

## Nicholson® Table Of Contents

The Nicholson® File Company, formed in 1864, became the first successful manufacturer of machine-made files. Today, Nicholson® is the largest manufacturer of files in the world and the wide Nicholson® range has increased in scope and size and includes files, rasps, circular saw blades, power tool accessories and hand-saws, manufactured to uncompromising standards of quality.

The following manuals and instruction leaflets are available.  
Please ask your local distributor or Cooper representative for copies.

- The Guide to Files and Filing #55307
- Facts about Rotary Files and Burs #55365
- Nicholson File Training Poster #55891

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The Nicholson File Operations facility in Cullman, Alabama conforms to Quality Standard ISO 9001

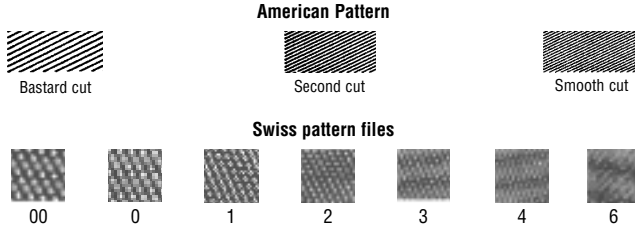
## Safety Precautions



Always wear safety glasses. Warn workers nearby to stay clear before you make each cut.

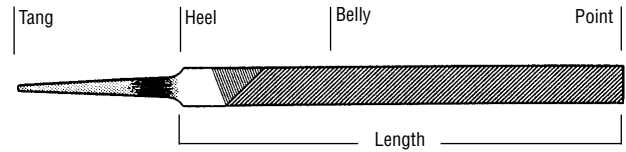
## File Terminology

### Coarseness



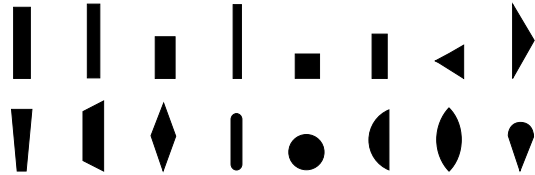
- Work to be accomplished, roughing or finishing, will determine type of teeth and coarseness for each application
- Most American pattern files are available with 3 grades of cut: bastard-cut, second-cut and smooth-cut
- Swiss pattern files are available in seven cuts: No. 00, 0, 1, 2, 3, 4, and 6
- The degree of coarseness is greater in longer files, but differences between bastard, second and smooth are proportionate

### Length



- Length is measured exclusive of tang, from point to heel, unless specified otherwise
- Desired stroke length, type of material and size will determine length required

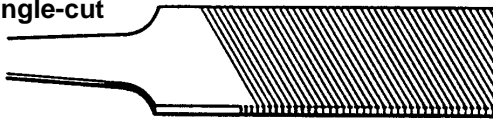
### Shape



- Area to be filed will determine specific cross-section (round, square, flat, etc.) to be used

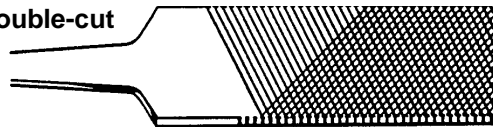
## Kinds of Teeth

### Single-cut



- Single set of parallel, diagonal rows of teeth
- Single-cut files are often used with light pressure to produce a smooth surface finish or to put a keen edge on knives, shears or saws

### Double-cut



- 2 sets of diagonal rows of teeth
- Second set of teeth cut in opposite diagonal direction and on top of the first set
- First set of teeth is known as the overcut, second is known as upcut
- Upcut is finer than overcut
- Double-cut file is used with heavier pressure than the single-cut and removes material faster from the workpiece

### Rasp-cut



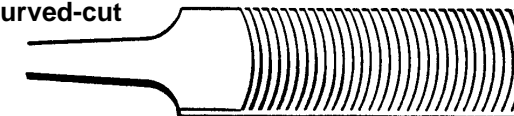
- Series of individual teeth which are formed by a single-pointed tool
- Produces a rough cut that is used primarily on wood, hooves, aluminum and lead

### Magicut®



- Single cut teeth divided by angular serrations into shorter cutting edges, which free themselves readily from chips and perform roughing and smoothing at the same time

### Curved-cut



- Teeth arranged in curved contours across the file face
- Curved-cut file is normally used in automotive body shops for smoothing body panels



# Feed the shark.

## Built for speed and endurance

The Nicholson SandShark® is a revolutionary concept in material removal. Using Nicholson's new Sanding Steel™ technology, SandShark removes material fast – up to 25 times faster than coarse (60 grit) sandpaper. That saves you time and gets your job done quicker. Yet, even though it removes material much faster than sandpaper, it produces a surface smooth enough to paint.



But that's not all. Unlike sandpaper, which needs to be replaced every few minutes, SandShark just keeps on sanding. Its teeth are specially sharpened and heat hardened to cut easily through the toughest material and keep their edge.

When sandpaper gets clogged, it has to be replaced. SandShark has a tooth pattern that resists clogging. If material does build up, SandShark is easy to clean with a standard household brush. SandShark can be used over and over again on project after project. In fact, by the time a SandShark needs to be replaced, it will have done the work of 300 sheets of sandpaper. That's real endurance...and real value!

Length		Width		Packed	Cat. No.	Tooth Style	Applications	UPC No.	Wt. per Pack		Shelf Pack
Inch	mm	Inch	mm						oz	g	
5	126	2.5	63	Card	<b>SSS</b>	Smooth, File Teeth	Wood, Metal, Soft Materials	037103167415	12	340	1
5	126	2.5	63	Card	<b>SSC</b>	Coarse, Rasp Teeth	Wood, Soft Materials	037103167422	12	340	1



Quickly removes old paint and lacquer



Easily smooths all types of plastics

### SandShark Application Guide

Material	Coarse (SSC)	Medium/Fine (SSS)
Hardwood	X	X
Softwood	X	X
Fiberboard	X	X
Particle Board	X	X
Treated Lumber	X	X
Autobody Filler	X	X
Spackle	X	X
Painted Wood	X	X
Finished Wood	X	X
Painted Metal		X
Metal		X
Laminates		X
Plastics	X	X



Great for leveling spackle and similar compounds



Ideal for smoothing rusty metal surfaces



Shapes all kinds of wood smoothly and quickly



Won't clog like sandpaper and is easy to clean

## Files with Ergonomic Handles



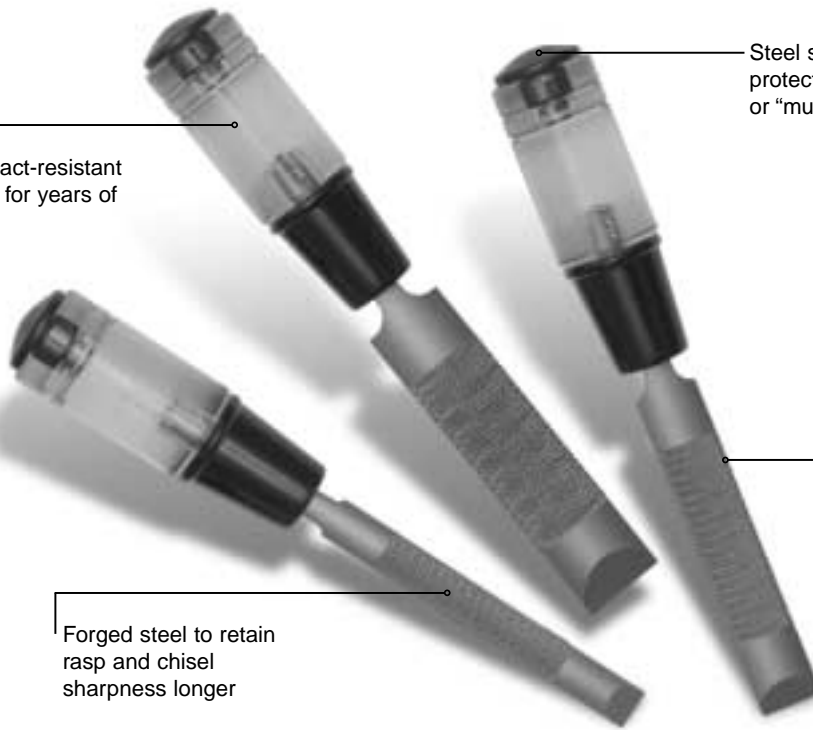
- Rubber coating and rounded shape eliminates pressure points
- Flared neck, raised ribs, and wide middle section keep your hand from slipping and provides maximum comfort and control
- Rear taper allows your hand to lock securely around the handle, increasing push force
- Hang hole for easy storage

Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
<b>Chainsaw, Smooth Cut</b>										
6	150	1/8	3.2	Carded	01590H	037103167873	1	4	567	6
6	150	5/32	4	Carded	01630H	037103167880	1	6	624	6
8	200	3/16	4.8	Carded	01765H	037103167897	1	11	765	6
8	200	7/32	5.6	Carded	01888H	037103167866	1	12	794	6
8	200	1/4	6.4	Carded	01974H	037103167859	3	0	1361	6
<b>Flat</b>										
8	200	-	-	Carded	21748H	037103167903	3	3	1446	6
10	250	-	-	Carded	21868H	037103167910	4	5	1956	6
<b>Half Round</b>										
6	150	-	-	Carded	04798H	037103167927	2	2	946	6
8	200	-	-	Carded	21745H	037103167934	2	13	1276	6
10	250	-	-	Carded	21746H	037103167965	4	5	1956	6
12	300	-	-	Box	05090H	037103167958	1	0	454	1
<b>Mill</b>										
6	150	-	-	Carded	21687H	037103167729	1	14	851	6
8	200	-	-	Carded	21694H	037103167736	2	13	1276	6
10	250	-	-	Carded	21701H	037103167743	4	4	1928	6
12	300	-	-	Box	21842H	037103167750	0	14	397	1
<b>Round</b>										
6	150	-	-	Carded	21708H	037103167811	1	11	765	6
8	200	-	-	Carded	21715H	037103167828	2	1	936	6
10	250	-	-	Carded	21720H	037103167835	2	13	1276	6
12	300	-	-	Box	12131H	037103167842	1	1	482	1
<b>Slim Taper</b>										
6	150	-	-	Carded	21729H	037103167781	1	7	652	6
<b>X Slim Taper</b>										
6	150	-	-	Carded	21743H	037103167804	1	4	567	6
<b>XX Slim Taper</b>										
6	150	-	-	Carded	21743H	037103167804	1	4	567	6
<b>Half Round Wood Rasp</b>										
8	200	-	-	Carded	21749H	037103167767	2	13	1276	6
10	250	-	-	Carded	19427H	037103167774	2	15	1332	6
<b>Sets</b>										
3 Piece Set				Pouch	22015H	037103180728	0	11	312	1
5 Piece Set				Pouch	22040H	037103180742	2	4	1021	1
9 Piece Set				Pouch	22030H	037103180735	4	12	2155	1
<b>Handles Only</b>										
w/4 inserts/adapters				Card	21474H	037103186239	0	12	340	6

Woodchuck



Oversized, impact-resistant acetate handle for years of hard use



Steel strike plate to protect against breakage or "mushrooming"

Edge teeth for removal of material in confined areas.

Forged steel to retain rasp and chisel sharpness longer



**3IN1** Chisel  
Flat Wood Rasp  
Half-Round Wood Rasp

The new WoodChuck 3-in-1 combination chisel/wood rasp from Nicholson® is a quality wood chisel combined with a flat wood rasp on one side and a half-round wood rasp on the other. The chisel features an extremely sharp polished and ground blade, while the flat and half-round rasp surfaces are perfect for removing material quickly, and for shaping and enlarging round surfaces. The WoodChuck even has edge teeth for those hard to get spots. It's the perfect toolbox addition for any woodworker or handyman.



Cat. No.	UPC	Blade Width	Packed	Wt. per Shelf Pack			Shelf Pack
				lb	oz	g	
WC12N	037103146304	1/2"	Carded	1	3	535	3
WC34N	037103146311	3/4"	Carded	1	5	594	3
WC1N	037103146304	1"	Carded	1	10	744	3
WCSET3N	037103146304	3 pc. Set	Carded	7	10	3447	5

## Aluminum Files - Type "A" Flat



- Special tooth construction eliminates clogging when filing aluminum
- Flat shape
- Double-cut
- All sizes have same number of teeth per inch
- Smooth finish obtained by using shearing cut toward left

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
6	150		Boxed	00001	037103000019	1	3	539	12
8	200		Boxed	00024	037103000248	3	0	1361	12
10	250		Boxed	00047	037103000477	7	4	3289	6
12	300		Boxed	00070	037103000705	11	2	5046	6

## Aluminum Files - Type "A" Half Round



- Special tooth construction eliminates clogging when filing aluminum
- Half-round shape
- Double-cut
- All sizes have same number of teeth per inch
- Smooth finish obtained by using shearing cut toward left

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
6	150		Boxed	00113	037103001139	1	9	765	12
8	200		Boxed	00136	037103001368	3	0	361	12
10	250		Boxed	00161	037103001610	5	12	2608	6
12	300		Boxed	00187	037103001870	10	7	4734	6

## Auger Bit Files



- Designed to restore original sharpness to cutting edges of auger bits
- Rectangular shape
- One end of file has uncut edges, opposite has safe sides preventing damage to surfaces adjacent to those being filed
- Made in 7" length only

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
7	175		Boxed	00258	037103002587	0	11	312	12

## Axe Sharpening File



- Ideal for sharpening axes and miscellaneous garden tools
- Rectangular shape
- Double-cut on 1 side, single-cut on opposite
- 2 safe edges
- Length measured exclusive of handle

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
8	200		Boxed	<b>06704</b>	037103067043	5	12	2608	12
8	200		Carded	<b>06706</b>	037103067067	5	12	2608	6

## Bodifiles



- For those who work on automobile bodies, particularly in blending solder with sheet metal
- Rectangular shape
- All "flat bent" files have teeth on convex side only
- All "flat bent" files have offset tangs for knuckle clearance in filing large sheet metal surfaces
- All "flat" files have teeth on both sides
- D/C refers to double-cut, S/C refers to single-cut
- \* For fine finishing steel surfaces, all others used on steel or body solder or both together
- \*\* With rounded edges

Code No.	Teeth per Inch	Size Inch x Inch	Packed	Cat. No.	UPC No. 037103	Bend "R"		Wt. per doz.			Shelf Pack
						Inch	mm	lb	oz	g	
50-14 S/C	14	1 11/32" x 5/16" -14 Flat	Boxed	<b>03075</b>	030757	No bend		14	0	6350	6
50-204 D/C	10	1 11/32" x 5/16" -14 Flat	Boxed	<b>03103</b>	031037	No bend		16	10	7541	6
50-210 D/C	10	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03129</b>	031297	50	1271	16	10	7541	6
50-241 S/C	13	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03282</b>	032829	80	2033	16	10	7541	6
50-301 D/C	20	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03175</b>	031754	129	3276	16	10	7541	6
50-404 D/C*	20	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03184</b>	031846	196	4981	16	10	7541	6
50-407 D/C	13	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03212</b>	032126	80	2033	16	10	7541	6
50-414B D/C**	13	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03250</b>	032508	129	3276	16	10	7541	6
50-414 D/C**	13	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03249</b>	032492	80	2033	16	10	7541	6
50-416 D/C**	20	1 11/32" x 5/16" -14 Flat Bent	Boxed	<b>03278</b>	032782	196	4981	16	10	7541	6



Cabinet Files



- Used by cabinetmakers and woodworkers
- Files are half-round in section
- Teeth are slightly finer than those of wood files
- Radius is larger and thinner than regular half-round files

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
8	200		Boxed	01232	037103012326	3	0	1361	12
10	250		Boxed	01260	037103012609	5	7	2466	6

Cantsaw Files



- Used for sharpening crosscut saws with "M" teeth, circular saws and saw teeth with less than 60° angle
- Triangular shape
- Single-cut
- Edges set and cut
- Same number of teeth per inch as mill bastard files of equivalent length
- Regularly supplied with "cut back" unless "safe backs" specifically ordered

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
<b>Cut back</b>									
6	150		Boxed	01327	037103013279	1	7	652	12
8	200		Boxed	01387	037103013873	3	3	1446	12
10	250		Boxed	01418	037103014184	5	9	2523	12
<b>Safe back</b>									
6	150		Boxed	01448	037103014481	1	7	652	12



### Chain Saw Files - Round Smooth



- Round shape
- Smooth-cut
- For carded files, weight is per shelf pack
- 6" files have a straight tang

Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
6	150	1/8	3.17	Boxed	<b>01576</b>	037103015761	0	7	198	12
6	150	1/8	3.17	Carded	<b>01590</b>	037103015907	1	0	454	6
6	150	1/8	3.17	Carded	<b>01590H*</b>	037103167873	1	4	567	6
6	150	5/32	3.96	Boxed	<b>01609</b>	037103016096	0	8	227	12
6	150	5/32	3.96	Carded	<b>01630</b>	037103016300	1	3	539	6
6	150	5/32	3.96	Carded	<b>01630H*</b>	037103167880	1	6	624	6
8	200	5/32	3.96	Carded	<b>01891</b>	037103018915	1	8	680	6
8	200	5/32	3.96	Boxed	<b>01714</b>	037103017147	0	11	312	12
8	200	3/16	4.76	Boxed	<b>01753</b>	037103017536	0	13	369	12
8	200	3/16	4.76	Carded	<b>01765</b>	037103017659	1	13	822	6
8	200	3/16	4.76	Carded	<b>01765H*</b>	037103167897	1	11	765	6
8	200	13/64	5.10	Boxed	<b>01798</b>	037103017987	1	2	510	12
8	200	7/32	5.55	Boxed	<b>01876</b>	037103018762	1	2	510	12
8	200	7/32	5.55	Carded	<b>01888</b>	037103018885	2	0	907	6
8	200	7/32	5.55	Carded	<b>01888H*</b>	037103167866	1	12	794	6
8	200	1/4	6.35	Boxed	<b>01964</b>	037103019646	1	6	624	12
8	200	1/4	6.35	Carded	<b>01974</b>	037103019745	2	3	992	6
8	200	1/4	6.35	Carded	<b>01974H*</b>	037103167859	3	0	1361	6
8	200	5/16	7.93	Boxed	<b>02082</b>	037103020826	2	3	992	12
8	200	3/8	9.52	Boxed	<b>02150</b>	037103021502	3	0	1361	12

\*Indicates ergonomic handle

### Chain Saw Files - Round Double Cut



- Round shape
- Double-cut
- European style, design and size
- More aggressive sharpening

Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
8	200	3/16	4.76	Boxed	<b>01751</b>	037103017512	0	13	369	12
8	200	13/64	5.10	Boxed	<b>01811</b>	037103018113	1	2	510	12
8	200	7/32	5.55	Boxed	<b>01874</b>	037103018748	1	2	510	12
8	200	1/4	6.35	Boxed	<b>01962</b>	037103019622	1	6	624	12

## Chain Saw Files - Spiral Cut (Superior)



- Round shape
- Spiral cut
- 6" file has straight tang
- Spiral cut enables more material to be removed with each stroke, reducing amount of strokes to produce keen edge
- For carded files, weight is per shelf pack
- Carded - 2 files per card

Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
6	150	5/32	3.96	Boxed	<b>01610</b>	037103016102	0	8	227	12
6	150	5/32	3.96	2/Carded	<b>01633</b>	037103016331	1	3	539	6
8	200	5/32	3.96	Boxed	<b>01716</b>	037103017161	0	11	312	12
8	200	3/16	4.76	Boxed	<b>01750</b>	037103017505	0	13	369	12
8	200	3/16	4.76	2/Carded	<b>01768</b>	037103017680	1	13	822	6
8	200	13/64	5.10	2/Carded	<b>23861</b>	037103238610	1	15	875	6
8	200	7/32	5.55	Boxed	<b>01875</b>	037103018755	1	2	510	12
8	200	7/32	5.55	2/Carded	<b>01894</b>	037103018946	2	0	907	6

## Carded Chain Saw File Guide With File and Handle



- Lightweight and corrosion proof
- 3/16"/4.7mm and 7/32"/5.5mm files can be used interchangeably on 8"/200mm guide
- 5/32"/4mm file can be used on 6"/150mm guide
- Available in 6"/150mm and 8"/200mm models designed to accommodate the 3 most popular diameters of round chain saw files
- Filing angle indicator and flat guide edge that positions just the right angle and depth of each file stroke
- Made of nylon which acts as a lubricant to insure free-sliding stroke

Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
6	150	5/32	3.96	Carded	<b>82004</b>	037103820044	1	3	539	4
8	200	3/16	4.76	Carded	<b>82003N</b>	037103820037	1	13	882	4
8	200	7/32	5.55	Carded	<b>82002</b>	037103820020	2	0	907	4

### Chain Saw Files - Flat



- Used for cutter-raker type (2 round edges) chain saw
- Rectangular shape

Code No.	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm				lb	oz	g	
16	6	150	Boxed	<b>02191</b>	037103021915	1	11	767	12
18	8	200	Boxed	<b>02215</b>	037103022158	2	14	1304	12

### Depth Gauge Chain Saw File



- Used for filing and maintaining proper depth gauge clearance
- Rectangular shape
- Single-cut
- Safe edges
- Length shown is overall length of file

Code No.	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm				lb	oz	g	
211	8	200	Boxed	<b>02244</b>	037103022448	1	8	680	12
21	10	250	Boxed	<b>02245</b>	037103022455	3	9	1615	12

### Crosscut - Great American



- Used for sharpening saws of Great American type and varieties of crosscut saws
- Triangular shape
- Single-cut
- Rounded back and thin edge are cut
- Same number of teeth per inch as mill bastard files of equivalent length
- Rounded back used to deepen rounded gullets of saw teeth

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
		mm				lb	oz	g	
8		200	Boxed	<b>02435</b>	037103024350	3	4	1474	12
10		250	Boxed	<b>02465</b>	037103024657	6	4	2835	12

Double Ender Files



- Triangular shape
- Sides and edges are single-cut from points to center giving full use of file
- All files supplied with handles
- Single-cut

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
6	150		Boxed	<b>02884M</b>	037103028846	0	11	312	12
7	175		Boxed	<b>02905M</b>	037103029058	0	13	369	12
8	200		Boxed	<b>02926M</b>	037103029263	1	4	567	12
9	225		Boxed	<b>02949M</b>	037103029492	2	0	907	12
10	250		Boxed	<b>02969M</b>	037103029690	2	6	1077	12

Farmer's Own File



- General purpose file suited for agricultural use
- Rectangular shape
- Single-cut
- Safe edges
- Length measured exclusive of handle
- Convenient hang up hole
- For carded files, weight is per shelf pack

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
6	150		Carded	<b>06637</b>	037103066374	3	8	1588	6
8	200		Boxed	<b>06649</b>	037103066497	4	12	2155	12
8	200		Carded	<b>08922</b>	037103089229	5	2	2381	6
10	250		Boxed	<b>06668</b>	037103066688	8	2	4508	12

### Flat Files - Boxed



- Used by machinists, machinery builders, ship and engine builders, repairman and others who require rapid removal of metal
- Rectangular in cross section and taper slightly towards point in width
- Double-cut on sides, single-cut on edges
- American pattern, available in bastard, second and smooth-cut
- Boxed

Inch	mm	Bastard Cut		Second Cut		Smooth Cut		Wt. Per Doz.			Shelf Pack
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	<b>03367</b>	033673	<b>03401</b>	034014	<b>03434</b>	034342	0	9	255	12
6	150	<b>03467</b>	034670	<b>03500</b>	035004	<b>03533</b>	035332	1	9	709	12
8	200	<b>03566</b>	035660	<b>03599</b>	035998	<b>03632</b>	036322	3	12	1701	12
10	250	<b>03665</b>	036650	<b>03698</b>	036988	<b>03731</b>	037312	7	3	3261	6
12	300	<b>03764</b>	037640	<b>03797</b>	037978	<b>03830</b>	038302	11	4	5103	6
14	350	<b>03863</b>	038630	<b>03896</b>	038968	<b>03929</b>	039293	16	10	7541	6
16	400	<b>03980</b>	039804	-	-	-	-	24	2	10943	6

### Flat Files - Carded



- Used by machinists, machinery builders, ship and engine builders, repairman and others who require rapid removal of metal
- Rectangular in cross section and taper slightly towards point in width
- Double-cut on sides, single-cut on edges
- Available in bastard, second and smooth-cut
- Carded

Inch	mm	Handled	Bastard cut		Smooth cut		Wt. per Shelf Pack			Shelf Pack
			Cat. No.	UPC No.	Cat. No.	UPC No.	lb	oz	g	
6	150	No	<b>21867</b>	037103218674	<b>03534</b>	037103035349	1	5	595	6
8	200	No	<b>21862</b>	037103218629	<b>03633</b>	037103036339	2	7	1106	6
8	200	Yes	<b>21748</b>	037103217486	-	-	2	1	936	6
8	200	Ergonomic	<b>21748H</b>	037103167903	-	-	3	3	1446	6
10	250	No	<b>21868</b>	037103218681	<b>03732</b>	037103037329	3	9	1616	6
10	250	Ergonomic	<b>21868H</b>	037103167910	-	-	4	5	1956	6
12	300	No	<b>03762</b>	037103037626	-	-	5	14	2667	6

## Half Round Files - Boxed



- Used on concave, convex and flat surfaces
- Rounded on 1 side, flat on opposite
- Backs of all half-round bastard files are double-cut
- Backs of all half-round second-cut files longer than 6" are double-cut
- Backs of all 4 and 6" files are single-cut
- Backs of all half-round smooth files are single-cut
- Flat sides of all half-round files are double-cut
- Pipeliner file (#05190) is single-cut on back and flat sides
- Boxed

Inch	mm	Bastard Cut		Second Cut		Smooth Cut		Wt. Per Doz.			Shelf Pack
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	04695	046956	04729	047298	04762	047625	0	10	284	12
6	150	04795	047953	04828	048288	04861	048615	1	9	709	12
8	200	04896	048967	04927	049278	04960	049605	3	5	1503	12
10	250	04995	049957	05026	050267	05059	050595	6	1	2750	6
12	300	05094	050946	05125	051257	05158	051585	10	8	4763	6
12	300	05094H*	167958	-	-	-	-	12	0	5443	1
14	350	05194	051943	05225	052254	05258	052582	16	4	7371	6
14	350	05190	051905	Pipeliner		-	-	16	4	7371	6
16	400	05307	053077	-	-	-	-	23	14	10830	6

\*Indicated ergonomic handle

## Half Round Files - Carded



- Used on concave, convex and flat surfaces
- Rounded on 1 side, flat on opposite
- Backs of all half-round bastard files are double-cut
- Backs of all half-round second-cut files longer than 6" are double-cut
- Backs of all 4 and 6" files are single-cut
- Backs of all half-round smooth files are single-cut
- Flat sides of all half-round files are double-cut
- Carded

Inch	Length		Handled	Bastard Cut		Second Cut		Wt. Per Shelf Pack			Shelf Pack
	mm			Cat. No.	UPC No.	Cat. No.	UPC No.	lb	oz	g	
6	150	No	21881	037103218810	-	-	1	6	624	6	
6	150	Yes	04798	037103047984	04832	037103048325	1	9	709	6	
6	150	Ergonomic	04798H	037103167927	-	-	2	2	964	6	
8	200	No	21857	037103218575	-	-	2	1	936	6	
8	200	Yes	21745	037103217455	04932	037103049322	2	7	1106	6	
8	200	Ergonomic	21745H	037103167934	-	-	2	13	1276	6	
10	250	No	21858	037103218582	-	-	3	9	1616	6	
10	250	Yes	21746	037103217462	-	-	3	15	1786	6	
10	250	Ergonomic	21746H	037103167965	-	-	4	5	1956	6	
12	300	No	05090	037103050908	-	-	11	8	5216	6	

### Hand Files



- Rectangular shape
- Double-cut
- 1 safe edge
- Same coarseness as flat files of corresponding lengths

Length Inch	mm	Packed	Bastard Cut		Second Cut		Smooth Cut		Wt. Per Doz.			Shelf Pack
			Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	Boxed	<b>05652</b>	056528	<b>05675</b>	056757	<b>05698</b>	056986	0	14	397	12
6	150	Boxed	<b>05738</b>	057389	<b>05771</b>	057716	<b>05804</b>	058041	1	12	794	12
8	200	Boxed	<b>05853</b>	058539	<b>05886</b>	058867	<b>05919</b>	059192	3	14	1758	12
10	250	Boxed	<b>05968</b>	059680	<b>06001N</b>	060013	<b>06034</b>	060341	7	8	3402	6
12	300	Boxed	<b>06084</b>	060846	<b>06117</b>	061171	<b>06150</b>	061508	11	6	7768	6

### Handy File



- One side is single-cut for use in tool sharpening and smoothing metal surfaces, reverse side is double-cut for general filing and rapid stock removal
- Rectangular shape
- 1 cut edge, 1 safe edge
- Length measured exclusive of handle
- For carded files, weight is per shelf pack

Length Inch	mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
8	200	Carded	<b>06601</b>	037103066015	2	5	1048	6
8	200	Boxed	<b>06602</b>	037103066022	5	9	2581	12
10	250	Boxed	<b>06620N</b>	037103143866	8	7	3827	12
12	300	Boxed	<b>06686</b>	037103066862	11	6	7768	6



Plastics File



- Used for filing wide range of plastics and other soft materials
- Rectangular shape
- Easily cleaned
- Finish easily varied by user
- Laboratory tests were performed on Masonite, C-Grade Phenolic, UHMW Polyethylene, Nylon and Acrylic with outstanding results
- For carded files, weight is per shelf pack

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
8	200		Carded	<b>06612</b>	037103066121	2	12	1150	6
8	200		Boxed	<b>06610</b>	037103066107	2	12	1150	6
10	250		Boxed	<b>06620N</b>	037103141774	8	7	3827	12

Home and Garden File



- Ideal utility file for home owner
- Used for sharpening woodworking tools (chisels, scrapers) and garden tools (hoes, shovels, rotary mower blades)
- Rectangular shape
- Overall length is 10"/250mm
- For carded files, weight is per shelf pack

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
10	250		Carded	<b>11488</b>	037103114884	2	4	1020	6

Knife Files - Boxed



- Used primarily by tool and die makers with work having acute angles
- Triangular shape
- Double-cut on sides, single-cut on sharp edge
- Knife files are supplied with safe backs
- Boxed

Inch	mm	Bastard Cut		Second Cut		Smooth Cut		Wt. Per Doz.			Shelf Pack
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	<b>06711</b>	067111	<b>06742</b>	067425	<b>06773</b>	067739	0	6	170	12
6	150	<b>06804</b>	068040	<b>06836</b>	068361	<b>06867</b>	068675	1	3	539	12
8	200	<b>06898</b>	068989	<b>06930</b>	069306	<b>06961</b>	069610	2	8	1134	12
10	250	<b>06992</b>	069924	<b>07023</b>	070234	<b>07054</b>	070548	4	10	2098	12
12	300	<b>07085</b>	070852	-	-	-	-	7	10	3459	6

## Knife Files - Carded



- Used primarily by tool and die makers with work having acute angles
- Triangular shape
- Double-cut on sides, single-cut on sharp edge
- Knife files are supplied with safe backs
- Carded

Inch	Length		Handled	Cat. No.	Bastard Cut		lb	Wt. Per Shelf Pack		Shelf Pack
	mm				UPC No.	oz		g		
6	150		No	06803	037103068033	0	14	397	6	

## Long Angle Lathe Files - Bastard



- Rapid, free cutting files designed for lathe filing
- Rectangular shape
- Single-cut
- Safe edges to protect shoulder or dog
- Made on flat blanks in bastard-cut
- Cut faster than regular mill files and leave smoother finish

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
10	250		Boxed	07657	037103076571	7	3	3260	6
12	300		Boxed	07688	037103076885	11	4	5103	6
14	350		Boxed	07719	037103077196	16	10	7541	6

## Long Angle Lathe Files - Fine



- Specially designed for finishing rapid stock removal on lathe work
- Rectangular shape
- Safe edges
- Cut faster than regular mill files and leave smoother finish

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
8	200		Boxed	07835	037103078353	4	1	1860	12
10	250		Boxed	07842	037103078421	3	8	1730	6
12	300		Boxed	07851	037103078513	5	8	2638	6
14	350		Boxed	07863	037103078636	8	8	3998	6

**Magicut® Files - Flat**



- Used by machinists as all-purpose file to remove stock rapidly and to leave a smooth finish
- Tapered point in width
- File features a pattern of narrow chip breakers created by steep and angled serrations for rapid removal and smoother finish

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
8	200		Boxed	<b>07894</b>	037103078940	3	12	1701	12
10	250		Boxed	<b>07917</b>	037103079176	3	7	3260	6
12	300		Boxed	<b>07941</b>	037103079411	11	4	5103	6
14	350		Boxed	<b>07965</b>	037103079657	16	10	7541	6

**Magicut® Files - Hand**



- Used by machinists as all-purpose file to remove stock rapidly and to leave a smooth finish
- Rectangular shape
- Parallel edges full length
- File features a pattern of narrow chip breakers created by steep and angled serrations for rapid removal and smoother finish

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
12	300		Boxed	<b>08204</b>	037103082046	11	6	7768	6

### Mill Files - Boxed



- Used for sharpening mill or circular saws
- Also for draw-filing and finishing metals
- Rectangular shape
- Single-cut on sides and edges
- 2 square edges
- All sizes taper slightly in width
- Boxed

Length Inch	mm	Bastard Cut		Second Cut		Smooth Cut		Wt. Per Doz.			Shelf Pack
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	<b>08243</b>	082435	-	-	<b>08306</b>	083067	0	8	227	12
6	150	<b>08354</b>	083548	<b>08385</b>	083852	<b>08416</b>	084163	1	3	539	12
8	200	<b>08497</b>	084972	<b>08529</b>	085290	<b>08560</b>	085603	2	12	1247	12
10	250	<b>08642</b>	086426	<b>08673</b>	086730	<b>08704</b>	087041	5	7	2466	12
12	300	<b>08737</b>	087379	<b>08768</b>	087683	<b>08799</b>	087997	9	1	4111	6
12	300	<b>21842H*</b>	167750	-	-	-	-	10	14	397	1
14	350	<b>08832</b>	088321	-	-	<b>08894</b>	088949	14	0	6350	6
16	400	<b>08925</b>	089250	-	-	-	-	21	0	9526	6

\*Indicates ergonomic handle

### Mill Files - Carded



- Used for sharpening mill or circular saws
- Also for draw-filing and finishing metals
- Rectangular shape
- Single-cut on sides and edges
- 2 square edges
- All sizes taper slightly in width
- Carded

Inch	mm	Handled	Bastard cut		Smooth cut		Wt. per Shelf Pack			Shelf Pack
			Cat. No.	UPC No.	Cat. No.	UPC No.	lb	oz	g	
6	150	No	<b>21825</b>	037103218254	-	-	1	2	510	6
6	150	Yes	<b>21687</b>	037103216878	-	-	1	5	595	6
6	150	Ergonomic	<b>21687H</b>	037103167729	-	-	1	13	851	6
8	200	No	<b>21832</b>	037103218322	<b>08559</b>	037103085597	2	1	936	6
8	200	Yes	<b>21694</b>	037103216946	-	-	2	4	1021	6
8	200	Ergonomic	<b>21694H</b>	037103167736	-	-	2	13	1276	6
10	250	No	<b>21839</b>	037103218391	<b>08702</b>	037103087027	3	8	1588	6
10	250	Yes	<b>21701</b>	037103217011	-	-	3	14	1758	6
10	250	Ergonomic	<b>21701H</b>	037103167743	-	-	4	4	1928	6
12	300	No	<b>21842</b>	037103218421	-	-	5	1	2296	6

## Mill Files - 1 and 2 Round Edges



- Round edges are used where rounding gullets are preferred, as compared to sharp corners or squared gullets
- Rectangular shape
- Single-cut on sides and edges
- Bastard-cut
- Same as regular mill files except they have 1 or 2 round edges

Length Inch	mm	Packed	Type Cut	One Round Edge		Two Round Edge		Wt. per doz.			Shelf Pack
				Cat. No.	UPC No.	Cat. No.	UPC No.	lb	oz	g	
8	200	Boxed	Bastard	<b>09099</b>	037103090997	<b>09389</b>	037103093899	2	13	1276	12
10	250	Boxed	Bastard	<b>09179</b>	037103091796	<b>09469</b>	037103094698	5	1	2296	12
12	300	Boxed	Bastard	<b>09227</b>	037103092274	-	-	9	1	4111	6

## Mill Western Cut Files



- For those who desire fast cutting mill files
- Rectangular shape
- Western cut

Length Inch	mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
8	200	Boxed	<b>09641</b>	037103096418	2	12	1247	12
10	250	Boxed	<b>09658</b>	037103096586	5	7	2466	12
12	300	Boxed	<b>09677</b>	037103096777	9	1	4111	6

## Mill Blunt File



- Used for sharpening mill or circular saws
- Also for draw-filing and finishing metals
- Rectangular shape
- Single-cut on sides and edges
- 1 round edge and parallel edges

Length Inch	Type mm	Type Cut	One Round Edge		Wt. per doz.			Shelf Pack
			Cat. No.	UPC No.	lb	oz	g	
8	200	Second Cut	<b>10165</b>	101655	3	8	1588	12
10	250	Bastard Cut	<b>10207</b>	102072	5	1	2295	6
12	300	Second Cut	<b>10260</b>	102307	9	1	4111	6

### Pillar Files



- Used mostly by machinists for filing slots and keyways
- Similar to hand files but narrower
- Rectangular cross section
- 1 safe edge

Length		Packed	Type Cut	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
8	200	Boxed	Bastard	11118	037103111180	3	11	1673	12

### Square Files - Boxed



- Used on slots, keyways and general surface filing
- Square shape
- Double-cut
- Tapered slightly towards point
- Larger sizes frequently preferred to corresponding flat files because of heavier section and 4 filing surfaces
- Boxed

Length		Diameter		Bastard Cut		Second Cut		Smooth Cut		Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	5/32	4	12790	127907	12824	128249	12857	128577	0	4	113	12
6	150	1/4	6	12967	129673	13000	130006	13033	130334	1	1	482	12
8	200	5/16	8	13081	130815	13114	131140	13147	131478	1	15	879	12
10	250	3/8	10	13196	131966	13229	132291	13262	132628	3	14	1758	12
12	300	1/2	13	13310	133106	13343	133434	13376	133762	8	6	3799	6
14	350	5/8	16	13425	134257	-	-	-	-	14	12	6691	6

### Square Files - Carded



- Used on slots, keyways and general surface filing
- Square shape
- Double-cut
- Tapered slightly towards point
- Larger sizes frequently preferred to corresponding flat files because of heavier section and 4 filing surfaces
- Carded

Length		Handled	Bastard Cut		Wt. Per Shelf Pack			Shelf Pack
Inch	mm		Cat. No.	UPC No.	lb	oz	g	
6	150	No	12968	037103129680	0	9	218	6
8	200	No	13082	037103130822	1	6	608	6

## Round Files - Boxed



- Primarily used to file circular openings or concave surfaces
- Round shape
- All 4, 5, 6, 8, 10, 12" files are single-cut
- 14" bastard file is double-cut
- Tapered slightly towards point
- Boxed

Length		Diameter		Bastard Cut		Second Cut		Smooth Cut		Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	1/8	3	11526	115263	11559	100009	11592	115928	0	4	113	12
5	125	3/16	5	11637	116376	11665	116659	-	-	0	9	255	12
6	150	1/4	6	11716	117168	11748	117489	11781	117816	0	14	397	12
8	200	5/16	8	11904	119049	11936	119360	11969	119698	1	6	624	12
10	250	3/8	10	12019	120199	12051	120519	12084	120847	3	3	1446	12
12	300	1/2	13	12131H*	167842	-	-	-	-	1	1	482	1
12	300	1/2	13	12134	121349	12166	121660	12199	121998	6	13	3090	6
14	350	5/8	16	12248	122483	12282	122827	-	-	11	15	5415	6

\*Indicates ergonomic handle

## Round Files - Carded



- Primarily used to file circular openings or concave surfaces
- Round shape
- All 6, 8, 10, 12" files are single-cut
- Tapered slightly towards point
- Carded

Length		Diameter		Handled	Cat. No.	Bastard cut UPC No.	Wt. per Shelf Pack			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
6	150	1/4	6	No	21846	037103218469	0	15	425	6
6	150	1/4	6	Yes	21708	037103217080	1	0	454	6
6	150	1/4	6	Ergonomic	21708H	037103167811	1	11	765	6
8	200	5/16	8	No	21853	037103218537	1	5	595	6
8	200	5/16	8	Yes	21715	037103217158	1	6	624	6
8	200	5/16	8	Ergonomic	21715H	037103167828	2	1	936	6
10	250	3/8	10	No	21854	037103218544	2	1	936	6
10	250	3/8	10	Yes	21720	037103217202	2	13	1276	6
10	250	3/8	10	Ergonomic	21720H	037103167835	2	13	1276	6
12	300	1/2	13	No	12131	037103121318	3	6	1531	6



## Taper (Triangular) Saw Files

Number of Saw Points	Files Recommended
5	7"/178mm Taper Regular
5 1/2	7"/178mm Taper Regular
6	7"/178mm or 8"/200mm Slim
7	6"/150mm or 7"/178mm Slim
8	6"/150mm Slim
	7"/178mm Extra Slim
	8"/200mm Double Extra Slim
9	6"/150mm Extra Slim
	7"/178mm Double Extra Slim
10	5"/127mm of 6"/150mm Extra Slim
11	5"/127mm Extra Slim
	6"/150mm Double Extra Slim
12	5"/127mm Extra Slim
13,14	5"/127mm Double Extra Slim
15,16	4"/102mm Double Extra Slim

- Made for filing saws with 60° angle teeth
- Triangular shape
- Single-cut
- Edges set and cut for filing gullets between saw teeth
- In filing handsaws, it is important to select the right file
- In general, the table lists suggested size and type of file that will give best results

## Taper Files - Regular - Boxed



- Triangular shape
- Boxed
- Edges set and cut for filing gullets between saw teeth
- Tapers slightly towards the point

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		Boxed	<b>13727M</b>	037103162540	0	11	311	12
4 1/2	113		Boxed	<b>13750M</b>	037103162557	0	15	425	12
5	125		Boxed	<b>13772M</b>	037103162564	1	4	567	12
6	150		Boxed	<b>13807</b>	037103138071	2	0	907	12
7	175		Boxed	<b>13841</b>	037103138415	2	15	1332	12
8	200		Boxed	<b>13875</b>	037103138750	4	5	1956	12
10	250		Boxed	<b>13930</b>	037103139306	7	8	3402	12

## Taper Files - Regular - Carded



- Triangular shape
- Carded
- Edges set and cut for filing gullets between saw teeth

Inch	Length		Handled	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
6	150		No	<b>13806</b>	037103138064	1	2	472	6
8	200		No	<b>13874</b>	037103138743	2	4	998	6

## Taper Files - Slim - Boxed



- Triangular shape
- Boxed

- Edges set and cut for filing gullets between saw teeth

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		Boxed	<b>14106</b>	037103141064	0	6	170	12
4 1/2	113		Boxed	<b>14139</b>	037103141392	0	8	226	12
5	125		Boxed	<b>14162</b>	037103141620	0	9	255	12
6	150		Boxed	<b>14224</b>	037103142245	1	1	482	12
7	175		Boxed	<b>14255</b>	037103142559	1	11	765	12
8	200		Boxed	<b>14290</b>	037103142900	2	10	1191	12
10	250		Boxed	<b>14341</b>	037103143419	5	3	2353	12

## Taper Files - Slim - Carded



- Triangular shape
- Carded

- Edges set and cut for filing gullets between saw teeth

Inch	Length		Handled	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		No	<b>21889</b>	037103218896	0	4	113	6
4 1/2	113		No	<b>21890</b>	037103218902	0	6	170	6
5	125		No	<b>21864</b>	037103218643	0	7	198	6
6	150		No	<b>21866</b>	037103218667	1	5	595	6
6	150		Yes	<b>21729</b>	037103217295	1	9	709	6
6	150		Ergonomic	<b>21729H</b>	037103167781	1	7	652	6
7	175		No	<b>14254</b>	037103142542	0	14	397	6
8	200		No	<b>21869</b>	037103218698	1	6	624	6

## Taper Files - Extra Slim - Boxed



- Triangular shape
- Boxed

- Edges set and cut for filing gullets between saw teeth

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		Boxed	<b>14547</b>	037103145475	0	4	113	12
4 1/2	113		Boxed	<b>14579</b>	037103145796	0	5	141	12
5	125		Boxed	<b>14599</b>	037103145994	0	6	170	12
6	150		Boxed	<b>14665</b>	037103146656	0	11	312	12
7	175		Boxed	<b>14698</b>	037103146984	1	3	539	12
8	200		Boxed	<b>14729</b>	037103147295	1	14	851	12

## Taper Files - Extra Slim - Carded



- Triangular shape
- Carded
- Edges set and cut for filing gullets between saw teeth

Inch	Length		Handled	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		No	<b>21875</b>	037103218759	0	4	113	6
5	125		No	<b>14600</b>	037103146007	0	6	624	6
6	150		No	<b>21873</b>	037103218735	1	3	539	6
6	150		Yes	<b>21736</b>	037103217363	1	6	624	6
6	150		Ergonomic	<b>21736H</b>	037103167798	1	6	624	6
7	175		No	<b>14690</b>	037103149690	1	13	692	6

## Taper Files - Double Extra Slim - Boxed



- Triangular shape
- Boxed
- Edges set and cut for filing gullets between teeth

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		Boxed	<b>14942M</b>	037103142599	0	3	82	12
5	125		Boxed	<b>14992</b>	037103149923	0	5	142	12
6	150		Boxed	<b>15024</b>	037103150240	0	9	255	12
7	175		Boxed	<b>15056</b>	037103150561	0	12	340	12
8	200		Boxed	<b>15087</b>	037103150875	1	1	482	12

## Taper Files - Double Extra Slim - Carded



- Triangular shape
- Carded
- Edges set and cut for filing gullets between teeth

Inch	Length		Handled	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
4	100		No	<b>21876</b>	037103218766	0	4	113	6
5	127		No	<b>21877</b>	037103218773	0	6	624	6
6	150		No	<b>21874</b>	037103218742	0	15	425	6
6	150		Yes	<b>21743</b>	037103217431	1	2	481	6
6	150		Ergonomic	<b>21743H</b>	037103167804	1	4	567	6

## Improved Taper - No Tang



- Designed and recommended primarily for use in saw filing machines
- Triangular shape
- Single-cut on sides and edges
- Parallel in shape and have specially shaped point to facilitate holding file in machine

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
6 5/8	166		Boxed	15267	037103152671	3	12	1701	12

## Taper Files - Double - Cut Saw Files (Machine File)



- Designed and recommended primarily for use in saw filing machines
- Triangular shape
- Double-cut

Inch	Length		Type	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm						lb	oz	g	
6	150		Taper	Boxed	15334	037103153340	2	0	907	12
6	150		Slim taper	Boxed	15395	037103153951	1	1	482	12
6	150		Extra slim taper	Boxed	15460	037103154606	0	11	312	12
6	150		Dbl. extra slim taper	Boxed	15524	037103155245	0	9	255	12
7	175		Dbl. extra slim taper	Boxed	15545	037103155450	0	12	340	12

## Bandsaw Taper Files With Narrow Edges



- Triangular shape
- Narrow edges
- When ordering be sure to determine width and order by appropriate catalog number

Inch	Length		Type	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm						lb	oz	g	
6	150		No. 63	Boxed	00498	037103004987	1	15	879	12
6	150		No. 64	Boxed	00526	037103005267	1	7	652	12

## Three Square Files - Boxed



- For general use by machinists for filing internal angles more acute than right angles, clearing out square corners and filing taps and gutters
- Triangular shape
- Double-cut
- Sharp corners are slightly set and cut
- Cut to the point

Length Inch	mm	Bastard Cut		Second Cut		Smooth Cut		Wt. Per Doz.			Shelf Pack
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	oz	g	
4	100	15803M	162670	-	-	-	-	0	12	340	12
6	150	15925	159250	15958	159588	15991	159915	1	15	879	12
8	200	16036	160362	16069	160690	16102	161024	4	4	1928	12
10	250	16147	161475	16180	161802	16213	162137	7	8	3402	12
12	300	16258	162588	16291	162915	-	-	11	6	5216	6

## Tungsten Point Files



- Designed for dressing distributor points that are tipped with tungsten, iridium and similar metals
- Thin rectangular shape
- Double-cut
- 5 1/4" overall
- Chisel tip of file enters slots or gaps easily
- Approximate size 5/16"/8mm x .044"/1.10mm
- Available with attractive carded display
- Catalog No. 02381 contains 12 files

Length Inch	mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
5 1/4	133	Boxed	02373	037103023735	2	8	1134	12
5 1/4	133	1/cd	02375	037103023759	1	4	567	6
5 1/4	133	12/cd	02381	037103023810	3	8	1588	12

## Veneer Knife Files



- Specially designed for sharpening veneer knives
- Thin rectangular shape
- Blunt bastard-cut
- 2 round edges

Length Inch	mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
10	250	Boxed	10799	037103107992	5	8	2495	12

## Warding Files



- Used primarily by locksmiths in repairing and filing ward notches in keys
- Thin rectangular shape
- Double-cut on sides, single-cut on edges
- Also suited for use in narrow spaces where other files will not fit

Length Inch	Length mm	Bastard Cut		Second Cut		Smooth Cut		lb	Wt. Per Doz.		Shelf Pack
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103		oz	g	
4	100	16507	165077	16540	165404	16573	165732	0	5	142	12
6	150	16663	166630	16696	166968	16729	167293	0	13	369	12
8	200	16761	167613	16794	167941	16827	168276	1	10	737	12
10	250	16859	168597	16891	168917	-	-	2	14	1304	12

## Hoof Knife File - Boxed



- Specially designed to sharpen hoof knives
- Rectangular shape
- Both sides single-cut
- 2 round cut edges
- Contoured to sharpen entire knife, even at hook end

Length Inch	Length mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
8	200	Boxed	10626	037103106261	3	0	1361	12

## Wood Files (Coarse) - Half Round

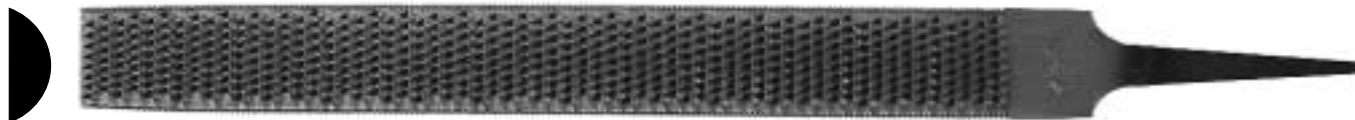
American Pattern Rasps



- Specially coarse teeth for use on wood
- Half-round
- Made in same section and size as half-round file

Length Inch	Length mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
10	250	Boxed	17505	037103175052	6	1	2750	6

## Cabinet Rasps - Boxed



- Used by cabinetmakers and woodworkers
- Half-round
- Single-cut on edges
- Curved side of rasps similar to half-round rasps but has larger radius

Length		Packed	Regular (Second cut)		Smooth cut		Wt. per Shelf Pack			Shelf Pack
Inch	mm		Cat. No.	UPC No.	Cat. No.	UPC No.	lb	oz	g	
8	200	Boxed	17615	037103176158	-	-	3	0	1361	12
10	250	Boxed	17683	037103176837	17718	037103177186	5	7	2466	6
12	300	Boxed	17751	037103177513	17786	037103177865	9	5	4224	6

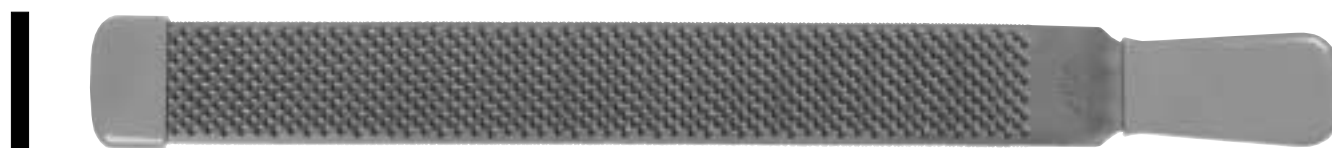
## Horse Rasps - Plain 1/2 File



- Some farriers prefer this thin fine-toothed rasp for shoeing racetrack, riding horses and ponies
- Plain horse rasps are double-ended with rasp teeth on 1 side, file teeth on opposite
- Rectangular shape
- Made in regular and an 18" slim plater's double-ended horse rasp

Length		Type	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
12	300	Regular	Boxed	17873	037103178732	13	15	6322	6
14	350	Regular	Boxed	17903	037103179036	19	10	8902	6
18	450	Slim plater's dbl.-ended	Boxed	18005	037103180056	28	0	12,701	6

## Farrier's Handy Rasps



- Rectangular shape
- Single-cut on edges
- Comfortable cushion grip at point and handle
- Rasp teeth on 1 side, file teeth on opposite
- Rasp cut is 6 teeth per row (other horse rasps have 5 teeth per row)
- Body is the same as the 14" Plater's Special

Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm				lb	oz	g	
14	350	Boxed	18155	037103181558	18	15	8591	5



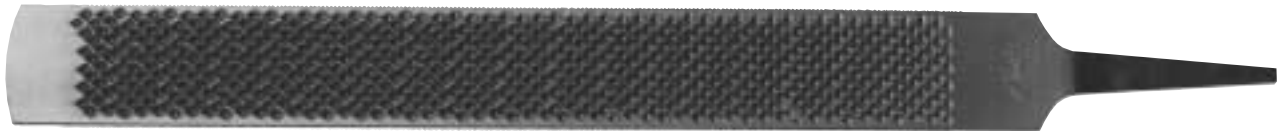
## Horse Rasps - Tanged



- Rectangular shape
- Single-cut on edges
- Tanged
- Rasp teeth on 1 side, file teeth on opposite
- Thicker than Plater's Special - ideal for hot rasping

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm				lb	oz	g	
12		300	Boxed	<b>18035</b>	037103180353	18	0	8165	6
14		350	Boxed	<b>18057</b>	037103180575	26	8	12020	6

## Farrier Rasp - Double Extra Thin



- Primarily for race track and other horses with light shoes
- Both sides are safe 7/8"/22mm at point
- Rasp teeth on 1 side, file teeth on opposite
- Rasp cut is 6 teeth per row (other horse rasps have 5 teeth per row)
- Rectangular shape
- 18" rasp is specially designed for draft horses
- Sharper than regular horse rasps
- Double extra thin

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm				lb	oz	g	
14		350	Boxed	<b>18156N*</b>	037103134172	16	6	7428	6
14		350	Boxed	<b>18157</b>	037103181572	16	6	7428	6
14		350	Boxed	<b>HR14</b>	037103181770	16	6	7428	6
18		450	Boxed	<b>18180</b>	037103181800	21	4	9639	6

\* Aggressive cut - Black Diamond® Brand

## Magicut® Plater's Special Horse Rasp



- Maximum cutting surface design gives rapid removal and smoother finish
- Single-cut on edges
- Opposite side has Nicholson's® unique Magicut® file pattern of narrow chip breakers created by steep and angled serrations
- Rectangular shape
- Tooth design is cut deeper to last longer and cut much faster than conventional horse rasps
- Rasp cut is 6 teeth per row (other horse rasps have 5 teeth per row)

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm				lb	oz	g	
14		350	Boxed	<b>18130</b>	037103181305	15	12	7144	6

## Pattern Maker's Cabinet Rasps



- Used primarily by cabinetmakers
- Half-round shape
- Narrow pattern, cut edges
- Used when smooth wood finish is required

Length Inch	Length mm	Code No.	Type	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
							lb	oz	g	
10	250	49	Second cut	Boxed	<b>18846</b>	037103188465	3	10	1644	6
10	250	50	Smooth cut	Boxed	<b>18861</b>	037103188618	3	6	1531	6

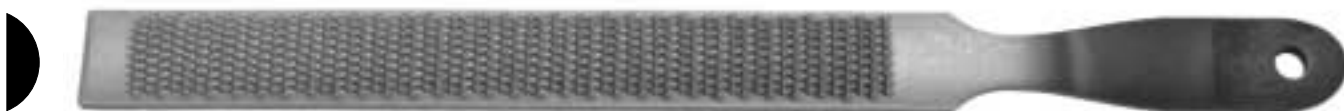
## 4-in-Hand® (Formerly Shoe Rasp)



- For the homeowner, home craftsman, boat builder and mechanic
- Half-round shape
- Has file section and rasp section on both flat side and half-round side
- For carded files, weight is per shelf pack

Length Inch	Length mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
8	200	Boxed	<b>18924</b>	037103189240	4	4	1871	6
8	200	Carded	<b>21860</b>	037103218605	2	1	936	6
9	225	Boxed	<b>19013</b>	037103190130	5	12	2608	6
9	225	Carded	<b>21870</b>	037103218704	6	0	2290	6
10	250	Boxed	<b>18962</b>	037103189622	7	9	3430	6
10	250	Carded	<b>18960</b>	037103189608	3	12	1701	6

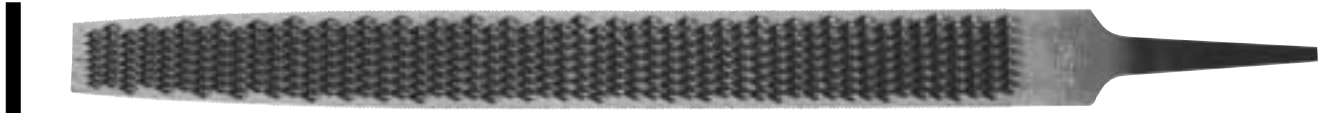
## Woodcraft Rasp - Half Rasp, Half File



- Ideal for use in woodworking plants, by professional carpenters, hobbyists and DIY enthusiasts
- Half-round rasp side for rapid stock removal and file cut side for smoothing purposes
- For use on wood, leather, soapstone and soft metals
- 8"/200mm length is exclusive of handle

Length Inch	Length mm	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
					lb	oz	g	
8	200	Boxed	<b>18617</b>	037103186171	4	1	1844	6
8	200	Carded	<b>23859</b>	037103238597	4	1	1844	6

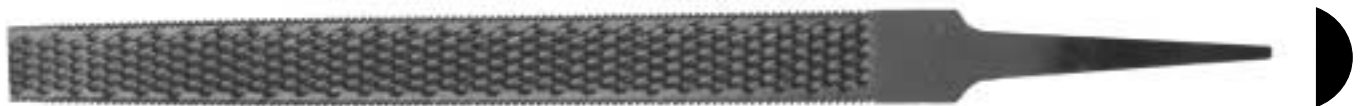
## Wood Rasps - Flat Bastard



- Flat shape
- Bastard-cut

Inch	Length		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	mm					lb	oz	g	
10	250		Boxed	19136	037103191366	7	8	3402	6

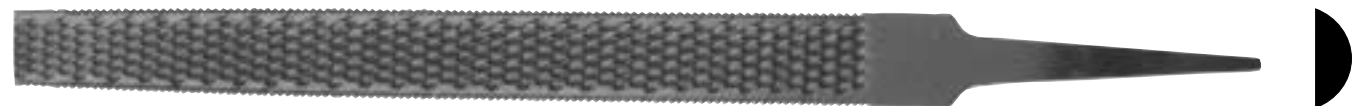
## Wood Rasps - Half Round - Boxed



- Used by woodworkers, hobbyists and plumbers
- Half-round shape
- Single-cut file teeth on edge
- For use on wood and soft metals
- Boxed

Length Inch	mm	Packed	Bastard cut		Second cut		Wt. per Shelf Pack			Shelf Pack
			Cat. No.	UPC No.	Cat. No.	UPC No.	lb	oz	g	
6	150	Boxed	19361	037103193612	-	-	1	8	680	12
8	200	Boxed	19394	037103193940	19575	037103195753	3	7	1559	12
10	250	Boxed	19427	037103194275	19593	037103195937	6	8	2948	6
12	300	Boxed	19460	037103194602	19611	037103196118	10	8	4763	6
14	350	Boxed	19493	037103194930	-	-	16	15	7683	6

## Wood Rasps - Half Round - Carded



- Used by woodworkers, hobbyists and plumbers
- Half-round shape
- Single-cut file teeth on edge
- For use on wood and soft metals
- Carded

Length Inch	mm	Handled	Bastard Cut		Wt. Per Shelf Pack			Shelf Pack
			Cat. No.	UPC No.	lb	oz	g	
8	200	No	21878	037103218780	2	1	936	6
8	200	Yes	21749	037103217493	2	4	1021	6
8	200	Ergonomic	21749H	037103167767	2	13	1276	6
10	250	Ergonomic	19427H	037103167774	2	15	1332	6

## Wood Rasps Round Bastard



- Used for same purpose as regular wood rasps in places for which their shapes make them particularly effective
- Round shape
- Bastard-cut
- Made from same size steel as round files

Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm				lb	oz	g	
8	200	5/16	8	Boxed	<b>19846</b>	037103198464	1	6	624	12
10	250	3/8	10	Boxed	<b>19875</b>	037103198754	3	4	1474	12

## Nicholson® X.F® Files Swiss Pattern

- Made to more exacting measurements than American pattern files
- Made in finer cuts, which vary from No. 00 (coarsest) to No. 6 (finest)
- Used by tool and die makers, jewelers, model makers and home craftsman
- Recommended for those who do superfine precision filing

## Barrette Files

### Swiss Pattern



- Double-cut, wide flat sides
- Flat on 1 side, backs are beveled on edges as indicated by cross section
- Back and beveled edges are safe
- Included angle is 33°

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
4	100	Boxed	<b>35025</b>	037103350251	00	0	9	255	12
4	100	Boxed	<b>35031</b>	037103350312	0	0	9	255	12
4	100	Boxed	<b>35037</b>	037103350374	1	0	9	255	12
4	100	Boxed	<b>35043</b>	037103350435	2	0	9	255	12
6	150	Boxed	<b>35055</b>	037103350558	00	1	5	595	12
6	150	Boxed	<b>35061</b>	037103350619	0	1	5	595	12
6	150	Boxed	<b>35073</b>	037103350732	2	1	5	595	12
8	200	Boxed	<b>35091</b>	037103350916	0	2	14	1304	6

## Barrette Files - Hot Die



- Double-cut, wide flat sides
- 3" and 4" have an approximate point thickness of .040"/1.10mm
- Same as regular barrette files except with thinner point

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
3	75	Boxed	<b>35108</b>	037103351081	00	0	3	85	12
3	75	Boxed	<b>35111</b>	037103351111	0	0	3	85	12
4	100	Boxed	<b>35114</b>	037103351142	00	0	9	255	12
4	100	Boxed	<b>35117</b>	037103351173	0	0	9	255	12

## Corrugating Files, Hand



- Made for corrugating edges of barber's shears and other edged tools
- Rectangular shape
- Designed to corrugate blade when stroked straight across (at right angles to blade)

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
6	150	Boxed	<b>36877</b>	037103368775	2	2	5	1049	12

## Corrugating Files, Pillar R.H.



- Made for corrugating edges of barber's shears and other edged tools
- Width narrower than hand file
- Used by placing file on shear blade as close as possible to pivot point and stroked with a motion forward and to right, allowing file to "track" and form corrugations

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
6	150	Boxed	<b>40436</b>	037103404367	2	1	10	737	12

## Corrugating Files, Pillar



- Made for corrugating edges of barber's shears and other edged tools
- Width narrower than hand file
- Designed to corrugate blade when stroked straight across (at right angles to blade)

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.		Shelf Pack
Inch	mm						oz	g	
8	200	Boxed	40471	037103404718	0	4	0	1814	6

## Crochet Files



- Used by tool and die makers, jewelers, model makers and home craftsman
- Thin rectangular shape
- Double-cut on flat sides and both edges
- Flat with 2 well-rounded edges
- Taper in both width and thickness

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.		Shelf Pack
Inch	mm						oz	g	
4	100	Boxed	35612	037103356123	2	0	7	198	12
6	150	Boxed	35632	037103356321	0	1	1	482	12
6	150	Boxed	35640	037103356406	2	1	1	482	12
8	200	Boxed	35660	037103356604	0	2	7	1106	6
8	200	Boxed	35668	037103356680	2	2	7	1106	6

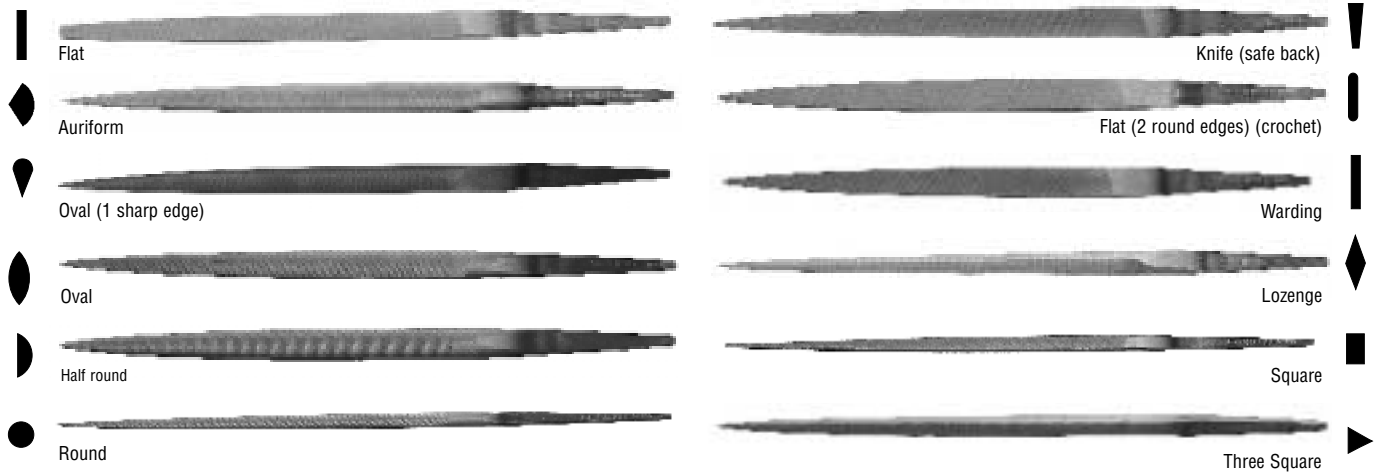
## Crossing Files



- Used by tool and die makers, jewelers, model makers and home craftsman
- Double-cut on both sides
- Made of double circular section, 1 side having same radius as the half file, opposite having flatter curve or larger radius
- Taper to point in both width and thickness

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.		Shelf Pack
Inch	mm						oz	g	
4	100	Boxed	35719	037103357199	2	0	10	284	12
6	150	Boxed	35739	037103357397	0	1	4	567	12
6	150	Boxed	35748	037103357489	2	1	4	567	12
8	200	Boxed	35778	037103357786	0	4	0	1814	6

# 3 1/2"/89mm Die Sinker's Files



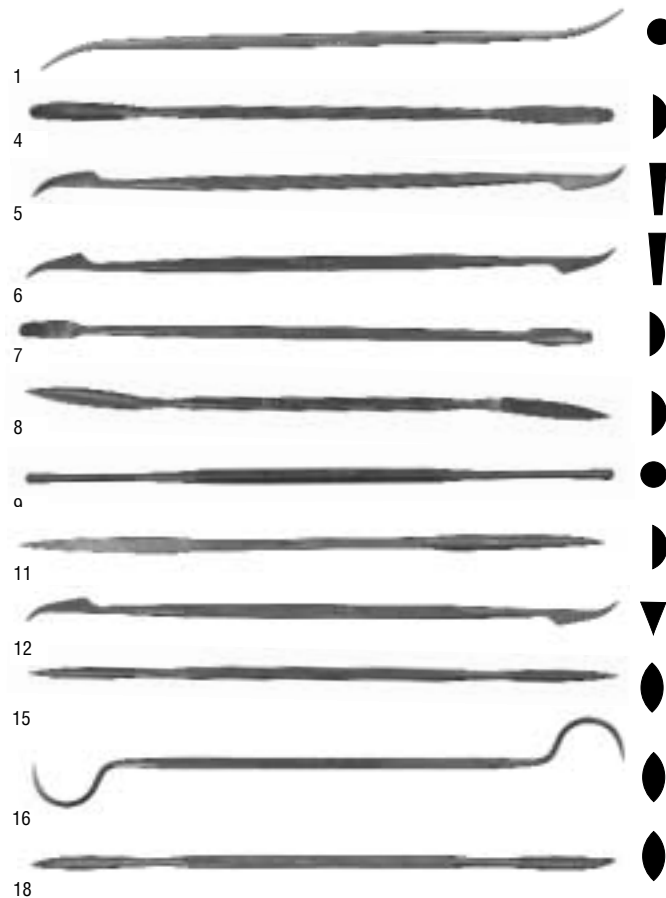
- Designed for use by die sinkers in dressing and finishing dies of all kinds
- Made in 12 shapes
- 3 1/2"/89mm long
- Assorted sets of 12 files supplied in plastic pouches

Shape	Cut No.	Size				Packed	Cat. No.	UPC No.	Wt. per doz.		Shelf Pack
		Inch	mm	x Inch	mm				oz	g	
-	0	Assorted set				Pouch	<b>35807</b>	037103358073	4	113	1
-	2	Assorted set				Pouch	<b>35812</b>	037103358127	4	113	1
Auriform	0	17/64	6.74	x 7/64	2.77	Boxed	<b>35829</b>	037103358295	4	113	12
Oval (1 sharp edge)	0	17/64	6.74	x 7/64	2.77	Boxed	<b>35841</b>	037103358417	4	113	12
Oval	0	17/64	6.74	x 7/64	2.77	Boxed	<b>35853</b>	037103358530	4	113	12
Half round	0	1/4	6.35	x 3/32	2.38	Boxed	<b>35865</b>	037103358653	4	113	12
Half round	2	1/4	6.35	x 3/32	2.38	Boxed	<b>35871</b>	037103358714	4	113	12
Round	2	1/8	3.17			Boxed	<b>35883</b>	037103358837	3	85	12
Knife	0	1/4	6.35	x 5/64	1.98	Boxed	<b>35889</b>	037103358899	3	85	12
(Safe back)				x 1/64	0.39						
Knife	2	1/4	6.35	x 5/64	1.98	Boxed	<b>35895</b>	037103358950	3	85	12
(Safe back)				x 1/64	0.39						
Warding	0	13/64	5.15	x 3/32	2.38	Boxed	<b>35913</b>	037103359131	4	113	12
Warding	2	13/64	5.15	x 3/32	2.38	Boxed	<b>35919</b>	037103359193	4	113	12
Lozenge	0	13/64	5.15	x 5/32	3.96	Boxed	<b>35925</b>	037103359254	4	113	12
Square	0	1/8	3.17			Boxed	<b>35937</b>	037103359377	3	85	12
Square	2	1/8	3.17			Boxed	<b>35943</b>	037103359438	3	85	12
Three Square	0	11/64	4.44			Boxed	<b>35949</b>	037103359490	3	85	12
Three Square	2	11/64	4.44			Boxed	<b>35955</b>	037103359551	3	85	12



### 6 1/2"/163mm Die Sinker's Rifflers

Style No.	Packed	Cat. No.	UPC No. 037103	Cut No.	Shelf Pack
Assorted	Boxed	<b>35961</b>	359612	0	1
Assorted	Boxed	<b>35966</b>	359667	2	1
1	Boxed	<b>35976</b>	359766	0	12
1	Boxed	<b>35982</b>	359827	2	12
4	Boxed	<b>35994</b>	359940	0	12
4	Boxed	<b>36000</b>	360007	2	12
5	Boxed	<b>36012</b>	360120	0	12
5	Boxed	<b>36018N</b>	360182	2	12
6	Boxed	<b>36036</b>	360366	2	12
7	Boxed	<b>36048</b>	360489	0	12
7	Boxed	<b>36054</b>	360540	2	12
8	Boxed	<b>36066</b>	360663	0	12
8	Boxed	<b>36072</b>	360724	2	12
9	Boxed	<b>36084</b>	360847	0	12
9	Boxed	<b>36090</b>	360908	2	12
11	Boxed	<b>36102</b>	361028	0	12
11	Boxed	<b>36108</b>	361080	2	12
12	Boxed	<b>36126</b>	361264	2	12
15	Boxed	<b>36138</b>	361387	0	12
16	Boxed	<b>36156</b>	361561	0	12
16	Boxed	<b>36162</b>	361622	2	12
18	Boxed	<b>36174</b>	361745	0	12
18	Boxed	<b>36180</b>	361806	2	12



- Used by tool and die makers, jewelers, model makers and home craftsman
- Made in shapes as illustrated

- Made in approximately 6 1/2"/165mm lengths and in cuts 0 and 2
- Each riffler identified by number

### Equaling Files



- Used by tool and die makers, jewelers, model makers and home craftsman
- Rectangular shape

- Double-cut on sides, single-cut on edges
- Parallel in both width and thickness for their entire length

Length		Packed	Cat. No.	UPC No. 037103	Cut No.	B&S Gauge	Cat. No.	UPC No. 037103	Wt. per doz.			Shelf Pack
Inch	mm								lb	oz	g	
4	100	Boxed	<b>36219</b>	362193	0	-	-	-	0	8	227	12
4	100	Boxed	<b>36227</b>	362278	2	-	-	-	0	8	227	12
4	100	Boxed	-	-	2	18 (.040")	<b>36321</b>	363213	0	8	227	12
4	100	Boxed	<b>36233</b>	362339	4	-	-	-	0	8	227	12
6	150	Boxed	<b>36239</b>	362391	00	-	-	-	1	5	595	12
6	150	Boxed	<b>36245</b>	362452	0	12 (.081")	<b>36353</b>	363534	1	5	595	12
6	150	Boxed	<b>36253</b>	362537	2	-	-	-	1	5	595	12
8	200	Boxed	<b>36273</b>	362735	0	-	-	-	3	5	1503	6
8	200	Boxed	<b>36281</b>	362810	2	-	-	-	3	5	1503	6



Half Round Files



- Used by tool and die makers, jewelers, model makers and home craftsman
- Half-round shape
- Double-cut on both flat and half-round sides
- Made in much finer cuts, which vary from No. 00 (coarsest) to No. 4 (finest)
- Taper in thickness and width to point

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
4	100	Boxed	36450	037103364500	00	0	8	227	12
4	100	Boxed	36456	037103364562	0	0	8	227	12
4	100	Boxed	36464	037103364647	2	0	8	227	12
4	100	Boxed	36476	037103364760	4	0	8	227	12
6	150	Boxed	36515	037103365156	00	1	3	539	12
6	150	Boxed	36521	037103365217	0	1	3	539	12
6	150	Boxed	36527	037103365279	1	1	3	539	12
6	150	Boxed	36533	037103365330	2	1	3	539	12
6	150	Boxed	36539	037103365392	3	1	3	539	12
6	150	Boxed	36545	037103365453	4	1	3	539	12
8	200	Boxed	36557	037103365576	00	2	10	1191	6
8	200	Boxed	36563	037103365637	0	2	10	1191	6
8	200	Boxed	36569	037103365699	1	2	10	1191	6
8	200	Boxed	36575	037103365750	2	2	10	1191	6
10	250	Boxed	36599	037103365996	0	5	10	2552	6
10	250	Boxed	36607	037103366078	2	5	10	2552	6

Hand Files



- Used by tool and die makers, jewelers, model makers and home craftsman
- Rectangular shape
- Double-cut sides
- Cut numbers 00, 0, 1 and 2 are single-cut on 1 edge, other is safe
- Cut No. 4 has 2 safe edges
- Parallel in width but taper in thickness

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
4	101	Boxed	36723	037103367235	2	0	14	397	12
6	150	Boxed	36743	037103367433	0	2	5	1049	12
6	150	Boxed	36749	037103367495	1	2	5	1049	12
6	150	Boxed	36755	037103367556	2	2	5	1049	12
8	200	Boxed	36779	037103367792	00	4	9	2070	6
8	200	Boxed	36785	037103367853	0	4	9	2070	6
8	200	Boxed	36797	037103367976	2	4	9	2070	6
8	200	Boxed	36805	037103368058	4	4	9	2070	6

### Half-round Clicking Die Files



- Used for work on rule or clicking dies
- Made in much finer cuts, which vary from No. 0 (coarsest) to No. 3 (finest)
- Double-cut on both flat and half-round sides
- Taper in thickness and width to point
- Half-round shape

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
6	150	Boxed	<b>36636</b>	037103366368	0	1	3	539	12
6	150	Boxed	<b>36648</b>	037103366481	2	1	3	539	12
6	150	Boxed	<b>36654</b>	037103366542	3	1	3	539	12

### Knife Files



- Used by tool and die makers, jewelers, model makers and home craftsman
- These files taper in width and thickness
- Double-cut on both sides
- Made from steel that is knife shaped, 10° sharp edge angle
- Supplied with safe backs

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
4	101	Boxed	<b>36933</b>	037103369338	00	0	7	198	12
4	101	Boxed	<b>36939</b>	037103369390	0	0	7	198	12
4	101	Boxed	<b>36951</b>	037103369512	2	0	7	198	12
6	150	Boxed	<b>36969</b>	037103369697	00	1	2	510	12
6	150	Boxed	<b>36975</b>	037103369758	0	1	2	510	12
6	150	Boxed	<b>36981</b>	037103369819	1	1	2	510	12
6	150	Boxed	<b>36987</b>	037103369871	2	1	2	510	12
8	200	Boxed	<b>37001</b>	037103370013	00	2	3	992	12
8	200	Boxed	<b>37007</b>	037103370075	0	2	3	992	12
8	200	Boxed	<b>37019</b>	037103370198	2	2	3	992	12

### Needle Files



- Used primarily by jewelers, die makers, watchmakers and fine toolmakers
- Available in 12 shapes, round handles
- All individual styles shelf pack 12, all assortments of 12, shelf pack 1
- Knurled handles
- In 4"/101mm lengths, oval is furnished instead of crossing
- Come with protective plastic pouches when purchased in assortments

**Chart on facing page.**

Needle Files

Cat. No.	UPC No. 037103	Length		Cut
		Inch	mm	
Assortment				
<b>37029</b>	370297	4	100	0
<b>37035</b>	370358	4	100	2
Barrette				
<b>37277</b>	372772	4	100	0
<b>37284</b>	372840	4	100	2
Equaling				
<b>37249</b>	372499	4	100	0
<b>37256</b>	372567	4	100	2
Flat				
<b>37109</b>	371096	4	100	0
<b>37116</b>	371164	4	100	2
Half round				
<b>37081</b>	370815	4	100	0
<b>37088</b>	370884	4	100	2
Joint (2 round edges)				
<b>37305</b>	373052	4	100	0
<b>37312</b>	373120	4	100	2
Knife (safe back)				
<b>37165</b>	371652	4	100	0
<b>37172</b>	371720	4	100	2
Marking (safe on flat side)				
<b>37361</b>	373618	4	100	0
Oval				
<b>37137</b>	371379	4	100	0
Round				
<b>37053</b>	370532	4	100	0
<b>37060</b>	370600	4	100	2
Slitting				
<b>37333</b>	373335	4	100	0
Square				
<b>37193</b>	371935	4	100	0
<b>37200</b>	372000	4	100	2
Three square				
<b>37221</b>	372215	4	100	0
<b>37228</b>	372284	4	100	2
Assortment				
<b>37392</b>	373922	5 1/2	140	0
<b>37398</b>	373984	5 1/2	140	2
<b>37404</b>	374042	5 1/2	140	4
Barrette				
<b>37640</b>	376404	5 1/2	140	0
<b>37647</b>	376473	5 1/2	140	2
<b>37654</b>	376541	5 1/2	140	4
Crossing				
<b>37500</b>	375001	5 1/2	140	0
<b>37507</b>	375070	5 1/2	140	2
<b>37514</b>	375148	5 1/2	140	4

Cat. No.	UPC No. 037103	Length		Cut
		Inch	mm	
Equaling				
<b>37612</b>	376121	5 1/2	140	0
<b>37619</b>	376190	5 1/2	140	2
<b>37626</b>	376268	5 1/2	140	4
Flat				
<b>37472</b>	374721	5 1/2	140	0
<b>37479</b>	374790	5 1/2	140	2
<b>37486</b>	374868	5 1/2	140	4
Half Round				
<b>37444</b>	374448	5 1/2	140	0
<b>37451</b>	374516	5 1/2	140	2
<b>37458</b>	374585	5 1/2	140	4
Joint (2 round edges)				
<b>37668</b>	376688	5 1/2	140	0
<b>37675</b>	376756	5 1/2	140	2
Knife (safe back)				
<b>37528</b>	375285	5 1/2	140	0
<b>37535</b>	375353	5 1/2	140	2
<b>37542</b>	375421	5 1/2	140	4
Marking (safe on flat side)				
<b>37724</b>	377241	5 1/2	140	0
<b>37731</b>	377319	5 1/2	140	2
Round				
<b>37416</b>	374165	5 1/2	140	0
<b>37423</b>	374233	5 1/2	140	2
<b>37430</b>	374301	5 1/2	140	4
Slitting				
<b>37696</b>	376961	5 1/2	140	0
<b>37703</b>	377036	5 1/2	140	2
<b>37710</b>	377104	5 1/2	140	4
Square				
<b>37556</b>	375568	5 1/2	140	0
<b>37563</b>	375636	5 1/2	140	2
<b>37570</b>	375704	5 1/2	140	4
Three square				
<b>37584</b>	375841	5 1/2	140	0
<b>37591</b>	375919	5 1/2	140	2
<b>37598</b>	375988	5 1/2	140	4
Assortment				
<b>37755</b>	377555	6 1/4	159	0
<b>37761</b>	377616	6 1/4	159	2
<b>37767</b>	377678	6 1/4	159	4
<b>37773</b>	377739	6 1/4	159	6
Barrette				
<b>38003</b>	380036	6 1/4	159	0
<b>38010</b>	380104	6 1/4	159	2
<b>38017</b>	380173	6 1/4	159	4
<b>38024</b>	380241	6 1/4	159	6
Crossing				
<b>37863</b>	378637	6 1/4	159	0
<b>37870</b>	378705	6 1/4	159	2
<b>37884</b>	378842	6 1/4	159	6

Cat. No.	UPC No. 037103	Length		Cut
		Inch	mm	
Equaling				
<b>37975</b>	379757	6 1/4	159	0
<b>37982</b>	379825	6 1/4	159	2
<b>37989</b>	379894	6 1/4	159	4
<b>37996</b>	379962	6 1/4	159	6
Flat				
<b>37835</b>	378354	6 1/4	159	0
<b>37842</b>	378422	6 1/4	159	2
<b>37849</b>	378491	6 1/4	159	4
<b>37856</b>	378569	6 1/4	159	6
Half Round				
<b>37807</b>	378071	6 1/4	159	0
<b>37814</b>	378149	6 1/4	159	2
<b>37821</b>	378217	6 1/4	159	4
<b>37828</b>	378286	6 1/4	159	6
Joint (2 round edges)				
<b>38031</b>	380319	6 1/4	159	0
<b>38038</b>	380388	6 1/4	159	2
<b>38045</b>	380456	6 1/4	159	4
<b>38052</b>	380524	6 1/4	159	6
Knife (safe back)				
<b>37891</b>	378910	6 1/4	159	0
<b>37898</b>	378989	6 1/4	159	2
<b>37905</b>	379054	6 1/4	159	4
<b>37912</b>	379122	6 1/4	159	6
Marking (safe on flat side)				
<b>38087</b>	380876	6 1/4	159	0
<b>38094</b>	380944	6 1/4	159	2
<b>38101</b>	381019	6 1/4	159	4
<b>38108</b>	381088	6 1/4	159	6
Round				
<b>37779</b>	377791	6 1/4	159	0
<b>37786</b>	377869	6 1/4	159	2
<b>37793</b>	377937	6 1/4	159	4
<b>37800</b>	378002	6 1/4	159	6
Slitting				
<b>38059</b>	380593	6 1/4	159	0
<b>38066</b>	380661	6 1/4	159	2
<b>38073</b>	380739	6 1/4	159	4
<b>38080</b>	380807	6 1/4	159	6
Square				
<b>37919</b>	379191	6 1/4	159	0
<b>37926</b>	379269	6 1/4	159	2
<b>37933</b>	379337	6 1/4	159	4
<b>37940</b>	379405	6 1/4	159	6
Three square				
<b>37947</b>	379474	6 1/4	159	0
<b>37954</b>	379542	6 1/4	159	2
<b>37961</b>	379610	6 1/4	159	4
<b>37968</b>	379689	6 1/4	159	6

# Needle Files - Round Handle

Hot die - barrette shape only



- Barrette shape only
- Same as regular round handle needle barrette except with thinner points
- 5 1/2"/140 mm has .039"/1.0mm thickness,
- 6 1/4"/159 mm has .044"/1.10mm thickness

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
5 1/2	140	Boxed	<b>37752</b>	037103377524	0	4	113	12	
6 1/4	159	Boxed	<b>38115</b>	037103381156	0	6	170	12	

# 8"/203mm Parallel Machine Files



- Made for filing machines of the Oliver, Harvey, Butterfly Cochrane-Bly types
- Available in 6 shapes
- Made in cut No. 00
- Direction of cutting stroke is towards shank

Inch	Size		Type	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack		
	mm	x					mm	lb	oz		g	
3/16	4.76	-	-	Round	Boxed	<b>38917</b>	037103389176	0	12	340	12	
1/4	6.35	-	-	Round	Boxed	<b>38929</b>	037103389299	1	4	567	12	
3/8	9.52	-	-	Round	Boxed	<b>38953</b>	037103389534	2	12	1247	12	
1/4	6.35	x	1/8	3.17	Half round	Boxed	<b>38993</b>	037103389930	0	12	340	12
3/8	9.52	x	3/16	4.76	Half round	Boxed	<b>39005</b>	037103390059	1	7	652	12
15/32	11.90	-	-	Knife (safe back)	Boxed	<b>39093</b>	037103390936	0	14	397	12	
3/8	9.52	x	1/16	1.58	Equaling (or warding)	Boxed	<b>39205</b>	037103392053	0	11	312	12
1/4	6.35	-	-	Three square	Boxed	<b>39229</b>	037103392299	0	15	425	12	
3/8	9.52	-	-	Three square	Boxed	<b>39241</b>	037103392411	1	14	851	12	

Pillar Files



- Rectangular in shape
- Double-cut on 2 sides only
- Safe edges
- Tapered in thickness
- Similar in shape to hand files but only 2/3 as wide

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.		Shelf Pack
Inch	mm						oz	g	
4	100	Boxed	39855	037103398550	00	0	10	284	12
4	100	Boxed	39861	037103398611	0	0	10	284	12
4	100	Boxed	39873	037103398734	2	0	10	284	12
4	100	Boxed	39881	037103398819	4	0	10	284	12
6	150	Boxed	39893	037103398932	00	1	10	737	12
6	150	Boxed	39899	037103398994	0	1	10	737	12
6	150	Boxed	39905	037103399052	1	1	10	737	12
6	150	Boxed	39911	037103399113	2	1	10	737	12
6	150	Boxed	39923	037103399236	4	1	10	737	12
8	200	Boxed	39929	037103399298	00	3	8	1588	6
8	200	Boxed	39935	037103399359	0	3	8	1588	6
8	200	Boxed	39941	037103399410	1	3	8	1588	6
8	200	Boxed	39947	037103399472	2	3	8	1588	6
8	200	Boxed	39959	037103399595	4	3	8	1588	6
10	250	Boxed	39965	037103399656	00	6	3	2807	6
10	250	Boxed	39971	037103399717	0	6	3	2807	6
12	300	Boxed	39992	037103399922	00	9	12	4137	6

Pillar Narrow Files



- Rectangular shape
- Narrow
- Double-cut on 2 sides only
- Safe edges
- Similar to pillar files but are narrower for their length

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.		Shelf Pack
Inch	mm						oz	g	
4	100	Boxed	40037	037103400376	0	0	8	227	12
4	100	Boxed	40049	037103400499	2	0	8	227	12
6	150	Boxed	40070	037103400703	00	1	4	567	12
6	150	Boxed	40076	037103400765	0	1	4	567	12
6	150	Boxed	40082	037103400826	1	1	4	567	12
6	150	Boxed	40088	037103400888	2	1	4	567	12
6	150	Boxed	40097	037103400970	4	1	4	567	12
8	200	Boxed	40115	037103401151	0	2	10	1191	6
8	200	Boxed	40121	037103401212	1	2	10	1191	6
8	200	Boxed	40127	037103401274	2	2	10	1191	6

## Pillar Extra Narrow Files



- Cut on 2 sides only
- Safe edges
- Similar to pillar and pillar narrow files but are narrower for their length

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.			Shelf Pack
Inch	mm						oz	g		
4	100	Boxed	<b>40204</b>	037103402042	00	0	5	142	12	
4	100	Boxed	<b>40210</b>	037103402103	0	0	5	142	12	
4	100	Boxed	<b>40222</b>	037103402226	2	0	5	142	12	
6	150	Boxed	<b>40242</b>	037103402424	00	0	13	369	12	
6	150	Boxed	<b>40248</b>	037103402486	0	0	13	369	12	
6	150	Boxed	<b>40254</b>	037103402547	1	0	13	369	12	
6	150	Boxed	<b>40260</b>	037103402608	2	0	13	369	12	
6	150	Boxed	<b>40269</b>	037103402691	4	0	13	369	12	
8	200	Boxed	<b>40281</b>	037103402813	00	1	15	879	12	
8	200	Boxed	<b>40287</b>	037103402875	0	1	15	879	12	
10	250	Boxed	<b>40314</b>	037103403148	00	3	11	1673	12	

## Pillar and Pillar Narrow Testing Files



- Made for testing, not stock removal
- Width narrower than hand file
- Specially shaped teeth have been specially heat treated
- Similar to regular Nicholson® product in shape only

Length		Packed	Description	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm						lb	oz	g	
6	150	Boxed	Pillar Testing	<b>40406</b>	037103404060	1	1	10	737	12
8	200	Boxed	Pillar Narrow Testing	<b>40412</b>	037103404121	0	2	10	1191	6
8	200	Boxed	Pillar Narrow Testing	<b>40418</b>	037103404183	1	2	10	1191	6

## Hardness Testing With Pillar Testing Files

- Each file must bite this piece of steel in good shape
- Each file is tested on a certified prover that registers C63-65 Rockwell
- Nicholson® files are made to a standard and are uniform
- Good judgment will keep file from becoming dull
- Files are for testing only
- To preserve and prolong quality, file should be removed from work as soon as biting occurs
- If file does not bite, work is too hard for file
- Pieces of steel or samples of product with proper hardness and temper are often used as gauges for comparison
- Hardness testing files are used to a large extent by manufacturers of taps, drills, bits,reamers, ball bearings, gears

Pippin Files



- Rounded back tapers to sharp edge
- Also taper to point in both width and thickness
- Sometimes called “Apple Seed” files

Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
4	100	Boxed	40486	037103404862	2	0	7	198	12
6	150	Boxed	40500	037103405005	0	1	1	482	12
6	150	Boxed	40506	037103405067	2	1	1	482	12
8	200	Boxed	40512	037103405128	00	1	13	822	12
8	200	Boxed	40518	037103405180	0	1	13	822	12
8	200	Boxed	40524	037103405241	2	1	13	822	12

Round Files



- Round shape
- Double-cut
- Taper throughout length to fine point

Lengt h		Diameter		Packed	Cat. No.	UPC No.	Cut No	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm					lb	oz	g	
4	100	1/8	3	Boxed	40574	037103405746	00	0	4	113	12
4	100	1/8	3	Boxed	40580	037103405807	0	0	4	113	12
4	100	1/8	3	Boxed	40592	037103405920	2	0	4	113	12
6	150	3/16	4.76	Boxed	40645	037103406453	00	0	11	312	12
6	150	3/16	4.76	Boxed	40651	037103406514	0	0	11	312	12
6	150	3/16	4.76	Boxed	40657	037103406576	1	0	11	312	12
6	150	3/16	4.76	Boxed	40663	037103406637	2	0	11	312	12
6	150	3/16	4.76	Boxed	40675	037103406750	4	0	11	312	12
8	200	1/4	6	Boxed	40687	037103406873	00	1	5	595	12
8	200	1/4	6	Boxed	40693	037103406934	0	1	5	595	12
8	200	1/4	6	Boxed	40699	037103406996	1	1	5	595	12
8	200	1/4	6	Boxed	40705	037103407054	2	1	5	595	12
8	200	1/4	6	Boxed	40717	037103407177	4	1	5	595	12
10	250	21/64	8.3	Boxed	40729	037103407290	0	2	11	1219	12
10	250	21/64	8.3	Boxed	40741	037103407412	2	2	11	1219	12

### Round Straight Files



- Round shape
- Double-cut
- Made from same size steel as round files but are parallel throughout length

Length		Diameter		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
Inch	mm	Inch	mm					lb	oz	g	
4	100	1/8	3	Boxed	<b>40765</b>	037103407658	0	0	4	113	12
6	150	3/16	4.76	Boxed	<b>40789</b>	037103407894	0	0	14	397	12
8	200	1/4	6	Boxed	<b>40813</b>	037103408136	0	1	12	794	12

### Screw Head Files



- Used primarily by watchmakers and jewelers
- Made for enlarging and cleaning out slots in heads of screws

Length		Packed	Cat. No.	UPC No.	lb	Wt. per doz.		Shelf Pack
Inch	mm					oz	g	
3	50	Boxed	<b>40972</b>	037103409720	0	3	85	12

### Slitting Files



- Double-cut on four sides, single-cut on two sharp edges
- Made of double angular section, included angle between sides being approximately 18°

Length		Packed	Cat. No.	UPC No.	Cut No.	lb	Wt. per doz.		Shelf Pack
Inch	mm						oz	g	
4	100	Boxed	<b>41138</b>	037103411389	2	0	6	170	12
6	150	Boxed	<b>41144</b>	037103411440	0	0	14	397	12
6	150	Boxed	<b>41150</b>	037103411501	2	0	14	397	12



# 7 1/2"/190mm Silversmith's Rifflers



- Available in 12 shapes
- Made in approximately 7 1/8"/180mm lengths only
- Ideal for fine work

Length		Packed	Cat. No.	UPC No.	Shape	Cut No.	Shelf Pack
Inch	mm						
7 1/2	190	Boxed	40978	037103409782	Assorted	0	1
7 1/2	190	Boxed	40983	037103409836	Assorted	2	1
7 1/2	190	Boxed	40988	037103409881	1	0	12
7 1/2	190	Boxed	40994	037103409942	1	2	12
7 1/2	190	Boxed	41000	037103410009	2	0	12
7 1/2	190	Boxed	41006	037103410061	2	2	12
7 1/2	190	Boxed	41012	037103410122	3	0	12
7 1/2	190	Boxed	41018	037103410184	3	2	12
7 1/2	190	Boxed	41030	037103410306	4	2	12
7 1/2	190	Boxed	41048	037103410481	6	0	12
7 1/2	190	Boxed	41054	037103410542	6	2	12
7 1/2	190	Boxed	41066	037103410665	7	2	12
7 1/2	190	Boxed	41072	037103410726	8	0	12
7 1/2	190	Boxed	41078N	037103410788	8	2	12
7 1/2	190	Boxed	41084	037103410849	9	0	12
7 1/2	190	Boxed	41090	037103410900	9	2	12
7 1/2	190	Boxed	41096	037103410962	10	0	12
7 1/2	190	Boxed	41102	037103411020	10	2	12
7 1/2	190	Boxed	41108	037103411082	11	0	12
7 1/2	190	Boxed	41120	037103411204	12	0	12
7 1/2	190	Boxed	41126	037103411266	12	2	12

### Square Files



- Square in section and taper on all four sides
- Double-cut

Inch	Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
	mm						lb	oz	g	
4	100		Boxed	<b>41184</b>	037103411846	0	0	4	113	12
4	100		Boxed	<b>41196</b>	037103411969	2	0	4	113	12
6	150		Boxed	<b>41210</b>	037103412102	00	0	10	284	12
6	150		Boxed	<b>41216</b>	037103412164	0	0	10	284	12
6	150		Boxed	<b>41228N</b>	037103412287	2	0	10	284	12
8	200		Boxed	<b>41243</b>	037103412430	00	1	8	680	12
8	200		Boxed	<b>41249</b>	037103412492	0	1	8	680	12

### Three Square Files



- Triangular in section with angles of 60°
- Double-cut on three sides, single-cut on edges
- Taper to point and have sharp corners

Inch	Length		Packed	Cat. No.	UPC No.	Cut No.	Wt. per doz.			Shelf Pack
	mm						lb	oz	g	
4	100		Boxed	<b>41448</b>	037103414489	00	0	6	170	12
4	100		Boxed	<b>41454</b>	037103414540	0	0	6	170	12
4	100		Boxed	<b>41466</b>	037103414663	2	0	6	170	12
6	150		Boxed	<b>41480</b>	037103414809	00	1	10	737	12
6	150		Boxed	<b>41486</b>	037103414861	0	1	10	737	12
6	150		Boxed	<b>41492</b>	037103414922	1	1	10	737	12
6	150		Boxed	<b>41498</b>	037103414984	2	1	10	737	12
6	150		Boxed	<b>41506</b>	037103415066	4	1	10	737	12
8	200		Boxed	<b>41518</b>	037103415189	0	2	10	1191	12
8	200		Boxed	<b>41524</b>	037103415240	1	2	10	1191	12
8	200		Boxed	<b>41530</b>	037103415301	2	2	10	1191	12

Warding Files



- Used by locksmiths and anywhere a thin file is required
- Thin rectangular in section with thickness approximately 1/8 their width
- Taper slightly to point in width

Length		Packed	Cat. No.	UPC No. 037103	Cut No.	B&S Gauge	Cat. No.	UPC No. 037103	Wt. per doz.			Shelf Pack
Inch	mm								lb	oz	g	
4	100	Boxed	41576	415769	00	-	-	-	0	5	142	12
4	100	Boxed	41582	415820	0	-	-	-	0	5	142	12
4	100	Boxed	41588N	415882	2	-	-	-	0	5	142	12
6	150	Boxed	41606	416063	00	-	-	-	0	13	369	12
6	150	Boxed	41612	416124	0	16 (.051")	41775	417756	0	13	369	12
6	150	Boxed	41618	416186	2	-	-	-	0	13	369	12
6	150	Boxed	41624	416247	4	-	-	-	0	13	369	12
8	200	Boxed	41636	416360	00	-	-	-	1	10	737	12
8	200	Boxed	41642	416421	0	-	-	-	1	10	737	12
8	200	Boxed	41648N	416483	2	-	-	-	1	10	737	12

Nicholson® Curved Tooth Files

- Made on specially designed and improved Nicholson® machinery
- Fitted for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of annealed tool steel
- Pitch and rake designed to avoid pinning and to provide smoothest finish
- Superior® milled tooth files

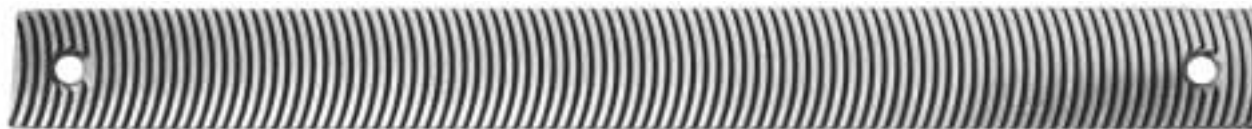
Flexible Files (Without Tang)



- Ideal for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of annealed tool steel
- Rectangular shape
- Curved-cut
- Pitch and rake designed to avoid pinning and to provide smoothest finish

Length		Packed	Cat. No.	UPC No.	No. of Teeth Per Inch/Cut	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
8	200	Boxed	20046	037103200464	14/Standard	2	9	1162	12
12	300	Boxed	20138	037103201386	10/Standard	5	8	2495	6
14	350	Boxed	20205	037103202055	12/Fine	7	1	3204	6
14	350	Boxed	20222	037103202222	15/Smooth	7	1	3204	6

### Milled Tooth Bodifiles



- Ideal for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of annealed tool steel
- Rectangular shape
- Curved-cut
- Pitch and rake designed to avoid pinning and to provide smoothest finish

Length Inch	mm	Cut	Packed	Cat. No.	UPC No.	No. of Teeth Per Inch/Cut	Wt. per doz.			Shelf Pack
							lb	oz	g	
14	350	50-907	Boxed	<b>21320</b>	037103213204	7	7	1	3204	6
14	350	50-908	Boxed	<b>20189</b>	037103201898	8/Standard	7	1	3204	6
14	350	50-912	Boxed	<b>21361</b>	037103213617	12 Radius edges	7	1	3204	6

### Flat Files - Rigid Type (With Tang)



- Ideal for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of annealed tool steel
- Rectangular shape
- Curved-cut
- Rigid type with tang
- Pitch and rake designed to avoid pinning and to provide smoothest finish

Length Inch	mm	Packed	Cat. No.	UPC No.	No. of Teeth Per Inch/Cut	Wt. per doz.			Shelf Pack
						lb	oz	g	
8	200	Boxed	<b>20239</b>	037103202390	14/Standard	2	12	1247	12
10	250	Boxed	<b>20291</b>	037103202918	12/Standard	5	14	2665	6
12	300	Boxed	<b>20342</b>	037103203427	10/Standard	9	5	4224	6
14	350	Boxed	<b>20393</b>	037103203939	8/Standard	14	14	6747	6

### Flat Babbit Files



- Ideal for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of annealed tool steel
- Rectangular shape
- Curved-cut
- Exactly like flat files in shape, dimension and weight, but fewer teeth per inch
- Pitch and rake designed to avoid pinning and to provide smoothest finish

Length Inch	mm	Packed	Cat. No.	UPC No.	No. of Teeth Per Inch	Wt. per doz.			Shelf Pack
						lb	oz	g	
12	300	Boxed	<b>20479</b>	037103204790	8	9	4	4196	6
14	350	Boxed	<b>20496</b>	037103204967	7	14	12	6691	6

**Flat Utility Files**



- Ideal for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of commercial tool steel
- Rectangular shape
- Standard-cut teeth on 1 side, smooth-cut teeth on the opposite
- Pitch and rake designed to avoid pinning and to provide smoothest finish

Length		Packed	Cat. No.	UPC No.	No. of Teeth Per Inch	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
12	300	Boxed	<b>20547</b>	037103205476	10 and 16	10	3	4621	6
14	350	Boxed	<b>20564</b>	037103205643	8 and 15	16	13	7626	6

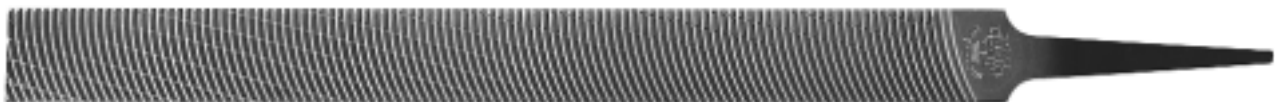
**Half Round Files**



- Ideal for smooth, rapid work on cast iron, bronze, lead, babbitt, aluminum, zinc, plastics and any steel up to the hardness of commercial tool steel
- Half-round shape
- Flat on 1 side, convex on opposite
- Particularly adapted for bearings and concave surfaces

Length		Packed	Cat. No.	UPC No.	No. of Teeth Per Inch/Cut	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
8	200	Boxed	<b>20582</b>	037103205827	14/Standard	3	8	1588	12
10	250	Boxed	<b>20624</b>	037103206244	12/Standard	6	5	2863	6
12	300	Boxed	<b>20667</b>	037103206671	10/Standard	11	5	5131	6
14	350	Boxed	<b>20703</b>	037103207036	9/Standard	17	9	7966	6

**Super Shear®**



- A double purpose milled curved tooth file - different and exclusive with Nicholson®
- Rectangular shape
- Curved-cut
- Teeth cut in an off center arc to permit fast cutting
- Wide industrial usage on flat and convex surfaces of aluminum, brass, babbitt, bronze, copper, magnesium, iron, annealed steel, soft metal alloys, plastics, hard rubber and hardwood
- Smooths as it roughs

Length		Packed	Cat. No.	UPC No.	No. of Teeth Per Inch/Cut	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
8	200	Boxed	<b>21016</b>	037103210166	14/Standard	2	12	1247	12
10	250	Boxed	<b>21067</b>	037103210678	12/Standard	5	14	2665	6
12	300	Boxed	<b>21118</b>	037103211187	10/Standard	9	5	4224	6
14	350	Boxed	<b>21169</b>	037103211699	8/Standard	17	0	7711	6

## Adjustable Flexible File Holder No. 25



- Can be used with either 12" or 14" files
- Easily adjusted for curving file outward or inward

No.	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
				lb	oz	g	
25	Boxed	21272	037103212726	2	0	907	1

## Machinist's Scrapers (Handled)



- Overall length of these tools including handle is approximately 8"
- Three square shape is supplied in hollow ground with 60° angle
- Comes with handle
- Packed 6 in box

Length		Dimensions				Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack	
Inch	mm	Inch	mm	x	Inch				mm	lb	oz		g
8	200	3 1/4	82	x	3/8	10	Boxed	21667	037103216670	1	14	851	6



## Metal Ferruled Wooden Handles



- Made from close grain hardwood with nickel-plated ferrules
- Wax finish
- Handles have strong metal ferrules

### Selection Chart

Item	Size -	4"	5"	6"	7"	8"	9"	10"
Taper		4	3	3	3	2	1	1
Slim		4	4	4	4	3	-	2
X Slim		4	4	4	4	4	-	-
XX Slim		-	4	4	4	4	-	-

Item	Size -	8 x 3/16	8 x 7/32	8 x 1/4	8 x 5/16	8 x 3/8
Chainsaw		4	4	4	4	3

Item	Size -	4"	6"	8"	10"	12"	14"
Mill		3	2	2	0	0	00
Flat		3	2	2	0	0	00
Hand		3	2	1	1	0	-
Half round		4	3	2	1	00	000
Warding		3	3	2	1	-	-
Knife		3	2	2	1	0	-
Round		4	4	3	3	1	0
Square		4	4	3	2	1	0
Cantsaw		-	3	2	1	-	-
Crosscut		-	-	1	0	-	-
Tanged horse rasp		-	-	-	-	000	000
Platers Special		-	-	-	-	-	000

Handle No.	Type	Packed	Cat. No.	UPC No. 037103	Approximate size				Wt. per doz.			Shelf Pack	
					Inch	mm	x	Inch	mm	lb	oz		g
000	-	Boxed	21470	214706	5 3/4	146	x	1 5/8	42	2	6	1179	12
00	-	Boxed	21471	214713	5 3/4	146	x	1 5/8	42	2	3	1048	12
0	-	Boxed	21476	214768	5 1/4	133	x	1 1/2	38	2	0	907	12
0	E	Carded	21528	215284	5 1/4	133	x	1 1/2	38	2	3	1048	6
1	-	Boxed	21485	214850	4 7/8	124	x	1 5/16	33	1	10	737	12
1	D	Carded	21526	215260	4 7/8	124	x	1 5/16	33	1	14	851	6
2	-	Boxed	21494	214942	4 1/2	114	x	1 3/16	30	1	4	567	12
2	C	Carded	21524	215246	4 1/2	114	x	1 3/16	30	1	8	680	6
3	-	Boxed	21503	215031	4 1/8	105	x	1 1/16	27	1	0	454	12
3	B	Carded	21522	215222	4 1/8	105	x	1 1/16	27	1	4	567	6
4	-	Boxed	21511	215116	3 3/4	95	x	1 5/16	24	0	12	340	12
4	A	Carded	21520	215208	3 3/4	95	x	1 5/16	24	0	15	425	6



**Ergonomic Handles**

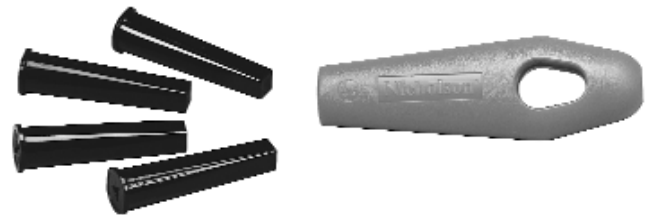
- Interchangeable cushion inserts are designed to fit most popular files
- Rubber-coated ergonomic shape for better comfort and control
- Rear taper, wide middle and flared neck increases push force



Description	Packed	Cat. No.	UPC No.	Wt. per Shelf Pack			Shelf Pack
				lb	oz	g	
Ergonomic File handle and inserts	Carded	21474H	037103186232	.8	12	340	6

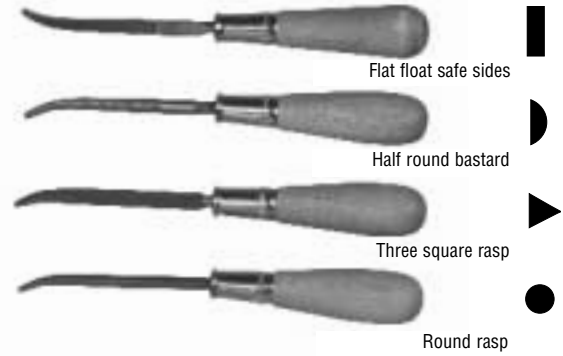
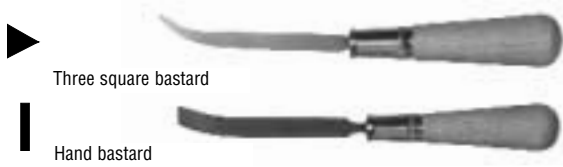
**Carded File Handle - Plastic**

- Interchangeable cushion inserts designed to fit most popular files for handyman
- Handle made of strong high-impact material, contoured to fit hand for straight, lathe and draw filing
- Non-slip textured finish for easier grip



Description	Packed	Cat. No.	UPC No.	Wt. per Shelf Pack			Shelf Pack
				lb	oz	g	
File handle and inserts	Carded	21474	037103214744	1	2	510	6

## Bent Rifflers (Handled)



- Used primarily by woodcarvers, metal and stone workers for shaping and finishing
- Made in 6 different shapes and styles of cuts
- Overall length of tools, including handle, is approximately 7 3/4"
- Available in assortment of 6

Length		Description	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
7 3/4	197	Assortment of 6	Boxed	21450	037103214508	0	14	397	6

## File Cleaners



- Available in two styles - file card for general cleaning of file teeth and file card/brush especially for use on finer cut files

Length		Description	Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
Inch	mm					lb	oz	g	
8	200	File Card #4	Carded	21455	037103214553	1	12	794	6
10	250	File Card	Boxed	21458	037103214584	3	11	1673	10
10	250	File Card & Brush	Boxed	21467	037103214676	5	0	2268	6

**Butcher Steel**

- Magnetized steel to collect chips
- Threaded tang and serrated teeth
- Walnut-stained hardwood handle
- Chrome-plated solid ring and guard
- High carbon harden steel



Code No.	Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm	Inch	mm				lb	oz	g	
7A	12	300	5/8	16	Boxed	23333	037103233332	14	0	6350	6
8A	14	350	5/8	16	Boxed	23392	037103233929	15	8	7031	6

**Household Steel**

- Economy household steel for general kitchen use
- Magnetized steel to collect chips
- Serrated cut
- Hanghole



Code No.	Length		Diameter		Packed	Cat. No.	UPC No.	Wt. per doz.			Shelf Pack
	Inch	mm	Inch	mm				lb	oz	g	
45	10	250	3/8	10	Boxed	23769	037103237699	4	5	1956	6

**Hobby Files**

- Selection of 6 miniature files with fine cut for intricate work
- Available individually or in assortments of 6
- Handy vinyl case vacuum packed on hang up card
- Ideal for handycrafts and hobbies



Inch	Length		Description	Packed	Cat. No.	UPC No.	lb	Pack Wt.		Shelf Pack
	mm							oz	g	
5 1/2	140		Equaling	Carded	42001	037103420015	1	2	510	12
5 1/2	140		Half Round	Carded	42010	037103420107	1	2	510	12
5 1/2	140		Flat	Carded	42005	037103420053	1	2	510	12
5 1/2	140		Round	Carded	42015	037103420152	1	2	510	12
5 1/2	140		Three Square	Carded	42025	037103420251	1	2	510	12
5 1/2	140		Assorted	Carded	42030	037103420305	0	12	340	3

## Handy Man's Home File Pack



- For home and professional use
- 8"/200mm mill bastard file
- 8"/200mm four-in-hand file
- 6"/150mm slim taper file
- 6"/150mm round bastard file
- Plastic pouch, or card, lists suggested uses for each file
- Pack measures 5"/125mm x 11 1/8"/293mm with hang up hole

Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22017	037103220172	Pouch	4	8	2041	5
22019	037103220196	Carded	5	3	2353	5

## 3 File Pack



- For home and professional use
- Pack contains files for every purpose
- 6"/150mm slim taper file
- 6"/150mm round file
- 6"/150mm mill bastard file
- Plastic pouch lists suggested uses for each file
- Pack measures 3 1/2"/88mm x 9 1/2"/237mm with hang up hole

Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22015	037103220158	Pouch	0	5	142	5

## 4"/100mm American Pattern File Assortment



- 4" warding, half-round, round, hand, square and slim taper files
- All files come with handles
- Kits come in bastard-cut, second-cut and smooth-cut
- Six of the most popular 4" files packaged in an attractive plastic pouch

Length		Description	Packed	Cat. No.	UPC No.	Pack Wt.		Shelf Pack	
Inch	mm					lb	oz		g
4	100	Assortment-Bastard cut	Pouch	22062	037103220622	0	12	340	2
4	100	Assortment-Second cut	Pouch	22069	037103220691	0	12	340	2
4	100	Assortment-Smooth cut	Pouch	22076	037103220769	0	12	340	2

## 8 Piece Machinist File Set

- 10"/250mm mill bastard file
- 10"/250mm half-round bastard file
- 10"/250mm flat bastard file
- 10"/250mm flat smooth file
- 10"/250mm square bastard file
- 10"/250mm round bastard file
- 7"/175mm slim taper file
- 10"/250mm file cleaner (card)
- Complete set of 7 files and file cleaner (card) fits easily and securely into a rugged, compact pouch



Cat. No.	UPC No.	Packed	lb	Pack Wt.			Shelf Pack
				oz	g		
22025	037103220257	Pouch	3	8	1588	1	

## 9 Piece Maintenance File Set

- For home and professional use
- 10"/250mm flat bastard file
- 10"/250mm flat smooth file
- 10"/250mm mill bastard file
- 10"/250mm half-round bastard file
- 10"/250mm round bastard file
- 8"/200mm flat smooth file
- 8"/200mm half-round bastard file
- 8"/200mm four-in-hand file
- 6"/150mm slim taper file
- Complete set of 9 files fits easily and securely into rugged, compact pouch



Cat. No.	UPC No.	Packed	lb	Pack Wt.			Shelf Pack
				oz	g		
22030	037103220301	Pouch	3	10	1644	1	

## 3 Piece Welder's Set

- For professional use, filing metals and other hard materials
- 14"/350mm half-round pipeliner file
- 12"/300mm half-round bastard file
- 10"/250mm mill smooth file
- Complete set of 3 files fits easily and securely into rugged, compact pouch



Cat. No.	UPC No.	Packed	lb	Pack Wt.			Shelf Pack
				oz	g		
22036	037103220363	Pouch	2	14	1304	1	

## 5 Piece General Purpose Set



- General purpose file kit for home and professional use
- 10"/250mm half-round bastard file
- 10"/250mm mill bastard file
- 8"/200mm mill bastard file
- 8"/200mm mill smooth file
- 6"/150mm slim taper file
- Set of 5 files fits easily and securely into rugged, compact pouch

Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22040	037103220400	Pouch	1	10	737	1

## 7 Piece Machinist File Set



- General purpose file kit for machine shop
- 10"/250mm flat bastard file
- 10"/250mm flat smooth file
- 10"/250mm half-round bastard file
- 10"/250mm mill bastard file
- 10"/250mm round bastard file
- 10"/250mm square bastard file
- 7"/175mm slim taper file

Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22024	037103220240	Pouch	3	8	1588	1

## Thread Restoring Files



33024

- Used to restore damaged or worn external threads on bolts, pipes, etc.
- Each thread restoring file will work with 8 different thread sizes
- Available in 4 sizes and in a convenient 4-piece set
- Caps are color coded:  
#1=Black; #2=Red; #7=Green; #8=Blue
- Files are made in U.S.A.

Cat. No.	UPC No.	Type	Description	Pack Wt.			Shelf Pack
				lb	oz	g	
33001	037103330017	1	Regular Bolt; 11-12, 13-14, 16-18, 20-24 TPI	-	6	170	1
33007	037103330079	2	Ex. Fine/Ex. Coarse Bolt; 9-10, 12-16, 20-27, 28-32 TPI	-	6	170	1
33012	037103330123	7	Regular Pipe; 8-10, 11 1/2-14, 16-18, 24-27 TPI	-	6	170	1
33016	037103330161	8	Metric Bolt; .75-1.0, 1.25-1.5, 1.75-2.0, 2.5-3.0 mm	-	6	170	1
33024	037103330246	-	1 Each of above files in pouch	1	10	737	1

### 3 Piece Ergonomic File Set

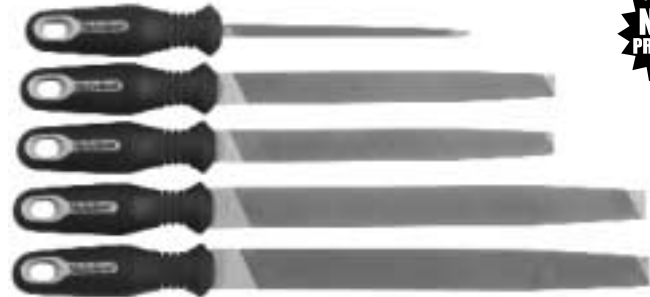
- Rubber-coated ergonomic handles for better comfort and control
- Basic selection for home and professional use
- 6"/150mm mill bastard file
- 6"/150mm half-round bastard file
- 6"/150mm round bastard file



Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22015H	037103180728	Pouch	0	11	312	1

### 5 Piece Ergonomic File Set

- Rubber-coated ergonomic handles for better comfort and control
- General purpose selection for home and professional use
- 6"/150mm slim taper file
- 8"/200mm flat bastard file
- 8"/200mm mill bastard file
- 10"/250mm mill bastard file
- 10"/250mm half-round bastard file



Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22040H	037103180742	Pouch	2	4	1021	1

### 9 Piece Ergonomic File Set

- Rubber-coated ergonomic handles for better comfort and control
- Broad selection for home and professional use
- 6"/150mm XXslim taper file
- 6"/150mm slim taper file
- 8"/200mm half-round bastard file
- 8"/200mm flat bastard file
- 10"/250mm round bastard file
- 10"/250mm half-round bastard file
- 10"/250mm mill bastard file
- 10"/250mm flat bastard file
- 12"/300mm mill bastard file



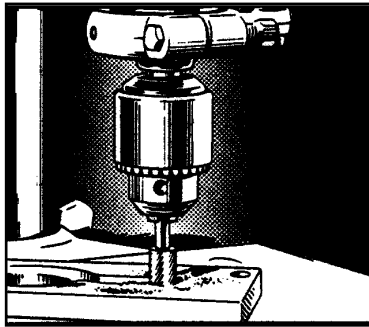
Cat. No.	UPC No.	Packed	Pack Wt.			Shelf Pack
			lb	oz	g	
22030H	037103180735	Pouch	4	12	2155	1



### Facts about Rotary Power Filing

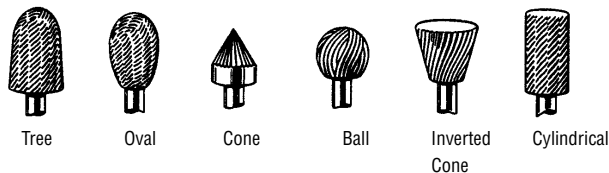
If you are considering power filing as a method of abrading or smoothing metal - you have a choice of hand cut rotary files or ground from solid burs - the latter type made either from high speed steel or carbide. The purpose of this section is to discuss their uses, explain their anatomy, analyze their advantages and warn you against their limitations; to suggest the best methods of using these power tools; and to recommend appropriate speeds at which they can be operated.

First let's consider the general applications of these power driven hand tools throughout industry. Both types - rotary files and ground burs (high speed and carbide) are widely used in die sinking, metal pattern making, mold finishing, tool making, and finishing small and intricate parts. In such work they are used for breaking and chamfering corners, removing burs and fins; for elongating holes and slots and other hard to get at places. Name almost any metalworking plant and you find a potential field for power filing. The aircraft industry uses burs on aluminum, titanium, magnesium, frequently finding the "Tree Shapes" with tapered points or rounded noses suitable for its particular applications, and the oval shapes equally valuable. If you visit a machine tool manufacturer you'll probably discover power files at work on such jobs as "balancing" cast-iron pulleys. Makers of fire fighting equipment touch up such parts as brass nozzles, prior to polishing.



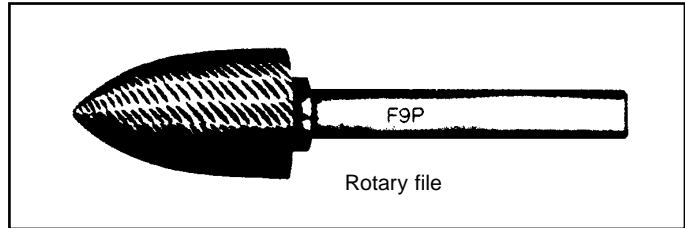
Cylindrical burr in drill press deburring cut-out area of plate.

#### Styles for every purpose



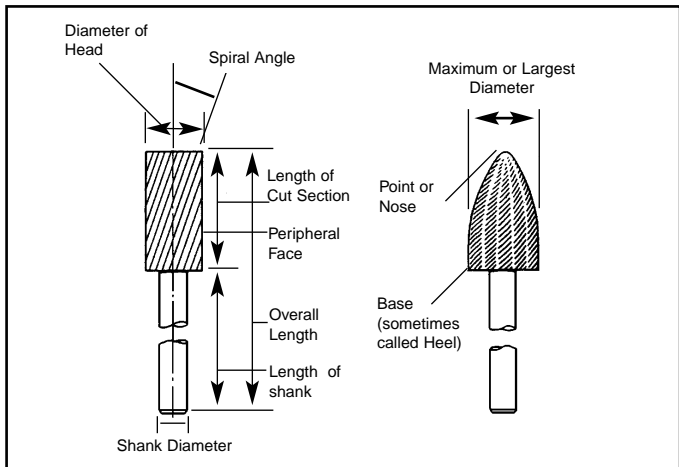
#### Rotary Files

As their name indicates, hand cut rotary files are cut by an expert hand-cutter, using a hammer and a chisel to cut or form each tooth. Although he may have a blueprint to guide him, the hand-cutter depends upon his ability to hold the chisel at just the correct angle and to strike a blow of just the right force.



Rotary file

Because the teeth of hand cut rotary files are "broken up" in contrast to the "unbroken flutes" of the ground burr, they are better fitted for work on tough and dense metals. These teeth seem to dissipate the heat created by the friction of the file on this type of material. Therefore they are recommended for steel forgings, or any scaly tough dense surface or metal.



#### Ground Burs

Ground burs are cut with a series of unbroken flutes instead of the "broken up" teeth characteristic of hand cut files. Basic flutes extend the full length of the cutting head, from the base to the nose, and intermediate flutes cut into the basic flutes at appropriate places. Some ground burs are made with "alternate fluting" which means that every other flute extends to the extreme point of the tool.

The flutes of the ground burr are cut by an operator using a grinding wheel. While a "free hand" method of grinding is quite common, the Nicholson method calls for a precision machine grinding which insures accuracy of shape and even tooth height around the periphery, the latter feature eliminating jumping, vibration and non-uniform wear. Each burr is cut on a CNC machine guaranteeing absolute uniformity of burs of the same type and size no matter how many are produced.

In general, ground burs are much more efficient than hand cut rotary files on non-ferrous metals such as aluminum, brass, bronze, and magnesium. Because of the ductility to these metals, burs are ideal cutting tools, since their ground teeth free themselves readily of chips.

#### Tips on Using Files and Burs

Rotary files and ground burs can be used in drill presses, lathes and electrically or air-operated hand or flexible shaft equipment. There is very little difference in the efficiency of files or burs in electric tools as compared to air tools, providing that the speeds have been reasonably well selected. The choice between electric and air tools is usually determined by the equipment which is available in a given plant.

#### ANATOMY

Rotary files and burs may be defined as power tools, used with flexible shaft or stationary shaft machines, portable electric or air tools, with teeth or flutes cut or ground on the surface and used for abrading and smoothing metals and other materials.

Expanding this definition, we find that the business end of the tool is the "head" or "cut section" and that these heads come in a variety from the cylindrical to the tree shaped, ball and inverted cone. Length usually refers to head or cut section. Tip is called the point or nose depending on whether it is rounded or pointed. The part of the head from which the shank extends is called the "base" or the "heel". The teeth or flutes generally come in two degrees of coarseness, i.e. coarse (C) and medium (M) - the choice depending on the amount of stock to be removed and the finish desired. Shanks are usually 1/4" in diameter on files and burs used for heavy and medium jobs, 1/8" when the tool is designed for use on relatively delicate operations.

#### HAND CUT VERSUS GROUND FROM SOLID

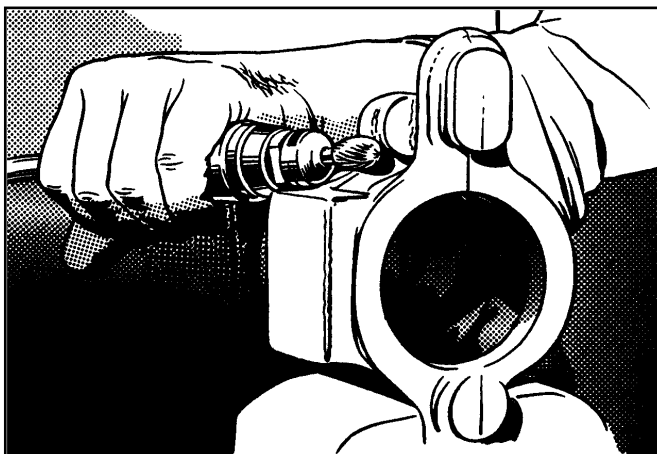
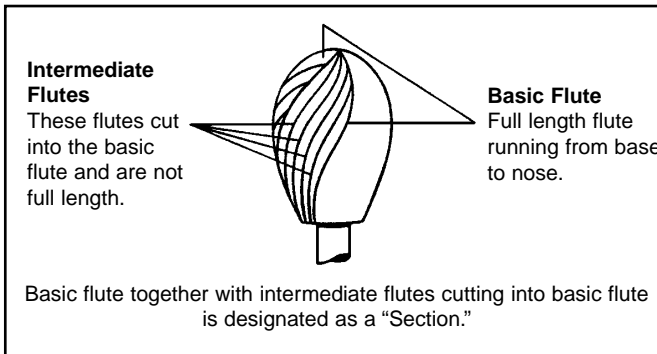
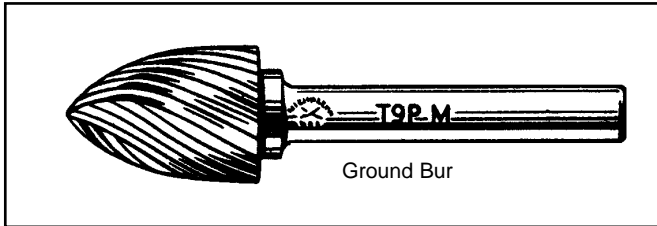
We now start to appraise the differences between the hand cut and the ground, each made from high speed steel.



# Facts about Rotary Power Filing

**The following principals should help the user toward the best results:**

- Move the file or bur at an even rate and pressure to avoid the “hills and dales” which will show up if an unsteady pressure is applied.
- The speed at which the bur can be driven depends to a great extent on the size of the bur. The smaller the bur, the faster the speed (See chart).
- Be sure to use sharp files or burs. Never overlook the fact that the operator's time is the big cost item and he needs well sharpened tools.
- Use a short grip on the shank for accurate control and a longer grip for reaching the out-of-way places.
- Normally, medium cut files or burs will give sufficient stock removal and acceptable finish to meet most needs. However, if heavier cutting or greater stock removal is required, coarse cut should be used.



An oval shaped bur smoothing edges of concave section. Flexible shaft machine is used.

**How About Speeds**

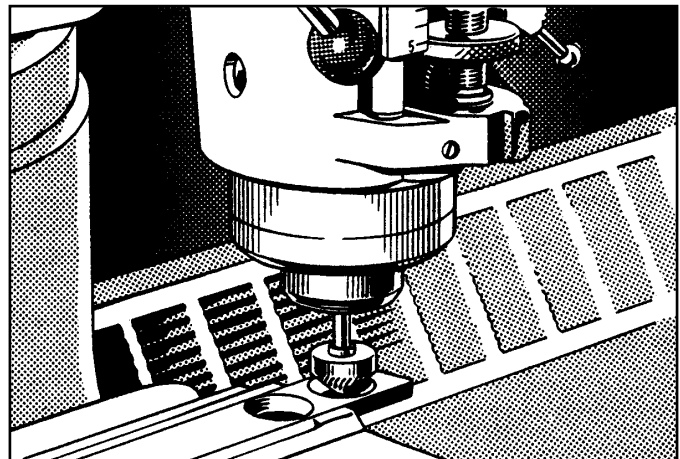
It is extremely difficult to give the correct recommendations because the speed is bound to vary with the skill and technique of the operator; the type of power which is being used; the material which is being removed or finished; the type of operation - finishing stock removal, etc. A certain amount of flexibility is obtained in that higher speeds than normal tend towards a better finish but less stock removal while slower than normal speeds give greater stock removal but a poorer finish.

The table shown is given in revolutions per minute. It is very important, however, that any table of speeds should specify the diameter of the bur which is to be used at the recommended speed.

Undoubtedly many instances can be cited in which burs have been used successfully at speeds much higher than those in our table. The best way is to determine from experience what speeds will give the most satisfactory results on a particular job. It should also be borne in mind that flexible shaft machines have a limited number of speeds and that these govern to a considerable extent the revolutions per minute which can be used.

**APPROXIMATE SPEEDS (R.P.M.) FOR HIGH SPEED STEEL ROTARY FILES AND BURS IN MEDIUM CUT**

Head Dia. Inch	mm	Mild Steel	Cast Iron	Bronze	Aluminum	Magnesium
1/8	3	4,600	7,000	15,000	20,000	30,000
1/4	6	3,450	5,250	11,250	15,000	22,500
3/8	10	2,750	4,200	9,000	12,000	18,000
1/2	13	2,300	3,500	7,500	10,000	15,000
5/8	16	2,000	3,100	6,650	8,900	13,350
3/4	19	1,900	2,900	6,200	8,300	12,400
7/8	22	1,700	2,600	5,600	7,500	11,250
1	25	1,600	2,400	5,150	6,850	10,300
1 1/8	29	1,500	2,300	4,850	6,500	9,750
1 1/4	32	1,400	2,100	4,500	6,000	9,000



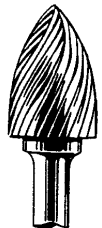
Cone shaped bur in drill press deburring drilled holes in plate.

**Summing It Up**



**Carbide Bur**

The carbide bur can do any job that the high speed ground bur or the hand cut rotary file can do. However, it is most efficient on the long production runs.



**High Speed Ground Bur**

The high speed ground bur is used principally on the non-ferrous materials and other soft materials.



**Hand Cut Rotary File**

The hand cut rotary file is used primarily on the ferrous metals and other hard materials.

## Nicholson® Carbide Burs

The carbide bur has tremendous possibilities for reducing burring costs in its particular applications, foremost of which is likely to be found on long production runs.

For example, it has been demonstrated that a carbide bur will last up to one hundred times as long as a high speed bur of corresponding shape and size. On the other hand, it costs about five times more. Assuming that the production life of the carbide bur is seventy-five times greater and the cost five more, there is a ratio of fifteen to one in its favor.

The carbide bur may be used on hard or soft materials with equally good results. Made of extremely hard material, the flutes of the carbide bur will retain their maximum cutting efficiency a great deal longer than those made of high speed steel, thus eliminating change-over costs. A skillful operator, especially if he is working on a piece or bonus system, appreciates the fact that his tool is working at full efficiency and has not reduced his earning power.

### Anatomy

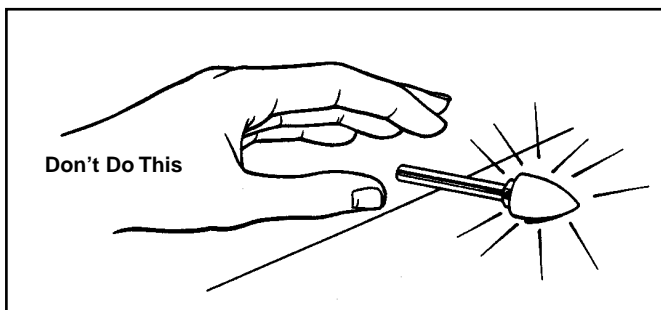
The anatomy of the carbide bur is much the same as that of the high speed bur, the principal difference lying in the fact that the former is made of carbide. Of course, the rake and coarseness of teeth are changed somewhat to conform to the peculiarities of carbide, the negative rake rather than the radial producing a construction of the greatest strength.

Most carbide burs have index fluting, meaning that all flutes converge to a common point.

Diamond cut carbide burs are recommended for tough die steels. These "double-cut" burs have flutes that intersect each other. These throw off small, irregular particles, rather than sharp pointed slivers. The carbide used in these burs has the highest Rockwell Hardness consistent with necessary toughness, carbide burs are nevertheless relatively brittle and must be treated more gingerly than ordinary burs. They cannot stand as much abuse. Under no circumstances must they be tossed onto a bench or into a tool box where their cutting edges may be damaged.

### Coarseness Chart

Head Diameter		Rotary Files		Ground Burs H.S.	
Inch	mm	Teeth Per Inch Coarse	Medium	Flutes Per Coarse	Circumference Medium
1/8	3	14	2	7	10
3/16	4.7	14	20	9	13
1/4	6	14	20	10	16
5/16	8	12	18	12	18
3/8	10	12	18	14	20
7/16	11	12	18	15	22
1/2	13	12	18	16	24
5/8	16	12	18	18	27
3/4	19	12	18	20	30
7/8	22	12	18	22	33
1	25	10	15	24	36
1 1/8	28	10	15	26	39

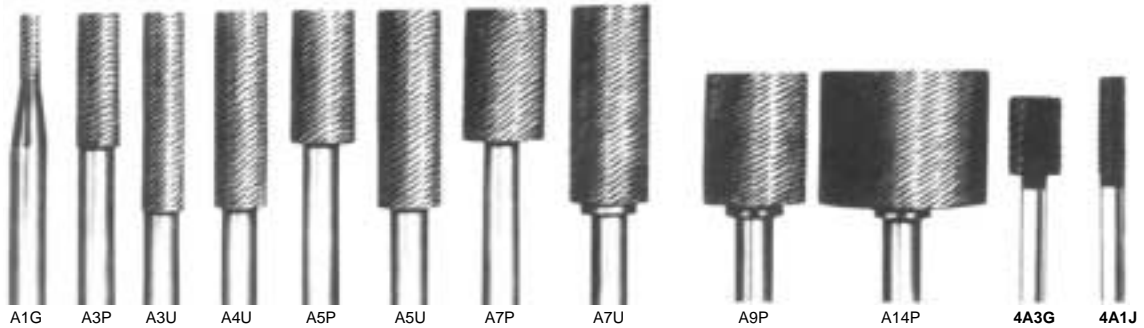


Protect your eyes - always wear safety goggles.

# High Speed Steel Rotary Files

- Hand cut Rotary File with 1/4"/6mm shanks
- Stocked in coarse, medium and some fine cuts
- **Note:** Limited number of files available in 1/8"/3mm shanks

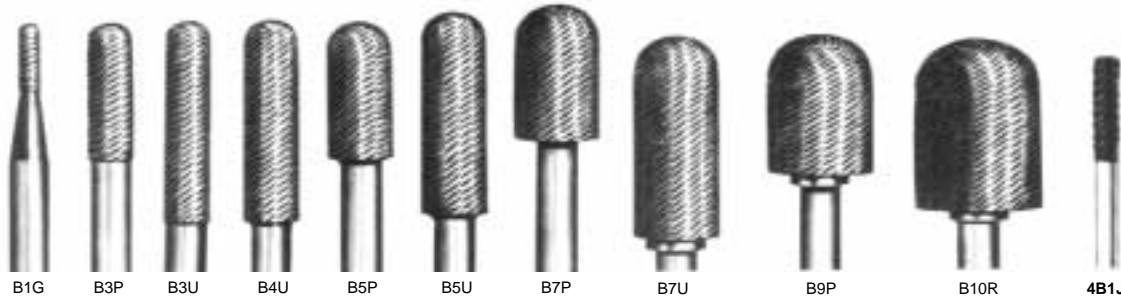
## Cylindrical Shape - Flat End Hand Cut Style "A"



- Stocked in coarse, medium and some fine cuts
- Hand cut Rotary file with 1/4"/6mm shanks
- Limited number of files available in 1/8"/3mm shanks
- \*Uncut ends
- \*\*Not illustrated

Ref. No.	Dia. x Length		Coarse		Medium		Fine		Weight		Shank	
	Inch	mm x mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
A1G	1/8	3 x 1/2	-	-	50003	500038*	-	-	.03	14	1/4	6
A3P	1/4	6 x 1	50013	500137*	50015	500151*	-	-	.05	23	1/4	6
A3P	1/4	6 x 1	50019	500199	50021	500212	-	-	.05	23	1/4	6
A3U	1/4	6 x 1 1/2	50025	500250	50027	500274	-	-	.07	32	1/4	6
A4U	5/16	8 x 1 1/2	-	-	50033	500335	-	-	.07	32	1/4	6
A5P	3/8	9 x 1	50037	500373	50039	500397	-	-	.08	36	1/4	6
A5U	3/8	9 x 1 1/2	50043	500434	50045	500458	-	-	.09	41	1/4	6
A7P	1/2	13 x 1	50049	500496	50051	500519	50053	500533	.10	45	1/4	6
A7U	1/2	13 x 1 1/2	50055	500557	50057	500571	-	-	.12	54	1/4	6
A9P	5/8	16 x 1	-	-	50063	500632	-	-	.12	54	1/4	6
A10K**	3/4	19 x 3/4	-	-	50075	500755	-	-	.14	63	1/4	6
A14P	1	25 x 1	-	-	50081	500816	-	-	.21	95	1/4	6
4A3G	1/4	6 x 1/2	-	-	51029	510297	-	-	.02	9	1/8	3
4A1J	1/8	3 x 5/8	-	-	51031	510310	-	-	.02	9	1/8	3

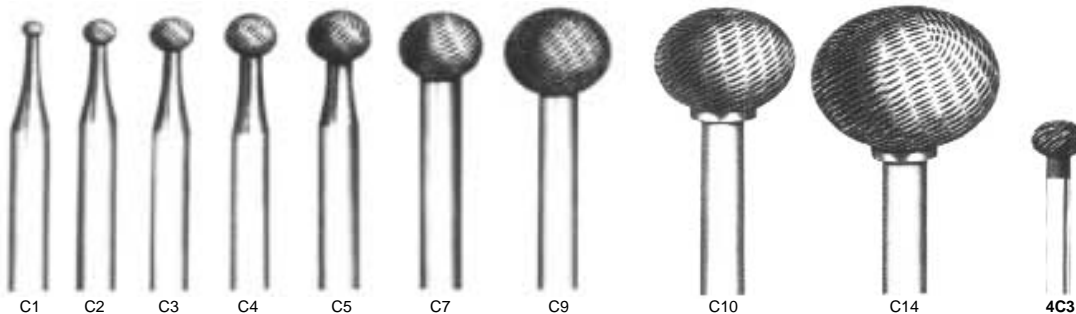
## Cylindrical Shape - Radius End Hand Cut Style "B"



- Stocked in coarse and medium cuts
- Hand cut rotary file with 1/4"/6mm shanks
- Limited number of files available in 1/8"/3mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm		Coarse		Medium		Weight		Shank	
			Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
B1G	1/8	3 x 1/2	-	-	50087	500878	.05	23	1/4	6
B3P	1/4	6 x 1	50091	500915	50093	500939	.05	23	1/4	6
B3U	1/4	6 x 1 1/2	-	-	50099	500991	.05	23	1/4	6
B4U	5/16	8 x 1 1/2	-	-	50105	501059	.06	27	1/4	6
B5P	3/8	9 x 1	50109	501097	50111	501110	.07	32	1/4	6
B5U	3/8	9 x 1 1/2	-	-	50117	501172	.10	45	1/4	6
B7P	1/2	13 x 1	50121	501219	50123	501233	.10	45	1/4	6
B7U	1/2	13 x 1 1/2	-	-	50129	501295	.14	63	1/4	6
B9P	5/8	16 x 1	-	-	50135	501356	.15	63	1/4	6
B10R	3/4	19 x 1 1/4	-	-	50141	501417	.21	95	1/4	6
4B1J	1/8	3 x 5/8	-	-	51035	510358	.02	9	1/8	3

## Ball Shape - Hand Cut Style "C"



- Stocked in coarse and medium cuts
- Hand cut rotary file with 1/4"/6mm shanks
- Limited number of files available in 1/8"/3mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm		Coarse		Medium		Fine		Weight		Shank	
			Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
C1	1/8	3	-	-	50147	501479	-	-	.05	23	1/4	6
C2	3/16	5	-	-	50153	501530	-	-	.05	23	1/4	6
C3	1/4	6	50157	501578	50159	501592	-	-	.05	23	1/4	6
C4	5/16	8	-	-	50165	501653	-	-	.06	27	1/4	6
C5	3/8	9	50169	501691	50171	501714	-	-	.06	27	1/4	6
C7	1/2	13	-	-	50177	501776	-	-	.07	32	1/4	6
C9	5/8	16	-	-	50183	501837	-	-	.08	36	1/4	6
C10	3/4	19	-	-	50189	501899	-	-	.12	54	1/4	6
C14	1	25	-	-	50195	501950	-	-	.17	77	1/4	6
4C3	1/4	6	-	-	51041	510419	-	-	.02	9	1/8	3

## Oval Shape Hand Cut Style "D"



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks
- Limited number of files available in 1/8"/3mm shanks

Ref. No.	Dia. x Length				Coarse		Medium		Weight		Shank		
	Inch	mm	x	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
D3G	1/4	6	x	1/2	13	-	-	50201	502018	.05	23	1/4	6
D5K	3/8	9	x	3/4	19	-	-	50207	502070	.06	27	1/4	6
D7M	1/2	13	x	7/8	22	-	-	50219	502193	.07	32	1/4	6
D9N	5/8	16	x	15/16	24	-	-	50225	502254	.09	41	1/4	6
D14S	1	25	x	1 3/8	35	-	-	50237	502377	.38	172	1/4	6
4D3G	1/4	6	x	1/2	13	-	-	51043	510433	.02	9	1/8	3

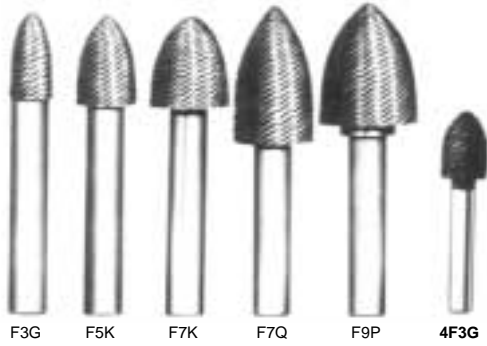
## Tree Shape - Radius End Hand Cut Style "E"



- Stocked in coarse and medium cuts
- Hand cut rotary file with 1/4"/6mm shanks

Ref. No.	Dia. x Length				Coarse		Medium		Weight		Shank		
	Inch	mm	x	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
E3K	1/4	6	x	3/4	19	-	-	50243	502438	.05	23	1/4	6
E5K	3/8	9	x	3/4	19	-	-	50249	502490	.07	32	1/4	6
E7Q	1/2	13	x	1 1/8	28	50253	502537	50255	502551	.09	41	1/4	6
E10P	3/4	19	x	1	25	-	-	50261	502612	.13	59	1/4	6

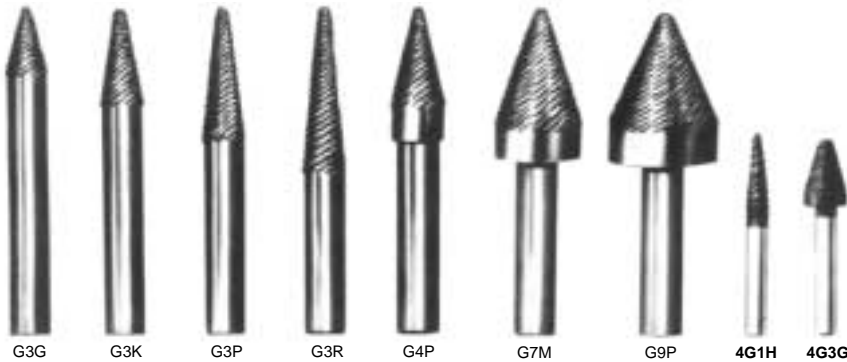
## Tree Shape - Pointed End Hand Cut Style "F"



- Stocked in coarse and medium cuts
- Hand cut rotary file with 1/4"/6mm shanks
- Limited number of files available in 1/8"/3mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm		Coarse		Medium		Weight		Shank				
			Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm			
F3G	1/4	6	x	1/2	13	-	-	50273	502735	.05	23	1/4	6
F5K	3/8	9	x	3/4	19	50277	502773	50279	502797	.07	32	1/4	6
F7K	1/2	13	x	3/4	19	-	-	50285	502858	.08	36	1/4	6
F7Q	1/2	13	x	1 1/2	38	-	-	50291	502919	.08	36	1/4	6
F9P	5/8	16	x	1	25	-	-	50297	502971	.10	45	1/4	6
4F3G	1/4	6	x	1/2	13	-	-	51047	510471	.02	9	1/8	3

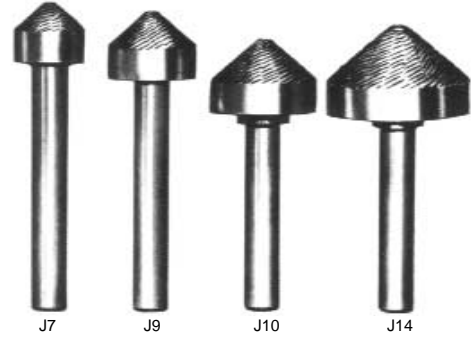
## Cone Shape Hand Cut Style "G"



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm		Included Angle	Medium		Weight		Shank				
				Cat. No.	UPC No. 037103	lb	k	Inch	mm			
G3G	1/4	6	x	1/2	13	22°	50309	037103503091	.04	18	1/4	6
G3K	1/4	6	x	3/4	19	14°	50315	037103503152	.04	18	1/4	6
G3P	1/4	6	x	1	25	11°	50321	037103503213	.04	18	1/4	6
G3R	1/4	6	x	1 1/4	32	8°	50327	037103503275	.05	23	1/4	6
G4P	5/16	8	x	1	25	14°	50339	037103503398	.05	23	1/4	6
G7M	1/2	13	x	7/8	22	28°	50351	037103503510	.08	36	1/4	6
G9P	5/8	16	x	1	25	32°	50357	037103503572	.12	54	1/4	6
4G1H	1/8	3	x	9/16	14	-	51053	037103510532	.02	9	1/8	3
4G3G	1/2	6	x	1/2	13	25°	51049	037103510495	.02	9	1/8	3

## Cone Shape 90° Angle Hand Cut Style "J"



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks

Ref. No.	Dia.		Included Angle	Medium		Weight		Shank	
	Inch	mm		Cat. No.	UPC No. 037103	lb	k	Inch	mm
J7	1/2	13	90°	50399	037103503992	.07	32	1/4	6
J9	5/8	16	90°	50405	037103504050	.08	36	1/4	6
J10	3/4	19	90°	50411	037103504111	.12	54	1/4	6
J14	1	25	90°	50417	037103504173	.15	68	1/4	6

## Flame Shape Hand Cut Style "K"



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks
- Limited number of files available in 1/8"/3mm shanks

Ref. No.	Dia. x Length				Medium		Weight		Shank		
	Inch	mm	x	Inch	mm	Cat. No.	UPC No.	lb	k	Inch	mm
K9T	5/8	16	x	1 7/16	36	50429	037103504296	.18	80	1/4	6

## Bi-shape Hand Cut Style "L"



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks

No.	Ref. Inch	Dia. x Length				Cat. mm	UPC No.	Medium Weight	Shank No.	lb	k	Shank		
		mm	x	Inch	mm							x	Inch	mm
L3P	1/4	6	x	1	25	x	7/8	22 Radius	50441	037103504418	.05	23	1/4	6
L4Q	5/16	8	x	1 1/8	28	x	1 1/8	28 Radius	50447	037103504470	.06	27	1/4	6



**Inverted Cone Shape 33° Included Angle Hand Cut Style “M”**



- Stocked in coarse and medium cuts
- Hand cut rotary file with 1/4"/6mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm			Coarse		Medium		Weight		Shank			
				Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm		
M10J	3/4	19	x	5/8	16	50457	504579	50459	504593	.10	45	1/4	6

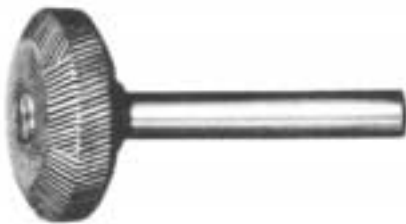
**Barrel Shape Hand Cut Style “CC”**



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm				Cat. No.	UPC No.	Weight		Shank		
							lb	k	Inch	mm	
CC7P	1/2	13	x	1	25	50477	037103504777	.11	50	1/4	6

**Cylindrical Shape Double Taper 60° Included Angle Hand Cut Style “DD”**



- Stocked in medium cut
- Hand cut rotary file with 1/4"/6mm shanks

Ref. No.	Dia. x Length Inch mm x Inch mm				Cat. No.	UPC No.	Weight		Shank		
							lb	k	Inch	mm	
DD15E	1 1/8	28	x	3/8	9	50483	037103504838	.15	68	1/4	6

**Cylindrical shape radius end and edge**



- Stocked in medium cut
- Hand cut rotary file with 1/8"/3mm shanks

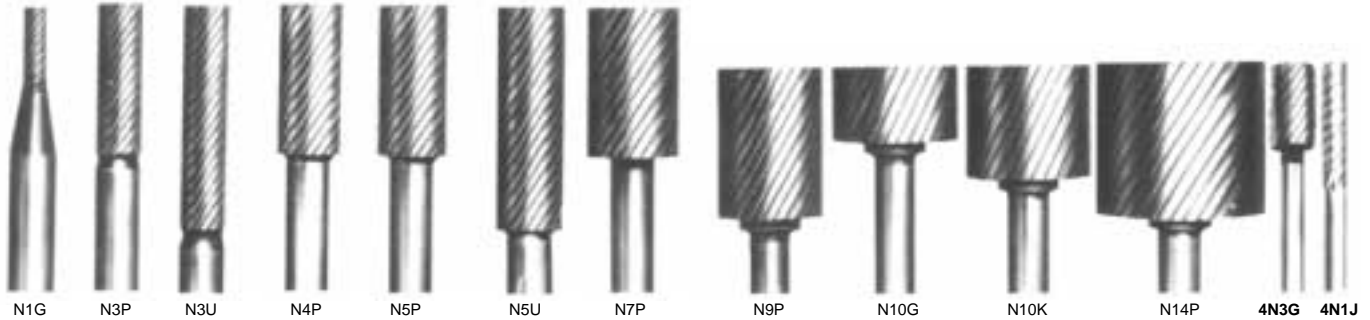
Ref. No.	Dia. x Length Inch mm x Inch mm				Cat. No.	UPC No.	Weight		Shank		
							lb	k	Inch	mm	
4H9A	5/8	16	x	1/8	3	51037	037103510372	.02	9	1/8	3



# High Speed Steel Ground Burs

- Ground burs with 1/4"/ 6mm shanks
- Stocked in coarse and medium cuts
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

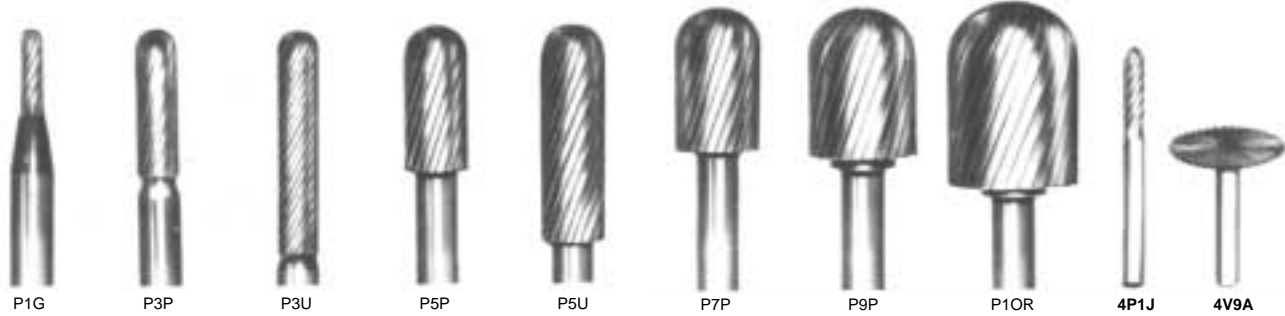
## Cylindrical Shape - Flat End Ground Bur Style "N"



- Stocked in coarse and medium cuts
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

Ref. No.	Dia. x Length				Coarse		Medium		Weight		Shank		
	Inch	mm	x	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
<b>N1G</b>	1/8	3	x	1/2	13	-	-	<b>50489</b>	504890	.03	14	1/4	6
<b>N3P</b>	1/4	6	x	1	25	<b>50499</b>	504999	<b>50501</b>	505019	.05	23	1/4	6
<b>N3U</b>	1/4	6	x	1 1/2	38	-	-	<b>50513</b>	505132	.07	32	1/4	6
<b>N4P</b>	5/16	8	x	1	25	-	-	<b>50525</b>	505255	.07	32	1/4	6
<b>N5P</b>	3/8	9	x	1	25	<b>50535</b>	505354	<b>50537</b>	505378	.08	36	1/4	6
<b>N5U</b>	3/8	9	x	1 1/2	38	-	-	<b>50549</b>	505491	.08	36	1/4	6
<b>N7P</b>	1/2	13	x	1	25	<b>50559</b>	505590	<b>50561</b>	505613	.10	45	1/4	6
<b>N9P</b>	5/8	16	x	1	25	-	-	<b>50573</b>	505736	.12	54	1/4	6
<b>N10G</b>	3/4	19	x	1/2	13	-	-	<b>50585</b>	505859	.10	45	1/4	6
<b>N10K</b>	3/4	19	x	3/4	19	<b>50595</b>	505958	<b>50597</b>	505972	.14	63	1/4	6
<b>N14P</b>	1	25	x	1	25	-	-	<b>50609</b>	506092	.21	95	1/4	6
<b>4N3G</b>	1/4	6	x	1/2	13	-	-	<b>51065</b>	510655	.02	9	1/8	3
<b>4N1J</b>	1/8	3	x	5/8	16	-	-	<b>51067</b>	510679	.02	9	1/8	3

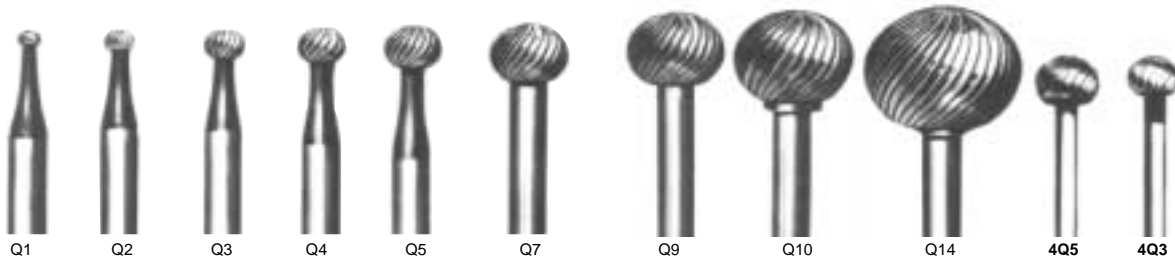
### Cylindrical Shape - Radius End Ground Bur Style "P"



- Stocked in coarse and medium cuts
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

Ref. No.	Dia. x Length		Coarse		Medium		Weight		Shank	
	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
P1G	1/8	3 x 1/2	-	-	50621	506214	.05	23	1/4	6
P3P	1/4	6 x 1	50625	506252	50627	506276	.05	23	1/4	6
P3U	1/4	6 x 1 1/2	-	-	50633	506337	.05	23	1/4	6
P5P	3/8	9 x 1	-	-	50639	506399	.07	32	1/4	6
P5U	3/8	9 x 1 1/2	-	-	50645	506450	.10	45	1/4	6
P7P	1/2	13 x 1	50649	506498	50651	506511	.09	41	1/4	6
P9P	5/8	16 x 1	-	-	50657	506573	.15	68	1/4	6
P10R	3/4	19 x 1 1/4	-	-	50663	506634	.21	95	1/4	6
4P1J	1/8	3 x 5/8	-	-	51071	510716	.02	9	1/8	3
4V9A	5/8	16 x 1/8	-	-	51073	510730	.02	9	1/8	3

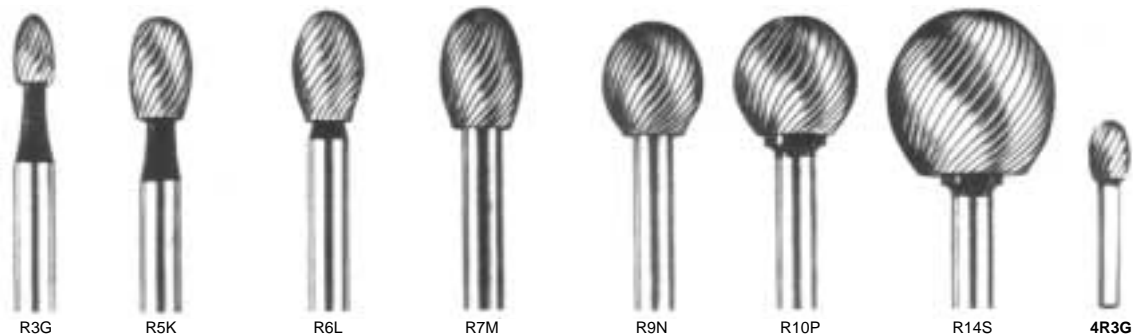
### Ball Shape Ground Bur Style "Q"



- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

Ref. No.	Dia. Inch	mm	Medium		Weight		Shank	
			Cat. No.	UPC No.	lb	k	Inch	mm
Q1	1/8	3	50669	037103506696	.05	23	1/4	6
Q2	3/16	5	50675	037103506757	.05	23	1/4	6
Q3	1/4	6	50681	037103506818	.05	23	1/4	6
Q4	5/16	8	50687	037103506870	.06	27	1/4	6
Q5	3/8	9	50693	037103506931	.06	27	1/4	6
Q7	1/2	13	50699	037103506993	.07	32	1/4	6
Q9	5/8	16	50705	037103507051	.08	36	1/4	6
Q10	3/4	19	50711	037103507112	.12	54	1/4	6
Q14	1	25	50717	037103507174	.17	77	1/4	6
4Q5	3/8	9	51075	037103510754	.02	9	1/8	3
4Q3	1/4	6	51077	037103510778	.02	9	1/8	3

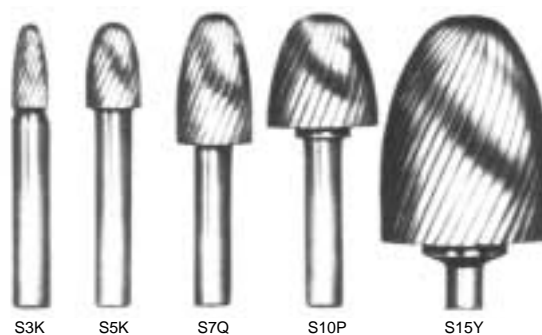
## Oval Shape Ground Bur Style "R"



- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

Ref. No.	Dia. x Length		Medium		Cat. No.	UPC No.	Weight		Shank	
	Inch	mm	x	mm			lb	k	Inch	mm
R3G	1/4	6	x	13	50723	037103507235	.05	23	1/4	6
R5K	3/8	9	x	19	50729	037103507297	.06	27	1/4	6
R6L	7/16	11	x	21	50735	037103507358	.06	27	1/4	6
R7M	1/2	13	x	22	50741	037103507419	.07	32	1/4	6
R9N	5/8	16	x	24	50747	037103507471	.09	41	1/4	6
R10P	3/4	19	x	25	50753	037103507532	.19	86	1/4	6
R14S	1	25	x	35	50759	037103507594	.38	172	1/4	6
4R3G	1/4	6	x	13	51079	037103510792	.02	9	1/8	3

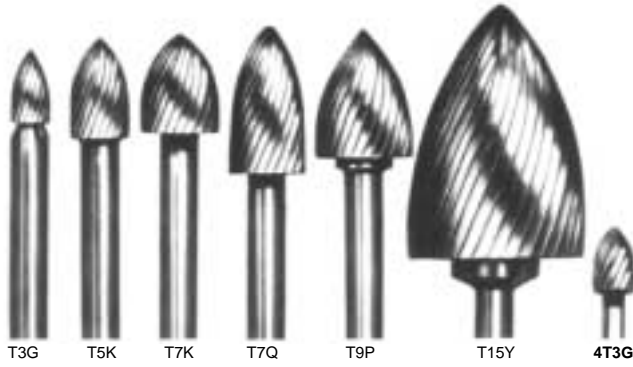
## Tree Shape Radius End Ground Bur Style "S"



- Stocked in coarse and medium cuts
- Ground burs with 1/4"/6mm shanks

Ref. No.	Dia. x Length		Coarse		Medium		Weight		Shank			
	Inch	mm	x	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	m
S3K	1/4	6	x	19	50769	507693	50771	507716	.05	23	1/4	6
S5K	3/8	9	x	19	-	-	50777	507778	.07	32	1/4	6
S7Q	1/2	13	x	28	50781	507815	50783	507839	.09	41	1/4	6
S10P	3/4	19	x	25	-	-	50789	507891	.13	59	1/4	6
S15Y	1 1/8	28	x	50	-	-	50795	507952	.46	210	1/4	6

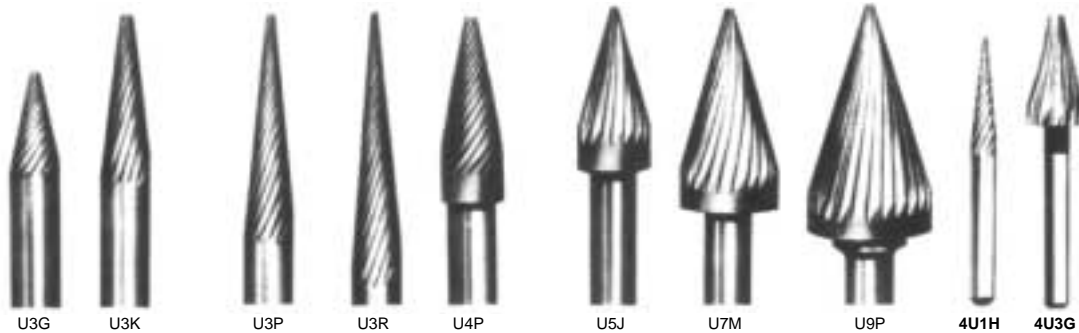
## Tree Shape Pointed End Ground Bur Style "T"



- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

Ref. No.	Dia. x Length					Cat. No.	Medium		Weight		Shank	
	Inch	mm	x	Inch	mm		UPC No.	lb	k	Inch	mm	
T3G	1/4	6	x	1/2	13	50801	037103508010	.05	23	1/4	6	
T5K	3/8	9	x	3/4	19	50807	037103508072	.06	27	1/4	6	
T7K	1/2	13	x	3/4	19	50813	037103508133	.08	36	1/4	6	
T7Q	1/2	13	x	1 1/8	28	50819	037103508195	.08	36	1/4	6	
T9P	5/8	16	x	1	25	50825	037103508256	.10	45	1/4	6	
T15Y	1 1/8	28	x	2	50	50831	037103508317	.43	195	1/4	6	
4T3G	1/4	6	x	1/2	13	51083	037103510839	.02	9	1/8	3	

## Cone Shape Ground Bur Style "U"



- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft

Ref. No.	Dia. x Length					Included Angle	Standard		Weight		Shank	
	Inch	mm	x	Inch	mm		Cat. No.	UPC No.	lb	k	Inch	mm
U3G	1/4	6	x	1/2	13	22°	50837	037103508379	.04	18	1/4	6
U3K	1/4	6	x	3/4	19	14°	50843	037103508430	.04	18	1/4	6
U3P	1/4	6	x	1	25	11°	50849	037103508492	.04	18	1/4	6
U3R	1/4	6	x	1 1/4	32	8°	50855	037103508553	.05	23	1/4	6
U4P	5/16	8	x	1	25	14°	50867	037103508676	.05	23	1/4	6
U5J	3/8	9	x	5/8	16	28°	50873	037103508737	.06	22	1/4	6
U7M	1/2	13	x	7/8	22	28°	50879	037103508799	.08	36	1/4	6
U9P	5/8	16	x	1	25	32°	50885	037103508850	.12	54	1/4	6
4U1H	1/8	3	x	9/16	14	8°	51089	037103510891	.02	9	1/8	3
4U3G	1/4	6	x	1/2	13	25°	51085	037103510853	.02	9	1/8	3

## Cone Shape 60° Included Angle Ground Bur Style "V"

- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks



Ref. No.	Dia.		Included Angle	Medium		Weight		Shank	
	Inch	mm		Cat. No.	UPC No.	lb	k	Inch	mm
V7	1/2	13	60°	50897	037103508973	.07	32	1/4	6
V10	3/4	19	60°	50909	037103509093	.11	50	1/4	6

## Cone Shape 90° Included Angle Ground Bur Style "W"

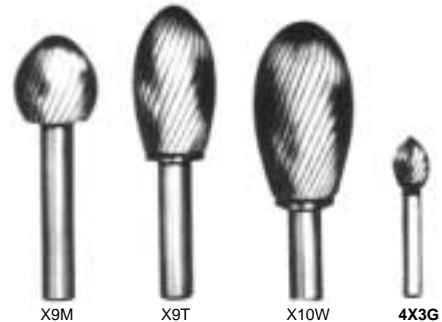
- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks



Ref. No.	Dia.		Included Angle	Medium		Weight		Shank	
	Inch	mm		Cat. No.	UPC No.	lb	k	Inch	mm
W7	1/2	13	90°	50927	037103509277	.07	32	1/4	6
W14	1	25	90°	50945	037103509451	.15	68	1/4	6

## Flame shape ground bur style "X"

- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks
- Limited number of burs available with 1/8"/3mm shanks for use with portable hand tools (electric or air), drill press or flexible shaft



Ref. No.	Dia. x Length				Cat. No.	UPC No.	Weight		Shank		
	Inch	mm	x	mm			lb	k	Inch	mm	
X9M	5/8	16	x	7/8	22	50951	037103509512	.11	50	1/4	6
X9T	5/8	16	x	1 7/16	36	50957	037103509574	.18	80	1/4	6
X10W	3/4	19	x	1 3/4	44	50963	037103509635	.22	99	1/4	6
4X3G	1/4	6	x	1/2	13	51095	037103510952	.02	9	1/8	3

## Bi-shape Ground Bur Style "Y"



Y3P



Y4Q

- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks

Ref. No.	Dia. x Length		mm	Cat. No.	Medium	UPC No.	Weight		Shank		
	Inch	mm					lb	k	Inch	mm	
Y3P	1/4	6	x 1	25 x 7/8	22 Radius	50969	037103509697	.05	23	1/4	6
Y4Q	5/16	8	x 1 1/8	29 x 1 1/8	29 Radius	50975	037103509758	.06	27	1/4	6

## Inverted Cone Shape 33° Included Angle Ground Bur Style "Z"



- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks

Ref. No.	Dia. x Length		mm	Cat. No.	Medium	UPC No.	Weight		Shank		
	Inch	mm					lb	k	Inch	mm	
Z10J	3/4	19	x 5/8	16		50987	037103509871	.10	45	1/4	6

## Barrel Shape Ground Bur Style "QQ"



- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks

Ref. No.	Dia. x Length					Cat. No.	Medium	UPC No.	Weight		Shank	
	Inch	mm	x	Inch	mm				lb	k	Inch	mm
QQ7P	1/2	13	x	1	25	51011		037103510112	.11	50	1/4	6

## Cylindrical Shape Double Taper 60° Included Angle Ground Bur Style "RR"



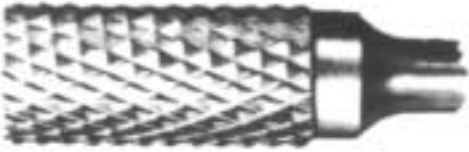
- Stocked in medium cut
- Ground burs with 1/4"/6mm shanks

Ref. No.	Dia. x Length					Cat. No.	Medium	UPC No.	Weight		Shank	
	Inch	mm	x	Inch	mm				lb	k	Inch	mm
RR15E	1 1/8	28	x	3/8	9	51017		037103510174	.15	68	1/4	6

### Tungsten Carbide Burs With 1/4"/6mm Shanks



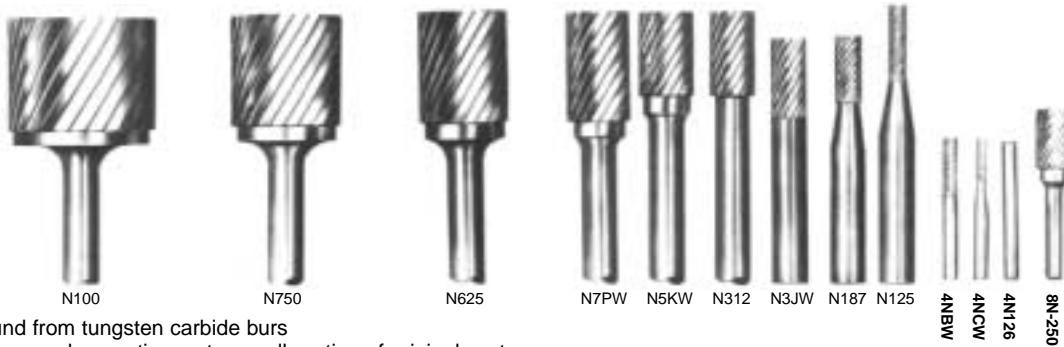
Standard Cut



Diamond Cut

- Precision ground from tungsten carbide blanks
- Carbide burs which have 1/4"/6mm diameter heads or less are made from solid carbide eliminating the possibility of heads snapping off at the braze
- Burs over 1/4 in/6mm diameter are made with carbide heads brazed to heat treated steel shank 2"/50mm long
- Burs can be reground many times at a small portion of original cost
- Recommended speeds on page 213
- Limited number of carbide burs are available with 1/8"/3mm burs, code numbers are in bold

### Cylindrical Flat End



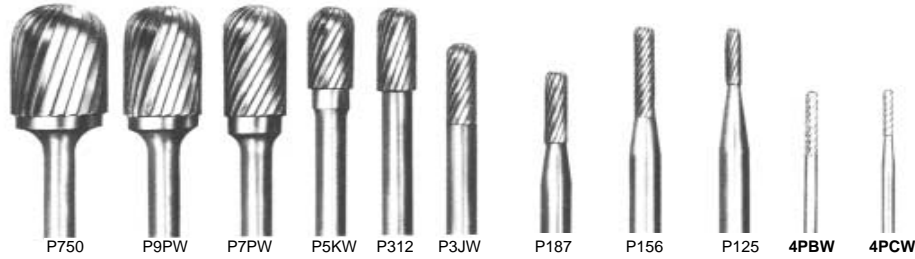
- Precision ground from tungsten carbide burs
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Standard		Diamond Cut Standard		Diamond Cut Standard		End Cut Standard		Weight		Shank		
	Inch	mm x mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm	
<b>N100</b>	1	25 x 1	25	<b>51421</b>	514219	-	-	-	-	-	-	.06	27	1/4	6
<b>N750</b>	3/4	19 x 1	25	<b>51397</b>	513977	-	-	-	-	-	-	.06	27	1/4	6
<b>N625</b>	5/8	16 x 1	25	<b>51325</b>	513250	<b>51337</b>	513373	-	-	-	-	.06	27	1/4	6
<b>N7PW*</b>	1/2	13 x 1	25	<b>51301</b>	513014	<b>51313</b>	513137	<b>51319</b>	513199	-	-	.06	27	1/4	6
<b>N5KW*</b>	3/8	9 x 3/4	19	<b>51253</b>	512536	<b>51265</b>	512659	-	-	<b>51259</b>	512598	.06	27	1/4	6
<b>N312*</b>	5/16	8 x 3/4	19	<b>51229</b>	512291	-	-	-	-	-	-	.06	27	1/4	6
<b>N3JW*</b>	1/4	6 x 5/8	16	<b>51205</b>	512055	<b>51217</b>	512178	-	-	<b>51211</b>	512116	.06	27	1/4	6
<b>N187</b>	3/16	5 x 5/8	16	<b>51181</b>	511812	-	-	-	-	-	-	.06	27	1/4	6
<b>N125</b>	1/8	3 x 1/2	13	<b>51133</b>	511331	-	-	-	-	-	-	.06	27	1/4	6
<b>4NBW</b>	1/8	3 x 9/16	14	<b>52501</b>	525017	-	-	-	-	-	-	.03	14	1/8	3
<b>4NCW</b>	3/32	2 x 7/16	11	<b>52525</b>	525253	-	-	-	-	-	-	.03	14	1/8	3
<b>4N-126</b>	1/8	3 x 9/16	14	<b>52573</b>	525734	-	-	-	-	-	-	.03	14	1/8	3
<b>8N-250</b>	1/4	6 x 1/2	13	<b>52975</b>	529756	-	-	-	-	-	-	.04	18	1/8	3

\* Can be furnished with cut end



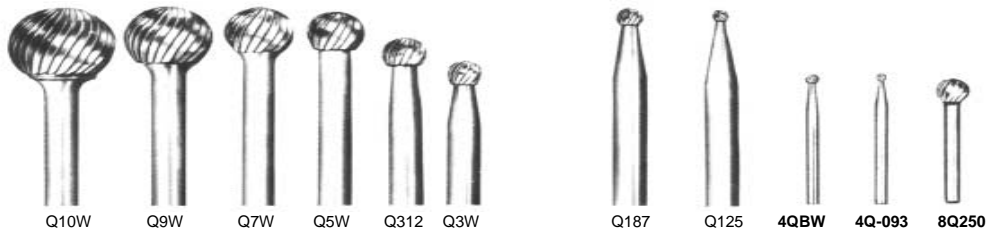
Cylindrical Radius End



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Standard		Diamond Cut Standard		Weight		Shank	
	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
P750	3/4	19 x 1	51553	515537	-	-	-	-	1/4	6
P9PW	5/8	16 x 1	51541	515414	-	-	-	-	1/4	6
P7PW	1/2	13 x 1	51529	515292	51535	515353	-	-	1/4	6
P5KW	3/8	9 x 3/4	51505	515056	51511	515117	-	-	1/4	6
P312	5/16	8 x 3/4	51493	514936	-	-	-	-	1/4	6
P3JW	1/4	6 x 5/8	51481	514813	51487	514875	-	-	1/4	6
P187	3/16	5 x 5/8	51469	514691	-	-	-	-	1/4	6
P156	5/32	4 x 5/8	51457	514578	-	-	-	-	1/4	6
P125	1/8	3 x 1/2	51445	514455	-	-	-	-	1/4	6
4PBW	1/8	3 x 9/16	52579	525796	-	-	.03	14	1/8	3
4PCW	3/32	2 x 7/16	52591	525918	-	-	.03	14	1/8	3

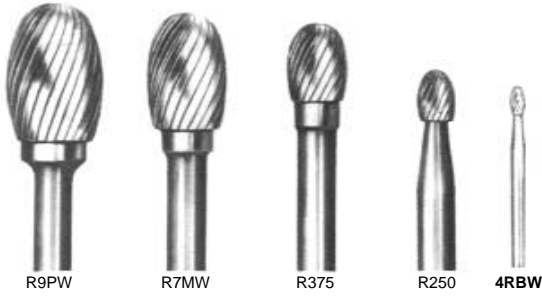
Ball Shape



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Standard		Diamond Cut Standard		Weight		Shank	
	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
Q10W	3/4	19	51661	516619	-	-	-	-	1/4	6
Q9W	5/8	16	51649	516497	-	-	-	-	1/4	6
Q7W	1/2	13	51637	516374	51643	516435	-	-	1/4	6
Q5W	3/8	9	51613	516138	51619	516190	-	-	1/4	6
Q312	5/16	8	51601	516015	-	-	-	-	1/4	6
Q3W	1/4	6	51589	515896	51595	515957	-	-	1/4	6
Q187	3/16	5	51577	515773	-	-	-	-	1/4	6
Q125	1/8	3	51565	515650	-	-	-	-	1/4	6
4QBW	1/8	3	52603	526038	-	-	.02	9	1/8	3
4Q093	3/32	2	52615	526151	-	-	.02	9	1/8	3
8Q250	1/4	6	53023	530233	-	-	.03	14	1/8	3

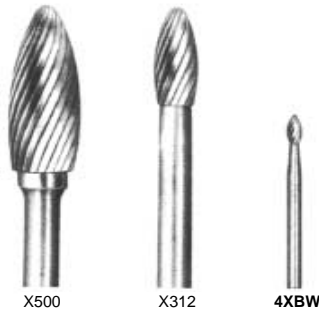
### Oval Shape



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Standard		Diamond Cut Standard		Weight		Shank	
	Inch	mm x	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
R9PW	5/8	16 x 1	51721	517210	-	-	-	-	1/4	6
R7MW	1/2	13 x 7/8	51709	517098	51715	517159	-	-	1/4	6
R375	3/8	9 x 5/8	51697	516978	51703	517036	-	-	1/4	6
R250	1/4	6 x 3/8	51685	516855	-	-	-	-	1/4	6
4RBW	1/8	3 x 7/32	52627	526274	-	-	.03	14	1/8	3

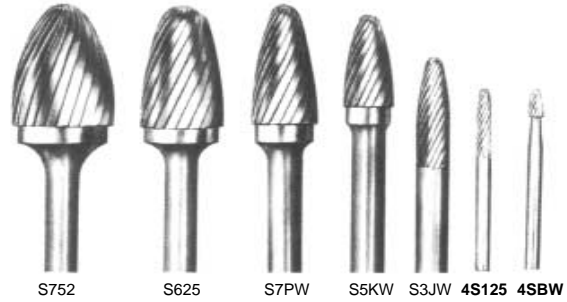
### Flame Shape



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Standard		Diamond Cut Standard		Weight		Shank	
	Inch	mm x	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
X500	1/2	13 x 1 1/4	51757	517579	51763	517630	-	-	1/4	6
X312	5/16	8 x 3/4	51745	517456	-	-	-	-	1/4	6
4XBW	1/8	3 x 1/4	52747	527479	-	-	.03	14	1/8	3

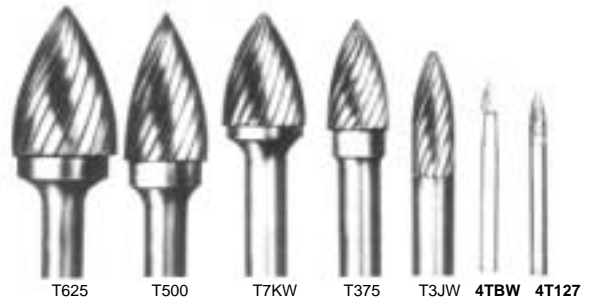
## Tree Shape Radius End



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length				Standard		Diamond Cut Standard		Weight		Shank		
	Inch	mm	x	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
S752	3/4	19	x	1 1/4	32	51973	519733	-	-			1/4	6
S625	5/8	16	x	1	25	51961	519610	-	-	-	-	1/4	6
S7PW	1/2	13	x	1	25	51949	519498	-	-	-	-	1/4	6
S5KW	3/8	9	x	3/4	19	51913	519139	51919	519191	.08	36	1/4	6
S3JW	1/4	6	x	5/8	16	51901	519016	51907	519078	.07	32	1/4	6
4S125	1/8	3	X	1/2	13	52639	526397	-	-	.03	14	1/8	3
4SBW	1/8	3	X	1/4	6	52651	526519	-	-	.03	14	1/8	3

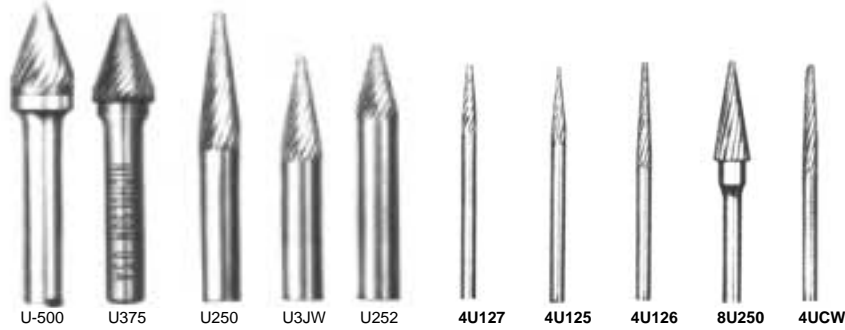
## Tree Shape Pointed End



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length				Standard		Diamond Cut Standard		Weight		Shank		
	Inch	mm	x	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm
T625	5/8	16	x	1	25	52069	520692	-	-			1/4	6
T500	1/2	13	x	1	25	52057	520579	52063	520630	-	-	1/4	6
T7KW	1/2	13	x	3/4	19	52045	520456	-	-	-	-	1/4	6
T375	3/8	9	x	3/4	19	52033	520333	52039	520395	-	-	1/4	6
T3JW	1/4	6	x	5/8	16	52009	520098	52015	520159	-	-	1/4	6
4TBW	1/8	3	X	1/4	6	52663	526632	-	-	.03	14	1/8	3
4T127	1/8	3	X	3/8	6	52687	526878	-	-	.03	14	1/8	3

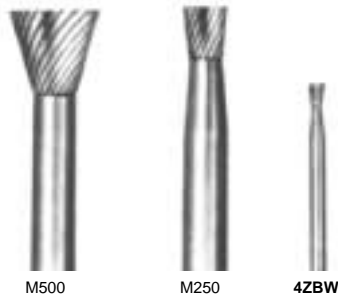
### Cone Shape



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Included Angle	Standard		Weight		Shank	
	Inch	mm x Inch mm		Cat. No.	UPC No. 037103	lb	k	Inch	mm
U-500	1/2	13 x 7/8 22	28°	52153	037103521538	.13	59	1/4	6
U375	3/8	9 x 5/8 16	28°	52141	037103521415	-	-	1/4	6
U250	1/4	6 x 1 25	10°	52129	037103521293	.06	27	1/4	6
U3JW	1/4	6 x 3/4 19	14°	52117	037103521170	-	-	1/4	6
U252	1/4	6 x 1/2 13	22°	52105	037103521057	-	-	1/4	6
4U127	1/8	3 x 3/8 9	12°	52699	037103526991	.02	9	1/8	3
4U125	1/8	3 x 7/16 11	14°	52711	037103527110	.02	9	1/8	3
4U126	1/8	3 x 5/8 16	7°	52723	037103527233	.02	9	1/8	3
8U250	1/4	6 x 1/2 13	22°	53071	037103530714	.04	18	1/8	3
4UCW	1/8	3 x 1/2 13	8°	52831	037103528315	.02	9	1/8	3

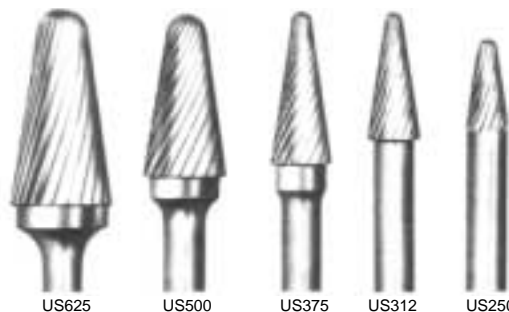
### Inverted Cone



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost
- Limited number of carbide burs are available with 1/8"/3mm shanks

Ref. No.	Dia. x Length		Included Angle	Standard		Weight		Shank	
	Inch	mm x Inch mm		Cat. No.	UPC No. 037103	lb	k	Inch	mm
M500	1/2	13 x 1/2 13	28°	51817	037103518170	-	-	1/4	6
M250	1/4	6 x 5/16 8	10°	51793	037103517937	-	-	1/4	6
4ZBW	1/8	3 x 3/16 5	10°	52771	037103527714	.02	9	1/8	3

## Cone Shape Radius End 14° Included Angle



- Precision ground from tungsten carbide blanks
- Burs can be reground many times at a small portion of original cost

Ref. No.	Dia. x Length		Standard		Diamond Cut Standard		Weight		Shank		
	Inch	mm	Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103	lb	k	Inch	mm	
US625	5/8	16	x	15/16	33	52477	524775	-	-	1/4	6
US500	1/2	13	x	11/8	28	52465	524652	52471	524713	-	6
US375	3/8	9	x	11/16	27	52453	524539	52459	524591	-	6
US312	5/16	8	x	7/8	22	52441	524416	-	-	1/4	6
US250	1/4	6	x	5/8	16	52429	524294	-	-	1/4	6

## Recommended Speeds For Nicholson® Carbide Burs

- **Table No.1** lists approximate recommended speeds for malleable iron (steel welds, cast iron, tool steels, die steels, naval bronze, brass, aluminum)
- **Table No. 2** lists approximate recommended speeds for stainless steel
- **NOTE:** Diamond Cut Burs reduce speeds by approximately 1/3 to 1/2 in corresponding tables and cuts shown
- **CAUTION:** Be sure to chuck bur shank true and to full capacity of the machine chuck
- **IMPORTANT:** Recommended speeds are applicable only if bur is chucked to full length of shank supplied

Bur Diameter	mm	R.P.M. for Standard	
		Table No. 1	Table No. 2
1/16	1.5	50,000	75,000
3/32	2	40,000	60,000
1/8	3	35,000	53,000
3/16	5	25,000	38,000
1/4	6	22,000	33,000
5/16	8	20,000	30,000
3/8	10	18,000	27,000
7/16	11	17,000	26,000
1/2	13	16,000	24,000
5/8	16	15,000	23,000
3/4	19	14,000	21,000
7/8	22	13,000	20,000
1	25	12,000	18,000

## Rotary Files And Ground Burs Kits



51107  
(No. 30)



51113  
(No. 40)

Ref. No.	Cat. No.	UPC No.
30	51107	037103511072
20	51101	037103511010
40	51113	037103511133

### Rotakit for rotary files - No.30 (51107) 1/4"/6mm shanks

Ref. No.	Cat. No.	UPC No.	Quantity	Description
A3P	50015	037103500151	1	Cylindrical shape - Flat end
A7P	50051	037103500519	1	Cylindrical shape - Flat end
A10K	50075	037103500755	1	Cylindrical shape - Flat end
C3	50159	037103501592	1	Ball shape
C5	50171	037103501714	1	Ball shape
D7M	50219	037103502193	1	Oval shape
F7Q	50291	037103502919	1	Tree shape - Pointed end
G3R	50327	037103503275	1	Cone shape
L3P	50441	037103504418	1	Bi-shape
M10J	50459	037103504593	1	Inverted cone shape

### Rotakit for ground burs - No.20 (51101) 1/4"/6mm shanks

Ref. No.	Cat. No.	UPC No.	Quantity	Description
N7P	50561	037103505613	1	Cylindrical shape - Flat end
P3P	50627	037103506276	1	Cylindrical shape - Radius end
P7P	50651	037103506511	1	Cylindrical shape - Radius end
Q3	50681	037103506818	1	Ball shape
Q5	50693	037103506931	1	Ball shape
Q7	50699	037103506993	1	Ball shape
R5K	50729	037103507297	1	Oval shape
R7M	50741	037103507419	1	Oval shape
S7Q	50783	037103507839	1	Tree shape - Radius end
T7Q	50819	037103508195	1	Tree shape - Pointed end

### Rotakit for ground burs and rotary files - No.40 (51113) 1/4"/6mm shanks

Ref. No.	Cat. No.	UPC No.	Quantity	Description
<b>Ground Burs</b>				
N7P	50561	037103505613	1	Cylindrical shape - Flat end
P7P	50651	037103506511	1	Cylindrical shape - Radius end
Q7	50699	037103506996	1	Bell shape
S7Q	50783	037103507839	1	Tree shape - Radius end
T7Q	50819	037103508195	1	Tree shape - Pointed end
<b>Rotary files</b>				
A7P	50051	037103500519	1	Cylindrical shape - Flat end
C5	50171	037103501714	1	Ball shape
D7M	50219	037103502193	1	Oval shape
G3R	50327	037103503275	1	Cone shape
F7Q	50291	037103502919	1	Tree shape - Pointed end

# Select-O-Stand RD45 (51114) - 1/4"/6mm Shanks

- 45 high speed steel files and burs
- Contains 26 hand cut rotary file and 19 ground burs
- Display designed for easy identification of each tool head



Ref. No.	Cat. No.	UPC No.
45	51114	037103511140

**Hand Cut Rotary Files**

Ref. No.	Cat. No.	UPC No.	Inch	Size x	Inch	mm	Size x	mm
<b>Cylindrical shapes, flat ends</b>								
A3P	50015	037103500151	1/4	x	6		x	25
A3U	50027	037103500274	1/4	x	1 1/2	6	x	38
A4U	50033	037103500335	5/16	x	1 1/2	8	x	38
A5P	50039	037103500397	3/8	x	1	10	x	25
A5U	50045	037103500458	3/8	x	1 1/2	10	x	38
A7P	50051	037103500519	1/2	x	1	13	x	25
A7U	50057	037103500571	1/2	x	1 1/2	13	x	38
A9P	50063	037103500632	5/8	x	1	16	x	25
A10K	50075	037103500755	3/4	x	3/4	19	x	19
A14P	50081	037103500816	1	x	1	25	x	25
<b>Cylindrical shapes, radius ends</b>								
B3P	50093	037103500939	1/4	x	1	6	x	25
B5P	50111	037103501110	3/8	x	1	10	x	25
B7P	50123	037103501233	1/2	x	1	13	x	25
<b>Ball shapes</b>								
C3	50159	037103501592	1/4			6		
C5	50171	037103501714	3/8			10		
C7	50177	037103501776	1/2			13		
<b>Tree shaped, radius ends</b>								
E3K	50243	031703502438	1/4	x	3/4	6	x	19
E5K	50249	037103502490	3/8	x	3/4	10	x	19
E7Q	50255	037103502551	1/2	x	1 1/8	13	x	28
<b>Tree shaped, pointed ends</b>								
F3G	50273	037103502735	1/4	x	1/2	6	x	13
F5K	50279	037103502797	3/8	x	3/4	10	x	19
F7Q	50291	037103502919	1/2	x	1 1/2	13	x	28
<b>Cone shaped</b>								
G3G	50309	037103503091	1/4	x	1/2	6	x	13
G3P	50321	037103503213	1/4	x	1	6	x	25
G4P	50339	037103503398	5/16	x	1	8	x	25
G7M	50351	037103503510	1/2	x	7/8	13	x	22

## Select-O-Stand - Continued RD45 (51114) - 1/4"/6mm Shanks

Ground Burs

Ref. No.	Cat. No.	UPC No.	Inch	Size x	Inch	mm	Size x	mm
<b>Cylindrical shapes, flat ends</b>								
N3P	50501	037103505019	1/4	x	1	6	x	25
N5P	50537	037103505378	3/8	x	1	10	x	25
N7P	50561	037103505613	1/2	x	1	13	x	25
N14P	50609	037103506092	1	x	1	25	x	25
<b>Cylindrical shapes, radius ends</b>								
P3P	50627	037103506276	1/4	x	1	6	x	25
P5P	50639	037103506399	3/8	x	1	10	x	25
P7P	50651	037103506511	1/2	x	1	13	x	25
P10R	50663	037103506634	3/4	x	1 1/4	19	x	32
<b>Ball shapes</b>								
Q3	50681	037103506818	1/4			6		
Q5	50693	037103506931	3/8			10		
Q7	50699	037103506993	1/2			13		
<b>Tree shaped, radius ends</b>								
S5K	50777	031703507778	3/8	x	3/4	10	x	19
S7Q	50783	037103507839	1/2	x	1 1/8	13	x	28
S10P	50789	037103507891	3/4		1	19	x	25
<b>Tree shaped, pointed ends</b>								
T3G	50801	037103508010	1/4	x	1/2	6	x	13
T5K	50807	037103508072	3/8	x	3/4	10	x	19
T7Q	50819	037103508195	1/2	x	1 1/8	13	x	28
<b>Cone shaped</b>								
U3R	50855	037103508553	1/4	x	1 1/4	6	x	32
U7M	50879	037103508799	1/2	x	7/8	13	x	22



# Carbiset No. 100 (53543) Solid Tungsten Carbide 1/8"/3mm Shanks

Ref. No.	Cat. No.	UPC No.
100	53543	037103535436



Ref. No.	Cat. No.	UPC No.	Quantity	Description
4NBW	52501	037103525017	1	Cylindrical shape - Flat end
4NCW	52525	037103525253	1	Cylindrical shape - Flat end
4PBW	52579	037103525796	1	Cylindrical shape - Radius end
4PCW	52591	037103525918	1	Cylindrical shape - Radius end
4QBW	52603	037103526038	1	Ball shape
4RBW	52627	037103526274	1	Oval shape
4SBW	52651	037103526519	1	Tree shape - Radius end
4TBW	52663	037103526632	1	Tree shape - Pointed end
4T127	52687	037103526878	1	Tree shape - Pointed end
4UCW	52831	037103528315	1	Cone shape
4XBW	52747	037103527479	1	Flame shape
4ZBW	52771	037103527714	1	Inverted cone

## Rotasets For 1/8"/3mm Shanks



Ref. No.	Cat. No.	UPC No.
55	51115	037103511157
66	51117	037103511171
77	51119	037103511195

### Rotaset for ground burs - No.55 (51115)

Ref. No.	Cat. No.	UPC No.	Quantity	Description
4T3G	51083	037103510839	1	Tree shape - Pointed end
4R3G	51079	037103510792	1	Oval shape
4Q5	51075	037103510754	1	Ball shape
4U1H	51089	037103510891	1	Cone shape
4X3G	51095	037103510952	1	Flame shape
4N3G	51065	037103510655	1	Cylindrical shape - Flat end
4P1J	51071	037103510716	1	Cylindrical shape - Radius end
4V9A	51073	037103510730	1	Cylindrical shape - Radius end and edge

### Rotaset for rotary files - No.66 (51117)

Ref. No.	Cat. No.	UPC No.	Quantity	Description
4F3G	51047	037103510471	1	Tree shape - Pointed end
4D3G	51043	037103510433	1	Oval shape
4C5	51039	037103510396	1	Ball shape
4G1H	51053	037103510532	1	Cone shape
4G3G	51049	037103510495	1	Cone shape 25°
4A3G	51029	037103510297	1	Cylindrical shape - Flat end
4B1J	51035	037103510358	1	Cylindrical shape - Radius end
4H9A	51037	037103510372	1	Cylindrical shape - Radius end and edge

### Rotaset for ground burs and rotary files - No.77 (51119)

Ref. No.	Cat. No.	UPC No.	Quantity	Description
<b>Ground Burs</b>				
4T3G	51083	037103510839	1	Tree shape - Pointed end
4R3G	51079	037103510792	1	Oval shape
4Q5	51075	037103510754	1	Ball shape
4U1H	51089	037103510891	1	Cone shape
4X3G	51095	037103510952	1	Flame shape
4N3G	51065	037103510655	1	Cylindrical shape - Flat end
4P1J	51071	037103510716	1	Cylindrical shape - Radius end
4V9A	51073	037103510730	1	Cylindrical shape - Radius end and edge
4Q3	51077	037103510778	1	Ball shape
<b>Rotary files</b>				
4F3G	51047	037103510471	1	Tree shape - Pointed end
4D3G	51043	037103510433	1	Oval shape
4C5	51039	037103510396	1	Ball shape
4G1H	51053	037103510532	1	Cone shape
4G3G	51049	037103510495	1	Cone shape 25°
4A3G	51029	037103510297	1	Cylindrical shape - Flat end
4B1J	51035	037103510358	1	Cylindrical shape - Radius end
4H9A	51037	037103510372	1	Cylindrical shape - Radius end and edge
4A1J	51031	037103510310	1	Cylindrical shape - Flat end

Machetes



- Fully polished high carbon steel blade for durability
- Laquer clear-coated blade resists corrosion
- High-impact handle with contour and texture to improve control



Cat No.	UPC No.	Description	Length		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
MP12718	037103169693	Machete	18	457	0.92	417	10
MP12722	037103169686	Machete	22	559	1.32	599	10
MP12724	037103190697	Machete	24	610	1.50	680	10
MS12718	037103190703	Sheath	18	457	0.10	46	10
MS12722	037103190710	Sheath	22	559	0.11	50	10
MS12724	037103190727	Sheath	24	610	0.12	54	10

PREDATOR™

- Thin kerf
- Fast, easy and accurate cutting
- Micro-grain carbide tips improve impact resistance and maintain cutting edge longer
- Fully plate-hardened blade helps eliminate dishing and wobbling under continuous use
- Tips are precision-ground on the sides, top and face for sharper, smoother cuts
- Expansion slots dissipate any heat buildup

Carbide



Cat No.	UPC No.	Packed	Blade Diameter		Arbor Hole			Teeth	Pack Weight		Shelf Pack
			Inch	mm	Inch	mm	type		lb	g	
80803	037103808035	Carded	5 1/2	140	5/8	15.87	Round	18	1.6	726	5
80804	037103808042	Carded	6 1/2	165	--	--	Universal	18	2.1	953	5
80805	037103808059	Carded	7 1/4	184	--	--	Universal	24	2.8	1270	5
80824	037103808240	Bulk	7 1/4	184	--	--	Universal	24	4.9	2223	10
80808	037103808080	Carded	7 1/4	184	--	--	Universal	36	2.9	1315	5
80820	037103808202	Carded	8 1/4	210	--	--	Universal	40	5.1	2313	5
80818	037103808189	Carded	10	254	5/8	15.87	Round	24	7.1	3221	5
80807	037103808073	Carded	10	254	5/8	15.87	Round	40	7.1	3221	5
80809	037103808097	Carded	10	254	5/8	15.87	Round	60	7.2	3266	5
80811	037103808110	Carded	12	305	1	25.40	Round	60	12.0	5443	5

Weight shown per shelf pack

### Quik-Cut® Carbide



- Anti-kick design
- Blade glides through 2 x 4's, particle board, plywood and all hard and soft wood economically
- Ideal for applications where finish is not critical
- Made from finest alloy saw steel
- Stays sharper longer, resists rust
- Cuts smoother with less friction

Cat No.	UPC No.		Blade Diameter		Arbor Hole		type	Teeth	Pack Weight		Shelf Pack
			Inch	mm	Inch	mm			lb	g	
80882	037103808820	Carded	7 1/4	184	-	-	Universal	16	-	-	10
80879	037103808790	Bulk	7 1/4	184	-	-	Universal	16	15.6	7088	25
80883	037103808837	Carded	7 1/4	184	-	-	Universal	24	-	-	10
80905	037103809056	Bulk	7 1/4	184	-	-	Universal	24	-	-	25
80884	037103808844	Carded	7 1/4	184	-	-	Universal	36	-	-	10
80880	037103808806	Bulk	7 1/4	184	-	-	Universal	40	15.6	7088	25

Weight shown per shelf pack

### Magicut® Plywood and Laminates

Steel



- Flat ground
- For smooth cutting of paneling, plywood and laminates
- Made from finest alloy saw steel
- Stays sharper longer, resists rust
- Easily resharpened
- Cuts smoother with less friction

Cat No.	UPC No.	Packed	Blade Diameter		Arbor Hole		type	Pack Weight		Shelf Pack
			Inch	mm	Inch	mm		lb	g	
80738	037103807380	Carded	6 1/2	165	-	-	Universal	6.38	2890	10
80758	037103807588	Carded	7 1/4	184	-	-	Universal	8.13	3682	10
80768	037103807687	Carded	8	203	-	-	Universal	10.94	4955	5
80778	037103807786	Carded	10	254	5/8	15.87	Round	8.94	4049	1

## Magicut® Master Combination

Steel

- Flat ground
- For smooth cross cutting, ripping and mitering
- Made from finest alloy saw steel
- Stays sharper longer, resists rust
- Easily resharpened
- Cuts smoother with less friction
- Fast cutting teeth are set for clearance



Cat No.	UPC No.	Packed	Blade Diameter		Arbor Hole		type	Pack Weight		Shelf Pack
			Inch	mm	Inch	mm		lb	g	
80687	037103806871	Carded	7 1/4	184	-	-	Universal	8.13	3682	10
80714	037103807144	Carded	10	254	5/8	15.87	Round	8.94	4049	5

## Magicut® Combination Rip

Steel

- Flat ground
- Designed for smooth cutting in any direction through all types of wood
- Made from finest alloy saw steel
- Stays sharper longer, resists rust
- Easily resharpened
- Cuts smoother with less friction



Cat No.	UPC No.	Packed	Blade Diameter		Arbor Hole		type	Pack Weight		Shelf Pack
			Inch	mm	Inch	mm		lb	g	
80538	037103805386	Carded	6 1/2	165	-	-	Universal	6.38	2890	10
80557	037103805577	Carded	7 1/4	184	-	-	Universal	8.13	3682	10
80566	037103805669	Carded	8	203	-	-	Universal	10.94	4955	10
80575	037103805751	Carded	9	228	5/8	15.87	Round	6.13	2776	5
80583	037103805836	Carded	10	254	5/8	15.87	Round	8.94	4049	5
80591	037103805911	Carded	12	305	1	25.4	Round	2.88	1304	1
80553	037103805539	Bulk	7 1/4	184	-	-	Universal	40.6	18416	50

### Quik-Cut® Steel



- Advanced tooth design ensures straight cutting while virtually eliminating kickback
- Forged from the finest high-carbon steel
- Teeth are precision-ground and sharpened for fast, smooth cutting
- Ideal for cutting 2 x 4's, plywood and decks

Cat No.	UPC No.	Packed	Blade Diameter		Arbor Hole		Teeth	Pack Weight		Shelf Pack	
			Inch	mm	Inch	mm		type	lb		g
80881	037103808813	Bulk	7 1/4	184	-	-	Universal	24	15.6	7088	25

Weight shown per shelf pack

### Circular Saw Blade Bushing

Cat No.	UPC No.	Reference No.	Description					Shelf Pack
			Inch	mm	x	Inch	mm	
80928	037103809285	1	5/8	15.87	x	1/2	12.70	1 envelope*

\*10 bushings per envelope

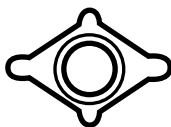
### Circular Saw Blades

Recommended/Maximum RPM for all Nicholson Circular Saw Blades.

Round  
5/8"/15.87mm



Universal  
5/8" or Diamond



Size Inches.	RPM
5 1/2	7500
6	7000
6 1/2	6500
7	6000
7 1/4	5800
8	5800
9	7500
10	6000

## Bi-Metaloy® Holesaws

### Holesaws, Arbors and Holesaw Kits



- Permits fast, clean cuts in tough and mild steels, cast iron, aluminum, brass, bronze, plastics, iron or steel pipe and wood
- Cutting edge made of specially selected high-speed steel
- Cuts holes from 9/16"/14mm to 6"/152mm in diameter and up to 1 1/8"/28mm deep
- Follows completely through its own hole
- 6 tpi to cutting edge

Cat. No.	UPC # 037103	Ref. No.	Saw		*Pipe Size				Speed (RPM)	
			Diameter Inch	mm	Tap Inch	mm	Entrance Inch	mm	Mild Steel	Cast Iron
81152	811523	H109	9/16	14.28	-	-	-	-	530	400
81155	811554	H110	5/8	15.87	-	-	-	-	550	365
81158	811585	H111	11/16	17.46	-	-	-	-	500	330
81161	811615	H112	3/4	19.05	1/2	12.70	3/8	9.52	460	300
81167	811677	H114	7/8	22.22	3/4	19.05	1/2	12.70	390	260
81170	811707	H115	15/16	23.81	-	-	-	-	370	245
81173	811738	H116	1	25.40	-	-	-	-	350	235
81176	811769	H117	1 1/16	26.98	-	-	-	-	325	215
81179	811790	H118	1 1/8	28.57	1	25.40	3/4	19.05	300	200
81182	811820	H119	1 3/16	30.16	-	-	-	-	285	190
81188	811882	H120	1 1/4	31.75	-	-	-	-	275	180
81191	811912	H121	1 5/16	33.33	-	-	-	-	260	175
81197	811974	H122	1 3/8	34.92	-	-	1	25.40	250	165
81200	812001	H123	1 7/16	36.51	-	-	-	-	240	160
81206	812063	H124	1 1/2	38.10	1 1/4	31.75	-	-	230	150
81209	812094	H125	1 9/16	39.68	-	-	-	-	220	145
81212	812124	H126	1 5/8	41.27	-	-	-	-	210	140
81215	812155	H127	1 11/16	42.68	-	-	-	-	205	135
81218	812186	H128	1 3/4	44.45	1 1/2	38.10	1 1/4	31.75	195	130
81224	812247	H130	1 7/8	47.62	-	-	-	-	180	120
81227	812278	H132	2	50.80	-	-	1 1/2	38.10	170	115
81230	812308	H133	2 1/16	52.38	-	-	-	-	165	110
81233	812339	H134	2 1/8	53.97	-	-	-	-	160	105

Cat. No.	UPC # 037103	Ref. No.	Saw		*Pipe Size				Speed (RPM)	
			Diameter Inch	mm	Tap Inch	mm	Entrance Inch	mm	Mild Steel	Cast Iron
81236	812360	H136	2 1/4	57.15	2	50.80	-	-	150	100
81242	812421	H138	2 3/8	60.32	-	-	-	-	140	95
81245	812452	H140	2 1/2	63.50	-	-	2	50.80	135	90
81248	812483	H141	2 9/16	65.08	-	-	-	-	130	85
81251	812513	H142	2 5/8	66.67	2 1/2	63.50	-	-	130	85
81254	812544	H144	2 3/4	69.85	-	-	-	-	125	80
81257	812575	H146	2 7/8	73.02	-	-	-	-	120	80
81260	812605	H148	3	76.20	-	-	2 1/2	63.50	115	75
81263	812636	H150	3 1/8	79.37	-	-	-	-	110	70
81266	812667	H152	3 1/4	82.55	3	76.20	-	-	105	70
81272	812728	H156	3 1/2	88.90	-	-	-	-	95	65
81275	812759	H158	3 5/8	92.07	-	-	3	76.20	95	60
81278	812780	H160	3 3/4	95.25	3 1/2	88.90	-	-	90	60
81281	812810	H162	3 7/8	98.42	-	-	-	-	90	60
81284	812841	H164	4	101.60	-	-	-	-	85	55
81287	812872	H166	4 1/8	104.77	-	-	3 1/2	88.90	80	55
81296	812964	H172	4 1/2	114.30	-	-	4	101.60	75	50
81302	813022	H180	5	127	-	-	-	-	65	45
81308	813084	H188	5 1/2	139.70	-	-	-	-	60	40
81314	813145	H196	6	152.40	-	-	-	-	55	35

## Mandrels / Arbors

With high-speed 1/4"/6.35 mm pilot drills



Cat No.	UPC No.	Inch	Shank		Fitting saw diameter
			Inch	mm	
81317	037103813176	1/4	-	6.35 Round	9/16" to 1 3/16"
81318	037103813183	3/8	-	9.5 Hex	9/16" to 1 1/2"
81316	037103813169	3/8	-	9.5 Hex (PIN)	9/16" to 1 1/2"
81323	037103813237	7/16	-	11.11 Hex	9/16" to 1 3/16"
81335	037103813350	7/16	-	11.11 Hex (PIN)	1 1/4" to 6"
81344	037103813442	5/8	-	15.87 Hex (PIN)	1 1/4" to 6"
81426	037103814265	1/4	-	6.35 Pilot drill for arbors	3 1/16"
81427	037103814272	-	-	-	1/4" Arbor Adapter
81428	037103814289	1/4	-	6.35 Pilot drill for arbors	4 5/16"



### Bi-Metalloy® Holesaw Kits

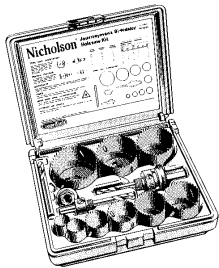


- Set meets exacting needs of jobs from electrical to plumbing
- 6 different assortments of rugged industrial grade, high-speed steel holesaws and accessories
- Packaged in a convenient, sturdy, plastic case

Cat. No.	UPC No.	Description	Shelf Pack
81429	037103814296	Journeyman's Holesaw Kit	1
81430	037103814302	Maintenance Holesaw Kit	1
81431	037103814319	Electrician's Holesaw Kit	1
81432	037103814326	Plumber's Holesaw Kit	1
81433	037103814333	Professional Holesaw Kit	1

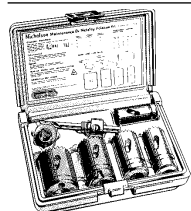
#### Contents of each kit:

Kit	Item	Cat. No.	UPC No.	Description	Quantity
Cat. No.	UPC No.	Cat. No.	UPC No.	Description	Quantity
	037103		037103		
<b>Journeyman's Holesaw Kit</b>					
81429	814296	81161	811615	3/4" holesaw	1
		81167	811677	7/8" holesaw	1
		81179	811790	1 1/8" holesaw	1
		81197	811974	1 3/8" holesaw	1
		81206	812063	1 1/2" holesaw	1
		81218	812186	1 3/4" holesaw	1
		81227	812278	2" holesaw	1
		81236	812360	2 1/4" holesaw	1
		81245	812452	2 1/2" holesaw	1
		81317	813176	1/4" round arbor	1
		81335	813350	7/16" hex pin arbor	1
		81427	814272	1/4" arbor adapter	1
		81428	814289	1/4" pilot drill	1



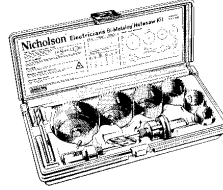
#### Maintenance Holesaw Kit

81430	814302	81167	811677	7/8" holesaw	1
		81173	811738	1" holesaw	1
		81179	811790	1 1/8" holesaw	1
		81188	811882	1 1/4" holesaw	1
		81206	812063	1 1/2" holesaw	1
		81317	813176	1/4" round arbor	1
		81427	814272	1/4" arbor adapter	1



#### Electrician's Holesaw Kit

81431	814319	81167	811677	7/8" holesaw	1
		81179	811790	1 1/8" holesaw	1
		81197	811974	1 3/8" holesaw	1
		81218	812186	1 3/4" holesaw	1
		81227	812278	2" holesaw	1
		81245	812452	2 1/2" holesaw	1
		81323	813237	7/16" hex arbor	1
		81335	813350	7/16" hex pin arbor	1
		81428	814289	1/4" pilot drill	1



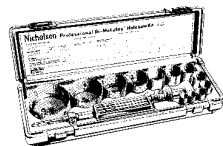
#### Plumber's Holesaw Kit

81432	8142326	81161	811615	3/4" holesaw	1
		81167	811677	7/8" holesaw	1
		81179	811790	1 1/8" holesaw	1
		81206	812063	1 1/2" holesaw	1
		81218	812186	1 3/4" holesaw	1
		81236	812360	2 1/4" holesaw	1
		81317	813176	1/4" round arbor	1
		81335	813350	7/16" hex pin arbor	1
		81428	814289	1/4" pilot drill	1



#### Professional Holesaw Kit

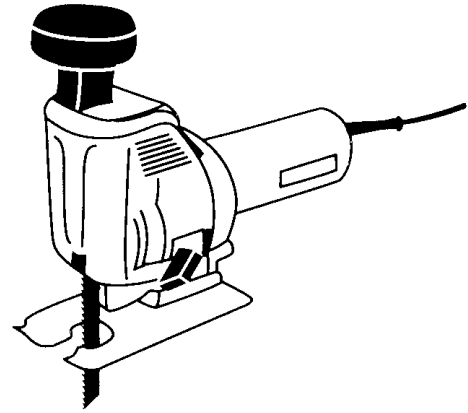
81433	814333	81155	811554	5/8" holesaw	1
		81161	811615	3/4" holesaw	1
		81167	811677	7/8" holesaw	1
		81173	811738	1" holesaw	1
		81179	811790	1 1/8" holesaw	1
		81188	811882	1 1/4" holesaw	1
		81197	811974	1 3/8" holesaw	1
		81206	812063	1 1/2" holesaw	1
		81218	812186	1 3/4" holesaw	1
		81227	812278	2" holesaw	1
		81245	812452	2 1/2" holesaw	1
		81260	812605	3" holesaw	1
		81323	813237	7/16" hex arbor	1
		81335	813350	7/16" hex pin arbor	1
		81428	814289	1/4" pilot drill	3





## Jig Saw Blades - Carded

- Available in bi-metal and high-speed steel
- Broad selection of sizes and shapes for cutting any material that can be saw cut
- General Rules:  
 Use more TPI for thin work  
 Use fewer TPI for thicker work  
 At least two teeth should be in contact with the work material



### Bi-Metal



Cat. No.	UPC No.	Recommended Use	TPI	Type	Length x Width x Gauge	Blades Per Card	Pack Wt.		Shelf Pack
							lb	g	
81500	037103815002	Gen. purp. wood cuts	6	BM	3 5/8" x 5/16" x .035"	1	0.21	95.3	10 Cards
81502	037103815026	Fine wood, aluminum	10	BM	3 5/8" x 5/16" x .035"	1	0.22	99.8	10 Cards

### Bi-Metal



Cat. No.	UPC No.	Recommended Use	TPI	Type	Length x Width x Gauge	Blades Per Card	Pack Wt.		Shelf Pack
							lb	g	
81503	037103815033	Fine wood, metal	14	BM	2 3/4" x 5/16" x .035"	1	0.20	90.7	10 Cards
81504	037103815040	Metal over 18 gauge	18	BM	2 3/4" x 5/16" x .035"	1	0.20	90.7	10 Cards
81505	037103815057	Thin metals	24	BM	2 3/4" x 5/16" x .035"	1	0.20	90.7	10 Cards

### High-speed Steel



Cat. No.	UPC No.	Recommended Use	TPI	Type	Length x Width x Gauge	Blades Per Card	Pack Wt.		Shelf Pack
							lb	g	
81497	037103814975	Thin metals	32	HSS	2 3/4" x 5/16" x .035"	1	0.20	90.7	10 Cards

## Carbon Steel



Cat. No.	UPC No.	Recommended Use	TPI	Type	Length x Width x Gauge	Blades Per Card	Pack Wt.		Shelf Pack
							lb	g	
81506	037103815064	Gen. purp. wood cuts	6	HCS	3" x 5/16" x .042"	2	0.34	154.2	10 Cards
81507	037103815071	Fine wood, gen. purp.	10	HCS	3" x 5/16" x .050"	2	0.34	154.2	10 Cards

## Carbon Steel - Ground



Cat. No.	UPC No.	Recommended Use	TPI	Type	Length x Width x Gauge	Blades Per Card	Pack Wt.		Shelf Pack
							lb	g	
81508	037103815088	Wood; plastics, very clean cuts	10	Ground	3" x 1/4" x .050"	2	0.28	127.0	10 Cards

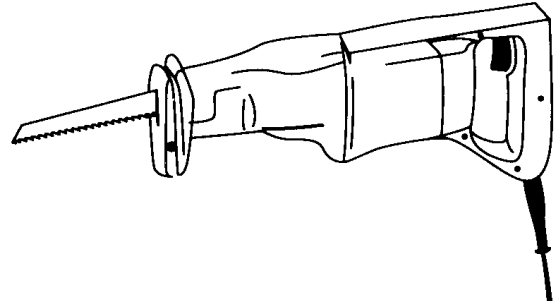
## Carbon Steel - Scroll



Cat. No.	UPC No.	Recommended Use	TPI	Type	Length x Width x Gauge	Blades Per Card	Pack Wt.		Shelf Pack
							lb	g	
81509	037103815095	Wood, plywood, plastics smooth cuts	12	Scroll	2 3/4" x 1/4" x .035"	2	0.22	99.8	10 Cards

## Reciprocating Blades

- For smooth cutting wood, nails, metal, cast iron and ceramics
- Makes contour cutting easy
- Bi-metal construction for long and rugged use
- Fits all reciprocating saws



### Bi-Metal

- \* Carded: 1 blade per card, 10 cards per shelf pack
- \*\* Pouch: 5 blades per pouch, 1 pouch per shelf pack



**Pouch		Recommended Use	TPI	Type	Length x Width x Gauge
Cat. No.	UPC No.				
81108	037103811080	For metal under 1/8" thick	18	BM	3 1/2" x 5/16" x .035"

### Bi-Metal

- \* Carded: 1 blade per card, 10 cards per shelf pack
- \*\* Pouch: 5 blades per pouch, 1 pouch per shelf pack



**Pouch		*Carded		Recommended Use	TPI	Type	Length x Width x Gauge
Cat. No.	UPC No.	Cat. No.	UPC No.				
81109	037103811097	81110	037103811103	For metal over 1/8" thick	14	BM	4" x 3/4" x .035"
-	-	81112	037103811127	For metal under 1/8" thick	18	BM	4" x 3/4" x .035"
81113	037103811134	-	-	For metal under 1/8" thick	24	BM	4" x 3/4" x .035"

## Bi-Metal and High Carbon Steel

- \* Carded: 1 blade per card, 10 cards per shelf pack
- \*\* Pouch: 5 blades per pouch, 1 pouch per shelf pack



**Pouch		*Carded		Recommended Use	TPI	Type	Length x Width x Gauge
Cat. No.	UPC No.	Cat. No.	UPC No.				
81117	037103811172	81118	037103811189	For wood/nails	10	BM	6" x 3/4" x .035"
81119	037103811196	81120	037103811202	For wood/nails	14	BM	6" x 3/4" x .035"
81121	037103811219	81122	037103811226	For wood/nails	18	BM	6" x 3/4" x .035"
81123	037103811233	81124	037103811240	For wood/nails	24	BM	6" x 3/4" x .035"
81131	037103811318	81132	037103811325	For wood/nails	6	BM	6" x 3/4" x .050"

### Bi-Metal and Grit



\*\* Pouch: 5 blades per pouch, 1 pouch per shelf pack  
 # 81140 Packed: 1 per pouch, 1 pouch per shelf pack

**Pouch		Recommended Use	TPI	Type	Length x Width x Gauge
Cat. No.	UPC No.				
81125	037103811257	For metal over 1/8" thick	10	BM	8" x 3/4" x .035"
81129	037103811295	For metal over 1/8" thick	18	BM	8" x 3/4" x .035"
# 81140	037103811400	For metal over 1/8" thick	-	GRIT	8" x 3/4" x .042"

### Bi-Metal



\* Carded: 1 blade per card, 10 cards per shelf pack  
 \*\* Pouch: 5 blades per pouch, 1 pouch per shelf pack

**Pouch		*Carded		Recommended Use	TPI	Type	Length x Width x Gauge
Cat. No.	UPC No.	Cat. No.	UPC No.				
81135	037103811356	-	-	For metal over 1/8" thick	6	BM	9" x 3/4" x .050"
81136	037103811363	81128	037103811288	For metal under 1/8" thick	14	BM	9" x 3/4" x .050"

### Bi-Metal and High Carbon Steel



\* Carded: 1 blade per card, 10 cards per shelf pack  
 \*\* Pouch: 5 blades per pouch, 1 pouch per shelf pack

**Pouch		*Carded		Recommended Use	TPI	Type	Length x Width x Gauge
Cat. No.	UPC No.	Cat. No.	UPC No.				
81130	037103811301	-	-	For wood/nails	18	BM	12" x 3/4" x .035"
81137	037103811370	81138	037103811387	For wood/nails	6	BM	12" x 3/4" x .050"
81142	037103811424	-	-	For wood/nails	6	HCS	12" x 3/4" x .050"
81139	037103811394	-	-	For wood/nails	14	BM	12" x 3/4" x .050"

# Reciprocating Blades

## Reciprocating Blade Cross Reference - Bi-Metal

L x W x T	Teeth Per Inch	Nicholson		Recommended Use	Lenox	B&D	Milwaukee	Malco	Starett	Bosch	Rule Ind
		Pouch	Card								
3 1/2" x 5/16" x .035"	18	81108	-	Contours metal under 1/8" thick	20521-318RC	40329	48-00-1103	2MS18	-	-	ULB118
					20522-S318RC		48-00-1102				
							48-01-1163				
4" x 3/4" x .035"	14	81109	81110	Metal over 1/8" thick Fiberglass	20550-414K	40312	48-00-1185	3TF14	B414-1	S518BF	ULB214
					20551-S414R		48-00-1181		B414-5		
					20526-B414R		48-01-1181		B414-50		
4" x 3/4" x .035"	18	-	81112	Metal under 1/8" thick pipe	20552-418R	40313	48-00-1183	3TF18	B418-1	S518EF	ULB218
					20553-S418R		48-01-1183		B418-5		
					20527-B418R				B418-50		
4" x 3/4" x .035"	24	-	81113	Metal pipe under 18 gage	20554-424R	40314	48-01-1185	3MC24	B-424-1	S518AF	ULB224
					20555-S424R				B-424-5		
					20528-B424R				B-424-50		
6" x 3/4" x .035"	10	81117	81118	Nail, embedded wood Compositions, plastics Non-ferrous metals	20562-5610R	40311	48-01-509	4GT10	B610-1	S311HF	ULB310
					20561-S610R	40328	48-01-5092	4KH8	B610-5	S811HF	ULB610
					20539-B610R		48-00-1180		B610-50		
							48-01-3090				
6" x 3/4" x .035"	14	81119	81120	Metal over 1/8" thick fiberglass	20564-614R	40315	48-00-1182	4TF14	B614-1	S918BF	ULB314
					20565-S614R		48-01-5182		B614-5		
					20540-B614R		48-01-1182		B614-50		
6" x 3/4" x .035"	18	81121	81122	Metal under 1/8" thick pipe, tubing	20566-618R	40316	48-01-5184	4TF18	B618-1	S918EF	ULB318
					20567-S618R		48-00-1184		B618-5		
					20541-B618R		48-01-1184		B618-50		
6" x 3/4" x .035"	24	81123	81124	Metal, pipe under 18 gage	20568-624R	40331	48-01-5186	4MC24	B624-1	-	ULB324
					20569-S624R		48-01-1186		B624-5		
					20542-B624R				B624-50		
8" x 3/4" x .035"	10	81125	-	Wood / Nails Composites	-	-	-	-	-	-	-
8" x 3/4" x .035"	18	81129	-	Metal under 1/8" thick	20578-818R	-	-	-	-	S1018EF	-
					20563-5818R						
12" x 3/4" x .035"	18	81130	-	Metal under 1/8" thick	-	-	-	-	-	-	-
6" x 3/4" x .050"	6	81131	81132	Extra Fast Wood Cutting, Plaster Board	20572-656R	40310	48-00-3031	4GT7	BT66-1	S3110F	ULB6085
					20573-S656R	40320	48-00-3041	4KH6	BT66-5	S811DF	ULB608
					20543-B656R		48-01-5031	4DL6	RT66-50	S611DF	
							48-01-504				
							48-00-3035				
							48-01-3035				
9" x 3/4" x .050"	6	81135	-	Extra Fast Wood Cutting	20582-956R	40321	48-00-3036	8KH7	-	S1511DF	ULB906S
					20587-S956R	40323	48-01-5036				
							48-01-3036				
9" x 3/4" x .050"	14	81136	-	Large Diameter Pipe	-	40333	-	-	-	-	
12" x 3/4" x .050"	6	81137	81138	Extra Fast Wood Cutting	20585-157R	40322	48-00-3037	12KH8	BT126-1	S1411DF	ULB1208
					20586-S156R	40324	48-01-3037		BT126-5		
					20546-B156R				BT126-50		
8" x 3/4" x .042"	Grit	81140	-	Cast iron, tile ceramic Abrasive materials	20577-800RG	41001	48-00-1420	-	-	-	-
					20588-S800RG	41003	48-00-1410				
							48-00-1400				
12" x 3/4" x .050"	14	81139	-	Large Diameter Pipe	20583-110R	-	48-01-3094	-	B121014-1	-	-
					20584-S110R		48-01-5094		B121014-5		
									B121014-50		

## Cushion Grip Hacksaw Frame



Professional and Industrial



- Unique cushioned rubber grip reduces slippage for better control and comfort
- Rugged, sturdy frame built for professional tool users
- High tension technology for tightening the blade to 30,000 PSI
- Blade can be positioned for 45° or 90° cutting
- Patented quick change blade design

Cat. No.	UPC No.	Type	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80965	037103809650	Cushion Grip High Tension	12	304	2	903	1

Weight shown per shelf pack

## High Tension Hacksaw Frame



- Quick changing blades
- Adjustable crank handle for tension up to 30,000 PSI torque and micro-adjustment
- Spare blades can be stored inside frame
- Blade can be positioned for 45° or 90° cutting
- End of frame can be used as a jab saw

Cat. No.	UPC No.	Type	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80956	037103809568	High Tension Adjustable	12	254	2	903	1

Weight shown per shelf pack

## Heavy Duty Hacksaw Frame



- High impact, contoured handle
- Adjust to 10" o 12"
- 45° blade adjustment

Cat. No.	UPC No.	Type	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80952	037103809520	Adjustable	10/12	254	9	4082	6

Weight shown per shelf pack

## General Purpose Hacksaw Frame

- Instantly adjustable for 10"/250mm to 12"/300mm blades
- Adjusts 90° for vertical or horizontal cuts



Cat. No.	UPC No.	Type	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80951	037103809513	Adjustable	10/12	254	9 1/4	4196	10

Weight shown per shelf pack

## Economy Hacksaw Frame

- Adjustable from 10"/250mm to 12"/300mm
- Cuts to 2.75"/70mm in depth
- For DIY and home use



Cat. No.	UPC No.	Type	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80950	037103809506	Adjustable	10/12	254	9.25	4196	10

Weight shown per shelf pack

## Little-Nic® Utility Hacksaw

- For professionals and homeowners
- Ergonomic cushioned handle
- Gets into small places, makes difficult cutting jobs easy
- Overall length 10"/254mm, will fit into any tool box
- Uses any standard size hacksaw blade
- Blister packed on attractive card with suggested uses on back



Cat. No.	UPC No.	Packed	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80968	03710380968110	Carded	10	254	1.40	652	6

Weight shown per shelf pack

## Jab Saw

- Special saw always needed for the difficult jobs: those narrow, hard-to-read areas
- Jab saw will work with any standard size hacksaw blade
- Can replace worn blade easily: Untighten adjusting saw, remove worn blade and replace with a new Nicholson® blade, re-tighten the adjusting screw
- A must for all tool boxes



Cat. No.	UPC No.	Packed	Blade		Pack Wt.		Shelf Pack
			Inch	mm	lb	g	
80969	03710380809698	Carded	10	254	3.75	1701	12

Weight shown for shelf pack

### Bi-Metaloy® Hand Hacksaw Blades



#### Standard Packs

- Molybdenum alloy tool steel edge
- Tough flexible high carbon steel backing
- Lasts twice as long as high-speed steel
- Lasts up to ten times longer than carbon steel
- Operates 20% to 50% faster
- High tooth hardness and shock resistance

Ref. No.	Set Type	** Boxed		* Carded		Length		Teeth Per Inch	Width		Gauge		Wt. per 50 Carded		Wt. per 100 Boxed	
		Cat. No.	UPC No.	Cat. No.	UPC No.	Inch	mm		Inch	mm	Inch	mm	lb	kg	lb	kg
NF1018	Wavy	62635	626356	62811	628114	10	254	18	1/2	12.70	.025	.65	4.2	1.91	3.75	1.70
NF1024	Wavy	62659	626592	62830	628305	10	254	24	1/2	12.70	.025	.65	4.2	1.91	3.75	1.70
NF1032	Wavy	62683	626837	62814	628145	10	254	32	1/2	12.70	.025	.65	4.2	1.91	3.75	1.70
NF1214	Raker	62706	627063	62820	628206	12	304	14	1/2	12.70	.025	.65	4.8	2.18	4.5	2.05
NF1218	Wavy	62723	627230	62826	628268	12	304	18	1/2	12.70	.025	.65	4.8	2.18	4.5	2.05
NF1224	Wavy	62749	627490	62832	628329	12	304	24	1/2	12.70	.025	.65	4.8	2.18	4.5	2.05
NF1232	Wavy	62776	627766	62839	628398	12	304	32	1/2	12.70	.025	.65	4.8	2.18	4.5	2.05

\* Carded: 2 blades per card - 10 cards per bag - 40 bags per carton. \*\* Boxed: packaged 100 blades per box.

### Bi-Metaloy® Hand Hacksaw Blades

#### Special Packs



Ref. No.	Set Type	Carded			Length		Teeth per Inch	Width		Gauge		Pack Wt.		Shelf Pack
		Cat. No.	UPC No.	Blades Per Card	Inch	mm		Inch	mm	Inch	mm	lb	kg	
NF1218	Wavy	62836	628367	10	12	304	18	1/2	12.70	.025	.65	4.5	2.05	4
NF1224	Wavy	62835	628350	10	12	304	24	1/2	12.70	.025	.65	4.5	2.05	4
Assortment	Wavy	62838	628381	6	12	304	-	1/2	12.70	.025	.65	4.5	2.05	10



## Solid Flexible Carbon Steel



- Solid high carbon steel
- Tempered to provide hard edge with flexible back
- Specially hardened to induce toughness
- Economy blade for sawing light to medium-hard materials
- A good balance of wear resistance and mechanical shock absorbing properties
- Virtually unbreakable

Ref. No.	Set Type	** Boxed		* Carded		Length Inch mm	Width		Gauge		Teeth Per Inch	Wt. per 50 Carded		Wt. per 100 Boxed	
		Cat. No.	UPC No. 037103	Cat. No.	UPC No. 037103		Inch	mm	Inch	mm		Inch	mm	lb	kg
SS1018	Wavy	63103	631039	63208	632081	10 254	1/2	12.70	.025	.65	18	5.5	2.5	3.75	1.70
SS1024	Wavy	63112	631121	63220	632203	10 254	1/2	12.70	.025	.65	24	5.5	2.5	3.75	1.70
SS1218	Wavy	63145	631459	63256	632562	12 304	1/2	12.70	.025	.65	18	6	2.73	4.5	2.05
SS1224	Wavy	63158	631589	63268	632685	12 304	1/2	12.70	.025	.65	24	6	2.73	4.5	2.05
SS1232	Wavy	63171	631718	63280	632807	12 304	1/2	12.70	.025	.65	32	6	2.73	4.5	2.05

Packaged 100 blades per carton \* Carded: 2 blades per card - 10 cards per bag - 40 bags per carton. \*\* Boxed: Packaged 100 blades per box.

## Hand Hacksaw Blade – Care and Servicing

### Blade Breakage

1. Lack of tension. Tighten until taut.
2. Too much tension. Loosen slightly.
3. Cutting in awkward position. Use flexible type blades.
4. Jamming in cut. Hold work securely – stock should fall free after cut. In soft material teeth may be binding because they are too fine.

### Pinhole Breakage

1. Too much tension. Loosen slightly.
2. Worn pins causing pressure on eyeholes. Replace pins.

### Rounded Teeth - Premature Wear

1. Blade not cutting. Use slower stroke and apply heavier feed.
2. Dragging on return stroke. Lift saw.
3. Material too hard. Select proper blade.

### Crooked Cutting

1. Too much pressure. Reduce feed.
2. Blade out of alignment. Check frame and blade tension.
3. Blade worn out. Replace.

### Tooth Breakage

1. Teeth too coarse. Keep three teeth in the work.
2. Too much feed, teeth loading. Ease feed pressure.
3. Teeth too fine, clogging. Change to coarser tooth.
4. Starting cut on sharp corner. Reposition work.

### General Tooth Recommendations

**14 Tooth:** For cutting stock 1 1/2"/40mm or over in cross section.

For soft materials where maximum chip clearance is needed.

**18 Tooth:** For general shop use, when same blade is used on several jobs.

**24 Tooth:** For cross section 1/16"/1.58mm – 1/4"/6.35mm such as pipe, angles, small drill rod.

**32 Tooth:** To cut stock up to 1/16"/1.58mm such as light tubing, sheet metal, BX.

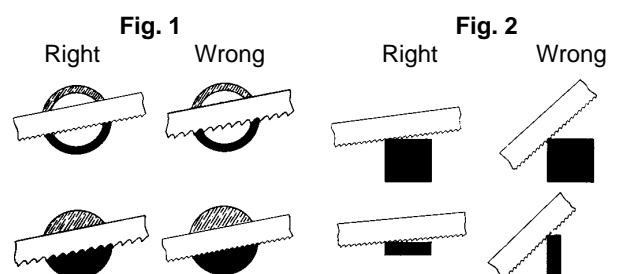
At least three teeth should be in contact with the work at all times.

### Choose the Right Number of Teeth Per Inch

The sketches below (figure 1) show how coarseness of teeth affects blade efficiency. Speed varies according to material being cut and saw blade coarseness.

### Starting the Cut

If possible, avoid starting cut on a sharp corner. When unavoidable, begin with light pressure and use a steady forward stroke. As many teeth as possible should be in contact with the cutting area and at least three teeth must be engaged. Note cutting angles shown below (figure 2).



### Predator® Handsaws



- Ergonomic handle with rubber-coated grip for comfort and control
- Razor sharp diamond ground teeth for easier cuts
- Induction hardened Hard Point (H.P.) teeth never need resharping
- Handle features 45/90 degree shape for marking angles

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NSP1	037103172358	24	608	8	Standard/H.P.	1.2	544	4
NSP2	037103172365	24	608	10	Standard/H.P.	1.2	544	4
NSP3	037103172372	22	560	8	Standard/H.P.	1	454	4
NSP4	037103172389	20	508	8	Aggressive/H.P.	0.9	408	4
NSP5	037103172396	15	381	8	Aggressive/H.P.	0.8	363	4

### Premium Handsaws



- Blades are 20% thicker than standard handsaws for reduced vibration and smoother cut
- Standard teeth are bevel filed for smooth, easy cuts
- Aggressive teeth are triple ground for fast cuts
- Rich walnut stained wooden handle offers traditional appearance and feel

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS3001	037103172266	26	660	8	Standard	3.5	1588	2
NS3002	037103172273	24	608	8	Standard	3.5	1588	2
NS3003	037103172280	24	608	12	Standard	3.5	1588	2
NS3004	037103172297	20	508	8	Aggressive	2	907	2
NS3005	037103172303	15	381	8	Aggressive	2	907	2

### Professional Handsaws



- Precision set teeth for smooth cuts
- Hardened and tempered polished steel blade with resharpenable teeth for long life
- Handles on 15" and 20" models features 40/90 degree shape for marking angles

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS1501	037103172310	24	608	8	Standard	2.5	1134	2
NS1502	037103172327	24	608	12	Standard	2.5	1134	2
NS1503	037103172334	20	508	8	Standard	2	907	2
NS1504	037103172341	15	381	8	Standard	2	907	2

**Quick-Cut Handsaws**

- Precision set teeth for smooth cuts
- Hardened and tempered polished steel blade with resharpenable teeth for long life
- Handles features 40/90 degree shape for marking angles



Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS501	037103172433	24	608	8	Standard	10	4536	10
NS502	037103172440	20	508	8	Standard	8.5	3856	10
NS503	037103172457	15	381	8	Standard	7	3157	10

**Predator® Backsaw**

- Ergonomic handle with rubber-coated grip for comfort and control
- Razor sharp diamond ground teeth for easier cuts
- Induction hardened Hard Point (H.P.) teeth never need resharpening



Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NSP7	037103172402	12	305	12	Hard Point	0.9	408	4

**Premium Backsaw**

- Standard teeth are bevel filed for smooth, easy cuts
- Hardened and tempered polished steel blade with resharpenable teeth for long life
- Rich walnut stained wooden handle offers traditional appearance and feel



Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS102	037103172488	16	406	11	Standard	7.5	3402	6

## Professional Dovetail Saw



- Precision set and file teeth for smooth easy cuts
- Hardened and tempered polished steel blade with resharpenable teeth for long life
- Natural wood handle for extra performance

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS108	037103172549	10	254	13	Standard	1	454	10

## Predator® PVC/Veneer Saw



- Specially designed to cut PVC, veneer and thin materials
- Ergonomic handle with rubber-coated grip for comfort and control
- Induction hardened Hard Point (H.P.) teeth never need resharpening
- Rounded mode allows cuts to start in the middle of workpiece

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NSP8	037103172419	13	330	12	Hard Point	0.7	318	4

## 4 1/4" Coping Saw



- Popular with carpenters and home craftsman
- Throat opening permits cuts up to 4 1/4"/114mm depth
- Spring steel, rounded edge frame with polished finish
- Adjustable angle blade
- Straight type wood handle

Cat. No.	UPC No.	Length		Blade Length		Blade Width		Points	Pack Weight		Shelf Pack
		Inch	mm	Inch	mm	Inch	mm		lb	g	
80170	037103801708	12 1/2	317	6 1/2	165	1/8	3.17	15	4.81	2183	10

## 6 1/2" Coping Saw

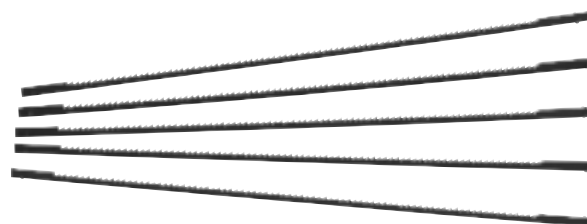
- Used for cutting sharp angles and curves
- Throat opening permits cuts up to 6 1/2"/165mm
- Spring steel, rounded edge frame with polished finish
- Adjustable angle blade
- Straight type wood handle



Cat. No.	UPC No.	Length		Blade Length		Blade Width		Points	Pack Weight		Shelf Pack
		Inch	mm	Inch	mm	Inch	mm		lb	g	
80176	037103801760	12 3/4	324	6 1/2	165	1/8	3.17	15	7.00	3175	10

## Coping Saw Blades

- 6 1/2"/165mm long
- 15 points, pin end
- Fits Nicholson® model No. 50 and No. 60 frames
- Blister packed
- 5 blades per card



Cat. No.	UPC No.	Length		Blade Width		Points	Pack Weight		Shelf Pack
		Inch	mm	Inch	mm		lb	g	
80182N	037103801821	6 1/2	165	1/8	3.17	15	.56	255	1 card

## Nest of Saws

- Silver Steel® constructed blades are easily interchangeable
- Multi-purpose nest of saws contains 2 interchangeable saw blades: 13"/330mm compass blade and 11"/279mm key hole blade
- Pistol Grip handle assembled with stud, wing nut and washer for quick blade changes



Cat. No.	UPC No.	Description	Length		Points	Pack Weight		Shelf Pack
			Inch	mm		lb	g	
80167	037103801678	No.100 Nest (complete)	-	-	-	3.88	1758	2

### Predator® Compass/Keyhole Saw



- Ergonomic handle with rubber-coated grip for comfort and control
- Razor sharp diamond ground teeth for easier cuts
- Induction hardened Hard Point (H.P.) teeth never need resharping
- Blade tapered to a point for starting holes and cutting curves

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NSP9	037103172426	12	305	8	Hard Point	0.4	181	4

### Quick-Cut Compass Saw



- High impact plastic handle is rugged but light
- Hardened and tempered steel blade for durability
- Blade tapered to a point for starting holes and cutting curves

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS103	037103172495	12	305	10	Standard	3	1360	10

### Quick-Cut Keyhole Saw



- High impact plastic handle is rugged but light
- Hardened and tempered steel blade for durability
- Blade tapered to a point for starting holes and cutting curves

Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS105	037103172518	10	254	10	Standard	3	1360	10

## Quick-Cut Wallboard Saw

- Tapered point for plunge cutting
- Open tooth design reduces binding, cuts fast
- Full sized high impact plastic handle is rugged but light



Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS504	037103172464	15	381	4	Standard	7.5	3402	10

## Wallboard (Jab Type) Saw

- Natural wood handle for extra performance
- Compact design for working in small areas
- Hardened and tempered steel blade for durability



Cat No.	UPC No.	Length		Points Per Inch	Tooth Style	Package Weight		Shelf Pack
		Inch	mm			lb	g	
NS101	037103172471	6	152	10	Standard	2.5	1134	10

## Camouflage Folding Saw

- All purpose saw for outdoorsmen and hunters
- Fine teeth capable of cutting toughest branches and small trees
- Blade locks in open position
- Quick thumb release for folding saw blade into handle to protect blade's cutting edge
- Convenient hang-up hole in handle



Cat. No.	UPC No.	Overall length		Closed Length		Pack Weight		Shelf Pack
		Inch	mm	Inch	mm	lb	g	
80274	037103802743	17 3/8	441	9 5/8	244	3.8	1724	6

Weight shown per shelf pack

## BowHack™ Combination Bowsaw and Hacksaw

Black



- Two saws in one! Comes with two blades: Hacksaw for metal and plastic, a bowsaw for wood and general yard work
- Built-in hand safety guard helps prevent injuries
- Hacksaw blade: Long-lasting high-speed steel
- Full 6" throat makes cutting plastic pipe easy
- Includes safety blade guard for storage
- Bowsaw blade cuts in both directions

Cat. No.	UPC No.	Description	Length		Pack Weight		Shelf Pack
			Inch	mm	lb	g	
80799	037103807991	Combination Bowsaw & Hacksaw	12	300	15.5	7031	10
80765	037103807656	12" Replacement Meat and Bone Blade	-	-	6.6	2994	10
80814	037103808141	12" Replacement Bowsaw Blade	-	-	10.9	4944	10

Weight shown is for shelf pack

## BowHack™ Combination Bowsaw and Hacksaw

Hi-Viz Orange



- Two saws in one! Comes with two blades: Hacksaw for metal and plastic, a bowsaw for wood and general yard work
- Built-in hand safety guard helps prevent injuries
- Hacksaw blade: Long-lasting high-speed steel
- Full 6" throat makes cutting plastic pipe easy
- Includes safety blade guard for storage
- Bowsaw blade cuts in both directions
- Shipped at a case-cut counter display

Cat. No.	UPC No.	Description	Length		Pack Weight		Shelf Pack
			Inch	mm	lb	g	
80777	0371038077791	Combination Bowsaw & Hacksaw	12	300	15.5	7031	10

Weight shown is for shelf pack

## Bowsaw

Black



- Durable all-purpose saw for pruning, gardening, construction work and farming
- Features "Hard Point" teeth that last up to 6 to 8 times longer than unhardened teeth
- Tension lever gives clearance to protect fingers when changing blades
- Recommended for quick cutting of wet or green wood

Cat. No.	UPC No.	Description	Length		Pack Weight		Shelf Pack
			Inch	mm	lb	g	
80800	037103808004	Bow saw	21	533	6.4	2903	4
80810	037103808103	Bow saw	24	610	7.2	3266	4
80815	037103808158	Bow saw	30	762	8.0	3629	4
80817	037103808172	Replacement blade	21	533	0.7	318	5
80821	037103808219	Replacement blade	24	610	0.8	363	5
80825	037103808257	Replacement blade	30	762	1.0	453.6	5

Weight shown is for shelf pack



## Curved Pruner

- General-purpose pruner for fast cutting of small limbs
- A favorite in citrus groves and vineyards
- Silver Steel® constructed blade with polished finish
- Easy-to-grip knife-type wood handle trimmed with aluminum screws
- Full cardboard sleeve protects the blade



Cat. No.	UPC No.	Length		Reverse Rip Points	Pack Weight		Shelf Pack
		Inch	mm		lb	g	
80263	037103802637	14	354	6	3.19	1446	6

## Double Edge Pruner

- Lightweight, economy pruner
- Dual-purpose pruner
- Special steel constructed blade
- Fine teeth on one edge for light trimming, lightning teeth on opposite for heavier limbs
- Wood handle
- Plastic sleeve for blade protection



Cat. No.	UPC No.	Length		Points	Pack Weight		Shelf Pack
		Inch	mm		lb	g	
80269	037103802699	16	406	8 (fine edge)	5.00	2268	6

## Silver Flash Pruner

- Heavy-duty
- Preferred by utility crews and tree surgeons
- Silver Steel® constructed blade, flat ground
- Concave cutting edge has precision set and bevel filed teeth that cut fast on the pull stroke
- Extra large teeth and gullets for speed cutting large limbs
- Wood handle
- Full cardboard sleeve protects blade



Cat. No.	UPC No.	Length		Pack Weight	Shelf Pack
		Inch	mm		
80299	037103802996	26	660	10	4536

## Tuttle Tooth Pruner

- All-purpose saw for general pruning
- Special steel constructed blade
- Teeth designed for fast cutting of large limbs and firewood
- Wood handle
- Full cardboard sleeve protects blade



Cat. No.	UPC No.	Length		Pack Weight	Shelf Pack
		Inch	mm		
80309	037103803092	24	610	10.63	4822