



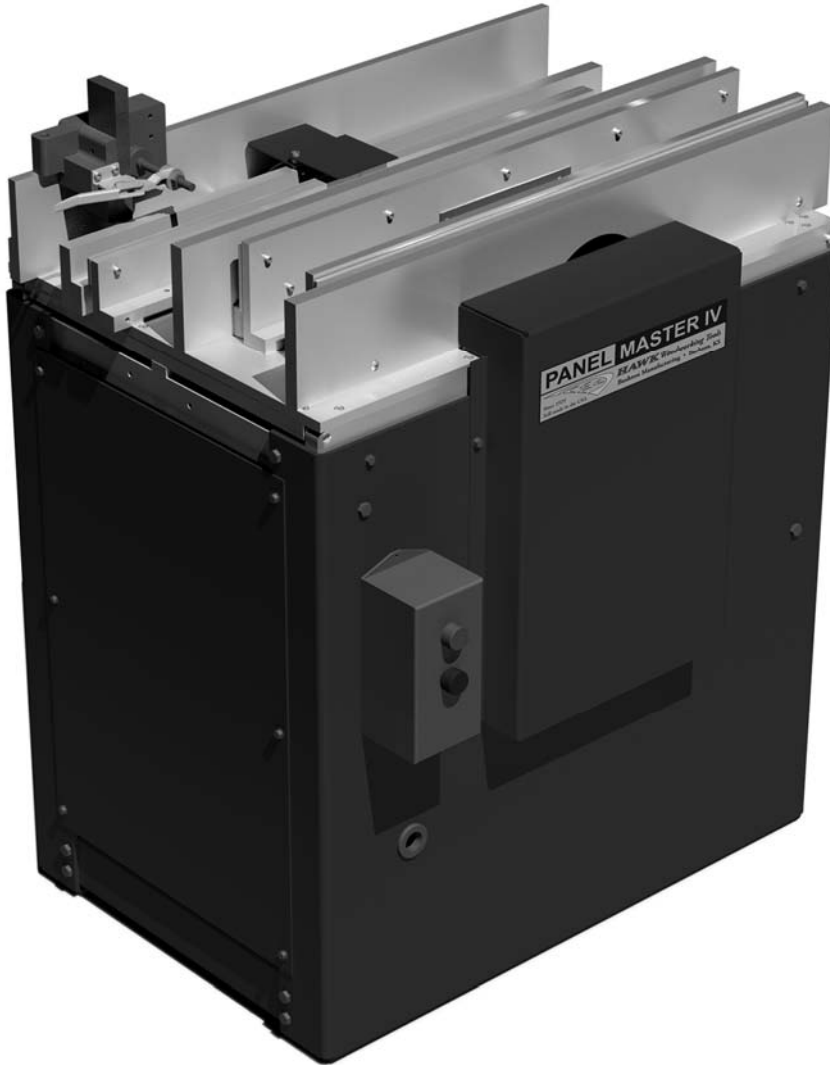
Since 1929  
Still made in the USA

# HAWK

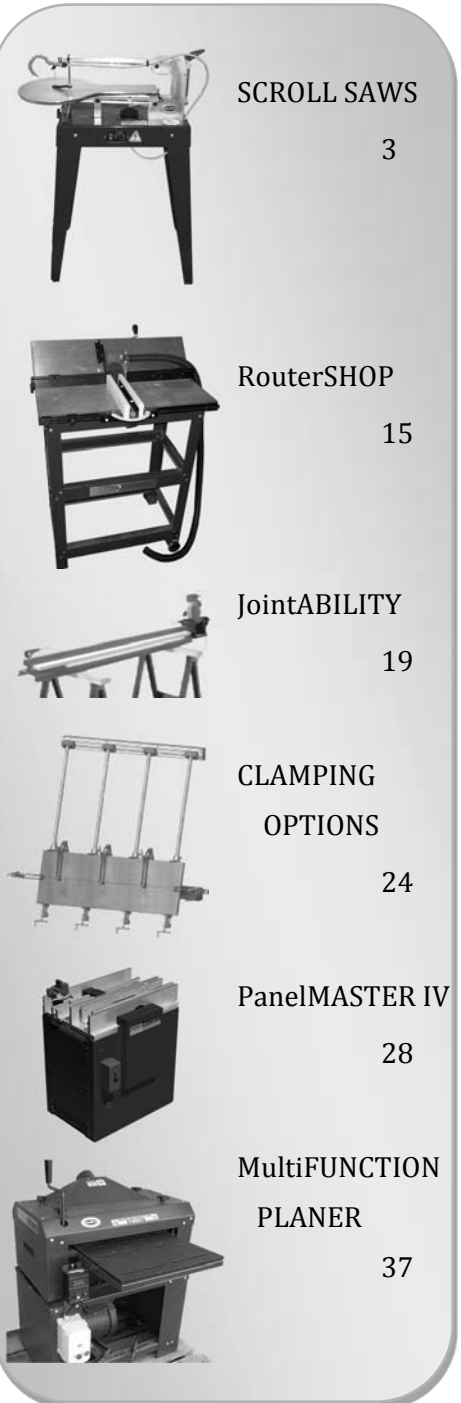
## Woodworking Tools

**Bushton Manufacturing, LLC**  
P.O. Box 127, 319 S. Main St.  
Bushton, KS 67427  
620-562-3557  
[www.hawkwoodworkingtools.com](http://www.hawkwoodworkingtools.com)

### Introducing the PanelMASTER IV



- ⇒ 4 CUTTING HEADS ON 2 SHORTER SHAFTS, NOT ONE LONG SHAFT WITH 3 CUTTING HEADS, TO REDUCE VIBRATION AND ADD FUNCTIONALITY
- ⇒ MAKE STYLE, RAIL, RAISED PANEL, DOOR OUTSIDE CUTS WITHOUT CHANGING CUTTERS
- ⇒ HEAVIER FRAME REDUCES VIBRATION
- ⇒ VIBRATION DEADENING MACHINED ALUMINUM CUTTER HEAD FRAME
- ⇒ IN JUST 7-1/2 SQUARE FEET OF FLOOR SPACE
- ⇒ PRECISION MACHINED AND DOWELED IN PLACE FIXED FENCES TO SIMPLIFY SET UP
- ⇒ QUICK CHANGE CUTTER SHAFT ASSEMBLIES ALLOW YOU TO HAVE MULTIPLE SHAFTS LOADED WITH DIFFERENT CUTTERS READY TO RUN IN ONLY A FEW MINUTES WITHOUT ADJUSTMENT DELAYS



Catalog #8, September 2014



## CONTACT INFORMATION

You can reach our customer service department  
Monday thru Friday from 8:30 am to 5:30 pm  
Central Time.

Bushton Manufacturing, LLC  
P.O. Box 127  
319 South Main Street  
Bushton, KS 67427

Phone: 620-562-3557

e-mail: [customerservice@hawkwoodworkingtools.com](mailto:customerservice@hawkwoodworkingtools.com)

Web: [www.hawkwoodworkingtools.com](http://www.hawkwoodworkingtools.com)



## ORDERING INFORMATION

To order you can contact customer service by mail, phone or e-mail as listed on top of this page.

You will need to provide the item number, description and quantity you want.

You can pay by check, money order, MasterCard, VISA, Discover, or American Express Card.

### MAKE CHECKS PAYABLE TO:

**BUSHTON MANUFACTURING, LLC**

We do not have a set shipping and handling charges table. Please contact customer service for the amount of these charges for your order if needed.

We now have a direct order shopping cart on our web page. The web page is [www.hawkwoodworkingtools.com](http://www.hawkwoodworkingtools.com)



## LIMITED WARRANTY

PRICES SUBJECT TO CHANGE WITHOUT NOTIFICATION

We guarantee that all Hawk Products are free from defects in materials and workmanship for one full year from the date of purchase. This warranty is automatically started when we ship your new Hawk Product. The warranty is tied to the original owner and is non-transferable. If given as a gift, tell us who it is to and what day the gift will be given so that the warranty can be properly registered. The warranty covers parts only; labor and shipping charges still apply.

This warranty does not obligate us to bear the cost of shipping charges in connection with the repair or replacement of the defective parts, nor shall it apply to any machine upon which repairs or alterations have been made unless authorized by us. This warranty is void if damage is the result of misuse or abuse of the machine. This warranty is non-transferable. Tampering with any electrical control components voids this warranty.

When receiving a freight item from a common carrier, the customer must note on the receipt any damage to the carton. This is required for all insurance claims. If you do not note any damage to the shipping carton, you assume the cost of any damages caused by shipping that are not covered by insurance.

We shall in no event be liable for consequential damages or contingent liabilities arising out of the use of any machine, or out of the failure of any machine to operate properly. No express, implied or statutory warranty other than herein set forth is made or authorized to be made by us.

Warranty information will be based on information given at the time of purchase. This warranty is not transferable from one owner to another. Any repairs and or replacement parts must be done by Bushton Manufacturing, LLC. In order for parts to be honored by this warranty, the part must be official Hawk Woodworking Tools parts supplied by Bushton Manufacturing, LLC.



Since 1929  
Still made in the USA

# HAWK

## Precision Scroll Saws

### BM-26

**\$1400 WITH STANDARD LEGS**  
**\$1500 WITH CHAIR LEGS**  
**\$1350 WITH BENCH LEGS**



### BM-20

**\$1200**  
**SHOWN WITH**  
**STANDARD LEGS**



### BM-20

**\$1300**  
**SHOWN WITH**  
**CHAIR LEGS**



### BM-20

**\$1150**  
**SHOWN WITH**  
**BENCH LEGS**

### The *HAWK* Scroll Saw

By far the best overall saw on the market today

Regardless of what your project is

Large or small  
Simple or complex  
Intarsia  
Fret  
Puzzle  
Layered  
Bowl/basket  
3-D  
1/4 turns  
In-lay  
Jewelry  
etc.

Regardless of what material you use

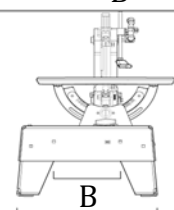
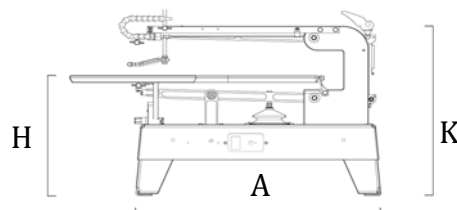
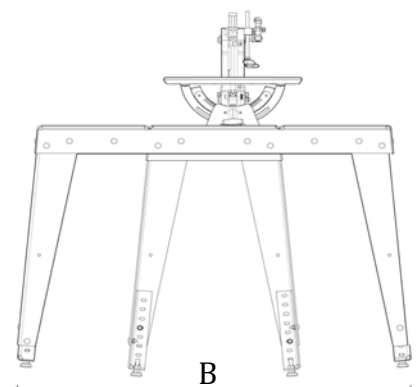
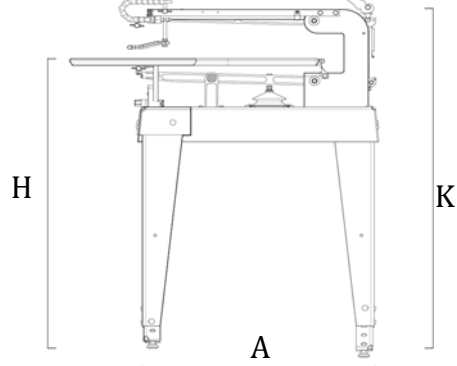
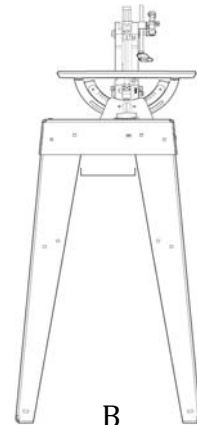
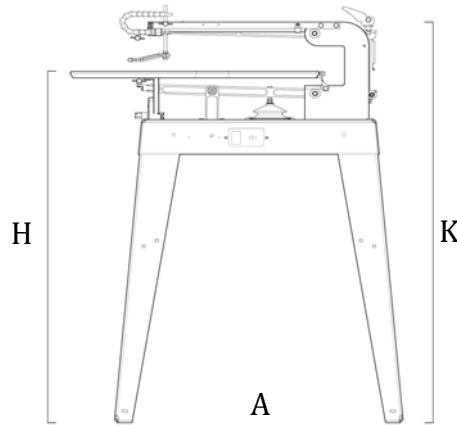
All kinds of woods  
Glass  
Tile  
Rock  
Metal  
Plastic  
Paper  
Engineered woods  
Horn  
Antler  
etc.

Regardless of your experience level the HAWK Scroll Saw can cut it. We stock over 70 blades from multiple manufacturers to insure that we have the blade you will need for any given project you will want to do.



## SPECIFICATIONS

Throat Capacity	BM-20	BM-26
Maximum Cutting Thickness	20"	26"
Cutting Strokes per Minute	2 ½"	2 ½"
Work Table	100-1750	100-1750
Dimension H Cutting Table Height	13 ½"	13 ½"
Standard Legs	39"	39"
Standard Legs w/Extensions	43 ½"	43 ½"
Chair Legs	31 to 38"	31 to 38"
Bench Legs	13"	13"
Dimension K Overall Height		
Standard Legs	47"	47"
Standard Legs w/Extensions	51 ½"	51 ½"
Chair Legs	39 to 46"	39 to 46"
Bench Legs	21"	21"
Dimension A		
Standard Legs	29"	35"
Chair Legs	29"	35"
Bench Legs	24"	30"
Dimension B		
Standard Legs	19"	19"
Chair Legs	41"	41"
Bench Legs	14"	14"
Maximum Forward Tilt (extension on back legs only)	15 Degrees	12 Degrees
Table Over Hang	7"	7"
Motor	DC TENV	DC TENV
Mounting	10 Gauge Steel Legs	10 Gauge Steel Legs
Weight	93 Pounds	97 Pounds
Floor Space Requirements	19 ½" x 33"	19 ½" x 39"
Manufacturer's Warranty	1 Year	1 Year
Shipping Dimensions		
Box # 1 Saw	39" x 21" x 20" 96#	39" x 21" x 20" 105#
Box # 2 Standard Legs	7" x 7" x 37" 30#	7" x 7" x 37" 30#
Box # 2 Chair Legs	7" x 7" x 37" 38#	7" x 7" x 37" 38#
Box # 2 Bench Legs	7" x 7" x 15" 8#	7" x 7" x 15" 8#



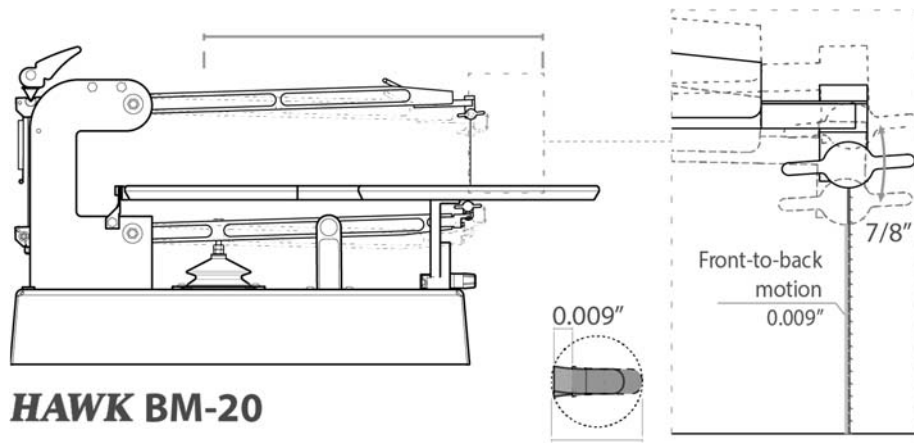
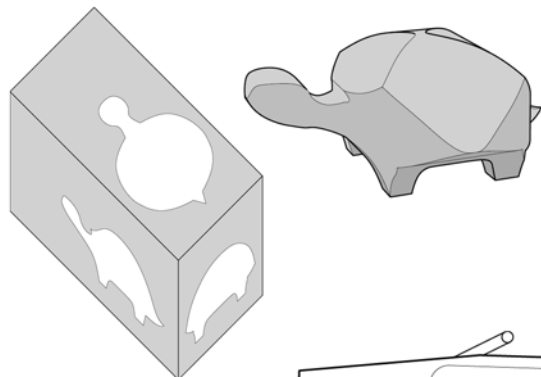
## LONG PARALLEL ARM SAW WITH THE ADJUSTABLE NOSE STROKE

This allows you to set the blade vertical for tighter turning than the competition and still give you the ability to tilt the blade for an efficient cutting motion if you want to cut fast.

**Long 7/8" Blade Stroke** for faster, cleaner cuts that need little sanding, if any at all. Not the 3/4" or less of most of the competition.

**Cuts Boards up to 2-1/2" Thick.** Being able to cut that much thickness, allows you to can stack cut or re-saw thick projects to have a set of matching parts. With this feature you can also do compound cuts on 3 sides up to 2-1/2" thick. An example is the 3 sided cut turtle is shown here.

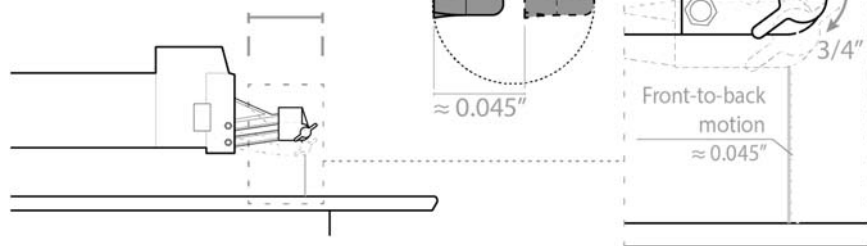
**Tighter Turning Radius** which allows for more control and sharper corners in your projects.



**HAWK BM-20**

Turning circle < 1/20"  
Turning circle  $\approx$  1/10"

### The competition



### BM-Series Improvements over the ULTRA series

**Upper Arm** is 38% lighter but still stronger in the direction needed.

**Lower Arm** is 34% lighter but still stronger in the direction needed.

**Pitman Arm** is 78% lighter.



### Better Motor

**Totally Enclosed DC motor** gives you complete control of the speed throughout the entire speed range. The motor is TENV to keep out harmful dust. The controller is designed to yield full torque over the entire speed range without over heating or stalling.

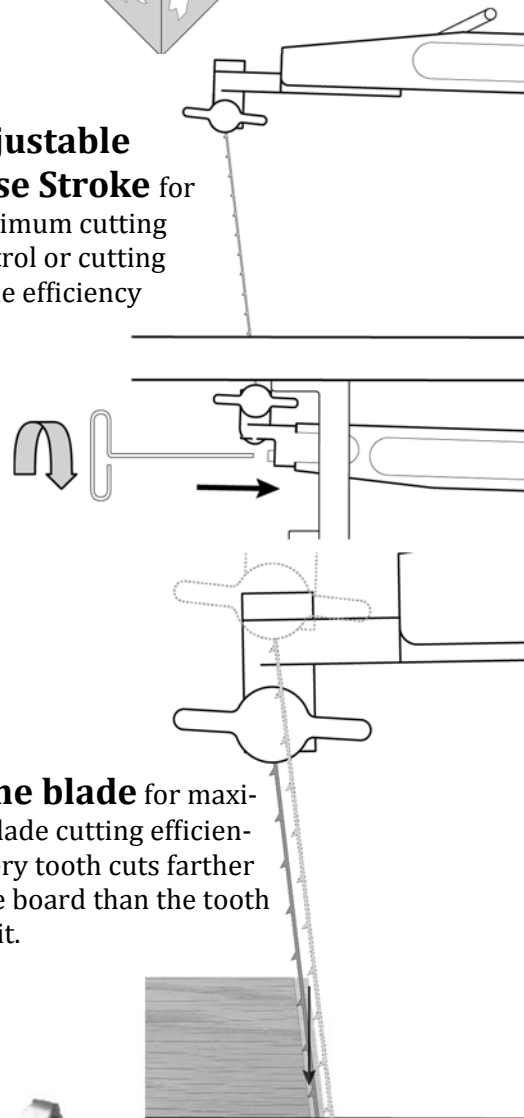
**Motor design.** Custom motor with integrated heavy duty carrier bearing yields longer bearing life than past motor designs.

**Motor Bearing Block** is integrated into a custom motor.

**Counter Weight** is used, not just a flywheel.

**Speed Range is 150 to 1750 Strokes per minute**, not the slow 1450 or 1550 of the competition.

**Adjustable Nose Stroke** for maximum cutting control or cutting blade efficiency

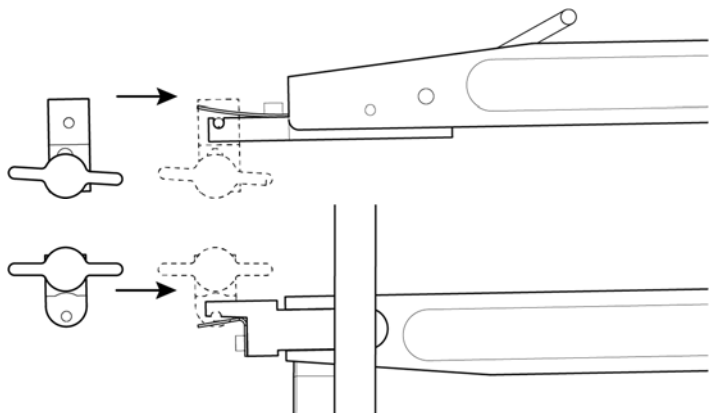


**Tilt the blade** for maximum blade cutting efficiency. Every tooth cuts farther into the board than the tooth before it.



## Quick Change Removable Upper and Lower Blade holders

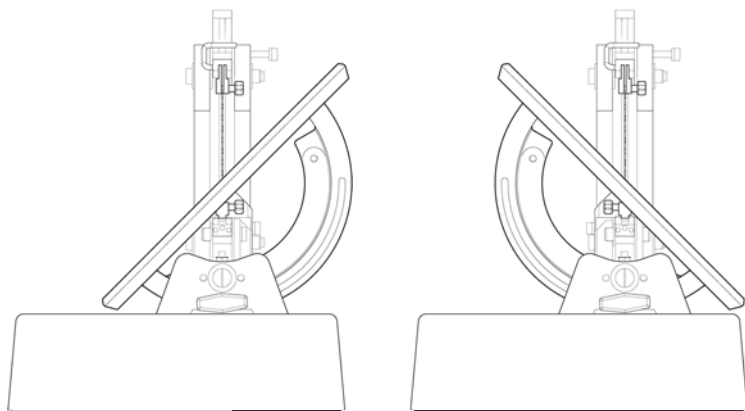
Both the upper and lower blade holders can be clipped into and out of place. This allows you to have preloaded blade holders of different blades to speed blade changes during your project. **No other saw has this.**



**Front Cam Over** tension release of the upper blade holder allows you to change blades in seconds. This allows you to make inside cuts quicker and easier.



**Work Table Tilts a full 45°** both left and right. No tools required you just have to remove the lower blade holder and place it back in with the thumb screw to the left to tilt

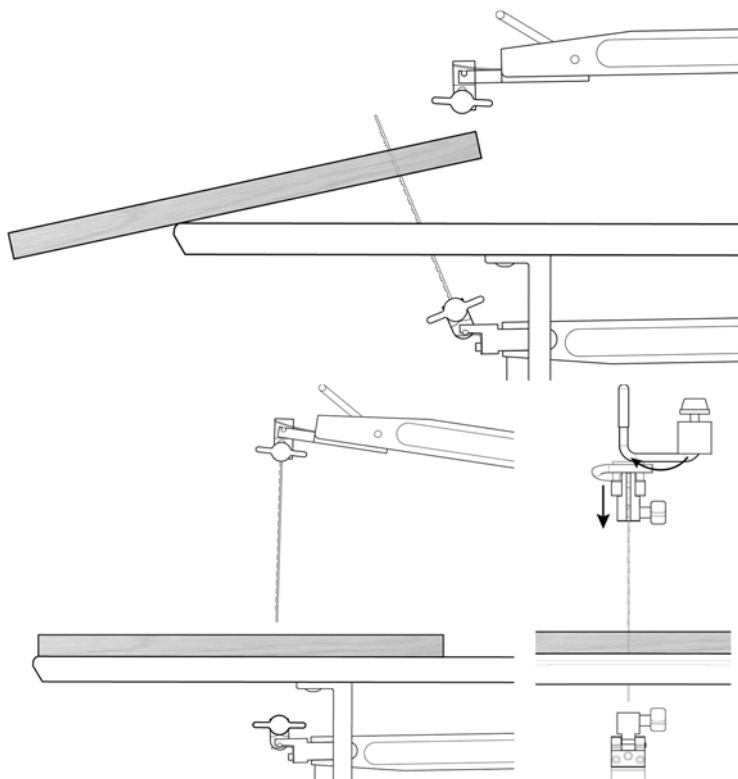


the table all the way down on the right side.



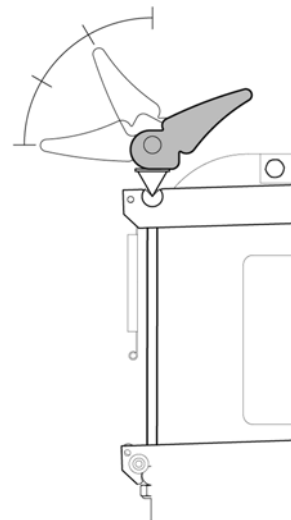
## Top and Bottom Loading

Most saws allow you to feed thru the top or the bottom of a board for inside cuts. Since we can do both, you can choose which way to load.



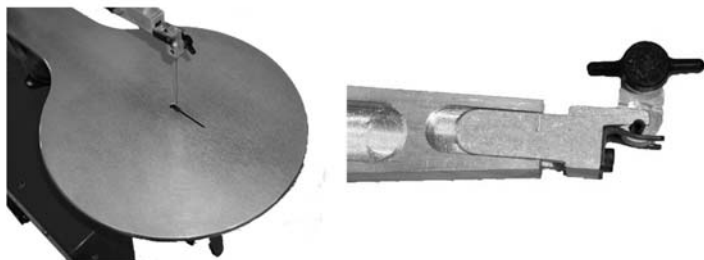
**Rear Cam Over** for quick release and precise setting of blade tension. More accurate than plucking the blade and turning a knob.

**Safety Spring and Stop** for safer operation even if the blade breaks.



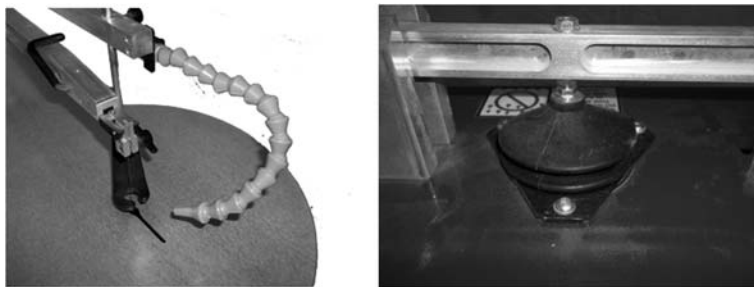
**Precision Crafted Steel Base and Heavy Duty Legs** made from 10 gauge steel for greater stability and long-lasting durability.

**Machined and Casted Parts** for quality to last a lifetime.

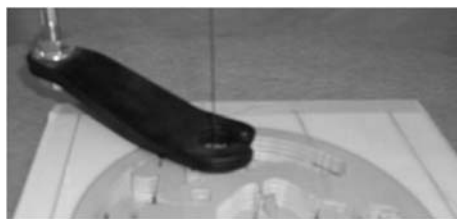


**Large Cast Aluminum Table** (13 ½" diameter) provides a large work area in front of the centrally located blade for better control and more support of your work.

**Flex Bellows and Loc-line** keeps the cutting area clear for greater visibility and safety.



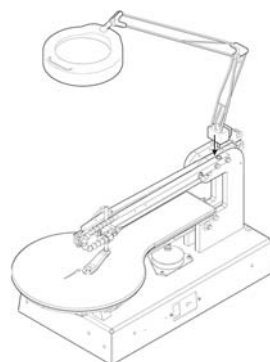
**Pressure Foot** gives maximum control, even when making those intricate cuts that are so popular with scroll saw users.



**Table-Forward Design** is comfortable to sit at with a shop stool.



**Mag-Light Bracket** for mounting a mag-light without the need of relying on the clamps to hold it.

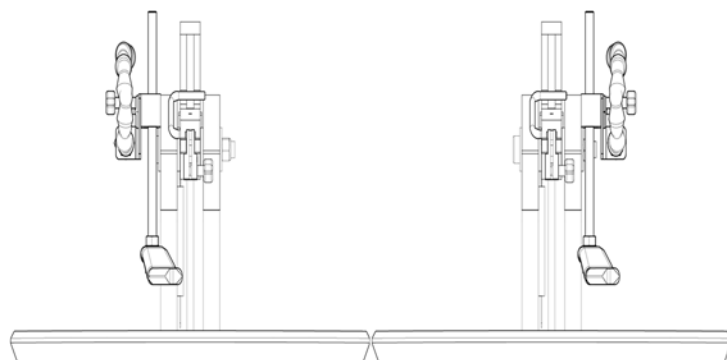


**Accessory Table** available to allow you to keep all your blades and accessories close at hand.

**Drip Tank** for use when cutting hard materials to keep the blade cool like using diamond blades on glass or ceramic tile.



**Right or Left Hand Accessory Arm Mounting** to yield the most effective environment for your cutting.



**Use Any 5" Pinless Blade** to make clean, polished cuts that need little to no sanding. We stock many types of blades from multiple manufacturers to ensure we have a blade that fits your needs. You can cut hard or soft wood, plywood, MDF, particle board, OSB, plastic, Corian, glass, ceramic tile, soft stone (sand stone, lime stone, etc.), hard stone (marble, granite, etc.), non-ferrous metals, horn, antler, and much more.

**Engineered** to run quiet and limit vibration.

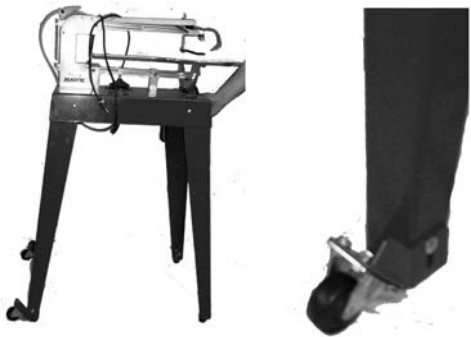
**Made in the United States of America.**

ACCESSORIES

965-0950 Chair Leg Kit \$230.00



965-1910 Saw Caster Kit \$44.95  
When you lift on the opposite end the saw lifts on to the casters for easy movement



965-1151 Leg Extension Kit, 2 extensions per kit \$39.96  
To tilt the saw forward use only one kit on back legs of the saw. To raise your saw use two kits.



865-0803 6 pack blade tubes \$7.75



865-2210 45" Articulated Mag Light \$75.00  
865-2211 Bulb for Mag Light \$7.50  
865-2212 3-Diop Lens for Mag Light \$19.95  
865-2213 5-Diop Lens for Mag Light \$19.95  
965-0200 Blade Holder Rack \$12.95  
965-6280 Saw Upgrade Kit \$170.00



865-0100 Foot Switch \$24.95



965-0245 Accessory Table \$29.95  
865-0804 Blade Tubes for Acc. Tray \$1.49



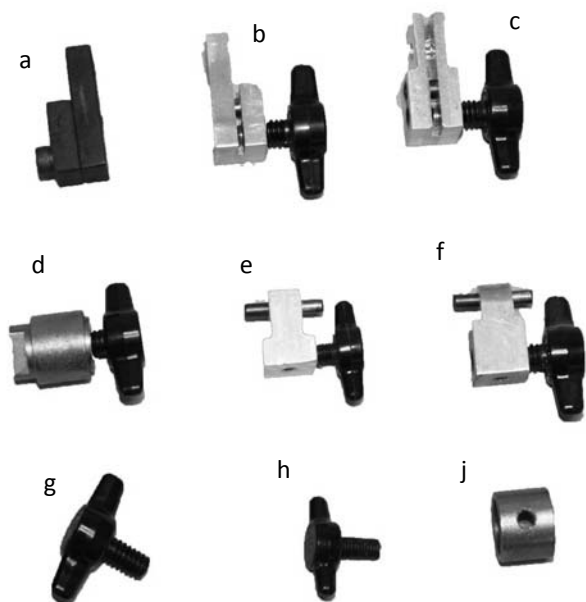
865-0300 Drip Tank for use with Diamond Blades \$64.95





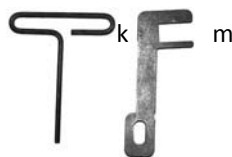
## PARTS SCROLL SAWS

### BLADE HOLDERS



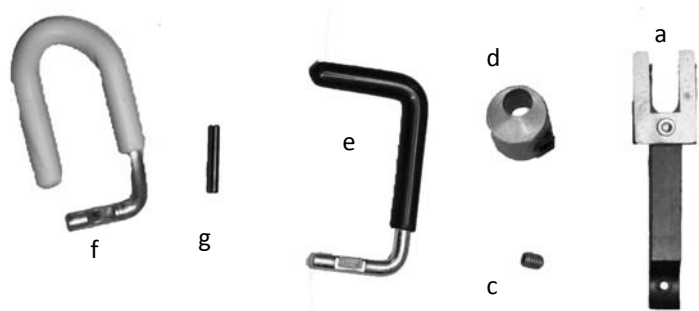
Item	Part #	Description	Price
a	615-0045	Upper old style 2 piece	\$19.95
b	615-0182	Upper old style 1 piece thumb screw	\$19.95
c	615-1182	Upper ULTRA	\$19.95
	615-1182A	Upper ULTRA Style blade holder for use with 705-0153 blade holder bracket	\$19.95
d	615-0187	Lower Barrel type with bushing	\$19.95
e	615-1231	Lower ULTRA	\$19.95
	955-0003	Replaced by 955-1010	
f	955-1010	G4 upper & lower	\$19.95
g	715-0221	1/4-20 T-Knob	\$1.95
h	715-0257A	#10-32 T-Knob	\$1.95
j	715-0112	Bronze Bushing for Barrel Type	\$2.95
k	705-0086	9/64 T-Handle Allen Wrench	\$4.00
m	715-0137	F Wrench for barrel type blade holders	\$4.95
	715-0256	10-32 x 3/16 Flat Point Socket Head Set Screw	\$0.60
	791-0053	1/4-20 x 1/4 Flat Point Socket Head Set Screw	\$0.50

### UPPER BLADE HOLDER BRACKET



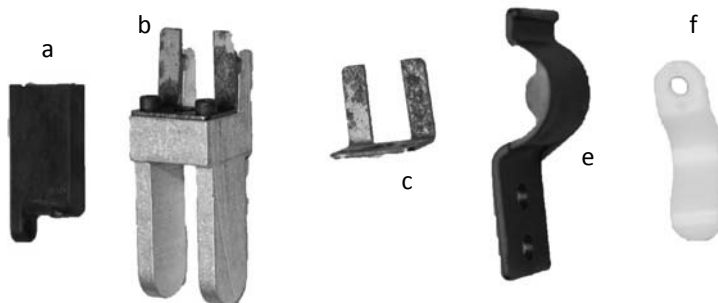
All saws with front cam tension release will now use upper blade holder bracket 715-0153. To use this bracket all cams must be replaced with 715-2154. Upper blade holder 615-1182A is for use with this new bracket except on the G4 and JuniorHAWK saws which use upper blade holder 955-1010.

All the parts required for this conversion for any VS series saw are in item #960-1232 for \$48.90



Item	Part #	Description	Price
a	705-0153	Upper Blade Holder Bracket Assembly	\$11.50
b	711-0013	Steel Blade Holder Retainer	\$1.95
c	715-0287	#10-32 x 1/4 Lg Nylon Insert Brass Set Screw	\$1.50
d	715-2154	Cam	\$12.50
e	715-2168	Cam Handle	\$4.95
f	715-3169	Cam Handle G4	\$4.95
g	710-0042	1/8 x 3/4 Lg Roll Pin	\$0.50

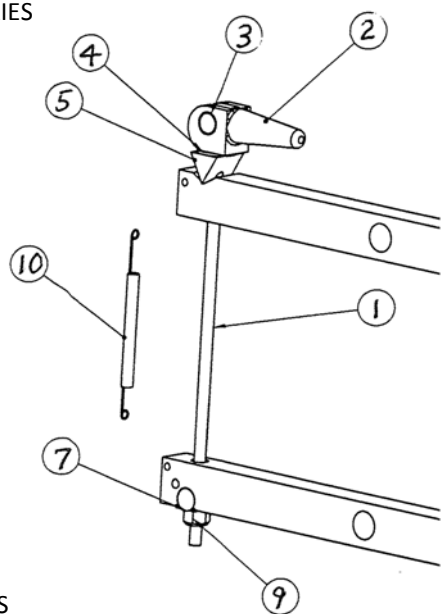
### LOWER BLADE HOLDER BRACKET



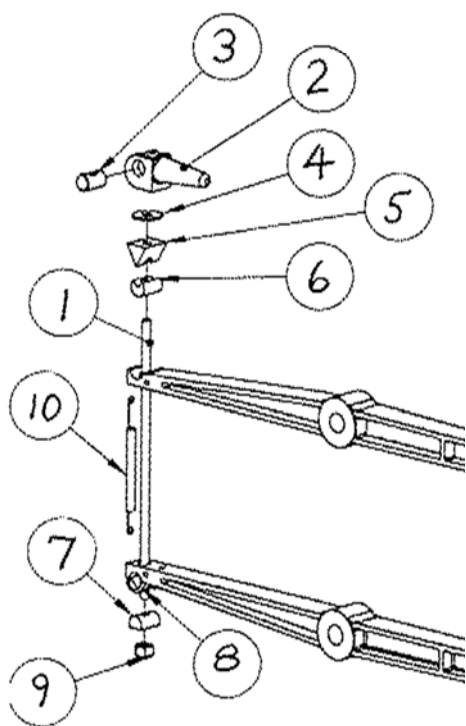
Item	Part #	Description	Use With	Price
a	715-0001	Adj Stroke Block	for G4 saws	\$4.95
b	711-0014	Nose Adj Stroke	use on G4, JuniorHAWK and BM series	\$12.95
c	711-0012	Retainer Clip for Nose Adj Stroke	use with 711-0014	\$1.95
d	711-0100	Nose Adj Stroke Assembly	use to replace 705-0005 and 705-0015 on G4 saws	\$15.95
e	715-2139	Blade Holder Clip Barrel Type	for use with 615-0187 barrel style lower blade holders	\$1.95
f	715-0099	Blade Holder Clip ULTRA	for use with 615-1187 style lower blade holders	\$1.35

## TENSION ROD PARTS

### ULTRA SERIES



### G4 SERIES

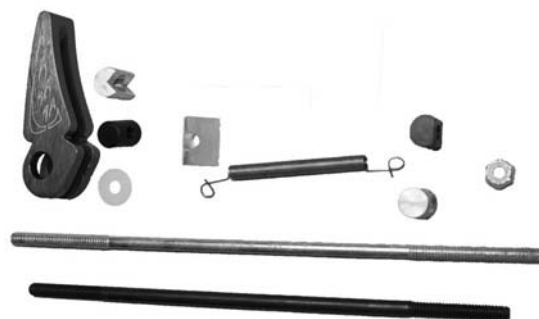


## BELTS

705-0073	Belt for -3 models and high speed belt for 2-speed models	\$18.32
705-0072	Belt for lower speed on 2-speed models	\$18.32
745-0059	Belt for 226M	\$6.50



Item	Part #	Description	Price
1	715-1272	Tension Rod 9-5/8"	\$3.50
	715-0240	Tension Rod 8-1/2"	\$3.50
	715-0272	Replace with 715-1272	
2	615-1074	Replace with 705-0024	
	705-0024	Cam Rear Tension	\$11.00
3	715-0077	Round Pivot for Rear Cam Handle	\$6.42
4	715-0103	Nylon Washer	\$1.00
5	715-0075	Wedge Pivot	\$7.75
6	605-0039	Wedge Pivot Adapter	\$4.95
7	715-0216	Round Pivot Bottom	\$4.95
	705-0038	Round Pivot Bottom	\$4.95
8	715-0017	Retainer Round Pivot Bottom (G4)	\$5.95
9	715-0079	5/16-18 Nylock Nut	\$1.00
10	710-2036	Saw Arm Safety Spring	\$3.95
	960-1231	Ultra tension rod kit	\$33.12



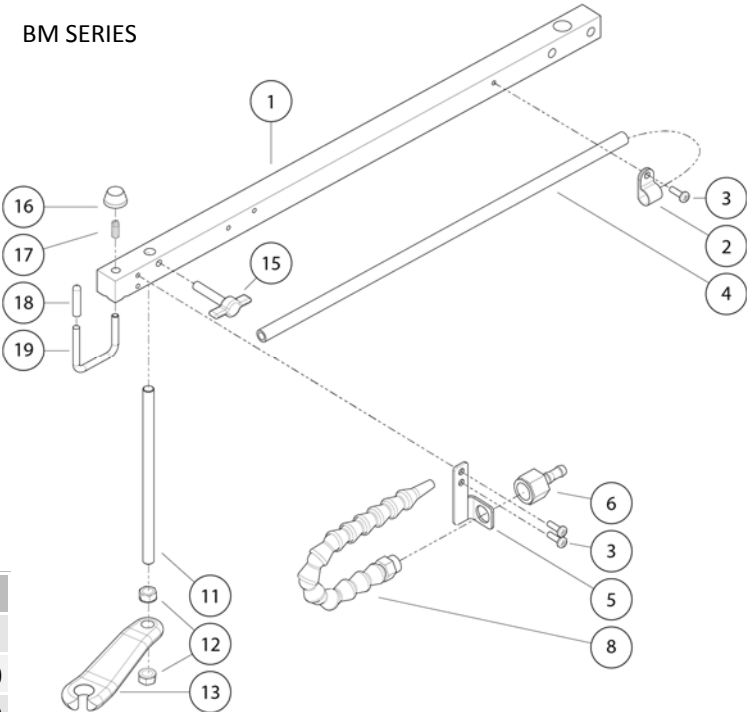
## BEARINGS



Part #	Description	Price
735-0007	Bearing 1/2 Pitman & some pre 1990 Saw Arms	\$15.00
735-0008	Bearing 3/8 Pitman	\$4.95
715-0208	Bearing 1/2 Thrust Washer Type	\$6.95
715-1208	Bearing 1/2 Thrust	\$4.95
715-0264	Bushing 1/2 ID 5/8 OD x .730 LG	\$2.95
740-0369	Bushing 1/2 Flanged	\$2.50
705-0029	Bearing Polymer 1/2 ID x 1	\$2.95
715-0262	Bearing Carrier Ultra/G4 Models	\$10.50
735-0009	Bearing 1/2 for many Motors	\$17.50

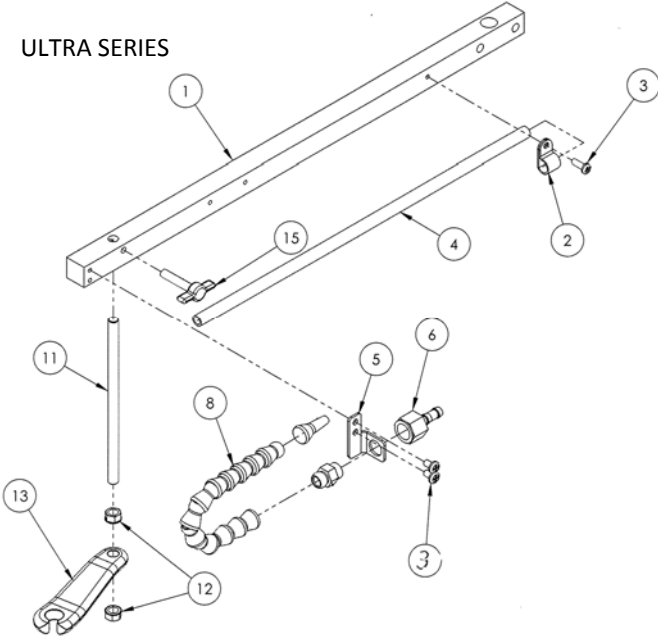
ACCESSORY ARM PARTS

BM SERIES

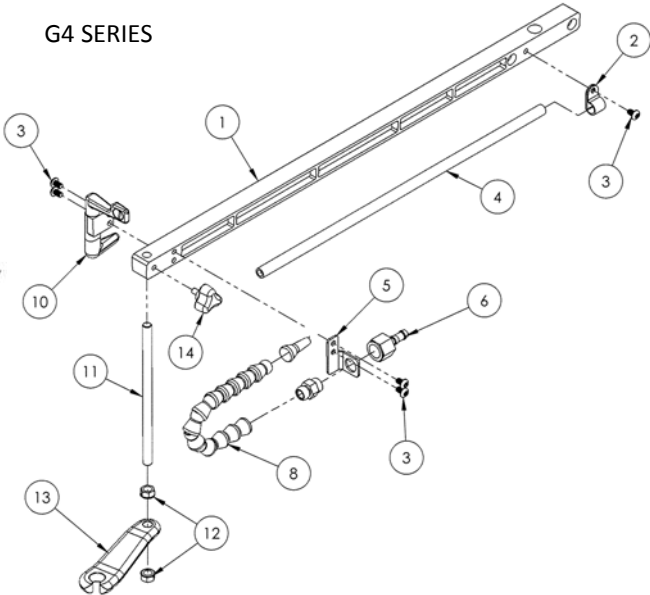


Item #	Part #	Description	Price
1		Accessory Arm	
2	715-0275	Tubing Clamp	\$ 0.50
3	705-0110	10-32 x .3125 Lg Button Head Screw	\$ 0.50
4	715-0274A	3/8 Ploy Tubing 55"	\$ 6.25
5	505-0004	Bracket for Blower Nozzle	\$ 3.00
6	715-0308	NPT to Hose Barb	\$ 2.49
8	715-0321	Loc-line, w/Nozzle and 1/4 NPT	\$ 9.50
10	605-0030	Upper Arm Retainer (G4)	\$ 12.95
11	785-2012	Hold Down Rod	\$ 3.50
12	770-0080	5/16-18 Flange Nut	\$ 0.50
13	715-0104	Hold Down Foot	\$ 3.95
14	705-0027	10-32 x .500 Lg Knob	\$ 3.95
15	715-0222	1/4-20 x 1-1/4" Lg T-Knob	\$ 1.95
	715-0024	Bellows	\$ 9.95
	715-0273	Grommet	\$ 0.50
	715-0330	Loc-line Upgrade Kit	\$ 19.95

ULTRA SERIES



G4 SERIES



MOTORS

SINGLE SPEED AND BELT DRIVE SAWS

ES-44-Z FASCO Motor for many of the single speed saws.

\$119.00



VARIABLE SPEED AC MOTOR REPLACEMENT

We can no longer obtain new motors or controllers for the ac variable speed motors. To solve this problem we have developed this replacement kit.

711-1000 DC replacement motor, controller, bracket, counter weight \$350.00



DC MOTORS ULTRA AND G4 SERIES SAWS

We have found 8 different motors, 4 different controllers and 3 different connection methods that were used on these saws. In order for your motor to run properly, we ask that you send in both the motor and controller to us. Then we can set the controller to the motor that is shipped to you. That is if you need a new controller we set it to your motor or if you need a new motor, your controller is set to the new motor. This will result in better performance of your saw.



704-4013 The BM series custom MET motor has an integrated bearing block, which allows for the use of a counter weight not just a flywheel. This motor is designed to be a replacement for the ULTRA and G4 series saws. For use with the counter weights listed below. \$190.00

715-2259 Controller for the dc motors \$159.00  
615-1263A Counterweight for 16" saws and upgrade kit. \$22.50

615-1263B Counterweight for 20" saw \$25.00  
615-1263C Counterweight for 26" saws \$27.50

OTHER PARTS

Our parts list is far too large to cover in this catalog.

Let us know what parts you need and we will do our best to get the right part to the right place as quickly as possible.



REBUILD SERVICE

We can rebuild your saw or other machine for \$50 per hour plus parts. You can send in the entire machine or just the parts you need rebuilt; like an upper arm. A complete rebuild of a scroll saw usually require 3 hours. If we have to re-machine parts, it can require a little more time. An upper arm rebuild takes about 30 minutes. After we examine your tool we will call and tell you what it will cost before we start on the rebuild.

MINI DRILL CHUCK



866-0000 \$7.50

DRILL BITS

JOBBER LENGTH			
ITEM #	SIZE	DIA	PRICE per 5
866-0055	#55	.0520"	\$ 3.68
866-0056	#56	.0465"	\$ 3.68
866-0057	#57	.0430"	\$ 4.55
866-0059	#59	.0410"	\$ 4.55
866-0063	#63	.0370"	\$ 4.55
866-0065	#65	.0350"	\$ 4.99
866-0068	#68	.0310"	\$ 4.99
866-0070	#70	.0280"	\$ 6.56
866-0071	#71	.0260"	\$ 6.56
866-0076	#76	.0200"	\$ 11.50
866-0077	#77	.0180"	\$ 11.50
866-0102	1/32	.0313"	\$ 3.90
866-0103	3/64	.0469"	\$ 3.90
866-0104	1/16	.0625"	\$ 3.90
866-0105	5/64	.0781"	\$ 4.10
866-0106	3/32	.0938"	\$ 4.10
866-0107	7/64	0.1094	\$ 4.10
866-0108	1/8	.1250"	\$ 4.10
DIAMOND			
866-0203		.75 mm	\$ 8.00
866-0204		1 mm	\$ 8.00
866-0205		1.25 mm	\$ 8.00
866-0206		1.5 mm	\$ 8.00



## PATTERNS AND BOOK



Part #	Description	Price
870-0000	Scroll Saw Work Book	\$14.95
870-0001	Big Book of Scroll Saw Woodworking	\$24.95
870-0002	Scroll Saw Pattern Book	\$14.95
870-0003	Scroll Saw Relief	\$14.95
870-0100	Wooden Puzzles	\$17.95
870-0200	Classic Fretwork Scroll Saw Patterns	\$14.95
870-0300	Scroll Saw Portraits 2nd Edition	\$14.95
870-0301	Wild West Scroll Saw Portraits	\$12.95
870-0302	Scroll Saw Civil War Portraits	\$12.95
870-0400	Artistic Wildlife Projects for the Scroll Saw	\$19.95
870-0401	Make your Own Model Dinosaurs	\$14.95
870-0501	Words of Faith in Wood	\$14.95
870-0600	Big Book of Christmas Scroll Saw Projects	\$17.95
870-0700	Great Book of Wooden Toys	\$19.95
870-0701	Zany Wooden Toys that Whiz, Spin, Pop and Fly	\$19.95
870-0800	Wooden Bowls	\$19.95
870-0900	Scroll Saw Castles	\$12.95
870-1000	Intarsia for Beginners	\$19.95
870-1100	HAWK Scroll Saw Patterns	\$10.95
870-1101	HAWK 26 Artisan Quality Projects CD	\$29.95
870-1102	HAWK Mini-cutouts CD	\$15.95

## MANUALS

We have the manuals you need. Call in or e-mail your model and serial number and we will e-mail you a PDF for free or mail you a hard copy for \$5.00 plus \$2.50 for shipping and handling charges. PDF file can be large as 20 meg and some e-mails accounts cannot accept that large of an e-mail. Manuals are also available online [hawkwoodworkingtools.com](http://hawkwoodworkingtools.com).



## ABRASIVE CORD AND TAPE



Item #	Description	Price
866-7950	Abrasive Cord .070 x 12' Fine Grit	\$ 5.95
866-7951	Abrasive Cord .070 x 50' Fine Grit	\$ 24.95
866-7952	Abrasive Cord .055 x 12' Med Grit	\$ 5.95
866-7953	Abrasive Cord .055 x 50' Med Grit	\$ 14.95
866-7954	Abrasive Tape 3/32 x 12' Med Grit	\$ 5.95
866-7955	Abrasive Tape 3/32 x 50' Med Grit	\$ 15.95
866-7956	Abrasive Tape 3/16 x 12' Med Grit	\$ 6.45
866-7957	Abrasive Tape 3/16 x 50' Med Grit	\$ 17.95

## CHEMICALS



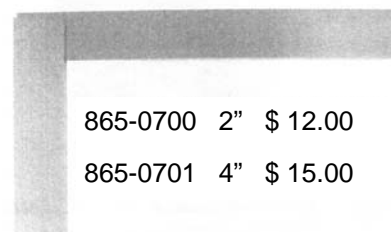
Part #	Description	Price
865-0056	Rust Free 10.5 oz.	\$10.99
865-0070	Bit and Blade 10.5 oz.	\$10.99
865-0069	T-9 Table & Blade Lube	\$15.99
865-0072	Top-Saver	\$19.95
865-0071	Dry tool Spray Lube	\$19.95
865-0073	Clearco 600 Adhesive	\$10.95
865-0074	Blade Lube Stick	\$5.90
865-0065	Loctite tube	\$0.44

## BALTIC BIRCH PLYWOOD



Item #	Thickness	Size	Price
865-4000	1/8"	12x12	\$1.75
865-4001	1/4"	12x12	\$2.20
865-4002	3/8"	12x12	\$2.70
865-4003	1/2"	12x12	\$2.90
865-4010	1/8"	12x30	\$4.10
865-4011	1/4"	12x30	\$5.25
865-4012	3/8"	12x30	\$6.50
865-4013	1/2"	12x30	\$7.00

## ENGINEERS SQUARE



865-0700 2" \$ 12.00  
865-0701 4" \$ 15.00

## BLADE SELECTION

### Some Tips and Advice:

There are literally hundreds of types, styles, and sizes of blades available for cutting most any material you choose. Here is some information on blade types. This catalog has a blade chart in the centerfold of all the blades we offer.

#### Fret Saw Blades:



Originally designed for a hand fret saw, these blades are ideal for power scroll saw. This blade is for use in general cutting. It is recommended for wood, plastics, rubber, fabric, paper, alabaster, and most often non-metallic materials.

#### Reverse Tooth:



Reverse tooth blades have skip tooth style teeth and reverse teeth that eliminate underside tear-out and provide a smooth splinter free finish.

#### Double Tooth:



Double tooth blades have 2 teeth together followed by a flat space for effective chip removal. They cut fast leaving clean edges in wood or plastic.

#### Diamond Blades:

The diamond blade is the newest and most unique blade yet. The blade is manufactured by impregnating a round rod with diamond chips. For crafters who enjoy making stained glass projects, or do large amounts of ceramic or marble cutting, the diamond blade is the answer. The diamond blade must be kept wet at all times while cutting. Hawk Woodworking Tools carries a drip tank system to use with your Hawk Scroll Saw. **Order Item #965-0300.** **DO NOT** attempt to cut tempered glass as it will shatter like a car windshield.

#### Metal Cutting/Jeweler's Saw Blades:



These blades are designed for use on the hand held jewelers saw frame still used frequently among jewelry designers. Its hardened steel composition and teeth configuration make it ideal for cutting non-ferrous metals such as gold, steel, copper, brass, bronze, and aluminum. To cut metals using your Hawk Scroll Saw, you will need to slow the saw down and cut at a slower speed. We also recommend that the thickness of the metal not exceed 1/4".

#### Extended Gap Blades



The Polar, Mach Speed and the Modified Geometry blades have extended gaps between teeth to expel chips extremely fast. They all can be used on soft or hard woods and even on horn or plastics leaving a smooth finish.

#### Continuous Reverse Teeth



This group of blades give a very smooth edges since the blade cut both ways at all times. However that does not work well with thicker materials since the blade is always cutting back into the material. These blades include the Crown Tooth and the Ultra Reverse.

## Spiral Blades

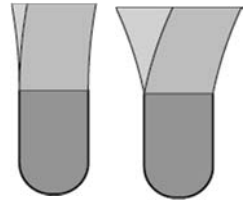


These blades are for cutting in any direction without turning. That is, you can push the board into the blade from any direction and it will cut. These blades are hard to control and tend to wander especially for inexperienced scrollers.

## Blade Teeth

Blade teeth are cut by stamping, milling or grinding. The stamped tooth is the duller and the ground tooth is the sharpest. The formation of these methods of cutting of the tooth tends to bend the tooth to one side. The teeth are then set by bending them to each side in a wave like a hack saw or are individually bent. How accurately they are set (bent) to the side will dictate how straight the blade cuts.

How far the teeth are set to the side will define how wide of a cut a blade gives. The wider the teeth are set the better they clear the dust from cutting. For wide boards the wider set yields the fastest cutting speed since the dust clears and does not burn the wood from the heat of friction of the trapped saw dust. However if you are making a puzzle then you want a narrow set to yield a thin cut so that the pieces fit tight.



## Select the best Blade for the job.

Your new Hawk Scroll Saw uses standard 5 inch long, plain end (not pin end) scroll saw blades. The many varieties and sizes that are shown in our catalog are available to order from Bushton Manufacturing by phone or online. Make sure you use quality blades for best performance of your saw and achieve the best results with your projects.

This is just a little overview of the blades we offer. The complete list is in the centerfold of this catalog. We stock every one of those blades for a reason. We try to have the best blade for your project in stock at all times. There is no one blade that works best for every need. That is why we have over 70 different blades in stock ready to ship.

Experiment with the various types and sizes of blades to determine which blade works best for your application, cutting style, speed and the type and the type of material you are working with. Our blade guide is only a starting point and not a rule. Use the blade size you feel most comfortable with and gives you the best results.

# Router SHOP



**HAWK**  
Woodworking Tools

Bushton Manufacturing  
Bushton, KS

940-0050

DUST COLLECTOR, FENCE,  
SLIDING MITER GAUGE, STOPS, FEATH-  
ER BOARDS, PUSH STICKS, DEPTH  
GAUGE, FREE HAND PINS  
ALL INCLUDED FOR ONE PRICE OF  
**\$850**

**NOW AVAILABLE WITH SIDE CRANK ROUTER LIFT AND DIGITAL READ OUTS FOR THE CROSS FEED LOCATION AND THE ROUTER BIT HEIGHT ANGLE CUBE INCLUDED TO SET THE TABLE ANGLE AND A PORTER CABLE ROUTER. Item 940-0052 for \$1350**

## THE AFFORDABLE SOLUTION TO VERSATILE WOODWORKING THERE IS NO OTHER MACHINE THAT COMPARES.

There is no other tool that gives you the versatility of the **HAWK RouterSHOP**. The good news is it does not take thousands of dollars worth of equipment or decades of experience to create top notch woodworking projects. The **RouterSHOP** is the tool woodworkers use to build their projects.

As soon as you start to use the **RouterSHOP**, you will see just how different this tool really is. It will increase the accuracy in your project building and give you the confidence to take on the type of projects you would have only dreamed of in the past. The **RouterSHOP** has stops and guides to keep track of measurements and adjustments to save you time and improve accuracy. The **RouterSHOP** comes complete with the sliding miter gauge, zero clearance inserts, feather boards, free hand guide pins, stop blocks, and step by step instructions, which all but eliminates the need to build jigs so that you can get on with your project.



### FEATURES

- CROSS FEED ADJUSTMENT SCREW AND SCALE makes set up of repeated cuts simple and accurate.
- MAGNETIC STAINLESS STEEL WORK TABLE is 20-1/4" by 30-1/2" to give you the work area you need.
- SPLIT TABLE DESIGN allows you to tilt the router with respect to the work piece allows for cutting bevels with a straight cut bit. You can cut elaborate edges with just one bit by using multiple passes re-setting the table between passes.
- ZERO CLEARANCE INSERTS give your work piece support where it needs it.
- PRECISION SLIDING MITER GAUGE with stops has HDPE faces that can be removed or replaced to allow for material support when needed to prevent blowouts. The dovetail track gives accurate repeatable travel to the miter gauge and the stop ensure that you only cut what you want.
- PRECISION ALUMINUM FENCES with stops help ensure accurate cuts that stop where you want them to.
- UNIVERSAL MOUNTING PLATE allows for attachment of any router you wish to use. TABLE MITER GAUGE is large and easy to read for setting the tilt of the table. Router lift requires the use of a Porter Cable router.
- DUST COLLECTOR ATTACHMENT connects to a standard shop vacuum.
- SHELF BRACKETS the RouterSHOP has brackets for two shelves under it (you supply the shelf boards).
- NOW USING PRECISION HINGES
- MADE IN THE USA

THE FIVE ADVANTAGES OF THE RouterSHOP

USING THE RouterSHOP IS FOOLPROOF.

If you can count, you can create top notch projects with this tool in your shop. You can adjust your router bit in increments as small as 1/64". No time consuming set ups, tedious measuring, or clumsy jigs.

THE ADVANTAGE OF THE RouterSHOP KEY FUNCTIONS.

In just a few square feet of space, you get ALL THE KEY functions that are normally done by individual machines, which are explained on the next page.

NO NEED TO PURCHASE NUMEROUS HIGH COST BITS.

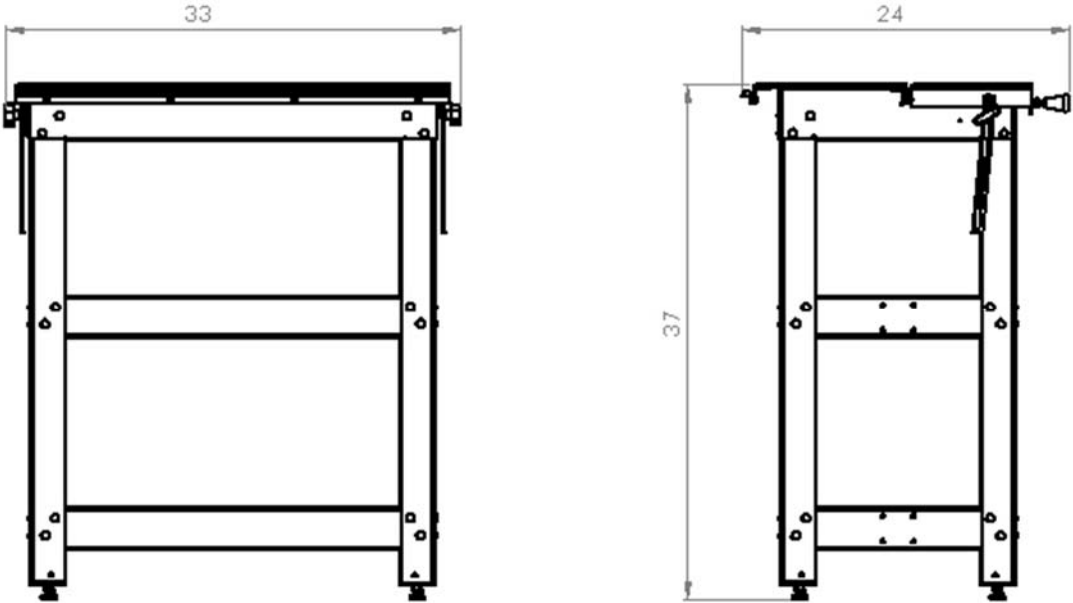
With a single spiral bit (included) you can create the most commonly used joints in furniture and cabinet making. Dowel, Rail, Stile, Raised Panel, Mortises, Tenons, Tongue and Groove.

RUN YOUR ROUTER BIT AT ITS OPTIMAL POSITION.

The RouterShop gives you the versatility to position your router bit vertically, horizontally or any angle in between.

THE MOST ACCURATE WAY TO USE A ROUTER.

Instead of trying to balance your work piece against a flimsy fence you will be able to let your project rest flat on the table while the cutter changes position.



SPECIFICATIONS

Overall	Height	40"
	Width	28"
	Length	34"
Shipping	Weight	96#
	Dimensions	38 x 29 x 7
Table Size	Overall	20 ¼" by 30 ½"
	Stationary	11" by 30 ½"
	Tilt	8 ¾" by 30 ½"
Table Tilt Angle Range		0° to 90°
Table Construction		Magnetic Stainless Steel
Fence	Length	30 ½"
	Stop Type	Thumb Screw
	Stop Number	2
Sliding Miter	Angle Range	-70° to 70°
	Travel Length	24"
	Stop Type	Thumb Screw
	Stop Number	2
Router	Type	Any 2 Hp or Larger
Router Slider	Travel Length	5"
	Scale Reading	1/16"
	Crank	1/16" per Turn
		12 Marks per Turn.

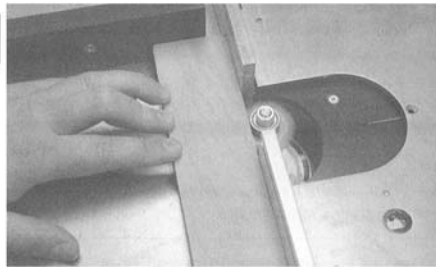
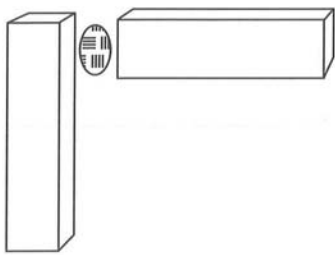
Stand	Construction	14 Gauge Steel
Feather Boards	Shelf Number	2
	Number	2
	Mount Type	Sliding Thumb Screw
	Magnetic Mount	Optional
Push Stick		11"
Push Block		3" by 6"
Dust Collection	Hose Size	1"
	Hose Connection Size	2"
	Vacuum Rec.	Any Canister Vacuum
	Depth	Range 1/8" to 1"
Router Bit Gauge	Increment	1/16"
Lubrication	Slides	Dri-Tool Lube
	Hinges	Dri-Tool Lube
	Bit	Router Bit Lube
Table Maintenance		Top-Saver or T-9

INCLUDES

Free Hand Pins	Miter Gauge	Miter Stop
Dust Collection System	Feather Boards	Push Stick
Push Block	Assembly Manual	
Operators Manual	Router Bit Gauge	
Angle Cube is included with the digital readout option		

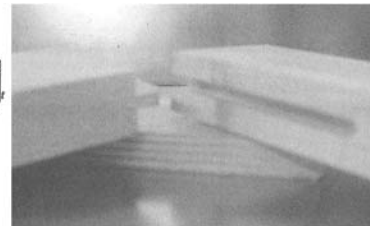
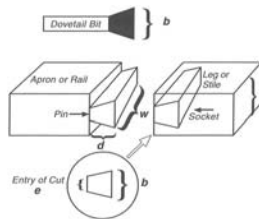


# KEY WOODWORKING FUCTIONS OF THE RouterSHOP



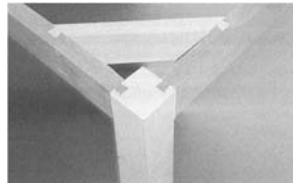
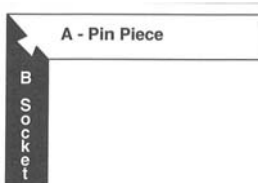
## DOWEL/BISCUIT

By using the **RouterSHOP** as a boring machine with the table at 90° with a straight bit, you can use dowel pins in every glue joint. Using our stops you will create matching dowel pin sockets every time. You can also cut biscuit joints by setting the table flat and using a biscuit cutting bit, by using the same procedures as for doweling.



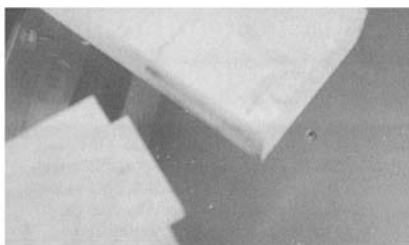
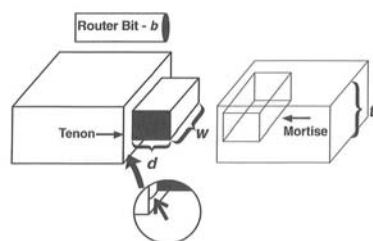
## DOVE TAILING

Construct dovetail joints for drawer construction and traditional drawer slides. With the **RouterSHOP** you will construct perfect dove tails every time. Make beveled dovetails by tilting the table. Make locking corners by using both straight and beveled dove tails.



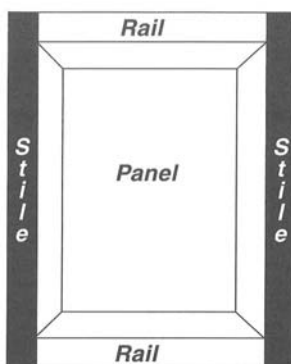
## EDGE JOINTING

Joint clean flat edges on your work pieces, or create a tongue and groove joint with one spiral router bit. Perfect for preparing lumber for gluing up multiple pieces to create a panel.



## MORTISE AND TENONING

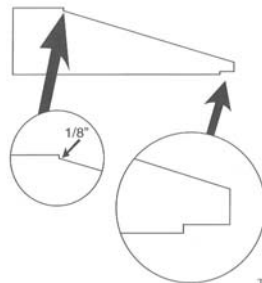
The mortise and tenon is one of the most attractive and strongest joints for case construction. Put an end to tedious frame sanding, you will get perfectly matched joints every time. Setting your cutter in the horizontal position makes these cuts nearly foolproof.



## RAISED PANEL DOOR MAKING

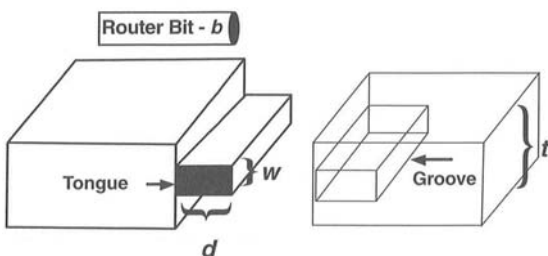
The **RouterSHOP** gives you a foolproof way to create all three parts of a door, the rail, the stile and the raised panel. You can create all this with a single spiral router bit (included) by using multiple passes and the patented tilt table feature; or in a single pass by using stile, rail, and vertical raised panel router bits.

To make a raised panel door you have to cut a tongue and groove, cut the molding shape in the stile and rail, cut the end of the rail, and cut the raised panel. You can make all of these cuts in several passes with just a straight bit or you can buy special cutters to do it in fewer passes but spend more on bits. Cutting of the raised panel can be done by using just one straight bit and making several cuts to obtain the shape, by using a few bits and multiple passes to yield a more detailed shape, or by using vertical raised panel router bit and using just one pass. It is your choice how much you spend on router bits.



## TONGUE AND GROOVE

The tongue and groove joint is easy to make. This joint is similar to making a mortise and tenon joint.



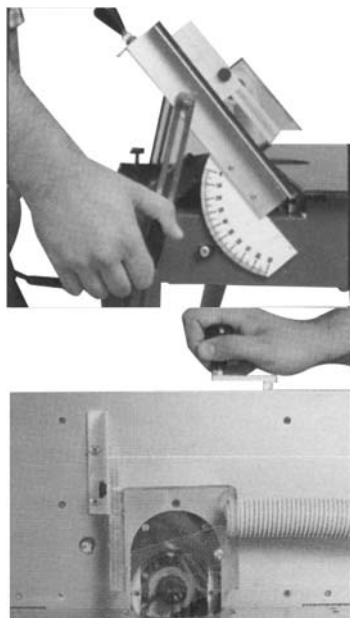
## MOLDING

Create your own custom molding profiles. With a few standard router bits, such as straight, rounded and pointed bits, you can create endless one-of-a-kind custom molding profiles by using the patented tilting table feature.

## SHAPING

Use standard decorative profile router bits to create hundreds of unique edge profiles on your projects. It is the perfect way to add your own unique touch to every project you build. There is no need to buy expensive router bits for shaping.

## THE REPEATABILITY ADVANTAGE



The split table design gives you the option of running the bit horizontal, vertical or any angle in-between. The handy Vernier gauge makes it easy to see the exact angle of the table from 0 to 90°.

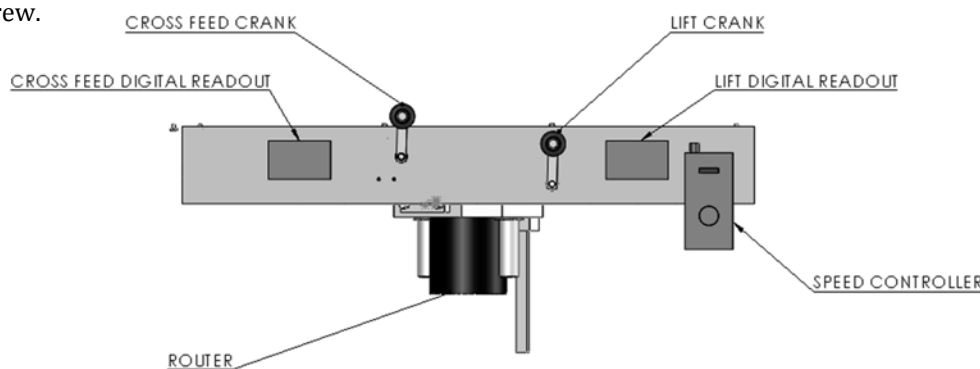
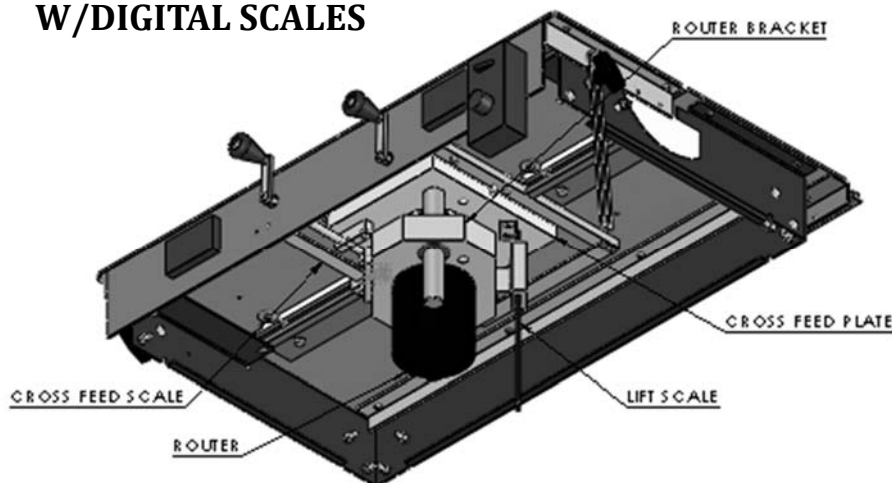
The unique design of the RouterSHOP gives you control of the cutter movement by turning the cross feed control screw.

To make the same cut over and over again, all you have to do is keep records. These few numbers are:

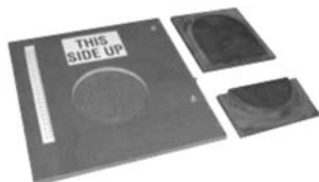
1. The router bit height.
2. The tilt table angle.
3. The cross feed position.

Record this information along with the router bit used and the wood thickness and you can reset and repeat the cut over and over whenever you need to.

## ROUTER LIFT W/DIGITAL SCALES



## ACCESSORIES



765-0510 Carriage Plate  
\$35.00



765-2505 Zero Clearance Insert  
small \$ 7.95

765-2500 Zero Clearance Insert  
large \$14.95

940-9551 Caster Kit \$45.00



865-0122 Router Speed Controller  
\$39.00



965-0057 Miter Gauge & Glide Track  
\$79.00



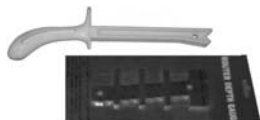
940-0075 Fence Stop \$9.95  
940-0058 Miter Stops \$9.95  
765-0215 Feather Board \$9.95



865-0221 Push Stick \$5.95  
865-0972 Push Block \$5.95  
865-0222 V-Push Stick \$5.95



865-0980 Router Depth Gauge \$13.95



940-0085 Shop Vac Dust Collection Kit  
\$39.00

950-0055 Fence Set \$75.00  
629-0120 Replacement precision hinges  
each \$7.50  
865-0600 .26ø Space Balls (50ct) \$2.00





950-0000 JA36 FOR \$215.00  
 950-0001 JA60 FOR \$250.00  
 950-0002 JA96 FOR \$325.00

The **JointABILITY** is a matching edge jointer that lets you create flush and flat edge joints on every project. Eliminate the chatter, tear-out, and sniping every woodworker faces with traditional jointers and table saws. Using a patented technique, the **JointABILITY** gives you the expertise to create perfect fitting 90 degree matched edges using your router.

SAW GUIDE PLATE, ROUTER HOLSTER/ATTACHMENT  
 PLATE AND ¾" DIAMETER BY 1 ½" LONG ROUTER  
 BIT ARE INCLUDED.  
 ROUTER, SAW AND SAW HORSES  
 ARE NOT INCLUDED.

## FEATURES

### EASY GRIP CLAMPING MECHANISM

Handles stock up to 2" thick with nylon bushings for easy release.

### URETHENE MAT

To hold your work piece securely in place.

### EASY TO USE

If you can run a router and circular saw you can cut a straighter line than with a table saw or jointer. With your work piece clamped in place, you move a router, not try to hold a long board on a jointer or table saw.

### AFFORDABLE

For a fraction of the cost of a jointer or table saw, you can true an edge for gluing or cut straight lines for any size you need.

### THREE SIZES

There are three sizes to choose from. The 36" JA36, the 60" JA60 or the 96" JA96 give you the size you need.

### WIDE STOCK SIZE RANGE

Handles stock from 2" to an infinite width.

### PORTABLE

At 30 pounds for the JA36, 54 pounds for the JA60 and 69 pounds for the JA96, it weighs far less than a jointer or table saw making it far more portable than a table saw or jointer.

### EASY TO STORE

It stores in less than one square foot of space, by placing it on its end. Whether you stand it in the corner or hang it on the wall.

### STEEL CONSTRUCTION

For a lifetime of reliable service.

### ROUTER

You can use any router you own. You will be pleased with the accuracy of the cut.

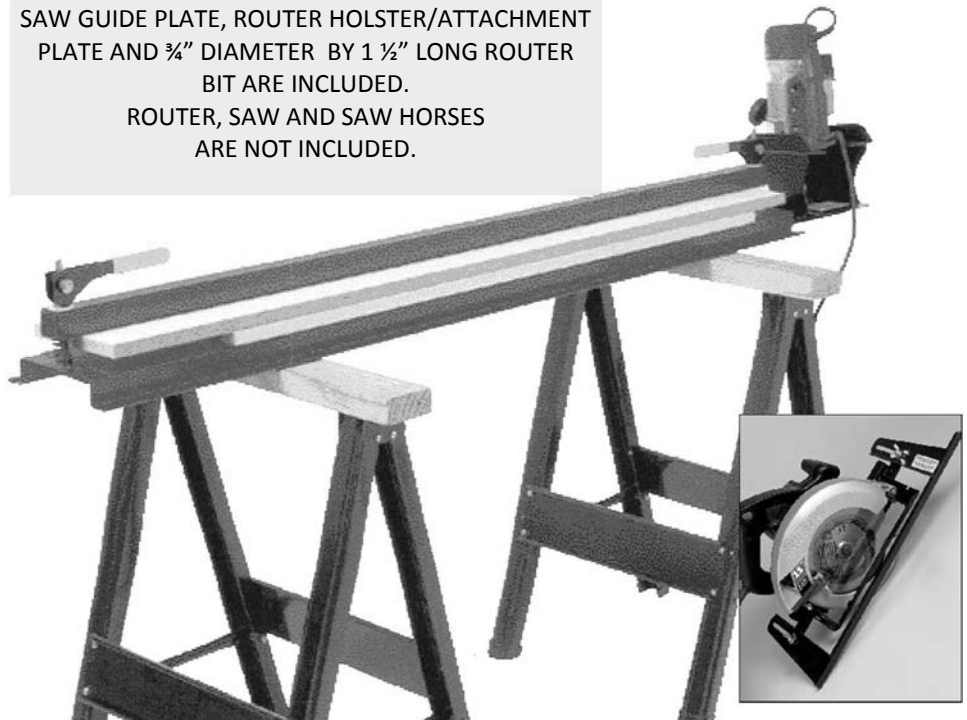
### DOUBLE LAMINATED MELAMINE

For a work surface that stays flat.

### NO SPECIAL STAND NEEDED

Use any work bench or saw horses.

### MADE IN THE USA



## ADVANTAGES

Anything up to 8 feet long you can do with a jointer or table saw you can do with the **JointABILITY**.

True a rough edge in just 2 passes maximum instead of many passes with a jointer.

Save space. You only need 9 feet of length not the 16+ feet you would need with a jointer. When you are finished just hang the **JointABILITY** on the wall and free up your shop floor space.

Cut and Rip sheets in the space of the sheet while moving the router or circular saw, not the whole sheet.

Save money over a table saw and or router.

It cuts the joint in the top of a board where you can see what you are doing, instead of on the bottom like when using a shaper table or router table.

With its lightweight design, you can take it to the job site easily; no need for help or a forklift to place it in and out of your truck.

## SPECIFICATIONS

	JA36	JA60	JA96
Max length of stock	36"	60"	96"
Min length of stock	none	none	none
Max thickness of stock	2"	2"	2"
Min thickness of stock	none	none	none
Max width of stock	infinite	infinite	infinite
Min width of stock	2"	2"	2"
Weight	25 lbs	37 lbs	68 lbs
Overall length	39 ¼"	63 ¼"	99 ¼"
Overall length w/router holster	48 ¼"	72 ¼"	108 ¼"

## CUT A TRUE BOARD OUT OF A ROUGH SLAB.

You can take a rough cut slab and make a board out of it.



Use the **JointABILITY** to make a cut on each side.



And have a finished board.



## USES OF THE **HAWK** **JointABILITY**



With the **JointABILITY**, a dado or rabbet is cut with the right side up (not upside down as with a table saw) allowing you to see the results as you work.

Use your circular saw with the **JointABILITY** to cut sheet to the desired size or to give a first cut on uncut edges of lumber before giving it a finish cut with your router.



Perfectly squared joints for gluing and you can square your glued up panels as well.

With the **JointABILITY**, the shape of your work piece does not matter. Just mark the project line on the stock and place it in the **JointABILITY**. Any place you can draw a straight line, you can cut a 90 degree face.



## MAKES PERFECT JOINTS EVERY TIME.

Even Dado and Rabbet Joints.

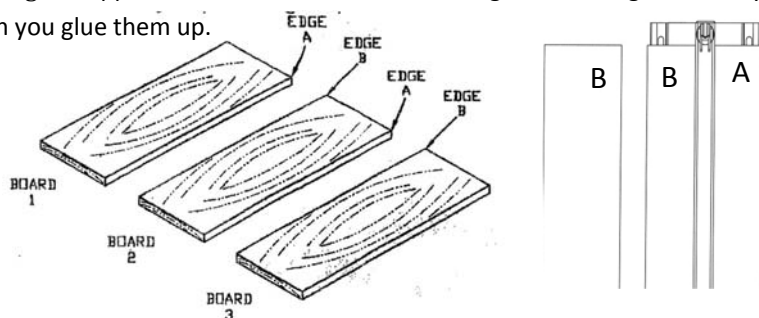
For use with many solid materials like:

- Hardwoods
- Softwoods
- Plywood
- Particleboard
- Orientated strand board
- Veneers of all kinds
- Laminates
- Plastics

If you can cut it on your jointer or table saw you can cut it on the **JointABILITY**

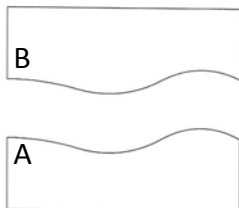
## OPERATING THE **HAWK** **JointABILITY**

**THE KEY ADVANTAGE** is that the **JointABILITY** is a matching edge jointer. That is, you label the edges on the **JointABILITY** so the 2 sides of the joint are cut on the opposite sides of the **JointABILITY**. Then, even if there is any curvature of the joint it will match. We start with high grade steel tubing and then straighten it and finally clamp it in a fixture to hold it straight as it is fastened to the melamine substrate. Each step is to yield the straightest edge possible. If there is any bow to it, using the opposite side of the **JointABILITY** will give matching curves to your edges when you glue them up.



1. Lay out your boards matching both the grain and color. Label the edges such that an edge labeled A will match to an edge label B. Have your **JointABILITY** sides labeled A and B.
2. Trim each board using the label side of the **JointABILITY** that matches the label on the board. Note: do not flip the board end to end.
3. Check the fit of each joint.
4. Glue up the boards.

By using both sides of the **JointABILITY** the resulting edge joint will be nearly perfect. That is any curvature in one side of the joint will be matched by a corresponding curvature on the other side of the joint as can be seen in the figure to the side.



## ACCESSORIES

We stock a variety of router bits to enable you to make the joint you want. Custom bits are also available. For best result using a circular saw always use high quality circular saw blades.

**ROUTER HOLSTER** A router holster is available which can be attached to the end of the **JointABILITY**. This provides a safe place to put your router where you don't have to worry about the bit being damaged.

\$59.95



**SAW GUIDE PLATE** The saw guide plate allows for the proper location of the blade and gives more surface area for the saw to ride on, thus improving the quality of the cut.

\$29.95



## ROUTER BITS

We stock a variety of American Made router bits. With the RouterSHOP you only need standard shaped bits to create intricate patterns.

### SOLID CARBIDE SPIRAL BITS

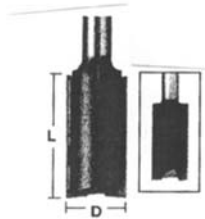
Spiral bits combine effective chip removal with a continuous shearing action. Up-Cuts pull chips up to the router. Down-Cuts push chips away from the router.



Hawk #	Description	Price
841-0002U	1/4 Dia, 3/4 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Upcut	\$17.05
841-0002D	1/4 Dia, 3/4 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Downcut	\$17.05
841-0003U	1/4 Dia, 1 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Upcut	\$18.00
841-0003D	1/4 Dia, 1 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Downcut	\$18.00
841-0006U	1/2 Dia, 1 Lg, 1/2 Shank, 3 OAL, 2 Flute, Spiral Upcut	\$44.60
841-0006D	1/2 Dia, 1 Lg, 1/2 Shank, 3 OAL, 2 Flute, Spiral Downcut	\$44.60
841-0007U	1/2 Dia, 1 1/2 Lg, 1/2 Shank, 3 OAL, 2 Flute, Spiral Upcut	\$47.45
841-0007D	1/2 Dia, 1 1/2 Lg, 1/2 Shank, 3 OAL, 2 Flute, Spiral Downcut	\$47.45
841-0008U	1/2 Dia, 2 Lg, 1/2 Shank, 4 OAL, 2 Flute, Spiral Upcut	\$51.25
841-0008D	1/2 Dia, 2 Lg, 1/2 Shank, 4 OAL, 2 Flute, Spiral Downcut	\$51.25

### PLUNGE CUTTING STRAIGHT BITS

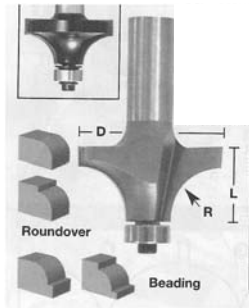
These bits feature 2 flutes with extra thick micro-grain carbide cutting tips.



Hawk #	Description	Price
841-0040	1/2 Dia, 1 Lg, 1/2 Shank, 2 1/2 OAL, 2 Flute, Straight Plung Cut	\$16.45
841-0041	1/2 Dia, 1 1/2 Lg, 1/2 Shank, 3 1/8 OAL, 2 Flute, Straight Plung Cut	\$17.05
841-0042	1/2 Dia, 2 Lg, 1/2 Shank, 3 1/2 OAL, 2 Flute, Straight Plung Cut	\$19.90
841-0043	1/2 Dia, 2 1/2 Lg, 1/2 Shank, 4 3/8 OAL, 2 Flute, Straight Plung Cut	\$27.50
841-0050	3/4 Dia, 1 Lg, 1/2 Shank, 2 1/2 OAL, 2 Flute, Straight Plung Cut	\$18.00
841-0051	3/4 Dia, 1 1/2 Lg, 1/2 Shank, 3 OAL, 2 Flute, Straight Plung Cut	\$19.90
841-0052	3/4 Dia, 2 Lg, 1/2 Shank, 3 5/8 OAL, 2 Flute, Straight Plung Cut	\$25.60

### ROUND OVER AND BEADING BITS

Bits include a 1/2" rub bearing. They are converted to beading bits by replacing the 1/2" bearing with a 3/8" bearing. All bits are 2 flute carbide tipped.



Item #	Description	Price
841-0081	1/8" rad, 3/4" dia, 1/2" Lg, 2" OAL, 1/4" Shank	\$18.95
841-0082	1/4" rad, 1" dia, 1/2" Lg, 2" OAL, 1/4" Shank	\$19.90
841-0083	3/8" rad, 1-1/4" dia, 5/8" Lg, 2-1/16 OAL, 1/4" Shank	\$20.85
841-0084	1/2" rad, 1-1/2" dia, 3/4" Lg, 2-1/2 OAL, 1/2" Shank	\$27.50
841-0085	5/8" rad, 1-3/4" dia, 7/8" Lg, 2-3/4" OAL, 1/2" Shank	\$41.75
841-0086	3/4" rad, 2" dia, 1" Lg, 3-1/4" OAL, 1/2" Shank	\$45.55
841-0080	3/8" bearing conversion includes allen wrench	\$4.95

### DOVE TAIL BITS

These two flute carbide tipped bits feature high radial and axial relief angles to give extra clean sharp edges.



Item #	Description	Price
841-0101	5/16 Dia, 8 Degree, 3/8 Lg, 1/4 Shank, 2 1/4 OAL, 2 Flute, Dove Tail	\$18.00
841-0102	3/8 Dia, 8 Degree, 1/2 Lg, 1/4 Shank, 2 3/8 OAL, 2 Flute, Dove Tail	\$18.00
841-0103	7/16 Dia, 8 Degree, 5/8 Lg, 1/4 Shank, 2 3/8 OAL, 2 Flute, Dove Tail	\$18.95
841-0104	1/2 Dia, 8 Degree, 13/16 Lg, 1/4 Shank, 2 3/4 OAL, 2 Flute, Dove Tail	\$18.95
841-0110	3/8 Dia, 14 Degree, 3/8 Lg, 1/4 Shank, 2 OAL, 2 Flute, Dove Tail	\$18.00
841-0111	1/2 Dia, 14 Degree, 1/2 Lg, 1/2 Shank, 2 1/2 OAL, 2 Flute, Dove Tail	\$18.95
841-0113	3/4 Dia, 14 Degree, 3/4 Lg, 1/2 Shank, 3 OAL, 2 Flute, Dove Tail	\$19.90
841-0114	1 Dia, 14 Degree, 7/8 Lg, 1/2 Shank, 2 1/2 OAL, 2 Flute, Dove Tail	\$28.45



Since 1929  
Still made in

USE THE CORRECT BLADE TO DO YOUR JOB. WE SELL 18 TYPES OF BLADES FROM 4 MANUFACTURERS IN UP TO 7 SIZES TO MEET YOUR BLADE NEEDS

## BUSHTON MANUFACTURING SCROLL SAW BLADE CHART

**Olson Blades, Flying Dutchman Blades, Pike & Pegus Blades and Diamond Blades**

## OLSON Scroll Saw Blades

[illegible]

23

# BishopCLAMP

by  **HAWK** Woodworking Tools™  
Bushton Manufacturing • Bushton, KS

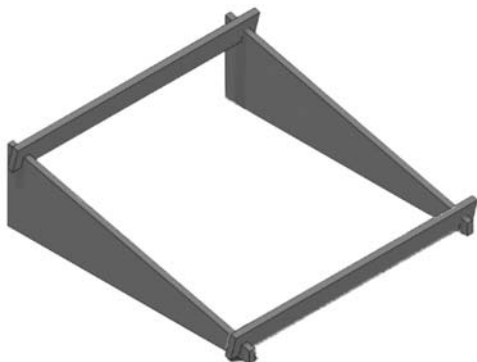
This clamping system developed by Homer Bishop is ideal for Intarsia clamping as well as clamping of any shape. Its versatility allows you to clamp any shape you want. The BishopCLAMP system is made of HDPE which most glues will not adhere to.



The system includes:

- 1 base board 24" by 32"
- 10 side rail segments
- 1 center rail segment
- 10 4" ratchet bar clamp/spreader
- 4 weight bags

950-0300 BishopCLAMP \$195  
SHIPPING 33" x 24" x 2", weight 28#



## ACCESSORIES

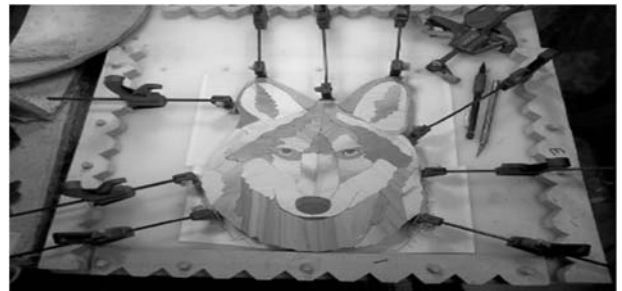
950-0301	Inclined Stand	\$55.00
850-0100	4" Clamp/Spreader	\$4.00
750-0103	10" Short Rail	\$10.00
750-0105	22" Movable Rail	\$20.00
750-0115	Weight Bag	\$1.00

## THE USES OF THE BishopCLAMP

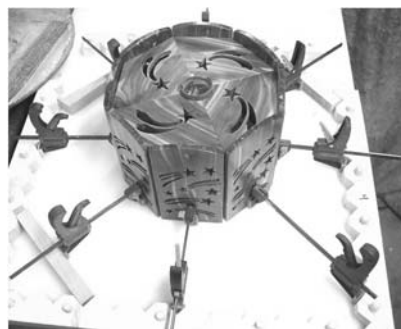
If you need to clamp it, but it's not an easy shape to hold, then the **BishopCLAMP** will hold it for you. If you just need to inspect the fit, check the size, or hold it till the glue dries we have you covered. This clamping system was developed by Homer Bishop to be used for Intarsia projects. The clamping arrangement is so versatile that it can be used to clamp any shape. The **BishopCLAMP** can be used for clamping a multitude of regular and odd shaped items. This includes but is not limited to Fret, Intarsia, Stained Glass, Door Panels, Boxes, Picture Frames, Models, Carving and Router Pieces.

Now for a few samples of what the BishopCLAMP can help you hold.

An **Intarsia Wolf** without a single straight side.



An **Fret Work Octagon Lamp** is held in the **BishopCLAMP**. You can see the 8 individual fret work sides being clamped to the top of the octagon star lamp. The finished project is also shown.

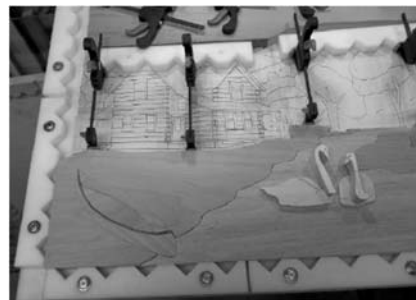




Here is a **lighted Butterflies** project shown.



Cut and check the fit of internal pieces. The clamps will keep the model securely in place.



Continue to cut and clamp pieces in place to check the fit. You may need to change the blocking and how the clamps push on the project to hold it as needed.



Seen here is 3 steps in the **Up and Away** project.



Continue to add pieces and clamping as needed.



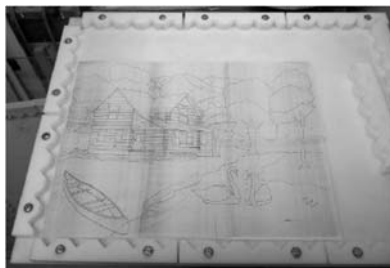
The picture is cut except for the sky piece and all the pieces are held in the proper place. Now is when the pieces would be sanded, shaped, raised or lowered and re-clamped as this is done. When this is done the pieces can be glued and held flat while the glue sets up. The weight bags can be placed on the project to hold every thing down flat.



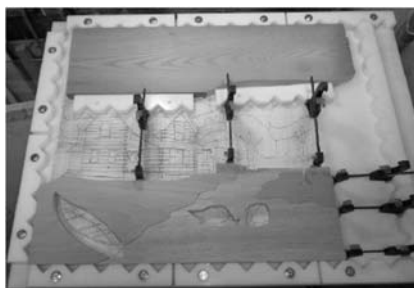
### FOR INTARSIA

We will use the 'The Good Life' pattern by Homer Bishop.

Start with a copy of the pattern and set the center rail where needed. The long rail (right rail) is adjustable.



Cut the three major bottom pieces and use blocking so the clamps will reach the project pieces. Clamps are used as spreaders to keep the project work area open.



Use weight bags to help keep the picture straight.



The finished project 'The Good Life'





# VerticalCLAMP

by **HAWK** Woodworking Tools™  
Bushton Manufacturing • Bushton, KS

950-0200 for \$119.00

## VerticalCLAMP a **HAWK** WOODWORKING TOOL

Big commercial shops and furniture builders have used vertical clamping systems for years to save shop floor space. Now you can save floor space with the **HAWK VerticalCLAMP** Vertical Clamping System.

Mounted on the wall of your garage, basement or workshop, you will have the perfect system for clamping glued up panels or doors. You will not tie up your work bench or have glue fall on to it. The system extends from the wall so that you can set each board on it, apply the glue and stack the next board. The boards are near flat when you apply the glue so you do not have the glue running off on the bench.

## COMPARE PRICE AND ADVANTAGES

At a national lumber yard the price for a 4' 3/4" black nipple is \$12.38 and a 3/4" pipe clamp is \$14.98 which yields a total of \$122.12 for 4 clamps. **Our system costs less, hangs on the wall, and uses zinc plated pipes rather than black which will rust or galvanized which will slip** when you are clamping.

**It is a simple 4 step process to glue up your boards and have them stored.**



1. Load and glue up work piece.

2. Tighten clamps.

3. Flip stop to vertical position.

4. Let the panel dry.

## CONTAINS

- 2) 2 by 4 by 4' Long
- 1) 1 by 10 by 4' Long

- 4) Hangers
- 1) Hanger Rail

- 4) 3/4 Zinc Plated T-Pipe
- 1) Bag of Mounting Hardware

- 2) Shelf Hinges

## SPECIFICATIONS

Overall Length	4'
Clamp Pipe Length	4'
Number of Clamps	4
Additional Clamp w/Hanger	Optional
Shipping Dimensions	54 x 10 x 6, 54#

## ACCESSORIES

950-0202	Clamp/T-Pipe/Hanger	\$26.50
950-0204	Rail/Hanger/Flip Shelf Hinge	\$45.00
For if you have your own clamps. Does not contain boards or mounting screws.		

**For best results use the **HAWK** OrthoCLAMP to clamp the faces of the boards flat when gluing up a panel with the **HAWK** VerticalCLAMP.**  
This is show on the next page.



950-0400

\$35.00

The **HAWK OrthoCLAMP** has an eight inch reach for holding the faces of glued up panels flat. It is designed to work well with the **VerticalCLAMP** to insure nearly perfect glued up panels even when your boards are not.



Use **OrthoCLAMP** with the **VerticalCLAMP** to make nearly perfect glued up panels.

yellow zinc plate to prevent rusting even after being scratched



The **HAWK BushtonCLAMP** is square and has a flat back that will not tip over on a table when you are gluing up boards. It has a positive lock system that will not slip like pipe clamps. The square shape of the **BushtonCLAMP** also makes it work well when gluing up frames and boxes.

Clamps are made of 1-5/8" by 10 gauge steel strut to sit square on the work bench when gluing up a panel. Heavy steel acme screw and clamp pads are capable of a very highest clamping force to fit your needs.

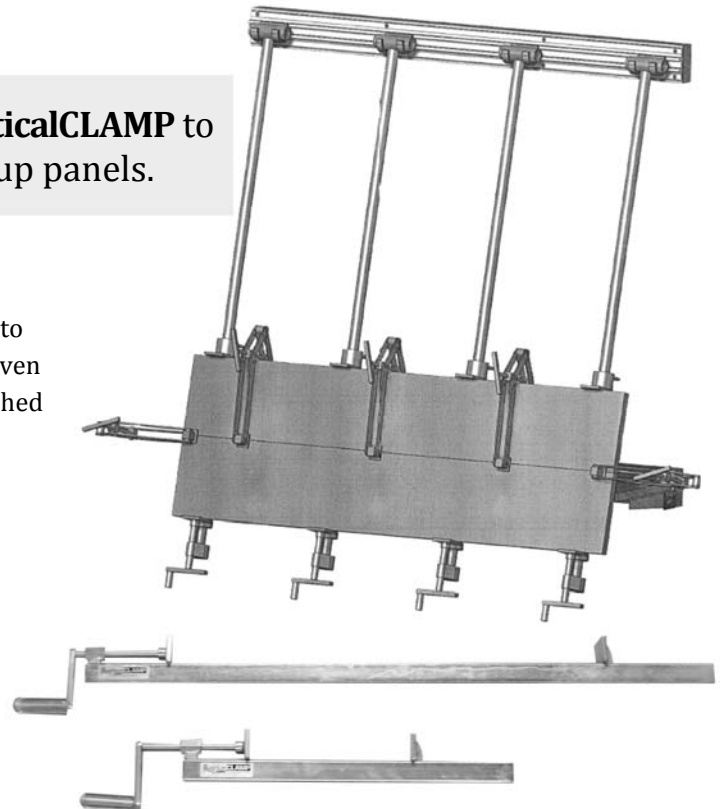
The design has a flat back so that it does not tip over on your work bench when you are doing a glue up.

The **HAWK BushtonCLAMP** has an easy to adjust sliding jaw. Just tilt it and you can slide it along the length of the clamp. A spring is used to lock it in place.

The sliding jaw is held in location by fitting into a slot in the back plate. As can be seen in the cut away of the clamp.

#### SPECIFICATIONS

	2'	4'	6'
Clamp Opening	20"	44"	68"
Weight	7 lbs.	12 lbs.	17 lbs.
Pad Dimensions	2.5" x 2"	2.5" x 2"	2.5" x 2"
Finish	yellow zinc plate to prevent rusting even after being scratched		



# PANEL MASTER IV

Since 1929  
Still made in the USA

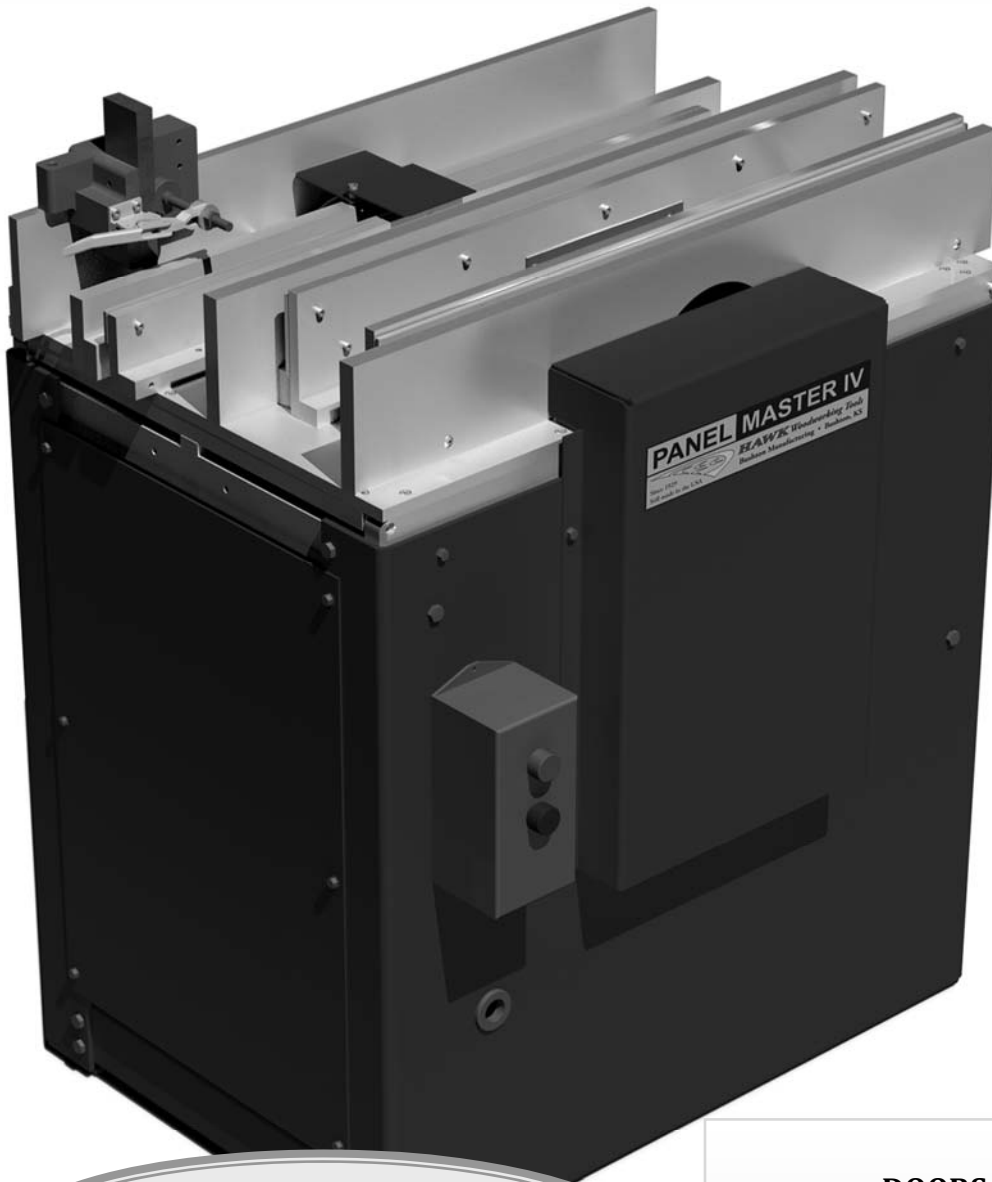


**HAWK** Woodworking Tools  
Bushton Manufacturing • Bushton, KS

**910-2024 \$4350**

Order separately  
Your choice of cutters.  
and crown rail jig along with the  
templates for the jig.

Make your own raised panel, glass panel or flat panel cabinet doors with one machine and all 4 cutter on the machine at all times. You can even make your own interior or exterior raised panel doors for you home.



## FEATURES

**HIGH SPEED BEARINGS** are self-aligning for years of trouble free service.

**PRECISION MACHINED ALUMINUM FENCES AND TABLE** for extremely accurate shaping.

**TABLE TILTS** yielding reduced time to change and set blades.

**STILE JIG** for accurate cuts and prevents blowout of the wood.

**SAFETY JIG AND FENCE CONSTRUCTION** for maximum operator safety even for the inexperienced.

**ENCLOSED DRIVES** and fully guarded cutters for maximum safety.

**MANUAL FEED** lets you operate at your own speed.

**HEAVY DUTY V-BELT DRIVE** delivers maximum power to the cutter head for all applications with a single belt.

**INDUSTRIAL GRADE 5 HP MOTOR** to give years of dependable service.

**MAGNETIC SAFETY SWITCH IS STANDARD**, this is required by OSHA for commercial applications.

**HEAVY GAUGE STEEL BASE** designed for years of demanding use.

**MADE IN THE USA.**

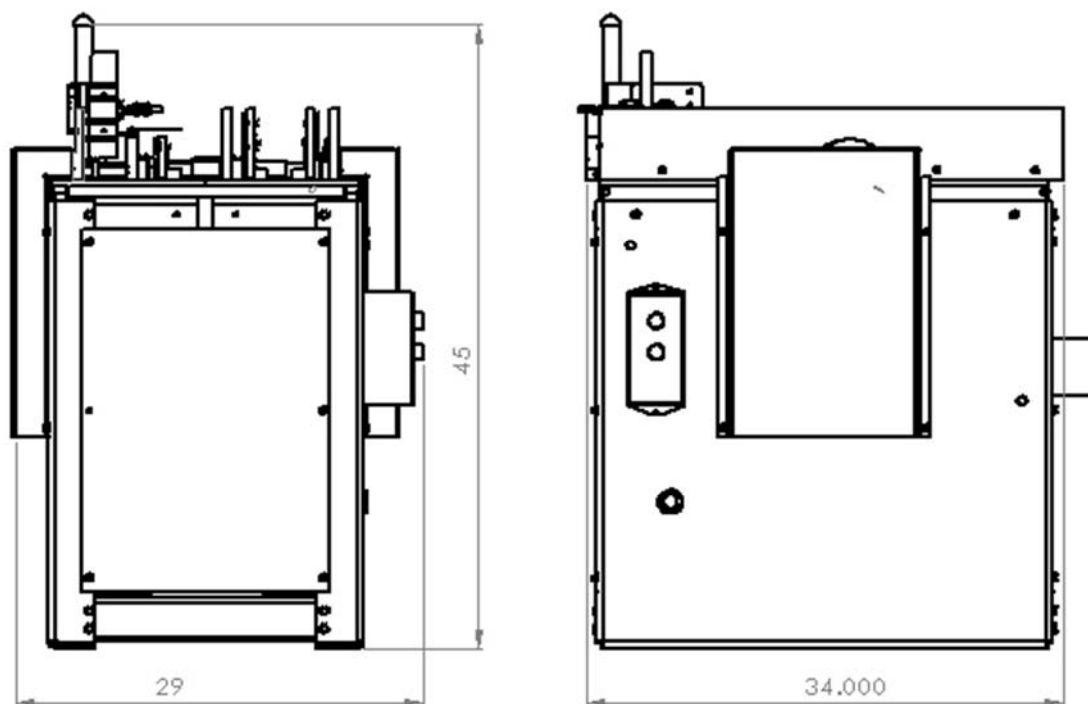
**NOW WITH A FOURTH STATION FOR  
THE OUTSIDE OF THE DOOR CUT**

**DOORS UP TO 1-3/4" THICK  
SINGLE OR DOUBLE SIDED RAISE PANELS  
EASY CUTTER HEAD CHANGE OUT  
STRAIGHT OR ARCHED PANELS  
SINGLE OR MULTIPLE PANELS**

**If you are in the business of making custom cabinets or if you are remodeling a kitchen, no other tool on the market comes close to the *HAWK* PanelMASTER IV when making custom cabinets.**

- Cut a complete raised panel door, (stiles, rails, raised panel and outside door) in just minutes. All four cutters are on the machine at the same time.
- Make custom straight panel fast and easy, or make raised arch panels fast in a variety of styles with our crown rail jig or template sets (optional).
- 4 precision cutter heads cut the raised panel and makes all rail, stile, raised panel and outside door cuts without changing cutters.
- Compact design requires only 7-1/2 square feet of floor space.
- Replace your old cabinets at a fraction of the cost of custom cabinets.
- Build raised panel interior and exterior doors.
- Make doors up to 1-3/4 inches thick.
- Make multiple panel doors.
- Make crown rail doors with out hassles
- Make your own templates and put your own style arch or crown on the door.

This tool can pay for itself the first time you use it. Plus, you will make custom paneled doors in a variety of styles faster and easier than you ever thought possible all with this one revolutionary machine. Designed for commercial use, this heavy-duty piece of equipment is constructed of steel and aluminum for safety and durability.



## SPECIFICATIONS

Overall Width	22 1/4"	Feed Type	Manual
Overall Length	31 1/2"	Motor Horse Power	5 Hp
Overall Height	38"	Voltage	220 VAC
Table Length	30 1/2"	Phase	1 Ph or 3 Ph Optional
Number of Cutting Heads	3	Speed	3500 rpm
Maximum Diameter of Cutting Head	6"	Frame	184T
Cutter Bore	1 1/4"	Shipping Dimensions	36 X 42 X 45
Cutting Speed	6800 rpm	Shipping Weight	600#

STYLE AND RAIL  
CUTTER SHAFT

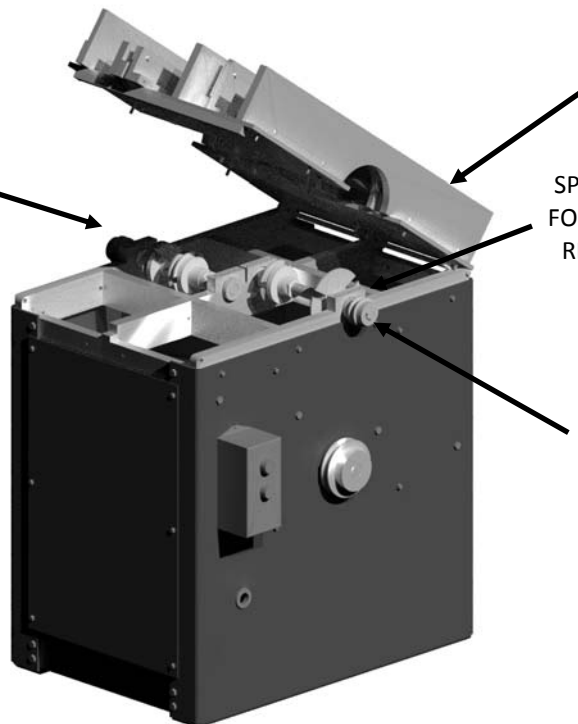


TABLE TILTS UP FOR SIMPLE  
SERVICING AND CHANGING  
OF CUTTERS

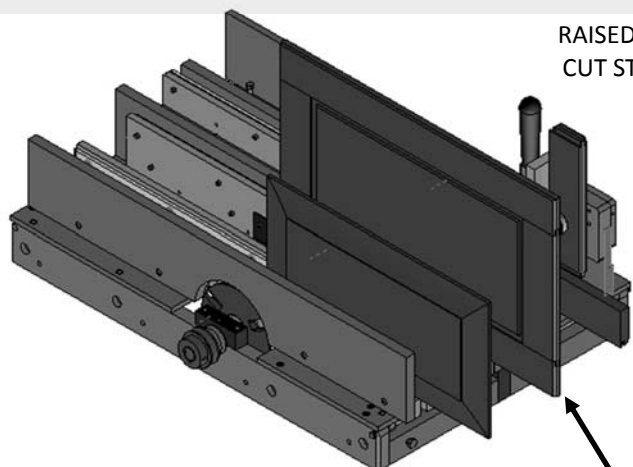
SPLIT BEARING HOUSING ALLOWS  
FOR CUTTER SHAFT REMOVAL AND  
REPLACEMENT BY ONLY 4 BOLTS  
AFTER THE TABLE IS TILTED

RAISED PANEL AND  
COMPLETE DOOR  
CUTTER SHAFT



**HAVE EACH PATTERN THAT YOU USE PRE-LOAD  
ON A SHAFT FOR QUICK CHANGE FROM ONE TO  
ANOTHER IN ONLY A FEW MINUTES, NO LONG  
SETTING PROCESS, BEARING STAY WITH THE  
SHAFT SO IT WILL NOT NEED TO BE RE-ALIGNED**

**Cutters down between a pair of fences is safer  
than a standard vertical shaft shaper table.**

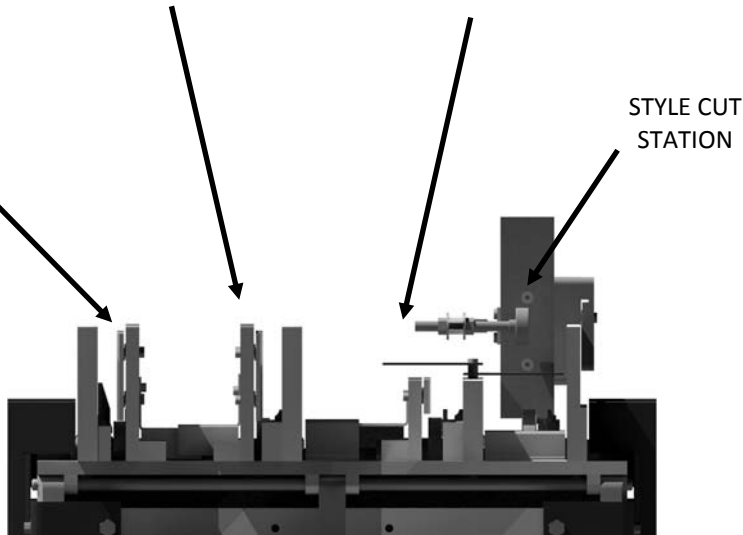


RAISED PANEL  
CUT STATION

FINAL CUT  
STATION

RAIL CUT  
STATION

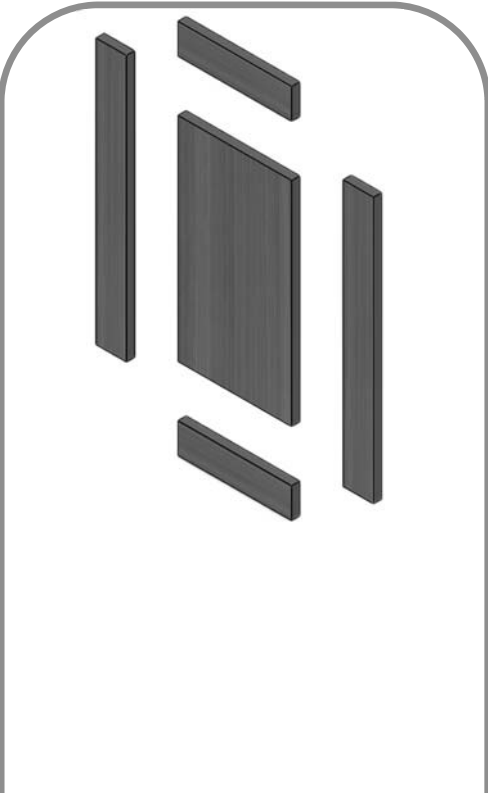
STYLE CUT  
STATION



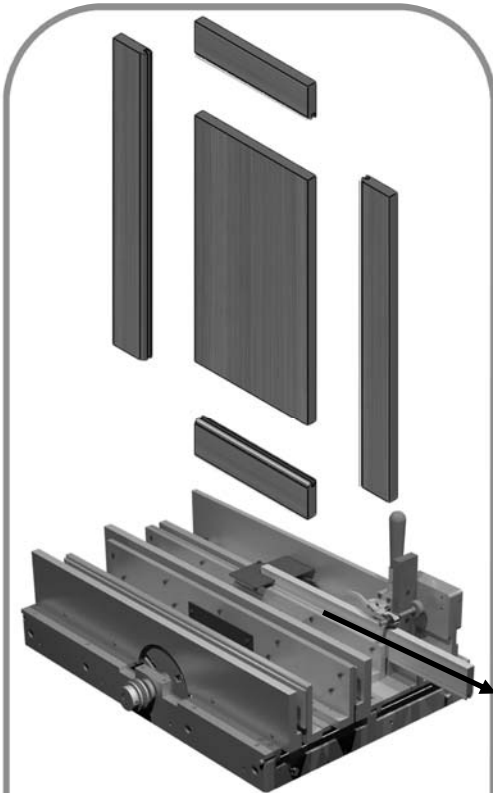
**PRECISION MACHINED TABLE AND  
FENCES yield accurate cuts every time**

**FINISH THE OUTSIDE OF THE  
DOOR AFTER IT IS GLUED UP  
WITHOUT A SEPERATE MACHINE  
OR CHANGING CUTTERS**

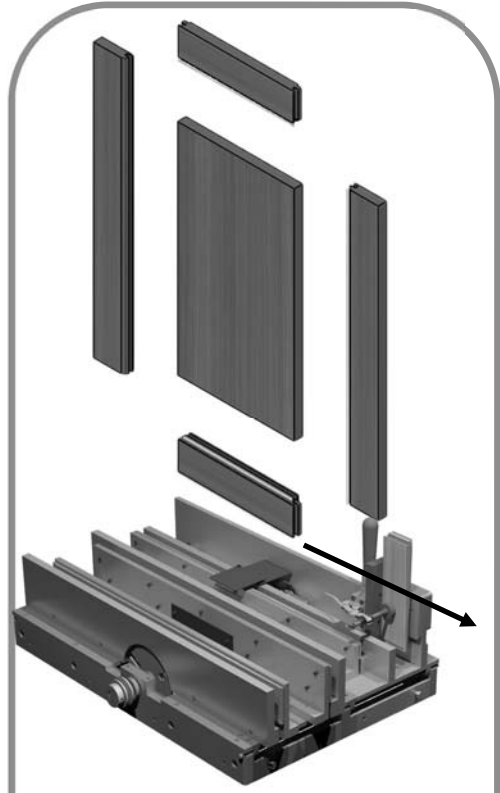
**CREATE RAISED PANEL DOORS IN MINUTES**



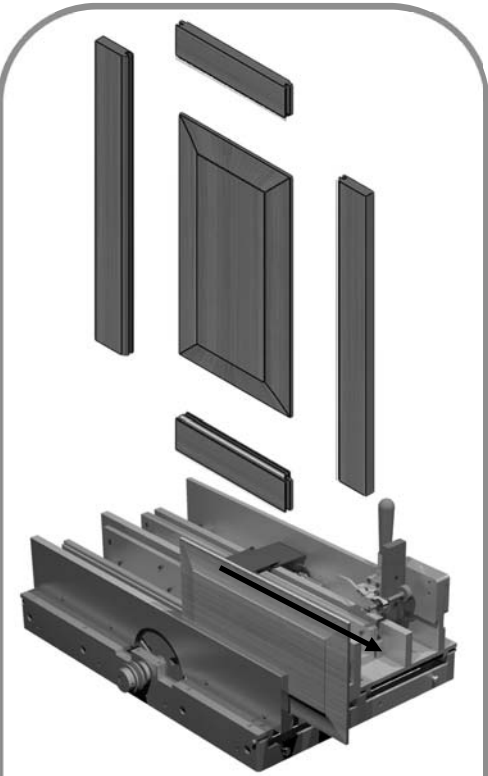
**Step 1.**  
**Cut boards to size**



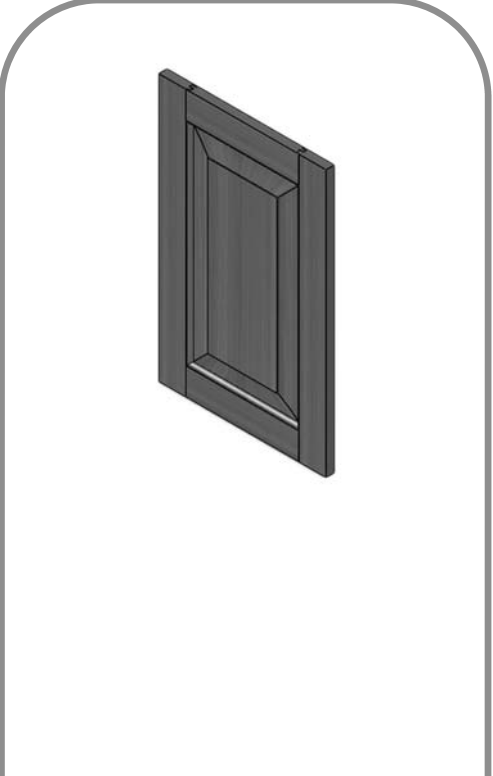
**Step 2.**  
**Make rail cuts on sides, top and bottom boards of the frame**



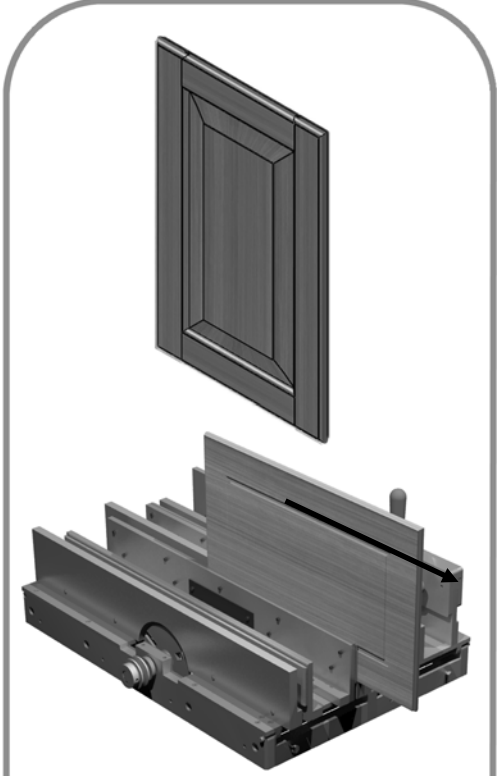
**Step 3.**  
**Make rail cuts on the top and bottom boards of the frame**



**Step 4.**  
**Make raised panel/back cut on all for sides of the raised panel**



**Step 5.**  
**Glue the door together.**

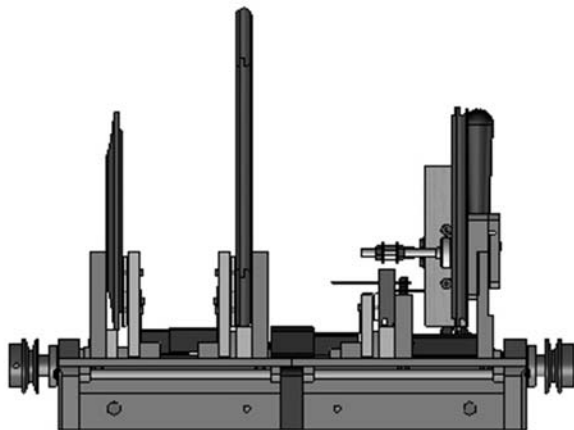
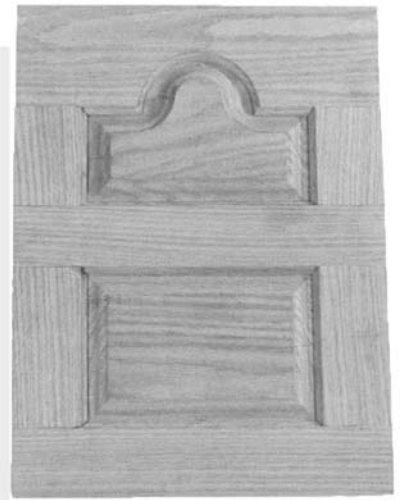


**Step 6.**  
**Make the outside door cut.**





Make your own cabinet doors for your kitchen, bathroom, office, closet, den or any other room in your house. Make crown rail doors without any change to the machine settings. Use raised panel, flat panel or even glass panels in your doors. All in just a few minutes without major machine set up changes or multiple machines.



With the unique horizontal shaft design you have all 4 cutters for a raised panel door on the machine at the same time. No changing cutters or having 4 separate machines using more floor space. Less than 7.5 square feet of space is required.

Make a door in minutes

**ALTERNATE BETWEEN THE RAISED PANEL, STYLE, RAIL AND OUTSIDE OF DOOR CUTS without changing any settings.**

**CUT UP TO 1-3/4 INCH THICK  
DOUBLE SIDED RAISED PANEL  
ENTRY DOORS**

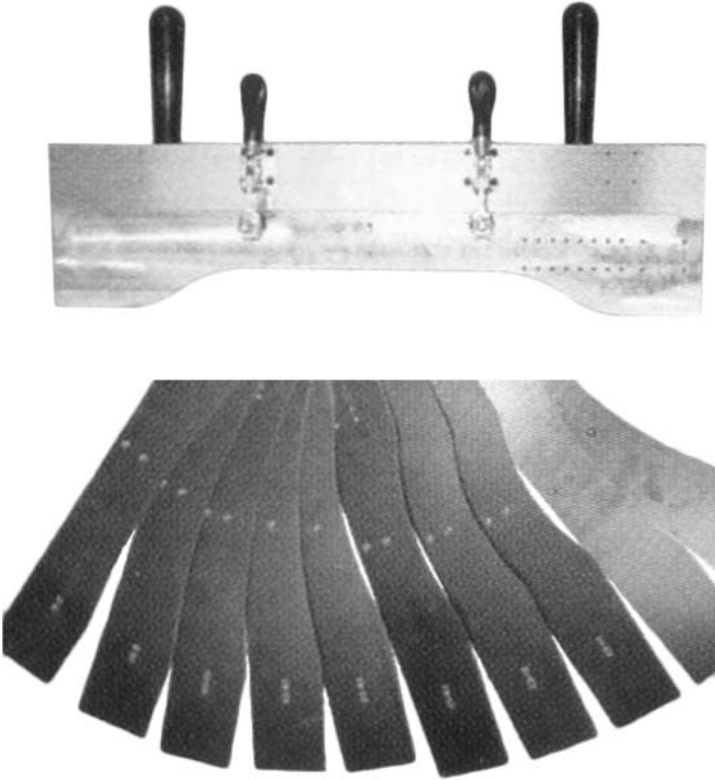
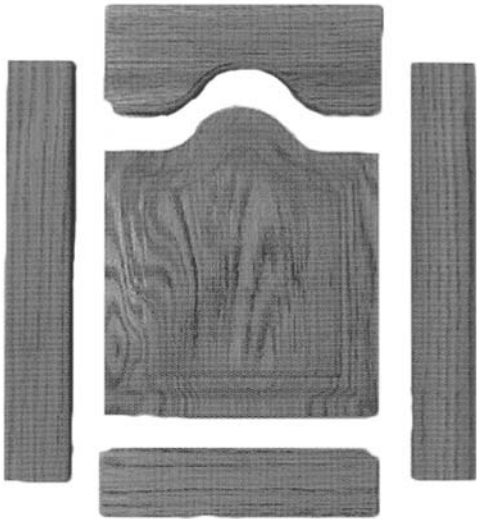




**HAWK PanelMASTER ACCESSORIES**

Crown rail jig and templates.  
Make arched panel doors quickly and easily with this crown rail jig made of machined aluminum. Ten durable pattern templates are available. Extremely easy and safe to use, simply rough saw crown rails to size, then use bearing rub collar to produce perfect results every time.

910-0100	Crown Rail Jig	\$350.00
910-0200	Crown Rail Template Set	\$199.00
690-0146	Stile Jig	\$199.00



**MOBILE BASE**

910-2501 Mobile Base\$300.00



RUB BEARINGS		
810-0190	3" Rub Bearing	\$61.00
810-0191	3.25" Rub Bearing	\$61.00
ARBORS		
690-0036	ARBOR NUT	\$16.00
690-0107	ARBOR	\$39.95
690-0108	ARBOR SPACER, 3/4" THK.	\$8.95
690-0109	ARBOR SPACER, 1/2" THK.	\$6.95
690-0104	ARBOR SPACER, .031 THK.	\$1.50
690-0103	ARBOR SPACER, .005 THK.	\$1.50
690-0111	ARBOR KEY 1/4" DIA	\$2.95
BEARINGS		
790-0101	BEARING BLOCK 1"	\$45.00
SHAFT		
690-2110	CUTTERHEAD SHAFT, PM-III	\$89.95
690-2111	CUTTERHEAD SHAFT, PM-IV	\$65.00
WEAR TAPE		
790-0140A	10 mil Wear Tape 1/4" wide	\$1.25per foot
790-0140B	10 mil Wear Tape 1/2" wide	\$1.50 per foot
790-0140C	10 mil Wear Tape 1" wide	\$2.00 per foot
790-0140D	10 mil Wear Tape 1.25" wide	\$2.50 per foot
790-0140E	10 mil Wear Tape 3" wide	\$4.50 per foot
790-0140F	10 mil Wear Tape 2" wide	\$3.00 per foot
790-0078	30 mil Wear Tape 3" wide	\$5.75 per foot
790-0079	30 mil Wear Tape 2" wide	\$4.20 per foot
SPACE BALLS		
865-0600	Space ball pack of 50	\$2.00

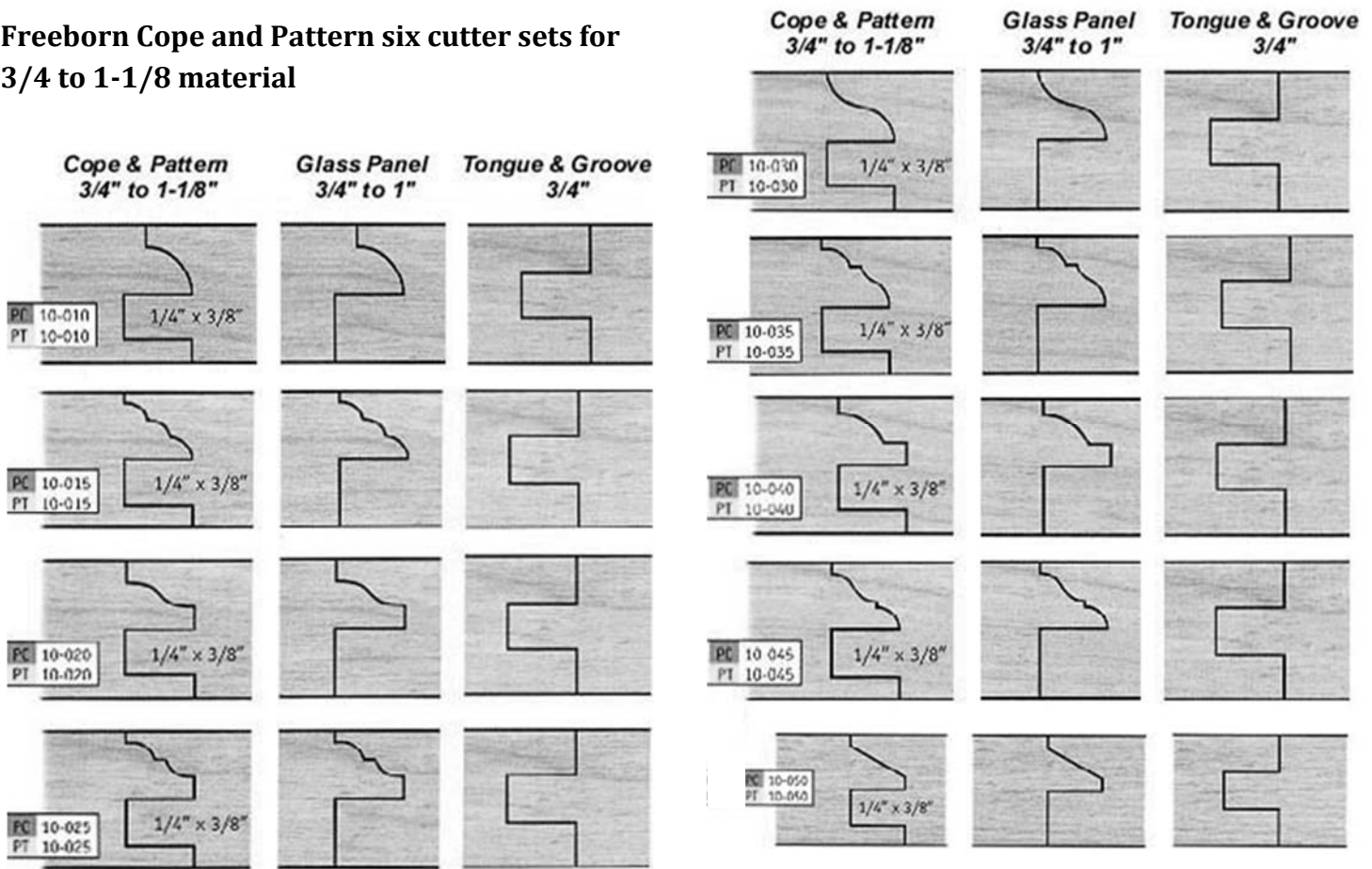


SPACE BALLS

**To select a set of cutter for making 3/4" raised panel doors, you will need to select one of each:**

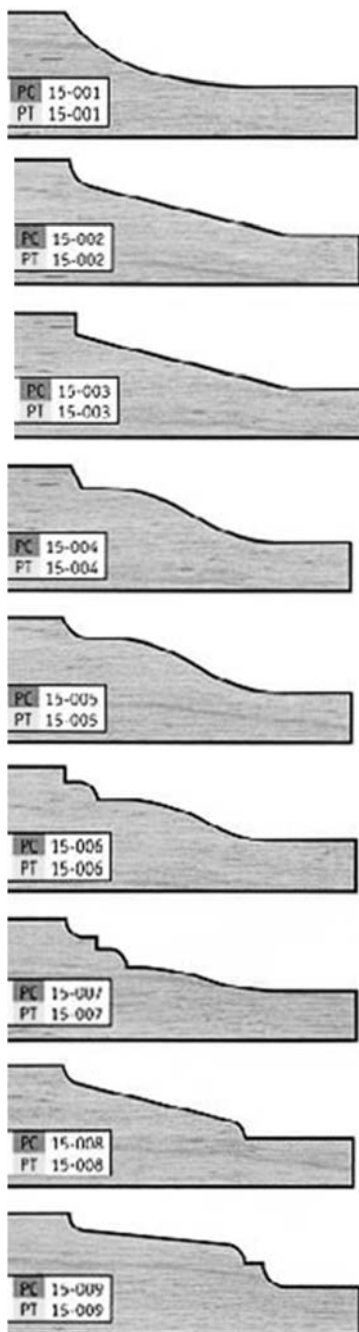
- A 3/4 to 1-1/8" cope and pattern set
- A 5/8" raised panel cutter
- A back cutter for the back of the raised panel
- A outside door cutter

**Freeborn Cope and Pattern six cutter sets for 3/4 to 1-1/8 material**



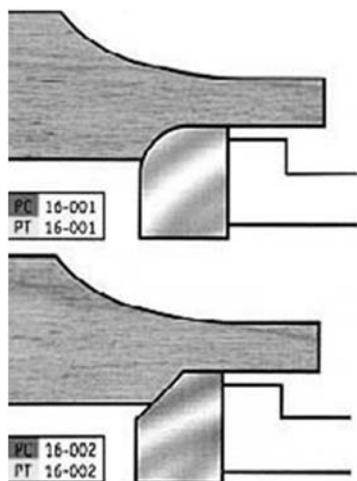
Item #	Freeborn	Cutter Set Type	Material	Price
<b>810-10-010-C</b>	PC-10-010	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-010-T</b>	PT-10-010	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-015-C</b>	PC-10-015	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-015-T</b>	PT-10-015	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-020-C</b>	PC-10-020	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-020-T</b>	PT-10-020	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-025-C</b>	PC-10-025	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-025-T</b>	PT-10-025	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-030-C</b>	PC-10-030	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-030-T</b>	PT-10-030	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-035-C</b>	PC-10-035	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-035-T</b>	PT-10-035	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-040-C</b>	PC-10-040	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-040-T</b>	PT-10-040	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-045-C</b>	PC-10-045	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-045-T</b>	PT-10-045	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-050-C</b>	PC-10-050	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-050-T</b>	PT-10-050	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-060-C</b>	PC-10-060	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-060-T</b>	PT-10-060	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10
<b>810-10-070-C</b>	PC-10-070	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$533.90
<b>810-10-070-T</b>	PT-10-070	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$587.10

## 5/8" Raised Panel Cutters



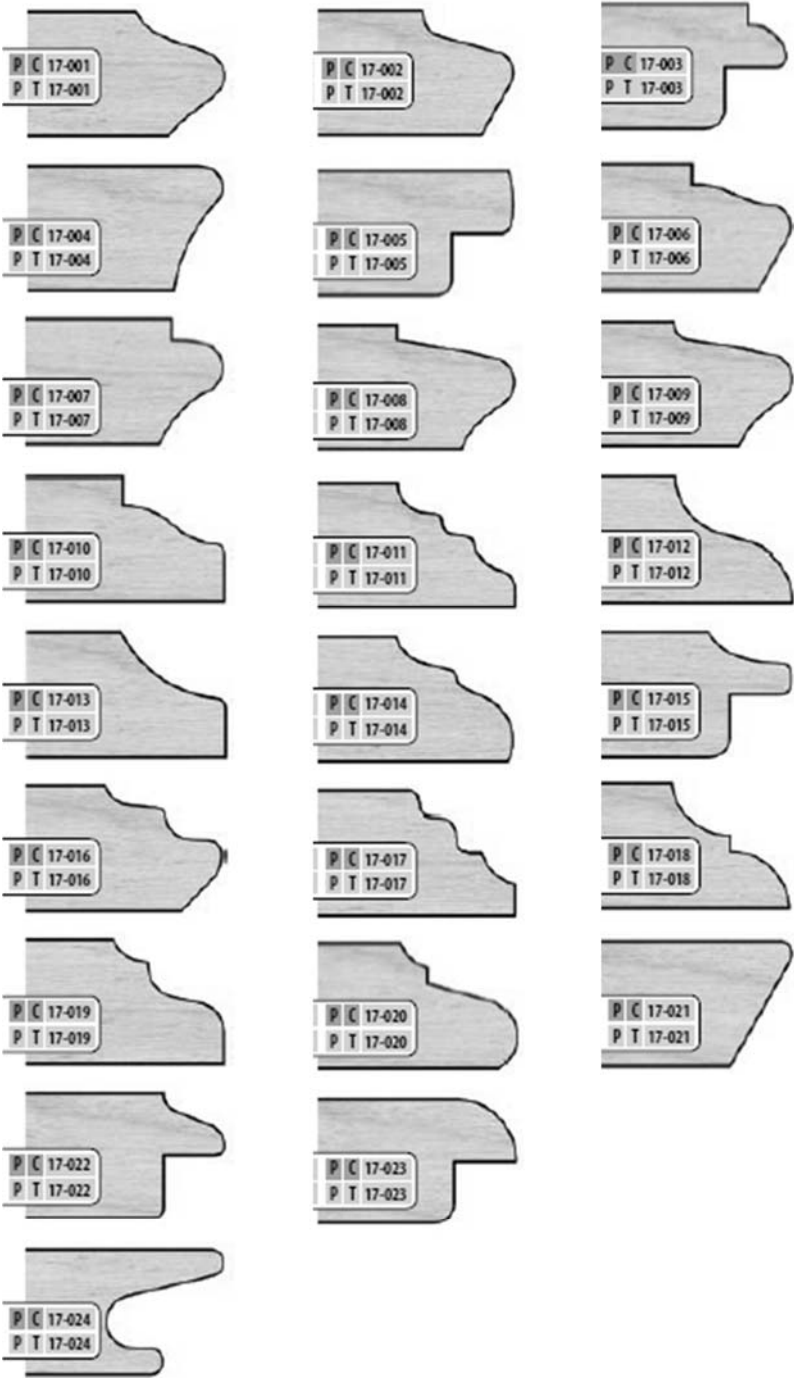
Item #	Freeborn	Cutter Type	Material	Price
810-15-001-C	PC-15-001	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-001-T	PT-15-001	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-002-C	PC-15-002	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-002-T	PT-15-002	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-003-C	PC-15-003	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-003-T	PT-15-003	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-004-C	PC-15-004	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-004-T	PT-15-004	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-005-C	PC-15-005	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-005-T	PT-15-005	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-006-C	PC-15-006	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-006-T	PT-15-006	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-007-C	PC-15-007	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-007-T	PT-15-007	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-008-C	PC-15-008	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-008-T	PT-15-008	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-009-C	PC-15-009	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-009-T	PT-15-009	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-010-C	PC-15-010	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-010-T	PT-15-010	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-011-C	PC-15-011	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-011-T	PT-15-011	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-012-C	PC-15-012	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-012-T	PT-15-012	5/8" THICK RAISED PANEL	TANTUNG	\$300.20
810-15-013-C	PC-15-013	5/8" THICK RAISED PANEL	CARBIDE	\$272.65
810-15-013-T	PT-15-013	5/8" THICK RAISED PANEL	TANTUNG	\$300.20

## Back Cutters



Item #	Freeborn	Cutter Type	Material	Price
810-16-001-C	PC-16-001	BACK CUTTER FOR RAISED PANEL	CARBIDE	\$199.50
810-16-001-T	PT-16-001	BACK CUTTER FOR RAISED PANEL	TANTUNG	\$219.45
810-16-002-C	PC-16-002	BACK CUTTER FOR RAISED PANEL	CARBIDE	\$199.50
810-16-002-T	PT-16-002	BACK CUTTER FOR RAISED PANEL	TANTUNG	\$219.45

Door Edge Detail Shaper Cutters



Item #	Freeborn	Material	Price
810-17-001-C	PC-17-001	CARBIDE	\$216.00
810-17-001-T	PT-17-001	TANTUNG	\$238.00
810-17-002-C	PC-17-002	CARBIDE	\$216.00
810-17-002-T	PT-17-002	TANTUNG	\$238.00
810-17-003-C	PC-17-003	CARBIDE	\$216.00
810-17-003-T	PT-17-003	TANTUNG	\$238.00
810-17-004-C	PC-17-004	CARBIDE	\$216.00
810-17-004-T	PT-17-004	TANTUNG	\$238.00
810-17-005-C	PC-17-005	CARBIDE	\$216.00
810-17-005-T	PT-17-005	TANTUNG	\$238.00
810-17-006-C	PC-17-006	CARBIDE	\$216.00
810-17-006-T	PT-17-006	TANTUNG	\$238.00
810-17-007-C	PC-17-007	CARBIDE	\$216.00
810-17-007-T	PT-17-007	TANTUNG	\$238.00
810-17-008-C	PC-17-008	CARBIDE	\$216.00
810-17-008-T	PT-17-008	TANTUNG	\$238.00
810-17-009-C	PC-17-009	CARBIDE	\$216.00
810-17-009-T	PT-17-009	TANTUNG	\$238.00
810-17-010-C	PC-17-010	CARBIDE	\$216.00
810-17-010-T	PT-17-010	TANTUNG	\$238.00
810-17-011-C	PC-17-011	CARBIDE	\$216.00
810-17-011-T	PT-17-011	TANTUNG	\$238.00
810-17-012-C	PC-17-012	CARBIDE	\$216.00
810-17-012-T	PT-17-012	TANTUNG	\$238.00
810-17-013-C	PC-17-013	CARBIDE	\$216.00
810-17-013-T	PT-17-013	TANTUNG	\$238.00
810-17-014-C	PC-17-014	CARBIDE	\$216.00
810-17-014-T	PT-17-014	TANTUNG	\$238.00
810-17-015-C	PC-17-015	CARBIDE	\$216.00
810-17-015-T	PT-17-015	TANTUNG	\$238.00
810-17-016-C	PC-17-016	CARBIDE	\$216.00
810-17-016-T	PT-17-016	TANTUNG	\$238.00
810-17-017-C	PC-17-017	CARBIDE	\$216.00
810-17-017-T	PT-17-017	TANTUNG	\$238.00
810-17-018-C	PC-17-018	CARBIDE	\$216.00
810-17-018-T	PT-17-018	TANTUNG	\$238.00
810-17-019-C	PC-17-019	CARBIDE	\$216.00
810-17-019-T	PT-17-019	TANTUNG	\$238.00
810-17-020-C	PC-17-020	CARBIDE	\$216.00
810-17-020-T	PT-17-020	TANTUNG	\$238.00
810-17-021-C	PC-17-021	CARBIDE	\$216.00
810-17-021-T	PT-17-021	TANTUNG	\$238.00
810-17-022-C	PC-17-022	CARBIDE	\$216.00
810-17-022-T	PT-17-022	TANTUNG	\$238.00
810-17-023-C	PC-17-023	CARBIDE	\$216.00
810-17-023-T	PT-17-023	TANTUNG	\$238.00

# Multi FUNCTION

PLANER/MOLDER/GANG SAW/SANDER/BRUSH



**HAWK**  
Woodworking Tools



WE DO SPECIAL FUNCTIONS AND MODIFICATIONS SUCH AS DIAMOND HEADS AND SPECIAL CONTROLS FOR GLASS-EPOXY COMPOSITE MATERIALS

## FEATURES

**SIMPLE HEAD CHANGE** only one allen wrench required.

**QUICK CHANGE HEAD** converts from a planer, to a molder, to a gang saw, to a sander and to a brush in just a few minutes.

**3 KNIFE CORRUGATED CUTTER HEAD** easy to set, no gauge required.

**HIGH SPEED BEARINGS** are self-aligning for years of trouble free service.

**ADJUSTABLE BED** of precision ground steel.

**HEAVY DUTY V-BELT DRIVE** delivers maximum power to the cutter head for all applica-

tions with a single belt.

**INDUSTRIAL GRADE 5 HP MOTOR** to give years of dependable service.

**MAGNETIC SAFETY SWITCH IS STANDARD**, this is required by OSHA for commercial applications.

**NON-MARRING URETHANE IN/OUT FEED ROLLERS** that feed the wood into the planer leaving no marks nicks or cuts. **1/4 HP DC FEED GEAR-MOTOR** is controlled by a industrial grade PWM speed controller for a constant feed rate adjusted by the turn of a knob.

**VARIABLE FEED RATE** goes from nearly zero to 22' per minute.

**SMOOTH BELT DRIVE** on feed roller yields trouble free operation with no chains or sprockets to trap wood chips.

**HEAVY GAUGE STEEL BASE** designed for years of demanding use.

**MADE IN THE USA.**

**This machine can pay for itself in just one job.**

If you compare the price for baseboards, casements, chair rail, crown rail frames and any other molding you will use in a house, you will find that you can buy the **HAWK MultiFUNCTION PLANER** and the needed heads, and accessories and rough-cut lumber for less than the price of buying the molding. Do it your self and save money and have the exact moldings that you want. We have over 450 design in our molding profile catalog and will cut the knives for any profile you can draw or send in a sample of. Request a free copy of the Molding Profile Catalog today.

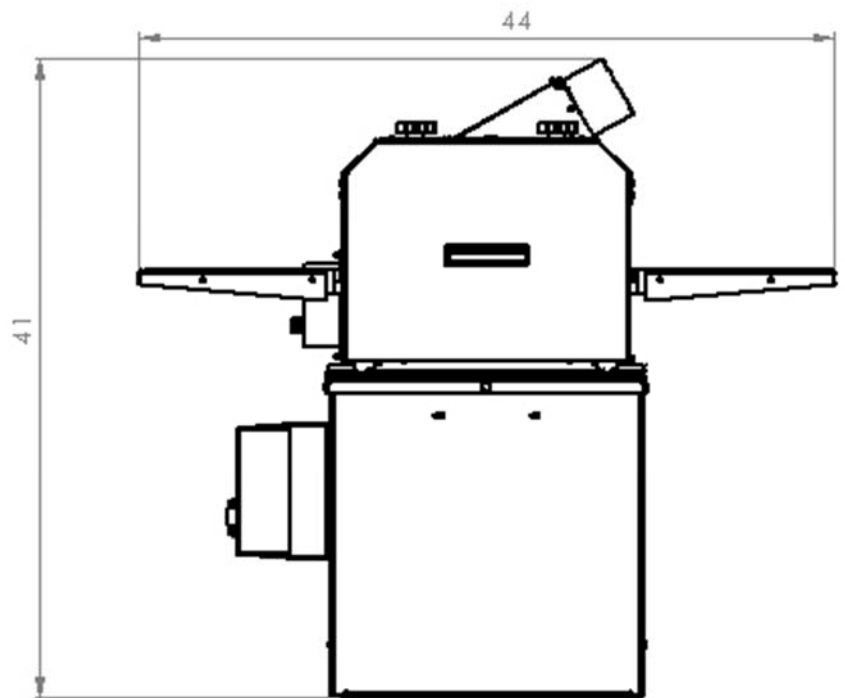
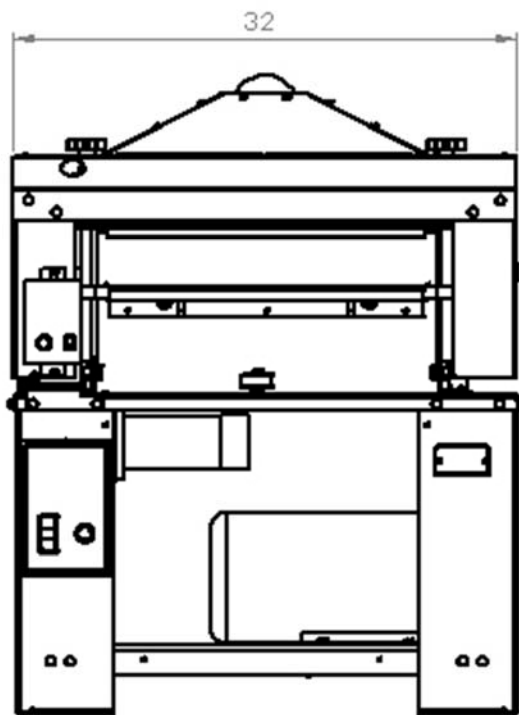
## PRICING 820

Single Function*	\$ 2850
Two Functions*	\$ 3250
Three Functions*	\$ 3650
Four Functions*	\$ 4050

\*Spiral cutting head available for an additional cost of \$800 above standard planning head.



**MOBILE BASE** 910-2500 \$250



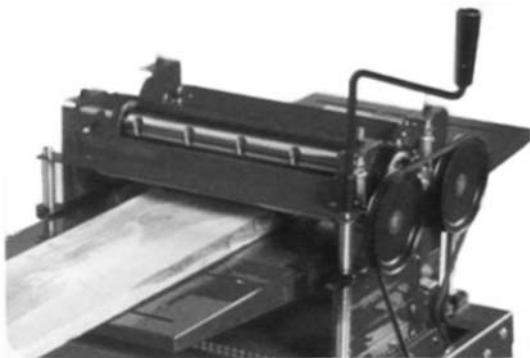
## SPECIFICATIONS

	<b>820 (900-0820)</b>
Maximum Width	20 1/8"
Stock Thickness Range	3/16" to 8"
Maximum Depth of Cut	5/16"
Minimum Stock Length	10"
Feed Rollers	1 7/8" Urethane
Feed Rate (variable speed)	0 to 25 ft per min
Feed Gear Motor	180 V DC
Motor Voltage	240 V

Phase standard	1
Phase optional	3 (\$100 deduction)
Horsepower	5
Hp Optional (3 ph)	7.5 (\$100 Addition)
RPM	1750
Cutting Head RPM	4350
Sanding Head RPM	2700
Shipping Weight	450#

## PLANER

Now you can have the satisfaction of knowing you have done everything you can from start to finish to make each of your wood-working projects their very best. Use the **HAWK MultiFUNCTION Planer** to finish your own lumber turning rough cut stock into

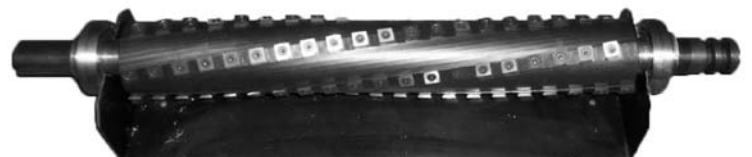


precision-milled lumber in just minutes. Buy your own rough cut lumber direct from the saw mill, then surface it yourself and pocket the savings. You will be able to use the best lumber for a fraction of the cost. You will be able to save 50% on the lumber costs of your projects. You determine the perfect piece for your project, and then you cut it and finish it yourself by just dialing in the exact dimensions needed.

## SPIRAL HEAD

You will have finished thickness lumber you will be proud of from the **MultiFUNCTION Planer**. Whether you use the corrugated planer knife head, which eliminates the need for setting the blade height, or you use our spiral cutter head, which uses 1/2" square micro-carbide inserts it is your choice.

### PLANER KNIVES price per each

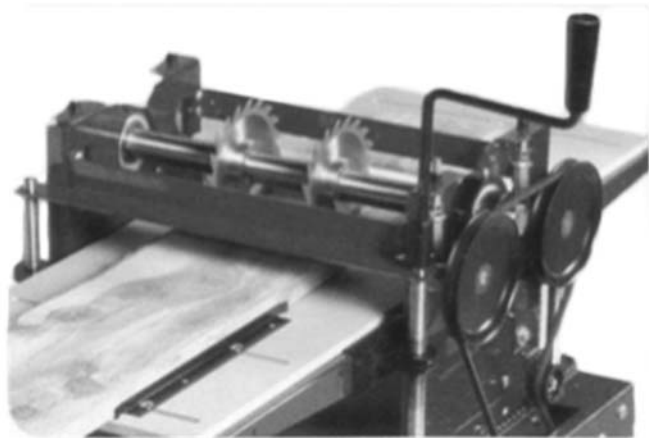


Part #	Description	Price
803-0000	8" Planer Knife	\$14.00
803-0001	12.5" Planer Knife	\$14.50
803-0002	20.5" Planer Knife	\$21.00
803-0003	16.5" Planer Knife	\$18.00
803-0004	15.5" Corrugated Knife	\$29.95
803-0005	20.5" Corrugated Knife	\$39.00



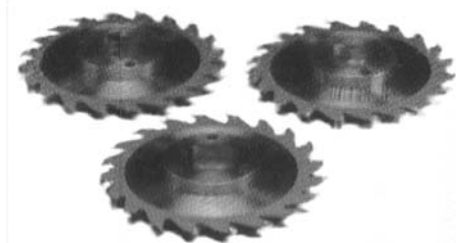
## GANG SAW

Now that you have your lumber the thickness that you need you can remove the planer head and insert in the gang saw head in just a couple of minutes. All you need to do is remove the top cover, undo the 2 bolts on top of both bearing mounts, remove the top of the bearing mounts, remove the head, place in the gang saw head and put it back together. With this attachment you can rip your lumber to width. It will allow you to rip the exact width repeatedly and quickly without the problems of holding the lumber against a table saw fence.



## GANG SAW BLADES AND HUBS

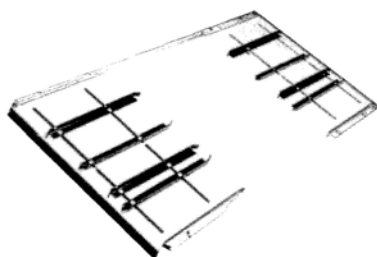
745-0754	Gang Saw Blade 6 1/2"	\$39.95
745-0409	Gang Saw Blade 5 1/2"	\$39.95
645-0409	Saw Blade Hub Set for 1-1/2" Shaft Planers (612, 720, 816, 820)	\$39.95



## HDPE GUIDE BOARDS

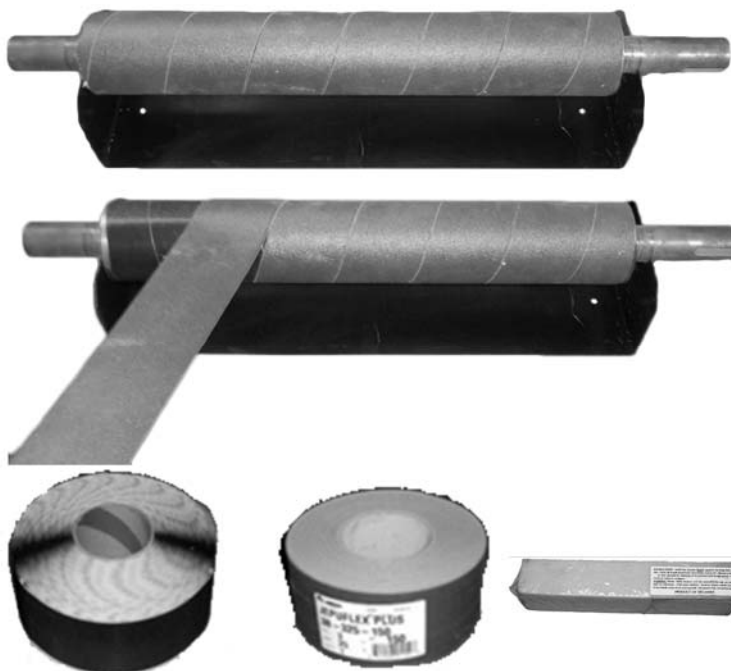
To guide the boards through the gang saw and molder, we have HDPE guide boards for smooth low friction feeding. The metal guide rails keep the boards aligned through the gang saw or molder.

745-0326	Guide Board for 820 Planer	\$160.00
900-3300	Guide Board and Rail Kit for 820 Planer	\$275.00
646-0044	Guide Board for 615 Planer	\$125.00
900-5035	Guide Board and Rail Kit for 615 Planer	\$250.00
900-3301	Guide Rail Kit only	\$125.00



## SANDER

It is time to finish your lumber by sanding it. As before, remove the head that is in it and place in the sanding head. The Velcro attached paper can easily be changed from one grit to another. We stock sand paper from 60 to 220 grit to meet your sanding needs.



## VELCRO AND VECRO BACK SAND PAPER

Velcro Grip Sandpaper 3"x75' roll

\$42.00 per roll \$1.00 per foot

801-2060	60 grit
801-2080	80 grit
801-2100	100 grit
801-2150	150 grit
801-2180	180 grit
801-2220	220 grit

801-2000	Velcro 2"X75' ROLL
	\$100.00 per roll \$1.80 per Foot

## CLEANING HEADS

Wire brush heads for cleaning old lumber are available. At this time we do not stock but can order them in and have them to you in just two weeks.



## SPECIAL FUNCTIONS

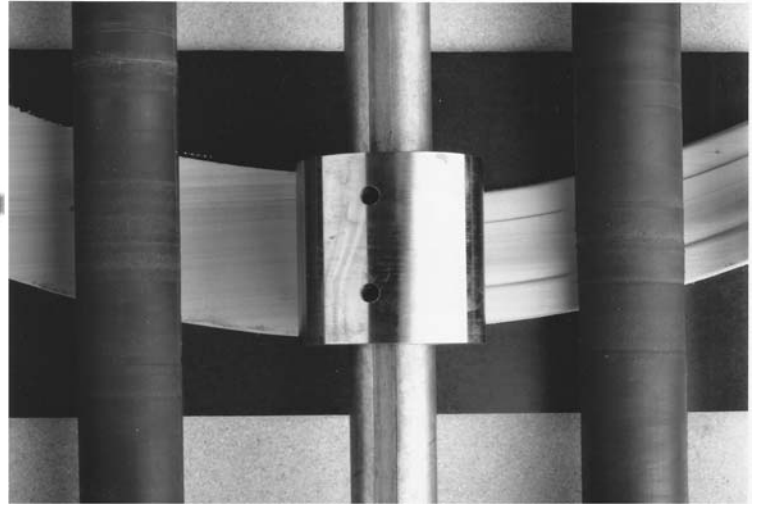
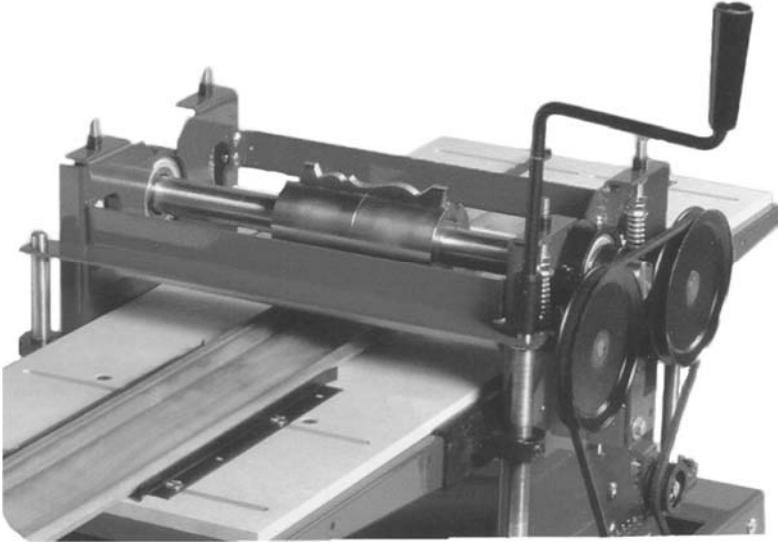
GLASS EPOXY, PLASTIC. If you have a special need we will develop a planer to meet your needs.



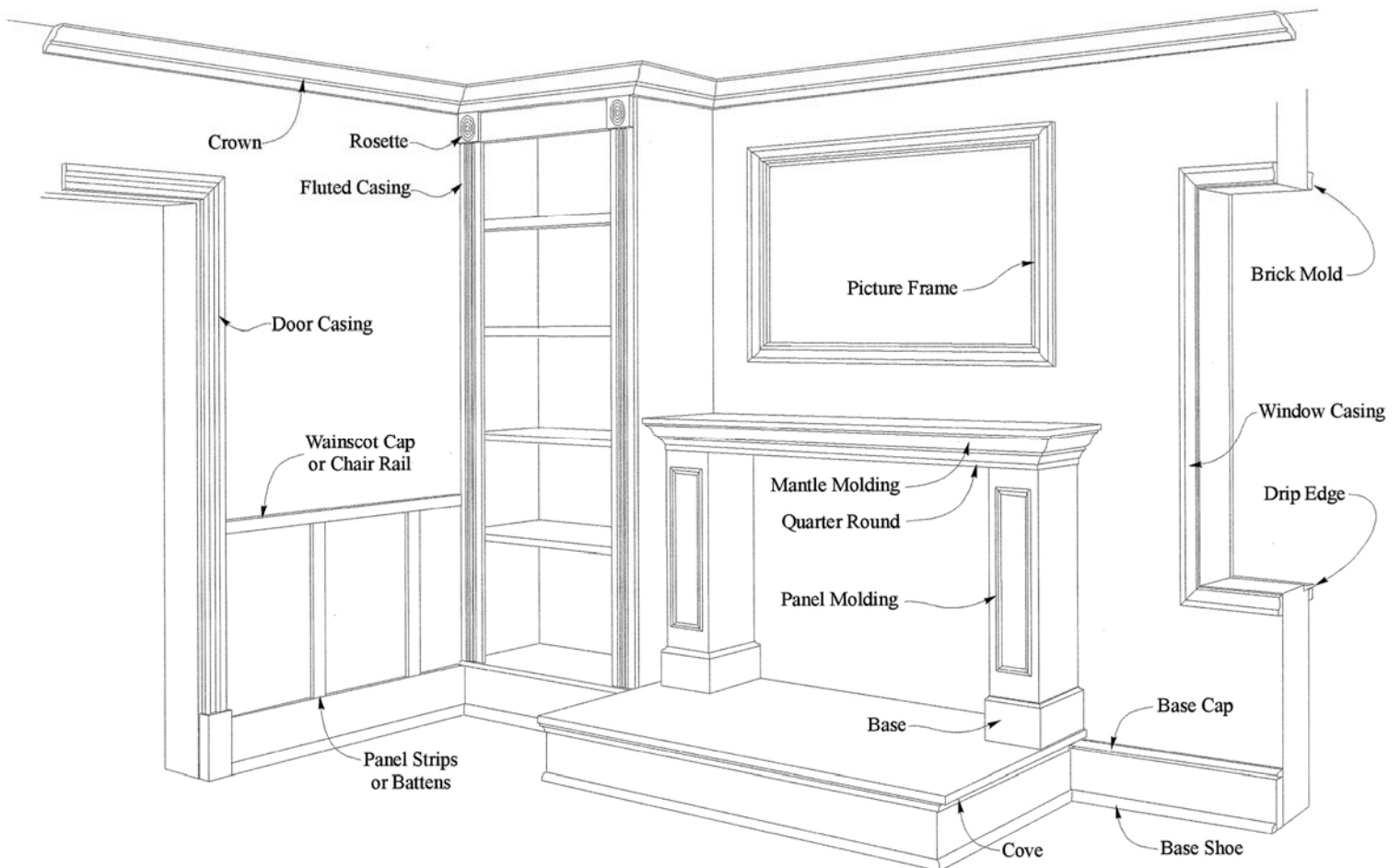
## MOLDER

Once again you can remove your head and place in the custom molding knife head in just a couple of minutes. Whether you plan to make moldings and picture frames for your own use or start you own commercial production shop, the **HAWK MultiFUNCTION Planer** is the right tool for the job. We have over 500 standard molding profiles knives you can order or send us your own pattern and we will make custom molding knives to your specifications. Then with one pass, or two passes if a back cut is required, you will have the molding of your choice. You will no longer be limited to what your local lumber yard stocks.

Make curved moldings by making your own guides to match the molding curve and pre cutting the curved board for the molding.



You can make every molding type shown in the picture below. You will need the rosette cutter to make the rosettes.





FOR THE EXAMPLE SHOWN TO THE RIGHT.  
IF SIMPLE STOCK MOLDINGS FROM A NATIONAL LUMBER YARD CHAIN ARE USE.

874 ft of casing	@ \$1.14	\$ 992.94
680 Ft of base	@ \$1.19	\$ 809.20
226 ft of chair rail	@ \$1.88	\$ 406.80
430 ft of crown molding		
	@ \$1.74	\$ 748.20
680 ft of shoe	@ \$ .82	\$ 557.60
TOTAL		\$3514.74

OR YOU COULD BUY ROUGH CUT LUMBER

682 Board ft @ \$1.10 \$ 750.20

WHICH GIVES YOU A SAVINGS OF \$ 2764.54 IN JUST ONE JOB USING ONLY STOCK MOLDINGS.

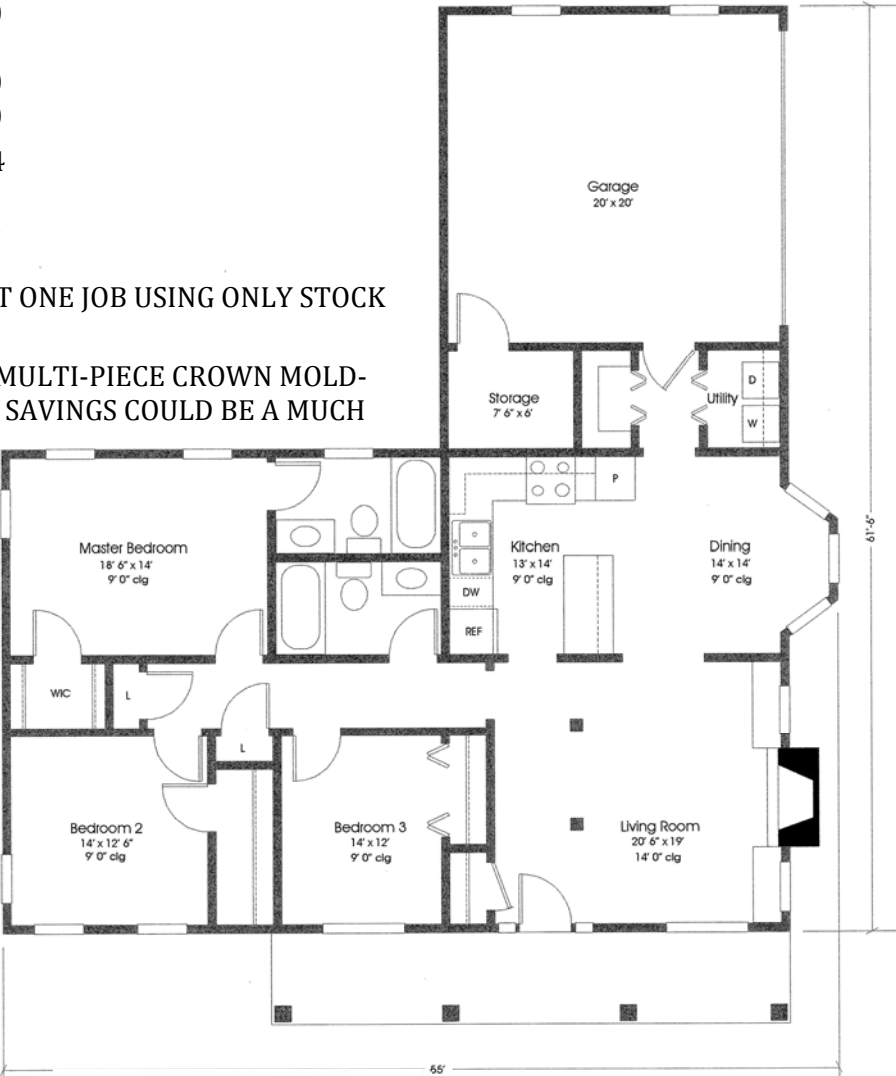
IF YOU WANT TO USE ANTIQUE MOLDINGS AND A MULTI-PIECE CROWN MOLDING YOUR SAVINGS WILL BE MUCH HIGHER. YOUR SAVINGS COULD BE A MUCH AS 3 TIME MORE.

MOLDING KNIVES

With the **HAWK MultiFUNCTION Planer** you can start your own successful business in which you design and create your own custom molding or recreate historic antique moldings. You can do it easily and affordably with a little help from the **HAWK Custom Knife Department** here at Bushton Manufacturing. We have a large catalog of over 500 standard molding knives.

- We can also supply custom molding knives upon request.
- Signed copy of all custom knife quotes is required with payment before a custom knife can be made.
- Sharpening template is supplied with all custom knife orders.
- **All custom molding knives must be paid for before the knife is cut and are non-refundable.**
- Knives are priced per knife with gibs, balances are sold separately and are priced at 15% of the knife. For a 2 knife head you must order 2 knives or 1 knife and a balance.

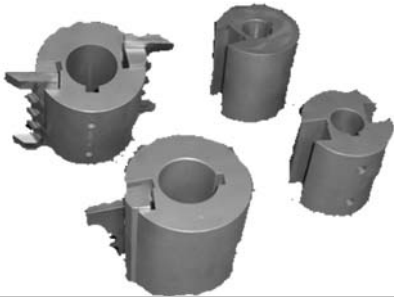
Knife orders take about 1 week after they are paid for.



A few molding cut in a variety of materials including wood, engineered woods and plastics.



CORRUGATED MOLDING KNIFE HOLDERS



HOLDER	NUMBER OF KNIFE SLOTS	FOR PLANER MODEL	PRICE
901-2501	2 FLAT BACK	612, 615, 720, 816, 820	\$120.00
901-0502	2 CORRUGATED BACK	408, 812	\$100.00
901-0503	1 CORRUGATED BACK	612, 615, 720, 816, 820	\$ 85.00
901-0504	2 CORRUGATED BACK	612, 615, 720, 816, 820	\$100.00
901-0505	3 CORRUGATED BACK	612, 615, 720, 816, 820	\$140.00



## FEED ROLLERS

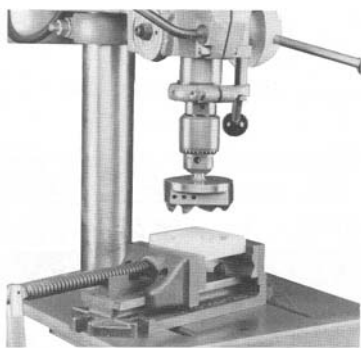
Part #	Description	Price
695-0068	8"	\$ 76.00
695-0066	12"	\$ 76.00
646-0018	15"	\$ 84.15
634-0017	16"	\$ 95.00
645-0736	20"	\$ 109.25
765-0057	Feed Roller Bushing	\$ 7.50
765-0019	Feed Roller Spring	\$ 4.00
745-2091	Feed Roller Pulley	\$ 19.95



## BELTS

Item #	Price Each	Item #	Price Each
745-0721	\$18.76	745-0773	\$21.92
745-0723	\$19.90	745-0774	\$22.04
745-0724	\$20.58	745-0777	\$16.92
745-0728	\$9.62	745-1683	\$5.00
745-0729	\$9.70	746-0044	\$15.58
745-0730	\$13.56	746-0055	\$16.86
745-0734	\$13.56	775-0121	\$20.78
745-0735	\$10.96	790-0048	\$17.16
745-0743	\$19.26	790-0052	\$11.96
745-0749	\$17.50	790-0077	\$18.60
745-0750	\$16.00	790-0128	\$22.04
745-0753	\$20.20	790-0130	\$22.94
745-0760	\$21.08	790-1128	\$16.66
745-0761	USE 745-0760	799-9999	\$5.00

## ROSETTE CUTTERS HOLDERS AND KNIVES

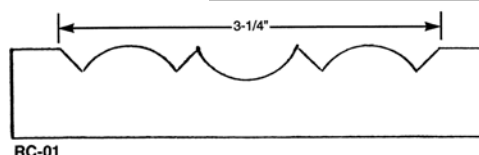


### 904-0100 HOLDER \$65.00

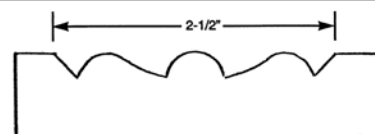
Just use your drill press to make rosettes to go along with the molding. We have molding profiles to match the rosette patterns we have. We can make custom knives to fit your needs.



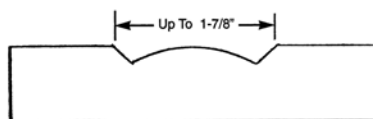
ROSETTE CUTTER	ITEM #	Price per Pair	ROSETTE CUTTER	ITEM #	Price per Pair
RC-01	904-0101	\$85.00	RC-08	904-0108	\$80.00
RC-02	904-0102	\$70.00	RC-09	904-0109	\$80.00
RC-03	904-0103	\$57.50	RC-10	904-0110	\$65.00
RC-04	904-0104	\$82.50	RC-11	904-0111	\$70.00
RC-05	904-0105	\$80.00	RC-12	904-0112	\$75.00
RC-06	904-0106	\$70.00	RC-13	904-0113	\$87.00
RC-07	904-0107	\$82.50			



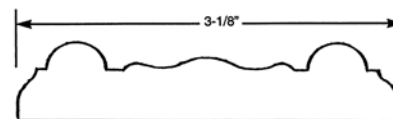
RC-01



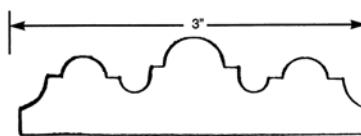
RC-02



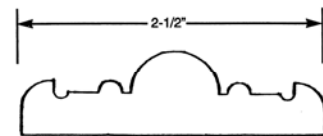
RC-03



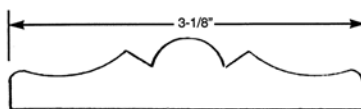
RC-04



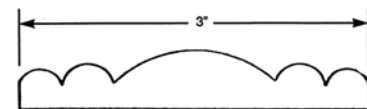
RC-05



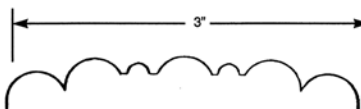
RC-06



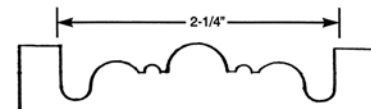
RC-07 3"



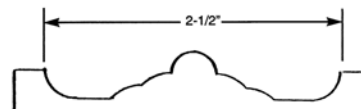
RC-08 3"



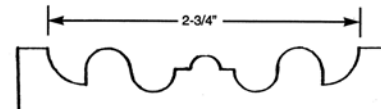
RC-09 3"



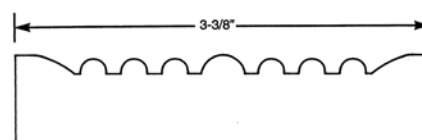
RC-10



RC-11



RC-12



RC-13

The **AtomPOP** is a no-shake, no-stir popper produced by Bushton Manufacturing's sister company, Quincraft Products. It has been in production since 1952 and still makes the best popcorn around. Ask us about it when you call in!





Since 1929

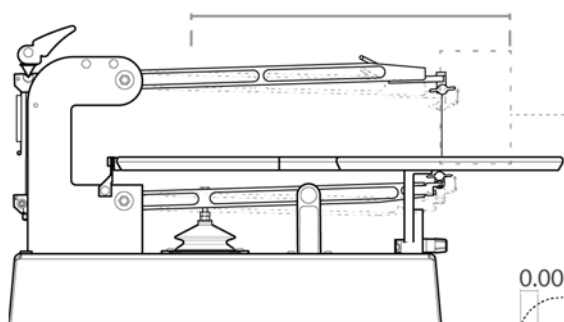
Still made in the USA

# HAWK

*Precision Scroll Saws*

## ADVANTAGES

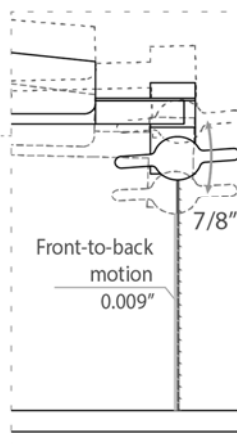
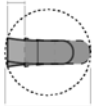
Long parallel cutting arms give less front to back motion for tighter turns even with our longer 7/8" stroke.



**HAWK BM-20**

Turning circle < 1/20"

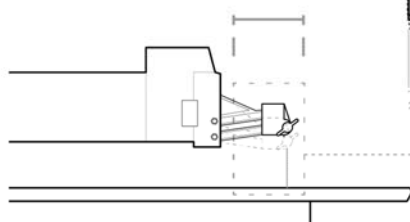
0.009"



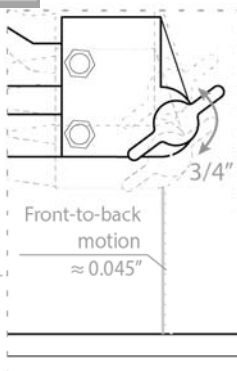
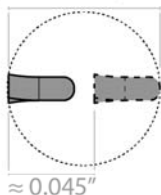
The **HAWK** requires 1/2 the diameter circle in which to turn as compared to our competition.

Turning circle  $\approx 1/10"$

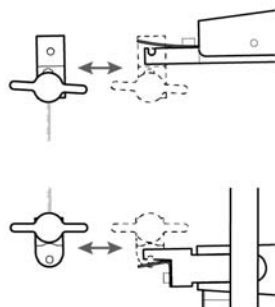
**The competition**



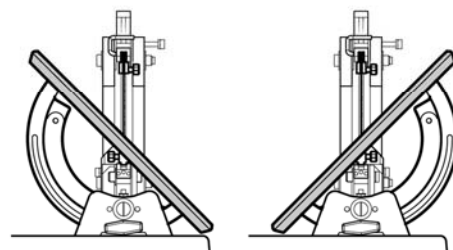
$\approx 0.045"$



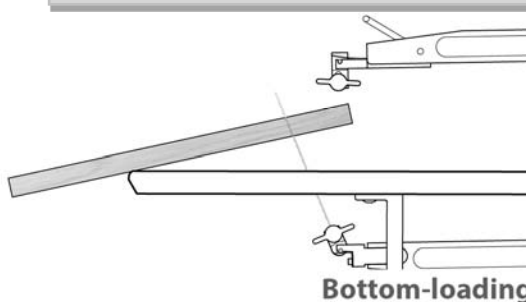
The **HAWK** has removable blade holders that just snap into place, no tools required. You can preload blade holders with all the types and sizes of blades you will use in your project and have them ready to use.



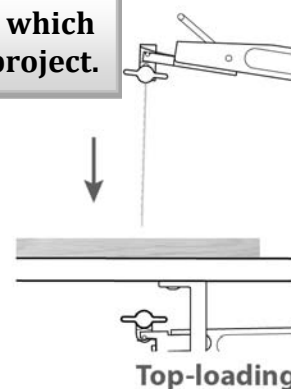
The table on the **HAWK** can tilt 45 degrees both right and left without any tools.



The **HAWK** can top or bottom load which ever works best for you and your project.



**Bottom-loading**



**Top-loading**

See more **HAWK ADVANTAGES** in side.