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- Main blade size: 12", Arbor: 1", Tilt: 0-45°
- Depth of cut @ 90°: 35/16", @ 45°: 23/8"
- Scoring blade size: 43/4", Arbor: 20mm, Speed: 8000 RPM
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Max. rip capacity: 52" • Length of cross cut: 124"

Main table dimensions: 65% x 531/2"

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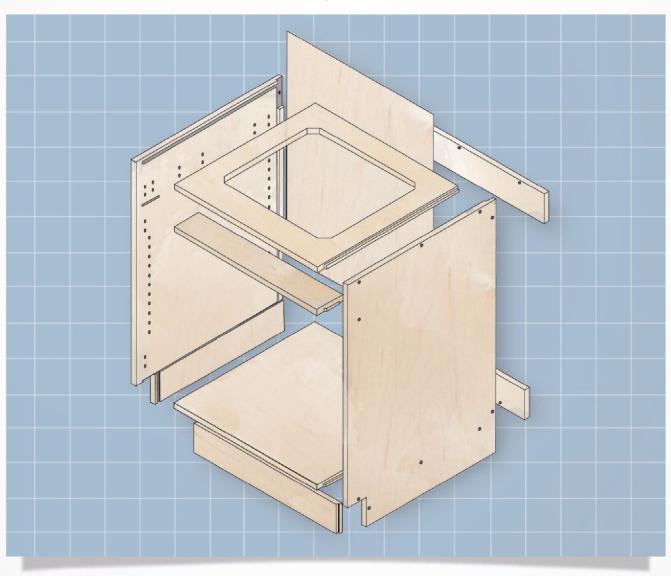
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Volume 23 Issue 6

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For clients seeking an alternative to cabinet replacement, refacing opens the door to new business opportunities for custom woodworkers.

Cover photo: Happy Owl Studio

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From WoodworkingNetwork.com/video

# **Robohand Helps Carpenter**

South African carpenter Richard Van As, who lost four fingers in a saw injury, worked with a Washington state designer and 3D printing to construct the Robohand. It is now also being used by about 100 children who were born with birth defects or suffered injuries.



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# **FirstVolley**

# AWI: Better and Stronger

The Architectural Wood Institute – holding its 61st Annual Convention Oct. 9-11 in Orlando – is a pillar of the woodworking industry, though some of its endeavors may escape the notice of non-members. Besides being highly accomplished in architectural millwork and buildouts, members are among the most savvy operations in the woodworking interiors field.

AWI sets and maintains, through careful rigor and review, the Architectural Woodwork Standards – the Bible of specification, construction and installation of interior architectural woodwork. AWI helped launch an affiliate AWI Quality Certification Program, which provides certification credentials to woodworking firms who, through comprehensive testing and inspection, demonstrate the ability to fabricate, finish and/or install work in accordance with the quality grade criteria set forth in those Architectural Woodwork Standards.

# **Woodwork Career Alliance**

AWI also administered the launch of the Woodwork Career Alliance (WCA), which verifies machine operating skills of woodworkers with its Passport Program. WCA is also developing training and certification programs for education centers, in schools and businesses across the country, addressing our need for skilled workers.

AWI's new *Cost of Doing Business Survey* found its members are doing better, both hiring and investing, which they richly deserve for all they provide our industry.





Bill Esler, Editor in Chief besler@vancepublishing.com



# A Superglue for Wood?

Online readers posed questions on Bioformix Nexabond high viscosity, water-free adhesive for wood products (aka, 'Superglue for wood'), with answers provided by the manufacturer's CEO Adam Malofsky.

As a woodturner, I've been using superglues for finishing pens and gluing layered bowls. I've been hearing that turners who sell their super-glued work in galleries have had pieces returned with failed joints. Now galleries are refusing to take any work bonded with superglue. How will you assure woodworkers in general, and woodturners specifically, that this glue is different? How can we be assured this bond will not deteriorate? Woodturner George, Georgia, USA

Malofsky responds: Turners are using those brittle adhesives for a purpose for which they were never intended. The *new* Bioformix cyanoacrylate adhesives undergo extensive humidity and thermal cycling testing, and results are excellent versus conventional cyanoacrylate and white glue adhesives. This is the first time such adhesives have been formulated specifically for wood and for how woodworkers assemble joints. We work with well-known turner, David Heim [pictured above at AWFS Fair 2013].

I'm curious as to what the shelf life is and storage requirements for Nexabond. Would the performance of this product be affected if it were to freeze? Glenn Weagle, Instructor, Hopkinton High, Georgia

Malofsky responds: It should not be, as long as it is not open and accumulating moisture. I store the competitive products and ours in a refrigerator for maximum shelf life, but cold adhesive will take longer to cure. Let it warm a bit. Our current well sealed shelf life at ambient temperatures is at least two years.

**Let's do that math on this**...16 oz is the largest bottle at \$54.96; 5 gallons would cost \$2,198. Even the most expensive Titebond is only \$200 for 5 gallons. They need to figure out how to make this less expensive. - **Jim, Georgia** 

Malofsky responds: Your point is on target and the math does work. First, you use about 80% to 90% less adhesive in much tighter joints than with white glue, so glue costs come down to \$219 to \$400. The process savings is where the real money is. No water means no waiting - immediate finishing, no swelling, no sanding, no work in process. At one shop, the time to build a door dropped by 80% and to finish it completely by over 90%. For a joint using 5 cents worth of our adhesive, the time savings is in the 50 cent to a dollar range. Now the cost is negative, something white glue cannot do.





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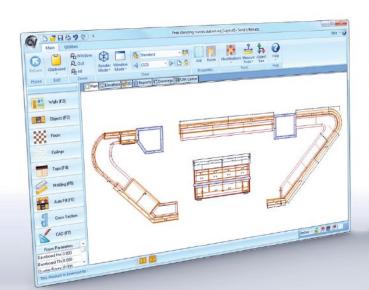
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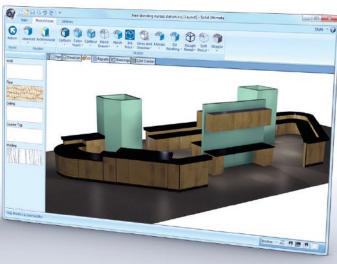
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# techspot | little wonders

# A New Angle on **Compound Cutting**

Calculating cut angles and projecting the blade path with lasers, a high-tech take on compound crosscuts.

By Bill Esler



**Cutting compound angles** in crosscut applications is often trial and error – with an emphasis on error. Woodworkers manually set stops and setting angles, check and recheck, miscut, repeating as needed.

TigerStop's new TigerAngle, shown at AWFS Fair 2013, is intended to trim back setup, test cuts and trial parts. Entered in the Visionary Awards (see p. 35), Tiger-Angle automates material length positioning and compound mitering, aimed at high volume horizontal and vertical angle cutting operations, such as window and door work, timber processing, framing, palleting, where TigerAngle can speed production 75%, says TigerStop.

Built into TigerAngle are features for safety and material optimization, and Tiger-Stop users will recognize its controls and automated length positioning system, for example, which allows TigerAngle to be used solely as a stop in a set point operation or used as a push feed operation.

The miter saw has been retrofitted with

TigerStop drives to automate miter adjustments. Beamworks Software, developed specifically for TigerAngle, lets the operator create or download cutlists directly to the computer, see visual representations of materials and store repeat jobs. (Beamworks is compatible with other woodworking software programs, too.)

Other features: automated safety hood; material clamping system for accurate positioning for cuts; extended pusher foot for reaching far into the hood on very small precision cuts (prevent operators from reaching in); and a laser guide to show exactly where the blade will cut.

See the Tiger Angle run at Woodworking Network. com/video





# Thermal Tool Mount Device

Leitz Tooling provides a steady flow of new CNC cutting tool technology, along with supporting systems such as the ThermoGrip show here.

Leitz says its ThermoGrip shrink-fit tool-holding system, which uses heat in setting cutting tools, offers precision with its one-piece chuck design, minimizing tool run-out, deflection and balance issues common to collet and hydro tool-holding systems.

The shrink-fit approach heats the tool holder, which expands to accept the cutting tool. The bore in the holder is a bit smaller than the tool shank, and it expands when heated to accept the tool. On cooling, it grips far more strongly than mechanical collets, with thousands of pounds of force.

Heat shrink technology allows for highest-speed machining, while yielding optimized cut quality and significantly extended tool life. ThermoGrip is less expensive than conventional collet chucks, says Leitz.

Leitz's U.S. operations are based in Grand Rapids, MI, where it recently moved its U.S. production facility from Jasper, IN.

Leitz offers apps and immense tooling knowledge base at leitztooling.com/resources.htm.





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# **World Class Cherry Award**

PSU students fabricate WMIA cherry wooden Globe Award with 5-axis solid block CNC technology.

by Sean Lechowicz

or years, the Woodworking Machinery Industry Association (WMIA) Wooden Globe Awards has honored excellence in woodworking in three categories: Innovator, Educator and Commitment to Excellence Through Technology. The design - a cherry wood globe cut from a solid block - has been the same for a decade. Since 2007, Pittsburg (KS) State University has been WMIA's source for producing it.

PSU's involvement began in 2001 when it won the Educator award. When WMIA was in need of a new partner in 2007 to make the trophy, PSU stepped in.

"We thought, 'We won the thing before,

why don't we make it?"" recalls PSU Professor Doug Hague. Using a C.R. Onsrud 5-axis CNC router, student volunteers program, cut, assemble, sand and finish six Globes. Though the same model is used each year, students are required to render it based on the previous year's Globes.

"They'll have to know how to replicate a design from scratch" when they are employed, notes Hague. "So it requires a little reverse engineering and for the students to look at something, take measurements, and see through a process."

Machine time for each globe is three to four hours. "A lot of that comes from a very

small step-over by the CNC, so that sanding the final product is extremely minimal," says Hague. "A globe from start to finish takes two or three days, a lot of that being heavy on the overhead side, including the making of all the jigs to hold the sphere."

PSU's woodworking degree program is thriving says Hague. "What has kept this program alive is the machinery dealers. They put their machines in our lab, and there are a lot of companies calling each year to hire our graduates."

> More Wooden Globe features at Woodwoodworkingnetwork. com/wood-archives/



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# **Outwater Bonds** with Real Wood

Real wood veneer sheets and real wood veneer edging are offered by this familiar source of trims and surfacing products.

By Wade Vonasek

Real wood veneer sheets from Outwater Plastics Industries Inc. may sound like a mis-match. But along with its Architectural Products by Outwater LLC business, the company manufactures and distributes more than 65,000 component products for woodworking businesses - including veneers. Outwater has 300,000-square-foot warehousing and distribution facilities in both New Jersey and Arizona. A free benchmark master catalog includes photos or drawings, schematics, technical information and pricing.

The introduction of its Real Wood Veneer Sheets and Real Wood Veneer Edging complements Outwater's mind-boggling selection of available trims and surfacing products.

The Real Wood Veneer Sheets consist of book matched, sanded and tenderized 1/42-in. thick genuine wood veneers. The veneers are

permanently bonded under heat and pressure to a paper backing, affixing the veneer to the surface to which it has been adhered, and serving as a two-sided barrier. This prevents adhesives from permeating the veneer's surface, and also thwarts surface finishing materials from affecting the adhesive's bonding agent on the veneer sheets in a stack.

Real Wood Veneer Sheets are available in nearly 30 different wood species (e.g., cherry, hickory, maple, red oak, walnut, ash, birch, african mahogany, pecan, sapeli, zebrawood, etc.) in several types of veneer cuts, each imparting various visual effects and characteristics based on the species. Outwater's Real Wood Veneer Sheets are offered both with and without peel and stick adhesive backing in 2-ft. x 8-ft. and 4-ft. x 8-ft. sheets.

Outwater also offers Real Wood Veneer



Edging, in eight species, including cherry, Honduras mahogany, maple, oak, ash and birch. Outwater's Real Wood Veneer Edging is manufactured in both finger-jointed and butt-jointed 250-ft., 500-ft. and 1,000-ft. fine sanded, stainable continuous rolls, and is produced in 7/8-in. fleece backed, 13/16-in. pre-glued and 1/2-in. to 1-1/2-in. peel and stick adhesive-backed varieties in an assortment of wood species. outwater.com

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# case study | CJS Millwork



# **Automating for Custom Work**

CAM software speeds special order work through the CNC at CJS Millwork.

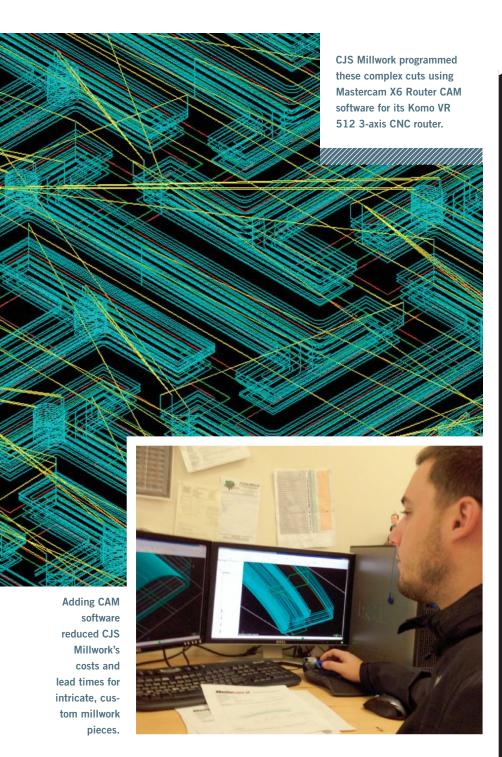
by Wade Vonasek

JS Millwork is a large custom millwork shop that that prides itself on being able to figure out how to make even the most difficult custom millwork pieces, from smooth radiuses along curved edges to intricate pocketed table tops to lattice work with 3D perspectives. Business has been robust for the Stamford, CT-based company, but robust does not always translate into profitable when it comes

to producing special order millwork.

In 2011, the company began looking for more advanced software for programming its Komo VR 512, 3-axis CNC router in order to reduce the cost and lead times for intricate millwork pieces. CJS was happy with this machine's performance, but was interested in being able to automatically generate more advanced programs, particularly for solid modeling of profiles on

radius parts. In the past, this type of work was done with a shaper, which required creating templates for each radius cut and purchasing an expensive knife to match the profile of the radius moulding. Using the shaper was a cost-effective approach for larger runs, but the time and cost of using the shaper significantly increased lead times and reduced profit margins for smaller quantities.



After surveying the marketplace CAM (Computer Aided Manufacturing) software, CJS chose Mastercam X6 Router (from CNC Software Inc.) because its automated Swept 2D toolpath was ideally suited for projecting full profiles along a radius using a small standard cutting tool. Mastercam was also less expensive, because the software is divided into modules that CJS could purchase as needed.

"This blew the whole thing wide open," says programmer Steve Scenna Jr. "First, we didn't have to buy a \$200 or \$300 knife every time we wanted to cut a profile. More important, instead of spending days making templates, we were spending just hours writing programs for our CNC Router."

CJS still uses the shaper for volume work or projects where templates already exist. But now a customer can come in with a



# CJS Cuts Into Hand White Oak

After using Mastercam for several months, an architect asked CJS Millwork to create a rectangular table with an intricate, deep-cut pattern in the tabletop, made from handpicked reclaimed white oak. The design, which was given to CJS as a photograph, called for cutting an extensive pattern of very deep pockets in a 2" deep tabletop.

Hard, reclaimed white oak can be very brittle, Scenna says, so there was no room for error. The hard oak pieces that comprised the tabletop panel were glued together carefully so they would lay perfectly flat on the router table. The pattern was drawn in Auto-CAD then imported into Mastercam. A ramping feature was used to make the pocket cuts less aggressive to avoid the potential for chipping. The Swept 2D and Ramping were used to create the movements for cutting the radius edges with a fluting bit, and the radius cuts were completed in two passes.

Scenna estimates that creating this tabletop prior to using Mastercam would have taken several days. With the CAM software, it took several hours to program the CNC Router and about two hours to cut the tabletop.

Video shows the reclaimed white oak tabletop design being made: woodworkingnetwork.com/cwb

# case study | CJS Millwork

sample of something they want made out of solid oak and CJS can model it in Auto-CAD, import it into Mastercam, and match the requested item profitably, even if it's a quantity of one.

## **Incremental Improvements**

CJS purchased a Maintenance license of Mastercam, which entitled the company to training, free software upgrades, and tech-

nical support from their reseller as needed. Scenna was soon using Mastercam daily, learning more and more things he could use it for. He says the learning process is ongoing and continues to add value to the CAM programming software.

In addition to Swept 2D, Scenna also uses additional programming features such as Backplot, which shows tool movement; Verify, which provides color-coded simula-

# In the Shop

## **CNC** Router

Komo VR 512, 3-axis CNC router with a 5' x 12' table

## Software

Mastercam X6 Router from CNC Software Inc. featuring Backplot, Verify, Toolpath, Ramping and Swent 2D

On the Web:

cismillwork.com

tion of stock removal; Toolpath Ramping, which allows toolpaths to be executed in pre-defined small increments, making it easier to take small passes over fragile materials and reducing the potential for them becoming chipped or nicked; and Toolpath Trimming, which allows him to assign a toolpath to an entire workpiece and then select areas of the part that he wants to "trim" so that the cutter will avoid these areas.

As the year progressed, CJS found more work being performed cost effectively on its CNC router. For example, a radius beaded faceframe that would have been manufactured in several pieces was now made as a single unit in a fraction of the time, as well as a single-piece trellis with a 3D design that gives the illusion of depth. All are drawn in AutoCAD, then modeled and programmed with Mastercam.

# **Business Impact**

CJS President Christopher Sculti says that the implementation of Mastercam has had a very favorable impact on his business, including reduction of lead times, improved productivity for decorative millwork, and increased utilization of the company's CNC router. In addition, CJS is using advanced programming features of Mastercam to create pieces that require less sanding and other finishing operations after they are produced. These improvements, in many cases, have translated into more competitive pricing, which in turn has lead to the acquisition of additional business.

See a CJS Millwork photo slideshow at woodworkingnetwork.com/ cwb





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# Depth Setter **Avoids Overdrive**

Starborn Industries' new tool puts the kibosh to over- and under-drilled screws without damaging surfaces or stripping the screw recess.

By Bill Esler



The effort to set screw depths to avoid over- or under-drilling has given rise to numerous approaches – from wrapping the drill bit in masking tape to a wide variety of gadgets and devices.

So we shouldn't have been surprised, when we posted this screw depth setting tool description online, that we got a lot of response and page views. Even though it is intended for decking, woodworkers were quick to see applications in other areas as well.

This Smart-Bit Deck Screw Depth Setter was developed by Starborn Industries, a manufacturer and distributor of fastening products. How does it work?

The Smart-Bit Depth Setter features an auto-stop mechanism that automatically disengages the driver bit and stops the screw from driving further once the desired depth is reached. And it manages to do this without stripping the screw recess.

The tool also features a free spinning stop collar and rubber O-ring to protect the work surface from damage and marking. Further, the Smart-Bit Depth Setter can be adjusted for use with many different screw types and applications. Once the screw depth is set on the tool and locked in place, the Smart-Bit Depth Setter produces consistent results throughout an installation.

Starborn says that this new, adjustable tool will work equally well with its own brand of fasteners or with brands of fastening products, and is ideal for ensuring screws are set to the desired depth below the work surface in applications such as decking, drywall and general building.

The Smart-Bit Depth Setter works with both Phillips and Torx bits. Each Smart-Bit comes complete with one T-20 bit in the tool, as well as four additional replacement bits: two T-20 bits, one T-25 and one #2 PH. **starbornindustries.com** 



More views and video of this tool at Woodworking Network. com/cwb



# Pocket Hole Jig Gets a Makeover Tool

Kreg Tool says its new Kreg Jig K5 pocket hole jig features a clamping mechanism that has a front-mounted handle and adjusts to different work-piece thicknesses without tools or adjusting nuts. Adjusting for different thicknesses is done, instead, by sliding the clamping mechanism into position, lifting a front-mounted handle, then pushing it back down. This sets the spring-loaded clamp to hold tight. Reset is done by following the same steps. Rubber padding on the clamp face prevents workpiece marring.

The new K5 jig also has a quick-release drill guide block, as well as a new setting block for the drill bit stop collar. A standard 3-hole drill guide block is included, and the Jig K5 is compatible with Kreg's Micro Pocket Drill Guide and Kreg Jig HD.

A pair of extension wings supports wide or long workpieces – and can store drill and driver bits, screws, etc. An adjustable workpiece stop, a swiveling dust-collection port, and hex-shank drill and driver bits are also included. Kreg prices the K5 at \$139.99. It ships Sept. 1. www.kregtool.com

Watch it run in Suppliers Videos at Woodworking Network.com/videos

# finishing tips | spraying

# Speed, Distance Spray Gun Technique

The distance the spray gun tip, as well as the speed that the gun is moved over the surface, is important in achieving the best finish possible.

By Bernie Bottens

In spray coating, speed and distance are your friends when it comes to getting the best finish. The distance the spray gun tip is from the object being sprayed is important, as is the speed the gun is moved over the surface.

Speed controls the amount of coating that is applied per pass to the surface. The faster the spray tip travels over the object, the less you apply. This can be important if you are applying a coating of very low viscosity. Going too slowly will create runs. Not moving across the surface at a consistent speed means that the coating will not be applied evenly.

The distance the tip is above the surface also affects the amount of coating applied. The farther away from the surface, the bigger the fan pattern is and the more disbursed the coating will land. But not being able to maintain a consistent distance will apply the coating unevenly.

Discipline yourself to find and maintain the "sweet spots" of distance and a constant speed. A lot of people use their forearm incorrectly when spraying, most of the time using their wrist (forearm rotation) at the beginning and end of a pass to make up for not using their arm and body to keep the gun moving precisely. The end result is less coating on the leading and trailing edge of an object and more in the middle.

Always keep the fan pointed perfectly perpendicular to the surface, but never wave the



spray fan by rotating your forearm. Use your wrist only to keep the fan pattern perpendicular to the line of travel all the way through the pass. That is essential to consistent millage on the surface. More Bernie at woodworkingnetwork.com/wood-blogs/bernie-bottens.





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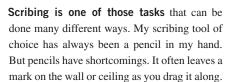


# wood pro | **patchin**

# It Beats a Pencil Nifty Tool To Scribe

When scribing, the shortcomings of your pencil are resolved with this accurate and adjustable helper.

By Jared Patchin, J Alexander Fine Woodworking, Boise, ID



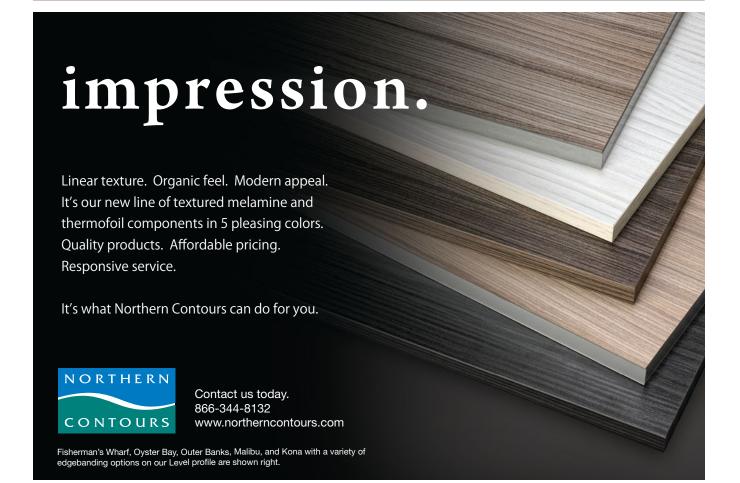
Pencils also have a one size fits all scribe depth. There is no adjustability, unless you tip or angle the pencil, which is anything but accurate. Lastly, pencils fail in the scribe mark itself. If the lead is dull, you are left with a thick, fat groove pressed into your workpiece. If the lead is nice and sharp, chances are it will break when pressed against the surface.

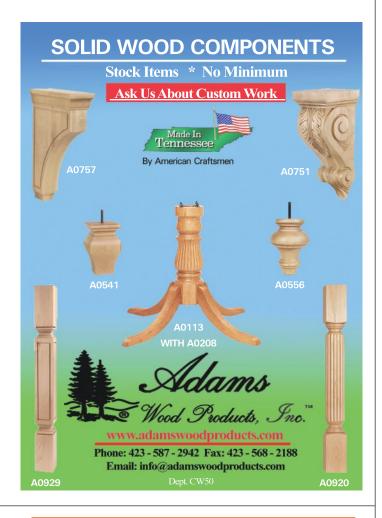
The Thingamejig solves all of these issues. A non-marring plastic pad connects to the circular plate to prevent marring finished surfaces while scribing. The scribing height is minutely adjustable from 0" to 1.5", and can be locked in place to ensure it does not shift.

Lastly, the scoring blades are razor sharp, so very little pressure is needed to create a nice clean scoring line on the surface. After using the Thingamejig on a few jobs, I found an added benefit: on darker woods or a stained finish, pencil lead can be impossible to make out, while a scored line is crisp and clean, easy to see the boundary line while planing.

Sometimes I am too lazy to dig out the Thingamejig, and use the pencil instead. Then I kick myself for the sub-par results. woodworkingnetwork.com/wood-blogs/jared-patchin.











# Help Finding Workers and Jobs

Employers connect with candidates, and vice versa, at Woodworking Network's new career center on the Job Board.

By Sean Lechowicz, Editorial Assistant

**Situations Wanted and Job Postings** are easy to find at Woodworking Network's new career center – the Job Board, launched in partnership with JobTarget, an industry job board development and management firm. (JobTarget powers more than 1,100 job websites and career centers for organizations that serve targeted business segments.)

At the site August 6, a cabinetmaker apprentice was sought by RC Smith Casework Co., in Minneapolis; cabinetmakers are sought at Bearwood Concepts in Tulsa; and a carpenter opening is listed for UC Berkeley.

The Woodworking Network Job Board career center focuses on connecting employers in the wood manu-

facturing and custom woodworking fields with eligible qualified candidates. By using the recruitment service, employers are given access to Woodworking Network's readership, so a job posting will reach a large number of highly skilled passive and active job seekers.

The career center includes pre-screen filters, the option to include a company profile and logo with a posting, and a pay-per-use resume bank. Woodworking Network's membership can find a unique opportunity to connect with employers and recruiters posting jobs specific to their woodworking skills. Candidates can post resumes anonymously, search through job postings and set up personal job alerts. More at: jobs.woodworkingnetwork.com/home

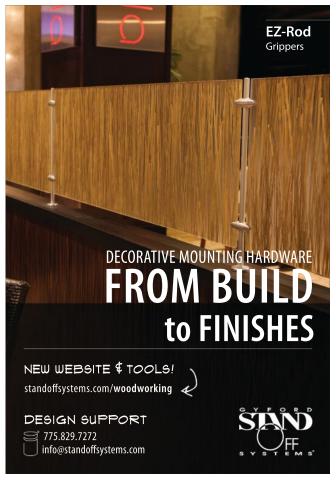


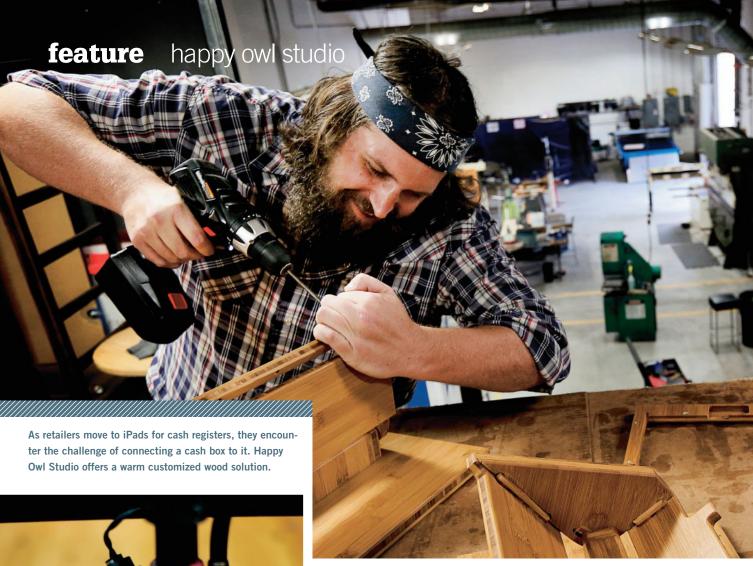












# **Custom Digital Wood Crafters**

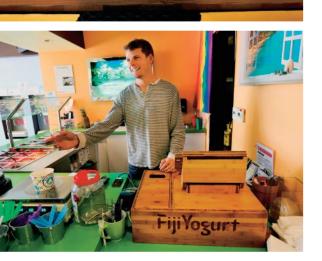
Happy Owl Studio handles batch custom wood manufacturing in leased space.

By Michaelle Bradford & Bill Esler

Pad cash registers are popping up all over, allowing small shop owners to use the latest technology in creative wood frames to ring up sales. Custom wood products firm Happy Owl Studio is cashing in on the developing niche, making nextgeneration wood registers.

While the iPad can easily handle online sales and credit cards, for printing paper receipts and for customers paying with cash, a traditional register box is needed.

The team at San Diego-based Happy Owl, self-described "Apple devotees," found a way to integrate iPad-controlled electronics with elecro-mechanic hardware, and launched the "cash register of the future" in 2012. The Cashbox, as it is called, is an all-in-one iPad point of sale system featuring a wooden box handcrafted from Cali Bamboo plywood and finished in several





styles: Flat Grain Amber, Natural or Marble Woven.

The innovative design of the Cashbox includes an arch system that gracefully tilts the iPad from the cashier ringing up the sale, to the customer for a digital signature - done with a fingertip. The wood frame that wraps the iPad and connects to the arch stabilizes and extends the credit card reader enhancing the security of the iPad and increasing the reliability of card-swiping. It integrates a cash drawer that opens with a single tap on the iPad, a receipt printer with paperless options, and an Apple keyboard. Chief Design Officer Ryan Jordan takes pride in concealing any wiring through careful craftsmanship and design.

Each box is available with custom laser engraving. The production equipment Happy Owl Studio uses – a CNC, laser engraver, saws, planers, sanders, jointers and the like – are included in a rent-bythe-hour manufacturing space, part of the Makerplace, a 14,000-square-foot public

access workshop in San Diego.

Within Makerplace is a full production wood shop, metal shop, flatbed laser engravers, California approved paint booth, 3D printers, CNC router, CNC mills, CNC plasma torch, a wood lathe, a metal lathe, a TIG/MIG welding lab, and electronics lab.

In April, Happy Owl Studio released an updated version of its Cashbox, re-enginnered to accommodate a wider range of credit card systems.

"When we first began designing the Cashbox, we were working primarily with Square's card reader in mind," says Jordan, who along with Devon Read and Nathan Havey co-founded the company.

"Once we hit the market, we started to quickly realize just how many retailers were looking for more features." These required more access to power, and hiding the cables was a key part of the Cashbox aesthetic. "So we went back to the drawing board and came up with a

system that allows us to accommodate any reader." The tilting action is smoother and more reliable, and, "It's even more compact and svelte than our first design," Jordan says.

"We have done a couple different versions in different woods," he says. "We built one for a donut shop in Abu Dabi, all whitewash wood to match their flooring.

"I've done a couple in walnut. We just glue it up and plane it down like a normal project." For a farm with a retail shop, "We built one of redwood." The Cashbox was

# feature | happy owl studio

given a distressed finish through sandblasting. "Most of our work is custom," Jordan says. "Almost all of it comes out of a conversation with an owner."

Clients customize their Cashbox with logos, emblazoned using a 100 Watt Category 5 Katrina by Hurricane Laser, with a 60" X 48" work table. "It does a fantastic job engraving or cutting everything we throw at it," Jordan says. A 4' X 8' Viccam CNC

router does cuts for each project.

Because they rent space, jobs are ganged together, with a minimum two orders initiating production. "We're constantly in production at some stage." The success of the Cashbox has also lead to conventional woodworking jobs.

"The woodshop side of our business has done really well," Jordan notes, with requests coming in for walnut display boxes



# **CNC Router/ Laser Cutter**

Viccam VS 4x8-ft. flat bed 2-axis Hurricane 80 Watt, 100 Watt

# **Application Software**

VicEngrave, VcarvePro

## **Laser Cutter**

planer, jointer, sanders (belt, drum, oscillating) router table, mortising machine, pocket hole jig

for high-end headphones, prototypes and concepts, even signage. "We've been getting all these jobs for people." A self-taught woodworker, Jordan has taken naturally to the business. "Since we have been building the Cashbox, my skillset has really expanded," he says, and is developing furniture concepts and other new lines, including an adaptation of the Cashbox for a mall kiosk.

Jordan and his colleagues are quick studies, and all have a technical bent. "With our technical side of being able to pull electricity through a table without a power strip, the customizability of the Cashbox is right on the line between function and art," Jordan says.

# Made in America

Happy Owl Studio also is riding on the trend to domestic manufacture. Jordan says he and his colleagues began making fabric and leather cases for Apple products, producing those goods in China.

"When the credit card iPad revolution came, we wanted to be out in front of it," Jordan says. "We were initially thinking we would have to make these things in China, and we were burned out on China. 'It's wood,' we thought. 'We could build that.'"

Working with a production cabinet shop to have access to a router, "We were starting to run out of money. Then we found Makerplace. It allows us to have a big shop with virtually no overhead, and a production team in the city we grew up in using our friends."

Video shows Happy Owl Studio in production at woodworkingnetwork. com/cwb

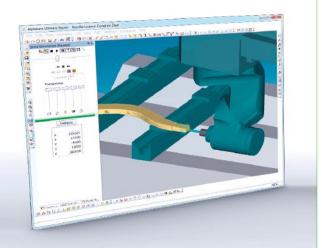








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# shop tips | tool repair

# How To Fix **Power Tools**

Repairing power tools on your own, rather then sending them to repair centers, can save money, and deliver faster turnaround.

by Bill Esler

Portable power tool repairs can be pricey. "Taking power tools to a repair center is almost as expensive as buying a new tool, and sending them to the manufacturer can take weeks," says David Fairbanks, CEO of eRaplacementParts.com. "Repairing them yourself is the most affordable option."

But repairing it yourself can be daunting. Fairbanks offers some tips on common breakdowns that are relatively easy to fix.

"The hardest part of a repair is diagnosing the problem," Fairbanks says. "Once you know what's wrong, you can order the appropriate part and follow online repair tutorials."

When diagnosing a tool for repair, think of it as a group of systems. Most tools will consist

of an electrical system and one or more mechanical systems. Most electrical problems can be solved by doing a few tests with a multimeter. "By taking a few voltage and continuity tests, you can isolate the faulty part," says Fairbanks. "When looking at the various mechanical systems, look for signs of wear, bearing condition and proper lubrication. Also look for damage such as cracked castings or bent parts."

A planer, for example, "has a basic electrical system consisting of incoming power, a switch and a motor. Your planer will also have a few different mechanical systems such as the feed rollers, a cutter head and a table raising sys-

tem. Isolate in which

of the systems the problem exists." Among the most common parts needing replacement on woodworking power tools are switches, power cords and motor brushes. More at woodworkingnetwork.com/cwb



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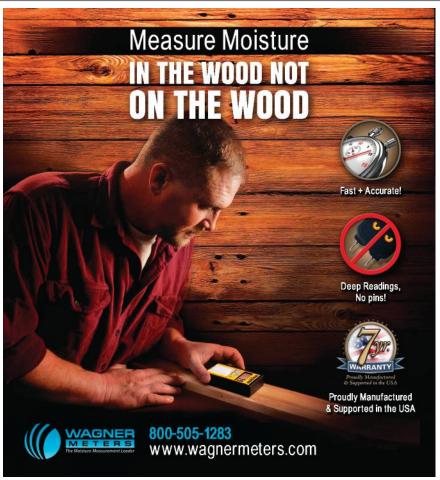
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# **Product Spotlight**

# Entries and winners of the AWFS 2013 Visionary Awards

Staff Report

Isionary New Product Awards were given to seven exhibiting companies at last month's AWFS Fair 2013. Recognzing creativity and innovation, as well as leadership in green/environmental product development, the winners were selected from 65 entries.

The winning companies and products are: Bioformix Inc., **Nexabond 2500** Wood Adhesive; Biesse America, **AirForce Hot Air Edgebanding** 

Technology; SNX Technologies, **Vitap Eclipse** Automated Contour Edgebander; Senco, **Duraspin** Auto Feed Screw Systems; Mozaik Software, **Mozaik CNC** Complete Software; Kremlin-Rexson-Exel North America, **EOS Pump**; and Graco Inc., **PD2K**.

Listed below is information on the winning products, as well as all the entries in the 2013 Visionary Awards. More information also can be found online at **WoodworkingNetwork.com/AWFS-Fair**.





## A.A.C. Forearm Forklift Entry: Moving Harness

Moving Harness is for lifting and moving items of all sizes such as furniture, safes, woodworking machines, and more. Used in conjunction with Forearm Forklift Lifting Straps, Moving Harness employs a leverage that makes items being carried seem 66% lighter, the company says. (888) 334-1133, forearmforklift.com

## Alanod Gmbh & Co. KG Entry: Celialux

Celialux is a customizable LED lighting technology that can produce colors and color blends. Alanod says it is suitable for the simulation of daylight, reflecting the light of an "invisible" LED light in the room. It features a printable glass cover and comes in different sizes and frame colors. (440) 327-8184, alanod.com

## Apollo Sprayers Intl Entry: ECO-3

The ASI-HVLP ECO-3 turbine system comes with a choice of two Apollo HVLP spray guns, the E5011 and E7000, and a foam filter with QT Quiet Technology in a case designed to allow full ventilation and air filtration. The ECO series also includes a 20' air hose with quick disconnect to the spray gun. ECO-3 sprays a range of thin- to medium-viscosity finishes. (888) 900-4857, ASI-HVLP.com

Entry: ECO-4 Apollo Sprayers' ASI-HVLP ECO-4 turbine

system comes with a choice of two Apollo HVLP spray guns, the E5011 and E7000, and

a foam filter with QT Quiet Technology in a case designed to allow full ventilation and air filtration. ECO also includes a 20' air hose with quick disconnect to the spray gun. ECO-4 offers a range of coating viscosities. (888) 900-4857, ASI-HVLP.com

# ASW Machinery dba Felder Group USA

Entry: Silent Power Cutter Block
For jointers and planers, Felder's new
patented "Silent-Power" spiral cutterblock,
with a drawing cut, features 10dB noise
reduction due to the spiral cutterhead
design; insert carbide knives that increase
tool life by up to 20 times; carbide insert
knives that are 4-sided for extended
time between knife replacement; and
shear cutting angle. (866) 792-5288,
FelderUSA.com

## Biesse America Winner: AirForce Hot Air Edgebanding Technology

Biesse's AirForce Hot Air edgebanding technology allows panel processors to have a glue-free system to weld laser edges without the need of a complex and expensive laser system. (877) 8-BIESSE, BiesseAmerica.com

## **Entry: Twin Pusher**

Biesse says its new 4 Series Twin Pusher 1.2 can improve the output of a standard Sektor Series saws by up to 25%. (877) 8-BIESSE, BiesseAmerica.com

## Entry: bSolid Software

Available from Biesse, bSolid has a new

learning system that offers simplified process management, improved performance and reduced machining times. (877) 8-BIESSE, BiesseAmerica.com

## **Bioformix**

### Winner: Nexabond 2500 Instart Wood Adhesive

Bioformix offers Nexabond 2500 Instant Wood Adhesive, a high viscosity, waterfree adhesive for assembly of materials that require uniform stress distribution and high strength. The "Super Glue" for wood is made without any solvent, which means components glued with Nexabond achieve high bonding strength in minutes because there is nothing to evaporate. This also means that wood joints won't swell, eliminating long dry times, Bioformix says. (513) 448-0308, Bioformix.com

## **Blum**

## **Entry: Servo-Drive for Aventos**

Blum introduces the Servo-Drive for use with the Aventos electronic opening system for lift doors on upper cabinets. The electronic opening system opens upward, says Blum, with a light touch of the door. Activation lifts the door(s) up and out of the way. A wireless switch closes the door and is typically mounted at the bottom of the cabinet. (800) 438-6788, Blum.com/us/en

## Casadei-Busellato USA Entry: THESIX

THESIX offers vertical and horizontal drilling and grooving. There are no vacuum cups or panel supports to position. The machine moves the part in its long axis and moves the machining head over and across the short axis, and the motion of the machining head is limited to the width of the part. (336) 854-1211, Casadei-Busellato.com

## CIM-TEC.COM, INC. Entry: SOLID-CIM3D

CIM-Tech offers Solid-CIM 3D for programming or nesting 3D solid parts and assemblies from AutoCAD. Autodesk

Inventor and many other solid modeling products. Automatic Feature Recognition (AFR) works directly on 3D solids and 3D solid assemblies to lay parts flat and identify machine operations. With one click, nested programs for any CNC machine are created with a cutilist. (866) 823-4366, CIM-Tech.com

# The Collins Companies Entry: MR50 Pine FreeForm PB

Collins says its FreeForm pine particleboard's MR50 product line meets the moisture-resistant specifications for ANSI A208.1-2009. Collins s' MR50 products are suitable for a wide-range of laminating applications. Collins says its line is the industry's first MR50 rated particleboard. (800) 329-1219, CollinsCo.com

## **Entry: MR50 Pine Particleboard**

Collins' pine particleboard's MR50 product line meets the moisture resistant specifications for ANSI A208.1-2009, and is suited for use in kitchen, bath, hospitality and other environments with high humidity and incidental moisture contact. Collins adds that its MR50 products have no added formaldehyde (NAF) and contain 100% post-industrial wood fiber. (800) 329-1219. CollinsCo.com

# DAMSTON, Inc.

# **Entry: D300 Wood Panel Clamp**

Damstom's D300 panel clamp prevents the curvature of wood during the gluing process and significantly minimizes the manipulation by using less tooling compared to the conventional method, the company says. The D300 offers the user the opportunity to work with different thicknesses of pieces of wood up to 4-1/2" while simultaneously making a 36" long laminated panel. (450) 824-1592, damstom.com

## **Delmhorst**

**Entry: ProScan Moisture Meter** ProScan is a pinless moisture meter that features built-in species corrections by



# Visionary Awards









Damston

**ASW Machinery/Felder Group** 

**Invis North America** 

allowing the user to key in the specific gravity of the wood being tested. In addition, ProScan has a "HOLD" feature so that the operator can freeze a reading on screen, and offers a user-adjustable alarm and built-in calibration check. (973) 334-2557, delmhorst.com

## **Dixon Enterprises Entry: SurfPrep Foam Abrasives**

Dixon Enterprises' SurfPrep is a sanding system for prep and finish sanding. The SurfPrep System includes: proprietary abrasive grains bonded to foam with a flexible, environmentally friendly, nonloading adhesive in sanding pads and discs; low-profile, orbital and random orbital air sanders; and back-up pads available in a variety of shapes and sizes. (951) 245-4200, dixonabrasives.com

# Ecogate, Inc.

# **Entry: Automatic Calibration** and Mapping Software

Ecogate's energy-saving Automatic Calibration and Mapping Software in the greenBOX Master automatically measures ventilation system performance in the full range of operating conditions. It optimizes system settings to obtain the maximum possible energy savings, while maintaining minimum transport velocities in the ducting system. (818) 506-6016, ecogate.com

## **Entry: Velocity Sensing Gate** for Energy Savings

Ecogate's energy-saving gate for industrial ventilation systems measures air velocity. pressure and volume, then transmits the information to the Ecogate greenBOX Master where it is used as system control and balancing. The system automatically recalibrates after changes to the dust collection system for optimal operation. (818) 506-6016, ecogate.com

## Fuji Ind. Spray **Equipment**

## **Entry: T-Series Spray Gun**

The Fuii T-Series Spray Gun features an exclusive side-mounted Pattern Control Knob to adjust the size of the fan and is non-bleed, which means that air passes through the spray gun only when the trigger is pulled. The T-series has a chrome aun body finish, eraonomic stay-cool handle and all stainless steel passages. (800) 650-0930, fujispray.com

# **General Tools & Instruments**

Entry: E-Z Pro Crown King The E-Z Pro Crown King accurately cuts crown moulding, producing interior and exterior corner joints with the three most common crown moulding spring angles (38, 45 and 52 degrees). Comprised of two pieces - the jig itself and a versatile and reconfigurable insert/adapter - the E-Z Pro Crown King requires no assembly. (800) 697-8665, generaltools.com

**Dixson Enterprises** 

## Graco Inc. Winner: PD2K

Graco says the ProMix PD2K two component proportioning system delivers superior ratio accuracy while reducing waste from color changes and flushing by up to 80%. The ProMix PD2K works for all two-component materials and incorporates electronic fluid management, meaning there are no fluid regulators to flush and the user can maintain optimal transfer efficiency, Graco says. (612) 623-6000, graco.com

## **Entry: E-Flo**

The E-Flo DC electric pump requires only 110V or 220V power, eliminating the dependence on an inefficient compressed air system. The E-Flo DC operates like a traditional pneumatic pump, and can stall under pressure and change speeds to maintain a constant pressure. (612) 623-6000, graco.com

## **Entry: Informer**

The Informer is a tool for reducing paint waste, collecting data and improving the finishing process. This fluid monitoring package measures flow rate and the amount of material that passes through a fluid line while the optional Advanced Web Interface (AWI) lets the user gather information right from his or her office. (612) 623-6000, graco.com

## **Entry: PROControl 1KE**

Graco's ProControl 1KE not only monitors paint performance, but can manage both fluid or air pressure to precise spray parameters. Graco says the ProControl 1KF also can decrease errors when upper and lower limits are set for flow rate and fluid pressure, or allow the operator to adjust the output within preselected limits. (612) 623-6000, graco.com

# **HSD USA**

# Entry: ES951 E-CORE

HSD Mechatronic Solutions offers the ES951 e-core 'intelligent' spindle. Its "smart" control system features real-time electrospindle rotation speed, working hours data monitoring and recording at different rotation speeds and digital

sensors calibration. The ES951 e-core comes Canopen and I/O Link FIELDBUS ready, and the modular construction allows the shaft kit to be frontally replaced. (954) 587-1991, hsdusa.com

# Inmes-USA, Inc.

## Entry: IM-2900 Beam Panel Saw

The IM-2900 Concept beam saw features a length cutting capacity of 2900mm and height of 45mm with variable feed-rate from 10 up to 30 mpm and return of 30 mpm. The IM-2900 is equipped with a set of horizontal hardened and ground cylindrical shaft guides at 4000 meter length. The vertical linear guide also provides smooth raising and lowering of the cutting group. (732) 503-1072, inmes-usa.com

## **Invis (North America)**

# **Entry: Invis MX Minimag**

INVIS North America offers the Invis MX Minimag joinery system by Lamello. Magnet-driven connections allow the system to be invisible as well as detachable. The Invis Mx allows for a more industrial use of Invis fasteners, and the starter kit includes the Mx Minimag, two insertion tools, a flexible shaft to access any corner, and 20 Invis Mx fasteners. (877) 867-9019, SwissINVIS.com

## **KCD Software Entry: KCD Touch**

KCD Touch software for cabinet and closet makers allows users to capture site details and design on a tablet and includes the KCD Touch Designer interface with 3D imaging of the finished look. Users can add data directly into the Designer interface, including room and wall measurements, photos, notes, cabinet and closet size, shape and style, etc. (508) 760-1140, KCDSoftware.com

## **Kerfkore Entry: Balsakore**

BalsaKore combines the flexibility of patented Kerfkore bendable products with a lightweight core product that can provide the perfect mix of the two methods, the company says. The core is made from a low-density balsa wood that is lightweight - up to 80% less than other conventional materials, Kerfkore savs - but when used in an end-grain configuration is still able to provide the strength and performance required. (800) 637-3539, kerfkore.com

# **Kleiberit Adhesives USA**

# **Entry: Hot Coating**

Kleiberit offers Hot Coating technology.

with a gloss level of 90 points that can be produced with one application without interim sanding. Depending on specifications, abrasion resistance up to AC5 can be achieved with a relatively low coat weight, Kleiberit says, in addition to high-impact resistance, with universal adhesion to decorative papers, digitally printed surfaces or wood. (704) 843-3339, kleiberit.com

## Komo Machine, Inc. **Entry: Fusion XL CNC Router**

Komo Machine's Fusion XL 510 CNC router has a standard traveling table/ stationary gantry configuration and includes an 18-hp fan-cooled spindle with 15-station tool changer and precisionmachined composite grid vacuum table available in 5x10', 5x12' or 5x24' sizes. Fusion XL also uses the latest Fanuc 0i-MD control, which includes enhanced servo loop software, and Fanuc's top-of the-line HVI servo motors. (732) 719-6222. komo.com

## Kremlin Rexson, Exel NA Winner: EOS Pump w/Xcite **AvrmixManual Spray Gun**

Kremlin's EOS Pump with Airmix Xcite Manual Spray Gun is a finishing system for solvent and/or water-based materials, lacquers, varnishes, polyurethane, 2K, high solids, stains, and WB glues. The EOS Pump Range comes with two pumps, 15-C25 and 30-C25, and partnering the EOS pump with the Kremling Xcite Airmix manual spray gun provides up to 86% transfer efficiency. (734) 979-0100, kremlinrexson-sames.com

### **Leitz Tooling Systems LP Entry: I-Door Insert Tooling**

Leitz's Internal Door (I-Door) combination carbide/diamond insert tooling uses a lightweight aluminum body and a combination of standard carbide inserts and diamond inserts. Replaceable diamond inserts at the top and bottom of the tool process the top and bottom surface laminates, while standard carbide inserts process the softer core material, resulting in smooth edge quality. Leitz says. (800) 253-6070, leitztooling.com

# Lockdowel

## **Entry: Lockdowel Fasteners**

Lockdowel fasteners snap-together furniture, cabinets and other wood products in just a few minutes without special tools or instructions. Joints are strong and sturdy and have the look and feel of factory assembled



## Visionary Awards









**HSD USA** KCD Software Lockdowel Micro Fence

joints, the company says. Lockdowel fasteners enable manufacturers to reduce transportation costs by five or six times by shipping flatpack and assembling at the point of sale or delivery, the company adds. (650) 477-7112, lockdowel.com

#### **Micro Fence**

#### Entry: Dynaglide Plus with HD4X

DynaGlide Plus with HD 4X is a dry lubricant with proprietary additives engineered for all woodworking tools and metal surfaces. Silicone and Teflonfree, DynaGlide Plus eliminates finishing problems due to the transfer from metal woodworking tool surfaces, says the manufacturer. It will not stain or discolor and virtually eliminates drag co-efficients, smoothing feeds on table and band saws, jointers, planers, shapers and hand-held routers, says the company. (800) 480-6427, MicroFence.com

#### **Entry: Micro Plunge Base**

Micro Plunge Base offers portability and precision for jobs like installing hardware, architectural detailing, inlay work and precision repair requirements, according to Micro Fence. It is made to accept a number of different high-speed rotary tools and pencil die grinders. When paired with a Dremel, Foredom handpiece or Proxxon tool, it offers stability with the benefit of micrometer control for depth-ofcut adjustments, Micro Fence says. (800) 480-6427. MicroFence.com

#### Micro Jig, Inc.

#### **Entry: Microdial Tapering Jig**

The Microdial tapering jig uses interlocking Colormatch to ensure the angle of the taper to 1/8th of a degree incrementally up to 10 degrees. Memorylock provides the ability to work faster by switching quickly and easily between two tapers on a single work, the company says and Microdial also can create up to 2-,4-,6- and 8-sided tapered legs on the table saw, router table, and band saw. (407) 696-6695, MicroJia.com

#### **Microvellum Software Entry: Blueprint Editor**

Microvellum's Blueprint Analyzer is an automated solution for digital takeoffs, estimating and submittal drawings. It allows the user to create accurate bids and process them straight through to manufacturing with one streamlined and connected system. Microvellum says the Blueprint Analyzer automates the process of renaming digital page names to match the architectural drawing, navigates large sets of plans and saves views for future reference, analyzes plan revisions, and makes annotations and markups on plans and shares them digitally. (800) 204-0913, Microvellum.com

#### M.L. Campbell Entry: EnviroVar

M.L. Campbell's Clean Cure Technology platform provides acid cure formaldehyde free amino-alkyd pre-catalyzed and postcatalyzed finishing systems that are both low odor and HAPs-free, helping to create a safer working environment. (800) 364-1359, MLCampbell.com

#### Entry: EnviroMax

The Clean Cure Technology platform provides acid cure formaldehyde free amino-alkyd pre-catalyzed and postcatalyzed finishing systems that also are low odor and HAPs-free. Products with Clean Cure Technology are designed to apply easily, cure at normal ambient temperature and dry to a smoothtouch finish with durability and depth. says M.L. Campbell. (800) 364-1359, MLCampbell.com

#### **Mohawk Finishing Products**

#### **Entry: Architectural Line**

The Mohawk Architectural Finishing product line includes a wide selection of both solvent and waterborne stains, sealers and topcoats that can be applied to stationary structures in compliance with local, state and federal VOC requirements. Mohawk Finishing Products is a member of PaintCare, ensuring compliance with state recycling regulations, and is registered with the EPA as a manufacturer of architectural coatings, (800) 545-0047. Mohawk-Finishing.com

#### **Mozaik Software**

#### Winner: CNC Complete Software

Mozaik CNC is a screen-to-machine software solution for cabinets, commercial casework, closets, furniture, and more, A subscription to Mozaik CNC includes updates, support, training videos, an online knowledge base and customer forums, and the link to the user's CNC router. Mozaik CNC is seamlessly integrated with Sketchup, providing the tools needed to design and model most projects. (619) 752-5910, MozaikSoftware.com

#### **Oliver Machinery**

#### **Entry: Contour Edgebander**

Oliver Machinery's Contour Edgebander

applies banding tape to 360 degrees on irregular shaped workpieces; not just simple round pieces but pieces of virtually any shape and with radiuses of 30mm or 50mm are easily done, the company says. Tape from 0.45mm to 3mm thickness is accepted, and the working head on the machine travels around the workpiece rather than the workpiece spinning as on other machines, Oliver says. (800) 559-5065, OliverMachinery.net

#### **Entry: Noiseless Edgebander**

Oliver Machinery's noiseless edgebander reduces noise through the use of a newly designed top and bottom trimmina system, increasing productivity by allowing the distance between workpieces to be decreased to 60cm, the company says. (800) 559-5065, OliverMachinery.net

#### Pony Clamp, Inc.

#### **Entry: Pony Casework Claw**

Pony Casework Claw was designed for the installation of frameless construction cabinets, commercial casework, closet/ garage systems and storage shelving. It combines the multiple steps of installation into one process, aligning cabinets for mounting and fastening in one step. Its design gives it the ability to clamp and align casework, horizontally and vertically, at the same time, Pony Clamp adds. (312) 666-0640, AdjustableClamp.com

#### Rev-A-Shelf LLC

#### **Entry: Rev-A-Motion Soft-Close**

Rev-A-Shelf offers the 5149 Series Rev-A-Motion Soft-Close Aluminum Waste Containers, available in single and double door mounts. The only brushed aluminum system with Rev-A-Motion Soft-Open/ Soft Close slide technology, it provides smooth operation even under the heaviest of loads, the company says. The design features mitered corners that make up the aluminum frame, adjustable door mount brackets and a clean polymer base. (800) 626-1126, Rev-a-Shelf.com

#### **Safety Speed Manufacturing**

#### **Entry: SPM301 Screw Pocket**

Safety Speed's SPM301 Screw Pocket Machine, features cam-driven action for fast, smooth cutting under mechanical control throughout the machine cycle. The pilot drill and ball end mill produce superior low-angle screw pockets, says Safety Speed, and the SPM301's mechanical linkage allows the pilot drill and router bit to cut at the same time. reducing cycle time without sacrificing

cut quality. It is manufactured in the USA. (800) 772-2327, SafetySpeed.com

#### SawTrax Mfg. Co. **Entry: Dolly Max**

SawTrax calls the Dolly Max the Swiss Army Knife of Utility Dollies. It can be used as a dolly, hand truck, wheelbarrow, flat shop cart, panel cart and tear-out cart. Made in the USA, it features all-steel construction, a powder-coated frame. 1.25" square steel posts, all-terrain tires. 10 vertical post positions, 6 horizontal post positions, a 700 lb capacity, locking 5" casters and 12.25" pneumatic off-road tires. (770) 974-0021, SawTrax.com

#### Scm Group

#### **Entry: Routech Accord 30FX**

The Routech Accord 30 FX is an advanced 5-axis CNC routing machine designed with a fixed table and moving gantry with 100% tool coverage of the work envelope. The machine incorporates the Prisma KT 5-axis routing spindle, delivering up to 20 hp at 9,000 rpm. (770) 813-8818, ScmGroupNA.com

#### **Entry: OMAL HBD Pocket Mortise**

The OMAL HBD 2500 Pocket Mortise machine is a CNC machine to drill, glue and insert dowels, pocket mortise, and vertically and horizontally drill horizontal pieces with four loading zones. The OMAL Sure Shot revolver system guarantees a dowel is inserted every time, says Scm. (770) 813-8818, ScmGroupNA.com

#### Senco

#### Winner: Duraspin Auto Feed **Screw Systems**

Senco's next generation of Duraspin integrated auto-feed screw systems increases jobsite productivity by at least 30%, according to the company. Available in both corded and 18V Li-ion battery powered models, these tools drive screws from 1" to 3" long into hardwoods, drywall, composite and steel, and can be used for framing, cabinet installation, deck construction, subfloor and more. (800) 543-4596, Senco.com

#### **Entry: 23-Gauge Micro Pinners**

Senco's 23-gauge pneumatic Micro Pinners incorporate performanceenhancing upgrades suggested by pros, the company says, including: an expanded fastener range from 1/2" up to 2" long, an easy load, self-adjusting magazine, a narrow nosepiece for reaching into tight spaces, an ergonomic angled pistol grip, an industrial grade motor for more driving



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## Visionary Awards



**Safety Speed** 



**TigerStop** 

power into hardwoods, and numerous safety features. (800) 543-4596, Senco.com

#### Entry: F-18 Brad Nailer

Senco says its F-18 Fusion nailer possesses the rapid-fire power and consistency of an air tool and the convenient portability of a cordless tool, without the need for a separate compressor, air hose, or gas cartridges. The F-18 features an onboard cylinder of compressed air powered by an 18V Li-ion battery and drives 18-gauge nails from 5/8" to 2-1/8" long. (800) 543-4596, Senco.com

#### **The Sherwin-Williams**

#### **Entry: Sher-Wood F3 Finish Systems**

Sherwin-Williams says its F3 line of formaldehyde-free finishes are traditional, catalyzed products with none of the formaldehyde typically emitted during application and curing. All F3 finishes are available for use as drop-in coatings on existing finishing lines. Sher-Wood F3 Kemvar Varnish has achieved GREENGUARD Certification, certified to standards for low chemical emissions into indoor air during product usage. (800) 524-5979, OEM.Sherwin-Williams.com

#### **SNX Technologies**

#### **Winner: Vitap Eclipse Compact Automated Contour Edgebander**

Vitap's Eclipse is a semi-automatic contour edgebander that offers versatility, simple operation and requires a minimal footprint in the shop, according to SNX. The Eclipse comes with a trimming unit and is able to process large or small pieces without extra setup. It can work on straight or shaped edges. (320) 217-9044, SNXTechnologies.com

#### Spectrum Adhesives, Inc. **Entry: Spectrum C-Bond WBC**

Spectrum C-Bond WBC water-based contact cement has no VOCs or HAPs and is provided in aerosol and canisters using a non-hazardous and environmentally friendly propellant system. The product bonds most materials including laminates, wood-based products, leather, cardboard, metals and plastics. It also is postformable. Spectrum C-Bond WBC is non-hazardous under the OSHA Hazard Communication Standard. is California VOC compliant as a solvent free product and is also LEED compliant. When sprayed, the product sprays green for easier visibility to control coverage, but turns clear when dry. (901) 795-1943, SpectrumAdhesives.com

#### SuperMax Tools

#### Entry: 25-50 Drum Sander

Based on the company's experience with designing its award-winning 19-38 Drum Sander, SuperMax Tools says it has designed a method to flat-sand a wide (up to 50") board at an affordable price. The SuperMax 25-50 Drum Sander will be the largest open-ended drum sander on the market, the company says. (888) 454-3401, SuperMaxTools.com

#### **TigerStop**

#### Entry: SawGear with Crown+MiterPro

TigerStop's Crown + Miter Pro for SawGear software is designed to simplify all angle cutting. SawGear is a precise automated length measuring system that attaches to miter and radial arm saws. (360) 254-0661, TigerStop.com

#### **Entry: TigerAngle**

TigerAngle is a fully automated push feed system that can be used to cut horizontal and vertical angles as well as the most complex angled parts and nest them in your material, according to TigerStop. (360) 254-0661, TigerStop.com

#### Entry: TigerSaw 1000

The new TigerSaw 1000 is a fully automatic defecting and optimizing saw system for solid wood, setting a new standard in world-class performance, says TigerStop. (360) 254-0661, TigerStop.com

#### **Timbermate-HMT**

#### **Entry: HMT Natural Decorative Products**

Timbermate-HMT says its 100% handcrafted decorative panel products are made of different indigenous raw materials such as bamboo, coco shells, vines, twigs, reeds, nuts, palm, abaca, and coco bark from islands of the Philippines. Usages, applications and sizes of panels are unlimited, the company says, and includes: ceilings, walls, doors, headboards, cabinets, railings, columns, dividers, and more. The indigenous materials also complement non-natural materials like glass and metal acrylic as accent pieces in architectural designs, the company says. 63-2 8392251, HMTradingphil.com

#### Vollmer of America

#### **Entry: Vollmer QXD250 PCD Tooling**

Vollmer's QXD250 is an erosion and grinding machine for processing polycrystalline diamond (PCD) tipped tooling. The QXD250 offers six simultaneously controlled CNC-controlled axes with a new A-axis addition that enables complete machining in a single set-up. Travel and swivel ranges have been increased for larger tool diameters and lengths. A re-engineered spindle design allows more efficient grinding processes with increased flexibility for the processing of cutting tools. (412) 278-0655, Vollmer-us.com

#### Voorwood

#### **Entry: Model A11 Shaper Sander**

Voorwood's Model A11 Shaper Sander shapes all components of cabinets, doors, drawer parts, and other wood components, while simultaneously sanding the desired finished dimension. The A11 sizes the substrate to the desired finished dimension, squares the substrate as all four sides are being processed, and processes straight edges, as well as curved edges, using a template system. (800) 826-0089, Voorwood.com

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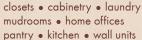
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## business development

# Business Opportunity for **Cabinet Refacer**

For clients seeking an alternative to replacement, cabinet refacing gets you in the door and on the job.

By Wade Vonasek

A lower cost alternative to replacement cabinetry or to refresh a kitchen look, cabinet refacing gets you in the door and on the job. Elias Woodworks, a wood components manufacturer of doors and drawers, also provides matching materials for cabinet front and side refacing. Here are some questions Elias Woodworks frequently fields, from from its online booklet.

#### What is Refacing?

Refacing means replacing the doors, drawer fronts and hardware, as well as covering the sides and framework with stick-on veneer or glued-on plywood, all without having to replace the old cabinet boxes.

What are benefits for clients of cabinet

refacing vs. new kitchen remodeling?

Clients get a new kitchen look at an average of one-third the cost of a new kitchen. Jobs can be completed in 2-4 days, and there is no hassle to coordinate plumbers, electricians, and floor installers, since it matches the existing footprint exactly. The kitchen is also still functional during renovation.

There are no additional costs in repainting, plastering, or redecorating, and countertops can stay in place. Refacing is environmentally friendly (less materials go to landfills), and updated kitchens increase home value instantly.

How can refacing increase my businesses' bottom line?

It opens up a new target market of customers who would otherwise not be able to afford a new kitchen remodel. Because refacing costs are lower,



customers can also purchase other products like flooring, countertops and hardware. The *Remodeling Cost vs. Value Report 2013* says that refacing, also known as "Minor Kitchen Remodeling" is within the top 10 replacement projects again this year.

According to *Remodeling Magazine*, the biggest gainers this year were mostly replacement projects, which it says have always outperformed discretionary remodeling projects, and more so in recent years as the economic recession brought price to the forefront.

## How do I know if a kitchen qualifies for kitchen refacing?

If the client likes the layout of the current kitchen, refacing works well, but if they plan on knocking down walls, it may not be the best option. Existing cabinets must also be structurally sound.

# What tools are typically needed to complete a refacing project?

As with any type of remodel, there are several installation methods, but some of the more common tools used to reface are a utility knife, screwdriver, cordless drill/driver, handsaw, tape measure, level, clamps, brad nailer, hammer, nails, screws, small pry bar, wood glue, straight edge, miter saw and table/circular saw.

#### How do I replace toe-kicks?

Order 1/8" finished cut-to-size plywood or finished 3/16" refacing stock, then cut on site, or veneer the existing toe kick in place.

**Find more** at Elias Woodwork's Refacing Material section: catalog, FAQ's and a refacing measuring guide. **eliaswoodwork.com** 

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# HARDWARE INNOVATION What We Saw in Vegas

**Canary Closets & Cabinetry** 

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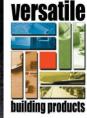
Cover, above: Rev-A-Shelf at AWFS Fair 2013

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# Cabinetry Hardware **Trends**

2013 AWFS Fair attendees saw the latest designs in functional cabinet hardware and components.

nother AWFS Fair is in the books and it was a rousing success with many cool new prod-Lucts shown, especially when it comes to cabinet hardware.

Among exhibiting companies were Accuride (back after a hiatus), Bainbridge, Comtrad Sourcing, Hafele America, Kemp Hardware & Supply, Rev-a-Shelf, Salice, Samet by Canmade, Sugatsune America and U.S. Futaba. Among numerous innovations, Rev-A-Shelf (featured on the cover) displayed its blind corner cabinet unit, making the unreachable accessible.

Accuride, Grass, Blum and Grass invited the Woodworking Network cameras in for booth tours. Accuride showed (among many items) heavy-duty slides, a retail display drawer at an angle, and a beta development of an electronic lock system for drawers, which integrates into the slides. Drawers open only with an electronic a key card.

Other hardware suppliers offered updates on their hottest products, such as Blum's award-winning Aventos lift system. Using Blum's Aventos lift system with Servo Drive technology, with one tap, doors open vertically, out of the way.

Hafele, which is having great success in lighting, showed its new version of LOOX LEDs, with diodes concealed and in some models, eliminated altogether.

Grass demonstrated its Tiomos Impresso concealed hinge system, which mounts in a free tool fashion and is available for frame and frameless.

View Live From AWFS 2013 videos, read on-the-scene news reports, photos and much more from AWFS 2013 online at woodworkingnetwork.com/awfs-fair.







Woodworking Network's video team captured the newest hardware innovations.



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#### **DESIGN AWARDS** by michaelle bradford



custom interiors can win acclaim in the 2014 Design Awards at Cabinets & Closets Expo, April 9-11.

ove over Emmys, Golden Globes and Oscars. The most anticipated industry awards of the season kick off this month with the 2014 Custom Woodworking Business Design Portfolio Awards and 2014 Closets Top Shelf Awards.

Now in its 21st year, Design Portfolio honors custom woodworkers for outstanding design and execution in seven categories: residential furniture, freestanding; residential furniture, built-in; architectural millwork; commercial/institutional; kitchen/bath cabinets; countertop/solid surface and specialty products. Entries can be uploaded at **woodworkingnetwork. com/designportfolio**; all submissions will be accepted until October 31. Winners will be featured in a special December digital edition of *Custom Woodworking Business* as well as in the January 2014 print issue.

On the heels of Design Portfolio is the 8th annual Closets Top Shelf Awards, which honors designers for their creative closet and home organizational designs. Revamped categories include: garage; walk-in closet – wood or melamine; reach-in closet – melamine or wire; home office – wood or melamine; showrooms; and specialty rooms (pantry, laundry, etc.). Entries will be accepted at **woodworkingnetwork.com/topshelf** until Jan. 31, 2014. All winners will be highlighted in the May 2014 print issue of *Closets*.

Cabinet and closets firms building

Beyond acknowledgment in both our print and digital publications, Design Portfolio and Top Shelf winners also will be feted at the only national live industry design awards ceremony, to be held during the 2014 Cabinets & Closets Conference & Expo at the Garden State Convention Center in Somerset, NJ, April 9-11.

Check **woodworkingnetwork.com/closets** for more show details.

View past Design Portfolio and Top Shelf Award winners at Woodworking Network.com/awards



# Thinking Forward



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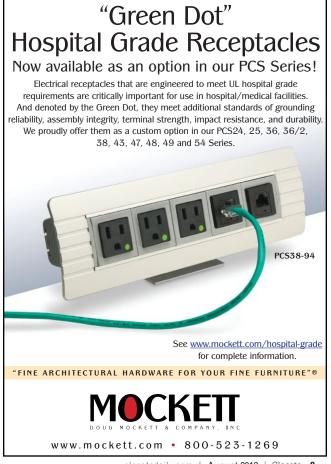
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# Canary Closets & Cabinets' Cloud

A MOVE FROM CONSUMER TO PURE WHOLESALE closet production is not an easy transformation. But with large scale competitors across the country, you need to be efficient. For John and Amy Canary, that meant fully automating sales and manufacturing: capturing orders, and specifications, at point of sale, using it to drive production.

Their business, Canary Closets & Cabinetry, in Union, NJ, is in the process of this transition, John Canary says, moving first with closet components sales, to be followed by cabinet production.

"We are expecting to grow by leaps and bounds," Canary says. His 15-employee operation is well-equipped, operating a Holzma HPP 380 panel saw, a Homag edgebander, a Busellato point-to-point CNC, and a Weeke BHX 055 machining center. Also in the mix: a Gannemat downserter, a new Olma miter machine, and a Stiles cutoff saw with TigerStop.

To support the business change, Canary also adopted Allmoxy, a cloud-based computer software system that manages its entire business operation. Based in Ogden, UT, Allmoxy develops woodworking enterprise resource planning (ERP) systems that manage e-commerce, business accounting, bids and order entry, exporting files from customer input, and converting them to files that drive production machinery.

"We stumbled into Allmoxy at IWF in Atlanta last year and immediately knew it was the answer for streamlining our business," John Canary said in a phone call sounding like a canned presentation. "Not only is Allmoxy easy, it is inexpensive."

Since e-commerce would be critical, Canary retained a developer for two months to create software so clients could order online, intending to capture specs from customers to create cut-lists and drive manufacturing equipment. But, "We scrapped it because of Allmoxy," Canary says, since the application includes a turn-key e-commerce module.

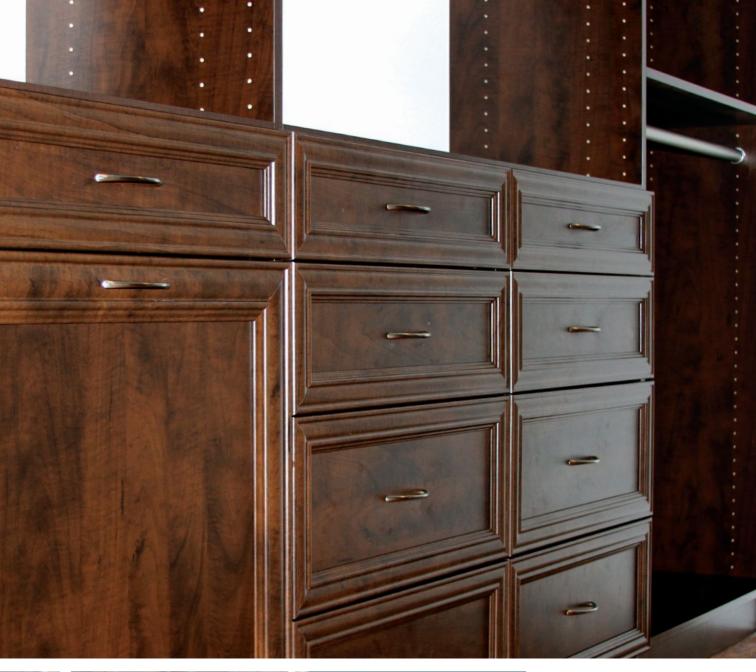
"Our customers go on the site and place their order or request for a bid. When we get an order, we have output that we can send right to our machine," Canary says. "The bottom line is there is no reorder entry." For cabinetry product, Canary will switch to Cabinet Vision, since it is compatible with Allmoxy.

"My business is growing and we are working with fewer people," Canary says. "This is every bit as big an improvement as adding a CNC and edgebander. We're unstoppable."

In production: a Holzma HPP 380 panel saw, a Homag edgebander, a Busellato point-to-point CNC, and a Weeke BHX 055 machining center. Also in the mix, a Gannemat downserter, an Olma miter machine, and a Stiles Machinery cutoff saw with a Tigerstop.









## **Pitching Closets** Wholesale

Canary's online sales pitch for wholsale business is straightforward: "Are you a storage professional, contractor, builder or home improvement specialist looking for an expanded product line, added revenue or a better supplier? Canary Closets & Cabinetry has a complete wholesale program designed specifically for you. You get: State-of-the-art



manufacturing without the investment; increased product range and quality, at no cost to you; costs controlled on every job; parts turnaround in as little as 5 days." Prospects are directed to the online store: Canary. Allmoxy.com



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- Kent C., Minneapolis, Minnesota

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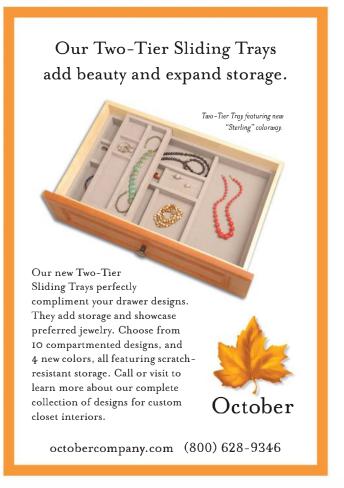


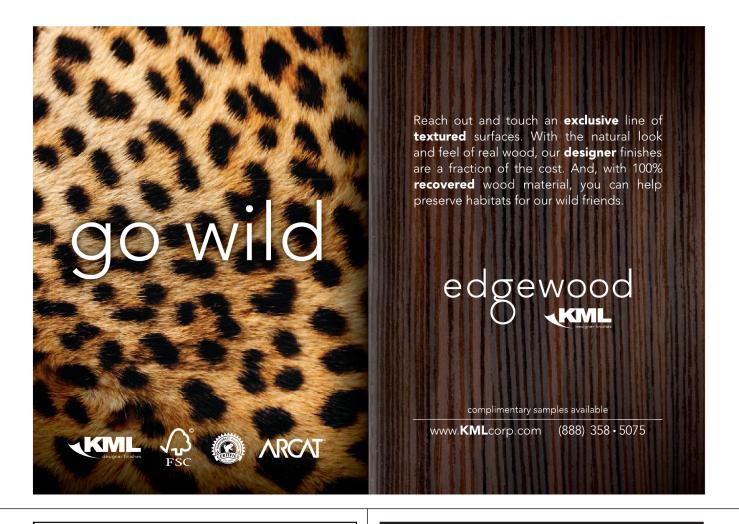
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