

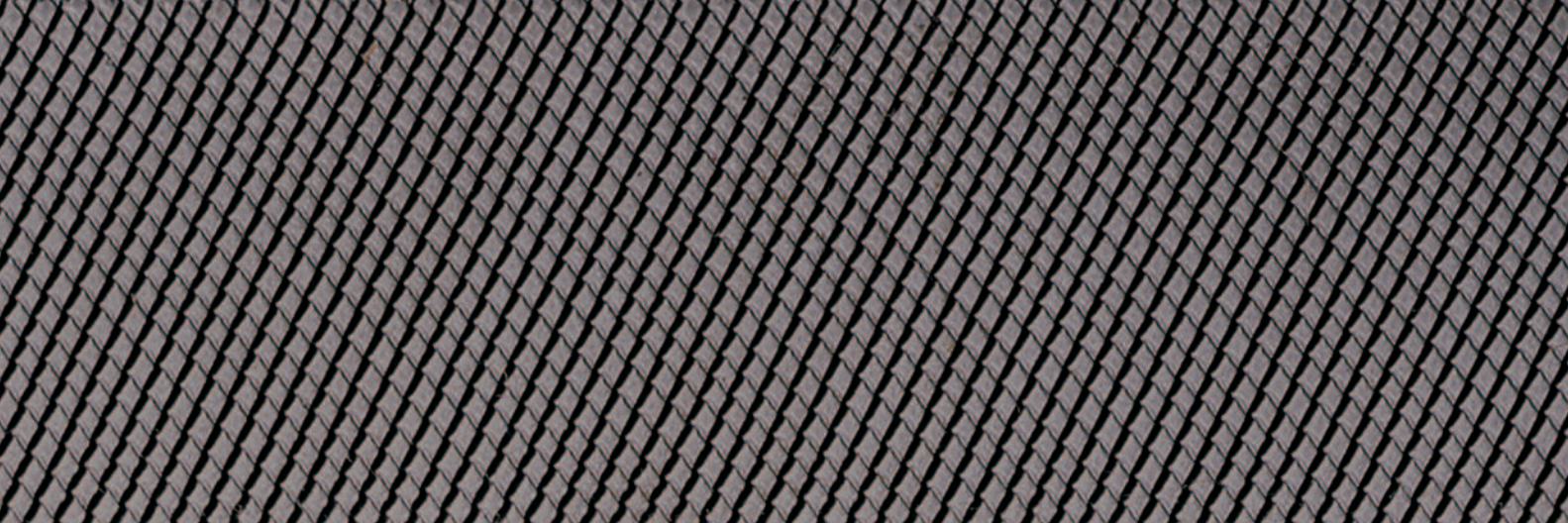
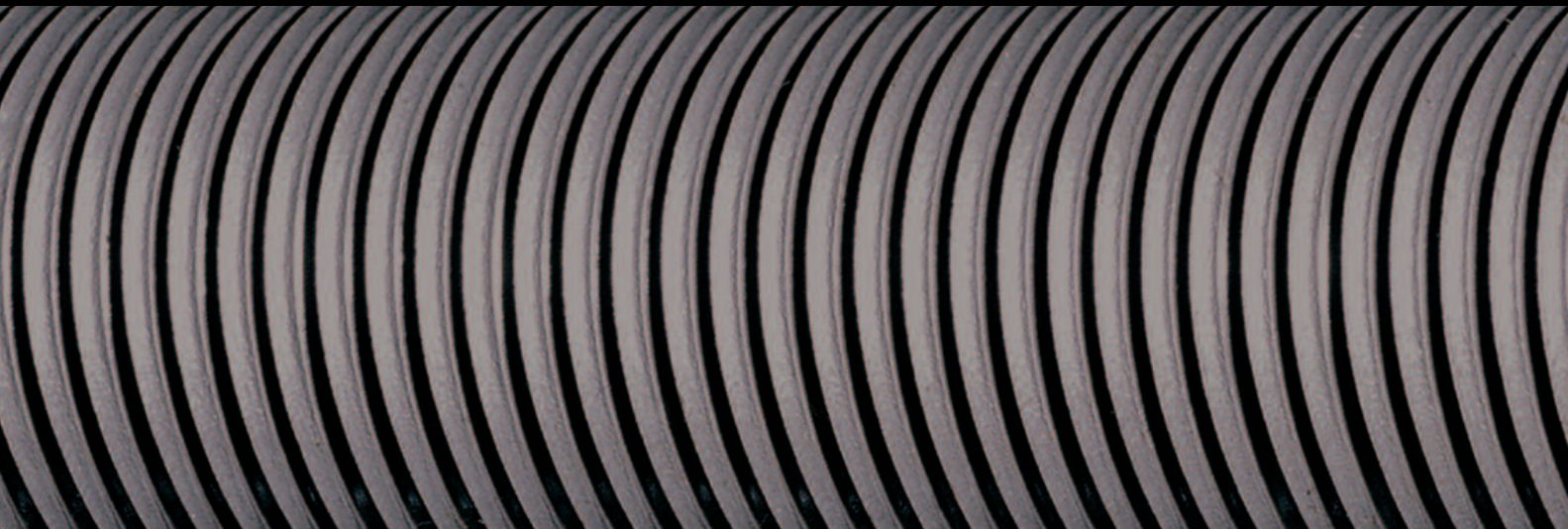
RED TANG & PRECISION-CUT FILES



The Professionals' Edge™



BLACK MAXI-SHARP® — RED TANG™ — Multi-Kut®



Black Maxi-Sharp® Files

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Half Round	2
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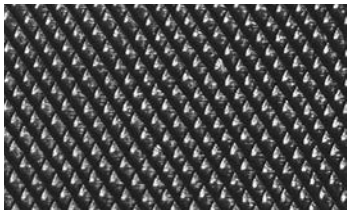
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Call Toll-Free:
1-800-343-1616 (USA)





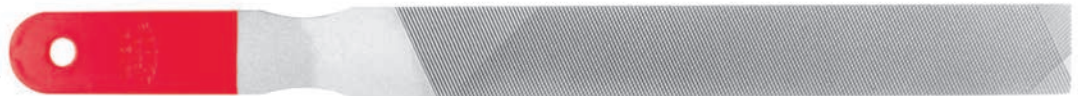
BLACK MAXI-SHARP® FILES



The Premium line of hand files! Specially treated with a black oxide coating, Simonds Black Maxi-Sharp® Files last longer due to increased resistance to loading and rust.

ALL PURPOSE

The built-in handle provides maximum versatility for a wide range of applications. All-Purpose Files feature a double cut on one side and a single cut on the other side, have one edge cut and one edge safe (uncut) for shoulder filing, and are parallel in width and thickness.



" / mm	Code #	Box Qty.
8 / 200	78187600	12
10 / 250	78188100	12

FLAT

Excellent for "hogging" or rapid stock removal. Flat Files are double cut on both sides, single cut on the edges and taper toward the point in width. Simonds Flat Files feature the exclusive "wavy tooth" design.



" / mm	Bastard	Smooth	Box Qty.
6 / 150	78229600	78230700	12
8 / 200	78232100	78233100	12
10 / 250	78234100	78235100	12
12 / 300	78236100	78237100	6
14 / 350	78238100		6

HALF ROUND

Great for rounding out holes, corners and crevices. Half Round Files are double cut on both sides. Simonds Half Round Files feature a built-in "twist & roll" action on the half round side produced by the Simonds "spiral cut" design, and have the exclusive "wavy tooth" design on the flat side.



" / mm	Bastard	Smooth	Box Qty.
6 / 150	78317100	78318100	12
8 / 200	78319100	78320100	12
10 / 250	78321100	78322100	12
12 / 300	78323100		6
14 / 350	78325100		6

KNIFE

For use on slots, key ways and acute angles. Knife Files are double cut on both sides, single cut on the "knife edge" with a safe (uncut) back and taper toward the point in width and thickness and feature the exclusive "wavy tooth" design.



" / mm	Bastard	Box Qty.
6 / 150	78500100	12
8 / 200	78501600	12



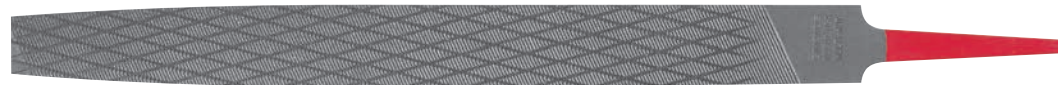
BLACK MAXI-SHARP® FILES



MILL

Excellent for a wide range of applications such as sharpening, draw filing, lathe work and general shop use. Mill Files are single cut on the sides and edges, and taper toward the point in width.

"/mm	Bastard	Second Cut	Smooth	Box Qty.
6 / 150	78143100	78143600	78144100	12
8 / 200	78145600	78146100	78146600	12
10 / 250	78147600	78148100	78148600	12
12 / 300	78149600		78150600	6
14 / 350	78151600			6



MULTI-KUT® FLAT

Obtain almost any required finish simply by changing the feed pressure. Multi-Kut® Flat Files are single-cut coarse tooth files that taper toward the point in width. Simonds exclusive Multi-Kut® design features a diamond pattern "double chip-breaker" allowing for fast stock removal while leaving a smooth finish. So versatile, the Simonds Multi-Kut® combines the performances of Flat and Mill Files.

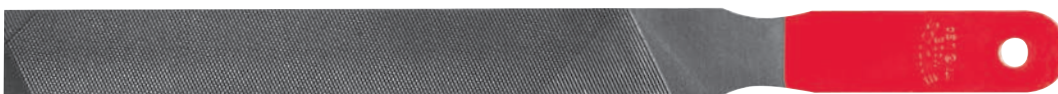
"/mm	Code #	Box Qty.
8 / 200	78243100	12
10 / 250	78243600	12



MULTI-KUT® HALF ROUND

Superb for rapid stock removal on flat or concave surfaces, feature the Simonds exclusive Multi-Kut® design on the flat side, and have the "spiral cut" design on the half round side.

"/mm	Code #	Box Qty.
8 / 200	78328100	12
10 / 250	78328600	12



PADDLE HANDLE FILES

The three most popular files (Mill, Flat, Multi-Kut® Flat) now feature a built-in handle that provides maximum versatility for a wide range of applications. Bastard cut only.

"/mm	Type	Code #	Box Qty
10 / 250	Mill	78758890	12
10 / 250	Flat	78758900	12
10 / 250	Multi-Kut® Flat	78758910	12



ROUND

Intended for enlarging and rounding out circular openings or concave surfaces. Round Files are double cut and taper toward the point in width and thickness. (Round Files are often referred to as "Rat Tail" Files.)



" / mm	Bastard	Smooth	Box Qty.
6 / 150	78396100	78397100	12
8 / 200	78398600	78399600	12
10 / 250	78400600		12
12 / 300	78402600		6

TAPER SAW

Designed for filing all types of saws with 60° angle teeth. Taper Saw Files are triangular in shape, have cut edges, and taper toward the point in width and thickness.



" / mm	Type	Code #	Box Qty.
6 / 150	Regular	78530600	12
6 / 150	Slim	78537100	12
6 / 150	Extra Slim	78549600	12
6 / 150	Double Extra Slim	78562100	12
7 / 178	Double Extra Slim	78562600	12

THREE SQUARE

Excellent for cleaning out corners or for use on cutters, taps and flat surfaces. Three-Square Files are double cut and taper toward the point in width and thickness, and feature the exclusive "Wavy Tooth" design.



" / mm	Bastard	Box Qty.
6 / 150	78516600	12
8 / 200	78518100	12

FILE-ALL®

A unique and convenient portable tool featuring a selection of three different files—6" Round, Mill, Square—in a case that becomes the handle when in use. All with the exclusive Black Maxi-Sharp® finish!



Selection	Code #	Box Qty.
FILE-ALL® (Sleeved)	72759320	1

BLACK MAXI-SHARP® FILE KIT—5 PIECE

For general filing and finishing, one each of the following in a convenient plastic sleeve: 8" Mill Bastard, 8" Flat Multi-Kut®, 8" Half Round Bastard, 8" Round Bastard, and 8" Square Bastard—all in the exclusive Black Maxi-Sharp® finish!



Type	Code #	Box Qty.
Black Maxi-Sharp® Kit	78757010	12

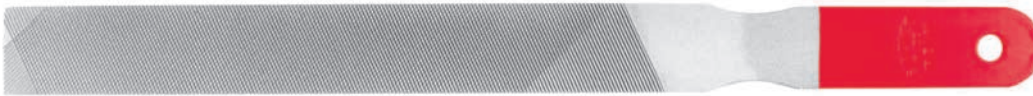
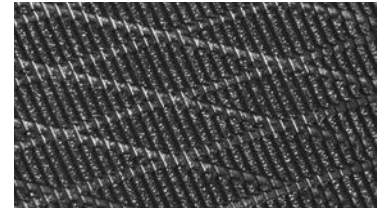


AMERICAN PATTERN FILES



Machinist Files, generally double-cut, are excellent for hogging (rapid stock removal) on all types of material.

Saw Files, generally single-cut, are great for smoother finishes and best suited for sharpening saws or dressing edged tools.



ALL PURPOSE

The built-in handle provides maximum versatility for a wide range of applications. All-Purpose Files feature a double cut on one side, a single cut on the other side, have one edge cut and one edge safe (uncut) for shoulder filing, and are parallel in width and thickness.

"/mm	Code #	Box Qty.
8 / 200	73187500	12
10 / 250	73188000	12



ALUMINUM FLAT

Aluminum Files have a coarse, fast cutting tooth design that is very effective in eliminating clogging. Developed for use on soft materials, such as aluminum, Aluminum Flat Files are double cut and taper toward the point in width.

"/mm	Code #	Box Qty.
6 / 150	73274500	12
8 / 200	73275000	12
10 / 250	73275500	12
12 / 300	73276000	6



ALUMINUM HALF ROUND

The half round shape with the fast cutting tooth design is great for rounding out holes, corners and crevices on soft materials.

"/mm	Code #	Box Qty.
6 / 150	73373000	12
10 / 250	73374000	12
12 / 300	73374500	6



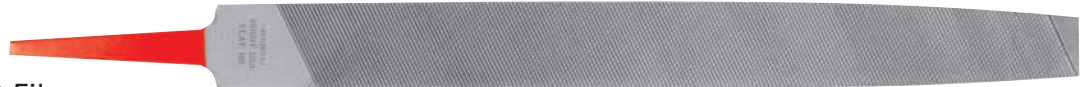
CHAIN SAW ROUND

Used for sharpening and maintaining proper tooth shape on chain saws. Round Chain Saw Files have a fast, smooth cutting action that leaves an excellent "keen" edge cutting finish.

"/mm	Code #	Box Qty.
1/8" x 6"	73740110	12
5/32" x 6"	73740210	12
3/16" x 8"	73740310	12
7/32" x 8"	73740610	12
1/4" x 8"	73740910	12
3/8" x 8"	73741810	12

FLAT

Excellent for "hogging" or rapid stock removal. Flat Files are double cut on both sides, single cut on the edges and taper toward the point in width. Simonds Flat Files feature the exclusive "wavy tooth" design.



"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73227000	73227500	73228000	12
6 / 150	73229500	73230000	73230500	12
8 / 200	73232000	73232500	73233000	12
10 / 250	73234000	73234500	73235000	12
12 / 300	73236000	73236500	73237000	6
14 / 350	73238000		73239000	6

GULLET SPECIAL

Designed for use on wide band saw blades to "dress out" and maintain smooth round gullets and eliminate crack-causing case hardening. Gullet Special Files are single cut and parallel in width and thickness.



"/mm	Code #	Box Qty.
8 / 200	73409500	12
10 / 250	73410000	12

HALF ROUND

Superb for rounding out holes, corners and crevices. Half Round Files are double cut on both sides and feature a built-in "twist & roll" action on the half round side produced by the Simonds "spiral cut" design and the exclusive "wavy tooth" design on the flat side.



"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73315000	73315500	73316000	12
6 / 150	73317000	73317500	73318000	12
8 / 200	73319000	73319500	73320000	12
10 / 250	73321000	73321500	73322000	12
12 / 300	73323000	73323500	73324000	6
14 / 350	73325000	73325500		6

HALF ROUND PIPELINER

A 14" Half Round File used for filing weld beads and scale off pipe.



"/mm	Code #	Box Qty.
14 / 350	73756060 Double Cut	6
14 / 350	73761790 Single Cut	6

KNIFE

For use on slots, key ways and acute angles. Knife Files are double cut on both sides, single cut on the "knife edge" with a safe (uncut) back and taper toward the point in width and thickness. Simonds Knife Files feature the exclusive "wavy tooth" design.



"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73498500	73499000	73499500	12
6 / 150	73500000	73500500	73501000	12
8 / 200	73501500	73502000	73502500	12
10 / 250	73503000	73503500	73504000	12

AMERICAN PATTERN FILES



LONG ANGLE LATHE

Primarily for lathe work and bench filing. Long Angle Lathe Files are single cut with both edges safe (uncut) and taper toward the point in width. The teeth are designed on a "long angle" to provide free cutting and rapid filing while leaving a smooth finish.

"/mm	Code #	Box Qty.
10 / 250	73255500	12
12 / 300	73256000	6
14 / 350	73256500	6



MILL

Excellent for a wide range of applications such as sharpening, draw filing, lathe work and general shop use. Mill Files are single cut on the sides and edges, and taper towards the point in width.

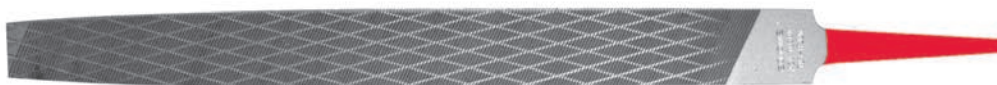
"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73140500	73141000	73141500	12
6 / 150	73143000	73143500	73144000	12
8 / 200	73145500	73146000	73146500	12
10 / 250	73147500	73148000	73148500	12
12 / 300	73149500	73150000	73150500	6
14 / 350	73151500		73152500	6



MILL—2 Round Edges

Similar to standard Mill Files but with two rounded edges. Round Edge Mill Files are single cut on the sides and edges, and are parallel in width and thickness (blunt). Available in Bastard cut only.

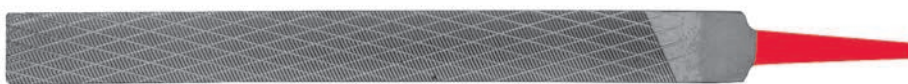
"/mm	2 Round Edges	Box Qty.
6 / 150	73159500	12
8 / 200	73160500	12
10 / 250	73161000	12



MULTI-KUT® FLAT

Obtain almost any required finish simply by changing the feed pressure. Multi-Kut® Flat Files are single-cut coarse tooth files that taper toward the point in width. Simonds exclusive Multi-Kut® design features a diamond pattern "double chip-breaker" allowing for fast stock removal while leaving a smooth finish. So versatile, the Simonds Multi-Kut® combines the performances of Flat and Mill Files.

"/mm	Code #	Box Qty.
8 / 200	73243000	12
10 / 250	73243500	12
12 / 300	73244000	6
14 / 350	73244500	6



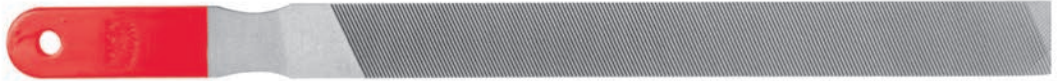
MULTI-KUT® HALF ROUND

Superb for rapid stock removal on flat or concave surfaces. These Files feature the Simonds exclusive Multi-Kut® design on the flat side with the "spiral cut" design on the half round side.

"/mm	Code #	Box Qty.
10 / 250	73328500	12

PADDLE HANDLE FILES

The three most popular files (Mill, Flat, Multi-Kut® Flat) now feature a built-in handle that provides maximum versatility for a wide range of applications. Bastard cut only.



"/mm	Type	Code #	Box Qty.
10 / 250	Mill	73758890	12
10 / 250	Flat	73758900	12
10 / 250	Multi-Kut® Flat	73758910	12

ROUND

Intended for enlarging and rounding out circular openings or concave surfaces. Round Files are double cut and taper toward the point in width and thickness. (Round Files are often referred to as "Rat Tail" Files.)



"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73393000	73393500	73394000	12
6 / 150	73396000	73396500	73397000	12
8 / 200	73398500	73399000	73399500	12
10 / 250	73400500	73401000	73401500	12
12 / 300	73402500	73403000	73403500	6

SQUARE

Created for slots, key ways, square holes or general surface filing. Square Files are double cut and taper toward the point in width and thickness, and feature the exclusive "wavy tooth" design.



"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73425000	73425500	73426000	12
6 / 150	73428000	73428500	73429000	12
8 / 200	73430000	73430500	73431000	12
10 / 250	73432000	73432500		12
12 / 300	73434000			6

TAPER SAW

Designed for filing all types of saws with 60° angle teeth. Taper Saw Files are triangular in shape, have cut edges and taper toward the point in width and thickness.



"/mm	Type	Single Cut	Double Cut	Box Qty.
6 / 150	Regular	73530500		12
8 / 200	Regular	73531500		12
4 / 100	Slim	73535500		12
5 / 125	Slim	73536500		12
6 / 150	Slim	73537000	73540500	12
7 / 178	Slim	73537500		12
8 / 200	Slim	73538000		12
10 / 250	Slim	73538500		12
4 / 100	Extra Slim	73547500		12
6 / 150	Extra Slim	73549500	73553000	12
7 / 178	Extra Slim	73550000	73553500	12
8 / 200	Extra Slim	73550500		12
5 / 125	Double Extra Slim	73561000		12
6 / 150	Double Extra Slim	73562000	73564500	12
7 / 178	Double Extra Slim	73562500	73565000	12
8 / 200	Double Extra Slim	73563000		12



Files Recommended for Various Point Handsaws

POINTS	FILE
5	7" Regular Taper
6	7" or 8" Slim
7	6" or 7" Slim
8	6" Slim, 7" Extra Slim, 8" Double Extra Slim
9	6" Extra Slim, 7" Double Extra Slim
10	5" or 6" Extra Slim
11	5" Extra Slim, 6" Double Extra Slim
12	5" Extra Slim
13,14	5" Double Extra Slim
15,16	4" Double Extra Slim

AMERICAN PATTERN FILES



THREE SQUARE

Excellent for cleaning out corners or for use on cutters, taps and flat surfaces. Three Square Files are double cut and taper toward the point in width and thickness, and feature the exclusive "wavy tooth" design.

"/mm	Bastard	Second Cut	Smooth	Box Qty.
6 / 150	73516500	73517000	73517500	12
8 / 200	73518000	73518500	73519000	12
10 / 250	73519500	73520000	73520500	12



TUNGSTEN POINT—5"

For cleaning contact points in magnetos, switches, electric bells, and distributor points and spark plugs in engines. Tungsten Point Files are double cut and are also available with a handy pocket clip.

"/mm	Type	Code #	Box Qty.
5 / 125	(Regular)	73101000	12



VENEER KNIFE

Mill Bastard File with 2 round edges designed to sharpen veneer knives. Veneer Knife Files are single cut and are parallel in width and thickness.

"/mm	Code #	Box Qty.
8 / 200	73761820	12
10 / 250	73761830	12



WARDING

Preferred by locksmiths for filing "wards" in locks and keys and great for narrow spaces where other files will not fit. Warding Files are double cut with single-cut edges and taper toward the point in width.

Simonds Warding Files feature the exclusive "wavy tooth" design.

"/mm	Bastard	Second Cut	Smooth	Box Qty.
4 / 100	73479000	73479500	73480000	12
6 / 150	73481000	73481500	73482000	12
8 / 200	73482500	73483000	73483500	12

FILE SETS

Handy assortments of the most commonly used files, all in convenient cloth roll pouches. Great for maintenance and repair operations, production needs, or for use around the shop or home.

Qty.	Lg	Description	Code # w/handles	Code # w/o handles
------	----	-------------	---------------------	-----------------------

5 Piece 8" General Purpose Set

72758790 72759230

1	8"	Mill Bastard		
1	8"	Square Bastard		
1	8"	Round Bastard		
1	8"	Half Round Bastard		
1	8"	Flat Multi-Kut®		

9 Piece 10" General Purpose Set

72758810 72759250

1	10"	Flat Bastard		
1	10"	Half Round Bastard		
1	10"	Round Bastard		
1	10"	Mill Bastard		
1	10"	Square Bastard		
1	10"	Flat Smooth		
1	7"	Slim Taper		
1	10"	Hobby Rasp		
1		File Card		

10 Piece All Purpose Set

72758850 72759290

1	10"	Flat Bastard		
1	10"	Flat Second Cut		
1	10"	Half Round Bastard		
1	10"	Half Round Second Cut		
1	10"	Round Bastard		
1	10"	Round Second Cut		
1	10"	Square Bastard		
1	10"	Square Second Cut		
1	6"	Knife Bastard		
1	6"	Knife Second Cut		

Qty.	Lg	Description	Code # w/handles	Code # w/o handles
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13 Piece All Purpose Set

72758820 72759260

1	10"	Flat Bastard		
1	10"	Flat Smooth		
1	10"	Mill Bastard		
1	10"	Mill Smooth		
1	10"	Round Bastard		
1	10"	Round Smooth		
1	10"	Half Round Bastard		
1	10"	Half Round Smooth		
1	10"	Aluminum Flat		
1	10"	Square Second Cut		
1	10"	All Purpose		
1	8"	Three-Square Second Cut		
1		File Card		

6 Piece 10" Flat & Half Set

72758830 72759270

1	10"	Flat Bastard		
1	10"	Flat Second Cut		
1	10"	Flat Smooth		
1	10"	Half Round Bastard		
1	10"	Half Round Second Cut		
1	10"	Half Round Smooth		

6 Piece 10" Groove & Corner Set

72758840 72759280

1	10"	Round Bastard		
1	10"	Round Second Cut		
1	10"	Round Smooth		
1	10"	Square Bastard		
1	10"	Square Second Cut		
1	10"	Square Smooth		

6 Piece 4" Smooth Cut Set

72758800 72759240

1	4"	Round Smooth Cut		
1	4"	Square Smooth Cut		
1	4"	Half Round Smooth Cut		
1	4"	Ward Smooth Cut		
1	4"	Slim Taper		
1	4"	Flat Smooth Cut		

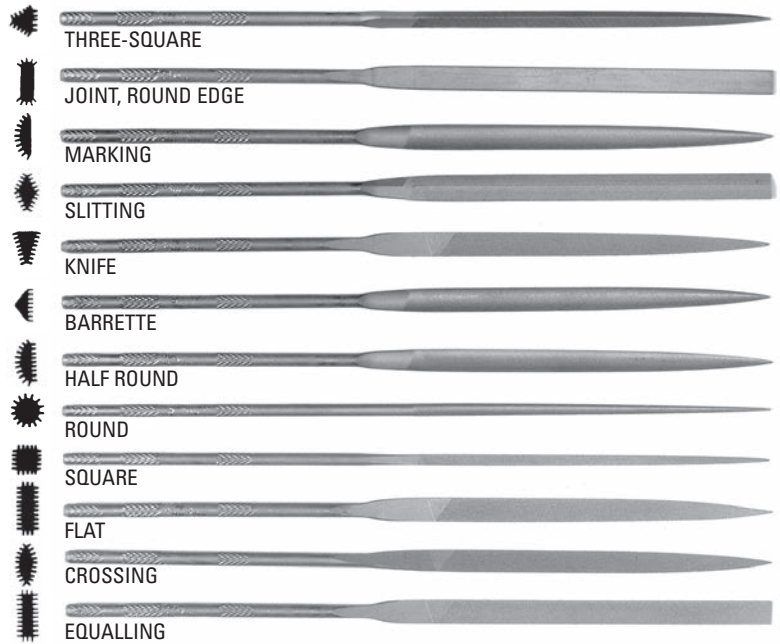
AMERICAN PATTERN SETS



Qty.	Lg	Description	Code # w/handles	Code # w/o handles
5 Piece 8" Black Maxi-Sharp™ Set 78757010				
1	8"	Mill Bastard		
1	8"	MultiKut®		
1	8"	Half Round Bastard		
1	8"	Round Bastard		
1	8"	Square Bastard		
5 Piece 8" Handled Black Maxi-Sharp™ Set 78758790				
1	8"	Mill Bastard		
1	8"	MultiKut®		
1	8"	Half Round Bastard		
1	8"	Round Bastard		
1	8"	Square Bastard		
7 Piece Black Maxi-Sharp™ Welder's Set 78761530				
1	10"	Mill Smooth		
1	10"	Spot Welder Tip File		
1	12"	Half Round Bastard		
1	14"	Half Round Pipeliner		
1	4"	Mig Welder Nozzle Bastard		
1	13-1/2"	Carbon Brush		
1	7-3/4"	Stainless Steel Brush		
3 Piece Paddle Handle Black Maxi-Sharp™ Set 72758880				
1	8"	MultiKut® Bastard Paddle Handle File		
1	10"	Mill Bastard Paddle Handle File		
1	10"	Flat Bastard Paddle Handle File		
9 Piece 10" Handled Black Maxi-Sharp™ Set 78761810				
1	6"	Slim Tapered		
1	10"	Mill Bastard		
1	10"	Flat MultiKut®		
1	10"	Half Round MultiKut®		
1	10"	Mill Smooth		
1	10"	Round Bastard		
1	10"	All Purpose		
1	10"	Flat Bastard		
1	10"	Half Round Bastard		



Used for applications similar to the larger tanged files and for production work on small electronic parts. Needle Files provide excellent detail work capabilities and are available with or without plastic handles.



Length "/mm	Cut	Knurled Handle #	Plastic Handle #	Box Qty.
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Barrette

4 / 100	0	83481000		12
5-1/2 / 140	0	83507500		12
5-1/2 / 140	2	83508000		12
6-1/4 / 160	0	83536500		12
6-1/4 / 160	2	83537000		12

Crossing

5-1/2 / 140	0	83520000		12
5-1/2 / 140	2	83520500		12
5-1/2 / 140	4	83521000		12
6-1/4 / 160	2	83549500		12
6-1/4 / 160	4	83550000		12
6-1/4 / 160	6	83550500		12

Equalling

4 / 100	0	83479000	83480550	12
4 / 100	2	83479500	83480600	12
5-1/2 / 140	0	83505500		12
5-1/2 / 140	2	83506000		12
5-1/2 / 140	4	83506500		12
6-1/4 / 160	0	83534500	83536050	12
6-1/4 / 160	2	83535000	83536100	12
6-1/4 / 160	4	83535500		12

Flat

4 / 100	0	83469000		12
5-1/2 / 140	2	83495500	83496600	12
6-1/4 / 160	0	83524000		12
6-1/4 / 160	2	83524500		12

Length "/mm	Cut	Knurled Handle #	Plastic Handle #	Box Qty.
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Half-Round

4 / 100	0	83471000		12
4 / 100	2	83471500		12
5-1/2 / 140	0	83497000	83498550	12
5-1/2 / 140	2	83497500	83498600	12
5-1/2 / 140	4	83498000		12
6-1/4 / 160	0	83526000	83527550	12
6-1/4 / 160	2	83526500	83527600	12
6-1/4 / 160	4	83527000		12
6-1/4 / 160	6	83527500		12

Joint, Round Edge

6-1/4 / 160	2	83541500		12
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Knife

4 / 100	2	83477500		12
5-1/2 / 140	0	83503500		12
5-1/2 / 140	2	83504000		12
6-1/4 / 160	0	83532500		12
6-1/4 / 160	2	83533000		12

NEEDLE FILES



NEEDLE FILE SETS

Available with or without plastic handles, each assortment contains the twelve most popular shapes packaged in a vinyl sleeve. For extended life with less clogging, try Simonds Black Maxi-Sharp® Needle File Assortments.

Length "/mm	Cut	Code #	Box Qty.
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6 Piece Round Handle Needle Set

Includes Flat, Half Round, Square, Round, Equalling & Three-Square.

5-1/2 / 140	#2	72756530	6
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Length "/mm	Cut	Knurled Handle #	Plastic Handle #	Box Qty.
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12 Piece Assortments

4 / 100	0	83493000		6
4 / 100	2		83494600	6
5-1/2 / 140	0	83522000	83523550	6
5-1/2 / 140	2	83522500		6
5-1/2 / 140	4	83523000		6
6-1/4 / 160	0	83551000	83553050	6
6-1/4 / 160	2	83551500	83553100	6
6-1/4 / 160	4	83552000		6
6-1/4 / 160	6	83552500		6

Black Maxi-Sharp® Needle File 12 Piece Assortments

5-1/2 / 140	0	83522100	83523650	6
5-1/2 / 140	2	83522600	83523700	6
6-1/4 / 160	0	83551100		6
6-1/4 / 160	2	83551600		6

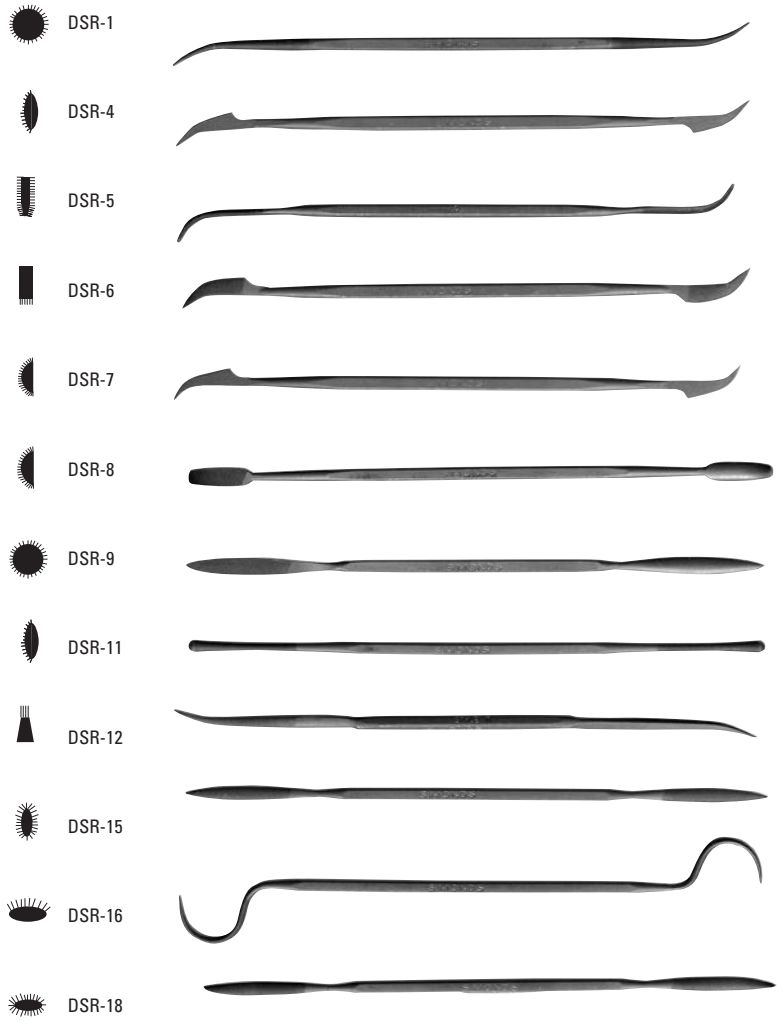
Length "/mm	Cut	Knurled Handle #	Plastic Handle #	Box Qty.
Round				
4 / 100	0	83475000	83476550	12
4 / 100	2	83475500		12
5-1/2 / 140	0	83501000		12
5-1/2 / 140	2	83501500		12
5-1/2 / 140	4	83502000		12
6-1/4 / 160	0	83530000	83531550	12
6-1/4 / 160	2	83530500	83531600	12
6-1/4 / 160	4	83531000		12
6-1/4 / 160	6	83531500		12
Slitting				
6-1/4 / 160	2	83545500		12
Square				
4 / 100	2	83473500		12
6-1/4 / 160	0	83528000		12
6-1/4 / 160	2	83528500		12
Three-Square				
4 / 100	0	83483000	83484550	12
4 / 100	2	83483500	83484600	12
5-1/2 / 140	0	83510000	83511550	12
5-1/2 / 140	2	83510500	83511600	12
6-1/4 / 160	0	83538500	83540050	12
6-1/4 / 160	2	83539000	83540100	12

RIFFLERS — DIE SINKERS

Preferred by die sinkers, jewelers, and instrument makers because of the unique shapes. Die Sinker Riffles are slender with narrow ends to maximize detail work. The middle section is safe (uncut) and each shape offers its own distinct advantage. Available in assorted sets.

6" RIFFLERS — DIE SINKER SETS

Shape	Cut	Code #	Box Qty.
DSR Set (1 of each)	0	84998300	1
DSR Set (1 of each)	2	84998400	1



RIFFLER FILES

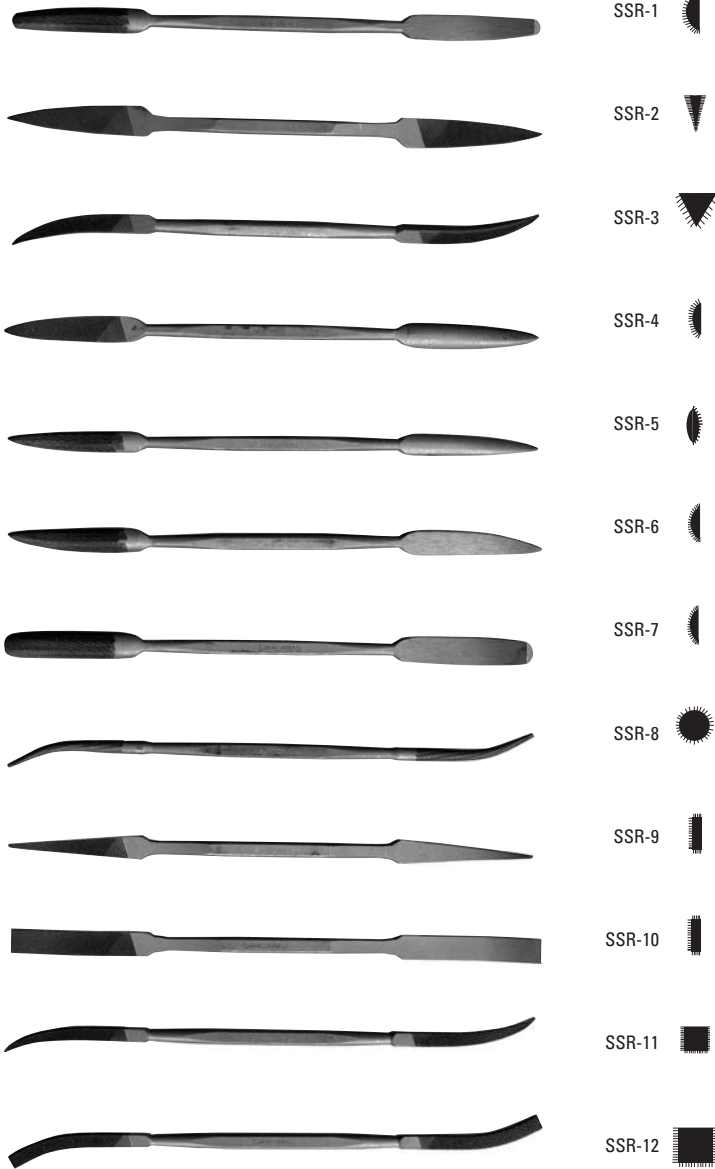


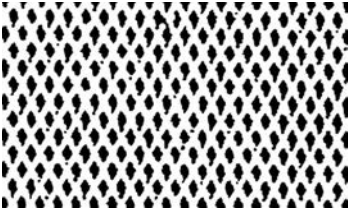
RIFFLERS — DIE MAKERS (SILVERSMITH)

Preferred by die makers. Silversmith Riffles are similar to Die Sinker Riffles, but have thicker dimensions, longer middle sections, and different end shapes. Available in assorted sets.

7" RIFFLERS — DIE MAKER SETS

Shape	Cut	Code #	Box Qty.
SSR Set (1 of each)	0	84799000	1
SSR Set (1 of each)	2	84799200	1





Swiss Pattern Files are used by precision craftsmen for finishing delicate and intricate parts. Narrow in both width and thickness, the teeth extend all the way to the edge of the File. These Files offer the finest cuts available. The tapered Files have fine points for delicate detail work.

BARRETTE

For cleaning gear teeth, key ways, dovetail ways, and sharp angled slot ways. Barrette Files are double cut on the flat side, safe (uncut) on the beveled back side, and taper toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
6 / 150	0	84400500	12
6 / 150	2	84401500	12
8 / 200	0	84403000	12
8 / 200	2	84404000	12

CROCHET

Ideal for filing joints between flat and curved surfaces or developing slots with rounded edges. Crochet Files are double cut on the sides and edges and taper toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
4 / 100	2	84409000	12
6 / 150	0	84410500	12
6 / 150	2	84411500	12

CROSSING

Excellent for filing interior curved surfaces. Crossing Files have two "half round" sides with one side "flatter" than the other and are double cut tapering toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
6 / 150	0	84431000	12

EQUALLING

Used for slots, corners, and narrow openings. Equalling Files are double cut on the sides, single cut on the edges, and are parallel in width and thickness.



"/mm	Cut	Code #	Box Qty.
4 / 100	2	84368000	12
6 / 150	00	84369000	12
6 / 150	0	84369500	12
6 / 150	2	84370500	12
8 / 200	2	84373000	12

SWISS PATTERN FILES



HALF ROUND

Great for curved surfaces and corners. Half Round Files are double cut on both sides and taper toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
4 / 100	0	84131500	12
4 / 100	2	84132500	12
6 / 150	00	84137000	12
6 / 150	0	84137500	12
6 / 150	1	84138000	12
6 / 150	2	84138500	12
6 / 150	3	84139000	12
6 / 150	4	84139500	12
8 / 200	00	84140500	12
8 / 200	0	84141000	12
8 / 200	1	84141500	12
8 / 200	2	84142000	12



HAND

Preferred for finishing flat surfaces. Hand Files are double cut on the sides and are parallel in width and thickness. Files feature one edge single cut and one edge safe.



"/mm	Cut	Code #	Box Qty.
8 / 200	2	84120500	12



KNIFE

Wedge section shape is great for working in slots. Knife Files are double cut on the sides, single cut on the "knife edge", safe (uncut) on the back, and taper toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
6 / 150	00	84337000	12
6 / 150	0	84337500	12
6 / 150	1	84338000	12
6 / 150	2	84338500	12
8 / 200	0	84340500	12
8 / 200	2	84341500	12

PILLAR REGULAR



Primarily for working on flat surfaces. Pillar Regular Files are double cut on the sides, safe (uncut) on the edges, and are parallel in width and taper in thickness.

"/mm	Cut	Code #	Box Qty.
4 / 100	2	84222000	12
6 / 150	00	84224000	12
6 / 150	0	84224500	12
6 / 150	1	84225000	12
6 / 150	2	84225500	12
6 / 150	4	84226500	12
8 / 200	00	84227000	12
8 / 200	0	84227500	12
8 / 200	1	84228000	12
8 / 200	2	84228500	12
10 / 250	00	84230000	12

PILLAR NARROW



Used to finish work begun with a Hand File. Pillar Narrow Files are double cut on both sides, safe (uncut) on the edges, and are parallel in width and taper in thickness.

"/mm	Cut	Code #	Box Qty.
4 / 100	2	84240500	12
6 / 150	00	84242500	12
6 / 150	0	84243000	12
6 / 150	1	84243500	12
6 / 150	2	84244000	12
6 / 150	4	84245000	12
8 / 200	0	84246020	12
8 / 200	2	84247500	12

PILLAR EXTRA NARROW



Thinner in dimension than Pillar Narrow Files and best suited for working in tighter places. Pillar Extra Narrow Files are double cut, safe (uncut) on the edges, and are parallel in width and taper in thickness.

"/mm	Cut	Code #	Box Qty.
4 / 100	0	84257000	12
4 / 100	2	84258000	12
6 / 150	00	84260000	12
6 / 150	0	84260500	12
6 / 150	1	84261000	12
6 / 150	2	84261500	12
8 / 200	0	84264000	12
8 / 200	1	84264500	12

PIPPIN



Combines the cross sections of Round and Crossing Files with the edge of a Knife File and is excellent for finishing junctions or opening slots with a "V" shape. Pippin Files are double cut and taper toward the point in width and thickness. (Pippin Files are often referred to as "Apple Seed" files.)

"/mm	Cut	Code #	Box Qty.
6 / 150	0	84422000	12
6 / 150	2	84423000	12

SWISS PATTERN FILES



"/mm	Diameter	Cut	Code #	Box Qty.
4 / 100	1/8	0	84174500	12
6 / 150	1/8	0	84181500	12
6 / 150	3/16	0	84185500	12

ROUND—STRAIGHT

Used for enlarging and rounding out holes. Round Straight Files are double cut and are parallel in width and thickness.



"/mm	Cut	Code #	Box Qty.
4 / 100	2	84154000	12
6 / 150	00	84159000	12
6 / 150	0	84159500	12
6 / 150	1	84160000	12
6 / 150	2	84160500	12
6 / 150	4	84161500	12
8 / 200	0	84163000	12
8 / 200	2	84164000	12
10 / 250	0	84166000	12

ROUND—TAPER

Used for enlarging and rounding out holes. Round Taper Files are double cut and taper toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
6 / 150	0	84418500	12
6 / 150	2	84419000	12

SLITTING

For acute angle filing and where a Knife File will not fit. Slitting Files are double cut on all four sides, single cut on the edges, and are parallel in width and thickness.



"/mm	Cut	Code #	Box Qty.
4 / 100	0	84205500	12
6 / 150	0	84208500	12
6 / 150	2	84209500	12
8 / 200	00	84211000	12

SQUARE

A general purpose file also used in corners and holes. Square Files are double cut and taper toward the point in width and thickness.

SWISS PATTERN FILES

THREE SQUARE

The triangular shape is excellent for use in corners and on dies. Three Square Files are double cut on the sides, single cut on the edges and taper toward the point in width and thickness.



"/mm	Cut	Code #	Box Qty.
4 / 100	0	84353000	12
4 / 100	2	84354000	12
6 / 150	00	84355500	12
6 / 150	0	84356000	12
6 / 150	1	84356500	12
6 / 150	2	84357000	12
8 / 200	0	84359000	12

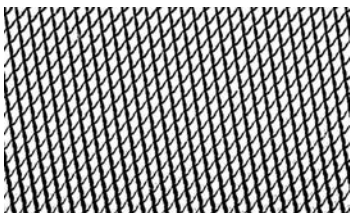
WARDING

Ideal for filing slots and removal of burrs after milling operations. Warding Files are double cut on the sides, single cut on the edges and taper toward the point in width.



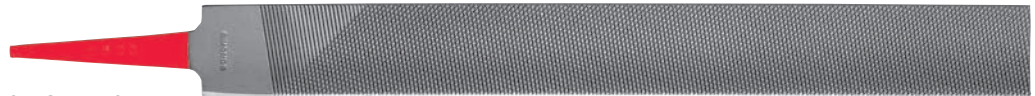
"/mm	Cut	Code #	Box Qty.
6 / 150	00	84287500	12
6 / 150	2	84289000	12

WELDER'S FILES



SPOT WELDER TIP

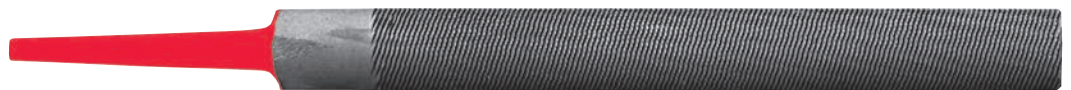
Black Maxi Sharp® — Specially designed to dress spot welder tips to maximize efficiency and tip life, 10" in length, cut on the concave side and safe (uncut) on the other side.



"/mm	Cut	Code #	Box Qty.
10 / 250	Bastard	73722900	12

MIG WELDER NOZZLE

Black Maxi Sharp® — Removes slag and dresses nozzle without removing nozzle. One file fits all size nozzles. 4" in length. Cut on half round side with flat side safe (uncut) so it won't score the tip.



"/mm	Cut	Code #	Box Qty.
4 / 100	Bastard	73760750	12

NEW FILE SETS

- The most popular files for your everyday use!
- Ergonomic handles for your comfort and better grip!
- Plastic pouch for protection and storage!
- Black Maxi-Sharp® files last longer due to increased resistance to loading and rust!
- Half Round files feature Simonds exclusive wavy tooth and spiral cut design!

Qty.	"/mm	Description	Code #
3 Piece Black Maxi-Sharp™ File Set			72762080
1	8/200	Mill Bastard	
1	8/200	Half Round Bastard	
1	8/200	Round Bastard	
		Ergonomic Handle	
5 Piece Black Maxi-Sharp™ File Set			72762090
1	8/200	Mill Bastard	
1	8/200	Half Round Bastard	
1	8/200	Round Bastard	
1	7/178	Slim Taper	
1	8/200	Hobby Rasp	
		Ergonomic Handle	
6 Piece Round Handle Needle File Set			72762070
1	6-1/4/160	Flat RHN #0	
1	6-1/4/160	Half Round RHN #0	
1	6-1/4/160	Square RHN #0	
1	6-1/4/160	Round RHN #0	
1	6-1/4/160	Equalling RHN #0	
1	6-1/4/160	Three Square RHN #0	



FILE CARD FILE CARD W/BRUSH

Used to clean files – files last longer when kept properly cleaned. Excess build-up can cause clogging resulting in slipping, scratching, or other filing inefficiencies.



Type	Code #	Box Qty.
File Card	73993000	12
File Card with Brush	73993500	12

FILE HANDLES—FRICTION FIT

A tanged file should always be used with a handle. A properly fitted handle will encourage better work and make the job easier and safer. Wood handles absorb hand moisture more readily for even greater safety.



Handle	Size	Code #	Box Qty.
104	3" to 6"	73992000	12
106	4" to 8"	73992050	12
108	6" to 10"	73992100	12
110	8" to 12"	73992150	12
112	12" to 18"	73992200	12

FILE HANDLES—SKROO-ZON®

The best name in file handles, Skroo-Zon® wooden file handles have a threaded insert for "easy on and easy off." Reusable and long lasting. Be safe and reduce the chance of injury; use a Skroo-Zon® File Handle.



Handle	Size	Code #	Box Qty.
T2	4"	73992500	12
T4	6"	73992600	12
T5	8"	73992700	12
T6	10"	73992800	12
T7	12"	73992900	12
T8	14"	73992950	12

PLASTIC FILE HANDLE WITH INSERTS

Fits all popular sizes & types of files. Non-slip, high Impact plastic for secure grip and durability. Contoured to fit hand for straight, lathe and draw filing.



Handle	Size	Code #	Box Qty.
Plastic	5"	85761900	12

SCRAPER—BEARING HANDLED

Precision ground 3-1/4" scrapers are ideal for hand finishing bearing surfaces, casing joints, and other metal seats.



Length	Type	Code #	Box Qty.
3 -1/4"	Solid	85584000	12

American Pattern Files

Machinist Files

Double-cut Machinist Files are excellent for hogging (rapid stock removal) on all types of materials.

Saw Files

Single-cut Saw Files are great for smoother finishes and best suited for sharpening saws or dressing edged tools.

Standard Cuts

There are three cuts to choose from on most Black-Maxi® and American Pattern Files:

Bastard Cut:

A coarse cut (fewest teeth per inch) for rapid stock removal.

Second Cut:

A medium cut for moderate stock removal.

Smooth Cut:

A fine cut (most teeth per inch) for smooth finishes and limited stock removal.

Black-Maxi® Pattern Files

The Premium line of hand files! Specially treated with a black oxide coating, Simonds Black Maxi-Sharp® Files last longer due to increased resistance to loading and rust.

The diagram to the right illustrates the cuts of a 10" single and double cut file for both Black-Maxi® Pattern and American Pattern Files.

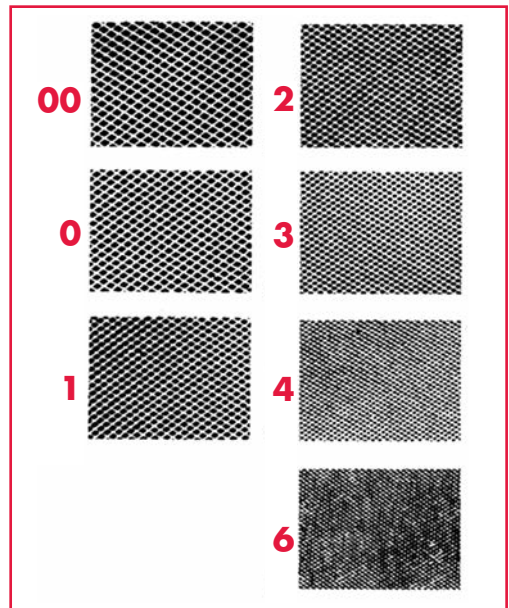
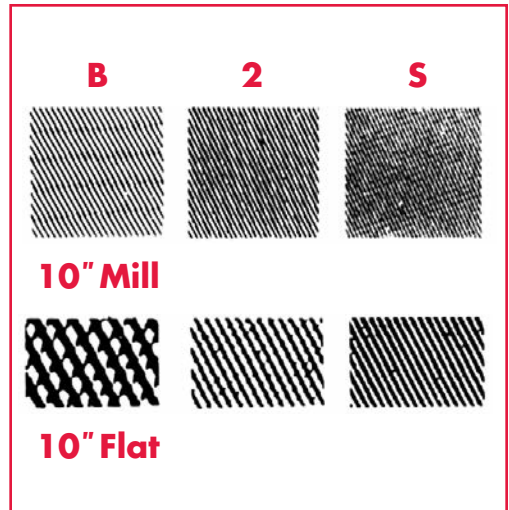
Swiss Pattern Files

Swiss Pattern Files are used by precision craftsmen for finishing delicate & intricate parts. Narrow in both width and thickness, the teeth extend all the way to the edge of the file. These files offer the finest cuts available. The tapered files have fine points for delicate detail work.

Standard Cuts

Cuts range from no. 00 (coarsest) to no. 6 (finest).

The diagram to the right illustrates the different cuts available on a 6" Swiss Pattern File.



Recommendations for Sharpening Hand Crosscut Saws:

Make sure that the saw blade is firmly held, since saw filing calls for a steady hand and a level filing stroke that is free from the slightest rocking motion.

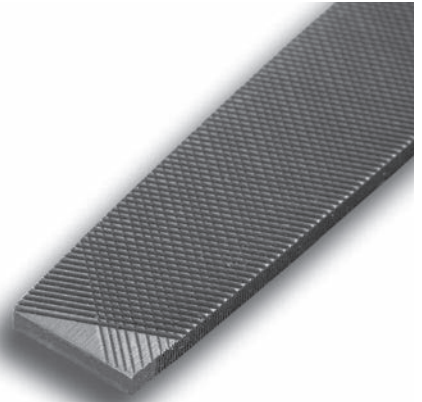
Saw Points Per Inch	File Size & Shape
5	6" Slim Taper
6	6" Slim Taper
7	6" Slim Taper
8	7" Extra Slim Taper
9	7" Extra Slim Taper
10	4" Extra Slim Taper
11	5-1/2" Extra Slim Taper



NUCUT "WAVY TOOTH" FILES

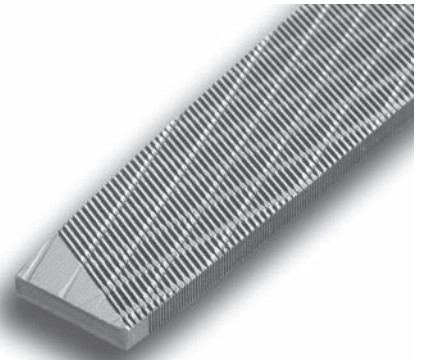
Hogging material has never been easier!

A file innovation inspired by the Simonds variable pitch band saw blade! This file cut offers a unique design of "coarse to fine to extra fine" tooth spacing that enables material to be removed faster and smoother without "chatter". Due to reduced stress on the file teeth, **this file will last longer!**

**MULTI-KUT[®] FILES**

The "world's most versatile file" — combines the best filing features of a Flat file and a Mill file.

Removes material faster while creating a smooth finish! The combination of coarse teeth and a double "chip breaker" groove cut into the file allows this product to do the work of a Flat file and a Mill file — **2 in 1!** Feature available on Simonds Flat files and the flat side of Simonds Half Round Files!

**SPIRAL CUT HALF ROUND FILES**

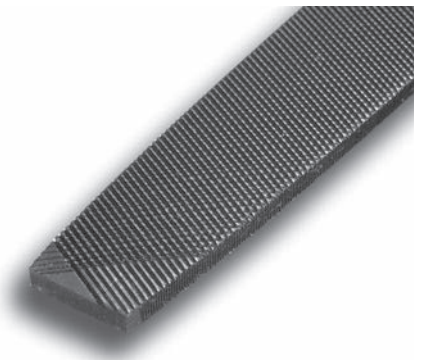
No more sore elbows on uneven concave surfaces!

A built-in "twist & roll" action on the half round side allows a more natural filing motion and leaves a **super smooth finish!** Flat side available with Multi-Kut[®] for a wide range of uses

**BLACK MAXI-SHARP[®] FILES**

The *Premium* hand file range!

These select Simonds files are specially treated with a black oxide coating. Black Maxi-Sharp[®] Files last longer due to the **increased resistance to loading** in use and **increased resistance to rust** that the coating imparts to the file.



HELPFUL TIPS AND PROPER TECHNIQUES FOR FILING

The Industrial Art: It is easier to train an apprentice to properly operate a lathe, planer or milling machine than it is to teach him good filing. Flawless filing is an art. It is the mark of a first-rate craftsman. It recalls the old days when an apprentice had to file down given pieces of steel to the top edge of a line scribed by his master craftsman. Then another piece was similarly treated, and the apprentice had to file both pieces so smoothly that they could be fitted together perfectly.

Filing, as an industrial art, must observe the basic principles governing the following: holding the work, kind of filing operation, worker's stance, gripping the file, stroking motion, and working pressure.

Holding the Work: Most work that is filed is held in a vise - unless it is held firmly, chattering and vibration will result. This would cause the file teeth momentarily to lose contact with the surface and the depth of cut would vary with unsatisfactory results and probable damage to the file.

The top of the vise should be on the same level as the elbow when the arm is bent. If the mechanic is of less than average stature, a small platform should be placed on the floor to achieve the proper working height. However, the work should be lowered if heavy filing is to be done. In die and tool making, much of the work is small and delicate. As this requires simply a movement of the arms or of one hand and arm alone, the vise and work should be higher - not only so the work can be more closely scrutinized and the movement of the file more accurately guided, but also the filer may be able to stand erect at his work.

The high finish obtained after much time consuming effort may easily be marred if the work is held in the vise carelessly. Polished work and soft metal can be protected by pieces of copper, brass, zinc, tin plate or other soft metals placed between the jaws of the vise and the work. Pieces of wood are best when working on aluminum or lead. For highly polished work on mild steel for fine screw threads, pieces of leather are recommended.

Filing Operation: The three basic filing operations are:

- Straight-forward filing. In this operation the file is pushed straight ahead across the work.
- Draw-filing. This is an operation in which the file is grasped at each end, and with an even pressure alternately pulled and pushed over the work. The file remains perpendicular to the direction of motion.
- Lathe filing. This is an operation in which the file is stroked against the work as the latter revolves in a lathe.

Filer's Stance: The feet should be placed well apart - the left foot being about 24 inches in front of the right foot. The operator should have the full free swing of the arms from the shoulder. Any separate movement of the wrist and elbow should be avoided if possible.

Gripping the File: The following directions are for files operated with both hands. They are intended for a right-handed person; although they will apply equally well for a left-handed person when the file positions are reversed.



Normal Filing



Heavy Stock Removal

The handle of the file should be held in the right hand and the tip held with the left hand. Although the position of the left hand varies with the type of work to be done, the right-handed grip remains the same. The file handle rests in the palm of the right hand, with the thumb laying along the top of the handle and the fingers curling around the handle and pointing upward, all the fingers falling into a natural grip.

When the top of the file is gripped with the left hand with the ball of the thumb pressing upon the top of the file and lying in line with the file axis, and with the fingers winding around the file, a powerful grip is secured that enables the maximum pressure to be applied and a large quantity of material to be removed. This grip is generally used with a medium or long file.

When a lighter stroke is desired and less pressure is to be applied, the direction of the left thumb is changed more and more until it lays at right angles, or nearly so, with the length of the file. The tip of the file is then held between just the thumb and the first two fingers of the left hand.

For Flat Filing, the thumb and fingers of the left hand are stretched as far apart as possible and pressed evenly against the file. This assures a uniform distribution of the pressure over the whole length. As a result, the file tends to remain horizontal and any unevenness in the surface can be readily detected. This position also permits the use of the file's full length, since the left hand is not in the way of the work.



Flat Filing

For Very Accurate Work, or when curved surfaces are to be filed, the tip of the file should be held by just the thumb and index finger of the left hand. This grip allows for maximum guidance and control.



Precision Work

When the file can be held with one hand, as in precision die work, the index finger of the right hand is generally placed on top of the handle so it lies as nearly as possible in the direction of the file. The thumb and other fingers fall into a natural grip.

Filing a Narrow Piece: On work of this sort, it is often easier to get and hold a flat surface if the file is held diagonally to the work. As the file is pushed forward, it is moved to the right from one end of the piece to the other. After a few strokes the process is repeated to the left so that an absolutely level, smooth finish is obtained.

Stroke and Pressure: The teeth of the file cut only on the forward stroke. Accordingly, the file should be carried forward on an almost straight line, with the pressure first applied by the left hand at the beginning of the stroke, then later with both hands equally in the middle of the stroke, and finally with the right hand alone at the end of the stroke. If pressure is applied on the return stroke, the teeth are dulled and the file quickly ruined. Except when working on soft metals, the return stroke should be made with the file lifted clear of the work. If too much pressure is employed on the forward stroke, the teeth are liable to clog or shell off. Just enough pressure should be applied to keep the file cutting efficiently.

Remember, at the start of the stroke, the leverage favors the right hand and the file tends to round off the near side of the work. As the stroke is completed, the leverage favors the left hand, with the file is brought down harder on the far side of the work - the file tends to develop a curved surface instead of a flat one. This may be minimized by carefully following the directions above. With practice, patience and perseverance, it is possible to file a surface that is absolutely true and square.

Beginners' Faults: Most defective filing is caused when the beginner allows the file to rock or see-saw, thereby producing a convex surface instead of the level surface desired. To avoid this, the body should be kept still and the arms made to pivot about the shoulders. Also, try not to remove too much metal in one stroke. Take it easy!

Make sure the file is clean before starting. If it is dirty, it can easily be cleaned with a file card. When a new file is used, rub it with chalk to keep the teeth from clogging. Merely rubbing soft chalk over the teeth prevents the filings from getting wedged in the teeth. Chalking is also an advantage during finishing as otherwise the pins are likely to scratch the work.

**** Never use a file without a handle. Never use a loosely fitting handle. ****

Draw-filing is defined as operating a file in such a way that its length is transverse to the direction of motion. Draw-filing is used where a smooth level surface on planes or edges of the work is desired. The file is held with both hands, with the fingers on the edge away from the body and the thumbs on the edge toward the body of the filer. The file is alternately pulled toward the body then pushed away across the work with an even pressure. Draw-filing allows the file to be held steadily, resulting in a fine surface finish without scoring or scratching. Ordinarily a single-cut mill bastard file or a long-angle lathe file should be used so the metal is cut with a true shearing or shaving action and scoring is avoided. If metal is to be removed rapidly or in comparatively large amounts, as for example, on the end of a metal plate or sheet, a flat or hand bastard file may be employed. This roughing down may then be followed by finishing with a mill file.

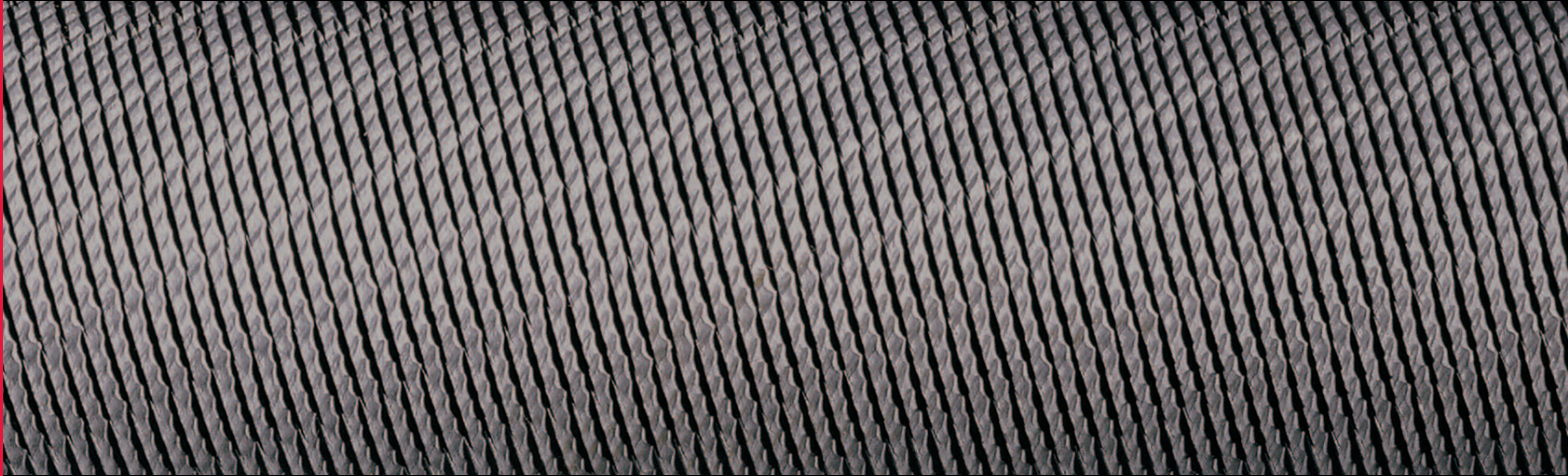
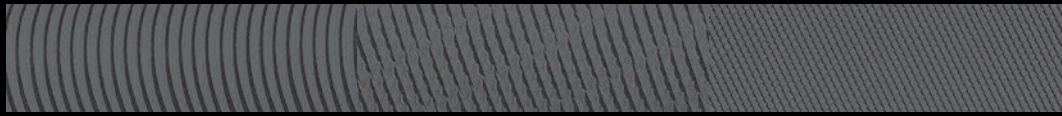
In draw-filing, the beginner has a tendency to apply most of his effort when the file is in the middle of its stroke. This can cause the surface to develop a hollow spot. This must be guarded against by careful testing after filing. Such a hollow area may be removed by applying a few more strokes at the end of the work. To remove the sharp edge that draw-filing produces, hold the file at an angle and run it lightly down each edge.

Lathe Filing: If lathe tooling has been properly ground and set for the proper speed and feed, most work that is finish-turned on the lathe is smooth enough no additional finishing is necessary. However, the work may sometimes have a slight taper that needs correction. Since another cut on the lathe may result in the work being undersize, the correction can be made easily by a filing operation known as lathe filing. Unless lathe filing is properly performed, it will do more harm than good. First, select a long-angle lathe file to give a true shearing cut without producing ridges or scores (a single-cut mill bastard file may be used). The speed of the lathe should be increased to about 50% higher than normal. Ensuring that the work is revolved toward the operator, hold the file at a slight angle and use a long forward steady stroke, moving laterally about half the width of the file on each stroke. Don't hold the file rigid or stationary - keep stroking continually. Clean the file frequently with a file card or brush, occasionally applying chalk to prevent pinning or clogging of the teeth.

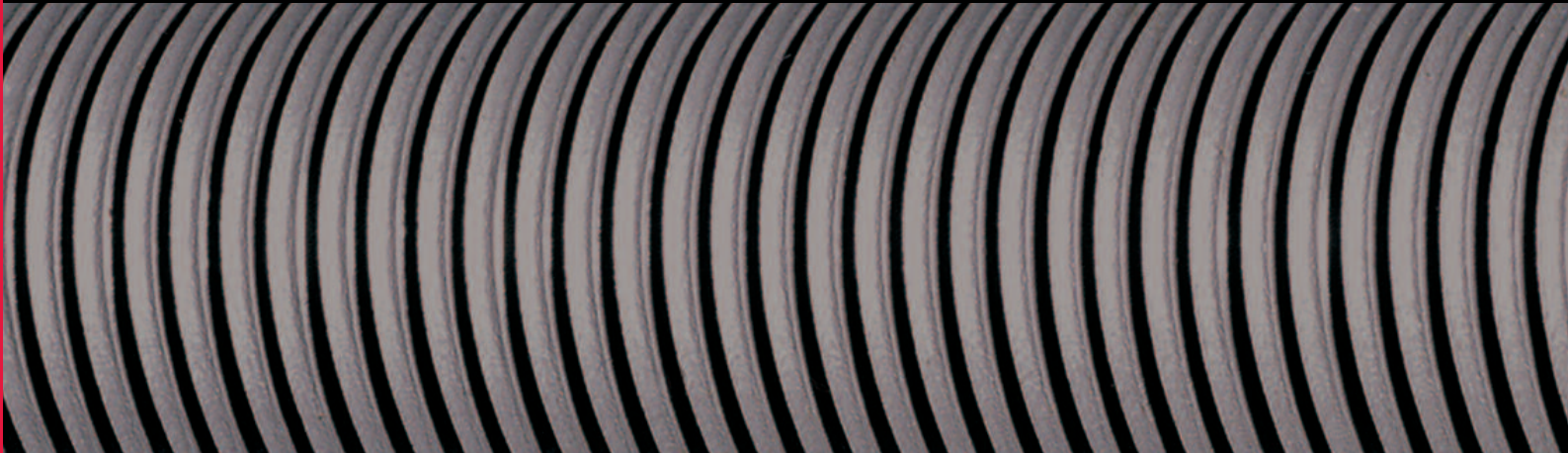
Using a File Card: As you file, the teeth may become clogged with some of the metal filings which can, in turn, scratch the work you are trying to make smooth. This condition is known as pinning and can be prevented by keeping the file teeth clean. Rubbing chalk between the teeth will also prevent pinning but the best method is to clean the file regularly with a file card or brush and brush with a pulling motion holding the card parallel to the rows of the teeth.

Care of Files: Take care to break in a new file gently by using it only on flat surfaces of soft metals such as brass, bronze, or smooth cast iron. Use only a light pressure to prevent tooth breakage. You can also protect file teeth by hanging the files in a rack when they are not in use, or by storing them in drawers with wooden partitions. Be sure to keep files away from water or moisture and avoid getting them oily. Oil makes the file slide across the work without much cutting. If you keep files in a tool box, be sure they're wrapped in paper or cloth for extra protection.

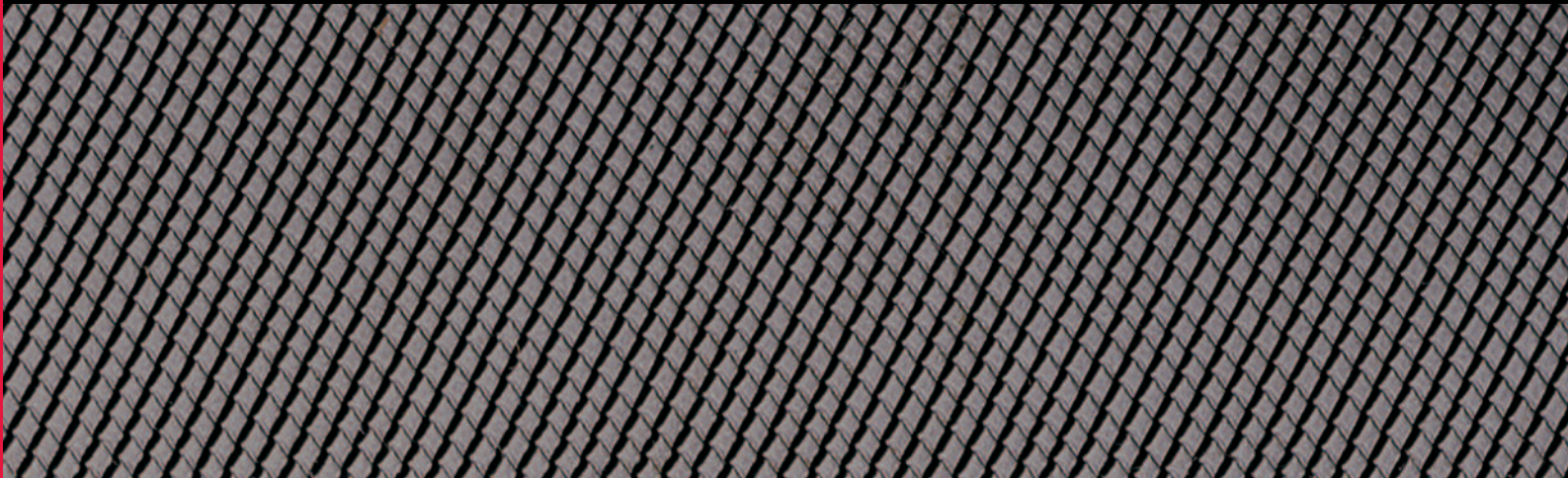
Safety: Never use a file without a tight-fitting handle. If you use a file that doesn't have a handle and the file hits something or gets jammed, the tang could easily be driven into your hand or cause some other injury.



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