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- 3 HP, 220V, single-phase motor
- Cast iron table size: 27" x 401/4" (W1819) 535/8" w/extension (W1820) 74" w/extension)
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U.S. Patent No. 7,140,813

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6" x 12" HEAVY-DUTY COMBINATION SANDER

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- · Approx. weight: 396 lbs.

W1816 3HP Cyclone Dust Collector



3 HP CYCLONE DUST COLLECTOR

WALL DUST COLLECTOR

- Motor: 1 HP, 110V/220V, single-phase
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W1826 Wall Dust Collector







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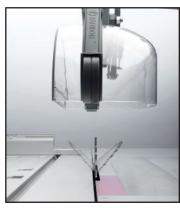
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This Business about Woodworking Share an opinion with David DeCristoforo but don't expect to be right

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TAKING STOCK

with DAVID GETTS

Have you had your woodworking ephiphany?

nagnorisis is a moment in a play or other production when a character makes a critical discovery. In the Greek context, this experiential uncovering is applied both to the person's true identity and the true nature of their situation or what they stand for. It is most famously explored in the story of Oedipus, when he realized that he was both his father's murderer and his mother's lover. In modern vernacular, we would describe this moment as an epiphany, a revelation of sorts when all the puzzle pieces in a person's life seem to come together in one moment of time giving the receiver a clear direction on something that pertains to their life.

You don't need to be a character in a play to experience anagnorisis. It happens to all of us throughout the course of our life. We make thousands of decisions every day. Although most of these decisions have a clear purpose and function, they are benign in terms of lifechanging activity. In other words, these are the choices made on autopilot. This list would include things like when to blink your eyes, feed your stomach and go to sleep. All necessary to sustain life, but not empowered to be life-changing in the overall scheme of life events. Because the bulk of our decisions are harmless, it's easy to overlook the potential ramifications of decisions that do alter how our life turns out.

When I was in my early 20s, I stumbled across a book about a collection of dedicated craftspeople. The career of these artisans, who made their living from the craft of woodworking, was explored from the pieces they made to the way they lived their life. I was instantly sold. I knew at that point I would dedicate my life career to the craft I loved doing most. Although I was very conservative in making long-term commitments, I was convinced this was my chosen path. Like most, my moment of discovery was revealed in a split second through the fabric of time. Even though that revelation was succinct and happened very quickly, it was built upon a foundation that had been laid in previous years.

Discovery is only the beginning of anagnorisis. The epiphany might come instantly after discovery or years later once things have been put into motion. For instance, let's suppose you're looking for something that is located in a dark and unfamiliar space. By instinct, you search for a light source to help you find your way. Immediate help — or revelation — comes when you locate a light switch that floods the room with plenty of illumines to help in your quest. The search will generally take longer if you only have a flashlight or, worse, a book of matches. If we liken the light source to the illuminating nature of anagnorisis, it's easy to disseminate how it spills into our life at varying degrees. Because we don't necessarily have control over how we receive information (due to the infinite circumstances that bombard our lives), we must always be prepared to re-

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.



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- Max. cutting height: 6"
- Blade speeds: 1800 & 3100 FPM
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- Amps: 20A at 110V, 10A at 220V
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- Precision-ground cast iron table
- size: 17" x 17" x 1½" thick Table tilt: 10° left, 45° right
- Floor to table height: 371/2"
- Cutting capacity/throat: 161/4" left
- Blade size: 1311/2" long
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- Static pressure at rated CFM: 1.80"

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- Impeller: 131/2"
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- Motor: 1 HP. 110V/220V. single-phase, TEFC
- Precision-ground cast iron table size: 14" sq.
- Table tilt: 45° R, 10° L
- Cutting capacity/throat: 131/21 Max. cutting height: 6"
- Blade size: 921/2"-931/2" L (1/8"-3/4" W)
- Blade speeds: 1800 & 3100 FPM MADE IN TAIWAN
- Approx. shipping weight: 247 lbs.



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17" HEAVY-DUTY BANDSAW

- Motor: 2 HP, 110V/220V, prewired to 220V, single-phase, TEFC
- Precision-ground cast iron table size: 17" sq.
- Table tilt: 45° R, 10° L
- Cutting capacity/throat: 16¹/₄"
- Max. cutting height: 121/8"
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- Impeller: 121/2" steel radial fin
- Suction capacity: 1025 CFM @ 2.6" SP
- Max. static pressure (inches of water): 10.3"
- Filter: 0.2-2 micron
- Collection drum: Steel, 35 gallons
- Overall dimensions: 551/2" wide x 871/2" high x 361/4" deep
- Approx. shipping weight: 312 lbs. Shown with optional stand

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ULTIMATE 14" BANDSAW

- Motor: 1 HP. 110V/220V. single-phase, TEFC
- Precision-ground cast iron table size: 14" sq.
- Table tilt: 45° R, 15° L
- Cutting capacity/throat: 131/2"
- Max. cutting height: 6" Blade size: 921/2"-931/2" L
- (1/8"-3/4" W)
- Blade speeds: 1500 & 3200 FPM
- Approx. shipping weight: 196 lbs.



G0555P ONLY \$54500

17" 2 HP BANDSAWS

w/ Cast Iron Wheels & Trunnion

- Motor: 2 HP, 110V/220V, prewired 220V, single-phase, TEFC
- Amps: 20A at 110V, 10A at 220V
- RPM: 1725
- Precision-ground cast iron table size: 235/8" x 171/4" x 11/2" thick
- Table tilt: 5° left, 45° right
- Cutting capacity/throat: 161/4" left
- Maximum cutting height: 12"
- Blade size: 1311/2" long
- Approx. shipping weight: 418 lbs.



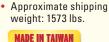
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- Drum speed: 2565 FPM
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ceive and analyze self-discovering stimuli.

So what does all this mean for the average woodworker or craftsperson? Plenty. The only way you can grow as an individual (and business) is when you know who you are and what your purpose is (or that of your business). Anybody can hang up a shingle and announce their business plans, but that does not guarantee success. Without a real vision or purpose, a business cannot succeed. Anagnorisis helps you discover what that vision is. It doesn't matter if you're a seasoned veteran of the trade or just beginning your journey, discovering your true situation and identity are keys to your success. To further explain its importance, consider the new startup venture and a well-established company.

When a company is freshly formed, there are a lot of questions about what the future holds such as: Is there a large enough market share for our niche? How do we find and reach our client base? What forms of marketing are best for what we do? Even with experience in the field, these uncertainties are daunting. They can be the difference between success and failure. Most are familiar with the important concept of knowing your enemy when facing them in battle. Business is a battle every day. And the better you know your "enemy" (com-

petition, market, customer base) the better prepared you'll be in navigating the many challenges that lie ahead.

But what about knowing yourself? Is that not of equal importance? How can you possibly go into a fight not even knowing what your own strengths and weaknesses are? You can't. Although it is not always a pleasant experience, this moment of self-discovery exposes vital information you need to both begin and sustain the journey forward.

I remember talking to my grandfather in the early years of my business. Although he was a surly ole' cuss, he enjoyed tremendous success as a businessman. In testing my resolve to run a business, he once challenged my approach to making money. Knowing there was never a right answer to be given to the man, I gave him my honest appraisal of how I intended to carry out my affairs. True to form, he used his success as an example to "advise" me not only about my folly, but how much better his approach was. I'm not saying there was nothing to be learned from the guy. After all, he had a mountain of money and 50 years of business experience. It was the simple fact that he had forgotten not only what it was like to be an upstart, but also his anagnorisis experience. Once that happens, you become stale and irrelevant. It would be like turning off the light in a dark

room because you're familiar with the space. The thing is, we don't control what goes on around us and need the light anagnorisis provides. Well-established businesses can never forget who they are and where they came from. If they do, they will lose touch with their market base.

On the surface, the term anagnorisis is nothing more than a big word that makes us feel special because we know what it means. Its importance lies in the result of what happens to that which the word describes. The key to how it is applied rests with us individually. We can either look for the clues that reveal our destiny or ignore them through an arrogance of self-righteousness. Recognizing your true situation and identity leads you on the path towards success. It knows no other direction. Selfdiscovery will bring peace into your personal life. It will also generate a stronger return on your investment because you'll have a comprehensive idea of your strengths and

With a clearer understanding of your true identity and situation, both you and your clientele will be better served. **W**

David Getts is a certified kitchen designer and owner of David Getts Designer Builder Inc. in Seattle.



NEWS DESK



Arts and Crafts museum planned in Florida

Longtime collector donates his valuables as a starting point for four-story gallery and exhibition center in St. Petersburg

By Jennifer Hicks

new museum scheduled to open in early 2016 will feature an extensive collection of furniture and other artwork from the Arts and Crafts movement. The Museum of the American Arts and Crafts Movement will be built in St. Petersburg, Fla., for collector Rudy Ciccarello and the Two Red Roses Foundation. Ciccarello donated his entire collection to the foundation, which he founded in 2004.

The foundation's goal with the museum is to introduce an interesting and important time in American history to the general public. The 90,000-sq.-ft., four-story museum will be built by Alfonso Architects during the next couple of years. It will include galleries to exhibit hundreds of objects from Ciccarello's fine and decorative arts collection, as well as additional space for special exhibitions and events and a small auditorium, restaurant, café, gift shop and bookstore.

"Mr. Ciccarello is a collector of American Arts and Crafts and is always on the look-out for the very best objects that come to the auction market or through private collections. When objects are found that meet his standards he doesn't hesitate to acquire them, constantly building and refining the collection," museum executive director Thomas Magoulis says.

The collection contains more than 160 Gustav Stickley objects including rare bookcases, sideboards, chairs, tables, dining room sets, metalwork and lighting. There are a number of other furniture craftsmen represented in the collection including Charles Rohlfs, The Byrdcliffe Colony, L.& J.G. Stickley, Greene and Greene and Rose Valley.

Magoulis says that in keeping with its mission, the foundation believes it is important to bring these pieces of furniture to the public's attention for several reasons.

"This furniture was designed to be simple, durable, practical and intended to be lived with. The furniture was hand-built by skilled craftsmen using sturdy quartersawn oak, designed with tenon-and-key construction and doweled joints, and were absent of ornamentation and applied decorations. The artisans that built these objects rejected the mass produced products of the industrial revolution while embracing the spirit and value of the individual craftsman."

Books and catalogues on the Arts and Crafts Movement and the foundation's collection will be archived in a reference library furnished with original Stickley furniture, Tiffany lighting and other period objects.

Ciccarello says he is an avid collector because he truly identifies with the philosophy behind the Arts and Crafts movement, which was the belief that the Industrial Revolution had made man less creative, that his craft skills had been removed from the manufacturing process through the introduction of the machine.

"This reform movement sought to emphasize traditional craftsmanship, the qualities of materials used and the simplicity of form without superfluous or excessive ornamentation. The notion of good design was linked to the notion of a good society in which the worker was not brutalized by factory conditions, but rather could take pride in his craftsmanship and skill. Workers could produce beautiful objects that would enhance the lives of ordinary people while also providing a source of pleasure to both maker and user," Ciccarello says.

Like good old times at New England show

Fine Furnishings event in Rhode Island sees a 30 percent boost in exhibitors

By Jennifer Hicks

he 18th annual New England Region Fine Furnishings show, held Nov. 1-3 at the Pawtucket Armory Arts Center in Pawtucket, R.I., experienced a 30 percent increase in exhibitors for a sold-out show.

The show featured a wide variety of custom furniture and other handcrafted items in many styles, materials and price points from 57 exhibitors.

"The show was sold out about three months before it happened, which hasn't happened in a really long time," show director Karla Little says. "I had about a dozen exhibitors who were anxious to get booth space if someone else cancelled or didn't show up. I had a wonderful selection of people who came to the show to see if it would be a good fit for

them to be an exhibitor and I have a whole pile of applications on my desk for next year already."

Bill Houston of Huston & Co. in Kennebunkport, Maine, sold several pieces at this year's show and is working with a client on a custom bed. He exhibited for the first 12 years of the show and took a break, but came back this year to focus more on residential customers and because he liked the size and style of the newer venue.

"We had a couple of small sales and we are still pursuing a few other leads for larger orders. Usually six months after the show is usually the time frame to see the total impact of the show," says Houston.

"I thought this show was well-attended. Similar to our previous experience with the Fine Furnishings show, I had a sense that the people that attended were knowledgeable and they know what they're looking at, that they've come because they know the level of quality that will be there and the value that goes along with the cost of good quality. That's different than some shows where the people are shocked by the price."

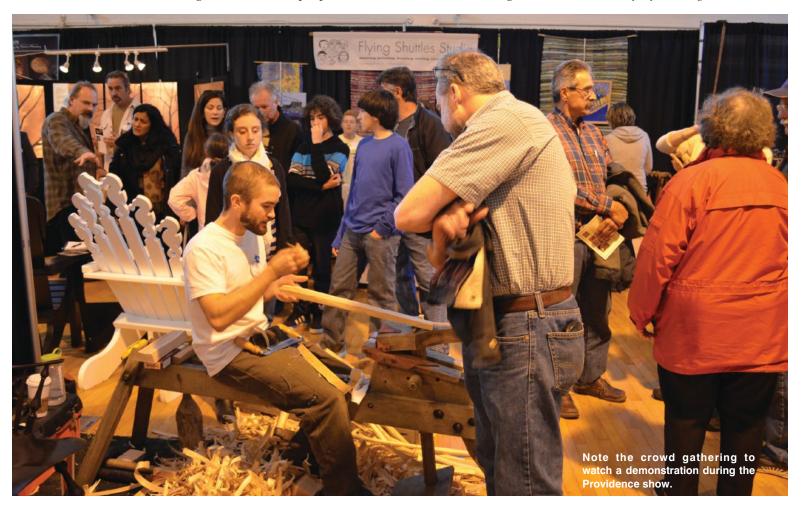
Jeff Lind of Jeff Lind Fine Woodworking in South Berwick, Maine, was back for the 17th time as an exhibitor.

"I thought it was a bold move of Karla to move to the new venue in Pawtucket, but everyone I've talked to really appreciates the size and accessibility. For an exhibitor it's an easy in, easy out. I'll definitely go back," says Lind.

Lind says the show's attendance has improved, but it was too early to say if it was a buying crowd.

"It's always hard to visualize because it's not a real cash-and-carry kind of thing. These are big pieces usually. I did see some small pieces coming out, but usually from a show like this you get orders and calls later on. Once people see that you have got that grit to stick with what you're doing they tend to come back to you," he adds.

For exhibitor information about next year's shows, visit www.finefurnishingsshow.com.



Detroit design college welcomes new VP

Sooshin Choi will help lead College for Creative Studies and build up woodworking programs



By Jennifer Hicks

he College for Creative Studies in Detroit appointed Sooshin Choi provost and vice president for academic affairs and professor of design in November. An internationally recognized educator and design professional, Choi joins the college from the University of Cincinnati where he is currently the director and also a professor of industrial design. His goal is to help build the school's reputation by sharing his international experience with emerging designers in woodworking and other art, design and craft fields at his new college.

"At CCS, I tell people I want to bring creativity as the center core of any major, including woodworking, of course. We're not just educating people who make wooden crafts. We are having them take a creative approach in every program. The creativity can become the center core of the entire college no matter what program you are in. This is my dream," says Choi.

Located in the heart of downtown Detroit, the College for Creative Studies enrolls more than 1,400 students pursuing Bachelor of Fine Arts and Master of Fine Arts degrees.

Choi has won numerous awards for his accomplishments, which include working as an automotive designer for foreign cars, developing furniture for offices and public spaces, and conducting extensive design research in collaboration with major corporations. Using his experience in industrial design, he plans to help students incorporate uniqueness in their designs while considering the global economy.

"Woodworking is a traditional craft, so I want to teach others how to put their profession in the picture of the future. There needs to be innovation and, with creative thinking, we can reenergize woodworking and hopefully revive it enough so there isn't much overseas competition."

"In America we have our own culture and own way of living, but the people manufacturing furniture in China don't know that. American people are the people who understand their own way of living and CCS understands that proper teaching can lead to big impact."

Contact: College for Creative Studies. Tel: 313-664-7400. www.collegeforcreativestudies.edu

RIDGID ADDS ONLINE SERVICES

Ridgid's new website features improved product and distributor search functions.

The tool company's site at www.ridgid.com was enhanced with simpler navigation and product registration tools.

Visitors can also review and ask questions about specific products.

"We built this new website to create a better experience and make information easier to find for our customers and our partners," company spokesman Craig Sumner said. "By updating content, improving navigation and upgrading search capabilities, users will find it much easier to browse and quickly find what they're looking for."

MICROVELLUM BRINGS SERVICE AND SUPPORT IN-HOUSE

Microvellum, a cabinet design and manufacturing software provider, announced it is taking a more active and direct role in the sales, service and support of its products worldwide.

The duties, formerly handled by Roger Shaw & Associates, will be conducted in-

"These changes will have an immediate and positive impact on our forecasted growth and supports the long term goals of our organization," president Dave Peel said in a statement.

For information about the company, visit www.microvellum.com.

NEW SITE FOR LIBRARY OF CONGRESS

The official legislative information website at Thomas.gov was transitioned Tuesday to a new site at Congress.gov.

Thmoas.gov, named for Thomas Jefferson, was launched by the Library of Congress in 1995 as a bipartisan initiative of Congress. It averages 10 million visits each year.

The new site has improved search features and can be accessed by mobile devices.

The Library of Congress, the nation's oldest federal cultural institution and the largest library in the world, holds more than 155 million items in various languages, disciplines and formats.

CMA SEEKS PARTICIPANTS FOR BENCHMARK STUDY

The Cabinet Makers Association is starting work on its 2014 Benchmark Study report, which surveys shop owners to learn about annual sales, equipment purchases and more.

Survey participants are eligible for prizes and other surprises, according to the trade association.

The 2014 Benchmark Study will be issued early next year.

For information, visit www.cabinetmakers.org.

JOOLS VIECHNIQUES

Oliver Machinery rolls out two new edgebanders

By Jennifer Hicks

liver Machinery offers two new edgebanders: the Contour for radial and curved work, and the Noiseless, which as the name suggests is a little easier on the ears because it doesn't use motors for the top and bottom trimming operations.

The Contour, model 8805, can apply 0.45 to 3mm tape with a moveable head that follows the workpiece with a maximum overall diameter of 100". The glue pot, feed roller system, motors and turning mechanisms travel with the moveable head. It also features a touch-screen control panel.

"The neat thing about this machine is that with a typical edgebander to do anything circular or odd-shaped, normally you have to do it by hand which takes a long time and is cumbersome. This allows you to apply edgebanding to odd or contour-type shapes with a fully automatic system," product manager Dan Shaw says.

"Once you have it set up and you're doing multiple pieces, you just keep feeing the pieces through. It has a fence-type system, which indexes the next piece coming in for repeat work."

The Noiseless edgebander, model 8500K, uses a knife-type system rather than high-frequency motors for the top and bottom trimming.

"And you don't need a dust collection system to use it," adds Shaw. "The only limitation is that it's limited to the thickness of 2mm edgebanding tape for the knife to be able to cut it."

The Noiseless model sells for \$29,500. The Contour is priced at \$59,000.

Contact: Oliver Machinery. Tel: 800-559-5065. www.olivermachinery.net



Teknatool delivers Nova Infinity chuck

By Jennifer Hicks

After three years of research and development, Teknatool says it will begin filling orders for its new Nova Infinity quick-change chuck system in January. The system features chuck jaws that can be changed out in less than 30 seconds, upgrade and retrofit kits and accessory jaw sets.

Unlike conventional woodworking chucks, the Infinity jaws are not secured with screws. Instead, Nova's new chuck uses a spring-loaded indexing pin for each of the four jaws to achieve the "quick-change" result. Simply depress a pin and slide out the jaw.

"There is still a lot of frustration with turners who have to manually take off jaws to do a changeover. It can take them up to six minutes to do this, whereas our quick-change chuck changeover takes about 30 seconds. So, for a turner, that's huge because they can spend a lot more time turning," says spokeswoman Anthea McQuoid.

The upgrade kit for existing Nova customers includes a jaw slide kit for the company's Super Nova 2, Nova Precision Midi, Nova G3

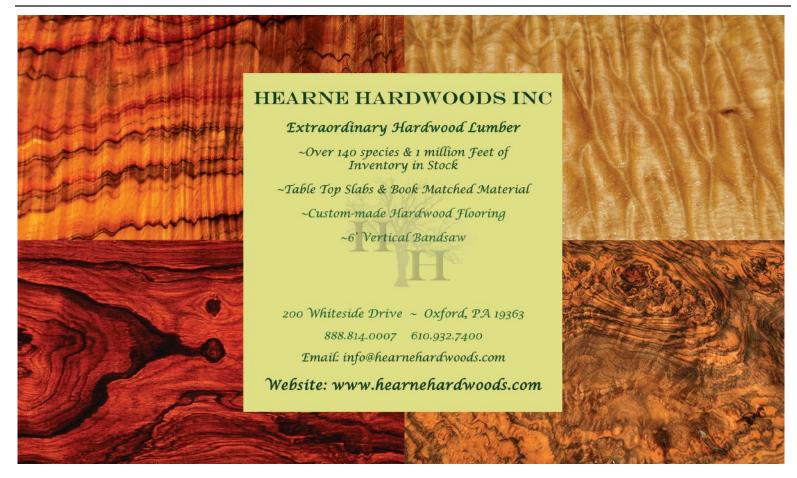


and Titan II chucks.

The retrofit kit includes a jaw key set that converts the mounting system of all existing accessory jaw sets to be compatible with Infinity jaw slides.

The new chuck sells for \$350. The upgrade kit costs \$150, while the retrofit is \$40. Accessory jaws sell for \$70 to \$135.

Contact: Teknatool International. Tel: 727-954-3433. www.novainfinitychuck.com



Bosch goes brushless with new cordless lineup

By Jennifer Hicks

osch Power Tools will introduce a new lineup of 12- and 18-volt cordless tools featuring a brushless motor platform in February.

"This is a new generation of tools for us," product manager Jason Feldner. "We've had brushless models before in a number of other tools including our rotary hammers and some of the things outside of the woodworking realm, but this is the first time we're kind of stepping into the fastening tools such as drill drivers and impact drivers in the 18- and 12-volt sides."

The 12-volt line will include a 1/4" and 3/8" hex drill/driver (mod-



The new 12-volt, 3/8" drill/driver, model PS32.

els PS22 and PS32), weighing just 1.6 and 2 lbs., respectively. "For woodworkers, the 12-volt tools are particularly a good addition and fit. They're smaller and more compact and they have an exceptionally long life — twice as long as the brushed tools from the previous generation. And in terms of power and things, they have just what they need for any drilling or fastening applications," says Feldner.

The new 18-volt drill/drivers, models DDS182 and HDS182, offer more power to tackle professional tasks, according to Feldner.

The 12-volt tools will retail for \$149 to \$159, and the 18-volt tools for \$199 to \$219

Contact: Bosch Power Tools. Tel: 877-267-2499. www.boschtools.com





Voorwood offers shaper/sander for small cabinet shops

By Jennifer Hicks

oorwood's new Model A11 shaper/sander is a compact combination machine specifically designed for small cabinet shops and capable of processing up to 50 doors per day using a template system, according to the company.

The A11 opens a new market for Voorwood, a traditional supplier of feedthrough machinery to large manufacturers.

"This is the first machine designed specifically for smaller cabinet shops focused on mass production," product manager Adam Britton says. "It shapes both straight and contoured components of cabinets, doors, drawer parts and other wood components while simultaneously sanding the desired

finished dimension with a rotary sander. It sizes and squares all panels and also processes curved edges.

"The purpose of the A11 was to take the technology we have in our normal line, which is a much more expensive line, and combine that technology into a much smaller package and reach the smaller furniture shops. Basically, it's the first table shaper that sands as well, but it's a manual shaper not an automatic process."

The A11 features a 60" table capacity, 7-1/2-hp shaper motor and 1-hp sanding motor. The table comes with two fences set 90 degrees from each other for sizing and squaring operations and a template

Other features include a push-button control panel, hold-down assembly, vertical adjustment hand wheel, and two 5" dust extraction ports.

The A11 retails for about \$27,000. Contact: Voorwood. Tel: 800-826-0089. www. voorwood.com

DEWALT STARTS CAMPAIGN TO HELP VETERANS GROUP

DeWalt is partnering with Wounded Warrior Project to support the organization's vision of fostering the most successful and well-adjusted generation of wounded service members in U.S. history.

The company pledged to donate a minimum of \$250,000 to the Wounded Warrior Project in 2013 and hire 100 veterans.

DeWalt says it will donate 10 percent of sales to the Wounded Warrior Project during special events scheduled at 180 Lowe's stores in October and November. The events will feature end-user competitions, giveaways, donation drives and more.

"We are excited to launch this campaign with some of our key retailers supporting Wounded Warrior Project," DeWalt director of marketing Jon Howland said in a statement. "We feel as though the brand attributes and core values of both Wounded Warrior Project and DeWalt are complementary and consistent. We remain grateful for the service that Wounded Warrior Project alumni have given to the U.S.A. and we know that the contributions generated by this partnership and promotion support a very important cause."

For information, visit www.dewalt.com/wwp.

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FINISHING

with BOB FLEXNER

VOCs: Bumpy ride came before smoother finishes

Since the introduction of Rule 66 in southern California, efforts to reduce air pollution have challenged the government and coating manufacturers

or the last half-century or so in the United States, we have devoted a lot of attention and resources to cleaning up the environment. As applied to coatings, the primary emphasis has been on reducing the amount of smog-causing solvents used in our paints and finishes. These solvents are called VOCs (volatile organic compounds).

As I wrote in the September 2011 issue of Woodshop News, VOC regulations as applied to coatings formulators and finishing shops are extremely confusing because they differ so much from one place to another.

But one thing is clearly evident when you look at the changes in these regulations since the mid-1960s. Our understanding of the relationship between solvents and smog, which is more technically referred to as ground-level ozone, has become increasingly sophisticated.

EARLY HISTORY

Los Angeles has suffered the most from smog of any American city and it launched an attempt to reduce the problem in 1966 with "Rule 66." This rule was quite minimal and crude compared to current VOC regulations in that it exempted whole classes of solvents thought to be less a problem than others. So it wasn't very difficult for formulators to design around the rules.

During the 1970s many states enacted regulations similar to Rule 66.

But by then Congress had entered the picture by passing the Clean Air Act of 1970. This act established the Environmental Protection Agency, which was tasked with setting national standards for air quality. In addition, the law directed states to develop plans to meet those standards.

Major revisions to the Clean Air Act were made in 1977. These defined a VOC as any organic compound that reacts photochemically in sunlight with nitrogen oxides (produced primarily by automobile engines) to generate ground-level ozone. To reduce this ozone-creating smog, states were directed to come up with plans to limit the pounds of solvents per gallon in paints and finishes.

Though coatings contribute a very small amount to smog (compared, for example, to industrial pollution and automobiles), these directives led to two changes in solvent-based formulating: a greater emphasis on high-solids coatings and a greater use of lower-density solvents.

Higher-solids finishes such as conversion varnish, polyester and, eventually, UV-cured-finishes release less solvent per square foot covered because more of the liquid in the can is a solid.

Because VOCs were measured as poundsper-gallon (or grams-per-liter), using solvents with lower densities reduced the weight of solvent in the can, thus reducing the VOC content by definition.

To illustrate the complexity of choosing non-problematic solvents, consider that in the 1980s some coatings manufacturers began using 1,1,1-trichloroethane, also known as methyl chloroform, because it was classified as a VOC-exempt solvent. Until, that is, it was discovered that this solvent participated in depleting the upperlevel ozone because of its long atmospheric lifetime.

INDUSTRY FIGHTS BACK

Congress got back in the act in 1990 with more amendments to the Clean Air Act. These amendments, which were largely directed at reducing acid rain in the Midwest and Northeast, also tightened restrictions on paints and finishes.

States were given a deadline to adopt regulations that would clean up the air in "non-attainment" areas — those areas that didn't meet the standards. Also, areas that did meet the standards were instructed to establish regulations that would maintain the clean air.

The tightened regulations were enough to get the coatings industry to fight back.

The trajectory of the fight was similar to that in other industries, including the automobile industry, which fought the requirements to install seatbelts and raise gas mileage. First there is resistance, usually through lawsuits against the government, then reluctant acceptance and finally commitment to developing the technology to make compliance possible.

The resistance within the coatings industry used the argument that coatings contributed so little to ground-level ozone that the price paid in loss of performance would far outweigh any gains in reduced pollution.

A typical example, especially in Southern California, which was outlawing oil-based paints, was that the latex substitutes required more frequent repainting because they didn't wear as well. Thus, it was questionable whether there was any reduction in ozone creation at all.

NEW METHODS OF MEASURING

Just as happened in other industries, within a few years the coatings industry turned its attention to solving the problems of maintaining or improving performance while reducing ground-level ozone.

To do this, the emphasis changed. With the cooperation of the EPA, regulations changed from emphasizing "low-VOC coatings" to designing for "low-ozone coatings." It was the ground-level ozone, after all, that was the problem — not VOCs alone. Rural areas didn't have an ozone problem, no matter how high the VOC levels from coatings, animal manure, etc. So research into how each solvent participates in causing ground-level ozone was intensified.

Traditionally, VOCs had been regulated using what was called a "mass-based" approach. A solvent was either photochemically reactive with nitrogen oxides or it wasn't. But little or no distinction was made among the individual solvents. Now a distinction was made.

So, for example, if a formulator were to substitute one or more negligibly- or medium-reactive solvents for a highly reactive solvent, the polluting effect could be reduced significantly without losing any of the performance characteristics. This is what is now being done and it's the reason lacquers won't soon disappear no matter what the rumors.

The degree of reactivity of various solvents was established and published so formulators could substitute one or more of the less reactive solvents for a bad one and still maintain solvency (dissolving the resin), viscosity (so the coating could be sprayed) and drying rate.

Computer programs that used Hansen/ Hildebrand solubility parameters to identify the candidate solvents for substitution helped immensely in redesigning the formulations. These solvents would then be tried and the resulting coating tested to see if it performed close enough to the more polluting coating to be acceptable.

Along the way, some solvents have been "delisted," meaning that they have been classified as negligibly reactive. These include, acetone, methyl acetate and parachlorobenzotrifluoride (PCBTF). Most important for the finishes we use is acetone.

If you look at a MSDS of a compliant lacquer, you'll more than likely see that it contains a lot of acetone. This solvent has been critical to the continued availability of lacquers, even in Los Angeles.

Acetone evaporates very rapidly, however,

so a slow evaporating "tail" solvent has to be included to give the finish time to flow out and eliminate orange peel. You'll see this solvent (or solvents) listed also.

CONCLUSION

After initial industry resistance and a continuing claim by some observers that all finishes will soon be water-based, the coatings industry pulled itself together and figured out how to continue making the solvent-based finishes most of us like to use and effectively reduce pollution at the same time. We are all better off for what has been accomplished.

Bob Flexner is author of "Understanding Wood Finishing" and "Flexner on Finishing."

MASTERCAM OPENS 2014 INNOVATOR OF THE FUTURE COMPETITION

CNC Software, producer of Mastercam CAD/CAM software, is accepting entries for its 2014 Innovator of the Future competition.

The competition provides students and young adults with a real-world manufacturing challenge, a chance to win a \$1,000 scholarship and a trip to the Kennedy Space Center. The competition provides instructors with a powerful motivational tool to get students excited about learning CAD/CAM and the manufacturing process.

For the 2014 competition, students are challenged to modify and machine an optic mirror design. They have two options for making the mirror: modifying the supplied part file to reduce the weight but maintain the structural integrity, or

get creative with the part file using an area of the mirror to express themselves. For more information, visit www.mastercamiof.com.

STAFDA ELECTS A NEW PRESIDENT

Members of the Specialty Tools & Fasteners Distributors Association elected Eric Grabowski president at its 37th annual convention and trade show in Las Vegas held in November.

Grabowski is the CEO of Edge Construction Supply in Spokane, Wash., Rod Gowett, president of Bay Tool & Supply, Milpitas, Calif., will continue as the association's vice president.

For more election results, visit www.stafda.org.





PRO SHOP

with JOHN ENGLISH

The process is as important as the finished product

By standardizing the bidding process and managing projects in a lean and efficient manner, profits will increase

sually, the longer we do something the better we get at it. But what happens when the thing that we do is custom, so by its nature it changes every time? How do we standardize the bidding process and the project management if every time the shop lights are turned we're building something different?

The key is to look at what stays the same. And that means looking at jobs in terms of the process.

Whether the shop is building cabinets or furniture, each unit goes through several steps that are always the same, even if both the dimensions and the design change radically. Parts flow through the shop in a fairly predictable manner — cutting, assembly, sanding, finishing and so on — and if the process is broken down into these separate functions, it's easier to track the amount of time that it takes to complete each step. By building a record of these time commitments over several jobs, an average will eventually reveal itself.

The first step here is to collect the data. That means every workstation should have a clipboard with a simple form that asks each woodworker what task he/she is working on and how long it takes to complete it.

For example, if there are nine base cabinets in a kitchen and it takes six hours for one person to set up the table saw and cut parts for the carcasses, then it takes 40 minutes a box. Each step in the process needs to be isolated for tracking to be accurate. That can include unloading sheet stock from the truck to the dock (1), drawing the plans in CAD or on paper (2), optimizing the material (3), moving sheets from the bin to the saw (4), making the cuts (5), moving the parts to the router station to be dadoed

and rabbeted before they go to the assembly station (6) and cleaning up the saw station before the next job starts (7).

By tracking information in detail through several jobs, a picture will emerge that reveals a lot more than just how long it takes to build a box. For example, it will tell you a lot about your people, too. You'll learn who in the crew is the most (and the least) efficient. More importantly, their speed will be quantified. You'll have actual numbers to back up any decisions you make, such as switching personnel to different tasks or changing the training process.

After perhaps half a dozen or so jobs have been tracked in detail, the data can be entered in a basic spreadsheet such as Excel and analyzed. Odds are you'll be surprised by the way that the support functions (moving materials and cleaning up, for example) eat up as much or even more time than some fabrication tasks. While the original goal behind tracking was to make it easier to estimate jobs, the data will probably encourage you to make decisions that help plan jobs better, too. For example, it might become obvious that you need more shop carts or larger aisles or a dust port in a certain location to minimize time spent with a broom.

In essence, what you are doing here is in line with the philosophy of lean manufacturing — eliminating waste to minimize cost and maximize profits.

One of the most interesting results of tracking is the relationship that is exposed between time and materials. By establishing the average amount of time it takes to process a sheet of Russian birch, for example, you'll eventually be able to get a ballpark number for the time a complete job will require by simply adding up the

number of sheets that it eats. The more data you collect, the more accurate that number will become. And while an estimate will obviously need more work than that, this guideline will flash a warning if the numbers in the bid are way off.

The data will also highlight aberrations. That is, you'll be able to isolate jobs that required more customization and use these to guide the bidding process on new projects that don't quite fit the mold. For example, if you need to build a bow-front island and you recently built a round china cabinet, some of the steps in those processes might be close enough that they allow you to get a much more accurate picture of the amount of time it will take to complete the new job.

CART BEFORE THE HORSE

While instinct says that the first step in taking on a new job is writing an estimate, that's actually the second thing we should do. The first step is planning the job. For instance, if the client only needs one or two cabinets, can they be piggybacked onto a larger kitchen job, so that setup times are minimized? The spray booth equipment would only need to be prepped and cleaned once. If two jobs are planned at the same time, will that kick the purchase order for the sheet goods or the hardwood, hardware, drawer slides or lacquer into a better discount at the supplier? Think about the one-in-eight rule here. Most businesses net about \$1 for every \$8 they spend. So if you can save \$50 on supplies (and delivery charges?), that's \$400 worth of sales that you won't need to make. Or given a more positive spin, that's \$400 worth of sales where the profits can go into your pocket.

If good planning brings down your price per sheet processed, you might be able to very slightly undercut the new shop down the street that's been eating into your business or pacify a repeat client with a small discount.

Tracking jobs by breaking them down into separate tasks has another nice result. Knowing how long each step really takes will help forecasting become more accurate. So when a kitchen is promised in seven weeks, it actually gets delivered in seven weeks. That kind of reliability builds confidence with homebuilders and general contractors and confidence builds orders.

Once a shop has created a system for tracking tasks, it will take a few jobs to train the staff how to use it and several tweaks to have the system gather exactly the right data. After things settle down and everyone is on board, the same system can then be used as a basis to create estimates. Instead of a traditional time and materials guesstimate,

the form used by the salesperson can break down the process into tasks and use the newly established data to put time and currency values on these.

MOBILE APPS

If the estimating process is still on paper in your shop, it might be time to take a look at a few inexpensive apps. Salespeople can use these to gather information and help a project manager or estimator get a more accurate picture of the job. Apps probably won't replace the estimating process entirely.

One of the first app builders that comes up in a search through the iTunes store is iQuick Tools (iquicktools.com). Most of their programs work on both Apple and Android platforms. Among them is Ultimate Estimator, which costs about as much as a decent hamburger. While it isn't customized for woodworking, it does walk one through the time and materials regimen. However, what is interesting is that companies such as this build software and mobile apps in-house so they can often build a custom app at affordable prices. If your shop doesn't have enough business to support ordering a custom app, think about any trade associations to which you belong or could belong. They might be willing to partner on an app. Your lumber supplier might suggest partners, too.

Before purchasing any stock app, go ahead and Google reviews for it. Users will tell you a whole lot more than the app designers.

There are lots of apps featured on Woodweb.com, too. On the site's home page, just go to "Resources" and then scroll down (about a page) until you see "Software & Mobile Apps" in the left-hand column.

SOFTWARE PROGRAMS

For a long time now, there have been full-spectrum estimating programs that are designed specifically for cabinet shops. Many of them are married to project management software, so they streamline the planning and estimating processes. Among these are CabinetCruncher (cabinetcruncher.com), Cabinet Solutions (customcabinetsoftware.com), SmartDraw (smartdraw.com), Mozaik (mozaiksoftware.com, which offers a package for shops without CNC capabilities), Cabinet Vision (cabinetvision.com), CDS (cabinetdesignsoftware.net), and Cabinet Shop Maestro (cabinetshopsoftware.com).

Woodshop News doesn't endorse any specific app or program. They are listed here simply to offer our readers a starting point in their search for software. For information, visit our online resource guide at www. woodshopnews.com.

PATRIOT WOODWORKER OUTFITS SHOP FOR VISUALLY-IMPAIRED

The Patriot Woodworker, an organization dedicated to sharing the equipment, skills and love of woodworking with wounded veterans, recently announced it has equipped a woodworking shop for an Iraqi War veteran with severe visual and speech impairment.

The veteran, Specialist E-4 Mark Wilson of Palmyra, Mo., a former combat engineer who served two tours of duty as an explosives expert tasked with locating and disarming improvised explosive devices, was injured in a non-service-connected firearms accident. Wilson, an avid woodworker even before his injury, now makes an array of products he will shortly begin selling through garage sales, flea markets, newspaper ads and a website.

"My passion has always been woodworking," said Wilson. "Before I deployed I enjoyed making picture frames, benches, wall shelves, small tables, plaques, and boxes in my garage. I now attend a specialized woodshop program through the Blind Rehabilitation Center in Hines, Va., where I'm learning advanced adaptive and safety techniques for different tools. There's no way I can express my gratitude to everyone who has helped me return to woodworking, despite my injuries."

To date, Wilson has received a dust collector, band saw and table saw from Laguna Tools. He has also received a collection of woodworking clamps from Bessey Tools of North America and woodturning lathe tools from Easy Wood Tools.

INDUSTRY VETERAN NAMED AWI/ QCC EXECUTIVE DIRECTOR

Randolph Estabrook, former owner and CEO of Enterprise Woodcraft & Design of Brentwood, Md., was appointed executive director of the Architectural Woodwork Institute Quality Certification Corp. With 20 years of architectural woodwork experience, including six at the helm of the Quality Certification Program, he brings unique experience, according to the AWI.

"After a six-year absence from AWI/QCC, we are pleased to have Randy back as the leader of our professional staff. Not only will his firsthand knowledge of the woodworking industry be valuable, but his volunteer service within AWI national and the predecessor of the new local AWI Capital Region Chapter will be a plus in advancing the Quality Certification Program to the next level of professionalism in the industry within the framework of our organization," said QCC president Joe Sorrelli in a statement.

"Randy Estabook is a perfect complement to the AWI and QCC team of professionals. We



WOODMARKETS

Demand drives higher prices for black walnut

By Jennifer Hicks

lack walnut continues to be in high demand and the pricing reflects it, according to lumber suppliers interviewed by Woodshop News.

"Walnut's very hot," says Sam Talarico, owner of Talarico Hardwoods in Mohnton, Pa. "I handle quartersawn walnut and the big walnut flitches are very much in demand right now. They have been the past couple of years actually. I don't know how long it's going to last, but for the past two years it's been call after call and I can't keep up."

Talarico says flitches are selling for \$15 to \$30/bf, depending on quality and size.

Black walnut (Juglans nigra) trees reach heights up to 100' with diameters of 3' to 4'. The sapwood is nearly white, while the heartwood is brown to chocolate-brown. Walnut is often steamed at a mill or kiln to darken the color of the sapwood to match the color of the heartwood. Walnut represents about 5 percent of U.S. hardwoods.

The wood is straight-grained, although occasionally wavy and irregular. Walnut produces a large variety of figure, including crotch, stripe, ribbon, mottle, swirls and occasionally burls. The wood is moderately dense, but strong in relation to its weight. Black walnut works well with hand-



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and power tools, holds nails and screws satisfactorily and glues without a problem.

Rory Wood of Rare Woods USA in Mexico.

Rory Wood of Rare Woods USA in Mexico, Maine, says that although walnut has never been a great seller for him, he's been seeing more demand for the lower grades.

"We're finding quite a steady demand for lower-grade walnut, which allows for the natural defects to come through. People are seeing more of the beauty of natural wood.

"Walnut is one of the world's premier cabinetmaking woods. It really is forgiving, easily machined and always has gorgeous colors coming through," says Wood.

Mark Wagner of Hill Hardwood Supply in Iowa City, Iowa, says walnut is being used regularly for furniture and general cabinetry applications, but not so much for commercial projects or trim work. He, too, says the price is a factor in sales, but that also assures it's readily available.

"Walnut is not our top seller, but I have to say dark woods are probably becoming more popular these days and there's a good interest in walnut. The fact that the prices are up makes sales a bit of a problem. We are in the \$10-a-board-foot category for [top-grade] walnut," says Wagner.

SAGETECH AND ZAPTUK ANNOUNCE MERGER

Vertical panel saw manufacturers Sagetech and Zapkut merged under the Sagetech name.

Established in 2002, Sagetech focused on intermediate-to-heavy industrial users with its Koolkut line, while Zapkut, launched in 2006, concentrated on light-to-intermediate users and those requiring portable cutting solutions.

"Both Sagetech and Zapkut have consistently focused on supplying wall saws which while very competitively priced, are robust, high quality and feature-rich. With the Zapkut and Koolkut saw families complementing one another, it made perfect sense to bring the two together in a single company," Sagetech managing director Keith Bunker said in a statement.

For information, visit www.sagetech.co.uk.

CONSTRUCTION SPENDING HITS FOUR-YEAR HIGH IN OCTOBER

An unusual surge in public construction in October pushed total construction spending to its highest level since May 2009 despite a dip in both private residential and non-residential activity, according to an analysis of new Census Bureau data by the Associated General Contractors of America.

"Nearly every category of public construction increased in October, according to the preliminary Census figures, although for the first 10 months of 2013 combined, public spending continues to lag the 2012 year-to-date total," the association's chief economist Ken Simonson said in a statement. "Meanwhile, residential spending slipped for the month, but still showed strong year-to-date gains, and nonresidential spending remained stuck in neutral."

Construction put in place in October totaled \$908 billion, 0.8 percent higher than in September. But figures for August and July were revised down below levels that initially exceeded the current October estimate. The total for the first 10 months of 2013 was 5 percent above the year-to-date

mark for the same months in 2012.

Public construction spending jumped 3.9 percent for the month, but trailed the 2012 year-to-date total by 2.8 percent. The two largest public components were mixed: highway and street construction increased 0.6 percent in October and 0.3 percent year-to-date, while educational construction leaped 8.5 percent for the month but fell 8.5 percent year-to-date, Simonson said.

Private residential spending slid 0.6 percent for the month, but still climbed 17 percent year-to-date. New single-family construction decreased 0.6 percent in October, but soared 30 percent in the first 10 months of 2013 compared with 2012. New multifamily spending advanced 2.2 percent in October and 46 percent year-to-date.

"Construction will likely display varied patterns in the next several months," Simonson said. "Multifamily construction will keep burgeoning, but single-family homebuilding may stall. Private nonresidential spending should benefit from more power, energy and manufacturing work. Public construction remains threatened."

ELIAS INTRODUCES RTA FACE-FRAME CABINETRY

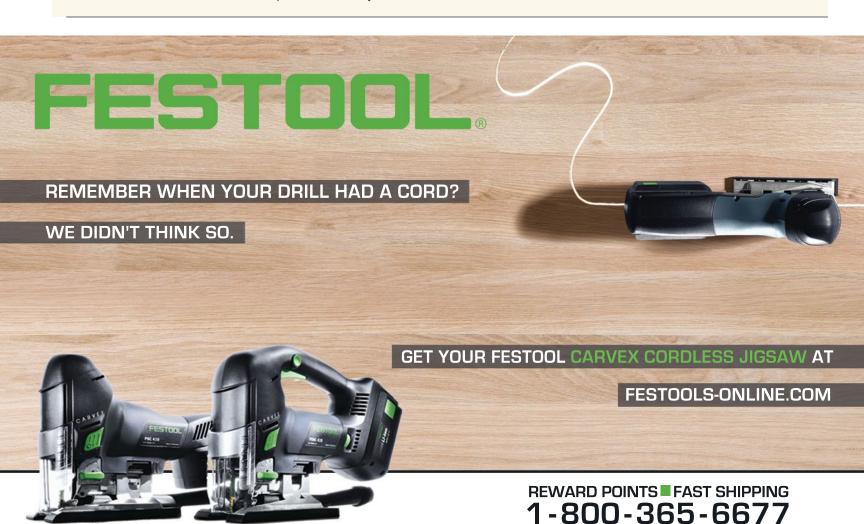
Elias Woodwork added ready-to-assemble face-frame cabinets, featuring the Cabinotch custom cabinet box system, to its product offerings.

According to the company, these cabinets can be ordered in any width, height, or depth.

Other benefits of using the Cabinotch system include:

- No clamps or fasteners required to assemble
- A standard base cabinet can be assembled in less than five minutes
- Cabinets feature 1/2" sides, backs, bottoms and tops
- Fully finished face frames, toe kicks and end panels to match door styles
 - · Available in many species
 - Manufactured in North America

For information, visit www.eliaswoodwork.com.





Grizzzy Industrial

10" CONTRACTOR-STYLE TABLE SAW with Riving Knife

- Motor: 1½ HP, 110V/220V, single-phase, prewired to 110V
- Precision-ground cast iron table with wings
- Table size: 251/4" x 40" Arbor: 5/8"
- Arbor speed: 4000 RPM FREE 10"
- Capacity: 31/8" @ 90°, 21/4" @ 45°

Rip capacity:

CARBIDE-TIPPED BLADE



30" R, 12" L
• Approx. shipping weight: 208 lbs.



MADE IN TAIWAN

10" CARBIDE-TIPPED BLADE

10" HYBRID TABLE SAW with Riving Knife

- Motor: 2 HP, 110V/220V, single-phase, prewired to 220V
- Precision-ground cast iron table with wings measures: 27" x 40"
- Arbor: 5/8"
- Arbor speed: 3850 RPM
- Capacity: 31/8" @ 90°, 23/16" @ 45°
- Rip capacity: 30" R, 12" L
- Quick change riving knife
- Cast iron trunnions
- Approx. shipping weight: 404 lbs.

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G0732 \$79500 SALE \$65000

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

- Motor: 3 HP or 5 HP, 240V, single-phase
- Precision-ground cast iron table size with wings: 27" x 48"
- Arbor: 5%
- Cutting capacity: 25%" R, 8" L
- Max. depth of cut: 3" @ 90°, 21/8" @ 45°
- · Approx. shipping weight: 550 lbs.

G1023RLW 3 HP ONLY \$136000 G1023RLWX 5 HP ONLY \$139500



10" CABINET TABLE SAW

with Riving Knife & Extension Rails

- Motor: 3 HP, 220V, single-phase
- Precision-ground cast iron table
- Table size with extension: 27" x 743/4"
- Arbor: 5/8" Arbor speed: 4300 RPM
- Capacity: 31/8" @ 90°, 23/16" @ 45°
- Rip capacity: 50"R, 12"L
- Max. dado width: ¹³/₁₆"
- Approx. shipping weight: 557 lbs.



FREE 10"

CARBIDE-TIPPED BLADE

G0691 ONLY \$159500

10" HEAVY-DUTY CABINET TABLE SAW with Riving Knife

- Motor: 5 HP, 220V/440V*, 12A/6A, 3-phase
- Precision-ground cast iron table with extension measures: 27" x 75¾ Table height: 34¾ .
- Arbor: 5%" Arbor speed: 4000 RPM Max. dado width: 3/4"
- Capacity@ 90°: 3¾6", @ 45°: 2¾6"
- Max. rip capacity: 52"R, 18"L
- Approx. shipping weight: 716 lbs.









G0652 ONLY \$215000

8" JOINTERS

- Motor: 3 HP, 220V, single-phase, TEFC
- Precision-ground cast iron table size: 9" x 721/2"
- Max. depth of cut: ½"
- Max. rabbeting depth: 1/2
- Cutterhead dia.: 3"
- Cutterhead speed: 4800 RPM
- Cuts per minute: 20,000 (G0656P), 21,400 (G0656PX)
- Approx. shipping weight: 500 lbs.

4 KNIFE CUTTERHEAD

G0656P ONLY \$82500
SPIRAL CUTTERHEAD
G0656PX ONLY \$125000 =





6" JOINTER

- Motor: 1 HP, 120V, single-phase
- Precision-ground cast iron table size: 7½" x 46"
- Cutterhead diameter: 21/2"
- Cutterhead knives: 3
- Cutterhead speed: 4800 RPM
- Approx. shipping weight: 266 lbs.



G0452P ONLY \$52500 =

8" x 76" JOINTERS

- Motor: 3 HP, 240V, single-phase, TEFC, 3450 RPM
- Maximum depth of cut: ½"
- Maximum rabbeting capacity: ½"
- Total table size: 8" x 76%"
- Cutterhead diameter: 3%6" (G0490), 3%8" (G0490X)
- Cutterhead speed: 4800 RPM
- Approximate shipping weight: 564 lbs.

4 KNIFE CUTTERHEAD

G0490 ONLY \$99500

SPIRAL CUTTERHEAD
G0490X ONLY \$132500



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



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AND OUTFEED TABLES

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12" JOINTER/PLANER COMBINATION MACHINE

- Motor: 5 HP, 220V, single-phase
- Jointer table size: 14" x 591/2"
- Cutterhead dia.: 31/8"
- Cutterhead speed: 5034 RPM
- Max. jointer depth of cut: 1/8"
- Max. width of cut: 12"
- Planer feed rate: 22 FPM END-MOUNTED **FENCE**
- Max. planer depth of cut: 1/8"
- Max. planer cutting height: 8"
- Planer table size: 121/4" x 231/8"
- Approx. shipping weight: 734 lbs.

G0634XP ONLY \$235000



20" PLANERS

- Motor: 5 HP, 240V, single-phase
- Max. cutting width: 20" Min. stock length: 8"
- Max. cutting depth: 1/8" Feed rate: 16 FPM & 20 FPM
- Cutterhead diameter: 31/8"
- Number of knives: 4 HSS
- Cutterhead speed: 4800 RPM
- Table size: 20" x 253/4" (20" x 551/2" with extension)
- Overall dimensions: 551/2"L x 391/2"W x 457/8"H
- Approx. shipping weight: 920 lbs.

4 KNIFE CUTTERHEAD

G0454 ONLY \$169500 SPIRAL CUTTERHEAD



AND OUTFEED TABLES



15" PLANERS with Spiral Cutterhead andBuilt-in Mobile Base

15" PLANERS

15" x 20"

· Motor: 3 HP, 220V, single-phase

Min. stock thickness: 3/16"

. Min. stock length: 8"

3 KNIFE CUTTERHEAD

SPIRAL CUTTERHEAD

• Max. cutting depth: 1/8"

Feed rate: 16 & 30 FPM

Cutterhead speed: 4800 RPM

· Approx. shipping weight: 660 lbs.

G0453P ONLY \$112500

G0453PX ONLY \$175000

Precision-ground cast iron table size:

- · Motor: 3 HP, 240V, single-phase
- Precision-ground cast iron table size: 15" x 20"
- Max. cutting depth: 1/8"
- Feed rate: 16 & 30 FPM

6" x 48" Belt, 9" Disc

· Cast iron table, disc and body

· Quick belt release mechanism

2300 SFPM belt speed Belt driven Approximate shipping

3450 RPM, 12A/6A

- Cutterhead speed: 4800 RPM
- · Approx. shipping weight: 675 lbs.

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Dust ports - 2" for belt, 21/2" for disc









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G0453Z

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G0454Z ONLY \$257500

1½ HP SHAPER

- Motor: 11/2 HP, 120V/240V, single-phase
- Precision-ground cast iron table size: 201/4" x 18"

G1035P ONLY \$59500 = \$79

Sanding motor: 11/2 HP, 110V, single-phase, 15A

Drum surface speed: 4000 FPM

Overall size: 35" W x 50" H x 24" D

Approx. shipping weight: 328 lbs.

Min. board length: 6"

Sanding drum size: 4"

2½" dust collection port

Min. board thickness: 1/8"

Conveyor feed rate: Variable, 2-12 FPM

Max. stock dimensions: 36" W x 41/2" H

18" OPEN END DRUM SANDER

- Spindle travel: 3"
- 2 interchangeable spindles: 1/2" & 3/4"
- Spindle speeds: 7000 & 10,000 RPM
- Max. cutter dia.: 5"
- Approx. shipping weight: 246 lbs.









weight: 122 lbs. G1014Z ONLY \$39800

3 HP DUST COLLECTOR

- Motor: 3 HP, 240V, single-phase, 3450 RPM,12A
- Air suction capacity: 2300 CFM
- Static pressure: 16.7"
- 7" inlet has removable "Y" fitting with three 4" openings
- Impeller: 12¾" cast aluminum
- Bag capacity: 11.4 cubic feet
- Standard bag filtration: 2.5 micron
- Portable base size: 211/2" x 491/2"
- Height with bags inflated: 78"
- Approximate shipping weight: 170 lbs.







































eter Pomerantz, principal of Pomerantz Woodworking in Waitsfield, Vt., didn't set out to be a woodworker, though he was certainly prepared for it.

"I was basically raised in the woods of Vermont. I still make maple syrup with my family in the house I grew up at. I still spend the spring cutting, splitting and stacking wood. My parents were kind of back-to-the-landers so that led me initially into a career in wilderness education. Then as I got closer to wanting to have a family, I decided to bring what was beautiful about nature inside with woodworking," says Pomerantz.

Established in 2007, Pomerantz Woodworking employs three craftsmen and serves the residential and commercial markets. The custom cabinet shop grossed about \$300,000 in 2013.

Pomerantz built his family home in the late 1990s, then started making cabinets as a side job. He built a shop, hired an employee and started a print-oriented marketing campaign that really got the ball rolling.

"We're really fortunate right now. We've been super busy and we're really growing and have a whole calendar year of work lined up. I did a lot of marketing professionally right at the beginning and it really paid off," says Pomerantz.

BUILDING RUSTIC CONTEMPORARY

The shop's mainstay is residential kitchen cabinets followed by bathroom remodels and built-ins. Commercial projects, which account for only about 5 percent of the total work, include coffee shops and small retail stores. Vermont residents make up half of the company's clientele. To

Kitchen cabinets are a top seller, but furniture is also made. This table holds its own with the impressive electronics.

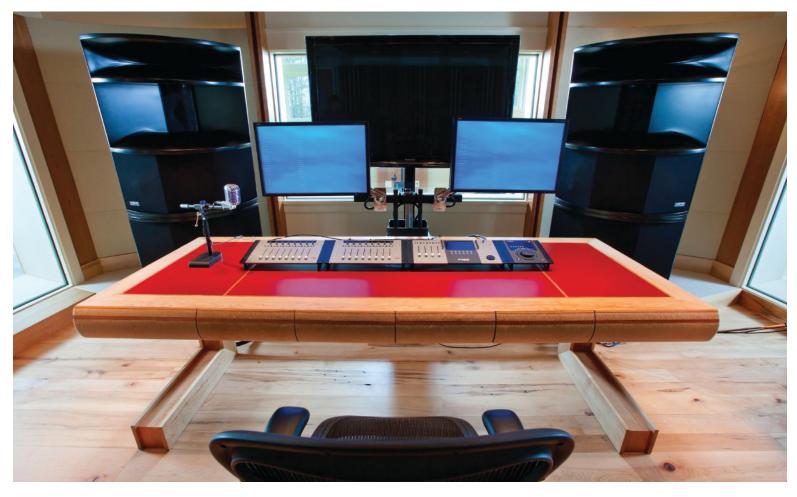
guard against putting all his eggs in one basket, Pomerantz is always trying to widen the shop's geographic market.

"Most of our clientele is in the Northeast, but we've been all the way down to northern New Jersey and the Philadelphia area. We're in a pretty good spot where we can be in Boston, Connecticut and New York pretty quickly. The majority of my work in [2013] was with New York City clients, but it's not that way every year."

The volume of work has always been pretty steady, averaging about one kitchen per month. Pomerantz attributes this to being fair with his pricing.

"I try to price according to two things I take into consideration, which









Pomerantz opened his shop in 2007. At right, Todd Sirak builds a cherry cabinet.

are the market value on other quotes from commercially-made cabinets combined with what it actually costs us to build. But I try to do more of what the value on the market would be versus what it costs me in labor, materials and profits to make."

The shop promotes its use of locally grown maple, walnut and butternut and will build in any style as long as the customer is paying. "I would say our standard in common would be more of a rustic

contemporary. People want a lot of clean lines, but with a rustic look. But there is a great lean towards traditional designs as well," notes Pomerantz.

ON SALES AND DOWNTIME

Pomerantz emphasizes the value of his cabinetry in every sales pitch.

"I basically tell our clients that if they went to a retailer and required the same specifications like inset doors and drawers, the soft-close hardware and everything else like glass doors, additional accents and moldings, that they can expect to pay a higher price because I don't have their markup. My clients get more for their dollar."

Pomerantz learned early on to stay busy whenever sales are sluggish and make valuable use of downtime.

"Sometimes I stay busier when things are slow because I'm always building something for our design showroom or I'm working on something marketing-related and that could be community service of some sort like building something for one of the schools my kids are in just so I can be in the public eye of doing something good. Or I'll start doing some kind of improvement around the shop, whether it's configuring machines and space or setting up tools or dust collection.

"When thing slow down, I can usually get furniture pieces through the shop. Someone a while back wanted a table I wasn't able to do when I was too busy before with a large kitchen, so I was able to complete that to fill some of that downtime."

Pomerantz Woodworking is currently housed in a two-story commercial building. There's an office and showroom on the second floor with a picture window exposing the shop floor below. Pomerantz has been improving the place one day at a time and is about to install

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Contemporary or rustic contemporary, the shop builds to any design preference.

a new spray booth. The shop is well-equipped, but Pomerantz hopes to add a large wide-belt sander and a CNC machine.

"My challenge now is finding resources and capital to invest in equipment," he says. "When I started, I didn't take out any business loans and no family members endowed me with large sums of money. It was really pretty out-of-pocket with initial startup so I would like to find sources for funds to get larger equipment.

"The state of Vermont really values its work and landscape and there's a significant amount of money they're willing to give businesses that are involved in farm or forestry products to better serve their clientele with value-added products, so I'm trying to apply for grants."

SHARING WHAT HE KNOWS

Pomerantz enjoys passing along his knowledge of the land and the craft with clients and aspiring woodworkers. He recently formalized an internship program with the nearby Harwood Union High School in Morewood, Vt.

"We have just brought on three interns from the local high school. They are going to go through a set of skills for me and they have to write a report at the end to get school credit for it. I'm tying in what I used to do



in wilderness education with what I do now.

"I'm trying to make the business a community resource locally while serving the needs of the higher-end population."

Pomerantz has a pretty clear view of what it takes to be successful. "You need communication with everyone in the chain from the clients to employees, suppliers and financers," he says. "It's critical that you enjoy working with people of different personalities and with different goals."



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CUSTOM DOWELED DRAWER BOXES AVAILABLE FROM KEYSTONE

Keystone Wood Specialties added doweled drawers to its line of custom drawer boxes.

Doweled drawer boxes are available in 1/2" prefinished, edgebanded maple plywood or white melemine. They can be ordered as a standard drawer box or as a rollout tray with the finished side in front.

Other options include a choice of eight drawer heights, notching for undermount drawer slides and logo laser engraving.

The boxes are CARB2 compliant and are shipped unassembled, according to the company.

For information, visit http://keystonewood.com.

OSBORNE TOUTS CUSTOM CAPABILITIES

Osborne Wood Products is creating furniture components using remnants of the historic Coney Island boardwalk.

Osborne used ipé from the boardwalk to make 60 custom table legs for its customer, Vermont Store Fixtures.

"Custom sales are important to us because they are important to our customers," said Osborne's drafting engineer Haden Smith, in a company release. "Their ideas often times have to be created and we are able to bridge the gap between an idea and a finished product for our customers consistently and easily.

"We have a great process in place that allows our lead time to be as few as a couple of hours in some cases."

For information, visit www.osbornewood.com.

LAS VEGAS IS LUCKY FOR CALIFORNIA SHOP PROGRAM

Safety Speed Mfg. provided a new horizontal panel router to the woodshop program at Del Oro High School in Loomis, Calif.

Del Oro was chosen from a lottery of teachers attending the 2013 AWFS fair in Las Vegas.

Del Oro woodshop instructor Steve Paris said he was delighted at being chosen and distinctly remembers having stopped at the Safety Speed booth while he was at the show.

"The router will show students a new process for getting things done quickly and safely," Steve Paris said.

Paris teaches beginning and advanced woodworking to about 150 students annually. Students in his beginning class will use the horizontal panel router to match dados in a corner shelf project and advanced students will use it to create blind or stop dados in a cabinet project.

IWF GETS EUROPEAN FEDERATION'S STAMP OF APPROVAL

Eumabois, the European federation of woodworking technology, tools and accessories manufacturers, added the IWF in Atlanta and Fenafor in Lima, Peru, to its list of officially supported shows.

"These are two important additions, we might call them strategic," Eumabois president Ambrogio Delachi said in a statement. "The organizers of IWF, a well-known and established exhibition, decided to join the network, following the example of their AWFS colleagues in Las Vegas, which takes turn with the Atlanta show in alter-

nate years. Their entry closes the loop, providing industry companies with an effective coverage of the U.S. market, which is definitely on top of the list of countries with the strongest demand for technology and accessories for the wood and furniture industry.

"With the Fenafor show in Lima, Eumabois is continuing its commitment in Latin America, establishing a partnership with a major exhibition that represents a promising market, with an increasing number of companies looking for safe, high-quality technology and higher productivity. In other words, different technological standards that are recording more and more interest also in this region and that European technology is ready to meet, leveraging its excellence."

For a listing of all Eumabois-supported events, visit www.eumabois.com.

NEW FASA VIDEO HELPS SUBCONTRACTORS GET PAID

Construction subcontractors are learning best practices for ensuring prompt payment of invoices with a new video-on-demand from the Foundation of the American Subcontractors Association.

In the video, "All Work and No Pay Making You Crazy? Best Practices for Suspending Work Without Getting Fired," presenter Jason Ebe, a layer for Snell & Wilmer in Phoenix, provides tips for how subcontractors can mitigate their own damages by suspending work without breaching their subcontract and getting fired, replaced and sued.

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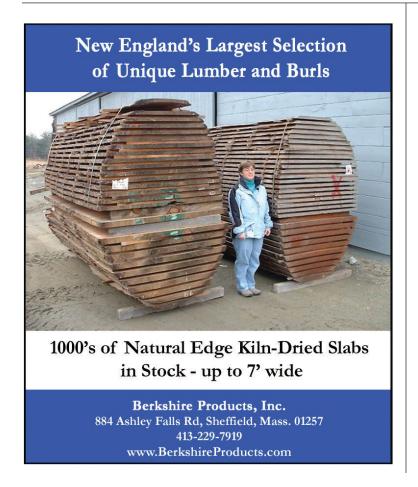
BY JOHN ENGLISH

appy workers — and that includes shop owners — do better work.

According to a Tony Schwartz report in the New York Times on Nov. 27, "human beings require four types of fuel to perform at their best: physical, emotional, mental and spiritual." A shop owner can do a lot to improve conditions

in all four areas and it doesn't have to cost a lot. But bosses who ignore these needs tend to pay for the lack of consideration in lower production rates, less accurate work, more absenteeism and diminished customer service (as in "the customer will never notice the door handle isn't quite square").

On Dec. 2, Forbes Magazine ran a piece titled: "Life is stressful:







Small changes, such as better lighting and changing the routine, can make your shop more productive.

10 things to stop tolerating." Topping the list was burnout, closely followed by negativity and disorganization.

Both Forbes and the New York Times are paying attention to worker moods at a season of the year when many people feel a bit down anyway with the winter blues. The holidays, followed by several long months of short days and overcast skies, can trigger a type of depression called seasonal affective disorder. The Mayo Clinic says that seasonal affective disorder symptoms start in the fall and could continue into the winter months "sapping your energy and making you feel moody."

So, without going broke, what can a shop owner do to create a more pleasant and more productive workshop? Actually, there are an enormous number of small changes they can make that can add up to a whole new culture in the shop and also better bottom lines.

LIGHTEN UP

Begin with that "physical" fuel that Schwartz mentioned. Are your people taking regular short breaks throughout the day? Are they standing on comfort mats or cold, hard concrete? Do taller people have slightly taller workbenches? Does everybody have enough light? A lack of task lighting leads to sloppy work, especially as we get older and our eyes don't work as well as they once did. In fact, the No. 1 therapy for seasonal affective disorder is to provide more and better lighting. According to the Mayo Clinic: "Light therapy mimics outdoor light and appears to cause a change in brain chemicals linked to mood. Light therapy is one of the first-line treatments for seasonal affective disorder. It generally starts working in two to four days and causes few side effects."



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Rewarding good performance with frequent words of encouragment creates a more pleasant working environment.

When most of the United States adopted Daylight Saving Time during the mid-1960s (Arizona and Hawaii still aren't on board), the idea was to advance our clocks one hour during the months with longer days — currently, from the second Sunday in March until the first Sunday in November. That meant that we had more daylight during summer evenings, but it also means that we have less daylight during winter evenings when the clocks go back and our moods tend to swing a bit lower.

Changing shop lighting doesn't always mean adding new fixtures. Take a look up and see if you have great lighting in the storage area where people rarely work and less light in the work areas. You might be able to either switch the light fixtures or the spaces (that is, move the workbenches under the brightest lights). If all you need to do is move things around, the expense is limited to the time it takes to do that. More light can improve our emotional and mental

While you're already looking up at the ceiling, check the light bulbs. The existing fixtures might be able to handle more wattage (brighter bulbs). They can also benefit from a change of color. The color of light (well, actually just the warmth of the color or hue) is measured on the Kelvin scale, which is very familiar to photographers. The scale describes the color of light in terms of its temperature. Natural daylight is somewhere around 5500K (it varies a bit), while most indoor lighting is in the range of about 3200K. Color temperatures above 5000K are cool (blue to white) and those in the 2500 to 3500K range are warm, appearing yellow to red. The higher temperatures tend to make us feel more energetic.

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Duraline Hi-AT Woodshop News





LEARN TO SHARE

Perhaps one of the best ways to create a more pleasant workshop is to tackle malaise. Boredom and burnout are often the result of asking an employee to perform the same task over and over again. Some employees tend to get very good at maintaining one workstation and eventually regard it as theirs. The upside to this is that they produce great results and their speed improves. If they become the hub around which production flows, that fast rate affects the rest of the production sequence, too.

However, there are some downsides to specialization. The most obvious one is that production will suffer if that key employee gets sick, fired or hired elsewhere. Just think about how many football teams sputter when their starting quarterback gets injured.

But there are some subtle costs, too. For example, you might have one very happy employee and three or four others who resent him/her and who feel that they deserve a shot at what they consider the best job in the shop.

The immediate upside to switching stations routinely is that all employees can become proficient at all tasks, so you will always have a backup quarterback when you need one. But the entire crew will also have a higher sense of ownership of the production process if they are all allowed to contribute. And they will have a sense that promotion and rewards are more fairly administered if they are not relegated to a repetitive task that invites burnout and boredom.

CARROTS AND STICKS

Rewarding good performance is essential in any business environment. However, the rewards don't have to be magnanimous. A simple thankyou and a smile often do more than monetary bonuses to invigorate performance. People need to feel appreciated and valued. Seeking

the opinion of a shop crewmember, even if you only need to verify your own opinion, is usually appreciated. When somebody spends 40 hours a week doing something, they usually see things that a foreman or manager misses on a brief walkthrough. Interaction doesn't need to be as formal as weekly meetings, but it does need to be frequent enough that, when your people see something that can be improved or needs to be fixed, they feel they can approach you. That comfort level, knowing that somebody will listen and values their input, helps create a more pleasant working environment.

On the other side of that coin, a shop that is run primarily on criticism and negative comments is destined to go through a lot of employees. If a shop's turnover rate is consistently higher than the industry standard, the cause might be as simple as one supervisor or manager who makes workers feel that their contribution is not valued. Who wants to go to work every day only to be told that their performance is substandard? You could fire that supervisor, but if you have a lot invested in them, then perhaps a wiser course would be to send them to sensitivity training. For an industry that swings hammers, that might sound a bit New Age, but large corporations have been doing it for decades. Their philosophy is not to throw out the baby with the bathwater. It costs a lot to train managers and tweaking that investment

rather than abandoning it can be a good way to create a more pleasant workshop without busting the budget.

ORGANIZING IS KEY

When things go right, we feel good. When we lose something like our keys, glasses or cellphone, we feel all out of sorts and, as soon as they turn up, our mood stabilizes rather quickly.

The same is true of parts, plans and tools. If they are at hand, always in the same place, easily found and easily stored, they become a bonus rather than a hindrance. Keeping all supplies in one room, on labeled shelves, will help reduce angst and create a more disciplined and welcoming work environment.

If the routine for running work through the shop is standardized and people understand what is expected of them and when, they will perform better. Having a disorganized manager constantly interrupting a routine or pulling a worker off an assigned task to handle some minor emergency makes people feel like they do when they lose their keys. A better way to handle issues like this might be to have one floater on the shop floor who becomes the go-to guy for small tasks. Then, if something simply can't be slotted into the production schedule in an orderly fashion, at least everyone knows they won't be interrupted.

Disorganization can be combatted in other ways, too. Keeping aisles free and clear and well-marked with painted or taped stripes will keep work flowing more smoothly through the shop. Assigning a shop-floor team leader to each job can help delegate responsibility and train managers, plus it gives people a reason to buy into the shop's mission. Providing a comfortable break room where the microwave gets cleaned once a day and having toilets that don't need to be sanitized before use, will make people feel that you care.

If you care, they will. W

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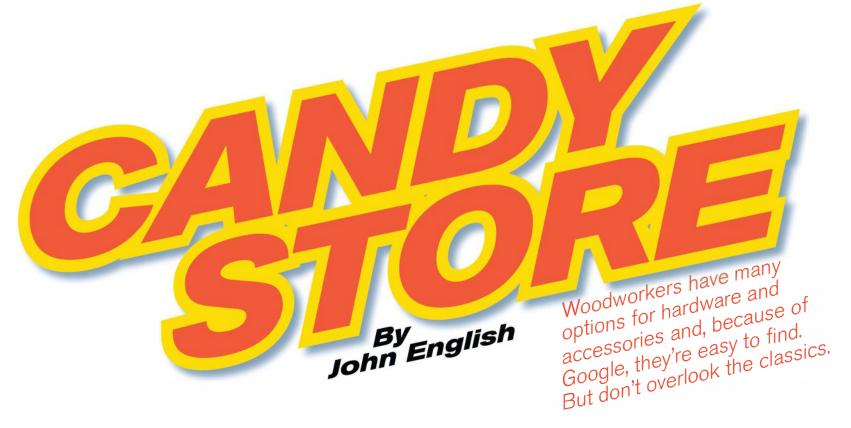
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ed Turner created a television station that plays nothing but classic movies. He once said in an interview that the concept works because the audience is seeing a lot of his movies for the first time. Even though these films are often older than the people watching them, millions of viewers tune in every evening to see what's "new."

The same is true of cabinet hardware. Sometimes casework or furniture designers are so focused on what's new or trending that they miss out on other options that our industry has offered for a long time. Handles and pulls are a lot like cars — each year, the models seem to become more and more similar and it's often difficult nowadays to distinguish between brands. Sometimes the model that doesn't make it to the showroom window is a better deal.

With that in mind, the following is a random survey of several manufacturers of cabinet hardware and accessories. Some of them sell directly to woodshops and others only through distributors. We've listed their websites in case your local distributor doesn't carry their stock.

STANDARD AND CUSTOM OFFERINGS

The John Wright Co. in Wrightsville, Pa., was founded in 1880 and manufactures a line of cast-iron hardware (Photo 1). For customers who are working new casework into an older home, this selection could be an ideal way to make that transition. The hardware is fairly inexpensive, is of fine quality and has the feel of handwork. Marrying century-old hardware designs to state-of-the-art granite, foil, laminate or even dyed veneers might just provide a whole new palette without a big investment. And because the cast-iron patterns are older than we are, they're "new" again. The John Wright catalog is available at www.jwright.com.

Selby Furniture Hardware Co. operates out of an 110,000-sq.-ft. facility in the Bronx, N.Y. The company has been around since 1949 and offers a comprehensive catalog of hardware for woodshops. Selby has a lot of standard parts and a few small surprises such as a lock for glass doors that requires no boring of holes (Photo 2). It simply

clips onto unframed glass or Plexiglas panels (such as the doors on wine racks or entertainment centers), allowing a woodshop to offer a sleek, frameless option to clients. The company's website is www.selbyhardware.com.

A newcomer to the market, family-owned Hardware Technologies & Logistics was founded in 2009 and is a distributor rather than a manufacturer. In addition to a huge offering of traditional hardware, slides and specialty items, the Winston Salem, N.C., company supplies a generous line of carved maple corbels (Photo 3) and other architectural details. Hardware Technologies & Logistics website is http://htlcorp.com.

Since 1884, the Arthur Harris Co. in Chicago has been supplying metal products to American industry. Today, among its product lines are standard and custom cabinet hardware. The company makes case, closet, kitchen and refrigerator hardware including stainless-steel bar pulls, knobs, T-pulls, back-to-back mountings and coat hooks. Its standard pulls range in bar lengths from 4" to 96" long (think of the possibilities for wide

and deep drawers) and it offers bar diameters from 3/8" to 1". To complement the pulls, Arthur Harris's standard stainless steel knobs are available in either brushed and bright mirror finishes. For information, go to www.ahchicago.com.

For shops with customers in the medical, food service or marine fields, the H. A. Guden Co. in Ronkonkoma, N.Y., has grouped some of its vast hardware catalog by material. A cabinet designer or builder can search through hinges, gas springs, catches, latches, handles and more and select products made in either stainless steel or aluminum. The company also offers a custom manufacturing option called Hinge Guru, which lets builders add options such as specifically placed or sized holes, custom bending, offsets, corner shapes, lengths, pins, plating, springs and more at www.guden.com.

Hardware Technologies & Logistics was founded in 2009 and is a distributor of traditional hardware, slides and specialty items, including a generous line of carved maple corbels (example at left).



Monroe Engineering (www.monroeengineering.com) is based in Auburn Hills, Mich. The company's origins in the 1920s were in tooling components for the automobile industry. Today, Monroe manufactures more than 50,000 products from magnetic catches to cam locks, stainless-steel knobs and even toggle clamps. It makes cabinet pulls that resist solvents, oils, grease and chemical agents, plus military, hospital and other specialty hinges and components.

NON-TRADITIONAL SUPPLIERS

By offering custom cabinetry and furniture, woodshops sometimes land projects that are a little outside the norm. There are several hardware and accessory suppliers in somewhat-related industries such as boatbuilding and RV customizing that use hardware outside the mainstream. Often, these specialty products are exactly what a shop needs to make something happen.

With nine locations across America, Austin Hardware and Supply is a source for drawer slides, handles, hooks, locks and latches, plus thousands of other products. Of possible interest to woodshops with a design challenge, especially those meeting the needs of industrial clients, are Austin's selection of recessed L and T handles (Photo 4). On its website (www.austinhardware.com), cabinetmakers can scroll down the left-hand menu and click on "handles."

Finding suppliers in related fields has become a lot easier during the last decade and we will probably see a lot more sharing in the next few years. For example, industrial customers often challenge woodshops by asking for sanitary and sealed solutions such as casework in hospitals or clinics that requires hermetic or bacterial seals. Tricomp in Pompton Plains, N.J., has been supplying solutions in that field since 1965. Among its product offerings are compression and magnetic-door gaskets that can be adapted to the food industry, plus lab, chemical, veterinary and medical cabinet applications. Some of its gasket materials not only seal, but also cushion, edge or insulate panels and doors. For details, visit



www.tricomp.com.

Quite often, industrial clients ask shops to build shrouds for machines or create other unusually shaped casework. Delson Hinge in Southington, Conn., offers a wide variety of custom hinges in gauges from .025" to .125" thick. Designers who are faced with custom cabinets that call for bent, offset or other uncommon settings can generate a drawing of their requirements

or Delson can help a design a hinge to solve a specific problem. Through its website (www. delsonhinge.com), one can then send an e-mail with an attachment (or fax a drawing) and the inhouse engineers will bid, draw and manufacture a custom hinge.

Moore Industrial Hardware (www.mooreind-hardware.com) is a distributor that carries more than 20,000 items in inventory, much of it for the trailer and RV markets. The company fulfills orders through three regional distribution centers in Ohio, Georgia and Pennsylvania. It publishes a 600-page catalog that offers, among other handy items, some heavy-duty drawer slides that can handle load capacities to 910 lbs.

When a casework job calls for some metal components, such as lockable drawers for surgery instruments, a quick online visit to Rousseau Metal (www.rousseaumetal.com) might provide the answer. It offers steel cabinet shelving with or without drawers, plus pedestal and mobile drawer stacks. Accessories for Rousseau metal cabinets include the ability to lock just one or several or all of the drawers in a stack.

Few drawer slide companies are more familiar to cabinetmakers than Accuride International (www.accuride.com), which is based in Santa Fe Springs, Calif. Its 115RC system, released in 2012, allows a cabinetmaker to create custom-length drawer slides. That means a perfect fit in cabinets that aren't standard depth. And if the drawers need to be huge, the company's super heavy-duty slide models AL4120 and AL4140 carry loads

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ShopBot PRSalpha CNC. ShopBot's toughest, most sophisticated, gantry-based CNC routers, available in 96 X 48 standard shop size and larger. Using advanced technology for CNC cutting, drilling, carving and machining, it delivers rapid transit speeds of 1800 inches per minute and cutting speeds of up to 600 inches per minute. Easy to assemble, configure and re-configure, easy to learn and use.

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Give us a call to discuss your needs. We'll help you choose the right tool for your shop.













of up to 1,212 and 1,323 lbs. per pair, respectively.

Ever need to come up with a simple, strong way to assemble casework jobs such as store fixtures or trade show displays? Norse Inc. (www.norse-inc.com) in Torrington, Conn., has a suggestion. Its Type 2 latches and receivers securely fasten all manner of items from partitions to modular assemblies, equipment shrouds, sectional furniture, multiple panels with variable angles and more. Looking a bit like an extremely rugged biscuit latch, they come in a couple of different sizes.

Need a catch for glass doors that doesn't require drilling a hole? Selby Furniture Hardware Co. makes the L-1000GLAS that clips on and is secured with two machine screws.

THE RETAIL OPTION

Sometimes a shop is running a small job and wants to explore lots of hardware options quickly with a client. When you're not buying in bulk, one great resource is MyKnobs.com, which features cabinet and accessory lines from brand-name manufacturers such as Amerock, Hafele, Jeffrey Alexander, Alno, Siro, Baldwin, Schaub, Richelieu and many more. Its pricing is retail plus shipping, but for limited purchases it's nice to be able to give the client exactly what they want.

Other online retail catalogs are KnobsandHardware.com, CoolKnobsandPulls.com, and CabinetParts.com. Quantity discounts usually apply. For example, when we checked CabinetParts, it was offering up to a 35 percent discount on some Amerock knobs with a purchase of five or more. Beyond pulls and hinges, that site stocks base cabinet trash cans, Lazy Susans, under-the-sink trays, wine racks, spice racks, blind corner organizers and a host of other hardware and accessories.

One online retailer without an apparent discount structure (other than free shipping on select orders), but with a massive inventory, is KitchenSource.com. Based in Stratford, Conn., it stocks more than 90,000 products, ranging from kitchen islands to complete pantry organization systems.

NiceKnobs.com offers an extensive selection of wood knobs and pulls. BainbridgeMfg.com is a source for plastic hardware. And QuickScrews. com is a comprehensive source for fasteners.

All in all, there are myriad sources for hardware and accessories and, because of Google, they're easy to find. The trick is to not overlook the classics.



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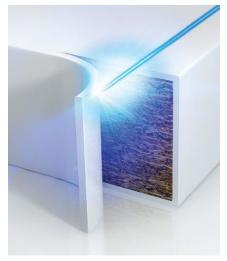
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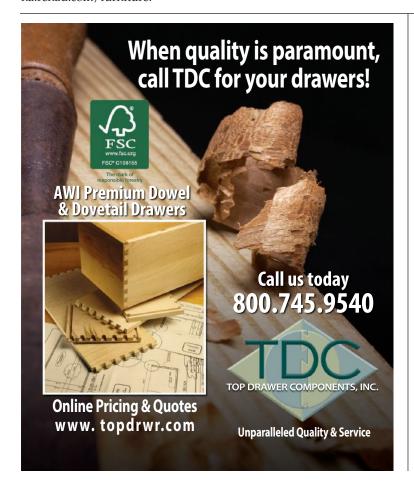
BOSCH offers a new L-Rack for its Click and Go storage system. The L-Rack is available as a standalone system or as individual pieces. The stand-alone system comes complete with one i-boxx53 thin tray, two LST72-OD drawers, three L-Rack shelves and one L-Rack-T top carry handle. While this system can be expanded by adding additional shelves, it is not meant to be taken apart. Alternatively, users can purchase the L-Rack-S and L-Rack-T, which are compatible with the company's L-Boxxes and L-Boxx trays. The complete L-Rack system sells for \$129. For information, visit www. boschtools.com.



ENKON SYSTEMS, the brand of lift systems from Herkules Equipment Corp., has designed an "off-the-shelf" electric belt-drive scissor lift table, model LSBD04, that provides a high-duty cycle, static positioning and repeatability. It measures 40" wide x 59" long, can hold up 2,000 lbs. and requires little maintenance, according to the company. For information, call 800-444-4351 or visit www.enkon.pro.com



REHAU has begun North American production of its LaserEdge adhesive-free, non-PVC laser edgeband. LaserEdge is applied with laser, plasma or hot-air edgebanding equipment that melts a color-matched functional layer on the reverse side of the edgeband and welds it to the carrier board. The technology eliminates several steps in the manufacturing process, including adhesive color-matching selection, processing setup and additional cleaning and maintenance requirements. It also reduces idle machine periods and associated energy costs, according to the company. For information, visit www. na.rehau.com/furniture.

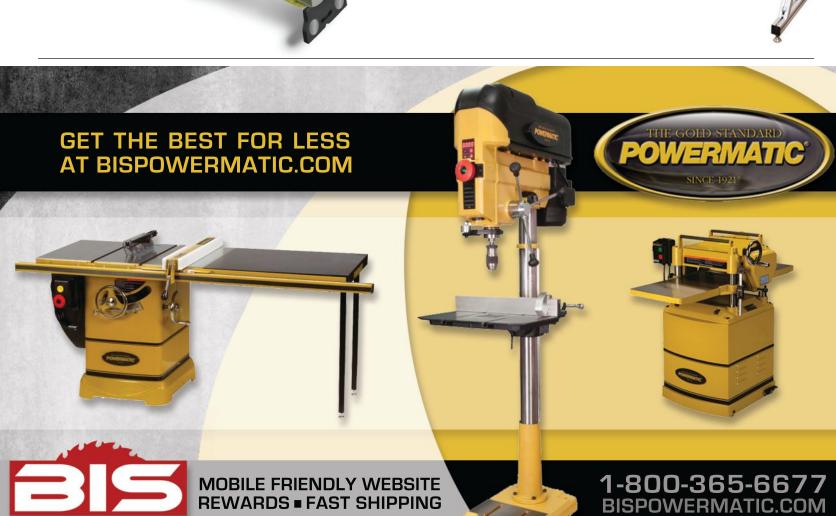




SWANSON TOOL'S latest tape measures include the GripLine, designed to grip rounded edges up to 2" in diameter, and the ProScribe (below), featuring a retractable 1-1/2" rigid scribe guide and centering pin. The ProScribe integrates several marking functions, including the compasslike ability to measure and scribe circles, as well as the chalk-line-accuracy to measure and mark/ score straight lines. Users can also easily position a case knife or carpenter's pencil against the tape's metal tip to cut/score or mark the desired width. For information, call 815-469-9453 or visit www. swansontoolco.com.



DANRAY PRODUCTS offers freestanding shields that can be used in many applications for safeguarding as well as for housekeeping. Ideal for lathes and milling machines, these shields can be applied between machines, on the backside of machines and along aisles. They can also be used in other applications to protect individuals from flying chips, sparks, coolant, lubricant and other particles, according to the company. These assemblies are constructed of 1-1/2"-square extruded aluminum with a 48" x 36" x 1/4"-thick polycarbonate panel and include fasteners and a safety sign. The shield can be adjusted up or down on the posts. Custom sizes are available upon request. For information, visit www.danrayproducts.com.



REWARDS - FAST SHIPPING

Philadelphia gallery receives \$2 million gift

New Hampshire Furniture Masters Association presents its annual winter exhibition through March

By Jennifer Hicks

he Center for Art in Wood in Philadelphia opened a \$5 million fundraising campaign with a \$2 million gift from the Windgate Charitable Foundation.

Helf of the funds will endow the center's appeal residency.

Half of the funds will endow the center's annual residency program, which has been renamed the Windgate ITE International Residency. The remainder of the gift will be used for operations, exhibitions, publications, programming outreach and staffing.

Board of Trustees president Richard R. Goldberg announced the gift at a November event honoring the center's founders, Albert and Alan LeCoff. Tributes were paid in remarks by Charles H. Hummel, director emeritus of decorative arts at Winterthur Museum; artists Michelle and David Holzapfel; and John Kelsey.

"The idea to honor our founders, Albert and Alan LeCoff, not only received unanimous board support but the enthusiasm of the center leadership was extraordinary," Goldberg said in a statement. "Indeed, Albert is the heart and soul of our efforts and very much responsible for creating appreciation of contemporary wood art throughout the world.

"Albert converted his personal interest in wood turning and wood art into a series of symposia which studied the field and helped greatly to give it credibility. Ultimately the exhibition with Yale, Wood Turning in North America since 1930, allowed the discipline to stand on equal



The Winter Show includes these "His and Hers" chairs by Richard Oedel, made with crotch birch, mahogany, ebony and holly.

PHOTO: BILL TRUSLOW



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O3WHAT



Also in the Winter Show is "Devil's Embrace," Greg Brown's tilt-top table with a walnut slab top.



footing with the other emerging art forms generally known as craft.

"Alan has always been an avid supporter of both the art form and especially his brother Albert. Alan stood shoulder to shoulder with Albert in helping to develop the many activities that the center has engaged in since its formation and the activities in connection with wood art before the center came on the scene."

WINTER SHOW IN N.H.

The New Hampshire Furniture Masters Association is presenting its Winter Show through March 10 at the Furniture Master Gallery in Concord, N.H.

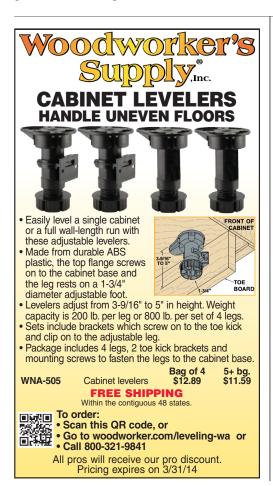
The exhibition features a sampling of works by a cross-section of the guild's membership and the installation will change periodically during

the course of the show.

The opening-day lineup includes pieces by Aurelio Bolognesi of Hardwick, Mass., Jon Brooks of New Boston, N.H.; Greg Brown of Deerfield, N.H.; Thomas Latourelle of Norwich, Vt.; David Masury of Kittery Point, Maine; Sam Norris of Burlington, Vt.; Richard Oedel of Boston; and Jeff Roberts of Unity, N.H.

CONTACTS:

- Center for Art in Wood, 141 N. 3rd St., Philadelphia, PA 19106. Tel: 215-923-8000. www.centerforartinwood.org
- New Hampshire Furniture Masters Association, P.O. Box 5733, Manchester, NH 03108. Tel: 603-566-6368. www.furnituremasters.org





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.

The complete national calendar of events is continuously updated at *www.woodshopnews.com*.

— Compiled by Jennifer Hicks

CALIFORNIA

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

FLORIDA

Ongoing — The Dunedin Fine Art Center

is offering six-week woodturning classes at its Cottage Campus taught by AAW professional member Tony Marsh for beginners and intermediate-level participants. Full day classes are held on Thursdays. Call 727-298-3322 or e-mail education@dfac.org for information.

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

Feb. 12-16 — The International Wood Collectors Society is hosting the Southeast Regional Winter Woodfest meeting at the Lake Yale Conference Center in Eustis. Sessions will focus on wood technology and identification, carving and turning, and craft programs. Contact: Tom Kinney. Tel: 630-667-8468. E-mail: thomaskinney@msn.com

GEORGIA

Aug. 20-23 — IWF, the largest showcase of machinery, materials, supplies, and services in the Western Hemisphere for woodworking and related industries. Location: Georgia World Congress Center in Atlanta. www.iwfatlanta.com

March 7-9 — The Woodworking Show, Atlanta. Location: TBD. www.

thewoodworkingshows.com

INDIANA

Jan. 17-19 — The Woodworking Show, Indianapolis. Location: Indiana State Fairgrounds Toyota Blue Ribbon Pavilion. www.thewoodworkingshows.com

MAINE

Jan. 26 – March 28 – Twelve-Week Turning Intensive. An all new program offering professional training in woodturning. Location: Center for Furniture Craftsmanship. www. woodschool.org

MARYLAND

Jan. 3-5 — The Woodworking Show, Baltimore. Location: Maryland State Fairgrounds Cow Palace in Timonium. www.thewoodworkingshows.com

Feb.21-23 – American Craft Council Baltimore show. A three-day show featuring custom furniture and other items from juried artisans around the country. Location: Baltimore Convention Center. www.craftcouncil.org

MASSACHUSETTS

Jan. 10-12 — The Woodworking Show,



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New England. Location: Eastern States Exposition in West Springfield. www. thewoodworkingshows.com

MISSOURI

Feb. 7-9 — The Woodworking Show, St. Louis. Location: Gateway Center Hall in Collinsville. www.thewoodworkingshows.com

Feb. 28-March 2 — The Woodworking Show, Kansas City. Location: Kemper Arena Grounds. www.thewoodworkingshows.com

NEW YORK

Jan. 6-9 — Kiln Drying Workshop, providing practical knowledge about how to effectively kiln dry wood, while focusing on the science behind related wood properties and drying processes. Location: SUNY College of Environmental Science and Forestry, Syracuse. www.esf.edu.

May 17-20 — 26th annual International Contemporary Furniture Fair featuring the latest global designs by artisans from around the world. Location: Jacob K. Javits Convention Center in New York City. www.icff.com

NEW JERSEY

Feb. 21-23 — The Woodworking Show, Somerset. Location: Garden State Exhibit Center. www.thewoodworkingshows.com

NEVADA

Feb. 4-6 - Annual Kitchen and Bath Industry Show held in conjunction with National Association of Homebuilders International Builders' Show at the Las Vegas Convention Center. One entry fee for both shows. www. kbis.com or www.buildersshow.com

NEW YORK

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

OHIO

Jan. 31-Feb. 2 — The Woodworking Show, Columbus. Location: Ohio Expo Center Voinovich Trade Center. www.thewoodworkingshows.com

PENNSYLVANIA

April 4-6 – The 20th annual Philadelphia Invitational Furniture Show featuring fine furniture and other handcrafted items from custom artisans around the country. Location: 23rd St. Armory downtown. www.philaifs.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 woodturning groups. www.sdwoodworker.org

TENNESSEE

April 16-19 — National Wood Flooring Association's 2014 Wood Floor Expo. Location: Music City Center in Nashville. www.nwfa.org

TEXAS

March 28-30-The Woodworking Show, Houston. Location: Montgomery County Fairgrounds in Conroe. www.thewoodworkingshows.com

WISCONSIN

Feb. 14-16 — The Woodworking Show, Milwaukee. Location: Wisconsin Expo Center Hall C in West Allis. www. thewoodworkingshows.com

Oct. 3-5 – Milwaukee Fine Furnishings Show. Annual show offering handcrafted furniture and accessories. Location: Harley-Davidson Museum. www.finefurnishingsshows.com

WYOMING

Sept. 4-7 - Annual Western Design Conference at Snow King Center in Jackson Hole, Wyo. Features furniture and other items from Western-influenced designers and artists from across the country. www. westerndesignconference.com

LIST YOUR EVENTS IN OUR CALENDAR

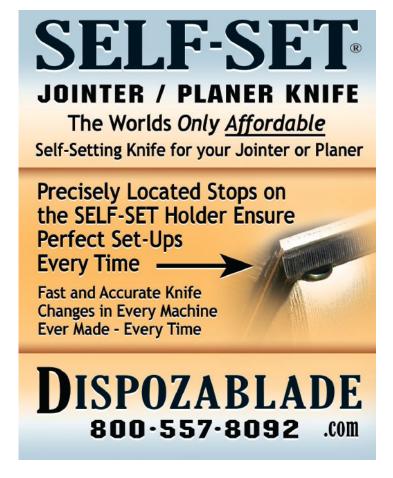
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Woodshop News welcomes event notices. Entries must be received by the 15[™] of the month, three months prior to the event.

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

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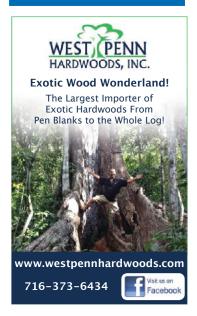
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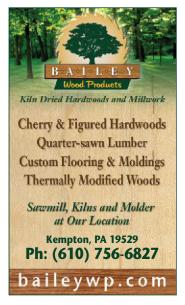


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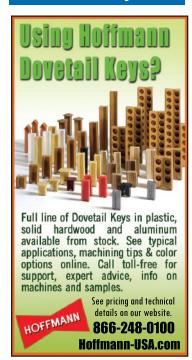




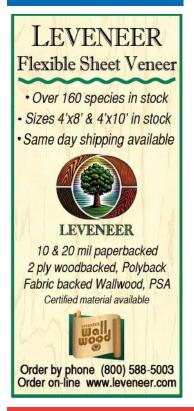
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Reviving the "Ship of the Presidents"

By Sean Chaffin

im Gocke and Dave Knau recently completed a reproduction of Harry Truman's poker table and presented it to the U.S.S. Iowa. The ship is famous for being the "Ship of the Presidents" and moored in San Pedro, Calif.

The poker table was a gift to Truman in 1949 by three civilian contractors working in the U.S. Naval Station cabinet shop and the original is on display at the Harry S. Truman Little White House in Key West, Fla., where he often vacationed. The table is a marvel of craftsmanship and one of the most popular pieces at the Key West facility. Measuring 58" in diameter and 28" high, according to Little White House executive director Bob Wolz, it is based on a poker table that was used on the U.S.S. Williamsburg presidential yacht. The piece is made of mahogany with built-in chip holders and ashtrays crafted from recycled brass shell casings. A solid tabletop can be used to cover the poker table to turn into a dining space.

"The three most important artifacts that guests want to see are the poker table, Truman's piano and his presidential desk," Wolz says. "We have had several master carpenters come and do drawings of the poker table to try to duplicate it. I believe the hardest part would be copying the ashtrays."

Before and during his presidency, Truman was known as a regular poker player, but shied away from photos being taken of his games. At the time, poker was considered gambling and a bit seedy. For many Americans, gambling was a sin and seeing the President playing poker would certainly not have been a plus for the officeholder.

According to Wolz, Truman regarded the regular poker games with friends and staff as a team-building exercise and most were played for low-to-modest stakes. Some high-stakes games were held with the President, Vice President, Chief Justice of the Supreme Court and the Speaker of the House. Similar to Camp David, the house in Key West served as an actual White House under Truman — and no doubt a poker game broke out occasionally after the leader of the free world had conducted his business for the day.

"I saw the original Truman poker table at the Little White House museum and realized how unique it was," Gocke says. "An idea emerged to build two replica tables, one for the U.S.S. Iowa and another for Dave. This is the first woodworking project we have done together and both really enjoyed the experi-



The original poker table at the Harry S. Truman Little White House in Key West, Fla.

ence. This project required two 'brains' to execute. We had no plans, notes or instructions left behind by the original builders, so we had to collaborate on our thinking to figure out how to build it."

Construction went in two sections: The top ring, which includes the playing surface, seven sets of chip holders with finger slots and seven recessed ashtrays; and the seven-sided pedestal and base.

The top ring consists of four laminated layers of solid mahogany (like the original) and each ring is made from seven sections. Construction was a learning process and every component had to be fit by hand because

the seven-section design creates 14 angles, which do not divide evenly into a 360-degree circle. Gocke and Knau estimate it took about 120 hours each to finish both tables.

"We did everything but upholster the playing surface," Knau says. "Because there were no plans or notes from the original builders, a good chunk of time was building prototype sections to learn how to make the sections, chip holders, etc. Many times we took steps back to go forward."

The ashtrays, a symbol of poker's backroom and smoky cigar past, are one of the unique features of the table — perfect for storing your stogie while playing a hand. These replica solid-brass ashtrays were created and donated by Brownell's, in Montezuma, Iowa, and add an antiquated charm to the table.

The table was presented in March

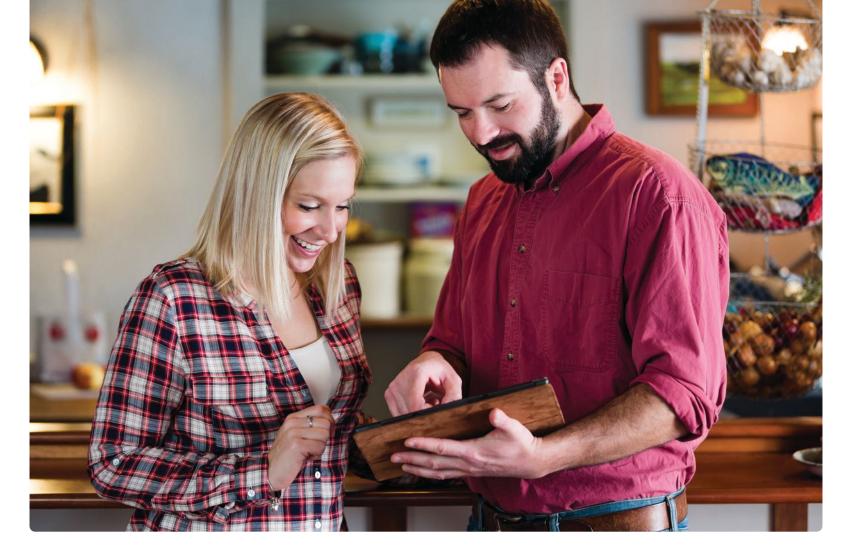
to the U.S.S. Iowa.

"Our game is Texas hold 'em," says Gocke. "For the inaugural game on the Truman poker table after presentation to the ship, we played seven-card stud. That was the game of choice of President Truman and the genesis of the idea of a seven-player table.

"This was a special project that we both take a lot of pride in. Not only the finished table, but having it be part of a salute to the men and women of the Navy and Marines who served aboard the 'Ship of the Presidents' is quite humbling. We will cherish forever the honor of being a small part of this tremendous example of our nation's pride and might."



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