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The Juller Tapered Drill, Countersink, Counterbore and Plug System

W. L. 74ller, Inc. has been manufacturing, recommending, supplying and distributing tools to cut woods, plastics, fiberglass, and metals for over 75 years. We produce the best quality tools made in the U.S.A. to pre-drill, countersink, counterbore and plug for screws and bolts of all different sizes and shapes. Our High Speed Steel Taper Point Drills are specifically designed to pre-drill for wood screws of various sizes and lengths. Our Four Flute Countersinks, designed to mount on the Taper Point Drill, combine pre-drilling for the screw threads, clearance drilling for the screw shank, counterboring for a wood plug (if needed) and countersinking for the screw head in one operation. Our Plug Cutters are designed to produce wood plugs accurately sized to match our counterbores so the plug fits right every time. Made of the best quality steels and heat treated for long tool life, our tools are designed to save you time by saving you steps, and save you money with longer lasting cutting edges. Your satisfaction is guaranteed.

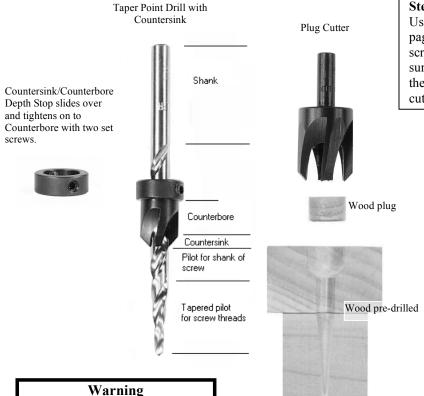
We have outlined the 4 easy steps below:

Step #1:

Select a wood screw size and length best suited for project at hand. When selecting a length of screw, keep in mind that 1/3 of the total length of the screw should be in the pieces of wood being attached and 2/3 of the total length of the screw should be in the piece of wood being attached to.

Step #2:

Use recommended size Tapered Drill and Countersink combination (see chart on page 3) to pre-drill pilot hole, countersink and counterbore for the screw size of your choice. Position the countersink on the tapered drill so that the point end of the drill extends from the countersink the same distance as the length of the wood screw measured from under the head. The force required to tighten the wood screw can be decreased by adjusting the countersink further away from the point of the drill or increased by moving the countersink closer to the point of the drill. The locking set screws should be positioned to lock into the flute of the tapered drill. Use the recommended Stop Collar (see chart on page 3) if needed to control the depth of the counterbore. Mount the Stop Collar on the Countersink and tighten with set screws.

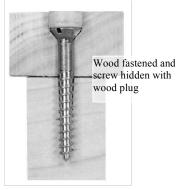


Step #3:

Use recommended size Plug Cutter (see chart on page 4) to cut plugs to fit over the head of the screw if the screw is counterbored below the surface of the wood. Plugs can be broken out of the wood with a screwdriver or the wood can be cut to release the plugs.

Step #4:

Attach two pieces of wood by driving screw into pre-drilled hole. Insert wood plug over screw head using a small amount of wood glue. Sand off wood plug flush with surface.



Made in the U.S.A. by American Craftsmen

Cutting tools may shatter.

Eve protection is strongly

recommended.



Recommendations for Wood Screw Pre-Drill Sizes and Lengths



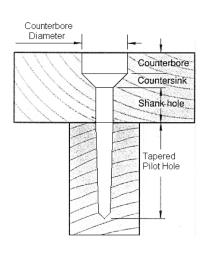
Standard Wood Screw Sizes and Pre-drilling Recommendations

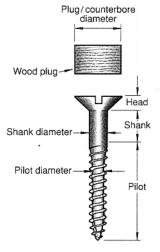
So	crew S	Size (Gauge)	#2	#3	#4	#5	#6	#7	#8	#9	#10	#12	#14	#16	#18
Head	Α	Actual Head Size	11/64	13/64	15/64	1/4	9/32	5/16	11/32	23/64	25/64	7/16	1/2	35/64	39/64
Bore	Min	a. Counterbore Dia.	1/4	1/4	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	9/16	5/8
Size	Re	commended Size	1/4	5/16	5/16	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8
Scre	Screw Shank - Hole Size		3/32	7/64	7/64	1/8	9/64	5/32	11/64	3/16	13/64	7/32	1/4	9/32	5/16
Straight	Pilot	Hardwood	1/16	5/64	5/64	3/32	7/64	7/64	1/8	9/64	9/64	5/32	11/64	3/16	7/32
Drill S	ize	Softwood	1/16	1/16	1/16	5/64	3/32	3/32	7/64	1/8	1/8	9/64	5/32	11/64	13/64
Tapered	Pilot	Hardwood	3/32	7/64	7/64	1/8	9/64	5/32	11/64	3/16	13/64	7/32	1/4	9/32	5/16
Drill S	ize	Softwood	5/64	3/32	3/32	7/64	1/8	9/64	5/32	11/64	3/16	13/64	15/64	17/64	19/64
Со	Recommended Countersink Number		С3	C4	C4	C5	C6	C7	C8	С9	C102	C12	C14	C169	C18



Drill Length Recommendations for Countersink/Taper Point Drill Combos

Scre	Screw Size (Gauge)		#3	#4	#5	#6	#7	#8	#9	#10	#12	#14	#16	#18
Тар	oered Drill Size	5/64	3/32	7/64	1/8	9/64	5/32	11/64	3/16	13/64	7/32	1/4	9/32	5/16
	Min. Screw Length	1/4	5/16	5/16	3/8	7/16	1/2	5/8	11/16	3/4	7/8	3/4	13/16	7/8
Length Drill	Max. Screw Length *	5/8	11/16	11/16	5/8	11/16	13/16	7/8	15/16	1	1-1/8	1-1/4	1-7/16	1-9/16
	Min. Screw Length	3/8	7/16	7/16	1/2	9/16	5/8	3/4	13/16	15/16	1	1-1/8	1-1/4	1-3/8
Length Drill	Max. Screw Length **	1	1-1/2	1-3/8	1-3/8	1-1/2	1-3/4	1-7/8	2-1/8	2-1/4	2-3/8	2-5/8	2-5/16	2-11/16
Long Length	Min. Screw Length	9/16	9/16	9/16	5/8	11/16	3/4	7/8	15/16	1-1/16	1-1/8	1-5/16	1-7/16	1-9/16
	Max. Screw Length***	1-3/4	2	1-7/8	2-1/8	2-3/8	2-3/8	2-3/4	2-3/4	3	3	3-1/8	3-1/16	3-3/16
8" Long	Min. Screw Length	N/A	N/A	N/A	3/4	13/16	1	1-1/16	1-3/16	1-1/4	1-1/4	1-1/2	1-5/8	1-3/4
Drills	Max. Screw Length***	N/A	N/A	N/A	4-3/4	4-3/4	4-3/4	4-3/4	4-3/4	4-3/4	4-3/4	4-3/4	4-11/16	4-11/16
* = 1/2" to $3/4$ " of shank for chucking				** =	** = 3/4" to 1" of shank for chucking									





Use charts and graphs shown here to determine the correct counterbore size and pilot hole size for the wood screws you are using, correct drill lengths for Taper Point Drills and screwdriver point sizes.

Screwdriver Point Size Recommendations

Screw	0	0		
Size	Phillips	Square Recess		
#2				
#3	#1	#0		
#4				
#5				
#6		#1		
#7	#2			
#8	#2			
#9		#2		
#10				
#12				
#14	#3	#3		
#16	#3	#3		
#18				

Products Packaged for Retail

We are capable of packaging almost all of our products for retail sale. Each product is in a clear clamshell type display packaging suitable for hanging. Just call and ask if the product is available for carded packaging.



Stock # 11700500C Stainless Steel Plug Cutter 1/2" Diameter 3/8" Shank See Page 12





Stock # 11900375C Stop Collar 3/8" Diameter 1/4" Width See Page 7



Stock # 20130140C HSS Taper Point Drill 9/64" Diameter Hex Shank System See Page 10



Stock # QP6C
Tappered Plug Cutter
3/8" Diameter with
1/4" Hex Shank System
See Page 12



Stock # 25100250C HSS Brad Point Drill 1/4" Diameter 4" Length See Page 37



Stock # C5C C5 Countersink 3/8" Cutting Diameter 1/8" Drill Hole See Page 6



Stock # C6HTC
C6 Countersink
Mounted on 9/64
Taper Drill with Hex Shank
See Page 11



Stock # KS5FC
Stainless Steel Countersink
with Fast Spiral Drill for
#5 Trim Head Decking Screws
See Page 23



Re-Sharpening Service

Get the most use out of your *Fuller* tools with our re-sharpening service.



Let the experts re-sharpen your tools for longer lasting life, you have our guarantee!

All Countersinks, Counterbores, Plug Cutters and Drills can be sharpened economically in our plant.

Our charges will depend on condition, the following being average.

.15% of list price
.30% of list price
.25% of list price
.15% of list price
.40% of list price
50% of list price
.30% of list price
.30% of list price

We also sharpen most of the tools we distribute from our vendors. These prices are estimates only. Please call for sharpening questions. There is a minimum sharpening charge for small quantities.



Type 'C' Four Flute Countersinks

See page 33 for explanation of steel





C8

With 82 degree included angle

Used to countersink and counterbore for heads of screws in woods, plastics and non-ferrous materials. Heat-treated for long tool life. (See explanation on page 2 and size recommendations on page 3)

The countersink is held in place with two hex-socket screws and is easily adjustable up and down the drill so only one countersink and length of drill is required for one screw size.



Shown above Mounted on a Taper Point Drill with Stop Collar:

This combination of Tapered Drill and Countersinks, drills Countersinks and Counterbores in one quick operation. Makes driving screws easier and assures the best possible holding power. Designed for clean cutting and hardened for long wear. Complete list of Taper Point Drills shown on page 7 & 8. Stop Collar (shown above mounted on Type "C" Countersink) can be furnished to control depth of cut. Stop Collar sizes are shown on page 7.





This combination can be used to drill and countersink clearance through the material for screws and bolts or to drill pilot holes for other types of screws. The Countersinks can also be mounted on ordinary straight twist drills allowing the screw thread to cut its own hole or by using correct pilot drill size for root diameter of thread allowing shank of screw to force its way into the wood. See Screw Chart on page 3 for screw sizes.

Drills are not included unless specified. Types and sizes are shown on pages 36 through 52. To cut wood plug to fit in hole over head of screw, use matching Plug Cutter shown on page 12.

Special sizes - Quotation on request.

For left hand cutting add 50% to prices shown in price list and add L to stock number.

Price includes two hex-socket set screws. Does not include drill or stop collar. See page 54-55 for replacement set screws and hex keys.

Also see page 11 for all sizes of Countersinks mounted on Taper Point Drills (and Stop Collars if required).







C92



C16



C244



C324

	Stock S	izes	
Stock Number	Cutting Diameter	Drill Hole Size	Overall Length
C2	1/4	5/64	3/4
C3	1/4	3/32	3/4
C4	5/16	7/64	7/8
C44	5/16	1/8	7/8
C65	5/16	9/64	7/8
C410	5/16	5/32	7/8
C411	5/16	11/64	7/8
C43	5/16	3/16	7/8
C56	3/8	3/32	7/8
C57	3/8	7/64	7/8
* C5	3/8	1/8	7/8
* C6	3/8	9/64	7/8
* C7	3/8	5/32	7/8
* C8	3/8	11/64	7/8
* C9	3/8	3/16	7/8
C913	3/8	13/64	7/8
C913	3/8	7/32	7/8
C105	7/16	5/32	7/8
C103	7/16	11/64	7/8
	7/16		
* C103	,,, = -	3/16	7/8
	7/16	13/64	7/8
C1014	7/16	7/32	7/8
C104	7/16	1/4	7/8
C122	1/2	1/8	7/8
C129	1/2	9/64	7/8
C125	1/2	5/32	7/8
C1211	1/2	11/64	7/8
* C92	1/2	3/16	7/8
* C102	1/2	13/64	7/8
* C12	1/2	7/32	7/8
C1415	1/2	15/64	7/8
* C14	1/2	1/4	7/8
C145	5/8	5/32	1-1/16
* C143	5/8	3/16	1-1/16
C167	5/8	7/32	1-1/16
* C16	5/8	1/4	1-1/16
C1617	5/8	17/64	1-1/16
* C169	5/8	9/32	1-1/16
C1619	5/8	19/64	1-1/16
* C18	5/8	5/16	1-1/16
C243	3/4	3/16	1-1/8
C247	3/4	7/32	1-1/8
C244	3/4	1/4	1-1/8
C245	3/4	5/16	1-1/8
C20	3/4	21/64	1-1/8
C24	3/4	3/8	1-1/4
C284	7/8	1/4	1-1/4
C285	7/8	5/16	1-1/4
C286	7/8	3/8	1-1/4
C287	7/8	7/16	1-3/8
C324	1	1/4	1-3/8
C326	1	3/8	1-3/8
C328	1	1/2	1-1/2

^{*} Indicates most popular sizes contained in sets.



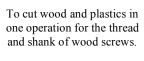
High Speed Steel Taper Point Drills & Stop Collars

High Speed Steel Taper Point Drills

The General Purpose Type

Is recommended for most jobs whether in a drill press or in hand held equipment. They cut well in both hard and softwoods.





Made of **High Speed Steel** to hold their sharp cutting edges longer. See page 33 for steel types. Made in standard fractional sizes to fit all types of Countersinks and Counterbores, with sizes and lengths to match most popular wood screws. Lengths and stock numbers are shown on opposite page.

Refer to chart on page 3 for recommended sizes and page 8 for sizes and stock numbers. Hex Shank Taper Point Drills shown on page 10.

Special sizes price on request.



The Fast Spiral Type

Cuts faster and clears chips better than the general-purpose type. This type can only be used in a drill press or other stationary equipment. The cutting action is too aggressive for hand held equipment. Recommended for high production in hardwoods.

Stop Collars

Designed to be used with *Fuller* Countersinks and Counterbores. These steel collars are held solidly in place with two set screws, to control depth of Counterbores. The inside diameter of the Stop Collar fits the outside diameter of the Countersink or Counterbore. See Drill Stops on page 27-28 to control cutting depth of drills only.

Inside Diameter	Width	Stock Number			
1/4	1/4	11900250			
5/16	1/4	11900312			
3/8	1/4	11900375			
7/16	1/4	11900437			
1/2	1/4	11900500			
9/16	1/4	11900562			
5/8	1/4	11900625			
3/4	1/4	11900750			
7/8	1/4	11900875			
1	5/16	11901000			
1-1/8	5/16	11901125			
1-1/4	3/8	11901250			
1-3/8	3/8	11901375			
1-1/2	7/16	11901500			
Sets o	of Stop Col	lars			
#1 Set of 7		11990001			
#2 Set of 7		11990002			
(B) Set of 6		11990006			
(R) Set of 9		11990009			
(C) Set of 14		11990014			







Stop Collar Mounted on Countersink and Taper Point Drill.



High Speed Steel Taper Point Drills Sizes & Lengths

See descriptions on page 7 and recommendations on page 3

		Short	Length		Regular Length					
Wood Screw		Sizes		General Purpose	Si	zes	General Purpose	Fast Spiral		
Size	Drill	Flute	Overall	Stock	Flute	Overall	Stock	Stock		
	Dia	Length	Length	Number	Length	Length	Number	Number		
2	5/64	11/16	1-11/16	20000078	1	2	20100078	20800078		
3	3/32	3/4	1-3/4	20000093	1-1/4	2-1/4	20100093	20800093		
4	7/64	13/16	1-13/16	20000109	1-1/2	2-5/8	20100109	20800109		
5	1/8	7/8	1-7/8	20000125	1-5/8	2-3/4	20100125	20800125		
6	9/64	15/16	1-15/16	20000140	1-3/4	2-7/8	20100140	20800140		
7	5/32	1	2-1/16	20000156	2	3-1/8	20100156	20800156		
8	11/64	1-1/16	2-1/8	20000171	2-1/8	3-1/4	20100171	20800171		
9	3/16	1-1/8	2-3/16	20000187	2-5/16	3-1/2	20100187	20800187		
10	13/64	1-3/16	2-1/4	20000203	2-7/16	3-5/8	20100203	20800203		
12	7/32	1-1/4	2-3/8	20000218	2-1/2	3-3/4	20100218	20800218		
14	15/64	1-5/16	2-7/16	20000234	2-5/8	3-7/8	20100234	20800234		
14	1/4	1-3/8	2-1/2	20000250	2-3/4	4	20100250	20800250		
16	17/64	1-7/16	2-5/8	20000265	2-7/8	4-1/8	20100265	20800265		
16	9/32	1-1/2	2-11/16	20000281	2-15/16	4-1/4	20100281	20800281		
18	19/64	1-9/16	2-3/4	20000296	3-1/16	4-3/8	20100296	20800296		
18-20	5/16	1-5/8	2-13/16	20000312	3-3/16	4-1/2	20100312	20800312		
20	21/64	1-11/16	2-15/16	20000328	3-5/16	4-5/8	20100328	20800328		
20	11/32	1-11/16	3	20000343	3-7/16	4-3/4	20100343	20800343		
24	23/64	1-3/4	3-1/16	20000359	3-1/2	4-7/8	20100359	20800359		
24	3/8	1-13/16	3-1/8	20000375	3-5/8	5	20100375	20800375		
			Long Le	ngth			8" Over:	all		

24	3/8	1-13/16	3-1/8	20000375	3-5/8		5	20100375	20800375
			Long Len		8" Overall				
Wood Screw		Sizes		General Purpose			;	General Purpose	
Size	Drill	Flute	Overall	Stock	Stock		Flute	Overall	Stock
	Dia	Length	Length	Number	Number	r	Length	Length	Number
2	5/64	2-1/4	3-3/4	20200078	X		5-1/2"	8"	X
3	3/32	2-1/4	4-1/4	20200093	X		5-1/2"	8"	X
4	7/64	2-3/4	4-5/8	20200109	20900109	9	5-1/2"	8"	X
5	1/8	2-3/4	5-1/8	20200125	2090012	5	5-1/2"	8"	20300125
6	9/64	3	5-3/8	20200140	20900140	0	5-1/2"	8"	20300140
7	5/32	3	5-3/8	20200156	20900150	6	5-1/2"	8"	20300156
8	11/64	3-3/8	5-3/4	20200171	2090017	1	5-1/2"	8"	20300171
9	3/16	3-3/8	5-3/4	20200187	2090018	7	5-1/2"	8"	20300187
10	13/64	3-5/8	6	20200203	20900203	3	5-1/2"	8"	20300203
12	7/32	3-5/8	6	20200218	20900213	8	5-1/2"	8"	20300218
14	15/64	3-3/4	6-1/8	20200234	20900234	4	5-1/2"	8"	20300234
14	1/4	3-3/4	6-1/8	20200250	20900250	0	5-1/2"	8"	20300250
16	17/64	3-7/8	6-1/4	20200265	X		5-1/2"	8"	20300265
16	9/32	3-7/8	6-1/4	20200281	2090028	1	5-1/2"	8"	20300281
18	19/64	4	6-3/8	20200296	X		5-1/2"	8"	20300296
18-20	5/16	4	6-3/8	20200312	20900312	2	5-1/2"	8"	20300312
20	21/64	4-1/8	6-1/2	20200328	20900328	8	5-1/2"	8"	20300328
20	11/32	4-1/8	6-1/2	20200343	X		5-1/2"	8"	20300343
24	23/64	4-1/4	6-3/4	20200359	X		5-1/2"	8"	20300359
24	3/8	4-1/4	6-3/4	20200375	2090037	5	5-1/2"	8"	20300375

X = Not available

Other sizes available price on request.

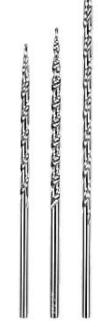
WARNING

Cutting tools may shatter when broken. The wearing of eye protection is strongly advised in the vicinity of their use.



Style # 200 Short Length General Purpose Style # 201 Regular Length General Purpose

Style # 208 Regular Length Fast Spiral



Style# Style # 202 Long Length General

209 Long Length Fast Purpose Spiral

Style # 203 Overall General Purpose



Taper Point Drill Sets

High Speed Steel

See Taper Point Drill descriptions on page 7 and size recommendations on page 3







Fast Spiral

Stock No.	Description
20890001	No. 1 Set of 7
20890501	No. 1 Set of 7 in wood block
20890002	No. 2 Set of 7
20890014	Set of 14

General Purpose

Stock No.	Description
20190001	No. 1 Set of 7
20190501	No. 1 Set of 7 in wood block
20190002	No. 2 Set of 7
20190014	Set of 14
20192001	Set of 7 in pouch

No. 1 Set of 7 has sizes 1/8" thru 7/32".

No. 2 Set of 7 has 1 each 3/16", 13/64", 7/32", 9/32", and 5/16" plus 2 ea. 1/4".

Set of 14 includes 1 ea. 1/8", 1 ea. 9/64" 1 ea. 5/32", 1 ea. 11/64", 3 ea. 3/16", 2 ea. 13/64, 1 ea. 7/32", 2 ea. 1/4", 1 ea. 9/32", and 1 ea. 5/16".

All sizes to match corresponding Countersink sets. Refer to pages 14-19.

Hex Shank Taper Point Drill Sets





Hex Shank Sets					
Stock Number	Description				
20149001	No. 1 Set of 7 in envelope				
20149501	No. 1 Set of 7 in wood block				

	Included in Sets					
Diameter	Tool Number	Hex Shank	Replacement Drill			
1/8	20140125	QST08	20130125			
9/64	20140140	QST09	20130140			
5/32	20140156	QST10	20130156			
11/64	20140171	QST11	20130171			
3/16	20140187	QST12	20130187			
13/64	20140203	QST13	20130203			
7/32	20140218	QST14	20130218			



Hex Shank Taper Point Drills



These are the best professional High Speed Steel Taper Point Drills with 1/4" Hex Power Shanks available. The Hex Shank System will give you the positive drive provided by a one-piece tool, along with the cost savings provided by a drill with a detachable shank. We will provide a **Lifetime Guarantee**** against breakage.



How to Replace Taper Point Drill-Bit

Loosen and remove the single hex socket set screw. Pull the drill apart from the hex shank adaptor. Align the notch provided on the shank of the replacement drill with the set screw hole. Replace and tighten the set screw.



Replacement Drills for the Hex Shank System:

Replacement Drill Size	Tapered Drill with Hex Shank #	Hex Shank#	Replacement Drill#
1/8	20140125	QST08	20130125
9/64	20140140	QST09	20130140
5/32	20140156	QST10	20130156
11/64	20140171	QST11	20130171
3/16	20140187	QST12	20130187
13/64	20140203	QST13	20130203
7/32	20140218	QST14	20130218
1/4	20140250	QST16	20130250

** We will replace any Taper Point Drill that breaks before the cutting edges have worn out **

Stock # 40011 - 3/8" shank

The standard industrial chuck with a knurled sleeve



WARNING



Countersink, Tapered Drill and Stop Collars Mounted Combinations

Available Types

CT - Countersink mounted on Round Shank Taper Point Drill

CM - Countersink mounted on Round Shank Taper Point Drill with Stop Collar

CHT - Countersink mounted on Hex Shank Taper Point Drill

CHM - Countersink mounted on Hex Shank Taper Point Drill with Stop Collar

Stock Sizes					
Type CM		nsions	Type CT	Type CHT	Type CHM
Stock	Cutting	Drill	Stock	Stock	Stock
Number C2M	Diameter 1/4	Hole Size 5/64	Number C2T	Number C2HT	Number C2HM
C3M	1/4	3/32	C2T	C3HT	C3HM
C4M	5/16	7/64	C4T	C4HT	C4HM
C44M	5/16	1/8	C44T	C44HT	C44HM
C65M	5/16	9/64	C65T	C65HT	C65HM
C410M	5/16	5/32	C410T	C410HT	C410HM
C411M	5/16	11/64	C411T	C411HT	C411HM
C43M	5/16	3/16	C43T	C43HT	C43HM
C56M	3/8	3/32	C56T	C56HT	C56HM
C57M	3/8	7/64	C57T	C57HT	C57HM
C5M	3/8	1/8	C5T	C5HT	C5HM
C6M	3/8	9/64	C6T	С6НТ	С6НМ
C7M	3/8	5/32	C7T	C7HT	C7HM
C8M	3/8	11/64	C8T	C8HT	C8HM
C9M	3/8	3/16	C9T	С9НТ	С9НМ
C913M	3/8	13/64	C913T	C913HT	C913HM
C97M	3/8	7/32	C97T	C97HT	C97HM
C105M	7/16	5/32	C105T	C105HT	C105HM
C1011M	7/16	11/64	C1011T	C1011HT	C1011HM
C103M	7/16	3/16	C103T	C103HT	C103HM
C10M	7/16	13/64	C10T	C10HT	C10HM
C1014M	7/16	7/32	C1014T	C1014HT	C1014HM
C104M	7/16	1/4	C104T	C104HT	C104HM
C122M	1/2	1/8	C122T	C122HT	C122HM
C129M	1/2	9/64	C129T	C129HT	C129HM
C125M	1/2	5/32	C125T	C125HT	C125HM
C1211M	1/2	11/64	C1211T	C1211HT	C1211HM
C92M	1/2	3/16	C92T	C92HT	C92HM
C102M	1/2	13/64	C102T	C102HT	C102HM
C12M	1/2	7/32	C12T	C12HT	C12HM
C1415M	1/2	15/64	C1415T	C1415HT	C1415HM
C14M	1/2	1/4	C14T	C14HT	C14HM
C145M	5/8	5/32	C145T	C145HT	C145HM
C143M	5/8	3/16	C143T	C143HT	C143HM
C167M	5/8	7/32	C167T	C167HT	C167HM
C16M	5/8	1/4	C16T	C16HT	C16HM
C1617M	5/8	17/64	C1617T	C1617HT	C1617HM
C169M	5/8	9/32	C169T	C169HT	C169HM
C1619M	5/8	19/64	C1619T	C1619HT	C1619HM
C18M	5/8	5/16	C18T	C18HT	C18HM
C243M	3/4	3/16	C243T	C243HT	C243HM
C247M C244M	3/4	7/32 1/4	C247T	C247HT	C247HM C244HM
	3/4	5/16	C244T	C244HT C245HT	
C245M C20M	3/4	21/64	C245T C20T	C243H1 C20HT	C245HM C20HM
C20M C24M	3/4	3/8	C201 C24T	C20HT C24HT	C24HM
C24M	7/8	1/4	C241 C284T	C24HT	C284HM
C285M	7/8	5/16	C2841 C285T	C285HT	C285HM
C286M	7/8	3/10	C286T	C286HT	C286HM
C324M	1	1/4	C2801 C324T	C324HT	C324HM
C326M	1	3/8	C3241	C324111	C326HM
X = Not av		3/0	55201	3320111	332011VI





Plug Cutters

To Cut Your Own Wood Plugs

Designed for clean cutting and hardened for long life. These two and four-bladed Plug Cutters do not eject the plugs. The plug remains in the board and can be broken out with a screwdriver or the board can be sawed to free the plug. See explanation on page 2. These tools cut fast and make smooth chamfered plugs for easy starting in counterbored holes. See page 33 for explanation of steel types.





11680750

11640625T



11700375



11860375



QP

Standard Plug Cutter Suitable for both soft and most hardwoods. Plug diameter is slightly larger than counterbore diameter for a tight fit every time. Tapered Plug Cutter Suitable for both soft and most hardwoods. Plug diameter is tapered slightly from on size to .010" oversize. All sizes have 1/4" shank. SS Plug Cutter
For hardwoods like
oak and teak. Plug
diameter is slightly
larger than counterbore
diameter for a tight fit
every time.

Carbide Tipped 2 Flute Plug Cutter For high production in hardwoods like oak and teak and abrasive materials. Plug diameter is slightly larger than counterbore diameter for a tight fit every time. Tapered Quick-Change Plug Cutter Suitable for both soft and most hardwoods. Plug diameter is tapered slightly from on size to .025" oversize. 1/4" hex shanks with power groove for Quick-Change chucks.

Special Sizes - Quotation on Request

Dime	nsions		Standard Typ Four Flute utters Stock I	e	Tapered Plug Cutters	SS Type Plug	Four Flute Cutters Number	Plug	pped Two Flute g Cutters k Number	Hex Shank Tapered Plug Cutters
Plug Size	Max Lgth.	1/4 Shank Dia.	3/8 Shank Dia.	1/2 Shank Dia.	1/4 Shank Dia.	3/8 Shank Dia.	1/2 Shank Dia.	3/8 Shank Dia.	1/2 Shank Dia.	1/4 Shank Dia.
1/4	3/8	11640250	X	X	11640250T	X	X	11860250	X	QP4
5/16	3/8	11640312	X	X	X	X	X	11860312	X	QP5
8mm	3/8	11640315	X	X	X	X	X	X	X	X
3/8	1/2	11640375	11660375	X	11640375T	11700375	X	11860375	X	QP6
10mm	1/2	11640393	X	X	X	X	X	X	X	X
7/16	1/2	11640437	11660437	X	X	11700437	X	11860437	X	QP7
12mm	1/2	11640472	X	X	X	X	X	X	X	X
1/2	1/2	11640500	11660500	X	11640500T	11700500	X	11860500	X	QP8
13mm	1/2	11640511	X	X	X	X	X	X	X	X
14mm	1/2	11640551	X	X	X	X	X	X	X	X
9/16	9/16	11640562	11660562	X	X	X	X	11860562	X	X
15mm	9/16	11640590	X	X	X	X	X	X	X	X
5/8	5/8	11640625	11660625	X	11640625T	11700625	X	11860625	X	QP10
16mm	5/8	11640629	X	X	X	X	X	X	X	X
3/4	3/4	X	X	11680750	X	X	11700750	X	11880750	X
20mm	3/4	X	11660787	X	X	X	X	X	X	X
7/8	3/4	X	X	11680875	X	X	11700875	X	11880875	X
25mm	3/4	X	X	11680984	X	X	X	X	X	X
1	3/4	X	X	11681000	X	X	11701000	X	11881000	X
1-1/8	3/4	X	X	11681125	X	X	X	X	11881125	X
1-1/4	3/4	X	X	11681250	X	X	X	X	11881250	X
1-3/8	3/4	X	X	11681375	X	X	X	X	11881375	X
1-1/2	3/4	X	X	11681500		X	X	X	11881500	X

X = Not available



Plug Cutter Sets

These sets of four-flute style Plug Cutters contain the most popular sizes and are grouped to meet most needs. Available in both standard and SS type (see page 12). A choice of 1/4" or 3/8" shanks are available in sets with 3/8", 7/16", 1/2" or 5/8" Plug Cutters, except for SS type Plug Cutters which have 3/8" shanks. Larger Plug Cutters have 1/2" shanks.

Sets #2, #3, #4 and #5 are supplied complete with wood holders. The last set of 3 is supplied in a plastic pouch.

	Set Stock Numbers and Sizes included							
Sizes	#2 Set of 2	#3 Set of 3	#4 Set of 4	#5 Set of 5	Set of 3 in pouch			
1/4 Shank	11694002	11694003	11694004	11694005	11692003			
3/8 Shank	11696002	11696003	11696004	11696005	116920036			
SS Type	11790002	11790003	11790004	X	11792003			
3/8		*	*		*			
7/16		*	*					
1/2	*	*	*		*			
5/8	*		*	*	*			
3/4				*				
7/8				*				
1				*				
1-1/8				*				



* = Sizes included in sets

X = Not available

#11692003



#11790002

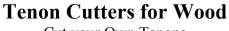




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#11694003





Cut your Own Tenons

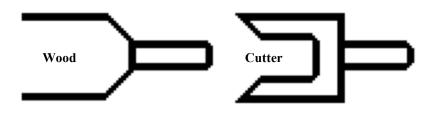
- To make round Tenons on any shape wood parts with width not more than outside diameter of cutter
- All sizes with 1/2" shank to fit chuck.
- Other Tenon sizes, outside diameters or shank sizes available
- Also available to cut flat

Quotation on request.

	Stock Sizes - Four Flute					
Tool Number	Outside Diameter	Tenon Size	Tenon Length			
T4	3/4	1/4	1/2			
Т6	1-1/4	3/8	5/8			
Т8	1-1/4	1/2	5/8			
T10	1-3/8	5/8	3/4			
T12	1-1/2	3/4	3/4			



T12





Type 'C' Combination Countersink and Taper Point Drill Sets

See Countersink specifications on page 6, Taper Point Drill Specifications on page 8, Stop Collars on page 7





#1 or #2 Set of 7 Countersinks with Taper Point Drills and Stop Collars in Wood Holder

#1 or #2 Set of 7 Countersinks in Wood Holder

No. 1 set of 7 Countersinks - In wood holder. Includes tools No. C5, C6, C7, C8, C9, C10 and C12 with Drills and Stop Collars for #5 thru #12 wood screws.

Stock No. 10390001M

No. 2 Set of 7 Countersinks - In wood holder. Includes tools No. C102, C12, C14, C143, C16, C169 and C18 for #10 thru #18 wood screws.

Stock No. 10390002

About note and qualitable with the following combinations of		Stock 1	Stock Number	
Above sets are available with the following combinations of tools;	on Page	#1 Set of 7	#2 Set of 7	
Countersinks only	6	10390001	10390002	
Countersinks and Tapered Drills	6-8	10390001T	10390002T	
Countersinks, Tapered Drills and Stop Collars	6-8	10390001M	10390002M	
The following sets of Drills and Stop Collars can also be added to the above sets of Countersinks;				
Stop Collars	7	11990001	11990002	
High Speed Steel Regular Point Drills – Short Length	36	15090001	15090002	
High Speed Steel Regular Point Drills – Hex Shank	45	15140001	15140002	
High Speed Steel Regular Point Drills - Regular Length	37-38	15190001	15190002	
High Speed Steel Regular Point Drills - Long Length	40	15290001	15290002	
High Speed Steel Brad Point Drills – Short Length	36	25090001	25090002	
High Speed Steel Brad Point Drills - Hex Shank	45	25140001	25140002	
High Speed Steel Brad Point Drills - Regular Length	37	25190001	25190002	
High Speed Steel Brad Point Drills - Long Length	40	25290001	25290002	
High Speed Steel Taper Point Drills – Short Length	8	20090001	20090002	
High Speed Steel Taper Point Drills – Hex Shank	9	20140001	20140002	
High Speed Steel Taper Point Drills – Regular Length	8	20190001	20190002	
High Speed Steel Taper Point Drills - Long Length	8	20290001	20290002	



Type 'C' Combination Countersink and Taper Point Drill Sets

See Countersinks on page 6, Tapered Drills on page 8 and Stop Collars on page 7









14-piece set with just Countersinks.

14-piece set shown with Countersinks and Taper Point Drills

Set of 14 type 'C' Countersinks in holder for all sizes #5 thru #18 wood screw. The set includes Type 'C' Countersinks C5, C6, C7, C8, C9, C10, C92, C102, C12, C14, C143, C16, C169 & C18.

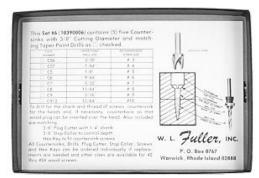
Set # 10390014

Above 14 piece set is available with the following;	Shown on Page	Stock Number
Countersinks only	6	10390014
Countersinks and Tapered Drills	6-8	10390014T
Countersinks, Tapered Drills and Stop Collars	6-8	10390014M
The following sets of Drills and Stop Collars can also be added to the above sets of Countersinks		
Stop Collars	7	11990014
High Speed Steel Regular Point Drills – Short Length	36	15090014
High Speed Steel Regular Point Drills – Hex Shank	45	15140014
High Speed Steel Regular Point Drills - Regular Length	37-38	15190014
High Speed Steel Regular Point Drills - Long Length	40	15290014
High Speed Steel Brad Point Drills – Short Length	36	25090014
High Speed Steel Brad Point Drills - Hex Shank	45	25140014
High Speed Steel Brad Point Drills - Regular Length	37	25190014
High Speed Steel Brad Point Drills - Long Length	40	25290014
High Speed Steel Taper Point Drills – Short Length	8	20090014
High Speed Steel Taper Point Drill – Hex Shank	9	20140014
High Speed Steel Taper Point Drills – Regular Length	8	20190014
High Speed Steel Taper Point Drills – Long Length	8	20290014



Type 'C' Combination Countersink and Taper Point Drill Sets

See Countersinks on page 6, Tapered Drills on page 8, Stop Collars on page 7 and Plug Cutters on page 12





No. 6 Set of 5 Countersinks, Tapered Drills and 1 each Plug Cutter, Stop Collar, and Hex Key.

Fuller

No. 6 Set Stock No. 10390006

Contains your choice of five Countersinks with 3/8" cutting diameter and matching Taper Point Drills. Tools are held in a foam insert cardboard container.

> Chose any five sizes from the list below. Sizes C5 thru C9 will be included if not specified

SIZC3 CC	Sizes es tiru es win be included it not specified.			
Tool	Taper Point	Recommended		
Number	Drill Size	Screw Size		
C56	3/32	#3		
C57	7/64	#4		
C5	1/8	#5		
C6	9/64	#6		
C7	5/32	#7		
C8	11/64	#8		
C9	3/16	#9		
C913	13/64	#10		

Also Includes				
Tool Number Description				
11640375	3/8" Plug Cutter with 1/4" Shank			
11900375	3/8" Stop Collar			
K0093	3/32" Hex key			



Retail packaging

shown on page 19

Stock Number: 10393008

No. 8 Set

No. 8 Set of 5 Countersinks with Taper Point Drills mounted in attractive wood case with matching Stop Collars and Plug Cutters. Used for the most popular wood screw sizes #6 thru #14.

Tool	Cutting	Taper Point	Recommended
Number	Diameter	Drill Size	Screw Size
C6	3/8	9/64	#6
C8	3/8	11/64	#8
C102	1/2	13/64	#10
C12	1/2	7/32	#12
C14	1/2	1/4	#14

Also Included				
Tool Number Description				
11640375	3/8" Plug Cutter with 1/4" Shank			
11640500	1/2" Plug Cutter with 1/4" Shank			
11900375	3/8" Stop Collar			
11900500	1/2" Stop Collar			
K0093	3/32" Hex key			

See same set with hex shank taper point drills on page 17.

Retail packaging shown on page 19

WARNING



Matching Sets of Type 'C' Countersinks

See Countersinks on page 6, Tapered Drills on page 8, Stop Collars on page 7 and Plug Cutters on page 12.



No. 5 Set Stock No: 10390005



No. 5 Set of 4 Countersinks with Taper Point Drills mounted in a wood holder, includes a matching Stop Collar and Plug Cutter. Used to pre-drill most size wood screws from #6 thru #12, and to cut your own wood plugs.

Tool Number	Cutting Diameter	Taper Point Drill Size	Recommended Screw Size
C129	1/2	9/64	#6
C1211	1/2	11/64	#8
C102	1/2	13/64	#10
C12	1/2	7/32	#12

Also Includes			
Tool Number Description			
11640500	1/2" Plug Cutter with 1/4" Shank		
11900500 1/2" Stop Collar			
K0093	3/32" Hex key		

Set is also available with High Speed Steel Hex Shank Taper Point Drills.



No. 9 Set of 5 Countersinks in Mahogany Case. Mounted on Hex Shank Taper Point Drills with Chuck Adapter.



No. 9 Quick Release Set Stock No. 10393009

Tool Number	Cutting Diameter	Taper Point Drill Size	Recommended Screw Size
C6	3/8	9/64	#6
C8	3/8	11/64	#8
C102	1/2	13/64	#10
C12	1/2	7/32	#12
C14	1/2	1/4	#14

Also Included			
Tool Number Description			
11900375	3/8" Stop Collar		
11900500 1/2" Stop Collar			
40011	Chuck Adaptor		
K0093	3/32" Hex Key		

Retail packaging shown on page 19

WARNING



Type 'C' Combination Countersink and Taper Point Quick Release Sets



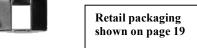
No. 10 Quick Release Set With Plug Cutter Stock No. 10393010



No. 10 Set contains everything you need to pre-drill and plug for screw sizes 5, 6, 7, 8 and 9 along with the added feature of Quick Release ability. All Taper Point Drills have 1/4" Hex Shanks.

Tool Number	Cutting Diameter	Quick Release Taper Point Drill Size	Recommended Screw Size
C5	3/8	1/8	#5
C6	3/8	9/64	#6
C7	3/8	5/32	#7
C8	3/8	11/64	#8
C9	3/8	3/16	#9

Also Included			
Tool Number Description			
QP6S	3/8" Plug Cutter with Hex Shank		
11900375	3/8" Stop Collar		
40011	Chuck Adaptor		
K0093	3/32" Hex Key		





Retail packaging shown on page 19

No. 11 Quick Release Set with Plug Cutters Stock No. 10393011



No. 11 Set contains everything you need to pre-drill and plug for screw sizes 6, 8, 10, 12, and 14 along with the added feature of Quick Release ability. All Taper Point Drills have 1/4" Hex Shanks.

Tool Number	Cutting Diameter	Quick Release Taper Point Drill Size	Recommended Screw Size
C6	3/8	9/64	#6
C8	3/8	11/64	#8
C102	1/2	13/64	#10
C12	1/2	7/32	#12
C14	1/2	1/4	#14

Also Included			
Tool Number Description			
QP6S	3/8" Plug Cutter with Hex Shank		
QP8S	1/2" Plug Cutter with Hex Shank		
11900375	3/8" Stop Collar		
11900500	1/2" Stop Collar		
40011	Chuck Adaptor		
K0093	3/32" Hex Key		



Stock # 10390006C

No. 6 Set of 5 Countersinks Mounted on Taper Point Drills Includes: 1 Stop Collar 1 Plug Cutter 1 Hex Key See Page 16



Stock # 10393009C

No. 9 Set of 5 Countersinks Mounted on Hex Shank Taper Point Drills with a Chuck Adapter Includes: 2 Stop Collars 2 Hex Keys See Page 17

Sets Packaged for Retail Sales

Five of our most popular combination Countersink and Taper Point Drill sets are now available in clear clamshell type display packaging suitable for pegboards. The rear of the packaging contains full how-to instructions as well as UPC bar codes and recommended drill size chart. The sets are held securely in heavy plastic displayed in the open position. Sets in wooden containers are laser marked with individual tool numbers for reordering and drill size recommendations.





Stock # 10393010C

No. 10 Set of 5 Countersinks Mounted on Hex Shank Taper Point Drills with a Chuck Adapter Includes: 1 Stop Collar 1 Plug Cutter 2 Hex Keys See Page 18



Stock # 10393008C

No. 8 Set of 5 Countersinks Mounted on Taper Point Drills Includes: 2 Stop Collars 2 Plug Cutters 2 Hex Keys See Page 16



Stock # 10393011C

No. 11 Set of 5 Countersinks Mounted on Hex Shank Taper Point Drills with a Chuck Adapter Includes: 2 Stop Collars 2 Quick Release Tapered Plug Cutters 2 Hex Keys See Page 18

Type E and Type J Countersinks

Four-flute construction, heat-treated for long tool life. See page 33 for explanation of steel types To cut woods, plastic & non-ferrous metals.



Type E four flute Countersink for deep hole counterboring and countersinking. Mounts on standard fractional size drills.





Type J four flute Countersink with 1/4" shank to fit chuck and help reduce breakage of small diameter drills. All sizes are 1-1/2" overall length and 3/4" long shanks.

Type JH are 2" OAL with a 1/4" hex shank.



Type E Countersinks

Stock Sizes				
Stock Cutting		Drill Hole Size		
Number	Diameter			
E92	1/2	3/16		
E102	1/2	13/64		
E12	1/2	7/32		
E14	1/2	1/4		
E143	5/8	3/16		
E16	5/8	1/4		
E169	5/8	9/32		
E18	5/8	5/16		

All sizes 1" overall length Stop Collars not recommended.





WARNING

Cutting tools may shatter when broken. The wearing of eye protection is strongly advised in the vicinity of their use.

Type J Countersinks

	Stock Sizes				
Stock Number	Cutting Diameter	Drill Hole Size	Stock Number With 1/4" Hex Shank		
J56	3/8	3/32	J56H		
J4	3/8	7/64	J4H		
J5	3/8	1/8	J5H		
J6	3/8	9/64	Ј6Н		
J7	3/8	5/32	J7H		
J8	3/8	11/64	J8H		
Ј9	3/8	3/16	Ј9Н		
J25	1/2	1/8	J25H		
J26	1/2	9/64	J26H		
J27	1/2	5/32	J27H		
J28	1/2	11/64	J28H		
J29	1/2	3/16	X		
*J35	5/8	1/8	X		
*J37	5/8	5/32	X		
*J39	5/8	3/16	X		

* Overall length 1-3/4"

Special sizes - Quotation on request. Drills are not included unless specified. Types and sizes shown on pages 36-51. Stop Collars to control depth shown on page 7. Matching Plug Cutters shown on page 12.



J9H on a 3/16" Short Length Drill



High Speed Steel & Carbide Countersinks and Counterbores

See page 33 for steel types.





H169S

High Speed Steel Countersinks

To cut wood, plastics and metal. Available with included angle of 60, 82, 90, 100, or 120 degrees.

Four-blade rugged construction, these countersinks have shorter blades to reduce breakage and are designed to Countersink in metals, plastics, fiberglass, and hardwoods. They are adjustable up and down on twist drills and held in place by two hex-socket set screws, which tighten into the flute of the drill.

Please specify stock number for wood or metal.

	Stock Sizes				
Stock No. Cutting	Cutting	Drill Hole	Overall	Stock No. Cutting	
Metals	Diameter	Size	Length	Wood	
H3S	1/4	3/32	3/4	H3SW	
H4S	5/16	7/64	3/4	H4SW	
H5S	3/8	1/8	7/8	H5SW	
H6S	3/8	9/64	7/8	H6SW	
H7S	3/8	5/32	7/8	H7SW	
H8S	3/8	11/64	7/8	H8SW	
H9S	3/8	3/16	7/8	H9SW	
H913S	3/8	13/64	7/8	H913SW	
H97S	3/8	7/32	7/8	H97SW	
H10S	7/16	13/64	7/8	H10SW	
H125S	1/2	5/32	7/8	H125SW	
H92S	1/2	3/16	7/8	H92SW	
H102S	1/2	13/64	7/8	H102SW	
H12S	1/2	7/32	7/8	H12SW	
H14S	1/2	1/4	7/8	H14SW	
H143S	5/8	3/16	1-1/16	H143SW	
H16S	5/8	1/4	1-1/16	H16SW	
H169S	5/8	9/32	1-1/16	H169SW	
H18S	5/8	5/16	1-1/16	H18SW	
H244S	3/4	1/4	1-1/8	H244SW	
H245S	3/4	5/16	1-1/8	H245SW	
H24S	3/4	3/8	1-1/4	H24SW	
H285S	7/8	5/16	1-1/4	H285SW	
H286S	7/8	3/8	1-1/4	H286SW	
H287S	7/8	7/16	1-3/8	H287SW	
H328S	1	1/2	1-1/2	H328SW	

*Unless otherwise specified 82-degree angle for flat head screws will be furnished. Drills are not included unless specified. Types and sizes are shown on pages 36-51. Stop Collars to control depth are shown on page 7. Sets can be furnished in wood holder with same sizes as type 'C' Countersinks shown on pages 14 & 15

No. 1 set of 7 High Speed Steel Countersinks 10890001 No. 2 set of 7 High Speed Steel Countersinks 10890002 Set of 14 High Speed Steel Countersinks 10890014

*Special sizes - Quotation on request.

Carbide Countersinks and Counterbores

Manufactured of Ferro-Tic® machinable carbide and hardened for long wear in abrasive materials. Great for Formica, Fiberglass, Particleboard, etc. See page 33 for steel types. All carbide countersinks come standard with an 82° angle.

Ferro-Tic Carbide				
Countersinks				
8	Stock Sizes			
Countersink	Cutting	Drill		
Stock No.	Diameter	Hole Size		
CC5	3/8	1/8		
CC6	3/8	9/64		
CC7	3/8	5/32		
CC8	3/8	11/64		
CC9	3/8	3/16		
CC125	1/2	5/32		
CC1211	1/2	11/64		
CC92	1/2	3/16		
CC102	1/2	13/64		
CC12	1/2	7/32		
CC14	1/2	1/4		
CC143	5/8	3/16		
CC16	5/8	1/4		
CC169	5/8	9/32		
CC18	5/8	5/16		
CC244	3/4	1/4		
CC245	3/4	5/16		
CC24	3/4	3/8		



CC143



Not Recommended to cut any type of metal or use in hand held equipment. Carbide Countersinks and Counterbores shown above are highly recommended and are made to exclusively cut abrasive materials. See page 33 for steel types. →A product of Alloy Technology International, Inc.

Ferro-Tic Carbide			
Counterbores			
	Stock Sizes		
Countersink	Countersink Cutting Drill		
Stock	Diameter	Hole Size	
Number	Diameter	noie Size	
CR1	3/8	1/8	
CR19	3/8	9/64	
CR15	3/8	5/32	
CR111	3/8	11/64	
CR13	3/8	3/16	
CR25	1/2	5/32	
CR211	1/2	11/64	
CR23	1/2	3/16	
CR213	1/2	13/64	
CR27	1/2	7/32	
CR24	1/2	1/4	
CB3	5/8	3/16	
CB34	5/8	1/4	
CB39	5/8	9/32	
CB310	5/8	5/16	
CB4	3/4	1/4	
CB5	3/4	5/16	
CB56	3/4	3/8	



CR211



No. 1 Set of HSS Countersinks





Type K Countersinks and Type M Counterbores



Type K Countersinks and Type M Counterbores are both 3" overall length and designed for deep countersinking or counterboring. They can also be used with drill jig bushings. Available in both Carbon Steel and also Stainless Steel for cutting hardwoods. See page 33 for explanation of steel types.



Various combinations of Cutting diameters and shanks





M0811258 mounted on 1/8" x 5-1/8" long drill



K081258 mounted on 1/8" x 5-1/8" long drill

Type 'K' Countersinks to cut wood and plastics

3" O.A. with 3/8" or 1/2" shanks. 82 degree included angle to cut in wood and plastics.

	Stock Numbers			
Drill	Standard "K" Type			Type for Woods
Hole	3/8"	1/2"	3/8"	1/2"
Size	Shank	Shank	Shank	Shank
	3	/8" Cutting D	iameter	
1/8	K061256	K061258	KS061256	KS061258
9/64	K061406	K061408	KS061406	KS061408
5/32	K061566	K061568	KS061566	KS061568
11/64	K061716	K061718	KS061716	KS061718
3/16	K061876	K061878	KS061876	KS061878
13/64	K062036	K062038	KS062036	KS062038
7/32	K062186	K062188	KS062186	KS062188
7/16" Cutting Diameter				
13/64	K072036	K072038	KS072036	KS072038
7/32	K072186	K072188	KS072186	KS072188
9/32	X	K072818	KS072816	KS072818
1/2" Cutting Diameter				
1/8	K081256	K081258	KS081256	KS081258
9/64	K081406	K081408	KS081406	KS081408
5/32	K081566	K081568	KS081566	KS081568
11/64	K081716	K081718	KS081716	KS081718
3/16	K081876	K081878	KS081876	KS081878
13/64	K082036	K082038	KS082036	KS082038
7/32	K082186	K082188	KS082186	KS082188
1/4	K082506	K082508	KS082506	KS082508
9/32	X	K082818	KS082816	KS082818
5/16	X	K083128	KS083126	KS083128
5/8" Cutting Diameter				
1/4	K102506	K102508	X	X
9/32	K102816	K102818	X	X
5/16	K103126	K103128	X	X
	3/	4" Cutting Di	ameter	
1/4	K122506	K122508	X	X
5/16	K123126	K123128	X	X

Type 'M' Counterbores to cut wood and plastics

3" O.A. with 3/8" or 1/2" shank to cut flat bottom hole in wood and plastics.

	Stock Numbers			
Drill Hole	Standard "M" Type			Type for Woods
Size	3/8"	1/2"	3/8"	1/2"
Size	Shank	Shank	Shank	Shank
	3/8	8" Cutting Di	ameter	
1/8	M061256	M061258	MS061256	MS061258
9/64	M061406	M061408	MS061406	MS061408
5/32	M061566	M061568	MS061566	MS061568
11/64	M061716	M061718	MS061716	MS061718
3/16	M061876	M061878	MS061876	MS061878
13/64	M062036	M062038	MS062036	MS062038
7/32	M062186	M062188	MS062186	MS062188
	7/16" Cutting Diameter			
13/64	M072036	M072038	MS072036	MS072038
7/32	M072186	M072188	MS072186	MS072188
9/32	X	M072818	MS072816	MS072818
	1/2" Cutting Diameter			
1/8	M081256	M081258	MS081256	MS081258
9/64	M081406	M081408	MS081406	MS081408
5/32	M081566	M081568	MS081566	MS081568
11/64	M081716	M081718	MS081716	MS081718
3/16	M081876	M081878	MS081876	MS081878
13/64	M082036	M082038	MS082036	MS082038
7/32	M082186	M082188	MS082186	MS082188
1/4	M082506	M082508	MS082506	MS082508
9/32	X	M082818	MS082816	MS082818
5/16	X	M083128	MS083126	MS083128
	5/8" Cutting Diameter			
1/4	M102506	M102508	X	X
9/32	M102816	M102818	X	X
5/16	M103126	M103128	X	X
	3/	4" Cutting D	iameter	
1/4	M122506	M122508	X	X
5/16	M123126	M123128	X	X

Special sizes priced on request.

X = Not available



Tooling for IPEAnd other Exotic Hard Woods









11700375

Fuller Stainless Steel Plug Cutters are designed to cut plugs to fit over the head of the screw if counterbored below the surface, particularly in hard, dense woods such as IPE. Fuller Stainless Steel 2-Fluted Countersinks combined with High Speed Steel Fast Spiral Drills are the best tools on the market today to pre-drill for deck screws, particularly in hard, dense, Woods such as IPE. The SS countersink can be used to sink the screw head flush using one of the Fuller stop collars or will cut deep enough for plugging. Designed to cut clean and hardened for long wear, the countersink has a 3/8" diameter shank to chuck on for durability. It is held in place with two hex socket screws that should be set into the flute of the drill. The fast spiral drill has a tighter twist which allows faster chip clearance than standard twist drills.

Stock Number	Description
KS5	3/8" X 1/8" 'KS' Stainless Steel Countersink
KS7	3/8" X 5/32" 'KS' Stainless Steel Countersink
KS8	3/8" X 11/64" 'KS' Stainless Steel Countersink
KS10	3/8" X 13/64" 'KS' Stainless Steel Countersink
KS12	1/2" X 7/32" 'KS' Stainless Steel Countersink
KS14	1/2" X 1/4" 'KS' Stainless Steel Countersink
15800125	1/8" High Speed Steel Fast Spiral Regular Point Drills
15800156	5/32" High Speed Steel Fast Spiral Regular Point Drills
15800171	11/64" High Speed Steel Fast Spiral Regular Point Drills
15800203	13/64" High Speed Steel Fast Spiral Regular Point Drills
15800218	7/32" High Speed Steel Fast Spiral Regular Point Drills
15800250	1/4" High Speed Steel Fast Spiral Regular Point Drills
KS5F	1/8" High Speed Steel Fast Spiral Regular Point Drill And KS5
KS7F	5/32" High Speed Steel Fast Spiral Regular Point Drill And KS7
KS8F	11/64" High Speed Steel Fast Spiral Regular Point Drill And KS8
KS10F	13/64" High Speed Steel Fast Spiral Regular Point Drill And KS10
KS12F	7/32" High Speed Steel Fast Spiral Regular Point Drill And KS12
KS14F	1/4" High Speed Steel Fast Spiral Regular Point Drill And KS14
KS5FC	1/8" High Speed Steel Fast Spiral Regular Point Drill And KS5 – Carded
KS7FC	5/32" High Speed Steel Fast Spiral Regular Point Drill And KS7 – Carded
KS8FC	11/64" High Speed Steel Fast Spiral Regular Point Drill And KS8 – Carded
KS10FC	13/64" High Speed Steel Fast Spiral Regular Point Drill And KS10 – Carded
KS12FC	7/32" High Speed Steel Fast Spiral Regular Point Drill And KS12 – Carded
KS14FC	1/4" High Speed Steel Fast Spiral Regular Point Drill And KS14 - Carded
11700375	3/8" X 3/8" Stainless Steel Plug Cutter
11700500	1/2" X 3/8" Stainless Steel Plug Cutter

^{*} All Items Available for Carded Packaging



Type 'R' Counterbores

To cut flat bottom holes in wood or plastic for heads of screws, rivets or nails, two flutes.





With spurs, this Counterbore cuts a clean hole without tearing woods or plastics.

Made of Stainless Steel, hardened enough to hold an edge and yet can be sharpened with a file. Type 'R' Counterbores can counterbore deep enough for a wood plug over the head of the screw or rivet. See page 33 for explanation of steel types.

Stock Sizes

Stock	Cutting	Drill
Number	Diameter	Size
R17	3/8	7/64
*R1	3/8	1/8
R19	3/8	9/64
R15	3/8	5/32
R111	3/8	11/64
R13	3/8	3/16
R113	3/8	13/64
*R72	7/16	1/8
*R75	7/16	5/32
R73	7/16	3/16
R713	7/16	13/64
*R22	1/2	1/8
*R25	1/2	5/32
R211	1/2	11/64
*R23	1/2	3/16
R213	1/2	13/64
*R27	1/2	7/32
*R215	1/2	15/64
*R24	1/2	1/4
R93	9/16	3/16
R97	9/16	7/32
R94	9/16	1/4

^{*} Indicates sizes in set of 9 Type 'R' Counterbores shown above. Substitutions of the same cutting diameter Counterbore may be made.

All sizes 1" long overall Drills are not included unless specified. Types and sizes are shown on pages 36 - 51. Stop collars shown on page 7. Matching Plug Cutters shown on page 12. Special sizes - Quotation on request.

Set of Type 'R' Counterbores in Wood Holder Stock No. 11890009



The following Drills and Stop Collars can be added to above set of Counterbores			
Type	Length	Stock	Ref.
Drill		Number	Page
High Speed	-Short Length	15090009	36
Regular	-Regular Length	15190009	37-39
Point Drills	-Long Length	15290009	40
High Speed	-Short Length	20090009	36
Brad Point	-Regular Length	25190009	37
Drills	-Long Length	20290009	40
High Speed	-Short Length	25090009	8
Taper	-Regular Length	20190009	8
Point Drills	-Long Length	25290009	8
Stop Collars to	control depth -	11990009	7



R24 mounted on 1/4" regular length brad point drill

WARNING

Type 'B' and Type 'X' Counterbores

To cut wood and plastic, four flutes.

Type 'B' Counterbores

Designed to cut clean holes in softwood. They can also be used with stop collars (shown on page 7) to control depth of cut.

Counterbores for the flat under the head of nails, spikes and bolts to sink the heads under the surface or deep enough for wood plug to cover the head.

Can be set at any point on twist drill and held fast with two hex-socket set screws. Designed for clean cutting and hardened for long life.

Can be used in Drill Press, Electric Hand Drill or Bit Brace.

Sizes and types of drills available to fit Type 'B' Counterbores are shown on pages 36 thru 51.

Stop Collars to control depth are shown on page 7.



B34



B34 mounted on 1/4" Regular Length Brad Point Drill with 5/8" Stop Collar



Type 'X' Counterbores

Designed to cut faster and deeper in hardwoods.

Adaptable to high or low speed spindles and hardened for long service.

Four-blade rugged construction cuts a smooth hole and stays sharp longer.

Sizes and types of drills available to fit type 'X' Counterbores are shown on pages 36 thru 51. Stop Collars not recommended on type 'X' Counterbores.



X34L

WARNING

Type 'B'	Type 'X'	S	pecifications	
Stock	Stock	Cutting	Overall	Drill
Number	Number	Dia.	Length	Size
*B3	*X3L	5/8	1	3/16
B37	X37L	5/8	1	7/32
			1	
B34	X34L	5/8		1/4
B317	X317L	5/8	1	17/64
B39	X39L	5/8	1 1/0	9/32
B310	X310L	5/8	1-1/8	5/16
B43	X43L	3/4	1	3/16
B47	X47L	3/4	1	7/32
*B4	*X4L	3/4	1	1/4
B49	X49L	3/4	1	9/32
*B5	*X5L	3/4	1-1/8	5/16
B511	X511L	3/4	1-1/8	11/32
B56	X56L	3/4	1-1/4	3/8
B64	X64L	7/8	1-1/8	1/4
B610	X610L	7/8	1-1/8	5/16
*B6	*X6L	7/8	1-1/4	3/8
B67	X67L	7/8	1-3/8	7/16
B68	X68L	7/8	1-1/2	1/2
B74	X74L	1	1-1/8	1/4
B75	X75L	1	1-1/8	5/16
B76	X76L	1	1-1/4	3/8
*B7	*X7L	1	1-3/8	7/16
B78	X78L	1	1-1/2	1/2
B85	X85L	1-1/8	1-1/8	5/16
B86	X86L	1-1/8	1-1/4	3/8
B87	X87L	1-1/8	1-3/8	7/16
*B8	*X8L	1-1/8	1-1/2	1/2
B89	X89L	1-1/8	1-5/8	9/16
B96	X96L	1-1/4	1-1/4	3/8
B97	X97L	1-1/4	1-3/8	7/16
B98	X98L	1-1/4	1-1/2	1/2
B9	X9L	1-1/4	1-5/8	9/16
B910	X910L	1-1/4	2	5/8
B912	X912L	1-1/4	2-1/4	3/4
B106	X106L	1-3/8	1-3/8	3/8
B107	X107L	1-3/8	1-3/8	7/16
B108	X108L	1-3/8	1-1/2	1/2
B109	X109L	1-3/8	1-5/8	9/16
B10	X10L	1-3/8	2	5/8
B1012	X1012L	1-3/8	2-1/4	3/4
B126	X126L	1-1/2	1-1/2	3/8
B127	X127L	1-1/2	1-1/2	7/16
B128	X128L	1-1/2	1-1/2	1/2
B129	X129L	1-1/2	1-5/8	9/16
B1210	X1210L	1-1/2	2	5/8
B12	X12L	1-1/2	2-1/4	3/4
		1	1	

Types 'B' and 'X' Counterbores Special sizes - Quotation on request.

^{*} Indicates the sizes in set of Type 'B' or 'X' Counterbores shown on page 26. Substitutions with the same cutting diameter Counterbore may be made if desired. Quotation on request.



'X' and 'B' Counterbore Sets

Set of 6 Type 'B' Counterbores in Wood Holder Stock No. 10290006





Set of 6 Type 'X' Counterbores In Wood Holder Stock No. 12490006



The following sets of Drills and Stop Collars can be ordered with the above sets of Counterbores			
Drill Type	Length	Stock Number	Page Reference
High Speed	-Short Length	15090006	36
Regular	-Regular Length	15190006	37-39
Point Drills	-Long Length	15290006	40
High Speed	-Short Length	25090006	36
Brad Point	-Regular Length	25190006	37
Drills	-Long Length	25290006	40
High Speed	-Short Length	25090009	8
Taper Point	-Regular Length	20190009	8
Drills	-Long Length	25290009	8
Stop Collars to	control depth (Type B only)	11990006	7

*Reference page 25 - Sizes in Set of 6

WARNING

Stock

Number



Drill

Size

Decimal

Drill Stops

These steel Drill Stops are held solidly in place with two set screws, to give positive control on depth of drill cut.

2/011 5:	, , , , , , , ,	0 117 :
		Overall Length
1/16	.0625	10600062
#52	.0635	10600063
#51	.0670	10600067
#50	.0700	10600070
#49	.0730	10600073
#48	.0760	10600076
5/64	.0781	10600078
#47	.0785	106000785
2.0 mm	.0787	106000787
#46	.0810	10600081
#45	.0820	10600082
#44	.0860	10600086
#43	.0890	10600089
#42	.0935	106000935
3/32	.0937	10600093
#41	.0960	10600096
#40	.0980	10600098
#39	.0995	10600099
#38	.1015	10600101
#37	.1040	10600104
#36	.1065	10600106
7/64	.1094	10600109
#35	.1100	10600110
#34	.1110	10600111
#33	.1130	10600113
#32	.1160	10600116
3.0 mm	.1181	10600118
#31	.1200	10600120
1/8	.1250	10600125
	Diameter by	
.,	Length	
#30	.1285	10600128
#29	.1360	10600126
#28	.1405	10600130
9/64	.1406	106001403
#27	.1440	10600144
#26	.1470	10600144
#25	.1495	10600147
#24	.1520	10600147
#23	.1540	10600154
5/32	.1562	10600154
#22	.1570	10600157
4.0 mm	.1575	10600157
#21	.1590	106001575
#21	.1610	10600139
#19	.1660	10600161
#19	.1695	10600160
11/64	.1719	10600171
#17	.1730	10600171
#17	.1770	10600173
#15	.1770	10600177
#13	.1820	10600180
#14	.1020	10000182

.1850

.1875

#13

3/16





D*:11		Stools
Drill	Decimal	Stock
Size		Number
		Overall Length
#12	.1890	10600189
#11	.1910	10600191
#10	.1935	10600193
#9	.1960	10600196
5.0 mm	.1968	106001968
#8	.1990	10600199
#7	.2010	10600201
13/64	.2031	10600203
#6	.2040	10600204
#5	.2055	10600205
#4	.2090	10600209
#3	.2130	10600213
7/32	.2188	10600218
#2	.2210	10600221
#1	.2280	10600228
A	.2340	106002340
15/64	.2344	10600234
6.0 mm	.2362	10600236
В	.2380	10600238
C	.2420	10600242
D	.2460	10600246
1/4 (E)	.2500	10600250
		Overall Length
F	.2570	10600257
G	.2610	10600261
17/64	.2656	10600265
Н	.2660	10600266
I	.2720	10600272
7.0 mm	.2756	10600275
J	.2770	10600277
K	.2810	106002810
9/32	.2812	10600281
L	.2900	10600290
M	.2950	10600295
19/64 N	.2969 .3020	10600296 10600302
7.75mm		
	.3051	10600305
5/16	.3125	10600312
		Overall Length
8.0 mm	.3150	10600315
0	.3160	10600316
8.1mm	.3189	10600318
P	.3230	10600323
21/64	.3281	10600328
Q	.3320	10600332
8.5mm	.3346	10600334
R	.3390	10600339
11/32	.3438	10600343
S	.3480	10600348
9.0 mm	.3543	10600354
T	.3580	10600358
23/64	.3594	10600359
U	.3680	10600368
9.5mm	.3740	10600374





Continued on Page 28.

10600185

10600187



Drill Stops and Sets

Drill Stops Continued from page 27

These steel drill stops are held solidly in place with two set screws, to give positive control on depth of drill cut.







Drill Size	Decimal	Stock Number
		Overall Length
3/8	.3750	10600375
V	.3770	10600377
9.8mm	.3858	10600385
W	.3860	10600386
25/64	.3906	10600390
10.0 mm	.3937	10600393
X	.3970	10600397
Y	.4040	10600404
13/32	.4062	10600406
Z	.4130	10600413
27/64	.4219	10600421
11.0 mm	.4331	10600433
7/16	.4375	10600437
29/64	, 4531	10600453
15/32	.4688	10600468
12.0 mm	.4724	10600472
31/64	.4844	10600484
1/2	.5000	10600500
1" Diam	eter by 1" Ov	erall Length
13.0 mm	.5118	10600511
33/64	.5156	10600515
17/32	.5312	10600531
9/16	.5625	10600562
37/64	.5781	10600578
15.0 mm	.5906	10600590
19/32	.5938	10600593
1-1/8" Diam	eter by 1-1/8"	Overall Length
5/8	.6250	10600625
21/32	.6562	10600656
11/16	.6875	10600687
45/64	.7031	10600703
23/32	.7188	10600718
47/64	.7344	10600734
1-1/4" Diam	eter by 1-1/4"	Overall Length
3/4	.7500	10600750
20.0 mm	.7874	10600787
51/64	.7969	10600796
		Overall Length
13/16	.8125	10600812
7/8	.8750	10600812
	.9375	Overall Length
15/16		
31/32	.9688	10600968
1	1.000	10601000

Drill Stop Sets

Sets of Drill Stops	Stock Number
Set of $13 = \text{to fit } 1/16 \text{ to } 1/4 \text{ By } 64 \text{ths}$	10690013
Set of $15 = \text{to fit } 1/16 \text{ to } 1/2 \text{ By } 32 \text{nds}$	10690015
Set of $21 = \text{to fit } 1/16 \text{ to } 3/8 \text{ By } 64 \text{ths}$	10690021
Set of $29 = \text{to fit } 1/16 \text{ to } 1/2 \text{ By } 64 \text{ths}$	10690029
Set of 50 = to fit #1 to #50 Wire Gage	10690050
Set of $26 = \text{to fit Letter sizes A to Z}$	10690026

Other sizes - Priced on request.





High Speed Steel Step Drills

To Cut Woods, Plastics and Metals



For high production in woods, plastics, fiberglass, and metals. Made of High Speed Steel.

With 82 degree included angle or 180-degree flat step.

Drill and Countersink or Counterbore in one operation, clearance for the head and body of various types of screw.

Flutes are less likely to clog compared with two-piece Countersink and Drill combination particularly in materials such as aluminum.

Stock Sizes are available for immediate delivery.

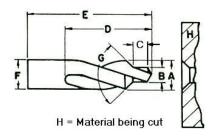


SD9F

Stock sizes and Stock numbers

_	82°		Standard							
Angle	Angled Step		Dimensions							
Stock No.	Degree	Screw Size	Major Diameter A	Minor Diameter B	Pilot Length C	Flute Length D	Overall Length E	Shank Size F	Degree	Stock No.
SD2	82°	2	3/16	.090	3/16	1-1/8	2-3/16	3/16	180°	SD2F
SD3	82°	3	7/32	.103	3/16	1-1/4	2-3/8	7/32	180°	SD3F
SD4	82°	4	15/64	.116	3/16	1-5/16	2-7/16	15/64	180°	SD4F
SD5	82°	5	17/64	.129	1/4	1-7/16	2-5/8	1/4	180°	SD5F
SD6	82°	6	19/64	.142	1/4	1-9/16	2-3/4	1/4	180°	SD6F
SD7	82°	7	21/64	.155	1/4	1-11/16	2-15/16	1/4	180°	SD7F
SD8	82°	8	11/32	.168	1/4	1-11/16	3	1/4	180°	SD8F
SD9	82°	9	3/8	.182	1/4	1-13/16	3-1/8	3/8	180°	SD9F
SD10	82°	10	13/32	.195	1/4	1-15/16	3-5/16	3/8	180°	SD10F
SD12	82°	12	29/64	.221	5/16	2-1/8	3-9/16	3/8	180°	SD12F
SD14	82°	14 or 1/4	1/2	.255	5/16	2-1/4	3-3/4	1/2	180°	SD14F
SD16	82°	16 or 9/32	9/16	.286	5/16	2-1/2	5	1/2	180°	SD16F
SD18	82°	18 or 5/16	5/8	.317	3/8	2-1/2	5	1/2	180°	SD18F
SD20	82°	20	11/16	.328	3/8	2-1/2	5	1/2	180°	SD20F
SD24	82°	24 or 3/8	3/4	.380	3/8	2-1/2	5	1/2	180°	SD24F





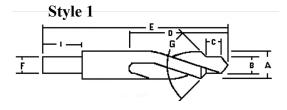
For other special sizes see pages 30-32



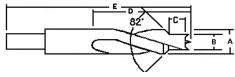
Special Step Drills

For Woods, Metals and Plastics

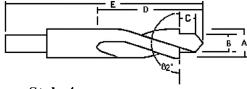
We can manufacture *Step Drills* to your specifications. Six basic styles to choose from are shown below. Simply fill in the dimensions or specifications for items A through J listed below. *Small quantities are our specialty*. In most cases we can ship within 1 to 2 weeks from the time you place your order with us. Large quantities can take longer. Give us a call and let us give you a quote.



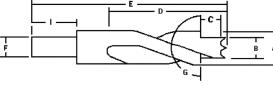
Style 2



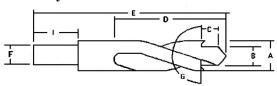
Style 3



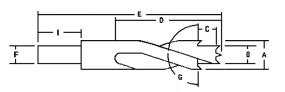
Style 4



Style 5



Style 6



High Speed Steel Step Drills work best in **high production applications** where clean, accurate holes are required in woods, metals and plastics. Two-piece tools used for combined drilling and countersinking or counterboring can clog with chips. A Step Drill offers better chip removal as well as longer tool life.

We use standard drills found on pages 36 through 51 to manufacture Step Drills. We can cut drills to length, grind one or more pilot diameters, grind reduced shank sizes, grind flats on shanks, change point configurations and thin the web thickness.

We try to avoid pilots that are too small or too long which could cause them to break prematurely. We also try to avoid cutting off the point end of a standard drill, which can take away from the cutting ability of the drill. When choosing a drill to use, always pick the shortest one possible for your application. The pilot length should also be as short as possible to avoid unnecessary breakage and reduce your cost for us to grind the Step Drill.

A Countersink diameter	Use the smallest size possible	Recommended minimum is 1/8			
B Pilot diameter	Use the largest size possible	Recommended minimum is 3/32			
C Pilot length	Use shortest length possible	Maximum length 4 times pilot diameter			
D Flute length	Use standard if possible	See drill lengths			
E Overall length	Use standard if possible	On pages 39 to 53			
F Shank diameter	Use same size as countersink diameter (A) if possible or 1/4", 3/8", 1/2", 10mm etc.				
G Countersink or Counterbore Angle	60 to 179 degree of included angle or 180 degree flat step Counterbore.				
H Material	Specify type of material to be cut				
I Length of Shank		'= 1" long, 3/8" = 1-1/4" long 2" long, 10mm =1" w/flat.			
J Style Number	Choose one of 6 styles on left				

We do not manufacture Solid Carbide or Carbide Tipped Step Drills

Our Standard tolerances:

Cutting Diameters plus .000" to minus .0015"
Shank Diameters plus .000" to minus .005"
Pilot Lengths plus 1/32" to minus 1/32"
Shank Lengths plus 1/16" to minus 1/16"
Overall & Flute Lengths plus 1/8" to minus 1/8"



Step Drills for Wood Screws and Production Screws

These Step Drills are designed to pre-drill clearance holes through the first piece of wood and pilot holes for the threads in the second piece of wood. Sizes and lengths match standard screw sizes. Countersinks shown on page 6 can be used to complete a 3-step operation in 1 step. Made of top quality High Speed Steel.









		Wood	Production	A	В	С	D	E
Tool	Screw	Screw	Screw	Drill	Pilot	Pilot	Twist	Overall
Number	Size	Length	Depth **	Dia. ***	Dia.	Length	Length	Length
SD0404	#4	1/2	5/16	7/64	.075	5/16	1-1/2	2-5/8
SD0406		3/4	1/2			1/2		
SD0408		1	5/8			5/8*	2-1/2	3-3/4
SD0410		1-1/4	13/16			13/16*		
SD0604	#6	1/2	5/16	9/64	.094	5/16	1-3/4	2-7/8
SD0606		3/4	1/2			1/2		
SD0608		1	5/8			5/8		
SD0610		1-1/4	13/16			13/16*	3	4
SD0612		1-1/2	1			1*		
SD0616		2	1-5/16			1-5/16*		
SD0804	#8	1/2	5/16	11/64	.112	5/16	2-1/8	3-1/4
SD0806		3/4	1/2			1/2		
SD0808		1	5/8			5/8		
SD0810		1-1/4	13/16			13/16		
SD0812		1-1/2	1			1	3-3/8	4-1/2
SD0816		2	1-5/16			1-5/16*		
SD0820		2-1/2	1-5/8			1-5/8*		
SD0824		3	2			2*	6	8
SD1006	#10	3/4	1/2	13/64	.130	1/2	2-7/16	3-5/8
SD1008		1	5/8			5/8		
SD1010		1-1/4	13/16			13/16		
SD1012		1-1/2	1			1		
SD1016		2	1-5/16			1-5/16*	3-5/8	4-1/2
SD1020		2-1/2	1-5/8			1-5/8*		
SD1024		3	2			2*	6	8
SD1208	#12	1	5/8	7/32	.148	5/8	2-1/2	3-3/4
SD1210		1-1/4	13/16			13/16		
SD1212		1-1/2	1			1		
SD1216		2	1-5/16			1-5/16	3-5/8	5
SD1220		2-1/2	1-5/8			1-5/8*		
SD1224		3	2			2*	6	8
SD1228		3-1/2	2-5/16			2-5/16*		

Continued next page...



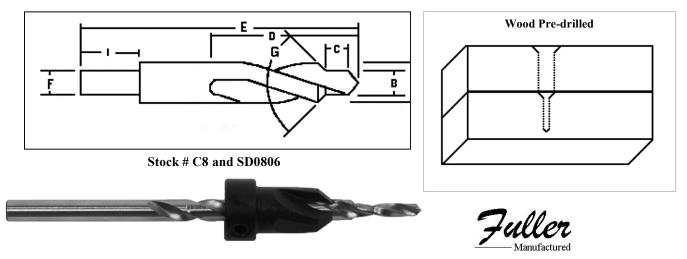
Step Drills for Wood Continued...

		Wood	Production	A	В	C	D	E
Tool	Screw	Screw	Screw	Drill	Pilot	Pilot	Twist	Overall
Number	Size	Length	Depth **	Dia. ***	Dia.	Length	Length	Length
SD1408	#14	1	5/8	1/4	.165	5/8	2-3/4	4
SD1410		1-1/4	13/16			13/16		
SD1412		1-1/2	1			1		
SD1416		2	1-5/16			1-5/16		
SD1420		2-1/2	1-5/8			1-5/8*	3-3/4	5
SD1424		3	2			2*		
SD1428		3-1/2	2-5/16			2-5/16*	6	8
SD1432		4	2-5/8			2-5/8*		
SD1610	#16	1-1/4		17/64	.184	13/16	2-7/8	4-1/8
SD1612		1-1/2				1		
SD1616		2				1-5/16		
SD1620		2-1/2				1-5/8*	3-7/8	5-1/4
SD1624		3				2*		
SD1628		3-1/2				2-5/16*	6	8
SD1632		4				2-5/8*		
SD1816	#18	2		19/64	.204	1-5/16	3-1/16	4-3/8
SD1820		2-1/2				1-5/8	4	5-1/4
SD1824		3				2*		
SD1828		3-1/2				2-5/16*	6	8
SD1832		4				2-5/8*		
SD2012	#20	2-1/2		5/16	.223	1-5/8	4	5-1/4
SD2024		3				2		
SD2028		3-1/2				2-5/16*	6	8
SD2032		4				2-5/8*		
SD2424	#24	3		3/8	.260	2	4-1/4	5-1/2
SD2432		4				2-5/8	6	8
SD2436		4-1/2				3*		
SD2448		6				4*	7-1/2	10

^{*} Step Drills with extra long pilot lengths are not guaranteed against breakage.

To find this dimension, subtract the thickness of the top piece of wood from the length of the screw.

*** All shank diameters are the same size as the (A) drill diameter.



^{**} Production Screw Depth (for Production or Sheet Rock screws)



Steel Types - Uses and Sharpening

All of the tools we sell are made from one of seven different types of steel. Each has its own unique characteristics and use. Generally speaking, you get what you pay for but each has a specific purpose. The types are, from cheapest to most expensive, Carbon Steel, Stainless Steel, High Speed Steel, Cobalt Steel, Ferro-Tic Carbide, Carbide Tipped and Solid Carbide. Some types of tools are offered in more than one type of steel. Please refer to this page to determine which type of steel is best for your purpose. We have the equipment and the expertise to re-sharpen most all of the tools we sell.

Carbon Steels, which can include High Carbon Steel and High Alloy Steel, are the softest and usually the cheapest of the seven types we offer. Many woodworking tools are made from this material. Many craftsmen like Carbon Steel because the tools are soft enough to sharpen with a file. Virtually any woodworking tool can be found in a carbon steel version. Some woodworking tools are only available in Carbon Steel or Carbide Tipped because it is too difficult to make them from anything else or they would be too expensive. If you are cutting softwood or just a few holes in hardwoods or plastics, Carbon Steel is your answer. If you have a lot of holes to cut in a hard material, you may want to choose a better grade of steel. The tools we manufacture from Carbon Steel are heat treated and cannot be sharpened with a file. A stone type of grinding wheel is required to re-sharpen them.

Stainless Steel is not normally used to manufacture tools. However, we have found that heat-treating Stainless Steel produces tools that not only have longer lasting cutting edges than Carbon Steel but also have a spring steel quality that keeps the tools from breaking in tough applications. Stainless Steel generally costs only a little more than Carbon Steel. Our Stainless Steel is heat treated and is able to be sharpened with a file or a stone type of grinding wheel.

High Speed Steel, sometimes abbreviated to HSS, comes in various different grades generally used in the metalworking industry to make drills, end mills, turning tools, and other tools designed specifically to cut metal. In woods and plastics, all grades of HSS far outlast the cheaper Carbon Steel or Stainless Steel. The various grades of HSS we use are identified by M1, M2, M7 and M50, M1 being the most expensive grade. Very few woodworking tools are made from HSS. It is too expensive to use for large tools, very tough to machine and can be subject to breakage with rough treatment in hand held equipment. M1 is the hardest and also the most brittle of the bunch. You can't have your cake and eat it too! We use M1, M2 and M7 for applications when better tool life is required and breakage is not a problem. M50 is used when breakage could be an issue. Tools made of High Speed Steel will always have HS or HSS stamped or etched on them. Don't be fooled by imitations. We recommend HSS for most applications because the tools are reasonably priced, last a long time in woods and plastics and have more sizes and lengths available than any other type of material. However, if you are cutting thousands of holes in hard materials, you need some type of Carbide Tooling. Sharpening HSS tools requires a grinding wheel made of stone or one that is Borazon plated.

Cobalt Steel is very similar to High Speed Steel. Its identifier is M40CO or M42. Most drills made of Cobalt have a brownish gold tint and are marked with their identifier. Cobalt is a step up from HSS and offers better tool life than HSS. Since Cobalt is harder and therefore more brittle than HSS, Cobalt drills usually have a more rugged construction with less room for chips to escape in the flute area. Although they work great cutting materials like stainless steel and cast iron, they do not work well in wood or plastics because they do not clear chips well. In an application in which a good grade of HSS Drill cut 2000 holes before becoming dull, a Cobalt Drill might cut 2200 holes before dulling. Sharpening Cobalt Steel tools requires a grinding wheel made of stone or one that is Borazon plated.

Ferro-Tic Carbide is a material developed and produced by Alloy Technologies®, which we use exclusively to produce Countersinks and Counterbores to cut abrasive materials like fiberglass, plywood, Masonite and particleboard. In its soft state, Ferro-Tic Carbide is somewhat machinable and in its hardened state it is a hard wear resistant tool. Ferro-Tic Carbide is a matrix of HSS and Carbide particles. In use, the HSS wears away and leaves the Carbide Particles exposed which greatly extends the tool life. These are not designed to cut metal or be used in hand held equipment. Sharpening Ferro-Tic Carbide tools requires a special stone grinding wheel or special Diamond plated grinding wheel.

Carbide Tipped is the material of choice for tools used in high production applications. The Carbide is super hard, re-sharpenable and replaceable. Carbide can cut faster at higher spindle speeds because it is impervious to the heat produced by those speeds. Since Carbide is extremely hard, it is also extremely brittle. This is especially true in the case of woodworking tools. The slightest contact with another metal object could cause the Carbide to chip. Although some grades of Carbide are designed to work well in metals and cement, the type found on woodworking tools in not. The Carbide Tips are usually brazed to the cutting edges of tools made of softer materials like Carbon Steel. Sharpening Carbide Tipped tools requires Diamond plated grinding wheels.

Solid Carbide tools are very expensive and are usually manufactured and used for special applications. Tools that are made from Solid Carbide usually have some type of spiral design or they are very small like Solid Carbide Spiral Router Bits and Solid Carbide Drill Bits. These types of tools are best sharpened by the original manufacturer.



Drill Points – Which one will work best?

The drills we supply have various different point configurations. Each type of point design has its specific uses. In order to choose the right drill, you need to know a little about drill points. We have 6 types of drill points:

Regular or Standard Point Split Point or Four Facet Point Brad Point Plexi Point Screw Point Taper Point

Standard Industrial or **Regular Point** drills have a 118 degree included angle point with cutting relief angles suited to cut metal. Drills with standard points specifically designed to cut wood usually have a longer point angle (i.e. 80 degrees). The longer 80-degree point can sometimes work better in wood if you are experiencing a problem with excess splintering on the backside when drilling through the wood. The 118-degree point is designed to be an *all purpose point* and will *cut most all materials*. If the standard drill point is not providing satisfactory results, one of the other types may be necessary.

Split Point drills usually have 135 degree included angle points and are designed to *cut metal*. Standard point drills have two cutting edges but there is a section in the center of the drill point called the chisel edge that does not actually cut, but chisels the material. The chisel edge can also cause the drill to walk across the material when you are trying to start the drill cutting on a particular spot. The Split Point drill has two additional edges ground into the chisel edge, which make the entire point of the drill one long cutting edge. This reduces the amount of pressure needed to make the drill cut. The Split Point is also *self centering* which means the drill starts cutting exactly where is comes into contact with the material. These characteristics were designed for drilling in metal but could be beneficial in some harder wood.

Plexi Point drills are designed to cut **Plexiglas**. The point can be between 60 degrees and 80 degree included angle and the cutting angles are reduced to keep the drill from biting into the Plexiglas too fast. This point produces a clean hole and prevents the drill from breaking the Plexiglas when drilling through the backside.

Screw Points are found strictly on wood cutting tools. These types of points are sometimes called **Self Feeding** points. Screw Points are designed to assist and **control the rate of feed** for that tool. In other words, the screw point controls how fast the tool cuts, **lessening the need to push** the tool. It is a must when drilling large holes with hand held equipment. The disadvantage of tools with screw points is, unless the screw point is replaceable, the tool will only last until the screw wears out. That may not take long in hardwoods.

Taper Point Drills are designed specifically to **pre-drill for** the shank and threads of standard **wood screws**. Available in sizes and lengths to cover a wide variety of screws. Some customers have had success using this type of drill to cut through holes when a clean edge is required breaking through the backside. The Taper Point Drill breaks through gradually and produces clean edges on both sides.

Standard Drill Points



Brad Point for Hardwoods



Brad Point for Softwoods



Plexi Point



Taper Point



Standard Point



Split Point



Screw Point



Why Use Brad Point Drills?



A **Brad Point Drill** should provide the cleanest, straightest, and most accurately sized hole in wood of any reasonably priced tool on the market today. The brad in the center of the point allows accurate positioning when starting a hole even if the hole is not 90 degrees from the surface. The outlining spurs sheer the wood grain and leave a clean edge around the opening of the hole eliminating the need for sanding. The spurs continue to sheer the wood while drilling and produce an accurately sized hole. In most woods, the spurs also help to produce a cleaner edge when drilling through the backside of the wood.

W. L. Fuller, Inc. has been manufacturing High Speed Steel Brad Point Drills for over 40 years. We have worked with thousands of customers to produce Brad Point Drills that satisfy their needs. We stock Brad Point Drills in every size including **Wire Gauge, Letter Sizes, Metric Sizes and longer or shorter lengths**. If there is a need for a size not covered by these, we can take a standard size and grind and/or cut it to a needed special size. We use industrial quality High Speed Steel domestic drills designed to cut metal and rework them to cut wood. The result is a Brad Point Drill made to metalworking tolerances with cutting edges that long outlasts standard woodworking tools.

There are basically two types of brad point designs we use. One works best in **hardwoods** and the other works best in **softwoods**. Brad Point Drills that are specifically designed for softwood produce too much heat and are hard to push in hardwoods. Although Brad Point Drills specifically designed to cut hardwood will cut softwood, the aggressive cutting edges have a tendency to lift the weak grains of the softwood resulting in a ragged edge around the opening of the hole. All of the Brad Point Drills we manufacture and show in our catalog are specifically designed for hard wood and work fine for most applications.



Brad Point for Hardwood



Brad Point for Softwood

The difference between the two types of points is in the design of the **outlining spurs**. The Brad Point Drills that work best in softwood have rounded spurs, which help to hold the grains of the wood down while sheering them off. There is a certain amount of rubbing that occurs between the outlining spur and the wood before it is cut. The outlining spurs on Brad Point Drills for hardwood come to a sharp point and simply cut the stronger grains off clean. No rubbing occurs and therefore no unnecessary heat is produced by the cutting action.

If Brad Point Drills for softwood are needed, please specify "for softwood" on your order.

Another feature of the Brad Point Drill that could affect its cutting ability is the actual **brad or pyramid point** in the center. Although the sole purpose of the brad is to guide the drill through the material and keep it running straight, the shape of the brad can affect the results. The brad itself does not actually cut the wood. It mainly scrapes and pushes the wood aside. If the base of the brad is too thick or fat, the drill will be much harder to push especially in hardwoods. A brad that is too thin will allow the drill to cut freely but may break off in the process. It is also very important that the brad is exactly centered at the point of the drill. An off center brad can cause a drill to cut larger than it actually measures.

We often vary the **length of the brad** to achieve different results. A longer brad can be used when a hole needs to be drilled on an angle instead of straight into the wood. Drilling as much as 45 degrees or even 60 degrees from vertical is possible by extending the length of the brad. A shorter than normal brad may be required in the case of a hole that needs to be drilled close to but not through the back of the material.

Brad Point Drills also work well in most plastics, nylon, fiber, fiberglass and many other man made materials. If you have a question about Brad Point Drills, just call and ask a Fuller.



Short (or Screw Machine) Length Drills

To Cut Wood, Plastic and Metal

	Sizes and	l Dimensio	ns	150 1100	250 HSS	210	1505			
Size	Dec.	Flute	Overall	150 HSS Regular	Brad	Cobalt Heavy	HSS Regular			
Size	Equiv.	Length	Length	Point	Point	Duty	Pt. L.H.			
3/64	.0469	1/2	1-3/8	15000046	X	X	X			
1/16	.0625	5/8	1-5/8	15000062	X	21000062	15050062			
5/64	.0781	11/16	1-11/16	15000078	25000078	21000078	15050078			
3/32	.0937	3/4	1-3/4	15000093	25000093	21000093	15050093			
7/64	.1094	13/16	1-13/16	15000109	25000109	21000109	15050109			
1/8	.1250	7/8	1-7/8	15000125	25000125	21000125	15050125			
9/64	.1406	15/16	1-15/16	15000140	25000140	21000140	15050140			
5/32	.1562	1	2-1/16	15000156	25000156	21000156	15050156			
11/64	.1719	1-1/16	2-1/8	15000171	25000171	21000171	15050171			
3/16	.1875	1-1/8	2-3/16	15000187	25000187	21000187	15050187			
13/64	.2031	1-3/16	2-1/4	15000203	25000203	21000203	15050203			
7/32	.2188	1-1/4	2-3/8	15000218	25000218	21000218	15050218			
15/64	.2344	1-5/16	2-7/16	15000234	25000234	21000234	15050234			
1/4	.2500	1-3/8	2-1/2	15000250	25000250	21000250	15050250			
17/64	.2656	1-7/16	2-5/8	15000265	25000265	21000265	15050265			
9/32	.2812	1-1/2	2-11/16	15000281	25000281	21000281	15050281			
19/64	.2969	1-9/16	2-3/4	15000296	25000296	21000296	15050296			
5/16	.3125	1-5/8	2-13/16	15000312	25000312	21000312	15050312			
21/64	.3281	1-11/16	2-15/16	15000328	25000328	21000328	15050328			
11/32	.3438	1-11/16	3	15000343	25000343	21000343	15050343			
23/64	.3594	1-3/4	3-1/16	15000359	25000359	21000359	15050359			
3/8	.3750	1-13/16	3-1/8	15000375	25000375	21000375	15050375			
25/64	.3906	1-7/8	3-1/4	15000390	25000390	21000390	15050390			
13/32	.4062	1-15/16	3-5/16	15000406	25000406	21000406	15050406			
27/64	.4219	2	3-3/8	15000421	25000421	21000421	15050421			
7/16	.4375	2-1/16	3-7/16	15000437	25000437	21000437	15050437			
29/64	.4531	2-1/8	3-9/16	15000453	25000453	21000453	15050453			
15/32	.4688	2-1/8	3-5/8	15000468	25000468	21000468	15050468			
31/64	.4844	2-3/16	3-11/16	15000484	25000484	21000484	15050484			
1/2	.5000	2-1/4	3-3/4	15000500	25000500	21000500	15050500			
	Shanks below are larger than 1/2" and may not fit in your chuck.									

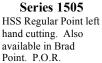
Series 250 Brad Point for clean holes in wood, plastic,

Series 150 HSS Regular Point Drills most sizes have 135° split point.



and sheet metal.

Series 210 Heavy Duty Cobalt for longer point life and higher heat resistance. NOT RECCOMENDED IN WOOD!



15051125



Shanks can be ground to smaller diameters. Price on Request.									
			,						
33/64	.5156	2-3/8	3-7/8	15000515	25000515	X	15050515		
17/32	.5312	2-3/8	3-7/8	15000531	25000531	X	15050531		
35/64	.5469	2-1/2	4	15000546	25000546	X	15050546		
9/16	.5625	2-1/2	4	15000562	25000562	X	15050562		
37/64	.5781	2-5/8	4-1/8	15000578	25000578	X	15050578		
19/32	.5938	2-5/8	4-1/8	15000593	25000593	X	15050593		
39/64	.6094	2-3/4	4-1/4	15000609	25000609	X	15050609		
5/8	.6250	2-3/4	4-1/4	15000625	25000625	X	15050625		
41/64	.6406	2-7/8	4-1/2	15000640	25000640	X	15050640		
21/32	.6562	2-7/8	4-1/2	15000656	25000656	X	15050656		
43/64	.6719	2-7/8	4-5/8	15000671	25000671	X	15050671		
11/16	.6875	2-7/8	4-5/8	15000687	25000687	X	15050687		
45/64	.7031	3	4-3/4	15000703	25000703	X	15050703		
23/32	.7188	3	4-3/4	15000718	25000718	X	15050718		
47/64	.7344	3-1/8	5	15000734	25000734	X	15050734		
3/4	.7500	3-1/8	5	15000750	25000750	X	15050750		
49/64	.7656	3-1/4	5-1/8	15000765	25000765	X	15050765		
25/32	.7812	3-1/4	5-1/8	15000781	25000781	X	15050781		
51/64	.7969	3-3/8	5-1/4	15000796	25000796	X	15050796		
13/16	.8125	3-3/8	5-1/4	15000812	25000812	X	15050812		
53/64	.8281	3-1/2	5-3/8	15000828	25000828	X	15050828		
27/32	.8438	3-1/2	5-3/8	15000843	25000843	X	15050843		
55/64	.8594	3-1/2	5-1/2	15000859	25000859	X	15050859		
7/8	.8750	3-1/2	5-1/2	15000875	25000875	X	15050875		
57/64	.8906	3-5/8	5-5/8	15000890	25000890	X	15050890		
29/32	.9062	3-5/8	5-5/8	15000906	25000906	X	15050906		
59/64	.9219	3-3/4	5-3/4	15000921	25000921	X	15050921		
15/16	.9375	3-3/4	5-3/4	15000937	25000937	X	15050937		
61/64	.9531	3-7/8	5-7/8	15000953	25000953	X	15050953		
31/32	.9688	3-7/8	5-7/8	15000968	25000968	X	15050968		
63/64	.9844	4	6	15000984	25000984	X	15050984		
1	1.000	4	6	15001000	25001000	X	15051000		

15001125

X = Not available

25001125



Regular (or Jobbers) Length Drills

High Speed Steel, Regular Point/Left Hand, Fast Spiral & Brad Point/Left Hand

To Cut Wood, Plastic and Metal

All drills can be modified by grinding to customer specifications.



Series 151 Regular Point

General purpose for drilling wood, plastic and metal.

Series 1515 Left Hand General purpose left hand cutting.





Size Dec. Flute Cgth. Cgth.									
1/32		Equiv	Lgth.	Lgth	Reg. Pt. General Purpose HSS	Left Hand HSS	Fast Spiral HSS	Brad Point HSS	Brad Point Left Hand HSS
3/64									
1/16									
1-14 2-14 15100078 15150078 15800078 25150078 25150078 3/32 0.937 1-1/4 2-1/4 15100093 15150093 15800093 251500093 25150093 1-1/4 2-1/4 15100093 15150109 15800109 25100109 25150109 1/8 1.120 1-5/8 2-3/4 15100125 15150125 15800125 25100125 25150125 1/64 1.1406 1-3/4 2-7/8 15100140 15150140 15800140 25100140 25150140 15732 1.1502 2 2 2 3-1/8 15100156 15150156 15800156 25100156 25150156 11/64 1.1719 2-1/8 3-1/4 15100171 15150171 15800171 25100171 25150171 3/16 1.875 2-5/16 3-1/2 15100187 15150187 15800187 25100127 25150187 13/64 2.031 2-7/16 3-5/8 15100203 15150203 15800203 25100203 25150203 13/64 2.031 2-7/16 3-5/8 15100218 15150218 15800234 25100218 25150218 15/644 2.344 2-5/8 3-7/8 15100234 15150234 15800234 25100234 25150234 14/4 15100250 15150250 15800250 25100250 25150250 17/64 2.656 2-7/8 4-1/8 15100265 15150265 15800265 25100265 25150265 17/64 2.656 2-7/8 4-1/4 15100281 15150281 15800281 25100236 25150265 17/64 3.381 3-5/16 4-1/4 15100328 15150234 15800312 25100312 25150281 17/64 3.381 3-5/16 4-5/8 15100328 15150328 15800329 25100329 25150296 15160264 3.381 3-5/16 4-5/8 15100328 15150343 15800343 25100343 25150343 23/64 3.354 3-1/2 4-7/8 15100359 15150349 15800390 25100399 25150359 13/32 4.062 3-7/8 5-1/4 1510046 1515046 1580046 2510046 2515046 27/64 4.47/8 5100375 15150375 15800375 25100359 25150359 150328 1510343 15800434 25100434 25150448 15/32 4.062 3-7/8 5-1/4 1510046 15150406 1580046 2510046 2515046 27/64 4.47/8 5100453 15150437 15800437 25100437 25150437 250406 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 2515046 251504		.0469							
3/32									
7/64									
1/8 1.250 1.5/8 2.3/4 15100125 15150125 15800125 25100125 25150125 9/64 1.406 1.3/4 2.7/8 15100140 15150140 15800140 25100140 25150146 5/32 1.562 2 3.1/8 15100156 15150156 15800156 25100156 25100167 2510160 11/64 1.719 2.1/8 3.1/4 15100171 15150171 15800171 25100171 25150173 3/16 1.875 2.5/16 3.1/2 1510023 15100231 15800187 25100187 25150187 1/4 2.031 2.7/16 3.5/8 15100203 15100231 15800218 25100203 25150203 1/32 2.18 2.1/2 3.3/4 15100234 15100234 15800234 25100234 25150218 1/4 2.500 2.3/8 3.7/16 4.1/8 15100250 15800234 25100230 25150250 9/32 2.812 2.1/16 4.1/8					15100093				25150093
9/64						15150109			25150109
5/32 1.1562 2 3-1/8 15100156 15150156 15800156 25100156 25150156 11/64 1.1719 2-1/8 3-1/4 15100171 15150171 15800177 25150177 25150178 13/64 2.031 2-7/16 3-5/8 15100203 15150203 15800203 25100203 25150203 7/32 2.188 2-1/2 3-3/4 15100218 1550218 15800203 25100203 25150203 7/32 2.188 2-1/2 3-3/4 15100218 1550208 15800203 25100203 25150218 15/64 2.344 2-5/8 3-7/8 15100250 15800265 25100265 25150250 17/64 .2666 2-7/8 4-1/8 15100265 15150265 15800265 25100265 25150265 9/32 2812 2-15/16 4-1/8 15100281 15150281 15800265 25100265 25150265 9/16 3.25 3-3/16 4-1/2 15100312 15150281 </td <td></td> <td></td> <td></td> <td></td> <td>15100125</td> <td>15150125</td> <td>15800125</td> <td>25100125</td> <td>25150125</td>					15100125	15150125	15800125	25100125	25150125
11/64 .1719 .2-1/8 .3-1/4 .15100171 .15150171 .15800171 .25100171 .25150171 .3/16 .1875 .2-5/16 .3-1/2 .15100187 .15150187 .15800187 .25100203 .25150203 .25150203 .25150203 .25150203 .25150203 .25150203 .25150203 .25150203 .25150218 .25160218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150218 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150234 .25150235 .251502		.1406		2-7/8	15100140	15150140	15800140	25100140	25150140
3/16					15100156	15150156	15800156	25100156	25150156
13/64 .2031 .2-7/16 .3-5/8 .15100203 .15150203 .15800203 .25100203 .25150203 .7/32 .2188 .2-1/2 .3-3/4 .15100218 .15150218 .15800218 .25100218 .25150218 .15/64 .2344 .2-5/8 .3-7/8 .15100234 .15150234 .15800234 .25100234 .25150234 .17/64 .2500 .2-3/4 .4 .15100250 .15150250 .15800250 .25100250 .25150250 .17/64 .2656 .2-7/8 .4-1/8 .15100265 .15150265 .15800265 .25100265 .25150265 .27/8 .4-1/8 .15100265 .15150265 .15800265 .25100265 .25150265 .27/8 .4-1/4 .15100281 .15100281 .15800281 .25100281 .25150281 .251002481 .25150281 .25150241 .25150281 .25	11/64	.1719	2-1/8	3-1/4	15100171	15150171	15800171	25100171	25150171
7/32 .2188 2-1/2 3-3/4 15100218 15150218 15800218 25100218 25150218 15/64 .2344 2-5/8 3-7/8 15100234 15150234 15800234 25100234 25150234 17/64 .2656 2-7/8 4-1/8 15100265 15150265 15800250 25100250 25150265 9/32 .2812 2-15/16 4-1/4 15100265 15150265 25100265 25150265 9/32 .2812 2-15/16 4-1/4 15100296 15150265 25100281 25150265 9/32 .2812 3-1/16 4-3/8 15100296 15800296 25100296 25150265 5/16 .3125 3-3/16 4-1/2 15100312 15800312 25100312 25150328 11/32 .3438 3-7/16 4-3/4 15100328 15150328 15800312 25100312 25150328 11/32 .344 15100331 1510332 15800333 25100312 25150328 25/6	3/16			3-1/2	15100187	15150187			25150187
15/64 .2344 2-5/8 3-7/8 15100234 15150234 15800234 25100234 25150234 1/4 2500 2-3/4 4 15100250 15150250 15800250 25100250 25150250 9/32 2812 2-15/16 4-1/4 15100265 1550265 15800265 25100265 25150265 5/16 .2969 3-1/16 4-3/8 15100296 15150296 15800296 25100296 25150296 5/16 .3125 3-3/16 4-1/2 15100312 15150312 15800312 25100312 25150312 21/64 .3281 3-5/16 4-5/8 15100328 15150328 15800328 25100328 25150328 11/32 .3438 3-7/16 4-3/4 15100343 15150338 15800343 25100332 25150328 3/8 .3750 3-5/8 5 15100359 15800390 25100359 25150359 3/8 .3750 3-3/8 51/4 15100460 15150399	13/64	.2031	2-7/16	3-5/8	15100203	15150203	15800203	25100203	25150203
1/4 2500 2-3/4 4 15100250 15150250 15800250 25100250 25150250 17/64 2656 2-7/8 4-1/8 15100265 15150265 15800265 25100265 25150265 9/32 .2812 2-15/16 4-1/4 15100281 15800281 25100281 25100281 19/64 .2969 3-1/16 4-3/8 15100296 15150296 15800296 25100296 25150296 5/16 .3125 3-3/16 4-1/2 15100312 15150312 15800312 25100312 25150328 21/64 .3281 3-5/16 4-5/8 15100328 15150328 15800328 25100328 25150328 11/32 .3438 3-7/16 4-3/4 15100359 15800328 25100328 25150328 31/32 .3464 .3594 3-1/2 4-7/8 15100359 15800359 25100375 25150393 3/8 .3750 3-3/4 5-1/8 15100375 15800359 25100375 <td>7/32</td> <td>.2188</td> <td>2-1/2</td> <td>3-3/4</td> <td>15100218</td> <td>15150218</td> <td>15800218</td> <td>25100218</td> <td>25150218</td>	7/32	.2188	2-1/2	3-3/4	15100218	15150218	15800218	25100218	25150218
17/64 .2656 2-7/8 4-1/8 15100265 15150265 15800265 25100265 25150265 9/32 .2812 2-15/16 4-1/4 15100281 15150281 15800281 25100286 25150286 19/64 .2969 3-1/16 4-3/8 15100296 15150296 15800296 25100296 25150296 5/16 .3125 3-3/16 4-1/2 15100312 15800312 25100312 25150312 21/64 .3281 3-5/16 4-5/8 15100328 15150312 15800328 25100328 25150328 11/32 .3438 3-7/16 4-3/4 15100343 15150343 15800343 25100343 25150328 3/8 .3750 3-5/8 5 15100375 15150359 15800359 25100359 25150375 3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150375 <td>15/64</td> <td>.2344</td> <td>2-5/8</td> <td>3-7/8</td> <td>15100234</td> <td>15150234</td> <td>15800234</td> <td>25100234</td> <td>25150234</td>	15/64	.2344	2-5/8	3-7/8	15100234	15150234	15800234	25100234	25150234
9/32 .2812 2-15/16 4-1/4 15100281 15150281 15800281 25100281 25150281 19/64 .2969 3-1/16 4-3/8 15100296 15150296 15800296 25100296 25150296 5/16 .3125 3-3/16 4-1/2 15100312 15150312 15800312 25100312 25150312 21/64 .3281 3-5/16 4-3/4 15100328 15150328 15800328 25100332 25150328 11/32 .3438 3-7/16 4-3/4 15100343 15800343 25100343 25150328 23/64 .3594 3-1/2 4-7/8 15100359 15800359 25100359 25150359 3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15800390 25100390 25150359 13/32 .4062 3-7/8 5-1/4 15100406 15150406 25100406 25100	1/4	.2500	2-3/4	4	15100250	15150250	15800250	25100250	25150250
19/64 .2969 3-1/16 4-3/8 15100296 15150296 15800296 25100296 25150296	17/64	.2656	2-7/8	4-1/8	15100265	15150265	15800265	25100265	25150265
5/16 .3125 3-3/16 4-1/2 15100312 15150312 15800312 25100312 25150312 21/64 .3281 3-5/16 4-5/8 15100328 15150328 15800328 25100328 25150328 11/32 .3438 3-7/16 4-3/4 15100343 15150343 25100343 25150343 23/64 .3594 3-1/2 4-7/8 15100359 15150359 25100359 25150359 3/8 .3750 3-5/8 5 15100375 15150375 25100390 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150390 15800390 25100390 25150375 13/32 .4062 3-7/8 5-1/4 15100406 15150406 25100406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100	9/32	.2812	2-15/16	4-1/4	15100281	15150281	15800281	25100281	25150281
21/64 .3281 3-5/16 4-5/8 15100328 15150328 15800328 25100328 25150328 11/32 .3438 3-7/16 4-3/4 15100343 15150343 15800343 25100343 25150343 23/64 .3594 3-1/2 4-7/8 15100359 15150359 15800359 25100359 25150375 3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25100375 25100375 25100375 25100379 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150390 15800390 25100390 25150470 25150490 25150406 257/64 .3906 3-7/8 5-1/8 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 27/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100421 25150421 25100421 25100437	19/64	.2969	3-1/16	4-3/8	15100296	15150296	15800296	25100296	25150296
11/32 .3438 3-7/16 4-3/4 15100343 15150343 25100343 25150343 23/64 .3594 3-1/2 4-7/8 15100359 15150359 15800359 25100359 25150359 3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150390 15800390 25100390 25150390 13/32 .4062 3-7/8 5-1/4 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100437 25150453 15/32 .4688 4-5/16 5-3/4 15100437 15150	5/16	.3125	3-3/16	4-1/2	15100312	15150312	15800312	25100312	25150312
23/64 .3594 3-1/2 4-7/8 15100359 15150359 15800359 25100359 25150359 3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150390 15800390 25100390 25150390 13/32 .4062 3-7/8 5-1/4 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15800437 25100421 25150421 15/32 .4688 4-5/16 5-5/8 15100453 15150463 15800437 25100463 25150458 31/64 .4844 4-3/8 5-7/8 15100468 15150484 15800484 25100468 25150468 4/2 .5000 4-1/2 6 15100500 15150500 <td>21/64</td> <td>.3281</td> <td>3-5/16</td> <td>4-5/8</td> <td>15100328</td> <td>15150328</td> <td>15800328</td> <td>25100328</td> <td>25150328</td>	21/64	.3281	3-5/16	4-5/8	15100328	15150328	15800328	25100328	25150328
3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150390 15800390 25100390 25150390 13/32 .4062 3-7/8 5-1/4 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100437 25150437 29/64 .4531 4-3/16 5-5/8 15100453 15150453 15800437 25100453 2515043 15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. 33/64	11/32	.3438	3-7/16	4-3/4	15100343	15150343	15800343	25100343	25150343
3/8 .3750 3-5/8 5 15100375 15150375 15800375 25100375 25150375 25/64 .3906 3-3/4 5-1/8 15100390 15150390 15800390 25100390 25150390 13/32 .4062 3-7/8 5-1/4 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100437 25150437 29/64 .4531 4-3/16 5-5/8 15100453 15150453 15800437 25100453 2515043 15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. 33/64	23/64	.3594	3-1/2	4-7/8	15100359	15150359	15800359	25100359	25150359
13/32 .4062 3-7/8 5-1/4 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100437 25150437 29/64 .4531 4-3/16 5-5/8 15100453 15150453 15800453 25100453 25150453 15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100484 1515044 15800484 25100484 25150484 1/2 .5000 4-1/2 6 15100500 15150500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. 33/64 .5156 4-13/16 6-5/8 15100515 X	3/8	.3750	3-5/8	5	15100375	15150375	15800375		25150375
13/32 .4062 3-7/8 5-1/4 15100406 15150406 15800406 25100406 25150406 27/64 .4219 3-15/16 5-3/8 15100421 15150421 15800421 25100421 25150421 7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100437 25150437 29/64 .4531 4-3/16 5-5/8 15100453 15150453 15800453 25100453 25150453 15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100484 1515044 15800484 25100484 25150484 1/2 .5000 4-1/2 6 15100500 15150500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. 33/64 .5156 4-13/16 6-5/8 15100515 X	25/64	.3906	3-3/4	5-1/8	15100390	15150390	15800390	25100390	25150390
7/16 .4375 4-1/16 5-1/2 15100437 15150437 15800437 25100437 25150437 29/64 .4531 4-3/16 5-5/8 15100453 15150453 15800453 25100453 25150453 15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100484 15150484 15800484 25100484 25150484 1/2 .5000 4-1/2 6 15100500 15150500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X	13/32	.4062	3-7/8	5-1/4	15100406	15150406	15800406		25150406
29/64 .4531 4-3/16 5-5/8 15100453 15150453 15800453 25100453 25150453 15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100484 15150484 15800484 25100484 25150484 1/2 .5000 4-1/2 6 15100500 15150500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .	27/64	.4219	3-15/16	5-3/8	15100421	15150421	15800421	25100421	25150421
15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100484 15150484 15800484 25100484 25150484 1/2 .5000 4-1/2 6 15100500 15150500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100593 X 19/32	7/16	.4375	4-1/16	5-1/2	15100437	15150437	15800437	25100437	25150437
15/32 .4688 4-5/16 5-3/4 15100468 15150468 15800468 25100468 25150468 31/64 .4844 4-3/8 5-7/8 15100484 15150484 15800484 25100484 25150484 1/2 .5000 4-1/2 6 15100500 15150500 15800500 25100500 25150500 Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100593 X 19/32	29/64	.4531	4-3/16	5-5/8	15100453	15150453	15800453	25100453	25150453
1/2	15/32	.4688	4-5/16	5-3/4	15100468	15150468	15800468	25100468	
Shanks below are larger than 1/2" and may not fit in your chuck. Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100578 X 19/32 .5938 5-3/16 7-1/8 15100593 X X 25100593 X 39/64 .6094 5-3/16 7-1/8 15100609 X X 25100609 X 5/8 .6250 5-3/16 7-1/8 15100640 X X 25100625 X 41/64 .6406 <td>31/64</td> <td>.4844</td> <td>4-3/8</td> <td>5-7/8</td> <td>15100484</td> <td>15150484</td> <td>15800484</td> <td>25100484</td> <td>25150484</td>	31/64	.4844	4-3/8	5-7/8	15100484	15150484	15800484	25100484	25150484
Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100578 X 19/32 .5938 5-3/16 7-1/8 15100593 X X 25100593 X 39/64 .6094 5-3/16 7-1/8 15100609 X X 25100609 X 5/8 .6250 5-3/16 7-1/8 15100625 X X 25100625 X 41/64 .6406 5-3/16 7-1/8 15100640 X X	1/2	.5000		6	15100500	15150500	15800500		25150500
Shanks can be ground to smaller diameters. Price on Request. 33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100578 X 19/32 .5938 5-3/16 7-1/8 15100593 X X 25100593 X 39/64 .6094 5-3/16 7-1/8 15100609 X X 25100609 X 5/8 .6250 5-3/16 7-1/8 15100625 X X 25100625 X 41/64 .6406 5-3/16 7-1/8 15100640 X X		•		low are				r chuck.	•
33/64 .5156 4-13/16 6-5/8 15100515 X X 25100515 X 17/32 .5312 4-13/16 6-5/8 15100531 X X 25100531 X 35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100578 X 19/32 .5938 5-3/16 7-1/8 15100593 X X 25100593 X 39/64 .6094 5-3/16 7-1/8 15100609 X X 25100609 X 5/8 .6250 5-3/16 7-1/8 15100625 X X 25100625 X 41/64 .6406 5-3/16 7-1/8 15100640 X X 25100666 X 21/32 .6562 <th></th> <th></th> <th>Shanks c</th> <th>an be gr</th> <th>ound to smal</th> <th>ler diameters</th> <th>s. Price on R</th> <th>equest.</th> <th></th>			Shanks c	an be gr	ound to smal	ler diameters	s. Price on R	equest.	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	33/64	.5156							X
35/64 .5469 4-13/16 6-5/8 15100546 X X 25100546 X 9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100578 X 19/32 .5938 5-3/16 7-1/8 15100593 X X 25100593 X 39/64 .6094 5-3/16 7-1/8 15100609 X X 25100609 X 5/8 .6250 5-3/16 7-1/8 15100625 X X 25100625 X 41/64 .6406 5-3/16 7-1/8 15100640 X X 25100640 X 21/32 .6562 5-3/16 7-1/8 15100656 X X 25100656 X									
9/16 .5625 4-13/16 6-5/8 15100562 X X 25100562 X 37/64 .5781 4-13/16 6-5/8 15100578 X X 25100578 X 19/32 .5938 5-3/16 7-1/8 15100593 X X 25100593 X 39/64 .6094 5-3/16 7-1/8 15100609 X X 25100609 X 5/8 .6250 5-3/16 7-1/8 15100625 X X 25100625 X 41/64 .6406 5-3/16 7-1/8 15100640 X X 25100640 X 21/32 .6562 5-3/16 7-1/8 15100656 X X 25100656 X									
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41/64 .6406 5-3/16 7-1/8 15100640 X X 25100640 X 21/32 .6562 5-3/16 7-1/8 15100656 X X 25100656 X									
21/32 .6562 5-3/16 7-1/8 15100656 X X 25100656 X									

Series 158
Fast Spiral
Fast spiral for
fast chip removal
and high
production.

Series 251
Brad Point
Brad point for clean holes in

wood, plastic, and sheet metal.

Series 2515 Left Hand Left Hand Brad Points for clean holes in wood, plastic, and sheet metal.

Fuller Manufactured

X = Not available

.6875

11/16

5-5/8

7-5/8

15100687

X

25100687

 \mathbf{X}



Regular (or Jobbers) Length Drills

High Speed Steel Heavy Duty, Slow Spiral, Heavy Duty Cobalt, & Parabolic

To Cut Wood, Plastic and Metal

All drills can be modified to customer specifications.

	Sizes and I	Dimensions	}	211 Heavy	120 GL	1516	101 HCC
Size	Dec.	Flute	O.A.	Duty	130 Slow	Heavy	191 HSS Parabolic
Size	Equiv.	Lgth.	Lgth.	Cobalt	Spiral HSS	Duty HSS	Parabolic
1/64	.0156	3/16	3/4	21100015	X	X	X
1/32	.0312	1/2	1-3/8	21100031	X	X	X
3/64	.0469	3/4	1-3/4	21100046	X	X	X
1/16	.0625	7/8	1-7/8	21100062	13000062	15160062	19100062
5/64	.0781	1	2	21100078	13000078	15160078	19100078
3/32	.0937	1-1/4	2-1/4	21100093	13000093	15160093	19100093
7/64	.1094	1-1/2	2-5/8	21100109	13000109	15160109	19100109
1/8	.1250	1-5/8	2-3/4	21100125	13000125	15160125	19100125
9/64	.1406	1-3/4	2-7/8	21100140	13000140	15160140	19100140
5/32	.1562	2	3-1/8	21100156	13000156	15160156	19100156
11/64	.1719	2-1/8	3-1/4	21100171	13000171	15160171	19100171
3/16	.1875	2-5/16	3-1/2	21100187	13000187	15160187	19100187
13/64	.2031	2-7/16	3-5/8	21100203	13000203	15160203	19100203
7/32	.2188	2-1/2	3-3/4	21100218	13000218	15160218	19100218
15/64	.2344	2-5/8	3-7/8	21100234	13000234	15160234	19100234
1/4	.2500	2-3/4	4	21100250	13000250	15160250	19100250
17/64	.2656	2-7/8	4-1/8	21100265	13000265	15160265	19100265
9/32	.2812	2-15/16	4-1/4	21100281	13000281	15160281	19100281
19/64	.2969	3-1/16	4-3/8	21100296	13000296	15160296	19100296
5/16	.3125	3-3/16	4-1/2	21100312	13000312	15160312	19100312
21/64	.3281	3-5/16	4-5/8	21100328	13000328	15160328	19100328
11/32	.3438	3-7/16	4-3/4	21100343	13000343	15160343	19100343
23/64	.3594	3-1/2	4-7/8	21100359	13000359	15160359	19100359
3/8	.3750	3-5/8	5	21100375	13000375	15160375	19100375
25/64	.3906	3-3/4	5-1/8	21100390	13000390	15160390	19100390
13/32	.4062	3-7/8	5-1/4	21100406	13000406	15160406	19100406
27/64	.4219	3-15/16	5-3/8	21100421	13000421	15160421	19100421
7/16	.4375	4-1/16	5-1/2	21100437	13000437	15160437	19100437
29/64	.4531	4-3/16	5-5/8	21100453	13000453	15160453	19100453
15/32	.4688	4-5/16	5-3/4	21100468	13000468	15160468	19100468
31/64	.4844	4-3/8	5-7/8	21100484	13000484	15160484	19100484
1/2	.5000	4-1/2	6	21100500	13000500	15160500	19100500
			are larger		may not fit in	vour chuck.	
					meters. Price		
33/64	.5156	4-13/16	6-5/8	21100515	X	X	X
17/32	.5312	4-13/16	6-5/8	21100531	X	X	X
35/64	.5469	4-1316	6-5/8	21100546	X	X	X
9/16	.5625	4-13/16	6-5/8	21100562	X	X	X
37/64	.5781	4-13/16	6-5/8	21100578	X	X	X
19/32	.5938	5-3/16	7-1/8	21100593	X	X	X
39/64	.6094	5-3/16	7-1/8	21100609	X	X	X
5/8	.6250	5-3/16	7-1/8	21100625	X	X	X
41/64	.6406	5-3/16	7-1/8	21100640	X	X	X
21/32	.6562	5-3/16	7-1/8	21100656	X	X	X
43/64	.6719	5-5/8	7-5/8	21100630	X	X	X
11/16	.6875	5-5/8	7-5/8	21100671	X	X	X
11/10	.0075	2 3/0	, 510	21100007		- 11	

X = Not available

Series 211 Heavy Duty cobalt For longer point life. Not recommended for use in wood.



Series 130 Slow spiral Used to reduce drill bite in soft materials.



Series 1516 Heavy Duty Split Point Regular Length High Speed Steel Drills



Series 191 Parabolic Effective in deep hole drilling of aluminum alloys and other medium tensile strength materials.



Regular (or Jobbers) Length Drills

Drill Blanks, Solid Carbide, Half Round & Carbide Tipped

To Cut Wood, Plastic and Metal

Series 1512 Drill Blanks

Made of High Speed Steel. Heat treated and ground to standard drill bit specifications. Can be used as a solid pilot for countersinks or counterbores to counterbore pre existing holes. Can also be used as a gauge to check hole diameters.



Series 291 Carbide Tipped

Recommended for use in the production drilling of cast iron, non-ferrous metals, and many composite materials. Features heavy-duty construction and heat treated body for optimum wear resistance and support of the carbide tip. NOT RECOMMENDED FOR DRILLING STEEL!



Series 304 Half Round

Unique flute design permits higher feed rates and improved hole finish in horizontal drilling of free machining brass, bronze, nylon, and like materials. Hole is usually started with a centering drill.



Series 204 Solid Carbide

Recommended for drilling cast iron, aluminum, bronze and magnesium alloys and other abrasive, but easily machined materials.

- Designed to allow high feed rates with good chip flow.
- •Four facet drill point minimizes drill wander and assures accurately sized holes
- •Micrograin 10% Cobalt Grade.

	Dime	ensions		1512	191 Carbide	304 Half	Dimensions		Series #204 Solid Carbide
Size Dec.	Dec. Equiv.	Flute Lgth.	O.A Lgth.	Drill Blanks	Tipped 118° Point	Round HSS	Flute Lgth.	O.A. Lgth.	Solid Carbide
1/64	.0156	3/16	3/4	X	X	X	1/4	1	20401560
1/32	.0312	1/2	1-3/8	X	X	X	3/8	1-1/8	20403120
3/64	.0469	3/4	1-3/4	X	X	30400046	3/4	1-1/2	20404690
1/16	.0625	7/8	1-7/8	15120062	X	30400062	3/4	1-1/2	20406250
5/64	.0781	1	2	15120078	X	30400078	7/8	1-3/4	20407810
3/32	.0937	1-1/4	2-1/4	15120093	X	30400093	1	2	20409380
7/64	.1094	1-1/2	2-5/8	15120109	X	30400109	1-1/4	2-1/4	20410940
1/8	.1250	1-5/8	2-3/4	15120125	29100125	30400125	1-1/4	2-1/4	20412500
9/64	.1406	1-3/4	2-7/8	15120140	29100140	30400140	1-3/8	2-1/2	20414060
5/32	.1562	2	3-1/8	15120156	29100156	30400156	1-3/8	2-1/2	20415620
11/64	.1719	2-1/8	3-1/4	15120171	29100171	30400171	1-5/8	2-3/4	20417190
3/16	.1875	2-5/16	3-1/2	15120187	29100187	30400187	1-5/8	2-3/4	20418750
13/64	.2031	2-7/16	3-5/8	15120203	29100203	30400203	1-3/4	3	20420310
7/32	.2188	2-1/2	3-3/4	15120218	29100218	30400218	1-3/4	3	20421870
15/64	.2344	2-5/8	3-7/8	15120234	29100234	30400234	2	3-1/4	20423440
1/4	.2500	2-3/4	4	15120250	29100250	30400250	2	3-1/4	20425000
17/64	.2656	2-7/8	4-1/8	15120265	29100265	30400265	2-1/8	3-1/2	20426560
9/32	.2812	2-15/16	4-1/4	15120281	29100281	30400281	2-1/8	3-1/2	20428120
19/64	.2969	3-1/16	4-3/8	15120296	29100296	30400296	2-3/8	3-3/4	20429690
5/16	.3125	3-3/16	4-1/2	15120312	29100312	30400312	2-3/8	3-3/4	20431250
21/64	.3281	3-5/16	4-5/8	15120328	29100328	30400328	2-1/2	4	20432810
11/32	.3438	3-7/16	4-3/4	15120343	29100343	30400343	2-1/2	4	20434380
23/64	.3594	3-1/2	4-7/8	15120359	29100359	30400359	2-3/4	4-1/4	20435940
3/8	.3750	3-5/8	5	15120375	29100375	30400375	2-3/4	4-1/4	20437500
25/64	.3906	3-3/4	5-1/8	15120390	29100390	30400390	2-7/8	4-1/2	20439060
13/32	.4062	3-7/8	5-1/4	15120406	29100390	30400406	2-7/8	4-1/2	20440620
27/64	.4219	3-15/16	5-3/8	15120421	29100421	30400421	2-7/8	4-1/2	20442190
7/16	.4375	4-1/16	5-1/2	15120437	29100427	30400437	2-7/8	4-1/2	20443750
29/64	.4531	4-3/16	5-5/8	15120457	29100457	30400453	3	4-3/4	20445310
15/32	.4688	4-5/16	5-3/4	15120468	29100453	30400468	3	4-3/4	20446880
31/64	.4844	4-3/8	5-7/8	15120484	29100484	30400484	3	4-3/4	20448440
1/2	.5000	4-1/2	6	15120500	29100484	30400500	3	4-3/4	20450000

X =Not available



Long (or Taper) Length HSS Drills Fractional Sizes To Cut Wood, Plastic and Metal

				To Cut Wood, Plastic and Metal								
	Sizes and	Dimension	ns		Stock	Numbers						
Size	Decimal Equiv.	Flute Length	Overall Length	152 HSS Regular Point	252 HSS Brad Point	159 HSS Fast Spiral Regular Point	259 HSS Fast Spiral Brad Point					
1/64	.0156	5/16	1-1/2	15200015	X	X	X					
1/32	.0312	3/4	2 1/4	15200031	X	X	X					
3/64 1/16	.0469	1-1/8 1-3/4	2-1/4	15200046 15200062	X X	15900046 15900062	X X					
5/64	.0023	2	3-3/4	15200078	25200078	15900078	25900078					
3/32	.0937	2-1/4	4-1/4	15200078	25200078	15900078	25900078					
7/64	.1094	2-1/2	4-5/8	15200109	25200109	15900109	25900109					
1/8	.1250	2-3/4	5-1/8	15200125	25200125	15900125	25900125					
9/64	.1406	3	5-3/8	15200140	25200140	15900140	25900140					
5/32	.1562	3	5-3/8	15200156	25200156	15900156	25900156					
11/64	.1719	3-3/8	5-3/4	15200171	25200171	15900171	25900171					
3/16	.1875	3-3/8	5-3/4	15200187	25200187	15900187	25900187					
13/64	.2031	3-5/8	6	15200203	25200203	15900203	25900203					
7/32 15/64	.2188	3-5/8 3-3/4	6-1/8	15200218 15200234	25200218 25200234	15900218 15900234	25900218 25900234					
1/4	.2500	3-3/4	6-1/8	15200254	25200250	15900250	25900250					
17/64	.2656	3-7/8	6-1/4	15200265	25200265	15900265	25900265					
9/32	.2812	3-7/8	6-1/4	15200281	25200281	15900281	25900281					
19/64	.2969	4	6-3/8	15200296	25200296	15900296	25900296					
5/16	.3125	4	6-3/8	15200312	25200312	15900312	25900312					
21/64	.3281	4-1/8	6-1/2	15200328	25200328	15900328	25900328					
11/32	.3438	4-1/8	6-1/2	15200343	25200343	15900343	25900343					
23/64	.3594	4-1/4	6-3/4	15200359	25200359	15900359	25900359					
3/8	.3750	4-1/4	6-3/4	15200375	25200375	15900375	25900375					
25/64 13/32	.3906 .4062	4-3/8 4-3/8	7	15200390 15200406	25200390 25200406	15900390 15900406	25900390 25900406					
27/64	.4002	4-5/8	7-1/4	15200400	25200400	15900400	25900400					
7/16	.4375	4-5/8	7-1/4	15200421	25200421	15900421	25900421					
29/64	.4531	4-3/4	7-1/2	15200453	25200453	15900453	25900453					
15/32	.4688	4-3/4	7-1/2	15200468	25200468	15900468	25900468					
31/64	.4844	4-3/4	7-3/4	15200484	25200484	15900484	25900484					
1/2	.5000	4-3/4	7-3/4	15200500	25200500	15900500	25900500					
	S	hanks belo	w are largei	than 1/2" and	d may not fit in	your chuck.						
33/64	.5156	4-3/4	8 8	15200515	25200515	X	X					
17/32	.5312	4-3/4	8	15200513	25200513	X	X					
35/64	.5469	4-7/8	8-1/4	15200546	25200531	X	X					
9/16	.5625	4-7/8	8-1/4	15200562	25200562	X	X					
37/64	.5781	4-7/8	8-3/4	15200578	25200578	X	X					
19/32	.5938	4-7/8	8-3/4	15200593	25200593	X	X					
39/64	.6094	4-7/8	8-3/4	15200609	25200609	X	X					
5/8	.6250	4-7/8	8-3/4	15200625	25200625	X	X					
41/64	.6406	5-1/8	9	15200640	25200640	X	X					
21/32	.6562	5-1/8	9-1/4	15200656	25200656	X	X					
43/64 11/16	.6719 .6875	5-3/8 5-3/8	9-1/4	15200671 15200687	25200671 25200687	X X	X					
45/64	.7031	5-5/8	9-1/4	15200703	25200703	X	X					
23/32	.7188	5-5/8	9-1/2	15200703	25200703	X	X					
47/64	.7344	5-7/8	9-3/4	15200734	25200734	X	X					
3/4	.7500	5-7/8	9-3/4	15200750	25200750	X	X					
49/64	.7656	6	9-7/8	15200765	25200765	X	X					
25/32	.7812	6	9-7/8	15200781	25200781	X	X					
51/64	.7969	6-1/8	10	15200796	25200796	X	X					
13/16	.8125	6-1/8	10	15200812	25200812	X	X					
53/64	.8281	6-1/8	10	15200828	25200828	X	X					
27/32	.8438	6-1/8	10	15200843	25200843	X	X					
55/64 7/8	.8594 .8750	6-1/8 6-1/8	10	15200859 15200875	25200859 25200875	X X	X					
57/64	.8906	6-1/8	10	15200873	25200873	X	X					
29/32	.9062	6-1/8	10	15200890	25200890	X	X					
59/64	.9219	6-1/8	10-3/4	15200900	25200900	X	X					
15/16	.9375	6-1/8	10-3/4	15200937	25200921	X	X					
61/64	.9531	6-3/8	11	15200953	25200953	X	X					
31/32	.9688	6-3/8	11	15200968	25200968	X	X					
63/64	.9844	6-3/8	11	15200984	25200984	X	X					
1	1.000	6-3/8	11	15201000	25201000	X	X					
1-1/8	1.125	7-1/8	11-3/4	15201125	25201125	X	X					

Series 159 **Fast Spiral**

Engineered with a fast spiral angle and wide flute for improved chip removal. Specially designed for drilling deep holes.

> Series 259 **Fast Spiral Brad Point** Same as 159 with a Brad Point.



Series 152 **Regular Point HSS** Regular Point for drilling wood, plastic and metal.

> Series 252 **Brad Point HSS Brad Point** for clean holes in wood, plastic and sheet metal.





Extra Length HSS Drills 8", 10" & 12" Long

To Cut Wood, Plastic and Metal

Dimensions Stock Numbers								
		8" I	ong	10"	Long	12" Long		
	ъ	6" F	lute		' Flute	9" F	lute	
Size	Decimal	153 HSS	253 HSS	154 HSS	254 HSS	155 HSS	255 HSS	
	Equivalent	Regular	Brad	Regular	Brad	Regular	Brad	
		Point	Point	Point	Point	Point	Point	
1/8	.1250	15300125	25300125	15400125	25400125	15500125	25500125	
9/64	.1406	15300140	25300140	15400140	25400140	15500140	25500140	
5/32	.1562	15300156	25300156	15400156	25400156	15500156	25500156	
11/64	.1719	15300171	25300171	15400171	25400171	15500171	25500171	
3/16	.1875	15300187	25300187	15400187	25400187	15500187	25500187	
13/64	.2031	15300203	25300203	15400203	25400203	15500203	25500203	
7/32	.2188	15300218	25300218	15400218	25400218	15500218	25500218	
15/64	.2344	15300234	25300234	15400234	25400234	15500234	25500234	
1/4	.2500	15300250	25300250	15400250	25400250	15500250	25500250	
17/64	.2656	15300265	25300265	15400265	25400265	15500265	25500265	
9/32	.2812	15300281	25300281	15400281	25400281	15500281	25500281	
19/64	.2969	15300296	25300296	15400296	25400296	15500296	25500296	
5/16	.3125	15300312	25300312	15400312	25400312	15500312	25500312	
21/64	.3281	15300328	25300328	15400328	25400328	15500328	25500328	
11/32	.3438	15300343	25300343	15400343	25400343	15500343	25500343	
23/64	.3594	15300359	25300359	15400359	25400359	15500359	25500359	
3/8	.3750	15300375	25300375	15400375	25400375	15500375	25500375	
25/64	.3906	15300390	25300390	15400390	25400390	15500390	25500390	
13/32	.4062	15300406	25300406	15400406	25400406	15500406	25500406	
27/64	.4219	X	X	15400421	25400421	15500421	25500421	
7/16	.4375	15300437	25300437	15400437	25400437	15500437	25500437	
29/64	.4531	15300453	25300453	15400453	25400453	15500453	25500453	
15/32	.4688	15300468	25300468	15400468	25400468	15500468	25500468	
31/64	.4844	15300484	25300484	15400484	25400484	15500484	25500484	
1/2	.5000	15300500	25300500	15400500	25400500	15500500	25500500	
1/2					ot fit your chu			
	SI	nanks can be gi	round to small	er diameters.]	Price on Reque	est.		
33/64	.5156	X	X	X	X	15500515	25500515	
17/32	.5312	X	X	X	X	15500531	25500531	
35/64	.5469	X	X	X	X	15500546	25500546	
9/16	.5625	X	X	X	X	15500562	25500562	
37/64	.5781	X	X	X	X	15500578	25500578	
19/32	.5938	X	X	X	X	15500593	25500593	
39/64	.6094	X	X	X	X	15500609	25500609	
5/8	.6250	X	X	X	X	15500625	25500625	
41/64	.6406	X	X	X	X	15500640	25500640	
21/32	.6562	X	X	X	X	15500656	25500656	
43/64	.6719	X	X	X	X	15500671	25500671	
11/16	.6875	X	X	X	X	15500687	25500687	
45/64	.7031	X	X	X	X	15500703	25500703	
23/32	.7188	X	X	X	X	15500718	25500718	
47/64	.7344	X	X	X	X	15500734	25500734	
3/4	.7500	X	X	X	X	15500750	25500750	
	•	•	-	•	•	•	•	



Series 153 HSS Regular Point



Series 253 HSS Brad Point





Series 154 HSS Regular Point

Series 254 HSS Brad Point



X = Not available

* = Shanks of these drills are straight but can be ground to your requirements, price on request.



Series 155 HSS Regular Point

Series 255
HSS Brad
Point



Extra Length HSS Drills 12" and 24" Long To Cut Wood, Plastic and Metal

Dir	mensions		Stock 1	Numbers	
	Decimal		Long Flute		Long Flute
Size	Equivalent	156 HSS Regular Point	256 HSS Brad Point	2418 HSS Regular Point	2418-BP HSS Brad Point
1/8	.1250	X	X	X	X
9/64	.1406	X	X	X	X
5/32	.1562	X	X	X	X
11/64	.1719	X 15600187	X 25,000107	X	X
3/16 13/64	.1875 .2031	15600187	25600187 25600203	X X	X X
7/32	.2188	15600203	25600203	X	X
15/64	.2344	15600234	25600234	X	X
1/4	.2500	15600250	25600250	24180250	24180250BP
17/64	.2656	15600265	25600265	X	X
9/32	.2812	15600281	25600281	X	X
19/64 5/16	.2969 .3125	15600296 15600312	25600296 25600312	X 24180312	X 24180312BP
21/64	.3125	15600312	25600312	X	X
11/32	.3438	15600343	25600343	X	X
23/64	.3594	15600359	25600359	X	X
3/8	.3750	15600375	25600375	24180375	24180375BP
25/64	.3906	15600390	25600390	X	X
13/32	.4062	15600406	25600406	X	X
27/64	.4219	15600421	25600421	X	X
7/16 29/64	.4375 .4531	15600437 15600453	25600437 25600453	24180427 X	24180427BP
15/32	.4688	15600468	25600455	X	X
31/64	.4844	15600484	25600484	X	X
1/2	.5000	15600500	25600500	24180500	24180500BP
			an 1/2" and may		
			naller diameters.		
33/64	.5156	15600515	25600515	X	X
17/32 35/64	.5312 .5469	15600531 15600546	25600531 25600546	X X	X X
9/16	.5625	15600540	25600540	24180562	24180562BP
37/64	.5781	15600578	25600578	X	X
19/32	.5938	15600593	25600593	X	X
39/64	.6094	15600609	25600609	X	X
5/8	.6250	15600625	25600625	24180625	24180625BP
41/64	.6406 .6562	15600640	25600640 25600656	X	X
21/32 43/64	.6719	15600656 X	25600656 X	X	X
11/16	.6875	15600687	25600687	24180687	24180687BP
45/64	.7031	X	X	X	X
23/32	.7188	15600718	25600718	X	X
47/64	.7344	X	X	X	X
3/4	.7500	15600750	25600750	24180750	24180750BP
49/64 25/32	.7656	X	X 25,00791	X 24190791	X 24190791DD
51/64	.7812 .7969	15600781 X	25600781 X	24180781 X	24180781BP X
13/16	.8125	15600812	25600812	24180812	24180812BP
53/64	.8281	X	X	X	X
27/32	.8438	X	X	24180843	24180843BP
55/64	.8594	X	X	X	X
7/8	.8750	15600875	25600875	24180875	24180875BP
57/64 29/32	.8906	X X	X	X	X
59/64	.9062	X	X	X	X
15/16	.9375	15600937	25600937	24180937	24180937BP
61/64	.9531	X	X	X	X
31/32	.9688	X	X	X	X
63/64	.9844	X	X	X	X
1	1.000	15601000	25601000	24181000	24181000BP
1-1/16	1.062	X 15601125	X 25601125	X 24191125	X 24191125DD
1-1/8 1-3/16	1.125 1.187	15601125 X	25601125 X	24181125 24181187	24181125BP 24181187BP
1-1/4	1.250	15601250	25601250	24181187	2418118/BP 24181250BP
	Not available	10001200	20001200	2.131230	Z.1101230B1



X = Not available



Wire Gage Size Drills Short Length

High Speed Steel and Cobalt

To Cut Wood, Plastic and Metal

	Dimen	sions			Stock	Numbers	
Wire Size	Decimal Equivalent	Flute Length	Overall Length	160 HSS Regular Point	260 HSS Brad Point	220 Cobalt Steel	1605 HSS Reg. Pt. Left Hand
60	.0400	1/2	1-3/8	16000040	X	22000040	16050040
59	.0410	1/2	1-3/8	16000041	X	22000041	16050041
58	.0420	1/2	1-3/8	16000042	X	22000042	16050042
57	.0430	1/2	1-3/8	16000043	X	22000043	16050043
56	.0465	1/2	1-3/8	16000046	X	22000046	16050046
55	.0520	5/8	1-5/8	16000052	X	22000052	16050052
54 53	.0550 .0595	5/8 5/8	1-5/8 1-5/8	16000055 16000059	X X	22000055 22000059	16050055 16050059
52	.0635	11/16	1-11/16	16000039	X	22000039	16050063
51	.0670	11/16	1-11/16	16000067	X	22000067	16050067
50	.0700	11/16	1-11/16	16000070	X	22000070	16050070
49	.0730	11/16	1-11/16	16000073	X	22000073	16050073
48	.0760	11/16	1-11/16	16000076	X	22000076	16050076
47	.0785	11/16	1-11/16	16000078	26000078	22000078	16050078
46	.0810	3/4	1-3/4	16000081	26000081	22000081	16050081
45	.0820	3/4	1-3/4	16000082	26000082	22000082	16050082
44	.0860	3/4	1-3/4	16000086	26000086	22000086	16050086
43 42	.0890	3/4 3/4	1-3/4	16000089	26000089	22000089 22000093	16050089
42	.0935 .0960	13/16	1-3/4 1-13/16	16000093 16000096	26000093 26000096	22000093	16050093 16050096
40	.0980	13/16	1-13/16	16000098	26000098	22000098	16050098
39	.0995	13/16	1-13/16	16000099	26000099	22000099	16050099
38	.1015	13/16	1-13/16	16000101	26000101	22000101	16050101
37	.1040	13/16	1-13/16	16000104	26000104	22000104	16050104
36	.1065	13/16	1-13/16	16000106	26000106	22000106	16050106
35	.1100	7/8	1-7/8	16000110	26000110	22000110	16050110
34	.1110	7/8	1-7/8	16000111	26000111	22000111	16050111
33	.1130	7/8	1-7/8	16000113	26000113	22000113	16050113
32	.1160	7/8	1-7/8	16000116	26000116	22000116	16050116
31 30	.1200 .1285	7/8 15/16	1-7/8 1-15/16	16000120 16000128	26000120 26000128	22000120 22000128	16050120 16050128
29	.1360	15/16	1-15/16	16000128	26000128	22000128	16050128
28	.1405	15/16	1-15/16	16000130	26000130	22000130	16050140
27	.1440	1	2-1/16	16000144	26000144	22000144	16050144
26	.1470	1	2-1/16	16000147	26000147	22000147	16050147
25	.1495	1	2-1/16	16000149	26000149	22000149	16050149
24	.1520	1	2-1/16	16000152	26000152	22000152	16050152
23	.1540	1	2-1/16	16000154	26000154	22000154	16050154
22	.1570	1-1/16	2-1/8	16000157	26000157	22000157	16050157
21	.1590	1-1/16	2-1/8	16000159	26000159	22000159	16050159
20	.1610	1-1/16	2-1/8	16000161	26000161	22000161	16050161
19 18	.1660 .1695	1-1/16 1-1/16	2-1/8 2-1/8	16000166 16000169	26000166 26000169	22000166 22000169	16050166 16050169
17	.1730	1-1/16	2-1/8	16000109	26000109	22000109	16050173
16	.1770	1-1/8	2-3/16	16000173	26000173	22000173	16050177
15	.1800	1-1/8	2-3/16	16000180	26000180	22000180	16050180
14	.1820	1-1/8	2-3/16	16000182	26000182	22000182	16050182
13	.1850	1-1/8	2-3/16	16000185	26000185	22000185	16050185
12	.1890	1-3/16	2-1/4	16000189	26000189	22000189	16050189
11	.1910	1-3/16	2-1/4	16000191	26000191	22000191	16050191
10	.1935	1-3/16	2-1/4	16000193	26000193	22000193	16050193
9	.1960 .1990	1-3/16 1-3/16	2-1/4 2-1/4	16000196 16000199	26000196 26000199	22000196 22000199	16050196 16050199
8 7	.2010	1-3/16	2-1/4	16000199	26000199	22000199	16050199
6	.2040	1-1/4	2-1/4 2-3/8	16000201	26000201	22000201	16050204
5	.2055	1-1/4	2-3/8	16000204	26000205	22000205	16050205
4	.2090	1-1/4	2-3/8	16000209	26000209	22000209	16050209
3	.2130	1-1/4	2-3/8	16000213	26000213	22000213	16050213
2	.2210	1-5/16	2-7/16	16000221	26000221	22000221	16050221
1	.2280 zes #61 to #80	1-5-16	2-7/16	16000228	26000228	22000228	16050228

Sizes #61 to #80 also available in regular point drills only. See Sets on page 52. Also available in Long or Taper Length. -Price on request- X = Not available



Series 160 High Speed Steel Regular Point. For through holes in woods, plastics and metals.



Series 260 High Speed Steel Brad Point for clean accurate holes in woods and plastics.





Series 220 Cobalt Steel Heavy duty Cobalt for longer point life and higher heat resistance. Not recommended for cutting wood.



Series 1605 High Speed Steel Left Hand. Can be furnished with Brad Point, price on request



Wire Gage Size Drills Regular Length

High Speed Steel and Cobalt Drills

To Cut Wood, Plastic and Metal

	Dime	ensions		Stock Numbers						
				161 HSS		221				
Wire Size	Decimal Equiv.	Flute Length	Overall Length	Regular Point	261 HSS Brad Point	Cobalt Steel	1615 HSS Left Hand			
60	.0400	11/16	1-5/8	16100040	X	22100040	16150040			
59	.0410	11/16	1-5/8	16100041	X	22100041	16150041			
58	.0420	11/16	1-5/8	16100042	X	22100042	16150042			
57	.0430	3/4	1-3/4	16100043	X	22100043	16150043			
56	.0465	3/4	1-3/4	16100046	X	22100046	16150046			
55	.0520	7/8	1-7/8	16100052	X	22100052	16150052			
54	.0550	7/8	1-7/8	16100055	X	22100055	16150055			
53	.0595	7/8	1-7/8	16100059	X	22100059	16150059			
52	.0635	7/8	1-7/8	16100063	X	22100063	16150063			
51	.0670	1	2	16100067	X	22100067	16150067			
50	.0700	1	2 2	16100070	X	22100070	16150070			
49 48	.0730	1	2	16100073 16100076	X X	22100073 22100076	16150073 16150076			
47	.0785	1	2	16100078	26100078	22100078	16150078			
46	.0810	1-1/8	2-1/8	16100078	26100078	22100078	16150078			
45	.0820	1-1/8	2-1/8	16100081	26100081	22100081	16150081			
44	.0860	1-1/8	2-1/8	16100086	26100086	22100086	16150086			
43	.0890	1-1/4	2-1/4	16100089	26100089	22100089	16150089			
42	.0935	1-1/4	2-1/4	16100093	26100093	22100093	16150093			
41	.0960	1-3/8	2-3/8	16100096	26100096	22100096	16150096			
40	.0980	1-3/8	2-3/8	16100098	26100098	22100098	16150098			
39	.0995	1-3/8	2-3/8	16100099	26100099	22100099	16150099			
38	.1015	1-7/16	2-1/2	16100101	26100101	22100101	16150101			
37	.1040	1-7/16	2-1/2	16100104	26100104	22100104	16150104			
36	.1065	1-7/16	2-1/2	16100106	26100106	22100106	16150106			
35	.1100	1-1/2	2-5/8	16100110	26100110	22100110	16150110			
34	.1110	1-1/2	2-5/8	16100111	26100111	22100111	16150111			
33	.1130	1-1/2	2-5/8	16100113	26100113	22100113	16150113			
32 31	.1160	1-5/8 1-5/8	2-3/4 2-3/4	16100116 16100120	26100116 26100120	22100116 22100120	16150116 16150120			
30	.1200	1-5/8	2-3/4	16100120	26100120	22100120	16150120			
29	.1360	1-3/4	2-7/8	16100128	26100128	22100128	16150136			
28	.1405	1-3/4	2-7/8	16100130	26100130	22100130	16150140			
27	.1440	1-7/8	3	16100144	26100144	22100144	16150144			
26	.1470	1-7/8	3	16100147	26100147	22100147	16150147			
25	.1495	1-7/8	3	16100149	26100149	22100149	16150149			
24	.1520	2	3-1/8	16100152	26100152	22100152	16150152			
23	.1540	2	3-1/8	16100154	26100154	22100154	16150154			
22	.1570	2	3-1/8	16100157	26100157	22100157	16150157			
21	.1590	2-1/8	3-1/4	16100159	26100159	22100159	16150159			
20	.1610	2-1/8	3-1/4	16100161	26100161	22100161	16150161			
19	.1660	2-1/8	3-1/4	16100166	26100166	22100166	16150166			
18	.1695	2-1/8	3-1/4	16100169	26100169	22100169	16150169			
17	.1730	2-3/16	3-3/8	16100173	26100173	22100173	16150173			
16	.1770	2-3/16	3-3/8	16100177	26100177	22100177 22100180	16150177			
15	.1800	2-3/16	3-3/8	16100180	26100180		16150180			
14 13	.1820 .1850	2-3/16 2-5/16	3-3/8 3-1/2	16100182 16100185	26100182 26100185	22100182 22100185	16150182 16150185			
12	.1890	2-5/16	3-1/2	16100185	26100185	22100185	16150185			
11	.1890	2-5/16	3-1/2	16100189	26100189	22100189	16150191			
10	.1935	2-7/16	3-1/2	16100191	26100191	22100191	16150193			
9	.1960	2-7/16	3-5/8	16100196	26100196	22100196	16150196			
8	.1990	2-7/16	3-5/8	16100199	26100199	22100190	16150199			
7	.2010	2-7/16	3-5/8	16100201	26100201	22100201	16150201			
6	.2040	2-1/2	3-3/4	16100204	26100204	22100204	16150204			
5	.2055	2-1/2	3-3/4	16100205	26100205	22100205	16150205			
4	.2090	2-1/2	3-3/4	16100209	26100209	22100209	16150209			
3	.2130	2-1/2	3-3/4	16100213	26100213	22100213	16150213			
2	.2210	2-5/8	3-7/8	16100221	26100221	22100221	16150221			
1	.2280	2-5/8	3-7/8	16100228	26100228	22100228	16150228			



Sizes #61 to #80 also available in regular point drills only. See page 52.

Also available in Long or Taper Length. -Price on request-



Series 161 High Speed Steel Regular Point. For through holes in woods, plastics and metals.



Series 261 High Speed Steel Brad Point for clean accurate holes in woods and plastics.





Series 221
Cobalt Steel
Heavy duty cobalt
for longer point life
and higher heat
resistance. Not
recommended for
cutting wood.



Series 1615
High Speed Steel
Left Hand. Can be
furnished with
Brad Point, price
on request



Hex Shank Regular and Brad Point Drills / Chuck Adapters



Cino	Dec.	Flute	OAL	1514	2514	Adapter
Size	Equiv	Length	Length	Reg. Point	Brad Point	only
5/64 or	.0781	1	3-1/8	15140078	25140078	QS078
2.0mm						
3/32	.0937	1-1/4	3-3/4	15140093	25140093	QS093
2.5mm	.0984	1-3/16	3-3/8	15140098	25140098	QS098
7/64	.1094	1-1/2	3-3/4	15140109	25140109	QS109
3.0mm	.1181	1-5/16	3-17/32	15140118	25140118	QS118
1/8	.1250	1-5/8	3-1/2	15140125	25140125	QS125
3.5mm	.1378	1-3/4	4	15140137	25140137	QS137
9/64	.1406	1-3/4	4	15140140	25140140	QS140
5/32	.1562	2	4-1/16	15140156	25140156	QS156
4.0mm	.1575	1-11/16	4-1/16	15140157	25140157	QS157
11/64	.1719	2-1/8	4-3/4	15140171	25140171	QS171
4.5mm	.1772	2-3/16	4-1/2	15140177	25140177	QS177
3/16	.1875	2-5/16	4-1/16	15140187	25140187	QS187
5.0mm	.1968	2-1/16	4-1/2	15140196	25140196	QS196
13/64	.2031	2-7/16	4-3/4	15140203	25140203	QS203
5.5mm	.2165	2-1/4	4-25/32	15140216	25140216	QS216
7/32	.2188	2-1/2	4-1/2	15140218	25140218	QS218
15/64	.2344	2-5/8	5	15140234	25140234	QS234
6.0mm	.2362	2-1/4	4-25/32	15140236	25140236	QS236
1/4	.2500	2-3/4	5-1/8	15140250	25140250	QS250
5/16	.3125	3-3/16	5-5/8	15140312	25140312	QS312
3/8	.3750	3-5/8	6-1/8	15140375	25140375	QS375



Stock # 15140140 Stock # 25140140

Chuck Adapter (Hex Shank)

Diagram

When you insert the tool into the drive channel, the ball moves up the incline, retracting the sleeve and compressing the spring. As the tool reaches the bottom of the drive channel the ball is forced forward into the retaining groove of the tool, securely locking the tool into position.





Stock # 40011 - 3/8" shank

The standard industrial chuck with a knurled sleeve.



The Chuck Adapter was designed to save you time. Instantly change between different size drills or from drilling to driving without having to fumble with chuck keys. The Chuck Adaptor eliminates drills slipping in the chuck, which could happen in a key type drill chuck. Simply insert the Chuck Adapter into your cordless or electric drill chuck, tighten the chuck and put away the key.



Letter Size High Speed Steel Drills

Regular Point and Brad Point

To Cut Wood, Plastic and Metal

Series 170

High Speed Steel Regular Point Drill for through holes in woods, plastics and metals.



Series 270

High Speed Steel Brad Point Drill for clean accurately sized holes in hardwoods and plastics.





High Speed Steel Regular Point Drill for through holes in woods, plastics and metals.



Series 270

High Speed Steel Brad Point Drill for clean accurately sized holes in hardwoods and plastics.





Dime	ensions		Short	Length			Reg	ular Length	
Letter Size	Decimal Equiv.	Flute Length	Overall Length	170 HSS Regular Point	270 HSS Brad Point	Flute Length	Overall Length	171 HSS Regular Point	271 HSS Brad Point
A	.234	1-15/16	2-7/16	17000234	27000234	2-5/8	3-7/8	17100234	27100234
В	.238	1-3/8	2-1/2	17000238	27000238	2-3/4	4	17100238	27100238
С	.242	1-3/8	2-1/2	17000242	27000242	2-3/4	4	17100242	27100242
D	.246	1-3/8	2-1/2	17000246	27000246	2-3/4	4	17100246	27100246
Е	.250	1-3/8	2-1/2	17000250	27000250	2-3/4	4	17100250	27100250
F	.257	1-7/16	2-5/8	17000257	27000257	2-7/8	4-1/8	17100257	27100257
G	.261	1-7/16	2-5/8	17000261	27000261	2-7/8	4-1/8	17100261	27100261
Н	.266	1-1/2	2-11/16	17000266	27000266	2-7/8	4-1/8	17100266	27100266
I	.272	1-1/2	2-11/16	17000272	27000272	2-7/8	4-1/8	17100272	27100272
J	.277	1-1/2	2-11/16	17000277	27000277	2-7/8	4-1/8	17100277	27100277
K	.281	1-1/2	2-11/16	17000281	27000281	2-15/16	4-1/4	17100281	27100281
L	.290	1-9/16	2-3/4	17000290	27000290	2-15/16	4-1/4	17100290	27100290
M	.295	1-9/16	2-3/4	17000295	27000295	3-1/16	4-3/8	17100295	27100295
N	.302	1-5/8	2-13/16	17000302	27000302	3-1/16	4-3/8	17100302	27100302
О	.316	1-11/16	2-15/16	17000316	27000316	3-3/16	4-1/2	17100316	27100316
P	.323	1-11/16	2-15/16	17000323	27000323	3-5/16	4-5/8	17100323	27100323
Q	.332	1-11/16	3	17000332	27000332	3-7/16	4-3/4	17100332	27100332
R	.339	1-11/16	3	17000339	27000339	3-7/16	4-3/4	17100339	27100339
S	.348	1-3/4	3-1/16	17000348	27000348	3-1/2	4-7/8	17100348	27100348
T	.358	1-3/4	3-1/16	17000358	27000358	3-1/2	4-7/8	17100358	27100358
U	.368	1-13/16	3-1/8	17000368	27000368	3-5/8	5	17100368	27100368
V	.377	1-7/8	3-1/4	17000377	27000377	3-5/8	5	17100377	27100377
W	.386	1-7/8	3-1/4	17000386	27000386	3-3/4	5-1/8	17100386	27100386
X	.397	1-15/16	3-5/16	17000397	27000397	3-3/4	5-1/8	17100397	27100397
Y	.404	1-15/16	3-5/16	17000404	27000404	3-7/8	5-1/4	17100404	27100404
Z	.413	2	3-3/8	17000413	27000413	3-7/8	5-1/4	17100413	27100413

^{*}Shanks can be ground to smaller sizes. Price on request



Metric Size High Speed Steel Drills

Regular Point and Brad Point to cut woods, plastics and metals

Dime	nsions		Sho	rt Length			Regul	ar Length	
				180	280			181	281
mm	Dec.	Flute	Overall	Regular	Brad	Flute	Overall	Regular	Brad
Size	Equiv.	Length	Length	Point	Point	Length	Length	Point	Point
1.0	.0394	1/4	1-1/32	18000039	X	15/32	1-11/32	18100039	X
1.25	.0492	5/16	1-3/16	18000049	X	5/8	1-1/2	18100049	X
1.5	.0591	11/32	1-1/4	18000059	X	23/32	1-9/16	18100059	X
1.75	.0689	7/16	1-7/16	18000068	X	7/8	1-13/16	18100068	X
2.0	.0787	15/32	1-1/2	18000078	28000078	15/16	1-15/16	18100078	28100078
2.25	.0886	1/2	1-9/16	18000088	28000088	1-1/16	2-3/32	18100088	28100088
2.5	.0984	9/16	1-11/16	18000098	28000098	1-3/16	2-1/4	18100098	28100098
2.75	.1083			X	X	1-15/16	2-13/32	18100108	28100108
3.0	.1181	5/8	1-13/16	18000118	28000118	1-5/16	2-13/32	18100118	28100118
3.2	.1260	23/32	1-15/16	18000126	28000126	1-7/16	2-9/16	18100126	28100126
3.25	.1280			X	X	1-7/16	2-9/16	18100128	28100128
3.4	.1339	25/32	2-1/16	18100133	28000133	1-17/32	2-3/4	18100133	28100133
3.5	.1378	25/32	2-1/16	18000137	28000137	1-3/4	2-7/8	18100137	28100137
3.75	.1476			X	X	1-17/32	2-3/4	18100147	28100147
4.0	.1575	7/8	2-5/32	18000157	28000157	1-11/16	2-15/16	18100157	28100157
4.25	.1673			X	X	1-11/16	2-15/16	18100167	28100167
4.5	.1772	15/16	2-9/32	18000177	28000177	2-3/16	3-3/8	18100177	28100177
4.75	.1870			X	X	1-27/32	3-5/8	18100187	28100187
5.0	.1968	1-1/32	2-7/16	18000196	28000196	2-1/16	3-3/8	18100196	28100196
5.1	.2008	1-1/32	2-7/16	18000200	28000200	2-1/16	3-3/8	18100200	28100200
5.2	.2047	1-1/32	2-7/16	18000204	28000204	2-1/16	3-3/8	18100204	28100204
5.25	.2067			X	X	2-1/16	3-3/8	18100206	28100206
5.3	.2087	1-1/32	2-7/16	18000208	28000208	2-1/16	3-3/8	18100208	28100208
5.4	.2126	1-3/32	2-19/32	18000212	28000212	2-1/4	3-21/32	18100212	28100212
5.5	.2165	1-3/32	2-19/32	18000216	28000216	2-1/4	3-21/32	18100216	28100216
5.6	.2205	1-3/32	2-19/32	18000220	28000220	2-1/4	3-21/32	18100220	28100220
5.7	.2244	1-3/32	2-19/32	18000224	28000224	2-1/4	3-21/32	18100224	28100224
5.75	.2264	1.2/22	2.10/22	X	X	2-1/4	3-21/32	18100226	28100226
5.8	.2283	1-3/32	2-19/32	18000228	28000228	2-1/4	3-21/32	18100228	28100228
5.9	.2323	1-3/32	2-19/32	18000232	28000232	2-1/4	3-21/32	18100232	28100232
6.0	.2362	1-3/32	2-19/32	18000236	28000236	2-1/4	3-21/32	18100236	28100236
6.25	.2441	1-7/32	2-3/4	18000244 X	28000244	2-15/32 2-15/32	3-31/32	18100244 18100246	28100244
6.23	.2520	1-7/32	2-3/4	18000252	X 28000252	2-15/32	3-31/32 3-31/32	18100246	28100246 28100252
6.5	.2559	1-7/32	2-3/4	18000232	28000232	2-15/32		18100252	28100232
6.6	.2598	1-7/32	2-3/4	18000255	28000253	2-15/32	3-31/32 3-31/32	18100255	28100259
6.75	.2657	1-7/32	2-3/4	X	X	2-13/32	4-9/32	18100259	28100255
6.8	.2677	1-11/32	2-29/32	18000267	28000267	2-23/32	4-9/32	18100267	28100267
7.0	.2756	1-11/32	2-29/32	18000275	28000275	2-23/32	4-9/32	1810027	28100277
7.25	.2854	1-11/32	L-L) 3L	X	X	2-23/32	4-9/32	18100275	28100275
7.23	.2953	1-11/32	2-29/32	18000295	28000295	2-23/32	4-9/32	18100295	28100295
7.75	.3051	111,52		X	X	2-15/16	4-19/32	18100305	28100295
8.0	.3150	1-15/32	3-1/8	18000315	28000315	2-15/16	4-19/32	18100315	28100315
8.25	.3248	1 13/32	2 1/0	X	X	2-15/16	4-19/32	18100324	28100313
8.5	.3346	1-15/32	3-1/8	18000334	28000334	2-15/16	4-19/32	18100334	28100334
8.75	.3445	22.02		X	X	3-3/16	4-29/32	18100344	28100344
9.0	.3543	1-9/16	3-5/16	18000354	28000354	3-3/16	4-29/32	18100354	28100354
9.25	.3642			X	X	3-3/16	4-29/32	18100364	28100364
9.5	.3740	1-9/16	3-5/16	18000374	28000374	3-3/16	4-29/32	18100374	28100374
9.75	.3839			X	X	3-7/16	5-1/4	18100383	28100383
10.0	.3937	1-11/16	3-1/2	18000393	28000393	3-7/16	5-1/4	18100393	28100393
10.5	.4134	1-11/16	3-1/2	18000413	28000413	3-7/16	5-1/4	18100413	28100413
11.0	.4331	1-27/32	3-3/4	18000433	28000433	3-11/16	5-19/32	18100433	28100433
11.5	.4528	1-27/32	3-3/4	18000452	28000452	3-11/16	5-19/32	18100452	28100452
12.0	.4724	2	4-1/32	18000472	28000472	3-31/32	5-15/16	18100472	28100472
12.5	.4921	2	4-1/32	18000492	28000492	3-31/32	5-15/16	18100492	28100492
13.0	.5118			X	X	3-31/2	5-15/16	18100511	28100511



Series 180 High Speed Steel Regular Point for through holes in woods, plastics and metals.



Series 280 High Speed Steel Brad Point for clean accurately sized holes in hardwoods and plastics.





Series 181 High Speed Steel Regular Point for through holes in woods, plastics and metals.



Series 281 High Speed Steel Brad Point for clean accurately sized holes in hardwoods and plastics.



X = Not available - Other sizes & Left Hand available - price on request



1/4 Reduced Shank High Speed Steel Drills

Brad Point for clean, accurately sized holes in Woods, Plastics and Sheet Metal

Regular Point for cutting though holes in Woods, Plastics and Metals

	1/4" Shank	- 4" Long		Stock N	umbers	
Size	Decimal	Flute	Overall	400	410	
Size	Equiv.	Length	Length	Regular Point	Brad Point	
1/4	.2500	2-1/2	4	40000250	41000250	
5/16	.3125	2-1/2	4	40000312	41000312	
3/8	.3750	2-1/2	4	40000375	41000375	
7/16	.4375	2-1/2	4	40000437	41000437	
1/2	.5000	2-1/2	4	40000500	41000500	
	1/4" Ch l II		_	401	411	
	1/4" Shank - Un	iiversai Lengti	1	Regular Point	Brad Point	
17/64	.2656	1-7/8	3-1/2	40100265	41100265	
9/32	.2812	1-31/32	3-19/32	40100281	41100281	
19/64	.2969	2-1/16	3-23/32	40100296	41100296	
5/16	.3125	2-3/16	3-27/32	40100312	41100312	
21/64	.3281	2-9/32	3-15/16	40100328	41100328	
11/32	.3438	2-11/32	4-1/32	40100343	41100343	
23/64	.3594	2-15/32	4-5/32	40100359	41100359	
3/8	.3750	2-9/16	4-1/4	40100375	41100375	
25/64	.3906	2-5/8	4-11/32	40100390	41100390	
13/32	.4062	2-3/4	4-15/32	40100406	41100406	
27/64	.4219	2-27/32	4-9/16	40100421	41100421	
7/16	.4375	2-15/16	4-11/16	40100437	41100437	
29/64	.4531	3-1/32	4-25/32	40100453	41100453	
15/32	.4688	3-1/8	4-7/8	40100468	41100468	
31/64	.4844	3-7/32	5	40100484	41100484	
1/2	.5000	3-7/32	5	40100500	41100500	



Series 400 HSS Regular Point,

4" overall length with 1/4" shank.



Series 410

HSS Brad Point for clean accurate holes in hardwoods





Series 401

HSS Regular Point Universal Length with 1/4" shank.



Series 411

HSS Brad Point Universal Length with 1/4" shank.

3/8 Reduced Shank High Speed Steel Drills

Brad Point for clean, accurately sized holes in Woods, Plastics and Sheet Metal

Regular Point for cutting though holes in Woods, Plastics and Metals

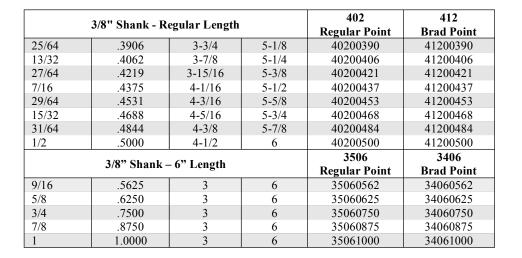


Series 402 HSS Regular Point, regular length with 3/8" shank.



Series 412 HSS Brad Point, regular length with 3/8" shank.









Series 3506

HSS Regular Point, 6" overall length with 3/8" shank.

Series 3406 HSS Brad Point, 6" overall length with 3/8" shank.





Set # 41092007

Set of most popular sizes 1/8" to 1/2" diameter High Speed Steel Brad Point Drills in handy vinyl pouch.



Set # 41092007					
	Includes				
Drill	Drill O.A. Shank				
Dia.	Lgth.	Size			
1/8	2-3/4	1/8			
3/16	3-1/2	3/16			
1/4	4	1/4			
5/16	4	1/4			
3/8	4	1/4			
7/16 4 1/4					
1/2	4	1/4			

WARNING

Cutting tools may shatter when broken. The wearing of eye protection is strongly advised in the vicinity of their use.



1/2" Reduced Shank Drills High Speed Steel and Cobalt Steel

Dimensions		Stock Numbers			
Diameter Sizes	Dec. Equiv.	224 Cobalt Reg. Pt. 3" Twist 6" Overall	284 HSS Brad Pt. 3" Twist 6" Overall	340 HSS Brad Point	350 HSS Regular Point
1/8	.1250	X	X	34000125	35000125
9/64	.1406	X	X	34000140	35000140
5/32	.1562	X	X	34000156	35000156
11/64	.1719	X	X	34000171	35000171
3/16	.1875	X	X	34000187	35000187
13/64	.2031	X	X	34000203	35000203
7/32	.2188	X	X	34000218	35000218
15/64	.2344	X	X	34000234	35000234
1/4	.2500	X	X	34000250	35000250
17/64	.2656	X	X	34000265	35000265
9/32	.2812	X	X	34000281	35000281
19/64	.2969	X	X	34000296	35000296
5/16	.3125	X	X	34000312	35000312
21/64	.3281	X	X	34000328	35000328
8.0mm	.3150	X	X	X	X
11/32	.3438	X	X	34000343	35000343
23/64	.3594	X	X	34000359	35000359
3/8	.3750	X	X	34000375	35000375
25/64	.3906	X	X	34000390	35000390
10.0mm	.3937	X	X	X	X
13/32	.4062	X	X	34000406	35000406
27/64	.4219	X	X	34000421	35000421
7/16	.4375	X	X	34000437	35000437
29/64	.4531	X	X	34000453	35000453
15/32	.4688	X	X	34000468	35000468
12.0mm	.4724	X	X	X	X
31/64	.4844	X	X	34000484	35000484
1/2	.5000	X	X	34000500	35000500
13.0mm	.5118	X	X	X	X
33/64	.5156	22400515	X	34000515	35000515
17/32	.5312	22400531	X	34000531	35000531
35/64	.5469	22400546	X	34000546	35000546
14.0mm	.5512	X	28400551	X	X
9/16	.5625	22400562	X	34000562	35000562
37/64	.5781	22400578 X	X 28400590	34000578	35000578
15.0mm	.5906			X	X
19/32	.5938	22400593	X	34000593	25000502
39/64 5/8	.6094	22400609 22400625	X X		35000593
5/8 16.0mm	.6250 .6299		28400629	34000609 34000625	35000609 35000625
		X 22400640		34000625	
41/64 21/32	.6406 .6562	22400640 22400656	X	34000640	35000640 35000656
17.0mm	.6693	X	28400669	X	33000636 X
43/64	.6719	22400671	X	34000671	35000671
11/16	.6875	22400671	X	34000671	35000671
45/64	.7031	22400703	X	3400087	35000703
18.0mm	.7087	X	28400708	X	X
23/32	.7188	22400718	X	34000718	35000718
47/64	.7344	22400718	X	34000718	35000718
19.0mm	.7480	X	28400748	X	X
3/4	.7500	22400750	X	34000750	35000750
5/4	.7300	22700730	Λ	J-000/30	33000730



Series 350 High Speed Steel Regular Point

For through holes in woods, plastics and metals. Sizes 1/8" to 15/64" are 5" overall length. Sizes 1/4" to 1-1/2" are 6" overall length. All sizes have 3" of twist.



Series 340 High Speed Steel Brad Point

For clean, accurately sized holes in hardwoods and plastics. Sizes 1/8" to 15/64" are 5" overall length. Sizes 1/4" to 1-1/2" are 6" overall length. All sizes have 3" of twist. Can be specifically ground for softer woods if specified when ordering. Can be ordered with long brad points for angle drilling.



See sets on Page 52

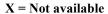
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^{*} = Price on request X = Not available



1/2" Reduced Shank Drills High Speed Steel and Cobalt Steel

Dimensions		Stock Numbers			
Diameter Sizes	Dec. Equiv.	224 Cobalt Reg. Pt. 3" Twist 6" Overall	284 HSS Brad Pt. 3" Twist 6" Overall	340 HSS Brad Point	350 HSS Regular Point
49/64	.7656	22400765	X	34000765	35000765
25/32	.7812	22400781	X	34000781	35000781
20.0mm	.7874	X	28400787	X	X
51/64	.7969	22400796	X	34000796	35000796
13/16	.8125	22400812	X	34000812	35000812
21.0mm	.8268	X	28400826	X	X
53/64	.8281	22400828	X	34000828	35000828
27/32	.8438	22400843	X	34000843	35000843
55/64	.8594	X	X	34000859	35000859
22.0mm	.8661	X	28400866	X	X
7/8	.8750	22400875	X	34000875	35000875
57/64	.8906	X	X	34000890	35000890
23.0mm	.9055	X	28400905	X	X
29/32	.9062	22400906	X	34000906	35000906
59/64	.9219	22400921	X	34000921	35000901
15/16	.9375	22400937	X	34000937	35000937
24.0mm	.9449	X	28400944	X	X
61/64	.9531	22400953	X	34000953	35000953
31/32	.9688	22400968	X	34000968	35000968
63/64	.9844	22400984	X	34000984	35000984
25.0mm	.9843	X	28400984	X	X
1	1.0000	22401000	X	34001000	35001000
1-1/64	1.0156	X	X	34001000	35001000
1-1/32	1.0312	22401031	X	34001013	35001013
1-3/64	1.0469	X	X	34001031	35001031
1-1/16	1.0625	X	X	34001040	35001040
1-5/64	1.0023	X	X	34001002	35001002
1-3/32	1.0781	X	X	34001078	35001078
1-7/64	1.1094	X	X	34001099	35001093
1-1/8	1.1250	22401125	X	34001105	35001105
1-9/64	1.1406	X	X	34001123	35001123
1-5/32	1.1562	22401156	X	34001156	35001140
1-11/64	1.1719	X	X	34001171	35001170
1-3/16	1.1719	X	X	34001171	35001171
1-13/64	1.2031	X	X	34001187	35001187
1-7/32	1.2188	X	X	34001203	35001203
1-15/64	1.2344	X	X	34001218	35001218
1-1/4	1.2500	22401250	X	34001250	35001250
1-17/64	1.2656	X	X	34001250	35001250
1-9/32	1.2812	X	X	34001203	35001203
1-5/16	1.3125	X	X	34001281	35001281
1-11/32	1.3437	X	X	34001312	35001312
1-11/32	1.3750	22401375	X	34001343	35001343
1-3/8	1.4062	X	X	34001373	35001373
1-13/32	1.4375	X	X	34001406	35001406
1-15/32	1.4687	X	X	34001437	35001437
1-1/2	1.5000	22401500	X	34001500	35001500





Series 224 Cobalt Steel Regular Point

For through holes in woods, plastics and metals. Stands up to tough materials like stainless steel and cast iron. All sizes are 6" overall and have 3" of twist.



Series 284 High Speed Steel Brad Point Metric Sizes

For accurately sized holes in hardwoods and plastics. All sizes are 6" overall and have 3" of twist. Can be ordered to cut softwood or for angle drilling.

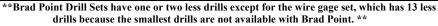


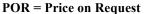
^{*} Some sizes available upon request



Drill SetsHigh Speed Steel Drills in Metal and Wood Indexes

Stock Numbers			Description			
Regular Point	Brad Point	Cobalt	Number Pieces	Size Range	Length	
15095013	25095012*	21095013	13	1/16 to 1/4 by 64ths	G1 4	
15095021	25095020*	21095021	21	1/16 to 3/8 by 64ths	Short	
15095029	25095028*	21095029	29	1/16 to 1/2 by 64ths	Length	
15195013	25195012*	21195013	13	1/16 to 1/4 by 64ths		
15195015	25195014*	21195015	15	1/16 to 1/2 by 32nds	Regular	
X	X	X	15	Ditto W/ 1/4" shanks	Length	
151950156	251950146*	X	15	Ditto W/ 3/8" shanks		
15195021	25195020*	21195021	21	1/16 to 3/8 by 64ths		
15195029	25195028*	21195029	29	1/16 to 1/2 by 64ths	D1	
15195529	X	X	29	1/16 to 1/2 by 64ths	Regular	
X	X	X	29	Ditto W/ 1/4" shanks	Length	
151950296	251950286*	X	29	Ditto W/ 3/8" shanks		
16195060	26195047*	X	60	#1 to #60 Wire Gage		
17195026	27195026	X	26	A to Z Letter Sizes	Regular	
18195011	28195009*	X	11	1.0 to 6.0 MM x .5 MM	Length	
18195025	28195023*	X	25	1.0 to 13.0 MM x .5		
15295029	25295028*	X	29	1/16 to 1/2 by 64ths	Long Length	
15195115	POR	X	115	1/16 to 1/2 by 64ths #1 to #60 Wire Gage A to Z Letter Sizes	Regular Length	
35095008	34095008	X	8	9/16 to 1" by 16ths 6" O.A. Length 1/2" Shanks w/metal index	6" Overall 1/2" Shank	
16195080	X	X	20	#61 to #80 Wire Gage (Not in metal index)	Regular Length	





X = Not available





Stock # 15095021



Stock # 25195028

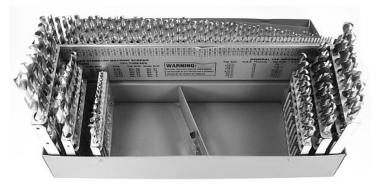




Stock # 25095012



Stock # 34095008



Stock # 15195115

Stock Number: 15195115

Holds 115 drills, 29 fractional, 26 letters and 60 wire gage, 1/16" to 1/2" by 64ths, 1 to 60 and A to Z letter sizes.

Empty indexes are available - Price on request.



High Speed Steel Plexi-Point Drills

Fractional, Number, Metric and Letter Sizes

To cut plexiglas and hard plastics. Drills are specially pointed to reduce chipping out when cutting through Plexiglas material.





		Γ	T	
Drill	Dec.	Flute	O.A.	Stock
Size	Equiv.	Lgth.	Lgth.	Number
1/16	.0625	7/8	1-7/8	14400062
#52	.0635	7/8	1-7/8	14400063
#50	.0700	1	2	14400070
#48	.0760	1	2	14400076
5/64	.0781	1	2	14400078
2.0	.0787	15/16	1-15/16	144000787
#42	.0935	1-1/4	2-1/4	144000935
3/32	.0938	1-1/4	2-1/4	14400093
#40	.0980	1-3/8	2-3/8	14400098
2.5	.0984	1-3/16	2-1/4	144000984
#38	.1015	1-7/16	2-1/2	14400101
7/64	.1094	1-1/2	2-5/8	14400109
#34	.1110	1-1/2	2-5/8	14400111
3.0	.1181	1-5/16	2-13/32	14400118
1/8	.1250	1-5/8	2-3/4	14400125
3.3	.1299	1-7/16	2-9/16	14400129
3.4	.1339	1-17/32	2-3/4	14400133
3.5	.1378	1-3/4	2-7/8	14400137
#28	.1405	1-3/4	2-7/8	144001405
9/64	.1406	1-3/4	2-7/8	14400140
5/32	.1562	2	3-1/8	14400156
4.0	.1575	1-11/16	2-15/16	144001575
#20	.1610	2-1/8	3-1/4	14400161
11/64	.1719	2-1/8	3-1/4	14400171
4.5	.1772	2-3/16	3-3/8	14400177
#14	.1820	2-3/16	3-3/8	14400182
3/16	.1875	2-5/16	3-1/2	14400187
#10	.1935	2-7/16	3-5/8	14400193
5.0	.1968	2-1/16	3-3/8	144001968
13/64	.2031	2-7/16	3-5/8	14400203
#6	.2040	2-1/2	3-3/4	14400204
5.5	.2165	2-1/4	3-21/32	14400216
7/32	.2188	2-1/2	3-3/4	14400218
#2	.2210	2-5/8	3-7/8	14400221
15/64	.2344	2-5/8	3-7/8	14400234
A	.2340	2-5/8	3-7/8	144002340
6.0	.2362	2-1/4	3-21/32	14400236
В	.2380	2-3/4	4	14400238
C	.2420	2-3/4	4	14400242
D	.2460	2-3/4	4	14400246
E (1/4)	.2500	2-3/4	4	14400250
6.5	.2559	2-7/8	4-1/8	14400255
F	.2570	2-7/8	4-1/8	14400257
G	.2610	2-7/8	4-1/8	14400261
17/64	.2656	2-7/8	4-1/8	14400265
17/07	.2030	2-7/6	1 1/0	11100203

Other sizes and lengths - Price on request.

29 piece set HSS Plexi Drills 1/16" to 1/2" by 64ths. In metal index -Stock # 14495029

Drill	Dec.	Flute	O.A.	Stock
Size	Equiv.	Lgth.	Lgth.	Number
Н	.2660	2-7/8	4-1/8	14400266
I	.2720	2-7/8	4-1/8	14400272 14400275
7.0	.2756	2-23/32	4-9/32 4-1/8	
J	.2770	2-7/8		14400277
K	.2810	2-15/16	4-1/4	144002810
9/32	.2812	2-15/16	4-1/4	14400281
L	.290	2-15/16	4-1/4	14400290
M	.2950	3-1/16	4-3/8	144002950
7.5	.2953	2-23/32	4-9/32	14400295
19/64	.2969	3-1/16	4-3/8	14400296
N	.3020	3-1/16	4-3/8	14400302
5/16	.3125	3-3/16	4-1/2	14400312
8.0	.3150	2-15/16	4-19/32	14400315
0	.3160	3-3/16	4-1/2	14400316
P	.3230	3-5/16	4-5/8	14400323
21/64	.3281	3-5/16	4-5/8	14400328
Q	.3320	3-7/16	4-3/4	14400332
8.5	.3346	2-15/16	4-19/32	14400334
R	.3390	3-7/16	4-3/4	14400339
11/32	.3438	3-7/16	4-3/4	14400343
9.0	.3543	3-3/16	4-29/32	14400354
23/64	.3594	3-1/2	4-7/8	14400359
9.5	.3740	3-3/16	4-29/32	14400374
3/8	.3750	3-5/8	5	14400375
V	.3770	3-5/8	5	14400377
9.7	.3819	3-7/16	5-1/4	14400381
W	.3860	3-3/4	5-1/8	14400386
25/64	.3906	3-3/4	5-1/8	14400390
10.0	.3937	3-7/16	5-1/4	14400393
X	.3970	3-3/4	5-1/8	14400397
Y	.4040	3-7/8	5-1/4	14400404
13/32	.4062	3-7/8	5-1/4	14400406
Z	.4130	3-7/8	5-1/4	14400413
10.5	.4134	3-7/16	5-1/4	144004134
27/64	.4219	3-15/16	5-3/8	14400421
11.0	.4331	3-11/16	5-19/32	14400433
7/16	.4375	4-1/16	5-1/2	14400437
11.5	.4528	3-11/16	5-19/32	14400452
29/64	.4531	4-3/16	5-5/8	14400453
15/32	.4688	4-5/16	5-3/4	14400468
12.0	.4724	3-31/32	5-15/16	11400472
31/64	.4844	4-3/8	5-7/8	14400484
12.5	.4921	3-31/32	5-15/16	14400492
1/2	.5000	4-1/2	6	14400500
13.0	.5118	3-31/2	5-15/16	14400511
*9/16	.5625	3	6	14400562
*5/8	.6250	3	6	14400625
*3/4	.7500	3	6	14400750

- Other sizes & Left Hand available - Price on request.

^{*6&}quot; long with 1/2" shank.



Replacement Set Screws and Keys (part 1)

	Set Screw Size	Standard Screw/	Standard Key/
Tool Number	and Length	Spline Screw	Spline Key
C2 C3	10-32 X 1/8 CUP	STSCR002	3/32 K0093
C4 C44 C65 C410 C411	10 32 11 1/0 001	51501002	3/32 R 00/3
C43 C56 C57 C5 C6 C7	10-32 X 3/16 CONE	STSCRO03/STSCR004	3/32 K0093 / SPK0093
C8 C9 C913 C97	10 02 11 0/10 001 12		5752 110095 7 51 120095
C105 C1011 C103 C10	10-32 X 1/4 CONE	STSCR008/STSCR009	"
C1014 C104	10-32 X 1/4 CUP	STSCR006/STSCR007	"
C122 C129 C125 C1211 C92	10-32 X 1/4 CONE	STSCR008/STSCR009	"
C102			
C12 C1415 C14	10-32 X 1/4 CUP	STSCR006/STSCR007	"
C145 C143	10-32 X 1/4 CONE	STSCR008/STSCR009	TT .
C167 C16 C1617 C169 C1619	10-32 X 5/16 CUP	STSCR010	3/32 K0093
C18			
C243	10-32 X 1/4 CONE	STSCR008/STSCR009	3/32 K0093 / SPK0093
C247 C244 C245 C20 C24	10-32 X 5/16 CUP	STSCR010	3/32 K0093
C24			
C284 C285 C286 C287 C324	1/4-28 X 3/8	STSCR014	1/8 K0125
C326 C328			
H3S H4S	10-32 X 1/8 CUP	STSCR002	3/32 K0093
H5S H6S H7S H8S H9S	10-32 X 3/16 CONE	STSCR003/STSCR004	3/32 K0093 / SPK0093
H913S H97S H10S	10.00.77.1/1.00.77	GTG GT 0.00 (GTG GT 0.00	
H125S H92S H102S	10-32 X 1/4 CONE	STSCR008/STSCR009	"
H12S H14S	10-32 X 1/4 CUP	STSCR006/STSCR007	"
H143S	10-32 X 1/4 CONE	STSCR008/STSCR009	
H16S H169S H18S	10-32 X 5/16 CUP	STSCR010	3/32 K0093
H244S H245S H24S	1/4-28 X 5/16	STSCR013 STSCR014	1/8 K0125
H285S H286S H287S H328S	1/4-28 X 3/8 1/4-28 X 1/2	STSCR014 STSCR015	"
CC5 CC6 CC7 CC8 CC9	1/4-28 X 1/2 10-32 X 1/8 CUP	STSCR013 STSCR002	3/32 K0093
CC125 CC1211 CC92 CC102	10-32 X 1/8 COP 10-32 X 3/16 CONE	STSCR002 STSCR003 / STSCR004	3/32 K0093 / SPK0093
CC12 CC14	10-32 X 3/10 CONE	313CK003 / 313CK004	3/32 K0093 / 31 K0093
CC12 CC14	10-32 X 1/4 CONE	STSCR008/STSCR009	11
CC16 CC169 CC18	10-32 X 1/4 CUP	STSCR006/STSCR007	"
CC244 CC245 CC24	1/4-28 X 1/4	STSCR012	1/8 K0125
B3	10-32 X 1/4 CONE	STSCR008/STSCR009	3/32 K0093 / SPK0093
B37 B34 B317 B39 B310	10-32 X 1/4 CUP	STSCR006/STSCR007	"
B43	10-32 X 1/4 CONE	STSCR008 STSCR009	"
B47 B4 B49 B5 B511 B56	10-32 X 1/4 CUP	STSCR006/STSCR007	"
B64 B610 B6 B67 B68	10-32 X 5/16 CUP	STSCR010	3/32 K0093
B74 B75 B76 B7 B78 B85	1/4-28 X 3/8	STSCR014	1/8 K0125
B86 B87 B8 B89			
B96 B97 B98 B9 B910 B912	1/4-28 X 1/2	STSCR015	"
B106 B107 B108 B109 B10	5/16-24 X 1/2	STSCR020	5/32 K0156
B1012			
B126 B127 B128 B129 B1210	5/16-24 X 5/8	STSCR021	"
B12			
ALL 'E' CSINKS	10-32 X 3/16 CONE	STSCR003 / STSCR004	3/32 K0093 / SPK0093
J56 J4 J5 J6 J7 J8 J9	10-32 X 1/8 CUP	STSCRO02	3/32 K0093
J25 J26 J27 J28 J29	10-32 X 3/16 CONE	STSCR003 / STSCR004	3/32 K0093 / SPK0093
J35 J37 J39	10-32 X 1/4 CONE	STSCR008/STSCR009	"

Continued on next page



Replacement Set Screws and Keys (part 2)

Tool Number	Set Screw Size and Length	Standard Set Screw/ Spline Set Screw	Standard Key/ Spline Key
X3L	10-32 X 3/16 CONE	STSCR003/STSCR004	3/32 K0093 / SPK0093
X37L X34L X317L X39L	10-32 X 3/16 CUP	STSCR005	3/32 K0093
X310L			
X43L X47L X4L X49L X5L			
X511L X56L X64L X610L X6L	10-32 X 1/4 CUP	STSCR006/ STSCR007	"
X67L X68L	1/4-28 X 5/16	STSCR013	1/8 K00125
X74L X75L	1/4-28 X 1/4	STSCR012	"
X78L	1/4-28 X 5/16	STSCR013	"
X85L	1/4-28 X 1/4	STSCR012	ï
X76 X76L X86L X87L X8L	1/4-28 X 5/16	STSCR013	"
X89L	1/4-28 X 5/16	STSCR014	ï
X96L X97L X98L	1/4-28 X 5/16	STSCR013	"
X9L	1/4-28 X 3/8	STSCR014	"
X910L X912L	1/4-28 X 1/2	STSCR015	"
X106L X107L X108L X109L X10L X1012L X26L X127L X128L X129L	5/16-24 X 3/8	STSCR019	5/32 K0156
X1210L X12L	5/16-24 X 1/2	STSCR020	"
ALL 'R' CBORES	10-32 X 3/16 CONE	STSCR003 / STSCR004	3/32 K0093 / SPK0093
STOP COLLARS			
1/4 5/16 3/8 7/16 1/2 9/16 5/8 3/4 7/8	10-32 X 1/8 CUP	STSCR002	3/32 K0093
11-1/8 1-1/4	1/4-28 X 3/16	STSCR011	1/8 K0125
1-3/8 1-1/2	5/16-24 JAM	STSCR029	5/32 K0156
DRILL STOPS .046"125"	10-32 X 1/8 CUP	STSCR002	3/32 K0093
.126"2031"	10-32 X 3/16 CONE	STSCR003/STSCR004	3/32 K0093 / SPK0093
.204"2638"	10-32 X 3/16 CUP	STSCR005	3/32 K0093
.261"374"	10-32 X 1/4 CUP	STSCR006/STSCR007	3/32 K0093 / SPK0093
.375"	10/32 X 5/16 CUP	STSCR010	3/32 K0093
.377"500"	1/4-28 X 3/8	STSCR014	1/8 K0125
.5118"5781"	1/4-28 X 3/8	STSCR014	"
.5906"625"	516-24 X 3/8	STSCR019	5/32 K0145
.6299"875"	5/16-24 X 1/2	STSCR020	5/32 K0156
1 "	3/8-24 X 1/2	STSCR025	3/16 K0187
WASHERS	1/8	WSH1	
	3/16	WSH2	
	1/8 X 7/32 LOCK	WSH4	
	5/16	WSH3	
BALL BEARING GUIDE	3-48 X 3/8 CAP	SCR0	
SCREWS	5-40 X 3/8 CAP	SCR1	
	5-40 X 1/2 CAP	SCR3	
	10-32 X 3/4 CAP	SCR4	

The Fuller Story

In the 1930's Warren L. Fuller Sr. (nick named Let) began building twelve-foot boats in his Warwick Hudson car dealership quarters. The boats were built out of newly innovated plywood, a material whose durability had to be proven. The boats, with a deep V hull, were dry, fast, and could be sailed as well as powered. During production Let found a need for an efficient and inexpensive method to drive the screws and set plugs. Let began to design his own tools, turning his business expertise away from the car dealership and to the manufacturing of woodworking tools, specifically countersinks.

The growth of the Fuller family provided the business with its first employees. In 1946 Warren Fuller Jr. began to work on a full-time basis, drilling, tapping, deburring and sharpening the countersinks. The tools were being sold to boat builders and hardware stores locally and in other areas of the country by an uncle. The first catalog was printed at this time, which was a pocket fitting edition complete with photographs and prices of the latest countersinks. The catalog also included a line of tools to make Venetian blinds.

During the late 1950's Warren Jr. renovated the countersink design - a change that is extensively used today. Originally the flutes of the countersink were straight in design. In the new model the flutes are slightly slanted. This modified the tool from a scraper to a cutter. The design allowed the wood chips to clear, preventing clogging.

In 1955, following the death of Let, Warren Jr. incorporated the business. During the next years the Fuller family and business grew rapidly. By the 1970's it became obvious that even the expanded Warwick Ave. location was a far from adequate space. The younger members of the Fuller family were taking an active interest in the business and by 1979 when Fuller moved to its present location, most of the seven children of Warren Fuller Jr. were working in the business.

Today W.L. Fuller Inc. is operated by the team effort of the Fuller family members. The company is now owned and managed by Warren L. Fuller's children, Diane Nobile, Gary Fuller, Debbie Fuller, and Lisa Fuller. The 4th generation of Fullers are becoming more influential members within the company, impacting its future success. Call and talk to a Fuller, Gary, Mike, Lisa, or Jasmine. Since personal service is the secret of the Fuller success, great pride is taken in customer service, fast delivery and a superior product line. While computerizing in the early 80's has allowed a complete control over inventory, all orders are still manually priced and personally checked. Even though sales have increased 300 times over those of the early days, W.L. Fuller Inc. advertises very little, proving the success of word-of-mouth advertising and customer satisfaction expressed over the years.

* Postscript - To save money during the war years, Warren Fuller Sr. located a deal on gallons of near orange paint for his boats. With this purchase began the use of orange as the Fuller business color. The reader will note the use of orange in Fuller advertising flyers, packaging and throughout this catalog.











