

LEGACY
Ornamental Milling
MAGAZINE

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VOLUME SIX



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*Legacy
Woodworking
Machinery*

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Phantom Engineering, Inc.*



In This Issue . . .

Featured

Woodworkers Frederick Haas (Winter Park, FL) and Jim Neff (Catasauqua, PA) discuss the value of a Legacy in their shops.

Setting the Bed to Level

Tips on understanding the adjustable bed and how to fine tune for an accurately level bed. Also check out the new height adjustment gauge - also works on table saws and router tables.

Creating a Waterwheel Dane Calkins (Springville, UT) tackles a job he would have otherwise turned away - if not for the Legacy.

Creating Custom Moldings and Casings

Use the Linear Milling Table to duplicate an existing molding, or create your own custom moldings.

How To: Learn to Build Picture Frames

Free "How To" video available for referring a friend to Legacy.

Another Case for dynaGlide

Increase the life and efficiency of your power tools with this simple maintenance program.

Gallery

New photos and testimonials of Legacy users.

Send copies of your photos to:

Legacy Woodworking Machinery, 1122 S 900 E., Provo, UT 84606.



Legacy News Training video (DVD or VHS format), AWFS & IWF show schedule, Winter 05 trade show schedule, Marketing Survey, Center Finding Tool, and Maryland's Wye Oak.

Coming

Soon New expandable workstations available from Legacy. Fold out from 24" wide to 77" wide.

Overhead Router Table will change the way you think about routing in your shop.

Legacy Catalog

Features all models and available accessories.



FEATURED WOODWORKER

Legacy Builder:
Frederick Haas
Winter Park, FL

Note: In preparing for my interview with Frederick Haas, I was a little nervous. As far as Legacy machinists go, I have regarded Mr. Haas one of the giants. I mean, the man has been commissioned by such celebrities as Venus and Serena Williams to create pieces with our machine! How exciting is that?

As the interview took place, however, I found Mr. Haas to be very insightful, straightforward and down to earth. He also had many positive things to say about his history with the Legacy Ornamental Mill and our company that I would like to share with our readers, especially those of you who are still trying to decide if the Legacy is the right machine for your woodworking or if you are the right woodworker for our Legacy.

-- Aubree A. Unsicker, writer, Legacy Woodworking Machinery

Aubree: How did you get your start working with wood?

Mr. Haas: *In 1978 I read a Reader's Digest story featuring a spiral staircase in a nun's convent in Santa Fe. This article fascinated me. I have also always worked with my hands with my father. The combination slowly evolved into woodworking.*

Aubree: How did you discover the Legacy Ornamental Mill?

Mr. Haas: *I enjoy challenges. As I progressed in my woodworking, I challenged myself harder and harder. I first saw the machine in a magazine. I had been hired for a job that required rope turnings, and from there it went.*

Aubree: What is your favorite aspect of the Legacy Ornamental Mill?

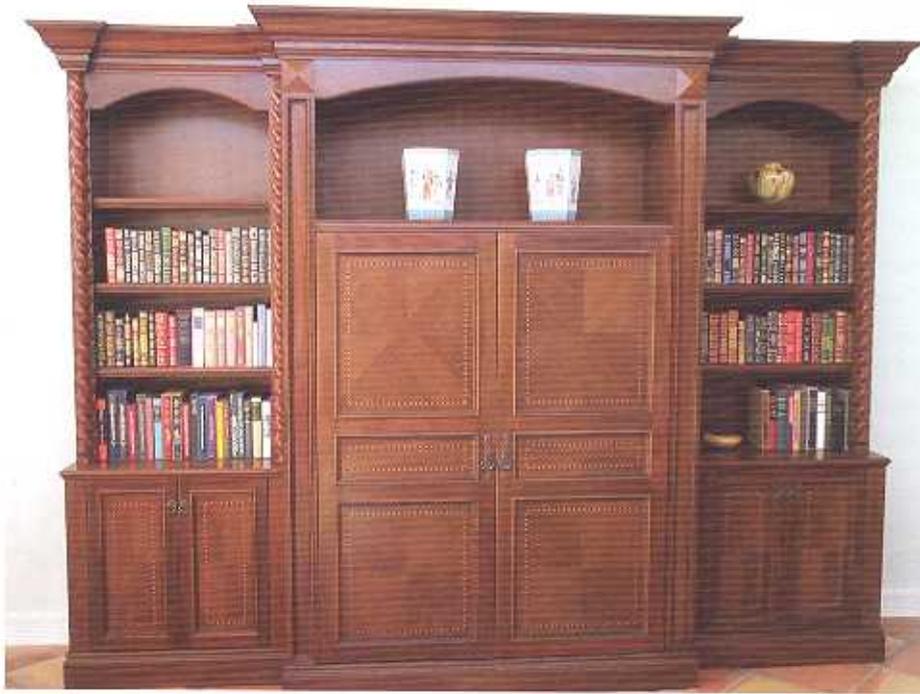
Mr. Haas: *Like I said, I love challenges and with the Legacy, the more I discover I can do with the machine, my work becomes unlimited as far as the things I can achieve. My favorite feature would have to be the logic. The machine has a plain, simple logic to it.*



"With the Legacy, I was able to enhance my business with custom millwork. Once my name got out, the machine paid for itself over and over and over. As far as return on investment, this is one of the best machines I've ever had."



The only limitation is your imagination!



Frederick Haas created 2-start, 3" classical spiral turnings on this stylish piece made of South American walnut. It features a reverse diamond match inlay on the door panels.

"The Legacy becomes a very simple tool to use once you understand the fundamentals. And it really puts you a cut above a lot of other people out there. Actually, I am really surprised more people aren't buying a Legacy Mill. There is a lot of money to be made with that machine and I'm making it!"

Aubree: Can you tell me a little about a favorite project you have created with the Legacy Ornamental Mill?

Mr. Haas: *My favorite two pieces are the ones Legacy features often: the bedroom set and the dining room table. My customers were tennis professionals Serena and Venus Williams. They first showed me a bedroom set from a picture and the idea evolved into that design. After my customers saw the bedroom set, they kept asking for additional pieces. I did the table next. They got the picture for the table from an old monastery and I adapted the design to their needs.*

Aubree: How did the Legacy Ornamental Mill help to make these projects distinct?

Mr. Haas: *I could not have done the table without the roping capabilities of the machine. You can see the turnings on the night stands really come out. The table was exactly the same. The Legacy just made life easier.*



As a general rule Frederick starts by laying his projects out in a TurboCAD program.

A master at details, Frederick laid out the mahogany ribbon stripes on the door panels to match the pitch of the spirals. "It's this kind of thinking that can set a piece apart from the others," says Frederick.

Aubree: If you were talking to a friend about purchasing a Legacy Ornamental Mill, what would you tell him or her?

Mr. Haas: *I always tell the truth. In my book, this is a fantastic machine, though it is not easy to use at first. Everything changes once you get over the intimidation, though. The Legacy becomes a very simple tool to use once you understand the fundamentals. And it really puts you a cut above a lot of other people out there. Actually, I am really surprised more people aren't buying a Legacy Mill. There is a lot of money to be made with that machine and I'm making it!*

With the Legacy, I was able to enhance my business with custom millwork. Once my name got out, the machine paid for itself over and over and over. As far as return on investment, this is one of the best machines I've ever had.

Also, if you enjoy challenges, the Legacy facilitates them. I would not be able to do this for a living if there were no challenges. Woodworking is strictly what I do for a living. It's my passion. I do what I love.

I have also spent a good deal of time talking with Tracy, Dane and Andy of Legacy, sharing insight and new ideas about the machine. I like to make suggestions on how to simplify the machine and make it better. I like to keep in touch with the company. I like the feel of a family-run business. I feel like one of the family and I think that is a big part of customer service.

I do not know what to say that will do the Legacy justice. Again, I'm a strait shooter, not much of a brown-noser. When people call to ask what I think of the machine, I tell them exactly what I told you. I am learning to keep my mouth shut a little though . . . for fear of competition.

Frederick Haas lives in Palm Beach Gardens, Florida. According to Mr. Haas, Palm Beach and near-by Jupiter are the "Beverly Hills" of Florida.



"My favorite feature would have to be the logic. The machine has a plain, simple logic to it."



FEATURED WOODWORKER

Legacy Builder:
James Neff
Catasauque, PA

written by Aubrey Unsicker

Like so many of Legacy's talented "family members", Jim Neff grew up working with wood. His father was a custom woodworker, or "special carpenter," who built custom pieces for some of the Generals and Colonels stationed at the Fort Monmouth army base in New Jersey. Following in his father's footsteps, Jim was also destined to become a talented wood turner.

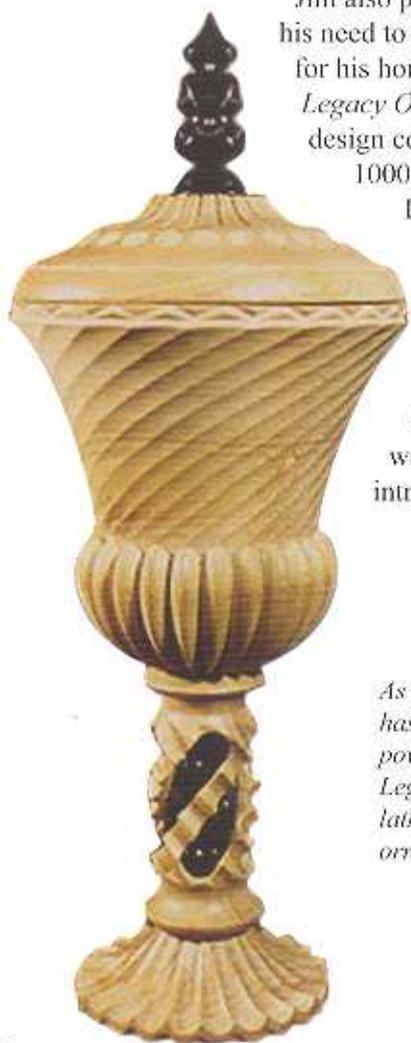
In 1999 Jim was introduced to the *Legacy Ornamental Mill* while attending a craft show. He was inquiring of his fellow crafters concerning techniques for turning spirals when a fellow craftsman showed him a magazine containing an advertisement sponsored by *Legacy Woodworking Machinery*. At first glance Jim knew that the featured machine would do what he wanted to be done. He contacted *Legacy Woodworking Machinery* shortly thereafter and began the process of arranging to purchase one of their units. Being the shrewd business person that he is, Jim convinced the furniture company that he was working for at the time to finance a Model 1000 Legacy Ornamental Mill.

"I had it paid off for them within the first 3 months" Jim said.

Jim also persuaded his company to finance, based – of course – on his need to "practice milling in his spare time", an additional Ornamental Mill for his home shop. As good fortune would have it, after "practicing" on his *Legacy Ornamental Mill* for 3 months, Jim entered and won first place in a design contest sponsored by Legacy; the prize for first place being a Model 1000 Legacy Ornamental Mill. With his newly won prize Jim had a Legacy for production use with his company and two to play with at home; it is no surprise that Jim has become a highly skilled Legacy operator.

And needless to say, Jim is extremely proud of his work. "The first Legacy tradeshow display that I ever visited had a billboard in the top corner of the booth featuring one of the pieces that I had designed and milled. That made me feel mighty good. I walked up to the booth and said, 'Man, that's a great piece,' then I introduced myself."

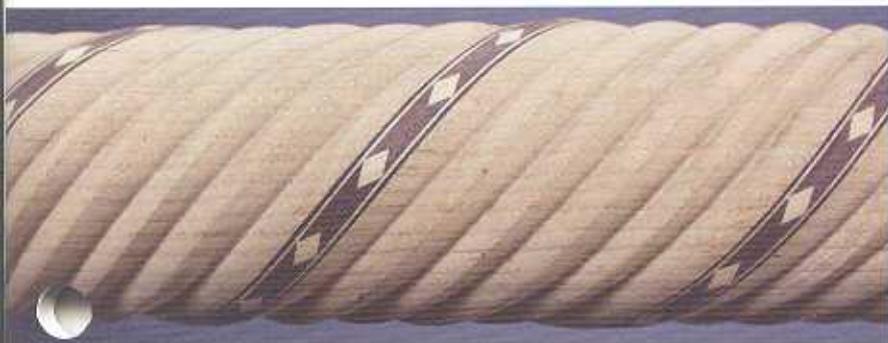
As a turner Jim has combined the power of both the Legacy, and the lathe to create ornamental bowls.



"I like the versatility of the Legacy; it allows me the opportunity to improvise and to develop my own designs. I like to see how far I can go – push the limits of the machine, so to speak."

Jim has created a number of remarkable pieces on both his lathe (the tool he grew up with) and his Legacy – sometimes combining the unique features of both. Even though he claims to be a wood turner first, he is more than pleased with what he has been able to do with his mill. “I highly recommend the Legacy. I sold three of your machines at the last show I went to” said Jim.

The feature that Jim appreciates most about the Legacy mill is the ease by which it allows him to make repetitive pieces. “I created three hundred and fifty legs that were all exactly alike. This is amazing considering I used 11 different setups on the Legacy to mill the pattern that I had designed. And for simplicity, it can’t get any easier than this machine.”



One of Jim Neff's more unique spiral ideas features an inlay on a six-start spiral.

Jim is currently a sub-contractor for a large furniture company – milling furniture parts full time. “I mostly make parts that get shipped off to factories. I really get sick of turning the same piece over and over, but it’s a job. My favorite piece, however, is a pedestal urn with a hollow twist that I designed and milled. The design has been reproduced in plastic over 20,000 times.”

Despite the fact that Jim’s job requires repetition, He is often thinking so far ahead of the pack that even Legacy’s support group is amazed at the creations he is constantly coming up with. “I like the versatility of the Legacy; it allows me the opportunity to improvise and to develop my own designs. I like to see how far I can go – push the limits of the machine, so to speak.”

Because of this drive to “push the limits”, Jim Neff is considered by Legacy to be one of its most talented and accomplished “family” members. Jim is also certified by Legacy to give training, so if you’re ever in his area he would love to visit with you.

Jim Neff is a wood turner from Catasauqua (Plentiful Water), Pennsylvania.



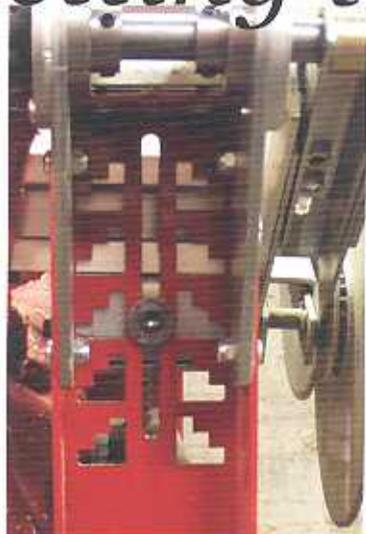
“I created three hundred and fifty legs that were all exactly alike. This is amazing considering I used 11 different setups on the Legacy to mill the pattern that I had designed. For simplicity, it can’t get any easier than this machine.”



Custom-made Harry Potter wizard wands have been a sideline business for Jim.

Frequently asked questions concerning bed setup are 1) What are the step patterns on the rail leg for? and, 2) How do I insure that the bed is accurately set to level?

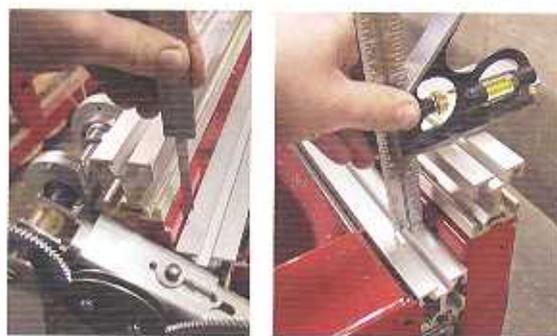
Setting the Bed to Level



Most Legacy owners will recognize the stair step pattern (above) that is cut into each of the four rail legs located on the machine. Each level represents a 1/4" difference in height and was designed to be used in conjunction with the horizontal, adjustable bed rails. If the bed is to be set level the rail should align with the chosen stair on each rail leg. These patterns are laser cut into the legs and are therefore quite accurate. If however, your project calls for tighter accuracy - you may want to try out this technique.

step1 Start with one corner of the machine at the desired height and lock the capscrew on the corresponding rail leg (left). **step2** Using a set of dial calipers or a 90° sliding square - measure from the top of the fixed rail down to the top of the adjustable bed rail.

step3 Use the same measurement on the opposite corner. Note: It may be necessary to use the handwheel to adjust the unlocked side of the bed. Do not assume that adjusting the bed with the handwheel will insure both sides are level. **step4** This measurement is then used on all points of the rail where the rail leg can lock down the rails.



The new height gauge (shown right and on page 9) can also be used for bed adjustment on the Legacy, as well as for blade and bit adjustment on the table saw and the router table.



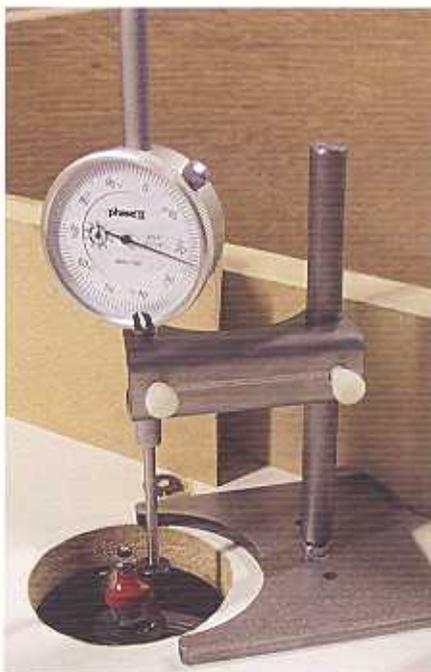
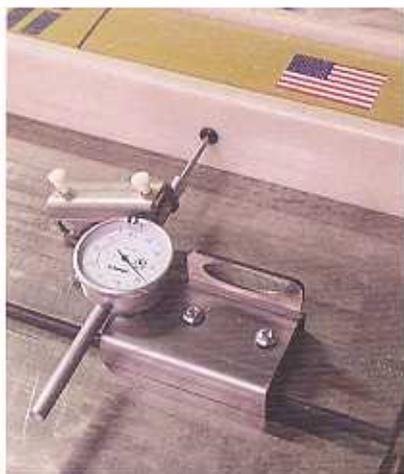
NEW PRODUCT

Precision Height Gauge

Fine tune height adjustments on table saws and router tables with this precision dial gauge. Can also be used on the adjustable bed of the Legacy, giving you the opportunity to position the bed precisely level when milling flat stock.

Blade gauge allows for proper alignment of table saw blades and fences giving you the cleanest and safest performance.

\$9900



The only limitation is your imagination!

TECHNIQUE

Using the Legacy to Create a Waterwheel



“Give a man a hammer and everything becomes a nail”

the old saying goes. That is likely the case with this project. I confess that my solution to building the waterwheel with the Legacy resonates with perhaps too much reliance on the tool I know best. Admittedly others would solve this woodworking problem another way (perhaps with bandsaws, drawknives, and spokeshaves). When I was approached (by my landscape designer wife) about building the waterwheel - all I could see was how simple it would be if the parts were milled on the Legacy. Not being a trained woodworker, and not knowing how the old-timers did it, I set about to complete it using, in my paradigm - the unmatched power and versatility of the Legacy Ornamental Mill.

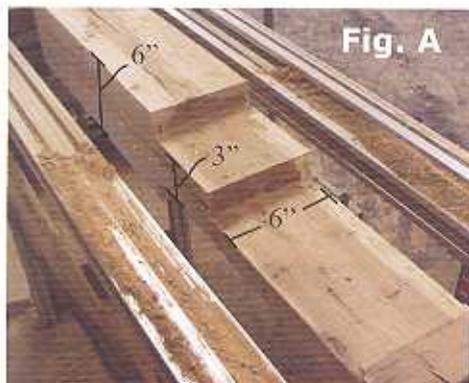


Fig. A



Fig. B

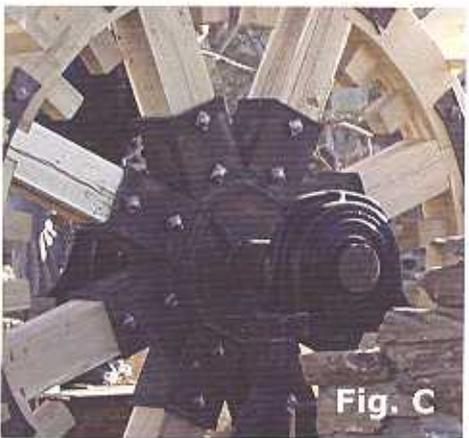


Fig. C

The indexing system and the x, y, z-axis capability of the router made creating the 8 - 6" x 6" timber spokes a simple task (so simple in fact that I put my two non-woodworking sons-in-law to work). After being roughed out on the band-saw, we were confident that the 8 parts could be milled square to the desired sizes (Figure A). These timber spokes, made from white oak, would fit into an iron hub created by Roger Graham of Graham Architectural Ironworks (Figures B & C).

To create the 6" (outside diameter) arched timbers for the wheel we used the circle cutting center accessory. Because the Legacy would only allow for 2" thick material, and our timbers needed to be 6" thick - we created 3 sets of arched timbers. A piece of 1/2" thick mdf was cut 6' in length - the remaining 2' was glued to the 4' side to give us a table that was close to 6' diameter (Fig. D). Because the 8 arched pieces needed to be the same size and needed to accommodate the 3" thick timber spokes we positioned 3" spacers at the appropriate angles (Fig. E). (A good miter gauge or miter sled for your table saw is invaluable for creating the exact angles. We found the Dubby miter sled (In-line Industries - ph. 508-949-2968) to be extremely accurate for cutting both the spacers (Fig. E - F) and the angles on the ends of the arched timbers (Fig. G).

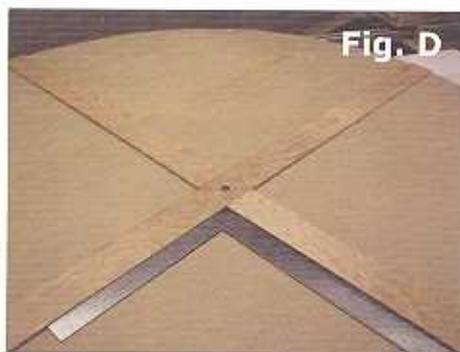


Fig. D



Fig. E



Fig. F



Fig. G

IDEA CORNER



Fig. H



Fig. I



Fig. J

With the 8 pieces positioned on the table, we used a 1/2" diameter Legacy Pattern Bit (Magnate bit #S7621) to trim the individual parts to their proper arc.



Fig. K

The pattern bit is designed to plunge in from the top of the material - cutting deeper on each pass, and letting the bearing that is above the cutter follow the previous cut to support the router bit, thereby minimizing any chatter or run-out of the bit (Figure K).

Created by Calvin Prestwich, Joe Nielsen, & Dane Calkins

Once all of the parts were milled and the 24 paddles created, we were ready for assembly. The 8 timbers slid inside the iron hub. We then positioned each of the arc sections into place, using ratcheting tie-downs to pull them tight and hold them into place. Once each of the arcs were positioned into place we drilled the holes for the bolts that would hold the iron bands into place. The iron bands and hub are the keys to holding the entire structure together.



LINEAR MILLING TABLE

Creating Custom Moldings & Casings

The value of using the Legacy as an overhead or inverted router table for milling custom moldings or matching existing moldings is unsurpassed. Creating moldings on a traditional router table is next to impossible due to the simple fact that once material is milled away from underneath you begin to have an unstable base that is difficult, at best, to keep level to the table. The new Linear Milling Table (that mounts to any of the models which use the extruded aluminum rails) is an inexpensive yet powerful solution to solving the need for custom moldings. For example, a recent bathroom addition in my 1895 home required just 40' of molding. Of course it was important that the door casings match the existing design in the rest of the house.

Being a do-it-yourselfer, and not wanting to pay for custom knives to be made at the local mill, I set out to create my own using the Legacy with the linear milling table attachment.

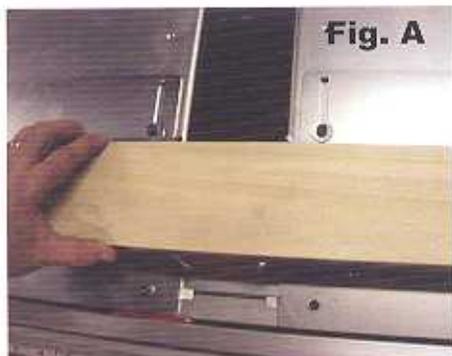


Fig. A

With the tables attached to the Legacy, the adjustable fences were positioned to the same width as the material being milled (Figure A).

I was able to use a small section of the existing molding as a template (Figure B) for both the z-axis (the plunge depth of the router), and the y-axis (across the width of the material). Where existing router bit profiles can be used the process is simple and straightforward. On areas where the shape cannot be produced using existing cutters, a 2" diameter core box bit works best. The bit is plunged down on the profile (Figure C) of the existing

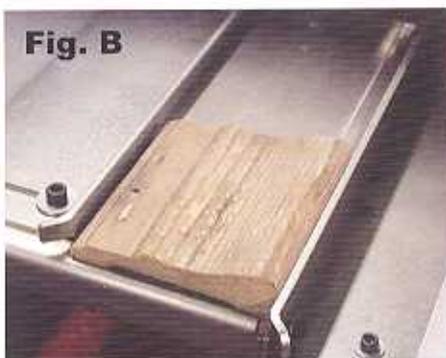


Fig. B

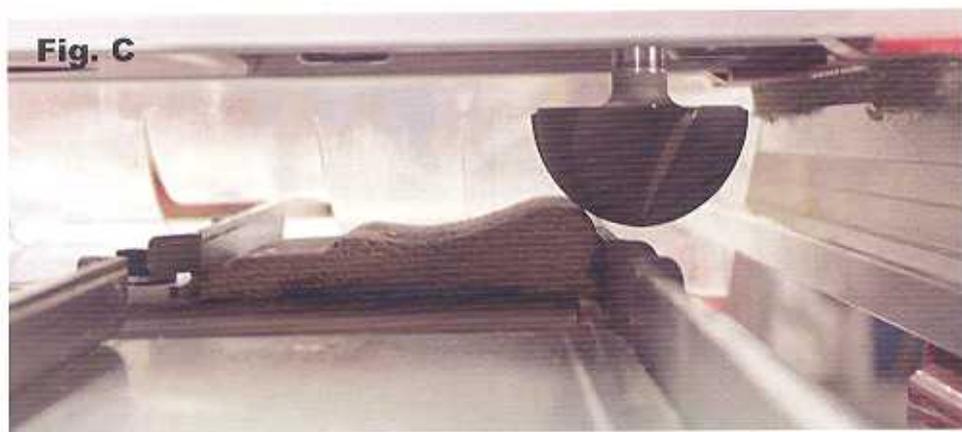


Fig. C

molding and the router depth is locked into place. With the router locked into place on the y-axis screw, the material is then fed through the table and the router bit mills the corresponding section. After the cut has been made, the template is then placed back on the table (Figure D, E, & F), and the router is moved across the stock (y-axis) one-half turn of the handle, or 1/8", and



Fig. D



Fig. E



Fig. F

TECHNIQUES



Fig. G

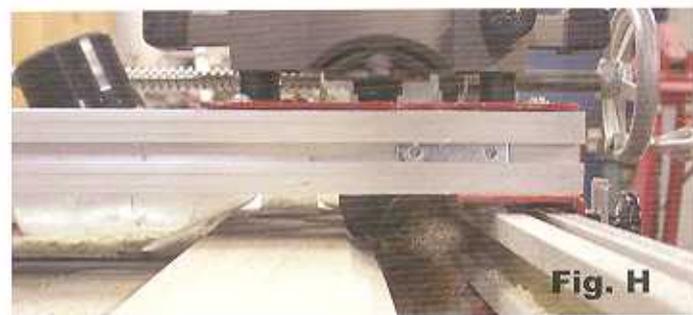


Fig. H

locked into place with the stop collars to prevent the router from repositioning itself while the cut is being made. (Note: The y-axis handwheel is best locked with the handle positioned straight up or straight down - as seen in Figure G. The screw thread is 1/4", therefore one full rotation of the handle moves the router 1/4", and one half turn of the handle moves the router 1/8", etc.)

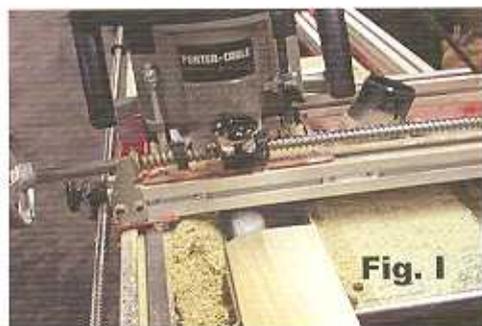


Fig. I

This process is repeated across the width of the material until the profile has been created (Figure J).



Fig. J

Where possible use the bits that will give you the proper profile (Figure K & L).



Fig. K



Fig. L

MILLING TIPS:

1. Start with material that is as straight as possible and try to complete the job as quickly as possible to avoid dealing with twisting material. The longer the material sits, (i.e. overnight) the greater the chance of twisting.
2. Use the DynaGlide lubricant on the tables to keep the material moving smoothly between the fences.
3. Keep the milling tables as close as possible, yet far enough apart so as not to be hit by the router bit. The infeed and outfeed tables can be positioned further out (10" - 20").
4. Use some type of feather board to hold the material down on the tables. This will help insure clean and consistent cuts.
5. Give yourself an extra 6"-12" of material on the ends for bad cuts caused by lifting material. The weight of the opposite end can force the material up into the cutter resulting in rough ends.
6. The stock can be fed from either direction. Remember that the router bit rotates in a clockwise direction. The bit is therefore either undercutting or climb-milling the material, the cleanest cut is achieved on the climb-milling side of the material, however the bit may pull the material through the table faster than is desired. A featherboard can assist in adding drag to the material.

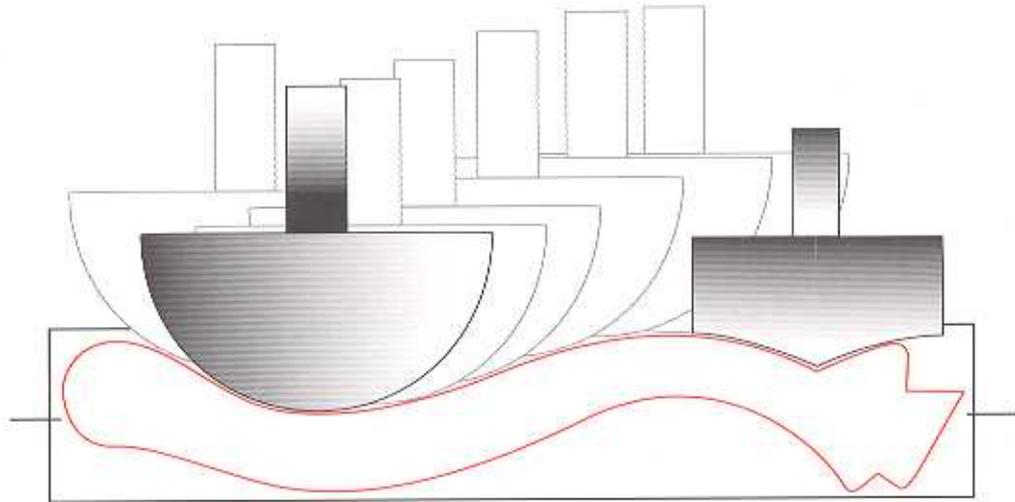


TECHNIQUES



The technique using the linear milling table is specifically for feeding longer lengths of stock under the router. An equally effective method (given your material can be in shorter lengths) is to create a flat milling table out of 3/4" mdf. This table would measure 14 3/4" wide, and could be as long as the x-axis movement of the router. The template (pictured left) is mounted adjacent to the stock being milled (leave a 2" - 3" gap between the stock and the template so that you can start the router up without hitting either).

The drawing (pictured right) shows a combination of two bits; the profile of a rope molding bit, combined with the 2" core box bit to create the curved shape. You can see the peaks left in the material between the core box cuts. These peaks are easily removed with a little sanding, which will blend the cuts to a smooth profile.



Editors Note: The linear milling technique evolved from a problem that Richard Miller (San Francisco, CA) needed to solve. Richard owned a *Woodchuck Ornamental Mill* (The Woodchuck was the original ornamental mill created by *Phantom Engineering, Inc.* and could be considered the grandfather to the current *Legacy* models), and as a retired builder, was interested in making a cabinet based on a window design that he had seen in England, called an oriole window, similar in style to a bay window in this country. The problem: how to make the 14" wide crown molding on the bottom of the window (left). Understanding the 3-axis (x, y, & z) capability of his Woodchuck and with the help of Tracy Anderson, Richard conceived a way of milling the length of flat stock needed by following a pattern that was cut to the shape of the desired molding. A table was made to mount to the adjustable bed rails of the machine. This table would hold the flat stock

into place while the router was ran back and forth along the length of the stock. The pattern was positioned on one end of the flat stock (similar to the photo pictured above left) and would determine the depth of the cut at its desired point along the y-axis (the short axis). The molding was completed in about 3 hours time. After Richard completed the molding he became curious as to what other shops would charge to have it made. The final bid on the molding alone was \$1500, with a 2-3 week lead time. All that is left is to ask yourself - *what's my time worth?*

Learn to Make Picture Frames



on the Legacy Ornamental Mill

You can get this "How To" video FREE,
simply by sharing this magazine with a friend!

Send a complimentary copy of Legacy Ornamental Milling Magazine to a friend.

*Do you have a friend or a relative who might enjoy reading this publication?
Call us with their mailing address - we'll pay the postage and mail the magazine
directly to them, and this FREE video* directly to you.*



- Don't have any friends? - call 800-279-4570 and purchase the video for \$15.

** Not valid with any other offer. Applies to Picture Frame video only - no substitutes.*

Another case for dynaGlide

Recently, while cutting the corners off of 12" square trestlewood with a circular saw, I found my saw blade becoming dull rather quickly. So dull in fact that I could see it was putting a great deal of stress on the motor. Since I didn't have a new blade and I really needed to finish cutting the corners off so I could put the piece in the Legacy to get it milled, I decided to see if I could get a little more use out of the blade by spraying it with dynaGlide Dry Lubricant & Cleaner.

Sure enough the blade cut much cooler and faster, thereby putting less stress on the motor. I not only got the job done with a less than adequate saw blade, but feel strongly that the life of my cheap circular saw will be extended with just a little bit of care to the blade.

Obviously we recommend using dynaGlide on the Legacy - but I'm even more convinced that the dynaGlide should be used on router bits and saw blades, as well as tool surfaces where a smooth movement is desired.

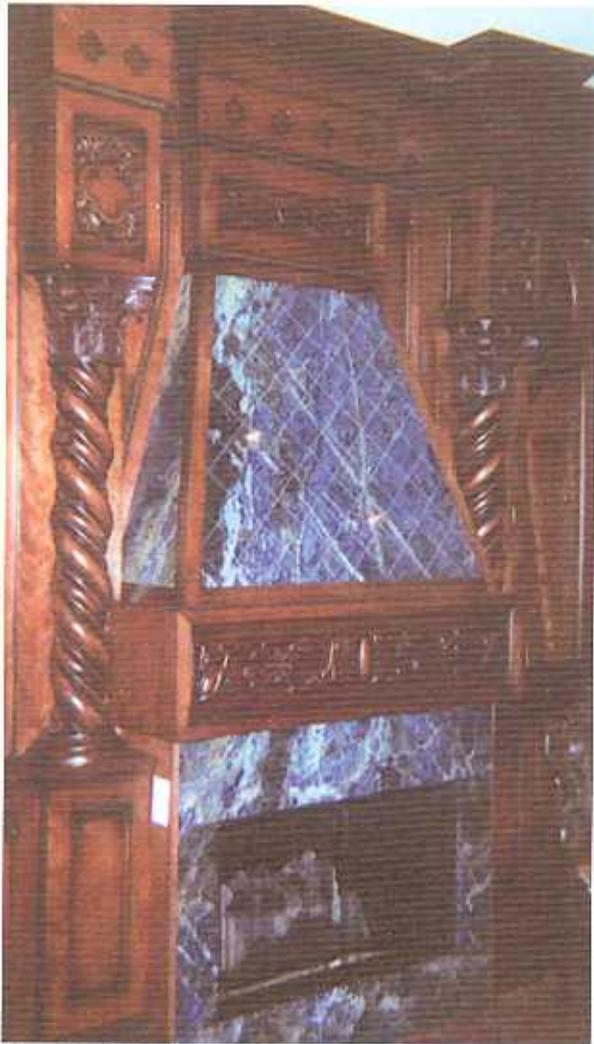
It's definitely worth the \$12 cost.



For use on saw blades, router bits, tool surfaces and sanding belts.

- Eliminates the need for oils, greases and solvents.
- Extends cutting blade life to improve cut.
- Reduces friction thereby reducing wear.
- Prevents rust - penetrates instantly and dries in minutes.
- Does not stain or discolor - can be painted or stained over.
- Removes pitch.
- Reduces sawdust build-up on sanding belts.

GALLERY



Created by Pete Bourgeois



Created by Mohammad Shamsiann



Created by Dan Badinghaus

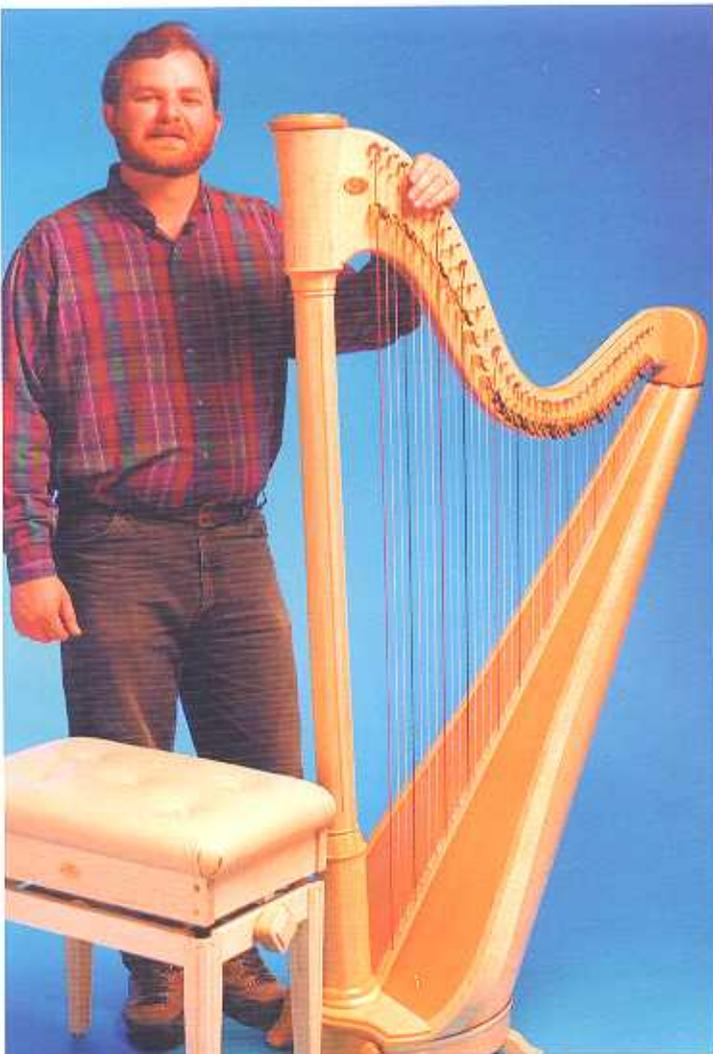


Created by James McCafferty



Created by James Neff

GALLERY



Created by Carl Pratt



Created by Andy Anderson



Created by W. Leigh Brookes



Created by Dan Bulinghaus

Online Survey

Tell us what you think! Go to the Legacy website at www.legacywoodworking.com and fill out the online survey. Your feedback will help us determine how to best spend our marketing dollars.

New Center Finding Tool Mounts into the router and drops down over the dead center of the tailstock. Center finder pivots from side-to-side until perfectly centered. Can also be used in a drill press to locate the center of the material. Tool cost \$15.



Marylands' Wye Oak, The Quiet Giant The Wye Oak first took root in the 1500's and lived for over 450 years in the small rural town of Wye Mills, Talbot County, Maryland. In 1919 *American Forestry Magazine* honored the Wye Oak in its Tree Hall of Fame and as a result launched what would later become a national search for Big Tree Champions. Hailed as a national champion by the American Forestry Association, it was the largest White Oak tree in the United States and quite possibly the world. It measured 31' 8" in circumference, stood 96' tall and had an average crown spread of 119'. The main bole of the tree weighed over 61,000 pounds. It saw the colonization of the land, the American Revolution, the Civil War, and the modern growth of the United States of America before succumbing to old age and the forces of nature on June 6, 2002, during a severe thunderstorm. More information can be found at the Maryland State, Division of Natural Resources website, <http://www.dnr.state.md.us/forests/trees/giant.html>

Legacy owner, Don Schultz was awarded the contract to make pens and desk accessories from the wood of the historic Wye Oak. Don can be contacted at: www.wyeoakpens.com, or 410-310-5623.



These items were created by Don Schultz on the new Legacy model 200 Craft machine.

2 disc Video Training

DVD or Video Format! just \$45

LEGACY
Ornamental Milling

Legacy Woodworking Machinery
800-279-4570

THE FUTURE OF
WOODWORKING!

DVD Format

Take your woodworking to the next level! This new Legacy training includes three hours of in-depth, step-by-step training. A must have for any Legacy owner.

AWFS to be held in Las Vegas

The American Woodworking and Furniture Supply show which has traditionally been held in Anaheim, CA., will be held in Las Vegas, NV at the Las Vegas Convention Center. Show dates are July 27 - 30, 2005 - Wednesday through Saturday.

IWF Announces New Dates for 2006

Atlanta, GA - The International Woodworking Machinery and Supply Fair announced new fair dates for 2006. IWF 2006 will be held August 23 - 26, 2006 at the Georgia World Congress Center. The new hours and show days will be 8:00 a.m. to 6:00 p.m., Wednesday through Saturday. Past events were held Thursday - Sunday.



"Your show people did a fine job of explaining all of the features and design considerations of the [Legacy]. I stood there for well over 1 - 1/2 hours, and do not recall a single question that wasn't answered to complete satisfaction. The mill is quite a showstopper. The participants were packed 3 and 4 deep, and hung to every word."

C. H. - Milwaukee Woodworking Show

See the Legacy in action At a woodworking tradeshow in your area

Winter 2005

March 18-20	Charlotte, NC
April 1-3	Houston, TX
April 8-10	Tacoma, WA
April 15-17	Sacramento, CA
April 22-24	Santa Clara, CA *
April 29-May 1	Pomona, CA *
May 13-15	Honolulu, HI

* indicates Pro Series show for the professional woodworker

Coming Soon!

Legacy Overhead Router Table

- No more bending over for router adjustments.
- Dial-in for fine tune height adjustment.
- Visually accessible.
- No dust falling into the motor.
- Includes the workstation shown on previous page.

Call for Pricing

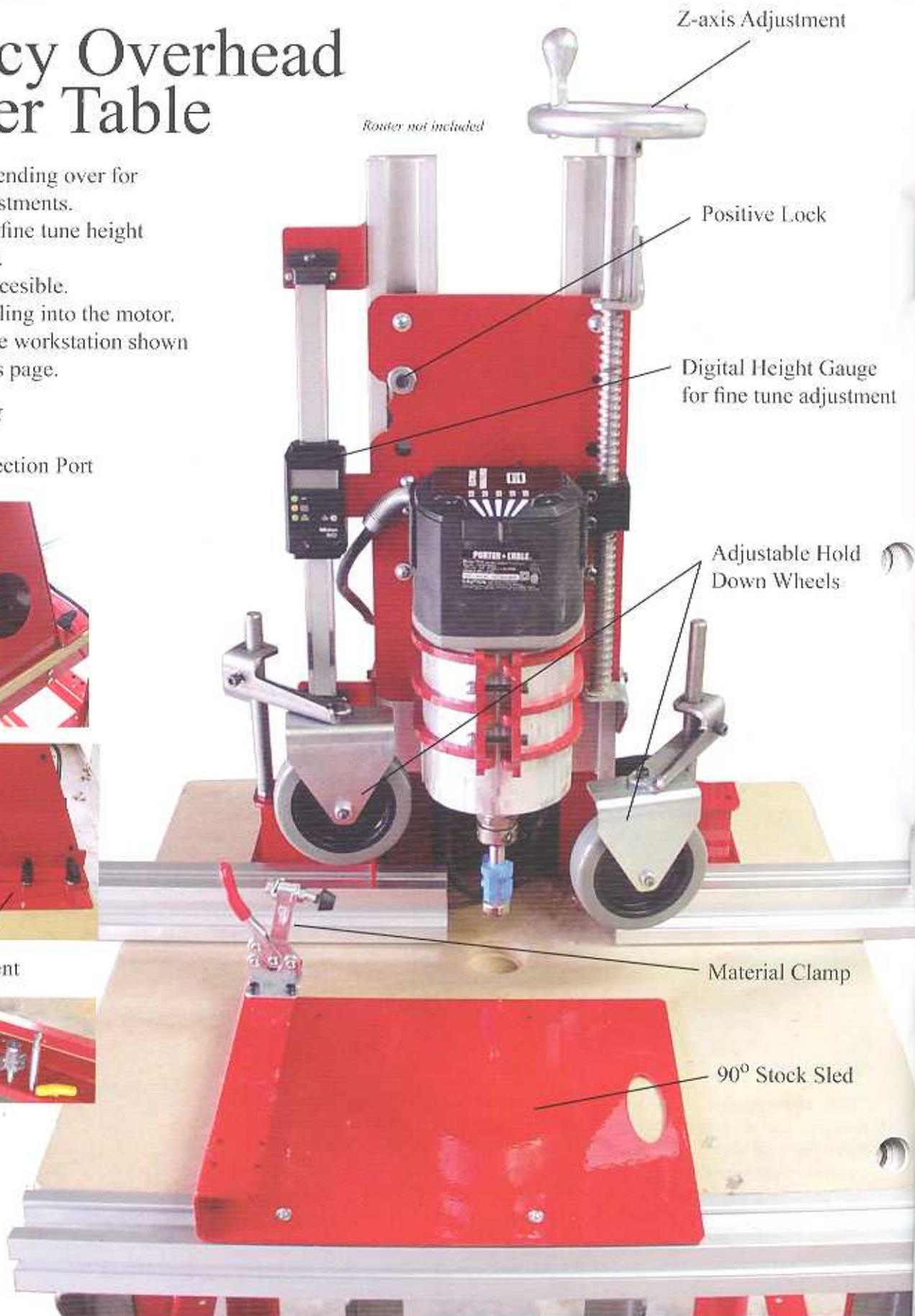
Rear Dust Collection Port



Fence Adjustment



Built-in Router Bit Holder



Are you building a woodworking legacy?

NEW PRODUCT

Now Available!

Legacy Workstation

This expandable Legacy workstation is a great addition to any shop; but especially for those with limited working area. Easily folds down to a convenient 24" x 31" table when not in use. Center section can easily be used for under cabinet storage area.

Retail price \$399.00

Introductory Price!

\$325⁰⁰

Wood tops optional.



Shown above fully expanded to 70" (can be configured up to 77" and still fold down). Leveling pads included, double locking casters are optional.

24"



Folds down to 24" deep by 31" wide.

Wood tops optional.

31"

Complete with adjustable mounting brackets for use with chop saws.



Chop saw and wood tops not included



Model Comparison

Legacy Ornamental Mill Model



200 900 1200 1800 2000

Machine Features

3-axis Milling		X	X	X	X
Indexing	X	X	X	X	X
Template Follower	X	X	X	X	X
Adjustable Bed		X	X	X	X
Left-hand Spiral	X	X	X	X	X
Right-hand Spiral		O	X	X	X
Floor Stand		O	X	X	X
Dust Control		O	X	X	X
Drive Motor		O	O	X	X
Horizontal Vises		O	O	X	X

Milling Operations

Turnings	X	X	X	X	X
Straight/Tapered	X	X	X	X	X
Square / Multi-sided		X	X	X	X
Reeding/ Fluting/Joinery	X	X	X	X	X
Contoured Profiles	X	X	X	X	X
Spirals	1 pitch	7 pitches*	7 pitches*	19 pitches	15 pitches

Machine Specs

Maximum Diameter	3"	9"	11"	11"	13"
Maximum Length	15"	48"	72"	96"	132"
Flat Stock Width		10"	10"	10"	12"
Bed Rails	2	4	6	6	6
Drive Shaft	Straight	#2mt/8tpi	#2mt/8tpi	#2mt/8tpi	#2mt/8tpi
Price	\$359	\$1325	\$2850	\$5962	\$9300

NA = Not Available

O = Optional

X = Standard

Note: The model 200 requires a laminate trimmer, the 900, 1200, & 1800 require a router. The model 2000 is equipped with a 3 1/4 hp cutting head. The model 2200 is equipped with a 8 hp, 3 phase motor.

Legacy 2000 Specifications

- 3 1/4 hp cutting head (Porter-Cable)
- 90v DC gearbox motor - cuts up to 30" per minute with (2) Electronic limit switches
- 132" (11') center-to-center stock capacity
- 13" diameter
- 12" wide flat-stock milling bed
- 15 spiral pitches (left and right)
(1/2", 3/4", 1" 2", 3", 4", 4 1/2", 5", 6", & 7 1/2", 8", 9", 10", 12" 15" pitch)
- 24, 28, 30, 32, 36, & 40 position indexing
- Z-axis lead screw with 8" stroke
- Quick-release Tailstock
- #2MT, 1" x 8tpi Headstock
- Adjustable bed for tapering
- Heavy-duty steel construction
- Extruded aluminum rails
- (4) Horizontal Bench Vises
- (2) Thin Stock Support
- Enclosed z-axis shroud

\$9300⁰⁰



Legacy 2200 Specifications

- 8 hp Spindle Motor (3 phase power) (replaces 3 1/4 hp cutting head)
- 1/4 hp Drive Shaft Motor (for turning & sizing stock)
- 90v DC gearbox motor - cuts up to 50" per minute with (2) Electronic limit switches
- 20 spiral pitches (left and right)
(1.5", 2", 2.5", 3", 4.5", 5", 6", & 7.5", 8", 9", 10", 12", 13.5", 15", 18", 20", 22.5", 27", 30", 45" pitch)

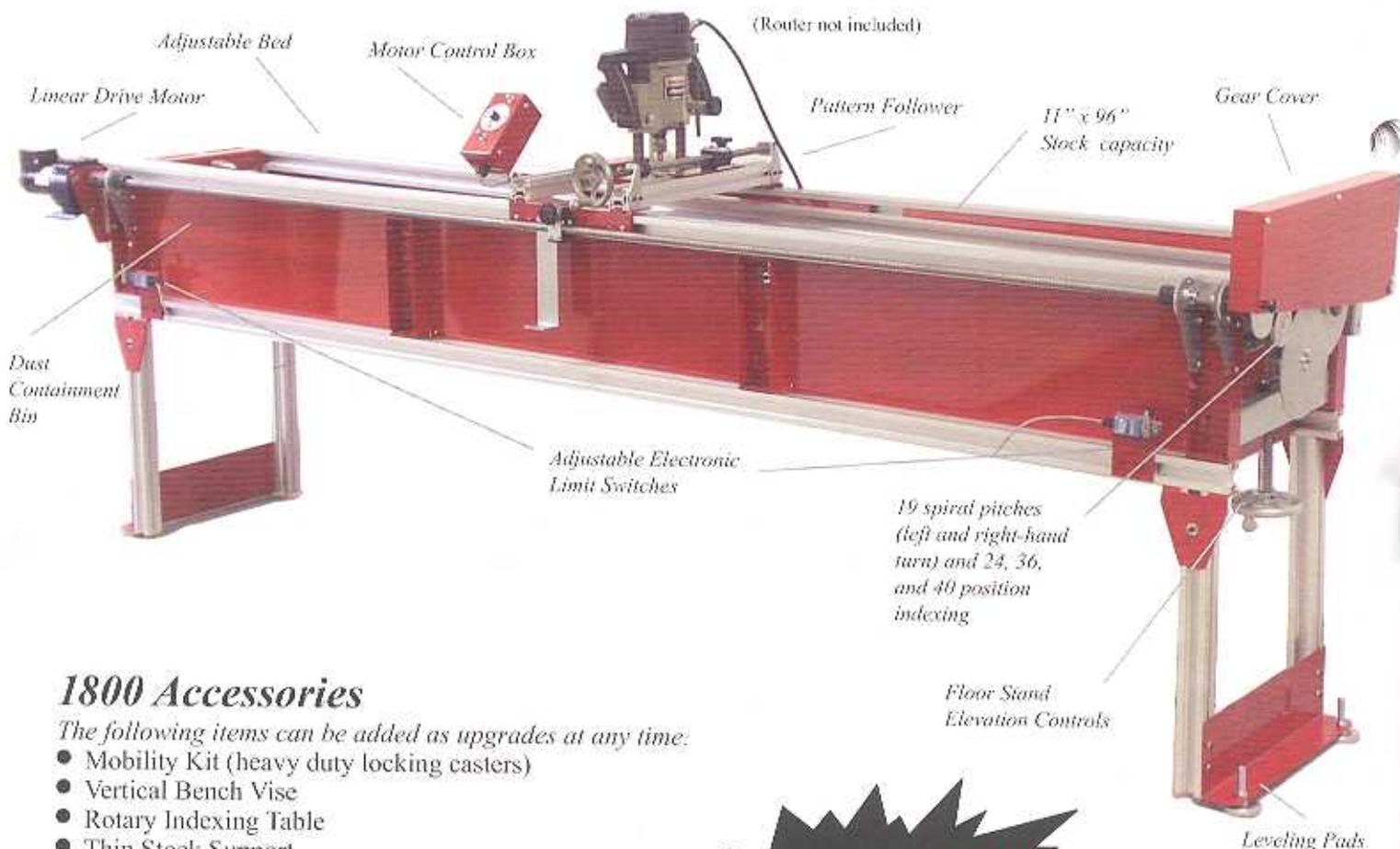
\$15,444⁰⁰

MODEL 1800

Professional Grade

Legacy 1800 Specifications

- 96" (8') center-to-center stock capacity
- 11" diameter
- 14" wide flat-stock milling bed
- 19 Spiral pitches (left & right)
1/2", 3/4", 1", 1 1/8", 1 1/4", 1 1/2", 1 7/8"
2", 3", 4", 4 1/2", 5", 6", & 7 1/2"
8", 9", 10", 12", & 15" pitch
- 24, 28, 30, 32, 36, 40 position Indexing
- Template Follower
- Floor Stand with elevation controls
- Adjustable bed for tapering
- Horizontal Vise (set of 3)
- Upper Dust Control
- Dust Containment Bin
- Variable speed linear drive motor with limit switches and gear cover
- X-Y-Z Axis milling
- Ball Bearing Headstock
- Quick-release #2 MT dead center tailstock
- #2 MT, 1" x 8 tpi Headstock
- Heavy-duty steel construction
- Extruded aluminum rails
- Uses any standard plunge router



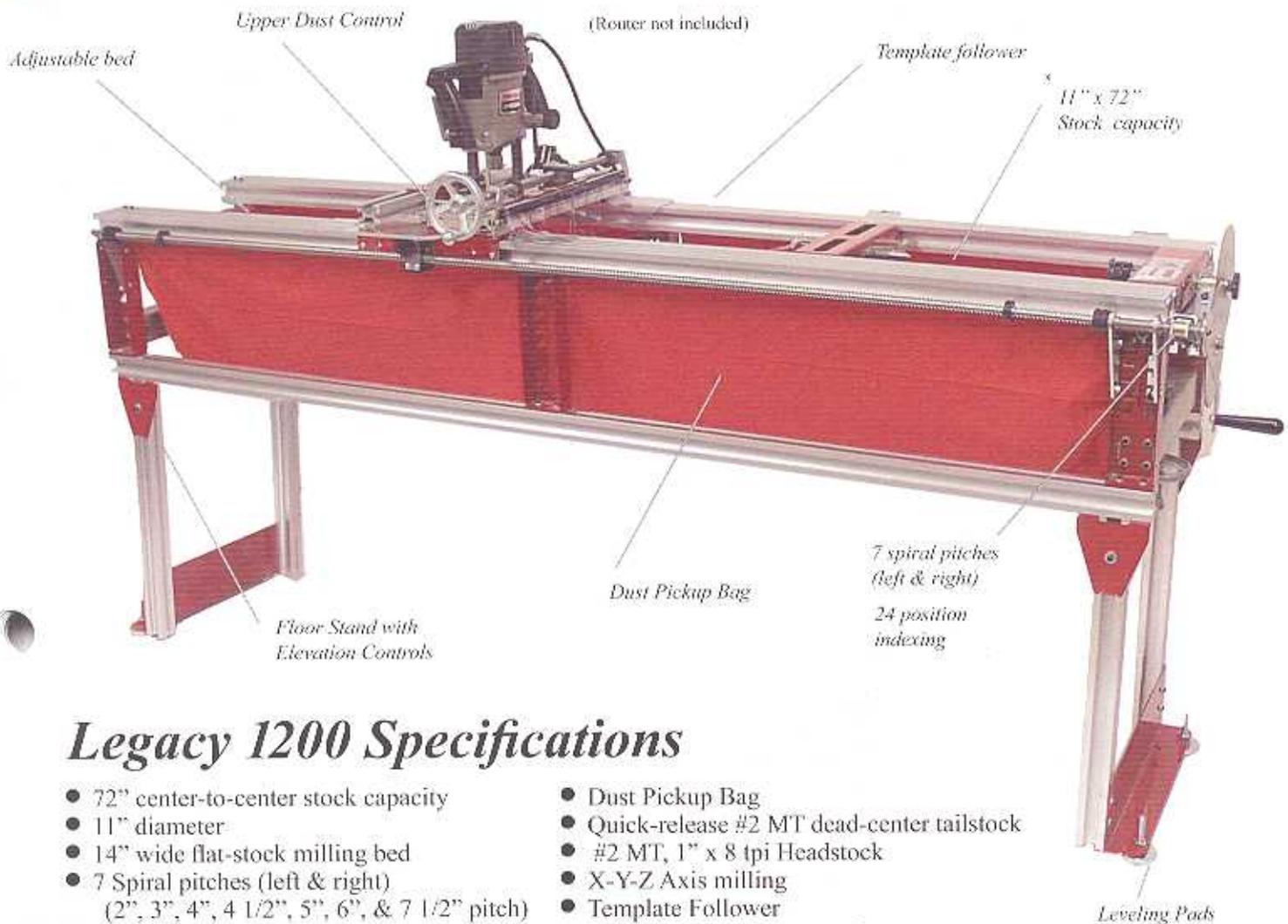
1800 Accessories

The following items can be added as upgrades at any time:

- Mobility Kit (heavy duty locking casters)
- Vertical Bench Vise
- Rotary Indexing Table
- Thin Stock Support
- Expanded Index Upgrade
- Molding Table

\$5962⁰⁰

Floorstand Model!



Legacy 1200 Specifications

- 72" center-to-center stock capacity
- 11" diameter
- 14" wide flat-stock milling bed
- 7 Spiral pitches (left & right)
(2", 3", 4", 4 1/2", 5", 6", & 7 1/2" pitch)
- Floor stand with elevation controls
- Adjustable bed for tapering
- 24 position Indexing
- Upper Dust Control
- Dust Pickup Bag
- Quick-release #2 MT dead-center tailstock
- #2 MT, 1" x 8 tpi Headstock
- X-Y-Z Axis milling
- Template Follower
- Heavy-duty steel construction
- Extruded aluminum rails
- Uses any standard plunge router

1200 Accessories

The following items can be added as upgrades at any time.

- Variable speed linear drive motor with limit switches and gear cover
- 25X gear reduction set
(1/2", 3/4", 1", 1 1/8", 1 1/4", 1 1/2", & 1 7/8" pitch)
- 2X gear multiplier set (8", 9", 10", 12", & 15" pitch)
- 28, 30, 32, 36, and 40 Position Indexing
- Rotary Indexing Table
- Horizontal Bench Vice
- Vertical Bench Vice
- Circle Cutting Center
- Thin-stock Support
- Molding Table
- Mobility Kit

\$2850⁰⁰

MODEL 900

Benchtop Model!

Legacy 900 Specifications

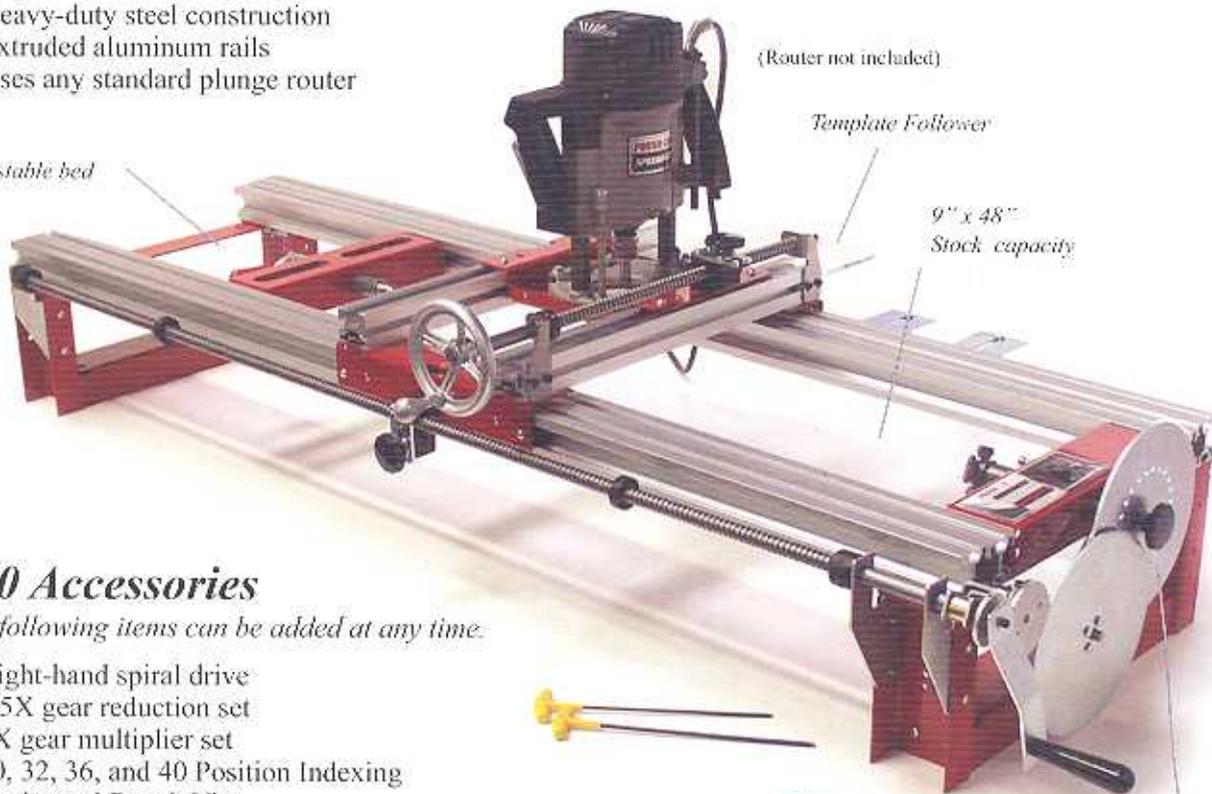
- 48" center-to-center stock capacity
- 9" diameter
- 8" wide flat-stock milling bed
- 7 Left-hand Spiral pitches (2", 3", 4", 4 1/2", 5", 6", & 7 1/2" pitch)
- 24 position Indexing
- Template Follower
- Quick-release Tailstock
- #2MT, 1" x 8tpi Headstock
- X-Y-Z Axis milling
- Adjustable bed for tapering
- Heavy-duty steel construction
- Extruded aluminum rails
- Uses any standard plunge router



Now Available
Optional
Floor Stand

\$140⁰⁰

Adjustable bed



(Router not included)

Template Follower

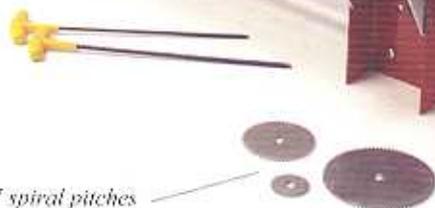
9" x 48"
Stock capacity

900 Accessories

The following items can be added at any time.

- Right-hand spiral drive
- .25X gear reduction set
- 2X gear multiplier set
- 30, 32, 36, and 40 Position Indexing
- Horizontal Bench Vise
- Vertical Bench Vise
- Rotary Indexing Table
- Thin Stock Support
- Circle Cutting Center
- Linear Drive Motor
- Dust Control
- Molding Table
- Floor Stand

7 spiral pitches
(left-hand turn)



24 position indexing

\$1325⁰⁰

NEW PRODUCT

New product! Ornamental Craft Machine

(Trim Router not included)



Model 200 Craft Machine

- 1 1/2" Spiral Pitch
- Z-axis Template Follower
- Straight, Tapered, or Contoured
- Mounting Hubs
- 24 position Index
- Benchtop footprint - 9 1/2" x 24"

*Up to 15" x 3"
Stock Capacity*

Craft machine for creating:

- Kaleidoscopes
- Salt & Pepper Mills
- Perfume Bottles
- Flower Vases
- Egg Stands
- Pens & Pencils
- 3 piece Walking Sticks
- Candlesticks,
- Game Calls, etc.

\$359⁰⁰



Linear Drive Motor

DC Gearbox motor. Variable speed control.
Forward/Reverse. 2 electronic limit switches with
control box and gear cover.

1200 & 900

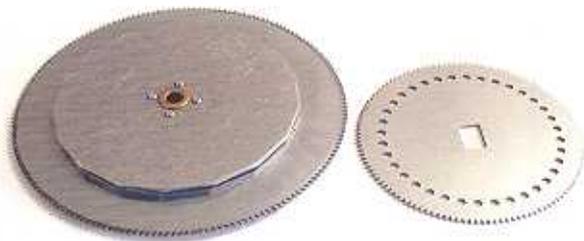
\$889⁰⁰



Dust Control

Features a (A) dust port, (B) dust
collection bag, and (C) two vinyl
shields. All have been designed to
contain the chips. 900

\$79⁰⁰



Indexing Plates

28, 30, 32, 36, and 40-
position index plates.

1200 & 900

\$12⁰⁰ each \$45⁰⁰ set of 5



.25X Gear Reduction

Adds 7 additional gear pitches to the
spiral drive. Create 1/2", 3/4", 1", 1
1/8", 1 1/4", 1 1/2", 1 7/8" spiral pitch.
For use on smaller diameter (less than
2") stock and for creating spiral writing
pens.

1200, 900

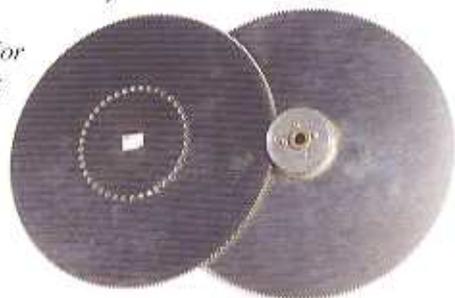
\$199⁰⁰

2X Gear Multiplier

Adds 5 additional gear pitches to the spiral
drive. Create 8", 9", 10",
12", & 15", spiral pitch. For
use on larger diameter stock
(larger than 4").

1200, 900

\$219⁰⁰



Rotary Indexing Table

Attaches to the adjustable bed rails. Create round and indexed rosettes, bowls, platters, escutcheons, etc.

900 up to 11" diameter.

1200 up to 14 1/2" diameter.

1800 up to 14 1/2" diameter.

\$32500



Thin Stock Support

Supports material while milling thin stock between 5/8" and 1 7/8" thick.

1800, 1200 & 900

\$9900

Vertical Bench Vise

Mounts to the Horizontal Bench Vise and allows for vertical clamping of material. Create mortise, tenons, dovetails, finger joints, etc. on the ends of material.

1800 - max length 36"

1200 - max length 36"

900 - max length 9"

\$11900



Horizontal Bench Vise

Set of 2 adjustable camlock vises that mount to either the fixed rails for level material up to 6/4 stock, or on the adjustable rails of the machine for thicker material and for tapering.

1200 - max width 12"

900 - max width 12"

\$11000



Right-hand Spiral Drive

The model 900 comes standard with a left-hand spiral drive. Pictured right is an example of a barley twist candlestick with a spiral directed to the right. Having both directions allows you to create opposing spirals on bed posts and table legs, as well as create the diamond or pineapple pattern. 900

\$6400



Circle Cutting Center

Creates a pivot point using a 1/2" brass pin. Turn large diameter table tops, arches, frames, mouldings, etc.

Up to 36" on 1800

Up to 74" on 1200

Up to 50" on 900

\$2900



Mobility Kit

Easily move your Legacy around the shop with these high quality double-locking casters.

\$6500

Two mounting plates for use on model 1000EX & 1500EX series - add \$45.



Pilaster Mounting Dogs

Available in 5 sizes, 2 per set:

2" x 2"

2 1/2" x 2 1/2"

3" x 3"

3 1/2" x 3 1/2"

4" x 4"

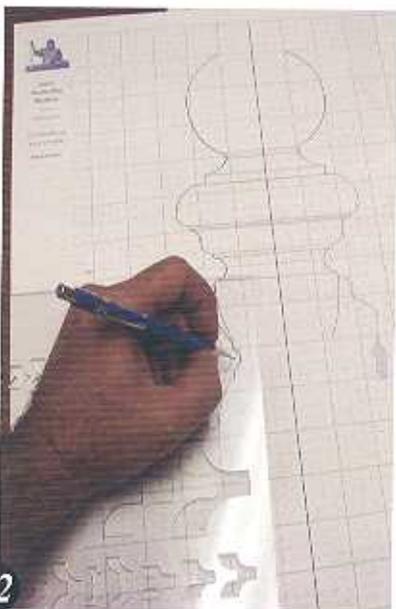
\$1200 each
\$5000 set



Legacy Design Kit

- 3 - clear acrylic templates - 107 router bit profiles
- 27 design styles
- 1 - 11" x 39", 50 page DesignPad (Spindle Layout)
- 1 - 13" round DesignPad (Divisions for reeding & fluting)
- How-to video tape & 12 Sample Designs

\$8900



Linear Milling Table

A nice alternative to a shaper, you can now use your Legacy to create custom moldings of any length by feeding your stock underneath the router. Table can even be used to duplicate moldings and casings which are hard to find or no longer available.

\$15900



Tool Holder

Mounts to the Legacy to keep the router bits and wrenches close by. Includes (10) 1/4" holes & (10) 1/2" holes.

2000, 1800, 1200, & 900

\$2900



HORIZONTAL TURNING CENTER

Create custom rosettes, bowls, platters and circular mouldings up to 24" diameter.

Horizontal Turning Center

- Up to 24" diameter
- Up to 3" thick flat-stock
- 4, 8, 16, 32 position Indexing
- Adjustable bed for tapering
- Heavy-duty steel construction
- Extruded aluminum rails
- Stand-alone system
- Uses any standard plunge router



Custom Rosettes



Frames



Mouldings



Escutheons



Bowls



(Router not included)

\$440⁰⁰

SHOP TOOLS & SUPPLIES

Pen Mandrel -

Use this #2 MT mandrel in the Legacy to mill rope or fluted writing pens and pencils.

\$2995



Set of 15 Feeler Gauges -

Helpful for making fine adjustments to the plunge depth of your router.

\$3800



Precision Dial Calipers -

Available in 6" & 12" capacity.

\$5800 \$9500

Eliminator Chuck -

Quick change chuck uses a 1-handle allen wrench to change bits out (Porter-Cable router or Bosch routers only).

\$5800



Foot Switch -

For ease of use when turning the router or other power tools on. Protective shroud keeps falling objects from tripping the switch.

\$3900



1/4" Reducing Collett -
Fits the eliminator chuck. For use with 1/4" shank router bits.

\$2000

DynaGlide Dry Lubricant & Cleaner -

Fantastic product for keeping the Legacy running smooth. Great for saw blades, router bits and tool surfaces.

\$1200



Hearing Protection -

Fully encloses the ear and seals tightly against the head. Noise reduction rating: 27.

\$2500

Diamond Duofold Whetstone -

Medium & Coarse - Extend the life of your router bits by eliminating the need for sending router bits out to be sharpened.

\$3900



Safety Glasses -

Wrap-around style. These glasses are impact resistant and lightweight for a comfortable fit.

\$850

4-Jaw Chuck

Mounts to the drive shaft of the Legacy and replaces the spindle shaft. Jaws close concentrically on the part to insure centered alignment. 1 x 8 tpi. Jaws hold round stock from 1 1/4" - 2 3/4", square stock from 1 3/8" - 2 1/2".

\$15900



Advanced Legacy Builder Projects

Grape Arbor

Shop Notes & Video Available!

TECHNIQUES:

- Arches
- Tapered/Fluted Columns
- Square Turnings
- Round Finials



4-Poster Bed

Shop Notes & Video Available!

TECHNIQUES:

- Joinery
- Tapered Round Posts
- Finials
- Router Bit Turnings



Hollow Spiral Plate Rack

Shop Notes & Video Available!

TECHNIQUES:

- Barley Twist
- Hollow Spiral
- Finger Box Joints
- Tenons



Spool Bed

Shop Notes & Video Available!

TECHNIQUES:

- Template Follower
- Joinery
- Square - Round Turnings



Gate-Leg Table

Shop Notes Available!

TECHNIQUES:

- Round Table Top
- Reeded Contours
- Template Follower
- Joinery
- Finger Joints



