

WOODSHOP

NEWS[®]

Shaping the Successful Shop[™]

www.woodshopnews.com February 2019

In very good hands

Simpson Cabinetry carries on with second owners

CNC machines that can do it all

Material handling for shops of all sizes

The nitty-gritty of choosing abrasives

NEW TOOLS

- Fast Rack Equipment
- Laguna 12" lathe
- M-J's single spindle dovetailer
- Newman Machine planer

\$3.95 (Canada, \$5.95)



6" BENCHTOP JOINTER

- Motor: 1½ HP, 110V, 12A, universal
- Max. width of cut: 6½"
- Min. workpiece length: 8"
- Max. depth of cut (per pass): ⅛"
- Cutterhead speed: 10,000 RPM
- Cuts per minute: 20,000
- Cutterhead diameter: 1⅞"
- Knives: 2 (HSS), 6¼" x ⅞" x ⅜"
- Footprint: 18⅞" x 11"
- Table size: 28½" x 6¼"
- Fence size: 22⅞" x 4⅜"
- Dust port: 2½"
- Fully adjustable fence with 90° and 45° stops
- Approximate shipping weight: 67 lbs.

Includes free pair of safety push blocks



W1829 6" Benchtop Jointer

7" 2 HP PLANER MOULDER W/ STAND

- Motor: 2HP, 240V, single-phase, 10.8A
- Cutterhead speed: 7000 RPM • CPM: 14,000 • CPI: 64-300
- Feed rate: 0-18 FPM • Max. profile: 6¾"W x ¾"D
- Planing width: 7" • Min. stock length: 9"
- Min. stock thickness: ¼" • Max. stock thickness: 7½"
- Overall dimensions: 36¼"L x 22"W x 34½"H
- Approx. shipping weight: 324 lbs.

**PATENT OWNED BY
WOODSTOCK
INTERNATIONAL INC.**



W1812 7" 2 HP Planer Moulder w/ Stand

D3393 Elliptical Jig for W1812



18" 1½ HP OPEN-END DRUM SANDER W/VARIABLE-SPEED FEED

- Sanding motor: 1½ HP, 120V, single-phase, 13 Amps
- Sandpaper speed: 2600, 3400 FPM
- Conveyor feed rate: 0-12 FPM
- Max. stock dimensions: 36" wide x 4½" thick
- Min. board length: 6"
- Min. board thickness: ⅛"
- Sanding drum size: 4"
- Dust port: 4"
- 18" x 44½" abrasive conveyor belt
- Uses 3" wide sandpaper roll
- Includes 100-grit sandpaper
- Overall size: 50" H x 35½" W x 22½" D
- Approx. shipping weight: 235 lbs.



W1854 18" 1½ HP Drum Sander

13" ¾ HP OSCILLATING DRILL PRESSES

- Motor: ¾ HP, 110V
- Spindle travel: 3¼"
- Swing: 13¼"
- Drill Chuck: ⅜"-5/8"
- Arbor: JT-33
- Speeds: 12, 250-3050 RPM
- Table size: 12⅞" dia.
- Table swing: 360°
- Table tilt: 45° left & 45° right
- Oscillating spindle: ¾"
- Table dust port: 2"
- Approx. shipping weight: 123 lbs. (W1668), 180 lbs. (W1848)



Spindle Oscillation is so unique that it was issued a patent!



Includes sanding drums

**A PATENT WAS ISSUED
AS A RESULT OF ITS
AMAZING TECHNOLOGY**



W1668
Bench-Top
Model



W1848
Floor Model



W1668 13" ¾ HP, Bench-Top Drill Press

W1848 13" ¾ HP, Floor Drill Press **NEW MODEL!**

KNIFE BELT SANDER/BUFFER

- Motor: 1 HP, 110V, 14A, 1725 RPM
- Belt size: 2" x 72"-76" range
- Belt speed: 4500 FPM
- Left arbor: 1" x 8½" extension with ⅝" arbor
- Height with belt arm horizontal: 11½"
- Height with belt arm vertical: 37"
- Overall width: 29½"
- Cast-iron body
- All ball bearing construction
- Approx. shipping weight: 113 lbs.



W1843 Knife Belt Sander/Buffer

16" VARIABLE-SPEED SCROLL SAW

- Motor: 1/8 HP, 120V, 1.2A
- Variable speed motor
- Blade speed: 550-1650 SPM
- Max. cutting thickness: 2"
- Max. cutting width: 16"
- Cast-iron table
- Blade stroke: ¾"
- Approx. shipping weight: 40 lbs.



*Cast-Iron
Construction*

*Large 45°
Tilt Table*



W1713 16" Variable Speed Scroll Saw

10" HYBRID TABLE SAW WITH EXTENSION TABLE

- Motor: 2 HP, 110V/220V*, prewired 220V
- Amps: 16A at 110V, 8A at 220V
- Blade tilt: Left, 0°-45°
- Table size with extension: 27" x 55"
- Arbor size: ⅝"
- Max. dado width: 1⅜"
- Max. depth of cut @ 90°: 3⅞"
- Max. depth of cut @ 45°: 2⅞"
- Max. rip capacity: 30" (blade right), 12" (blade left)
- Dust port: 4" with 1⅝" connection for blade guard port
- Approx. shipping weight: 458 lbs.



*Includes 10"
Carbide-Tipped
Blade*

W1851 10" Hybrid Table Saw With Extension Table

Available from Dealers Nationwide.

PLEASE VISIT OUR WEBSITE OR CALL TOLL FREE TO FIND AN AUTHORIZED DEALER NEAR YOU.



SHOPFOX.BIZ

sales@woodstockint.com WHOLESALE ONLY



1-800-840-8420

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

profit H08
Nesting-CNC-machine center

FORMAT
In a class of its own.

CNC NESTING EFFICIENCY THROUGH AUTOMATION

The profit H08 offers maximum flexibility, and efficiency.

IMPRESSIVE PRODUCTIVITY when processing various different materials

SMART ZONING offers the quick processing of several panel formats

F4® SOLUTIONS – the integrated software solution for the cabinetmaker

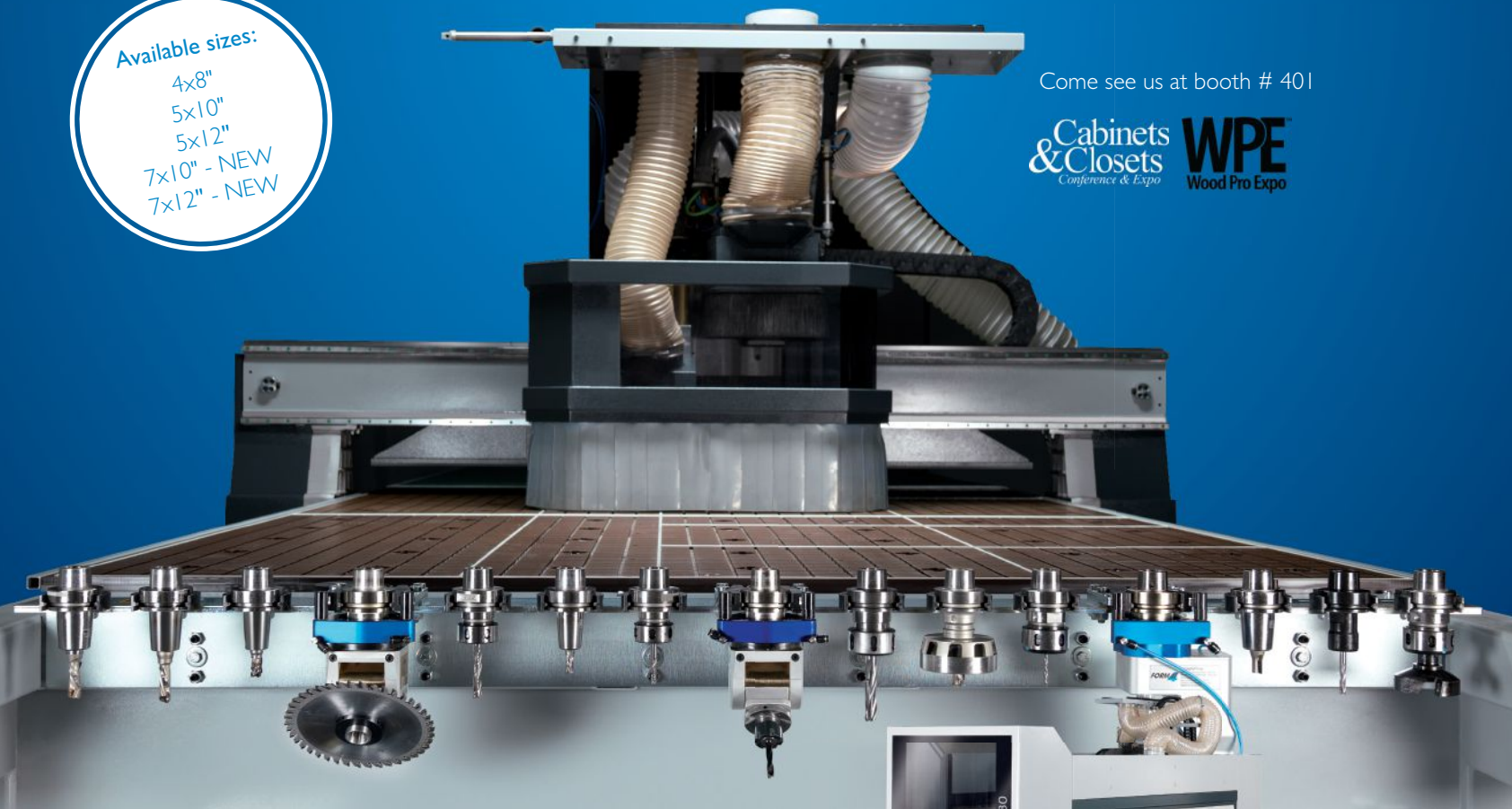
Available sizes:

4x8"
5x10"
5x12"
7x10" - NEW
7x12" - NEW

Come see us at booth # 401

Cabinets
& Closets
Conference & Expo

WPE
Wood Pro Expo



FELDER GROUP USA

Trusted woodworking solutions since 1956

toll free: 866-792-5288

www.feldergroupusa.com

sales-us@felder-group.com



profit H80 Coming Soon

OPENING LIFTING SLIDING STORING... ALL FROM SALICE

For every type of movement... the answer is Salice. A comprehensive range of products that combines excellence in research-based design and technical expertise to provide solutions for every cabinetry application.

- Hinges & mounting plates
- Lift systems
- Sliding systems
- Runners & drawers



saliceamerica.com

SALICE

KBIS BOOTH #N3139

Table of Contents



Features

- 34 IN VERY GOOD HANDS:** After purchasing Simpson Cabinetry from its founder, Andy and Betsy Cabrera are taking the Vermont shop to the next level.
- 40 MOVING ON UP:** Shops of all sizes can benefit from an improved floor plan and the addition of material handling equipment.
- 46 CNCs THAT 'DO IT ALL':** Shops searching for multi-function machines have plenty of choices in today's marketplace.

News Desk

- | | |
|--|---|
| 10 World of Wood will address trade concerns. | 12 This Old House picks two from Festool. |
| 10 Vermont maker wins scholarship for table design. | 16 WOOD MARKETS: Red oak's price drops as demand slows. |

PHOTOS: MICHAEL GORDON (TOP, COVER)



The Industry Leader in Dust Collection

7.5HP DIRECT DRIVE

INDUSTRIAL DUST COLLECTION



- Perfect for CNC machines
- High CFM, Small footprint. Ideal for cabinet shops.
- Superior filtration
- Industry leader in cyclonic separation
- Up to 20HP industrial systems

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!

1-833-432-9253 • oneida-air.com

MADE IN THE USA SINCE 1993



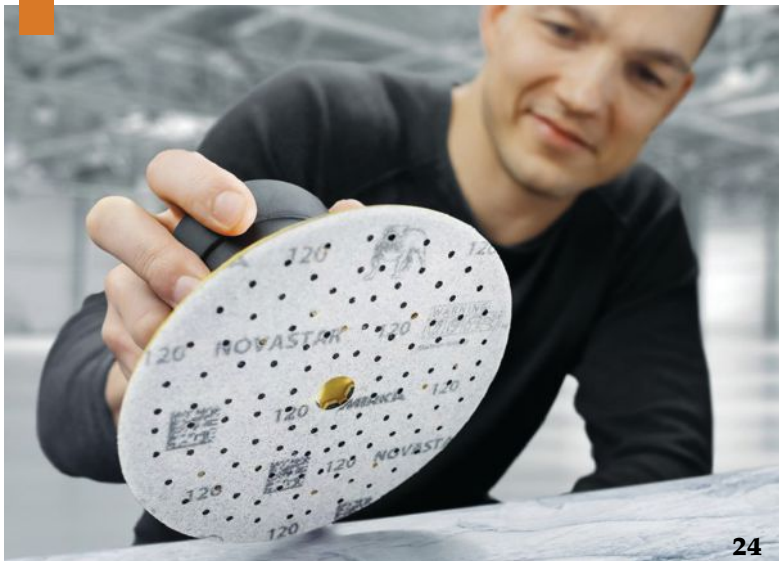
CABINET VISION

THE WORLD'S #1 SOFTWARE FOR CABINET MANUFACTURERS

CABINET VISION is the industry leading software tool for cabinet and casegoods manufacturers. From entry level cutlist packages, to fully integrated Screen-to-Machine solutions, CABINET VISION will grow with your company.



HexagonMI.com | CabinetVision.com



24



54

Columns

- 28 PRO SHOP:**
Applying lean concepts to employees and others.
By David Getts
- 30 THE CUTTING EDGE:**
Seeing is believing.
By R.W. Lee

Tools & Techniques

- 18** Fast Rack products help expedite finishing tasks.
- 20** M-J's new CNC dovetailer features a single spindle.
- 22** Say hello to Newman's new surface planer.
- 23** Laguna puts a new spin on 12" lathe with controller.
- 24 CHOOSING ABRASIVES:**
Save time and money by understanding the different types and backers available.

Departments

- 6** Taking Stock
- 52** At the Galleries
- 54** New Products
- 59** Calendar
- 61** Classified
- 64** 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

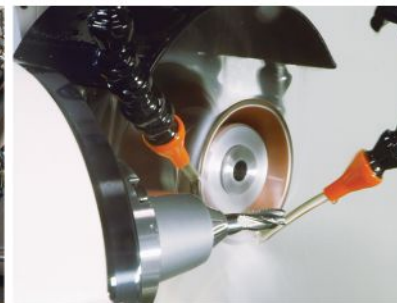
Router Bits

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



TAKING STOCK

with JOHN ENGLISH

The warning bells might need an answer

In the light of the partial government shutdown, ongoing trade tensions with China and slippage in the dollar since October, many economists are now saying out loud what business leaders have been whispering quietly for months.

The global economy may be about to take a nosedive.

That's an uncomfortable thought, and one that many woodshop owners might prefer to ignore for now. But such an approach is becoming increasingly difficult to take as more and more signs of change appear on the nightly news. One of the most disturbing happened on Dec. 4, 2018, when the Dow Jones index dropped 799 points and lost 3.1 percent of its value in a single day. The S&P 500 index fell even more (3.2 percent), and the Nasdaq lost a startling 3.8 percent. The next day wasn't much better as 2018 saw the worst start to a December for the S&P 500 and the Dow since 1980. Think about the enormity of a 3 percent loss in just a few hours: most banks don't pay that much on a CD over an entire year.

On Dec. 18, ABC News ran a piece that began with the sentence: "Fears of a recession have been mounting with the U.S. stock market appearing to be headed for its worst December since 1931 — during the Great Depression". The piece also noted that nearly half the chief financial officers surveyed in a Duke University Fuqua School of Business poll foresee a recession by the end of next year. And by the end of 2020, 82 percent of CEOs are convinced that a recession will happen.

If a hiccup in the industrials and the opinion of CFOs isn't enough to cause concern, there was something else, too. It's one more event

in a series that has economists ringing warning bells around the world. Beyond billions of dollars in losses in a single day, the most significant event of Dec. 4 was an inversion of the yield curve. That's where the interest rate on short-term U.S. Treasury securities rises above the rate on long-term instruments. The last time that happened was in 2007, and it's a pretty strong indicator that investors believe that growth is slowing and recession is in the air. What happened here was that savvy investors took their money out of long-term bonds and put it in shorter term instruments.

Stock markets in Hong Kong, Tokyo and Shanghai also plunged, signaling that the trouble isn't limited to the U.S. As we learned in 2008, this is now a global economy and investors around the world reflect what's happening on the political stage. For example, between mid-September and mid-December the London Stock Exchange dropped from 4794 to 3867 on Dec. 10, a contraction of about 20 percent. Keep in mind that Brexit is scheduled to begin this spring.

The Federal Reserve has been fighting inflation with interest rate hikes, and a long, drawn-out series of those has gradually begun to hurt the housing market. That sector is also suffering because of a huge rise in the cost of construction materials, in large part as a result of tariffs.

Any stimulus provided by the massive corporate tax cuts last year seems to have been less a shot in the arm than just one more reason for profit taking. Perhaps because it essentially benefitted businesses and not consumers, the tax relief bill hasn't had the impact it might have had.

continued on Page 8

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



GROUP PUBLISHER, GENERAL MANAGER 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
SVP, TREASURER & CFO MICHAEL HENRY
CHIEF INNOVATION OFFICER JONATHAN DORN
VP AUDIENCE DEVELOPMENT TOM MASTERTSON
VP, CONTROLLER JOSEPH COHEN
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. 3, is published monthly by Cruz Bay Publishing, Inc., an Active Interest Media
company. The known office of publication is: 10 Bokum Road, Essex, CT 06426. \$21.95 for
one year; \$35.95 for two years (Canadian subscribers add \$12 per year for postage; U.S.
funds, foreign subscribers add \$14 per year for postage; U.S. funds). Periodicals postage
paid at Essex, CT, and additional mailing offices. **Postmaster:** Send address changes to
WOODSHOP NEWS, PO Box 37274, Boone, IA 50037-0274. Printed in the U.S.A.



Available For Hire

\$22.00 / Hour*

ANDERSON AXXIOM 1631
FIVE-AXIS CNC ROUTER



AXXIOM 1631 FIVE-AXIS CNC ROUTER COMPLETE PACKAGE DELIVERED & INSTALLED

- FANUC 31iM-B5 Controller System with PC Front & Handheld Pendant
- FANUC Electronics, Drives, and Servos with 2-year warranty
- Full Five-Axis Interpolation for Multi Axis Parts with 39 inches of Z-Stroke
- Optional Integrated Dust Collection Hood that moves with the spindle nose
- Flexible Grid Table System for Pods, Cups, Clamps, or Nesting
- Includes additional Vacuum Plug-In manifold for 2 stage vacuum clamping
- Available with T-Slot Table Ready for Tombstone or Pedestal Machining
- 18HP 4-Pole Liquid Cooled Router Spindle with Aggregate Capability
- 8 Position Aggregate Ready Rotary Tool Changer
- 8 HSK-63F Tool Holders, 8 Chuck Nuts, 16 Collets
- Automatic Tool Length Measuring Device
- Automatic Lubrication for X & Y Axes
- Includes Optional 9HP Becker Vacuum Pump
- Lifetime Technical Phone Support & Online Remote Diagnostics
- Includes Freight, Installation, Training, Travel, and Lodging

*Payments based on 40 hours per week for 4.3 work weeks per month for 60 months—Standard Package Price

ANDERSON AMERICA INC.
Anderson Group

Visit our Showroom

10620 Southern Loop Blvd.
Pineville, NC 28134

P: 704.522.1823
E: sales@andersonamerica.com

www.AndersonAmerica.com

There's another disturbing sign of coming global recession. On Dec. 5, one day after the stock markets stumbled, the OECD (oecd.org) released its 2018 report on global taxes. Those figures relate to the relationship between GDP and tax revenues in advanced economies, and they are extrapolated from 2017 data. Taxes are going up everywhere. In fact, the OECD average is now higher than it has ever been, and increases were seen last year in 19 of the 34 countries being monitored. Taxes are now higher in 21 countries than they were in 2007, right before the last recession.

High taxes are an indicator that governments are not living within their means. They are also signs that the government's revenue stream is constraining. That's especially true in the U.S., where both the trade deficit and the federal budget deficit are both growing.

There are several steps that we can and should take right now, to minimize the effects of a coming recession. And even if the economy doesn't take that nosedive, these measures can help ensure a healthier profit picture over time.

The first and most obvious is to limit debt exposure, especially on loans that carry a vari-

able interest rate. As those interest rates continue to rise, higher payments can chew up more and more of a shop's net profit. It is advisable to pay off variable rate loans as soon as possible, and convert long-term unavoidable debt (especially mortgages) to a fixed rate before inflation and more rate hikes kick in.

Now is a good time to contact local, state and federal agencies and utility companies to find programs that might help with the costs of updating. If a woodshop owner waits too long, these programs will disappear because government agencies always cancel them when budgets are tight during a recession.

If the shop isn't practicing lean manufacturing, this might be a good time to find out what it's all about. In a recession, lean and efficient shops are definitely going to have a better chance of surviving if traditional businesses begin to fail. One facet of lean manufacturing is just-in-time, which helps keep inventory levels (and the cash tied up in them) as low as possible.

It could be advantageous to invest in machinery and automation now, before rising interest rates and fading tax incentives work against you.

Be prepared to adjust your catalog. In hard times, high-end casework can be among the

first market segments to suffer, depending on geography. Just as brick and mortar retail stores have learned to change or die, the custom wood industry is going to have to find creative ways to deliver perceived value at a lower cost. The current revolution in RTA hardware may offer some opportunities when you're thinking of ways to cut costs and keep quality.

Hiring might get easier. Currently, politicians (but not too many economists) point to the low unemployment rate as a sign of good times. Unfortunately, the reality is that it disguises a massive problem for the U.S. economy. The current dearth of qualified potential employees simply means that we are not educating for our needs, and that millions of people are now working low-paying service jobs rather than high-paying skilled ones. As the recession grows, a lot more people in skilled positions are going to move down the ladder as companies such as Boeing and the car manufacturers downsize or automate. Given the way in which our industry is becoming more and more reliant on apps plus automatic machinery and robotics, this may be a good thing. We should be able to find more qualified applicants who can help develop and run this technology. **W**

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

CUTTING-EDGE TECHNOLOGY WITH INDUSTRY LEADING PARTNERS
AT PRICES THAT CAN'T BE BEAT



SMART SHOP III

Equipped With World Renowned
Fanuc Oi-MF Industrial Controller
and the 12 HP Italian HSD Spindle.

SMARTSHOP SUV

Equipped With Custom B&R Industrial
Controller Designed Exclusively for
Laguna Tools and the 12 HP Italian HSD Spindle.

World of Wood will address trade concerns

By Jennifer Hicks

The 2019 World of Wood Convention, hosted by the International Wood Products Association, is scheduled for Apr. 3-5 at the Loews Ventana Canyon Resort in Tucson, Ariz.

The annual convention offers attendees the opportunity to learn from and interact with speakers and panelists with expertise in market intelligence, regulatory compliance, and corporate leadership.

Current trade concerns will be a major topic of discussion.

"Given the turbulent global trade market, there's never been a more important time to attend World of Wood," Caroline McIlvain, the trade group's president, said in a state-



Sunset at Loews Ventana Canyon Resort in Tucson, Ariz.

ment. "This event will host educational sessions and the chance to network with suppliers and customers from around the world,



all in the beautiful foothills of Tucson's Santa Catalina mountains."

Attendees can register for IWPA's Advance Wood Trade Compliance Course, created in partnership with the World Resources Institute, that covers sourcing strategies, risk assessment methods, validation of supplier compliance to requirements, and updates on the latest regulations and enforcement actions.

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

Vermont maker wins scholarship from NHFM for table design

By Jennifer Hicks

Jamie Herman of Cambridge, Vt., has received the 2019 Alden Artisan Advancement award for a five-legged side table design from the New Hampshire Furniture Masters.

Herman received a \$1,000 scholarship to put towards the development and promotion of his proposed side table. It will be featured in the guild's annual design book and exhibition.

"I believe the Alden Artisan Advancement award will be a huge opportunity for me, allowing me to learn from masters of my craft while I try to keep pushing the boundaries of what I can make from wood," says Herman.

Herman submitted a computerized rendering of his proposed table design, made in walnut with white inlays. The legs of the table

will be angled in a spiraling pattern down and away from the top. The aprons and stretchers will be hand-shaped and twist from one leg to the next.

Herman recently graduated from the Immersion Program at the Vermont Woodworking School in Fairfax, Vt.

"I want to make furniture that feels unexpected," he says. "I want my designs to be novel, but also to retain a sense of elegance upon proportion and balance. My inspiration generally comes from my love of geometry and the desire to challenge myself with complex joinery and technical woodworking."

For more, visit www.jhstudiofurniture.com and www.furnituremasters.org. [W](#)



Jamie Herman of Cambridge, Vt.

Evolution Is Never One-Sided



Only HOLZ-HER lets you machine all four sides of a workpiece without ever touching it.

HOLZ-HER's Evolution CNC machine delivers drilling, routing and grooving with true 4-sided machining. This machine is a workhorse with a compact footprint. And its workpiece holding system leaves no pressure marks from clamps. Never settle for one side when you can have so much more.

Find out more today.



- Cutting
- Edgebanding
- Material Handling
- CNC Machinery
- Sanding
- Optimizing



704.799.0100 • www.holzherusa.com

This Old House picks two from Festool

By Jennifer Hicks

Festool has been recognized by This Old House with two selections in the magazine's top 20 list of best new home products/tools in 2018.

Based on the criteria that the tools provide innovative and practical solutions for everyday problems, editors of This Old House magazine picked Festool's ETSC 125 cordless hybrid sander and the CT Dust Extractor with Bluetooth and remote control.

The ETSC 125 lets users transition from corded to cordless without compromising performance and is balanced with a unique ergonomic battery for optimum performance and handling, the editors said in a statement.

The tool's "18-volt battery can power a 5" disk for 30 minutes on a single charge. For longer run times, just plug in the corded adapter. The pad spins at 10,000 rpm with tiny 2-millimeter orbits, perfect for smoothing finishes.

"The significance of the CT Dust Extractor is how it communicates with the Festool Bluetooth battery packs on its cordless tools, allowing for automatic starts even when working without power cords. The Bluetooth feature combined with the remote control on the extractor hose allows users to simply start the dust extraction from the hose, without having to walk back to the extractor itself."

Other tools on the list include DeWalt's Flexvolt circular saw, Bosch's Flexiclick drill/driver, and Makita's 18-volt X2 LXT miter saw. **W**



Festool's CT Dust Extractor (top) and ETSC 125 cordless sander.

INDUSTRIAL, AFFORDABLE SOLUTIONS FOR MANUFACTURERS OF ALL SIZES.

MEET THE IRONWOOD FAMILY

The IRONWOOD brand encompasses a broad range of robust woodworking machines designed to deliver powerful results that maximize your investment. Widely trusted by skilled craftsmen across North America, IRONWOOD's product offering provides advanced speed, efficiency and intelligent performance at an affordable price.



616.698.7500 | www.stilesmachinery.com

STILES | HC
A HOMAG COMPANY



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

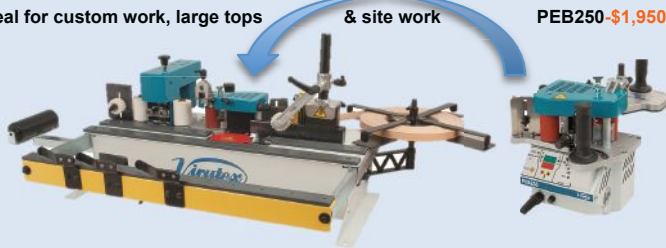


FR256N - \$395

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

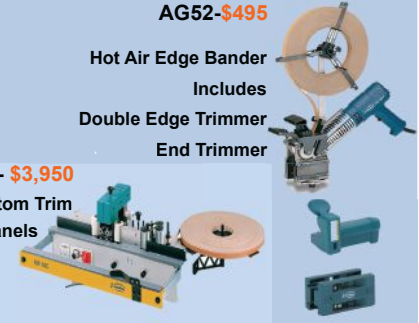


AG52 - \$495

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



Edge Lipping Planer \$650



Hand Held \$150

Laminate & Veneer Slitters

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

Barbaric GmbH opens new subsidiary in Raleigh, N.C.

Barbaric GmbH of Linz, Austria, announced the opening of a new subsidiary, Barbaric North America Inc., in Raleigh, NC.

Barbaric offers a full range of material handling systems including return conveyors, linear feeders, and automated storage retrieval systems.

IMA Schelling Group USA will serve as Barbaric's sales and support partner for the North American market.

"We are excited to introduce these powerful automation solutions to our customers in the U.S.," Peter Tuenker, IMA Schelling Group's U.S. managing director, said in a statement. "Barbaric automation easily integrates with Schelling saws and IMA edgebanders making our partnership a natural fit."

For more, visit www.barbaric.us and www.imaschelling.us.

Hexagon Manufacturing forms production software business

Hexagon's Manufacturing Intelligence division announced the formation of its production software business, comprising Vero Software, Fasys and Spring Technologies.

The move, which sees the three acquisitions adopting Hexagon's corporate identity, reflects Hexagon's broadening expertise in the production technology space, according to the company.

Hexagon acquired Vero Software, a specialist in CAD/CAM software, in 2014 and Fasys, a provider of tooling and resource management software, in 2017. Spring Technologies, a provider of CNC simulation technology for G-code verification and workflow optimization, was acquired in 2018.

"Our technology experts from Vero, Fasys and Spring have been working very closely together for some time, so operating together as a single entity is a natural step for us," Steve Sivitter, CEO of the production software business, said in a statement. "We're all excited at the prospect of what's possible now creating innovative manufacturing intelligence solutions in the production software space."

SA International appoints director of customer experience

SA International (SAi), a provider of software solutions for the sign making, digital printing and CNC machining industries, has announced the appointment of Mikki Webb as director of customer experience.

The role will see Webb drive the development, continuous improvement and delivery of customer service as well as assume responsibility for inside sales, and technical support teams at the company's Salt Lake City headquarters, according to the company.

"Mikki's solid and enviable credentials in this field make her perfectly-placed to maintain this focus and we warmly welcome her to the company," Don Feagan, SAI's president and CEO, said in a statement.

Techno Systems ROUTING REVOLUTIONIZED

TECHNO CNC TITAN SERIES -TITAN

is manufactured using the highest quality industrial grade CNC router components with all steel constructions. Key features include THK linear guide rails and bearings, precision helical rack and pinion with precision gear motors. The Titan Series includes a 12 HP HSD high frequency automatic tool changer, with an 8-position tool rack, pneumatically operated vacuum hood that has concentrated air flow at the spindle, vacuum t-slot table controlled by central gate valves, 10 HP rotary vane vacuum pump, and pop-up pins for easy sheet alignment.

FEATURES:

- 12 HP HSD high frequency automatic tool changer spindle 6,000-24,000 RPM
- Maintenance free brushless motors and drives
- Vacuum t-slot table with main control gate valve
- Pneumatic material pop-up pins
- Automatic tool length calibration via closed loop touch pad
- Automatic z-zero via secondary touch pad
- Easy-to-use hand-held controller (optional PC based system available)
- Open architecture works with all industry standard CAD/CAM software

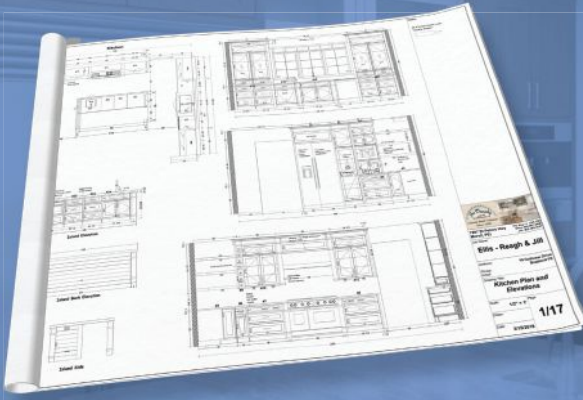
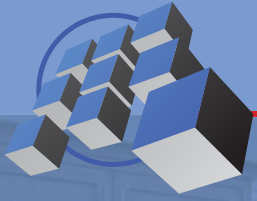


STARTING PRICE OF \$41,000

CALL FOR A FREE QUOTE (631)-648-7481

www.technocnc.com

Mozaiik™



This was the
BEST DECISION
we could have
made. We are now
over 2 years into
it and there is no
way that I would
ever go back to
using any other
program.

John S.

Beyond Affordable!

Mozaiik gives you the tools you need to design and detail all your jobs. It's fast, simple, and accurate.

No upfront costs and no hidden fees. One easy monthly payment includes your software license, updates, online support, video training, post processor and so much more!

Maybe it's time to move beyond the limits of your current software and join the thousands switching to Mozaiik!

Mozaiik Design \$50/mo

Mozaiik Manufacturing \$75/mo

Mozaiik CNC Complete \$125/mo

What's in your shop?



mozaiksoftware.com

760.585.9550

Modern. Affordable. Simply Better.

Red oak's price drops as demand slows

By Jennifer Hicks

Demand for red oak (*Quercus rubra*) has slowed despite favorable pricing, according to hardwood dealers interviewed by Woodshop News.

"It's definitely been declining over the past five to six years," says Steve Van Osdol of Hickory and Oak Sawmill and Lumber Co. in Decatur, Mich. "I don't know if the market is saturated or people are tired of it, but its not selling as much. If it does sell, quarter-sawn sells better than flat because it's got a sharper look.

"It still sells, but it's not as big as it used to be. It's the 'meat and potatoes'; the standard hardwood. But others are a little more prevalent. Cherry, maple, walnut and hickory have taken over."

Clint Dillon of Steve Wall Lumber in Mayodan, N.C., says red oak sales volume is the same as last year, while pricing has dropped a bit.

"I would say that red oak always holds its own in the cabinet world. Cabinets and trim work are one of the main things people are buying it for here on our end. It's one of those woods everybody knows what they're going to get with it. Everybody knows how to work red oak and finish it and

everything. There aren't really any question marks about it," says Dillon.

"It works a lot better than the white oak in my opinion. It sands well and takes a stain or clear coat well."

Raymond Hochstetler at Appalachian Woods Antique Flooring & Lumber in Stuarts Draft, Va., specializes in selling reclaimed wood. Orders typically include both red and white oak.

"My gut sense overall is that in our market, which is the custom and upper end specialty flooring business, white oak is definitely more popular than red oak for sure," says Hochstetler.

"Red oak sales alone are about the same as last year, so I haven't seen much change at all. Most of the reclaimed red oak is going into flooring production. I think for our company, customers like it because it has a very unique look. A lot of people like the grain and the character of ours because it's reclaimed. And oak is also a recognized name which is associated with being very durable, very strong, which is great for flooring."

The retail price for 4/4 red oak is about \$3/bf. **W**



Red oak

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

Lignomat

Package D2-M with
mini-Ligno DX/C



Quality Control

High, low or uneven moisture content is often a reason for imperfect wood products.

Slide-hammer electrodes are the industry standard for moisture control and quality production.

As the pins are hammered into wood, consecutive readings show if the wood is dry to the core.



INSPIRED DESIGN TO MANUFACTURED BEAUTY



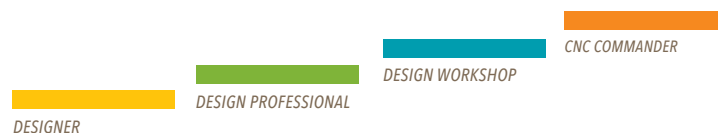
**SPEED. ACCURACY.
INTEGRATION. MOBILITY.**

Waterfall kitchen

Designed, manufactured and custom built by The Webhannet Co. using KCD Commander for design to manufacturing.

- Free live phone support
- No maintenance fees
- Optional upgrades
- No contracts

Call today to get the best software solution for your unique design to manufacturing needs:



 **KCD Software**

Software You Can Build On.™
KCDsoftware.com | 508.760.1140



TOOLS & TECHNIQUES

Fast Rack products help expedite finishing tasks

By Jennifer Hicks

Products from Fast Rack Equipment are designed to save time and labor costs while increasing productivity, says company founder Michael Halverson, a professional wood finisher in Appleton, Wis.

"I've been in the industry for 22 years and I created the first racking system about 10 years ago out of necessity for doing things in my shop. I needed carts to wheel in and out of the spray booth and liked the idea of only needing one person to spray two sides of a door. It took about five years, but I finally refined the design so that it didn't look like something somebody just built in their garage," says Halverson.

Fast Rack offers 16 products in standard and custom sizes, including vertical and horizontal drying racks, transfer carts, sawhorses, cabinet stackers and door hangers. A new small cabinet rack is set to be introduced this year.

Fast Rack's products are built to function in concert. "The products are sold individually or as a system to help customers with specific needs," Halverson explains.

"Everything can be customized. We've sold to every type of business from a one-man operation to a company making 10,000 doors a day. We sell to aircraft companies, universities, contractors, finish guys. Doors are really everywhere."

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



Fast Rack Equipment offers an assortment of products from drying racks to transport carts

Two great shows,
one great location,

100+ great exhibitors and top brands!

WPETM Cabinets Wood Pro Expo & Closets Conference & Expo

WHERE DESIGN MEETS MANUFACTURING

March 6-8, 2019
Charlotte Convention Center



Visit Cabinetsandclosetsexpo.com or
woodproexpo.com to see the complete
list of expo hall exhibitors

Add tickets to the 2019 Top Shelf Design Awards
Reception to your expo hall admission

Celebrating the year's best in closet and storage design!

Thursday, March 7 • 5:30 - 8:00 PM
NASCAR Hall of Fame • Great Hall

\$50 includes two drink tickets; or reception is included
with any conference pass

Also announcing the two Top Choice exhibitor winners!

Visit cabinetsandclosetsexpo.com for reception
tickets.

Top Shelf Design Awards
Reception, sponsored by



For more information: Laurel.didier@woodworkingnetwork.com
To Exhibit: Patrick.filippelli@heiexpo.com

MARCH 6 CONFERENCE DAY SCHEDULES

Wood Pro Conference

Sponsored by Cabinet Makers Association & FDMC Magazine.

- 8:00-8:50** **KEYNOTE: How I Launched a Closets Business and Retired Early**, David Linda, founder and former president of SpaceMan Home & Office
- 9:00 - 9:40** **Leadership Matters**, Guy Bucey, Director of Operations, Inova
- 9:50 - 10:30** **CNC Tips & Tricks Panel**, moderated by CMA executive director Amanda Conger with CMA members
- 10:40 - 11:20** **Finishing expertise and tips**, Adam West, Dixon Abrasives
- 11:30 - 12:10** **Building a woodworking business**, Scott Wunder, WunderWoods
- 12:30 - 1:20** **NETWORKING LUNCH**
- 1:20 - 2:10** **FDMC Pricing Survey**, FDMC editor Will Sampson
- 2:15** **Buses depart for plant tour** to Carocraft Cabinets and reception at plant tour sponsor **Biesse North America**

Closets Conference

Sponsored by ACSP and Closets & Organized Storage Magazine.

- 8:00-8:50** **KEYNOTE: How I Launched a Closets Business and Retired Early**, David Linda, founder and former president of SpaceMan Home & Office
- 9:00 - 9:40** **Growing your Closet Business**, Lisa Carlquist, Artisan Closets
- 9:50 - 10:30** **Panel on Venturing out of the Closets: Hidden storage, wallbeds and more**, David Linda; Joe Lonardo, Bella Systems and Ben Chapman, Cabteq
- 10:40 - 11:20** **Panel: Trends in Design**, Kathleen Jacobson, The Couture Closet; Robert Bass, Kessick; and Marianne Gamsby, More Space Place.
- 11:30 - 12:00** **Techology of Marketing: How remodeling businesses go from nowhere to page one in 3 simple steps**, Brian Kraff, founder and CEO, Market Hardware
- 12:00 - 12:30** **State of the Closets Industry**, Laurel Didier, publisher, Closets & Organized Storage
- 12:30 - 1:20** **NETWORKING LUNCH**
- 1:20 - 2:10** **HGTV Love it or List it**, Carolina Closets Plus, Mike Hoffer
- 2:15** **Buses depart for plant tour** to Carocraft Cabinets and reception at plant tour sponsor **Biesse North America**

\$365 / conference pass

Conference pass includes March 7 & 8 Expo Hall admission – 100+ manufacturers and suppliers of machinery, equipment and software – March 6 conference sessions, breakfast, lunch, Carocraft Cabinets plant tour and reception at Biesse North America and the March 7 Top Shelf Design Awards reception at the NASCAR Hall of Fame.

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 • (760) 842-7733

TOOLS & TECHNIQUES



Mereen-Johnson's new CNC dovetailer features single spindle

By Jennifer Hicks

Mereen-Johnson's new single spindle CNC dovetailer, model 1101, gives small- to mid-sized shops the flexible production capabilities of larger shops at an affordable price, says the company.

The machine's greatest benefit is its ability to produce a wide variety of dovetails, according to Tony Sutton, vice president of Mereen-Johnson.

"The single spindle is one of the highlights of the 1101 because it allows for greater flexibility. You can basically program it to produce the kind of dovetail that you want," says Sutton.

"This has the ability to give a small- to mid-size shop a bigger reach in what they're doing and fill more orders and at a lower price point."

The dovetailer has a large touch screen interface with easy-to-use functions that allow the operator to create a variety of custom dovetail joints which can be saved and recalled for later use.

Four work areas with separate clamping allow fronts/back and sides to be clamped at the same time as well as the ability to cut wide products, if desired.

The new design includes a high-speed spindle and cutting profiles that help reduce tear out. It also includes adjustable joint centers, tenon widths, and the ability to choose the number of tenons and their locations. Additionally, it offers the adjustability of joint fit provided through cutter compensation. Operator controlled clamping tailors cycle times to match the operator's ability, according to the company.

The machine sells for \$49,900.

For more, visit www.mereen-johnson.com.

Castaly



Quality + Service
Pay Less



4'x8' Auto Linear ATC
CNC Router \$28,900.00



4' x 4' CNC Router
\$11,800.00



36"x24" Engraving
Cutting Laser \$5,690.00



Auto Program Cut-off Saw
18" x 8' Long \$19,990.00
24" x 8' Long \$23,990.00



4'x8' Auto Load-Unload CNC Machine Center (With
Drill Bank) \$76,600.00



12" Two Side Planer \$14,990.00
18" Two Side Planer \$19,990.00
24" Two Side Planer \$24,990.00

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. ***Call us for more details.***



Raised Panel Door Shaper
40" Manual \$13,930.00
55" Automatic \$22,990.00



12" Top Rip Saw \$7,990.00
16" Bottom Rip Saw \$11,990.00
14" Multiple Rip Saw \$22,990.00



6" x 6 Spindle \$23,990.00
9" x 6 Spindle \$39,900.00

CASTALY MACHINERY

637 Vineland Ave. La Puente, CA 91746

www.lobomachine.com

Email: info@castalymachine.com | Tel: 626-968-6330 | Fax: 626-968-6333

Say hello to Newman's new surface planer

By Jennifer Hicks

Newman Machine Co. introduces the latest addition to its line of finish planers, the model S270-M1 single surface planer featuring the company's helical carbide cutterhead.

"The patented cutterhead provides a cabinet quality finished surface with fewer sharpening intervals and planes at a noise level that does not require a sound enclosure as compared to conventional planers," says Mike Harris, Newman's director of sales and service.

The cutterhead has a 7" diameter cutting circle and four knife rows. It is powered by a 50-hp, 3,600-rpm direct coupled electric motor.

The planer can process stock as short as 8" and features a 36" wide bed, belt feed conveyor and idle top feed rollers. The conveyor is powered by a 5-hp gear motor that produces a feed range of 20 to 120 fpm.

Model S270-M1 sells for a base price of \$125,000.

For more, visit www.newmanwhitney.com. 



"Owning an FMT has completely transformed the way I work and expanded product design possibilities exponentially!"

- Dom Riccobene
Lead Product Designer, Riccobene Designs



5x10 FMT Plus
Starting at \$55,000



(888) 436-8769 | freedomcnc.com | dmscncrouters.com





Laguna puts a new spin on 12" lathe with controller

By Jennifer Hicks

Laguna Tools has turned its newest lathe into a reliable tool for woodturners with a special control that improves performance at low to mid-range speeds, according to the company. The Revo 12/16 Midi-Lathe features a Pulse Width Modulation motor controller that draws higher torque to minimize rpm loss.

"We set out to make the best 12" lathe designed for woodworking industry and we think we succeeded for many reasons," says Laguna's Benjamin Helshoj.

"The Pulse Width Modulation controller is a different type of controller that will help with problem of the lathe bogging down when gouging deeper cuts at low to mid speeds. This controller will always be fully on or fully off."

Transistors speed up communication between the motor and controller, stabilizing the rpm while increasing torque when needed. It is an efficient alternative to increasing

torque by increasing motor speed alone, Helshoj explains.

The lathe has a 1-hp DC permanent magnet motor with DCM controller and three speed ranges: low (50 to 525 rpm); mid (325 to 1,750 rpm), and high (650 to 3,500 rpm).

The distance between centers is 15-1/2" The swing over bed is 12-1/2" and swing over banjo is 9-1/2".

The lathe has a maximum outboard swing of 16", 3/8" spindle bore, and 2-1/2" of tail-stock quill travel.

Standard features include a 24-position index system, digital readout, forward and reverse spindle rotation, 3" faceplate, and more. The lathe sits on an adjustable stand (39" to 45") and weighs about 200 lbs., according to Laguna.

The lathe sells for \$799. Optional accessories include a 10" cast iron extension, tool rest extension and spindle adaptor.

For more, visit www.lagunalathe.com. 

ZERO DAMAGE, HIGH ACCURACY



ORION[®]

WOOD MOISTURE METER



wagnermeters.com
Call (888) 266-8093



Home of the
Low Angle Pocket



Adjustable
Web
Width

*“The Castle 100 has
become my favorite
fastening tool!”*

~ Brian Gamberg
Executive Vice President
DCX-CHOL, Engineered Products

**See it In Action
Get Yours @
Castle100.com**

castleusa.com



/ castlepockets



1.800.282.8338

TOOLS & TECHNIQUES



FineNet from Herme Abrasives.
Applications include fine sanding
of clear coat layers before polishing.

Choosing abrasives

**Save time and money by understanding the
different types and backers available**

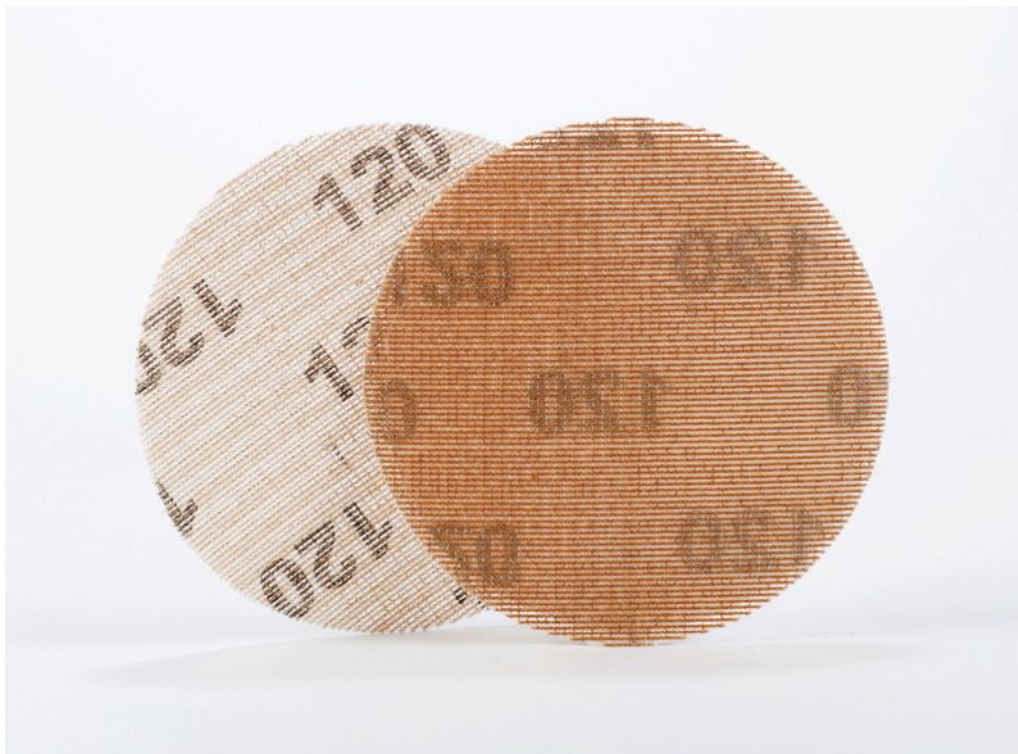
By John English

Consumables. That's a scary word for woodworkers because it means that the shop is essentially burning up dollar bills. One of the most obvious forms of consumable is sandpaper, and it hurts just as much to replace dozens of discs as it does one wide belt. So, woodworkers have come up with many ways to try to use every grain of abrasive. They cut off the unused sections of sheets that are held under the clamps on small sanders and use them for hand detailing. They rub resin bars on moving paper to unclog between the abrasives. They buy rolls of sandpaper and use a template to cut their own discs or detail sander triangles. But all of these penny-pinching solutions use up a different and often far more valuable consumable – time.

The smartest way to conserve is to buy the best and most appropriate abrasives in the first place. And choosing the right product means discovering the differences between cost, wear, clogging and other factors. And that can be confusing. For example, Grizzly Industrial (grizzly.com) offers 385 aluminum oxide sanding belts, 28 silicon carbide belts and five zirconia aluminum varieties.

Abrasive types

Every woodworker is familiar with traditional garnet paper, which is made with a naturally occurring material (today, most abrasives are manmade). Garnet isn't friable – that is, it doesn't break down the way other manmade abrasives do, so it tends to clog faster and cease to work properly. It's not as



Ekamesh from Uneeda has a net pattern to improve dust removal.

tough as its newer cousins, so manufacturers don't embrace it as a material for discs. It is relatively expensive, but when one balances the initial cost against its limited life, it probably doesn't offer much of a saving. Garnet paper is still widely available because big box and local hardware stores like being able to offer the lower price point, but it doesn't have too many fans among younger woodworkers who need to remove stock quickly. It does, however, enjoy some popularity among finishers as it seems to allow stains to penetrate more evenly, especially on wide-grained species. One limiting factor is that it isn't widely manufactured in finer grits (320 is about the finest) because of the natural grain size.

Emery can be a naturally occurring alternative that picks up where garnet leaves off. It was originally just ground emery stone (corundite), but today's version is a crystal form of aluminum oxide that is combined with clays and other metals to make a fine grit abrasive. Wet/dry versions can be used with liquids (oils, water) to create a sludge on finishes, producing a glassy surface as one works through progressively finer grits. Emery cloth is exactly that – a more flexible (and expensive) version of the abrasive than paper-backed, and it can be used to work around shapes and profiles.

Aluminum oxide is the most common abrasive in the woodshop. In its purest natural form, this is an odorless powder made up of tiny crystals that takes the form of corundum,

bauxite and other minerals. It is thermally stable and won't dissolve in water, plus it's exceptionally hard and that makes it difficult to wear down. That's critical here. Normally, the grit doesn't wear much or fracture to expose new edges. Rather, it lasts a long time before the edges become dull. There are more expensive versions that have been treated in furnaces that will break away and reveal new cutting surfaces, and those friable options are slowly becoming more affordable.

Silicon carbide is harder than aluminum oxide, and under a microscope it looks like a shattered window. But hardness alone doesn't cut or last, and its brittle edges make it too friable for most initial wood sanding operations (it's the preferred option for metal). However, that quality also makes it the perfect choice for working between coats, and for rubbing out finishes. It's perhaps most familiar as black wet/dry sandpaper sheets.

Technically, some of the other abrasives would qualify as ceramics, as the word simply describes a solid compound that is primarily held in ionic and covalent bonds. But when woodworkers talk about ceramic abrasive, they are referring to expensive, manmade, non-friable, coarser grit coatings on belts. These ceramics are sometimes combined with industrial diamonds to create a fast-acting, very aggressive product.

Chromium oxide is most often used as a pigment, but it also used as an abrasive in stropping and sharpening compounds. It also

FIND YOUR MATCH!



End of year Edgebanding Sale

Receive a 10% discount
on all stocked .018 PVC
Edgebanding for the
month of December.



Same-day shipping

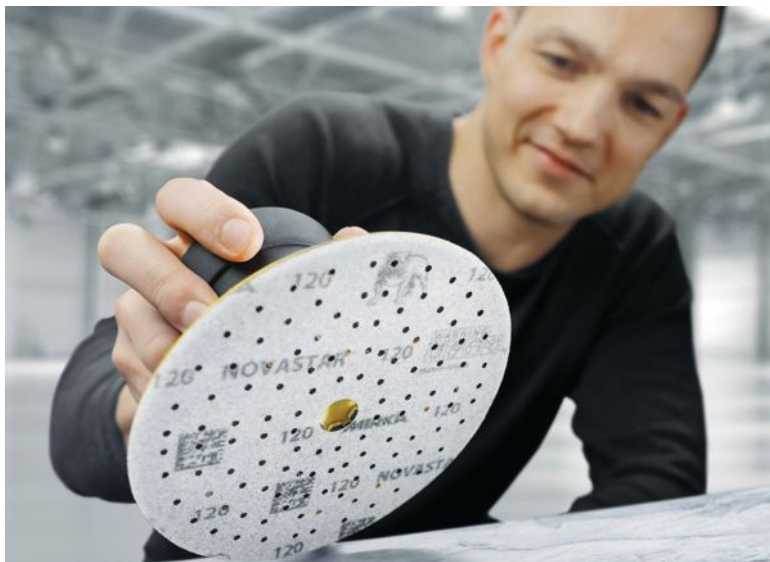
PVC & veneer banding in a
wide selection of colors

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



Mirka has introduced film-backed Novastar (left) and paper-backed Iridium abrasives that feature multi-hole patterns for dust extraction.

appears as a very fine paper-backed abrasive that is used more for sharpening hand tools than sanding wood.

For example, Lee Valley & Veritas (leevalley.com) offers a one-half micron sized grit on an 8-1/2" x 11" sheet (item 54K95.01) that gives metal a mirror finish.

Backers and bonds

Paper, fabric, foam, plastics, polyesters and many other sheet materials are used as backers for sandpaper. One of the key factors here is stiffness. For flat sanding, a stiffer option offers obvious advantages. For curved surfaces and tools that bend the backer (such

as belt sanders), a far more flexible option is needed. Paper backers range from A to F (light to heavy) and cloth grades are J, X, Y, T and M, with the latter being the most substantial. Some very fine operations also use emery or chromium oxide abrasives and these are often bonded to a Mylar (polyester) backing.

After grit, the bonding agent is perhaps the most critical aspect of the manufacturing process for sandpaper. The bond needs to hold the abrasive steady, so that it doesn't roll or fall off the surface. It needs to be made from a material that won't transform from a solid to a liquid as it heats up. It needs to be a material that won't bond with the wood fibers or finish particles, and clog quickly. Many of the products now offered have a stearate added to the bonding agent. Think of it as soap, or lube. Some papers have an open coat, where there is more room between the abrasive particles for waste to accumulate. Of course, that means there are also fewer particles, so the job takes a bit longer.

Last September, Mirka introduced a couple of interesting new abrasives. Iridium is paper backed and Novastar is a film-backed, waterproof and non-clogging product. Both come in 80- to 600-grit versions. What's intriguing is that they seem to represent a shift in technology, with new optimized grains, new coating and curing techniques, and new multi-hole patterns for dust extraction.

Not all backers are paper, fabric or film. Ekamesh discs (24 to 2500 grit) from Uneeda (sandpaper.com) have a unique net pattern that's designed to improve dust removal. The aluminum oxide abrasive is attached with a resin, but the open weave of the backer allows for impressive dust extraction.

More and more, suppliers are recognizing that woodshops need different abrasives for



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



Red Heat ceramic alumina belts from Norton (top) and Festool's Granat.

different tasks. For example, Festool (festool.com) now offers four families of abrasives. Rubin (40 to 220 grit) is a close coated, aluminum oxide product that's bonded with a synthetic resin and has a special coating that sheds wood fibers. Granat (40 to 1500 grit) is designed for long life and is the company's highest performing abrasive. Saphir (24 to 100 grit) is for aggressive stock removal and heavy stripping jobs of hard, stubborn and thick coatings. And Platin 2 (500 to 4000 grit) is an open-coat, silicon carbide abrasive that was specially developed for high-gloss finishes.

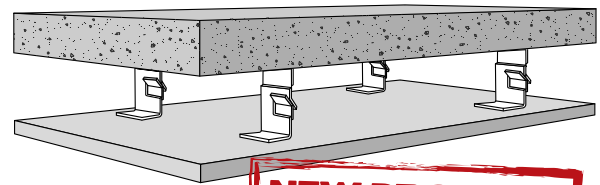
The grits are changing, too. Ceramics may be the future of sanding, although they need to see some improvement at the finer end of the scale. But combining ceramics with tried and true solutions seems to be one way forward. For example, Saint-Gobain has a new generation of abrasives that includes a ceramic alumina that the company says cuts faster and lasts up to twice as long as standard abrasives.

Hermes Abrasives Ltd. (hermes-schleifwerkzeuge.com) has a nice interactive resource on its website that allows a woodshop to select the material, abrasive tool and machine (portable or stationary), and then see the company's catalog of products that are designed for that application. SIA Abrasives publishes a downloadable catalog of its wood sanding options at siaabrasives.com. www.siaabrasives.com



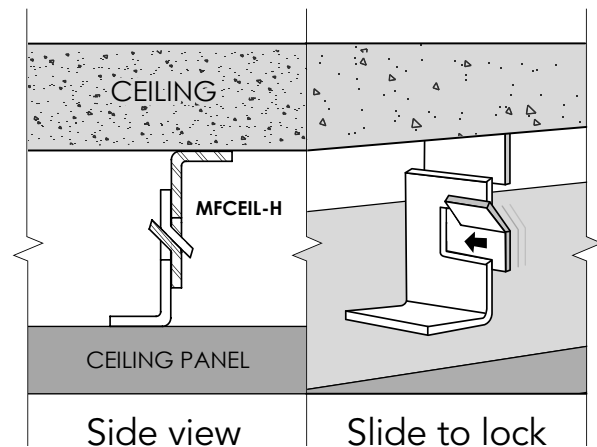
Monarch Ceiling Mounting Clips

Interconnecting clips for mounting ceiling panels restrict movement vertically and horizontally



NEW PRODUCT

Fabricated in 16 Ga.
Galvanized Steel



CALL TO ORDER
(631) 750-3000

1700 Ocean Ave Ronkonkoma, New York 11779
www.monarchmetal.com



PRO SHOP

with DAVID GETTS

What it means to be lean in my daily routine

The author and shop owner has applied lean business practices to how he manages employees, suppliers, subcontractors and clients with good results

A typical morning:

7:03 a.m. – The smell of coffee fills the room as the golden brown espresso flows into the two-shot measuring cup. I'm running a little late for the start of our busy day, but everything tends to work itself out. I head out to the shop and my guy is going through his early morning ritual of transitioning from pleasure to work. A few minutes are spent dancing

around pleasantries and positioning for what we know the day ahead brings.

7:11 a.m. – We both get comfortable and begin chatting about football game highlights, some local news or generalized banter that reminds us we are both humans with real needs beyond the work environment.

I read a book years ago written by a general contractor who extolled the virtues of taking control of the day, every work day, by estab-

lishing a rallying point that he could focus on first before facing the rigors of the work day ahead.

I have discovered in the many years of business the importance of not losing ourselves (or our employees) in the stressful demands of running an operation. It's too easy to get absorbed in the pressing needs that are always going to be there. A key thing to remember about business is that it will forever have needs, every day. Knowing and accepting that right off the bat should help in managing its unwieldy demands. A business is like a leech, it latches on to your body and attempts to suck out your lifeblood. Clients, employees, finances, tools, education, the whole gamut of problems and issues that a business feeds on will constantly be there to taunt and test your resolve. Is running a business all about obediently tending to these needs as a servant without freedom, or should we revolt against this system of alleged slave-like treatment and find a better approach?

7:26 a.m. – Our discussion naturally flows towards the work of the day along with our routine of reviewing the scheduled workweek ahead. There will often be an overview covering all our projects in the queue as a reminder of what the overall company responsibilities,

MOLD YOUR OWN PROFILES WITH A W&H MOLDER



STRAIGHT, CURVED & ELLIPTICAL MOLDINGS
ONE MACHINE!



www.williamsnhussey.com

Toll Free 800-258-1380 | 603-732-0219

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

commitments and goals are. Mandatory during this time is to brainstorm new ideas to improve our current system. This could include things like:

- Improvements and/or new ideas regarding fabrication or installation techniques
- The need for an upgraded or new tool
- How to better manage subcontractors

Essentially, we are attempting to make ourselves better every day. It's not enough to find a system or technique that works, we are all about trying to improve whatever we are currently doing. The saying, "If it's not broke, don't fix it", can carry a lot of weight. However, if you adopt that attitude with wholesale conviction, you'll shut out the ability of employees or even yourself to become more involved in the process of improvement. Simply following a return-on-investment recipe that includes the standard ingredients of a great business plan, money and labor, is not enough. You must keep the primary focus on the human side of business which encourages an all-inclusive forum of ideas. This has more value and rewards than immersing oneself solely in the inanimate nuts and bolts. Emphasizing the importance of a people-centered business will yield a higher level of sustainability and profit.

7:48 a.m. – We're getting close to the end of our lean meeting. I always try to keep them around 30 minutes, but some days are more and others less.

You must be flexible in running a small business, especially in the area of time management. Most books and studies regarding time management revolve around large businesses with hundreds of employees. When you're managing that many bodies the rules of time engagement change. In order to keep the masses corralled, you have to have regimented time slots for everything; breaks, meetings, start and ending times, etc. Without specific order the company storehouse can easily be siphoned.

It doesn't necessarily work the same way with a small company. Consider this: If you were to attend a 16-hour class on veneering taught by a master of the technique, how much different would your experience be if the class size was 500 compared to five? Even though the material, technique and instructor are all the same, the knowledge you leave with would be completely different. Small companies are more intimate and personal, regimented protocols are not always effective.

Next, we move into a discussion about current and past clients. It's a good exercise that keeps us centered as a team. Everyone has a different threshold of tolerance when working with different people. And depending on your title and responsibility in the company, you will be treated differently by the client. That's why it's so important to discuss the feelings and opinions of current clients. Your company, suppliers and subcontractors are all on one team. So, it's also important to communicate the issues and resolve of the people you are working for, with the people you are working with. Again, not everyone sees everything the same, so a safe and open forum allows differences and potential problems to be resolved before they explode.

Lean concepts

I've been studying lean business practices for a number of years and have found tremendous success in implementing the philosophy in my business. Although I'm not religious about it, the amount of waste that can be eliminated with some of the most basic ideas is astounding. I've taken the lean concept a step further and applied it to people management.

Implementing lean ideas as it pertains to employees is the logical first step, but it also must extend to suppliers, subcontractors and clients.

Continued on Page 31

Tooling and Accessories Since 1926

**For: Tenoners
Moulders
Shapers
Routers
Planers
Saws**



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

**Specializing in
Moulder & Shaper Knives
Ordering is as easy as 1-2-3**

1) Complete Service. We supply completely finished knives and templates from dxf files, wood samples or drawings. 2 to 3 day delivery

2) Pre-Roughed knives & Templates.

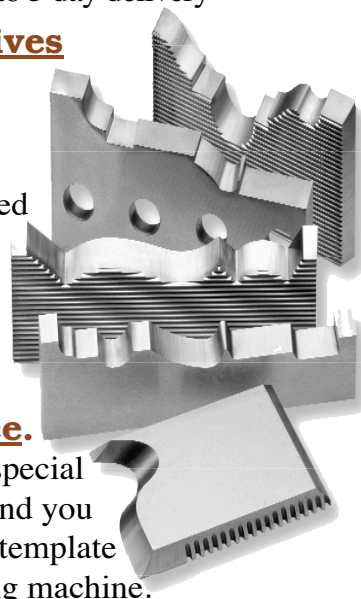
From a drawing, dxf file or wood sample, we produce pre-roughed knives and templates. Finish grinding is up to the customer.

1 to 2 day delivery.

3) Template Service.

Supply us with your special profile and we will send you a 3/16" thick Acrylic template for your knife grinding machine.

1 to 2 day delivery.



We make knives for Corrugated Back Heads, Williams & Hussey Style Moulders, Grizzly Machines, US Concepts, Mikron, Wood Master Moulders, Lockedge Shaper Collars.

**If You Know Our Name
You Know Our Number
1 800-SCHMIDT**

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

**301 West Grand Ave
Montvale, NJ 07645**

Fax 201 391-3565

www.cggsgschmidt.com



THE CUTTING EDGE

with R.W. LEE

Seeing is believing

To get the most realistic images from CAD designs, invest in a high quality, professional-grade monitor

A technologically advanced shop has a modern computer workstation with CAD-oriented graphics cards and 3D image rendering programs. But don't forget the monitor.

A consumer-grade monitor, like you use at home, will not do justice to the high quality images generated by a workstation and CAD-oriented graphics card.

Professional-grade monitors are larger, generate more colors and clearer images, and do it faster. They are certainly more expensive, but worth it.

Like everything else with computers, there are numerous characteristics and specifications to judge the quality of monitors.

Let's start with the top six:

1. The bigger, the better.
2. Two monitors are better than one.
3. The more colors a monitor can generate, the better.
4. The higher the pixel density, the better
5. The faster the response time, the better
6. Make sure it has connectivity with the graphics card.

Specs matter

The first technical term to guide in the purchase of a professional monitor is pixels, an abbreviation for Picture Element, the very small dots that make up the images on a computer monitor. Each pixel can display a different color or shade, contributing to the quality of the image or rendering. So, the pixel density is something to strongly consider when shopping for a monitor.

Another is the aspect ratio, a proportionate measure of the horizontal and vertical dimensions of the screen. Common ratios are 16:9 or 21:9.

Two other important specifications are the response time of a pixel in the monitor, such as its ability to change colors (measured in milliseconds). A lower number is better for comparison as it indicates a faster transition from one color to another. The second is the refresh rate, which is the number of times in a second that the display is illuminated, particularly important when panning or rotating the image. So, the faster the refresh rate, the smoother and sharper the image will appear, which makes it easier on the operator's eyes.

The monitor's display resolution is also important as it is the measure of the number

GearKlamp **NEW**

BESSEY



Works "BIG" in a small space.

The new and unique BESSEY GearKlamp works "BIG" in small spaces to provide a fast clamping solution for tight spots up against another object or, when reaching across something to clamp. The patented gear mechanism separates the spindle from the rail-mounted handle for greater clearance and, the quick release shift button makes for fast set-ups. BESSEY. Simply better.

besseytools.com facebook.com/BesseyToolsNorthAmerica instagram.com/BesseyTools_na

of distinct pixels in each dimension, width by height, that can be displayed. For a given display size, the maximum resolution is limited by dot pitch, which is the distance between sub-pixels of the same color in millimeters. In general, the smaller the dot pitch, the sharper the picture will appear.

Display resolution is measured in pixels. Common display resolutions are 1980 x 1080 pixels, 2560 x 1440, 2560 x 1600 and 3840 x 2160.

Monitors with extremely high display resolutions can display over one billion colors.

Make sure the application, graphics card and monitor are compatible. This issue can often be handled through the driver for the graphics card or through settings in the operating system.

Just a few years ago, two 22" to 27" monitors were adequate. Now there are 32" to 34" curved monitors, known as ultra-wide monitors.

Laying cable

Graphics cards generally come with several different kinds of output connectors, and monitors come with several different kind of input connectors.

Common connectors include HDMI

(MHL), DisplayPort (DP) and MiniDisplayPort (mDP), several High Definition Multimedia Interface (HDMI) versions (1.0 through 2.1), USB and audio.

In each case, the physical connector is the same, but capabilities have evolved, and fortunately each successive version of HDMI is backward compatible, though not all the

new features will work on older equipment. And despite the claims, gold connectors are no better than brass connectors.

On the surface, high-end monitors for CAD work don't look all that different from consumer-grade models. So, it is very important to investigate and judge the technical specifications. [W](#)

PRO SHOP *from Page 29*

Basically, any person that has a part in the success or failure of your business.

In its most basic form, lean is the idea of finding better and more efficient ways of doing a specific task. To implement lean in your business, all your employees must buy into the concept or it will be difficult to realize the true fruit it offers.

When I speak of lean as it pertains to people management, I'm not referring to the task of teaching employees how to become more efficient in their work, I'm talking about how you as a manager better treat them as a person. The more ways a manager finds to edify the people under his or her charge (and continually strives to improve upon them), the more efficient that employ-

ee will become, regardless of whether lean concepts are taught in the company or not.

Making people your priority makes managing them leaner because you cut away the "fat" of uncertainty that a person may have regarding the value they hold in the company. Accentuating the human element (lean and to the point), eliminates the dance employees have to do to show worth, and puts them right on track to do the work they're hired to do. The same principle works with suppliers, subs and clients. Don't put the cart before the horse, people first, task second.

For more information on the practical application of lean concepts, visit www.paulakers.net. [W](#)



SuperMax
AIR FILTRATION SYSTEM

Includes Remote
& Mounting Brackets

**22 CYCLES
PER HOUR**

**FILTERS 20X20X8 ROOM
1200 CFM**

\$389

3 SPEED AMBIENT AIR FILTRATION SYSTEM WITH WASHABLE ELECTROSTATIC FILTER

SUPERMAXTOOLS.COM

LAGUNATOOLS.COM

© 2019, Laguna Tools, Inc. LAGUNA® and the LAGUNA Logo® are the registered trademarks of Laguna Tools, Inc. All rights reserved.



Grizzly Industrial

**PURVEYORS OF
FINE MACHINERY®,
SINCE 1983!**

14" SUPER HEAVY-DUTY RESAW BANDSAW WITH FOOT BRAKE

- Motor: 2 HP, 110V/220V (pre-wired 110V), single-phase, 1720 RPM
- Amps: 15A at 110V, 7.5A at 220V
- Table size: 21 $\frac{3}{4}$ " L x 16 $\frac{1}{2}$ " W
- Table tilt: 5° L, 45° R
- Floor-to-table height: 37"
- Max. throat capacity: 13 $\frac{1}{2}$ "
- Max. throat capacity w/ fence: 12"
- Max. cutting height: 14"
- Blade size: 120" L (1 $\frac{1}{8}$ " to 3 $\frac{3}{4}$ " W)
- Blade speed: 2820 FPM
- Footprint: 24" L x 18" W
- Overall size: 29" W x 32 $\frac{1}{2}$ " D x 76" H
- Approx. shipping weight: 388 lbs.

14" RESAW
HEIGHT!
MADE IN AN
ISO 9001
FACTORY



G0817 ONLY \$1395⁰⁰



10" CABINET TABLE SAWS

- Motor: 3 HP, 220V, single-phase, 12.8A
- Precision-ground cast iron table with extension measures: 27" x 40" (G0690), 27" x 74 $\frac{3}{4}$ " (G0691)
- Floor-to-table height: 34"
- Arbor: 5 $\frac{1}{8}$ "
- Arbor speed: 4300 RPM
- Max. dado width: 1 $\frac{1}{16}$ "
- Capacity @ 90°: 3 $\frac{1}{8}$ ", @ 45°: 2 $\frac{1}{16}$ "
- Max. rip capacity: 29 $\frac{1}{2}$ " (G0690), 50" (G0691)
- Approx. shipping weight: 530 lbs. (G0690), 557 lbs. (G0691)

MADE IN AN
ISO 9001 FACTORY



WITH RIVING KNIFE
G0690 ONLY \$1795⁰⁰

WITH RIVING KNIFE & EXTENSION RAILS
G0691 ONLY \$1925⁰⁰

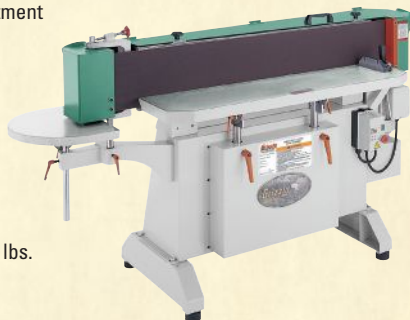


G0690
SHOWN



INDUSTRIAL OSCILLATING EDGE SANDER

- Motor: 3 HP, 220V, single-phase
- Sanding belt oscillates 1/4"
- 8" vertical table height adjustment
- Table tilt: 0-45°
- Table size: 11 $\frac{3}{4}$ " x 47 $\frac{3}{4}$ "
- Platen size: 47 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ "
- Footprint: 42" x 24 $\frac{1}{2}$ "
- Sanding belt size: 9" x 138 $\frac{1}{2}$ "
- Belt speed: 4120 FPM
- Table height: 33" to 41"
- End table size: 18" x 13"
- End table travel: 8"
- Approx. shipping weight: 873 lbs.



G9984 ONLY \$3395⁰⁰



19" 3 HP EXTREME-SERIES® BANDSAWS

EXTREME
SERIES

- Motor: 3 HP, 220V, single-phase
- Precision-ground cast-iron table size: 26 $\frac{3}{4}$ " L x 19" W x 1 $\frac{1}{2}$ " H
- Cutting capacity/throat: 18 $\frac{1}{4}$ "
- Max. cutting height: 12"
- Blade size: 143" L (1 $\frac{1}{8}$ " - 1 $\frac{1}{4}$ " wide)
- Blade speeds: 1700 & 3500 FPM
- Approx. shipping weight: 512 lbs. (G0514X2B), 480 lbs. (G0514X2)



12" RESAW
HEIGHT!



MADE IN
AN ISO
9001
FACTORY!



WITH FOOT BRAKE
G0514X2 ONLY \$1799⁰⁰

WITH MOTOR BREAK
G0514X2B ONLY \$1899⁰⁰



10" SLIDING TABLE SAW

EXTREME
SERIES

- Motor: 5 HP, 230V, single-phase, 19A
- Main table size: 14 $\frac{3}{8}$ " x 27"
- Sliding table size: 12 $\frac{1}{4}$ " x 63"
- Main blade arbor: 5 $\frac{1}{8}$ "
- Main blade speed: 4000 RPM
- Scoring blade size: 3 $\frac{1}{8}$ "
- Scoring blade arbor: 22mm
- Depth of cut: 3 $\frac{1}{8}$ " @ 90°, 2 $\frac{1}{4}$ " @ 45°
- Max. rip capacity: 33"
- Approx. shipping weight: 688 lbs.



MADE IN AN
ISO 9001
FACTORY



G0623X ONLY \$3375⁰⁰



24" DRUM SANDER

- Motor: 5 HP, 220V, single-phase drum motor drives two 4" aluminum sanding drums
- 1/4 HP Conveyor motor provides 11 FPM feed rate
- Surface speed of drum: 2300 FPM
- Handles stock up to 23 $\frac{1}{2}$ " wide and 4 $\frac{1}{4}$ " thick
- Sandpaper installs easily onto the drums
- Sanding drum size: 6"
- All steel and ball bearing construction
- Two 4" dust ports for easy hook-up to a collection system
- State-of-the-art computer balanced drums
- Powder-coated paint
- Approximate shipping weight: 442 lbs.



G1066R ONLY \$1875⁰⁰



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
19982

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 806 PAGES OF HIGH QUALITY MACHINES & TOOLS AT INCREDIBLE PRICES

2 HP PORTABLE CYCLONE DUST COLLECTOR

- Motor: 2 HP, 220V, 3450 RPM, 9A
- Intake hole size: 7"
- Impeller: 13" welded steel
- Collection drum size: 27 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!



LIFT HANDLE & ROLL DRUM EASILY FOR SAWDUST DISPOSAL!

G0861 ONLY \$975⁰⁰



PROFESSIONAL SPINDLE SHAPERS

- Motor: 5 HP, 220V, single-phase, TEFC (G5912Z) or 7½ HP, 220V/ 440V*, 3-phase, TEFC (G7214Z)
- Table size: 35½" x 28"
- Spindle sizes: ¾", 1", 1½"
- Spindle speeds: 3600, 5100, 8000, 10,000 RPM
- Spindle travel: 3¼"
- Max. cutter dia.: 5⅝"
- Approx. shipping weight: 604 lbs. (G5912Z), 613 lbs. (G7214Z)

Z-SERIES



G5912Z SHOWN

5 HP, SINGLE-PHASE
G5912Z ONLY \$2995⁰⁰

7½ HP, 3-PHASE
G7214Z ONLY \$2995⁰⁰



SawStop TABLESAWS

New!



IN STOCK

3 HP PORTABLE CYCLONE DUST COLLECTOR

- Motor: 3 HP, 220V, 3450 RPM, 18A
- Intake hole size: 8"
- Impeller: 15" welded steel
- Collection drum size: 48 gallons, max. capacity 38 gallons
- Suction capacity: 1941 CFM @ 2.6" SP
- Max. airflow: 1941 CFM
- Max. static pressure: 11.0"
- Approx. shipping weight: 419 lbs.

New!



LIFT HANDLE & ROLL DRUM EASILY FOR SAWDUST DISPOSAL!

G0862 ONLY \$1295⁰⁰



Next Wave Automation CNC BENCHTOP ROUTERS

New!



IN STOCK

HUGE SELECTION OF FESTOOL

New!



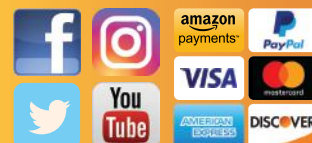
IN STOCK

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

VIEW VIDEOS AT
grizzly.com

grizzly.com®

OVER 15,000 PRODUCTS ONLINE!







In Very Good Hands

After purchasing Simpson Cabinetry from its founder,
Andy and Betsy Cabrera are taking the Vermont shop to the next level
By Jennifer Hicks



A

ndy and Betsy Cabrera have flourished in their mission to carry on the legacy of Simpson Cabinetry, a shop they purchased from its founder, the late Bruce Simpson, in 2011.

"We kept the name to honor him and because it was a good brand. He passed away in May of 2018, but he lived long enough to see that all his employees were taken care of and his company was going to live on," says Betsy, the shop's general manager.

Now operating from a new 8,300-sq.-ft. shop in Essex, Vt., the 14-person company offers custom cabinetry, furniture and built-ins to homeowners and builders throughout the state and beyond. Business has been strong and the owners are confident their early success will continue.

"Most of our business is from people who've lived here a while and they're staying so they're finally remodeling, or they have second homes. There are a few clients living out of state that are building a new home in Vermont. The economy is going great. This time of year, we're not usually this busy, so it's good that we're seeing the volume that we are," says Betsy.

Builder roots

The Cabrerases originally owned a construction company in nearby Richmond, Vt., that opened in 1989. It included a woodworking shop that supported the residential homebuilding component of the business. Andy and his crew often worked both aspects of the business

until it became more practical to outsource with a cabinetmaker.

"As the homebuilding became the primary source of our business, we had this fellow Bruce Simpson building our cabinetry for us," says Andy. "At one point, he got sick and we took over and then we bought it from him. We were one of his biggest customers, and we merged the two shops together and got out of residential construction, so we weren't competing with our builder customers."

Simpson transitioned to cabinetmaking after a long career as a dairy farmer on his family farm in Sutton, Vt. Simpson Cabinetry started in Jonesville, Vt., in 2002. Diagnosed with an inoperable brain tumor in 2011, Simpson began seeking a qualified buyer who would keep the tradition alive and ensure job security for his employees. The deal was finalized that year and the new owners opened their doors in January 2012.

"Our shop had done trim work and premanufactured building components, but not so much cabinetry, so the merge made sense. Bruce had a good business going. He made a nice product, developed a good name in this area, so we really felt this was a good transition for us to move into more of a full-time shop environment as opposed to out in the field which is sometimes unpredictable," Andy says.

Refining their investment

Naturally, the Cabrerases aim to perfect the brand they put their faith in. They've built on Simpson's clientele and increased production volume as planned. The biggest change was building their new shop in 2015, which netted them a showroom, offices, more woodworking space, and room to grow.



Kitchens, baths and built-ins from the shop's extensive portfolio.

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





(Clockwise, from bottom left) Cabinet maker Eric Nilsen, shop manager Will Blanchard and finisher Skylar Turner.



"The old business was being run out of a leased building in South Burlington. It didn't really have a showroom and was a lot smaller, around 5,000 square feet," says Betsy. "We bought the land and built the building on an open lot. The extra space has allowed us to do more projects and now we have a storage area, so we can take on more projects we might not have been able to do before."

Growth has also included a second CAD designer, new design software, and several full-time carpenters to help with cabinetry and installations. Most recently, a new employee was hired to help with invoicing and client communications, giving Betsy more time to focus on project management and networking outside the state.

"We got to the point where we'd built the shop, expanded the showroom, got our new brochure done, redid our website and we were kind of chugging along, so it was time to hire office help. Now I can focus more on social media marketing and building long-term permanent relationships."

PHOTOS: MICHAEL GORDON

HEAVY-DUTY CNC ROUTER

FOR PROFESSIONAL WOODWORKERS

The CAMaster Cobra Elite is an affordable heavy-duty CNC Router that is built to deliver exceptional cuts, high precision and lasting performance.

Equipped with numerous standard features, a wide range of options and offered at an unbeatable price point, the Cobra Elite is by far the best value in the CNC market today.

The Cobra Elite is designed and built in Cartersville, GA USA.

CAMaster

CAMaster.com | 770-334-2448



PRECISION
ENGINEERED

INDUSTRIAL
PERFORMANCE

UNBEATABLE
VALUE

"Most of our work is still in Vermont, but we've really expanded out of state. We did half a dozen projects in the Hamptons (N.Y.) in 2018 alone. We've gone as far away as Florida, all up and down the East Coast and throughout New England," she says.

Simpson Cabinetry averages 75 to 100 jobs per year and its customers are split almost evenly between homeowners and builders.

"The projects are really anything from a small home that somebody wants a good quality kitchen in to all of the cabinetry in a very large, brand new, multi-million-dollar house. We've also done renovations of offices, country clubs and various eateries," says Betsy. "Our background as builders has certainly helped. We know how they work in the field and can talk in the same language."

"Right now, modern designs are trending, as in frameless cabinetry with touch latches and soft-close hinges. White is going strong as a popular finish color and has been for a while. Designers are starting to break up the white trend, however, with splashes of color in islands and other components."

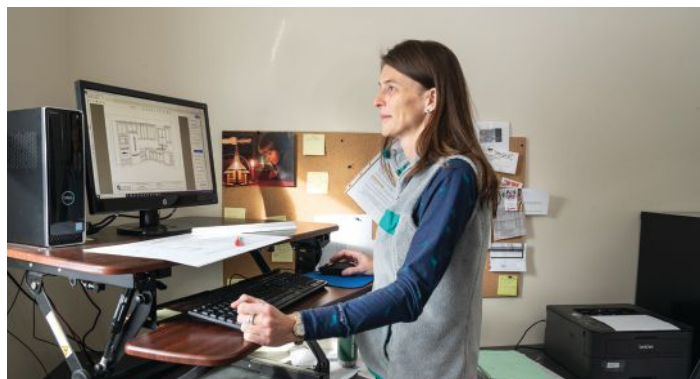
A backlog and a plan

The shop has the advantage of a waiting list. "We are booking five to six months out right now and people are waiting and planning ahead. In the past, people were surprised they had to wait. They wanted their kitchen in two days. It's getting better. I think builders are getting better at educating people and certainly we are, too," says Betsy.

The owners hope to increase volume and make scheduling a bit more predictable.

"It would be nice to get this business to run on a steadier schedule, but I don't know if we'll ever get there. The plan is to increase volume and the way to achieve it is to expand our base," adds Andy. [W](#)

Contact: Simpson Cabinetry, 15 Corporate Dr., Essex, VT 05452. Tel: 802-264-9009. www.simpsoncabinetry.com



Betsy Cabrera (top, left) with a customer; project manager Kristina Machanic.

FESTOOLS-ONLINE.COM
FESTOOL AUTHORIZED DEALER



FREE

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



LOWEST PRICES ■ FAST SHIPPING
800-365-6677

SHOP NOW

FESTOOLS-ONLINE.COM
YOUR SOURCE FOR FESTOOL PRODUCTS





Biesse's Winstore automatic panel loader.

MOVING ON UP

Shops of all sizes can benefit from an improved floor plan and the addition of material handling equipment

By John English

Moving inventory and parts around the shop is an expense. Unlike milling, assembly or finishing, this task has no profit potential. It's all cost, so it needs to be as efficient as possible. And streamlining doesn't start with a new forklift or an automated robot, but with layout and workflow.

That begins with a floorplan.

If your business has grown the way most do, the original equipment is still where it was on day one. Everything else has grown up around it. You may have added a showroom, finishing bay, or built an annex for storage. Perhaps you purchased the empty building next door and use that as a warehouse.

The reason that shops grow is that they're busy. Every day spent on remodeling is a day when no cabinets are built. That makes it very hard to think about moving machines around, especially when the system has been working well. So, new space tends to be dedicated to new processes or machinery, and existing spaces are disturbed as little as possible.

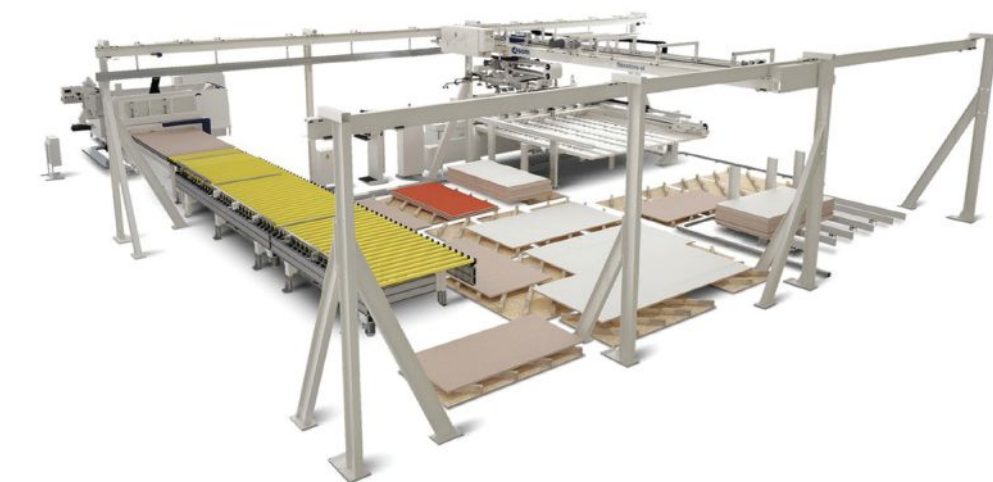
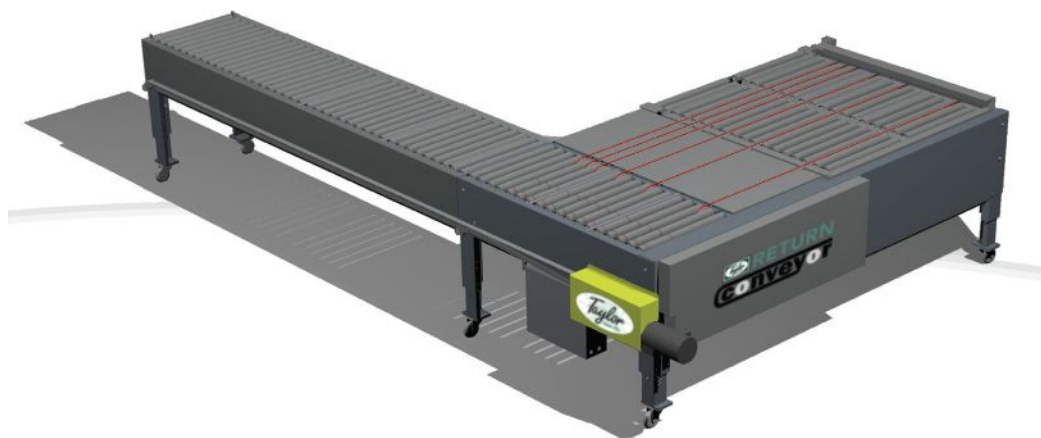
The controlled mayhem of that kind of evolution often defies the logistics of workflow. If you need to send somebody to another building with a forklift to feed the CNC, or carry casework all the way across the shop to load it on a truck, it may be time to blow the dust off the floorplan and rethink some sequences.

Evolving machinery is also part of the equation. When the original shop was set up, panel lifting, turning and loading were probably all manual. If you're thinking of adding automation, consider how it fits into the overall workflow rather than just how it serves a single machine.

Maybe that machine needs to be moved.



(From top) Homag's Loopteq 0-200, a workpiece return for edgebanders; a wide belt sander conveyor from James L. Taylor Mfg.; SCM's Flexstore el, a 3-axis automatic panel mover, and a range of forklifts available from CombiLift.



AUTOMATION OPTIONS

There's a beautiful precision in the way that a machine picks up a large sheet from a stack and drops it exactly where it's needed on an infeed table. As the processing machinery has evolved and CNCs have become the norm, sawing and profiling have gained a lot of ground. Speeds are up and defects are down. But moving sheet stock into and out of these machines hasn't kept pace. The robotics were cumbersome and expensive, and the software lagged. Now, all that has changed and larger shops are rapidly eliminating the manual slowdown between machines.

A leader in this field, Stiles Machinery (stilesmachinery.com) in Grand Rapids, Mich., summarizes the situation this way on its website:

"Material handling now features technology that matches the sophistication of the machines that prepare the pieces. Swing arm panel feeders ensure continuous operation; panel stackers provide many options for storage and retrieval; robotics transfer pieces from machine to machine; conveyors and lift systems speed the transfer of materials with a minimum of human involvement; fully automated stacking/de-stacking machines easily handle input from multiple conveyors and trolleys – and you can purchase material handling systems that match up seamlessly with many of the machines you have, or plan to purchase in the future."

But what about small- and medium-sized shops? Well, there has been a bit of a revolution there, too. Somewhere between complete automation and a trip to the chiropractor, there are several options that can speed up production and reduce injuries and damage. This melding of high technology and manual labor can provide an affordable way for smaller shops to perform larger tasks more efficiently.

For example, Stiles carries the Schmalz Jumbo Ergo, which is a stand-alone unit that picks up sheet goods with a vacuum, and an operator then manually steers it to move the stock where it's needed. The lift has a motorcycle throttle control and can lift up to 660 lbs., so it can move entire cabinets. The company also makes units that can lift several thousand pounds.

Hendrick Mfg. (hendrickmanufacturing.com) offers a similar solution, the Vaculex lift.



Southworth's Backsaver lift table.

It helps operators pick up heavy materials and move them onto elevated surfaces much more easily, while offering maximum flexibility in movement. Such lifts can work in places and situations where a lift table might not quite fit.

Hendrick also carries Southworth's lift tables, which are designed for small shops or for specific workstations in larger environments. They can lift, tilt and position panels and parts, which lets them safely load materials onto machines for processing.

Loading MDF isn't the only challenge for material handling machinery, and there are numerous task-centric, tech-manual hybrid solutions on the market that can reduce both fatigue and failures. For example, Homag's entry-level return conveyor, the Loopteq 0-200 (which used to be called the Boomerang), makes it possible to operate a single-sided through-feed edgebanding machine with only one person. The part slides through the bander, is picked up by a conveyor table, moves it sideways away from the machine, and then sends it back to the operator.

James L. Taylor Mfg. (jltclamps.com) has a number of conveyor solutions for small- to medium-sized shops. They include units for edgebanders, wide belt sanders, shapers and rip saws. One nice aspect of these smaller systems is that they are easy to customize. For example, Taylor's wide belt solution comes in 60"-, 84"- and 96"-long options and the roller width choices are 24" or 36" so they can handle material up to 50" wide. And because these are modular sections, a shop can pretty much build a return system of any length it needs.

Shops that cross-cut a lot of parts (such as cutting door stiles and rails to length) can make a big dent in the time required to manage and move those elements by automating the stop system. For example, TigerStop (tigerstop.com) makes an automated material pusher and stop gauge. Just punch in or download a cut list, and the stop will move to one of several positions. Instead of an operator handling the material a

BUILD BETTER STUFF™

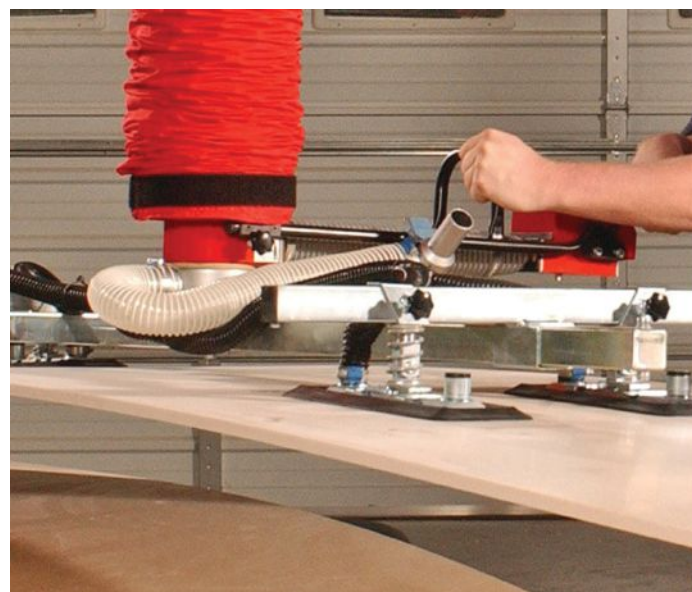
Better engineering.
Better components.
Better technical support.
The best CNC value available.



AXIOM

P R E C I S I O N

Learn more at axiomprecision.com



(From left) The Schmalz JumboErgo and Vaculex vacuum lifters; TigerStop's automated material pusher, and Holz-Her's Store-Master.

couple of times and using a tape measure on every cut, he/she just drops the stock in place and cuts when the fence stops moving.

For basic hauling of sheets and parts around the shop, Saw Trax (sawtrax.com) has a range of very affordable, customizable carts and dollies, including rough terrain and tilting versions. The company's Panel Express is especially well suited to moving countertops around the shop and the jobsite. A rubber-lined, self-adjusting clamp holds material up to 3" thick and the dolly has locking casters and maintenance free foam tires that never go flat or need air.

LARGE-SHOP SOLUTIONS

High production shops can't often buy a single material handling machine and just pop it into the process. There are software challenges, compatibility issues, volume and speed considerations, training and other aspects of the production cycle that require a systemic solution.

Suppliers such as SCM, Stiles and Biesse

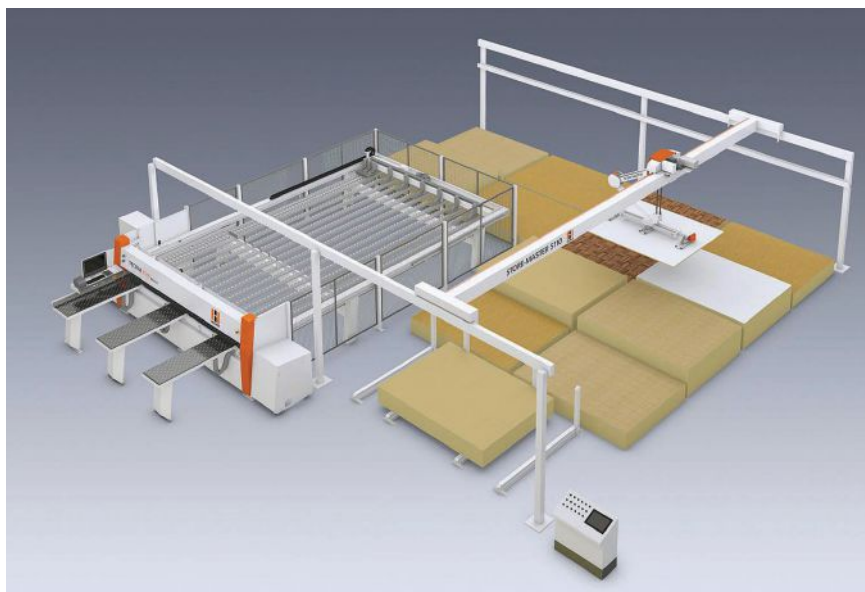


The Panel Express from Saw Trax.

50
THERMWOOD
FIFTY YEARS MADE IN THE USA

High Performance 3 Axis CNC Machining Centers

THERMWOOD
www.thermwood.com • 800-533-6901



will sit down with a shop's management team and garner enough information to build a comprehensive plan that includes potential for future growth. For example, Biesse says that it "collates all kinds of technical data such as plant layout, product type, manufacturing specifications, quality objectives, quality and production standard controls, as well as the study of software integration. Once such data has been analyzed, a technical and commercial specification is drafted." The company's Winstore is an automated solution for larger shops that can be integrated into nesting and sizing cells, and deliver a significant increase in productivity.

The Store-Master 5110 from Weinig/HolzHer (holzherusa.com) is another state-of-the-art solution for larger shops. It combines storage bins and a delivery system with impeccable software. It will work with a wide variety of panels and decorative finishes, and exactly the right panel is selected every time. The panels can be rotated up to 90 degrees, which means they can be stored in any orientation. Damage to the panels is essentially ruled out due to automatic, computer-controlled transport – no more wobbly forklifts. Plus, multiple machines can be served, and as many storage bins as desired can be set up for storage and retrieval.

SCM Group NA (scmgroup.com) also offers a catalog of material handling solutions. They run the gamut from simple panel rotation and conveying machines to entire systems such as the Flexstore el that delivers automated 3 axes storage. It can be integrated in production lines for nesting and/or sizing cells, with a significant increase in productivity and considerable reduction of costs. It manages homogeneous and mixed stacks (that is, panels of different dimensions and colors), and raw panels all the way down to 3 mm thickness.

One nice facet of most of these larger sys-

tems is that they use vacuum technology to pick up and deliver panels or parts, so the materials are not sliding across the sheet below them and causing scratches.

For shops that understand the need for better material handling, but are intimidated by the cost of state-of-the-art electronics and controls, there are several reliable suppliers such as Hermance Machine Co. (hermance.com) that supply used equipment – everything from

scissor lifts to vacuum lifts, carts and fork lifts.

CombiLift (combilift.com/us) is an Irish company with U.S. headquarters in Greensboro, N.C. and it builds incredibly versatile forklifts including multi-directional vehicles that combine the features of a counterbalanced forklift, side loader and a very narrow aisle truck in one vehicle; side-loader forklifts for long loads such as glue lams; and a number of other unique load handling solutions. **W**

SURGICAL REPAIR FOR THE HEART OF YOUR MACHINE

No matter what the make or model, you can trust the heart of your machine to PDS. Our in-house engineers and experienced diagnostic technicians will return your spindle to factory specs.

- Expert failure analysis
- Clean Room reassembly
- Testing and evaluation
- 6-month warranty on every repair
- Storage and regular testing available in our Spindle Hotel

VISIT OUR ONLINE STORE FOR REBUILTS AND CONSUMABLES
ALL REBUILTS COME WITH A WARRANTY

24-HOUR EMERGENCY REPAIR SERVICE AVAILABLE



4367 Dallas Cherryville Hwy. • Bessemer City, NC 28016
704-922-1206 • www.SpindleRepair.com



CNCs that *‘do It all’*

Shops searching for multi-function machines
have plenty of choices in today’s marketplace

By John English

The European landmass is about the same size as the U.S., with two and a half times the population. And in western Europe, more than 80 percent of people live in cities that are very close together. Given those tight quarters, it’s no surprise that space is at a premium. That may account in part for the penchant among Euro-

pean woodworkers toward space-saving, multi-purpose machinery. And while there certainly are some U.S. shops that also espouse and treasure that option, most American cabinetmakers and furniture builders still prefer their single-purpose, stand-alone machines.

But that’s changing, in large part because the way that we build cabinets is changing. As more and more shops incorporate or expand their CNC capabilities, they’re asking those machines to do more tasks.

Woodshops are now demanding that the next generation of CNCs is, well, multi-functional.

And manufacturers are listening.

Take, for example, the new ‘driverless’ Python XPR from CNC Factory (cncfactory.com) in Santa Ana, Calif. Produced in the U.S., it can be ordered with automated loading and unloading, spoil board self-cleaning, hands-free robotic labeling and printing, laser measuring for critically precise depth-cutting, and even part marking for post-production processes such as edgbanding and inserting fasteners.

“With these labor-saving and time-saving features,” says CNC Factory’s Chris Corrales, “the 2019 Python XPR lets the operator push a button and then collect the finished, labeled and marked product.” The technician never even needs to touch the panels.

Such machines are becoming possible because of advances in both programming and robotics. And they’re becoming more ubiquitous because the price tag on this leading-edge technology continues to drop. The opportunity to own such a CNC is

now within the grasp of even the smallest shops, because these multi-function machines can replace more than one potential employee – and do so at less than the cost of paying those un-hired people for a single



Stiles Machinery offers extensive training opportunities.



The Autoload and Unload model from New CNC.



Laguna's Smartshop MT.



Model 4008 ATC from XYZ.



The Gemini CNC from Legacy Woodworking Machinery.

year. As such, for year two and all subsequent years of operation, the machines are theoretically cost-free.

They are also coming along at precisely the right time for the industry, when woodshops are having a difficult time recruiting qualified employees. The machines don't just replace the need for muscles and brains, they also make the future of woodworking more attractive to a younger generation that prefers to program and run apps than heft MDF around the shop.

And CNC technology can be quite intimidating. This is, after all, high tech. A woodshop needs to seriously consider training and after-purchase technical support, plus in-house expertise when investing in a CNC. You can't make these machines do what they're supposed to do unless you know how to run them. That's a very real concern, but there is help.

Since 1990, Stiles Machinery (stilesmachinery.com) in Grand Rapids, Mich., has trained more than 38,000 people through its Stiles University in such areas as machine operation, advanced CNC programming, effective troubleshooting, maintenance and related areas. And when it comes to taking advantage of that training, the company offers a number of machines that can do it all, including nested-based CNC routers, CNC vertical drills and twin table machines. In its CNC routing and machining catalog alone, there are some 39 Homag offerings. When a woodworker comes across websites with that much technology to explore, it's probably best to contact a salesperson at the company and physically discuss exactly what one needs the CNC to do.

Another industry giant, C.R. Onsrud (cronsrud.com) in Trautman, N.C., also offers a dizzying array of machines (there's a link at the top

of its homepage to the latest catalog). Every machine is tailor-made and begins with one of the company's standard frames. After that, the CNC is "built for optimum performance to the unique manufacturing specifics of your application," according to the company. When shopping for a new CNC, keep in mind that one can buy off the rack or visit a tailor.

MORE THAN MATERIAL HANDLING

For custom woodshops, the most important feature of a new CNC has to be flexibility. Automatic loading and unloading, or the ability to print on parts are definitely attractive qualities, but the core machine must also have the potential to switch gears and make something other than the parts for a rectangular box.

Biesse's new Rover A is billed as just such. It's a single work center for many types of machining operations, and the company (biesse.com) says that it's an ideal solution for shops that build casework but also windows, doors, stairs, worktops and furnishing items. That versatility comes from a 5-axis ability, with continuous rotation of the B and C axes. It also doesn't need to rely on an operator with a tape measure: the machine is equipped with an electronic positioning system that automatically reconfigures the entire work area as needed, using separate motors to move tables and carriages without engaging the operating system. And one more reason this machine can "do it all" is that it has the capacity for up to 39 tools, so downtime after the initial setup is virtually eliminated even on complex custom projects. Biesse has locations in Anaheim, Calif., and Charlotte, N.C.

Another way that manufacturers bring versatility to CNCs is by



Holz-Her's Nextec 7735.



The new Python XPR from CNC Factory.



The Jet Master from Casadei-Busellato.



Felder's Profit H500 MT.

adding an extra work table. Castaly (cncroutergroup.com) in La Puente, Calif., offers a couple of twin table models including the Twin 408 (with a work area of 4' x 8') and the Twin 510RT (5' x 10'). One moving gantry serves both tables, which are set up end-to-end. The double work tables alternate processing, automatic switching and automatic feeding, so essentially two full sheets can be processed by one machine.

Among its 26 Format4 machining centers, Felder Group USA (felder-group.com) is now offering the new Profit H500 MT. Beyond its 5 axes and 34 tool positions, this machine shines in its smooth integration of in-house developed software that has clear menu guidance and intuitive operating. That concept of having both the machine and the software developed by the same supplier allows Felder's CNCs to be impressively flexible and customizable. The H500 MT also comes with an aggregate interface with a cardanic (it's a medical term meaning both flexible and rotating) 5-axes head. Label printing is an option, too, and woodshops can order the machine with a phenolic matrix table that allows for all kinds of vacuum hold-down options.

Another European manufacturer, Casadei Busellato USA (casadeibusellato.com) has a North American location in Duluth, Ga. The company offers several configurations and working areas for its Jet Master CNC, and the guiding principle in its design is flexibility. They have motorized panel supports that allow completely automatic management of the working table – the Jet Fast feature provides quick positioning of the panel supports, suction cups and clamps with no intervention by the operator. The Jet Master RT model's table has a rectangular grid for processing with vacuum cups or nesting, and here's a small but valuable feature – there are little plugs that can direct vacuum more efficiently.

For shops that need to work with large materials, XYZ (xyz.com) offers woodshops an impressive scale of processing areas, all the way up to 128" wide and more than 50' long. Its CNCs are available with two heads and up to 33 tool changes, an aluminum vacuum deck that

can be manually or automatically controlled, and the XYZ Vision System which uses registration marks on printed materials to adjust the cutting program for perfect alignment.

INTEGRATED SOFTWARE

Weinig/Holz-Her (weinigusa.com and holzherusa.com) recently introduced its new Nextec, which it says will revolutionize the way woodshops work. Here's how the company describes it: "Just a mouse click is all that is required to select the desired template from the comprehensive library. In just two steps you can adapt the furniture to meet custom specifications – from the dimensions to the material and fittings. Then simply position the material on the machine." The Nextec software automatically generates all CNC processing programs, parts and material lists as well as the optimum nesting pattern for the workpieces. Designed for small to medium-sized shops, the software and machine system comes with over 300 customizable CAD cabinets and furniture in the library, and optional CabinetControl Pro software lets a woodworker design and configure cabinets, build libraries and define materials or fittings. Among the machines that match the software is a highly flexible 5-axis model with options such as an automatic pusher and conveyor belt, lifting table, and the ability to integrate into an automated panel storage system.

Libraries are also at the core of the Cut Ready Cut Center, an alternative to traditional CNC routers that comes from Indiana-based Thermwood (thermwood.com). These machines are designed for making a wide variety of products including cabinets, closets, furniture, doors, drawers and much more. The woodworker just tells the machine what to make and it does it. No programming is required. It's an ideal option for shop owners who aren't too comfortable with high-end technology, and for those who like to dabble, the company also offers a full range of 3- and 5-axes CNCs, plus some additive technology CNCs (very large 3D printers).



Nextech's M900.



Thermwood's Cut Ready Cut Center.



Komo's 1205 Fusion model.



Techno CNC's HD II 2136 model.

MAN & MACHINE

Anyone who has read Dan Brown's novel *Origin* is familiar with his prediction of Technium, a future world where machines and humans fuse into a single new symbiotic species. It looks like SCM Woodworking Technology (scmgroupp.com) is already there. Automation through integrated robotics will be the focus of the company's "Smart & Human Factory" event being held at the beginning of February at its global headquarters in Rimini, Italy. It's all about humans and robots working together to "do it all". The event is built around new CNC systems that are more flexible, modular and easily reconfigurable, and are designed to provide an increasingly effective, quick response to the challenges of what SCM calls mass customization – the option to reconfigure quickly in order to process smaller batches. Keep an eye on the SCM website for updates.

Another leading-edge manufacturer, Diversified Machine Systems (dmscncrouters.com) builds a variety of 5- and 3-axis CNCs that are specifically designed to specialize in custom solutions. The company's Advanced Manufacturing Center is an R&D facility designed to help clients bridge key manufacturing knowledge gaps. For woodshop owners who are new to manufacturing, or are re-tooling an existing business, this is a great way to witness man and machine at work together. On site techni-

cians help clients figure out exactly how to make specific parts.

New Jersey's Komo Machine (komo.com) manufactures all of its CNCs in the U.S. and this company also invites prospective clients to its facility. Komo will actually do a run of your parts and demonstrate real-time performance in person. The company says that "seeing pre-rehearsed, debugged CNC programs running at a trade show or demo center is one thing. Seeing your part programmed and run right in front of you is a more accurate measure of performance."

New CNC (newcnc.com) in Holland, Mich., has a broad range of 3-, 4- and 5-axis machines. On the company's Auto Load and Unload (AL/UL) model, sheets are loaded into the machine via lift table and then barcoded and fed into the CNC router automatically. A vacuum table secures parts during the routing and boring process, and then they're moved from the router table to the outfeed table where the operators can stack parts while a vacuum system cleans the dust from the table.

OVERWHELMED BY THE OPTIONS?

You're not alone. Most complicated processes are going to require several axes, perhaps an aggregate head and some specialty tooling. When it comes to the basic machine, NexTech Machinery (nextechmachinery.com) in Cornelius, N.C., says that its M900 5-axes router "will



Biesse's Rover A.



Camaster's SignPro.



Castaly's Twin 510 RT.

appeal to the entrepreneur and those buying their first five-axis CNC router. Just decide on your table size and whether an automatic tool changer is required. Almost everything else is included." It's a heavy-duty outfit with a massive gantry and it's suitable for casework and furniture production. The M900 is equipped with separate controls for working speed, traveling speed and cutting speed, and comes in a couple of table configurations for full-sheet work.

Woodworkers who are looking for an entry-level system that can do all the things a small shop would want to tackle, might take a look at the lineup from Axiom Precision (axiomprecision.com). Its machines have no complex software and a powerful hand-held controller that is intuitive and easy to use. Axiom offers lifetime technical support.

Another entry-level option is a desktop model from NextWave Automation (nextwaveautomation.com). The new Shark HD4 Extended lets a shop install its own router, and work from its own PC. It comes with Virtual Zero software that maps the surface of the table or workpiece and eliminates problems caused by warps, bows and small inconsistencies in the table.

Martin Machinery (martin-usa.com) offers the Protec, a very compact and highly configurable CNC center for efficient processing of drilling, grooving and routing jobs. This machine has been developed specially for just-in-time manufacturing, as well as large batch production.

A woodshop that is looking at do-it-all machines might actually be searching for a standard machine that can be set up to do a very specific task. In that case, there may be another option. Laguna (lagunatools.com) has several standard CNC models in its line-up, but also caters to a number of niche artisans. Its catalog offers a multi-tool series that serves sign makers; some turning CNCs that can do 360-degree routing and deliver lathe-like results at an industrial pace, and the company's LS4 Lockdowel machine that can drill and insert fasteners so a shop doesn't have to deal with screws and glue. The company also offers stand-alone CNC controlled plasma and laser options.

Camaster (camaster.com) in Cartersville, Ga., also offers a machine dedicated to sign making. The SignPro will do both machining and digital cutting, and it comes with a 4-hp HD quick change spindle and an oscillating tangential knife. Options include the Optiscout vision registration system and automatic tool changing.

Jenkins (jenkins-systems.com) specializes in CNC sanders and shapers.

Among its many models, Techno CNC (technocnc.com) has an entry-level machine, the HD II 2136, which is a tabletop version of a full-scale CNC. It has a 20.5" x 36" processing area, with 7-1/2" gantry clearance and a 9-1/2" Z-axis stroke.

Legacy Woodworking Machinery (lwmcnc.com) has two entry-level Maverick CNCs (3' x 5' and 4' x 8'), but the company's larger Gemini model is the real gem for shops that want a CNC that does everything. The Gemini has three separate work stations – a 3-axis table; a 5-axis turning center that can turn, index, carve and machine between centers, even on a tapered component; and a 4-axis vertical clamping table that's located at the end of the machine and lets the operator work on ends or edges.

For medium to large shop owners who are just beginning to explore CNC options, they can get a quick overall view of just how a CNC "does it all" by visiting Anderson America's site (anderson-america.com) to watch a video of the Stratos Pro pick up a sheet of melamine-coated MDF, place it exactly where it needs to be, mill parts for a cabinet, and then deliver the parts to an outfeed table

as it simultaneously picks up the next sheet – all without a real live person in sight. The company operates a showroom and technology center with multiple demo machines in Charlotte, N.C.

Up the road in Durham, N.C. the engineers at ShopBot Tools (shopbottools.com) have worked hard to make 5-axis CNCs affordable for prototype builders and patternmakers. The 5-Axis PRSalpha CNC is a smaller version of full-scale machines, perfect for machining softer materials but not designed for production work in hardwoods. Here, the table rather than a gantry is moving. The work area is just 34" x 34", although the X axis can be extended. The tool also offers an impressive 24" in the Z axis (approximate, depends on the length of the cutter), and includes a 2.20-hp HSD spindle. ShopBot also offers several models of full-sized, production capable gantry tools.

Other resources well worth a visit when shopping for a do-it-all CNC are the websites of Limtech (limtechindustries.com), SNX Technologies (snxtechnologies.com), Atlantic Machinery (atlanticmach.com), Hendrick Mfg. (hendrickmanufacturing.com – the HSR-V 5 axis is especially appealing to shops that work with curves), Masterwood (masterwood.com), Shop Sabre (shopsabre.com), Velox (veloxcncrouters.com), Vision Engraving & Routing Systems (visionengravers.com), and last but not most certainly not least is the comprehensive catalog of U.S.-built CNCs at Dallas-based MultiCam

(multicam.com). Here, woodshops will find tables from 2' x 4' to 10' x 60' and beyond. The company supplies vacuum tables and pumps for easy parts fixturing, spindles from 4- to 20-hp, and the vaunted MultiCam EZ motion control systems with multiple home positions.

There has never been such a great time to start looking at multi-function machinery. **W**



Martin Machinery's Protec.

844-801-2732 Toll-Free
pmksystems.com



PMK Machines are also used to manufacture plastic component parts.

The C-1205 is our most versatile coping and end-matching machine, used by architectural millworks to manufacture wide plank flooring, re-claimed lumber, interior and exterior doors, cabinet doors 3/4 inch thick and larger for commercial customers.

No chipping or blowout of profiled or square parts, with no need of a backup part.

Standard 7.5 HP Motor 230/460 Volt

Unlimited length of part, Minimum length of part 3"

Capacity up to 2.5" thick & 13.5" wide

Maximum cutter diameter 5" OD

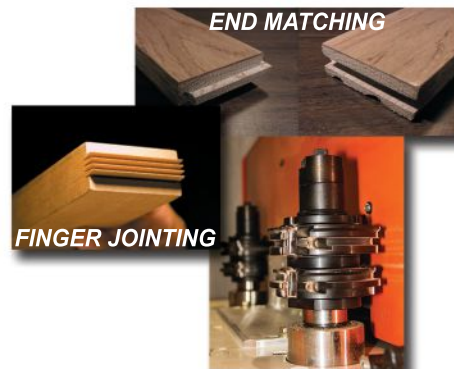
Cycle time (Variable 4 to 7 seconds)

Meets UL & CSA Electrical Standards

Heavy Duty, Reliable, Tested & Proven



PMK SPECIAL
With any order,
GET FREE FREIGHT
or
a single phase 2 HP
DUST COLLECTOR!



Two counter-rotating spindles.
One turns clockwise -
the other counter-clockwise.



BEFORE & AFTER - SINGLE & DOUBLE PROFILES

BEFORE & AFTER - COMPONENT PLASTIC PARTS

Time for a major clock exhibit in Rhode Island

By Jennifer Hicks

The Redwood Library & Athenaeum in Newport, R.I., recently opened "The Claggetts of Newport: Master Clockmakers in Colonial America", which will run through Apr. 21.

The exhibition features 35 clocks, the largest assemblage of Claggett and Wady clocks ever brought together, many never exhibited publicly. It examines the range of the Claggetts' clock production in terms of their technical sophistication, decorative finesse, and context of fabrication, according to Redwood.

"The exhibition charts a complex narrative that teases out the three distinct personalities that comprise the Claggett dynasty—William Claggett (1694-1748), his assumed relative Thomas Claggett (d. 1797), and William's son-in-law James Wady (ca. 1706-1759). As well, the show offers insights on the network of sub-contracted specialist case makers, brass founders and glaziers that the Claggett work-



Redwood Library clock exhibit.

PHOTO: MICHAEL OSEAN

The smartest investment in CNC you can make.

ShopBot tools deliver professional speed, power, and accuracy at a fraction of the cost of big-iron CNC machines. Our tools are exceptional for an endless variety of cutting, drilling, and carving operations – and have the ability to do so in an array of materials: wood, MDF, plastics, foams, vinyl, and non-ferrous metals, like aluminum.

ShopBot has been innovating CNC technology for over 20 years. Every ShopBot is designed, built, and supported in Durham, NC, USA. **And tech support is always free.**



Give us a call.
We'll help you choose
the right tool for the job.

**We make
the tools
for making the
future.**

ShopBot®
888-680-4466 • ShopBotTools.com

Commercial Forest Products begins forest stewardship project

Commercial Forest Products of Fontana, Calif., recently completed the acquisition of 150 acres of forestland in Harrington, Maine. The company is collaborating with the Maine Forest Service on a forest management plan for the long-term improvement of red maple and white pine density on the land.

"This annexation allows us to vertically integrate while taking an active role in forest stewardship. The timber harvested from this project will be distributed in a wood-to-warehouse format similar to the way that farm-to-table restaurants present their meals," Stephen Ondich, the company's operations manager, said in a statement. "The timber we bring to market will come with a well-documented provenance."

Proceeds from the harvest will be used to create access paths to environmentally significant areas for use by educators. These areas will be preserved and open to the public, according to the company.

Commercial Forest Products will document the transition process from unmanaged to managed forestland for educational purposes.

For more, visit www.commercialforestproducts.com.

shop relied on to produce their clocks," Redwood said in a statement.

It features 20 clocks by William Claggett, including the arch-dial, eight-day quarter-striking clock in japanned case belonging to the Redwood, 11 by Thomas Claggett, and four by Wady.

Featured clocks are drawn from the Metropolitan Museum of Art, Brown University, The Preservation Society of Newport County, Old Sturbridge Village Collection, and the Rhode Island Historical Society, as well as other borrowed from private collections.

For more, visit www.redwoodlibrary.org.

Pennsylvania Made

The Center for Art in Wood in Philadelphia is showing "Pennsylvania Made: Local Forms in the Collection", which opened Feb. 1 and will run through Apr. 20. The exhibition brings together more than 100 works, including vessels, furniture and sculpture among other pieces, that illustrate how wood inspires Pennsylvania artists and makers.

While the center has built an extensive collection over its 40-year history, this exhibition represents the first focus on the collection in the Gerry Lendfest Gallery since moving to its current space in 2011.



Secretaire by Mark Sfirri and Robert Dodge in "Pennsylvania Made".

For more, visit www.thecenterforartinwood.org. 

KCMA continues support of Design & Construction Week

The Kitchen Cabinet Manufacturers Association announced it is a supporting organization of the sixth annual Design & Construction Week in Las Vegas.

The event, scheduled for Feb. 19-21, will bring together more than 80,000 design and construction professionals in North America's largest gathering of the residential design and construction industry.

Members of the KCMA will enjoy discounted registration for the event, while the organization's leaders have the opportunity to participate in the Design & Construction Week Executive Roundtable to discuss issues and trends in the North American housing market and exchange ideas with other industry thought leaders.

"KCMA is excited once again to exhibit at KBIS after a successful show last year, and to show our support of DCW by participating as a Supporting Organization for the third year in a row," Betsy Nattz, the trade group's CEO, said in a statement.

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



VENTLESS LLC.

New York - Toronto

GO VENTLESS! THE FUTURE WAY TO SPRAY TODAY!



NO AIR MAKE UP NO HEAT LOSS
NO STACK NO DUST
NO ROOFING 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

NEW PRODUCTS

▶▶ **ASHLEY NORTON**, a manufacturer of architectural hardware, introduces its new White Medium patina. The versatile pewter-toned shade is a “living finish” that changes over time and with use. Handmade in small batches, White Medium develops a patina when exposed to the natural environment, allowing it to age gracefully throughout the life of the hardware, according to the company. White Medium finishes start at \$170 for interior handles and \$30 for cabinet pulls. For more visit www.ashleynorton.com.



Don't sweat the Schmalz stuff

Whether lifting light or heavy workpieces, the durability of a Schmalz material handling system assures you'll stay on task with speed, efficiency and ergonomic safety.

WWW.SCHMALZ.COM • SCHMALZ@SCHMALZ.US • 919-713-0880

Grizzly announces dates for Tent Sales

Tent Sales are scheduled at Grizzly's showrooms in Bellingham, Wash., on May 4 and Springfield, Mo., on June 8 and Sept. 14.

Grizzly's Tent Sales offer hundreds of woodworking and metalworking machines, hand and power tools, accessories and more at discounted prices.

All sales are on a first come, first serve basis. For more, visit www.grizzly.com.

Martin Woodworking adds Robland

Martin Woodworking Machines Corp. of Charlotte, N.C., will be the official general importer and service partner of Robland, the Belgian manufacturer of sliding tables saws, shapers, planers and combination machines, beginning Jan. 1.

Martin Woodworking also represents other European manufacturers - such as Weber, Gannomat, Barth, Aigner and AL-KO - and the products of its German parent company, Martin.

For more, visit www.martin.info.



▶▶ **HARDWARE RESOURCES**, a manufacturer of kitchen and bath cabinet components, presents its new double-wall steel drawer boxes built onto Dura-Close full-extension, soft-close, 100-lb. under-mount slides. For more, visit www.hardwareresources.com.

triton
Precision Power Tools



FREE

TRITON HAT WITH
ANY TRITON TOOL

OFFER VALID WHILE SUPPLIES LAST

BISTRITONTOOLS.COM
YOUR SOURCE FOR TRITON TOOLS PRODUCTS

SHOP NOW

LOWEST PRICES ■ FAST SHIPPING
800-365-6677



◀◀ **SAMES KREMLIN** introduces its new Airspray Tanks that offer multiple solutions to match a variety of needs. They are an easy, inexpensive solution to feed an FPro, manual pressure or automatic Airspray gun, and are compatible with Sames Kremlin's new air and fluid hoses, according to the company. For more, visit www.sames-kremlin.com.

▶▶ **CASTALY** introduces a 12" industrial jointer, featuring 3-hp direct drive motor and spiral/helical head. The jointer, model JT-0012S, also features a cast iron body, three-belt drive system and 72" x 13-3/8" table, according to the company. The jointer sells for \$4,990. For more, visit www.castaly.com.



Wide Belt Sanders

Edgebanders

Panel Saws

Screw Pocket Machines

CUT • ROUT • SAND • EDGE

- Built to endure for years
- Safe, accurate, single operator production
- Flexibility to process a wide range of materials
- Easy to operate and maintain
- Machine packages available
- 3-year warranties on select products

SAFETY SPEED
MANUFACTURING

For over 60 years, Safety Speed has built high quality panel processing machinery that is used by thousands of satisfied customers worldwide. Our products will increase your productivity and profits for years to come at a price that won't wipe out your budget today. Visit SafetySpeed.com to find a dealer near you.

1-800-772-2327
SafetySpeed.com

Had it with sanding dust? Bring in a pro.

- Sanding Tables
- Sanding Booths
- Inspection Lighting

SAND PRO®

SANDMAN Products
Sanding Tables, Sanding Booths, & Inspection Lighting
Ph: 800-265-2008 • info@sandmanproducts.com
www.sandmanproducts.com



◀ **BORA TOOL** introduces the Speedhorse, a contractor-grade sawhorse with folding legs and a pre-drilled metal top for attaching 2x4s and sacrificial tops. Each individual unit can support up to 1,500 lbs., according to the company. The Speedhorse retails for \$79. For more, visit www.boratool.com.

ILMA-US
TOOLING & SUPPLIES

THE FINEST QUALITY KNIFE STEEL

FORGED IN GERMANY
 PRECISION GROUND IN ITALY

M-2 M-3 T-1
 CORRUGATED 25" BARS

Phone: 508-295-5280
 Fax: 508-295-9219
 E-mail Cheryls@ilma-us.com
www.ilma-us.com

CABINET DOORS, DRAWERS & MORE!

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 KBIS in Las Vegas - Booth SL3925



◀ **BIG FOOT TOOLS** introduces the Flush Drive, an adjustable flush drive nail gun attachment for select framing nailers. The Flush Drive prevents nails from being over-driven with the head below the material surface which can greatly reduce the holding strength of the fastener and lead to premature failures of the mechanical holding of the nail, according to the company. It fits the Hitachi NR83A, NR83A2 and NR83A2(S); Porter-Cable FR350A, and Supco SFN-88 framing nailers, and sells for \$10.99. For more, visit www.bigfoottools.com.



▲ **KAPRO TOOLS** introduces the 873G Prolaser Vector laser level, featuring a green beam with a wavelength that is more easily detected by the human eye to see than a red beam, according to the company. For more, visit www.kapro.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

A GREAT JOINING SYSTEM JUST GOT BETTER!



MU-3PD Bench-top Routing Machine

- Bench-top routing machines with manual or pneumatic operation for any size shop
- Equipped with larger motors and greater machining capacities vs. previous models
- Available with digital displays for keyway locations and routing heights
- View videos and technical specs. online at www.hoffmann-usa.com

HOFFMANN

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



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

ARIZONA

April 3-5 — 63rd annual World of Wood Convention, sponsored by the International Wood Products Association, providing access to over 300 importers, exporters, manufacturers and other wood product vendors from over 30 countries. Location: Loews Ventana Canyon Resort in Tucson. www.iwpaawood.org

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. www.sfvw.org

Monthly — Society of Wood Manufacturing, a chapter of AWFS consisting of educators, manufacturers, hardware and industrial suppliers, and machinery dealers, meets during the second week of each month. For location and dates, visit www.awcla.com.

GEORGIA

March 15-17 — American Craft Show Atlanta, presented by the American Craft Council, featuring contemporary furniture, home décor, clothing and more by over 650 juried artists. Location: Cobb Galleria Centre. www.craftcouncil.org

March 15-17 — The Woodworking Shows at Atlanta featuring dozens of product vendors and workshops. Location: Cobb Galleria Centre. www.thewoodworkingshows.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. www.tampawoodcrafters.org

April 2-5 — Woodworking Industry Conference at the Omni Amelia Island Plantation Resort in Amelia Island. Annual business development event offering networking and educational opportunities. Jointly sponsored by the WMIA and WMMA. www.wmia.org or www.wmma.org

ILLINOIS

Feb. 8-10 — The Woodworking Shows at St. Louis featuring dozens of product vendors and workshops. Location: Gateway Center in Collinsville. www.thewoodworkingshows.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.

Drilling machines



www.martin-usa.com

ProTec

Compact CNC center

The perfect machine for efficient processing of drilling and routing jobs.



MARTIN on two shows
March 6-8, Charlotte

> Wood Pro Expo
> MARTIN In-house show

MARTIN
WOODWORKING MACHINES

MARTIN Woodworking Machines Corp. 8715 Sidney Circle, Ste. 100
Charlotte, NC 28269, USA 704-921-0360 info@martin-usa.com

HAFELE

BRING YOUR
CRAFTSMANSHIP
AND IMAGINATION.

NEW

OUR HINGES CAN HANDLE THE REST.



Salice Silentia + Soft Close
Concealed Hinge

CONCEALED. FACE FRAME. SPECIALTY. INSTITUTIONAL. AND MORE. Either way, you've got cabinets to make and our hinges will make them wow—with doors which swing, soft close and push-to-open for every project you have in the works.

LET OUR EXPERTS HELP GET YOUR NEXT
PROJECT STARTED!

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

Feb. 22-24 — American Craft Show Baltimore, presented by the American Craft Council, featuring contemporary furniture, home décor, clothing and more by over 650 juried artists. Location: Baltimore Convention Center. www.craftcouncil.org

MICHIGAN

Feb. 15-17 — The Woodworking Shows at Detroit featuring dozens of product vendors and workshops. Location: Suburban Collection Showplace in Novi. www.thewoodworkingshows.com

NEVADA

Feb. 19-21 — Kitchen & Bath Industry Show (KBIS) and International Builder's Show (IBS) concurrent shows. KBIS, owned by the National Kitchen & Bath Association, showcases the latest trends and products. IBS, owned by the National Association of Home Builders, showcases the latest building trends and products. Location: Las Vegas Convention Center. www.kbis.com or www.buildersshow.com

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. www.awfs.org

NEW JERSEY

March 1-3 — The Woodworking Shows at New Jersey featuring dozens of product vendors and workshops. Location: Meadowlands Expo Center in Secaucus. www.thewoodworkingshows.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. 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 third Thursday of each month at 7 p.m. at Klingspor's Woodworking Shop in MacGregor Village in Cary. www.trianglewoodworkers.com

Feb. 15-17 — 32nd annual Arts and Crafts Conference. Educational and entertaining conference for Arts and Crafts enthusiasts

featuring seminars and group discussions, exhibits, walking tours and more. Location: Omni Grove Park Inn in Asheville. www.arts-craftsconference.com

March 29-31 — The Woodworking Shows at Charlotte featuring dozens of product vendors and workshops. Location: The Park Expo in Charlotte. www.thewoodworkingshows.com

OHIO

March 8-10 — The Woodworking Shows at Columbus featuring dozens of product vendors and workshops. Location: Ohio Expo Center in Columbus. www.thewoodworkingshows.com

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 wood-turning groups. www.sdwoodworker.org

VIRGINIA

March 22-24 — The Woodworking Shows at Chantilly featuring dozens of product vendors and workshops. Location: Dulles Expo Center in Chantilly. For more, visit www.thewoodworkingshows.com. **W**

The Country's Largest Selection of Unique Slabs and Burls



**BERKSHIRE
PRODUCTS**

Sheffield, Mass
413-229-7919
BerkshireProducts.com

List your Events in our Calendar

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

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

**The events are also listed at no charge on the Internet:
www.woodshopnews.com**

Be sure to include: event name, date, location, sponsor, contact name and telephone number, and Web Site URL if applicable.

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



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



WOODSHOP
Shaping the Successful Shop™ **NEWS**

Branding Irons

Custom Branding Irons

Same day quotes

Industrial and Craftsman

Flame or Electric, Branding Presses

BRAND NEW INDUSTRIES INC

BrandNew Industries, Inc.
(800) 964-8251 • BrandNew.net
Over 20 Years of Experience!



Drawers & Doors

ARKANSAS WOOD DOORS
Complete Cabinet Door Source

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



quality

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

Elias Woodwork

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



Drawers & Doors

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

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



"Your Single Source Provider"

Doors, Drawers & More

- No Quantity Limits
- Over 70 Different Grades/Wood Species
- Design Flexibility
- Custom Sizes
- Finished or Unfinished
- Timely Delivery

WalzCraft

WalzCraft.com 800-237-1326



Dust Collectors

PRESTON MACHINERY, LLC

PM

NATIONWIDE SALES AND SERVICE

WMA MEMBER
AWFS MEMBER

"Setting the curve in quality since 1993"

- CNC Machinery
- Compressors
- Air Purifications
- Dust Collection
- Industrial Fans
- Engineering

www.PrestonMachineryllc.com
Thomas@PrestonMachineryllc.com

269-685-7591



Dust Collectors

Drop-Bottom™ Sawdust Hopper

Iron Bull's Drop-Bottom™ Sawdust Hoppers from 3/4 yd to 10 yd. capacity. Dump from operator seat. Hooks up to your cyclone.

IRON BULL
IRON TOUGH • BULL STRONG

Please call for more information
Iron Bull Mfg. LLC
765-597-2480



Fasteners

MONARCH
METAL FABRICATION

Easy Wall Panel System

Simple, decorative aluminum trim

(631) 750-3000
monarchmetal.com



CLASSIFIED ADVERTISING
CALL 860-767-3200 x 242

WOODSHOP
Shaping the Successful Shop™ **NEWS**

CLASSIFIED MARKETPLACE

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

Hardwoods

CR Muterspaw
LUMBER COMPANY

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

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!

Hardwoods

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

Our name says it all...

woodfinder®

Over 400 suppliers! 35 ways to search!

www.woodfinder.com

SINCE 1999

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
TOOL COMPANY INC.

Amana Tool®
REDEFINING WOODWORKING

LMT • ONSRUD **ES** TOOL

100% Satisfaction
Guaranteed

FAST TURN-AROUND &
FREE SHIPPING ONE WAY!

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

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

CONNECTICUT
SAW & TOOL

800.404.1220

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

FLAGSHIP

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

ST. ANGELO
Hardwoods, Inc.

Kiln Dried Hardwoods- Oak,
cherry, ash, hard maple, soft maple,
poplar, walnut and more.

Imported Lumber- Teak, Sipo/
Utile and Caribbean Heart Pine.
Heart Pine flooring also available.

LTL shipping available for
Orders of 250 BF or more!!

(401) 624-3900

sales@stangelohardwoods.com
http://stangelohardwoods.com

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

CLASSIFIED
ADVERTISING

CALL
860-767-3200
ext. 242

WOODSHOP
NEWS

Spray Booth & Finishing

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

WOODSHOP
NEWS
Shaping the Successful Shop™

CLASSIFIED MARKETPLACE

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

Vacuum Equipment

Vacuum Press

www.qualityvak.com

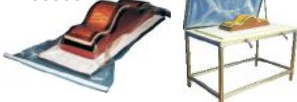
Pumps



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

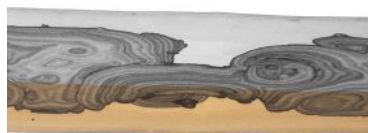
74 Apsley St. Hudson, MA 01749

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

Veneers

**On spec.
On budget.
On time.
Online.**

With 200+ species and "quick-find" filtering, GL Veneer's all-new website makes online shopping easier than ever.



GLVENEER.COM

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 Dewey St. New Albany, IN 47150

Wood Turning

TURNINGS UNLIMITED

Custom Woodturning



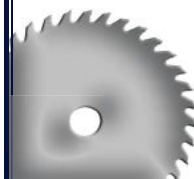
(937) 588-4050 Fax (937) 588-4051
236 Dogwood Lane, Latham, OH 45646
www.turningsunlimited.com

**WOODSHOP
NEWS**
Shaping the Successful Shop™

DO YOU SEE THIS AD?

Your customers do, too.

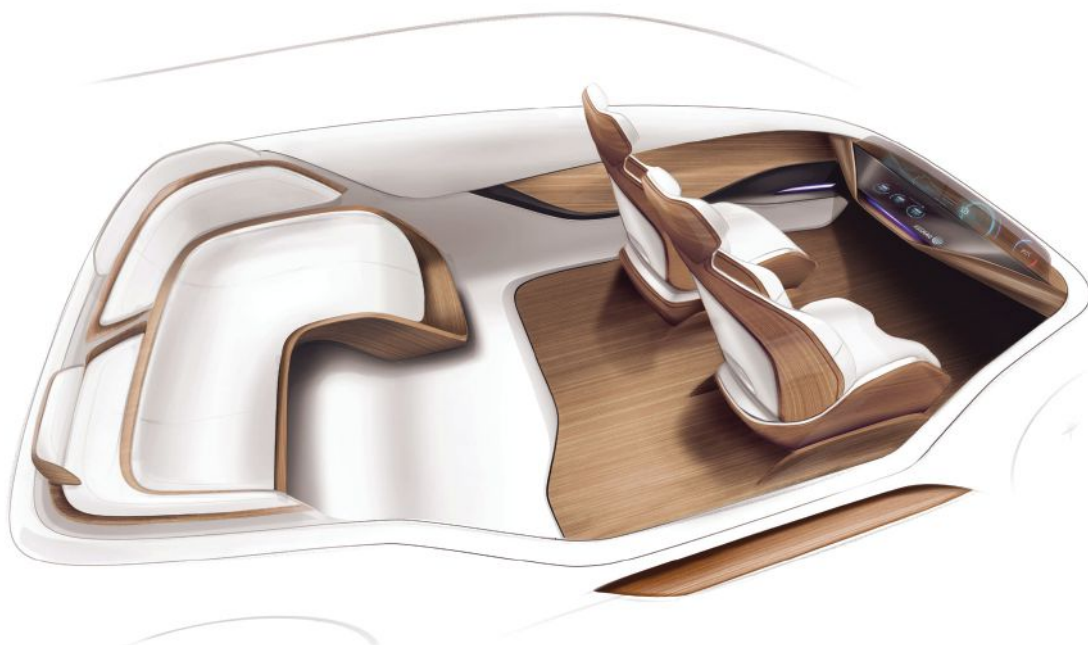
Place your ad here. Call 1-800-444-7686



**WOODSHOP
NEWS**
Shaping the Successful Shop™

ADVERTISING INDEX

Amana Tool.....	www.amanatool.com	C4	MARTIN Woodworking.....	www.martin-usa.com	59
Anderson America Corp.....	www.andersonamerica.com	7	Monarch Metal Fabrication.....	www.monarchmetal.com	27
Axiom Tool Group.....	www.axiomprecision.com	43	Mozaik Software Inc.....	www.mozaiksoftware.com	15
Beaver Tools.....	www.beavertools.com	39, 55	New England Drawer.....	www.newenglanddrawer.com	58
Berkshire Products.....	www.BerkProducts.com	60	Oneida Air Systems Inc.....	www.oneida-air.com	3
BESSEY Tools North America.....	www.besseytools.com	30	PMK Family, LLC.....	www.pmksystems.com	51
Cabinet Pro LLC.....	www.cabinetpro.com	20	Precision Drive Systems, PDS.....	www.PDSspindles.com	45
Cabinet vision / Hexagon.....	essential.cabinetvision.com	4	Safety Speed.....	www.SafetySpeed.com	56
CAMaster.....	www.CAMaster.com	38	Salice America.....	www.saliceamerica.com	2
Castaly Machine.....	www.lobomachine.com	21	SandMan Products.....	www.sandmanproducts.com	56
Castle, Inc.....	www.castleusa.com	24	Schmalz, Inc.....	www.schmalz.com	54
Charles GG Schmidt & Co.....	www.cggschmidt.com	29	ShopBot Tools, Inc.....	www.shopbottools.com	52
Colonial Saw / Lamello.....	www.csaw.com	37	Southworth Products Corp.....	www.southworthproducts.com	8
Connecticut Saw & Tool.....	www.ctsaw.com	5	Stiles Machinery.....	www.stilesmachinery.com	12
DC Distributing.....	www.dc-dist.com	25	Techno CNC Systems, LLC.....	www.technocnc.com	14
Felder USA.....	www.felderusa.com	1	Thermwood Corp.....	www.thermwood.com	44
Freedom Machine Tool.....	www.FreedomCNC.com	22	Vacuum Pressing Systems.....	www.vacupress.com	53
Grizzly Industrial, Inc.....	www.grizzly.com	32-33	Vacuum Tables.....	www.vacuumtables.com	28
Hafele America Co.....	www.hafele.com/us	59	Ventless Inc.....	www.ventless.ca	53
Hoffmann Machine Company.....	www.hoffmann-usa.com	58	Virutex.....	www.virutex.com	13
Holz-Her U.S. Inc.....	www.holzher.com	11	Wagner Meters.....	www.wagnermeters.com	23
ILMA-US.....	www.ILMA-US.COM	57	WalzCraft Industries Inc.....	www.WalzCraft.com	57
KCD Software.....	www.KCDsoftware.com	17	Williams & Hussey Machine Co.....	www.williamsnhussey.com	28
Laguna Tools Inc.....	www.lagunatools.com	9, 31	Wood Pro Expo.....	woodproexpo.com	19
Lignomat USA, LTD.....	www.lignomat.com	16	Woodstock International.....	www.woodstockinternational.com	C2
Limtech Industries.....	www.limtechindustries.com	26	Woodworker's Showcase.....	https://www.WoodworkersShowcase.com/	C3



Danzer and its representatives say carmakers are turning to wood for vehicle interiors.



Wood is good for car interiors

Hardwood specialist Danzer recently presented automobile interiors at Automobil Produktion magazine's Future Interior Summit in Böblingen, Germany.

The company, which has production facilities in North America and Europe, produces sliced veneer, lumber and decorative wood products. Its new wood/metal and wood/light combinations were featured at the show.

"Our Danzer Freeform line and our latest wood/light ideas are among the most in-demand products right now in the automotive industry. Carmakers are increasingly using wood for vehicle interiors," Eckart Schmitt, CEO of Danzer's Specialty Division, said in a statement.

"Wood emanates warmth, conveying a

sense of comfort and security. As an element, wood is set to play an increasingly important role, particularly when it comes to the high-tech cars of the future, primarily with respect to new generations of self-driving vehicles."

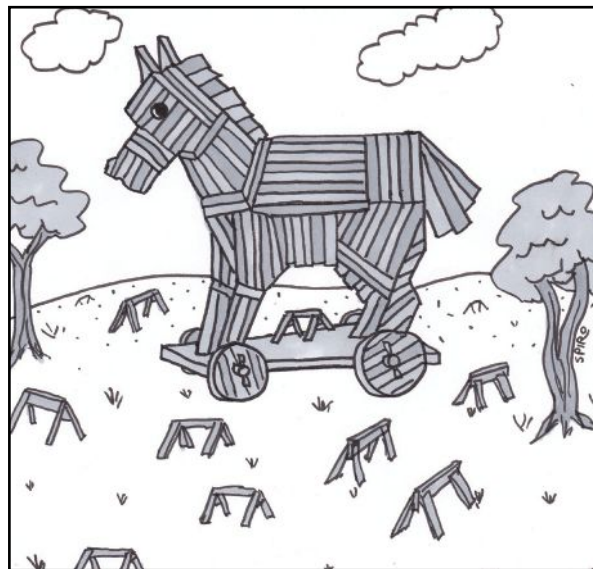
Danzer's Freeform technology is an industrial process that adds metal inlays to wood surfaces, making it possible to create veneers with inlays in virtually any shape. Decorative elements, typographical details and logos can be added to wood surfaces quickly and at reasonable cost, according to the company.

Danzer was also a main sponsor of the summit, which focused on future developments in automotive interiors and the prevailing trends in the transport sector.

For more, visit www.danzer.com. [W](#)

60 Grit

Rough humor by Steve Spiro

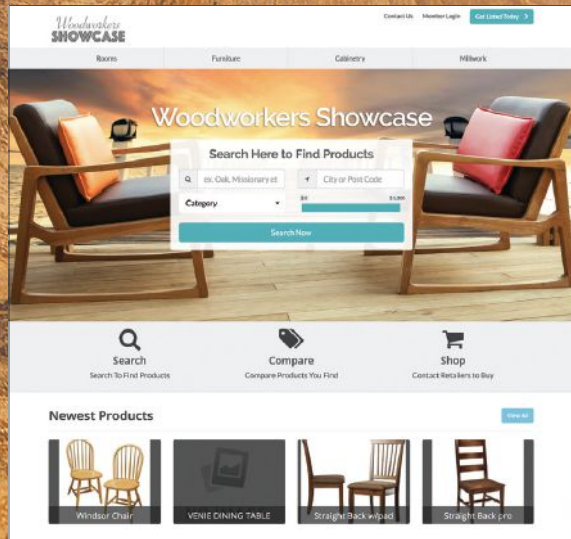


THE MOTHER OF ALL SAWHORSES

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/>



INDUSTRIAL **CNC** **ROUTER** **BITS**

Simply Perform!

1-800-445-0077

www.amanatool.com