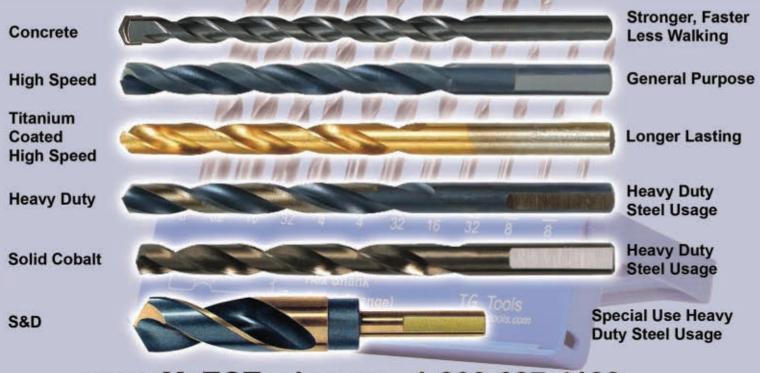




135° Split Point start from Contact 3-flat shank, less chuck slippage

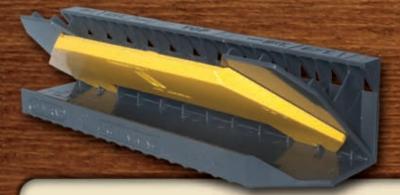


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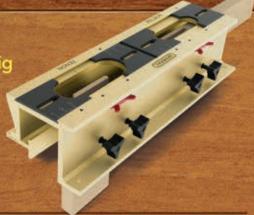
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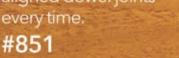


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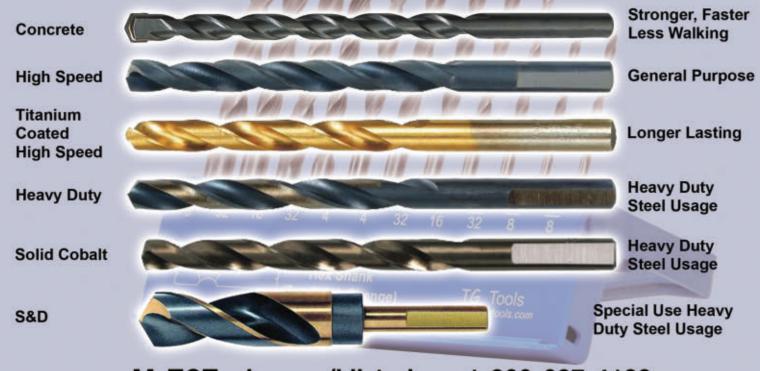
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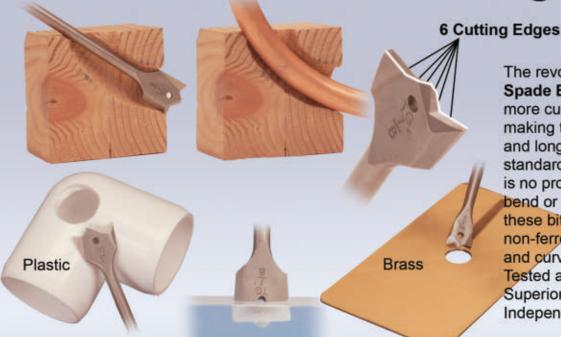
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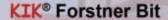
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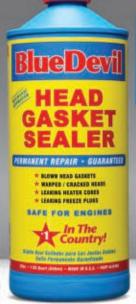
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From The Editor-In-Chief

ou never know what you'll get with new neighbors. For example, the man who resides two houses down is our only neighbor who hits golf balls on his lawn. According to the Johnsons who live next door, he also hits them through their windows.

I incurred my own complaints from the next-door neighbor years ago. I'd just moved into the home and was remodeling late at night. I was running the table saw later than I should have, and the noise was interfering with Johnson family's sleep schedule. I apologized and changed my ways.

It turned out that the Johnsons are great neighbors to have. Recently I had some mechanical problems with my riding mower, and my lawn was growing out of control before I could get the machine repaired. Without being asked, Mr. Johnson graciously cut my grass on his rider until mine was back in action.

The Johnsons and Webers get along well. We barbecue together. We borrow sugar and what-not. And we keep an eye on the other neighbors, like the new folks who moved in across the street.

The new neighbors appear to operate some sort of land-clearing business. They dump mountains of tree limbs and brush along the roadside in front of our houses, expecting the city's waste-management service to dispatch of it during their weekly route. The Johnsons and I appreciate the city cleanup truck, but it's only meant only to dispose of the occasional irregularly sized debris and not to serve as a de facto garbage service for one dude's private business. We're worried he's going to overburden the city to the point that they discontinue the service for the rest of us. Furthermore, it's not cool to decorate the neighborhood with giant piles of trash.



So far, we haven't invited the new folks over for barbecue. But maybe we should, and politely raise our concerns after they're stuffed with pork ribs and potato salad.

There's more to home improvement than your house. Improving your home also means doing your part to improve the neighborhood. Everyone should start by being neighborly.





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Questions About Home Building, Remodeling? Have Your Own How-To Tip? Visit our blog at **blog.extremehowto.com** and click on Ask Our Experts.

What's a good method for cutting aluminum gutter material?

• One basic method is to clamp the gutter material firmly to a couple of saw horses and cut using a hack• saw. A good pair of metal snips can also do the job.

Either of those methods works fine, but I prefer using a sliding miter saw with a fine-toothed blade mounted backwards. The speed of the blade combined with the backwards teeth make a nice, clean cut with very little operator effort, and without the teeth tearing out and distorting the metal. Note: When cutting gutter material on the miter saw, turn the profile upside-down so the cut enters the more stable underside of the gutter rather than the top edges.

Once you've finished with the backwards blade, immediately take it off and re-install it in the conventional manner.

Should block retaining walls be angled backwards or built vertically plumb?

• A very short retaining wall built of only a couple of courses might work when installed plumb, but anything taller should be aligned so that each new course is aligned behind the preceding (lower) course. A typical setback distance is 3/4 inch from the front of the course beneath it. This setback causes the walls to cant backwards into the retained soil. Canted walls are structurally more stable than vertical walls because gravitational forces pull the wall into the retained soil.



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• I'm starting a compost bin to use as fertilizer for a vegetable garden. I know to use plant matter, etc., but is there anything I should avoid placing in the bin?

Avoid cat or dog droppings because they may contain disease organisms that can contaminate the
 compost. Avoid ash (coal or charcoal) because it may contain materials that are toxic to plants. Don't

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add lime because high alkaline pH can kill the composting action. The problem with meats, fat, grease, oil and bones is that they don't break down easily, can coat the other materials and "preserve" them from the composting action. Like meats, milk, yogurt and cheese can also attract pests, so if you compost these things, put them deep in the middle of the pile.

What is meant by "wire-feed" welding?

......

· Wire-feed welding (MIG welding) has become popular over the last few decades because you can pick up a \$300 MIG welder at your local hardware store, plug it into a 110V outlet in your shop and start welding. Officially known as GMAW (gas metal arc welding), it is the easiest kind of welding to learn. The filler rod or "wire" becomes the electrode and melts to create the weld. The machines aren't appropriate for all applications due to the flux-core filler wire that's limited to 3/16-inch and thinner metals. However, for building a barbecue grill, making shop equipment or ornamental iron, the entry-level wire-feed machines should get the job done. **EHT**



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Like Pulling Teeth

Tools for Removing Damaged Fasteners



By Matt Weber

f you've ever stripped a screw or broken off the head of a bolt, you know how frustrating it is for your work progress to come to a screeching halt. The project is on pause while you address the problem, and in some cases it can take a lot of time to extract the damaged fastener. Pulling nails is another hassle, whether it's due to a misfired air-nailer or to reclaim usable lumber. Whatever the reason, the chore of removing unwanted fasteners is dull and aggravating, but often unavoidable. Here are some handy tools to get the job done with minimal headache.

VAMPLIERS

One neat new tool in the world of screw removal is the VamPLIERS. Uniquely designed with concave shaped jaws that

have vertical serrations on the inside, VamPLIERS make it possible to grab on to stripped/rusted/corroded screws, bolts or nuts for extraction. Because the jaws grab the fastener from the outside edge of the head, the head of the damaged screw will need to be exposed (countersunk screws will remain out of reach). However, this



method of extraction enables VamPLIERS to work with screws that have special, unique or tamper-proof heads. They're made from treated high-quality carbon steel, have a smooth varnished finish and ergonomic elastomer handle grips. Visit www.vampiretools.com.

SPEEDOUT

As you may have seen on TV, the SpeedOut damaged screw and bolt removing system works with a power drill. "With the SpeedOut, you can easily remove any stripped screw in ten seconds or less," claims the marketing pitch, but that's a bit of a stretch. From my experience it takes a little more time and determination. The process utilizes double-ended drill bits. One end of the bit has a cutting tip that the user drives into the head of the damaged screw,



boring out the damaged metal and creating a hollow for the opposite end of the bit. Flip the bit around, and the threaded extraction end of the bit engages with the screw and draws it our when running the drill in reverse. Speed-Out comes in a small plastic case with four bits of varying sizes.

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Amber Stain on teak and PT pine

Photo courtesy of Beth and Rod of See Dirt Run!

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TOOL SCHOOL



It's important to select the right size bit to match your fastener to get the best results. Visit www.buyspeedout.com.

CORDLESS DRILL NAIL PULLER

The Cordless Drill Nail Puller is a newly patented invention for the DIY and contractor markets. It fits as an attachment to a cordless drill. The slotted nail-puller slips beneath the head of a nail and draws it straight out of the wood into the metal shaft of the attachment. This would be an excellent tool for pulling duplex nails from concrete forms. And by extracting the nails straight out of the wood without bending them, you can reuse the nails.

Because the nail head must be about 1/8-in. above the work surface for the puller to slip beneath it, the Cordless Drill Nail Puller includes a counterbore bit. This is a modified spade bit that replaces the directional







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spur with a hollow cutting tip. The counter-bore bit drills a 1-1/4-in. indention around the nail head so the Cordless Drill Nail Puller can remove it. Visit www.cordlessdrillnailpuller.com.

NAIL JACK TOOLS

The design of the Nail Jack pliers provides the needed leverage and gripping power for making nail extraction easier, and even offers the ability to dig a nail out of the wood. The digging action is aided by the thin cutting blades that slip beneath the nail heads. The 11-in, version I've used for the past couple of years features a patent-pending "Hammer Tap" a flat area behind the cutters that allow you to use a hammer to drive the points of the Nail Jack into the wood for easier extraction. The Nail Jack even pulls brads from the back of material with little effort. Unlike the claw of a hammer or cat's paw, the scissoring action of the Nail Jack can grab fasteners with small heads such as finish nails and brads.







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TOOL SCHOOL

I recently discovered that the company has a new product called the Nail Hawk, which is a right-angle hand tool that functions like a scissoring cat's paw. It looks like an excellent nail-puller, but I haven't tried it yet because the company had sold out! Visit www.nailjack.com.







THE EXTRACTOR

Here's another tool that's not exactly new but that I've used often over the last few years and can recommend with confidence. The Extractor nail-puller from Jefferson Tool uses serrated parallel jaws that automatically increase gripping force as the tool encounters greater presssure. There is no need to clamp a handnumbing squeeze around the handle grips. Just engage the jaws and push. The blunt, curved nose of the tool easily transfers leverage from the 11-in. handles



and does minimal damage to the wood surface. The Extractor is an ideal tool for pulling small nails like brads, which are difficult to grip with standard pliers. Forged from chrome nickel alloy, the jaws are hardened to an RC 53-56 and are anti-rust coated. Visit www.nailextractor.com.

NAILOUT

The NailOut nail-pulling attachment replaces elbow grease with power from an air compressor. Essentially a powered cat's paw, NailOut removes the toughest nails with the ease and speed of a pneumatic tool. This attachment specializes in removing nails and metal fasteners from decks, siding and framing. This is an aggressive tool that moves a lot of nails quickly, but it can also damage the wood so it wouldn't



be the best choice for delicate jobs. For rough framing and demolition, however, NailOut is a high-productive tool.

It also comes with two chisel attachments. The wide chisel attachment removes gussets, tile, roof flashing, concrete and other demolition type projects. The narrow chisel attachment is a great finesse tool that works faster than a hammer and chisel. Visit www.nailout.com.

NAILBOSS

The new NailBoss from Mayhew Tools is a special attachment for an air hammer. This pneumatic nail remover pushes the nail out of the wood by the tip rather than pulling from the head. From removal of temporary bracing to complete building demolition, those nail-infested pieces of lumber can be cleaned up quickly with the NailBoss. The patented



process minimizes damage to the wood with four simple steps:
Attach, Straighten, Drive, Remove.
Simply thread the NailBoss over the tip of the exposed nail, bend it straight and pull the trigger.
NailBoss drives out the nail the way it came in, using a .401-shank air hammer bit. Visit www.mayhew.com.

THE GUTSTER

The Gutster has been a favorite demolition tool of the *EHT* team for the last several years. We use it every time we need to tear something apart. Not only does the Gutster pull nails with monstrous leverage using a multi-nail puller conveniently built into the back of the head—but it pulls everything else apart as well. With a round steel handle and



TOOL SCHOOL



a solid cast head with extended neck, it provides exceptional lifting and breaking power. The innovative design starts at the Gutster's uniquely designed prying

head. Split forks provide greater stability for heavier loads. The

spacing straddles joints and studs for maximum leverage. Sharp points pierce tough materials effortlessly, and angled lift plates help ease the bar under materials to allow for faster prying. The angled bar is engineered to provide the most prying power with the least amount of stress and strain.

Choose from three sizes with 40-, 48-, and 60-in. handles. The 60-in. version now comes with wheels on the cutting head so the tool moves easily when prying material such as ceramic tile from solid flooring. Visit www.thegutster.com.

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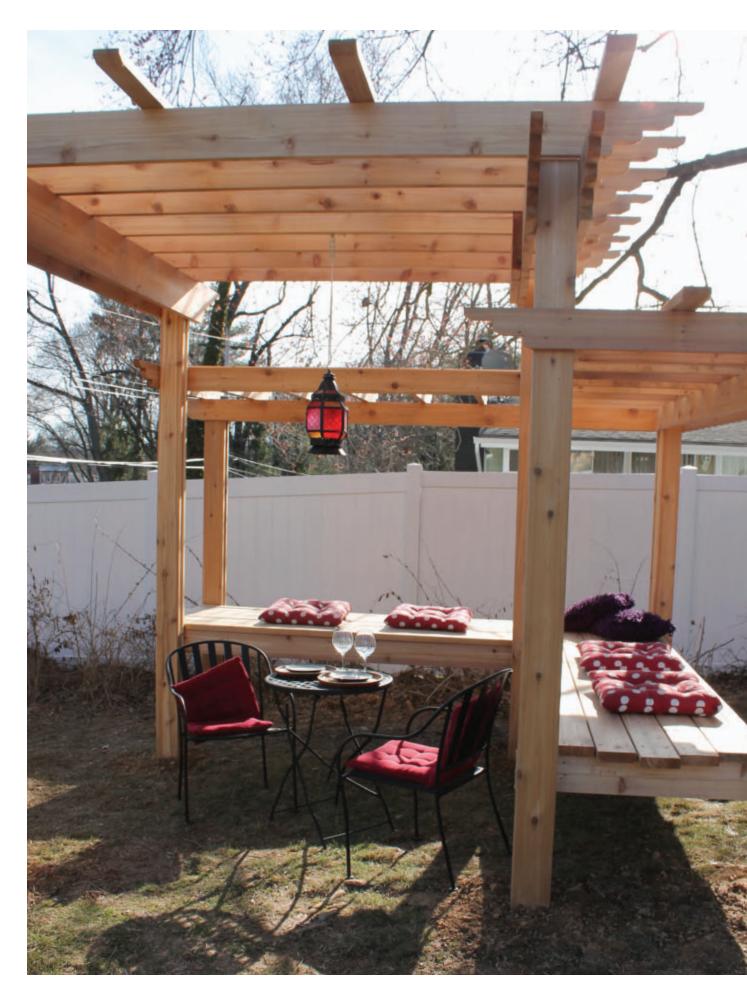
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PERFECTING THE PERGOLA

By MyFixitUpLife's Mark & Theresa Clement

e love pergolas. We love designing them. We love building them. We love how they make the backyard not just a place you go to grill or hang out, but a place you want to share with friends and family, whether it's a backyard bash or a quiet evening.

DESIGN—HOW IT FEELS

It all starts with design. One thing about this simple structure of posts, girders, rafters and purlins is that the look and feel of the design possibilities are nearly limitless. But you still need to do it "right" or you can be left with a puny little thing nobody uses, or a colossus that darkens the door to the backyard.

Start with questions. How will it be used most of the time? How many people will it need to accommodate? Is it a place to cook out or hang out? Or both? And how far into the backyard should it live? You can make an outpost at the end of the back forty, say, near a creek or other landscape feature. Or, like this one, it can be an extension of the patio nestled near the the house.

The pergola's width and depth affect its height. Location in the yard affects entry points, and all those things affect the size of the materials needed to make it all work. And if you're dealing with a land-scape that slopes, that's another consideration.

The key is to make the pergola's height, width and depth balance with each other and the materials you select to build it.

Designing
and Building
a Backyard
Retreat



As a rule of thumb we consider the bottom of the girder our control point for height layout. Anything lower than 80 inches (the height of a typical doorway) will make people feel they have to duck their heads to get in. Sounds weird, but it's true. We often end up with heights around 9 feet to the bottom of the girder, which makes the space accommodating and cozy—but also grand and soaring without looking stupidly tall.

On this one, my wife decided to add a second, lower level to create a seating space that can also double as a table for plates, dishes, cups and food. And this space snuck in right under 80-inches at its lowest point, which works because it's not a passage.

Materials. The point of going outside, for us anyway, is to be in nature and be surrounded by plants, birds, the dog, etc. so we chose to build this pergola with wood—Western Red Cedar. It's great for ground-contact applications, it's easy to maintain, and has the non-manufactured texture

and patterns we enjoy. We can also add our own custom details, which we did on the one-of-a-kind rafter tails.

And we selected cedar big enough to carry the look and load of the structure. There's no building code for pergolas, so it's usually up to you what to use. I will say this, 12 feet is much too long a span—both for the boards and the eye—for a 2x6. I've seen them sag over the years. When you're talking this much span, 2x8 and 2x10 need to be on your list. Or, bump up to 4x stock to get the muscle you need.

Setbacks. If you're building near a property line, which we did here, pull a permit. Check into the setbacks your jurisdiction requires. Not only will a pergola jammed against a fence look ridiculous in most cases, but if it bothers Mr. Nasty Neighbor, he can make you take it down. So be a good neighbor, and a smart one, and get the documentation in order. You can't enjoy a cookout under the pergola you just threw into a dumpster.

FOOTINGS & POSTS

Pergola's can be pesky to lay out because you're building them in open space. There's usually no nearby reference point, such as a house, to measure from. Still, they have to be pretty dead-on square, or you'll encounter a lot of problems when you install the rafters.

Some contractors use strings to mark the layout of their projects. For me, using strings for anything other than snapping lines can lead to disaster. Strings require a lot of work and easily get in the way when building.

Instead of using strings, we build a box. It's not just easier, it's vastly easier. Carpenter-jargon for this method is "using a full-size template". We build the inside dimensions of the box to the outside dimensions of the post locations. In other words, the posts fit inside the box.

Quick note for those who've never built a pergola before: The girders and rafters cantilever past the posts. A number of factors go into figuring out what the

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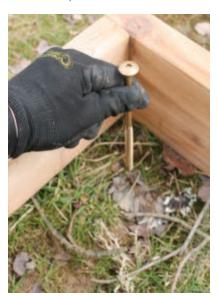
PERFECTING THE PERGOLA

best cantilever is, but we usually start with 16 inches. So, the overall dimensions of the pergola are where the rafters end, but you build the box to where the posts go.

Framing lumber is best for constructing the box, 2x6 or 2x8. We usually make it out of the material we're building with because we may need it later. If not, you can put together a planter or raised

garden bed with it. We use 1x stock for diagonals across each corner. Then we install a cross-piece (the diagonals + the crosspiece look like an A). The cross-piece gives you something to grab when you move the box.

We fine-tune the template's position as much as possible by making sure it's parallel to anything straight within 10 feet or so, like a fence, deck or patio. We mark the centers of the holes—twice. First, we stick a screw



Use screws stuck through a piece of tape to mark the centers of the post holes.



Before moving the template to dig the holes, I gouged its outline in the grass with my multi-tool to help me locate it when it was time to put it back.





Three-foot deep post holes generate a lot of dirt. We stored ours a dozen feet away on a tarp to protect the grass beneath.



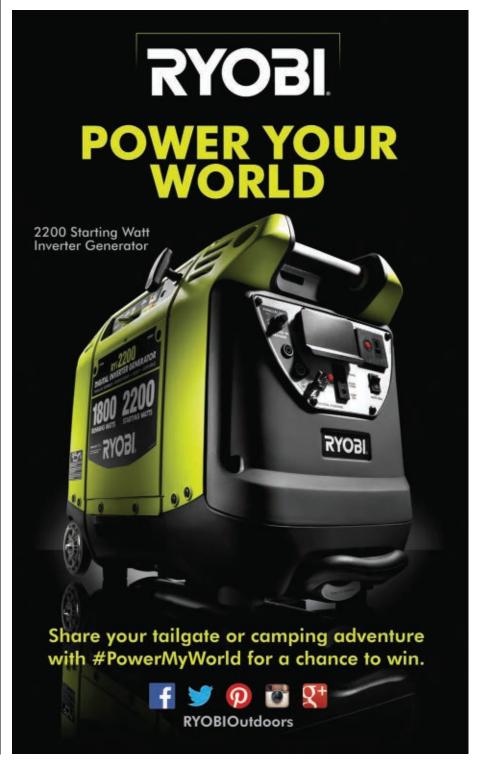
When building a pergola or other outdoor structure, I like to have what I need close at hand—but not so close it's in the way. And whenever possible, I set up tables and horses to stay out of the mud.

through a piece of tape and stick the screw in the ground for each post. Then, we remove the template and spray-paint a 3-ft. wide X through the center of each post location, which helps keep us on target as we dig.

Digging is probably the least fun and the most work on any pergola project. We set our posts 36 inches below grade. Even in warmer climates, I don't recommend setting them less than 24 inches so the ground holds them in place and resists everything from wicked wind to climbing kids.

A square posthole about 16x16 inches is easiest to dig and set the post into. I use a garden spade to score the outline of the hole and to cut the sod. A long-handled shovel is best to

dig and remove the dirt. If you want this process to take longer and to destroy your shoulders and trapezius muscles, use a posthole digger. A digging bar is a brutal necessity. It's killer for cutting



PERFECTING THE PERGOLA

template keep everything locked nice

and plumb. The braces also keep the

posts from twisting overnight.



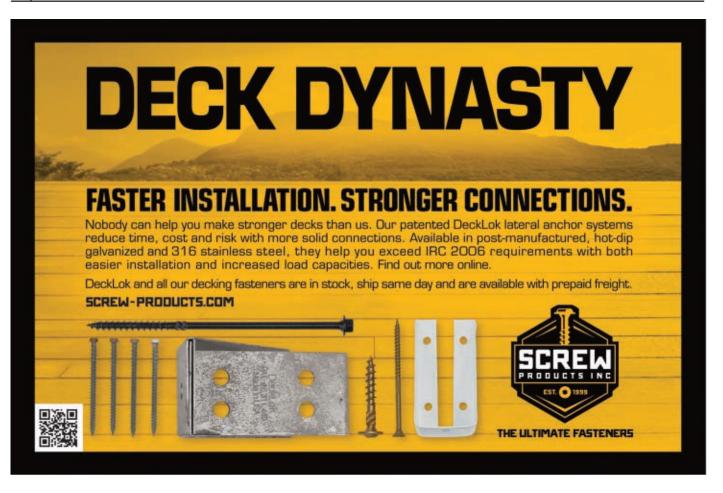
roots, shaving the edges of the hole straight, and breaking up tough soil.

For this pergola, built next to a mature tree, I found two other tools immeasurably helpful: my reciprocating saw and Diablo carbide-tipped recip saw blades. Several roots were 8 or more inches thick

and ran right through the center of the posthole. So once we dug around them a bit, we cut through them.

Also, plan how to handle the dirt. Digging postholes generate a lot of the stuff. Seven postholes, as we had here, creates a mini-mountain. We hauled ours a few feet away and placed it on a big tarp to relocate later.

Posts. Whenever I can add a custom detail to a pergola I jump at the chance. For this one, I customized the typical





PERFECTING THE PERGOLA

6x6 post by making my own. I made an 'I' with two 2x6s sandwiching a 2x4. I screwed it all together so that there was always a 2x6 with no fasteners showing.

So, after I secure the posts and

mark my level lines, I cut them in place, about 3/4-inch lower than the top of the girder. If you're not comfortable with a circular saw on a ladder, you can measure off the template to your desired post

height, then cut your post to length on the ground, then adjust its height by adding pea gravel to the bottom of the hole to raise your post into position. It's a lot of work but eliminates the saw and ladder combo.

Each post requires two diagonal braces to hold it. Anything 5-feet long or so works.

Setting posts. Put the template back on layout. If you have a slope, block it up level. Set a post in the corner of the template (be careful not to move the template; this can



For the second-level posts (shorter posts, foreground) we used outriggers from the template to mark them for layout then stabilize them for installation.



Cutting post tops to length in place is a pro move.





Clamps and cleats make installing girders much easier and safer.





Experiment with different rafter tails in the design process.

be tricky) then pivot it plumb using the template as a kind of fulcrum. Plumb the post on both sides, then bomb a few screws in the template to hold it still. Check again for plumb, then run diagonals down to the template. Repeat for all posts. Set the post face with no fasteners showing where you want it. I usually face it outward.

Concrete. I don't care what they show on TV or even print on the bag, dumping dry concrete mix into a hole and waiting for groundwater to activate it is ridiculous. I use fast-setting concrete and mix it in a wheelbarrow to the consistency of peanut butter. I plop that

in the hole around the base of the post. The next day it's boulder-hard and ready for backfill. As I backfill my posts, I use a sledge-hammer or digging bar to tamp the dirt down every 6 inches or

so. Tamp it; don't smash it. You can break the concrete or move the posts (easier to do than you might think), but I do want to push the air out of the dirt so it holds the posts and fills the hole.



PERFECTING THE PERGOLA

GIRDERS, RAFTERS, PURLINS

This is where the action is and the groundwork comes to life.

I cut one girder and screw it on layout. Bar clamps work well for holding the girder in place while fastening. I then stand back and take a look. More often than not, I tweak it up or down a few inches for the best balance. Once I love where it lives, I remove it to cut the posts level with the top.

it onto all your other material to increase accuracy. The rafter







PERFECTING THE PERGOLA



Safety note: This is a tricky cut. If you try it, use a ladder that's tall enough and obey the "this is not a step" rule. It takes two or more cuts to get through the post. Make sure you can handle the piece falling when you go through it. It's best to have a helper.

Patterns and marking. I use the first girder as a pattern for cutting all the others. Same with the rafters. There's a lot of cutting involved. I've seen dudes hunched over their worm-drives all day, but not me. I set up sawhorses or a table to keep the work, and me, out of the mud.

Next, I mark the backs and bottoms of all my pieces so I can put them on layout and fasten quickly during installation.

For girders, simple 16-in. oncenter layout rarely works. I usually





do what I call 'halving layout.' I start by locating the center of the girder, then I cut the spaces left and right of center in half, then cut that space in half again, marking rafter locations accordingly.

Assembly. Girders are first. I set screws top-left and bottom-right about 2 inches from the edge of the board. Structural screws like the RSS screws from GRK Fasteners are awesome for this.

The rafters go on top of the girders. Some people, for reasons I can't comprehend, notch the rafters over the girder. If you were building on a dead-level slab and cutting all the pieces in a woodworking shop, sure. Maybe. But for real life, posts are always out of plumb a bit. It's imperceptible until you're trying to snug a notch over it and it doesn't fit.



Here's the pergola with all its pieces from the ground up. The combination of posts, girders, rafters and purlins can be modfied for almost limitless design choies.



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PERFECTING THE PERGOLA

I toe-nail rafters instead. Gun nails work well in cedar. To use screws (which also work great) pre-drill and countersink pilot holes before fastening.

The final layer is the purlins. Set perpendicular to the rafters, they lock everything in place while adding shadow lines and depth to the structure.

THE FLOOR AND MORE

Grass is perfectly suitable for a pergola floor. It's cool and comfortable. You could just as easily build a platform deck (using the template as your band joists) for a floor. You can do that now or add it later. Either way, both approaches blend with life outside where cooking out and hanging out is what it's all about.

Thirsty? **EHT**



Editor's Note: Mark & Theresa Clement co-host the MyFixitUpLife show and are the design/build team for Food Network's Save My Bakery.

This two-level pergola includes framing for a bench or serving table.







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Get the Look
of Traditional Tile
with the Easy
Installation of
Adhesive Vinyl.

By Matt Weber

ool your friends and neighbors with stick-down tile that has the appearance of genuine stone. With careful planning and grouted joints, you can install a new vinyl floor with a classic look much faster and easier than using thinset mortar and ceramic or stone tile.

This project was inspired by a friend of mine with a pet husky named Niko who had been mistakenly locked in the bathroom. My friend went to work, and Niko awoke from his nap in a panic. He tried to dig his way out of the room, right through the existing resilient flooring. By the time he was discovered Niko had destroyed half the floor. It was high time for replacement (the floor, not the dog), and we decided on the vinyl tile installation detailed here.

PREP & MATERIALS

For this type of flooring, I suggest choosing adhesive-backed vinyl tile from a reputable manufacturer. Cheaper stick-down tiles usually have inferior adhesive, and the last thing you want are tiles that don't bond to the subfloor.

For grout, I use a ready-to-use, premixed sanded acrylic grout that is formulated for use with vinyl tile.

Pick up a bag of plastic tiles spacers, too, which help keep all the joints the same size. Tile spacers come in different sizes, and the size is up to you. My personal opinion is that smaller is better, because it provides less grout surface to collect dirt and grime. We chose spacers small enough for 1/8-in. joints.







ensure a solid bond for the new flooring we primed the subfloor. To do this, buy a bottle of Multipurpose Floor Primer.

The day prior to installing the floor, move the vinyl tiles into the room where they'll be installed and leave them overnight. This allows the vinyl to warm to room temperature and become less brittle for installation.

SUBFLOOR

Poor ol' Niko had given me a jump on removing the old flooring, but there was still plenty of stubborn sheet vinyl between myself and the subfloor.

First, I took off the shoe molding. To prevent paint peeling off the base molding, which I wanted left intact, I ran a utility knife along the caulk line between the base and the shoe. The shoe molding then comes off with a pry bar. I used a piece of vinyl

tile to protect the base molding when prying.

A hand scraper can be used to remove the old flooring and glue from the slab. I highly suggest, however, that you invest in scraper blades that fit into a reciprocating saw. You'll also want more than one; we went through three on this small floor. But these time-saving attachments not only fly through demolition faster than you could do by hand, but they spare lots of wear and tear on your joints and knees.

Once the old vinyl and stubborn adhesive were stripped away, I swept the floor several times and even wiped over it with a damp cloth to remove all loose particles and ensure the floor was absolutely smooth. Any small pebbles or grit can show through

the new vinyl tile as a visible bump, so it's important to be thorough. The subfloor must be absolutely smooth and level.

Because of the old adhesive residue, I coated the subfloor with Multipurpose Primer from TEC Skill Set using a long-handled paint roller. Allow the primer to dry according to the manufacturer's instructions.

LAYOUT

I suggest dry-laying a cross-pattern of paper-backed tiles across the floor in the center of the room. Run a full course of tiles in both directions. Look at the tiles at the ends of each course. Is there space for a full tile at the



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perimeter, or only a partial sliver? To eliminate the small "sliver tiles", shift the cross pattern from left to right and front to back until the end tiles fit appropriately. Consider where floor fixtures and room

corners will intersect the tile layout. Also, consider placement of the tiles in the doorway of the room. Most homeowners prefer a full tile in the middle of the entrance, if possible.

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When it comes to vinyl tiles that mimic the look of natural stone, there's another aspect of layout to consider: Pattern placement. Unlike natural materials that have unique grains and colors, the manufactured tiles will have repeating patterns in the product line. If you put two of these identical tiles next to each other, the floor will look less like natural stone because two identical tiles would never come from a quarry. Therefore you should take time to position these recurring styles strategically in your layout, slotting dissimilar tiles between them and turning them 90 degrees so the eye doesn't pick up on the repeating patterns. This is most easily done by laying the whole floor out dry.



I open the joint with a paint scraper and then slip my flat bar inside to pry off the molding. A spare piece of tile protects the baseboard.



In some cases you can install tile over existing flooring. In our case we had to scrape away all the old sheet flooring and adhesive.



A Spyder scraper attachment for a reciprocating saw speeds up the job dramatically.



Sweep the floor until it's free of debris and absolutely smooth.



Multipurpose Floor Primer will help ensure a firm glue bond with the subfloor. I applied the primer with a paint roller.

INSTALLATION

Once you've determined your layout, you can remove the paper from the tiles and install the cross-pattern tiles in place, one by one. Don't forget to use tile spacers between every joint. Fill in one quadrant of the cross pattern at a time. Press down the installed tiles with your body

weight to ensure firm adhesion. Using a roller also helps.

Tiles at the end of the row will have to be fitted. Place the tile to be trimmed over the last full tile, flush with all four edges. Place another full tile against the wall and mark a cut line where the tiles overlap.

Unlike ceramic or stone, no heavy-duty power tools are required to cut vinyl tile. All you



STICK WITH IT



Lay out a dry run to determine tile placement. Avoid "sliver" tiles against the walls and watch out for repeating patterns.

need is a sharp utility knife and a straight edge. To fit around obstacles, make a pattern on paper or cardboard, trace its outline on the tile and cut to shape.

GROUT

With the tiles firmly in place, grout the joints as you would any other tile installation.

Holding a sharp-edged, rubber grout float at a 45-degree angle to the joint, spread the grout diagonally, pressing firmly to ensure the joint is completely filled. Then, holding the float at a 90-degree angle, pull diagonally across the joint to remove excess grout, using the edge like a squeegee. The angled stroke helps prevent the float from digging into the filled joints and pulling out the grout.

For best results, remove the





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STICK WITH IT

grout haze as you work, using a sponge and a 5-gallon bucket of water. Just wipe up the grout film, rinse the sponge clean, wring it until damp and repeat. Lightly work the sponge in a circular motion, loosening grout residue while making the joints smooth. Change the water often. Check the work as you clean, and repair any low spots with additional grout.

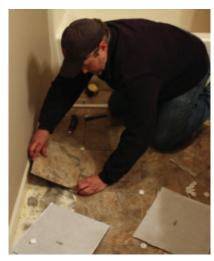
Protect the finished surface from traffic for at least 24 hours of drying, and then use a sponge and



Use tile spacers to keep the joints all the same size.



The tiles install easily by simply peeling off the paper backing and pressing the adhesive side firmly to the subfloor.



Tiles along the walls will often have to be cut to fit.



Vinyl tiles can easily be cut with a utility knife and a straight edge.

water to remove the final remaining grout haze. I recommend sealing the grout after 72 hours to make the joints easier to clean.

FINISHING UP

The baseboards remained in place throughout the project, and I installed new shoe-molding to cover the edges of the tiles along the perimeter. I completed the job by caulking the joints and applying touch-up paint. Because a bathroom is a steamy environment prone to moisture exposure, be

sure to choose a caulk specified for kitchens and bathrooms and formulated to fight mildew.

In a single day, I got the old floor torn out, the new floor installed and I was home in time for supper. Grouted vinyl floor tile offers three big selling points; it's inexpensive, it's easy to install, and the finished project looks excellent. **EHT**



I used a pre-mixed grout specified for vinyl tile.



Final step is to install new show molding to cover the edges of the floor. I always cut cope joints in shoe molding to ensure a tight fit at the corners.



Apply the grout with a rubber float.



Use a sponge and plenty of clean water to clean up excess grout as your work.



GIVE YOUR CARPENTRY AN EDGE

By Rob Robillard

ouldn't it be nice if we could apply thin layers of skin to cover our aged, wrinkled and rough edges? For a pretty penny I'm sure some plastic surgery could accomplish this, but nothing covers rough edges as nice as applied veneer banding.

I recently was asked to build AC-grade plywood cabinets for a client. To finish the cabinets I covered the outer sides with rustic, rough sawn boards and matching overlay doors. The insides of the cabinet show the A side of the AC plywood. The only surface that was not addressed was the rough plywood edges.

This article shows how I covered the plywood edges with veneer edgebanding tape.

WHAT IS VENEER TAPE?

In cabinet making and woodworking, veneer refers to thin slices of wood, usually thinner than 1/8 in., that typically are glued onto the edges of core panels, doors, shelves, tops and panels for cabinets and furniture.

Veneer is obtained either by "peeling" the trunk of a tree or by slicing large rectangular blocks of wood known as flitches. The appearance of the grain and figure in wood comes from slicing through the growth rings of a tree and depends on the angle at which the wood is sliced.

There are three main types of veneer-making equipment used commercially:

Rotary lathes turn the wood using a sharp blade and peel off continuous veneer rolls. Rotary-cut veneer is mainly used for plywood.



GIVE YOUR CARPENTRY AN EDGE



Veneer tape, also called edge banding, is available at woodworking stores and comes with heatactivated adhesive backing.

Slicing machines operate in a fashion that raises and lowers the flitch or piece of log against a blade. The resulting slices of veneer look like sawn pieces of wood, cut across the growth rings. This is often referred to as "crown cut".

Half-round lathes manipulate the logs in order to obtain the most desirable parts of the grain for the best looking veneer.

Veneering is an ancient art, dating back to the ancient Egyptians 4000 years ago who used veneers on their furniture and sarcophagi (the ornate coffins they were buried in). In Egypt, wood was a scarce raw material, and the veneering process allowed the precious wood to be used more economically by maximizing the available supply.

TODAY'S VENEER

Veneer tape today can be purchased at a lumber yard and comes as a pre-sanded, ultra thin



An oversized tape will completely conceal the plywood edge.



You'll need these tools and materials for the project.



The oversize tape can then be trimmed for perfect fit.



First step is to square up one end of the tape with your workpiece.

layer of wood or other material. This veneer tape can then be attached to the edge of plywood in order to make the plywood look like a solid piece of wood.

The veneer edge-banding tape we use has a heat-sensitive glue backing and applies quickly with an iron. Using veneer edge banding results in a clean and solid-wood look and is a fairly easy DIY project.

Real wood edge banding comes in several sizes and species of wood. The 7/8-in. edge banding is ideal for 3/4-in. thick plywood or veneered panels because it allows a bit of overhang, making it easy to trim flush with an edge-trimming tool. The tape is impregnated with hot-melt adhesive that creates a high-speed permanent bond once heated. The veneer is also pre-sanded and readily accepts stains and finishes.

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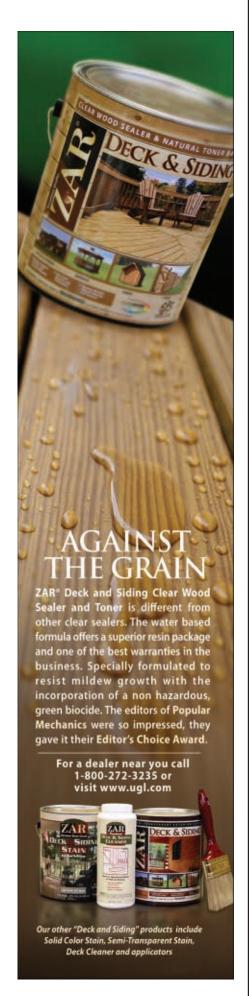
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Veneer edge tape is typically applied with an iron. I prefer to use furniture-grade birch tape that's slightly oversized, like 25/32 or 13/16 inch. By installing a slightly oversized tape you can trim the edge banding to an exact fit.

APPLICATION OF VENEER EDGE BANDING

- 1. To apply the veneer edge-banding tape, heat your iron to just shy of the hottest setting. Use care with placement of the iron while not using it.
- **2.** Cut a section of tape 1-in. longer than needed.



- **3.** Using a square and a utility knife, square off your starting edge.
- **4.** Position the squared edge on the edge of your plywood or other substrate and smooth it with a few passes of an iron.
- **5.** Heat only 6 inches at a time with the iron.
- **6.** Use a roller or smooth block of wood to firmly press down the heated section of veneer tape. Roll it back and forth, working the glue into the plywood.
- 7. Repeat this process until you get within a few inches of the end of tape.

Aligning one edge of the tape with the workpiece will prevent having to trim both sides.



GRADES OF PLYWOOD

Plywood is graded on quality and the appearance of the outer layers of veneer. An A grade indicates the plywood has the best appearance, all of its holes are patched, and it has a sanded finish. "C" grade plywood is un-sanded and may have both knots and defects visible on the board face. AC plywood has one A side and one C side.



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GIVE YOUR CARPENTRY AN EDGE



Once the tape is in position, heat it with an iron to activate the adhesive.



Use a wood block or roller to apply pressure to the tape and seat the glue into the plywood edge.

- **8.** Use a square and utility knife to cut the end of the tape to fit
- 9. Iron and press the tape firmly.
- **10.** Trim the excess width and length with a utility knife.

Tip: Apply your over-sized width tape flush to one side. This will eliminate the need to trim both sides of the edge after the tape is installed. If possible place the material upsidedown on a workbench and trim the tape against a table. If access is difficult, as for a large bookcase, use a block of wood as a backer for your utility knife.

APPLYING INTERSECTING VENEER TAPE

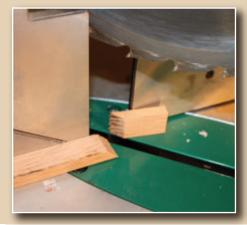
With built-in cabinetry and furniture you often have vertical and



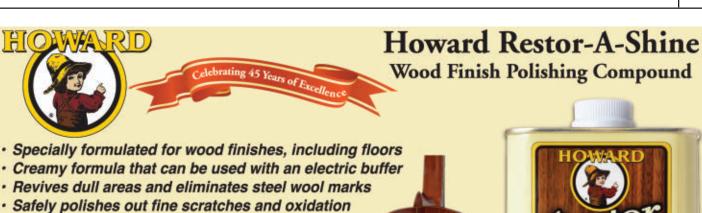
TYPES OF VENEER TREATMENTS

Veneer tape is one of several ways to cover exposed edges of plywood. These photos show how we cut 1/4-in. rigid strips of oak, mitered at the corners, to conceal the plywood edge of a shelf. There are several approaches to edge treatment, all with different results and applications.

- · Solid edge banding, like the thin strips shown.
- · Solid edge banding made of thicker wood strips that can be routed for a a decorative profile.
- · Oversized edge-banding or nosing that creates an overhang.
- · Solid joinery.







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GIVE YOUR CARPENTRY AN EDGE

horizontal areas that need edge tape. I always install the long pieces first (usually vertical) and then work on the perpendicular edges. The procedure is similar to standard application, but with a few additional steps:

- 1. Cut a longer than needed strip.
- **2.** Square up your starting end and butt it tightly to the pre-installed veneer edge tape.
- **3.** Heat and press the tape into the joint. This ensures the edging will not slip away and create an unsightly open seam between the two pieces.
- **4.** Heat and roll your tape until you get approximately 3 to 4 inches from the end.
- 5. Do not heat these last few inches yet.
- **6.** Square and cut your end approximately 1/64 longer than the seam.
- **7.** Bow up your tape and tuck your seam tight to the edge of the already installed veneer tape. Push the tape down. The additional length ensures a very tight fitting seam.



A sharp utility knife will make a clean cut through the tape.





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REWARDS



- 8. Iron and press the tape down to complete the glue installation.
- 9. Trim the tape to fit.



To apply veneer tape between two existing pieces, heat the starting joint so it doesn't separate. Leave the opposite end of the tape unheated. Cut the end square and 1/64" longer than the seam. Bow up your tape and tuck your seam tight to the edge of the intersecting tape.



Iron the corner joint to set the glue.



Slightly angle your sanding block to round the corners.

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For both applications, finish up by sanding the edges of the tape with 150-grit abrasive. Slightly cant your sanding block to smooth the corners and give the panel the convincing look of solid, natural wood. EHT

Editor's Note: Robert Robillard is a remodeling contractor based in Concord, MA, and editor of a www.AConcordCarpenter.com.

> The resulting edge-banded panel looks like solid wood. This technique can be used on all sorts of furniture and cabinetry pieces.



TYPES OF VENEER TREATMENTS

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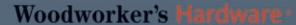


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hands-on training and trade education through a comprehensive conference program. It's a great place for construction pros to network, relax and kick back with new and old friends. It's also a hot spot for new product roll-outs, and we've compiled a list of highlights for this year's convention.

NYLOPORCH

NyloPorch is made using recycled carpet fiber for incredibly durable and eco-friendly porch flooring that creates a welcoming space to enhance your home.

A natural product extension of popular NyloDeck in a tongueand-groove porch board,

NyloPorch contains no wood or PVC and is resistant to moisture, mold, mildew and termites. Its exceptional moisture resistance means NyloPorch alleviates the concerns of splitting or cupping that can occur with wood. NyloPorch can be installed at spans up to 16-in. O.C. and is

available in two width options, 3-1/8 and 5-1/8 inches. Due to greater coverage per square foot, the 5-1/8-in. version translates into a 30-percent reduction in time, labor and materials. The flooring is available in six attractive colors. Visit booth 1807 or nyloboard.com.



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TIMBERTECH SANDY BIRCH

TimberTech adds Sandy Birch to its popular Earthwood **Evolution Terrain Collection of** capped composite decking. Sandy Birch, a versatile light tan color, joins the current colors of Brown Oak and Silver Maple to meet the need for a light, natural, earthy tone that will complement any home exterior. Earthwood Evolutions features a protective polymer cap surrounding a proprietary composite core. The collection is scratch-, stain- and faderesistant and backed by a 25year fade and stain warranty. The decking features a flat grain surface pattern and is available in 12-, 16- and 20-ft. lengths, along with matching fascia and riser. Visit booth 1811 or www.timbertech.com.





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SCREW PRODUCTS

With names like Mountain Cedar, Vintage Lantern and Fire Pit, the 17 color options offered by C-Deck Composite Star Drive Deck Screws make them a perfect match—literally—for nearly any deck, C-Deck Star Drive Screws match most composite deck colors on the market today, and Screw Products Inc. can complete custom color orders. The deck screws are for use with interior and exterior wood, composite and other plastic materials, and are approved fasteners for the Trex Transcend and select Enhance lines. In addition. C-Deck screws match the decking of leading manufacturers TimberTech, Fiberon, Azek Deck, EverGrain, Gossen, Tuf Board, Monarch, Enduris, NyloBoard, Latitudes Decking & Railing, and MoistureShield. Specifically designed to eliminate the mushrooming and blemishes that can occur in composite materials, the deck fasteners also pull down and hold warped lumber and lock boards together when used with wood decks. The star-drive screws require no predrilling, and the E-Coat finish has shown more than 1,000 hours of corrosion resistance in both salt spray testing and treated lumber. Visit 609 or screw-products.com.

SWANSON'S INNOVATIVE TAPE MEASURES

Swanson Tool has launched two new innovative tape measures. The GripLine is the first tape measure designed to grip round surfaces. It features a patent-pending rotating tip that is specifically designed to hold rounded corners and round objects, including PVC and conduit pipe up to 2 inches in diameter.

The ProScribe Tape Measure features a patented scribe guide and centering pin to measure and mark cut lengths and radiuses. The patented retractable, 1-1/2-in. rigid scribe guide allows contractors several valuable marking functions, including the compass-like ability to measure and scribe circles and bisect angles, as well as the chalk-line-accuracy to measure and mark/score straight lines. Visit booth 5203 or www.swansontoolco.com.



ZOMETEK COMPOSITE BAMBOO DECKING

ZomeTek, the newest brand from Aboeda, is composite bamboo decking made by mixing natural bamboo fiber with recycled HDPE plastic and additives to prevent mold and mildew. This construction-grade material is a strong, durable and moisture-resistant composite, engineered



to endure abuse of all types including rot, snow, sand and heavy traffic. It has a natural appearance that requires minimal maintenance, and the material is color-impregnated throughout each board to reduce surface wear. ZomeTek comes in solid and iBeam decking planks as well as decking tiles. The extruded

iBeam planks consist of four hollow chambers that reduce the overall weight of each plank while lessening expansion and contraction. Available in several colors, ZomeTek decking is backed by a 15-year warranty. Visit booth 3002 or www.zometek.com.

AZEK DECK HAZELWOOD

AZEK expands its Arbor Collection of cellular PVC decking with a new light color called Hazelwood. With its sleek, yet subtle variegation, Hazelwood offers a striking, natural shade with earthy richness, developed specifically to coordinate with current trends seen in hardscapes and other exteriors. Additionally, the beautiful light variation will help camouflage dirt. The Arbor Collection's expanded color palette, with a complete range from light to dark variegated options, will work well with any home exterior. AZEK Deck products require little maintenance, are highly durable, resist stains and scratching and are covered by a limited lifetime warranty. Available in 12-, 16- and 20-ft. lengths, the new Hazelwood board will be available in square shouldered and grooved profiles with matching fascia. Visit booth 1811 or www.azek.com.



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SIMONTON WINDOWS & DOORS

Installing a new deck? Remodeling a kitchen? Complete the job with a beautiful Simonton Patio Door. More than just award-winning windows, Simonton also offers several styles of patio doors, for both replacement and new construction applications. From entry level to premium quality, as well as a wide array of colors and styles, you'll find the perfect door to suit your needs. Stop by and see for yourself at booth 2508 or visit www.simonton.com.







One of a Kind.

Made using 100 percent recycled carpet fiber, eco-friendly NyloDeck is the unique decking solution you've been hoping to find. Beautiful NyloDeck is a superior, yet affordable option that sets the standard for a new generation of decking materials.

- Containing no wood or PVC, NyloDeck is impervious to water, mold, mildew and termites so it won't swell or rot.
- Looks like real wood; durable and rated twice as strong as other leading composites.
- Backed by extensive testing and a 25-Year Fade and Stain Warranty.

NyloDeck will help you create the ideal, worry-free deck today and for years to come. Learn more at www.nylodeck.com



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FEENEY RAILING SYSTEMS

Feeney, Inc. is a leading manufacturer of high-quality stainless steel and aluminum architectural

products and railing systems. The company will be presenting its popular CableRail products including the versatile line of Quick-Connect cable fittings,

the DesignRail Railing System, and the new DesignRail Rail Kits, a pre-engineered railing solution. The Rail Kits are designed for convenient purchasing and installation and feature select colors and designs. In addition, Feeney



will be displaying its new Feeney Rail Light Kits. These weather-proof LED lighting kits and components integrate into the DesignRail aluminum railing systems for a finished look that provides a beautiful ambiance. Visit booth 3101 or www.feeneyinc.com.

NYLODECK

Strikingly beautiful, yet incredibly durable, NyloDeck offers minimal maintenance and exceptional performance. Made using 100 percent recycled carpet fiber, NyloDeck is impervious to moisture, mold, mildew and termites. It's the only 1-in. deck board with the ability to span joists up to 24-in. on center. NyloDeck also has a 16/200 lbs./ft² live load rating, making it twice as strong as other





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leading 1-in. composite deck boards at 16-in. on center. Lightweight and easy-to-use, NyloDeck installs like a builder's dream, saving both time and money on labor and materials. The boards are manufactured using a unique three-dimensional embossing process that creates a beautiful finish. Just as with natural wood products, no two NyloDeck boards look exactly the same. NyloDeck is backed by a 25-year fade and stain warranty. Visit booth 1807 or nyloboard.com.

WESTBURY ALUMINUM RAILING

Westbury railing from Digger Specialties. Inc., is offered in both two-rail and three-rail models with square or round spindles. Options



include architectural balusters, rings and radius rails to match the contour of your decking projects. Beautiful distinct Crossover Posts allow a streamlined look, and the post systems are nicely finished

with decorative mounts, flairs and caps in matching colors. Another option is the new Westbury Aluminum Drink Rail, which provides functionality for your railing system. Westbury has the CCRR





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#0163 listing and has been tested and evaluated to meet and exceed the IBC, IRC and FBC Building Codes. In code-sensitive areas, you can be assured that Westbury meets these requirements and is also backed by a Lifetime Limited Warranty. Westbury is also the only Aluminum Railing that is certified by the Powder Coating Institute (PCI) and has been tested and verified for AAMA 2604 Standards (12 standard colors). Visit 3308 or www.diggerspecialties.com.

DECKWISE

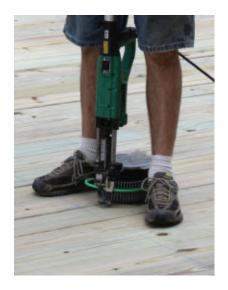
Deckwise, an Ipe Clip Fastener Company, manufactures patented hidden deck fastener clips for exotic hardwood, composite and PVC decking in the US manufacturing facility in Bradenton, Florida. Their flagship Extreme line of hidden deck fasteners allows for fast installations while giving a professionally finished, smooth and elegant look. The DeckWise line of deck-building products range from stainless steel deck screws, the Hardwood Wrench board-straightening tool, deck board gap spacers, hardwood plug kits, the Drill & Drive 3-in-1 tool, hardwood Ipe Oil and end-grain Ipe Seal, as well as hidden siding fasteners. DeckWise offers contractors and DIY'ers an all-in-one source for all their complete deck building needs. Visit booth 2808 or www.deckwise.com.





MURO AUTO FEED FASTENING SYSTEMS

Deck fastening has come a long way since the hammer and nail. Muro North America Inc. introduced collated screw and tool technology to the industry in the early 1990s, and the company's Auto Feed Systems have since improved job quality with consistently driven screws that provide



superior holding power at highproduction speed. Muro will be exhibiting the company's latest variety of tools and fasteners. From decking, drywall, subfloor installation and more, Muro offers the right fastener, whether you prefer coil-feed or strip-feed systems. Visit booth 813 or www.muro.com. More than 30 years experience in the spray foam industry.





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Looking for the largest selection of deck fastening solutions? Pan American Screw, Inc., manufactures a wide variety of deck screws and hidden deck fasteners. Visit our booth to see how you can receive a free Eliminator installation tool with a purchase of Mantis hidden deck clips. Visit booth 612 or panamericanscrew.com.



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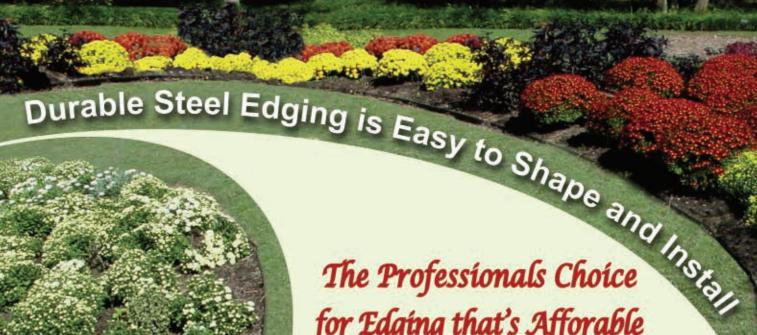
Ecolife Stabilized Weather-Resistant Wood produced by Viance received Green Approved Product certification by the NAHB Research Center and is eligible to contribute points toward certification of a building under the National Green Building Standard when used in a decking project. Ecolife Stabilized Weather-Resistant Wood is an environmentally preferred building product that enhances the strength and long-term natural beauty of your deck projects with significantly less maintenance. Visit booth 2308 or treatedwood.com.

STARRETT SHOW SPECIALS

Starrett will be featuring "Show Specials" on the company's power tool accessories. Its comprehensive line of hand and contractor tools will be exhibited as well. All items will be available for on-site purchase. Stop by for



demonstrations of new and innovative products such as the Dual Cut jigsaw blade (no sanding or finishing needed on laminate and Formica) and the Combination Protractor, which is excellent for taking the guesswork out of crown molding cutting. Starrett manufactures a full line of precision measuring instruments, saw products and a vast array of hand tools for professional use. Visit booth 5003 or www.starrett.com.



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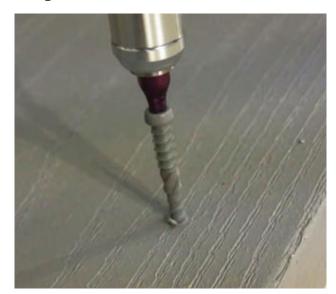
ARC, Inc. is the leading supplier of easy-to-install shower systems that offer limitless custom styling and barrier-free access. With ARC's structural shower foundations contractors are achieving modern, fast results that deliver an open canvas for decorative stone and

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tile finishes—replacing old, demanding, labor-intensive mud bed methods of shower construction. ARC's "Design Without Barriers" motto says it all. During this year's Remodeling Show, ARC is showcasing the Tuff Form and TriForm curbless shower systems. These shower foundations are made of structurallyreinforced, recyclable materials that can span joists 16-in. on-center and support up to 560 lbs. when properly installed. Both systems include easy-toapply, seamless waterproofing for absolutely dependable protection in every shower installation. And the curbless, level-entry platforms make joist notching and structural reinforcement unnecessary. TriForms include an integrated linear drain and come in four ready-for-tile sizes. The Tuff Form line offers 9 sizes to choose from, and each can be trimmed to desired dimensions. Visit booth 4321 or www.ARCFirst.net.

KAMELEON COMPOSITE DECK SCREW

GRK's Kameleon composite deck screws blend in with your deck for a nice finished look. The patented fiber-trapping rings keep dust under the surface, eliminating the mushrooming effect regular deck screws cause in composite deck boards. The Kameleon screws blend nicely with most composite decking such as TimberTech, Trex and other popular brands. The Kameleon also features a countersinking head with cutting teeth to bore a perfectly clean hole. The W-Cut thread design and Zip-Tip at the bottom of the screw offers low installation torque and no pre-drilling. The Climatek coating, AC-257, protects against corrosion. Kameleon screws are available in a variety of colors and sizes found nationwide at your local lumber yard, hardware dealer or home center. Visit booth 206 or www.grkfasteners.com. EHT





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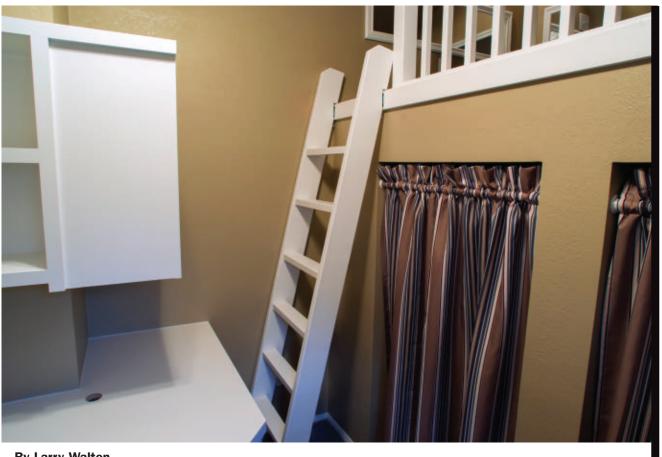






Lofty Ideas

Building a Stair/Ladder Hybrid for a Loft



By Larry Walton

ur first task for this loft project was to put in a new open rail, which made it look better and made it a lot safer. Next came the access ladder. The original ladder resembled a climbing wall more than a useful and easy access to the loft.

Our goal was to build a ladder with a comfortable angle, level flat steps, and rails that extended into the loft for safer handholds. A good way to get rail angles and step layouts is to measure a step ladder with a similar height to the loft floor.

We used kiln-dried framing material and some newel post

mounting hardware to make the nice new loft ladder for this project.

STEP BY STEP

The loft's existing ladder had all kinds of wrong going for it. It was mounted on the wall so you couldn't get your feet onto the steps, plus it stopped short of the loft floor.

We left the rail boards long so we could experiment with different rail angles. We then made cuts parallel to the floor at the bottom and marked for a bird's mouth at the contact point on top.







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PROJECT NEXT

We measured from the wall to the newel post to get the outside width of the ladder. Factoring 3/4in. penetration of the step tenons into the rails, we cut all of the 2x4 steps to length. For a close fit with no rubbing, we allowed 1/2 inch. The cut depth was 1/4 inch, and the saw fence was set at 3/4 inch to get the length of the tenons.







Using the table saw's miter gauge set at square, we cut the 2x4s on all four sides at both ends.



We didn't have a dado blade set on the jobsite so we made quick passes at about 1/4-in. intervals and cleaned up with a chisel to shape the tenons.

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PROJECT NEXT

The completed stack of steps all matched in length and tenon cuts.

After cutting the first rail to length with the right angle at the floor and a bird's mouth notch to

the loft trim, we used it as a template to make the other rail.

With one of the rails in place, we determined our step intervals using a step ladder as a model. All









of the steps (including floor to first step, and top step to loft floor) were adjusted so they had the same interval between. We used a level to mark a line representing where one of the steps would be.



We then used two scraps of 1x2 to make a jig, with one side along the bottom of the rail and the other lined up with the step layout line. With the intersecting boards pinned together, the jig was used to lay out all the step lines on the rail.



PROJECT NEXT



A combo square works well for transferring all of the step layout lines from one rail to the other.

We marked all of the mortise locations parallel with the step layout lines and free-handed the mortises with a two-flute straight bit in a router.

One tenon on each step was glued and inserted into a mortise on one rail.







Next came the juggling act of getting each of the step tenons started in the mortises of the second rail.

We positioned the loft ladder and marked the locations of the newel post mounting plates for each rail.

We used a multi-tool with masking tape as a depth gauge (along with a chisel) to cut out a mortise for the newel mounting plates.





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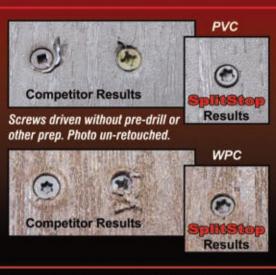
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PROJECT NEXT







The mounting plate receives a bolt head. As the bolt head slides down the wedge-shaped groove, it pulls the ladder rails closer to the loft, locking it in tight.



Four-inch screws anchor the plate to the framing on the edge of the loft.



We put bolts for the locking plate in two different locations for two different ladder positions: one to store the ladder when not in use, the other for when the ladder is in use.



The finished ladder is locked in position. It's a big improvement in foot position, hand hold and looks. **EHT**



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Wood decks are a popular home addition and a great investment. According to *Pro Deck Builder* Magazine "Adding a basic pressure-treated wood deck cost an average of \$9,539 nationally and returned more than 87% of that on the resale of the house, according to the 2014 Remodeling Cost vs. Value survey." To keep your wood deck looking its best and protected from the elements, you'll want to clean and stain every 2-5 years. Follow these easy instructions for success, and enjoy your improved outdoor living area!

Get your tools ready; you'll need a large plastic bucket, push broom, garden hose or pressure washer, and a brush, roller or deck pad applicator.

- 1. Remove debris from in-between decking boards.
- 2. Sweep deck clean from leaves and other loose debris.
- 3. Secure loose nails.
- 4. Pour Superdeck Wood Cleaner into a large bucket.
- 5. Add water and mix solution.
- 6. Pour contents over the deck.
- 7. Spread solution evenly using a push broom.
- 8. If temperatures are hot or you are working in direct sunlight, mist the surface lightly with water, do not let the cleaning solution. dry
- Wait 20-30 minutes and scrub a small area, if dirt has loosened then proceed to scrub deck with a push broom while moving solution off the deck.
- Rinse with plenty of water. If using a
 pressure washer do not exceed 1000 psi
 or you may damage the wood. Follow the
 same process using Superdeck Wood
 Brightener.
- 11. Allow surface to dry for 24 hours before applying stain for maximum product penetration and performance.
- 12. Stir Superdeck Wood Stain from bottom of container and apply using a brush, roller or deck pad applicator. One coat of Superdeck Wood Stain is all you need, apply in smooth, even strokes and do not pool or puddle the stain. Apply only at a rate the wood can absorb.
- 13. Allow stain to dry for one day before walking on surface or placing furniture.
- 14. Now you are ready to enjoy your restored deck and live the outdoors!
- 15. For more information or to see a complete how to video visit www.Superdeck.com.









PRODUCTS

MILESCRAFT CABINETMATE

Ever wonder how to make level, wobble-free cabinets? The Milescraft 1316 CabinetMate is an easy-to-use, lightweight and durable jig with a rigid main body, an indexing pin and a self-centering drill bit. A custom spring-loaded-brad point bit allows the holes you drill to self-center with the holes on the main body. This bit is pre-set to bore a crisp hole with consistent depth for a perfect fitting shelf pin. The Cabinetmate also comes with a built-in storage compartment for your bits. No more moving a jig and trying to center the holes again after drilling only six holes. The CabinetMate allows you to accurately drill eleven holes at one time. Just use the indexing pin and self-centering bit to daisy-chain your shelf pin holes to whatever distance you need. This innovative tool can be used on cabinet sides before assembly, already assembled cabinets and face-frame or frameless cabinets. A stand-out feature of the CabinetMate is that it also allows you to mark the locations for euro-style hardware. Visit www.milescraft.com.





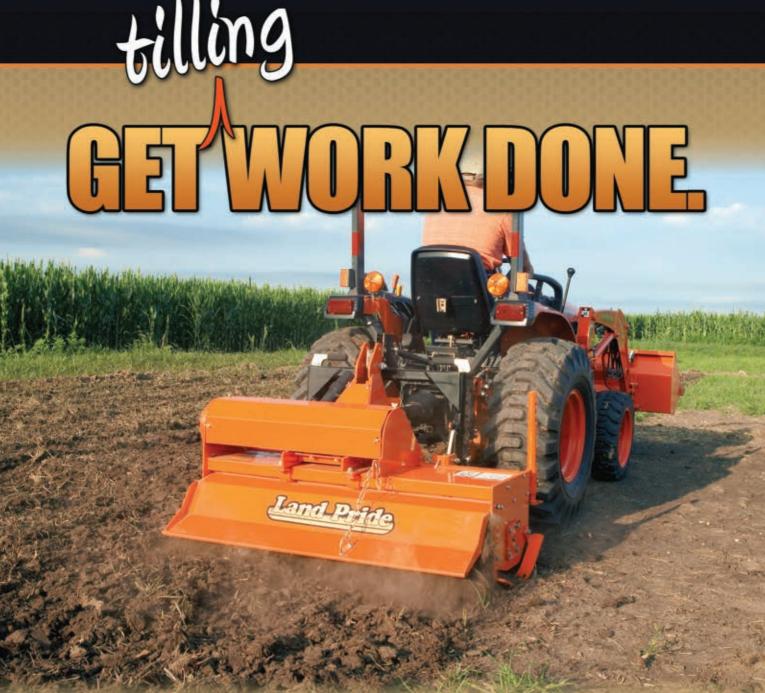
MILESCRAFT ACCUDRILLMATE

The 1318 AccuDrillMate by Milescraft gives you the precision of a drill press with the ease of a hand drill. The AccuDrillMate is perfect for straight or angled drilling, drilling on the edge of a board or on round stock. It works with standard or masonry drill bits, forstner and spade bits, hole saws and plug cutters. Attach the AccuDrillMate to all 3/8- and 1/2-in. power drills, and it also includes a 3/8-in. capacity chuck with key. A removable handle can be attached at the base or at the head of the tool, allowing you to hold the guide in place during use. The aluminum base has a built-in angular scale, so you can accurately adjust the angle of cut from 0 to 45 degrees. For drilling round stock, the AccuDrillMate has centering channels in the bottom of the base that accommodate drilling stock





up to 3-in. diameter. The jig has four non-slip rubber feet, plus a built-in depth stop and spring action that controls the rate of the drill penetration and return. Visit www.milescraft.com.



Whether you're a landscaper, nursery-farmer or homeowner, Land Pride has the Rotary Tiller built for your application. With your choice of Forward or Reverse rotation, and widths from 42" to 76", they offer the industry's largest line-up of rugged Rotary Tillers that are up to your toughest challenge.

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PRODUCTS

GRIZZLY T26418 FLOOR-MODEL OSCILLATING SANDER

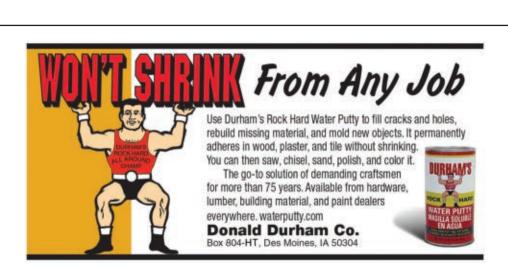
The Grizzly T26418 oscillating sander is powered by a 1-horsepower, 110V, single-phase motor. It offers spindle speed of 1725 rpm and oscillation stroke of 52 opm. The 19-11/16-in. diameter cast iron table tilts up to 45 degrees. The sander's table-to-floor height is 36-3/4 inches, and it comes with three rubber sanding drums and sleeves: 3/4-, 2-, and 3-in. sizes. Six table inserts and a 2-in. dust port are included. The Model T26418 is available for \$475.00 and is covered by a one-year warranty. Visit www.grizzly.com or call 1-800-523-4777.



RESTOR-A-SHINE WOOD POLISHING COMPOUND

There are many polishing compounds out there, but most are only found in a store's automotive department. Howard Restor-A-Shine Wood Polishing Compound is specifically designed for wood finishes, using extremely fine micro-polishing powders, mineral oil, orange oil and select waxes. Restor-A-Shine safely polishes out fine scratches, oxidation and haze. It will revive dull areas and eliminate steel wool marks and other surface blemishes. It is the perfect product for completing the restoration of a high-shine wood finish after using Howard

Products' Restor-A-Finish. You can also use
Restor-A-Shine for the final buffing stage on
a newly applied high-gloss finish. This
unique polishing compound can safely be
used on lacquer, varnish, shellac and
especially polyurethane finishes. In fact,
you can use it on any clear-coat wood
finish. Visit www.howardproducts.com
or call 1-800-266-9545.





Now there's a proven, affordable way to extend the home's hardwood flooring to the outside living area.

Deck-A-Floor is the patent-pending composite timber system that requires no screws, joints, or nails to install. The revolutionary system mimics the luxury look of exotic hardwoods right down to the timber's subtle color variations. Architects, designers, and homeowners like the rich, authentic hardwood look that's nearly impervious to sun, wind, rain, snow, temperature extremes, as well as stains, scratches and other entertaining hazards.

The 40-inch long flooring boards snap-in-place to a grid system easily configured to nearly any design requirement. Have a unique outdoor pattern in mind? No problem. It's easy to showcase flooring creativity and a stylish hardwood look with Deck-A-Floor.

- Perfect for decks, patios, or pool surrounds
- Stain-proof, scratch-resistant
- Nearly maintenance-free no sanding, staining, or painting
- Hardwood looks in Westminster gray, Spanish walnut, and Peruvian teak
- 25-year limited warranty

Homeowner Eric Anderson of Charlotte, N.C. says:

"Deck A Floor is perfect. Our porch has hardwood beauty without maintenance headaches."

Beautify exterior environments with the luxury look of hardwood with the durability and versatility of Deck-A-Floor. Available now exclusively through The Home Depot.

Patent Pending



PRODUCTS

RYOBI ONE+ 18V AIRSTRIKE CORDLESS FINISH NAILER

The newest addition to the Ryobi AirStrike family of tools is the 18V ONE+ Cordless Finish Nailer (P325). This 16-gauge finish nailer features AirStrike Technology, which eliminates the need for noisy compressors, bulky hoses or expensive gas cartridges. This means faster setup and easier maneuvering on the jobsite or at home. Common applications for this tool include installing crown and base, exterior trim such as fascia boards, decorative transition trim, as well as installing ornate pieces on mantels. The AirStrike finish nailer works with all Ryobi 18V ONE+ batteries. Other tools in the AirStrike lineup include the 18V ONE+ 18ga Cordless Brad Nailer (P320) and the 18V ONE+ 18ga Cordless Narrow Crown Stapler (P360). Visit www.ryobitools.com.





RYOBI 18V ONE+ ORBITAL JIG SAW

Ryobi's new 18V ONE+ Orbital Jig Saw (P523) features a new, more powerful motor that provides cutting performance equivalent to a corded jig saw, but with the portable convenience of a battery-operated tool. This new jig saw also features the patented BladeSaver innovation to get the most use from every saw blade. A first-to-market innovation, the BladeSaver features a drop-base design that allows users to adjust the base to utilize unused teeth, resulting in optimal blade use. This high-performance jig saw has a variable speed of 1,100–3,000 spm and allows for true flush cutting all the way to a vertical surface. The saw's SpeedMatch selector matches cut speed and type to any application correctly with orbital and non-orbital settings, and the toolless blade clamp makes blade changes quick and easy. Visit www.ryobitools.com.

GENERAC 22 KW GUARDIAN SERIES GENERATOR

Generac Power Systems unveiled the new and unprecedented 22 kW Guardian Series air-cooled home standby generator. The 22 kW Guardian Series is the largest air-cooled home standby generator on the market. With an MSRP of \$4699, it delivers the lowest cost per kilowatt of any air-cooled home standby generator. Air-cooled home standby generators are so called because they are cooled by air flowing through the generator's enclosure.

They're popular because they are smaller and more costeffective than their liquid-cooled cousins, which feature more expensive automotive-style engines with radiators for cooling. Previously limited to a maximum of 20 kilowatts by current powertrain technology, Generac engineers developed a breakthrough air-cooled engine and alternator combination to achieve this record-breaking 22 kW output level. Visit www.generac.com





PRODUCTS

POWER PLANTER AUGERS

Power Planter Augers will speed up the job, whether you're planting annuals, shrubs, bulbs, or you're mixing paint or small batches of concrete. For planting applications the augers loosen up the soil for outstanding soil-to-root contact. Available in a variety of sizes, the Power Planter Augers feature a 3/8-in. non-slip hex drive that fits any 3/8-in. or larger corded or cordless drill. Each tool is constructed with a heavy-duty 5/8-in. steel shaft and durable 10-gauge flighting. The Power Planters are handwelded, hand-dipped in high-quality gloss black enamel paint, and ship in a hangable box for pegboard storage. Each auger is made in the USA and comes with an unconditional warranty on materials and workmanship, excluding normal wear and tear. Visit www.powerplanter.com.



MILWAUKEE'S SHOCKWAVE EXPAND ACCESSORIES FOR IMPACT DRIVERS

To keep up with the growing popularity of impact drivers, Milwaukee Electric Tool grows its Shockwave family of accessories with the Expand line of products. The goal of Expand is to minimize user frustration with the sheer amount of accessories they often need to carry with them to complete a job. Users can do more and carry less



by pairing the new extended length magnetic bit-holders and insert nut-drivers with the existing 30° Knuckle pivoting bit holder and 21 insert bits. The accessories cover more applications with fewer products. To match the breadth and flexibility available with Expand, users would typically need to carry over 130 unique accessories. As with all products in the Shockwave family, Expand accessories are built for extreme durability and up to 10X more life in impact drivers than standard bits. Visit www.milwaukeetool.com.

TEC SKILL SET MULTI-PURPOSE PRIMER

TEC Skill Set manufactures the Multi-Purpose Primer the *EHT* team used to prep the subfloor in this issue's article on vinyl floor tile. It provides an easy way to enhance the bond of peel-and-stick tile to porous substrates like concrete. It also works as a primer for the company's Ultimate Self Leveling Underlayment and Universal Skimcoat and Patch as an embossing leveler. Easy to apply with brush, roller, or push broom, the Multi-Purpose Primer enables installation of most floor coverings directly to metal, gypsum underlayment, glazed tile (without scarifying) and well bonded epoxy coatings. It covers up to 410 sq. ft. per gallon and dries to a clear finish in 30 minutes up to 3 hours. Visit www.tecskillset.com.









DAYS. 1 EVENTS. 2 LOCATION.





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PRODUCTS

SENCO FINISHPRO 21LXP NAILER

Senco has introduced a perfect solution for professional users looking for something in between the common 18-gauge and 23-gauge fasteners available today. The FinishPro 21LXP is a slight/medium head 21-gauge pinner that delivers the holding power of a brad nail while leaving a much smaller indent that requires little to no filling. Often, an 18-gauge brad nailer is too much for MDF and requires filling and sanding on trim. With the ability to use headless or slight/medium head fasteners, the 21LXP offers holding power without sacrificing finish quality. Weighing only 2.7 lbs., and measuring less than 9-in. high and and 8-in. long, this ultralightweight and compact tool can easily fit into tight spaces. With its ultra-narrow nose and non-marring pad, the 21LXP also delivers clean and exacting fastener placement. Visit www.senco.com.



METABO HEAVY-DUTY DUSTLESS GRINDERS

Metabo Corporation introduces a new line of heavy-duty, dustless concrete/renovation grinders, which it hails as "the safest most powerful and durable grinders in their class." The new grinders feature a high-torque gear ratio and a unique new dustless shroud system designed specifically for tough concrete applications. The RF14-115 (4.5-in.) has a powerful 12.2-amp motor that drives a unique cutter head containing 15 replaceable carbide star cutters designed for heavy-duty renovation work. Additionally, its triple gear reduction results

in a variable speed motor range of 800-2800 RPM for superior control of the tool and material removal rate. The RS14-125 (5-in.) concrete grinder features a 12.2-amp motor and a variable speed motor range of 2000-7000 RPM. Its counterpart, the RS17-125 (5-in.), features an extremely powerful high-torque 14.2-amp motor that produces the industry's highest removal rates. Both the RS14 and RS17 incorporate an all new aluminum die-cast shroud that uses a patented airflow system to optimize dust extraction and features a spring hinge-mounted front flap for finishing flush to a wall. Combined with the ergonomically-designed, five-position D-Handle, the shroud also provides a counterbalance to the tool for exceptional handling. Visit www.metabo.com.

THE FOREMAN FROM KREG TOOL

The all new Foreman from Kreg Tool Company makes high-speed pocket-hole production available to everyone by offering the features of a professional-grade pocket-hole machine at a consumer-friendly price. The Foreman Professional-Grade Pocket-Hole Machine (Item# DB210) allows users to create perfect pocket holes twice as fast as using a standard pocket-hole jig—with half the effort. The Foreman offers features previously available only



on Kreg industrial pocket-hole machines, such as a built-in 110-volt electric motor, single-handle control, and an adjustable fence system. At a price of only \$399.99 (U.S.), though, the Foreman sells for less than half the price of its predecessor, making it easy to afford for a wide range of users including woodworkers, cabinet shops, contractors and dedicated do-it-yourselfers. This dramatic increase in speed and reduction in effort is possible thanks to the Foreman's simple three-step operation: (1) Position the workpiece, (2) pull the handle to clamp it, and (3) drill your holes perfectly. Visit www.kregtool.com.

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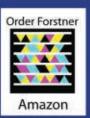


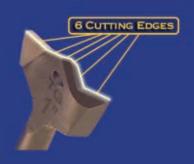








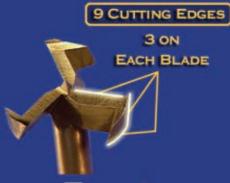








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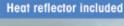








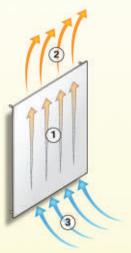






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than most space heater

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