

WOODSHOP NEWS[®]

Shaping the Successful Shop[™]

www.woodshopnews.com June 2019

Switching lanes

Taylor Made targets commercial market

Table saw innovations

The mechanics of outsourcing

Getting the best connection

NEW TOOLS

- Grizzly portable table saws
- Harvey Industries Gyro Air
- Moray Ready2Laser
- SCM/Minimax edgebander

\$3.95 (Canada, \$5.95)





Grizzly Industrial

SUMMER SALE

Savings up to **30% OFF!**
JUNE 3RD - SEPTEMBER 1ST, 2019

1½ HP PORTABLE CYCLONE DUST COLLECTOR

- Motor: 1½ HP, 110V, 3450 RPM, 15A
- Intake hole size: 6"
- Impeller: 12¼" welded steel
- Collection drum size: 35 gallons, max. capacity: 20 gallons
- Suction capacity: 868 CFM @ 2.6" SP
- Max. airflow: 868CFM
- Max. static pressure: 9.7"
- Approx. shipping weight: 375 lbs.



New!

G0860 Only \$699⁰⁰

\$119⁰⁰
shipping

3 HP PORTABLE CYCLONE DUST COLLECTOR

- Motor: 3 HP, 220V, 3450 RPM, 18A
- Intake hole size: 8"
- Impeller: 15" welded steel
- Collection drum size: 55 gallons, max. capacity: 35 gallons
- Suction capacity: 1941 CFM @ 2.6" SP
- Max. airflow: 1941 CFM
- Max. static pressure: 11.0"
- Approx. shipping weight: 419 lbs.



New!

G0862 Only \$1295⁰⁰

\$119⁰⁰
shipping

SUPER INDUSTRIAL-DUTY 51" WIDE-BELT SANDER

- Sanding belt motor: 30 HP, 220V/440V*, 3-phase
- Belt feed motor: 2 HP
- Table elevation motor: ¼ HP
- Sanding belt size: 51" x 60"
- Max. stock: 51"W x 6" thick
- Min. stock length: 14"
- Conveyor speeds: variable, 15-60 FPM
- Drum speed: 2200 FPM
- Approx. shipping weight: 2731 lbs.



MADE IN AN ISO
9001 FACTORY

G9980 \$20,825⁰⁰ Sale \$17,995⁰⁰

\$375⁰⁰
shipping

2 HP PORTABLE CYCLONE DUST COLLECTOR

- Motor: 2 HP, 220V, 3450 RPM, 9A
- Intake hole size: 7"
- Impeller: 13" welded steel
- Collection drum size: 35 gallons, max. capacity: 20 gallons
- Suction capacity: 1023 CFM @ 2.6" SP
- Max. airflow: 1023 CFM
- Max. static pressure: 10.9"
- Approx. shipping weight: 397 lbs.



New!

G0861 Only \$975⁰⁰

\$119⁰⁰
shipping

LIFT HANDLE & ROLL
DRUM EASILY FOR
SAWDUST DISPOSAL

43" DOUBLE WIDE-BELT SANDER

- Sanding motor: 25 HP, TEFC, 220V/440V*, 3-phase, 64.9A/32.5A
- Conveyor motor: 2 HP, TEFC, 6.5A/3.3A
- Table lift motor: ¼ HP, TEFC, 1.2A/0.6A
- Footprint: 61" x 31"
- Dust ports: 10
- Maximum board width: 43"
- Maximum board thickness: 6"
- Minimum board length: 11"
- Minimum board thickness: 3/16"
- Front drum surface speed: 3500 FPM
- Rear drum surface speed: 2600 FPM
- Conveyor speed: 14-60 FPM
- Sanding belt size: 43" x 75"
- Air requirement: 57 - 75 PSI, 12.3 CFM
- Overall size: 63" W x 79" H x 59½" D
- Approx. shipping weight: 3545 lbs.



WHILE SUPPLIES LAST!

G0486 \$22,195⁰⁰ Sale \$20,697⁰⁰

\$525⁰⁰
shipping

51" 30 HP DOUBLE WIDE-BELT SANDER

- Sanding motor: 30 HP, TEFC, 220V/440V*, 3-phase, 72A/36A
- Conveyor motor: 2 HP, TEFC, 6A/3A
- Table lift motor: ¼ HP, TEFC, 1.2A/0.6A
- Footprint: 68" x 31"
- Max. board width: 51"
- Max. board thickness: 6"
- Min. board length: 11"
- Min. board thickness: 3/16"
- Front drum surface speed: 3500 FPM
- Rear drum surface speed: 2600 FPM
- Conveyor speed: 14-60 FPM
- Sanding belt size: 51" x 75"
- Air requirement: 57 - 75 PSI, 12.3 CFM
- Overall width: 71"
- Overall height: 79"
- Overall depth: 59½"
- Dust ports: 10
- Approx. shipping weight: 3880 lbs.



G0487 \$25,950⁰⁰ Sale \$23,500⁰⁰

\$525⁰⁰
shipping

WE CARRY 19 UNIQUE WIDE-BELT SANDER MODELS!

*To maintain machine warranty, 440V operation requires additional conversion time and a \$250 fee. Please contact technical service for complete information before ordering. Due to rapidly changing market conditions and tariffs, our advertised prices may be increased at any time without prior notice.

PRICING CODE
19WOODS

MENTION THIS CODE
WHEN PLACING YOUR ORDER

20351R

1-800-523-4777

VIEW VIDEOS AT
grizzly.com

grizzly.com
TECHNICAL SERVICE: 570-546-9663 • FAX: 800-438-5901
2 GREAT SHOWROOMS!
BELLINGHAM, WA • SPRINGFIELD, MO



**BUY NOW,
PAY LATER**
with Affirm
Choose your
monthly payments
at checkout





FOR DESIGNS THAT LAST, IT HAS TO BE ACCURIDE.

Since 1962, Accuride has crafted the most trusted and innovative movement solutions for home and commercial cabinetry across North America. With options for virtually any application and a Limited Lifetime Warranty on all products, there's no better brand to trust with your designs.

Come see us at Booth **#4249** at AWFS Fair 2019!



Accuride
Always Moving Forward

See how we innovate at accuride.com



FINALLY.

CODA™ THE CHEMISTRY THAT CONCLUDES YOUR SEARCH.

We put everything into this formula. So you can get everything out of it. CODA 2K Hybrid Polyurethane delivers unique technology, giving you a professional finish with exceptional long-term color stability, chemical resistance, and dry times compared to traditional polyurethanes. **The finish you've been waiting for.**



mlcampbell.com/coda



Table of Contents

JOHN TROHAREUX PLUS (TOP COVER)



30

Features

- 30 SWITCHING LANES:** New Jersey shop considers more commercial projects as the residential market tightens.
- 35 TABLE SAW INNOVATIONS:** The market for cabinet saws, slider attachments and jobsite models keeps expanding.
- 38 THE MECHANICS OF OUTSOURCING:** How to determine the true costs, benefits, logistics and pitfalls of using outside suppliers
- 42 GETTING THE BEST CONNECTION:** Shops of all types can improve their joinery methods and procedures with these new jigs, fasteners and CNC solutions.

News Desk

- | | |
|---|---|
| <p>10 WMIA presents Wooden Globe Awards.</p> <p>10 AHFA awards 10 scholarships.</p> | <p>12 World of Wood addresses regulatory matters.</p> <p>16 WOOD MARKETS: Chestnut still a cherished material.</p> |
|---|---|



The Industry Leader in Dust Collection

INDUSTRIAL DUST COLLECTION

5HP TO 20HP SYSTEMS AVAILABLE

7.5HP Direct Drive



10HP Direct Drive



Shown with optional airlock and mobile waste bins.



- Perfect for CNC machines
- High CFM, Small footprint. Ideal for cabinet shops.
- Superior filtration
- Industry leader in cyclonic separation
- Many container options available

See us at AWFS
July 17 - 20
Booth #9947

Pneumatic transfer systems also available



Airlocks and hoppers for bulk waste removal also available.
(Cyclone and waste bins can be located outdoors for NFPA compliance.)

Ask about our complete line of ductwork and ductwork design services!

1-800-732-4065 • oneida-air.com

MADE IN THE USA SINCE 1993

(R)EVOLUTION

10°
30°

Silentia+

Silentia+, the new-generation of soft close hinges from Salice, incorporates **an innovative switch to adjust the deceleration mechanism**. This enables the closing speed of doors of any size or shape to be perfectly adjusted.



Besides showing no resistance while opening doors, the Silentia+ hinges guarantee an exceptional and consistent deceleration thanks to **twin fluid dampers**, delivering a perfect soft closing action in all applications and under any temperature condition.



Booth #4401



saliceamerica.com

SALICE



46



47

Columns

- 26 PRO SHOP:**
Avoid the growing pains.
By Scott Grove

Tools & Techniques

- 18** Grizzly adds a pair of jobsite saws.
20 Harvey adds HEPA fitters to Gyro Air.
22 SCM's new edgebander loaded with features.
24 Moray Ready2Laser available from Next Wave.

Departments

- 8** Taking Stock
46 At the Galleries
47 New Products
51 Calendar
53 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

■ **2019 Online Resource Guide**
<http://resourceguide.woodshopnews.com>

PREMIUM SHARPENING SERVICES

For all types of woodworking tooling including:

Saw Blades

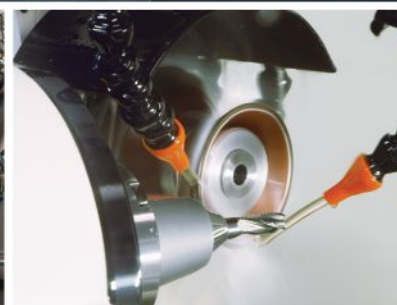
Router Bits

Shaper Cutters

Planer & Jointer Knives

CNC Spiral &

Compression Bits



QUICK TURN-AROUND & COMPETITIVE PRICING

Connecticut Saw & Tool is one of the most experienced and capable tool sharpening facilities in the U.S. Professional woodworkers from all over the country send their woodworking tools to CST. We pride ourselves on our decades of experience, as well as using the best equipment available. Our highly trained staff utilizes fully CNC controlled machinery, ultra high grit diamond wheels and oil coolant ensuring your

100% satisfaction guaranteed!

We also offer the BEST tooling with the BEST discounts from top manufacturers - in stock & ready to ship same-day!

Call or email for pricing & up-to-date availability



Call Today! 800.404.1220
Free Shipping One Way

140 Avon Street • Stratford, CT 06615
info@ctsaw.com • www.CTSAW.com



Streamline® RTA Cabinets
DRS131 3/4" (131), 2-1/2" Frame, Satin White
Morningside 3/4" (119), Fog Insert

DECORE-ATIVE SPECIALTIES®



Booth #6223

Orders, Quotes, Information
800.729.7277
DECORE.COM



TAKING STOCK

with JENNIFER HICKS

Should chestnut be revived with genetic engineering?

Recent developments involving genetic engineering in the revival of nearly extinct chestnut trees in the U.S. have caused some dissension in the ranks.

The American Chestnut Foundation (TACF) began experimenting with biotechnology in 1990, one of many efforts the organization used to restore the trees. "We are using all approaches to safely restore the American chestnut tree and reintroduce it. These approaches include traditional breeding methods, modern genetic transformation techniques, and biocontrol that would reduce the virulence of the chestnut blight fungus," says Jules Smith, the foundation's media and communications manager.

Smith highlights recent progress due to efforts made at the State University of New York College of Environmental Science and Forestry (SUNY-ESF).

"Researchers at SUNY-ESF are using a wheat gene that is inserted into the tree and it's showing promise. They have been doing and are continuing to do a great deal of testing to be sure that if and when the tree is introduced it will be safe to the environment and ecosystem," says Smith.

But two board members of the foundation's Massachusetts/Rhode Island Chapter, president Lois Breault-Melican and her husband Denis Melican, have resigned in protest. Through the Global Justice Ecology Project, the couple issued a public statement that they are opposed to assisting in the development of genetically engineered

trees and of using the American chestnut to promote biotechnology in forests. They are concerned that if deregulated by the USDA, the genetically engineered American chestnut would be the first genetically modified organism allowed to be planted in the wild with the intent to reproduce itself. They say there are no long-term studies of the impacts this would have on forests, wildlife, pollinators or human health.

"There is just no reason for taking the risks involved with genetically engineering the American chestnut. The local TACF chapters have been working for years and having great success developing blight resistant American chestnut trees using backcross breeding," says Melican.

The couple say they have been aware of TACF's biotechnology experimentation over the course of their 16-year membership. However, what prompted their protests was earlier this year when scientists began canvassing them on their interests in donating pollen for diversity, doing a germplasm conservation orchard and planting biotech sprouts and shrubs in their state with pure American trees.

"We regret resigning, but we think they're making a mistake. We want to see chestnut brought back with small town partnerships using backcross breeding instead of turning it over to giant corporations and legitimize using forests for these problems. Our way is no risk. We don't think it's good for people and don't want to be involved," says Breault-Melican. **W**

Working with tools and wood is inherently dangerous. We try to give our readers tips that will enhance their understanding of woodworking. But our best advice is to make safety your first priority. Always read your owner's manuals, work with properly maintained equipment and use safety devices such as blade guards, push sticks and eye protection. Don't do things you're not sure you can do safely, including the techniques described in this publication or in others. Seek proper training if you have questions about woodworking techniques or the functions of power machinery.

EDITOR TOD RIGGIO

ART DIRECTOR BRIANA SMITH
STAFF WRITER JENNIFER HICKS

CONTRIBUTING WRITERS
BOB FLEXNER, JOHN ENGLISH, GREG WILLIAMS
WEB ADMINISTRATOR MARY LOU COOKE

SALES & MARKETING

PUBLISHER
RORY BEGLIN
860-767-3200 EXT. 242; rory@woodshopnews.com

CLASSIFIED MARKETPLACE ADVERTISING
860-767-3200 EXT. 242; FAX: 860-767-1048
marketplace@woodshopnews.com



MARINE GROUP PRESIDENT GARY DE SANCTIS
VP EDITORIAL DIRECTOR BILL SISSON
VP, MARKETING AND EVENTS JULIE JARVIE
VP DIGITAL DEVELOPMENT ERIC DALLIN
PRODUCTION MANAGER SUNITA PATEL
PRODUCTION COORDINATORS CHRIS CIRILLI,
AMY PINTO, JENNIFER WILLIAMS
TRAFFIC COORDINATOR SARA CARPENTER
EXECUTIVE DIRECTOR, CONSUMER MARKETING DANA RAVEN
CIRCULATION, FULFILLMENT MANAGER CERISSE CARPENTER
IT SUPPORT COLLIN DEHNERT



ACTIVE INTEREST MEDIA

PRESIDENT & CEO ANDREW W. CLURMAN
COO, CFO & TREASURER MICHAEL HENRY
CHIEF INNOVATION OFFICER JONATHAN DORN
VP AUDIENCE DEVELOPMENT TOM MASTERSON
VP, CONTROLLER DEVON HOPKINS
VP, IT NELSON SAENZ
VP OF PEOPLE AND PLACES JOANN THOMAS



AIM BOARD CHAIR EFREM ZIMBALIST III

HEADQUARTERS:

10 Bokum Road, Essex, CT 06426
(860) 767-3200 • Fax (860) 767-0642
Editorial E-mail: editorial@woodshopnews.com
Advertising E-mail: sales@woodshopnews.com
Website: www.woodshopnews.com
Advertising Billing Questions: (661) 965-9925

SUBSCRIPTION SERVICES:

For questions, problems, or changes to your Woodshop News subscription,
CALL: 800-243-9177

EMAIL: WDNcustserv@cdsfulfillment.com

WRITE: Woodshop News, PO Box 433212, Palm Coast, FL 32143-3212

Canada Post Return Address undeliverable to:

APC-PLI, P.O. Box 503, RPO West Beaver Creek,

Richmond Hill, ON L4B 4R6.

Canada Post Publication Mail Agreement No 40624074.

Woodshop News, (ISSN 0894-5403, U.S.P.S. 000-966), Vol. XXXIII, No. 7, 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. **Postmaster:** Send address changes to WOODSHOP NEWS, PO Box 37274, Boone, IA 50037-0274. Printed in the U.S.A.



Quality + Service
Pay Less

With the enthusiasm and passion of woodworking, Castaly Machinery offer the machines to allow woodworkers to create more with less cost. The featured tools are engineered with multi-functions that bring out the best quality and easy adaption. Contact us for more details!

VISIT US AT
AWFS

JULY 17-20, 2019
LAS VEGAS CONVENTION Center
Booth No. 10225



CLC-3624
36" x 24" Engraving Laser **\$5,690.00**



Basic-408
Basic 4' x 8' CNC Router **\$12,990.00**



Rapid-510-LN12
Rapid 5' x 10' CNC Router
(Linear Auto Tool Change)
\$36,990.00



TWIN-408
Twin Table 4' x 8' CNC Router
\$43,990.00



TRS-0016
16" Single Rip Saw **\$13,990.00**



PL-18
18" Two Side Planer with
Straight Knife Cutter **\$19,990.00**



CS-18AAT-12
18" Auto Program 12FT Cut Off Saw **\$22,990.00**



SM-236A
9"6 Spindle Moulder **\$32,900.00**



CS-55PAAU
55" Auto Raised Panel Door Shaper
\$23,900.00

Castaly Industries Corp.
FULFILLING ALL YOUR MACHINERY NEEDS

TEL: +1 626 968 6330 | FAX: +1 626 968 6333 | E-MAIL: INFO@CASTALY MACHINE.COM
ADDRESS: 637 VINELAND AVE. LA PUENTE, CA 91746 | WEBSITE: WWW.LOBOMACHINE.COM

NEWS DESK



WMIA presents Wooden Globe Awards

By Jennifer Hicks

During the 2019 Woodworking Industry Conference, the Woodworking Machinery Industry Association recognized two companies and an educator for excellence, presenting them with the association's annual Wooden Globe Awards.

"The Wooden Globe Award winners serve as a powerful example of how investing in new equipment and technology can impact a company's productivity, efficiency, and profitability," Larry Hoffer, WMIA President and CEO, said in a statement. "WMIA is proud to recognize these companies, which have been able to differentiate themselves from their competition. It is also vitally important to recognize the contributions of educators, given the importance of building a future workforce to sustain the industry."

The Commitment to Excellence through Technology Award went to Appalachian Wood Products of Clearfield, Pa. The award is presented to a company which exemplifies how the use of high technology machinery provides the necessary competitive advantage to compete successfully in today's global market.

Appalachian Wood Products is a supplier of cabinet components, including doors, drawer fronts, door and cabinet framing, glued panels, moldings, and drawer parts for the kitchen

and bath industry. The company was nominated by John Mallory of Timesavers LLC.

The Innovator Award went to Fiber Commercial Technologies of Mankato, Minn. This award is presented to a company which currently produces a unique and innovative wood-based product or uses an innovative process to produce a wood-based product using high technology machinery supplied by one or more WMIA-member companies.

FCT has developed a new process to recycle carpeting and turn it into exterior building products. The company was nominated by Jessica Freeseaman of Wood Machinery Systems Inc.

The Educator of the Year Award went to Mark D. Roberts, adjunct instructor at Mesa Community College in Mesa, Ariz. This award is presented to an educational institution or company with a structured curriculum tailored to training individuals for careers in the woodworking industry.

A graduate of Purdue University, Roberts taught at the high school level for 40 years. Concurrently, in 1979 he began teaching as an adjunct instructor at Mesa Community College. He was nominated by Doug Hague, president of the Wood Technology Industry Institute.

For more, visit www.wmia.org. 



AHFA awards 10 scholarships

By Jennifer Hicks

The American Home Furnishings Alliance recently awarded \$25,000 in scholarships to the children of home furnishings industry workers.

Ten \$2,500 scholarships were presented by AHFA's Solution Partners division in April, which sponsors an annual golf tournament to support the scholarship fund.

"With the cost of higher education today, families need all the help they can get," Mary O'Keeffe, executive director of Solution Partners, said in a statement. "Our program is unique in that it is not tied to any particular major, and the funds can be applied to a four-year college, a community college or a technical school."

AHFA's Solution Partners is comprised of more than 150 companies that supply products and services to the residential furniture industry. Next year, the division will add two more scholarships, increasing the award total to \$30,000.

For information, visit www.ahfa.us. 

HMA officers, board elected for 2019

Bob Miller, of Frank Miller Lumber Co., was elected president of the Hardwood Manufacturers Association by the board of directors at their National Conference and Expo in Savannah, Ga.

Other elected officers for 2019 are vice president Troy Brown of Kretz Lumber Co. and executive vice president Linda Jovanovich of the HMA.

Elected to the executive committee were Hal Mitchell of Atlanta Hardwood Corp., Jason Ayer of Cersosimo Lumber Co., Norm Steffy of Cummings Lumber Co., Wayne Law of New River Hardwoods, Brian Schilling of Pike Lumber Co., and past president Richard Wilkerson of Anderson-Tully Co.

For more, visit www.hmamembers.org.

Custom drawer boxes, and more, *direct to you.*

You're a craftsman who values quality, precision, and beauty. So are we. Let us supply you expertly made, affordably priced cabinet components, including our high-quality drawer boxes. ***Let outsourcing work for you.***

Add to your
bottom line.
Subtract from
your time in the
shop.

"CabAxis provides reliability and
quality on the labor intensive
activities."

- SLEENHOF WOODWORKING



Getting started is simple:

Call 866-569-5578

Or visit cabaxis.com



**VISIT US AT
BOOTH # 4460**

Design and Manufacturing
Software For the Cabinet and
Door Industries since 1986



Simple.
Powerful.
Affordable.



The
All-In-One
Software
Solution!

Cabinet Pro generates
its own CNC code

FREE Technical Support!
NO Keys or Dongles!
NO Yearly Maintenance Fees!

www.cabinetpro.com • (541) 326 -1122

World of Wood addresses regulatory matters

By Jennifer Hicks

April's 63rd World of Wood Convention held offered attendees fresh insights on the global trade war and regulatory compliance. Sponsored by the International Wood Products Association, the annual event presents networking opportunities, business solutions and market intelligence updates.

There were 270 attendees from 27 countries, including importers, U.S. manufacturers, wholesalers, offshore suppliers, and service providers to the global wood products industry. They discussed pressing topics such as the state of the trade war, compliance with Prop 65 and formaldehyde labeling, and emerging supply chain technologies.

"Our packed agenda confirms that the World of Wood is the leading venue for the critical players in our industry to gain the latest intelligence and collaborate on emerging issues," Cindy Squires, IWPA's executive director, said in a statement.

Highlights included a leadership session and breakout with Mark Horstman, co-host of the Manager Tools business podcast. Another session offered a deep dive on the latest compliance rules on Prop 65 and EPA/CARB formaldehyde regulations. IWPA's Advance Wood Trade Compliance Course was also offered to attendees to learn more about sourcing strategies, risk assessment methods, and validation of supplier compliance to requirements.

The event featured the traditional passing of the gavel from Immediate Past President Caroline McIlvain of J. Gibson McIlvain Co. to Incoming President Kenny MacMaster of Argo Fine Imports.

"Our industry is living through turbulent times, but we always rise to the challenge," MacMaster said. "I look forward to serving IWPA to help shape our strategic vision as we navigate the new dynamics of global trade policy, environmental compliance, and the many other issues that we face."

Next year's World of Wood is scheduled for Apr. 1-3 in Savannah, Ga.

For more, visit www.iwpatwood.org. 

IWF introduces new education program

The International Woodworking Fair has started a free on-line education program for instructors and students.

"The new free program for students and instructors will allow for continued training development for our future workforce. Instructors are instrumental to the industry's staffing needs and this new program will further enable them to develop the student's," Brian Donahue IWF 2020 chairman and president of Safety Speed Mfg., said in a statement.

For more, visit www.iwfatlanta.com.



50th Year Anniversary
European Maker of Tools



Videos on Virutex.com
Specialized in Banders for Small shops



Table-Miter Saw Combo



TM33 - \$780

Edge/End Trimmers for 3 mm Tapes/Laminate

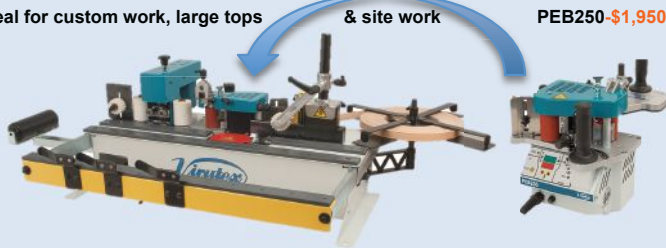


FR256N - \$395

Glue Pot Banders for up to 3 mm tapes & Laminate Strips

Hand Held, up to 3mm tapes & Laminate Strips, 110V

Temperature, Speed, Glue Dispense Control, fast heat up
Ideal for custom work, large tops & site work



PEB250 - \$1,950

Bench Mount version, with auto end cutter, tape holder
extendable table fence & pressure clamps, 110 Volts
motorized top & bottom trim station for up to 1 mm tapes

PEB250-TRM - \$4,200



EB140-PLC - \$11,500

Auto trim, 3 phase
up to 3mm tapes
& laminate strips
Advance design
Pnumatic Controls

Glue Pot Edge Banders, Automatic

Hot Air Edge Banders

Single Phase

220 V
Auto Feeder
Auto trim
up to 3mm tapes
& laminate strips

EB135 - \$8,900



EB25 - \$6,900

Auto Trim
Top, Bottom, Ends
220V, 1 phase
Power Feeder



AG52 - \$495

Hot Air Edge Bander
Includes
Double Edge Trimmer
End Trimmer

EB10C - \$3,950

Top+Bottom Trim
Curve Panels
220 V



Door Tools

Solid Surface Tools

\$1,450

Lock Mortiser
Advanced Design



17" Door Planer \$490



Door Lifter \$90



Door Concealed Hinge Router
FR129-VB \$650



Tilttable Plung Router \$950



Specialty Planers

Curve Planer \$490



Laminate & Veneer Slitters

Hand Held \$150



Motorized \$2,650



Miter Cutter \$395



Compressed Air Vaccum Clamps

No Vaccum Pump Needed
Tilttable, Rotateable \$390



Virutex.com

50 Hill street, # 509 Southampton, NY 11968
1-800-868-9663- Fax: 631-537-2396- Sales@virutex.com

WMIA elects Chairman of the Board

The Woodworking Machinery Industry Association elected a new slate of officers, including Jim Besonen, president of Wood Machinery Systems Inc. in Minnetonka, Minn., as Chairman of the Board at the 2019 Woodworking Industry Conference in Amelia Island, Fla.

"I am proud to serve as chairman for the next two years," Besonen said in a statement. "WMIA has had many excellent leaders preceding me which have grown our membership significantly and increased the services we offer our members. It is truly an honor to follow in their footsteps. The wood products industry is expanding, machinery and tooling sales are strong, and the IWF show continues to grow. This is a great time to be in the woodworking industry."

"My goal for the next two years is to expand the educational offerings Dave [Rakauskas, now Chairman Emeritus] started with the WTII and Pittsburg State University, and create new programs aimed at attracting young men and women into the wood products industry as well as leadership positions in WMIA."

For more, visit www.wmia.org.

Spitz joins WCA board of directors

The Woodwork Career Alliance of North America welcomes Bruce Spitz to its board of directors.

Spitz, owner of Classic Millwork & Products of El Paso, Texas, is the immediate past president of the Architectural Woodwork Institute and immediate past chairman of the AWI Quality Certification Corporation. He has also served four years as AWI treasurer and a long list of committees, including chairing the AWI Education Committee.

"As a business owner, I'm concerned about the availability of a skilled workforce for our industry," Spitz said in a statement. "Through my involvement on the AWI Board, I have had a chance to work with the WCA and watch it develop a credentialing program that can help us develop the next generation of woodworkers."

"We're thrilled to have Bruce on the board," added Scott Nelson, president of the WCA. "He has been supportive of the WCA since the beginning and has created an apprenticeship program for his own business that could be very instructional for a lot of woodworking companies looking for ways to sustain a skilled workforce."

For more information, visit www.woodworkcareer.org.



VIEW OUR MACHINES AT



CUT BIG. SAVE BIGGER.

LOCK IN YOUR SHOW PRICING → 770.622.6637



NOVA SIX **DOUBLE TILT**
PROGRAMMABLE SLIDING TABLE SAW



MINIMAX ME 35TR
CORNER ROUNDING EDGEBANDER



DUST EXTRACTORS



SLIDING TABLE SAWS



SHAPERS



BORING MACHINES



COMBINATION MACHINES



JOINTER/PLANERS

THE FULL RANGE OF WOODWORKING TECHNOLOGY

PLM receives 'excellent' rating

The Financial Strength Rating of Pennsylvania Lumbermen's Mutual Insurance Co. was affirmed as A- (Excellent) with a stable outlook by A.M. Best Rating Services, the insurance credit rating source. PLM is a property-casualty insurance carrier serving wood-related businesses.

"This rating reflects PLM's strengths, including a strong balance sheet, solid levels of risk adjusted capital, our reinsurance program, a high-quality investment portfolio and our enterprise risk management program," John Smith, PLM's president and CEO, said in a statement.

For more, visit www.plmins.com.

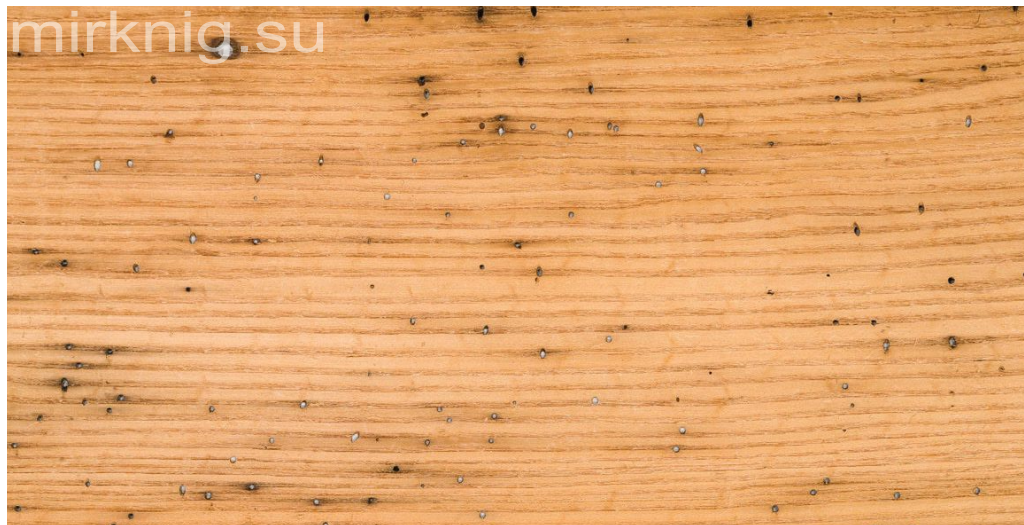
PERFECT DRIVE. EVERY TIME.



2½" Straight Finish Nailer

FINISHPRO®16XP

Trim all day with the FinishPro®16XP. Ultra-Durable lightweight body. Increased power. Upgraded drive system. Reliable Senco performance.



Chestnut still a cherished material

By Jennifer Hicks

While chestnut trees in the U.S. have become commercially extinct due to their infamous bout with blight that started over a century ago, there's quite an ample supply of the material out there. Lumber and veneer suppliers interviewed by Woodshop News, who obtain both domestic and imported chestnut, say they enjoy being able to offer the light brown hardwood to their customers who are often amazed with its availability.

Greg Engle of Certainly Wood in East Au-

rora, N.Y., says his current inventory of standard and wormy chestnut veneer is sourced from both the U.S. and abroad.

"We do occasionally run across traditional American, rare as it is. Mills do find some of these available in the forests, so it's typically sliced into veneer. But most of it that we can get our hands on is European chestnut. The color is slightly off in comparison to American but in the scheme of things it still works out the same in terms of its overall grain and pore structure. It just grows in another part of the

world," according to Engle.

Engle says his customers use chestnut primarily for restoration work, furniture, and as an alternative to white oak because of its less aggressive grain pattern.

John Sliney of Vienna Hardwoods in Vienna, Va., has reclaimed chestnut from dismantled barns in West Virginia and North Carolina. He likes sharing a bit of history with his customers about the species.

"It was used for outdoor things years ago because it was rot resistant, so it's used for siding on barns all throughout the 1800s. Then the chestnut blight hit in 1904. The trees all died standing up; they didn't fall over. A lot of them stood standing for years and years before they were cut down for wood, and while they were dead standing up, they were attacked by beetles and worms, and that's how we got wormy chestnut."

Josh Nozick of Free State Timbers in Timonium, Md., also sells reclaimed material.

"The material we're carrying is going out primarily either as barn beams that have been reworked and are being used as mantles, or out of the 8/4 stock that I have. We're doing a lot of countertops," says Nozick.

"It's an absolute pleasure to work with. It's easy to mill, sands and finishes well. However, since you're dealing with reclaimed material, there's that whole set of challenges that have to be dealt with. You're going to have checking, worm holes, and metal that you want to be sure you've pulled before you start milling. Even with a good metal detector, you will probably miss something. But chestnut's gorgeous. It's beautiful stuff."

Reclaimed 4/4 chestnut sells for about \$5.75/bf. **W**

Pin and Pinless Meters

Choose a Pin or Pinless Moisture Meter from Lignomat for Reliability, Accuracy and Competitive Price.

View our complete line of meters
www.lignomat.com

Call for more information
800-227-2105



Pinless, dual-depth Meter Ligno-Scanner SD

Lignomat offers six different pinless meters. Call to see, if one fits your application.

The dual-depth meters are set to measure 3/4" and 1/4" deep. The additional 1/4" depth is ideal for veneers, panels and all materials less than 3/4".

Operation is simple with clearly marked push buttons, a large display and all the advantages of pinless meter technology.

Get product pricing any time with AccessNow!

Since 1983, Elias Woodwork has been manufacturing cabinetry and millwork components. Over the years they have made themselves known for their vast product selection, high quality finishes and competitive prices. As a Lean Manufacturer, Elias Woodwork can cater to a wide range of industries across North America and internationally. From Tenon, Miter and Slab cabinet doors, drawer boxes, moldings, refacing material, custom AOS Elite (Assemble On Site) cabinet boxes and decorative accessories, they can manufacture nearly any wood product for a new, remodeled or refaced kitchen or bath project.

Elias Woodwork works in close partnership with their customers as the "manufacturing department" of their company that provides quality products custom made for their designs. They can do this much more efficiently with the introduction of AccessNow online ordering. Not only does this tool provide product pricing at anytime from anywhere, it offers full access to their accounts with estimates, orders, product configurations and tracking for their shipments. Combined with Elias Woodwork's competitive pricing and vast product selection, this tool will provide industry professionals with a significant competitive advantage in their marketplace.

With over 285,000 sq/ft of production space dedicated to meeting industry needs, Elias Woodwork is rapidly moving



to the forefront as a leading manufacturer for the kitchen and bath industry. Their company is focused on implementing the most technologically advanced, state of the art equipment available to ensure precision cutting which results in some of the highest quality manufactured wood prod-

ucts in North America. They strongly feel that quality, selection and pricing are the keys to being a successful supplier. They further offer benefits as a supplier by offering FREE shipping on orders of 30 or more 5 piece construction wood doors. This means your other products like moldings and accessories get shipped for free with your order. Some restrictions apply.

Elias Woodwork is continuously updating their color collections and product offerings to reflect current kitchen and bath design trends. Whether stain, paint, thermofoil or laminate, their color collections are sure to be a must-need to for any design toolbox. With options like these and the virtually endless wood component selection, Elias Woodwork can help customers increase profits through their vast selection and competitive pricing. Get your next project quoted today!

Custom Components to Complete Cabinetry

Access NOW
ONLINE ORDERING
NOW AVAILABLE!



Elias Woodwork

Toll Free: 1-800-665-0623

Email: sales@eliaswoodwork.com

Web: www.eliaswoodwork.com

Booth: #4232

- Tenon, Miter or Slab Cabinet Doors
- Wood, Thermofoil, Laminate & Acrylic
- Drawer Boxes, Pullouts & Inserts
- AOS Elite Custom Cabinet Boxes
- Thousands of Molding Profiles
- Superior Finishing & Much More!

*Quality Committed, Timely Delivered,
Environmentally Driven*

1-800-665-0623

www.eliaswoodwork.com

AWFS Booth #4232

TOOLS mirknig.su & TECHNIQUES

Grizzly adds a pair of jobsite saws

By Jennifer Hicks

Grizzly Industrial has two new portable table saws, models GO870 and GO869, featuring a variable-speed motor.

"For years we've seen an increased popularity in the jobsite table saws, particularly in the ones with the stands you can fold up. If you're installing flooring, baseboards or any kind of

project like that in a house you can just bring the saw right to the jobsite, make your cuts and keep going. Having the ability to do that is huge," says product manager Todd Ransom.

Ransom says woodworkers will appreciate the new saw's ability to maintain a consistent cutting speed due to its motor technology.

"To me, the biggest feature on this saw is a



circuit board on the motor that electronically manages the motor speed. So, if you cut into hardwood or thicker wood where another saw this size may bog down, this saw senses that slow down and it adds more power to keep the blade speed consistent," says Ransom.

Both models feature a 2-hp, 120-volt, single-phase, variable-speed motor. They also feature a flip-down attachment on the fence for ripping stock narrower than 1" with the blade guard installed.

Both models come with a 10", 40-tooth carbide-tipped saw blade, riving knife, blade guard with spreader, T-slot miter gauge, push stick, and integrated accessory storage.

Model GO869 weighs 65 lbs. and sells for \$300.

Model GO870 weighs 95 lbs. with a folding roller stand and sells for \$365.

For more, visit www.grizzly.com. **W**

NOTHING BEATS A = **TIMESAVER**



NOTHING PLANES WOOD FASTER OR BETTER THAN A YIELDSAVER 24

- The best self-centering planer in the business
- Expect yields of 3 percent or more. And a 12-month payback
- Find out what a Yieldsaver could do for you
- Your bottom line will thank you
- Accept no substitutes
- Visit us at AWFS Booth 8218

(800) 537-3611 | timesaversinc.com |  **TIMESAVERS**
Finish First

For ALL CNC Vacuum Table Work Holding Applications



All our Vacuum Tables are **CERTIFIED FLAT**

- Superior Holding - Without Clamps
- Reduces Set-up Time
- Retrofits All Machines
- Meets or Exceeds OEM Standards
- Sold Direct or to OEMS

*Over 40 Years of
Engineering Solutions*

vacuumtables.com | 773.725.4900
sales@vacuumtables.com



INNOVATION

BEGINS HERE.

Join North America's most influential woodworking equipment and technology trade show, where you get exclusive access to the innovations, people, processes, trends and ideas that are shaping the future of woodworking. See, test and touch the largest selection of hardware, tooling, components, power tools, manufacturing software, lumber, panel and construction material as well as an endless array of supplies for furniture, cabinet, millwork manufacturers and custom woodworking shops of all sizes.

WHY GO ANYWHERE ELSE? IT'S ALL HERE AT AWFS® FAIR.
REGISTER NOW and Save! www.awfsfair.org



JULY 17-20, 2019
LAS VEGAS CONVENTION CENTER
LAS VEGAS, NEVADA

Harvey adds HEPA filters to Gyro Air

By Jennifer Hicks

Harvey Industries recently updated its Gyro Air G700 Dust Processor by adding HEPA-grade filters. The G700 incorporates a unique patented design that separates and captures dust particles of 0.3 microns or larger from the air, according to Mark Strahler, the company's U.S. marketing manager,

"Unlike any dust collector on the market, Gyro Air uses axial centrifugation to spin the air/dust stream to over 4,000 rpm to separate dust from the air and collect it in the two bins hidden inside the unit. The G700 collects 99.7 percent of the dust particles before the air reaches the pleated filters," says Strahler.

"The air emission cleanliness level from these filters can reach an unbeatable 0.05 mg/cubic meter. The aerodynamically optimized extraction system can save up to 50 percent on energy."

The G700 uses an industrial 2-hp Siemens variable-speed motor and can service one or two machines at a time. Its patented Gyro Air technology and completely internal working parts keep the decibel levels to between 61 and 72dB, depending on speed. It has a maximum airflow of 1,110 cfm and a maximum static flow of 18-1/2", and a filter surface area of 75 sq. ft., according to the company.

The machine features fully-enclosed housing, with dimensions of 56-1/4" x 23-1/2" x 33-7/8", making it low enough to fit under most



The Gyro Air G700 Dust Processor from Harvey Industries.

workbenches. Heavy-duty casters provide mobility. Its two dust bins can be easily accessed through a side panel and roll out for easy emptying. A remote control that works up to 50' has also been added as a standard feature.

The G700 sells for \$4,245.

For more, visit www.harveywoodworking.com. 

NEW

FESTOOLS-ONLINE.COM

FESTOOL AUTHORIZED DEALER



FREE

FESTOOL CAP OR T-SHIRT
WITH **ANY** FESTOOL TOOL

203802, FESTOOL MOBILE WORKSHOP

LOWEST PRICES ■ FREE SHIPPING
800-365-6677

SHOP NOW

FESTOOLS-ONLINE.COM
YOUR SOURCE FOR FESTOOL PRODUCTS

Thermwood's New Evolution in CNC Technology – Cut Ready's New A.I. Programmer....ARTIE

At AWFS 2019, **Thermwood** will be introducing a new Evolution in CNC Router technology.

Imagine not having to hire a programmer to run your CNC, but instead having a CNC with a programmer already inside the control!

Meet Artie... Cut Ready's new A.I. programmer.

Artie has actually been hiding out behind the scenes in the Cut Ready control this whole time, but he has never made an appearance until now. He is the first A.I. dedicated to making your manufacturing life easier to handle, and today we flipped on his switch! While he is a CNC programmer and designer at heart, he also watches over your shoulder to make sure everything goes smoothly and efficiently.

Break a tool? Artie is there to the rescue. Damage a part? Artie's mind is like a steel

trap. He remembers every part he's ever made. After all, he is an A.I. robot.

If at any point you have concerns while running the machine, just let Artie know, and he'll be there lickety-split to help you out.

Occasionally, we have to teach him how to build new items, or use new techniques, but there's nothing he enjoys more than learning new things. He also works extremely well with others, never shows up late and is a fast worker. Although he is extremely intelligent, he doesn't know what a "salary" is, and top that off with the fact that he doesn't get sick or require health insurance and you have one stellar little bot!

All of Artie's unique benefits can really add up to a lot of time and money saved. And when your lease is up, Artie will basically continue to work for free, helping you improve both your product and your bottom line!

For AWFS 2019, Thermwood will be displaying our award-winning Cut Ready Cut Center, which offers the ability to make custom cabinets, closets, furniture, doors, drawers, moldings and much more with **No Programming**.

Plan to stop by Booth 7425 and see what Artie has to offer on two Cut Ready systems that will change nested based manufacturing.

THERMWOOD

Thermwood Corporation

904 Buffaloville Rd., Dale, IN 47523

AWFS Booth # 9707

Phone: 1-800-533-6901

Fax: 1-812-937-2956

Email: info@thermwood.com

Web: www.thermwood.com



Visit Us at
Booth # 7425



Cut Ready - A New Evolution in CNC Router Technology

THERMWOOD

www.thermwood.com

800-533-6901

50 Years

1969-2019

FIND YOUR MATCH!



Same-day shipping

PVC & veneer banding in a wide selection of colors

In-house custom
slitting & gluing

Supplying the U.S.
& Canada for more
than 25 years!

Questions?
Call 800.727.0917
to speak with a live,
non-automated
team member!

www.dc-dist.com
Fax: 888.633.5923

TOOLS & TECHNIQUES



The Minimax ME35TR.

SCM's new edgebander loaded with features

By Jennifer Hicks

SCM Group will introduce its newest edgebander, the ME 35TR, at the 2019 AWFS Fair in Las Vegas. Manufactured in Italy, it is one of five automatic edgebanders in the Minimax line that are built specifically for PVC, ABS, melamine, laminate or wood materials in the U.S. market.

The ME 35TR is a compact-sized machine that features both corner-rounding and trimming in one tool, making it ideal for small- to medium-sized facilities, according to Dan Johnson, business unit manager for SCM's Artis Division.

"This is for that small- to mid-sized shop that needs additional features but isn't at the point yet where they can get a really large edgebander because they don't have the money or the space," says Johnson.

"It has a single-motor corner rounding unit of our own patented design. What you can do is both a straight cut with thin material like PVC, ABS, and then it also offers full corner rounding on up to a 50mm panel

height, which is a pretty thick panel."

Another key feature is the panel heating device for better adhesion of panel edges in cold work environments.

"A lot of times people will store their material somewhere in their warehouse, and even if it's 40-50 degrees F, that's not conducive to having effective gluing. You need heat. So, what the panel heating does is help the wood warm up prior to accepting the glue."

Other features include an anti-adhesive unit that prevents glue from sticking to the upper and lower panel surfaces during applications, a diamond dual head pre-milling unit, and edge scraping, glue scraping and buffing units.

An interchangeable glue pot allows for the tank to be easily removed and replaced. Temperature monitoring of the roller, an even uniform glue spread roller, and auto-sensory cooling all help prevent glue from being burned, wasted, or overused.

The ME 35TR is priced at \$36,995.

For more, visit www.scmgroupna.com. 

THE NEW FLEX SERIES – KOMO QUALITY AT AN AFFORDABLE PRICE

The FLEX Series is the newest generation of CNC routers from Komo Machine. Ideal for use in composite, wood and metal industries, the FLEX, FLEX TT and FLEX TG offer high value and superior performance at a budget-friendly price.

The FLEX is offered in single table, twin table and traveling gantry configurations. All models feature a four-pole, 16HP (12kw), 24,000 RPM, HSK 63F fan-cooled spindle, a 12-position automatic tool changer with aggregate capability, air blast for optimal dust/chip evacuation and cooling of the cutting tool, and an advanced Fanuc HVI servo system tuned for optimum acceleration and deceleration.

Also included is a tool touch-off device with automatic tool data uploading, a Fanuc Panel i control with integrated PC running Windows® 10, and a universal grid fixture

table available in composite (standard) or aluminum (option). A pressurized automatic centralized lubrication system keeps your machine running smoothly. KOMO's own Production Manager and Machine Monitoring software and a 19" display are also standard. Available options include part labeling and material management systems.

Whether taking a first step into CNC routing productivity or upgrading your existing capabilities, the investment is considerable. Before making any decisions, KOMO can offer you the opportunity to visit our manufacturing headquarters in Lakewood, NJ to experience a demo run of your parts on KOMO equipment and a demonstration of real-time performance capabilities. The FLEX Series is up and running in our demo room now, and will be showcased at AWFS®Fair this July in Las Vegas.

Komo Machine, Inc is excited to announce the introduction of the new FLEX Series – KOMO quality at an affordable price! Learn more by visiting our website, or call toll free to arrange a visit to our demo room and a tour of our manufacturing facility. We look forward to hearing from you!

KOMO
Built for a Lifetime

Komo Machine, Inc.

Worldwide Headquarters, One Komo Drive, Lakewood, NJ 08701

AWFS Booth # 9707

Phone: 732-719-6222

Fax: 732-579-5443

Email: <https://komo.com/contact-us/>

Web: www.komo.com

KOMO
Built for a Lifetime

Get Help When You Need It

KOMO's toll-free customer service hotline is available 24/7/365 by calling 1-800-528-4570.



Flexibility, Quality and Reliability

KOMO Quality at an AFFORDABLE PRICE



FLEX TG



FUSION XL



FLEX

KOMO MACHINE, INC.

One Komo Drive, Lakewood NJ 08701 U.S.A.

1-800-255-5670 • 1-732-719-6222 • www.komo.com



**ZERO
DAMAGE,
HIGH ACCURACY**



ORION®
WOOD MOISTURE METER



wagnermeters.com
Call (888) 266-8093



JULY 17-20, 2019
LAS VEGAS, NV

**VISIT BOOTH
#4260**



Next Wave's Moray Ready2Laser features a removable bottom.

Moray Ready2Laser available from Next Wave

By Jennifer Hicks

Adding to its line of desktop CNC machines and accessories, Next Wave Automation recently introduced its Moray Ready2Laser system that features a 7-watt solid state laser diode for engraving and light cutting applications.

"It's low cost, completely encased, lightweight and portable," explains Tim Owens, president and CEO of Next Wave Automation.

"This is primarily for engravings. You don't need an 80-watt system laser for everything. One of the nice things about this is you can move it around. The bottom is removable so you can lay it right on a workpiece like a table or something large that you can't fit inside it," he says.

The Ready2Laser uses standard G-code files and includes the company's in-house design software, Ready2Design, that allows users to create files from almost any image.

Users can also import images from other software and perform light cutting on materials such as veneer, balsa, basswood, leather and fabrics.

"Another option is for people who want to do small engravings or logos on their workpiece where they'd normally use a branding iron and want to be a little more creative with the logo without the expense of a larger laser," adds Owens.

It has a 2-1/2" exhaust port for use with standard, shop-style vacuums, which should be outfitted with HEPA filters to remove smoke and fumes, according to the company. For heavy-use applications, an optional inline exhaust system with charcoal filtering system is available.

The Moray Ready2Laser system sells for \$1,599.

For more, visit www.nextwaveautomation.com. **W**



**Top Drawer Components has Been Your
Dovetail Drawer Supplier for Nearly 30 Years
Now Introducing Olon Nexgen® Doors!**



NEXGEN®

**Rollout
Trash Drawers**

**Top Drawer Specializes in
Custom & Standard Dovetail Drawers with
Adjustable Compartments & Exotic Hardwoods Available!**

**Visit our AWFS Booth to
Enter Raffle and Win a
Solid Wood Mallet
32" Long & Weighs 5 Lbs.**

**Online Ordering System
Coming in July!**

**Highest in Quality
Fastest Turn-Around
Premium Customer Service**

**TOP DRAWER
COMPONENTS**

5154 South Delaware Drive
Apache Junction, AZ 85120
480.926.9540 or 800.745.9540
www.topdrwr.com





PRO SHOP

with SCOTT GROVE

Avoid the growing pains

The author has been there and done that when it comes to expanding a one-man shop

Like most small business owners just starting out, I thought the key to my success was growing my business — taking on larger jobs, hiring employees, adding more square footage and becoming the king of the world. But I discovered that there are pitfalls to look out for if you grow too fast or take on too much before you're ready.

Here are some to look out for:

Let's say your one-man shop lands a big job that's too good to pass. You hire one or two craftspeople, the job is humming along, and another big job presents itself. But this job re-

quires a new machine and more storage space, which you rent across town. Suddenly, you have to hire two more people just to manage the six plates that are spinning in the air.

When the first large job is completed, panic sets in — where's the next one coming from? You start working the phones, looking for the next project, and take on a few smaller jobs to keep everything going. You're now spending most of your time in the office ordering supplies, paying bills, and figuring payroll. You're also on the road doing estimates, making connections, and meeting with potential clients.

You're growing your business, but is this what you really want?

When my business was at its largest, I had 18 on staff. I outsourced my payroll, hired a floor manager and bookkeeper, and still spent most of my time feeding the machine. I wanted to be a fine woodworker but had become a typist.

Sometimes I took on jobs that were intentionally under bid just to keep the machine running and retain my best employees. I was working harder with only a slight increase financially.

My career took a turn in the late 1990s when I became Wendell Castle's studio director, while downsizing my business and shop. I eventually left Wendell to work for an architect and started over. But this time I had a new perspective on how to take on big jobs and not fall prey to the siren call of expanding.

Before hiring your first employee, consider going with skilled sub-contractors on the first few big projects. If the work continues to flow in, you'll know who to hire full time. Pay these subs well and they will return the favor. Avoid using unskilled workers. While they might be cheap, they are often a headache.

Go up, not out

My shop was in a large industrial building that had lots of tenants and flexible space. My landlord usually had a spare room across or down the hall if I needed it, and I was able to expand and contract my space requirements easily. Also, consider renting space that has high ceilings. Real estate is typically rented by the square foot — not the cubic foot — and if you've got high ceilings, you can install pallet racking and buy, borrow or rent a forklift for long-term storage. I added 30 percent to my storage space for the same price just by going up instead of out. I even put my office above my spray booth.

Knowing whether you should invest in a new tool is a study in variables. It is best to out-source until you know your new machine will pay for itself.

Insurance costs can add up and slip under the radar. So, it is very important to keep up with your agent on how big you are and what is insured. I had a big fire that burned down one of our four-story facilities and lost \$70,000 worth of uninsured finished product. It took me two years to recover.

Cash flow can become a major issue during a growth period. Big jobs require large upfront cash outlays, and often, these clients are general contractors or institutions that don't provide deposits. I've had to rob Peter to pay Paul a few times in my career, and that scenario can easily become a slippery slope. Cultivate a good working relationship with a local bank manager because a line of credit can be quite useful.

continued on Page 52



LIMTECH INDUSTRIES
704-200-9964
"Market's best in class cnc"

\$54!

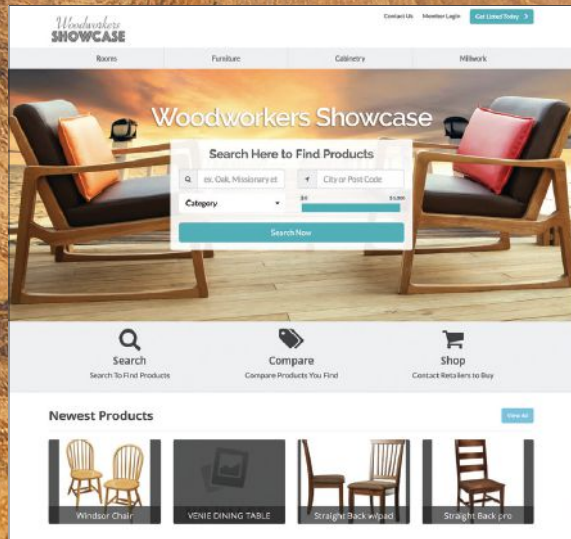
- Syntec industrial controller – non PC/Windows reliant
- Servo-gearbox-helical rack
- Brand name components from your local suppliers!
- HSD 12hp spindle
- 8-position tool changer
- HSD 9 V-drills on 32 mm
- 10hp vacuum pump
- 4'x8' phenolic table top

Info@Limtechindustries.com

Woodshop News presents

WOODWORKERS SHOWCASE

A new Marketing site connecting professional woodworkers with qualified buyers



Woodshop News introduces **Woodworkers Showcase**, a new website where artisans, furniture, cabinet and architectural millwork shops can market their work to an established audience of high-end buyers.

Woodworkers Showcase's primary audience are readers of other Active Interest Media (publisher of Woodshop News) titles, such as *Craft Homes*, *Old House Journal*, *Log Home Living*, *Period Homes*, *Power & Motoryacht*, *Yachts International*, *Soundings*, *PassageMaker*, *Sail*, and *Angler's Journal*. These readers know and understand that quality products are worth it.



sales@woodshopnews.com



THE MARKETING OF THIS SITE WILL COVER
COMBINED REACH

Total print & digital distribution
OVER 2 MILLION MONTHLY

Total monthly web site page views
OVER 2.5 MILLION MONTHLY

Average House Hold income
\$193,744

<https://www.WoodworkersShowcase.com/>



Grizzly Industrial

SUMMER SALE

Savings up to **30% OFF!**
JUNE 3RD - SEPTEMBER 1ST, 2019

DOUBLE-SIDED PLANER

SPECIFICATIONS:

- Bottom cutting motor: 10 HP, 240V, 3-phase, 23A
- Top cutting motor: 15 HP, 240V, 3-phase, 38.5A
- Feed motor: 2 HP, 240V, 3-phase, 6.1A
- Table elevation motor: 1/2 HP, 240V, 1.6A
- Table size: 18" x 102"
- Max. cutting width: 18"
- Max. stock thickness: 8"
- Max. cutting depth: 3/8"
- Min. stock thickness: 1/2"
- Min. stock length: 12"
- Feed rate: 26-72 FPM
- Cutterhead speed: 4000 RPM
- Cutterhead diameter: 5 1/8"
- Overall size: 106"L x 37"W x 67"H
- Footprint: 74 1/2"L x 27"W
- Approx. shipping weight: 6614 lbs.

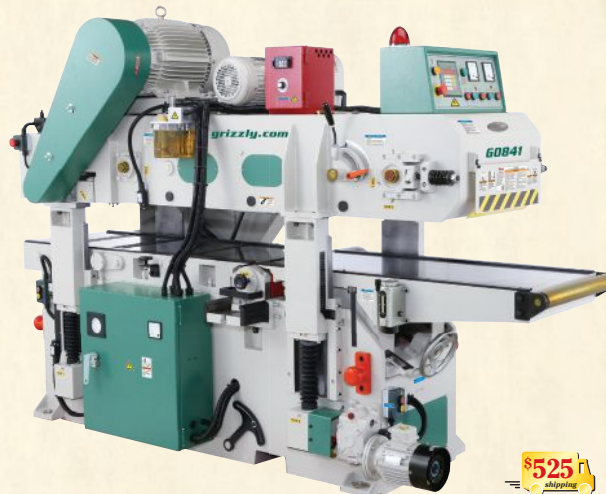
FEATURES:

- Table equipped with five rollers for greater feeding efficiency
- Motor employs Y-D start
- Feed chain is automatically lubricated
- Belts on bottom cutterhead are easily changed
- Spiral top and bottom cutterheads
- Table surface is chrome-plated and precision-ground for smooth feed and maximum wear-resistance
- Emergency stop buttons are provided at the front and back sides of the machine

**ONLY
ONE
LEFT!**

**2018
PRICE
HELD
OVER**

G0841 Only \$17,995⁰⁰



\$525⁰⁰
shipping
Power 40 motor

HEAVY-DUTY MORTISER WITH STAND

- Motor: 1 1/2 HP, 110V/220V, single-phase, TEFC, 1725 RPM, prewired 110V
- Amps: 14A at 110V, 7A at 220V
- Table size: 19" x 12 1/2"
- Vertical spindle travel: 9"
- Head vertical travel: 3"
- Table longitudinal travel: 14 1/2"
- Table cross travel: 3"
- Column tilt: ±30°
- Fence angle: 0-30°
- Chisel capacity: 1/4"-1 1/2"
- Maximum chisel stroke: 6 1/4"
- Maximum workpiece width: 9"
- Chuck capacity: 1/2"
- Collar size: 5/8" and 3/4"

- Spindle speed: 1725 RPM
- Overall size: 36"W x 24"D x 71"H
- Approximate shipping weight: 356 lbs.

71" TALL



G0448 \$1,675⁰⁰ Sale \$1,395⁰⁰

\$119⁰⁰
shipping
Power 40 motor

5 HP 21" SUPER HEAVY-DUTY BANDSAW WITH TILTING GEARED TABLE AND MOTOR BRAKE

- Motor: 5 HP, 230V, single-phase, 22A
- Throat capacity: 20"
- Height capacity: 14 1/4"
- Table size: 29 1/2" x 20 3/4" x 1 1/8"
- Table tilt: 5° L, 45° R
- Standard blade length: 165"
- Blade widths: 1/4"-1 3/8"
- Blade speed: 4600 FPM
- Quick-change blade release/tensioner
- Micro-adjusting rack & pinion table tilt
- Cast-iron wheels with polyurethane tires
- Includes 1" blade
- Overall size: 39 1/2" W x 28 5/8" D x 78" H
- Approx. shipping weight: 684 lbs.

**MADE IN AN
ISO 9001
FACTORY**



G0531B \$2,450⁰⁰ Sale \$2,195⁰⁰

\$199⁰⁰
shipping
Power 40 motor

10 HP INDUSTRIAL DUST COLLECTOR

- Motor: 10 HP, 220V/440V*, 3-phase, TEFC
- Amps: 30A at 220V, 15A at 440V
- Air suction capacity: 5360 CFM
- Static pressure: 17.9"
- Intake port with manifold: 4" x (5) holes
- Intake port without manifold: 10"
- Impeller: 17" balanced steel, radial fin
- Upper bag size (x 4): 23 3/8" x 70"
- Lower bag size (x 4): 23 3/8" x 54"
- Collection bag capacity: 48 cubic feet
- Bag filtration: 2.5 micron
- Number of collection bags: 4
- Overall dimensions: 61" W x 61" D x 134" H
- Approx. shipping weight: 472 lbs.

**MADE IN AN ISO
9001 FACTORY**

**JUST
OVER 11
FEET HIGH**



G0673 \$1,995⁰⁰ Sale \$1,595⁰⁰

\$169⁰⁰
shipping
Power 40 motor

PROFESSIONAL SPINDLE SHAPERS

Z-SERIES

- Motor: 5 HP, 220V, single-phase, TEFC (G5912Z) or 7 1/2 HP, 220V/ 440V*, 3-phase, TEFC (G7214Z)
- Table size: 35 1/2" x 28"
- Spindle sizes: 3/4", 1", 1 1/4"
- Spindle speeds: 3600, 5100, 8000, 10,000 RPM
- Spindle travel: 3/4"
- Max. cutter dia.: 5 1/8"
- Approx. shipping weight: 604 lbs (G5912Z), 613 lbs. (G7214Z)

G5912Z
SHOWN



5 HP, SINGLE-PHASE

G5912Z \$2,995⁰⁰ Sale \$2,695⁰⁰

7 1/2 HP, 3-PHASE

G7214Z \$2,995⁰⁰ Sale \$2,595⁰⁰

\$169⁰⁰
shipping
Power 40 motor

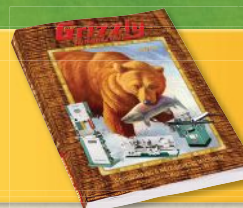
*To maintain machine warranty, 440V operation requires additional conversion time and a \$250 fee. Please contact technical service for complete information before ordering.

PRICING CODE
19WOODS
MENTION THIS CODE
WHEN PLACING YOUR ORDER
20344

1-800-523-4777
2 GREAT SHOWROOMS!
BELLINGHAM, WA • SPRINGFIELD, MO

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

- ALMOST 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 BOTH LOCATIONS • MOST ORDERS SHIP THE SAME DAY
- **BUY DIRECT & SAVE!**



FREE 2019 CATALOG

OVER 810 PAGES OF HIGH QUALITY MACHINES & TOOLS AT INCREDIBLE PRICES

SLIDING TABLE SHAPER

- Motor: 5 HP, 220V, single-phase, 25A
- Sliding table: 35½" W x 13¼" D
- Sliding table travel: 21½"
- Table fence: 39½" extruded aluminum with adjustable stop
- Cast iron miter gauge with 60° angle capability in two directions
- All other specifications same as the G5912Z
- Approx. shipping weight: 757 lbs.



G8621 ~~\$3695.00~~ Sale **\$3295.00**



14" SLIDING TABLE SAW WITH DIGITAL FENCE

- Main motor: 10 HP, 220V/440V*, 3-phase, 26A/13A
- Scoring motor: 1 HP
- Main blade size: 14"
- Main blade tilt: 0-45°
- Depth of cut at 90°: 4"
- Depth of cut at 45°: 2¾"
- Main blade speed: 3000, 4000, 5000 RPM
- Main blade arbor: 1"
- Scoring blade size: 120mm (4¾")
- Scoring blade arbor: 20mm
- Scoring blade speed: 8000 RPM
- Scoring blade tilt: 0-45°
- Sliding table size: 15½" x 126"
- Maximum rip capacity: 51½"
- Length of crosscut: 126"
- Overall size: 132" W x 155¾" D x 65¼" H
- Approx. shipping weight: 2176 lbs.

MADE IN AN ISO 9001 FACTORY



G0853 Only **\$12,500.00**



AUTOMATIC EDGE BANDER

- Required power supply: 30A, 220V, single-phase, 60 Hz
- Feed motor: ¾ HP
- Glue spindle motor: ½ HP
- Flush trim motor: ¾ HP
- Heating element: 1135W
- Table size: 10½" W x 69¼" L
- Min. panel dimensions: 4¾" W x 11" L
- Panel thickness: ½" - 1¾"
- Tape thickness: 0.5mm - 2.0mm
- Air requirement: 6 SCFM @ 100 PSI
- Glue pot capacity: 34 oz.
- Edgebanding coil capacity: 31½"
- Panel feed speed: 16 FPM
- Approx. shipping weight: 770 lbs.



G0854 Only **\$7500.00**



12" SLIDING TABLE SAW WITH SCORING BLADE MOTOR

- Main motor: 7½ HP TEFC, 220V/440V*, 3-phase, prewired for 220V
- Scoring motor: 1 HP TEFC, 220V/440V*, 3-phase
- Main table size: 35¼" x 21½"
- Main blade size: 12", Arbor: 1", Tilt: 0-45°
- Depth of cut @ 90°: 3½", @ 45°: 2¾"
- Scoring blade size: 4¾", Arbor: 20mm, Speed: 8000 RPM
- Scoring blade tilt: 0-45°
- Sliding table size: 126" x 14"
- Approx. shipping weight: 1468 lbs.



G0699 ~~\$7295.00~~ Sale **\$5995.00**



THE ULTIMATE 16" JOINTERS

- Motor: 5 HP, 220V, single-phase, 25A (G9953ZX); 5 HP, 220V/440V*, 3-phase, 14A/7A (G9953ZXF)
- Precision-ground cast iron table size: 16¼" x 99¼"
- Cutterhead speed: 5000 RPM
- Max. depth of cut: ¾"
- Bevel jointing: 0-45° L/R
- Center mounted fence: 6¾" x 43¼"
- Approx. shipping weight: 1742 lbs. (G9953ZXF), 1719 lbs. (G9953ZX)



MADE IN AN ISO 9001 FACTORY!

3-PHASE, SPIRAL CUTTERHEAD
G9953ZXF ~~\$6995.00~~ Sale **\$5995.00**

SINGLE-PHASE, SPIRAL CUTTERHEAD
G9953ZX ~~\$7995.00~~ Sale **\$6995.00**



25" EXTREME-DUTY PLANER WITH SPIRAL CUTTERHEAD

- Cutterhead motor: 15 HP, 230V/460V*, 3-phase, 37A/18.5A
- Table elevation motor: ½ HP, TEFC, 2.4A/1.2A
- Max. cutting width: 25"
- Max. cutting depth: ¼"
- Max. stock thickness: 9"
- Min. stock thickness: ¼"
- Feed rate: 20, 25, 30 FPM
- Speed: 4900 RPM
- Min. stock length: 10"
- Approx. shipping weight: 2054 lbs.



SPIRAL CUTTERHEAD WITH 15° ROTATED INSERTS AND SEGMENTED CHIP BREAKER



DIGITAL READOUT AND KEYPAD



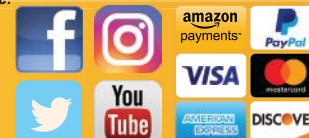
G0603X ~~\$9995.00~~ Sale **\$8995.00**



**BUY NOW,
PAY LATER**
with **Affirm**
Choose your
monthly payments
at checkout

VIEW VIDEOS AT
grizzly.com

grizzly.com®
OVER 15,000 PRODUCTS ONLINE!



Due to rapidly changing market conditions and tariffs, our advertised prices may be increased at any time without prior notice.





SWITCHING LANES

New Jersey shop considers more commercial projects as the residential market tightens

By Jennifer Hicks

Taylor Made Custom Cabinetry and Design in Pennsauken, N.J., has been known in the South Jersey area for its high-end residential cabinetry since opening its doors in 1989. In recent years, however, the shop's leaders have decided the company should continue to develop its growing commercial end in order to withstand the changing dynamics of the residential market.

Operating within a spacious 24,000-sq.-ft. facility, the shop has 18 employees, most of whom were laid off during the Great Recession but brought back in recent years. Company president Jay Taylor is always spending time reviewing the state of the economy and client spending patterns to keep the business profitable. Lately, residential work is looking a little less promising.

"We're seeing customers do a lot more revisions. You quote a job out at \$50,000 and they ask how they can save money, so they start revising the designs and we revise the quote to fit a budget, where before when the economy was going well you didn't have that. Now, no matter how much money the client has, they're still at that point where they want to know how to save a dollar," says Taylor.



"Even the wealthy people aren't spending money on their homes the way they used to. And what's starting to change now is younger people aren't worried about investing into their houses nearly as much as they used to even if they have the money and the means to do it. That's changing a lot of the way things are done here, too."

Living the dream

Taylor aspired to be a cabinetmaker ever since he was a child growing up in Pittsburgh and followed that dream through high school and college.

"In eighth grade we had to pick three professions and write a term paper on them. Cabinetry was one of the ones I picked. I just got really lucky that I fell into a trade and profession that I loved as a young kid," he says.

He took up furniture design at Indiana University in Indiana, Pa. After graduating with a fine arts degree, he landed a position at a Philadelphia cabinet shop and relocated to nearby New Jersey for a quick commute to the city each day.

Eager to start his own business, Taylor started doing side jobs with friends, advertising in papers, and things just took off in the late 80s. He started in a shared co-op space, graduating to larger shops over the

years while hiring employees along the way, and eventually moved to his current building in 2014. His formal training allowed him to develop a strong client base throughout the company's formative years.

"I bring my education to the projects when I come on. I do a lot of work with interior designers who don't have the architectural design background. They bring their concepts to me. I help them refine their designs with the client and that allows them to sell more work than what they could do on their own because they don't have the background."



Jay Taylor

Evolving client base

Taylor captured the residential market early on in his career when he built a full-scale library in a show house for a designer in the early 90s.

"It was a \$120,000 project. That's what really got me started and a lot of people to know who I was, and I got a good foothold in the South Jersey area doing high-end residential work."

Through word-of-mouth, repeat customers and connections with designers, the company's residential work is done in homes averaging \$450,000 to \$2 million. The client list includes professional athletes, entertainers and CEOs.

The shop's primary market extends to the



The management team and the shop's well-stocked finishing department (left).

New Jersey coastline, New York City and eastern Long Island. Popular projects included kitchens, bars, entertainment centers and wall paneling. Customers prefer frameless cabinetry and painted finishes - white, light greys and light blues.

But Taylor is concerned about the sustainability of his high-end residential market.

"We did \$2.2 million in sales last year. Of that, we did \$1.2 million in residential sales and that's a lot for a custom shop. How long is that going to last that people will build these big homes and be able to afford it and want to afford it?"

Taylor's son, Corey Taylor, joined the company about 10 years ago. He noticed that commercial work had more profitability and quicker turnaround times.

"Corey started out with residential because that's where I was at and where the leads for the business were. After three years he started to want to do commercial, and the little residential he does is based off commercial clients he has. So were trying to keep a nice balance between the two sides."

Nearby commercial hot spots include Trenton, Lawrenceville and Princeton, N.J., according to Taylor. The shop's portfolio includes work for colleges, banks, credit unions and corporate offices, such as *Jet.com* based in Pedricktown, N.J.

Long term planning

With Corey in line to take over the business in wake of his father's anticipated retirement, it's safe to say the company will be 95 percent commercial in the next five to ten years. Right now, the biggest concern is what to do when the shop's 10-year lease is up.

"We're five years in on our lease and during production meetings we discuss what we will do when it's up. Will we stay in this building? Will we scale back? What do we see happening? Is this company growing? Do we want to continue to grow? Do we want to maintain where we're at?"

Taylor, along with Corey and shop foreman Chris Eachus, all agree the purchase of an Anderson CNC in 2004 helped the commercial end thrive.

"It allowed me to increase my sales volume without increasing the number of employees it took to produce the work because we were able to generate the panels so much quicker. Fabrication time dropped as well because the consistency of the machine cutting the parts made it a lot easier to assemble the cabinetry."

He will encourage more machinery purchases, but cautiously. The last thing he wants to see is Corey face layoffs.

Lamello

Contact your Lamello Product Manager for a Zeta P2 demo!

"The P-System enabled us to build a strong and beautiful waterfall edge with zero visible fasteners."

The P-System saved time and reduced risk of mistakes, plus the ability to flat-pack saved on shipping."

Brock Brandenburg - Owner
Klevr Furniture

You design it. P-System joins it.



Any joint, any angle, anywhere - Easy!



Divario P-18

Self-clamping, invisible connector for slide insertion.



Tenso P-14

Self-clamping connectors as gluing aid for all angles.



Clamex P-14

Detachable connectors with various options.

www.csaw.com/lamello

800.252.6355 EAST
800.252.6355 WEST



Lamello USA is a division of





Taylor Made has a 30-year history serving the commercial and residential markets from Jersey to the Hamptons.

"We were fortunate we had the lease [nearly] paid off on the CNC before the crash hit and I know that put a lot of guys out of business. During the crash we had one year left on our lease, so I was able to work my way through that. I know a lot of guys who had to close because they couldn't get enough work to pay for their equipment."

Taylor has an intuitive foresight and says he sensed the last recession just before it hit. While a healthy \$2.2 to 2.5 million in sales is projected for 2019, he says it always pays to be vigilant with market patterns.

"Before the last crash I was fortunate that I could sense something

wasn't right. I had a project that kept getting delayed and that just sent a shiver down my spine, then the volume really dropped. It's not a bad economy now, but it's not flowing smoothly. Every job we have, whether it's residential or commercial, there's always a delay in it for some reason."

Contact: Taylor Made Custom Cabinetry & Design, 7035 Central Highway, Suite 200, Pennsauken, NJ 08109. Tel: 856-786-5433. www.tmcc-inc.com 

mirknig.su

Until Automation Does it All

Do Something to Make Woodworking Faster, Safer, and Easier



Lift and position workpieces for access to tops and bottoms without bending or reaching.



Lift and position panels for easy one person feeding at saws, planes, and CNC routers.



Transport loads between work cells and vertically position them for easy unloading.



Automatically adjust the height of pallet loads as items are added or removed.



For details call 800-743-1000 or visit SouthworthProducts.com/wood

View our video for tips on how to deal with the woodworking labor shortage – www.SouthworthProducts.com/3ways

SOUTHWORTH
making work faster, safer, and easier since 1890

Table Saw INNOVATIONS



The market for cabinet saws, sliders
and jobsite models keeps expanding

BY JOHN ENGLISH

The basic table saw has grown up of late, with the addition of options such as sliding tables, digital fences and scoring blades. They have also become safer with inventions such as riving knives and braking technology. While carpenters and installers tend to like contractor and portable units, small- and medium-sized woodshops tend to prefer cabinet and sliding table saws. There are also larger units such as beam saws with CNC controls, but here we're looking at traditional table saws, and what a shop owner might like to know about the latest capabilities.

A cabinet saw is defined as one where the motor is attached to the base, rather than to the underside of the table (like a contractor or hybrid saw). That makes achieving perfect alignment between the fence and blade a lot easier, as just the table needs to be tweaked. Cabinet saws also tend to have larger motors, tables and blades. The diameters start at 10" and go up from there.

What's new?

Saw manufacturers are constantly upgrading the options on table saws. Take Jet's (jet-tools.com) top-of-the-line Deluxe Xacta saw, which is a 3-hp, single-phase 230-volt, left-tilt machine with a 10" diameter blade. The man-

ufacturer has taken that standard configuration and added wings that give it the ability to rip stock up to 50" wide (more than half the length of a full sheet of plywood). That's really handy in a one-man shop. The saw also has a quick release riving knife, which can be popped out if necessary. A riving knife is a splitter that rides up and down with the blade, and tilts as the blade does. It is no higher than the top tip of the blade, so it doesn't get in the way when making partial cuts such as nibbling a notch while using a miter gauge. That encourages woodworkers to leave it in place and run a safer saw.

Jet's Xacta also has another new feature, an integrated push-button arbor lock that makes blade changes safer and easier. The saw also has a built-in downdraft table (optional) that helps draw dust away from the user without obstructing movement or productivity.

Grizzly Industrial (grizzly.com) has developed an unusual and very affordable hybrid of the standard cabinet saw and a small industrial sliding saw. Offered at about the cost of a serious 10" table saw (\$3,600), the G0623X3 is a 3-phase, 7.5-hp machine with a small footprint that's designed to handle large panels. It

comes with a scoring blade, which is an extra small blade before the main blade that cuts lightly into the bottom face of a veneered panel and

prevents tear-out on cross-grain cuts. It has a riving knife and flip stops for repeat cuts.

SawStop's (sawstop.com) flagship saw, the 52" version of its Industrial Cabinet Saw, is well suited to the needs of small- or medium-sized shops. Aside from its proprietary safety feature (it drops the blade if a finger comes in contact with it, preventing injury), it is available with a single- or 3-phase motor, an optional mobile base and floating dust collection guard. The brake cartridge is available for a standard 10" blade and 8" and dado set versions.

Powermatic (powermatic.com) offers 18 different cabinet saw configurations that carry the celebrated AccuFence system. They cover the gamut from the PM1000 which has a single-phase 1.75-hp motor and 30" rip capacity to the musclebound 3000B with a 3-phase, 7.5-hp motor, 14" blade, and a quick release riving knife. What's new on the 3000B is a push-button arbor lock that is accessible from above the table. This eliminates the need for two wrenches to change blades. Another feature that doesn't sound like much until you need it are the matching beveled edges between the table and the extension wings, and that



Grizzly's model G0623X3 slider and Powermatic's model 3000B.

saves both knuckles and fine veneers. The AcuFence has recently been updated, too, and the miter gauge is micro-adjustable.

Baileigh Industrial (baileigh.com) has developed the TS-1020WS work station to complement its full line of table saws. This is a space-saving, three-in-one table saw station that combines a 10" sliding cabinet saw with a built-in router table. It comes with a heavy steel base, a finished cast-iron table, and a riving knife. It has a 3-hp, single-phase motor and a sliding rip fence made of UHMW plastic that makes it easier to move heavy material or awkward, long pieces. The company's TS-1248P-52 offers 52" right-side rip capacity. It

has a 5-hp, single-phase motor, a riving knife and a 12" blade. And it comes with a digital readout (DRO) on the rip fence for making very accurate and repeatable cuts.

Delta (deltamachinery.com) has redesigned the Unisaw (model 36-L552) to include a push-button arbor lock, riving knife, a new trunnion design that increases vibration control, and improved dust control. The saw still comes with the Biesemeyer fence.

Convert to a slider

There are some fairly affordable, high quality, entry-level sliding table saws available, such as the Minimax sc 2c from SCM Group

(scmgroup.com) that features a single-phase, 3.4-hp motor and a 12" blade. This is a native sliding saw (not a table saw with a sliding accessory), and it has a scoring blade plus a massive 65" crosscut capacity.

Shop Fox (woodstockint.com) offers a 5-hp, 10" sliding table saw, the W1811, that has a scoring blade, 63" crosscut, riving knife and large blade guard with integral dust port. Grizzly industrial has a whole family of sliding table saws.

Shops that already own a decent table saw may want to consider an aftermarket device that converts that into a sliding unit. These usually replace the left-hand wing, and while



BUILD BETTER STUFF.™

Axiom Precision offers a wide range of machines to address nearly any small-format CNC application.

Each machine has been thoughtfully designed and rigorously tested in our Columbus, Ohio facility.

Axiom also offers a full range of accessories and comprehensive training to ensure that you'll have everything you need to get up and running.

Interested in improving the productivity and accuracy of your shop? Contact us today.

Axiom Tool Group proudly supports



1-844-642-4902
www.axiomprecision.com



The Deluxe Xacta saw from Jet with downdraft table.

they certainly make it a lot easier to handle and break down large panels, there are a couple of things to think about before buying. First off, they take up a lot of extra floor space, pretty much doubling the footprint of the table saw. And second, it can be a real pain to have to disengage and remove the long miter fence when you want to use the saw without the sliding feature.

Among the units available are four sizes from Exaktor (exaktortools.com). King Canada (kingcanada.com) offers a sliding table attachment that fits most table saws with a 27" deep table. Powermatic offers a unit for its saws. The SawStop Sliding Crosscut Table (TSA-SA48) is specifically designed for that company's saws, but it could probably be adapted to fit other brands with a little ingenuity.

Grizzly Industrial offers the T10223 sliding table, and Shop Fox/Woodstock makes two attachments that fit the company's W1819 and W1820 10" table saws, as well as most other 10" cabinet table saws with some minor modifications.

Portable options

As Woodshop News reported in March, Grizzly has introduced a new variable-speed portable table saw for jobsite work. Available with or without a stand, the saw has a 2-hp household current motor but its most interesting feature is that the speed can be adjusted from 2,000 to 4,000 rpm with a turn of the dial,

depending on the density and thickness of the material being cut. The saw's fence also has a novel feature – a flip-down, narrow-tip attachment for ripping workpieces narrower than 1" with the blade guard installed. And for trim carpenters, it has an outfeed table extension that helps support longer workpieces.

Other portable saws worth researching are the new corded DW745S and cordless DC-S7485T1 from DeWalt (dewalt.com); the 10" worm drive table saw from Skilsaw (skilsaw.com); Makita's (makitatools.com) 2705X1 that comes with a collapsing stand; and two units from Bosch (boschtools.com), the 4100-10 that has a wheeled stand, and the GTS1031 that weighs in at just 52 lbs. Delta Machinery offers the 36-6022 and the S36-290, among other portable saws.

Woodshops that only occasionally need to break down large panels might want to consider updating their equipment by looking at a track saw. This tool, which marries a circular saw to a guidance system, has come a long way over the last few years. It's especially appealing to one-man shops, where the large and cumbersome material stays still while the tool moves. That's infinitely preferable to maneuvering a full sheet of plywood across a contractor or cabinet saw without help. It's a lot less expensive than a new sliding table saw, usually has better dust collection, and is definitely easier to use when making angled cuts. www.woodshopnews.com



CASTLE CSI-1.5D



The CSI-1.5D cuts Castle's distinctive screw pocket, drills a low angle pilot hole and inserts a flush, stackable screw in 1.5 seconds.



Cut your assembly time in half.



THERE IS NO SUBSTITUTE



Visit us at booth 8622

LEARN MORE AT
castleusa.com
1-800-282-8338



/castlepockets



THE MECHANICS OF *Outsourcing*

HOW TO DETERMINE THE TRUE COSTS, BENEFITS, LOGISTICS AND PITFALLS OF USING OUTSIDE SUPPLIERS

BY JOHN ENGLISH

Outsourcing simply means buying in components such as doors, drawers, cabinet boxes and accent pieces, rather than making them in-house. It's a way for custom shops to be able to increase their volume. That's because the machines aren't tied up, so a shop can take on several jobs at the same time.

It's also a way to add to their catalogs, because outsourcing suppliers offer so many options (door styles, materials, moldings and so on), and most of them will even do the design work. The shop sends in a floor-plan and a cabinet style, and the supplier will draw the job and make photorealistic images of the completed kitchen, which can then be used to close the sale. Plus, it's a way for busy woodshops to meet deadlines, because there's no log jam at the CNC or the spray booth.

The most salient, and yet hidden, part of outsourcing is the money. When full cabinets or parts arrive on a pallet, already finished and ready to assemble, are they really less expensive than if the woodshop had made them? Although it looks simple at first glance, determining the true costs and savings involved in outsourcing can be quite tricky.

WORKING OUT THE COST

Building casework in-house involves three cost streams – time, materials and overhead. It's relatively easy to figure out time on the shop floor, especially if the woodshop tracks job hours. Where it gets hazy is tracking the time that it takes to bid and manage each job. That's because very few small businesses track the hourly activities of their management and support professionals, especially when they are salaried and/or commission based. Sometimes, those experts spend a lot of time talking to customers, traveling back and forth to the jobsite for tasks such as taking measurements or showing samples, and then working on drawings and other sales tools.

If a shop can use an outsourced, online catalog and also doesn't need to do drawings, that can dramatically reduce those hours. Even if the CAD work is done in-house, most of the larger outsourcing suppliers have libraries of cabinets that can be popped into drawings to save time.

Then there's the project management. When more than one job is going through the shop, it's difficult to accurately assess how much supervisory and support time is dedicated to each project. Consider, for example, the amount of time spent helping and directing newer workers. Their need to learn processes and methods, even things as simple as where materials or tools are stored, eats into the time that it takes on the floor to build boxes, and increases the time it takes to manage jobs.

If a shop isn't making parts and assembling cabinets in-house, a lot of those untracked supervisory hours go away. You don't have to train people when they're not needed. The point here is that outsourcing isn't just about the time that's saved on the floor, but also in the office. And that economy of resources needs to be considered when assessing the true cost, or savings, that are created by having another manufacturer build some, or even all of a job.

Once a woodshop engages with a reliable supplier and has run a few jobs, another gray economy comes into play. There are no rejects, no bad parts, and no reworks or remakes. Those costs are absorbed in the supplier's bid process.

Beyond the direct and obvious savings in labor costs when a shop buys in, rather than building in-house, there are also some attendant savings. If the shop isn't running machines, it doesn't have to pay to lease or buy them. It also doesn't have to pay an electric bill to run them, or collect sawdust from them, or replace sanding belts and tooling on them, or sharpen cutters, or order inserts. And it doesn't have to pay people to service anything. That includes the time spent updating software, plus relearning and then training people in new programming or apps.

MATERIAL MATTERS

One of the larger hidden costs in any cabinet or furniture shop is inventory. That's why one of the core tenets of lean management expressly tackles this area. The just-in-time philosophy uses ordering and warehouse procedures to eliminate waste.

Warehousing sheet stock, adhesives, finishes, hardwoods, foil, edge-banding, slides and myriad other products required to keep production up and running is astonishingly expensive. There's the cost of purchasing these goods, which ties up cash that could be used for investment or reducing debt. There's the somewhat hidden layer of cost involved in having everything shipped or delivered. Then there are the direct time costs – those hours spent researching, ordering, uncrating, checking, shelving and even entering the parts and supplies in inventory on a spreadsheet. Over the course of a financial year, they can become quite significant, and these are all hours that are not assigned to a specific job. So, they are rarely considered when a woodshop weighs whether or not to outsource a specific project.

Many materials come in case lots, or have minimum ordering quantities, or good price breaks in larger volume. So, shops tend to purchase an abundance of some products that can take a few months or even years to get around to using. Sometimes they stay on the shelf forever or are wasted. How many times have we purchased hardwoods only to discard a large percentage of them through planing and ripping, or doing that cross-cut dance through the defects? That's all cash left on the shop floor that could be doing something more efficient. If a dollar saved is then spent to reduce debt, it is now effectively earning the interest rate on that debt, in addition to saving the money that was spent on the product. There are two efficiencies there that epitomize the Ben Franklin quote, "a penny saved is two pence clear".

OVERHEAD AND OUTSOURCING

Overhead refers to any business expense that doesn't include labor or materials. Fixed overhead includes predictable costs such as rent or

mortgage payments, while operating overhead covers variables such as the heat and electric bills. Woodshops that outsource components can often experience an immediate decline in variable overhead, and can sometimes plan for an eventual reduction in fixed expense.

If the shop is running with fewer people and fewer hours (because fewer parts are being made in-house), the most obvious variable overhead expense to decline is payroll. And that's usually the first thing that shop managers consider when deciding whether to outsource. But so many other attendant factors also diminish, and all of these bear serious consideration when weighing the benefits of buying in. For example, the electric bill goes down. Idle machine motors and a reduced need to heat or cool unused areas of the shop all contribute to this.

If a shop embraces outsourcing in full measure, it can have jobs delivered flat packed on pallets directly to the jobsite where they are ready to assemble (RTA). That saves the cost of receiving product at the shop's loading dock, storing it where assembled boxes take up a lot of room, plus loading and delivering it to the jobsite. This opens up a huge opportunity to reduce one of the largest overhead costs in any business, rent or mortgage payments. The shop can entertain several options here, including moving to smaller premises, or sub-letting large areas of the space to other businesses. It can also open up the opportunity to expand into already existent space by changing the nature of activities. For example, a large shop area that has until now been used to assemble kitchens and get them ready to deliver could perhaps be repurposed so that the shop offers a complementary service such as countertops, or sign-making, or perhaps expanded subcontracting of CNC processing for other, similar businesses. Such a move can delay staff reductions and use expertise and equipment already acquired to branch out in new directions.

One of the less visible overhead savings in adopting outsourcing is the accounting function. Doing payroll, and processing paperwork related to inventory and receiving can eat up a lot of staff time. Some shops find that when they use outsourcing to reduce the scope of operations and the number of employees, bookkeeping becomes so manageable that they can bring a lot of it in-house. A staff person using programs such as Quickbooks can be considerably less expensive than having an outside accounting firm track mundane business records. Most accountants can import those shop-generated records quarterly into their own software, and prepare tax returns and estimated payments using that data. They can also audit the payroll procedure, especially for the first few months, by remotely accessing the woodshop's desktop computer (with the shop's permission). This can ensure the shop owner is using the bookkeeping software correctly, and processing withholding as required by law.

OUTSOURCING HAS LIMITS

So far, we've looked at the upside of outsourcing. As with any process, there are some pitfalls to avoid too, and things to think about before jumping on board.

The first, and by far the most important, is that a woodshop's reputation depends on the quality of its products and services. When components or entire jobs are being manufactured remotely and perhaps delivered directly to the jobsite, the quality of the supplier's materials and workmanship are absolutely critical.

Your name is on each and every one of those cabinets, doors and drawer slides.

That suggests that a shop should develop a relationship with a single supplier, or at most a couple of highly reputable manufacturers, and become intimately familiar with their catalogs before offering their product to clients. Woodshop owners might want to begin the selection process by attending one or two of the largest industry shows such as

IWF in Atlanta or AWFS in Las Vegas. There, one can spend some time physically examining product in the various booths. A two-dimensional, online photograph of a melamine drawer side can be a lot different when you can actually run your fingers over it.

The Kitchen & Bath Industry Show is also a learning opportunity, where a woodshop owner can get a feel for the latest design and technologies before committing to an outsourcing supplier. It's important to know how well the supplier's catalog relates to the current industry and consumer trends. There's not much point in switching to an outdated catalog.

A visit to the supplier's facility may also be in order. The factory may not look anything like the beautiful photographs on its website. But that aside, a visit can transform an electronic relationship into a personal one. That can ease a great number of concerns when ordering remotely, or when glitches occur on the jobsite and they need to be addressed immediately over the phone.

Be aware of shipping charges, and fees related to timing. If you don't need it by Thursday, don't pay a premium for a rush job, or for rush delivery.

Ask about thicknesses, in everything from foil and edge banding to veneers and panels. It's easy to overlook a measurement, but if a 5/8"-thick MDF shelf sags after a few months when one with a thicker plywood was available, this reflects on your reputation.

MARKETING

If a woodshop creates a new relationship with an outsourcing partner, the fundamentals all change. Yes, the factory may offer exactly the

same door styles and finishes that the shop has been building, but odds are it also offers a vast array of new choices. Traditional woodshops that make five-part, wood-grain doors are aware that the market is changing. Today, fewer than half the kitchens being built still go that route, and outsourcing is a way for those shops to do an end run. They can offer the most popular styles right away, with no major investment in equipment, inventory or training.

But that opens another door. The shelves are now dripping with new product, so how does a shop let buyers know?

A good place to start, after first running a few jobs and getting used to the new realities, is to have some open houses for area home builders, general contractors, and also related subs such as finish carpenters and countertop suppliers. It's a good idea to be able to walk them through the newly expanded selection by actually having a cabinet or two on hand, and especially some door samples, to explain the construction details and design options. Rendered drawings of completed kitchens or other casework (most outsourcing supplies can provide these as high-resolution JPG or PDF images) can be scrolling in the background on a wide screen television or computer.

On a different day, the shop can organize an event for real estate professionals. They are on the front lines when it comes to home renovation, and they are often overlooked by cabinetmakers and even kitchen designers. Perhaps the shop can offer them a small finder's fee for referred jobs, either a fixed amount or a minor percentage. When they sell a home that has everything the buyers wants except that the kitchen or bathroom is a bit dowdy, they can point that person in the woodshop's direction. This can be done right at the house by opening up the shop's



888.982.2683 www.cantekamerica.com

"Simply the best value in the industry"



EDGEBANDERS
NOW WITH PREMILLING



PANEL SAWS
MANUAL & AUTOMATIC



**STRAIGHT LINE
RIPSAWS**
SINGLE & MULTI BLADE



CHOP SAWS
14", 18", 24", 30" & 36"
MODELS AVAILABLE



PLANERS
FROM 20" TO 52"



DOVETAILERS
MANUAL & AUTOMATIC



Bandsaws • Boring Machines • Dovetailers • Edgebanders • End Matchers • Feeders • Finger Jointers
Finishing Equipment • Grinders • Jointers • Panel Saws • Planers • Resaws • Ripsaws • Sanders • Shapers • Tenoners

website on a tablet, and the impulse to seize that imminent solution can be quite powerful.

Several websites such as Yelp, Facebook, Pinterest and Twitter provide ways for consumers to let others know about good experiences. A larger outsourcing supplier that has some history behind it may already have insights into using these platforms to promote its product, and it can possibly share ways that a woodshop can do so at a local level. Testimonials online are the new word-of-mouth referrals. The woodshop can also spend a little time talking to marketing professionals at the outsourcing factory and learn exactly what resources are available that can be used on the shop's website and Facebook page, or shared in email campaigns through organizations such as Constant Contact, iContact, SendGrid and Campaign Monitor.

The bottom line with outsourcing is that most aspects of it make good business sense and generate more profits, less waste, and faster growth. The trade-off is that woodworkers become businesspeople, and surrender some of their craft for the glitter of gold. It's not as romantic, but it's definitely worth considering. Many smaller shops have created a synergy where they have retained some customized functions in-house and exported much of the mundane, repetitive work. This allows them to differentiate their product from those of the big box stores or online casework retailers, while still paring the bottom line and remaining profitable. Ironically, many of the most demanded 'custom' upgrades are actually products that can be outsourced from non-casework suppliers, such as corbels, moldings, lighting, electronics and especially hardware.

For those, a cabinetmaker really needs to go to the shows and see what's available. [W](#)

RESOURCES

Complete Kitchens

WalzCraft	walzcraft.com
Elias Woodwork.....	eliaswoodwork.com
Decore-ative Specialties	decore.com
Keystone Wood Specialties	keystonewood.com
CabParts, Inc.	cabparts.com
Conestoga Wood Specialties.....	conestogawood.com
Canary Closets & Cabinetry.....	canarycc.com
Cabinets Quick	cabinetsquick.com

Drawers and Doors

CCF Industries	ccfdrawers.com
Cabaxis	www.cabaxis.com
New England Drawer	www.newenglanddrawer.com
Western Dovetail	drawer.com
Drawer Box Specialties	dbdrawers.com
Stratton Creek Wood Works	strattoncreek.com
Timbercraft	timbercraftdrawers.com
Taylor Craft.....	taylorcraftdoor.com
Northern Contours.....	northerncontours.com
Top Drawer Components	topdrwr.com

Specialty Hardware, Corbels and Other Components

Brown Wood	brownwoodinc.com
Adams Wood Products	adamswoodproducts.com
Osborne Wood Products	osbornewood.com
Outwater Plastics	outwater.com
Rev-A-Shelf	rev-a-shelf.com

EST 1928 WOODCRAFT®

QUALITY WOODWORKING TOOLS
• SUPPLIES • ADVICE®

Own A Piece Of Wood History And Turn It Into Your Next Project

From charred edges to uncommon shapes and one-of-a-kind grain patterns, these show-stopping Pequiá slabs are uniquely beautiful. Brought back to the U.S. from Brazil, the 1,000+ year old tree is a story in itself.

Get your Pequiá slabs before they are all gone! Visit your local Woodcraft store or shop online at woodcraft.com and search Pequiá.

To read more about this "Tree of a Lifetime," check out this Woodworking Adventures blog: <http://bit.ly/pequiatree>.



For A Free Catalog Or To Find Your Local Woodcraft Store, Visit woodcraft.com Or Call 800-225-1153. Follow Us: [f](#) [t](#) [p](#) [i](#)

19WN04H

Getting the BEST CONNECTION

SHOPS OF ALL TYPES CAN IMPROVE THEIR JOINERY METHODS AND PROCEDURES WITH THESE NEW JIGS, FASTENERS AND CNC SOLUTIONS

BY JOHN ENGLISH



The Auto-Jig from Armor Tools.

Woodshops can choose one of three very distinct options when it comes to joinery.

There are traditional methods, often aided by jigs and fixtures, that use standard woodworking machinery and tools. Then there's CNC joinery that's built into CAD design, where parts are milled to fit together. Or a shop can choose one of a host of mechanical fasteners that join the face frame, door and box parts together.

The choice often boils down to volume – the more parts that need to be joined, the more mechanized the joinery needs to be. Another influencing factor is cost. Is it less expensive to hire and train a woodworker to make joints, or spend the money on a new CNC? Do the time savings from using plastic or metal fasteners offset the cost of milling, gluing and clamping? And there's also precision: CNC controlled machines tend to have fewer rejected parts, but that can sometimes be offset by the fact that people can read grain and defects in the wood. That can be especially important when the joinery is visible.

Year after year at shows such as IWF and AWFS, new options tease us. Are we missing the boat, or is this just a fad? Staying on top of evolving technology is critical when it comes to remaining competitive.

New jigs, old methods

Whether they're commercial or shop-built, joinery jigs can often improve speed, accuracy and the strength of a joint. Best of all, most of these are relatively inexpensive. One of the earliest volume produc-

tion techniques in woodshops was the pocket screw. Though it's now firmly ensconced in CNC joinery, there are still ways that woodshops can use this solution without investing in a CNC, and the incumbent staff training.

Companies such as Kreg Tool (kregtool.com) and Castle (castleusa.com) build jigs that work for everything from occasional use to entire kitchen building. Now Armor Tool (armor-tool.com) has launched the Auto-Jig (\$149.99), a device that automatically sets the drill guide block and drill bit collar based on the thickness of the workpiece. That means there's no more manual setting, measuring or adjusting. A woodworker just clamps the workpiece and starts making pocket holes. The jig works with materials of different thicknesses and uses color-coded screws. When the block self-adjusts, the correct screw length color is displayed.

Shops have used wooden dowels in production work for centuries, and they're still quite popular. A new jig from JessEm Tool Co. (jessem.com) will create 1/4", 3/8" and 1/2" dowel holes on the end or face of a workpiece, pre-setting the holes in 1/8" increments. What's new is that a built-in alignment slot allows the woodworker to match up dowel holes that are spaced further apart, for perfect alignment. Included in JessEm's package is the main jig body, three guide mounts with the respective drill bits, and indexing pins.

Rockler Woodworking and Hardware (rockler.com) is offering a new jig that adds decorative details to the mitered corners of boxes, while also reinforcing the joints. The Corner Key Doweling Jig guides an extended-length bit at a perfect 45-degree angle. The resulting holes

allow users to add visual interest with contrasting wooden dowels, or perhaps metal or plastic materials. The jig includes interchangeable 1/8", 1/4" and 3/8" diameter drilling guides, and it's adjustable for both different thicknesses of stock and for fine-tuning the hole position. Drill bits are included and there's even a free plan for a training project. It's a kitchen knife block that incorporates a decorative corner dowel pattern that is created with the jig.

And for woodworkers who want to train new people in old-fashioned joinery, Lie-Nielsen Toolworks (lie-nielsen.com) has just released a two-DVD (or streaming video) class on mortise and tenon joints. The company says it shows hand cutting of mortises in detail, as well as a quick look at a hollow chisel mortising machine and techniques for producing accurate tenon cheeks. The video covers small draw bore mortise and tenon joints, plus the wedged through tenons of Arts and Crafts furniture. Mitered through tenons and table leg mortises are also shown.

CNC joinery

One of the biggest challenges with joinery on a CNC is that the tooling rotates, so the bits naturally create round inside corners and square outside ones. Some shops use panel joints such as the dog bone and T-bone to combat this, where the bit creates a small circle beyond each corner of a mortise. That's a great way around the problem of fitting a square tenon into a rounded hole, but unfortunately it can create a new challenge. Parts of those rounded corners can often be seen after the joint is assembled.



JessEm's new dowel jig.

DOORS & DRAWERS, YOUR WAY

Cabinet Doors | Drawer Fronts | Drawer Boxes
Moulding | Face Frames | Turnings
Valances | Wainscot



Helping you do what you do best

1-800-233-0289
www.keystonewood.com



FSC-C041349 | The Mark of Responsible Forestry | www.fsc.org
Most Keystone products are available FSC® certified.



Kreg offers the Foreman, a benchtop pocket hole machine for fast, repeatable results.



There are definitely some easy ways around this for a good CAD designer. For example, the tenons can be rounded. But there are some inspiring, creative techniques, too. For example, there's a really good article on digital joinery on the ITP Fabrication website at New York University (itp.nyu.edu/fab). It starts out with a chart of some 50 joints that can be made on a CNC, and then shows some examples of perfectly executed, visually pleasing joints that are used in furniture and casework. There are also some larger images of both the drawings and executed joinery at the source site, winterdienst.info, where shops can even download a folder that contains CAD files for the joinery. Anyone building virtual parts in sheet stock will learn something new here.

Beyond designing joinery that fits together, several CNC manufacturers are adapting their machines to handle new joinery fittings. For example, at the 2018 IWF, Komo Machine (komo.com), Felder Group (felder-group.com) and Holz-Her (holzherusa.com) all ran demos where the Lamello Clamex system combined convenient assembly system with nesting. And about

High quality machines for trade and industry.

www.martin-usa.com

T70

Sliding table saw

A classic machine which has set standards for us. Now also for you.



T45 & T54

Thickening & surface planer

Two specialists who complement each other perfectly.



➤ Visit us: Booth 8647
July 17–20, Las Vegas



MARTIN
WOODWORKING MACHINES

a year ago, Laguna Tools (lagunatools.com) introduced a new boring/inserting machine for use by cabinet manufacturers that uses Lockdowel (lockdowel.com) fasteners. Called the SmartShop LD4, it is faster and more precise than any other method when drilling and inserting these products. The machine drills for and then inserts Lockdowel's clip products. It's perfect for cabinets, drawer boxes, closets, desks, solid wood furniture and many other applications. It has four zones and two drilling units, one for 5mm and one for 8mm. And its two vibratory barrels have the ability to insert 30 or 40mm spring pins and Lock Dowel E clips, H-clips, or channel locks.

California-based CNC Factory (cncfactory.com) has also introduced a Lockdowel automatic inserter. Called the Scorpion LDR, it has four working zones (a single employee can run it), automatic material loading, laser-guided robotic measuring and advanced wireless barcode reading.

Joinery connectors

In hardware, there are two families of connectors. Some are simply mechanical ways to join parts, while others are designed with shipping in mind.

Outsourcing has changed the fundamentals of the cabinetmaking industry over the past decade. And while ordering online has improved dramatically, shipping is still a bit of a challenge. Ready-to-assemble (RTA) technologies are increasingly seen as the primary solution when it comes to more affordable and efficient ways to ship and assemble. A few of the latest mechanical connectors are designed for shop installation, but most were specifically created to accommodate RTA. The connectors not just for boxes. They are also used to join five-part doors,

face frames and even drawer components. Some are permanent and often require gluing, while others are knock-down, and most are hidden. Some, such as Fastenlink (fastenlink.com), just use a woodshop's existing traditional or CNC machinery and simply replace older options like wooden dowels with a simple Industry 4.0 option.

Among the newest products is OVVO's (ovvotech.com) V-1230 invisible connector, which has a deeper profile than the company's original V-0930. The new device significantly increases its holding strength in chip and wafer core sheet stock. By the way, Biesse (biesse.com) has now named OVVO as one of its Selected Partners. The fasteners are available in the U.S. through E.B. Bradley (ebbradley.com) in Los Angeles, and they can be installed in slots cut by the company's own stationary and portable machines, or they can be used with CNCs and auto insert techniques. For small shops, OVVO has just teamed up with PantoRouter (hybridpantorouter.com) to semi-automate the process. That machine operates in three axes. Other than the positioning of a workpiece on the X and Y axes, a woodworker can set the exact plunge depth of the router cutter on the Z axis.

Knapp Connectors (knappconnectors.com) is an Austrian company that makes furniture and millwork connectors. All of its connectors are concealed, self-tightening and can simply be snapped together for fast assembly. Woodworkers can order sample packs from the company online.

The least complicated joinery option is the simple screw, but even that has evolved of late. For example, the Quickcutter (also called the QC) from Quickscrews (quickscrews.com) features an extra groove in the shank to eliminate splitting, and doesn't require a pilot hole or counter-sink bore, according to the company. [!\[\]\(ce7c5d6a792a8783ba1f4b0eeb0acbd0_img.jpg\)](#)

MIRKA
AUTHORIZED DEALER

PURCHASE ANY
PROS SANDER
AND RECEIVE

FREE

BOX OF NET
ABRASIVES



ONLY \$213⁰⁰

NEW

SHOP NOW

MIRKA-ONLINE.COM
YOUR SOURCE FOR MIRKA PRODUCTS

800-365-6677



(Clockwise, from left) Valet by John Dunnigan, wing chair by Dale Broholm, "River Benches" by Mitch Ryerson, and "Like a Prodigal" chair by Wendell Castle at the UConn exhibit; coffee table by Alexander Lohn and "Green Women" (below) by Denise Gaul at the Messler exhibit.



UConn exhibit introduces students to fine art

By Jennifer Hicks

"Game of Thrones: Contemporary Art Furniture" in the William Benton Museum of Art at the University of Connecticut in Storrs, Conn., opened Mar. 28 and runs through July 28.

Inspired by the 2019 UConn Reads selection, "A Song of Ice and Fire" from the Game of Thrones fantasy novel series by George R.R. Martin, the exhibition features examples of art chairs by John Dunnigan, Jim Cole, Terence Main, Mitch Ryerson, Lothar Windels, Fernando and Humberto Campana, Dale Broholm, and Wendell Castle.

"It is our goal to introduce our visitors to the decorative arts as fine art and the concept that the chairs on view are a form of sculpture. Central to this exhibition is the idea that design aesthetics and function can be integrated into one object," according to a museum statement.

For more, visit www.benton.uconn.edu.



Emerging talent at Messler

"Current Student Work" opened at the Center for Furniture Craftsmanship's Messler Gallery in Rockport, Maine, on Apr. 19 that runs through May 29.

The exhibition showcases furniture and furnishings created by participants in the Cen-

ter's flagship course, the Nine-Month Comprehensive. The students come from a wide array of backgrounds and professional experience, including architecture, linguistics, theology, public relations, theater, fashion design, and military service. For many of them, this exhibition is the first opportunity to present their work in a professional setting.

"The quality of design and execution would be exceptional in any context," Peter Korn, the center's executive director, said in a statement. "Aled Lewis and our co-teachers are justifiably proud of the success with which these students have harnessed their imaginations and skills."

Exhibitors from both the U.S. and abroad include William Earl Bihlmeyer, Ken Diamond, Caitriona Fiero, Joseph Flynn, Denise Gaul, Paul Keating, Alexander Lohn, Chris Merchant, Peter Nielsen, Osamu Sassa, Karen Schaffer, and Tyler J. Willmon.

For more, visit www.woodschool.org. [W](#)

NEW PRODUCTS

► **SOUKUP AMERICA'S** Temac CNC tenoner is ideal for workshops doing short-run, highly custom joinery, according to the company. Its spindle mounts large stacks of tools and moves up and down to rapidly change between cuts with the precision of CNC control. The machine is controlled via an intuitive 7" touchscreen and can also be run in manual mode without programming for short-run work. For more, visit <https://sokupamerica.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



Serving Small Custom Cabinet Makers Since 1982

Custom Cabinet Doors	Drawer Boxes	Cabinet Accessories
Wood Moldings	Face Frames	Wainscoting
Accent Components	Designer Glass	And More

WalzCraft

WalzCraft.com 800-237-1326
Visit us at AWFS in Las Vegas - Booth #5922





◀ BIESSE'S Akron 1100 is the smallest automatic single-sided edgebanding machine of the range and the only one of its kind on the market, according to the company. The Akron 1100 is equipped with HSD electrospindles, a 7" touch-screen control panel, removable glue bowl, rigid structure, and linear guides. For more, visit www.biesse.com.

HÄFELE

WIZARDRY? NO. SMART? YES.

Being able to effortlessly include professional-grade, efficient lighting into all your projects has shifted from a "nice to have" to a "must have." Luckily, Häfele has our industry-leading plug and play solution: Loox. Add Häfele Connect and its smart home capabilities for a system like never before.

LET OUR EXPERTS HELP GET YOUR NEXT PROJECT STARTED!

Online & Livechat: www.hafele.com/us
Phone: 800.325.6202 | Email: experts@hafele.us

Bainbridge Manufacturing, Inc.
Plastic Hardware Specialists
Cabinet Master® Plastic Hardware

Corner Braces

Please visit our website www.bainbridgemfg.com

Call 1-509-745-9555
or email info@bainbridgemfg.com
Come see us at AWFS Booth #10017

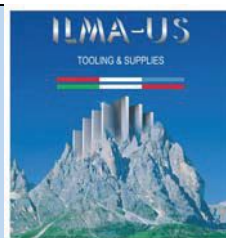
NKBA National Kitchen & Bath Association
Made in the U.S.A.
BHMA member
AWFS ASSOCIATION OF WOODWORKING & FINISHING SUPPLIERS



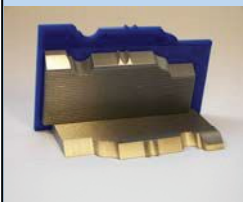
 **ROCKLER WOODWORKING AND HARDWARE** has added five new products to its modular Lock-Align Drawer Organizer System, increasing the configuration options for creating customized drawer storage. The new offerings include wall brackets, divider bins, trays and a liner. Prices for the new Lock-Align components start at \$7.99. For more, visit www.rockler.com.

Quality Custom Profile Knives & Templates

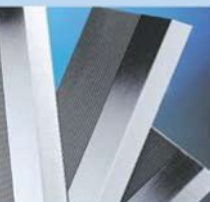
Premium European
Corrugated High Speed Steel
M-2 M-3 & T-1



*"Call for
Pricing"*



Custom
Templates



Quality Bar Steel
at Great Prices

Call us at 1.877.524.7463

12 Kendrick Road, Unit 12 Wareham, MA 02571

cheryls@ilma-us.com www.ilma-us.com



We put the **custom** in
customer service!



Our customers are as unique as our drawers and every order is customized to fit their needs. Whether it's a specific wood type, size or shape, at CCF we put our customers first, from the beginning of the project to the end...
Now that's custom customer service!

www.ccfdrawers.com



4716 Rt. 66 Apollo, PA 15613 800.581.3683 phone: 724.727.2045 fax: 724.727.3015



◀◀ **NORDFAB** presents Dropout Box, which stops large wood chips in the airstream. Inside the duct, deflectors knock chips downward into a built-in hopper or a waste barrel. The Dropout Box is easily added into Nordfab's Quick-Fit clamp-together ductwork, which allows fast installation without special tools, rivets, screws or welding, the company explains. For more, visit www.norfab.com.

▶▶ **VORTEX TOOL CO.'S** new Series 9800 tornado compression tooling has been engineered to excel in cutting laminated composite materials. The router bit's unique roughing and finishing flute design yields clean finished-edge quality while eliminating delamination of the material, according to the company. Available in four sizes, Series 9800 tooling is offered with or without CVD diamond coating to increase tool life with highly abrasive substrates. For more, visit www.vortextool.com.



3 Day Turnaround on beautiful Dovetail Drawers

Orders & Information

Toll Free 866-391-3863
Fax 603-926-0160
www.newenglanddrawer.com

Toll Free 866-391-3863

**New England
DRAWER**

MADE BY CABINETMAKERS FOR CABINETMAKERS
Hampton, New Hampshire



VENTLESS LLC.

New York - Toronto

GO VENTLESS! THE FUTURE WAY TO SPRAY TODAY!



NO AIR MAKE UP
NO STACK
NO ROOFING

NO HEAT LOSS
NO DUST
NO OVERSPRAY

GREEN ENERGY 90% LESS EMISSION!

Sold everywhere from New York to LA

Call us at (646) 696-0809 or visit www.ventless.ca

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.

Include name, dates, location, description of event and a contact address or telephone number. Calendar items, which should be typed or printed clearly, must be received a minimum of 60 days before the event.

Please note that fees, as listed, might not include materials or shop fees. Check with a specific class for further details.

— 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, in Encino. For more, visit www.sfvw.org.

Monthly — Society of Wood Manufacturing, a chapter of AWFS consisting of educators, manufacturers, hardware and industrial suppliers, and machinery dealers, meets dur-

ing the second week of each month. For location and dates, visit www.awvcla.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.

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

LOUISIANA

Sept. 23-26 — Wood Components Manufacturers Association Fall Conference. Location: Astor Crowne Plaza, New Orleans. For more, visit www.wcma.com.

MARYLAND

Monthly — The Howard County Woodworkers Guild meets the first Saturdays of the month at the Bain Senior Center at 5470 Ruth Keeton Way in Columbia from 9 a.m. to 12

p.m. Open to all those working in wood. For information, email Manny Flecker at aaron0641@hotmail.com.

MASSACHUSETTS

June 22-26, July 20-24, Aug. 17-21, Sept. 11-15, Oct. 10-14, Nov. 7-11 — David Calvo's five-day Bare Bones of Woodcarving workshops. Location: Calvo Studio in Gloucester. For more, visit www.calvostudio.com.

June 22-23, July 20-21, Aug. 17-18, Sept. 14-15, Oct. 12-13, Nov. 9-10 — David Calvo's two-day wood carving class. Location: Calvo Studio in Gloucester. www.calvostudio.com

Sept. 30 – Oct. 2 — Woodworking Machinery Manufacturers of America (WMMA) Regional Networking Meeting in Boston. For more, visit www.wmma.org.

NEVADA

July 17-20 — AWFS Fair featuring new and innovative woodworking equipment and technology, hardware, materials and more for custom shops of all sizes, as well as dozens of industry-related educational seminars. Location: Las Vegas Convention Center. For more, visit www.awfs.org.

BEADED FACE FRAMES?

**WE WILL TAKE YOU FROM DRAWINGS TO "DONE".
NO TAPE MEASURE NEEDED!**



- All-in-One Combination includes positioning system, cut-off saw and MORSO notching machine
- Quickly design individual face frames on touch-screen or download complete job files
- Included software is compatible with most PLANIT software versions
- Videos and technical specs. online at www.hoffmann-usa.com



HOFFMANN

Hoffmann-USA.com
Toll-free: (866) 248 - 0100



The Country's Largest Selection of Unique Slabs and Burls



**BERKSHIRE
PRODUCTS**

Sheffield, Mass
413-229-7919
BerkshireProducts.com

NEW YORK

Monthly — The Woodworkers of Central New York hold meetings on the first Thursday of each month at 6:30 p.m. at the Belgium Cold Springs Fire Department in Baldwinsville. For more information, visit www.woodcny.org.

Monthly — Northeast Woodworkers Association meetings held on second Thursday of the month at various locations in Albany area. www.woodworker.org

NORTH CAROLINA

Monthly — Triangle Woodworkers Association meetings held on the third Tuesday of each month at 7 p.m. at Klingspor's Woodworking Shop in MacGregor Village in Cary. www.trianglewoodworkers.com

Oct. 19-23 — High Point Market Fall Market. Furnishings industry trade show featuring over 2,000 exhibitors with thousands of new products in over 180 buildings throughout High Point. www.highpointmarket.org

PENNSYLVANIA

Oct. 4-6 — Philadelphia Furniture Show. Featuring over 50 exhibitors of handcrafted furniture and furnishings. Location: 23rd St. Armory in Philadelphia. www.philadelphiafurnitureshow.com

RHODE ISLAND

Nov. 8-10 — 24th Annual Fine Furnishings Show. Offering handmade furniture, accessories and fine art. Location: WaterFire Arts Center in Providence. For more information, visit www.finefurnishingsshows.com.

SOUTH CAROLINA

July 26-29 — Society of American Period Furniture Makers Mid-Year Conference. Featuring expert presentations, workshops and local tours. Location: Greenville Woodworker's Guild woodworking facility in Greenville. www.sapfm.org

SOUTH DAKOTA

Monthly — The South Dakota Woodworkers Guild meets the last Thursday of every month (except August) at various members' shops. The club has hand tool and woodturning groups. For more information, visit www.sdwoodworker.org.

WYOMING

Sept. 5-8 — Western Design Conference. Annual exhibition and sale featuring handmade western style furniture, fashion and home accessories. Location: Snow King Center in Jackson. For more information, visit www.westerndesignconference.com. **W**

PRO SHOP from Page 26

Don't finance your business on a credit card with high interest rates.

Pay promptly

Make sure you pay suppliers on time and in full for that time when you might have a cash flow problem. Some can extend credit for those large material purchases, and they'll know you're good for it. Paying early will often get you a two percent discount, which adds up.

If you're equipment works efficiently, then you're making money. So, skipping maintenance can become a huge headache in the long term. Keep your eye out for a retired maintenance person to come in once a week for a few hours.

Automation can be your friend, such as accounting software, digital fabrication machinery, or programmed controls for the shop's lights. Anything that saves time without a major investment is a good idea.

A growth step should be as strategic as possible. Finding the right size and balance was the trick for me. So, before you hire that next person, or buy that new tool, put a growth plan in place and you'll yield more profit. Or stay small and happy. **W**

ADVERTISING INDEX

Accuride International.....	www.accuride.com	1	Lignomat USA, LTD.....	www.lignomat.com	16
Amana Tool.....	www.amanatool.com	C4	Limtech Industries.....	www.limtechindustries.com	26
AWFS Fair 2019.....	www.awfsfair.org	19	Log & Timber Home Show.....	www.loghome.com/shows	55
Axiom Tool Group.....	www.axiompprecision.com	36	M.L. Campbell.....	www.mlcampbell.com	2
Bainbridge Manufacturing.....	www.BainbridgeMfg.com	48	MARTIN Woodworking Machines Corp.....		
Beaver Tools.....	www.beavertools.com	20, 45		www.martin-usa.com	44
Berkshire Products.....	www.BerkProducts.com	51	New England Drawer.....	www.newenglanddrawer.com	50
Cabaxis.....	www.cabaxis.com	11	Oneida Air Systems Inc.....	www.oneida-air.com	3
Cabinet Pro LLC.....	www.cabinetpro.com	12	Resource Guide.....	http://resourceguide.woodshopnews.com	C3
Cantek America Inc.....	www.cantekamerica.com	40	Salice America.....	www.saliceamerica.com	4
Castaly Machine.....	www.lobomachine.com	9	Scm Group.....	www.scmgroupna.com	14
Castle, Inc.....	www.castleusa.com	37	Senco Products, Inc.....	www.senco.com	15
CCF Industries.....	www.ccfdrawers.com	49	Southworth Products Corp.....	www.southworthproducts.com	34
Colonial Saw /Lamello.....	www.csaw.com	33	Thermwood Corp.....	www.thermwood.com	21
Connecticut Saw & Tool.....	www.ctsaw.com	5	Timesavers, Inc.....	www.timesaversinc.com	18
DC Distributing.....	www.dc-dist.com	22	Top Drawer Components.....	www.topdwr.com	25
Decore-ative Specialties.....	www.decore.com	6-7	Vacuum Pressing Systems.....	www.vacupress.com	47
Elias Woodwork and Manufacturing.....			Vacuum Tables.....	www.vacuumtables.com	18
	www.eliaswoodwork.com	17	Ventless Inc.....	www.ventless.ca	50
Grizzly Industrial, Inc.....	www.grizzly.com	C2, 28-29	Virutex.....	www.virutex.com	13
Hafele America Co.....	www.hafele.com/us	48	Wagner Meters.....	www.wagnermeters.com	24
Hoffmann Machine Company.....	www.hoffmann-usa.com	51	WalzCraft Industries Inc.....	www.WalzCraft.com	47
ILMA-US.....	www.ILMA-US.COM	49	Woodcraft Supply LLC.....	www.woodcraft.com	41
Keystone Wood Specialties.....	www.keystonewood.com	43	Woodworker's Showcase.....	https://www.WoodworkersShowcase.com/	27
Komo Machine Inc.....	www.komo.com	23			

CLASSIFIED MARKETPLACE

E-Mail marketplace@woodshopnews.com for Advertising Information

Adhesives

Glue Like a Pro!
Pro-Glue
 High Performance
 PVA Adhesive
 Professional Quality Adhesives
Pro-Glue.com
 Order Toll Free: 888.342.8262
 Minimum order ships FREE!



Bits, Blades and Cutters

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



Drawers & Doors

quality
 Doors, Drawer Boxes,
 Custom Cabinet Boxes,
 Moldings & Accessories

 1-800-665-0623
 www.eliaswoodwork.com

WOODSHOP
 Shaping the Successful Shop™
NEWS

Drawers & Doors


Complete Cabinet Door Source
 Wood Doors, with
 Pre-Finish option
 3DL Style Doors
 5 Piece Poly Wrap Doors
Custom RTA Cabinet System
 Face Frame Style
 Frameless Style
 Closet/Shelf System
 KCD users can place order
 directly from software
 www.arkansaswooddoors.com
 order@arkansaswooddoors.com
 Phone: 479-968-5486

HINGE JIG .com
 SAVE TIME, SAVE MONEY
 Install your inset and overlay hinge
 back plates quickly and accurately.
 Designed to work with inset and overlay door
 hinges from Salice, Blum and hardware resources


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

Drawers & Doors

"Your Single Source
 Provider"

Doors, Drawers & More
 • No Quantity Limits • Custom Sizes
 • Over 70 Different • Finished or Unfinished
 Grades/Wood Species • Timely Delivery
 Design Flexibility

 WalzCraft.com 800-237-1326

Fasteners


Easy Wall Panel System
 Simple, decorative
 aluminum trim

 (631) 750-3000
 monarchmetal.com

**CLASSIFIED
 ADVERTISING**
 CALL
 860-767-3200
 ext. 242
WOODSHOP
 Shaping the Successful Shop™
NEWS

Hardwoods


 Specializing in
 Unique Hardwoods
**Exotic
 Figured
 Domestic
 Quartersawn
 &
 Live Edge Slabs**
 in stock!
"The Woodworker's Candy Store"
 937-572-9663
 sales@crlumber.com
 www.crlumber.com

EISENBRAND INC.
 EXOTIC HARDWOODS
 • Quality Guaranteed •
 FREE BROCHURE
 Phone 310-542-3576
 Orders 800-258-2587
 www.eisenbrandhardwoods.com
 clayton@eisenbrandhardwoods.com


KD Kayu
Philippine Mahogany
 4/4", 5/4", 6/4",
 8/4", 12/4", 16/4"
 Full Sawn Rough
 Random Width
 Random Length
 mmflagship@aol.com
 (888)-479-3999

CLASSIFIED MARKETPLACE

Call 860-767-3200 ext. 242 for Advertising Information

Hardwoods

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

RARE WOODS USA
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!

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

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
winelandwalnut@gmail.com
www.winelandwalnut.com

CLASSIFIED ADVERTISING
CALL 860-767-3200 x 242
WOODSHOP NEWS
Shaping the Successful Shop™

Jointer/Planers

MULTI-ROUTER
Lorraine Machine, Inc.
www.Multi-Router.com
LorraineMachine@aol.com
Dovetail
Mortise
Tenon
Box
Round
Custom
Made in the U.S.A.
In stock \$2,995
since 1966
922 Devenger Rd.
Greer, SC 29650
864-299-1070

Lumber

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

Safety Equipment

JET-KLEEN™
Series of Personnel Blow-off
& De-dusting Systems
Keep Your Workers SAFE!
Same great performance
as with compressed air -
WITHOUT THE DANGERS
Safe - Efficient -
OSHA Compliant
sales@specializedsafetyproducts.com
specializedsafetyproducts.com

Services

CNC ROUTER BIT SHARPENING
Spiral & Compression Router Bits
Sharpened to Factory Specifications,
using 5 Axis CNC Grinder
DISCOUNTED PRICING
ON CNC TOOLING FROM:
VORTEX
Amana Tool®
LMT-ONSRUD **ES TOOL**
100% Satisfaction
Guaranteed
FAST TURN-AROUND &
FREE SHIPPING ONE WAY!

CONNECTICUT SAW & TOOL
800.404.1220
140 Avon Street • Stratford, CT 06615
info@ctsaw.com • www.CTSAW.com

Sharpening

Sharpening
Vortex professionally
sharpens all types of
solid carbide tooling — and all brands!
Two-day turnaround service offered
on most tools, competitive pricing and
new razor-edge technology! Try us.
VORTEX
TOOL COMPANY INC.
WHERE INDUSTRY TURNS FOR INNOVATION™
5605 Jelinek Avenue • Schofield, WI 54476
vortextool.com
800-355-7708 • fax 715-355-7353

Services

CNC ROUTER FOR HIRE
Let us cut your next project
From simply providing
parts cut to your specs,
to the complete
manufacturing and
order fulfillment of your
finished product.
Any job, any size. Prototypes to
semi loads of finished parts.
CncRouterForHire.com
Manitowoc, Wisconsin

Spray Booth

introducing
VENTLESS spraybooths
NO AIR MAKE UP
NO STACK
NO ROOFING
NO DUST
NO HEAT LOSS
NO FUMES
Call us at (646) 696-0809
or visit www.ventless.ca

CLASSIFIED ADVERTISING

CALL 860-767-3200 ext. 242

WOODSHOP NEWS
Shaping the Successful Shop™

CLASSIFIED MARKETPLACE

E-Mail marketplace@woodshopnews.com for Advertising Information

Vacuum Equipment

Vacuum Press

www.qualityvak.com

Pumps



Pneumatic

Electric

Presses



Bags

Frame Presses

Professional automatic pneumatic systems with 4'6" x 8'6" bag from \$625

Toll Free 800 547-5484

Quality VAKuum Products, Inc.

www.qualityvak.com

74 Apsley St. Hudson, MA 01749

Phone (978) 562-4680 Fax: (978) 562-4681

Veneers

SUPERIOR VENEER Artisan Thick

1/16" Artisan Thick domestic & exotic veneers

4 x 8 & 4 x 10
5 x 8 & 5 x 10

Available as:

Face

Paperbacked

MDF, Particle Board, Veneer Core substrates



www.superiorveneer.com
ph:855.940.7827 fax:812.941.8780
1819 Dawsey St. New Albany, IN 47150

THE LARGEST
Woodworking B2B
classified section
Call 860-767-3200 x 242

WOODSHOP NEWS

Shaping the Successful Shop™

VISIT THE
ALL-NEW
2019
RESOURCE
GUIDE

resourceguide.woodshopnews.com

WOODSHOP NEWS

Shaping the Successful Shop™

DO YOU SEE THIS AD?

Your customers do, too.

Place your ad here.

Call 1-800-444-7686 x 242

THE LOG & TIMBER HOME SHOW

Find everything you need to build your dream wood home — all under one roof!



Meet with the industry's foremost log and timber home producers. See first-hand how various building systems are constructed.

THE LOG & TIMBER UNIVERSITY

BECOME A KNOW-IT-ALL!

Attend our **Log & Timber University** for detailed, step-by-step instructions on budgeting, planning and building your dream home.

The course is \$95 per person or \$129 per couple (plus \$30 for each additional attendee with the group). This fee covers the Course Guide, a comprehensive textbook to guide you through the entire homebuilding process; a notepad and assorted log & timber magazines; continental breakfast or snacks; plus FREE Lifetime Alumni Pass to the Log & Timber Home Shows.

presented by

LOG HOME LIVING

Timber Home Living

Cabin LIFE .com

Visit www.LogHome.com/shows to find a show near you!



PHOTOS: RAY STUBBLEBINE

The annual show presents exhibitors, makers and collections to Art & Crafts enthusiasts. This year, Conference Speaker James Spates (bottom, right) delivered a seminar on John Ruskin.

Thousands attend

After the 32nd National Arts & Crafts Conference and Shows, held Feb. 15-17 in Asheville, N.C., director Bruce Johnson says he's still amazed at the turnout. There were 3,000 attendees this year, and 300 have already registered for the 2020 event.

"At a time when interest in mainstream antiques and general attendance at antique shows is at a painful low, Arts & Crafts enthusiasts still not only come to the Arts & Crafts Conference, they come to add to their collections. Once again sales in every category – furniture, art pottery, metalware, textiles, and books – were strong in both the antiques show and the contemporary crafts show," Johnson said in a post-show statement.

The conference takes place at the historic Omni Grove Park Inn overlooking the Blue Ridge Mountains. The conference educates attendees about Arts & Crafts through daily seminars, small group discussions, demonstrations and tours, ultimately keeping them fully informed in their collecting decisions.

"It's the quality and character of the people who are drawn to the Arts & Crafts philosophy who provide the enthusiasm and the energy that lights up the Grove Park Inn during this three-day conference. For many, it is as much a family reunion as it is a conference. For others, it's a chance to connect with people who share our enthusiasm for the Arts & Crafts style," adds Johnson.

Next year's conference is scheduled for Feb. 21-23.

For more, visit www.arts-craftsconference.com. [W](#)

60 Grit

Rough humor by Steve Spiro



DON MADE DO IN HIS HOME SHOP

Your online solution to finding the products you need

Over 300 companies listed, covering well over 250 products and services categories.

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

Link through our website www.WoodshopNews.com or go direct Resourceguide.WoodshopNews.com

The screenshot shows the Woodshop News Resource Guide website. At the top, the logo "WOODSHOP NEWS" is displayed with the tagline "Shaping the Successful Shop". To the right, there are advertisements for ShopBot (Affordable CNC digital fabrication, ShopBotTools.com) and AWFS (Booth #7909). Below the header is a navigation bar with links: Home, Listings, Events, Classifieds, Articles, Deals, Advertise With Us, Contact Us, and Woodshop News. The main search area has a yellow background and includes a "Keyword" search bar, a "Where" location search bar, and a "Search" button. There are also radio buttons for "Match" (exact match, any word, all words) and a "Category" dropdown. Below the search area, there are sections for "Browse by Category" (listing various categories with item counts), "Featured Listings" (highlighting MultiCam, Inc. and ShopBot Tools, Inc.), and a "Sign in" section with fields for email and password.

— Resource Guide Showcase Sponsors —



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



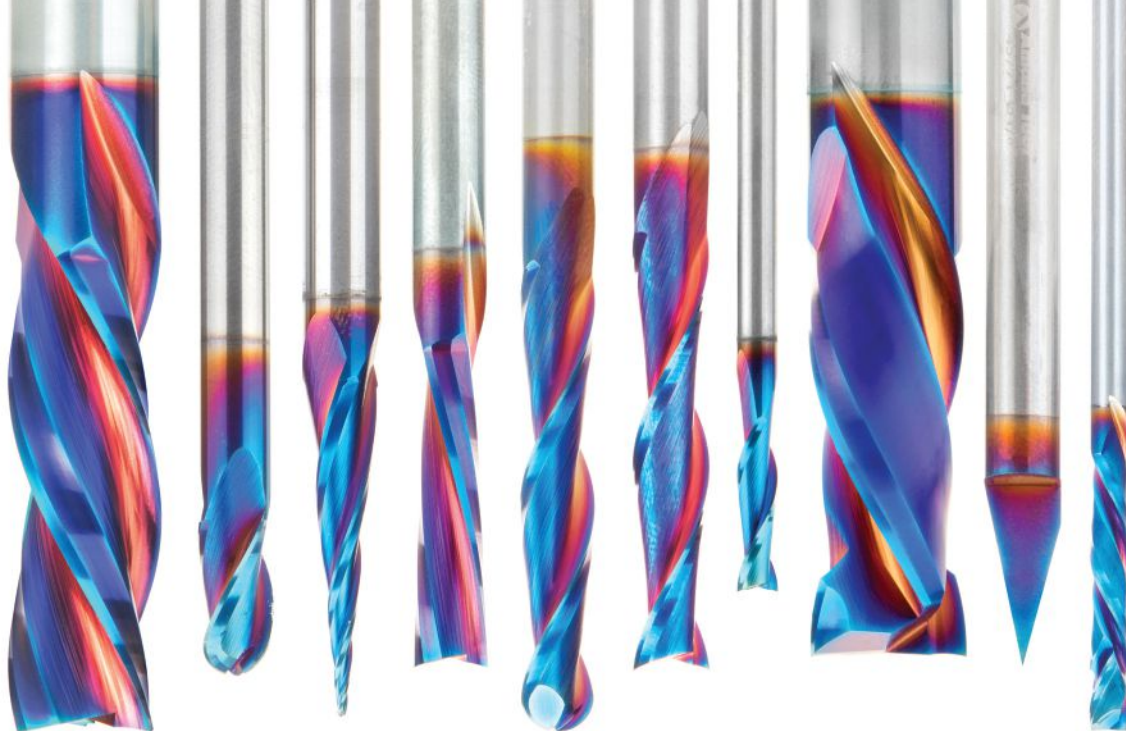
2019 Resource Guide For marketing information, sales@woodshopnews.com

INDUSTRIAL

WHY CHOOSE A SPEKTRA™
COATED CNC ROUTER BIT

UP TO
2.5X
LONGER LIFE
COMPARED TO UNCOATED BITS

nACo coating is a micro-thin ceramic coating which enables the tool's cutting edge to retain crucial sharpness and lubricity. This provides longevity and produces cutting results of the highest quality. Coating prevents high heat and oxidation which is detrimental to cutting tool performance. Visit us online to browse our large selection of Spektra™ router bits.



SPEKTRA™
EXTREME TOOL LIFE COATING

ELECTROBLU™ NON-STICK COATED **INDUSTRIAL** SAW BLADES
STAY SHARPER WITH EXTENDED BLADE LIFE

#PR1040C

**THE PRESTIGE™
SERIES**

ELECTROBLU™
ECO-Friendly Non-Stick Coating

GENERAL PURPOSE

10" 40T

PRECISION H7 CHAMFERED

RECOMMENDED USE & CUTTING QUALITY

	RIP/CROSSCUT WOOD	★★★★★
	PLYWOOD	★★★★★
	LAMINATE	★★★★★

ATB .134"

18"

SAFETY WARNING!

#PR1040C
General Purpose
10" x 40T

#MB10800C
Double-Sided
Melamine Blade
10" x 80T

Amana Tool®
ELECTROBLU™
ECO-Friendly Non-Stick Coating

INDUSTRIAL QUALITY
**DOUBLE-SIDED
MELAMINE**
10" 80T

#MB10504C
Combination
Rip/Crosscut Blade
10" x 50T

Amana Tool®
ELECTROBLU™
ECO-Friendly Non-Stick Coating

INDUSTRIAL
**COMBINATION
RIP/CROSSCUT**
10" 50T

Amana Tool®