16	2-5/16	1/8	309518	309539	309560
3/0	.1029	.1302	1-5/16	2-5/16	9/64	309519	309540	309561
2/0	.1137	.1462	1-9/16	2-9/16	5/32	309520	309541	309562
0	.1287	.1638	1-11/16	2-15/16	11/64	309521	309542	309563
1	.1447	.1798	1-11/16	2-15/16	3/16	309522	309543	309564
2	.1605	.2008	1-15/16	3-3/16	13/64	309523	309544	309565
3	.1813	.2294	2-5/16	3-11/16	15/64	309524	309545	309566
4	.2071	.2604	2-9/16	4-1/16	17/64	309525	309546	309567
5	.2409	.2994	2-13/16	4-5/16	5/16	309526	309547	309568
6	.2773	.3540	3-11/16	5-7/16	23/64	309527	309548	309569
7	.3297	.4220	4-7/16	6-5/16	13/32	309528	309549	309570
8	.3971	.5050	5-3/16	7-3/16	7/16	309529	309550	309571
9	.4805	.6066	6-1/16	8-5/16	9/16	309530	309551	309572
10	.5799	.7216	6-13/16	9-5/16	5/8	309531	309552	309573
11	.7060	.8780	8-1/4	11-1/4	11/16	309532	309553	309574
12	.8420	1.0500	10	13-5/8	3/4	309533	309554	309575
13	1.0090	1.2590	12	16	1-1/16	309534	309555	309576
14	1.2500	1.5420	14	18-1/4	1-3/8	309535	309556	309577

Finishing Reamers

Straight Shank, Taper Shank

Size	Diameter		Flute Length	Straight Shank Size	EDP NO.	
	Small End	Large End			Straight Shank	Taper Shank
0	.2503	.3674	2-1/4	5/16	309578	309585
1	.3674	.5170	3	7/16	309579	309586
2	.5696	.7444	3-1/2	5/8	309580	309587
3	.7748	.9881	4-1/4	7/8	309581	309588
4	1.0167	1.2893	5-1/4	1-1/4	309582	309589
5	1.4717	1.8005	6-1/4	1-1/2	309583	309590
6	2.1120	2.5550	8-1/2	2	309584	309591

Hand Taps

Standard

High Speed Steel, Ground Thread

3 Piece Sets - Plug, Bottoming, and Taper Chamfer

Fractional Sizes

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.			
				Taper	Plug	Bottom	H.S.S. Set
1/4	20	H3	4	183465	183466	183467	183468
1/4	28	H3	4	183477	183478	183479	183480
5/16	18	H3	4	183487	183488	183489	183490
5/16	24	H3	4	183496	183497	183498	183499
3/8	16	H3	4	183509	183510	183511	183512
3/8	24	H3	4	183519	183520	183521	183522
7/16	14	H3	4	183529	183530	183531	183532
7/16	20	H3	4	183539	183540	183541	183542
1/2	13	H3	4	183549	183550	183551	183552
1/2	20	H3	4	183559	183560	183561	183562
9/16	12	H3	4	183566	183567	183568	183569
9/16	18	H3	4	183574	183575	183576	183577
5/8	11	H3	4	183582	183583	183584	183585
5/8	18	H3	4	183589	183590	183591	183592
11/16	11	H3	4	183595	183596	183597	183598
11/16	16	H3	4	183599	183600	183601	183602
3/4	10	H3	4	183604	183605	183606	183607
3/4	16	H3	4	183612	183613	183614	183615
7/8	9	H4	4	183619	183620	183621	183622
7/8	14	H4	4	183625	183626	183627	183628
1	8	H4	4	183630	183631	183632	183633
1	12	H4	4	183635	183636	183637	183638
1	14	H4	4	183640	183641	183642	183643
1-1/8	7	H4	4	183644	183645	183646	183647
1-1/8	12	H4	4	183648	183649	183650	183651
1-1/4	7	H4	4	183652	183653	183654	183655
1-1/4	12	H4	6	183656	183657	183658	183659
1-3/8	6	H4	4	183660	183661	183662	183663
1-3/8	12	H4	6	183664	183665	183666	183667
1-1/2	6	H4	4	183668	183669	183670	183671
1-1/2	12	H4	6	183672	183673	183674	183675
2	4-1/2	H4	6	309915	309916	309932	309948

Hand Taps

Machine Screw Sizes

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.			
				Taper	Plug	Bottom	H.S.S. Set
0	80	H1	2	183767	183768	183769	183770
1	64	H1	2	183774	183775	183776	183777
1	72	H1	2	183780	183781	183782	183783
2	56	H2	3	183794	183795	183796	183797
2	64	H2	3	183798	183799	183800	183801
3	48	H2	3	183805	183806	183807	183808
3	56	H2	3	183809	183810	183811	183812
4	36	H2	3	183813	183814	183815	183816
4	40	H2	3	183823	183824	183825	183826
4	48	H2	3	183827	183828	183829	183830
5	40	H2	3	183838	183839	183840	183841
5	44	H2	3	183843	183844	183845	183846
6	32	H3	3	183861	183862	183863	183864
6	40	H2	3	183866	183867	183868	186869
8	32	H3	4	183890	183891	183892	183893
8	36	H2	4	183894	183895	183896	183897
10	24	H3	4	183912	183913	183914	183915
10	32	H3	4	183936	183937	183938	183939
12	24	H3	4	183940	183941	183942	183943
12	28	H3	4	183944	183945	183946	183947

Optional Flutes and Optional Thread Limits Hand Taps

High Speed Steel, Ground Thread
Machine Screw and Fractional

Size	Thread Per Inch	Thread Limits	No. of Flute	Chamfer	EDP NO.
6	32	H2	3	P	310009
6	32	H1	3	P, T	310010
8	32	H1	2	P	310011
8	32	H1	4	B, T	310012
8	32	H3	2	P, B	310013
8	32	H7	3	B	310014
10	24	H1	4	P, B	310015
10	24	H2	4	P, B, T	310016
10	24	H3	2	P	310017
10	32	H1	4	P, B, T	310018
10	32	H2	4	P, B	310019
12	24 or 48	H2	4	P, B	310020
1/4	20	H1	4	P, B	310021
1/4	20	H2	2	P, B	310022
1/4	20	H3	3	P, B	310023
1/4	20	H5	3	P, B	310024
1/4	20	H5	4	P, B	310025
1/4	28	H1	4	P, B, T	310026
1/4	28	H2	4	P, B	310027
1/4	28	H5	4	P, B	310028
5/16	18	H1	4	P	310029
5/16	18	H2	4	B, T	310030
5/16	18	H3	2	P, B	310031
5/16	18	H5	3	B	310032
5/16	18	H5	4	P, B	310033
5/16	24	H2	4	P, B	310034
5/16	24	H4	4	P, B	310035
3/8	16	H1	4	P, B	310036
3/8	16	H2	4	P, B	310037
3/8	16	H5	3	P	310038
3/8	16	H5	4	B	310039

Size	Thread Per Inch	Thread Limits	No. of Flute	Chamfer	EDP NO.
3/8	24	H1	3	T	310040
3/8	24	H3	3	B	310041
3/8	24	H4	3	B	310042
7/16	14	H5	4	P, B	310043
7/16	20	H2	4	P, B	310044
7/16	20	H5	4	P	310045
7/16	20	H6	4	P	310046
7/16	20	H10	4	P	310047
1/2	13	H1	4	B	310048
1/2	13	H2 OR H8	4	P	310049
1/2	13	H3	3	B	310050
1/2	13	H10	4	B	310051
1/2	20	H1	4	P, T	310052
1/2	20	H3	3	P, B	310053
1/2	20	H5	4	P, B	310054
9/16	12	H2	4	B	310055
9/16	18	H2	4	P	310056
9/16	18	H5	4	P	310057
5/8	11	H1 OR H2	4	P	310058
5/8	11	H5	4	P, B	310059
5/8	18	H4	4	B, T	310060
5/8	18	H5	4	P	310061
3/4	10	H2	4	P	310062
3/4	10	H5	4	P, T	310063
3/4	16	H1	4	P, B	310064
3/4	16	H5	4	P, B	310065
7/8	9	H6	4	P	310066
7/8	14	H10	4	P	310067
1	8	H1	4	B	310068
1-3/8	12	H8	6	B	310069
1-1/2	12	H2	4	B	310070

Spiral Pointed Taps

Standard
High Speed Steel, Ground Thread
Plug Chamfer

Fractional Sizes - High Speed Steel, Titanium Nitride Coated, and Chrome Plated
Machine Screw Sizes - High Speed Steel, and Titanium Nitride Coated

Fractional Sizes

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.		
				H.S.S	TIN	Chrome
1/4	20	H3	2	184035	310092	310113
1/4	28	H3	2	184042	310093	310114
5/16	18	H3	2	184049	310094	310115
5/16	24	H3	2	184056	310095	310116
3/8	16	H3	3	184063	310096	310117
3/8	24	H3	3	184067	310097	310118
7/16	14	H3	3	184070	310098	310119
7/16	20	H3	3	184073	310099	310120
1/2	13	H3	3	184077	310100	310121
1/2	20	H3	3	184081	310101	310122
9/16	12	H3	3	310081	310102	310123
9/16	18	H3	3	310082	310103	310124
5/8	11	H3	3	184083	310104	310125
5/8	18	H3	3	184085	310105	310126
3/4	10	H3	3	184086	310106	310127
3/4	16	H3	3	184088	310107	310128
7/8	9	H4	3	310087	310108	310129
7/8	14	H4	3	310088	310109	310130
1	8	H4	3	310089	310110	310131
1	14	H4	3	310090	310111	310132
1	12	H4	3	310091	310112	310133

Machine Screw Sizes

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.	
				H.S.S	TIN
0	80	H1	2	184091	310155
1	64	H1	2	184094	310156
1	72	H2	2	184096	310157
2	56	H2	2	184099	310158
2	64	H2	2	184102	310159
3	48	H2	2	184104	310160
3	56	H2	2	184107	310161
4	36	H2	2	184143	310162
4	40	H2	2	184111	310163
4	48	H2	2	184114	310164
5	40	H2	2	184118	310165
5	44	H2	2	184120	310166
6	32	H3	2	184125	310167
6	40	H2	2	184128	310168
8	32	H3	2	184134	310169
8	36	H2	2	184137	310170
10	24	H3	2	184141	310171
10	32	H3	2	184147	310172
12	24	H3	2	184150	310173
12	28	H3	2	184152	310174
14	20	H3	2	310154	310175

Cobalt Spiral Pointed Taps

Ground Thread, Plug Chamfer

Size	Threads per inch	No. of Flutes	EDP NO.
6	32	2	310728
8	32	2	310729
10	24	2	310730
10	32	2	310731
1/4	20	3	310732

Size	Threads per inch	No. of Flutes	EDP NO.
5/16	18	3	310733
3/8	16	3	310734
7/16	14	3	310735
1/2	13	3	310736
5/8	11	3	310737

Optional Thread Limits Spiral Pointed Taps

High Speed Steel, Ground Thread

Fractional Sizes, Machine Screw Sizes

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.
1/4	20	H2	2	310176
1/4	28	H4	2	310177
5/16	18	H1	2	310178
5/16	24	H2, H4	2	310179
5/16	24	H5, H7	2	310180
3/8	16	H1	3	310181
3/8	16	H5	3	310182
3/8	24	H1	2	310183
3/8	24	H2	3	310184
7/16	14	H5	3	310185
1/2	13	H1	3	310186
1/2	20	H5	3	310187
5/8	11	H5	3	310188
1	8	H6	3	310189

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.
2	56	H3	2	310190
2	64	H1	2	310191
3	48	H1	3	310192
3	56	H1	2	310193
4	40	H1, H4	2	310194
4	48	H1	2	310195
5	44	H1	3	310196
6	32	H1	2	310197
8	36	H3	2	310198
10	24	H1	2	310199
10	24	H2, H5		310200
10	32	H1, H4, H5	2	310201
12	24	H2	2	310202
12	28	H2	2	310203

Spiral Fluted Taps

High Speed Steel, Ground Thread, Plug Chamfer

Fast spiral - 52° Helix angle

Slow spiral - 30° Helix angle

Spiral fluted taps are recommended for deep blind hole tapping. They are primarily designed for use in such materials as brass, copper, aluminum, magnesium and die cast metals. Successful results may also be obtained in free machining mild steel applications.

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.	
				Fast Spiral	Slow Spiral
1/4*	20	H3	3	184997	184500
1/4	20	H5	3	184999	-
1/4	28	H3	3	185003	184504
5/16	18	H3	3	184009	184508
5/16	24	H3	3	184015	184510
3/8*	16	H3	3	185021	184512
3/8	24	H3	3	184028	184514
3/8	24	H4	3	184030	-
7/16	14	H3	3	184034	184516
7/16	20	H3	3	184040	184518
1/2	13	H3	3	184046	184520
1/2	20	H3	3	184052	184522
3/4	10	H3	4	184080	-

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.	
				Fast Spiral	Slow Spiral
3**	48	H2	2	184950	-
4	40	H2	2	184952	184488
5	40	H2	2	184955	184490
6	32	H3	2	184962	184492
8	32	H3	3	184971	184494
10	24	H3	3	184980	184496
10	32	H3	3	184986	184498
12	24	H3	3	184990	-

Metric Taps

High Speed Steel, Hand Taps

3 Piece Sets, Plug, Bottoming And Taper Chamfer
Spiral Pointed Taps (Plug Chamfer Only)

Size	Pitch mm	No. of Flutes	EDP NO.					
			Taper	Plug	Bottom	Hand Tap Set	No. of Flutes	Spiral Point
1.6	.35	2	310387	184835	184836	310420	2	310453
1.8	.35	2	310388	184837	184838	310421	2	310454
2	.40	3	310389	184839	184840	310422	2	310455
2.2	.45	3	310390	184841	184842	312281	2	310456
2.3	.40	3	310391	310424	312282	312283	2	310457
2.5	.45	3	310392	184843	184844	310425	2	310458
2.6	.45	3	310393	310426	312284	312285	2	310459
3	.50	3	310394	184845	184846	310427	2	184915
3	.60	3	310395	310428	312286	312287	-	-
3.5	.60	3	310396	184847	184848	310429	2	184916
4	.50	4	310397	310430	312288	312289	2	310462
4	.70	4	310398	184849	184850	310431	2	184917
4	.75	4	310399	310432	312290	312291	-	-
4.5	.75	4	310400	184851	184852	312293	2	184918
5	.50	4	310401	310434	312294	312295	2	310465
5	.80	4	310402	184853	184854	310435	2	184919
5	.90	4	310403	310436	312296	312297	-	-
6	.50	4	310404	310437	312298	312299	-	-
6	.75	4	310405	310438	312300	312301	2	310467
6	1.00	4	310406	184855	184856	310439	2	184920
6.3	1.00	4	310407	310440	312302	312303	2	310469
7	1.00	4	310408	184857	184858	310441	2	184921
8	.75	4	310409	310442	312304	312305	2	310471
8	1.00	4	310410	184859	184860	310443	2	184922
8	1.25	4	310411	184861	184862	310444	2	184923
9	1.25	4	310412	310445	312306	312307	2	310474
10	.75	4	310413	310446	312308	312309	-	-
10	1.00	4	310414	310447	312310	312311	3	310475
10	1.25	4	310415	184863	184864	312312	3	184924
10	1.50	4	310416	184865	184866	310449	3	184925
11	1.50	4	310417	310450	312313	312314	3	310478
12	1.00	4	310418	310451	312315	312316	-	-
12	1.25	4	310419	184867	184868	312318	3	184926

Metric Taps Cont.

Size	Pitch mm	No. of Flutes	EDP NO.					
			Taper	Plug	Bottom	Hand Tap Set	No. of Flutes	Spiral Point
12	1.50	4	310480	310513	312319	312320	3	310546
12	1.75	4	310481	184869	184870	310514	3	184927
14	1.00	4	310482	310515	312321	312322	-	-
14	1.25	4	310483	310516	312323	312324	3	310548
14	1.50	4	310484	184871	184872	310517	3	184928
14	2.00	4	310485	310518	312325	312326	3	184929
16	1.00	4	310486	310519	312327	312328	3	310551
16	1.50	4	310487	184875	184876	312330	3	184930
16	2.00	4	310488	184877	184878	310521	3	184931
18	1.50	4	310489	184879	184880	310522	3	184932
18	2.50	4	310490	184881	184882	312332	3	184933
20	1.00	4	310491	310524	312333	312334	4	310556
20	1.50	4	310492	184883	184884	312336	4	310557
20	2.00	4	310493	310526	312337	312338	-	-
20	2.50	4	310494	184885	184886	310527	4	310558
22	1.00	4	310495	310528	312339	312340	-	-
22	1.50	4	310496	184887	184888	310529	4	310559
22	2.00	4	310497	310530	312341	312342	-	-
22	2.50	4	310498	184889	184890	312344	4	310560
24	1.00	4	310499	310532	312345	312346	-	-
24	1.50	4	310500	310533	312347	312348	-	-
24	2.00	4	310501	184891	184892	312350	4	310561
24	3.00	4	310502	184893	184894	310535	4	310562
27	1.50	4	310503	310536	312351	312352	-	-
27	2.00	4	310504	184895	184896	310537	-	-
27	3.00	4	310505	184897	184898	310538	-	-
30	1.50	4	310506	310539	312353	312354	-	-
30	2.00	4	310507	184899	184900	310540	-	-
30	3.50	4	310508	184901	184902	310541	-	-
36	3.00	4	310509	184907	184908	310542	-	-
36	4.00	4	310510	184909	184910	310543	-	-
39	3.00	6	310511	184911	184912	310544	-	-
39	4.00	6	310512	310545	312355	312356	-	-

Left Hand Taps

High Speed Steel, Ground Thread, Plug Chamfer

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.
6	32	H3	3	147333
8	32	H3	4	147334
10	24	H3	4	147335
10	32	H3	4	147336
1/4	20	H3	4	147337
1/4	28	H3	4	147338
5/16	18	H3	4	147339
5/16	24	H3	4	147340
3/8	16	H3	4	147341
3/8	24	H3	4	147342
7/16	14	H3	4	147343
7/16	20	H3	4	147344
1/2	13	H3	4	147345
1/2	20	H3	4	147346
9/16	12	H3	4	147347

Size	Threads per inch	Thread limits	No. of flutes	EDP NO.
9/16	18	H3	4	147348
5/8	11	H3	4	147349
5/8	18	H3	4	147350
3/4	10	H3	4	147351
3/4	16	H3	4	147352
7/8	9	H4	4	147353
7/8	14	H4	4	147354
1	8	H4	4	147355
1	12	H4	4	147356
1	14	H4	4	147357
1-1/8	7	H4	4	147358
1-1/4	7	H4	4	147359
1-3/8	6	H4	4	147360
1-1/2	6	H4	4	147361

+ .005 Oversize Taps

High Speed Steel

+ .005 Hand Taps, Ground Thread, Plug Chamfer

Size	Threads per inch	No. of flutes	EDP NO.
6	32	3	147308
8	32	4	147309
10	24	4	147310
10	32	4	147311
1/4	20	4	147312
1/4	28	4	147313
5/16	18	4	147314
3/8	16	4	147315
3/8	24	4	147316
7/16	14	4	147317
7/16	20	4	147318
1/2	13	4	147319
1/2	20	4	147320
5/8	11	4	147321
3/4	10	4	147322

+ .005 Spiral Pointed Taps, Ground Thread, Plug Chamfer

Size	Threads per inch	No. of flutes	EDP NO.
6	32	2	147323
8	32	2	147324
10	24	2	147325
10	32	2	147326
1/4	20	2	147327
5/16	18	2	147328
3/8	16	3	147329
1/2	13	3	147330
5/8	11	3	147331
3/4	10	3	147332

Pipe Taps

High Speed Steel, Ground Thread, Plug Chamfer

High Speed Steel Taper Pipe - NPT Ground Thread

High Speed Steel Straight Pipe Taps - NPTF Ground Thread

High Speed Steel Interrupted Thread - Int/NPT Ground Thread

High Speed Steel Interrupted Thread - Int/NPTF Ground Thread

Size	Threads per inch	EDP NO.				
		High Speed NPT Taper	High Speed NPTF Taper	High Speed NPT/INT Interrupted	NPTF/INT Interrupted	NPS Straight
1/16	27	184561	184592	-	-	-
1/8	27	184563	184594	184634	184624	184654
1/4	18	184564	184595	184635	184625	184655
3/8	18	184565	184596	184636	184626	184656
1/2	14	184566	184597	184637	184627	184657
3/4	14	184567	184598	184638	184628	184658
1	11-1/2	184568	184599	185639	184629	184659
1-1/4	11-1/2	184569	184600	184640	184630	-
1-1/2	11-1/2	184570	184601	184641	184631	-
2	11-1/2	184571	184602	184642	184632	-
2-1/2	8	310573	-	-	-	-
3	8	310574	-	-	-	-
3-1/2	8	310575	-	-	-	-
4	8	310576	-	-	-	-

Long Pipe Taps

High Speed Steel, NPT - Ground Thread

Size	Threads per inch	EDP NO.	
		6" OAL	12" OAL
1/8	27	188000	-
1/4	18	188001	188003
3/8	18	188002	188004
1/2	14	188005	188007
3/4	14	188006	188008
1	11-1/2	-	188009

Pulley Taps

High Speed Steel, Ground Thread, Plug Chamfer
Hand Taps, Spiral Pointed

Size	Threads Per Inch	EDP NO.						
		Spiral Pointed		Hand Taps				
		No. of flutes	6" OAL	No. of flutes	6" OAL	8" OAL	10" OAL	12" OAL
6	32	2	188032	4	188050	-	-	-
8	32	2	188033	4	188051	-	-	-
10	24	2	188034	4	188052	-	-	-
10	32	2	188035	4	188053	-	-	-
1/4	20	2	188036	4	188054	188067	310629	310637
1/4	28	2	188037	4	188055	188068	310630	310638
5/16	18	2	188038	4	188056	188069	310631	310639
5/16	24	2	188039	4	188057	188070	310632	310640
3/8	16	3	188040	4	188058	188071	188080	310641
3/8	24	3	188041	4	188059	188072	310633	310642
7/16	14	3	188042	4	188060	188073	188081	310643
7/16	20	3	188043	4	188061	188074	310634	-
1/2	13	3	188044	4	188062	188075	188082	188086
1/2	20	3	188045	4	188063	188076	310635	-
5/8	11	3	188046	4	188064	188077	188083	188087
5/8	18	3	188047	4	188065	188078	-	-
3/4	10	3	188048	4	-	-	188084	188088
3/4	16	3	188049	4	188066	188079	188085	-
7/8	9	3	-	4	-	-	-	188089

British Standard Pipe Taps (BSPT)

High Speed Steel

Size	Threads per inch	EDP NO.
1/8	28	188010
1/4	19	188011
3/8	19	188012
1/2	14	188013
3/4	14	188014
7/8	14	188015
1	11	188016
1-1/4	11	188017
1-1/2	11	188018
2	11	188019

6" Extension Taps

High Speed Steel, Ground Thread
Hand Taps, Spiral Pointed

Similar to pulley tap but with a smaller shank diameter for long reach applications.

Size	Threads per inch	EDP NO.	
		Hand Taps	Spiral Pointed
10	24	188020	188026
10	32	188021	188027
1/4	20	188022	188028
5/16	18	188023	188029
3/8	16	188024	188030
1/2	13	188025	188031

Combined Tap and Drill - Threadrill

High Speed Steel, Ground Thread, 2 Flute

Designed to drill and tap thru-holes in a single pass up to two times the tap diameter. Also can be used on multiple spindle heads with reversing mechanisms.

Machine Screw Sizes

Normal Size	Drill Size	Thread length	Overall length	EDP NO.
4-40	.0910	3/8	1-7/8	188090
4-48	.0945	11/32	1-7/8	188091
5-40	.1040	13/32	1-15/16	188092
6-32	.1115	15/32	2	188093
6-40	.1170	7/16	2	188094
8-32	.1375	33/64	2-1/8	188095
10-24	.1545	5/8	2-3/8	188096
10-32	.1635	9/16	2-3/8	188097
12-24	.1805	11/16	2-3/8	188098
12-28	.1860	21/32	2-3/8	188099

Fractional Sizes

Normal Size	Drill Size	Thread length	Overall length	EDP NO.
1/4-20	.2080	13/16	2-1/2	188100
1/4-28	.2200	23/32	2-1/2	188101
5/16-18	.2660	31/32	2-27/32	188102
5/16-24	.2770	7/8	2-27/32	188103
3/8-16	.3225	1-1/8	3-3/8	188104
3/8-24	.3395	1	3-3/8	188105
7/16-14	.3770	1-5/16	3-3/4	188106
7/16-20	.3955	1-3/16	3-3/4	188107
1/2-13	.4350	1-15/32	4-1/16	188108
1/2-20	.4580	1-15/16	4-1/16	188109

Metric Sizes

Normal Size	Drill Size	Thread length	Overall length	EDP NO.
M3 X .5	M2.5	13/32	1-15/16	188110
M3.5 X .6	M2.9	7/16	2	188111
M4 X .7	M3.3	1/2	2-1/8	188112
M4.5 X .75	M3.75	7/8	2-3/8	188113
M5 X .8	M4.2	5/8	2-3/8	188114
M6 X 1	M5	25/32	2-1/2	188115
M7 X 1	M6	15/16	2-27/32	188116
M8 X 1.25	M6.75	15/16	2-27/32	188117
M10 X 1.5	M8.5	1-1/16	3-3/8	188118
M12 X 1.75	M10.25	1-3/8	4-1/16	188119

H.S.S. Thread Forming Chipless Taps

Ground Thread

Threading holes with a thread forming tap is a cold forming process accomplished without cutting. Threads produced by this tap are stronger than conventional cut threads because of the swaging and work hardening effect. There are no chips and no cutting edges to become dull and breakdown, therefore tap breakage is minimized. Chipless tapping also eliminates the sometimes costly chip removal from the threaded work. Thread forming taps permit faster tapping speeds.

Size	Threads per inch	EDP NO.	
		Bottom	Plug
0*	80	184675	-
1*	64	184677	-
1*	72	184679	-
2*	56	184681	-
2*	64	184683	-
3*	48	184685	-
3*	56	184687	-
4	40	184688	184690
4	48	184692	184694
5	40	184696	184698
6	32	184704	184707

Size	Threads per inch	EDP NO.	
		Bottom	Plug
6	40	184710	184712
8	32	184714	184717
8	36	184720	184722
10	24	184724	184727
10	32	184730	184733
12	24	184736	184738
12	28	184740	184742
1/4	20	184744	184746
1/4	28	184749	184751
5/16	18	184753	184755
5/16	24	184757	184760

Size	Threads per inch	EDP NO.	
		Bottom	Plug
3/8	16	184762	184764
3/8	24	184767	184770
7/16	14	184772	184774
7/16	20	184776	184778
1/2	13	184780	184782
1/2	20	184784	184786
9/16	12	184788	184790
9/16	18	184791	184792
5/8	11	184794	184796
5/8	18	184797	184798
3/4	10	184799	184800
3/4	16	184801	184803

Solid Carbide Taps

Micro-Grain

Hand Taps, Spiral Pointed Taps

Ground Thread, H3 Limit, Plug Chamfer

Size	Threads per inch	EDP NO.	
		Hand Tap	Spiral Pointed
6	32	310738	310743
8	32	310739	310744
10	24	310740	310745
10	32	310741	310746
1/4	20	310742	310747

Size	Threads per inch	EDP NO.	
		Hand Tap	Spiral Pointed
5/16	18	310748	310753
3/8	16	310749	310754
7/16	14	310750	-
1/2	13	310751	-
5/8	11	310752	-

Screw Extractors

For removing broken screws, studs, pipe fittings, etc. without damaging the threads.

SE Series - Helical Flute

SES Series - Straight Flute

Size	For Screws & Bolts, Sizes	Pipe Size	Tool NO.	EDP NO.	Tool NO.	EDP NO.
1	3/16 - 1/4	-	SE1	147400	SES1	317137
2	1/4 - 5/16	-	SE2	147401	SES2	317138
3	5/16 - 7/16	-	SE3	147402	SES3	317139
4	7/16 - 9/16	1/8	SE4	147403	SES4	317140
5	9/16 - 3/4	1/4	SE5	147404	SES5	317141
6	3/4 - 1	3/8	SE6	147405	-	-
7	1 - 1-3/8	1/2	SE7	147406	-	-
8	1-3/8 - 1-3/4	3/4	SE8	147407	-	-
9	1-3/4 - 2-1/8	1	SE9	147408	-	-
10	2-1/8 - 2-1/2	1-1/4	SE10	147409	-	-
11	2-1/2 - 3	1-1/2	SE11	147410	-	-
12	3 - 3-1/2	2	SE12	147411	-	-

Screw Extractors Sets

SE Series

5 Piece Set

Contains 1 pieces of each:
Helical Flute, #1 thru #5
Supplied in a vinyl pouch
EDP NO. 147412

4 Piece Set

Contains 1 piece of each:
Helical Flute, #6 thru #9
EDP NO. 147413

SES Series - Straight Flute

5 Piece Set

Contains 1 piece of each:
Straight Flute, #1 thru #5
Supplied in a vinyl pouch
EDP NO. 147414

9 Piece Set

Contains 1 piece of each:
Helical Flute, #1 thru #9
EDP NO. 147415

TAP & DIE SETS

Tap & Die Sets

39 Pieces

#4 thru 1/2"

Taps & 1" round adjustable dies

One plug tap & 1" round adjustable die
in the following thread sizes:

4-40 NC	8-32 NC	10-32 NF
6-32 NC	10-24NC	12-24NC
1/4-20 NC	3/8-16 NC	1/2-13 NC
1/4-28 NF	3/8-24 NF	1/2-20 NF
5/16-18 NC	7/16-14 NC	5/16-24 NF
7/16-20 NF	1/8-27 NPT*	

* Pipe dies is solid round

Plus these related tools:

Adjustable die stock, adjustable handle tap wrench, T-handle tap wrench, screw pitch gauge screw driver

Carbon Steel EDP NO. - 318475

H.S.S. EDP NO. - 318486

41 Pieces

3mm thru 12mm

Taps & hexagon rethreading dies

One plug tap & hex die in the following thread sizes:

5/8" hexagon dies:

3mm-0.60, 4mm-0.755, 5mm-0.90, 4mm-0.70, 5mm-0.806, 6mm-1.00

1" hexagon dies:

7mm-1.00, 9mm-1.25, 12mm-1.25, 8mm-1.00, 10mm-1.25, 12mm-1.50, 8mm-1.25, 10mm-1.50, 12mm-1.75, 9mm-1.00, 11mm-1.50

Plus these related tools:

Plain die stock, adjustable die stock, adjustable handle tap wrench, T-tap wrench - hex nut, T-tap wrench - hex nut with 3/8" square drive, screw pitch gauge (metric), screw driver

Carbon Steel EDP NO. - 318485

41 Pieces

1/4" thru 3/4"

NC & NF 1-1/2"

Round adjustable dies 100

One plug tap and 1-1/2" round adjustable die in the following thread sizes:

1/4-20 NC	7/16-14 NC	5/8-11 NC
1/4-28 NF	7/16-20 NF	5/8-18 NF
5/16-18 NC	1/2-13 NC	3/4-10 NC
5/16-24 NF	1/2-20 NC	3/4-16 NF
3/8-16 NC	9/16-12 NC	1/8-27 NPT*
3/8-24 NF	9/16-18 NF	1/4-18 NPT*

Plus these related tools:

Adjustable die stock, adjustable handle tap wrench, T-handle tap wrench, screw pitch gauge, screw driver

Carbon Steel EDP NO. - 318477

H.S.S. EDP NO. - 318487

66 Pieces

3 mm thru 24 mm taps & hexagon rethreading dies

One plug tap & hex die in the following thread sizes:

3mm-0.50mm	4mm-0.75mm	5mm-0.90mm
4mm-0.70mm	5mm-0.80mm	6mm-1.00mm
7mm-1.00mm	9mm-1.25mm	12mm-1.50mm
8mm-1.00mm	10mm-1.25mm	12mm-1.75mm
8mm-1.25mm	10mm-1.50mm	9mm-1.00mm
11mm-1.50mm	1/8-28 BSP	14mm-1.25mm
16mm-1.50mm	18mm-1.50mm	14mm-1.50mm
16mm-2.0mm	18mm-1.50mm	14mm-2.00mm
20mm-2.50mm	24mm-2.00mm	24mm-3.00mm
22mm-1.50mm		

Plus these related tools:

5/8" T-handle tap wrench, 7/8" T-handle tap wrench, adjustable handle tap wrench, non-adjustable die stock, 1" adjustable die stock, 1-7/16" adjustable die stock, 1-13/16" adjustable die stock, pitch gauge, screw driver

Carbon Steel EDP NO. - 318476

64 Pieces

#4 thru 1"

Taps & round adjustable dies

One plug tap & round adjustable die in the following sizes:

1" Round adjustable dies

4-40 NC, 8-32 NC, 10-32 NF, 6-32 NC, 10-24 NC, 12-24 NC, 1/4-20 NC, 3/8-16 NC, 1/2-13 NC, 1/4-28 NF, 3/8-24 NF, 1/2-20 NF, 5/16-18 NC, 7/16-14 NC, 5/16-24 NF, 7/16-20 NF, 1/8-27 NPT*

1-1/2" Round adjustable dies:

9/16-12 NC, 5/8-11 NC, 3/4-10 NC, 9/16-18 NF, 5/8-18 NF, 3/4-16 NF, 1/4-18 NPT*

2" Round adjustable dies:

7/8-9 NC, 1-8 NC, 7/8-14 NF, 1-14 NS

* Pipe dies are solid round

Plus these related tools:

Adjustable die stock, adjustable handle tap wrench, T-handle tap wrench screw pitch gauge, screw driver

Carbon Steel EDP NO. - 318482

10 Pieces

1/4 thru 1"

NC & NF

Hexagon rethreading dies

Set A:

1/4-20 NC	1/2-13 NC	7/8-9 NC
5/16-18 NC	9/16-12 NC	1-8 NC
3/8-16 NC	5/8-11 NC	7/16-14 NC
3/4-10 NC		

Carbon Steel EDP NO. - 318484

Set B:

1/4-28 NF	1/2-20 NF	7/8-14 NF
5/16-24 NF	9/16-18 NF	1-12 NF
3/8-24 NF	5/8-18 NF	7/16-20 NF

Carbon Steel EDP NO. - 318484

Tap & Die Sets

NPT- pipe set

1/8" thru 1"

Pipe tap & hexagon rethreading die set

One each NPT national pipe taper tap and hexagon rethreading die in six sizes. Wood case 12 x 8-3/8"

1/8-27 NPT	3/8-18 NPT	3/4-14 NPT
1/4-18 NPT	1/2-14 NPT	1-11 1/2 NPT

Carbon Steel Taps & Dies EDP NO. - 318478

H.S.S. Taps & Dies EDP NO. - 318479

Tap & drill sets

NC or NF

High speed steel

Sets match 9 taps with correct tap drill.

All tools high speed steel

Jobber length drills are polished flute ground from the solid

National coarse set:

National coarse set holds 6-32 tap #36 drill, 8-32 #29, 10-24 #25, 10-32 #21, 1/4-20 #7, 5/16-18F, 7/16-14U, and 1/2-13 27/64

EDP NO. 186590

National fine set:

National fine set holds 6-40 tap #33 drill, 8-32 #29, 10-24 #25, 10-32 #21, 1/4-28 #3, 5/16-24 I, 3/8 24Q, 7/16-20 25/64, and 1/2-20 29/64

EDP NO. - 186591

66 Pieces

#4 thru 1"

Taps & hexagon rethreading dies

One plug tap & hex die in the following sizes:

4-40 NC	8-32 NC	10-32 NF
6-32 NC	10-24 NC	12-24 NC
1/4-20 NC	3/8-16 NC	1/2-13 NC
1/4-28 NF	3/8-24 NF	1/2-20 NF
5/16-18 NC	7/16-14 NC	5/16-24 NF
7/16-20 NF	1/8-27 NPT	9/16-12 NC
5/8-18 NF	3/4-16	9/16-18 NF
3/4-10 NC	1/4-18 NPT	5/8-11 NC
7/8-9 NC	1-8 NC	1-14 NS
7/8-14 NF		

Plus these related tools:

5/8" T-handle tap wrench, 7/8" T-handle tap wrench, adjustable handle tap wrench, non-adjustable die stock, 1" adjustable die stock, 1-7/16" adjustable die stock, 1-13/16" adjustable die stock, pitch gauge, screw driver

EDP NO. - 318483-

Round Die Stock

Tool NO.	Diameter of Die	EDP NO.
TWS1	5/8	317142
TWS2	13/16	317143
TWS3	1	317144
TWS4	1-1/2	317145
TWS5	2	317146
TWS6	2-1/2	317147
TWS7	3	317148

Round Die Stock

Can be used for safely threading shafts on lathes, milling machines, and tapping heads.

Size	Shank Size	Tool NO.	EDP NO.
13/16	1/2	TWF1	317149
1	1/2	TWF2	317150
1-1/2	3/4	TWF3	317151

Hex Die Adapters

Converts round dies to hex when unable to use die stocks because of space limitations.

Size	Tool NO.	EDP NO.
13/16	TWS1	317152
1	TWS2	317153
1-1/2	TWS3	317154
2	TWS4	317155
2-1/2	TWS5	317156

Round Adjustable Split Dies

Screw Adjusting Type

Right Hand- Fractional and Machine Screw Sizes

Size	Threads Per Inch	EDP NO.					
		Diameter of Die					
		13/16"	1"	1-1/2"	2"	2-1/2"	3"
0	80	320519	320528	-	-	-	-
1	64	320520	320529	-	-	-	-
1	72	320521	320530	-	-	-	-
2	56	320522	320531	-	-	-	-
2	64	320523	320532	-	-	-	-
3	48	320524	320533	-	-	-	-
3	56	320525	320534	-	-	-	-
4	40	320526	320535	-	-	-	-
4	48	320527	320536	-	-	-	-
5	40	317157	320537	-	-	-	-
5	44	317158	317171	-	-	-	-
6	32	317159	317172	-	-	-	-
6	40	317160	317173	-	-	-	-
8	32	317161	317174	-	-	-	-
8	36	317162	317175	-	-	-	-
10	24	317163	317176	-	-	-	-
10	32	317164	317177	-	-	-	-
12	24	317165	317178	-	-	-	-
12	28	317166	317179	-	-	-	-
1/4	20	317167	317180	317190	317208	-	-
1/4	28	317168	317181	317191	317209	-	-
5/16	18	317169	317182	317192	317210	-	-
5/16	24	317170	317183	317193	317211	-	-
3/8	16	-	317184	317194	317212	-	-
3/8	24	-	317185	317195	317213	-	-
7/16	14	-	317186	317196	317214	-	-
7/16	20	-	317187	317197	317215	-	-
1/2	13	-	317188	317198	317216	-	-
1/2	20	-	317189	317199	317217	-	-
9/16	12	-	-	317200	317218	-	-
9/16	18	-	-	317201	317219	-	-
5/8	11	-	-	317202	317220	-	-
5/8	18	-	-	317203	317221	-	-
11/16	11	-	-	317204	317222	-	-
11/16	16	-	-	317205	317223	-	-
3/4	10	-	-	317206	317224	-	-
3/4	16	-	-	317207	317225	-	-
7/8	9	-	-	-	317226	-	-
7/8	14	-	-	-	317227	-	-
1	8	-	-	-	317228	317231	317242

Round Adjustable Split Dies

Screw Adjusting Type

Right Hand- Metric Sizes

Size	Threads Per Inch	EDP NO.					
		Diameter of Die					
		13/16"	1"	1-1/2"	2"	2-1/2"	3"
1.6	.35	317257	317281	-	-	-	-
1.8	.35	317258	317282	-	-	-	-
2	.40	317259	317283	-	-	-	-
2.2	.45	317260	317284	-	-	-	-
2.3	.40	317261	317285	-	-	-	-
2.5	.45	317262	317286	-	-	-	-
2.6	.45	317263	317287	-	-	-	-
3	.50	317264	317288	-	-	-	-
3	.60	317265	317289	-	-	-	-
3.5	.60	317266	317290	-	-	-	-
4	.50	317267	317291	-	-	-	-
4	.70	317268	317292	-	-	-	-
4	.75	317269	317293	-	-	-	-
4.5	.50	317270	317294	-	-	-	-
4.5	.75	317271	317295	-	-	-	-
5	.50	317272	317296	-	-	-	-
5	.80	317273	317297	-	-	-	-
5	.90	317274	317298	-	-	-	-
6	.50	317275	317299	-	-	-	-
6	.75	317276	317300	-	-	-	-
6	1.00	317277	317301	317319	-	-	-
6.3	1.00	-	317302	-	-	-	-
7	.75	-	317303	-	-	-	-
7	1.00	317278	317304	317320	-	-	-
8	.75	-	317305	-	-	-	-
8	1.00	317279	317306	317321	-	-	-
8	1.25	317280	317307	317322	-	-	-
9	1.00	-	317308	317323	-	-	-
9	1.25	-	317309	317324	-	-	-
10	.75	-	317310	317325	-	-	-
10	1.00	-	317311	317326	-	-	-
10	1.25	-	317312	317327	-	-	-
10	1.50	-	317313	317328	-	-	-
11	1.00	-	317314	317329	-	-	-
11	1.50	-	317315	317330	-	-	-
12	1.00	-	317316	317331	-	-	-
12	1.25	-	317317	317332	-	-	-
12	1.50	-	-	317333	-	-	-
12	1.75	-	317318	317334	-	-	-
14	1.00	-	-	317335	-	-	-
14	1.25	-	-	317336	-	-	-

Round Adjustable Split Dies Cont.

Screw Adjusting Type

Right Hand- Metric Sizes

Size	Threads Per Inch	EDP NO.					
		Diameter of Die					
		13/16"	1"	1-1/2"	2"	2-1/2"	3"
14	1.50	-	-	317337	-	-	-
14	2.00	-	-	317338	-	-	-
15	1.50	-	-	317339	317350	-	-
16	1.00	-	-	317340	317351	-	-
16	1.50	-	-	317341	317352	-	-
16	2.00	-	-	317342	317353	-	-
17	1.50	-	-	317343	317354	-	-
18	1.50	-	-	317344	317355	-	-
18	2.00	-	-	317345	317356	-	-
18	2.50	-	-	317346	317357	-	-
20	1.50	-	-	317347	317358	-	-
20	2.00	-	-	317348	317359	-	-
20	2.50	-	-	317349	317360	-	-
22	1.00	-	-	-	317361	-	-
22	1.50	-	-	-	317362	-	-
22	2.00	-	-	-	317363	-	-
22	2.50	-	-	-	317364	-	-
24	1.50	-	-	-	317365	317368	-
24	2.00	-	-	-	317366	317369	-
24	3.00	-	-	-	317367	317370	-
27	2.00	-	-	-	-	317371	-
27	3.00	-	-	-	-	317372	-
28	2.00	-	-	-	-	317373	-
30	1.50	-	-	-	-	317374	-
30	2.00	-	-	-	-	317375	-
30	3.00	-	-	-	-	317376	-
30	3.50	-	-	-	-	317377	-
33	3.00	-	-	-	-	317378	-
33	3.50	-	-	-	-	317379	-
36	3.00	-	-	-	-	317380	-
36	4.00	-	-	-	-	317381	317382
39	3.00	-	-	-	-	-	317383
39	4.00	-	-	-	-	-	317384

Hexagon Rethreading Dies

Carbon Steel

Right hand - Left hand Fractional and machine screw sizes

Size	Threads per Inch	R.H. EDP NO.	L.H. EDP NO.
2	56	317528	-
4	40	317529	-
4	48	317530	-
5	40	317531	-
5	44	317532	-
6	32	317533	-
6	40	317537	-
8	32	317535	-
8	36	317536	-
10	24	317537	-
10	32	317538	-
12	24	317539	-
12	28	317540	-
14	20	317541	-
1/4	20	317542	317556
1/4	28	317543	317557
5/16	18	317544	317558
5/16	24	317545	317559
3/8	16	317546	317560
3/8	24	317547	317561
7/16	14	317548	317562
7/16	20	317549	317563
1/2	13	317550	317564
1/2	20	317551	317565
9/16	12	317552	317566
9/16	18	317553	317567
5/8	11	317554	317568
5/8	18	317555	317569

Size	Threads per Inch	R.H. EDP NO.	L.H. EDP NO.
11/16	11	317570	317598
11/16	16	317571	317599
3/4	10	317572	317600
3/4	16	317573	317601
7/8	9	317574	317602
7/8	14	317575	317603
1	8	317576	317604
1	12	317577	317605
1	14	317578	317606
1-1/8	7	317579	317607
1-1/8	12	317580	317608
1-1/4	7	317581	317609
1-1/4	12	317582	317610
1-3/8	6	317583	317611
1-3/8	12	317584	317612
1-1/2	6	317585	317613
1-1/2	12	317586	317614
1-5/8	5-1/2	317587	-
1-3/4	5	317588	317615
2	4-1/2	317589	317616
2-1/4	4-1/2	317590	-
2-1/2	4	317591	-
2-3/4	4	317592	-
3	4	317593	-
3-1/4	4	317594	-
3-1/2	4	317595	-
3-3/4	4	317596	-
4	4	317597	-

Hexagon Rethreading Dies Cont.

Carbon Steel

Right hand Metric sizes

Size	Threads per Inch	EDP NO.
3	.50	317617
3	.60	320304
3.5	.50	320305
3.5	.60	320306
4	.70	320307
4	.75	320308
4.5	.75	320309
5	.80	320310
5	.90	320311
6	1.00	320312
6.3	1.00	320313
7	1.00	320314
8	.75	320315
8	1.00	320316
8	1.25	320317
9	1.00	320318
9	1.25	320319
10	1.25	320320
10	1.50	320321
11	1.50	320322
12	1.25	320323
12	1.50	320324
12	1.75	320325
14	1.25	320326

Size	Threads per Inch	EDP NO.
14	1.50	320327
14	2.00	320328
16	1.50	320329
16	2.00	320330
18	1.50	320331
18	2.50	320332
20	1.50	320333
20	2.50	320334
22	1.50	320335
22	2.50	320336
24	2.00	320337
24	3.00	320338
27	2.00	320339
27	3.00	320340
30	1.50	320341
30	2.00	320342
30	3.50	320343
33	2.00	320344
33	3.50	320345
36	3.00	320346
36	4.00	320347
39	3.00	320348
39	4.00	320349
42	3.00	320350

Right hand NPT Pipe Sizes

Size	Threads per Inch	EDP NO.
1/8	27	320293
1/4	18	320294
3/8	18	320295
1/2	14	320296
3/4	14	320297

Size	Threads per Inch	EDP NO.
1	11-1/2	320298
1-1/4	11-1/2	320299
1-1/2	11-1/2	320300
2	11-1/2	320301

Hole Cutters

These hole cutters are recommended for use in hand-held air or electric drill motors as well as light drill press applications in sheet metal, thin wall tubing, steel plate or any other larger diameter shallow hole cutting. This tool centers quickly and is held securely in position after the pilot drill has entered the work piece. The cutter body then cuts a clean, burr-free hole faster than conventional twist drills or hole saws. With normal care, tool life is significantly longer than other hole cutting tools. Inexpensive resharpening will allow repeated use. A versatile and highly useful tool!

3/8" Shank 3/16" Pilot		
Size	NO. of Flutes	EDP NO.
1/2	4	307910
9/16	4	307911
5/8	4	307912
1/2" Shank 1/4" Pilot		
Size	NO. of Flutes	EDP NO.
1/2	4	307913
9/16	4	307914
5/8	4	307915
11/16	4	307916
3/4	4	307917
13/16	4	307918
7/8	4	307919
29/32	4	307920
15/16	5	307921
1	5	307922
1-1/16	5	307923
1-1/8	5	307924
1-3/16	5	307925
1-1/4	5	307926
1-5/16	5	307927
1-3/8	5	307928
1-1/2	5	307929
1-5/8	6	307930
1-3/4	6	307931
1-7/8	6	307932
2	6	307933

Hole Cutter Set

Set contains 1 piece each : 1/2", 3/4" 1" with 1/2" shanks and 1/4" pilot drills.

Supplied in wood block.
EDP NO. 307934

32nd, 64th and Metric sizes available at nominal extra charge.

"T" Slot Cutters

Straight Shank

High Speed Steel
Cobalt Roughing

Bore Size	Dia. of Cutter	Cutter Width	Dia. of Neck	Dia. of Shank	Overall Length	EDP NO	
						H.S.S.	Cobalt
1/4	9/16	15/64	17/64	1/2	2-19/32	311370	-
5/16	21/32	17/64	21/64	1/2	2-11/16	311371	-
3/8	25/32	21/64	13/32	3/4	3-1/4	311372	-
1/2	31/32	25/64	17/32	3/4	3-7/16	311373	311379
5/8	1-1/4	31/64	21/32	1	3-15/16	311374	311380
3/4	1-15/32	5/8	25/32	1	4-7/16	311375	311381
1	1-27/32	53/64	1-1/32	1-1/4	4-13/16	311376	311382
1-1/4	2-7/32	1-3/32	1-9/32	1-1/4	5-3/8	311377	311383
1-1/2	2-21/32	1-11/32	1-17/32	1-1/4	5-29/32	311378	311384

Dovetail Cutters

Single Angle Milling Cutters
Shank Type

45° Lead Angle - High Speed Steel And Cobalt

60° Lead Angle - High Speed Steel And Cobalt

Dia. of Cut	Width of Cut	Shank Dia.	Overall Length	EDP NO	
				H.S.S.	Cobalt
45° Lead Angle					
3/8	3/16	3/8	2-1/8	311385	311391
1/2	1/8	3/8	2-1/8	311386	311392
3/4	3/16	3/8	2-1/2	311387	311393
1-3/8	3/8	5/8	2-7/8	311388	311394
1-7/8	1/2	7/8	3-1/4	311389	311395
2-1/4	11/16	1	3-3/4	311390	311396
60° Lead Angle					
3/8	3/16	3/8	2-1/8	311397	311403
1/2	7/32	3/8	2-1/8	311398	311404
3/4	5/16	3/8	2-1/8	311399	311405
1-3/8	9/16	5/8	2-7/8	311400	311406
1-7/8	13/16	7/8	3-1/4	311401	311407
2-1/4	1-1/16	1	3-3/4	311402	311408

Uni-Kut Fly Tool Cutters

- Uses inexpensive, standard tool bits
- Makes wider cuts than end mills
- Saves purchase and re-grind costs of end mills
- Faster speeds and better finishes
- Less chatter and free-cutting on thin material or non-rigid set ups

Head Dia.	Shank Size	Tool Bit Size	EDP NO.
Straight Shank			
3/4	1/2	3/16	311409
1-1/8	1/2	1/4	311410
1-3/8	1/2	5/16	311411
1-3/8	3/4	5/16	311412
2	3/4	5/16	311413
2-1/2	3/4	5/16	311414
R-8 Shank			
2-1/2	R-8	5/16	311415

Woodruff Key Seat Cutters

High Speed Steel

1/2" Diameter, Straight Shank

Straight Tooth - Staggered Tooth

American Std. #	Nominal Dia.	Width of Face	Overall Length	EDP NO	
				Straight.	Staggered
202	1/4	1/16	2-1/16	317846	317867
202.5	5/16	1/16	2-1/16	317847	317868
302.5	5/16	3/32	2-3/32	317848	317869
203	3/8	1/16	2-1/16	317849	317870
303	3/8	3/32	2-3/32	317580	317871
403	3/8	1/8	2-1/8	317851	317872
204	1/2	1/16	2-1/16	317852	317873
304	1/2	3/32	2-3/32	317853	317874
404	1/2	1/8	2-1/8	317854	317875
305	5/8	3/32	2-3/32	317855	317876
405	5/8	1/8	2-1/8	317856	317877
505	5/8	5/32	2-5/32	317857	317878
605	5/8	3/16	2-3/16	317858	317879
406	3/4	1/8	2-1/8	317859	317880
506	3/4	5/32	2-5/32	317860	317881
606	3/4	3/16	2-3/16	317861	317882
806	3/4	1/4	2-1/4	317862	317883
507	7/8	5/32	2-5/32	317863	317884
607	7/8	3/16	2-3/16	317864	317885
707	7/8	7/32	2-7/32	317865	317886
807	7/8	1/4	2-1/4	317866	317887

10 Piece set

Contains 1 piece of each:
204,305,403,404,406,505,
606,608,806,808

Supplied in a wood block

EDP NO. Straight - 320100

EDP NO. Staggered - 320101

American Std. #	Nominal Dia.	Width of Face	Overall Length	EDP NO	
				Straight.	Staggered
608	1	3/16	2-3/16	317888	317908
708	1	7/32	2-7/32	317889	317909
808	1	1/4	2-1/4	317890	317910
1008	1	5/16	2-5/16	317891	317911
1208	1	3/8	2-3/8	317892	317912
609	1-1/8	3/16	2-3/16	317893	317913
709	1-1/8	7/32	2-7/32	317894	317914
809	1-1/8	1/4	2-1/4	317895	317915
1009	1-1/8	5/16	2-5/16	317896	317916
610	1-1/4	3/16	2-3/16	317897	317917
710	1-1/4	7/32	2-7/32	317898	317918
810	1-1/4	1/4	2-1/4	317899	317919
1010	1-1/4	5/16	2-5/16	317900	317920
1210	1-1/4	3/8	2-3/8	317901	317921
811	1-3/8	1/4	2-1/4	317902	317922
1011	1-3/8	5/16	2-5/16	317903	317923
1211	1-3/8	3/8	2-3/8	317904	317924
812	1-1/2	1/4	2-1/4	317905	317925
1012	1-1/2	5/16	2-5/16	317906	317926
1212	1-1/2	3/8	2-3/8	317907	317927

41 Piece set

Contains 1 piece of each:
202 thru 1212

Supplied in a wood block

EDP NO. Straight - 320102

EDP NO. Staggered - 320103

Arbor type corner rounding cutters available. Please inquire.

Single Angle Chamfering Cutter

High Speed Steel

With Weldon Shank

45° Angle - 60° Angle

Cutter Dia.	Shank Dia.	Overall Length	45° Angle		60° Angle	
			Cutter Width	EDP NO.	Cutter Width	EDP NO.
1/2	3/8	2-1/8	1/8	311470	7/32	311474
3/4	3/8	2-1/8	3/16	311471	5/16	311475
1	1/2	2-1/2	5/16	311472	7/16	311476
1-1/2	3/4	2-3/4	1/2	311473	5/8	311477

Double Angle Chamfering Cutter

High Speed Steel

With Weldon Shank

60° Angle - 90° Angle

Cutter Dia.	Cutter Width	Shank Dia.	Overall Length	EDP NO	
				60° Angle	90° Angle
3/4	3/16	3/8	2-3/8	320104	320110
1	5/16	1/2	2-5/16	320105	320112
1-3/8	7/16	5/8	2-7/16	320106	320113
1-1/2	1/2	5/8	2-1/2	320107	320114
1-7/8	5/8	3/4	2-5/8	320108	320115
2-1/4	3/4	7/8	2-3/4	320109	320116

BORING BARS

Super-Bore Carbide Tipped Boring Bar

- High quality alloy steel for greater rigidity
- Precision ground shanks
- Offset taper to provide greater rigidity at cutting point

Please specify grade when ordering

C-2 Cast iron or C-6 Steel

Min. Bore	Bore Depth	Overall Length	EDP NO.	
			C-2	C-6
3/8" Shank				
5/16	3/4	2	312101	320355
5/16	1-1/8	2-3/8	312102	320356
5/16	1-1/2	2-3/4	312103	320357
3/8	15/16	2-3/16	312104	320358
3/8	1-13/32	2-21/32	312105	320359
3/8	1-7/8	3-1/8	312106	320360
7/16	1-1/8	2-3/8	312107	320361
7/16	1-11/16	3-15/16	312108	320362
7/16	2-1/4	3-1/2	312109	320363
1/2" Shank				
5/16	3/4	2-1/4	312122	320376
5/16	1-1/8	2-5/8	312123	320377
5/16	1-1/2	3	312124	320378
7/16	1-1/8	2-5/8	312125	320379
7/16	1-11/16	3-3/16	312126	320380
7/16	2-1/4	3-3/4	312127	320381
9/16	1-1/2	3	312128	320382
9/16	2-1/4	3-3/4	312129	320383
9/16	3	4-1/2	312130	320384
5/8" Shank				
5/16	3/4	2-1/4	312110	320364
5/16	1-1/8	2-5/8	312111	320365
5/16	1-1/2	3	312112	320366
7/16	1-1/8	2-5/8	312113	320367
7/16	1-11/16	3-3/16	312114	320368
7/16	2-1/4	3-3/4	312115	320369
9/16	1-1/2	3	312116	320370
9/16	2-1/4	3-3/4	312117	320371
9/16	3	4-1/2	312118	320372
11/16	1-7/8	3-3/8	312119	320373
11/16	2-13/16	4-5/16	312120	320374
11/16	3-3/4	5-1/4	312121	320375

Min. Bore	Bore Depth	Overall Length	EDP NO.	
			C-2	C-6
3/4" Shank				
7/16	1-1/8	3-1/8	312131	320385
7/16	1-11/16	3-11/16	312132	320386
7/16	2-1/4	4-1/4	312133	320387
9/16	1-1/2	3-1/2	312134	320388
9/16	2-1/4	4-1/4	312135	320389
9/16	3	5	312136	320390
11/16	1-7/8	3-7/8	312137	320391
11/16	2-13/16	4-13/16	312138	320392
11/16	3-3/4	5-3/4	312139	320393
13/16	2-1/4	4-1/4	312140	320394
13/16	3-3/8	5-3/8	312141	320395
13/16	4-1/2	6-1/2	312142	320396
1" Shank				
7/16	1-3/4	3-3/4	312143	320397
9/16	2-1/4	4-1/4	312144	320398
9/16	3	5	312145	320399
11/16	3	5	312146	320400
11/16	3-3/4	5-3/4	312147	320401
13/16	3-3/4	5-3/4	312148	320402
7/8	4-1/2	6-1/2	312149	320403
15/16	3-3/4	5-3/4	312150	320404
1-1/16	4-1/2	6-1/2	312151	320405
1-1/4	5-3/4	7-3/4	312152	320406
1-1/2	6-1/4	8-1/4	312153	320407
1-5/8	7-1/2	9-1/2	312154	320408

Super-Bore Carbide Tipped Boring Bar Sets

All sets are supplied in mahogany wood stands

3/8" Shank

9 Piece set
Contains 1 piece of each 3/8"
Shank boring bars shown on
opposite page

EDP NO. - 312156

3/4" Shank

12 Piece set
Contains 1 piece of each 3/4"
Shank boring bars shown on
opposite page

EDP NO. - 312159

1/2" Shank

9 Piece set
Contains 1 piece of each 1/2"
Shank boring bars shown on
opposite page

EDP NO. - 312160

1" Shank

Standard Length
5 Piece set
Contains 1 of each EDP NO:
312143, 312144, 312146,
312150, 312151

EDP NO. - 312157

5/8" Shank

12 Piece set
Contains 1 piece of each 5/8"
Shank boring bars shown on
opposite page

EDP NO. - 312155

1" Shank

Long Length
5 Piece set
Contains 1 of each EDP NO:
312147, 312151, 312152,
312153, 312154

EDP NO. - 312158

BORING BARS

Co-Bore

Made of premium cobalt high speed steel in a one piece construction, these boring bars may also be modified to a special grooving tool to produce various internal shapes and radiuses. Cobalt is an ideal tool material because of its high red-hardness, abrasive resistance and ability to maintain a sharp edge. In addition, cobalt is used successfully to significantly extend tool life.

Min. Bore	Bore Depth	Overall Length	EDP NO.
3/8" Shank			
3/16	9/16	1-13/16	312166
3/16	15/16	2-3/16	312167
1/4	3/4	2	312168
1/4	1-1/4	2-1/2	312169
5/16	15/16	2-3/16	312670
5/16	1-9/16	2-13/16	312171
3/8	1-1/8	2-3/8	312172
3/8	1-7/8	3-1/8	312173
1/2" Shank			
1/4	3/4	2-1/8	312188
1/4	1-1/4	2-5/8	312189
5/16	15/16	2-5/16	312190
5/16	1-9/16	2-15/16	312191
3/8	1-1/8	2-1/2	312192
3/8	1-7/8	3-1/4	312193
7/16	1-5/16	2-11/16	312194
7/16	2-3/16	3-9/16	312195
1/2	1-1/2	2-7/8	312196
1/2	2-1/2	3-7/8	312197

Min. Bore	Bore Depth	Overall Length	EDP NO.
5/8" Shank			
3/8	1-1/8	2-5/8	312174
3/8	1-7/8	2-3/8	312175
7/16	1-5/16	2-13/16	312176
7/16	2-13/16	3-11/16	312177
1/2	1-1/2	3	312178
1/2	2-1/2	4	312179
9/16	1-11/16	3-3/16	312180
9/16	2-13/16	4-5/16	312181
5/8	1-7/8	3-3/8	312182
5/8	3-1/8	4-5/8	312183
3/4" Shank			
3/8	1-1/8	2-7/8	312198
3/8	1-7/8	3-5/8	312199
7/16	1-5/16	3-1/16	312200
7/16	2-3/16	3-15/16	312201
1/2	1-1/2	3-1/4	312202
1/2	2-1/2	4-1/4	312203
9/16	1-11/16	3-7/16	312204
9/16	2-13/16	4-9/16	312205
5/8	1-7/8	3-5/8	312206
5/8	3-1/8	4-7/8	312207
11/16	2-1/16	3-13/16	312208
11/16	3-7/16	5-3/16	312209
3/4	2-1/4	4	312210
3/4	3-3/4	5-1/2	312211

Sets

All sets supplied in a wood block

8 Piece set

Contains 1 piece of each 3/8" Shank boring bars shown above

EDP NO. - 312184

10 Piece set

Contains 1 piece of each 1/2" Shank boring bars shown above

EDP NO. - 312185

10 Piece set

Contains 1 piece of each 5/8" Shank boring bars shown above

EDP NO. - 312186

14 Piece set

Contains 1 piece of each 3/4" Shank boring bars shown above

EDP NO. - 312187

Mini-Bore

Solid Carbide Stems - Steel Shanks

Single Tool			
Min. Bore	Bore Depth	Overall Length	EDP NO.
3/8" Shank			
1/16	5/16	1-9/16	312213
3/32	15/32	1-23/32	312214
1/8	5/8	1-7/8	312215
5/32	25/32	2-1/32	312216
3/16	15/16	2-3/16	312217
1/4	1-1/4	2-1/2	312218
1/2" Shank			
1/16	5/16	1-13/16	312219
3/32	15/32	1-15/16	312220
1/8	5/8	2-1/8	312221
5/32	25/32	2-1/4	312222
3/16	15/16	2-7/16	312223
1/4	1-1/4	2-13/16	312224

Sets

All sets supplied in a wood block

3/8" Shank

6 Piece set

Contains 1 piece of each:

1/16" thru 1/4"

EDP NO. - 312212

1/2" Shank

6 Piece set

Contains 1 piece of each:

1/16" thru 1/4"

EDP NO. - 312225

BORING BARS

Stubby Boring Bars

High Speed Steel And Carbide Tipped

- Maximum rigidity
- Precision ground shanks/ flats
- Shanks feature set screw

High Speed Steel			
Min. Bore	Bore Depth	Overall Length	EDP NO.
1/2" Shank			
1/8	1/4	1-21/32	312230
3/16	5/16	1-13/16	312231
1/4	7/16	2	312232
5/16	9/16	2-3/16	312233
3/8	11/16	2-3/8	312234
1/2	13/16	2-9/16	312235
5/8" Shank			
3/8	11/16	2-5/16	312236
1/2	15/16	2-9/16	312237
5/8	1-1/8	2-3/4	312238
3/4" Shank			
1/2	1-5/16	2-15/16	312239
3/4	1-17/32	3-5/32	312240
1	1-3/4	3-3/8	312241
1" Shank			
3/4	1-17/32	3-5/32	312242
1	1-3/4	3-3/8	312243
1-1/4	1-32/32	3-19/32	312244

Carbide Tipped			
Min. Bore	Bore Depth	Overall Length	EDP NO.
1/2" Shank			
1/8	1/4	1-21/32	312245
3/16	5/16	1-13/16	312246
1/4	7/16	2	312247
5/16	9/16	2-3/16	312248
3/8	11/16	2-3/8	312249
1/2	13/16	2-9/16	312250
5/8" Shank			
3/8	11/16	2-5/16	312251
1/2	15/16	2-9/16	312252
5/8	1-1/8	2-3/4	312253
3/4" Shank			
1/2	1-5/16	2-15/16	312254
3/4	1-17/32	3-5/32	312255
1	1-3/4	3-3/8	312256
1" Shank			
3/4	1-17/32	3-5/32	312257
1	1-3/4	3-3/8	312258
1-1/4	1-32/32	3-19/32	312259

Stubby Boring Bar Sets

All sets supplied in a wood block

High Speed Steel Sets

1/2" Shank

6 Piece set

Contains 1 piece of each:

1/8, 3/16, 1/4, 5/16, 3/8, 1/2

EDP NO. - 312260

5/8" Shank

3 Piece set

Contains 1 piece of each:

3/8, 1/2, 5/8

EDP NO. - 312261

3/4" Shank

3 Piece set

Contains 1 piece of each:

1/2, 3/4, 1"

EDP NO. - 312262

1" Shank

3 Piece set

Contains 1 piece of each:

3/4, 1, 1-1/4

EDP NO. - 312263

Carbide Tipped Sets

1/2" Shank

6 Piece set

Contains 1 piece of each:

1/8, 3/16, 1/4, 5/16, 3/8, 1/2

EDP NO. - 312264

5/8" Shank

3 Piece set

Contains 1 piece of each:

3/8, 1/2, 5/8

EDP NO. - 312265

3/4" Shank

3 Piece set

Contains 1 piece of each:

1/2, 3/4, 1"

EDP NO. - 312266

1" Shank

3 Piece set

Contains 1 piece of each:

3/4, 1, 1-1/4

EDP NO. - 312267

Square Tool Bits

Ground - Both Ends Beveled 10°

High Speed Steel - 5% Cobalt - 8% Super Cobalt

Standard, Long, and Extra Long Lengths									
Size	Overall Length	EDP NO.			Size	Overall Length	EDP NO.		
		HSS	5% Cobalt	8% Cobalt			HSS	5% Cobalt	8% Cobalt
1/8	2-1/2	317947	317960	317973	7/16	3-1/2	317986	317999	318012
3/16	2-1/2	317948	317961	317974	1/2	4	317987	318000	318013
1/4	2-1/2	317949	317962	317975	1/2	6	317988	318001	318014
1/4	4	317950	317963	317976	1/2	8	317989	318002	318015
1/4	6	317951	317964	317977	5/8	4	317990	318003	318016
1/4	8	317952	317965	317978	5/8	4-1/2	317991	318004	318017
5/16	2-1/2	317953	317966	317979	5/8	8	317992	318005	318018
5/16	4	317954	317967	317980	3/4	5	317993	317006	318019
5/16	6	317955	317968	317981	7/8	6	317994	318007	318020
3/8	3	317956	317969	317982	1	7	317995	318008	318021
3/8	4	317957	317970	317983	1-1/8	8	317996	318009	318022
3/8	6	317958	317971	317984	1-1/4	7	317997	318010	318023
3/8	8	317959	317972	317985	1-1/2	10	317998	318011	318024

Rectangular Tool Bits

High Speed Steel - Cobalt

Standard and Long Lengths											
Size	Overall Length	EDP NO.		Size	Overall Length	EDP NO.		Size	Overall Length	EDP NO.	
		HSS	Cobalt			HSS	Cobalt			HSS	Cobalt
1/4 x 3/8	3	318025	318031	3/8 x 5/8	4	318037	318043	5/8 x 3/4	5	318049	318055
1/4 x 1/2	4	318026	318032	3/8 x 3/4	5	318038	318044	5/8 x 7/8	6	318050	318056
1/4 x 3/4	5	318027	318033	1/2 x 3/4	4	318039	318045	5/8 x 1	7	318051	318057
1/4 x 1	6	318028	318034	1/2 x 3/4	6	318040	318046	5/8 x 1-1/4	7	318052	318058
5/16 x 7/16	3	318029	318035	1/2 x 1	6	318041	318047	3/4 x 1	6	318053	318059
3/8 x 1/2	4	318030	318036	1/2 x 1-1/4	7	318042	318048	3/4 x 1-1/4	7	318054	318060

"P" Type Cut-Off Blades

T-Shaped
High Speed Steel

This style blade produces a chip narrower than the blade itself and is suited for cutting off, grooving, and similar operations. Increased clearance angles on each side of the blade reduces friction and the narrow design conserves material being cut and reduces the heat generated when cutting.

Cut-Off Blades									
Width	Height	Overall Length	Blade NO.	EDP NO.	Width	Height	Overall Length	Blade NO.	EDP NO.
.040	1/2	3-1/2	P1N	318061	5/32	3/4	5	P4W	318071
1/16	1/2	4-1/2	P1	318062	3/16	3/4	5	P5W	318072
5/64	1/2	4-1/2	P2N	318063	1/8	7/8	6	P5X	318073
3/32	1/2	4-1/2	P2	318064	5/32	7/8	6	P5N	318074
1/8	1/2	4-1/2	P3S	318065	3/16	7/8	6	P5	318075
3/32	11/16	5	P3N	318066	1/4	7/8	6	P6	318076
1/8	11/16	5	P3	318067	1/8	1-1/8	6-1/2	P8X	318077
5/32	11/16	5	P4	318068	5/32	1-1/8	6-1/2	P8N	318078
3/16	11/16	5	P5S	318069	3/16	1-1/8	6-1/2	P8	318079
1/8	3/4	5	P3W	318070	1/4	1-1/8	6-1/2	P9	318080

Ground Cut-Off Blades

High Speed Steel - Super Cobalt

Standard Lengths			
Size	Overall Length	EDP NO.	
		HSS	Super Cobalt
1/16 x 11/16	5	318081	318091
3/32 x 1/2	4-1/2	318082	318092
3/32 x 5/8	5	318083	318093
1/8 x 3/4	6	318081	318094
1/8 x 7/8	6	318085	318095
3/16 x 13/16	6	318086	318096
3/16 x 1	8	318087	318097
3/16 x 1-1/8	7	318088	318098
1/4 x 1-1/8	7	318089	318099
1/4 x 1-1/4	7	318090	318100

SINGLE POINT TOOLS

Brazed Single Point Tools Carbide Tipped

AR and AL styles

For machining to a square shoulder

Straight Turning Tools								
Tool Style	AR -EDP NO.		AL - EDP NO.		Width	Height	Length	Qty.
	C-2	C-5	C-2	C-5				
4	133456	133457	133474	133475	1/4	1/4	2	12
5	133458	133459	133476	133477	5/16	5/16	2-1/4	12
6	133460	133461	133478	133479	3/8	3/8	2-1/2	12
7	133462	133463	133480	133481	7/16	7/16	3	12
8	133464	133465	133482	133483	1/2	1/2	3-1/2	12
10	133466	133467	133484	133485	5/8	5/8	4	12
12	133468	133469	133486	133487	3/4	3/4	4-1/2	12
16	133470	133471	133488	133489	1	1	7	6
44	133472	133473	133490	133491	1/2	1	7	12

C style

No square radius

0° Square Nose Tools						
Tool Style	EDP NO.		Width	Height	Length	Qty.
	C-2	C-5				
C-4	133528	133529	1/4	1/4	2	12
C-5	133530	133531	5/16	5/16	2-1/4	12
C-6	133532	133533	3/8	3/8	2-1/2	12
C-7	133534	133535	7/16	7/16	3	12
C-8	133536	133537	1/2	1/2	3-1/2	12
C-10	133538	133539	5/8	5/8	4	12
C-12	133540	133541	3/4	3/4	4-1/2	12
C-16	133542	133543	1	1	7	6
C-44	133544	133545	1/2	1	7	12

FR and FL styles

Offset for facing to square shoulder or close to chuck jaws

Offset End-Cutting Tools								
Tool Style	FR -EDP NO.		FL - EDP NO.		Width	Height	Length	Qty.
	C-2	C-5	C-2	C-5				
8	133598	133599	133608	133609	1/2	1/2	3-1/2	12
10	133600	133601	133610	133611	5/8	5/8	4	12
12	133602	133603	133612	133613	3/4	3/4	4-1/2	12
16	133604	133605	133614	133615	1	1	7	6
44	133606	133607	133616	133617	1/2	1	7	12

Brazed Single Point Tools Carbide Tipped

BR and BL styles

For interrupted or irregular cuts

15° Lead Angle Turning Tools								
Tool Style	BR -EDP NO.		BL - EDP NO.		Width	Height	Length	Qty.
	C-2	C-5	C-2	C-5				
4	133492	133493	133510	133511	1/4	1/4	3	12
5	133494	133495	133512	133513	5/16	5/16	2-1/4	12
6	133496	133497	133514	133515	3/8	3/8	2-1/2	12
7	133498	133499	133516	133517	7/16	7/16	3	12
8	133500	133501	133518	133519	1/2	1/2	2-1/2	12
10	133502	133503	133520	133521	5/8	5/8	4	12
12	133504	133505	133522	133523	3/4	3/4	4-1/2	12
16	133506	133507	133524	133525	1	1	7	6
44	133508	133509	133526	133527	1/2	1	7	12

D style

80° Pointed Nose

80° Pointed Nose Tools						
Tool Style	EDP NO.		Width	Height	Length	Qty.
	C-2	C-5				
D-4	133546	133547	1/4	1/4	2	12
D-5	133548	133549	5/16	5/16	2-1/4	12
D-6	133550	133551	3/8	3/8	2-1/2	12
D-7	133552	133553	7/16	7/16	3	12
D-8	133554	133555	1/2	1/2	3-1/2	12
D-10	133556	133557	5/8	5/8	4	12
D-12	133558	133559	3/4	3/4	4-1/2	12
D-16	133560	133561	1	1	7	6

E style

60° included angle: 30° side cutting edge for threading, chamfering and undercutting

Threading Tools						
Tool Style	EDP NO.		Width	Height	Length	Qty.
	C-2	C-5				
D-4	133562	133563	1/4	1/4	2	12
D-5	133564	133565	5/16	5/16	2-1/4	12
D-6	133566	133567	3/8	3/8	2-1/2	12
D-7	133568	133569	7/16	7/16	3	12
D-8	133570	133571	1/2	1/2	3-1/2	12
D-10	133572	133573	5/8	5/8	4	12
D-12	133574	133575	3/4	3/4	4-1/2	12
D-16	133576	133577	1	1	7	6

SINGLE POINT TOOLS

Brazed Single Point Tools Carbide Tipped

GR and GL styles

Offset for facing to square shoulder or close to chuck jaws

Offset Side-Cutting Tools								
Tool Style	GR -EDP NO.		GL - EDP NO.		Width	Height	Length	Qty.
	C-2	C-5	C-2	C-5				
8	133618	133619	133628	133629	1/2	1/2	3-1/2	12
10	133620	133621	133630	133631	5/8	5/8	4	12
12	133622	133623	133632	133633	3/4	3/4	4-1/2	12
16	133624	133625	133634	133635	1	1	7	6
44	133626	133627	133636	133637	1/2	1	7	12

ER and EL styles

Offset for threading and boring to shoulder

Offset Side-Cutting Tools								
Tool Style	ER -EDP NO.		EL - EDP NO.		Width	Height	Length	Qty.
	C-2	C-5	C-2	C-5				
8	133578	133579	133588	133589	1/2	1/2	3-1/2	12
10	133580	133581	133590	133591	5/8	5/8	4	12
12	133582	133583	133592	133593	3/4	3/4	4-1/2	12
16	133584	133585	133594	133595	1	1	7	6
44	133586	133587	133596	133597	1/2	1	7	12

CT and CTL styles

For stock cut off and grooving solid bars

Offset Side-Cutting Tools							
Tool Style	CT -EDP NO.		CTL - EDP NO.		Width	Height	Length
	C-2	C-5	C-2	C-5			
111	133668	133669	133680	133681	1/2	1	5
122	133670	133671	133682	133683	1/2	1	5
120	133672	133673	133684	133685	1/2	1	5
121	133674	133675	133686	133687	1/2	1	5
130	133676	133677	133688	133689	5/8	1-1/4	5
140	133678	133679	133690	133691	3/4	1-1/2	6

Brazed Single Point Tools Carbide Tipped

TSA Square Shank

For boring to a square shoulder in 90° boring bars. High positive rake

Tool Style	EDP NO.		Width	Height	Length
	C-2	C-5			
TSA-5	133638	133639	5/16	5/16	1-1/2
TSA-6	133640	133641	3/8	3/8	1-3/4
TSA-8	133642	133643	1/2	1/2	2-1/2
TSA-10	133644	133645	5/8	5/8	3
TSA-12	133646	133647	3/4	3/4	3-1/2

TSC Square Shank

For boring to a square shoulder in 30° and 40° boring bars. High positive rake

Tool Style	EDP NO.		Width	Height	Length
	C-2	C-5			
TSC-5	133648	133649	5/16	5/16	1-1/2
TSC-6	133650	133651	3/8	3/8	1-3/4
TSC-8	133652	133653	1/2	1/2	2-1/2
TSC-10	133654	133655	5/8	5/8	3
TSC-12	133656	133657	3/4	3/4	3-1/2

TSE Square Shank

For boring to a square shoulder in 45° and 40° boring bars or with a 15° lead angle in 30°. High positive rake

Tool Style	EDP NO.		Width	Height	Length
	C-2	C-5			
TSE-5	133658	133659	5/16	5/16	1-1/2
TSE-6	133660	133661	3/8	3/8	1-3/4
TSE-8	133662	133663	1/2	1/2	2-1/2
TSE-10	133664	133665	5/8	5/8	3
TSE-12	133666	133667	3/4	3/4	3-1/2

SINGLE POINT TOOLS

Brazed Single Point Tools Carbide Tipped

TRC Square Shank

For boring to a square shoulder in 45° and 40° boring bars or with a 15° lead angle in 30°. High positive rake

Tool Style	EDP NO.		Diameter	Length
	C-2	C-5		
TRC-5	133692	133693	5/16	1-1/2
TRC-6	133694	133695	3/8	1-3/4
TRC-8	133696	133697	1/2	2-1/2

TRE Square Shank

For boring to a square shoulder in 45° and 40° boring bars or with a 15° lead angle in 30°. High positive rake

Tool Style	EDP NO.		Diameter	Length
	C-2	C-5		
TRE-5	133698	133699	5/16	1-1/2
TRE-6	133700	133701	3/8	1-3/4
TRE-8	133702	133703	1/2	2-1/2

Standard package quantity is 12 for all tools on pgs 246-247

Cut-Off and Grooving Tool System

Tool and insert designs are interchangeable with Iscar, Newcomer, Belcar and other brands.

Carbide Inserts				
Width	Insert Number	EDP NO.		
	0° Face Angle	T-21	T-60	TN-60
NEUTRAL				
.087	NGTN-2	318330	318339	318348
.094	NGTN-2.4	318331	319340	318349
.120	NGTN-3	318332	318341	318350
.160	NGTN-4	318333	318342	318351
.187	NGTN-4.8	318334	318343	318352
.200	NGTN-5	318335	318344	318353
.250	NGTN-6	318336	318345	318354
.315	NGTN-8	318337	318346	318355
.375	NGTN-9	318338	318347	318356

Carbide Inserts				
Width	Insert Number	EDP NO.		
		T-21	T-60	TN-60
3° Face Angle- Right Hand				
.087	NGTR2-3	318157	318364	318371
.094	NGTR2.4-3	318358	318365	318372
.120	NGTR3-3	318359	318366	318373
.160	NGTR4-3	318360	318367	318374
.187	NGTR4.8-3	318361	318368	318375
.200	NGTR5-3	318362	318369	318376
.250	NGTR6-3	318363	318370	318377
8° Face Angle - Right Hand				
.087	NGTR2-8	320475	320476	320477
.094	NGTR2.4-8	320478	320479	320480
.120	NGTR3-8	320481	320482	320483
.160	NGTR4-8	320484	320485	320486
.187	NGTR4.8-8	320487	320488	320489
.200	NGTR5-8	320490	320491	320492
.250	NGTR6-8	320493	320494	320495

Carbide Inserts				
Width	Insert Number	EDP NO.		
		T-21	T-60	TN-60
3° Face Angle- Left Hand				
.087	NGTL2-3	318380	318387	318394
.094	NGTL2.4-3	318381	318388	318395
.120	NGTL3-3	318382	318389	318396
.160	NGTL4-3	318383	318390	318397
.187	NGTL4.8-3	318384	318391	318398
.200	NGTL5-3	318385	318392	318399
.250	NGTL6-3	318386	318393	318400
8° Face Angle - Left Hand				
.087	NGTL2-8	320496	320497	320498
.094	NGTL2.4-8	320499	320500	320501
.120	NGTL3-8	320502	320503	320504
.160	NGTL4-8	320505	320506	320507
.187	NGTL4.8-8	320508	320509	320510
.200	NGTL5-8	320511	320512	320513
.250	NGTL6-8	320514	320515	320516

CUT-OFF & GROOVING

Cut-Off and Grooving Tool System

Tool Blades								
Dimensions					Insert Width	Tool NO.	EDP NO.	
A	L	H	B	D-Max				
1/16	3-3/4	39/64	3/4	1-1/2	.087 & .094	NGIH19-2	318401	
1/16	4-5/16	53/64	1-1/32	2	.087 & .094	NGIH26-2	318402	
3/32	4-5/16	53/64	1-1/32	3	.120	NGIH26-3	318403	
1/8	4-5/16	53/64	1-1/32	3	.160	NGIH26-4	318404	
5/32	4-5/16	53/64	1-1/32	3	.187 & .200	NGIH26-5	318405	
13/64	4-5/16	53/64	1-1/32	3	.250	NGIH26-6	318406	
1/16**	5-7/8	63/64	1-1/4	2	.087 & .094	NGIH32-2	318407	
3/32	5-7/8	63/64	1-1/4	4	.120	NGIH32-3	318408	
1/8	5-7/8	63/64	1-1/4	4	.160	NGIH32-4	318409	
5/32	5-7/8	63/64	1-1/4	5	.187 & .200	NGIH32-5	318410	
13/64	5-7/8	63/64	1-1/4	5	.250	NGIH32-6	318411	
17/64	5-7/8	63/64	1-1/4	5.5	.315	NGIH32-8	318412	
5/16	5-7/8	63/64	1-1/4	5.5	.375	NGIH32-9	318413	

** 1/16 at front end only for clearance. Overall thickness is 3/32

Replacement Parts List		
Part NO.	Description	EDP NO.
GEX1	Insert Extractor for .087 - .250	318378
GEX2	Insert Extractor for .315 - .375	318379

CUT-OFF & GROOVING

Cut-Off and Grooving Tool System

Tool Blocks - Neutral										
Dimensions								Use Blade Number	Tool NO.	EDP NO.
A	B	C	D	E	H	W	L			
5/8	5/8	5/8	31/32	11/16	1-3/16	1-1/16	3	NGIH19-2	NGTBN16-2	318414
5/8	5/8	5/8	1-1/32	7/16	1-1/2	1-3/16	3	NGIH26-2,3,4,5,6	NGTBN16-5	318415
3/4	3/4	3/4	1-1/8	21/64	1-17/32	1-5/16	3-3/8	NGIH26-2,3,4,5,6	NGTBN19-5	318416
3/4	3/4	3/4	1-1/8	1/2	1-7/8	1-3/8	4	NGIH32-2,3,4,5,6,8,9	NGTBN19-6	318417
1	1	1	1-13/32	5/16	1-7/8	1-5/8	4-3/8	NGIH32-2,3,4,5,6,8,9	NGTBN25-6	318418
1-1/4	1-1/4	1-1/4	1-11/16	1/8	1-7/8	1-7/8	4-11/16	NGIH32-2,3,4,5,6,8,9	NGTBN32-6	318419

Tool Blocks - Left and Right Hand							
Dimensions					Use Blade Number	Tool NO.	EDP NO.
A	B	C	D	L			
1	3/4	3/4	43/64	4	NGIH19-2	NGTBR19-2	318420
1	3/4	3/4	43/64	4	NGIH19-2	NGTBI19-2	318421
1-1/4	25/32	1	19/32	4-3/4	NGIH26-2,3,4,5,6	NGTBR25-6	318422
1-1/4	25/32	1	19/32	4-3/4	NGIH26-2,3,4,5,6	NGTBR25-6	318423

Tool Holders													
Dimensions									Insert Number	Tool Number			
A	B	C	D	E	F	L	R	Width		Left Hand	EDP NO.	Right Hand	EDP NO.
3/8	3/8	3/8	3/4	2-3/4	3/16	3-3/8	1/2	.087, .094	NGTN/R/L-2,2.4	NGTHL10-2	318424	NGTHR10-2	318435
12mm	3/8	15/32	3/4	3-37/64	5/32	4-5/16	19/32	.087, .094	NGTN/R/L-2,2.4	NGTHL12-2	318425	NGTHR12-2	318436
1/2	3/8	1/2	3/4	3-37/64	5/32	4-5/16	19/32	.087, .094	NGTN/R/L-2,2.4	NGTHL12.7-2	318426	NGTHR12.7-2	318437
1/2	3/8	1/2	3/4	3-37/64	5/32	4-5/16	5/8	.120	NGTN/R/L-3	NGTHL12.7-3	318427	NGTHR12.7-3	318438
5/8	3/8	5/8	3/4	3-37/64	0	4-5/16	19/32	.087, .094	NGTN/R/L-2,2.4	NGTHL16-2	318428	NGTHR16-2	318439
5/8	1/2	5/8	1	3-29/64	11/64	4-5/16	5/8	.120	NGTN/R/L-3	NGTHL16-3	318429	NGTHR16-3	318440
5/8	1/2	5/8	1	3-29/64	11/64	4-5/16	5/8	.160	NGTN/R/L-4	NGTHL16-4	318430	NGTHR16-4	318441
3/4	1/2	3/4	1	3-29/64	0	4-5/16	5/8	.087, .094	NGTN/R/L-2,2.4	NGTHL19-2	318431	NGTHR19-2	318442
3/4	1/2	3/4	1	3-29/64	0	4-5/16	5/8	.120	NGTN/R/L-3	NGTHL19-3	318432	NGTHR19-3	318443
3/4	1/2	3/4	1	3-29/64	1/16	4-5/16	3/4	.160	NGTN/R/L-4	NGTHL19-4	318433	NGTHR19-4	318444
3/4	1/2	3/4	1	4-7/16	3/64	4-5/16	3/4	.187, .200	NGTN/R/L-4.8,5	NGTHL19-5	318434	NGTHR19-5	318445

TOOL HOLDERS

Small Screw Lock Positive Triangle Insert Tool Holders

Style A - 0° Side cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number	EDP NO.	A	B	C	E	F	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand									
STACR06-2	160062	3/8	3/8	2-1/2	3/4	3/8	21.5	TS-11	T-8
STACR08-2J	160063	1/2	1/2	3-1/2	7/8	1/2			
STACR10-2A	160064	5/8	5/8	4.0	1.0	5/8			
STACR12-3B	160065	3/4	3/4	4-1/2	1-1/8	3/4	32.5	TS-4.7-8M1	T-15
STACR64-3D	160066	3/4	1.0	6.0	1-1/8	3/4			
STACR85-4D	160067	1.0	1-1/4	6.0	1-1/4	1.0	43	TS-103-4M1	T-25

Style C - 0° End cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number	EDP NO.	A	B	C	E	F	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand									
STCCR06-2	160068	3/8	3/8	2-1/2	3/4	.395	21.5	TS-11	T-8
STCCR08-2J	160069	1/2	1/2	3-1/2	7/8	.520			
STCCR10-2A	160070	5/8	5/8	4.0	1.0	.645			
STCCR12-3B	160071	3/4	3/4	4-1/2	1-1/8	.770	32.5	TS-4.7-8M1	T-15
STCCR64-3D	160072	3/4	1.0	6.0	1-1/8	.770			
STCCR85-4D	160073	1.0	1-1/4	6.0	1-1/4	1.020	43	TS-103-4M1	T-25

Style D - 45° Side cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number	EDP NO.	A	B	C	F	F.1	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand									
STD06-2	160074	3/8	3/8	2-1/2	.260	.115	21.5	TS-11	T-8
STD08-2J	160075	1/2	1/2	3-1/2	.298	.201			
STD10-2A	160076	5/8	5/8	4.0	.361	.264			
STD12-3B	160077	3/4	3/4	4-1/2	.456	.294	32.5	TS-4.7-8M1	T-15
STD64-3D	160078	3/4	1.0	6.0	.456	.294			
STD85-4D	160079	1.0	1-1/4	6.0	.613	.387	43	TS-103-4M1	T-25

Style E - 30° Side cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number	EDP NO.	A	B	C	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand							
STECN06-2	160080	3/8	3/8	2-1/2	21.5	TS-11	T-8
STECN08-2J	160081	1/2	1/2	3-1/2			
STECN10-2A	160082	5/8	5/8	4.0			
STECN12-3B	160083	3/4	3/4	4-1/2	32.5	TS-4.7-8M1	T-15
STECN64-3D	160084	3/4	1.0	6.0			
STECN85-4D	160085	1.0	1-1/4	6.0	43	TS-103-4M1	T-25

Small Screw Lock Positive Triangle Insert Tool Holders

Style F - 0° End cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number		EDP NO.	A	B	C	E	F	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand	Left Hand									
STFCR06-2	STFCL06-2	160086	3/8	3/8	2-1/2	.56	1/2	21.5	TS-11	T-8
STFCR08-2J	STFCL08-2J	160087	1/2	1/2	3-1/2	.56	5/8			
STFCR10-2A	STFCL10-2A	160088	5/8	5/8	4.0	.56	3/4			
STFCR10-3B	STFCL10-3B	160089	5/8	5/8	4-1/2	.81	3/4	32.5	TS-4.7-8M1	T-15
STFCR12-3B	STFCL12-3B	160090	3/4	3/4	4-1/2	.81	7/8			
STFCR16-3D	STFCL16-3D	160091	1.0	1.0	6.0	.81	1-1/8			
STFCR20-4D	STFCL20-4D	160092	1-1/4	1-1/4	6.0	1.25	1-1/2	43	TS-103-4M1	T-25

Style G - 0° Side cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number		EDP NO.	A	B	C	E	F	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand	Left Hand									
STGCR06-2	STGCL06-2	160093	3/8	3/8	2-1/2	.56	1/2	21.5	TS-11	T-8
STGCR08-2J	STGCL08-2J	160094	1/2	1/2	3-1/2	.56	5/8			
STGCR10-2A	STGCL10-2A	160095	5/8	5/8	4.0	.56	3/4			
STGCR10-3B	STGCL10-3B	160096	5/8	5/8	4-1/2	.81	3/4	32.5	TS-4.7-8M1	T-15
STGCR12-3B	STGCL12-3B	160097	3/4	3/4	4-1/2	.81	7/8			
STGCR16-3D	STGCL16-3D	160098	1.0	1.0	6.0	.81	1-1/8			
STGCR20-4D	STGCL20-4D	160099	1-1/4	1-1/4	6.0	1.25	1-1/2	43	TS-103-4M1	T-25

Style J - 3° Side cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number		EDP NO.	A	B	C	E	F	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand	Left Hand									
STJCR06-2	STJCL06-2	160100	3/8	3/8	2-1/2	.56	1/2	21.5	TS-11	T-8
STJCR08-2J	STJCL08-2J	160101	1/2	1/2	3-1/2	.56	5/8			
STJCR10-2A	STJCL10-2A	160102	5/8	5/8	4.0	.56	3/4			
STJCR10-3B	STJCL10-3B	160103	5/8	5/8	4-1/2	.81	3/4	32.5	TS-4.7-8M1	T-15
STJCR12-3B	STJCL12-3B	160104	3/4	3/4	4-1/2	.81	7/8			
STJCR16-3D	STJCL16-3D	160105	1.0	1.0	6.0	.81	1-1/8			
STJCR20-4D	STJCL20-4D	160106	1-1/4	1-1/4	6.0	1.25	1-1/2	43	TS-103-4M1	T-25

Small Screw Lock Positive Triangle Insert Tool Holders

Style N - 3° Side cutting edge angle for positive triangle TCMT or TCGT inserts

Part Number	EDP NO.	A	B	C	E	F	TCGT TCMT Insert	Insert Torx Screw	Torx Key
Right Hand									
STNCR06-2	160107	3/8	3/8	2-1/2	3/4	3/8	21.5	TS-11	T-8
STNCR08-2J	160108	1/2	1/2	3-1/2	7/8	1/2			
STNCR10-2A	160109	5/8	5/8	4.0	1.0	5/8			
STNCR12-3B	160110	3/4	3/4	4-1/2	1-1/8	3/4	32.5	TS-4.7-8M1	T-15
STNCR64-3D	160111	3/4	1.0	6.0	1-1/8	3/4			
STNCR85-4D	160112	1.0	1-1/4	6.0	1-1/4	1.0	43	TS-103-4M1	T-25

STCMT-S Toolholder Set

Positive inserts, 7° clearance, TCMT & TCGT style

1 insert + 5 tools = Turning, facing, and chamfering

Complete 22 piece toolholder set includes:

- five toolholders
- ten inserts (TN-60)
- five insert torx screws
- one torx key
- one storage box

Turning Tool Set Number	EDP NO.	TCGT TCMT Inserts	STACR	STCCR	STDCR	STECN	STNCR
STGCR06-2	160113	3/8	STACR06-2	STACR06-2	STDCR06-2	STECN06-2	STNCR06-2
STGCR08-2J	160114	21.5	STACR08-2J	STACR08-2J	STDCR08-2J	STECN08-2J	STNCR08-2J
STGCR10-2A	160115	21.5	STACR10-2A	STACR10-2A	STDCR10-2A	STECN10-2A	STNCR10-2A
STGCR12-3B	160116	32.5	STACR12-3B	STACR13-3B	STDCR13-3B	STECN13-3B	STNCR13-3B
STGCR16-3D	160117	32.5	STACR64-3D	STACR64-3D	STDCR64-3D	STECN64-3D	STNCR64-3D
STGCR20-4D	160118	43	STACR85-40	STACR85-40	STDCR85-40	STECN85-40	STNCR85-40

Small Screw Lock Positive Insert Boring Bar Sets

Style miniature boring bar for positive triangle TCMT inserts

Part Number	EDP NO.	Min. Bore B Metric	C	D Metric	D1	E	F	TCMT Insert	Insert Torx Screw	Torx Key
STCMB6-5-2	160182	.286	4.0	.500	.265	1-1/8	.143	520	TS-06	T-6
STCMB6-5-3	160183	.313	4.0	.500	.300	1-1/8	.157			
STCMB6-5-4	160184	.374	4.0	.500	.358	1-1/8	.189			

Miniature Boring Bar Set Includes:							
Part Number	EDP NO.	Min. Bore B Metric	Boring Bars	TCMT Insert	Torx Screws	Torx Key	(1) Storage Box
MINI-STCMB-S	160182	.286	STCMB6-5-2	(10) 520	(3) TS-06	(1) T-6	
	160183	.313	STCMB6-5-3				
	160184	.374	STCMB6-5-4				
EDP NO.	160185						

Style boring bar for positive triangle TCMT inserts

Part Number	EDP NO.	Min. Bore	C	D	E	F	TCMT TCGT Insert	Insert Torx Screw	Torx Key
STCMB06-2	160186	.500	5.0	1/2	1.0	.152	21.5	TS-11	T-8
STCMB08-2	160187	.590	6.0	1/2	1.0	.287			
STCMB10-2	160188	.750	8.0	5/8	1-1/2	.350			
STCMB12-3	160189	.845	10.0	3/4	1-3/4	.422	32.5	TS-4.7-8M1	T-15
STCMB16-3	160190	1.115	12.0	1.0	2.0	.555			

STCMB-S Set Includes						
Part Number	Shank Size	Min. Bore	TCMT TCGT Insert	Torx Screws	Torx Keys	(1) Storage Box
(1) STCMB06-2	1/2	.500	(10) 21.51	(3) TS-11	(1) T-8	
(1) STCMB08-2	1/2	.590				
(1) STCMB10-2	5/8	.750				
(1) STCMB12-3	3/4	.845	(10) 32.51	(1) TS-4.7-8M1	(1) T-15	
EDP NO.	160191					

Style L - 5° End & side cutting edge angle for positive triangle TPGH inserts

Part Number	EDP NO.	Min. Bore	C	D	E	F	TPGB TPGH Insert	Insert Torx Screw	Torx Key	Boring Bar Deluxe Set
TPBN06-2	160192	.430	5.0	1/2	1.0	.208	21.5	TS-11	T-8	TPBN- SET Set includes: 8 Boring bars 8 Inserts 8 Torx screws 3 Torx keys 1 Storage box
TPBN08-2	160193	.590	6.0	1/2	1.0	.287				
TPBN10-2	160194	.6682	8.0	5/8	1-1/2	.350				
TPBN12-3	160195	.845	10.0	3/4	1-3/4	.422	32	TS-44-3	T-10	
TPBN16-3	160196	1.115	12.0	1.0	2.0	.555				
TPBN20-3	160197	1.370	12.0	1-1/4	2-1/2	.682				
TPBN20-4	160198	1.370	12.0	1-1/4	2-1/2	.682	43	TS-83-4M1	T-20	
TPBN24-4	160199	1.680	12.0	1-1/2	2-1/2	.840				

TPBN-S Set Includes						
Part Number	Shank Size	Min. Bore	TPGH Inserts	Torx Screws	Torx Keys	(1) Storage Box
(1) TPBN06-2	1/2	.430	(10) 21.51	(3) TS-11	(1) T-8	
(1) TPBN08-2	1/2	.590				
(1)TPBN10-2	5/8	.682				
(1) TPBN12-3	3/4	.845	(10) 321	(1) TS-44-3	(1) T-10	
EDP NO.	160200					

Reference Information

Throw away insert identification system

The insert identification system shown here was developed by the American Standards Association and has been adopted generally by the industry for fast and accurate identification of throw away inserts. Most of the insert catalog numbers shown in this catalog have been assigned under this system.

EXAMPLE SHOWN: Style CNMG-432 is a 80 diamond insert with 0 relief; a thickness tolerance of .005 inch; with hole and chipbreaker; one-half inch I.C. diameter; three-sixteens of an inch in thickness; and a nose radius of one thirty second of an inch.

A - Parallelogram 85°
 B - Parallelogram 82°
 C - Diamond 80°
 D - Diamond 55°
 E - Parallelogram 55°
 F - Parallelogram 70°
 H - Hexagon
 L - Rectangle
 M - Diamond 86°
 O - Octagon
 P - Pentagon
 R - Round
 S - Square
 T - Triangle
 V - Diamond 35°
 W - Trigon 80°

Insert

I.C.	Thickness
A=±.0002	±.001
B=±.0002	±.005
C=±.0005	±.001
D=±.0005	±.005
E=±.001	±.001
G=±.001	±.005
**M=±.005+.004	±.005
**U=±.005+.012	±.005
R= Blank with grind stock on all surfaces	

Number of 1/32nds on inserts
 less than 1/4" I.C. and over

Number of 1/8ths on inserts 1/4"
 I.C. and over

Rectangle and Parallelogram

Inserts require two digits:
 1st digit-number
 of 1/8ths in width
 2nd digit-number
 of 1/4ths in length

TOLERANCES

SHAPE

SIZE

C N M G - 4 3 2 S A

RELIEF ANGLE

A - 3
 B - 5
 C - 7
 D - 15
 E - 20
 F - 25
 G - 30
 N - 0
 P - 11

TYPE*

A - With hole
 B - With hole and one countersink
 C - With hole and two countersinks
 D - Smaller than 1/4" I.C. with hole
 E - Smaller than 1/4" I.C. without hole
 F - Clamp on type with chip breaker
 G - With hole and chipbreaker
 H - With hole, one countersink and chipbreaker
 J - With hole, two countersinks and chipbreaker
 M - With hole and chipbreaker
 N - With hole and chipbreaker
 P - 10 positive surfaces contour with hole and chipbreaker
 R - No hole and single sided chipbreaker
 S - 20 positive surface contour with hole and chipbreaker
 X - 10 positive surfaces contour with hole and chipbreaker
 Z - 10 positive surfaces contour with hole and chipbreaker

* Shall be used only when required

** Exact tolerance is determined by size of insert

Reference Information Cont.

Number of 1/32nds on inserts less than 1/4" I.C.

Number of 1/16ths on inserts 1/4" I.C. and over

Use width dimension in place of I.C. on rectangle and parallelogram inserts

F - Finishing

G - Ground lands applicable to pinlock system only

L

S - Scallop/ Bumpy

Y

8 - Cermet Finish

CHIPBREAKER GEOMETRY

THICKNESS

C N M G - 4 3 2 S A

CUTTING POINT RADIUS, FLATS

0-.004	3-3/64 Radius
0.5-.008	4-1/16 Radius
1-1/64 Radius	6-3/32 Radius
2-1/32 Radius	8-1/8 Radius

- A - Square insert with 45 chamfer
- B - Square insert with 45 chamfer and 4 sweep angle, R.H. or neg
- C - Square insert with 45 chamfer and 4 sweep angle, L.H.
- D - Square insert with 30 chamfer R.H. or neg.
- E - Square insert with 15 chamfer, R.H. or neg.
- F - Square insert with 5 chamfer, P.H. or neg.
- G - Square insert with 30 chamfer, L.H.
- H - Square insert with 15 chamfer, L.H.
- J - Square insert with 5 chamfer, L.H.
- K - Square insert with 30 double chamfer
- L - Square insert with 15 double chamfer
- M - Square insert with 5 double chamfer
- N - Truncated triangle insert
- P - Flattened corner triangle, R.H. or neg.
- R - Flattened corner triangle, L.H.
- S - Square negative insert with 10 double chamfer
- T - Square negative insert with 30 positive rake chamfer
- V - Octagon negative insert with 22-1/2 corner chamfer

OTHER CONDITIONS

- X-Honed
(.0005" -.0015")
- A-Honed
(.001" -.003")
- B-Honed
(.003" -.005")
- C-Honed
(.003" -.007")
- J-Polished
(4 Microinch AA)
(Rake surface only)
- T- Neg. land
- R- Right hand
- L- Left hand

Grade Selection

Grade for Machining Steel			
T60	91.7	C-6	Recommended for general purpose milling and machining, moderate chip loads on roughing operations of moderate interruptions, also long, dry cuts. Good resistance to shock and greater wear resistance.
T21	92.1	C-2	Provides the toughest and wear resistance required when machining cast iron, non-ferrous metals and high temperature alloys.
TN60			Titanium Nitride Coated. A combination light roughing and finishing grade. This titanium carbide coated material has both high wear resistance and heat resistance for milling alloys and stainless steels and ductile iron.
TP1000			Tic Tin Coated. Medium to heavy roughing over a variety of materials including steel, carbon steel, alloy and hardened steels, and stainless steels in the 300-400 series. Excellent life at speeds of 325 to 650 SFM with greater resistance to edge wear. Also added strength provided by a special sinter-hip enhancement.

Tri-Chem Recommended SFPM

Material Workpiece	Brinell Hardness	Uncoated Carbide Grades		CVD Coated Carbide Grades	
		T21	T60	TN60	TP1000
		Feed rate inches per revolutions		Feed rate inches per revolutions	
		.005-.020	.008-.030	.010-.030	.010-.040
Carbon Steel					
Low	125		100	350-	350-650
Medium	150		300	550	
High	200		650		
Alloy Steel					
4000			125	200-	350-600
5000	225-		300	600	
8000	300		425		
Stainless Steel					
200	200	200			325-
300	200	400			575
Stainless Steel					
400	200		200	250-	325-
500	200		350	500	600
PH Series	200		375		
Tool Steel	200		350	450	500
Cast Iron-Grey					
Short Chip	180-	350-			
Materials	260	500			
Malleable Irons			450-	350-	325-
Ductible Irons			650	700	650
Aluminum, Brass, Bronze	200				
High Temp Alloy		80-			
Nickel Base Cobalt		120			

Insert Identification Guide

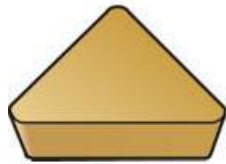
TPG



TNMP



TPU



TPC



TNMA



SPG



TNMG



SPU



TNG



SNMA



INSERTS

Insert Identification Guide

SNG



RNMG



SCMT



DCMT



SNMZ



VNMG



SEC



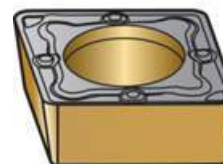
CNMG



SPGH



CCMT



Insert Identification Guide

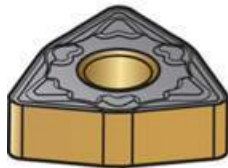
VBMT



CNMP



WNMG/S



Carbide Inserts

TPG - Triangle - Positive Rake - Ground all over

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
TPG-220	1/4	1/8	0	316535	316546	316557	-
TPG-221	1/4	1/8	1/64	213457	213467	213477	213487
TPG-222	1/4	1/8	1/32	213458	213468	213478	213488
TPG-223	1/4	1/8	3/64	316537	316548	316559	-
TPG-210	3/8	1/8	0	316538	316549	316560	-
TPG-321	3/8	1/8	1/64	213459	213469	213479	213489
TPG-322	3/8	1/8	1/32	213460	213470	213480	213490
TPG-323	3/8	1/8	3/64	213464	213474	213484	213494
TPG-324	3/8	1/8	1/16	316540	316551	316562	-
TPG-430	1/2	3/16	0	316541	316552	316563	-
TPG-431	1/2	3/16	1/64	213461	213471	213481	213491
TPG-432	1/2	3/16	1/32	213462	213472	213482	213492
TPG-433	1/2	3/16	3/64	213463	213473	213483	213493
TPG-434	1/2	3/16	1/16	213502	213512	213522	-
TPG-542	5/8	1/4	1/32	316543	316554	316565	-
TPG-543	5/8	1/4	3/64	316544	316555	316566	-
TPG-544	5/8	1/4	1/16	316545	316556	320411	-

TNMA - Triangle - Negative Rake - Lapped top and bottom with hole

Insert Number	I.C.	Thick	Radius	EDP NO.		
				T21	T60	TN60
TNMA-222	1/4	1/8	1/32	320127	320128	320129
TNMA-322	3/8	1/8	1/32	320130	320131	320132
TNMA-323	3/8	1/8	3/64	320133	320134	320135
TNMA-432	1/2	3/16	1/32	320136	320137	320138
TNMA-433	1/2	3/16	3/64	320139	320140	320141
TNMA-434	1/2	3/16	1/16	320142	320143	320144
TNMA-438	1/2	3/16	1/8	320145	320146	320147
TNMA-542	5/8	1/4	1/32	320148	320149	320150
TNMA-544	5/8	1/4	1/16	320151	320152	320153
TNMA-666	3/4	3/8	3/32	320154	320155	320156

TPU- Triangle - Positive Rake - Ground top and bottom

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
TPU-222	1/4	1/8	1/32	213497	213507	213517	213527
TPU-321	3/8	1/8	1/64	213503	213513	213523	213533
TPU-322	3/8	1/8	1/32	213498	213508	213512	213528
TPU-323	3/8	1/8	3/64	213499	213509	213519	213529
TPU-431	1/2	3/16	1/64	320117	320118	320119	320120
TPU-432	1/2	3/16	1/32	213500	213510	213520	213530
TPU-433	1/2	3/16	3/64	213501	213511	213521	213531
TPU-434	1/2	3/16	1/16	213502	213512	213522	213532
TPU-543	5/8	1/4	3/64	320121	320122	320123	-
TPU-544	5/8	1/4	1/16	320124	320125	320126	-

TNG - Triangle - Negative Rake - Ground all over

Insert Number	I.C.	Thick	Radius	EDP NO.		
				T21	T60	TN60
TNG-221	1/4	1/8	1/64	320181	320182	320183
TNG-222	1/4	1/8	1/32	320184	320185	320186
TNG-321	3/8	1/8	1/64	320187	320188	320189
TNG-322	3/8	1/8	1/32	320190	320191	320192
TNG-323	3/8	1/8	3/64	320193	320194	320195
TNG-324	3/8	1/8	1/16	320196	320197	320198
TNG-332	3/8	3/16	1/32	320199	320200	320201
TNG-333	3/8	3/16	3/64	320202	320203	320204
TNG-432	1/2	3/16	1/32	320205	320206	320207
TNG-433	1/2	3/16	3/64	320208	320209	320210
TNG-434	1/2	3/16	1/16	320211	320410	320212
TNG-544	5/8	1/4	1/16	320213	316568	320214

TPC - Triangle - Positive Rake - Ground all over with wiping flats on three corners

Insert Number	I.C.	Thick	EDP NO.		
			T21	T60	TN60
TPC	3/8	1/8	320257	320258	320259

Carbide Inserts

TNMG - Triangle - Negative Rake - With chip control

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
TNMG-221	1/4	1/8	1/64	320157	320158	320159	-
TNMG-222	1/4	1/8	1/32	213537	213547	213557	213567
TNMG-321	3/8	1/8	1/64	213538	213548	213558	213568
TNMG-322	3/8	1/8	1/32	213539	213549	213559	213569
TNMG-323	3/8	1/8	3/64	213540	213550	213560	213570
TNMG-324	3/8	1/8	1/16	320160	320161	320162	-
TNMG-331	3/8	3/16	1/64	320163	320164	320165	-
TNMG-332	3/8	3/16	1/32	320166	320167	320168	-
TNMG-333	3/8	3/16	3/64	320169	320170	320171	-
TNMG-431	1/2	3/16	1/64	213541	213551	213561	213571
TNMG-432	1/2	3/16	1/32	213542	213552	213562	213572
TNMG-433	1/2	3/16	3/64	213543	213553	213563	213573
TNMG-434	1/2	3/16	1/16	213544	213554	213564	213574
TNMG-438	1/2	3/16	1/8	320172	320173	320174	-
TNMG-542	5/8	1/4	1/32	213545	213555	213565	213575
TNMG-543	5/8	1/4	3/64	213546	213556	213566	213576
TNMG-544	5/8	1/4	1/16	320175	320176	320177	-
TNMG-666	3/4	3/8	3/32	320178	320179	320180	-

TNMP - Triangle - Negative Rake - 5° Positive

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T60	TN60
TNMP-321	3/8	1/8	1/64	320242	320277
TNMP-322	3/8	1/8	1/32	320243	320244
TNMP-323	3/8	1/8	3/64	320245	320246
TNMP-331	3/8	3/16	1/64	320247	320248
TNMP-332	3/8	3/16	1/32	320249	320250
TNMP-333	3/8	3/16	3/64	320251	320252
TNMP-431	1/2	3/16	1/64	320253	320254
TNMP-432	1/2	3/16	1/32	320255	320256

Carbide Inserts

SPG - Square - Positive Rake - Ground all over

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
SPG-221	3/8	1/8	1/64	213657	213667	213677	213687
SPG-222	3/8	1/8	1/32	213658	213668	213679	213688
SPG-223	3/8	1/8	3/64	316657	316662	316667	-
SPG-420	1/2	1/8	0	316658	316663	316668	-
SPG-421	1/2	1/8	1/64	213659	213669	213679	213689
SPG-422	1/2	1/8	1/32	213660	213670	213680	213690
SPG-423	1/2	1/8	3/64	316659	316664	316669	-
SPG-424	1/2	1/8	1/16	316660	316665	316670	-
SPG-432	1/2	3/16	1/32	213661	213671	213681	213691
SPG-433	1/2	3/16	3/64	213662	213672	213682	213692
SPG-632	3/4	3/16	1/32	213663	213673	213683	213693
SPG-633	3/4	3/16	3/64	213664	213674	213684	213694
SPG-634	3/4	3/16	1/16	316661	316666	316671	-

SPU - Square - Positive Rake - Ground top and bottom

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
SPU-322	3/8	1/8	1/32	213697	213707	213717	213727
SPU-421	1/2	1/8	1/64	316672	316675	316678	-
SPU-422	1/2	1/8	1/32	213698	213708	213718	213728
SPU-423	1/2	1/8	3/64	316673	316676	316679	-
SPU-632	3/4	3/16	1/32	316674	316677	316680	-
SPU-633	3/4	3/16	3/64	213699	213709	213719	213729
SPU-634	3/4	3/16	1/16	213700	213710	213720	213730

SNMA - Square - Negative Rake - lapped top and bottom with hole

Insert Number	I.C.	Thick	Radius	EDP NO.		
				T21	T60	TN60
SNMA-322	3/8	1/8	1/32	316681	316689	316697
SNMA-432	1/2	3/16	1/32	316682	316690	316698
SNMA-433	1/2	3/16	3/64	316683	316691	316699
SNMA-543	5/8	1/4	3/64	316684	316692	316700
SNMA-633	3/4	1/4	3/64	316685	316693	316701
SNMA-643	3/4	1/4	3/64	316686	316694	316703
SNMA-644	3/4	1/4	1/16	316687	316695	316704
SNMA-866	1	3/8	3/32	316688	316696	316705

SCMT

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T21	T60
SCMT-32.52	3/8	5/32	1/32	317055	317056

SEC - Square - 20° Positive Rake - Ground all over

Insert Number	I.C.	Thick	EDP NO.		
			T21	T60	TN60
SEC-422	1/2	1/8	316762	316763	316764

SPGH - Square - Positive Rake - Ground all over - chip groove one side

Insert Number	I.C.	Thick	Radius	EDP NO.		
				T21	T60	TN60
SPGH-433	1/2	3/16	3/64	316765	316766	316767

SNG - Square - Negative Rake - Ground all over

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
SNG-321	3/8	1/8	1/64	316733	316739	316746	-
SNG-322	3/8	1/8	1/32	213737	213747	213757	213767
SNG-323	3/8	1/8	3/64	316734	316740	316747	-
SNG-332	1/8	3/16	1/32	-	316741	316748	-
SNG-422	1/2	1/8	1/32	213738	213748	213758	213768
SNG-423	1/2	1/8	3/64	316735	316742	316749	-
SNG-424	1/2	1/8	1/16	316736	316743	316750	-
SNG-432	1/2	3/16	1/32	213739	213749	213759	213769
SNG-433	1/2	3/16	3/64	213740	213850	213760	213770
SNG-434	1/2	3/16	1/16	316737	316744	316751	-
SNG-632	3/4	3/16	1/32	316738	316745	316752	-
SNG-633	3/4	3/16	3/64	213741	213751	213761	213771
SNG-634	3/4	3/16	1/16	213742	213752	213762	213772

Carbide Inserts

SNMZ

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
SNMZ-432	1/2	3/16	1/32	213937	213947	213957	213967
SNMZ-543	5/8	1/4	3/64	213938	213948	231958	213968
SNMZ-643	5/8	3/8	1/8	213939	213949	213959	213969

RNMG - Round - Negative Rake - With chip control

Insert Number	Dia. ±.001	Thick	EDP NO.		
			T21	T60	TN60
RNMG-32	3/8	1/8	316805	316811	316817
RNMG-43	1/2	3/16	316806	316812	316818
RNMG-54	5/8	1/4	316807	316813	316819
RNMG-64	3/4	1/4	316808	316814	316820
RNMG-86	1	3/8	316809	316815	316821
RNMG-106	1-1/4	3/8	316810	316816	316822

CNMG - 80° Diamond - Negative - Lapped with hole and cast chipbreaker

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
CNMG-431	1/2	3/16	1/64	214057	214067	214077	214087
CNMG-432	1/2	3/16	1/32	214058	214068	214078	214088
CNMG-433	1/2	3/16	3/64	214059	214069	214079	214089
CNMG-543	5/8	1/4	3/64	214060	214070	214080	214090
CNMG-642	3/4	1/4	1/32	214061	214071	214071	214091
CNMG-643	3/4	1/4	3/64	214062	214072	214082	214092
CNMG-644	3/4	1/4	1/16	-	316800	316801	-

DCMT

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T21	T60
DCMT-21.51	1/4	3/32	1/64	317045	317050
DCMT-21.52	1/4	3/32	1/32	317046	317051
DCMT-32.51	3/8	5/32	1/64	317047	317052
DCMT-32.52	3/8	5/32	1/32	317048	317053
DCMT-432	1/2	3/16	1/32	317049	317054

CCMT

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T21	T60
CCMT-21.51	1/4	3/32	1/64	317037	317041
CCMT-21.52	1/4	3/32	1/32	317038	317042
CCMT-32.51	3/8	5/32	1/64	317039	317043
CCMT-32.52	3/8	5/32	1/32	317040	317044

VNMG - 35° Diamond - Negative Rake - With chip control

Insert Number	I.C.	Thick	Radius	EDP NO.			
				T21	T60	TN60	TP1000
VNMG-331	3/8	3/16	1/64	214137	214148	214158	214168
VNMG-332	3/8	3/16	1/32	214138	214149	214159	214170
VNMG-333	3/8	3/16	3/64	-	316823	316824	-
VNMG-431	1/2	3/16	1/64	214139	214150	214160	214171
VNMG-432	1/2	3/16	1/32	214140	214151	214161	214172
VNMG-433	1/2	3/16	3/64	214141	214152	214162	214173

Carbide Inserts

VBMT

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T21	T60
VBMT-331	3/8	3/16	1/64	317057	317059
VBMT-332	3/8	3/8	1/32	317058	317060

CNMP - 80° Diamond - 5° Positive - Lapped with hole and cast chipbreaker

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T21	T60
CNMP-431	1/2	3/16	1/64	316825	316829
CNMP-432	1/2	3/16	1/32	316826	316830
CNMP-642	3/4	1/4	1/32	316827	316831
CNMP-643	3/4	1/4	3/64	316828	316832

WNMG/S

Insert Number	I.C.	Thick	Radius	EDP NO.	
				T21	TP1000
WNMG-332S	1/2	3/16	1/32	214217	214227
WNMG-432S	1/2	3/16	1/32	214218	214228

CTA - 87° Parallelograms - All surfaces ground

Insert Number	Please Specify Radii					I.C.	Thick	EDP NO.		
								T21	T60	TN60
CTA-2*	1/64	1/32	3/32	1/8	-	.355	5/32	316833	316837	316841
CTA-4	-	1/32	3/32	1/8	-	.460	3/16	316834	316838	316842
CTA-6	-	1/32	3/32	1/8	-	.685	3/16	316835	316839	316843
CTA-8	-	1/32	3/32	1/8	1/4	.750	3/16	316836	316840	316844

*-88° Parallelogram

Spare Parts Information

Negative Lock Pins

Part Number	Insert I.C.	Nominal Pin Length	Hex Wrench Top and Bottom	Pkg.	EDP NO.
NL-33L	3/8	21/64	1/16	10	317078
NL33	3/8	11/32	5/64	10	317079
NL34	3/8	29/64	5/64	10	317080
NL34	3/8	33/64	5/64	10	317081
NL44	1/2	33/64	3/32	10	317082
NL46	1/2	43/64	3/32	10	317083
NL58	5/8	55/64	1/8	10	317084

Triangle Chipbreakers

Part Number	Insert I.C.	Effective Width- W	Pkg.	EDP NO.
T3AC	3/8	.60	10	317104
T3AE	3/8	.90	10	317105
T3AG	3/8	.125	10	317106
T4AC	1/2	.060	10	317107
T4AE	1/2	.090	10	317108
T4AG	1/2	.125	10	317109

Finger Clamps

Part Number	B	C	D	E	G	Thread	Pkg.	EDP NO.
CL-6	.310	.580	.440	.187	.094	10-32	10	317085
CL-7	.310	.640	.310	.082	-	10-32	10	317086
CL-9	.430	.750	.660	.344	.125	5/16-24	10	317087
CL-12	.430	.880	.660	.344	.125	5/16-24	10	317088
CL-20	.375	.730	.380	.125	-	1/4-28	10	317089

Clamp Screws

Part Number	A	B	C	Thread	Hex Wrench	Pkg.	EDP NO.
XNS-35	5/8	.22	.22	10-32	3/32	10	317090
XNS-36	3/4	.25	.25	10-32	3/32	10	317091
XNS-48	1.0	.37	.37	1/4-28	1/8	10	317092
XNS-59	1-1/8	.47	.41	5/16-24	5/32	10	317093
XNS-510	1-1/4	.50	.50	5/16-24	5/32	10	317094

Seat Screws

Part Number	I.C.	Hex Wrench	Pkg.	EDP NO.
S-4	3/8	1/16	10	317095
S-6	1/2	3/32	10	317096

Torx Screws

Part Number	I.C.	Hex Wrench	Pkg.	EDP NO.
TS-25.45-6M1	1/4	T-7	10	317097
TS-11	1/4	T-8	10	317098
TS-4.7-8M1	3/8	T-15	10	317099
TS-44-3	3/8	T-10	10	317100
TS-44-4	3/8	T-10	10	317101
TS-83-5M1	1/2	T-20	10	317102
TS-103-4M1	1/2	T-25	10	317103

Spare Parts Information

Negative 80° Diamond Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
ICSN-432	1/2	3/16	1/32	10	317110
ICSN-433	1/2	3/16	3/64	10	317111

Positive Trigon Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
					T21
SM-41	.332	1/8	1/64	10	317112
SM-37	.452	1/8	1/32	10	317113

Negative 55° Diamond Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
					T21
IDSN-432	1/2	3/16	1/32	10	317061
IDSN-433	1/2	3/16	3/64	10	317062

Negative 35° Diamond Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
					T21
IVSN-432	1/2	3/16	1/32	10	317063
IVSN-433	1/2	3/16	3/64	10	317064

Negative Square Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
					T21
ISSN-322	3/8	1/8	1/32	10	317065
ISSN-323	3/8	1/8	3/64	10	317066
ISSN-432	1/2	3/16	1/32	10	317067
ISSN-433	1/2	3/16	3/64	10	317068
ISSN-533	5/8	3/16	3/64	10	317069

Negative Triangle Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
					T21
IVSN-322	3/8	1/8	1/32	10	317070
IVSN-332	3/8	3/16	1/32	10	317071
IVSN-333	3/8	3/16	3/64	10	317072
IVSN-432	1/2	3/16	31/32	10	317073
IVSN-433	1/2	3/16	3/64	10	317074
IVSN-533	5/8	3/16	3/64	10	317075

Negative Trigon Shim Seats

Part Number	Angle	Thick	Radius	Pkg.	EDP NO.
					T21
IWSN-322	3/8	1/8	1/32	10	317076
IWSN-432	1/2	3/16	31/32	10	317077
IWSN-433	1/2	3/16	3/64	10	317078

VINYL COLORED FLOOR TAPE

2" Wide Colored Vinyl Tape

These 6 mil adhesive vinyl tapes are available in 17 colors in 36 yard (108') long rolls (3 in. cores). Sold individually or in 24 roll cartons, they are for plant and warehouse floors and general coding, and are used for agility obstacles, mat and vinyl repair, and wall striping. They are highly adhesive and resistant to sun, water, oil, fungus and chemicals. They have a semi-gloss finish and can be written on with a permanent marker. These tapes are opaque, but when applied to windows, they are translucent and have the look of stained glass. Their temperature use range is from 40°F to 170°F, but should be applied when the tape is nearer to room temperature.

Available Colors: Black, dark gray, medium gray, dark brown, medium brown, purple magenta, dark blue, light (sky) blue, Aqua, hunter green, kelly green, light green, red, orange, fluorescent orange, yellow, white (& clear).

Color	EDP#
White	711783
Red	711784
Green	711785
Yellow	711782
Yellow/ Black Hazard	711891
GM Blue	711801



4" Wide Colored Vinyl Tape

These 6 mil adhesive vinyl tapes are available in 17 colors in 36 yard (108') long rolls. Sold individually or in 12 roll cartons, they are for plant and warehouse floors, color coding, agility obstacles, joining of mats, vinyl repairs, and wall striping. They are highly adhesive and resistant to sun, water, oil, fungus and chemicals. They have a semi-gloss finish and can be written on with a permanent marker. These tapes are opaque, but when applied to windows, they are translucent and have the look of stained glass. Their temperature use range is from 40°F to 170°F, but should be applied when the tape is nearer to room temperature.

Available Colors: Black, dark gray, medium gray, dark brown, medium brown, purple magenta, dark blue, light (sky) blue, Aqua, hunter green, kelly green, light green, red, orange, fluorescent orange, yellow, white.

Color	EDP#
White	711786
Red	711812
Green	711813
Yellow	711814



Tape Applicator EDP# 719019

Designed to apply tape as you walk. Solid steel construction with comfortable hand grips and durable rubber wheels allow for easy operation and maintenance. Features a soft rubber applicator head. Holds tape rolls with a 3" diameter core and widths between 1" minimum to 4 1/2" maximum.

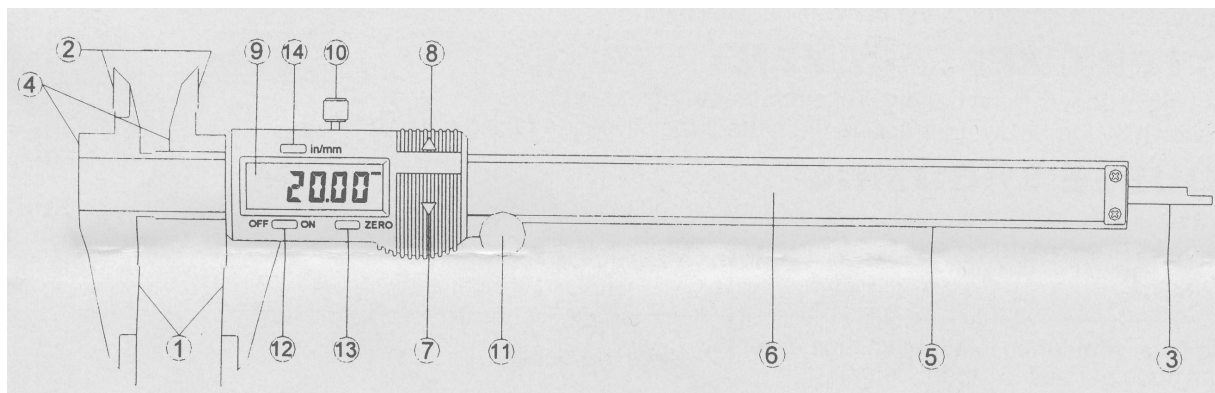
ELECTRONIC DIGITAL CALIPER

Technical Specifications:

Measuring range:	0-150mm/0-6in, 0-200mm/0-8in, 0-300mm/0-12in.
Resolution:	0.01mm/0.0005in.
Accuracy:	$\pm 0.02\text{mm}/0.001\text{in.}$ (<100mm). $\pm 0.03\text{mm}/0.001\text{in.}$ (>100-200mm) $\pm 0.04\text{mm}/0.0015\text{in.}$ (>200-300mm)
Repeatability:	0.01mm/0.0005in.
Max measuring speed:	1.5m/sec., 60in/sec.
Measuring system:	Linear capacitive measuring system
Display:	LCD display
Power:	One silver oxide battery 1.55V, type LR44 capacity: 180mAh
Working Temperature:	5°C-40°C/41°-104°F
Influence of humidity:	Not important under 80% of relative humidity

Nomenclature:

- | | |
|---------------------------------------|-------------------------------|
| 1. Outside measuring faces | 2. Inside measuring faces |
| 3. Depth measuring blade | 4. Step measuring faces |
| 5. Beam | 6. Main scale |
| 7. Battery compartment lid | 8. Output connector |
| 9. Display (LCD) | 10. Slider clamp screw |
| 11. Thumb roller (depending on model) | 12. Power ON/OFF switch |
| 13. ZERO switch | 14. Inch/mm conversion switch |



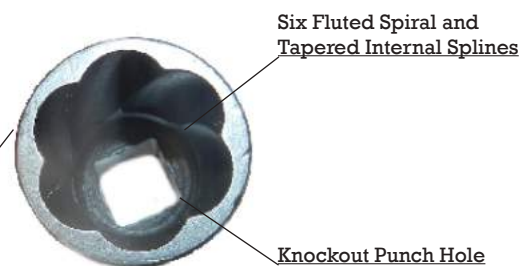
TWIST OFF SOCKET SETS

The "Twist Off" socket set is ideal for the removal of rounded, damaged or corroded:

- Nuts and Bolts
- Oil Drain Plugs
- Pipe Nipples
- Studs
- Marine Nuts and Bolts
- Exhaust Manifold Nuts

Sockets are Hardened to a 50-55 RC

Matted Black Oxide Finish



The six fluted, spiral and tapered internal splines are designed to match up with the perimeter of any damaged lug nut and twist until the lug comes loose. The internal conical shape allows the sockets to be used in a similar self-tightening fashion on other damaged threaded products. These sockets are hardened to a 50-55 RC and have a matted black oxide finish.

These sockets grab and just don't let go by simply positioning and tapping lightly to establish initial gripping. When tightened, the cutting action of the hard, sharp splines grip and hold the damaged item until removed. A knockout punch is provided to assist in release of the damaged Lug, Bolt, etc. after removal.



3/8" Drive Impact "Twist off" socket set, 10 piece in blow mold case with punch

Set Includes:

3/8" drive impact "twist off" socket- 10mm
3/8" drive impact "twist off" socket- 11mm
3/8" drive impact "twist off" socket- 12mm
3/8" drive impact "twist off" socket- 13mm
3/8" drive impact "twist off" socket- 14mm
3/8" drive impact "twist off" socket- 15mm

3/8" drive impact "twist off" socket- 16mm
3/8" drive impact "twist off" socket- 17mm
3/8" drive impact "twist off" socket- 18mm
3/8" drive impact "twist off" socket- 19mm
Punch

EDP# 706627

3/8" Drive "Twist Off" Fraction/Metric 14 Piece Socket Set in case

Set Includes:

3/8" drive impact "twist off" socket- 3/8"
3/8" drive impact "twist off" socket- 10 mm
3/8" drive impact "twist off" socket- 7/16"
3/8" drive impact "twist off" socket- 12 mm
3/8" drive impact "twist off" socket- 1/2"
3/8" drive impact "twist off" socket- 13 mm
3/8" drive impact "twist off" socket- 14 mm
3/8" drive impact "twist off" socket- 9/16"
3/8" drive impact "twist off" socket- 15 mm

3/8" drive impact "twist off" socket- 5/8"
3/8" drive impact "twist off" socket- 17 mm
3/8" drive impact "twist off" socket- 11/16"
3/8" drive impact "twist off" socket- 3/4"
Punch

EDP# 711247

POLISHING SYSTEMS

The Basics

The Tri-Chem polishing system is a five step do-it-yourself wet process that uses ordinary tap water in your existing floor scrubbers. Water is required to cool the system to optimize performance and minimize dust. Mild detergents and/or surfactants are often used to help hold dirt and debris, but are not necessary. We consider this process a “green” way to maintain your concrete floors in your main warehouses, production area’s and distribution, since it doesn’t require the use of chemicals, waxes, urethanes and/or epoxies to achieve a glossy durable finish. The system makes your floors super shiny without making the concrete slippery.

Cost Savings

Tri-Chem Polishing System is a long term solution for the maintenance of your concrete floors - NOT a short term fix, and is designed to achieve these additional cost saving benefits:

- No expensive machinery needed! The system utilizes existing floor scrubbing equipment and doesn’t require any additional machinery cost investment.
- A one-time investment in the system achieves results for the life of the concrete.
- Replacement blades can be purchased separately based on grit without having to purchase the entire system.

How it Works

1. Discs with polishing blades are attached to the bottom of your floor scrubber replacing the scrubbing brushes.
2. In all, there are 5 different grit polishing discs with blades that systematically polish your floor to a super shine. This creates increased durability without creating a slippery surface.
 - Each of the 5 polishing blades require six passes over the surface of your concrete floor.
 - Once you reach level 5 you have achieved a beautifully polished concrete floor. Daily or weekly passes with the 1000 grit blades will maintain a shiny durable finish for the life of your floors.
3. Ultra-Shiny floors can be achieved by adding a densifier to the concrete during polishing with the level 5 blades (this process is not necessary, however, an option if desired.)



OTHER POPULAR PRODUCTS



Z-Patch is a heavy duty high compression strength floor patch for repairing and resurfacing damaged plant floors - renews and repairs spalled & damaged floors, fills and eliminates damaged expansion joints, and anchors machinery.

FEATURES

- 100% Epoxy Resin Base with a Catalyst hardener and special blended aggregate
- 18,000 psi compression strength
- Will not break down at temperatures below 350° F
- Withstands heavy, abusive traffic
- Absorbs vibration and shock without cracking
- Excellent for expansion and contraction applications
- Highly resistant to acids, alkalies, solvents, heat and cold
- Extra long wearing - permanent and resilient
- Self leveling - minimal trowel work
- Bonds to concrete, steel and wood
- Kit covers 15-18 sq. ft. at ¼" thick

Z-Poxy is a super strength coating and sealer for high traffic floors. Excellent for containment areas, especially when an acid and chemical resistant coating is required. Use Z-Poxy to give old worn-out floors a new abrasion resistant surface that will stand up to acids, alkalies, solvents, heat and cold and to protect new floors from wear, spills and damage.

FEATURES

- Resists chemicals, impact, corrosion and abrasion
- No odor - unlike solvent based epoxies
- 100% epoxy resins - no loss from evaporation
- Will not break down at temperatures below 550° F
- Can be applied as non-slip finish
- Available in a variety of colors as well as clear
- Mini kit covers approximately 200 sq. ft. at 10 mils DFT
- Standard kit covers approximately 400 sq. ft. at 10 mils DFT



Klear Kut is a heavy duty synthetic cutting coolant for machining of all steels and gives good performance with copper alloys. To eliminate the possibility of staining, copper alloys should be cleaned after machining

FEATURES

- Built in bactericide to eliminate odor problems
- Completely synthetic - no odor
- Lightly color tinted for spectrograph readings
- Economical - high dilution rates



Tri-Chem

431 Stephenson Highway

Troy, MI 48083

800.456.6255 • www.tri-chem.com