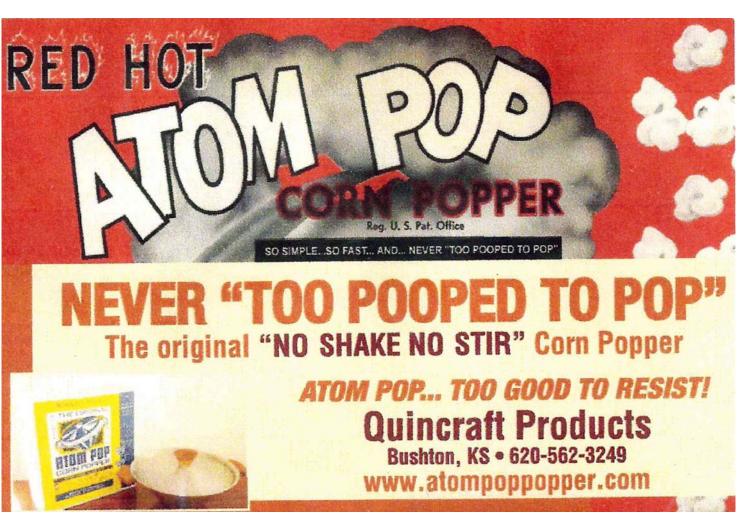


Item#	Price Each	Item#	Price Each
745-0721	\$18.76	745-0773	\$21.92
745-0723	\$19.90	745-0774	\$22.04
745-0724	\$20.58	745-0777	\$16.92
745-0728	\$9.62	745-1683	\$5.00
745-0729	\$9.70	746-0044	\$15.58
745-0730	\$13.56	746-0055	\$16.86
745-0734	\$13.56	775-0121	\$20.78
745-0735	\$10.96	790-0048	\$17.16
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	745-0760	799-9999	\$5.00

Bushton Manufacturing P.O. Box 127 Bushton, KS 67427



# **BUSHTON MANUFACTURING**

Makers of



Contact, Warranty, Ordering, Rebuilding info page 2 History of Bushton Manufacturing and Hawk Tools page 3

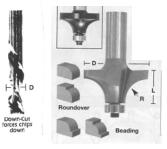


Scroll saws page 4-5 Accessories page 6 Parts pages 7-9 Supplies page 10 Blades pages 18-19



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Atompop page 36

Rosette Cutter page 35







PanelMASTER pages 24-26



Freeborn Cutters pages 27-30



MultiFUNCTION Planer pages 31-32 Parts pages 33-34

To Order call 620-562-3557

e-mail at customerservice@hawkwoodworkingtools.com or online at www.hawkwoodworkingtools.com

Catalog #6, May 2013



#### **CONTACT INFORMATION**

You can reach our customer service department Monday thru Friday from 8:00 am to 5:00 pm Central Time.

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

Phone: 620-562-3557

e-mail: <u>customerservice@hawkwoodworkingtools.com</u>

Web: www.hawkwoodworkingtools.com

#### LIMITED WARRANTY

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 not 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.

#### **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 or Discover Card.

#### MAKE CHECKS PAYABLE TO: BUSHTON MANUFACTURING, LLC

We do not have a set shipping and handling charges table at this time contact customer service for the amount of these charges for your order.

We will have a direct order shopping cart on our web page in the future.



The web page is www.hawkwoodworkingtools.com

#### REBUILD SERVICE

We can rebuild you 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.

Bushton Manufacturing, P.O. Box 127, Bushton KS 67427, 620-562-3557, customerservice@hawkwoodworkingtools.com

#### **ROSETTE CUTTERS HOLDERS AND KNIVES**

#### 904-0100 HOLDER \$65.00



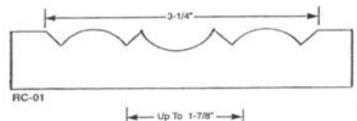
ROSETTE



Price per ROSETTE

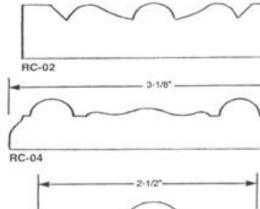
Price per

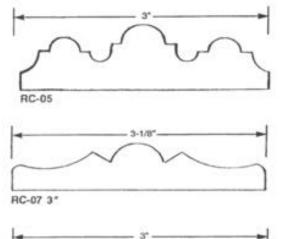
CUTTER	ITEM #	Pair	CUTTER	ITEM #	Pair
RC-01	904-0101	\$85.00	RC-08	904-0108	\$80.00
 RC-02	904-0102	\$70.00	RC-09	904-0109	\$80.00
RC-03	904-0103	\$57.50	RC-10	904-0110	\$65.00
RC-04	904-0104	\$82.50	RC-11	904-0111	\$70.00
 RC-05	904-0105	\$80.00	RC-12	904-0112	\$75.00
RC-06	904-0106	\$70.00	RC-13	904-0113	\$87.00
RC-07	904-0107	\$82.50			
07	30.0107	φ02.30			

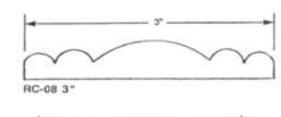


RC-13

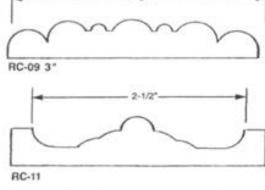
RC-03

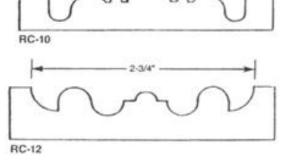






RC-06





#### PARTS PLANATARY GEAR DRIVE

Item#

98

99

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D

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Part #

645-0067

645-0089 Gearbox Back Plate

645-0096 Internal gear shaft

645-2088 Reduction Input Sheave

Face Plate

645-0095 Internal Gear Sheave

745-0071 3/16 x 1-1/4 Roll Pin

745-0161 1/4- 20 x 1/2 socket set screw

750-0203 5/16 - 18 x 2" Hex Head Bolt

745-0057 #5 Woodruff Key

770-0081 5/16-18 Hex Nut

745-0150 5/16" Flat Washer

770-0178 5/16" Split Lock Washer

745-0073 3/8 ID Flange Bronze Bushing

745-0160 1/2 ID x 7/8 OD x 14 ga. Bushing

740-0369 1/2" ID Flanged Bronze Bushing

645-0156 Gear Box includes all above parts

**Additional Parts** 

Parts Not Pictured

745-0094 5/16 x 1-1/16 Spacer

750-0210 Grease Zerk 90 Degree

645-0146 Reducer Drive Idler Arm

645-0145 Internal Arm Feed Roller

770-0058 3/8- 16 Hex Nut

745-0062 Pulley, 2" Idler

745-0063 Tension Spring

695-3022 Shoulder Shaft

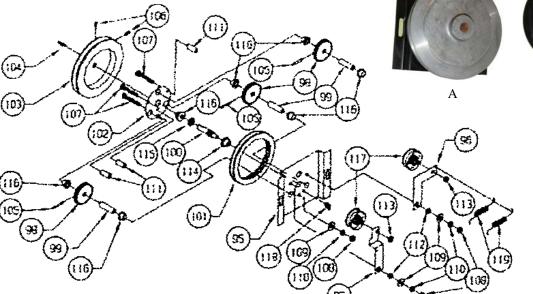
740-0368 Bushing for Dual V-Pulley

745-0158 5/16ID X 1/20D X 3/16 Spacer

645-1153 Dual V-Pulley bushings not included

645-0068 Internal Gear

645-0090 Pinion Gear



Price

\$2.95

\$50.00

\$3.95

\$65.00

\$39.95

\$12.95

\$19.95

\$0.50

\$0.50

\$0.50

\$0.50

\$0.50

\$0.50

\$0.50

\$0.50

\$1.50

\$0.50

\$0.50

\$2.95

\$3.95

\$4.95

\$0.50

\$0.50

\$13.50

\$4.00

\$34.95

\$25.00

\$3.00

\$285.00

Discription

CORRUGATED MOLDING KNIFE HOLDE	F



	NUMBER OF KIFE	FOR PLANER	
HOLDER	SLOTS	MODEL	PRICE
	1 CORRUGATED		
901-0501	BACK	408, 812	\$ 85.00
	2 CORRUGATED		
901-0502	BACK	408, 812	\$100.00
	1 CORRUGATED	612, 615, 720, 816,	
901-0503	BACK	820	\$ 85.00
	2 CORRUGATED	612, 615, 720, 816,	
901-0504	BACK	820	\$100.00
	3 CORRUGATED	612, 615, 720, 816,	
901-0505	BACK	820	\$140.00

#### **JIBS AND COUNTER BALANCES**



Request gib or gib set pricing when order knives or molding knife holders. FOR SAFETY REASONS, WE RECOMMEND USING SETS OF KNIVES WHEN USING 1/4" FLAT BACK AND 5/16 CORRUGATED KNIVES

# BUSHTON MANUFACTURING, LLC

#### HISTORY BUSHTON MANUFACTURING

While Nilus Orth was in graduate school in mechanical engineering at the University of Kansas in the late 1980's, Loren Orth had Nilus Orth start to conduct research for him on using agriculture waste to make products. He continued this into the 1990 as an assistant professor at Lamar University. In 1995 Nilus left Lamar. Then Loren and Nilus formed Wheat Straw Products as a research company. A few years later they started Bushton Manufacturing as a manufacturing company for the products that had developed and purchased.

In 2005 Loren and Nilus purchased the products for J & D. In 2006, three of the Orth brother, Loren, Linus and Nilus, purchased Quincraft Products and kept its name as a separate company.

Loren and Nilus were always looking for more opportunities. By 2009, they knew that the beach maintenance equipment, that they had been making since acquiring J & D would not sell until the US economy improved. Therefore they would need additional products.



#### **HOW WE AQUIRED RBI**

In early April 2009, Nilus was in Kansas City picking up a circle shear that Quincraft Products had purchased. While there, he read the Kansas City Star and saw the sell bill for a manufacturer closure and liquidation auction. Even though it did not say who it was it stated 'the inventory for the products made' was for sell. Assuming there was a product-line involved, Nilus and Loren contact the Auctioneer and found out it was Hawk Wood Working Industries (formerly RB Industries). Deciding that they were interested they set off for Garden City Missouri immediately. After looking at the equipment, parts, etc; they contacted the owners and expressed their interest

After 10 days of receiving information on the company, studying the product and looking over the equipment Bushton Manufacturing made an offer on April 14, 2009 and a verbal agreement was reached just a few hours later. A tentative agreement was signed on April 15, 2009.

Bushton Manufacturing started taking calls and shipping parts after moving Hawk from Garden City Missouri to Bushton Kansas on May 13, 2009 just 29 day later.



#### **HISTORY PREWITT/RBI**

J. R. Prewitt in Pleasant Hill, Missouri founded J. R. Prewitt and Son Machine shop in the mid 1920s. They went on to develop the Belsaw planer in 1929, the first of a product line that they would expand and continue to this day as the Hawk Wood Working Tool line.

J. R. Prewitt and his wife had 14 children, 7 boys and 7 girls, all of whom were active in the company. After J. R. Prewitt's death in 1951, the control of the company passed to his youngest son, Ralph, who managed the company for the next 20 years until its sale to Verle L. Rice in 1972.

By 1976 Rice had reincorporated it as R. B. Industries. Two years later, R. B. Industries had developed their own thickness planer to be marketed under the R. B. I. name. In the early 1980s R. B. I. released a series of scroll saws including the Falcon, Eagle, Condor, and Hawk. The Hawk proved to be biggest seller, prompting R. B. I. to rename their saws as the Hawk product line, and in time, the rest of their products were renamed as HAWK products. In 1984 the growing company was moved to Harrisonville, Missouri.

Upon the death of Verle L. Rice, the family sold R. B. Industries to an investment company, in 2007, which renamed it Hawk Wood Working Industries and began the move to outside Garden City, Missouri. However, the company never completed the move, and the decision was made to close the doors on March  $2^{\rm nd}$ , 2009, and an auction was scheduled for April  $16^{\rm th}$ , 2009.



We can cut what ever you want. If it is intarsia, fret work, puzzles, toys etc. In the material you wish use.

> Our saws will cut almost anything from soft to hard woods; manufactured type woods such as plywood, veneer, mdf, partial board, melamine; other organic fiber materials such as paper; plastics of all kinds; organic material such as horns, antlers and bones: glass and ceramic tile; soft to hard stone; soft metals precious or non-precious such as aluminum, copper brass, silver, and gold.





**BM-20** 

\$1150

SHOWN WITH

**BENCH LEGS** 

#### **SPECIFICATIONS**

Throat Capacity Maximum Cutting Thickness 2 5/8" Cutting Strokes per Minute Work Table

**Cutting Table Height** 

Standard Legs Standard legs w/exten Chair legs

Bench Legs Distance between chair legs Maximum forward tilt

(extension on back legs only) Table Over Hange

Motor Mounting Weight

Floor Space Requirements Manufacturer's Warranty **Shipping Dimensions** 

Box # 1

Box # 2 Chair Legs

Box # 2 Standard Legs Box # 2 Bench Legs

BM-20 20" 30-1750 13 ½" 39" 43-1.2"

31 to 38" 13"

\$1470 WITH CHAIR LEGS

\$1350 WITH BENCH LEGS

27-1/4" minimum 15 Degrees

DC TENV 10 Gauge Steel Legs 93 Pounds

19-1/2" by 33" 1 Year all parts and labor

39" x 21" x 20" 96# 7" x 7" x 37" 30# 7" x 7" x 37"

26" 2 5/8" 30-1750 13 ½" 39" 43-1/2"

BM-26

31 to 38" 13" 27-1/4" minimum

12 Degrees

DC TENV 10 Gauge Steel Legs 97 Pounds 19 ½" x 39" 1 Year all parts and labor

39" x 21" x 20" 103# 7" x 7" x 37" 30#

PLANER KNIVES price per each 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 Urethane feed rollers.



#### **HDPE GUIDE BOARDS**

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

Xxx-xxxx	Guide Board	for 820 Planer		\$
Xxx-xxxx	Guide Board	and Rail Kit for	820 Planer	\$
Xxx-xxxx	Guide Board	for 615 Planer		\$
Xxx-xxxx	Guide Board	and Rail Kit for	615 Planer	\$
Xxx-xxxx	Guide Rail K	it only		\$



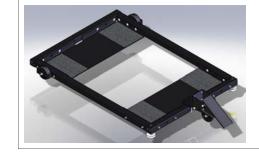
#### **HEADS**

CALL FOR HEAD PRICING PLANER, SPIRAL PLANER, GANG SAW, **MOLDING, SANDING** 



#### **MOBILE BASE**

910-2500 \$250





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, 82	20)
		\$39.95
645-0410	Saw Blade Hub Ser for 1" Shaft	

Planers (408, 812)





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 220 grit 801-2220 Velcro 2"X75' ROLL 801-2000 \$100.00 per roll \$1.80 per Foot

\$55.00

#### **PLANER**

Now you can have the satisfaction of knowing you have done everything you can from start to finish to make each of your woodworking projects their very best. Use the HAWK Multi-Function 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 then 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 or 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 Multi-Function 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 ½" square micro-carbide inserts it is your choice.

Picture of spiral head

#### **GANG SAW**

32

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 you 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.

#### **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 Multi-Function Planer is the right tool for the job. We have over 450 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 you will have the molding or your choice. You will no longer be limited to what your local lumber yard stocks.

Picture of molding head

#### **MOLDING KNIVES**

With the HAWK Multi-Function 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 standard molding knifes.

- 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, gibs and balances are separately
- Knife orders take about 1 week after they are paid for.

#### **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.

Picture of sanding head

Picture of changing paper

#### SPECIAL FUNCTIONS

GLASS EPOXY PLASTIC

#### **FEATURES**

Long 7/8" Blade Stroke for faster, cleaner cuts that need little or no sanding.



Large Cast Aluminum Table (13 1/2" diameter) provides a large work area in front of the centrally located blade for better control and more support of Rear Cam Over for quick release vour work.

Work Table Tilts a full 45 degrees both left and right.



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

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

Use Any 5" Pinless Blade to make clean, polished cuts that need little to no sanding. We stock many types of blades from multiple manufactures to insure we have a blade that fit 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), nonferrous metals, horn, antler, and much more.



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.

Quick Change Blade Holders. Both the bottom and top blade holders clip into place. This allows you to have either blade holder preloaded for quick blade type change out.

Machined and Casted Parts for quality to last a lifetime.

#### 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.



THESE IMPROVEMENTS ALLOW US TO INCREASE THE **STROKES PER MINUTE BY 100 TO 1750** 

Motor Bearing Block is integrated into a custom motor. Counter Weight is used, not just

a flywheel.



or Bottom Feed. Which lets you choose the way you prefer to insert the blade for your fret work.

and precise setting of blade tension. More accurate than plucking the blade and turning a knob.

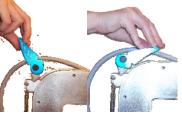


Table-Forward Design is comfortable to sit at with a shop stool.



Adjustable Nose allows you to tilt the blade slightly for more aggressive cutting.

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





Flex Bellows and Locline keeps the cutting area clear for greater visibility and safety.

Totally Enclosed DC motor gives you complete control of the speed thru out 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.

**Engineered** to run quiet and limit vibration. Made in the United States of America.



Adjustable Nose on lower arm. Like the G4 and the JuniorHAWK the tilt of the blade is infinitely adjustable not a 2 position slots for the lower blade holder like on the ULTRAs.





#### **ACCESSORIES**



965-0950 Chair Leg Kit \$195.00 865-2210 36" Articulated Mag Light \$69.96 865-2211 Bulb for Mag Light

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



965-1910 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 pair on back legs of the saw.



865-0803 6 pack blade tubes \$7.75



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



865-0100 Foot Switch \$24.95



965-0245 Accessory Table \$34.95

865-0804 Blade Tubes for Acc. Tray \$1.49

# MINI DRILL DRILL BITS



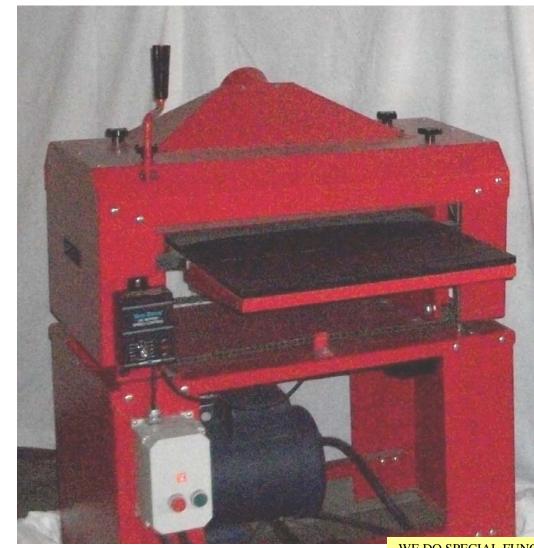
866-0000 \$7.50

JOBBER LE	NGTH		
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		T	
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

# **MultiFUNCTION**



#### **WOOD PLANER**



#### **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 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 applications with a single belt.

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

MAGNETIC SAFTY 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.

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

PRICING	820
Single Function*	\$ 3195
Two Functions*	\$ 3595
Three Functions*	\$ 3995
Four Functions*	\$ 4395

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

820 (900-0820)

20 1/8"

5/16"

10"

3/16" to 8"

180 V DC

240 V

1750

4350

2700

1 7/8" Urethane

0 to 25 ft per min

3 (\$100 deduction)

7.5 (\$100 Addition)

**SPECIFICATIONS** 

Maximum Width

Feed Rollers

Feed Gear Motor

Motor Voltage

Hp Optional (3 ph)

**Cutting Head RPM** 

Sanding Head RPM

Shipping Weight

**RPM** 

Stock Thickness Range

Maximum Depth of Cut

Minimum Stock Length

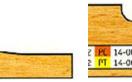
Feed Rate (variable speed)

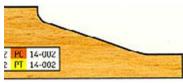
Phase standard Phase optional

Horsepower

#### 3/4" Raised Panel Cut-



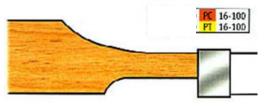




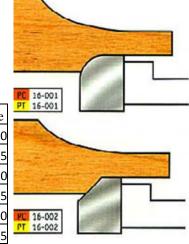
PC 14-003 PT 14-003
PC 14-004 PT 14-004
PC 14-005 PT 14-005
PC 14-006 PT 14-006
PC 14-007 PT 14-007
PC 14-008 PT 14-008
PC 14-009 PT 14-009

Item #	Freeborn	Cutter Type	Material	Price
81014-001 C	PC-14-001	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-001 T	PT-14-001	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-002 C	PC-14-002	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-002 T	PT-14-002	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-003 C	PC-14-003	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-003 T	PT-14-003	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-004 C	PC-14-004	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-004 T	PT-14-004	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-005 C	PC-14-005	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-005 T	PT-14-005	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-006 C	PC-14-006	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-006 T	PT-14-006	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-007 C	PC-14-007	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-007 T	PT-14-007	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-008 C	PC-14-008	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-008 T	PT-14-008	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-009 C	PC-14-009	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-009 T	PT-14-009	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-010 C	PC-14-010	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-010 T	PT-14-010	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-011 C	PC-14-011	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-011 T	PT-14-011	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-012 C	PC-14-012	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-012 T	PT-14-012	3/4" THICK RAISED PANEL	TANTUNG	\$300.20
81014-013 C	PC-14-013	3/4" THICK RAISED PANEL	CARBIDE	\$272.65
81014-013 T	PT-14-013	3/4" THICK RAISED PANEL	TANTUNG	\$300.20

#### **Back and Trim Cut-**

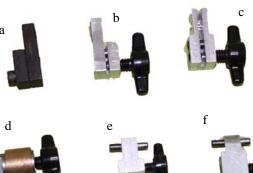


Item #	Freeborn	Cutter Type	Material	Price
810 16-001C	PC-16-001	BACK CUTTER FOR RAISED PANNEL	CARBIDE	\$199.50
810 16-001T	PT-16-001	BACK CUTTER FOR RAISED PANNEL	TANTUNG	\$219.45
810 16-002C	PC-16-002	BACK CUTTER FOR RAISED PANNEL	CARBIDE	\$199.50
810 16-002T	PT-16-002	BACK CUTTER FOR RAISED PANNEL	TANTUNG	\$219.45
810 16-100C	PC-16-100	EDGE TRIM CUTTER	CARBIDE	\$199.50
810 16-100T	PT-16-100	EDGE TRIM CUTTER	TANTUNG	\$219.45

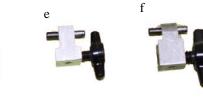


## PARTS SCROLL SAWS

#### **BLADE HOLDERS**

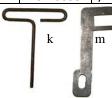








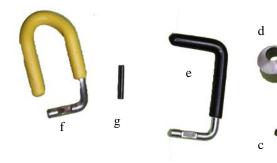
#### Upper old style 2 piece 615-0045 \$19.95 b 615-0182 Upper old style 1 piece thumb screw \$19.95 615-1182 Upper ULTRA \$19.95 615-1182A Upper ULTRA Style blade holder for use with 705-0153 blade holder bracket \$19.95 615-0187 Lower Barrel type with bushing \$19.95 615-1231 Lower ULTRA \$19.95 955-0003 Replaced by 955-1010 955-1010 G4 upper & lower \$19.95 715-0221 1/4-20 T-Knob \$1.95 715-0257A #10-32 T-Knob \$1.95 715-0112 Bronze Bushing for Barrel Type \$2.95 705-0086 9/64 T-Handle Allen Wrench \$4.00 715-0137 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

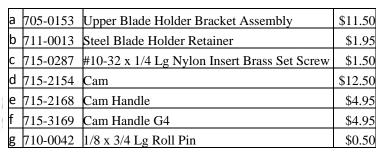


#### UPPER BLADE HOLDER BRACKET

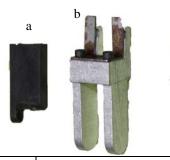
All saws with front cam tension release will now use upper blade holder bracket 715-0153. To use this bracket all cams must be replaced with 715-2154. Upper blade holder 615-1182A is for use with this new bracket except on the G4 and JuniorHAWK saws which use upper blade holder 955-1010.

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





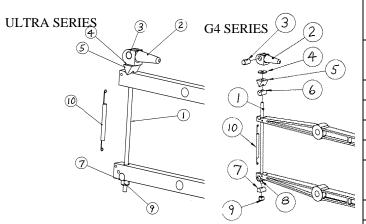
#### LOWER BLADE HOLDER BRACKET





item	part #	discription	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 Ass'y	use to replace 705-0005 and 705-0015 on G4 saws	\$15.95
			for use with 615-0187 barrel style lower blade hold-	
e	715-2139	Blade Holder Clip Barrel Type	ers	\$1.95
f	715-0099	Blade Holder Clip ULTRA	for use with 615-1187 style lower blade holders	\$1.35

#### **TENSION ROD PARTS**



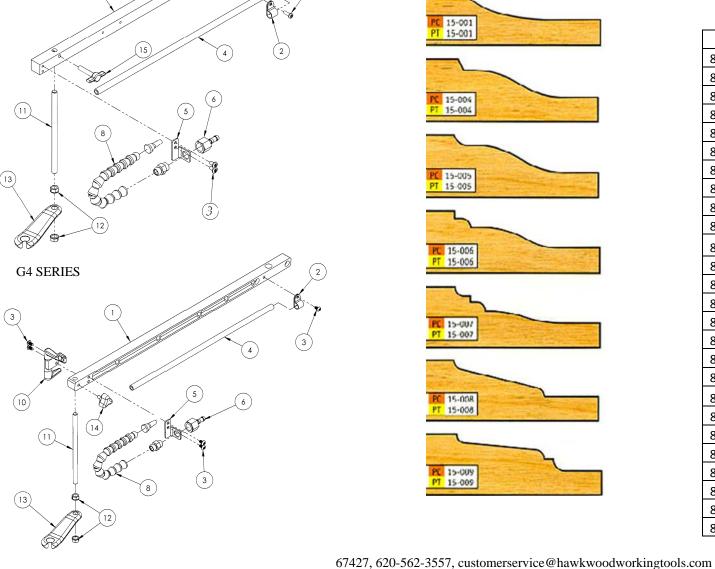
	1	715-1272	Tension Rod 9-5/8"	\$3.50
		715-0240	Tension Rod 8-1/2"	\$3.50
		715-0272	Replace with 715-1272	
	2	615-1074	Replace with 705-0024	
		705-0024	Cam Rear Tension	\$11.00
	3	715-0077	Round Pivot for Rear Cam Handle	\$6.42
	4	715-0103	Nylon Washer	\$1.00
/ III	5	715-0075	Wedge Pivot	\$7.75
JII.	6	605-0039	Wedge Pivot Adapter	\$4.95
	7	715-0216	Round Pivot Bottom	\$4.95
1 /L JI		705-0038	Round Pivot Bottom	\$4.95
111	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

**ULTRA SERIES** 

#### **ACCESSORY ARM**



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 Up Grade Kit	\$19.95



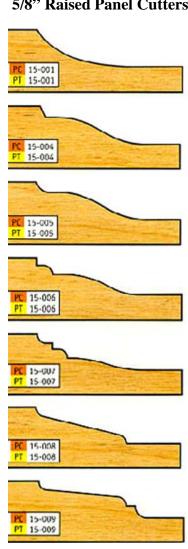
#### **Double Sided Cope** and Pattern Sets 1/4" x 5/8" 1/4" x 5/8" 1/2" x 5/8" 1/4" × 5/8" PL 11-040 PT 11-040 PC 11-060 PT 11-060 Material Price

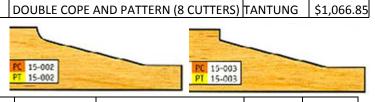
Constant of		Item#	Freeborn	Cutter Set Type	Material
		810 11-010C	PC-11-010	DOUBLE COPE AND PATTERN (8 CUTTERS)	CARBIDE
1/4" x 5/8"	1/2" × 5/8"	810 11-010T	PT-11-010	DOUBLE COPE AND PATTERN (8 CUTTERS)	TANTUNG
	950	810 11-020C	PC-11-020	DOUBLE COPE AND PATTERN (8 CUTTERS)	CARBIDE
	010	810 11-020T	PT-11-020	DOUBLE COPE AND PATTERN (8 CUTTERS)	TANTUNG
		810 11-030C	PC-11-030	DOUBLE COPE AND PATTERN (8 CUTTERS)	CARBIDE
		810 11-030T	PT-11-030	DOUBLE COPE AND PATTERN (8 CUTTERS)	TANTUNG

810 11-040C PC-11-040

810 11-040T PT-11-040

#### 5/8" Raised Panel Cutters





DOUBLE COPE AND PATTERN (8 CUTTERS) CARBIDE

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

\$969.95

\$1,066.85

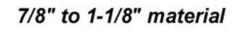
\$1,066.85

\$1,066.85

\$969.95

\$969.95

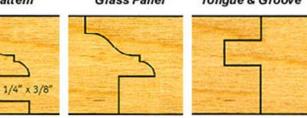
\$969.95





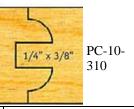


Tongue & Groove

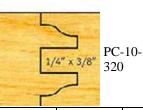


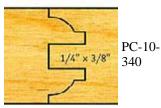
iItem#	Freeborn	Cutter Set Type	Material	Price
810 10-145C	PC-10-145	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$ 561.45
810 10-145T	PT-10-145	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$ 642.20

1" to 1-1/4" material



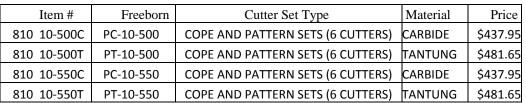
PC 10-145 PT 10-145

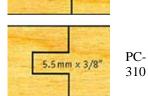




Item#	Freeborn	Cutter Set Type	Material	Price
81010-310 C	PC-10-310	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$608.95
81010-310 T	PT-10-310	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$694.45
81010-320 C	PC-10-320	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$608.95
81010-320 T	PT-10-320	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$694.45
81010-340 C	PC-10-340	COPE AND PATTERN SETS (6 CUTTERS)	CARBIDE	\$608.95
81010-340 T	PT-10-340	COPE AND PATTERN SETS (6 CUTTERS)	TANTUNG	\$694.45

#### 3/4" to 1-1/8" material



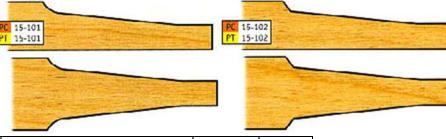


1/4" x 3/8"

PC-10-310

PC-10-

#### 1/2" Raised Panel Cutter



Item#	Freeborn	Cutter Type	Material	Price
81015-101 C	PC-15-101	1/2" THICK RAISED PANEL	CARBIDE	\$272.65
81015-101 T	PT-15-101	1/2" THICK RAISED PANEL	TANTUNG	\$300.20
81015-102 C	PC-15-102	1/2" THICK RAISED PANEL	CARBIDE	\$272.65
81015-102 T	PT-15-102	1/2" THICK RAISED PANEL	TANTUNG	\$300.20

#### **INSERT RAISED PANEL CUTTER HOLDERS**

Insert tool holders to allow you to design you own custom raised panel are available. Call to request pricing with your custom design.

#### **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 motor, 4 different controller and 3 different connection methods that we 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 int	_
	bearing block, which allows for the use of a c	ounter
	weight not just a flywheel. This motor is desi	ign to be
	a replacement for the ULTRA and G4 series s	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

#### **BEARINGS**



735-0007	Bearing ½ Pitman & some per 1990 Saw Arms	\$11.50
735-0008	Bearing 3/8 Pitman	\$4.95
715-0208	Bearing ½ Thrust Washer Type	\$6.95
715-1208	Bearing ½ Thrust	\$4.95
715-0264	Bushing ½ ID 5/8 OD x .730 LG	\$2.95
740-0369	Bushing ½ Flanged	\$2.50
705-0029	Bearing Polymer ½ ID x 1	\$2.95
715-0262	Bearing Carrier Ultra/G4 Models	\$10.50
735-0009	Bearing 1/2 for many Motors	\$17.50
735-0009	Bearing 1/2 for many Motors	\$17.5

#### **OTHER PARTS**



Our parts list is far to large to ever mention in this catalog.

Let us know what part you need.



#### **BELTS**

705-0073 Belt for –3 models and high speed belt for 2 speed models 705-0072 Belt for lower speed on 2 speed models

745-0059 Belt for 226M

\$18.32

28

\$27.50

#### PATTERNS AND BOOKS



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 Por-	
	traits \$12.95	
870-0302	Scroll Saw Civil War Por-	
	traits \$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	Zanny Wooden Toys that	
	•	

#### **CHEMICALS**



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 Lub	e
		\$15.99

865-0072	Top-Saver	\$15.99 \$19.95
865-0071 865-0073	Dry tool Spray Lube Clearco 600 Adhesive	\$19.95
865-0074	Blade Lube Stick	\$10.95 \$ 5.90

#### **BALTIC BIRCH PLYWOOD**

\$ .44

865-0065 Loctite tube



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

#### **ABRASIVE CORD AND TAPE**

Whiz, Spin, Pop and Fly

Scroll Saw Castles

870-1100 HAWK Scroll Saw Patterns

870-1101 HAWK 26 Artisan Quality

Projects CD

870-1102 HAWK Mini-cutouts CD

\$19.95

\$19.95

\$12.95

\$19.95

\$10.95

\$29.95

\$15.95



10

870-0800 Wooden Bowls

870-1000 Intarsia for Beginners

870-0900

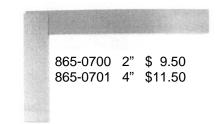
Item#	Description	Price
866-7950	Abrasive Cord .070 x 12' Fine Grit	\$ 5.95
866-7951	Abrasive Cord .070 x 50' Fine Grit	\$ 24.95
866-7952	Abrasive Cord .055 x 12' Med Grit	\$ 5.95
866-7953	Abrasive Cord .055 x 50' Med Grit	\$ 14.95
866-7954	Abrasive Tape 3/32 x 12' Med Grit	\$ 5.95
866-7955	Abrasive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

#### **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 as large as 20 meg and
some e-mails accounts cannot accept that
large of an e-mail. We are sending out
manuals in this way so that you receive the
correct manual for your equipment.

#### **ENGINEERS SQUARE**



# SCROLL SAW BLADES FOR EVERY NEED

Not all scroll saw blades are the same. The differences include the hardness of the metal it is cut from; the method of cutting the tooth; the geometry of the tooth and others. Each of these affects how the blade cuts in different material.

The speed at which the blade moves and the rate you feed the material you are cutting also makes a difference. That is why all of our scroll saws are variable speed.

To ensure that you can cut what every material you want, we stock a large selection of scroll saw blades from 4 different sources.

The blades are listed in the chart in the centerfold of this catalog

Which blade and what cutting speeds work for you on a given material will be up to you to decide. But here is our list and some starting point recommendation on blade uses.

866-4000 Variety pack which includes one dozen each of 866-7002, 866-7005, 866-7012, 866-7107, 866-7209, 866-6025, 866-6143 and 866-5407 each in our rectangular blade tubes. For: \$27.00

#### FREEBORN CUTTERS AND SETS

Glass Panel

3/4" to 1"

Cope & Pattern

3/4" to 1-1/8"

PT 10-010

PC 10-015 PT 10-015

PC 10-020 PI 10-020

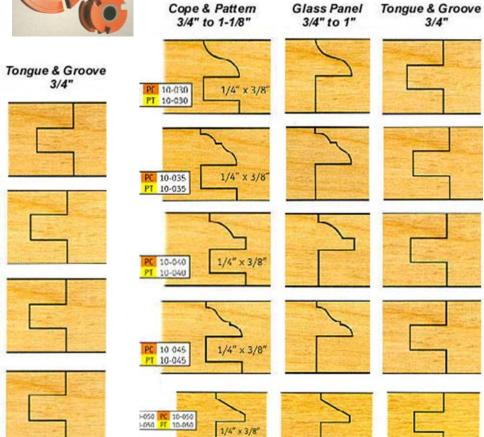
> PC 10-025 PT 10-025

1/4" x 3/8

1/4" x 3/8"



3/4" to 1-1/8" material



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

#### CREATE RAISED PANEL DOORS IN LESS THAN 2 MINUTES

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 III when making custom cabinets.

- Cut a complete raised panel door, (stiles, rails, and raised center panel) in less than 2 minutes. All three cutters are on the machine at the same time.
- Make custom straight panel fast and easy, or make raise arched panels fast in a variety of styles with our crown rail jig or template sets (optional).
- 3 precision cutter heads cut raised panel and makes all rail and stile cuts without changing cutters.
- Compact design requires only 6 square feet of floor space.
- Replace your old cabinets at a fraction of the cost of custom cabinets.

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.

#### **PanelMASTER III ACCESSORIES**

Crown rail jig and templates.

Make arched panel doors easily and quickly 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.

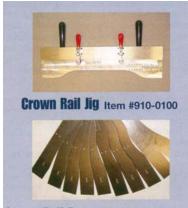
produce perfect results every time.				
910-0100	Crown Rail Jig	\$350.00		
910-0200	Crown Rail Template Set	\$199.00		
690-0146	Stile Jig	\$199.00		

# MOBILE BASE

26

910-2500 Mobile Base \$250.00





SPACE BALLS

#### **RUB BEARINGS**

wn	<b>Rail Patterns</b>	Item #910-0200	810-0190 810-0191	3" Rub Bearing 3.25" Rub Bearing	\$61.00 \$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.
\$695	
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, PM3	\$89.95



#### THE AFFORDABLE SOLUTION TO VERSATILE WOODWORKING

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. 940-0050

DUST COLLECTOR, FENCE SLIDING MITER GAUGE, STOPS. FEATHER BOARDS, PUSH STICKS, DEPTH GAUGE, FREE HAND PINS ALL INCLUDED FOR ONE PRICE OF

\$800

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 pass resetting the table between pass-
- 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 need to prevent blowouts. The dove tail 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.
- DUST COLLECTOR ATTACHMENT connects to a standard shop vacuum.
- SHELF BRACKETS the RouterSHOP has brackets for two shelf under it (you supply the shelf boards).
- NOW USING PRECISION HINGES
- MADE IN THE USA

#### THE FIVE ADVANTAGES OF THE ROUTERSHOP

USING THE ROUTER SHOP 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 seven most used joints in furniture and cabinet making. Rail, Stile, Raised Panel, Mortises, Tenons, and Tongue and Groove.

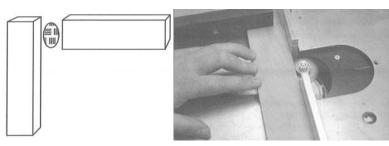
RUN YOUR ROUTER BIT AT ITS OPTIMAL POSITION.

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 flatly on the table while the cutter changes position.

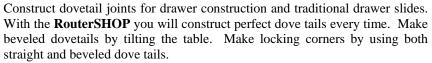
#### KEY WOODWORKING FUCTIONS OF THE RouterSHOP

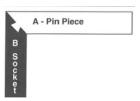


#### DOWEL/BISCUIT

By using the RouterSHOP as a boring machine with the table at 90 degrees 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 dowe.ing.

#### **DOVE TAILING**



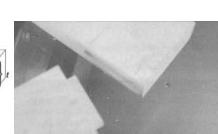






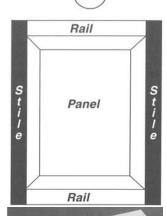
#### **EDGE JOINTING**

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

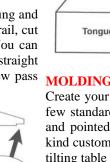
The mortise and tenon, one of the most attractive and strongest joints for case construction. Put an end to tedious frame sanding, you will get perfectly matched joints every time. Setting your cutter in the horizontal position makes these cuts nearly foolproof.



#### RAISED PANEL DOOR MAKING

all three parts of a door, the rail, the stile and the joint is similar to making a mortise and tenon joint. 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 tung and groove, cut the molding shape un the style and rail, cut the end of the rail and cut the raised panel. You can make all these cuts in several passes with just a straight bit or you can buy special cutters to do it in few pass MOLDING but send more on bits.



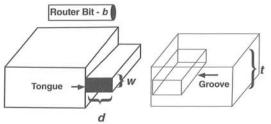
#### RAISED PANEL

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.



#### **TUNG AND GROVE**

The **RouterSHOP** gives you a foolproof way to create The tung and groove joint is easy to make . This



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 by expensive shaped router bits.









Your choice of cutters. rub collars for that set of cutters. and crown rail jig along with the templates for the jig.



#### **FEATURES**

HIGH SPEED BEARINGS are selfaligning for years of trouble free service.

PRECISION MACHINED ALUMI-NUM FENCES AND TABLE for extremely accurate shaping.

TABLE TILTS yields reduced time to change blades.

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

SAFETY JIG AND FENCE CON-STRUCTION for maximum operator safety even for the inexperienced.

ENCLOSED DRIVES and fully guarded cutters for maximum safety.

MANUAL FEED lets you operate at your

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 SAFTY 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.

#### **SPECIFICATIONS**

Overall Width	22 1/4"	Feed Type	Manual
Overal Length	31 1/2"	Motor Horse Power	5 Hp
Overal 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	
Cutting Speed	6800 rpm	Shipping Weight	

#### THE REPEATABILITY ADVANTAGE



The spilt 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 for 0 to 90 degrees



It is easy to keep track and record your cutter position with the cross feed scale and the position of cross feed screw.



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.
- The cross feed number.
- The cross feed screw crank position.

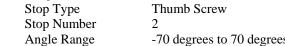
Record this information along with the router bit used and the wood thickness and you can reset and repeat the cut over and over when ever you need to.

#### **SPECIFICATIONS**

Fence

Sliding Miter

Height	40"
Width	28"
Length	34"
Weight	96#
Dimensions	38 x 29 x 7
Overall	20 ¼" by 30 ½"
Stationary	11" by 30 ½"
Tilt	8 ¾" by 30 ½"
	0 degrees to 90 degrees
	Magnetic Stainless Steel
	Width Length Weight Dimensions Overall Stationary



30 1/2"

24" Travel Length Stop Type Thumb Screw

Stop Number

Any 2 Hp or Larger Router Type Router Slider Travel Length

Length

Scale Reading 1/16"

Crank 1/16" per Turn 12 Marks per Turn.

Construction 14 Gauge Steel Stand Shelf Number

Feather Boards Number

Sliding Thumb Screw Mount Type

Magnetic Mount Optional

Push Stick 11" 3" by 6" Push Block

1" **Dust Collection** Hose Size Hose Connection Size 2"

> Any Canister Vacuum Vacuum Rec.

Router Bit Gauge Depth Range 1/8" to 1" 1/16 Increment Lubrication

Dri-Tool Lub Slides Dri-Tool Lub Hinges

Bit Router Bit Lub Top-Saver or T-9

#### **INCLUDES**

**Table Maintenance** 

10DE0		
Free Hand Pins	Miter Gauge	Miter Stop
<b>Dust Collection System</b>	Feather Boards	Push Stick
Push Block	Assembly Manual	
Operators Manual	Router Bit Gauge	



#### **ACCESSORIES**

BL.	765-0510	Carriage Plate	\$35	0.0
	765-2505	Zero Clearance	Insert smal	1
			\$ 7	7.9

765-2500 Zero Clearance Insert large \$14.95

940-9551 Caster Kit \$45.00



365-0122 Router Speed Controller

\$39.00



965-0057 Miter Gauge & Glide Track \$79.00



Xxx-xxxx fence stops Xxx-xxxx miter stops 765-0215 Feather Board \$9.95



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

SPACE BALLS



\$7.50



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. The JointABILITY 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 JointABIL-

ITY gives you the expertise to create perfect fitting 90 degree matched edges using your router.

#### **FEATURES**

#### EASY GRIP CLAMPING MECHA-**NISM**

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. Your work piece clamped in place, you move a router not try to hold a long board on a jointer or table saw.

#### AFFORDABLE/COSTSLESS

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 # pounds for the JA36, 37 pounds for the JA60 and 68 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, it takes less than one square foot of space.

#### **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.

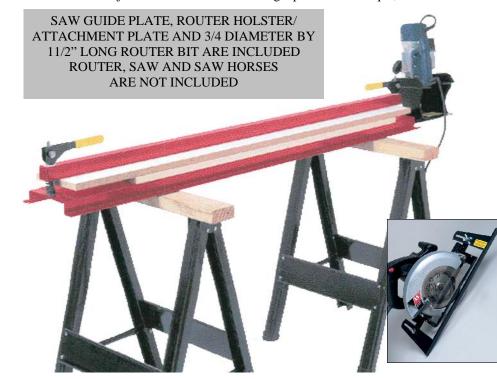
#### **DOUBLE LAMINATED MELAMINE**

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

Save space. You only need 9 foot of length not the 16 plus 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.

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

Portable with the light weight you can take it to the job site easily no need for help or a forklift to place it in and out of you truck.

JA36	JA60	JA96
36"	60"	96"
NONE	none	none
2"	2"	2"
none	none	none
infinite	infinite	infinite
2"	2"	2"
	lbs	68 lbs
39 1/4"	63 ¼"	99 1/4"
48 1/4"	72 1/4"	108 ¼"
	36" NONE 2" none infinite 2" 39 1/4"	36" 60"  NONE none 2" 2"  none none infinite infinite 2" 2"  lbs 39 1/4" 63 1/4"



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 yield a clamp for your highest clamping force needs.

Item#	Description	Price
950-2002	2 Foot Long Strut Bar Clamp	\$25.00
950-2004	4 Foot Long Strut Bar Clamp	\$30.00
950-2006	6 Foot Long Strut Bar Clamp	\$35.00

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 a 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.





# Vertical GLAMP by Bushton Manufacturing • Bushton, KS 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.



1. Load and glue up work piece.

2. Tighten clamps.

3. Flip stop to vertical position.

4. Let the panel dry.

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

#### **CONTAINS**

2) 2 by 4 by 4' Long
1) 1 by 10 by 4' Long
4) % Pipe with Ends Welded
4) Hangers
1) Hanger Rail
2) Shelf Hinges

1) Bag of hardware

#### **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**

950-0202Clamp/T-Pipe/Hanger\$26.50950-0204Rail/Hanger/Flip Shelf Hinge\$45.00

For if you have your own clamps.

Does not contain boards or mounting screws.

#### COMPARE PRICE AND ADVANTAGES

Lowes price for a 4' 3/4 black nipple is \$12.38, and a 3/4" pipe clamp is \$14.98 which yields a of \$122.12 for 4 clamps. Our system cost less, hangs on the wall, and is zinc plated pipes not black which will rust or galvanized which will slip when you are clamping.

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

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



JointABILITY make a cut on each side.

# A fin

And nave a finished board

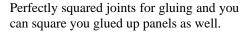


# USES OF THE HAWK JointABILITY



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

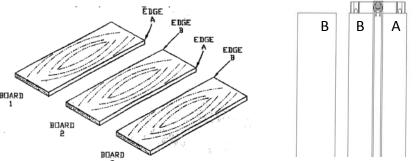
Use you circular saw with the **JointABILITY** to cut sheet to the desired size or to give a first cut on uncut edges of lumber before giving it a finish cut with your router.



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.

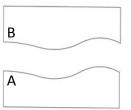


THE KEY ADVANTAGE is that the JointABILITY is a matching edge jointer. That is you label the edges and the JointABILITY so the 2 sides of the joint are cut on the opposite sides of the JointABILITY. Therefore, even is there is any curvature of the joint it will match. We start with high grade steel tubing and then straighten it and finally clamp it in a fixture to holder 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 by using the opposite side of the JointABILITY will give matching curves to you edges to glue 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 matching 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.



#### MAKES PERFECT JOINTS EVERY TIME.

Even Dado and Rabbet Joints.

For use with many solid materials like:

Hardwoods Softwoods

Plywood Particleboard Orientated

board
Veneers of all kinds

strand

Laminates
Plastics

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

950-0003 ROUTER

\$59.95

HOLSTER and

ATTACHMENT

#### **ACCESSORIES**

We stock a variety of router bits, spiral, straight, tongue and grove 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

#### ROUTER HOLSTER.

blade

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 do not have to worry about the bit being damaged.

#### 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.

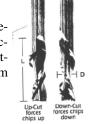


#### **ROUTER BITS**

We stock a variety of American Made router bits. With the RouterSHOP you only need standard shaped bits to create intricate patterns. Custom router bit holders and inserts are available.

#### SOLID CARBIDE SPIRAL BITS

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

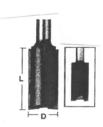


Hawk #	Description	Price
841-0002U	1/4 Dia, 3/4 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Upcut	\$17.05
841-0002D	1/4 Dia, 3/4 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Downcut	\$17.05
841-0003U	1/4 Dia, 1 Lg, 1/4 Shank, 2 1/2 OAL, 2 Flute, Spiral Upcut	\$18.00
841-0003D	1/4 Dia, 1 Lg, 1/4 Shank, 2 1/2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

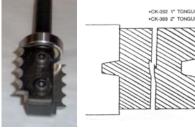
Hawk #	Description	Price
841-0040	1/2 Dia, 1 Lg, 1/2 Shank, 2 1/2 OAL, 2 Flute, Straight Plung Cut	\$16.45
841-0041	1/2 Dia, 1 1/2 Lg, 1/2 Shank, 3 1/8 OAL, 2 Flute, Straight Plung Cut	\$17.05
841-0042	1/2 Dia, 2 Lg, 1/2 Shank, 3 1/2 OAL, 2 Flute, Straight Plung Cut	\$19.90
841-0043	1/2 Dia, 2 1/2 Lg, 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

#### PLUNGE CUTTING STRAIGHT BITS

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

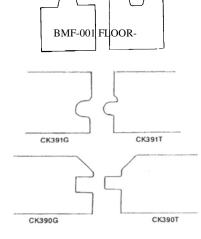


# STANDARD INSERT ROUTER BIT KNIVES



904-0200 Custom Router Bit Holder 2 Screw \$50.00 904-0201 Custom Router Bit Holder 3 Screw \$60.00

\$60.00 735-0007 1/2" Rub Bearing \$11.50



Tongue and Groove #	Item#	Price	per Set	Use Holder
CK-389 2" TONGUE	841-9100T	\$	50.00	841-9001
CK-389 2" GROOVE	841-9100G	\$	50.00	841-9001
CK-390 1" TONGUE	841-9101T	\$	40.00	841-9000
CK-390 1" GROOVE	841-9101G	\$	40.00	841-9000
CK-391 1" TONGUE	841-9102T	\$	40.00	841-9000
CK-391 1" GROOVE	841-9102G	\$	40.00	841-9000
CK-392 1" TONGUE	841-9103T	\$	40.00	841-9000
CK-392 1" GROOVE	841-9103G	\$	40.00	841-9000
BMF-001 FLOORING T	841-9104T	\$	40.00	841-9000
BMF-001 FLOORING G	841-9104G	ς	40.00	841-9000

#### MINI-STYLE AND RAIL BITS

Item#	Description	Price
841-0250	1/2 Shank, Roman Ogee Mini 2 piece Stile and Rail Set	\$123.45
841-0251	1/2 Shank, Round Mini 2 piece Stile and Rail Set	\$123.45



#### DOVE TAIL BITS

16

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
T	841-0104	1/2 Dia, 8 Degree, 13/16 Lg, 1/4 Shank, 2 3/4 OAL, 2 Flute, Dove Tail	\$18.95
1	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

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



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



#### FOR INTARSIA

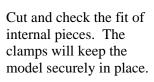
We will use the 'The Good Life' pattern by Homer Bishop. Start with a copy of the

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.









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.



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 reclamped 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.



Use weight bag to help keep the picture straight.







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:

base board 24" by 32"

side rail segments

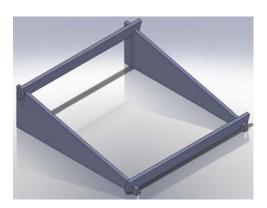
1 center rail segment

10 4" ratchet bar clamp/spreader

4 weight bags

950-0300 INTRODUCTORY PRICE OF \$175

SHIPPING 33" x 24" x 2", weight 28#



#### **ACCESSORIES**

	Inclined Stand	\$55.00
850-0100 750-0103	4" Clamp/Spreader 10" Short Rail	\$4.00 \$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.



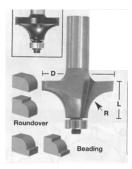
An **Fret Work Octagon Lamp** is held in the **Bish-opCLAMP**. You can see the 8 individual fret work sides being clamped to the top of the octagon star lamp. The finished project is also shown.





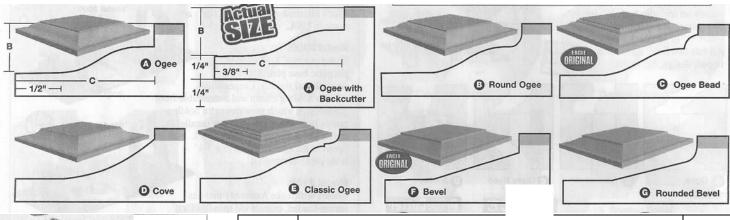
### ROUNDOVER AND BEADING BITS

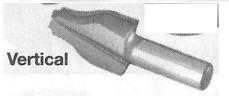
Bits include a 1/2" rub bearing. They are converted to beading bits by replacing the 1/2" bearing with a 3/8" bearing. All bits are 2 flute carbide tipped.



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

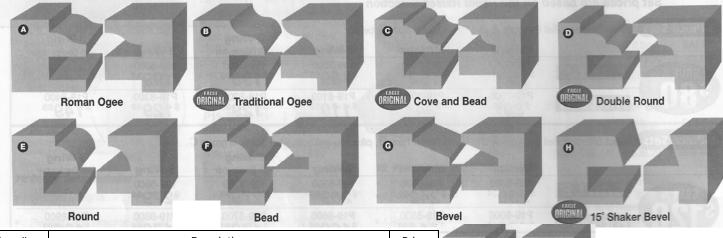
#### VERTICAL RAISED PANEL CARBIDE



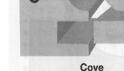


The Manual Control of		
Item #	Description	Price
841-0200	B= 1/2, C=1 1/2, 1/2 Shank, Ogee Style Vertical Raised Panel	\$56.95
841-0201	B= 1/2, C=1 1/2, 1/2 Shank, Round Ogee Style Vertical Raised Panel	\$56.95
841-0202	B= 1/2, C=1 1/2, 1/2 Shank, Ogee Bead Style Vertical Raised Panel	\$56.95
841-0203	B= 1/2, C=1 1/2, 1/2 Shank, Cove Style Vertical Raised Panel	\$56.95
841-0204	B= 1/2, C=1 1/2, 1/2 Shank, Bevel Style Vertical Raised Panel	\$56.95
841-0205	B= 1/2, C=1 1/2, 1/2 Shank, Rounded Bevel Style Vertical Raised Panel	\$56.95

#### STYLE AND RAIL BITS



Item #	Description	Price
841-0240	1/2 Shank, Roman Ogee 2 piece Stile and Rail Set	\$104.45
841-0241	1/2 Shank, Traditional Ogee 2 piece Stile and Rail Set	\$104.45
841-0242	1/2 Shank, Cove and Bead 2 piece Stile and Rail Set	\$104.45
841-0243	1/2 Shank, Double Round 2 piece Stile and Rail Set	\$132.95
841-0244	1/2 Shank, Round 2 piece Stile and Rail Set	\$104.45
841-0245	1/2 Shank, Bead 2 piece Stile and Rail Set	\$104.45
841-0246	1/2 Shank, Bevel 2 piece Stile and Rail Set	\$104.45
841-0247	1/2 Shank, 15 Degree Shaker Bevel 2 piece Stile and Rail Set	\$123.45
841-0248	1/2 Shank, Cove 2 piece Style and Rail Set	\$116.80
841-0249	1/2 Shank, Southwestern 2 piece Style and Rail Set	\$116.80



Gives Smooth Finish Gives Splinter-Free Finish Gives Medium Finish	×××××× × ×××××××××××××××××××××××××××××	× × × × × × × × × × × × × × × × × × ×	× × × × × × × × × × × × × × × × × × ×		**
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Homs and Antlers Class Ceramic Tile					
Corian® Plastic Soft and Cultured Stone	000		ж ж ж ж д д д д д д д д д д д д д д д д	N	
Veneer, Wood Up To 3/16" Thick Plywood Paricleboard		R R R R R R R R R R R R R R R R R R R		N	W   C   C   C   C   C   C   C   C   C
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Hardwood 1/2"-3/4" Thick	#10t Hole #71 #68 #71 #89 U #85 R #8	1,18" R 1,18" R 1,132" 1,132" 1,163 1,163 1,16" R 1,116" R	#554" R #63 #63 #63 #63 #75 #75 #75 #75 #75 #76 #76 #76 #76 #76 #76 #76 #76 #76 #76	#68 #63 #63 #63 #63 #64 #68 #65 #65 #67 #71 #68 #68 #67 #71 #68 #63 #63 #63 #63 #63 #63 #63 #63 #64 #65 #65 #65 #65 #65 #65 #66 #66 #67 #10t Hole #68 #66 #66 #67 #10t Hole #68 #68 #68 #69 #69 #69 #69 #69 #69 #69 #69 #69 #69	#77 #76 #77 #76 #77 #76 #77 #76 #77 #77
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IG SCROL	Size 11 2/0 2 5 5 5 9 9 9 12 2/0 2/0 2/0 2/0 5 5 5 5 7 7 7 9 9 9 9 9 9 9 9 9 9 9 9 9	Size   11   2   3   5   5   5   5   5   5   5   5   5	ze z	Size  1  3  5  Size  2/0  2/0  1  3  5  5  5  7  7  7  7  7  8  Size  5  Size  6  Size  8  Si	Size 8:0 6:00 6:00 Size 3 7 7 9 9 9 7 7 9 9 9 8:1ze 6-1/2"
BUSHTON MANUFACTURING SCROLL SAW Olson Blades, Flying Dutchman Blades, Pike & Pegus Blades at Ol SEN Great Reads	Skip-tooth blades are excellent for fast cutting that provide smooth finishes and good chip clearence. #5 and smaller can be used for cutting soft metals less that 1/8" thick.  Reverse tooth blades have skip style teeth and reverse teeth that eliminae underside tearout and provide a smooth slitter-free finish.	Double tooth blades have 2 teeth together followed bya flat space for fast, leaving clean edges in wood and plastic.  Spiral blades saw in all directions with 360 degree cutting capability.  Excellent for 0 degree radius scroll/fret work no need to turn the workpiece. Bevel cut letter and workpiece. Bevel cut letter and add down stroks. Twoway cutting action provides a smooth spilere less finish, and clean edges. When worn, the blade can be turned over for cutting with fresh set of teeth.	for cutting soft metals from thin mild steel to mon ferris metals like aluminim, brass, copper etc.  PGT blades have rator sharpe teeth with widely spaced gillets for cutting stradighter, faster, smoother, more accurately, PGT's minimize burning and provide the ultimate sanding free, spliterless finish with a clean edge. Double tooth style is especially good for cutting hard woods.  Presion milled blades with widely spaced guilets that minimumize burning and provide rapid chip removal. Reverse teeth cit on the upstoke and eliminate underside teamoul. Reverse teeth cit on the upstoke and eliminate sander.  Scroll saw files turn your scroll saw into a power sander.	Top-grade high-speed fretsaw, with reverse teeh. Splinter-free linish on top and bottom surfaces. The dent mark is the top of the blade.  Top-grade high-speed fretsaw, hardend, with reverse teeth. Splitter-free finish top and bottom surfaces.  Top-grade high-speed fretsaw, hardend, with reverse teeth. Splitter-free finish top and bottom surfaces.  Top-grade wood cutting fret saw various plastics.  Top-grade wood cutting fret saw harden steel.  Top-grade wood cutting fret saw harden steel, harden steel, harden steel, the splitter free finish blade has teeth cut on both sides before it is twisted. this yields an easier to control sprial blade for cuting long lasting.  Top qualitity blade for cuting	For cutting very fine work like in precious metals and making puzzels from postage stamps.  These blades are good for applications.  The range of sizes and teeth per inch allows the cutting of intricate patterns as well as rough-cut work. Thicknesses from 1/16 to 2 1/2 "Perform well in wood, plastic, bone and most fibrius materials.  Minimumizes burning, tolerates aggresive feed rates, excels chips extremely fast, leaves smooth finish and cuts paterns ascreasfully on soft and hard wood used successfully on soft and hard wood up to 3" thick. It is also well suited for plastic.
BUSHT(	Peverse Skip Tooth Brades Reverse Skip Tooth Brades	CROWNTOOTH OLSON OLSEN DOUBLE SKIP TOOTH	OLSON Precision Ground Tooth P6T Metal Cutting Blades OLSON OLSON Metal Cutting Blades OLSON AND P6T MACH SPEED Double/Reverse Ship/Reverse	Puzzle Puzzle Silver Penglung	Diamond Diamond ModifiedGeometry Skip Tooth Fig. 1 Main Shades Sales Sal

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