

WOODSHOP

Shaping the Successful Shop™

www.woodshopnews.com

February 2013

NEWS®

Always up for the challenge

Idaho's Interwest
Cabinet won't rest
on its laurels

**Entry-level CNC
market update**

**Different options
for joining wood**

**A beginner's guide
to discovering veneer**

NEW TOOLS

- DeWalt miter saw
- Makita sander
- Panasonic drill/driver
- Powermatic drill press

\$3.95 (Canada, \$5.95)





INNOVATIVE PRODUCTS SINCE 1989!



SHOP FOX® machines are backed by a 2 Year Warranty!

TRACK SAW

- Motor: 120V, 9A, 1100 watt, 5500 RPM
- Blade diameter: 160mm (6¼")
- Cutting capacity:
With track: 1¾" @ 90°, 1⅞" @ 45°
Without track: 2⅝" @ 90°, 1⅞" @ 45°



W1832 Track Saw
Track not included

D4362 Guide Rails **D4363** Accessory Pack

14" BANDSAW

- 1 HP, 110V/220V
- Precision ground cast iron table measures 14" x 14" x 1½"
- Blade Size: 93½" (⅞" to ¾" wide)
- Cutting capacity 13½" (throat)
- Cast iron frame and wheels
- Ball bearing blade guides
- Includes fence and mitre gauge

Feature packed, and an incredible value

W1706 14" Bandsaw



5 HP SPINDLE SHAPER

- Motor: 5 HP, 220V, single-phase, 25A, 3450 RPM
- Precision ground cast iron table measures 35½" x 28" x 2⅝"
- Spindle travel: 3¼"
- Spindle sizes: ¾", 1", 1¼"
- Spindle capacity: 4¼", 4⅝", 5⅞"



W1827 5 HP Spindle Shaper

10" TABLE SAWS with Riving Knife

- 3 HP, 220V, single-phase motor
- Cast iron table size:
27" x 40¼" (W1819) 53⅝" w/extension, (W1820) 74" w/extension)
- Max. rip capacity: (W1819) 29½", (W1820) 50"
- Camlock fence with HDPE face

Free 10" Carbide-Tipped Blade

W1819 10" Table Saw

W1820 10" Table Saw w/ Long Ext. Table



SLIDING TABLE and ROUTER TABLE ATTACHMENTS for W1819 & W1820



SAW NOT INCLUDED

W1821
SLIDING TABLE ATTACHMENT

- Industrial grade anodized aluminum table size: 47" x 9"
- Max. cross cut: 48"

W1822
ROUTER TABLE ATTACHMENT

- Precision-ground cast iron table size: 27" x 20"
- Universal router mount

OSCILLATING BENCHTOP SPINDLE SANDER

- ½ HP, 120V, single-phase, 3.5A
- Table size: 15" L x 11½" W
- 58 Oscillations per minute
- Stroke length: ⅝"
- 2000 RPM (½" spindle)



W1831 Oscillating Benchtop Spindle Sander

OUTSTANDING SHOP FOX® DUST COLLECTORS

PORTABLE CYCLONE



Only 70½" Tall!

- Motor: 1½ HP, 110V/220V, pre-wired 110V, single-phase
- CFM: 806
- Filter: 2.0 micron, pleated
- 20 gal. steel collection drum with casters
- Inlet: 6" (or 4" x 2" with included Y)
- Maximum static pressure: 10.4"
- Includes remote control

W1823 1½ HP Portable Cyclone Dust Collector



WALL DUST COLLECTOR



- Motor: 1 HP, 110V/220V, single-phase
- Air suction capacity: 537 CFM
- Bag capacity: 2 cubic feet
- Standard bag filtration: 2.5 micron
- Static pressure: 7.2"

W1826 Wall Dust Collector



3-SPEED HANGING AIR FILTER



- Motor: ⅞ HP, 120V, 60Hz, 1A single-phase
- Air flow: 260, 362, and 409 CFM
- Outer filter: 5.0 micron
- Inner filter: 1.0 micron



INCLUDES TIMER AND REMOTE!

W1830 Hanging Air Filter

WOODSTOCK INTERNATIONAL, INC. IS ALSO HOME TO PRO-STICK®, PLANER PAL®, JOINTER PAL®, AND MANY OTHER FINE BRANDS.
PLEASE VISIT OUR WEBSITE OR CALL TOLL FREE TO FIND AN AUTHORIZED DEALER NEAR YOU.

SHOPFOX.BIZ

sales@shopfox.biz WHOLESALE ONLY



1-800-840-8420

SHOP FOX® is a registered trademark of Woodstock International, Inc.



I didn't know...

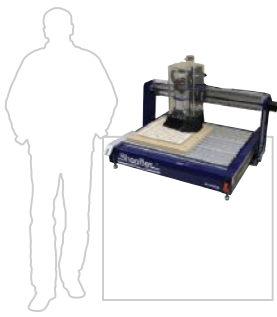
Stiles offers a full range of dust control solutions.

Stop blowing dust around. Protect the premium quality of your work from dust by equipping your shop with a dust control or cleaning system. Your dust collection system plays a vital role in protecting the quality of your finished product and the efficiency of your machine's operation. Stiles offers economical solutions for any sized shop, from stand-alone units to centralized dust management systems. Let our experts help you choose the best solution for your business.

For more information, contact Stephan Waltman at **616.698.7500** or **swaltman@stilesmachinery.com**.
Or visit us at **www.stilesmachinery.com**.

stiles

Woodworking's coming back. Get ready.



PRStandard series

PRAlpha series

ShopBot Desktop

The affordable, small-sized digital fabrication powerhouse with a compact footprint (18" x 24" x 4" work area). You can prototype and make whatever you want in just about any material you want — wood, plastics, foam, aluminum. This tool is a platform designed for evolving interests and needs: Beyond the base router or industrial spindle, you can choose add-ons such as a drag knife, diamond engraving bit or rotary indexing head.

ShopBot Buddy

The award-winning ShopBot Buddy with moving deck provides industrial power, precision and reliability in a workspace as small as 16 square feet. The Buddy is designed for industrial, commercial or residential applications in wood, acrylic and aluminum. The tool incorporates many of the features of ShopBot's full-size systems, yet it weighs less than 600lbs. Optional casters allow you to easily move and reconfigure the Buddy to suit changing production needs.

Full-Size Tools

ShopBot offers a standard shop-sized 96 X 48 tool *or larger*. Used in professional woodworking and other manufacturing operations, STEM classrooms, museums, universities and many other settings, these ShopBots provide advanced technology in a tough, full-production CNC tool for wood, plastics, aluminum, and more. The PRAlpha series full-size tools feature rapid transit speeds of 1800 inches/minute (600 inches/minute for cutting), high precision and impressive power.

5-Axis Tools

The wrist-like spindle head of this tool is another demonstration of our technology leadership. The ShopBot 5-Axis CNC delivers multi-axis capability at an affordable price (less than \$40,000). The ShopBot 5-axis has a work area of up to 6'x3'x2'. It is designed for production cutting, drilling, trimming, as well as prototype-and fixture-machining in a large work envelope, accessible from all angles.

The housing market is starting to grow again, which means that woodworking and cabinet making will follow. It's going to be a new economy for woodworkers — built around new business and manufacturing technologies. ShopBot is the go-to resource for integrating digital processes into your shop — here's why:

- **We were the first.** In 1996, we introduced the world to agile CNC tools that are affordable for every shop. Thanks to ShopBot's award-winning tools, there's no need for you to invest in expensive, big-iron tools to go digital.
- **We're CNC hardware AND software experts.** Unlike many companies, we build the tools AND create the software and control systems — with a focus on making everything user-friendly so it's easy to get up and running quickly.
- **Every tool is designed, built and supported in Durham, NC.** So if you need technical support, it's here for you, free, 7 days a week. Provided by the people who build the tools.
- **We've put the internet to work to help our customers grow their businesses.** The 100kGarages.com community is here for digital fabbers, designers and customers to collaborate and do business together from anywhere in the world.

Get ready! Learn how agile, affordable, well-supported technology can empower your business. Visit **WoodworkersGoDigital.com**.

ShopBot[®]
ShopBotTools.com
888-680-4466

We make
the tools
for making the
future.

Do Less. Make More.

You're a professional who's passionate about his work. You know that it takes a dedication to the craft and years spent honing your skills to deliver exceptional work you can be proud of.

But when you spend the majority of your precious time on needless prep work or cleanup, you're left with less time to focus on value-adding work, and slimmer profits at the end of the day.

That's why Festool builds tools that work as a cohesive system—designed for precision, efficiency, and ultimately, to make you better at what you do.

We want you to reach the highest levels of excellence in your work, in less time, and with more money in your bank account.

And most importantly, we want you to be proud of what you accomplish.

The New Domino XL Joiner



Visit us at festoolusa.com to learn how you can produce better work and make more money, while spending less time on the thankless tasks that get in the way.

FESTOOL®

Faster. Easier. Smarter.

Table of Contents



30

Features

- 30 ENJOY THE JOURNEY:** Owner of Interwest Cabinet in Idaho knows that a new day always brings new challenges in a small shop.
- 35 CNC HITS A WHOLE NEW LEVEL:** Lower costs and more compact setups are just two of the advantages that small shops can take advantage of in the new marketplace.
- 40 EVERYTHING AND THE KITCHEN SINK:** Dan Booterbaugh has built his business with support from his family, long hours of toil and a variety of options for consumers.

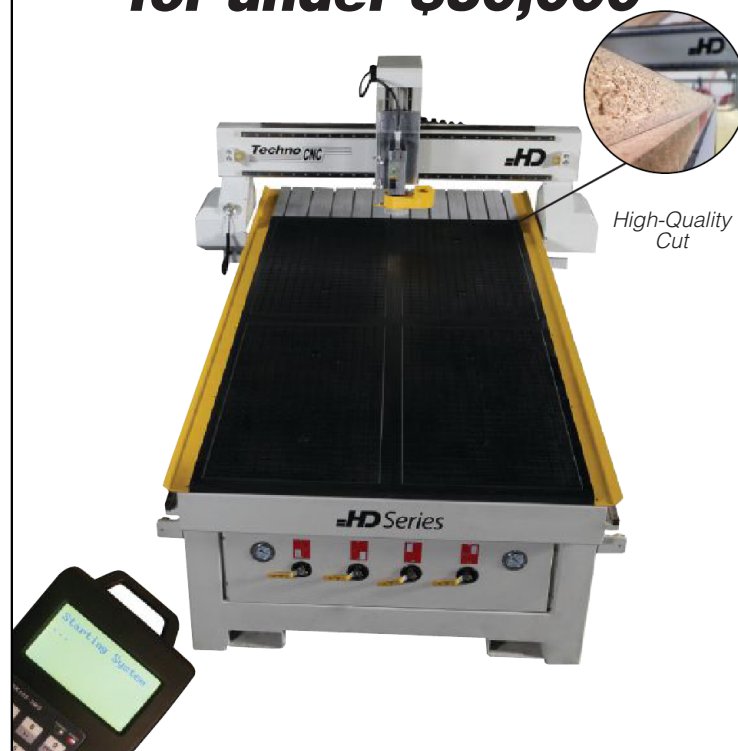
News Desk

- | | |
|--|---|
| 10 Community shop in Cleveland takes off. | 14 Furniture Society seminars head to L.A. |
| 12 ShopBot hires new director of education. | 27 WOOD MARKETS: Cherry remains 'standard' for craftsmen. |

PHOTOS: BROWN PHOTOGRAPHY (TOP, COVER)

Techno Inc. *In Business Since 1986*
CNC ROUTER SYSTEMS
1-800-819-3366

NEW **=HD Series**
Cabinet Nesting Machine
for under \$30,000



Watch =HD Cabinet Nesting Video at

www.technocnc.com/cnc-router-systems/hd-series-cnc-router.htm

- 4 x 8 and 5 x 10 Stock sizes
- 4 HP HSD collet spindle
- Brushless stepper drive motors
- Fully programmable speeds up to 18,000 RPM
- 4-Zone vacuum table
- 10 HP Becker oil-less rotary vane vacuum pump
- Easy to use hand-held controller
- Rent for \$99/month  CabMaster Cabinet Design Software for complete Turnkey Cabinet Nesting Solution!

www.technocnc.com



YOUR WORK COULD BE PASSED DOWN FOR GENERATIONS. SO COULD YOUR TOOLS.

Like everything you build, General tools are made to withstand the test of time. Our 10" Left Tilt Table Saw is no exception. Its features include a ruggedly built saw carriage with solid cast-iron cabinet mounted trunnions, powerful 2HP motor and a sturdy, easily adjustable T-fence design rip fence system. And the 44" x 27" precision-ground cast-iron table with dual extension wings provides a huge working surface. Come to think of it, you may not want to pass down this saw after all. To learn more about our entire line of woodworking tools, visit your nearest dealer or go to www.general.ca.



www.general.ca

General® International USA Inc., 760 Jessica St., Murfreesboro, TN 37130



16



17

Tools & Techniques

- 16 DeWalt miter saw focuses on accuracy.
- 17 Makita sander has one-touch switch control.
- 18 Panasonic drill offers switchable battery packs.
- 19 Powermatic revamps 18-inch drill press.

Columns

- 20 **FINISHING:** Overcoming a reluctance to spray.
By Greg Williams
- 22 **PRO SHOP:** Joinery options.
By John English
- 43 **THE CUTTING EDGE:** Working with veneers.
By John English

Departments

- 9 Taking Stock
- 46 New Products
- 48 At the Galleries
- 50 Calendar
- 52 Classified
- 56 Out of the Woodwork

Visit us online at www.woodshopnews.com

Blogs



Over the Workbench

Talkin' shop with former editor A.J. Hamler



This Business about Woodworking

Share an opinion with David DeCristoforo but don't expect to be right

- **Contact Customer Service**
www.woodshopnews.com/subscribe
- **Tools & Machinery**
www.woodshopnews.com/tools-machines
- **Contact the Staff**
www.woodshopnews.com/contact-us
- **Advertising Information**
www.woodshopnews.com/advertise
- **2013 Online Resource Guide**
<http://resourceguide.woodshopnews.com>



Metal Corbels & Brackets



Fusion Legs



Table Slides & Apron Kits



Osborne Wood Products, Inc has a large selection of wood turnings and components. Visit us online to see our product offerings and place your order.

- Table and Island Legs
- Bun Feet
- Corbels
- Moldings
- and much more!



Scan the code to visit our homepage



www.osborneparts.com
866.963.5578

Creating Cash-flow For Small Shops

Even though 2013 looks to be a healthy year for the woodworking industry, economic recoveries can stutter and there will still be some slow days. 1-800-BUNKBED was designed for precisely that. The New Hampshire-based company has a program that offers small (mostly one and two-man) shops a way to use their existing equipment and know-how to create a reliable flow of cash, and eliminate slow days.

Jim Rees, president and founder of the company, says that "hundreds of shops have taken up the opportunity to run their own territory, with business locations in most U.S. states and all through Canada".

The idea started in the early '90s when Rees was searching for bunk beds for his children. What he found were either poorly made, or just too expensive. So, being a woodworker, he built the beds himself. When his family and friends saw the results, they all wanted in.

"I started getting phone calls," says Rees, who at the time ran a general contracting business in Gloucester, Massachusetts. "Lots of calls. In fact, I had so many orders that I started

1-800-BUNKBED as a manufacturing company, selling directly to the public and also to wholesale furniture stores."

From the beginning, Rees decided against of-

fering franchises.

"We don't ask for a percentage of the sale," he says. "A shop's profit is their profit." And while the business gives participants the benefits of a franchise (such as protected territories, instant brand name recognition, and ongoing support), it does not require huge up-front fees and micromanagement. The program he offers, which is described on the company website, requires just a \$95 setup fee and a small monthly licensing fee. Each 1-800-BUNKBED independent owner gets a manual with materials and parts lists, a formula to determine pricing for all products, building and assembly directions, and marketing suggestions. In addition, they receive the 1-800-BUNKBED phone number routed to their designated phone, a website and email address.

With two decades of success, 1-800-BUNKBED is a member of the U.S. Chamber of Commerce, New Hampshire Business and Industry Association, and also the Better Business Bureau.

1800BunkBed
It's Your Business!™

Phone: (603) 347-8332

E-mail: jrees@1800bunkbed.com

Website: www.1800bunkbed.com/wn



Bunk beds may not be high-end,
but they are **High Profit!**

**With 1800BunkBed, grow both your
business and your bank account!**

Would you rather net \$10/hr or \$100/hr?

Become part of 1800BunkBed and **create extra cash-flow while increasing the sales of your other products!**

1800BunkBed

It's Your Business!™

A Proven Woodworking Business Since 1994!



"Great Program!!! Easy to build, great product!!! Fantastic marketing program! Where else can you start a business for so little money and get national brand recognition? I love it!"

-Billy M., 1800BunkBed Business Owner

For details, call **603-347-8332** or visit us
at **1800BunkBed.com/wn**

You Get: Construction Plans | Marketing Procedures | Access to our Top Producer.

Editor: TOD RIGGIO
Staff Writer: JENNIFER HICKS
Online Editor: MIKE TROCCHI
Art Director: STEVEN JYLKKA
Design Supervisor Print/Web: KELLY A. LEACH
Editorial Assistant: ESTHER POPE

Group Publisher: GARY DeSANCTIS

Group Digital Director: IAN C. BOWEN

Group Circulation Director: STEPHANIE FLANAGAN

ADVERTISING INFORMATION AND OFFICES

Main Office, 10 Bokum Road, Essex, CT 06426

AL, AZ, CA, CO, CT, FL, GA, HI, IL, IN, IA, MN, NJ, NM,
 NV, OH, OR, PA, TN, WA, & all international

National Sales Manager: RORY BEGLIN
 (860) 767-3200 Ext. 242, Fax (860) 767-1048
 E-mail: rory@woodshopnews.com

AK, AR, DC, DE, ID, KS, KY, LA, ME, MD, MA, MI, MS,
 MO, MT, NE, NH, NY, NC, ND, OK, RI, SC, SD, TX, UT,
 VT, VA, WI, WV, WY

National Account Manager: ALEX ROBERTSON
 (860) 767-3200 Ext. 284, Fax (860) 767-1048
 E-mail: alex@woodshopnews.com

Classified Marketplace Advertising
 (860) 767-3200 Ext. 284, Fax (860) 767-1048
 E-mail: marketplace@woodshopnews.com

Business Office Manager: KATHRYN MOISA

Group Circulation Manager: CLAIRE BRAYFIELD
Circulation Marketing Manager: MATTHEW BOYLES
Circulation Assistant: BILL STREETO

IT Manager: ELAINE CIRILLO

Production Manager: SUNITA PATEL
Sr. Production Coordinator: BOB CORTELLINO
Production Coordinators: LAUREN EGAN
 JEANNINE McNEIL
 BRIANA SMITH

Woodshop News, (ISSN 0894-5403, U.S.P.S. 000-966),
 Vol. XXVII, No. 3, is published monthly by Cruz Bay Publishing, Inc., an
 Active Interest Media company. The known office of publication is: 10
 Bokum Road, Essex, CT 06426. \$21.95 for one year; \$35.95 for two years
 (Canadian subscribers add \$12 per year for postage; U.S. funds, foreign
 subscribers add \$14 per year for postage; U.S. funds). Periodicals postage
 paid at Essex, CT, and additional mailing offices. Printed in the U.S.A.

POSTMASTER: SEND ADDRESS CHANGES TO:
 Woodshop News, PO Box 433211, Palm Coast, FL 32143-3211
CANADA POST RETURN ADDRESS UNDELIVERABLE TO:
 DPGM 4960-2 Walker Road, Windsor, ON N9A 6J3
 Canada Post Publication Mail Agreement No 40975036.
 Subscription Customer Service and Orders:
 Call (800) 243-9177, Mon. - Fri. 7:00 am to 12:00 pm Midnight EST.
 Sat. - Sun. - 9:00 AM to 6:00 PM EST.
 Classifieds (860) 767-3200, Mon. - Fri. 8:30 am - 5:30 pm EST.

Headquarters: 10 Bokum Road, Essex, CT 06426
 (860) 767-3200 • Fax (860) 767-0642

Editorial E-mail: editorial@woodshopnews.com

Circulation E-mail: circulation@woodshopnews.com

Advertising E-mail: sales@woodshopnews.com

Website: www.woodshopnews.com

Advertising Billing Questions: (310) 356-4121



Chairman & CEO: EFREM ZIMBALIST III
President & COO: ANDREW W. CLURMAN
Senior VP & CFO: BRIAN J. SELSTROM
Senior VP, Operations: PATRICIA B. FOX
VP, Controller: JOSEPH COHEN
Director of Retail Sales: SUSAN ROSE
Retail Sales Manager: BEV GIACALONE
VP, Research: KRISTY KAUS

Copyright 2013 © Cruz Bay Publishing, Inc.



TAKING STOCK

with TOD RIGGIO

CMA study gives a glimpse at how shops are evolving

We used to ask our profile subjects, as a matter of practice, about their most indispensable tool. The answers ranged from a card scraper or router to a CNC machine and Woodshop News (shameless plug, I know, but I really like my paycheck). My other favorite answer was involvement with a guild or association. Of course, membership isn't a physical tool used in the shop, but the benefits of networking with your peers, educational opportunities and the band of brotherhood shouldn't be overlooked.

There are several outstanding organizations that cater to the needs of smaller shops, such as The Furniture Society. On Page 14, you can learn about the group's upcoming symposium in Los Angeles, which I'll endorse as certainly worth your while to attend. But while that group exists mostly for studio furniture makers, the Cabinet Makers Association targets the sweet spot of the Woodshop News audience — small- to medium-sized custom and production furniture, cabinet and architectural millwork shops.

The CMA holds regional chapter events and educational seminars at the major trade shows, produces a quarterly print publication, Profiles, and a monthly e-newsletter. It has recently developed a professional certification program to acknowledge the skill, integrity and business acumen of its most deserving members.

Another example of CMA's benefits is the Benchmark Study, an annual survey of members and non-members that documents industry practices and provides a better understanding of what is and isn't driving business growth among professional woodworkers.

The CMA has provided a summary of its 2013 study (the full report was scheduled for release in February, after deadline).

Here's what I found most interesting:

- Survey participants were predominantly from smaller shops, with two-thirds (67.9 percent) representing shops with revenues of less than \$1 million; and nearly half (46.8 percent) working out of 5,000 sq. ft. or less of space. Most (66.8 percent) employed fewer than eight workers.
- Most (76.6 percent) shops have no dedicated marketing budget, instead relying on referrals from customers and business associates such as contractors and designers as their top source of qualified leads, mentioned by 95.3 percent of respondents.
- Only one in four respondents (24.9 percent) reported having a full- or part-time resource dedicated to sales. The bigger shops tend to employ dedicated sales staffs, while those with revenues below \$1 million tend to use part-timers or outside reps.
- Four out of five shops (81 percent) billing more than \$1 million report having CNC equipment, compared to only one third (34.5 percent) of smaller shops.
- Smaller shops — those under \$1 million — were twice as likely to report sales declines in 2012 compared to their larger colleagues, with 13.2 percent of smaller shops reporting lower sales last year and 7.9 percent among larger shops. The good news is that both groups had a better year last year than the year before.
- Shops with showrooms outperformed their counterparts slightly, with 58 percent of showroom shops indicating sales increases vs. 51.3 percent of non-showroom operations. Those with showrooms usually host them in the same location as their shops (90.7 percent) rather than in remote locations.

For more information, visit www.cabinetmakers.org.

NEWS DESK

Cleveland community shop takes off

Custom furniture maker offers his equipment and expertise to the public for monthly or pay-as-you-go fees

By Jennifer Hicks
STAFF WRITER

After making the career change from lawyer to professional furniture maker, Peter Debelak decided to test his entrepreneurial skills as well. Last July, he opened the doors to Soulcraft Woodshop in Cleveland, a community woodworking shop that allows locals to rent shop space and equipment to suit their individual project needs.

A former labor law attorney, Debelak says his career in the legal world was so frustrating it forced him to focus on his true passion.

"I guess you could say I'm a recovering lawyer. I've been working with wood for the last 15 years and as a moneymaking hobbyist for about five years. Two years ago I started making furniture full-time. Then a colleague of mine, Jim McNaughton, and I both independently had the idea to set up a community woodshop where the public can access the equipment. It's kind of like a fitness club where you get a monthly membership and can use all the equipment and take classes," says Debelak.

With the help of McNaughton as a co-owner, Debelak rented out a space already used by a host of other artists in a 300,000-sq.-ft. converted meat factory in the outskirts of the city. The two started acquiring tools and work tables, purchasing some of them new while others were donated by local high school shops and retiring woodworkers.

A monthly membership pass sells for \$120, while a pay-as-you-go pass to complete an individual project starts at \$50. The shop currently has six fulltime members and has had about 30 patrons through its doors in varying capacities. Debelak enjoys being able to continue to run his business as a custom furniture



Peter Debelak opened Soulcraft Woodshop to give those without shops of their own a chance to unleash their creativity.

maker, while tending to those in the shop who rely on his expertise.

"I still make and sell my own furniture out of this shop. The community shop covers all the bills here and it's created a great environment. I love being in a space where there's constantly creative energy with people trying to bring their ideas to fruition. It's not purely about just tool access. I walk around the shop a lot and help people move to the next stage of their projects."

The owners offer various classes and tutorials when they get enough interest from their

members, and in the process of scheduling regular furniture making and other miscellaneous woodworking classes. He adds that he and McNaughton see the venture as lucrative and promising, as there's not much in the way of competition.

"There are a couple of places around that teach classes, but nothing major. No other place allows people access to work on their own projects."

Contact: Soulcraft Woodshop, 3619 Walton Ave., Cleveland, OH 44113. Tel: 216-644-0955. <http://soulcraftwoodshop.com> 



Grizzly Industrial

PURVEYORS OF FINE MACHINERY®, SINCE 1983!

- OVER A MILLION SQUARE FEET PACKED TO THE RAFTERS WITH MACHINERY & TOOLS
- 2 OVERSEAS QUALITY CONTROL OFFICES STAFFED WITH QUALIFIED GRIZZLY ENGINEERS
- HUGE PARTS FACILITY WITH OVER 1 MILLION PARTS IN STOCK AT ALL TIMES
- TRAINED SERVICE TECHNICIANS AT ALL 3 LOCATIONS • MOST ORDERS SHIP THE SAME DAY

6" JOINTER

- Motor: 1 HP, 110V, single-phase
- Precision-ground cast iron table size: 7½" x 46"
- Cutterhead diameter: 2½"
- Cutterhead knives: 3
- Cutterhead speed: 4800 RPM
- Approx. shipping weight: 260 lbs.

FREE PAIR OF
SAFETY PUSH
BLOCKS

WITH BUILT-IN
MOBILE BASE

G0452P ONLY \$525⁰⁰



\$79
shipping
Power 48 states

ULTIMATE 14" BANDSAW

- Motor: 1 HP, 110V/220V, single-phase, TEFC
- Precision-ground cast iron table size: 14" sq.
- Table tilt: 15° L, 45° R
- Cutting capacity/throat: 13½"
- Max. cutting height: 6"
- Blade speeds: 1500 & 3200 FPM
- Approx. shipping weight: 196 lbs.

See our website for
Reviews & Awards
grizzly.com

MADE IN
ISO
9001
FACTORY!

MADE IN TAIWAN

G0555P ONLY \$525⁰⁰



\$79
shipping
Power 48 states

1½ HP SHAPER

- Motor: 1½ HP, 110V/220V, single-phase
- Precision-ground cast iron table size: 20¾" x 18"
- Spindle travel: 3"
- 2 interchangeable spindles: ½" & ¾"
- Spindle speeds: 7000 & 10,000 RPM
- Max. cutter dia.: 5"
- Approx. shipping weight: 240 lbs.

SP
C 177335

MADE IN TAIWAN

G1035P ONLY \$560⁰⁰



\$79
shipping
Power 48 states

10" HYBRID TABLE SAW with Riving Knife

- Motor: 2 HP, 110V/220V, single-phase
- Precision-ground cast iron table size with wings: 27" x 40" • Arbor: 5/8"
- Arbor speed: 3850 RPM
- Capacity: 3⅝" @ 90°, 2⅜" @ 45°
- Rip capacity: 30" R, 12" L
- Approx. shipping weight: 404 lbs.

CAST IRON TRUNNIONS



SP
C 232857

G0715P ONLY \$795⁰⁰

\$99
shipping
Power 48 states

CYCLONE DUST COLLECTOR

- Motor: 1½ HP, 110/220V, single-phase, TEFC, 3450 RPM
- Air suction capacity: 775 CFM
- Intake port: 6" with included 5" optional port
- Built-in remote control switch
- Impeller: 13½"
- Height: 65½"
- Approx. shipping weight: 210 lbs.

FULLY MOBILE
WITH BUILT-IN
CASTERS

MADE IN TAIWAN

G0703P ONLY \$795⁰⁰



\$79
shipping
Power 48 states

8" JOINTERS with Built-in Mobile Base

- Motor: 3 HP, 220V, single-phase, TEFC
- Precision-ground cast iron table size: 9" x 72½"
- Max. rabbeting depth: ½"
- Cutterhead dia.: 3"
- Cutterhead speed: 5000 RPM
- Approx. shipping weight: 500 lbs.



G0656P ONLY \$825⁰⁰

WITH SPIRAL CUTTERHEAD

G0656PX ONLY \$1225⁰⁰

\$150
shipping
Power 48 states

17" HEAVY-DUTY BANDSAWS

- Motor: 2 HP, 110V/220V, single-phase, TEFC
- Precision-ground cast iron table size: 17" sq.
- Table tilt: 10° L, 45° R
- Cutting capacity/throat: 16¼"
- Max. cutting height: 12⅝"
- Blade size: 131½" long
- Approx. shipping weight: 342 lbs.

TOP
VALUE

See our website for
Reviews & Awards
grizzly.com

MADE IN ISO 9001 FACTORY!

MADE IN TAIWAN

G0513P ONLY \$895⁰⁰
CLASSIC GRIZZLY GREEN

G0513 ONLY \$895⁰⁰



\$99
shipping
Power 48 states

15" PLANERS with Built-in Mobile Base

- Motor: 3 HP, 220V, single-phase
- Precision-ground cast iron table size: 15" x 20"
- Max. cutting depth: ⅞"
- Feed rate: 16 & 30 FPM
- Cutterhead speed: 5000 RPM
- Approx. shipping weight: 660 lbs.

G0453P ONLY \$1095⁰⁰

WITH SPIRAL CUTTERHEAD

G0453PX ONLY \$1695⁰⁰



\$150
shipping
Power 48 states

3 HP DUST COLLECTOR

- Motor: 3 HP, 240V, single-phase, 12A
- Blower/impeller: 12¾" balanced cast aluminum
- Airflow capacity: 2320 CFM
- Max. static pressure: 16.9"
- Sound rating: 87dB
- 7" inlet has removable "Y" fitting with three 4" inlets
- Canister filter size (dia. x depth): 19⅝" x 23⅝" (2)
- Bag capacity: 11.4 cubic feet
- Overall dimensions: 57⅝" long x 32" wide x 71" high
- Approx. shipping weight: 232 lbs.
- CSA certified

SP
C 247570



G0562ZP \$925⁰⁰ ONLY \$675⁰⁰

\$79
shipping
Power 48 states

PRICING CODE
13WOODS
MENTION THIS CODE
WHEN PLACING YOUR ORDER
15497

FOLLOW US ON



1-800-523-4777 grizzly.com®

3 GREAT SHOWROOMS!
BELLINGHAM, WA • MUNCY, PA • SPRINGFIELD, MO



TECHNICAL SERVICE:
570-546-9663
FAX: 800-438-5901

ShopBot hires new director of education

Randy Johnson was recently hired by ShopBot Tools to be involved with project-oriented education in U.S. schools

By Jennifer Hicks
STAFF WRITER

ShopBot Tools hired Randy Johnson, former editor-in-chief of American Woodworker magazine, as its director of education.

A newly created position, Johnson's role will be to provide educators with practical advice and information to the communities of ShopBot's 100kGarages.com and 100kSchools.org.

100kGarages.com is an online community where people with ideas for custom products connect with digital fabricators. 100kSchools.org is a new educational initiative that was launched in January and will serve a similar function by connecting teachers with resources. Johnson says he's looking forward to working with CNC and digital fabrication issues as applied to schools.

"I will be working with schools and small businesses to help them adapt digital technologies and develop CNC-based projects and



develop curriculums to help them adapt the technologies in their classrooms. I'll be traveling quite extensively to meet with teachers and educational leaders around the country," Johnson says.

ShopBot CEO Ted Hall says the CNC manufacturer picked Johnson because of his enthusiasm for digital fabrication and inter-

est in using it to enhance woodworking education.

"Randy has been creating industry-leading articles on CNC and digital fabrication, his background and interests are in education and he's always made an effort to reach out to schools so he's kind of a natural for us," says Hall.

Hall adds that Johnson has also been involved with organizing and contributing content to the new 100kSchools.org program so that it reaches beyond existing ShopBot customers.

"We've had educational supports on our website for a long time. We've offered training and we've worked with schools, but it's all been exclusively ShopBot-oriented and we felt like we could make a contribution to the community by essentially creating a 100kschools.org website that offers digital fabrication resources to teachers and educators."

Contact: ShopBot Tools Inc., 3333 Industrial Dr., Durham, NC 27704. Tel: 888-680-4466. www.shopbottools.com

Vectric

PASSIONATE ABOUT CNC

Complete Software Solutions

for your CNC Router

- Efficient 2D Design
- Powerful 3D Modeling
- Easy to Use

- Reliable Machining
- Realistic Part Preview
- Sensibly Priced

Vetric software combines power and simplicity so you can get the results you want from your CNC. Our range of packages all have free support, free high quality training videos and great user resources; such as our excellent online forum and free monthly projects. Download the trial version today to see how easy it is to design parts and create toolpaths for your CNC.

Download FREE Trial Software - www.vectric.com/wsn

No registration required

CABINET & MILLWORKING SOLUTIONS



EVERYWHERE YOU LOOK.

Staying on top of industry developments—and ahead of trends—is an absolute must for your competitive success. Especially when housing is on the rise and the U.S. Millwork industry is expected to increase 11.4% annually to \$34.1 billion over the next 5 years.* AWFS®Fair has everything you need to grab your share of the growing market, with the latest software, building materials, equipment and supplies as well as world-class education and networking. You can't afford to miss it.

REGISTER NOW: www.awfsfair.org | 877.303.0711

Find us:     



JULY 24-27, 2013

LAS VEGAS CONVENTION CENTER

LAS VEGAS, NEVADA

www.awfsfair.org

Furniture Society seminars head to L.A.

Three-day event in June will focus on the city's design culture and include factory and studio tours

By Jennifer Hicks
STAFF WRITER

This year, the leaders of The Furniture Society have decided to deviate from their traditional conference format and instead hold a smaller seminar-style program. The FS2013: Los Angeles Symposium will be held June 20-23 at the L.A. Mart Design Center in Los Angeles. The three-day event unites leading furniture makers, design thinkers and curators from across the country for an ambitious roster of lectures, factory and studio tours and exhibitions.

Society vice president Steffanie Dotson says the focus of the conference will be to harness the energy of L.A.'s design culture to explore critical issues such as mass production, sustainability, innovation and creative business practices. The turnout is currently expected to be around 300 individuals, including both society members and non-members. She emphasizes that attending will be worth everyone's time.

"It's always good to see what's coming on the horizon. There are lots of changes going on in



HEARNE HARDWOODS INC

Extraordinary Hardwood Lumber

~Over 140 species & 1 million Feet of Inventory in Stock

~Table Top Slabs & Book Matched Material

~Custom-made Hardwood Flooring

~6' Vertical Bandsaw

200 Whiteside Drive ~ Oxford, PA 19363

888.814.0007 610.932.7400

Email: info@hearnehardwoods.com

Website: www.hearnehardwoods.com

the furniture world with all of the new technology with CNC and sharing about how people are streamlining their businesses, so it's informational and always inspirational," she says.

While typical conferences offer a host of hands on workshops and technique demonstrations, this year's will be limited to panel-type demonstrations because of space constraints at the chosen venue.

"We don't have access to any equipped woodshop spaces there, so we thought we'd go more of the design route. The symposium is going to focus heavily on design, talking

about manufacturing and limited production marketing and public relations. We're also taking a look at very interesting business models that makers and designers have, and come up with clever ways that they've been able to make it through the economy and make their businesses successful."

In addition to the programming scheduled for registrants, the symposium is offering a number of programs to the public, including a series of exhibitions exploring the intersection of furniture design and contemporary life; Up-Cycle, a design challenge giving furniture makers a day

to transform a pile of scrap and surplus material into a table, a chair and a household item; a curated exhibition highlighting student work, as well a series of tours to culturally significant locations in the L.A. vicinity.

The society is a non-profit, educational organization with the mission to advance the art of furniture making by inspiring creativity, promoting excellence and fostering an understanding of this art and its place in society.

Contact: The Furniture Society, 111 Grove-wood Road, Asheville, NC 28804. Tel: 828-255-1949. www.furnituresociety.org 

Turn-a-thon generates 10,000-plus pens

Woodcraft's ninth annual Turn for Troops turn-a-thon, held on Veterans Day weekend, produced 10,678 wooden pens for American service personnel on active duty and in rehabilitation facilities.

The turn-a-thon began in 2004. The volunteer effort, held at Woodcraft stores across the country, has produced a total of nearly 100,000 pens, according to the company.

For information, visit www.woodcraft.com.

Dates set for 2013 Fine Furnishings Shows

The schedule for the 2013 Fine Furnishings Shows, produced by KL Communications, in Maryland, Milwaukee and Pawtucket, R.I., has been announced.

The fifth annual mid-Atlantic region show will be held May 3-5 at the Maryland State Fairgrounds in Timonium, Md.

The eighth annual Midwest region show will be held Oct. 4-6 at The Garage at the Harley-Davidson Museum in Milwaukee.

The 18th annual New England region show will be held Nov. 1-3 at the Pawtucket Armory Arts Center in Pawtucket.

The Fine Furnishings Shows bring a talented mix of furniture makers and artists from across North America to each show location. The shows offer attendees the opportunity to buy, order, or commission handcrafted furniture, accessories, fine art, and craft in a variety of styles from a wide range of exhibitors.

For information, visit www.finefurnishingshows.com.



Freeborn Tool Company

QUALITY WITH A SOLID REPUTATION

**We've
MOVED**

**New Address
3304 E. Ferry Street
Spokane, WA 99202**

sales@freeborntool.com

www.freeborntool.com

1.800.523.8988

TOOLS & TECHNIQUES

DeWalt miter saw focuses on accuracy

By Jennifer Hicks
STAFF WRITER

DeWalt's new 12" sliding compound miter saw, model DWS780, is loaded with features designed for improved accuracy, durability and portability, according to the company.

Ideal for cabinetmakers, trim carpenters, framers, installers and professional contractors, this multipurpose saw steers clear of the trendy bells and whistles in favor of the attributes that professionals demand for day-in, day-out job-site use.

"This is a high-end product for someone doing lots of different applications. That's a unique thing about a sliding miter saw. It gives you a great deal of crosscut capacity, while also giving you the ability to do a wide range of crown moldings and base moldings, so it's really a diverse saw," product manager Michael Boie says.

The saw features LED lighting and a cut alignment system that casts a laser-like shadow on the work surface, showing users where the blade will come in contact with material.

Since it does not require recalibration over time or when changing blades, the alignment system can be more accurate and durable than traditional laser guides, according to Boie.

"The challenge with lasers in the past has been, as these saws get carried around from job to job or they get a kickback, that they will be knocked out of accuracy. This light system will always give you a shadow line every time and you don't have to worry about this light getting out of alignment," Boie says.

The saw also features a dual bevel system that includes the ability to bevel right and left from 0 to 49 degrees with positive stops at 0, 22.5, 33.9, 45 and 49 degrees in both directions, as well as a high-visibility bevel scale. The saw also miters 60 degrees to the right and 50 degrees to the left and features a miter detent plate with 10 positive stops, allowing for fast and easy adjustments. A cam lock miter button allows users to lock angles between detents for versatility on the job site.

The saw's 15-amp motor delivers 3,800 rpm. It offers a 6-3/4" vertical capacity, 7-1/2" nested crown capacity, 13-7/8" horizontal capacity and exclusive back fence design that cuts up to a 2x16 at a 90-degree angle and 2x12 at a 45-degree angle. The built-in dust collection system collects more than 75 percent of dust generated in the included bag, according to DeWalt.

The saw weighs 56 lbs., folds to a compact size and retails for \$599. Several stands are also available.

Contact: DeWalt. Tel: 800-433-9258. www.dewalt.com **W**



DeWalt's 12" sliding compound miter saw, model DWS780 and rolling stand, model DWX726, that folds up for easy transport.

Makita sander has one-touch switch control

Jennifer Hicks
STAFF WRITER

Makita introduced its new 18-volt LXT lithium-ion 5" random orbit sander, model LXOB01, to expand its lineup of more than 50 compact cordless tools. The tool's run time, versatility and superior economics make it ideal for carpenters, cabinetmakers, furniture builders, refinishers, boatbuilders and more, says the company.

The tool features three speed settings (7,000, 9,500, and 11,000 opm) that are easily changed with a one-touch electronic control switch. The sander will run up to 40 minutes at the low speed setting and up to 20 minutes on high speed on a single battery charge, says product manager Joe Soto.

"With three speed settings, superior ergonomics and up to 40 minutes of run time on a single charge, the new LXOB01 delivers increased efficiency and mobility to woodworkers," says Soto.

The 1/8" random orbit action is engineered for efficient sanding, fast material removal, and a swirl-free finish. A pad brake reduces free spin for improved overall finish and a control system regulates pad speed at startup, according to the company.

Additional features include an ergonomically-designed body and grip, a through-the-pad dust collection system and dust-sealed switch. The tool is 6-7/8" long and

weighs only 3.6 pounds. The sander uses quick-change 5" hook-and-loop abrasive paper.

The sander is available in a kit with two 18-volt LXT lithium-ion batteries, charger, dust bag and tool bag, and it retails for \$560.

Contact: Makita. Tel: 800-462-5482. www.makitausa.com **W**



BEAVER FREE SHIPPING
INDUSTRIAL SUPPLY REWARDS POINTS
WWW.BEAVERTOOLS.COM

New CMS Router Table

Portable, dust-free,
precision routing.



FREE T-SHIRT or CAP
with any tool order!

New TI-15 Impact Drill

A high-performance
impact driver with
full drill functionality.



1-800-365-6677 • Free Shipping on orders over \$50

FESTOOLS-ONLINE.COM



Panasonic drill offers switchable battery packs

By Jennifer Hicks
STAFF WRITER

Panasonic recently introduced its Tough IP line of lithium-ion cordless tools featuring Dual Voltage Technology, which gives the user the option of using different battery packs with different voltages. So instead of juggling two drill/drivers on the job site — a 14.4 volt for overhead work and an 18-volt to drive a bolt, for example — only one is needed.

Panasonic's new 1/2" drill/driver, model EY74A1X.

The line currently includes a 1/2" drill/driver kit, 1/4" impact driver kit, 1/2" impact wrench and reciprocating saw.

Panasonic's John Olson says the key to the new dual voltage tools is a proprietary motor technology that the company developed to keep performance at its best. While it's possible for batteries of different voltages to be switched on competitor's tools without Panasonic's technology, doing so could cause severe damage.

"You could take an 18-volt tool and put a 14.4-volt battery on it and it will work. But it will run a lot slower to the point of being unacceptable. You could probably put an 18-volt battery on a 14.4-volt tool if you wanted to, but it would run too fast and burn out the motor. Our dual voltage technology allows you to switch between the battery packs without doing any damage to the tool. So you can put an 18 on there and it performs just beautifully or put a 14.4 on and get the same type of performance," says Olson.

"Our dual voltage technology allows you to switch between the battery packs without doing any damage to the tool."

Panasonic's current lithium-ion batteries have Solid Solution technology, another proprietary process for dissolving and hardening cobalt and nickel and other key battery components, and a special heat-resistant ceramic coating layer that separates the cells and protects them from heat buildup, according to the company.

The 1/2" drill/driver offers a variable-speed motor, two-speed transmission, LED worklight and 18-stage clutch. The tool weighs 4.3 lbs. with the battery and is 8" long, according to the company.

The drill/driver, model EY74A1X, sells for about \$180. It's also available as a kit, model EY7450LS2S, for about \$465 that includes a charger, two 4.2Ah LS lithium-ion battery packs and a carrying case.

For information and prices on the other tools, visit www.panasonic.com or call 800-338-0552. **W**

new!

www.scmgroupna.com

scmgroup
north america

routech accord 30 fx

extremely fast setup of the worktable.

Machining centre for the production of door and window frames, doors, stairs, solid wood parts and generally all machining requiring lots of stock removal, whilst maintaining high standards in terms of precision and quality finish.

Improving your bottom line and providing superior results is our goal!

Powermatic revamps 18-inch drill press

Designed as a shop workhorse, features 1-hp motor and variable speed control with digital readout

By Jennifer Hicks
STAFF WRITER

After a well-received introduction at IWF 2012, Powermatic has brought its PM2800B 18" drill press to market. Designed for any type of drilling operation required by cabinet and furniture makers, the redesign incorporates a host of time-saving features, according to the company.

"What we've tried to do is make things very intuitive with this drill press, which is a bit of a workhorse in the shop. The most important feature is its variable speed because you never

have to touch the belt; you just basically turn the hand wheel to get to the desired speed and that speed comes out on the digital readout on the front of the machine," says product manager Joan Duvall.

The drill press has a 1-hp, single-phase, 15-amp motor prewired for 115 volts, providing a spindle speed range of 250 to 3,000 rpm. The spindle has a 6" range of travel with a maximum distance of 25-1/2" to the table.

"We made sure to have six inches of quill travel with a single revolution of the hand

wheel. This makes it much easier to do a project with one hand and still get the hole you desire," says Duvall.

There are two LED lights to illuminate the work area, while twin lasers mark the drill bit's location.

The cast-iron table measures 20" x 14" and tilts to 90 degrees. The supplied fence features two cam locks and an adjustable stop.

The drill press weighs 246 lbs. and stands 71" tall. It retails for about \$1,400.

For information, visit www.powermatic.com. **W**



The updated Powermatic 18" drill press, model PM2800B, features 6" of quill travel with one full turn of the hand wheel.

www.scmgroupna.com

scm pratix s

safe, compact and easy to use.

Why buy used when you can have the New Pratix S with full manufacturers warranty for about the same cost!

The Pratix S is the perfect match for those companies with limited space yet requiring the flexibility and performance of a CNC Router for an unbelievable price!

Improving your bottom line and providing superior results is our goal!



FINISHING

with GREG WILLIAMS

Don't be gun-shy about learning to spray coatings

Take a little bit of a risk, step outside your comfort zone and realize the benefits of spraying modern fast-drying finishing products

There's a certain amount of resistance among amateur finishers — or woodworkers who don't do large volumes of finished work — to use spray application equipment. As an outside salesman who traveled large parts of the country selling to both large factories and one-man shops, it was to my customer's advantage and to my own to be able to help them become more efficient and produce higher quality goods.

The smaller shops provided me with lots

of reasons for doing things the way they did, from "this is how my daddy did it," to "it lasts longer if you rub it on," or "my customers like it this way." This last one was from a finisher that used one pigmented stain for everything he did, regardless of wood or style, new wood, old wood, refinishing or antique restoration because "it's the best color ever made." Seldom would they admit that it had anything to do with the perceived cost of equipment or material,

and even more seldom that they simply did not know how to do any better.

The bottom line was that finishers tended to stick to what worked for them and, to justify their resistance to change, by averring that "I've never had a complaint," ignoring the possibility of doing more, better and faster just by learning and risking a little.

A number of factors have changed that picture through the years, including the Internet, woodworking groups who share knowledge more freely, books, tapes, DVDs, woodworking shows and finishing classes given by suppliers.

There are plenty of woodworkers, both amateur and professional, who are becoming more sophisticated and knowledgeable about finishing and many more who would like to become better, but are intimidated by the continued perceptions that:

- You need expensive and difficult-to-maintain equipment
- You need a dedicated area in which to spray coatings
- It is difficult to learn the techniques to spray effectively
- The materials are more dangerous (flammable, poisonous, injurious to the environment)

I'm not going to tell you here how to do it; you will find many other articles on how to

The New Super-Sized DOMINO XL

Save space, time and money.

Say goodbye to expensive, heavy equipment.

Bring the tool to the job.

1-877-TOOLNUT

POWERED BY **TOOLNUT**   



 See the XL in ACTION!



FESTOOL PRODUCTS.COM

perform common (and not-so-common) procedures in these pages and in several very good books readily available. What I'd like you to do is to consider with an open mind whether spray finishing is something that you can have fun with, improve the quality of your work or add value to your work.

I'm assuming you know the purpose of finishing wood. Essentially, it is to protect it and enhance its appearance. Whether you use wax, oil, varnish, shellac, lacquer or any of the more modern coating products, your goal is to create and/or preserve a look, feel and utility of a wooden item. A secondary goal in selecting a finishing product and procedure is to achieve that primary goal with the least work, the greatest pleasure or some combination of those.

We've got several choices about how we move a liquid coating from the can to the wood — from pouring, wiping, brushing, rubbing and even holding a wetted cloth against a piece turning on a lathe. After the coating is dry, most of these can be made to look and feel very similar with a bit more work, such as sanding, rubbing out or polishing. However, for the small lot finisher, a hand-spray application can move the liquid from the can to the wood faster, more evenly and, in many cases, more efficiently than the other methods.

With more sophisticated, multistep finishing schedules, the advantages of spray application are even more compelling. When spraying modern fast-dry coatings, recoat intervals are greatly reduced, as is the dry time necessary to prevent airborne dust and debris from sticking to the film, the time that vapors remain present in the area, the time that a piece must dry before being handled, moved or stacked and, ultimately, the total time spent finishing.

The equipment

If you are attracted to the idea of spraying some of your finishes, you will have to look at spray application equipment. Fortunately, not only are there advancements in technology that can make this easier, more efficient and safer, but less expensive equipment that will do a good job is readily available from commonplace suppliers.

HVLP (high volume, low pressure) sprayers have become the standard for the small shop or individual craftsman for several good reasons. If you do not already have a high-capacity compressor, you can get a small self-contained unit that consists of the spray gun itself and what is essentially a vacuum cleaner motor driving a turbine to provide a lot of air at low pressure, to atomize and propel the coating droplets at a lower velocity from the gun to the wood, thus greatly lessening the amount of overspray compared to a conven-

tional spray gun. Less overspray means more efficiency, less cleanup and eliminating the cloud of airborne coating particles that has scared away many would-be spray operators in a home environment.

If you do have an adequate compressor, there are conversion guns that take the higher pressure air from the compressor and convert it to the higher volume and lower pressure (less than 10 psi at the air cap) for the conversion gun. Gravity-feed guns are popular and are easier to clean than more complicated setups.

The spray area

While a well-designed spray booth is a must for a good full-time finishing operation, simply placing a fan facing the open garage door can provide a safe and efficient fair-weather spray booth. Even in inclement weather, for spraying smaller items, you can warm up the work, the material and the air in the garage, then open the door, turn on the fan, spray the item, turn off the fan when the dust clears, close the door and go in for supper. Very fast-drying coating materials make it easier to spray outside, as the coating can dry free of dust in minutes.

Training

The basics of spray application are pretty simple and you can get a number of good books and DVDs to help. Woodworking clubs and the specialty woodworking retailers are providing more training, which can be a great way to spend a Saturday morning, and an opportunity to meet people with a common interest in finishing, enhancing the learning experience well beyond the classroom.

Safety and environment

Waterborne versions of many of the solvent-based lacquers are becoming better and more popular, reducing much of the fear of flammability, safety and environmental concerns and solvent-borne products in lower VOC versions are more available. Simple spray enclosures can be built at home by enterprising craftsmen who will take the time to understand the requirements. (Blow the spray away from your face, have the air movement from the rear, protect your respiration, wear gloves and goggles as appropriate.)

There are many good reasons to learn spray coatings. It is fast, versatile and fun. The time you spend learning the basics will pay off quickly in quality of the final result. **W**

Greg Williams, formerly senior touchup and finishing instructor for Mohawk Finishing Products, is now a freelance instructor and consultant for finishing and touchup. He can be reached at gregalwil@yahoo.com.

10.875



*Quality Committed, Timely Delivered,
Environmentally Driven*

www.eliaswoodwork.com

Follow Us!

We're on Facebook,
Twitter, YouTube,
and LinkedIn.

Contact Us!

Toll Free: 1-800-665-0623



PRO SHOP

with JOHN ENGLISH

Joinery juxtaposition

Recent innovations have come along that are quicker, stronger and are changing the way woodworkers do business

Mortise-and-tenon, dowel and dovetail joints have been tested through the centuries and have proved their worth. In the mid-1950s, joinery departed from the traditional when Swiss woodworker Hermann Steiner invented Lamello biscuit joinery, and in 1986 it took another big step when Craig Sommerfeld came up with the Kreg pocket-hole jig. Since then we've seen a series of attempts at improving the way that we stick two pieces of wood together.

Some have captured our imaginations, a few have captured our billfolds and many have

fizzled away to obscurity. But in the last few years, some rather impressive innovations have come along that offer a new alternative that is either quicker, stronger or both. Invented by woodworkers and often refined by engineers, these new joinery options could fundamentally change the way that we work.

The Dowelmax

Adding a new twist to an old theme, the Canadian manufacturer of Dowelmax (www.dowelmax.com) claims that its jig will deliver a joint that is three times stronger than biscuits and takes 90 percent less time to construct

than a traditional mortise-and-tenon joint. For shops that don't own a dedicated horizontal boring machine, the jig is relatively inexpensive and simple to use. It allows the woodworker to drill from one to five dowel holes that are equally spaced and close together for a very strong joint.

My reason for mentioning the Dowelmax up front is that the manufacturer has an interesting chart on its website. The company ran a strength test on various joinery methods and published results that indicate a No. 20 biscuit would support 285 lbs. per square inch of pressure (the test shows sideways pressure on a 90-degree joint). A pocket-hole joint with five screws came in at 420 psi, the double Domino was at 560 psi, a routed mortise and tenon posted an impressive 640 psi and its product, the multiple dowel, took home the prize at 890 psi.

While other manufacturers will challenge the test results on the basis of materials, glue, stock sizes and so on, the bottom line is that many alternative joinery methods are extremely functional and strong. And while strength isn't always the primary issue (think face frames, for example), it is nevertheless an important criteria in most joinery. Hot on its heels is speed, especially in a production environment, so most of the new joinery options on the market are designed around both construction time and ease of use.



A TRADITION OF INNOVATION™

Oliver's 120 year heritage of innovative design and quality goes into every product we sell.

Oliver offers a full line of heavy-duty machinery.

Two-year limited warranty.

Applies only for the stated models. While supplies last, no substitutions or discounts. Some restrictions apply. Offer may end without notice.

FREE JOINTER!

WITH PURCHASE OF 4455 OR 4470 PLANERS!

4455
22" PLANER



FREE 6" JOINTER
W/ PURCHASE

4470 - 25" PLANER



FREE 8" JOINTER
W/ PURCHASE

FREE JOINTER WITH PURCHASE!

6" X 56" GEETECH JOINTER W/ 4455 PURCHASE

RETAIL VALUE \$495

8" X 65" GEETECH JOINTER W/ 4470 PURCHASE

RETAIL VALUE \$695

WWW.OLIVERMACHINERY.NET | INFO@OLIVERMACHINERY.NET | 800-559-5065



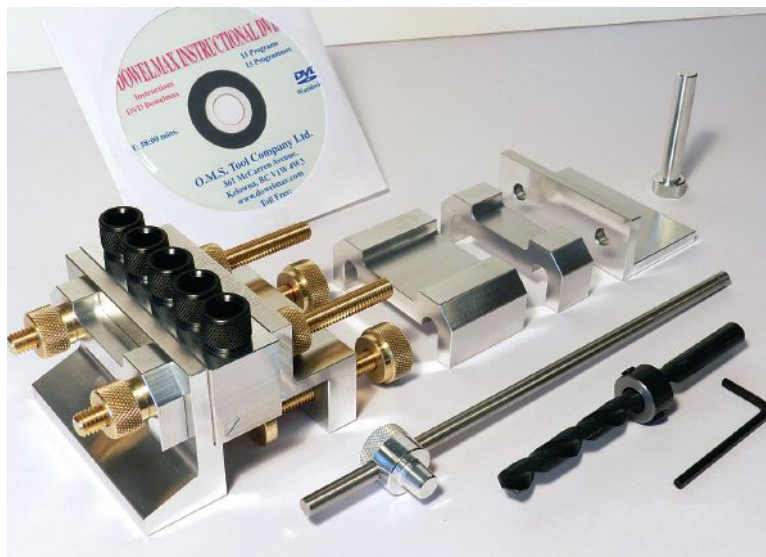
OLIVERMACHINERY



FACEBOOK.COM/OLIVERMACHINERY



YOUTUBE.COM/OLIVERMACHINERY



The makers of the Dowelmax jig (top) published results from shear tests that found their doweled joints are stronger than biscuits and even traditional mortise-and-tenon joints; Hoffmann offers handheld, benchtop and floor model machines that cut dovetail-shaped grooves. The corresponding keys come in plastic, hardwood, metal and rubber.

Hoffmann keys

The Hoffmann dovetail joining system is a great example of this (www.hoffmann-usa.com). Based on classic dovetail joinery, Hoffmann uses molded keys to create perfectly aligned and tight joints. The company offers handheld, benchtop and even floor model machines that cut dovetail-shaped grooves. Corresponding keys come in plastic, hardwood, metal and rubber varieties in four different thicknesses and in lengths ranging from 1/4" to 4" long. The keys are a double dovetail (an end view looks like the shape of a bow tie).

The concept is simple: a tapered cut is made in each piece of wood and the key is then tapped into place. Because of the taper, the joint is pulled tight as the key is driven home with a hammer.

A demo video on the company's website shows an angled joint being made where the plywood side of a cabinet meets the face frame at 45 degrees, and it takes barely a minute to line up and make the long glue joint. The joinery can be completely hidden, so it's ideal for assembling face frames and cabinet carcasses. Or the key can be exposed when using the hardwood option, adding an attractive accent.

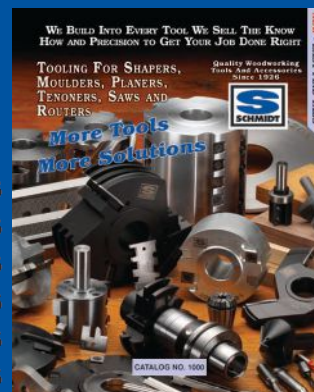
One thing worth noting is that most examples show the plastic dovetail keys drawing a joint together that ultimately relies on glue for strength. The keys act as a clamp while the glue sets — and the strength is in the glue.

Leigh jigs

While Hoffmann offers a quick and relatively easy way to join

Tooling and Accessories Since 1926

For: Tenoners
Moulders
Shapers
Routers
Planers
Saws



For a complete List of our Tooling, Accessories and Machinery ask for our New Catalog

Specializing in Insert Tools



Standard
or
Custom

For Surfacing, Grooving, Routing
Tenoning and Profiling

Ask us about our Terminus,
Tersa, and Centrolock knives

If You Know Our Name
You Know Our Number

1 800-SCHMIDT

Charles G. G. Schmidt & Co., Inc.

301 West Grand Ave
Montvale, NJ 07645

Fax 201 391-3565

www.cggschmidt.com



parts based on an historic concept (dove-tails), another foreign company has taken the traditional mortise and tenon to new heights. Most woodworkers are familiar with dovetail jigs from Leigh Industries Ltd. in Canada (www.leighjigs.com). The company also offers two mortise-and-tenon jigs, the professional FMT Pro model and the



Leigh Industries Ltd. offers two mortise-and-tenon jigs, the professional FMT Pro model (shown) and the Super FMT, which was designed for home workshops.

Super FMT. The latter was designed for home workshops. Both devices will mill joints with single, double, triple or even quadruple floating tenons and they are ideal for furniture applications such as doors, tables, chairs, benches, built-in dining booths and other furniture that sees heavy use. The FMT Pro includes optional on-board dust collection and is of considerably heavier construction.

While at first glance they look quite complicated, the FMT jigs are actually simple to operate. They mill both halves of the joint (the mortise and the tenon) and do so using just one guide, one router bit and one jig setup. A plunge router is required. Shops that build furniture more than casework will find this system for creating true mortise-and-tenon joinery is fairly quick, easily learned and very accurate.

Festool's Domino

Those attributes can also be attributed to the exquisite Domino from Festool (www.festooldomino.com). This machine cuts two mortises and a separate, floating tenon is then used to complete the joint. These relatively lightweight, portable tools replace stationary machines like hollow chisel mortisers and slot mortisers.

Two models are available: the original DF



The Domino from Festool cuts two mortises and a separate, floating tenon is used to complete the joint. The machine comes in two sizes for regular (above) and large work.

CUT *SMARTER*, NOT HARDER FOR LESS.



SMARTSHOP II

- The Laguna Smartshop is the most popular machine in our lineup for flat panel processing
- The motion-control systems include precision helical rack-and-pinion drives in both X and Y axis, and precision-ball screw drives in the Z axis
- The Laguna Smartshop utilizes an advanced industrial control from B&R automation—a world leader in motion-control systems
- 8-position automatic tool changer
- One-piece all welded structural steel frame (3,500 lbs)

SWIFT 4x8

- Industrial-grade 3HP liquid-cooled electrospindle
- Features standard handheld controller
- Helical rack and pinion on X and Y axis with ball screw adjustable on Z axis
- 5,000-24,000 RPM spindle



IQ HHC

- Assembled in the United States, the Laguna IQ CNC sets the standard for quality, longevity, and ease of use
- Precision linear guides (in Y axis) for maximum accuracy
- The Laguna HHC (Handheld Controller) control makes machine operation simple. Standard G-code programs are transferred from a USB memory stick that is inserted into the handheld control unit. Programs are then selected and processed... it does not get any easier!

For More Information Call Us at 800.234.1976

LAGUNA
LAGUNATOOLS.COM

Two models are available: the original DF 500 (weighing in at 7 lbs.) and the new XL (11.4 lbs.), which is designed for larger projects. The DF 500 mills mortises from 5/8" to 1-9/16" deep and the XL extends that range by handling depths from 19/32" to 2-3/4".

Domino tenons are available in 4, 5, 6, 8 and 10mm thicknesses for the DF 500 and 8, 10, 12 and 14mm thicknesses for the Domino XL. The 4mm tenons are perfect for materials as thin as 1/2", while the largest tenons (about 5-1/2" long) are great for large-scale joinery like doors, gates, timber frame joints and creating large natural-edged or thick slabs for counters and table tops.

Lamello connectors

A smaller concept for regular joinery is the Lamello Clamex P-15 (www.csaw.com). This is a biscuit-shaped knockdown connector that comes from the original inventors of biscuit joinery. Its huge advantage is that it can be disassembled. The Clamex P-15 joins any mitered angle without glue or screws to create nearly invisible ready-to-assemble connections.

To complete the joint, a woodworker slides the connectors into pre-cut slots and then locks a cam lever in place by turning a hex key that just pulls the parts together (yup, you have to drill a hole for the hex key). This

allows the shop to build a cabinet or piece of furniture, break it down to ship (or to get through a narrow doorway) and then reassemble it at the site in a few minutes.

The P-15 connector and a new smaller version called the P-10 share a design element that sets them apart. Along the outside arc of each, there is a raised edge that slips into a T-shaped slot. This creates a mechanical joint (no glue or screws required, although woodworkers can add screws if they want).

Another Clamex connector, the Medius, shares this feature and adds another: part of the back edge of the Medius is missing, so it isn't quite as deep. This allows a woodshop to, for example, fasten a shelf halfway up a center dividing panel because the slot is less than 3/4" deep. And the last member of the family, the Clamex S, doesn't have the raised edge: it requires screws, but it can be installed with any Lamello biscuit joiner as it doesn't call for a special blade.

Other options

Somewhere between dowels and Dominos is the Beadlock system from Rockler Cos. (www.beadlock.com). This uses a simple drill and guide jig to bore several overlapping holes before the company's loose tenon molding fits into the cavities. One advantage of this

continued on next page



Lamello's Clamex line includes the P-10 and P-15 that have a raised rim that locks in the slot; the narrower Medius for panel applications and the standard S that is held in place with screws.



The Ultimate Design & Manufacturing Software for the Woodworking Industry

- Easily design quality, professional 2D & 3D submittal drawings
- Create stunning presentation renderings for your clients
- Quickly create quotes for single products, rooms or entire projects
- One seamless design, quote and manufacturing tool
- Build products the way you want... matching your existing construction & machining methods

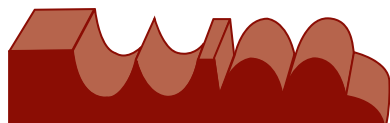


Download Your Free 30-day Trial Today

Visit microvellum.com or call us at 800-204-0913

MOORE VALUE MOORE QUALITY

For Over 20 Years



W. MOORE PROFILES LTD.

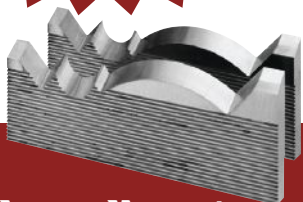


30% OFF

Freeborn shaper cutters
& Amana router bits
HUGE INVENTORY



**Precision Ground
Moulding Knives
MADE TO ORDER
IN 2 DAYS**



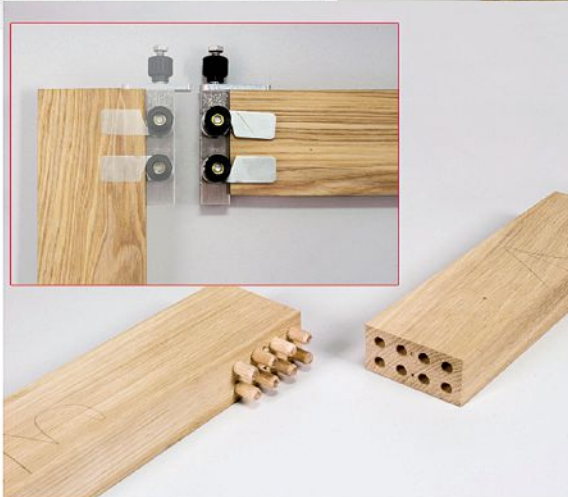
Order online at
www.shapertooling.com

and receive free shipping on orders over \$500⁰⁰

Or Call 800-228-8151



The Joint-Genie Jobber is a simple steel bar with guide holes drilled in it and a fan of steel leaves that allow the user to center the jig. Inexpensive and small, it's an ideal job-site jig.



PRO SHOP from previous page

The Joint-Genie (www.joint-genie.com) follows much of the same logic. This is a simple steel bar with guide holes drilled in it, but it has a fan of steel leaves on the side that allow the user to center the jig on the edge of a board up to about 1-7/8" thick and it will also work on stock of unlimited thickness (not necessarily centered). The Joint-Genie also has a positive stop on the end of the jig that allows one to line up and clamp it in place for drilling mirror images of a set of holes. Inexpensive and small, this is an ideal job-site jig. It can be screwed to the work, too, so it can be located pretty much anywhere on the workpiece (the screw holes disappear.) One can also use a dowel as an indexing pin, so the short jig can drill an essentially unending row of equally spaced holes in a straight line.

There are numerous machines that will mill more than one type of traditional joint, such as the JDS Multi Router that handles mortise and tenon, box (finger) and dovetail joinery (<http://jdtools.com>), and a plethora of other small jigs that deliver dowel joints.

There are numerous companies making ver-

sions of the Kreg pocket-hole jig and Woodsmith makes an exceptional box joint jig (www.woodsmithstore.com).

But no matter what new inventions come along to make life in the shop a little easier, none will ever be quite as much fun as laying out and hand-cutting a perfect mortise and tenon. **W**



Other joinery jigs include this aluminum box joint jig from Woodsmith for the table saw and dado head that can be used to make accurate drawer joints.

Cherry remains a craftsman's 'standard'

By Jennifer Hicks
STAFF WRITER

With cherry sales continuing to hold steady year after year, lumber suppliers interviewed by Woodshop News agree that the species is still one of the most reliable sellers in the hardwood market. But its popularity seems to speak more to the tradition of using it to craft fine furniture because buyers tend to select it more for their individual projects rather than for cabinetry or architectural millwork.

"The cherry market for fine furniture makers is a constant, but it's not so popular with designers and architects commissioning cabinetry projects," says Rick Hearne, owner of Hearne Hardwoods in Oxford, Pa. "So to put that in perspective, cherry is nowhere near as hot as it was five or 10 years ago compared to what we used to sell for completing interiors of churches or stock brokerage firms for

the architectural millwork customers, but it is still strong for the one-up furniture makers."

Cherry (*Prunus serotina*) is also known as black cherry, grows from Canada south to central Florida and portions of Mexico and Guatemala. Its highest concentration is in Pennsylvania, which supplies about 70 percent of the country's cherry, although it only represents 3 to 4 percent of the Appalachian forests.

Cherry trees reach heights between 80' and 100' with diameters of 2'-3'. The heartwood is pinkish-brown to reddish-brown with a distinctive golden luster. The sapwood is narrow and is a white-to-reddish-brown color. Woodworkers are particularly drawn to the wood's tight grain, adds Hearne.

"It doesn't need any sort of filler. It's a closed grain that will take oil finishes beautifully. It is rich in color and will oxidize darker and darker as it ages."

"People still like their cherry," says Mark Wagner of Hill Hardwood Supply in Iowa City, Iowa. "We've sold about as much cherry this year as we did last year. People are into dark woods and cherry remains a favorite wood, I would say. It's popular because of its beauty and workability."

"The Pennsylvania cherry sells the best and it's right up there with maple and walnut," says Merrill Morrison of Alva Hardwoods in LaBelle, Fla. "Sales compared to this time last year are down about 20 percent, but in general it's pretty popular."

"It's the standard of American craftsmen, especially with the 50-and-over crowd. It has a lot of positive characteristics, which are machinability, ability to hold screws and durability to hold finish. You can finish it with just about anything. It gets darker, richer and more lustrous. It's one of the best finishing woods."

Retail prices for 4/4 FAS cherry were quoted at \$5 to \$7.30/bf. **W**

BREATHE CLEANER AIR

*Significantly reduce
Free Floating Dust*

MADE FOR SMALLER SHOPS



This US700 air filtering machine, hanging from the ceiling in shops up to 800 sq ft, will make your shop air 70% to 90% cleaner, significantly reducing the amount of dust that settles on surfaces and in your lungs. Larger machines available. www.usbodyproducts.com, 800-280-4546

CALL 800-280-4546
OR REVIEW MORE OPTIONS
WWW.USBODYPRODUCTS.COM

Whether you are a one-man shop or
a large manufacturing facility:
MOISTURE MATTERS.

Measuring moisture is our expertise.
Contact Lignomat if you have any
question about the many moisture meters
and monitoring devices we manufacture.



If you need a moisture meter: Lignomat is your best choice.

Highlights Pins

mini-Ligno DX/C:

- Most versatile
- Measures flat boards, round moldings, etc.
- Can measure all thicknesses
- Pinpoint different moisture levels to the core

Highlights Pinless

Dual-depth Pinless Ligno-Scanner:

- Adjust measuring depth 1/4" or 3/4"
- For boards over and less than 3/4" thick
- Measure engineered panels accurately
- Measure the same board at 1/4" and 3/4" to compare core and surface moisture



www.Lignomat.com 503-257-8957 Portland, OR
call: 800-227-2105 or Email: sales@lignomat.com



Grizzly Industrial

PURVEYORS OF FINE MACHINERY®, SINCE 1983!

- OVER A MILLION SQUARE FEET PACKED TO THE RAFTERS WITH MACHINERY & TOOLS
- 2 OVERSEAS QUALITY CONTROL OFFICES STAFFED WITH QUALIFIED GRIZZLY ENGINEERS
- HUGE PARTS FACILITY WITH OVER 1 MILLION PARTS IN STOCK AT ALL TIMES
- TRAINED SERVICE TECHNICIANS AT ALL 3 LOCATIONS • MOST ORDERS SHIP THE SAME DAY

10" HYBRID TABLE SAW with Riving Knife



- Motor: 2 HP, 110V/220V, single-phase
- Precision-ground cast iron table with wings measures: 27" x 40"
- Arbor: 5/8"
- Arbor speed: 3850 RPM
- Capacity: 3 1/8" @ 90°, 2 1/8" @ 45°
- Rip capacity: 30" R, 12" L
- Quick change riving knife
- Cast iron trunnions
- Approx. shipping weight: 404 lbs.

BEAUTIFUL WHITE COLOR!



INCLUDES BOTH REGULAR & DADO BLADE INSERTS

G0715P ONLY \$795⁰⁰



17" HEAVY-DUTY BANDSAWS



- Motor: 2 HP, 110V/220V, single-phase, TEFC
- Precision-ground cast iron table size: 17" sq.
- Table tilt: 45° R, 10° L
- Cutting capacity/throat: 16 1/4"
- Max. cutting height: 12 1/2"
• Blade size: 131 1/2" L (1 1/8"-1" W)
- Blade speeds: 1700 & 3500 FPM
- Quick release blade tension lever
- Approx. shipping weight: 342 lbs.

MADE IN TAIWAN



BEAUTIFUL WHITE COLOR!

INCLUDES DELUXE EXTRUDED ALUMINUM FENCE, MITER GAUGE & 1/2" BLADE

G0513P ONLY \$895⁰⁰

ALSO AVAILABLE IN GRIZZLY GREEN

G0513 HEAVY-DUTY 17" BANDSAW ONLY \$895⁰⁰



10" LEFT-TILTING CONTRACTOR-STYLE TABLE SAW with Riving Knife

- Motor: 1 1/2 HP, 110V/220V, single-phase
- Precision-ground cast iron table with wings
- Table size: 25 1/2" x 40" • Arbor: 5/8"
- Arbor speed: 4000 RPM
- Capacity: 3 1/8" @ 90°, 2 1/4" @ 45°
- Rip capacity: 30" R, 12" L
- Approx. shipping weight: 221 lbs.



FREE 10" CARBIDE-TIPPED BLADE

MADE IN TAIWAN

MADE IN ISO 9001 FACTORY!

G0732 \$795⁰⁰ SALE \$695⁰⁰



10" LEFT-TILTING TABLE SAWS with Riving Knife & Cast Iron Router Table

MADE IN TAIWAN

- Motor: 3 HP or 5 HP, 240V, single-phase
- Precision-ground cast iron table size with wings: 27" x 48"
- Arbor: 5/8"
- Cutting capacity: 25 1/8" R, 8" L
- Max. depth of cut: 3" @ 90°, 2 1/8" @ 45°
- Approx. shipping weight: 546 lbs.



G1023RLW 3 HP ONLY \$1350⁰⁰

G1023RLWX 5 HP ONLY \$1395⁰⁰



10" CABINET TABLE SAW with Riving Knife & Extension Rails

- Motor: 3 HP, 220V, single-phase
- Precision-ground cast iron table
- Table size with extension: 27" x 74 1/4"
- Arbor: 5/8" • Arbor speed: 4300 RPM
- Max. depth of cut: 3 1/8" @ 90°, 2 1/8" @ 45°
- Max. rip capacity: 50" • Max. dado width: 1 3/8"
- Approx. shipping weight: 572 lbs.



FREE 10" CARBIDE-TIPPED BLADE

3 HP LEESON® MOTOR!

G0691 ONLY \$1425⁰⁰



EXTREME SERIES 14" HEAVY-DUTY BANDSAW



- Motor: 1 1/2 HP, 110V/220V, single-phase, TEFC, 1725 RPM
- Amps: 15/7.5
- Precision-ground cast iron table size: 20 1/2" x 14" x 1 1/2"
- Floor to table height: 44"
- Table tilt: 15° L, 45° R
- Cutting capacity/throat: 13 1/2"
- Max. cutting height: 6"
- Blade size: 92 1/2"-93 1/2" L (1 1/8"-3/4" W)
- Approx. shipping weight: 262 lbs.

MADE IN ISO 9001 FACTORY!

MADE IN TAIWAN



G0555X ONLY \$825⁰⁰



ULTIMATE 14" BANDSAW



- Motor: 1 HP, 110V/220V, single-phase, TEFC
- Precision-ground cast iron table size: 14" sq.
- Table tilt: 45° R, 15° L
- Cutting capacity/throat: 13 1/2"
- Max. cutting height: 6"
- Blade size: 92 1/2"-93 1/2" L (1 1/8"-3/4" W)
- Blade speeds: 1500 & 3200 FPM
- Approx. shipping weight: 196 lbs.



MADE IN TAIWAN

G0555P ONLY \$525⁰⁰



19" HEAVY-DUTY BANDSAWS



- Motor: 3 HP, 220V, single-phase, TEFC
- Precision-ground cast iron table size: 26 1/4" x 19"
- Table tilt: 45° R, 5° L
- Cutting capacity/throat: 18 1/4"
- Max. cutting height: 12"
- Blade size: 143" L (1 1/8"-1 1/4" W)
- Blade speeds: 1700 & 3500 FPM
- Approx. shipping weight: 460 lbs.



DELUXE RE-SAW FENCE INCLUDED

MADE IN TAIWAN

G0514X ONLY \$1495⁰⁰

ALSO AVAILABLE G0514XF W/ FOOT BRAKE

ONLY \$1395⁰⁰



*To maintain machine warranty, 440V operation requires additional conversion time and a \$250 fee. Please contact technical service for complete information before ordering.



FOLLOW US ON



1-800-523-4777

3 GREAT SHOWROOMS!
BELLINGHAM, WA • MUNCY, PA • SPRINGFIELD, MO

TECHNICAL SERVICE:
570-546-9663
FAX: 800-438-5901

30th Anniversary 1983 - 2013



FREE CATALOG
764 PAGES OF HIGH
QUALITY MACHINES & TOOLS
AT INCREDIBLE PRICES

12" JOINTER/PLANER COMBINATION MACHINES

MADE IN TAIWAN

- Motor: 5 HP, 220V, single-phase
- Jointer table size: 14" x 59 1/2"
- Cutterhead dia.: 3 1/8"
- Cutterhead speed: 5034 RPM
- Max. jointer depth of cut: 1/8"
- Max. width of cut: 12"
- Planer feed rate: 22 FPM
- Max. planer depth of cut: 1/8"
- Max. planer cutting height: 8"
- Planer table size: 12 1/4" x 23 1/4"
- Approx. shipping weight: 734 lbs.



CARBIDE INSERT SPIRAL
CUTTERHEAD!



NEW
END-MOUNTED
FENCE



G0634XP ONLY \$2295⁰⁰

ALSO AVAILABLE IN GRIZZLY GREEN

G0633 JOINTER/PLANER ONLY \$1995⁰⁰

G0634Z SPIRAL CUTTERHEAD MODEL ONLY \$2595⁰⁰



CYCLONE DUST COLLECTOR



- Motor: 1 1/2 HP, 110V/220V, single-phase, TEFC, 3450 RPM
- Air suction capacity: 775 CFM
- Static pressure at rated CFM: 1.08"
- Intake port: 6" with included 5" optional port
- Impeller: 13 1/2"
- Height: 65 1/2"
- Built-in remote control switch
- Approx. shipping weight: 210 lbs.

BEAUTIFUL
WHITE
COLOR!

MADE IN TAIWAN



PLEATED FILTER IS
PROTECTED BY A
STEEL CAGE

FULLY MOBILE
WITH BUILT-IN
CASTERS

ONLY
65 1/2"
TALL!



G0703P ONLY \$795⁰⁰



8" JOINTERS



- Motor: 3 HP, 220V, single-phase, TEFC
- Precision-ground cast iron table size: 9" x 72 1/2"
- Max. depth of cut: 1/8"
- Max. rabbeting depth: 1/2"
- Cutterhead dia.: 3"
- Cutterhead speed: 5000 RPM
- Cuts per minute: 20,000
- Approx. shipping weight: 500 lbs.



FREE
SAFETY
PUSH
BLOCKS

CHOOSE EITHER 4 HSS KNIVES
OR SPIRAL CUTTERHEAD
MODEL

4 KNIFE CUTTERHEAD
G0656P ONLY \$825⁰⁰

SPIRAL CUTTERHEAD
G0656PX ONLY \$1225⁰⁰



12" X 60" SHORT BED JOINTER with Spiral Cutterhead

MADE IN
ISO 9001
FACTORY!

- Motor: 3 HP, 220V, single-phase, TEFC
- Precision ground cast iron table size: 13" x 60"
- Fence: 5 1/8" x 31 1/4"
- Cutterhead dia.: 3 3/4"
- Cutterhead speed: 4950 RPM
- Bevel jointing: 45°, 90°, 135°
- Max. depth of cut: 3/8"
- Approx. shipping weight: 832 lbs.



FREE
SAFETY
PUSH
BLOCKS

PARALLELOGRAM TABLE ADJUSTMENT

G0706 ONLY \$2495⁰⁰



15" PLANERS



- Motor: 3 HP, 220V, single-phase
- Precision-ground cast iron table size: 15" x 20"
- Min. stock thickness: 3/16"
- Min. stock length: 8"
- Max. cutting depth: 1/8"
- Feed rate: 16 & 30 FPM
- Cutterhead speed: 5000 RPM
- Approx. shipping weight: 660 lbs.



CHOOSE EITHER 3 KNIFE
OR SPIRAL CUTTERHEAD
MODEL

G0453P ONLY \$1095⁰⁰

WITH SPIRAL CUTTERHEAD
G0453PX ONLY \$1695⁰⁰



18" OPEN END DRUM SANDER

- Sanding motor: 1 1/2 HP, 110V, single-phase, 15A
- Drum surface speed: 4000 FPM
- Conveyor feed rate: Variable, 2-12 FPM
- Max. stock dimensions: 36" W x 4 1/2" H
- Min. board length: 6"
- Min. board thickness: 1/8"
- Sanding drum size: 4"
- 2 1/2" dust collection port
- Overall size: 35" W x 50" H x 24" D
- Approx. shipping weight: 328 lbs.



G0458 ONLY \$895⁰⁰

15" DISC SANDER with Stand

- Motor: 1 1/2 HP, 220V, single-phase, 1720 RPM
- Cast iron sanding disc size: 15"
- Cast iron table size: 12" x 20"
- Table tilt: +15° to -45°
- Floor to table height: 37 3/4"
- Dust port: 2 1/2"
- Approx. shipping weight: 232 lbs.

INCLUDES
MITER GAUGE



MADE IN TAIWAN

FEATURES BUILT-IN
MOTOR BRAKE &
STORAGE CABINET
WITH SHELF



G0719 ONLY \$875⁰⁰

3 HP DUST COLLECTOR



- Motor: 3 HP, 240V, single-phase, 12A
- Blower/impeller: 12 1/4" balanced cast aluminum
- Airflow capacity: 2320 CFM
- Max. static pressure: 16.9"
- Sound rating: 87dB
- 7" inlet has removable "Y" fitting with three 4" inlets
- Canister filter size (dia. x depth): 19 1/8" x 23 3/8" (2)
- Bag capacity: 11.4 cubic feet
- Overall dimensions: 57 1/2" long x 32" wide x 71" high
- Approx. shipping weight: 232 lbs.
- CSA certified



G0562ZP

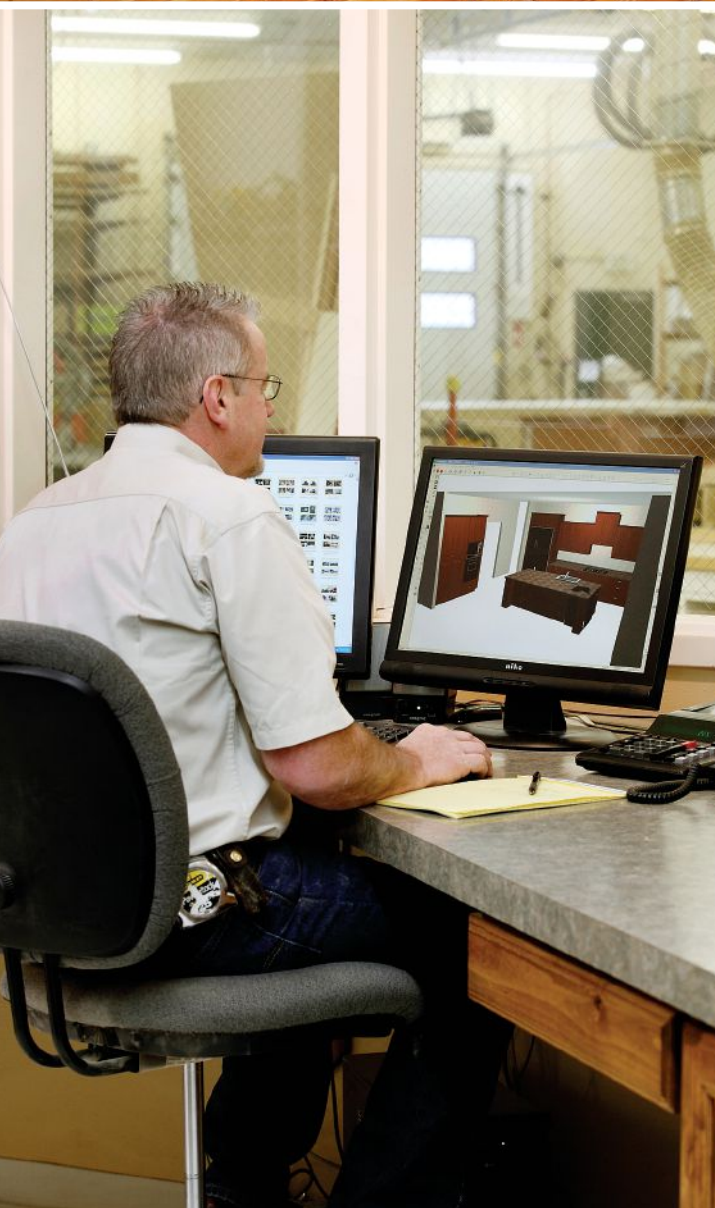
\$925⁰⁰ SALE \$675⁰⁰



grizzly.com

OVER 15,000 PRODUCTS ONLINE!





(Clockwise from bottom left) Clint Galbraith views a kitchen design; rustic rules in Idaho; employee Kevin Zufelt, and a recent residential project.

ENJOY the JOURNEY

Owner of Interwest Cabinet in Idaho knows that a new day always brings new challenges in a small shop

BY JENNIFER HICKS / STAFF WRITER

Though Interwest Cabinet recently celebrated its 25th anniversary, co-owner Clint Galbraith knows he can't rest on his laurels. Experience has set him straight.

"I always thought if you start your own business that you'll automatically get to a point where you're just successful and everything runs smoothly, but I found that it never gets to that point. There are always challenges and you have to keep moving ahead. When we first started, we were working toward that day when we were going to relax and kick our feet up. Things don't work like that so it's important to enjoy the journey," he says.

The journey has been shared with his wife, Janeene, co-owner and office manager, and their six children. The Rexburg native grew up on a dairy farm, but left for greener pastures, so to speak.

"I really only took one high school shop class, then served a mission for a church in Australia. When I came home, I started looking for some type of work other than dairy, so I worked at several different jobs — one at a convenience store in town, another selling trees and shrubs at a nursery, then my brother-in-law got a job here at this shop, which was Madison Millwork in 1973.

"My brother-in-law only worked here for a
continued on next page



**JANEENE AND CLINT
GALBRAITH**

Co-owners of: Interwest Cabinet

Location: Rexburg, Idaho

Shop size: 21,000 sq. ft.

Employees: 14

About: A family-run cabinet shop in eastern Idaho offering a full range of custom cabinetry design and fabrication services for residential and commercial clients in the area's surrounding vacation resort regions.

CAMaster
Price - Performance - Profit

My CNC Router Needs

- ☒ Affordable Price
- ☒ High Quality & Performance
- ☒ Service After the Sale
- ☒ Online Forum
- ☒ 2 Year Warranty
- ☒ Turn Key System
- ☒ Made in the USA !!

CAMaster Has it ALL



Check out our forum at
www.CAMheads.org



www.CAMaster.com

Toll Free

866-405-ROUT

*Changing the Shape of
Things!*





Employees Daniel Virgen (left) and Joe Kidd at work in Interwest Cabinet's 21,000-sq.-ft. shop. A custom vanity project (opposite page).

INTERWEST CABINET *from previous page*

couple of weeks, but encouraged me to apply when he left. I had never done any woodworking before and started assembling cabinets."

Starting from scratch

Madison Millworks was humming along until the Teton Dam collapsed in 1976. Eventually, Galbraith had to take another job with

a renovation company that worked all over the country. He lasted five years before being without his kids became too much.

"In 1986, I decided I wanted to start doing something on my own," Galbraith says. "Madison Millwork closed its doors one night and I opened it up the next day, taking over the building's rent. But the equipment and employees were gone."

Today, the shop has expanded from 14,000

to 21,000 sq. ft., and features a Diehl straight-line rip saw; Altendorf slider; Routech CNC machining center; Schmalz ceiling mount vacuum lift; two SawStop table saws; Murphy Rogers dust collection system; SCMI edge-bander, wide belt sander and thickness planer; Whirlwind upcut saw; Blum door hinge machine and Ritter shaper.

Galbraith relies heavily on the company's word-of-mouth reputation and its website to

PHOTOS: BROWN PHOTOGRAPHY



BEAVER FREE SHIPPING
INDUSTRIAL SUPPLY REWARDS POINTS
WWW.BEAVERTOOLS.COM

Mirka Ceros Sander
No more operator fatigue,
light weight, smooth operation.



Full Line of Mirka Abrasives
In stock and ready to ship.

- Abralon
- Mirlon
- Abranet
- Autonet
- Wide Belts
- And more!

1-800-365-6677 • Free Shipping on orders over \$150

MIRKA-ONLINE.COM



attract customers. The shop completes about 100 jobs per year, which include kitchen cabinetry packages, entertainment centers, fireplace surrounds, wall units, home offices and some millwork applications. The vast majority of work now comes from homeowners. Galbraith would prefer more commercial work, but says that's beyond his control.

"The commercial market has just gotten so competitive over the last few years. At one

"One thing that's helped us is the diversity of our demographic service area. Going to different areas has helped us out a lot. We didn't limit ourselves to what was just going on in our local area. We always kept our connections with contractors in other cities and towns. One contractor in Salt Lake City brought us a lot of work over in Park City."

Rexburg is also home to Brigham Young University-Idaho, which recently expanded

from a two-year college to a four-year university and Interwest has benefited from the need for more student housing. But even with a larger client base, competition remains fierce, particularly for commercial work.

"As things have slowed down, finding work in churches and schools like we used to has gotten more competitive. People are trying to survive and just bid the jobs so low that they're going out of business. They are operating so inexpensively they just disappear."

Interwest's customers prefer rustic designs featuring distressed knotty alder. Dark

and natural finishes also take preference. Occasionally, there's some demand for something sleeker.

"A big job we're doing in Montana right now is very modern," says Galbraith. "It has wenge wood with a dark stain. I think it's an influence of the national magazines and what's going on in other areas. It seems like now in the magazines everything is modern-looking and I think it's pushing the consumers to want that. They like what they see. We're

continued on next page



Brad Nicbaur takes a panel to the shop's Routech CNC machining center.

time we were just doing cabinets in businesses and schools, but the competition was so bad we just started to focus on residential. Generally, I think we've been doing about 75 percent of our work in the residential sector, mostly for middle-class individuals to super-high-end millionaires."

Finding new markets

While Galbraith started with local work, the market has expanded to the resort areas of Jackson Hole and Star Valley, Wyo., and Big Sky, Mont.

PHOTO: BROWN PHOTOGRAPHY (BOTTOM)

High Performance at an Entry-Level Price

Classic Series Router



The rigid, reliable Classic combines simplicity and functionality in an inexpensive cutting system. It features a high-speed three-axis motion controller. The Classic is the perfect solution for applications requiring value, efficiency and affordability.

Local service, training and support from over 70 Technology Centers with 20 across North America



MultiCam®
CNC Cutting Solutions

1025 West Royal Lane
DFW Airport, TX 75261
972-929-4070

sales@multicam.com
www.multicam.com
store.multicam.com

Dust Collection for Every Shop!

Uncompromising quality, innovation and performance for 20 years.

1.5 / 2 / 3 / 5hp
V-Systems



Pat. Pend.
Shown with optional stand.

- GE® HEPA (Certified H-12) Filter Media. See specs on website. Most Systems.
- Filter Flame-Guard Protection. Most Systems - Pat. Pend.
- Built to last a lifetime. Proudly made in the USA.
- Complete line of 1.5 - 20hp systems and components.
- Free design consultation

Dust Deputy®

No More Clogged Filters!

The Dust Deputy wins cyclone separator shootout! by "The Wood Whisperer.com"



Retrofits to any shop vacuum.

Deluxe Dust Deputy®
\$89.00

Dust Deputy's review at www.oneida-air.com



Ductwork

FREE shipping on ductwork of \$300+ / 48 states / Some restrictions apply



Dust Collection Systems & Components Since 1993.

Call for FREE Catalog!
1.800.732.4065

Buy Direct!
www.oneida-air.com



The high-tech shop performs all finishing in-house. A glazed, distressed look (above) is popular.

INTERWEST CABINET from previous page

very custom-oriented, so we'll do whatever the customer wants."

Maintaining integrity

Galbraith is interested in growing the business and adding more employees after he makes the necessary contacts to make that happen. But for now, he enjoys having a manageable workforce.

"I found that in all of my years in business, one of the greater challenges is managing employees. Some of my workers in the past acted just like little kids and I got tired of babysitting. One advantage of the economic downturn is we did not change one employee for five years."

Equally important to him is maintaining the shop's integrity by continuing to offer products of the highest quality. The trick is to educate the clients on what they're getting so they don't settle for a cheap alternative from a competitor or commercial manufacturer. Lately, using computer drawings has proven to be the most effective way of communicating ideas effectively.

"We're in the business of selling something

you can't see. Yes, you can show them a sample of a cabinet door, but we're trying to sell them on what they're going to have and how it fits their house, but they can't see it like they can with a car they drive off the lot. How do I commit with everything that they are thinking they want. Sometimes they haven't really expressed it or I didn't understand it. Say I ask you to just picture a tree. Well, we'll both think of a different tree. It's the same thing."

At the end of each day, Galbraith still knows his investment in his business is worth the time and effort. He knows he can look back and see beautiful work completed in a home. He is still amazed by how many people went out of business doing what he does and is thankful for his crew and family to keep their faith in the company.

"It just seems like there are always challenges, but there are always good things, too. I've been in business for 25 years and have a great reputation. I feel as if we are one of the most resilient shops around." **W**

Contact: Interwest Cabinet, 64 South 3rd West, Rexburg, ID 83440. Tel: 208-356-9188. www.interwestcabinet.com

PHOTO: BROWN PHOTOGRAPHY (BOTTOM)

CNC

hits a whole new LEVEL



General's iCarver.

By John English

Last summer, Woodshop News reported that Rockler had introduced two models of the Click-N-Carve, a compact CNC routing machine that turns digital input into detailed carvings. That product line has expanded now to include three models of the CNC Shark. And what's significant here is that these machines bring CNC technology to the home workshop or



Rockler's Click-N-Carve.

small professional shop for about the price of a decent hobbyist table saw.

There are several ways to compare small CNC devices, from the speed of travel in each of the three axes to the power of the motor or the size cutter shaft that they can accept. But as some come with a built-in spindle and others require a separate router, perhaps the most useful way to initially distinguish them is to list the largest capacity workpiece that each can handle. Once a shop knows that certain models can handle the size panels they need to mill, they can then visit the manufacturers' websites (which we list here) and begin comparing all the other relevant attributes.

With that in mind, let's note that the Rockler (www.rockler.com) entry-level CNC machines mentioned above have maximum capacities that run from 12.8" x 5.9" to 28.5" x 36".

Rockler is by no means the first to tackle this market segment. Small woodshops — and larger companies that wish to experiment on a small scale — now have an arsenal of CNC

technology available to them. For example, Biesse (www.biesseamerica.com) currently offers the Klever and Rover J routers that are billed as "the answer to increased production for growing shops." These are full function industrial machines that cost about the same as a woodworker's annual salary and their work capacity is considerably larger than the Rockler models (available sizes are 4' x 8' and 5' x 10').

While the smaller machines are designed to add an occasional accent to something like a sign or a cabinet door (the Click-N-Carve can translate digital photographs into extremely intricate carvings in just minutes), the two machines from Biesse can potentially revolutionize a production shop's bottom line. The Klever is ideal for both panel processing and cabinet/furniture component manufacturing. It moves fast enough for high production and features a built-in controller for programming at the machine. Biesse's Rover model is slightly less expensive and is ideal for small-

continued on next page

I-877-EXTREMA

18473 FLORIDA BLVD - HAMMOND, LA 70401 - 225-567-3867

WIDE BELT SANDERS REDUCE PRODUCTION COST!

PRODUCTION COST CAN BE REDUCED

with proper machinery. Employees spending too much time at the sanding table. A wide belt sander is the best way to minimize that.



37" WIDE BELT SANDER

\$8999.00*

- 37" sanding width
- digital thickness readout
- sanding platen
- four post elevation

* 3 phase
\$9299 for single phase

BALDOR
MOTORS AND DRIVES
on single phase



we're doing it right
EXTREMA
www.extremausa.com



Arch-Master
archmastertool.com

ARCHMASTER

The easiest way to
arch panels & rails

**FLOATS ON A
CUSHION OF AIR**

Are you looking for an easy way to arch door panels and rails? Well, you've come to the right place. Archmaster Jigs are easy to use jigs for shaping door panels and rails. Archmaster Jigs float on a cushion of air, have large gripping handles, and pneumatic hold down clamps to assist the operator with repeatable cuts time and time again.

RAILMASTER Coping Sled

Products and information online
archmastertool.com



DEALERS WANTED

PO Box 1450, Albany, LA 70711 - 877-398-7362 - FX: 225-567-2966



The Pacer Series
from XYZ.

CNC from previous page

er custom woodshops because it can cover a broad range of nesting applications such as making components and doors. It has a hand-held controller instead of a built-in one, a factor that helped shave a few dollars off the price.

Scanning the landscape

California's Laguna Tools (www.lagunatools.com) offers the easy-to-use IQ, an entry-level CNC model that is referred to as a heavy-duty "desktop" machine. Assembled in the U.S., it's designed for small shops entering the market and also for medium-sized shops that need a smaller format for light production, or perhaps to use as a prototyping machine. The IQ has a one-piece welded steel frame, 2-hp liquid-cooled spindle and "features the networking, connectivity and online troubleshooting typically found in Windows environments without the Windows baggage." The IQ runs industry standard G-Code that can be created from any CAM software package.

Laguna also offers a complete line of small-to-large CNC upgrades that include the Swift, D, Smartshop and Puma models. Between them, they offer tables that range from 24" x 36" to 60" x 120".

Similar to the Shark machines from Rockler are two desktop models from Redford, Mich.-based Romaxx Systems (<http://romaxxcncrouters.com>). The HS-1 has a 24" x 14" X-Y capacity. With its easily identifiable gold-colored gantry, the HS-1 is a cost-efficient option with a balance of precision, power and speed. The ways are adjustable and the drive system uses a high-tensile cogged belt that is commonly found in larger industrial CNC machines. Romaxx's more expensive WD-1 desktop model is open-ended, so it can handle work that is any length by up to 25" wide.

Industrial CNC's Renegade XR (48" x 96") is a 3-axis, ball screw drive machine that was "specifically designed for the budget-conscious sign maker, woodworker and cabinetmaker." It delivers full 3-D carvings and flat cutouts in plastics, wood, Romark, MDF, aluminum and sign foam. And Probotix (www.probotix.com) is a Peoria, Ill.-based stepper motor provider that offers a line of entry-level CNC machines called the Fireball line. It includes the X90 (18" x 18"), the V90 (12" x 18"), the Meteor (25" x 50") and the Comet (25" x 25"), which the company says is the most affordable and complete CNC router in the world.

Techno's HD Series and Oliver's IntelliCarve.



Zenbot (www.zenbotcnc.com), founded in 2006 by Shaun Morris, is a small company in Tulare, Calif., that has "a passion for creating affordable CNC machines." Starting at \$499, Morris's product line certainly seems to be meeting that goal. The Zenbot Mini has a 9.575" x 13.5" table and travels just 6" in the X-axis and 8" in the Y-axis. His largest entry-level CNC is the Zenbot 4848 (with a 56-5/8" square table) with a drive system that features 3/8" wide Kevlar-reinforced urethane timing belts on all three axes. The package includes a router body (eight choices are offered), an optional control box and an optional \$149 software package.

More sources

Other manufacturers worth investigating include SCM (www.scmgroupna.com), whose product line leans more to high-end production and also a line of four machines from Vision (www.visionengravers.com) that runs the gamut from the desktop 1624R (16" x 24") to the VR48, a floor model that handles work up to 48" x 96".

Familiar to most woodworkers, ShopBot (www.shopbottools.com) has been a leader in this market segment for a long time. The North Carolina company was founded in 1996 and almost 6,000 ShopBots are currently at work in small shops and larger production facilities across the U.S. and around the world. Its ShopBot Desktop can be ordered with either a Porter-Cable 2-1/4-hp router or an industrial spindle and handles workpieces up to 24" x 18". The line runs all the way up to 144" x 60", and each ShopBot includes PartWorks and PartWorks3D software. PartWorks allows you to design and create 2-D and 2.5-D parts, while Part-

Works3D creates tool paths from the 3-D design software of your choice. Both programs simulate the cutting of parts, so you can verify that they will be created just as you intend.

Before settling on an entry-level CNC, one should visit the websites of Epik (www.raportcnc.com), the 36" square Shop Sabre (www.shopsabre.com), the EG series from Eagle Eye (www.eagleeyecnc.com) and the Stinger 1 from CAMaster (www.camaster.com). While some of these are a bit more expensive than the basic desktop models mentioned elsewhere, most offer industrial strength in a small package.

continued on next page

CUSTOM PROFILE KNIVES For Shapers and Moulders

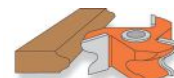
**Fast Quotes / Delivery
Competitive Pricing**

Corrugated Back • Lock-edge
Jet/Powermatic • Woodmaster
Williams & Hussey

**We will make an
EXACT MATCH
to your wood samples,
CAD or Faxed Drawings**



**Stock & Custom Moulder & Shaper Heads
Moulder Knife Steel
Freeborn Tool Shaper Cutters In Stock
35% Off In-Stock Cutters**



**FREEBORN
TOOL COMPANY, INC.**

**CONNECTICUT
SAW
& TOOL**



**ORDER ONLINE NOW
CTSAW.COM**

Router Bits • Solid Carbide Router Bits
Saw Blades • Collets & Toolholders • Shaper Cutters
Boring & Drilling Bits • Planer & Jointer Knives • Profile Knives

800-404-1220

140 Avon St., Stratford, CT 06615
Fax: (203) 378-7346 • Email: info@ctsaw.com



ShopBot's Desktop and the Laguna IQ.

CNC from previous page

Other machines to research include the LC Series from Techno (www.technocnc.com); Camtech and Pacer Series from XYZ (www.axyz.com); the 5-axis S- Series from C.R. On-

srud (www.cronsrud.com); the iCarver from General (www.generalcnc.ca); the NXT Series 3-axis router from Hendrick Mfg. (www.hendrickmanufacturing.com); the Classic Series from MultiCam (www.multicam.com); a collection of five carving models from the vener-

able Oliver Machinery (www.olivermachinery.net); new and used high-end models from Omnitech (www.omnitech-systems.com); a complete line of automated wood carving systems from one of the oldest names in the industry, Thermwood (www.thermwood.com) and the extensive offerings from distributor Stiles Machinery (www.stilesmachinery.com).

As CNC technology has been around for a while, buying a used machine is a viable option. Shopping on government surplus websites or through used machinery dealers such as K.D. Capital Equipment (www.kdcapital.com) might allow a woodshop to acquire a sheet-goods-capable entry-level CNC setup for the same investment as a small new desktop carving machine.

Questions to ask

Perhaps the most important thing to bring up with your salesperson when searching for an entry-level CNC machine is the software compatibility. Will the machine accommodate high-quality aftermarket programs from companies like ArtCam, Cabinet Pro, CABmaster, Microvellum, Planit, Enroute and Vectric?

Ask, too, about the power source (some

CONSUMER ALERT!

BEWARE OF UNAUTHORIZED SUBSCRIPTION OFFERS!

SEVERAL SUBSCRIBERS TO WOODSHOP NEWS HAVE NOTIFIED US THAT THEY HAVE RECEIVED "RENEWAL/NEW SUBSCRIPTION" NOTICES OR OTHER OFFERS IN THE MAIL FROM EITHER UNNAMED GROUPS OR GROUPS NAMED:

PUBLISHERS PERIODICAL SERVICE (PPS)
READERS PAYMENT SERVICE (RPS)
ABD INC. • SUBSCRIPTION BILLING
NATIONAL MAGAZINE SERVICES (NMS)
UNITED PUBLISHERS SERVICES
PUBLISHERS BILLING EXCHANGE (PBE)

Please do not order subscriptions through these groups.

HOW CAN YOU TELL IF AN OFFER IS FROM WOODSHOP NEWS?

- Notices from Woodshop News will have our distinctive logo on the piece or may include the line "From the Publisher's Office."
- Our publishing office address is 10 Bokum Road, Essex, CT 06426. Our subscription mailing address is: P.O. Box 433212, Palm Coast, FL 32143.
- We nearly always provide return envelopes to one of the addresses listed above. Checks are normally payable to Woodshop News.

If you are ever in doubt whether you received an offer from an approved company...

Call the publisher's office at 860-767-3200 ext. 238, Monday through Friday, or e-mail us at circulation@woodshopnews.com.

Our toll-free customer service number at 800-243-9177 may also be helpful.

**WOODSHOP
NEWS**

PUBLISHED BY SOUNDINGS PUBLICATIONS LLC

WARNING: PROTECT YOURSELF - KNOW WITH WHOM YOU ARE DOING BUSINESS!

The Woodshop News' Resource Guide will help you find what you're looking for.

To gain an overview of some of the many vendors supplying CNC equipment, visit <http://tinyurl.com/ba9vdbu>. To review CNC software suppliers, visit <http://tinyurl.com/ammq34s>.

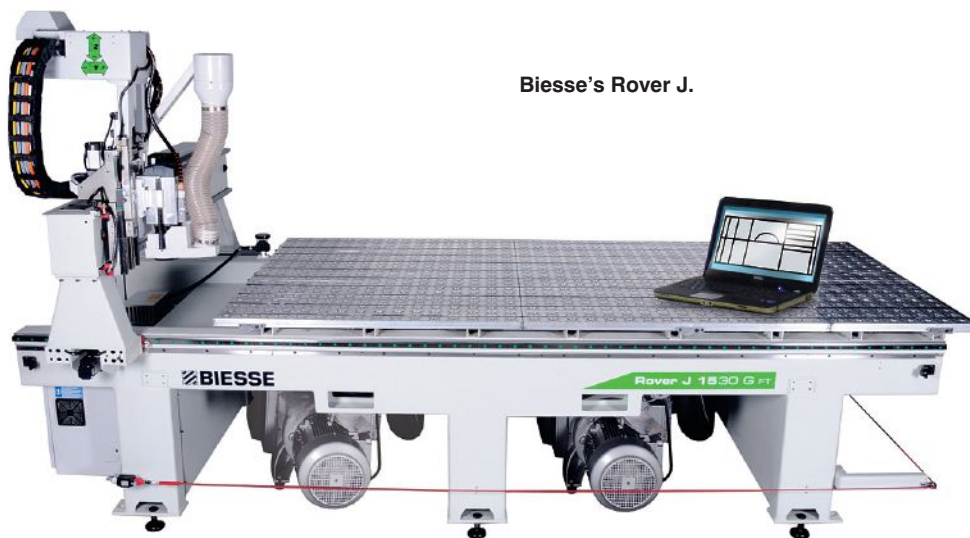
are 3-phase), the table size, feed rates, cutting speeds, dust control, the tooling diameters, whether a tool changer is available and what the amount of travel is in each of the three axes (the machinable area is generally quite a bit smaller than the actual table dimensions). If you build arched raised panel cabinet doors, be aware that some machines break arcs into small straight increments, rather than describing a true, smooth curve and the panels could then require extra sanding.

Speed might or might not be an issue. Think about how the machine will be used. If it will be making components all day long every day, you'll need a lot more machine than a shop that will only use it only occasionally to create, say, decorative panels. The former might spend the same amount of money on a big, used machine that the latter spends on a high-tech, brand-new little machine that is designed to carve more than cut.

Before buying, check out the manufacturer's reputation for support, customer service and even parts availability. The easiest way to do this is to search for online chat rooms and forums. Some machines even have user groups that post billboards online. Keep in mind that the supplier needs to get you up and running, but it's also your responsibility

to learn how to operate the system — and that takes time. Ask the supplier if it has a customer within driving distance of your shop who operates one of its machines. If so, most woodshop owners will be quite helpful and chatty and might even offer a demo. Some manufacturers reward customers for this type of contact, so ask if the company has a program in place.

One final thought: If your investment will be more than a few thousand dollars, you might want to consider going to one of the big woodworking shows in Las Vegas or Atlanta and seeing all of the manufacturers together in one venue. For the price of an airline ticket and a couple of nights in a hotel, you can enjoy a hands-on and personal tour of all the options. **W**



Biesse's Rover J.

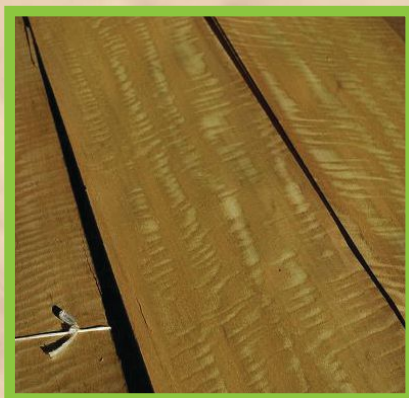
ROBERTS PLYWOOD COMPANY

DIV. OF DIE-BOARDS, INC

YOUR SOURCE FOR PLYWOOD LUMBER AND VENEER FROM AFROMOSIA,
TO ZEBRAWOOD INCLUDING CROTCH MAHOGANY AND MANY OF THE BURLS.



3/4 4x8 Block Mottled
Figured makore
A - 1 SM on MDF



1/42" FIGURED NIGERIAN
SATINWOOD



8/4 Moabi pomelle
natural edge

45 NORTH INDUSTRY COURT • DEER PARK, NEW YORK 11729
631-586-7700 www.getwood.com Fax: 631-586-7009



Everything and the kitchen sink

Dan Booterbaugh has built his business with support from his family, long hours of toil and a variety of options for consumers

By Thomas G. Dolan

Logs, barn boarding and other cast-off or recycled woods are the materials Dan Booterbaugh uses to build his high-end rustic furniture. Booterbaugh, president of North Idaho Log Furniture Co. in Coeur d'Alene, Idaho, grew up in Southern California, started building furniture when he was 16 and achieved recognition for his work while he was still in high school.

"My woodshop teacher was Dave Garringer and I won a couple of first-place Rotary awards," Booterbaugh recalls. "One was for a kitchen island I made for my mom and the other was a canopy bed frame for myself."

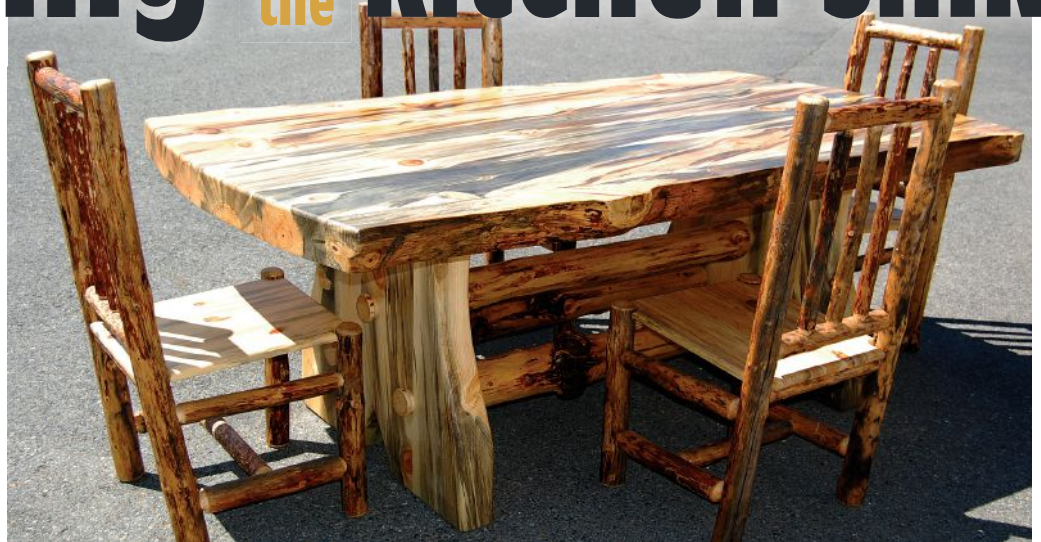
Booterbaugh then went on to work in different positions in a number of wood cabinet shops before being hired by a small lumber yard in

El Segundo, Calif., where he was involved in everything from milling to operating a fork lift to driving a truck. During this time, he began his own business on the side, taking on assorted cabinet jobs and building them in his garage.

In 1996, when he was 35, Booterbaugh moved to Coeur d'Alene in northern Idaho with his

wife, Kelli, and their two small children. "My neighbor was an older gentleman who built log furniture," says Booterbaugh. "I went to work for him, peeling logs with a draw knife. We'd go out in the woods and cut our own logs, which I still do to this day. We get our logs whole."

Booterbaugh and his neighbor formed a



Delcam
ArtCAM Express

**Imagine What You Can Create ...
.... Create What You Can Imagine!**

Introducing the next step in your design and manufacturing process ...

ArtCAM 2012

Creative CAD/CAM Software For Artists

ArtCAM Express 2012 Now Available starting at only **\$149**

This affordable entry level CAD/CAM software is perfect for any new router owner. What's more, ArtCAM Express lets you purchase additional features or upgrade to more advanced software packages if your business needs change.

**Call Today to Order
1-877-335-2261**

**Mention this ad to receive the
Express Training DVD at a Discount
with your order.**

www.artcam.com

VACUUM PRESSING SYSTEMS, INC.

**VENEERING AND
LAMINATING WITH VACUUM**

VacuPress®, the leader in vacuum technology for woodworking offers a complete line of innovative products for veneering, laminating and clamping with vacuum.

- Auto self cycling electric and air driven vacuum pumps
- FlipTop frame table presses
- Full line of panel and laminating bags in vinyl and polyurethane
- Veneering glue and accessories

Products and information online at www.vacupress.com

The number one choice of woodworkers everywhere.

553 River Road, Brunswick, Maine 04011 • 800-382-4109 • Fax 207-725-0932

streetside. After about six months, the neighbor moved away, the partnership dissolved and Booterbaugh continued on his own. In 1997 he moved to an older house next door, adding a showroom to the shop area. In 1998 he moved again to his present location, with a 1,200-sq.-ft. shop and matching size showroom, and since adding another 1,200 sq. ft. for log storage.

"We build furniture for the living room, dining room, bedrooms, kitchen cabinets, sink vanities, mirrors, lamps, anything and everything for the home," Booterbaugh says. There are standard designs, but also customized. He sells about 50 percent of both. "We have a number of unique designs," he adds, "one-of-a-kind pieces such as a roll-out futon, log sleigh bed and beam trestle table."

Prices might range from a basic queen-sized bed selling for \$500 to a customized version up to \$3,000. Although the customized pieces might have a higher price tag than standard versions, that's because the former might be more elaborate. But Booterbaugh doesn't necessarily upcharge for simple modifications to his basic designs.

Built by hand

Booterbaugh might master his material, but his material has a say in the design. "No tree is the same, so everything we make has a distinctive look, incorporating all of the wood's knobs and burls," he says. Booterbaugh works primarily with lodge pole and ponderosa pines, assorted hardwoods and, more recently, barn beams and other reclaimed woods that each provide a distinctive look.

"Everything we make is built by hand," says Booterbaugh. "We use a lot of hand tools, drill motors with tenon cutters attached. Our biggest machine is a 24-inch Woodmaster planer. A large band saw is a useful tool."

Booterbaugh sells to upscale home owners and condominiums and has carved out a special market for the many summer homes on the many lakes in the area, as well as the cabins owned or used by skiing enthusiasts. He also does a lot of contractor work for things like long hand rails, stairwells, and fire place and other mantels. "We have a few wholesale accounts around the country and these accounts seem to be picking up," he adds.

Booterbaugh has sold his furniture in every state except Hawaii, as well as in Canada, Scotland and Japan. The shop builds custom pallets for everything it ships, and generally uses common carrier.

Marketing approach

A key reason Booterbaugh is able to sell his furniture to customers so far from home is his website, which he, Kelli, and others began working on from the start of their

present business in 1997. They are now into their third update and continually work to improve the site through clearer photos and stronger content. "The key phrase is 'log furniture'," he says. "This puts us up high in the search engines so we have a better chance of being noticed."

The website also helps with sales closer to home, as does a certain amount of conventional media and telephone directory advertising. "We get a lot of repeat customers and word of mouth is also very good for us," he adds.

Especially effective in this regard is the showroom in which Booterbaugh tries to display an example of everything he makes. "It's a fun place to visit for there are two big windows between the showroom and the shop. People like

continued on next page



The Leader in Nested-Based Solutions **THERMWOOD** *First in CNC Routers*

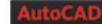
Cabinets • Closets • Store Fixtures • Marine
• Recreational Vehicles • Casegood Furniture



Call for a demo 800.533.6901
www.thermwood.com
MADE IN USA



Compatible with:



place to visit for there are two big windows between the showroom and the shop. People like to see the work being built," he says. "We build what we sell and sell what we build."

Booterbaugh now makes a comfortable living and has one full-time and two part-time employees. But it was a struggle getting started. "I was working 12 hours a day, seven days a week," he recalls. He credits Kelli for standing by his side and helping make the venture a success. "Kelli would actually peel the logs," he recalls. "She was our first log peeler. Our kids helped out. It really was a family business."

Although Kelli no longer peels logs, she still plays a vital role in the company's success by handling the office work. "Kelli is helpful in things like paying bills, collecting receivables, advertising and the other things you have to deal with as a small business, things like workers' compensation. It's amazing how time-consuming these things can be. Without Kelli's help I'd be drowning in paperwork and would have to spend too much time out of the shop. And that would not be good, for I'm a hands-on owner and oversee every piece of furniture that comes out of the shop. So Kelli and I represent a good partnership."

When asked if he's made any mistakes along the way, Booterbaugh replies, "One of the things you have to learn about log furniture, and what I initially learned the hard way, is

you have to thoroughly dry your logs or lumber. Otherwise the joints won't stay tight and the lumber tends to twist. This is a real challenge in northern Idaho, for with all of the rain and snow and freezing weather, there's very little real dry time. We have an indoor facility for our logs, use a moisture heater and keep them standing for a year before we use them."

Riding the rollercoaster

Having both distant customers through his website and those closer to home and his showroom has its advantages, Booterbaugh says. If one segment goes down, the other tends to go up, so there is a balance.

When not spending time with his family, Booterbaugh enjoys fishing and hunting, from waterfowl to big game, as well as skeet and trap shooting at a local range.

The North Idaho Log Furniture Co. was recently on "Manufacturing Monday," aired on a local ABC station because the company had its manufacturing and retail showroom in the same building. He was granted the national award for Employer Support of the Guard and Reserves, since three of his employees through the years were in the National Guard and/or active duty and were hired back after they served. He had been honored by the Marine Corps League for donations of furniture to various projects. And his sales to Japan were to the U.S. Air Force base in Masawa.

The economy in Idaho has been hit hard by the recession, as in so many other states. It once

had a big timber industry, which has suffered, as well as mining, which is still pretty big. There is a lot of agriculture and much of the state, especially Coeur d'Alene, has transitioned into tourist destinations. All segments have been affected adversely to varying degrees.

"The last few years have been a rollercoaster for us," Booterbaugh says. "We've been very busy at times, only to have it suddenly drop off. This summer we've been lucky to be very busy, so I'm optimistic about the future."

When asked about what advice he would give others in the wood industry who are thinking about going independent, Booterbaugh, 51, replies, "I've done about everything in terms of working in high-production cabinetry, the punch press process, and I got burned out. I fell into log work and loved it. Here's it's not so much precision as a sense of design. It can be developed, to an extent, but I think you must already have the creativity inside of you."

"As far as starting a business, you have to be prepared to put in long hours at the start, be self-motivated and determined. At the same time you have to balance the creative with dealing with retail sales. You have to be able to understand your customers and see their vision of what they want to have built."

"But it's not about building boxes. Every piece is different so at the end of the day, when you look back and see what you've created, there's a lot of satisfaction. There's no better way to earn a living than doing what you love." **W**

Looking for CNC Routers?

LYNX SERIES



HOLZ-HER HAS IT

The LYNX provides an affordable solution to those entering the world of CNC technology.

German engineered and designed along the same lines as our mid and high end range CNC models, the LYNX provides a high technology solution to increased production, accuracy, repeatability and profitability.

Multi function machines in both 4' x 8' and 5' x 10' working fields, including automatic tool changing, multi drill head boring designed to perform all machining functions in a single set up, eliminating the need to move parts from machine to machine.

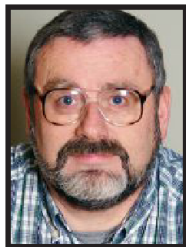
Smooth communication with the Holz-Her provided Campus CAD/CAM software or virtually all third party software packages.



A proud member of
the Weinig Group



124 Crosslake Park Drive, Mooresville, NC 28117 USA
(704) 587-3400 Fax: (704) 587-3419
www.holzher.com • sales@holzher.com



THE CUTTING EDGE

with JOHN ENGLISH

The versatility of veneer

Handles curves and provides access to dramatic grains and colors

Whether repairing antiques, building one-of-a-kind furniture or laminating curves on cabinets, most woodworkers eventually discover veneer. One's first instinct is to think of it as simply a way to get the most out of rare cuts or species. But veneer serves many functions beyond thrift. It makes life easier when dealing with curves, gives a woodworker access to some very dramatic grains and colors and can be applied to a stable substrate to create wide panels or complex patterns.

Veneer cuts

There are essentially three ways that mills create veneer. A log can be flat-sliced, quarter-sliced or rotary-sliced. A fourth technique, rift slicing, is generally reserved for a few specific species, most notably white oak.

Flat slicing is similar to the way that logs are traditionally plainsawn into boards. The log is ripped down the middle and one half is milled at a time. The flat face of the half being milled rides against a fence while the blade cuts slices off parallel to the fence.

Quarter slicing begins with splitting the log into four quarters and the machine slices these at 45 degrees. This is the preferred method with species that have dominant medullary rays (like the ribbons in quartersawn oak). The strips are narrower than plain-sliced veneer, but show a lot more character. This method can be a little wasteful, as it's difficult to use some of the smaller cuts.

Rotary slicing is done by mounting the log on a lathe and rotating it into a knife. This produces very wide sheets of veneer, suitable as skins for substrates such as plywood.

edge-matched to create wider sheets for mounting to substrates. Tape can also be used to create geometric patterns or segmented circles that look like an orange that has been sliced across the middle. It holds banding (very thin strips of contrasting or patterned veneer) in place, too.

In the woodshop (as opposed to mass production in the veneer mill), the normal practice when creating panels that are wider than one piece of veneer is to stack two layers and use a veneer saw to cut the edges simultaneously, so that they match perfectly. The wood is then taped together, edge-to-edge, before it is attached to a substrate.

Veneer tape comes in various sizes, with or without holes (perforations). The tape without holes is used on thicker veneers that are not

continued on next page

Veneer taping

When panels are required, narrow strips of plain- or quarter-sliced veneer can be

BUILT FOR THE PROFESSIONAL



MOLDERS

7 YEAR WARRANTY

Why Settle?
Get the
BEST.



Model 206 Molder
with Optional Mobile Base
PATENTED

NEW



Model 154CE Molder
PATENTED



Model 209 Molder
PATENTED





W&H

CUSTOM & STANDARD
KNIVES

www.williamsnhussey.com

70 Powers Street • Milford, NH 03055
Toll Free 800-258-1380

BUILT TO GO THE DISTANCE

For information on veneer suppliers, please visit the Woodshop News online resource guide at <http://resourceguide.woodshopnews.com/listing/guide/veneers-and-edge-banding>.

behaving well (such as crotches or highly figured cuts), but most veneers can be joined using perforated tape. It shrinks a little as the glue dries, so it pulls the edges closer together. Tape is almost always applied to the top face of veneer, rather than the glue side (there are a few exceptions). The main advantage of the holes is that one can be a little more precise in placing because the sawed edges are visible through the tape.

As veneer is so thin, there is rarely a good side (one that is better than the other) and this helps when matching because orientation can be a little more flexible. The veneer can be flipped. Every now and then, a piece of stock that is highly figured (usually from a burl) can have one face that is a little cleaner than the other, but that's rare.

Luthiers and other craftsmen who work with veneer a lot tend to use chalk to mark the back of each slice of veneer and, if there is no tape involved, that's a good idea. The presence of tape indicates that the good face is showing. Chalk can also be used to mark matching edges. When a bundle of veneer slices (a flitch) is being used, it's easy to lose track of which piece belongs where because the grain and color patterns are very similar.

Initially, short lengths of tape are applied

across, rather than along, a joint. This leaves more of the joint visible for inspection. Activate the tape by dampening its shiny face with water (a squeezed-out sponge works well), like one does to a postage stamp. Getting it too wet can actually leave marks on the veneer and these can be difficult to remove, so moderation is key. A J-roller that will be used later on to press the veneer onto a glued substrate can also be used here to ensure that the tape adheres properly to the veneer.

Every now and then it's necessary to lay tape all along an edge that simply won't lie flat. That technique is also used when all of the short pieces are in place across the joint. The final piece runs along the joint and a rag or paper towel is pressed along the joints to help absorb some of the water.

As the tape dries, it's a good idea to place a flat board with some weight on it over the joints to prevent crinkling. And wavy veneers need to be soaked and flattened as they dry before being taped or glued to a substrate.

Glue choices

The glue for veneer has traditionally been hide (which required hammering the veneer to press the wood down to the substrate), but nowadays we have lots of other choices. For example, Titebond's Cold Press glue is

specifically formulated for laminating wood to solid woods, particleboard, MDF, plywood and other porous materials. Better Bond Veneer Glue comes in various colors and there's also a Heat-Lock version for iron-on veneering of irregularly shaped projects.

Other cold press glues come either premixed or as powders that require water to work. The powder version is said to be more resistant to heat and water when dried.

These veneer-specific glues are more viscous, so they offer more control, more void-filling ability and less bleed-through. They are often colored to match the wood species, which helps to disguise glue lines. And unlike standard yellow (aliphatic resin) glues, they allow less cold creep once cured.

For small areas of repair, it's possible to use epoxy, but if the furniture is a valuable antique, check with a dealer first as there is no going back with epoxy as there is with hide glue.

Personally, I don't like using polyurethane-based glue for veneering because of its foaming and also the lack of "spreadability." And I also shy away from contact cement because of its unforgiving nature.

Glue is usually applied to both the veneer and the substrate. Choose a finish that won't react with the glue (rare, but it can happen).

Substrates

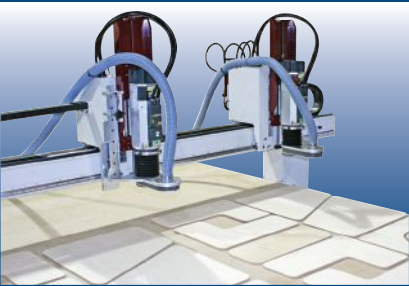
This is the base to which the veneer is being glued. And the more stable it is, the better. Relatively immobile sheet goods such as MDF and micro-ply (Baltic birch) are excellent substrates. Through the decades, furniture builders used myriad common species as backers for expensive veneers, including everything from pine to gumwood, maple and poplar. The problem with using solid wood is that it moves — and not just across its grain. It also warps, twists and bows and, if the glue and veneer don't follow suit, delamination and splitting can occur. If you must use solid wood, orient the wood and veneer grains in the same direction. On plywood, go across the top layer.

For my money, the best substrate is MDF. It's strong, flat, absorbs glue well, doesn't shrink or expand, is fairly inexpensive and is void-free. It's not the greatest material in damp environments, but then who wants to leave any veneered project in such a place?

Always balance the substrate. That is, apply an equal amount of veneer (it can be of lesser quality) to the bottom of the substrate, especially on plywood and solid wood cores, or the substrate might warp.

Veneer presses

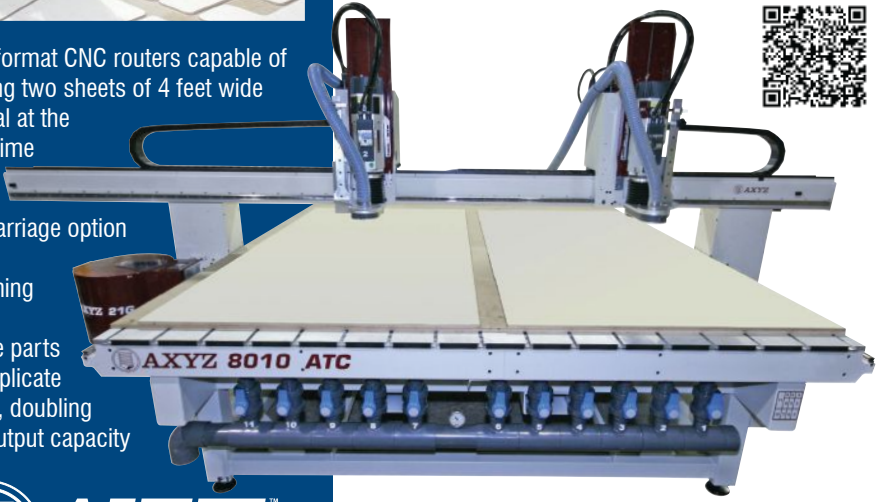
There are several ways to apply even pressure over veneer when it is being glued to



ROUTING

on a large scale?

Double Your Productivity!



- Large format CNC routers capable of handling two sheets of 4 feet wide material at the same time
- Dual carriage option allows machining of high volume parts in a duplicate format, doubling your output capacity



XYZ
INTERNATIONAL

Tel: 800 361 3408
sales@xyz.com www.xyz.com

a substrate. The traditional method for flat panels is a press with several clamps (called screws) that distribute the pressure from the center toward the edges. The panel is a multilayered sandwich consisting of plywood, paper, the backer veneer, glue, substrate, glue, face veneer, paper and another piece of plywood on the top. Sometimes, cauls are used to help distribute the pressure. These have a very slightly bowed bottom, so that when the ends are clamped, the center makes good contact.

Most small projects nowadays are veneered with vacuum presses, which is a whole other discussion. Before investing in one, it's advisable to go online and look at the options.

When your panel or project comes out of the press, the tape must be removed. It can usually be lightly moistened with a paper towel and then peeled off. If there is any residue from the tape adhesive, a light rubdown with denatured alcohol should take care of it. Scraping with a card scraper also works well because the scraper offers a lot more control than an electric sander. Taped areas can be sanded using a hand block for curved surfaces and if a power sander is used it should have random orbital action, especially for projects where various grain directions meet. **W**

Knapé & Vogt grows with two acquisition

Knapé & Vogt, a furniture hardware manufacturer based in Grand Rapids, Mich., has acquired Diamond Storage Concepts LLC and the Furniture Components Operations of CompX International Inc. in two separate deals.

Diamond Storage Concepts in Las Vegas sells the Hyloft brand of ceiling-mounted overhead storage, wall-mounted shelving and tire-storage products.

"The acquisition of Diamond Storage Concepts and the Hyloft brand of products adds exciting new products to KV's line of garage and utility storage products business," Knapé & Vogt President and CEO Peter Martin said in a statement. "Garage storage is one of the fastest growing categories in home storage and organization. The addition of Hyloft products and the Diamond Storage team to our company will provide opportunity to further penetrate this important category."

The CompX deal includes Waterloo Furniture Components in Kitchener, Ontario, and the Dynaslide division in Taipei, Taiwan.

Both manufacturers produce precision ball bearing slide products to the OEM market.

"The acquisition of Waterloo Furniture Components and Dynaslide will provide Knapé & Vogt with access to new customers and markets and an expanded presence in our office OEM and distribution channels" Martin said in a separate statement. "The combined resources of KV and these two companies provide an enhanced slide product line, a full array of ergonomic accessory products and an exciting new growth opportunity through the addition of wall mounted workstation products for hospitals, medical clinics, and other health care providers. Our rapidly growing international business will be enhanced by combining Dynaslide's wide range of slide products with [KV's] GSlide's existing product line allowing for business expansion within both companies' current customers and through new customers around the world."

Knapé & Vogt and Active Interest Media, publisher of Woodshop News, are owned by the same private equity firm, Wind Point Partners in Chicago.

SELF-SET®

JOINTER / PLANER KNIFE

The Worlds Only Affordable
Self-Setting Knife for your Jointer or Planer

Precisely Located Stops on
the SELF-SET Holder Ensure
Perfect Set-Ups
Every Time →

Fast and Accurate Knife
Changes in Every Machine
Ever Made - Every Time



DISPOZABLADE

800-557-8092 .com

www.Timbercraftdrawers.com



TIMBERCRAFT

Custom Dovetailed Drawers
Manufactured in Connecticut

3-5 day standard production
No expedite surcharges

5/8" Solid Maple or Birch
Finished and Assembled Drawers
3/8" Birch Plywood Bottoms

800-345-4930

NEW PRODUCTS

▶▶ **WOODSTOCK INTERNATIONAL** offers the new Shop Fox pocket-hole machine, model W1833, featuring a 1/2-hp, 120-volt, universal motor that drives 6" long bits at 2,500 rpm, according to the company. It also features a patented "no adjust" hold-down clamp, allowing the user to insert any workpiece from 1/2" to 1-1/2" thick and start drilling pocket holes immediately. The machine lists for \$810, weighs 56 lbs. and is covered by a two-year warranty. For information, call 360-734-3482 or visit www.woodstockinternational.com.



▶ **ANVER CORP.** offers an electric-powered vacuum lifter-tilter and 360-degree rotator for handling 12' x 6' glass and architectural building panels weighing up to 1,000 lbs. It features a heavy-duty electric actuator for tilting and a worm gear drive that powers the 360-degree rotation. Suction cups can be made from various materials including foam for textured surfaces. A remote control keeps the operator safely away from the load. The lifter has a base price of \$12,900. For information, call 800-654-3500 or visit www.anver.com.



Custom DOVETAIL drawer boxes



**Lower Costs,
Improve Quality**

shown in birch
with walnut dividers

The dovetail joint is decorative, and a trademark of quality workmanship. Solid wood dovetail drawers complement the quality, design, and function in any environment.

Our drawers are offered in nine species, with options available to save on labor when drawers are customized. Call 800-643-1158, request a free sample drawer and a price quote.

WITMER
WOOD PRODUCTS LLC



Fax 920-361-3287 • witmer@pcfemail.com • Berlin, WI 54923

**"Check out our prices on
Anna says: inserts heads and knives
before you buy."**



Call **(800)762-9899**
for more details!



hst01@hickorysawandtool.com

**Hickory Saw
& Tool, Inc.**

Mail: PO Box 2407 • Hickory, NC 28603
Ship: 406 9th Street SE • Hickory, NC 28602
Toll Free (800) 762-9899 • Fax (800) 762-6845
Web Site: www.hickorysawandtool.com





◀ **FUSION** single flat panel ceiling mounts are available from Chief Mfg. Features include continuous tilt ranges with four set locking points that eliminate guesswork when adjusting multiple screens; easy on/off installation and service; tool-free latching flags to secure the display; optional padlock security; Centris technology to provide fingertip tilt between 5 and minus-20 degrees; and optimization for a wide range of display sizes up to 125 lbs. The display can be installed in portrait and landscape positions on the medium mount. The large mount handles landscape positioning with a portrait option available in the first quarter of 2013. The mounts are available in black and silver. For information, call 800-582-6480 or visit www.chiefmfg.com

▶▶ **XENON LIGHT BOX**, from Eterna Lighting, is available as a single, double, triple and quad light. Each light is 20 watts. A high, low and off control is included. Fixture can be hardwired or comes ready to plug in with detachable cord and connectors. Available with a white or satin nickel finish. For information, call 888-513-3346 or visit www.eternalighting.com.



▶ **PORTER-CABLE** introduced the 20-volt Max lithium-ion drill driver, model PCCK600LB, and impact driver, model PCCK640LB. The drill/driver features a two-speed gear transmission, weighs 3.7 lbs. and is less than 8" in length. Other standard features include a 1/2" ratcheting chuck, battery gauge, LED worklight and belt clip that can be fastened to fit either right- or left-handed users. The variable-speed impact driver has a 1/4" hex quick-change chuck, two-bit storage feature, LED worklight, battery gauge and belt clip. Both products retail for \$169. For information, visit www.portercable.com/20volt.

Changing your address?
Don't miss a single issue of Woodshop News!
Just complete and return this coupon.

OLD ADDRESS

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____
Email _____

NEW ADDRESS

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____
Email _____

PO Box 433212 • Palm Coast, FL 32143
circulation@soundingspub.com

**New England's Largest Selection
of Unique Lumber and Burls**



**1000's of Natural Edge Kiln-Dried Slabs
in Stock - up to 7' wide**

Berkshire Products, Inc.
884 Ashley Falls Rd, Sheffield, Mass. 01257
413-229-7919
www.BerkshireProducts.com

Messler Gallery showcases design finalists

David Stetson's bench, made from reclaimed redwood.



By Jennifer Hicks
STAFF WRITER

The Messler Gallery of the Center for Furniture Craftsmanship in Rockport, Maine, opened its "Designing Benches: Farnsworth Competition Finalists" exhibit to the public on Jan. 25.

The exhibit showcases the top 15 entries in a design competition co-sponsored by the Farnsworth Museum of Art, also in Rockland. The challenge was to design new gallery benches for the Farnsworth. A call for entries went out last July to all Maine artists and artisans.

"We are delighted with the creativity and craftsmanship of the entries," Farnsworth Museum chief curator Michael Komanecky said in a statement. "We are thrilled to make an acquisition of handsome Maine-made benches from the show."

A total of 44 entrants submitted 73 designs. The finalists, juried by the Farnsworth, are Nick Barboza of Bangor; Eben Blaney of Edgecomb; Judy Bonzi of Rockport; Gregory W. Crispell of Garland; Chris Gray of Blue Hill; Terry Kelly of Mapleton; Gregg Lipton of Cumberland; Mason McBrien of

PHOTO: KEVIN MORRIS

NEW Biesse Rover J

Technology you need at a price you can afford!

The NEW Biesse Rover J CNC Router is the answer to increased production for growing shops processing wood, composites, plastic and non ferrous metals. Affordable, flexible and user friendly, the Rover J combines strength and quality at a great price!

For more information, contact Cesare Magnani at 704.299.6415 or email cesare.magnani@biesseamerica.com.



For a showroom demo call
1.877.824.3773

BIESSE

877.8.BIESSE (877.824.3773) | sales@biesseamerica.com | biesseonline.com

Union; Richard Ong of Arrowsic; Stephen Porter of Searsmont; James Provenzano of Farmington; Kevin Rodel of Brunswick; Libby Schrum of Camden; David Stetson of Sheepscot, and Andrew White of Union.

Messler Gallery visitors were able to try out the benches while viewing a concurrent exhibition of seating-themed Maine paintings. Participating artists include Barbara Sullivan, represented by Caldbeck Gallery; Ted Keller, represented by Carver Hill Gallery; Harold Garde; represented by Harbor Square Gallery; and Stephen Hoedecker, Connie Hayes, David Vickery and other artists represented by Dowling Walsh Gallery.

The Center for Furniture Craftsmanship is a non-profit, year-round school that offers courses in furniture making and related arts such as carving and woodturning.

Contact: Messler Gallery, 25 Mill St., Rockport, Maine 04856. Tel: 207-594-5611. www.woodschool.org 

PHOTO: JIM DUGAN



Gregory Crispell's bench, "Eleven," made of white ash with a water-based varnish finish.



Clean Air! Clean Shop! Clean Tools!

FREE Ductwork Plan
Plus Save \$100 when you purchase any S-series Tempest™ cyclone!
Use Code WSNNAN18
Call 1-800-377-7297 to redeem
Offer expires 5/1/13. Offer not valid online. Prices subject to change without notice.

Nanofiber eats the competition's dust!

(FREE with any Tempest Cyclone!)

The best value in dust collection is now the cleanest.

Our Tempest Cyclone Dust Collectors now include Nanofiber filters as a **FREE** upgrade (a \$54 value). Industry leading, MERV 15 rated Nanofiber filters combined with our cyclonic separation process captures 99.98% of wood chips and dust particles to below 1/2 micron. You achieve near surgical quality air and cleaner tools, while practically eliminating dust clean up forever! In addition, TEMPEST™ cyclones never clog and require almost no maintenance.

• 2.5 HP - 1450CFM - \$1095

• 3.5 HP - 1700CFM - \$1295

• 5.0 HP - 1800CFM - \$1495

• 2.0 HP - Portable 1025CFM - \$995

Ask about our solutions for smaller shops starting at only \$295.

SAVE on any system you buy! PSI offers a variety of discounts and offers on dust collectors too numerous to list here. We're your complete resource for everything you need to get the job done right! To get the best deal on the system sized perfectly for your shop and number of tools, **call Bill at (215) 676-7606 x16.**

Penn State Industries
Top Quality, Great Prices and Expert Advice!

1-800-377-7297 • www.pennstateind.com

CALENDAR

Organizations sponsoring meetings, classes or shows of interest to professional or hobbyist woodworkers are invited to submit items to: Calendar, Woodshop News, 10 Bokum Road, Essex, CT 06426; editorial@woodshopnews.com.

The complete monthly calendar of events is updated monthly at www.woodshopnews.com.

— Compiled by Jennifer Hicks

CALIFORNIA

Monthly — San Fernando Valley Woodworkers meetings are held on the third Thursday of each month at 7 p.m. at the Balboa Park Sports Complex, Gym Building, at 17015 Burbank Boulevard in Encino. www.sfvw.org

June 20-22 — FS13: L.A. Symposium. Hosted by The Furniture Society, this three-day event will feature panel discussions, studio tours, and exhibitions. Location: L.A. Mart in Los Angeles. Contact: www.furnituresociety.org

CONNECTICUT

April 13-14 — Antique Furniture Restoration workshop hosted by conservationists Tad Fallon and Randy Wilkinson. Designed for collectors, restorers, homeowners and dealers alike, this weekend workshop will cover topics such as loss compensation techniques, reconditioning of existing finishes, preparation of shellacs, and much more. Location: Fallon & Wilkinson Conservation Studio in Baltic. Fee: \$325. Contact: www.fallonwilkinson.com

FLORIDA

Ongoing — The Dunedin Fine Art Center is offering six-week woodturning classes at its Cottage Campus taught by AAW professional member Tony Marsh for beginners and intermediate-level participants. Full day classes are held on Thursdays. Call 727-298-3322 or e-mail

education@dfac.org for information.

Monthly — Woodcrafters Club of Tampa meets every third Thursday evening at 3809 W. Broad St. in Tampa. For information, visit www.tampawoodcrafters.org.

March 15-17 — The Woodworking Show at the Florida State Fairgrounds in Tampa. www.thewoodworkingshows.com

GEORGIA

March 22-24 — The Woodworking Show at the North Atlanta Trade Center in Norcross. www.thewoodworkingshows.com

MAINE

Feb. 11-May 3 — Twelve-week intensive program at the Center for Furniture Craftsmanship in Rockport. Course provides a hands-on woodworking experience in a fully equipped shop with daily personal instruction. Fee: \$6,950. www.woodschoool.org

MARYLAND

May 3-5 — Fine Furnishings Show for exhibitors of handcrafted furniture and accessories. Location: Maryland State Fairgrounds in Timonium. www.finefurnishingsshows.com

NEVADA

July 24-27 — AWFS fair at the Las Vegas Convention Center. www.afwsfair.org

NEW JERSEY

Feb. 27-March 1 — Cabinets & Closets Conference & Expo at the New Jersey Convention & Exposition Center in Edison.

April 13-14 — Second annual Spring Fine Art and Crafts at the Westfield Armory in Westfield. www.rosesquared.com

NEW HAMPSHIRE

May 18-19 — 26th annual Fine Art and Crafts at Verona Park in Verona. www.rose-squared.com

NEW YORK

Monthly — Sawdust and Woodchips Woodworking Association meetings are held on the first Thursday of each month at 6:30 p.m. at the Canton Woods Center in Baldwinsville. www.sawdustwoodchips.org

May 18-21 — 25th annual International Contemporary Furniture Fair at the Jacob K. Javits Convention Center in New York City. www.icff.com

NORTH CAROLINA

July 29- Aug. 3 — Ladderback chair class with Drew Langser. Students will make a bent-back, double slat, post-and-rung chair in this six-day summer workshop. Fee: \$975. www.countryworkshops.org

OHIO

March 1-3 — The Woodworking Show at the Ohio Expo Center in Columbus. www.thewoodworkingshows.com

PENNSYLVANIA

April 5-7 — Philadelphia Invitational Furniture Show at the 23rd Street Armory in Philadelphia. www.philaifs.com

RHODE ISLAND

Nov. 1-3 — Fine Furnishings Show for exhibitors handcrafted furniture and accessories. Location: Pawtucket Armory Arts Center. www.finefurnishingsshows.com

SOUTH DAKOTA

Monthly — The South Dakota Woodworkers Guild meets the last Thursday of every month (except August). The club has hand tool and woodturning groups. www.sdwoodworker.org

WISCONSIN

Oct. 4-6 — Fine Furnishings Show for exhibitors of handcrafted furniture and accessories. Location: The Garage at the Harley-Davidson Museum in Milwaukee. www.finefurnishingsshows.com **W**

WOOD KNOBS & PULLS

cherry walnut maple
hickory pine ash alder
oak mahogany
tiger maple birch

IN STOCK FREE CATALOG

908-832-2723

www.niceknobs.com



List your Events in our Calendar

Woodshop News welcomes event notices.

Entries must be received by the 15th of the month, three months prior to the event.

Mail to: Calendar,
Woodshop News, 10 Bokum Road, Essex, CT 06426
Fax to: Calendar, 860-767-0642
E-mail: j.hicks@woodshopnews.com
Subject: Calendar Item

The events are also listed at no charge on the Internet: www.woodshopnews.com
Be sure to include: event name, date, location, sponsor, contact name and telephone number, and Web site URL if applicable.

WOODSHOP NEWS 2013 Resource Guide

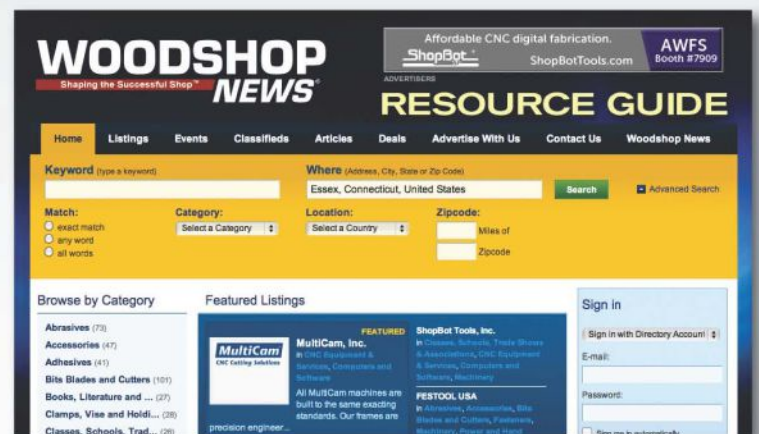
A fast and easy research tool to help you determine which companies can supply the products and services you are looking for.

Over 300 companies listed, covering well over 250 product and service categories.

If you are looking for it, we can help you find it.

Link through our web site
www.WoodshopNews.com

or go direct
resourceguide.woodshopnews.com



Resource Guide Showcase Sponsors

cabinet vision

FESTOOL

MultiCam

ShopBot®

RIKON

Amana Tool®
REDEFINING WOODWORKING™

If you are supplying products or services to woodworking professionals, make sure you are listed!

Already listed? Make sure it's up to date!

For marketing information, e-mail: sales@woodshopnews.com

CLASSIFIED MARKETPLACE

Call 860-767-3200 ext. 284 for Advertising Information

Band Saws

Band Saw Blades

Swedish Silicon Steel

Timber Wolf®



1/8" Through 2"

call: Suffolk Machinery
800-234-7297

Now Order Online
www.timberwolfblades.com

Iturra Design

Your complete source for the best information and accessories for the home shop bandsaw

- Lenox Carbide-tipped bandsaw blades
- Blade Tension meters
- Bandroller ball-bearing guides
- Ceramic blade guides
- Re-saw and rip fence
- Pulley and Powertwist belt kits
- Carter Quick Release for Delta/Jet 14" bandsaws
- Urethane & rubber bandsaw tires
- High Tension Springs

Call 904-642-2802 for free catalog

Bits, Cutters

Freeborn Cope & Pattern Sets Now on Sale



Cope & Pattern 3/4" to 1-1/8" Glass Panel 3/4" to 1" Tongue & Groove 1/4"



PME Distributors, LLC

Phone (888)344-5545
Fax (209) 835-9378

www.pmetooling.net
For all your tooling needs

Bits, Cutters

RIDGE CARBIDE

EXPRESS CUSTOM CUTTERS & KNIVES

- Custom Router Bits
- CNC Router Bits
- Corrugated Back Knives
- Molder Planer Knives (William and Hussy, Shop Fox, Grizzly)
- Groovers & Cutters
- Profile Shaper Cutters

**We deliver what others
only promise with
2-3 day delivery.**

Call Toll Free: 1-800-443-0992

Tool Free Fax: 1-888-728-8665

Email: rcctool@verizon.net

www.ridgecarbidetool.com

595 New York Ave Lyndhurst, NJ 07071

Branding Irons

Custom Branding Irons



Electric or Flame Heated
Custom Designs, Logos, Signatures

Quality for over 20 Years!

**BrandNew
Industries, Inc.**

(800) 964-8251

www.BrandNew.net

CUSTOM BRANDING IRONS

FREE-FREE-FREE
information & sample brandings
contact:

NORCRAFT

P.O. Box 606, New Boston, NH 03070
Phone/Fax (800) 538-4831

Names, initials, monograms, signatures
and logos faithfully reproduced.

ANY SIZE or DESIGN

Professional quality tool, electric or torch
heated-can be used both hand-held or
drill press mounted.



"Hallmarks of distinction
worthy of your labor."



Business Opportunities

Turn your **woodworking**
PASSION
into **BIG PROFITS**
with a proven turn-key
program from ...

EUREKA
WOODWORKS, INC. ®



Be your own boss!

Transform your shop
into a furniture factory
producing America's most
popular Adirondack-style
outdoor furniture!

877-731-9303 www.eureka-business.com

Computers/Software

CUTTING OPTIMIZER SOFTWARE - INEXPENSIVE
AND EFFICIENT. \$49/\$149. www.rdrummond.com
724-446-0159.

Cabinet Hinges

Cabinet Parts

➔ Cabinet Hinges

➔ All Major Brands

➔ Next Day Shipping



www.cabinetparts.com

Drawer Slides

Cabinet Parts

➔ Drawer Slides

➔ All Major Brands

➔ Next Day Shipping



www.cabinetparts.com

Drawers

DOVETAILED DRAWERS

**CCF
Industries**

- Quality Drawers • Added Selling Tool
- No Minimum Order • Quick Delivery
- Constructed of Solid Wood, Baltic Birch, White and Wood Grain Ultrafoil Melamine on an MDF Core.

1-800-581-3683

Web address: www.ccfdrawers.com

CNC Machine Cut Dovetails That Look Hand Cut!

- * Call for Sample & Prices
- * Thru & Blind
- * Drawers & Pullouts
- * Prefinishing
- * Adjustable Tail Spacing
- * Undermount Prep
- * Prompt & Reliable
- * 1-2 Week Turnaround

Stratton Creek
Wood Works
Est. 2005

kmario@strattoncreek.com
330-876-0005 Shop
330-876-0032 Fax
www.strattoncreek.com

Fasteners

Using Hoffmann Dovetail Keys?



Full line of Dovetail Keys in plastic,
solid hardwood and aluminum
available from stock. See typical
applications, machining tips & color
options online. Call toll-free for
support, expert advice, info on
machines and samples.

HOFFMANN

See pricing and technical
details on our website.

866-248-0100

Hoffmann-USA.com

VISIT OUR ONLINE CLASSIFIED SECTION

at www.woodshopnews.com/classifieds

**WOODSHOP
NEWS**

CLASSIFIED MARKETPLACE

E-Mail marketplace@woodshopnews.com for Advertising Information

Glass

Green Mountain Glass, LLC.

211 Main St. • Charlestown, NH 03603
Small Lite, Narrow Sight Line Insulated Glass
Silicone Dual Seal, All types, from historic
way to blast resistant glass.
Argon fill and warm edge available.
603-826-4660

Hardwoods

NEED A SLAB?



Good Hope Hardwoods

(610)274-8842
www.goodhope.com

American Hardwoods
Specialty Figures and Widths
Sequential Sets

HORIZON

WOOD PRODUCTS, INC.

Online Inventory
www.horizonevolutions.com
814-772-1651

Hardwoods

STEVE WALL LUMBER CO.

Quality Hardwoods and Woodworking Machinery
For The Craftsman and Educational Institutions.

The trusted supplier from the Heart
of North Carolina Furniture County.

- HARDWOODS • EXOTICS • THIN
CRAFTWOOD • AROMATIC CEDAR
- HARDWOOD PLYWOOD • CUSTOM PANEL
DOORS • HARDWOOD FLOORING

See Our Catalog on the WEB: walllumber.com

BOX 287 • MAYODAN, N.C. 27027
336-427-0637 • 1-800-633-4062
Email: wood@walllumber.com
SEND \$1.00 FOR CATALOG

WEST PENN HARDWOODS, INC.

Exotic Wood Wonderland!

The Largest Importer of
Exotic Hardwoods From
Pen Blanks to the Whole Log!



www.westpennhardwoods.com

716-373-6434



CORMARK INTERNATIONAL EXOTIC HARDWOODS

- BEST PRICES - DIRECT FROM SOURCE
 - EXOTIC LUMBERS, BLANKS, BURLS,
SLABS,
 - TURNING BLOCKS AND MORE.
 - NATIONWIDE DELIVERY
- WWW.CORMARKINT.COM / CORMARKINT@AOL.COM
181, REEMS CREEK RD, WEAVERVILLE, NC 28787
(828) 658-8455



RARE HIGHLY FIGURED CLARO WALNUT

1"-3" thick lumber RWL, large slabs,
turning blocks & gunstocks.
Wineland Walnut (530) 345-4012
Fax: (530) 345-0990 • Mon-Fri 8-3
9009 River Road, Chico, CA 95928
www.wineland-walnut.com

Oregon Claro/Black Walnut

Slabs - Wide lumber - 4/4 through 16/4
Turning - Carving Stock - Gunstocks - Veneer
Web Site www.gobywalnut.com

GOBY

WALNUT PRODUCTS
5315 NW St. Helens Rd.
Portland, OR 97210

M-F 7-4; Sat. 9-4
(503) 477-6744

Hardwoods

Kiln Dried Hardwoods and Millwork

Cherry & Figured Hardwoods
Quarter-sawn Lumber
Custom Flooring & Moldings
Thermally Modified Woods

Sawmill, Kilns and Molder
at Our Location

Kempton, PA 19529
Ph: (610) 756-6827
baileywp.com

Our name says it all...

woodfinder

Over 400 suppliers! 35 ways to search!

www.woodfinder.com

SINCE 1999

Hardwoods

• Quality Guaranteed •
FREE BROCHURE
Phone 310-542-3576 Fax 310-542-2857
Orders 800-258-2587
www.eisenbrandhardwoods.com
clayton@eisenbrandhardwoods.com



www.rarewoodsusa.com • (207) 364-1073
120 species of exotic & domestic woods
Ebony, Olive, Rosewood, Satinwood, etc.
\$3 million inventory - buy 1 plank or 1000!

Instruction

Phillip C. Lowe, Director
Two-Year hands-on Program with Master Furniture-Maker
Summer Workshops Available
116 Water St. (978) 922-0615
Beverly, MA 01915 www.furnituremakingclasses.com

Jointers/Planers

KNIVES & CUTTERHEADS
AT DISCOUNT PRICES
CALL 1-800-489-6694 OR
E-MAIL: SIMANTEC@OPTONLINE.NET

Knobs & Pulls

Knobs & Pulls
All Major Brands
Next Day Shipping

www.cabinetparts.com

NORTHWEST
BAMBOO Inc
LUMBER, PLYWOOD
VENEERS, FLOORING
503-695-3283
WWW.NWBAMBOO.COM

VISIT OUR ONLINE CLASSIFIED SECTION

at www.woodshopnews.com/classifieds

WOODSHOP NEWS

CLASSIFIED MARKETPLACE

Call 860-767-3200 ext. 284 for Advertising Information

Lumber

Help Yourself to a Great Selection of Lumber!



Downes AND Reader
HARDWOOD

- Domestic & Exotic Hardwoods
- Mahogany
- Softwoods
- Plywood
- Turning Squares
- and much more!

Mon - Fri: 8:00 AM - 4:30 PM

Sat: 7:00 AM - 11:30 AM

1-800-788-5568

60 Evans Dr. Stoughton, MA 02072
Visit us at downesandreader.com

Machinery

Using Solid Wood Edges?
The Hoffmann BH-556



Edges up to 2 1/4" are planed flush in one pass. Innovative steel knife guard for maximum safety and powerful 1,400 watt motor for professional use. Proven in woodworking shops around the world for over 20 years!

See pricing and technical details on our website.

866-248-0100

Hoffmann-USA.com

WE SUPPLY POWER FEED PARTS and wheels, exchange program available. Rudolf Bass inc 201-433-3800, rbassmach@att.net Visit website for used stock machines: rudolfbassinc.net

Veneers

LEVENEER
Flexible Sheet Veneer

- Over 160 species in stock
- Sizes 4'x8' & 4'x10' in stock
- Same day shipping available



LEVENEER

10 & 20 mil paperbacked
2 ply woodbacked, Polyback
Fabric backed Wallwood, PSA
Certified material available



Order by phone (800) 588-5003
Order on-line www.leveneer.com

Veneers



Spicy Domestic & Exotic Sheet Veneer

4 x 8 to 5 x 12
10, 20, 30 mil paperback
2-Ply woodback
SuperBack hi-performance laminate
PSA

Stock & Made to order
No Minimum Order
order online: www.superiorveneer.com
ph:812.941.8850 fax:812.941.8780

Wood Turning

TURNINGS
UNLIMITED

Custom Woodturning



(937) 588-4050 Fax (937) 588-4051
236 Dogwood Lane, Latham, OH 45646
www.turningsunlimited.com

(CT) CUSTOM HAND WOODTURNING:
Architectural/furniture components, prototyping, reproduction. Small-to-medium quantity, small scale to 9'6". Jim Kephart Woodturning. Phone/fax 860-643-9431, www.jimkephartwoodturning.com

L.L. JOHNSON LUMBER MFG. CO.

EVERYTHING
FOR THE WOODWORKER

CHARLOTTE, MI
SOUTH BEND, IN

HARDWOODS
SOFTWOODS
EXOTICS
PLYWOOD
TOOLS



theworkbench.com
800-292-5937

Services

CNC Router Bit Sharpening

Solid Carbide Router Bits
To Factory Specifications



Spiral • Compression
Plastic • Wood Cutting

Sales of Techniks
Collets • Toolholders
Accessories

Sales of Onsrud
Router Bits
Wood • Plastic
Composite

FREE RETURN SHIPPING
On Sharpening Over \$100

CONNECTICUT
SAW
& TOOL

Specializing In Tooling
For The Woodworking Industry
140 Avon St., Stratford, CT 06615-6704
Phone: (800) 404-1220 • Fax: (203) 378-7346
Email: Info@CTSaw.com

www.ctsaw.com

West Coast Woods
Smarter Lumber Solutions

VG Clears:

- Western Red Cedar
- Alaskan Yellow Cedar
- Douglas Fir

Urban Forest Slabs:

- Monterey Cypress
- Claro Walnut
- And More!



1-800-711-WOOD
www.WestCoastWoods.com
831-768-3680 FAX: 831-768-3883
347 Locust Street, Watsonville, CA 95076

VISIT OUR ONLINE
CLASSIFIED
SECTION

at

www.woodshopnews.com/classifieds

WOODSHOP
NEWS

**We used only
44 decorative
elements out
of 1,300 to
create this
exquisite
environment**



**Imagine
what
you
can do**



Lowest Prices... Widest Selection... All From Stock!
OUTWATER PLASTICS INDUSTRIES, INC. NEW JERSEY • ARIZONA
1-800-631-8375 www.outwater.com/vip8



**FREE
1,000 page
Catalog!**

Go to 2012 Web Pages 531-540

ADVERTISING INDEX

1-800-Bunkbed, L.L.C.	www.1800bunkbed.com	8	MultiCam, Inc.....	www.MultiCam.com	33
Amana Tool.....	www.amanatool.com	C4	Oliver Machinery Co.....	www.olivermachinery.net	22
ArtCAM by Delcam	www.artcam.com	40	Oneida Air Systems Inc.....	www.oneida-air.com	34
AWFS.....	www.awfsfair.org	13	Osborne Wood Products, Inc.....	www.osbornewood.com	7
XYZ Automation Inc.....	www.AXYZ.com	44	Outwater Plastics Industries	www.outwater.com	55
Beaver Tools.....	www.beavertools.com	17, 32	Penn State Industries.....	www.pennstateind.com	49
Berkshire Products.....	www.BerkProducts.com	47	RIKON Power Tools.....	www.rikontools.com	C3
Biesse America.....	www.biesseonline.com	48	Roberts Plywood, Inc.....	www.getwood.com	39
CAMaster	www.CAMaster.com	31	Scm Group North America	www.scmgroupna.com	18, 19
Charles GG Schmidt & Co.....	www.cggschmidt.com	23	Shopbot Tools, Inc.....	www.shopbottools.com	2-3
Connecticut Saw & Tool.....	www.ctsaw.com	37	Smith Woodworks & Design	www.niceknobs.com	50
Dispoz-A-Blade, L.L.C.....	www.estausa.com	45	Stiles Machinery	www.stilesmachinery.com	1
Elias Woodwork and Manufacturing.....	www.eliaswoodwork.com	21	Techno, Inc.	www.technocnc.com	5
Extrema Machinery Company, Inc.	www.extremausa.com	36	Thermwood Corporation	www.thermwood.com	41
Festool USA.....	www.festoolusa.com	4	Timbercraft Mfg.....	www.timbercraftdrawers.com	45
Freeborn Tool Company, Inc.....	www.freeborntool.com	15	Tool Nut, The	www.toolnut.com	20
General International.....	www.general.ca	6	US Body Products.....	www.usbodyproducts.com	27
Grizzly Industrial, Inc.....	www.grizzly.com	11, 28-29	Vacuum Pressing Systems	www.vacupress.com	40
Hearne Hardwoods.....	www.hearnehardwoods.com	14	Vectric Ltd	www.vectric.com	12
Hickory Saw & Tool Inc.....	www.hickorysawandtool.com	46	W. Moore Profiles Ltd.	www.wmooreprofiles.com	26
HOLZ-HER	www.holzher.com	42	Williams & Hussey Machine Co.....	www.williamsnhussey.com/	43
Laguna Tools Inc.....	www.lagunatools.com	24	Witmer Wood Products LLC		46
Lignomat USA, LTD.....	www.moisture-problems.com	27	Woodstock International	www.woodstockinternational.com	C2
Microvellum Software.....	www.microvellum.com	25			

Water ski furniture

What started as a hobby several years ago has grown into a small business for Brian Amaral, owner of Water Ski Adirondack Chairs in Kingston, R.I. As its name implies, the company offers customizable Adirondack-style seating designs crafted from vintage water skis. With business picking up, Amaral has added various ottomans, tables, bookcases, wine racks and shelves to his product line.

Amaral's furniture creations put a twist on the idea of ski furniture, as ski-inspired Adirondack chairs have long been popular at mountain resorts and vacation spots. He grew up on Johnson's Pond in Coventry, R.I., where he developed an affinity for the water and all things related to it, which explains the root of his design ideas. He later attended the University of Rhode Island, graduating with a master's degree in ocean engineering, and is currently pursuing a second master's degree there in oceanography.

While in college in 2008, he made his first water-ski chair as a Christmas gift, which led to more chair requests from family and friends. Two years later, he decided to start his business, building several pieces from scratch and exhibiting them at local craft shows such as Providence's One Way Gallery and the Providence Fine Furnishings Show.

"Even though it's a business, it's more like a hobby because I don't generate much income. I'm still a full-time college student. It's a way to pay for my materials. But I think there's potential for this to grow in the future. I want to finish my schooling in oceanography right now," says Amaral.



Brian Amaral turns vintage water skis into furniture through his business, Water Ski Adirondack Chairs, in Kingston, R.I.



In addition to the craft shows, Amaral has gained publicity from local news media and his website. He has received calls from across the U.S. and has sold one item to a client in Scotland. Many of his inquiries come from water-ski enthusiasts who even prefer to ship him their own water skis for custom projects. The pieces are built with oak, hardware and high-gloss finishes. They range from \$600 to several thousand dollars each depending on the design and whether the material has been furnished by the customer.

"I think there's a market for my product. The price point for the Adirondack chairs is pretty high because it's a costly item to build. So by expanding that product line into benches and other items, I can offer more affordable pieces," he says, adding that he's currently redesigning his existing chair line with folding backs to make them easier to transport.

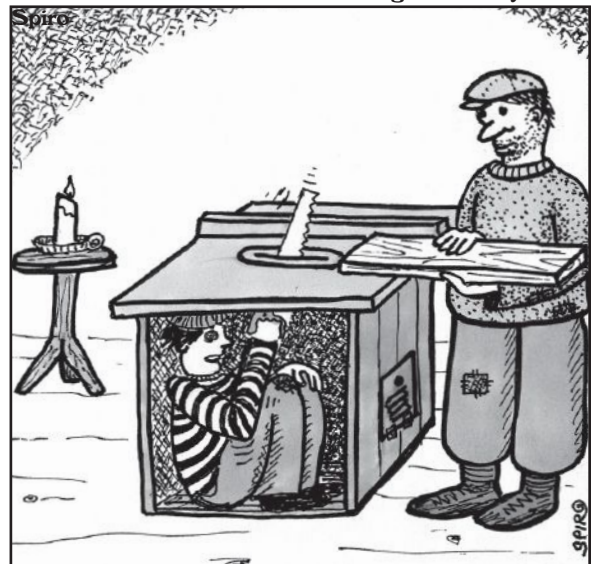
Contact: Water Ski Adirondack Chairs, P.O. Box 2003, Kingston, RI 02881. Tel: 401-285-1572. www.waterskiadirondackchairs.com

— Jennifer Hicks



60 Grit

Rough humor by Steve



Early attempts at the table saw

RIKON
PROFESSIONAL



Front Operated Blade Quick Release
with Motor Lock-out Switch.



Tool-less Micro-Adjustable Blade
Guide Bearings.



Foot Brake with Built-in Power Off
Switch.



ULTIMATE PERFORMANCE

The 10-350 14" Professional Bandsaw is filled with features which include a foot brake that shuts the saw off when pressed. The 10-350 will not start if the blade quick release lever is in the off position. Two motor options, including a US made 3HP Baldor, power the saw through 14" of resaw cutting height.



For more information, visit us at:
www.rikontools.com

RIKON
POWER TOOLS

THE

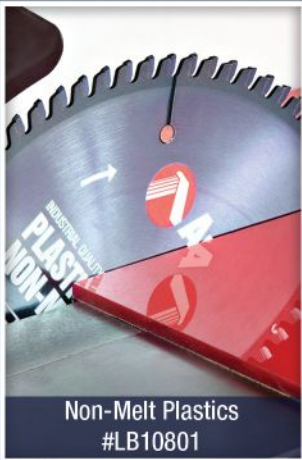
BLUE

INDUSTRIAL

BLADES



General Purpose
#PR1040



Non-Melt Plastics
#LB10801



Double-Sided Melamine
#MB10800

Aluminum / Non-Ferrous
#510801

ELECTROBLU™ ECO-Friendly Non-Stick Coating

- ✓ Unique technology for perfect straightening, balancing and tensioning
- ✓ Large European style micrograin carbide tips
- ✓ Micron-thin translucent non-stick blue-tinted coating on entire blade
- ✓ Coated carbide tips stay sharper longer resulting in extended blade life
- ✓ Coating reduces resin accumulation and heat build-up
- ✓ Coating applied by using an electrostatic bonding process
- ✓ Environmentally friendly coating with easy clean up
- ✓ Maximum blade performance for perfect cut quality
- ✓ Subjected to extensive performance and quality tests
- ✓ Compatible with "SawStop" Safety System

 **Amana Tool®**
REDEFINING WOODWORKING®

1-800-445-0077

www.amanatool.com

