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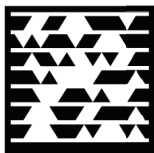
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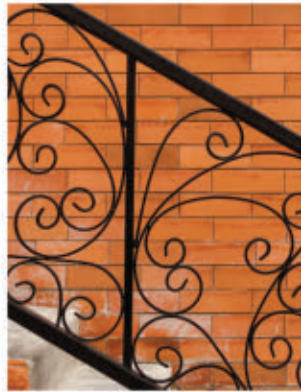
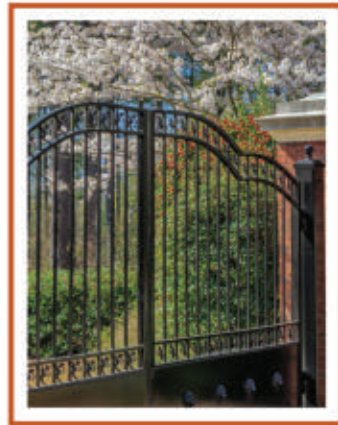
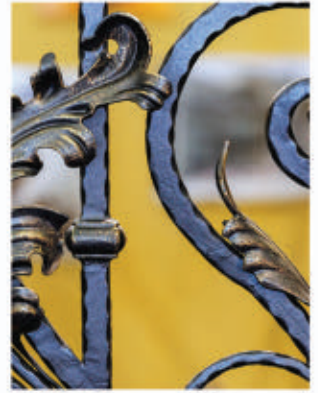
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Our first issue of 2018 marks *Extreme How-To's* fifteenth year in business. It's been quite a run. I find it amazing how the clock seems to tick faster the older we get. And just like Bob Dylan sang, "The times, they are a changin'."

Think of all the technological advancements we've seen over the course of that decade and a half. Whereas I grew up with corded phones and even rotary dials, now it seems everyone carries a computer in their pocket that also functions as a phone, a video camera and a mini TV. Bluetooth technology means we can use those same phones to control all sorts of wireless appliances inside and outside the home.

And speaking of homes, consider all the major strides in tool technology that have impacted the way we build and remodel houses. You might still own a power tool that uses NiCad batteries, but that old battery technology has largely been supplanted in newer tools by lithium-ion batteries. The lithium-ion batteries weigh less and last longer than the NiCads, they're rechargeable in as little as 30 minutes, and deliver full power right up until they need to be recharged.

A task as basic as driving a screw has become easier in recent years with the advent of impact drivers. Unlike conventional powered screwdrivers, an impact driver uses an internal anvil to deliver much higher rotational torque, driving fasteners very quickly, and with little hand pressure needed from the user—just enough to keep it in the slots of the screw-head. This grants greater control and helps prevent the bit from jerking out of the fastener.

Remember the primitive days before oscillating multi-tools? Pioneered by the Fein company, these popular tools are now manufactured by virtually every major toolmaker thanks to their unmatched versatility. With the right blade, these handheld jacks-of-all-trades can make plunge cuts or flush cuts, remove grout, scrape paint, or sand a surface smooth. Now that these gadgets are widely available and affordable, they've practically replaced several other hand and power tools.

And although the average handyman or DIY'er isn't apt to give up their torpedo level or tape measure, those applications have changed, too. When I'm tackling a big project, I now use a device to project laser lines—perfectly plumb or level—onto a wall to mark my layout, which saves lots of time I'd otherwise spend with a pencil and a bubble vial. Similar laser tools can be used to map out tile layout on a floor. And with a laser distance meter, I can place it against a wall and simply click a button to get an accurate measurement of the entire room.

In many ways, the future is now, and home-improvement technology is only going to evolve further. We plan to be there with you as it does, reporting in *Extreme How-To* on all the cool things to come.

Thanks for reading,



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The background is a dark, textured wooden surface. In the top left, a clear plastic storage bin is partially visible. Below it, a blue plastic tray holds a variety of small, different-shaped metal bits. To the right, a clear plastic blister pack contains a set of long, silver-colored drill bits. In the center, a long, thin metal bit lies horizontally. Below it, a black screwdriver with a blue logo on the handle is positioned diagonally. To the right of the screwdriver, a single metal nut is shown. In the bottom left, a black metal bit is shown. The text 'MORE THAN JUST SCREWS' is overlaid on the left side in white, bold, sans-serif font, with each word on a separate blue rectangular background.

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Q: Does interior brick need to be sealed?

A: We recommend sealing brick on the home's interior, because an unsealed brick wall is a porous surface that attracts dirt and is nearly impossible to clean. Liquids are easily absorbed into untreated brick, causing unsightly stains. The first step is to clean the surface. For new brick walls, wait 28 days after construction is finished so the mortar has time for the alkalinity to get back to near neutral. Any stains on the wall will be "locked" into the surface by the sealer, so make sure the wall looks the way you want before sealing. Clean off any dried mortar spatter with a copper brush. (Avoid using a steel brush when cleaning brick, as it will leave a dark, black stain on the surface). Try removing any stains using a mild detergent and flushing with as much water as possible.

After the brick is clean and dry, choose a 100-percent acrylic sealer. The sealer can darken the surface slightly and add some sheen or gloss, so first apply a little material in an obscure location to make sure it's the look you want. Acrylic sealers are great for walls, but avoid using them on floors due to the wear of foot traffic. For application, simply brush and roll on. For larger projects, a sprayer can be used. Use a roller with a minimum 3/4-in. nap up to as thick as a 1-1/4-in. nap, depending on the depth of the mortar joints. Coat the entire surface just like you would paint a wall and allow it to dry for a couple of hours. Apply a second coat in the same manner. The sealer will need to cure, or harden, for approximately 7 to 10 days. When curing is complete, you'll have a beautiful, stain-resistant surface that will be easy to clean.

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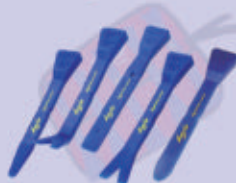
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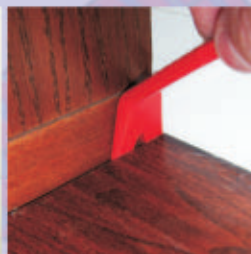
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Q: How can I remove the haze that covers my car's headlights?

A: The oxidization of the plastic housing on the headlight can create a thick haze, which can worsen to the point that it affects the light output. Kits are available at many automotive stores, which include the tools and materials you will need, and the kit costs about \$20. Another approach is to try cleaning off the haze with some aluminum paste and a buffing disc in a drill. Operate the buffer much like polishing your car, but don't stop moving the buffer and don't run it for more than 30 seconds in one spot or you risk overheating and melting the plastic on the headlights.

Q: Can I use a power washer to clean vinyl siding?

A: Yes, although you should be careful when using it. When cleaning, hold the power washer straight at eye level to keep the water on top of the siding where it can clean most effectively. Do not aim the power washer upward because water may be driven behind the siding. Avoid using a pressure washer around any opening in the wall, such as windows, doors, electrical wiring and plumbing. You should also follow the siding manufacturer's recommendations. Some manufacturers don't want pressure washers used on their products at all. Others allow them, but have limitations on the amount of pressure and the cleaners that can be used. **EHT**

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New Concepts in Circular Saws



When you need to cut concrete, stone or brick, Evolution Power Tools' new 12" Electric Disc Cutter is an ideal alternative to high-maintenance gas-power cutters.



Circular saws are the go-to tools for making fast, accurate cuts in lumber, plywood, metal and more. Whether configured as a grab-and-go handheld, an angle-cutting miter saw, or a rip-ready table saw, these jobsite workhorses have been relied on for years for construction inside and outside the home.

These days, tool designers are tasked with making a good tool even better, and this article highlights some of the latest innovations in circ saws to hit the market.

TWO FROM EVOLUTION POWER TOOLS

Evolution Power Tools, well known for its high-performance metal-cutting circular saws, recently

let the *EHT* staff test a couple of their newest units with broader applications. This time we looked at the Evolution Disc Cutter as well as the Rage3 10-in. Multipurpose Sliding Miter Saw, and liked what we saw.

When you need to cut concrete, stone or brick, the new 12-in. Electric Disc Cutter is an ideal alternative to high-maintenance gas-power cutters. The saw comes equipped with a 12-in. diamond blade for all sorts of masonry and concrete work—and it will even cut reinforced concrete. The large-diameter blade enables a 4-in. depth of cut (although this should be performed with progressive cutting passes, rather than burying the blade all at once).

We had a stack of landscape pavers and a few clay bricks, all of which the Disc Cutter ate right through like they were tasty snacks. The saw is sturdily constructed for professional use with robust housing, ergonomic grip positions, and a 15-amp high-torque electric motor. Plus, since the Disc Cutter produces no emissions, it can be used inside enclosed areas. This saw has shot up the ranks as the *EHT* team's new go-to tool for building patios, sidewalks, retaining walls and more.

Next up is the RAGE3 10-in. TCT Multipurpose Sliding Miter Saw. This one saw cuts steel, aluminum and wood using the same blade. The saw is built with a high-torque

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motor that runs at a lower RPM than most other brands. The lower speed reduces motor stresses and is suited for the company's advanced TCT (tungsten-carbide tipped) blade technology, which gives the Evolution Multipurpose blade its optimum performance across a variety of materials. With steel, it leaves a clean cut with

an instantly workable finish, producing no heat, no burr and virtually no sparks. We tested the cutting performance of the Rage saw on rebar, threaded steel rod, aluminum pipe and 4×4 lumber. It didn't so much as flinch.

This versatile cutting technology combined with a sliding miter saw setup affords a huge range of

applications. The Rage3 Multipurpose Sliding Miter Saw includes a tilt and slide mechanism for long angled cuts, plus a laser guideline for greater accuracy. We were impressed with both tools and are anxious to see what Evolution comes up with next. Visit evolutionpowertools.com.



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Festool has introduced the HK (corded) and HKC (18V cordless) Carpentry Saws with an integrated guide rail. Festool claims these new saws will revolutionize carpentry, framing and other construction applications, by allowing users to make exact and repeated cuts in dimensional lumber and sheet goods anywhere the material is located (versus taking the material to the tool or to a saw-horse setup).



Festool reinvents the concept of handheld circ saws with an integrated guide rail.

The HK/HKC saws are equipped with a plunge-cutting feature for cut-outs with easy depth control and release. Need to make a hole in plywood for a window or cut access for HVAC duct? Just position the saw over the cutline, and depress the plunge trigger to drop the blade without the need to tilt the foot-plate or approach from the edge of the workpiece. The integrated pendulum cover with riving knife automatically retracts when combined with FSK and FS rails for a fast return to cover position. The FSK Guide Rails also have integrated angle stops for greater accuracy on repeated cuts.

“With the HK/HKC, we’ve taken our industry-leading track-saw and plunge-cut technology and applied it to build a completely new kind of carpentry saw,” says Leo Zirkler, Vice President of Marketing at Festool USA. “We have succeeded in building a carpentry saw with miter saw precision in the size of a sidewinder.”

The EHT staff tested the HKC (cordless), which is part of Festool’s 18V Power Select platform, which features interchangeable batteries and chargers across its entire line of cordless power tools. The HKC model eliminates the obstacle of the power cord while generating plenty of muscle for cutting 2x material. The plunge action works smoothly, and the gliding action of the saw slices right along the cutline with pinpoint accuracy. Festool makes impressive professional-quality tools, and the new HK saws are sure to win the company new fans. Visit www.festoolusa.com or www.festoolcanada.com.

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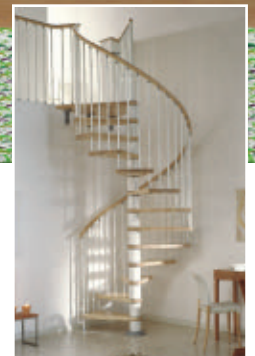
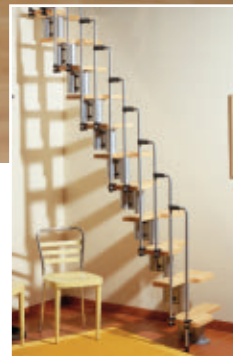
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The Medusaw is the first saw that delivers a complete concrete cutting system with Skilsaw's proven worm-drive power and durability.

system to control dust, allowing for cleaner cuts, and GFCI protection. The Medusaw features a Cut-Ready adjustable plunge lock that facilitates quick, accurate and consistent plunge cuts. The saw also has an integrated rolling foot plate with rubber wheels to help it

move smoothly across hard surfaces. Rust-resistant brackets and fasteners protect against corrosion. The tool also includes a retractable front pointer to accurately guide the saw along the cut line, and it retracts for tight spaces. The Medusaw

comes equipped with an onboard multi-function wrench, making it easy for users to change the blade, oil, brushes, water-feed attachment and wheels.

"With the Medusaw, we built features into the tool so you don't need a second person to hold a vacuum or water hose to collect the dust; or a third person to hold a board down onto the surface to make a straight cut," says Gregg Mangialardi, Skilsaw product manager. "Watch the Medusaw revolutionize the way workers cut concrete by combining all of the attachments of aftermarket products into a single, dedicated tool." Visit www.skilsaw.com.



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TWO FROM MILWAUKEE TOOLS

Claiming the title of "lightest weight miter saw in the industry," Milwaukee Tool's new M18 FUEL 7-1/4-in. Dual Bevel Sliding Miter Saw weighs only 28 lbs. with battery. Ideal for professionals who need easy transportation on, off, and around the jobsite, this compact and portable unit is the only 7-1/4-in. saw in its class that bevels left and right. It includes integrated side and top carry handles and delivers 5,000 RPM for smooth, fast cuts. A handy solution for trim installation, the saw can complete over 600 cuts in 3-1/4-in. baseboard or up to 300 cuts in 2x4 on a single battery charge.

Also from Milwaukee Tool, the M18 FUEL Metal Cutting Circular Saw delivers up to 370 cuts in 3/4-in. EMT (electrical metal tubing) per charge, which is 1 cut



For lightweight portability, Milwaukee Tool's new M18 FUEL 7-1/4" Dual Bevel Sliding Miter Saw weighs only 28 lbs. with battery.

per minute for over 6 hours straight. A PowerState Brushless Motor with 3,900 RPMs delivers the fastest cutting speeds and longest tool life on the market, according to the manufacturer. The new metal saw also features RedLink Plus Intelligence, an advanced system of cordless electronics, for maximum performance. Both models (5-3/8-in. or 5-7/8-in.) feature a compact, low-profile design for easy handling and increased control. And at only 5.9 lbs, this lightweight circular metal saw delivers easier overhead cuts and less user fatigue. Included is a 30T Carbide-Tipped Metal Saw Blade for cool, burr-free cuts through EMT, strut, threaded rod, sheet metal, angle iron and other ferrous materials. Visit milwaukeekeetool.com.



Milwaukee Tools' M18 FUEL Metal Cutting Saw makes burr-free cuts through EMT, strut, threaded rod, sheet metal, angle iron and other ferrous materials.

WORX 3-3/8" CORDLESS COMPACT CIRCULAR SAW

The new 20V 3-3/8-in. WorxSaw Compact Circular Saw weighs only 4.1 lbs. (including battery) for easy handling and portability. It features a slim, inline grip with integrated safety trigger, and its nylon-composite body provides comfortable, one-hand operation, especially when cutting overhead. A narrow base plate permits cutting in spaces that are too tight for standard, 7-1/4-in. circular saws to operate.



For easy handling and portability, the new 20V 3-3/8" WorxSaw Compact Circular Saw weighs only 4.1 lbs. (including battery).

The left-sided blade design allows unobstructed cut-line visibility. The WorxSaw also features a 3-3/8 in. thin-kerf blade that is less than half the thickness of a standard 7-1/4-in. blade. This thinner blade reduces resistance and motor strain when cutting through materials. The mini saw's depth-of-cut is 1-11/16 in. for quick and precise cuts, including plunge cuts, in 1x lumber.

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A depth-of-cut knob adjusts the blade in 1/8-in. increments. By changing blades, the saw also cuts flooring, plastics, ceramic tile, slate, aluminum and sheet metal. Powered by a compact, 20V MAX Lithium 1.5 Ah battery, the WorxSaw comes with a dust-extraction port and a parallel edge guide to set up accurate rip cuts. Visit www.worx.com.

MAKITA 18V X2 LXT (36V) REAR HANDLE 7-1/4" CIRCULAR SAW

The 18V X2 LXT (36V) Lithium-Ion Brushless Rear Handle 7-1/4-in. Circular Saw (XSR01PT) is powered by two 18V LXT Lithium-Ion batteries for maximum performance, and has an electronically-controlled BL Brushless motor that matches torque and RPM to the

application. The 36V power means freedom from the cord, even for demanding applications like cutting sheet and dimensional lumber that traditionally call for a corded saw. Best of all, 18V X2 LXT means users can remain in one battery platform, using the same fast-charging 18V batteries with the XSR01PT as they use across the Makita 18V LXT cordless tool series.



Users of leading corded saws will appreciate the blade-left, rear-handle design. The electronically-controlled brushless motor delivers a full 5,100 RPM for efficient cutting. In internal testing, the saw made up to 558 cross-cuts per charge in 2x4 SPF lumber using two fully-charged 5.0Ah batteries. Added features include a large 2-9/16-in. cutting capacity at 90 degrees that will cut 3x

lumber in a single pass.

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Makita's 18V X2 LXT (36V) Brushless Rear Handle 7-1/4-in. Circular Saw uses two lithium-ion batteries for 36 volts of power.

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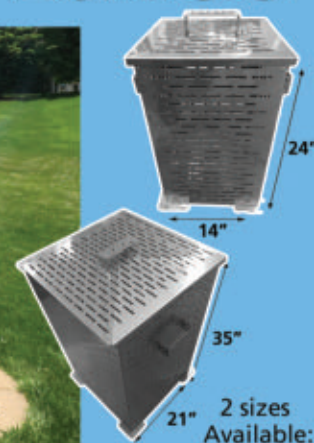
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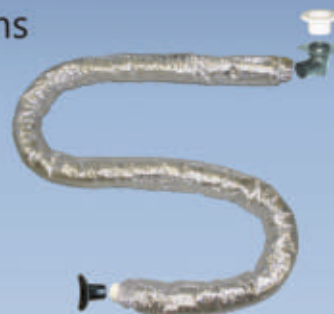


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Create a Green Roof



© ratikova / 123RF Stock Photo

By Chris Lundahl

If you take pleasure in improving your house with fun DIY projects, why not install green roof? Not only can a living roof be aesthetically pleasing, but they help protect from storm waters, provide your home with sound and heat insulation, possibly prolong the life of your roof, provide a habitat for wildlife and reduce carbon emission.

There are two types of green roofs: the intensive green roof, which requires a lot of maintenance; and the extension, which requires less maintenance.

The most typical small-scale DIY green roofs are found on sheds, vegetation on a porch roof, or the roof of a garage. If you want to reap the benefits of larger vegetation, then you can do so if the roof of your house

is flat or slightly sloped. When the slope of your roof is very steep, you would need to get a professional to assist you.

GREEN ROOF BASICS

The roof you are planting on should be structurally sound and

strong enough, without wet areas, rotting wood or damaged materials. Waterproofing the roof is the first step, and this can be done by adding a membrane layer. Micron damp-proof liner or pond liner should cover the entire area where you wish to plant to avoid water

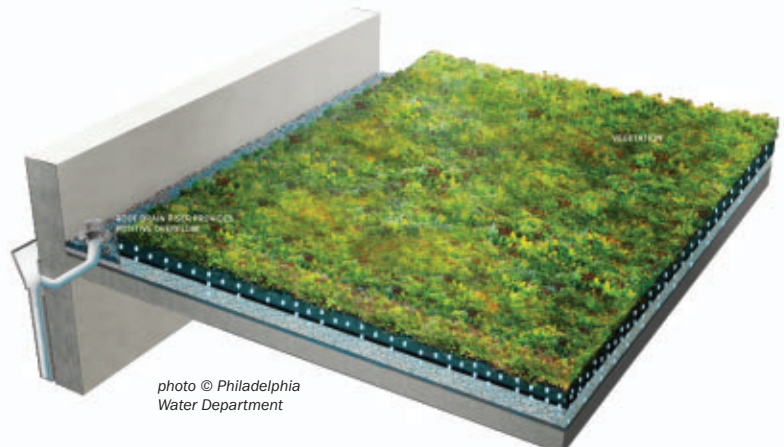


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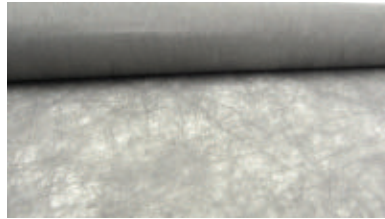
PROJECT NEXT

seeping past. The only area that should be kept open and bordered to ensure no plants grow over it is the edge of the roof where the water runs down the gutter.



STEP 1

The next layer is a weed suppressing membrane which keeps the roots of the plants from growing through the first layer of your roof.



STEP 2

On a small-scale green roof, you can use old blankets as the next layer which will retain moisture, but for the roof of your home, you should opt for Geotextile membrane, which will resist fungi and bacteria.

STEP 3

An inch layer of gravel or limestone chips should come next to ensure proper drainage. A well-graded blend of particles with



sizes ranging from 1/8 to 1/2 inch is preferred.



STEP 4

On top of gravel layer, you can add a layer of separation fabric or

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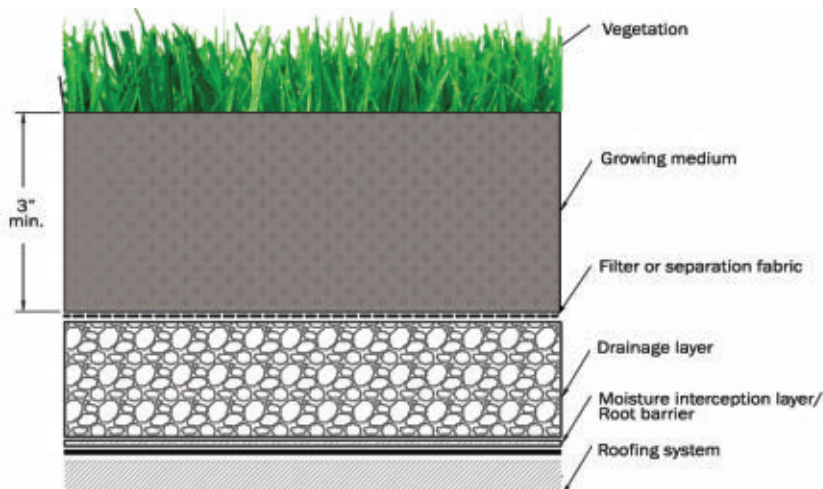


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add the soil directly. Many DIY green roofs are between 3 and 8 inches (70-200 mm) deep. Some stores even provide special “green roof” soil, but you can make the

mixture yourself with a ratio of 70-80 percent inorganic material and 20-30 percent of organic material. A good soil mixture should be firm and not fluffy.



STEP 5

Let the planting begin! Your local plant supplier can find green roof seeds, but if you do not want to wait for the seeds to grow, you can purchase pre-vegetated mats or do your planting with plants you prefer from cuttings or plug plants.

FLAT VS. SLOPING ROOFS?

The easiest green roof installations are on flat roofs or those with a small slope consisting of no more than a 3-ft. rise for every 12 ft. of length. By keeping it under this, you do not even need stabilization. When you are installing a green roof on a steeper slope, you need to reinforce a system of a tray planting or create a terrace system for the soil to keep intact.

Watering your green roof during the hot season every once in a while is most of the caring that's required. Bear in mind that extension green roofs do not need much maintenance as far as trimming goes. For whatever reason you have decided to make your green roof, just remember to have fun along the way. **EHT**

Editor's Note: Chris Lundahl is an editor covering topics on construction, sustainability and roofing. He currently works for Arizona Roofing Systems.



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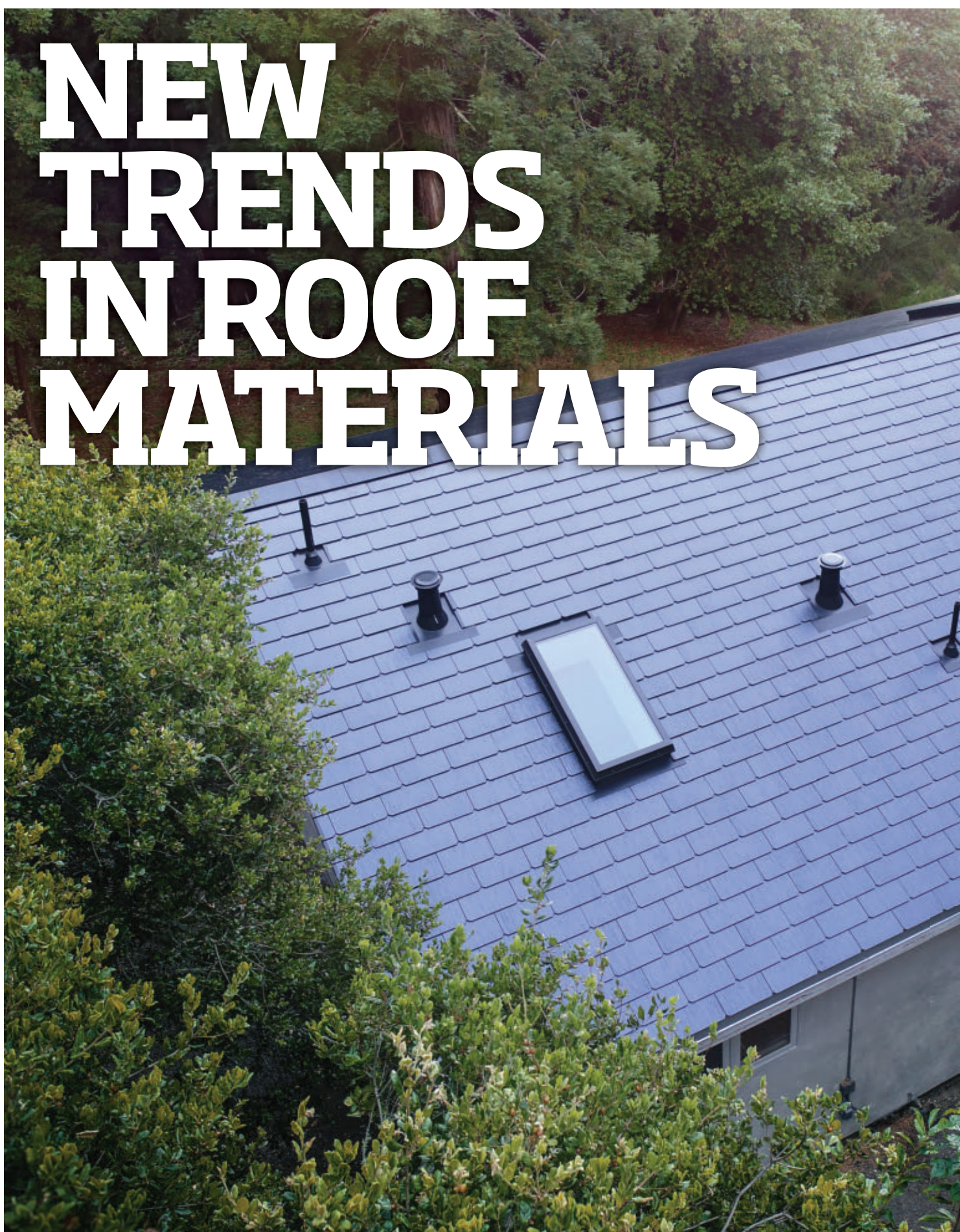


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NEW TRENDS IN ROOF MATERIALS





By Chris Lundahl

Our clothing style is not the only thing affected by trends. The TV industry brought attention to home-improvement trends with countless shows about exterior and interior design, the “tiny house movement,” DIY tutorials and so on. After all, that is how pastel-colored interiors became big, and how small houses got famous. Roofing systems were not neglected; it is exactly the roofing industry where the most useful and long-lasting trends appear.

Some of the hottest trends in roofing focus on energy conservation, a movement that discovered an entirely new range of roofing products that possess eco-friendly properties and operate energy efficiently.

SOLAR PANELS

Solar panels have existed in various forms for quite some time now. However, the green movement brought outstanding attention to panels as a roofing option. They were often seen as bulky and unattractive until manufacturers created sleek and elegant looking versions that skyrocketed interest. Tesla, a leading company in the electric and solar development, launched solar tiles that look like conventional roofing tile. They save energy and cut utility bills.



New solar roofing from Tesla comes in four styles including “Textured Glass Tile,” “Slate Glass Tile,” “Tuscan Glass Tile” and “Smooth Glass Tile.” Each of these options look like roof tiles but are made up of quartz glass tiles that are embedded with solar cells. According to the company, Tesla’s solar roofing generates enough energy to fully power a household, with the power designed to be stored in battery units so homeowners can keep a reserve of backup energy. (Image courtesy Tesla)

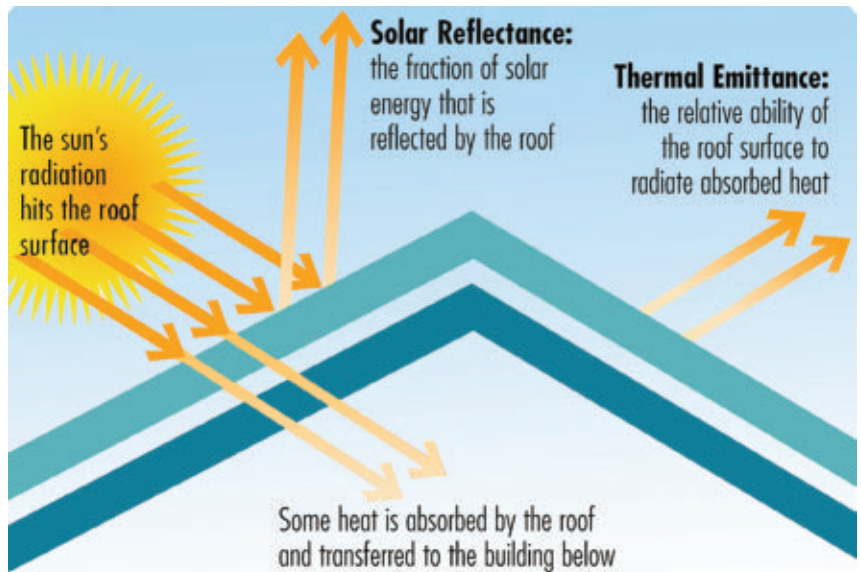
NEW TRENDS IN ROOF MATERIALS

COOL ROOFS

The idea of a cool roof came up while researching the reflective properties of specific materials and colors. We all know the “white and black T-shirt rule;” wear white when it sweltering hot and avoid dark colors, right? Well, manufacturers applied the same law on roofing systems and revealed a new market of cool roofs. Cool roofing systems reflect sunlight and therefore do not absorb heat, thanks to the light color and reflective paint, white glue and unique gravel mixture. The reflective surface will reduce the power consumption of your household due to less AC usage.

GREEN OR LIVING ROOFS

A few decades ago, claiming that you possess a living roof would've been serious evidence of your



A cool roof reflects and emits the sun's heat back to the sky instead of absorbing and transferring it to the building below. Many cool roof products cost the same amount as other comparable roofing materials. For those that are more expensive, the difference is often quickly recovered in savings from reduced energy costs. Additionally, some utilities offer rebates that reduce the upgrade costs of cool roofing materials. (Illustration © The Cool Roof Rating Council)

SELECTING A METAL ROOF

Today's residential metal roofing comes in a wide variety of styles and designs, from standing seam to shake, slate or tile. Some of today's metal roofs are coated with a granular texture to look like traditional asphalt shingles. The panels of metal roofs interlock with each other, providing stiff resistance to high winds.

Metal roofing can be made of galvanized steel, galvalume steel, stainless steel, aluminum, copper or zinc alloy. The sturdiest option, steel roof systems have a metallic coating of zinc, or a combination of zinc and aluminum, that is bonded to the steel at the factory to prevent rust from forming. This is followed by a coating of epoxy primer and a baked-on acrylic topcoat that adds color and protection. Aluminum products are extremely lightweight and commonly used in residential roofing. Aluminum won't rust, but must still be coated for a finished appearance. The coatings are similar to those used on steel roofing. Copper and Zinc Alloys are both known for their low-maintenance durability, but they can also be very expensive options.

Ask about the roof system's flashings and accessories, and how the valleys are installed. If your area is prone to freezing temperatures, it might be smart to choose an “open” valley system that carries water on top of the roof rather than a “closed” valley, which carries water

through channels beneath the panels. The hidden channels have been known to clog with ice and snow, causing accumulated water to infiltrate the roof system.

Light-colored metal roofing can help to reflect heat, which can lower energy bills. With steel, copper and zinc roofs, this works best when the metal is painted with a bright color or light metallic coating. Aluminum, however, inherently reflects radiant heat, even when painted in darker colors.

Choose a roof system in which all fasteners and roof components are made of a compatible metal. Specify a system with concealed

fasteners. Any exposed fasteners or holes through the panels are areas where water can potentially enter the roof system. Many metal roofing systems use “clips” to fasten the panels rather than fasteners that attach the panels directly to the roof. The clips allow for expansion and contraction of the metal—very important to standing seam systems with long panels.

Metal roofing, especially steel, requires a good coating for long-term durability. Product warranty lengths are usually determined by a combination of the metal and the coating. Look for a finish that has proven the test of time. And make sure the finish is warranted against fading, chalking, chipping and detaching from the base metal.

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NEW TRENDS IN ROOF MATERIALS

potential madness. However, technology has changed, trends change, and standards change. Today, your living roof reflects on you positively as an eco-friendly citizen. Green or living roofs are easy to distinguish thanks to a



Most small-scale DIY green roofs are found on sheds, vegetation on a porch roof, or the roof of a garage. Here's one overlooking rooftops in Philadelphia. (photo © Philadelphia Water Department)

layer of vegetation on top of your property. These roofing systems have multiple layers such as engineered soil, protective fabric, waterproof membrane and, finally, green layer of plants. Green roofs have a beneficial influence on the environment by creating a natural habitat and reducing acid rains. At the same time, it saves you energy and money through its insulating properties and provides ultimate protection of your home.

BACK TO BASICS—ASPHALT

Asphalt is one of the most traditional roofing materials. It has been in use for decades, continually experiencing ups and downs in popularity. In 2017, many homeowners went back to basics and decided to invest in this conventional roofing material. After all,



Asphalt shingles can last from 15 to 30 years depending on the manufacturer. Standard 3-tab shingles last 15 to 20 years. But in the past decade, multi-layered or laminated architectural shingles have grown in popularity. In addition to enhanced aesthetic appeal, these shingles are heavier and have fewer crevices in which debris can accumulate. Because of the extra weight, architectural shingles come with a longer warranty. (Image courtesy Atlas Roofing)

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ADVANCED ARCHITECTURAL ASPHALT SHINGLES

In roofing, the term “architectural” generally means an asphalt shingle has a three-dimensional design and construction that mimics the appearance of slate or wood shake. Also called “designer” shingles, not only does the three-dimensional design enhance the look of the roof, but the extra thickness of the shingles provides additional weather protection.

“Asphalt shingles are aesthetically diverse and come in a wide range of styles and colors that will enhance the look of your home,” says Reed Hitchcock, executive vice president for the Asphalt Roofing Manufacturers Association (ARMA). “Designer shingles can display a more natural appearance, and can also match metal, cedar and slate materials that are more expensive. Meanwhile, you’re still getting the durability and easy maintenance that comes with asphalt shingles.”

Another recent advancement in architectural shingles from Atlas Roofing is the development of a Scotchgard Protector, which defends against those dark, dingy streaks that appear on roofs due to algae. With the algae threat removed, your home’s roof keeps the original color.



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NEW TRENDS IN ROOF MATERIALS

asphalt as a roofing material is proven to be durable and reliable; it can handle extreme weather conditions such as high winds or fires. So, it is a valuable lesson for everyone; not to forget things

that have been working for humans for ages.

Conventional three-tab asphalt shingles present the most economical option, but these days, architectural shingles have gained

popularity. In roofing, the term "architectural" generally means the shingle has a three-dimensional design and construction. True architectural shingles (also called "designer" shingles) will have more than one thickness layer to create a shadow line that gives the roof the appearance of slate or wood shake.

METAL ALL AROUND

For a long time, metal was considered unappealing in residential and used primarily for commercial purposes, found often on huge industrial buildings. Nowadays metal roofing is one of the most popular roofing solutions for homes. No wonder people finally recognized the value of this material; it is one of the longest lasting roofs; it withstands fires, winds, rain, snow (pretty much all weather conditions), and modern systems are offered in panels or shingles. One of metal's best attributes for roofing is its reflective properties, so it doesn't absorb heat and helps you save energy and money. Low-maintenance and strong protection are the reasons why metal roofing appears in construction magazines more and more.



You can find quality metal roofing with just about any appearance, whether it's standing seam or a facsimile of shake, slate, tile or standard shingles. And most metal roofs come with a 30- to 50-year warranty. (Image courtesy Metro Roof Products)

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NEW TRENDS IN ROOF MATERIALS

A metal roof can be manufactured in four different styles or profiles, including:

Standing Seam: The most commonly recognized metal roofing profile, this option has continuous panels that run from the ridge of the roof all the way down and seams connected by fasteners, which are raised between panels.

Metal Shingle/Slate: This style creates the distinctive look of slate tiles or even classic asphalt shingles with the added benefits of metal.

Metal Tile: Standard concrete tile roofs are heavy, yet fragile and

costly to maintain. Metal Tile, however, has the graceful curves of classic tile, but the lightness and strength of steel.

Metal Shake: This offers an investment-grade alternative to traditional wood shake roofs, presenting an authentic look of wood, while gaining a variety of color choices with longer lasting, fireproof metal.

With the variety of looks and finishes available, it's possible that you've seen many metal roofs on homes, but didn't recognize them as they have the ability to "hide in plain sight."

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Suntuf Corrugated Polycarbonate Roofing Panels are a great choice to help make outdoor covered projects come to life. Suntuf Corrugated Polycarbonate is lightweight, super tough and easy to install. Use it to cover just about any type of outdoor structure for increased outdoor living area, storage or shelter. With 3 standard colors and 5 specialty colors, the selection allows you to pick the right combo of light transmission, diffusion and color. Virtually unbreakable, Suntuf is up to 20 times more impact-resistant than fiberglass, and offers the best hail protection available in transparent or translucent products. It easily withstands snow, ice and temperatures ranging from -40° to 212°F (-40° to 100° C). And Suntuf has built in 99.9percent UV protection, so your patio furniture fabrics and wood are protected from fading. It also protects you, your family and your pets from the sun's damaging rays. For more information, visit www.PalramAmericas.com/Suntuf.



Composite or synthetic shingles that imitate wood shakes or shingles present a compromise when choosing between asphalt shingles and regular slate or shake. They have the beauty and quality of slate, but at lower cost. They are said to last two to three times longer than both wood and



Composite roofing tiles are popular for providing the look of real wood without the maintenance headaches. The roof shown features Bellaforte Shake composite roofing from DaVinci Roofscapes.



So, which roof product will you decide to give a shot? **EHT**

Editor's Note: Chris Lundahl is an editor covering topics on construction, sustainability and roofing. He currently works for Arizona Roofing Systems.

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INTERNATIONAL BUILDERS' SHOW 2018 PREVIEW

On January 9, more than 80,000 builders, remodelers, architects and other industry professionals from over 100 countries will congregate in Orlando, Florida, for the International Builders' Show. IBS is the largest annual light construction show in the world. The latest trends in homebuilding technology will be on display in hundreds of exhibition booths as well as the New American Home, a stunning model house that blends traditional and modern architecture to create a transitional design. The International Builders' Show will be the one place in North America where the entire building industry comes together in 2018.

Here's a preview of some of the many products that will be exhibited.



FONTANOT STAIRCASES

Made in Italy with over 50 years of history, Fontanot is a leader in the production of made-to-measure staircases. The company's LaFont Essential staircase offers an "industrial" product in terms of quality, fabrication accuracy and sales service. To complement the staircase, railing glass is available in two versions: Glass In, completely recessed into the flooring, and Glass On with an aluminum casing above the flooring level. Both models are available with clear or extra-clear glass and two different edge finishes. An anodized aluminum border can be applied to the upper edge of the glass to protect it from humidity, potential impacts and external agents.

For DIY enthusiasts, the Karina staircase is particularly suited for narrow spaces. Its clever supporting structure, made of steel interlocking elements, allows different configurations and is available in three colors: black, white or gray. The solid, premium, clear polished beechwood treads have a special shape to guarantee maximum utilization of space without compromising the stair functionality. The Karina has an adjustable height between 91 and 110 inches. By purchasing certain supplementary items, the staircase height can reach 128 inches. Visit arkestairs.com or booth S2240.



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CableRail by Feeney stainless steel cables are the perfect infill alternative for any railing. They're extremely durable, effortless to maintain, and virtually invisible, allowing the surrounding views to take center stage. Plus, the pre-fabricated kits and special automatic-locking Quick-Connect® fittings make installation a breeze.

For more information and the location of a dealer near you,
call 1-800-888-2418 or www.feeneyinc.com/EHT1



ESTWING PNEUMATIC NAILERS

Any builder or remodeler is familiar with Estwing hammers, hatchets, pry bars and specialty tools. Now, Estwing, in partnership with Prime Global Products, Inc., manufactures and distributes a line of professional pneumatic nailers. These top-grade Estwing air tools include a 34° Clipped Head Framing Nailer, 21° Full Head Framing Nailer, Mini Palm Nailer, 18-Gauge L-Cleat Flooring Nailer and 2-in-1 Flooring Nailer. All Estwing nailers are covered by a 5-year professional tool warranty and 90-day wearable parts warranty.

The Estwing 34° Clipped Head Framing Nailer is the tool of choice for wall framing, decking, subflooring and wood fencing projects. This user-friendly nailer weighs only 7.9 lbs. due to its rugged, magnesium body and anodized aluminum



magazine and cylinder. It also features a one-piece drive blade and rubber O-rings. A select-fire trigger makes it easy to switch from bump fire to sequential fire. When only a few nails remain in the magazine, an anti-dry-firing mechanism prevents further operation to protect internal parts. And adjusting driving depth for each project is no problem with the Estwing nailer's tool-free depth adjustment. Visit www.estwing.com or booth S302.

CENTENNIAL WOODS

Create a stunning reclaimed wood feature wall or ceiling in your next residential or commercial project using 20 sq.ft. bundles of 1/4-in. thick planks of FSC 100-percent recycled, reclaimed wood. This wood comes from the mountains, valleys and plains of Wyoming, where it is naturally aged and weathered for up to 25 years. Centennial Woods has created the largest sustainable source of reclaimed wood in the world. Get the distressed, weathered wood look for your walls, ceilings and projects without the risk of contaminants. These reclaimed wood planks from the 12-ft. tall snow fences of Wyoming have no harmful VOCs, no chemical treatments of any kind, and are insect-free. This wood is carbon-negative, and without any kiln drying the moisture content is between 4 and 8 percent. These bundles come in varied lengths of 1, 2, 3, and 4 feet and are available in 4- or 5-in. faces. Choose the natural "Laramie" finish or one of a variety of custom finishes. Since Centennial Woods' reclaimed wood is naturally weathered, the coloring will vary from grays to browns. Knots, knot holes, saw marks, scrapes, nail holes, bullet holes, and other imperfections are part of the charm of this reclaimed wood. Visit www.centennialwoods.com or booth S2464.





DAVINCI ROOFSCAPES

DaVinci Roofscapes will showcase a wide variety of composite polymer shake and slate roofing options at the 2018 International Builders' Show. The company's top lines of Multi-Width, Single-Width and BellaForté shake and slate roofing tiles will all be on display at the show. Each product is impact- and fire-resistant, plus meets high-wind and accelerated weathering testing. Available in dozens of colors and color blends, the DaVinci roofing tiles are made in America and come with a lifetime limited warranty. Visitors to the DaVinci booth will be able to see the company's new Top Down Color Visualizer, an online tool that makes it easy for homeowners, builders, remodelers, contractors and architects to quickly see how the exterior of a home can be changed. Available at www.davinciroofscapes.com/color/designer the "roof to ground product and color selector" offers a quick way

to visualize how different colors and products can enhance a home's curb appeal. Fast and simple to use, the Top Down Color visualizer starts by offering the option of uploading your own home exterior image or using one of 10 home styles supplied in the gallery of images. After selecting the desired home exterior there are five options for making changes to the home exterior — from the roof down to the front door. Visit www.davinciroofscapes.com or booth W6871.

FEENEY CABLERAIL

If you want to take advantage of the spectacular view from your deck or balcony, look no further than CableRail by Feeney. Slender CableRail cables are the perfect railing infill alternative to pickets and glass panels. They're made from beautiful yet weather-tough, premium-grade 316 stainless steel with a wide variety of cable and attachment hardware options.

The assemblies are strong, durable, simple to install, ultra-low maintenance, and virtually invisible. They complement any wood or metal railing design, indoors or out, and the 70-percent recycled material content makes them easy on the environment as well. The CableRail kits feature a threaded terminal fitting pre-attached to one end of each cable and a special field-installed quick-connect inset fitting for the other end. One-way jaws allow the cable to easily slide through the quick-connect fitting in one direction but automatically grab and lock-on when the cable is released. Just slip it on, pull the cable tight, and cut off any excess; installations are incredibly fast and easy. The kits are available in pre-cut lengths from 5 feet to 70 feet for easy ordering, and they help save time by eliminating the need to take precise railing measurements. Visit www.feeneyinc.com/eh1 or booth W7543.





HAAS DOOR 2000 SERIES GARAGE DOORS

The energy-efficient 2000 Series garage doors from Haas Door are 2 inches thick and have an R-value of 17.66. The heavy-gauge galvanized steel doors include embossed wood grain and are filled with dense CFC-free polyurethane foam insulation to help give them superior energy efficiency. A full thermal break is used in the tongue-and-groove construction of the 2000 Series doors. This rigid vinyl extrusion seals the joints and eliminates metal-to-metal contact, which limits the transfer of temperature. Visit www.haasdoor.com or booth S1078.

AZEK CLADDING

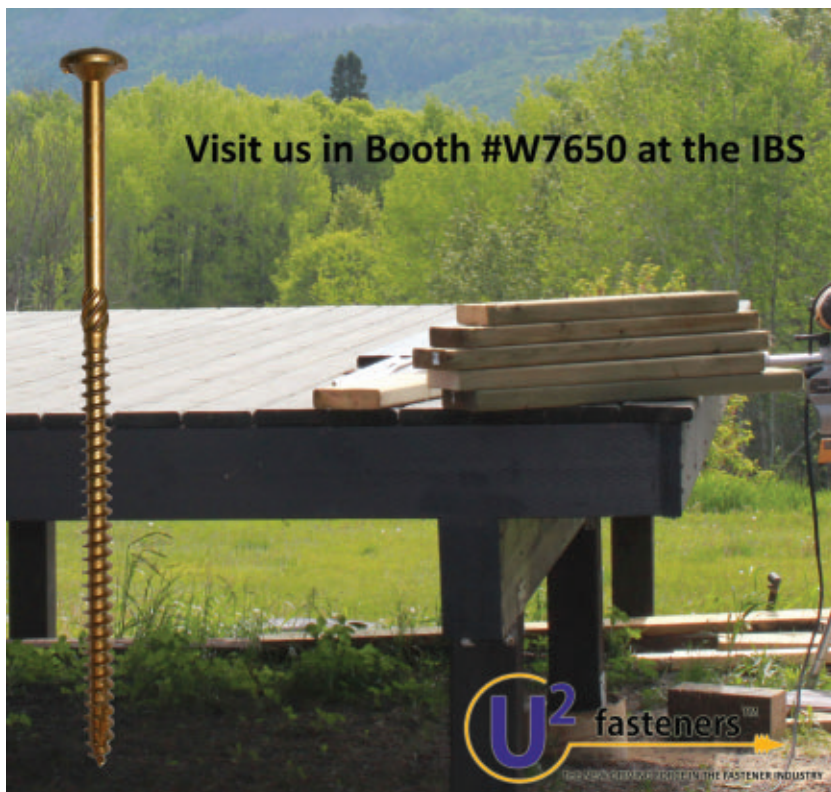
AZEK Deck features a natural, wood-like aesthetic and is resistant to mold, mildew and moisture damage. AZEK also won't splinter, rot or warp. Plus, its resistance to stains, scratches and insects makes it a perfect, low-maintenance cladding alternative. AZEK

Deck cladding is also a long-lasting alternative because it does not require painting or sealing for protection. AZEK is scientifically engineered to last beautifully because it is protected with Alloy Armour Technology, with an industry-best, 30-year Limited Fade & Stain Warranty. The durability of this



advanced polymer technology will add brilliance to any home, and AZEK is the first leading alternative decking manufacturer to be issued a code-compliance research report for using its products in residential cladding applications. Visit www.azek.com or booth W6371.





U2 FASTENERS CONSTRUCTION SCREW

The U2 Construction Screw, also known as CS Screw, is the next generation of construction screws that are replacing lag screws. Features include the Tight Star Recess system that grasps the U-Bit tightly, so the screw can be installed with one hand. U2 released its IAPMO (ER 454) evaluation to become one of few fastener companies that are evaluated and comply with the International Building Code and Residential Building Code for corrosion resistance (AC233) and structural strength (AC257). The U2 coating was one of the first, if not the only one, which has passed the 2015 requirements; with ground contact at 0.6pcf ACQ treated lumber (ER 454). The U2 ground-contact code-compliant fasteners are over 75 percent more versatile in their

applications. U2 is also the first to offer a “chrome 6 free” coating. This reduces the risk for end users developing skin cancer through constant handling of fasteners with surface coatings containing chromium 6. Visit u2fasteners.com or booth W7650.

MANTIS CLIP FASTENING SYSTEM FROM SURE DRIVE USA

Sure Drive USA manufactures a wide variety of deck fastening solutions. The company's hidden deck fastener line includes the Mantis Clip for grooved boards, voted as the easiest hidden deck fastener to install. For simple installation of the Mantis Clip, the Eliminator RCS with E-Z Slide attachment is now made by Senco. The system uses Ballistic NailScrews to fasten grooved



decking up to 75-percent faster than conventional methods. The Senco JoistPro150 compact pneumatic nailer drives the Ballistic NailScrews used to install Mantis Clips with accurate fastener placement. The JoistPro150 is constructed with durable, high-quality materials



while still being lightweight and ergonomically balanced. The tool is fitted with a newly modified EZ-Slide attachment to make installing Mantis Clips fast and easy. This tool also has an industry leading 5-year limited warranty. Sure Drive USA's Mantis Clip is recommended by top decking manufacturers like MoistureShield, Trex, Gossen, ChoiceDek and more, because it's built with a base that promotes airflow to protect the joist structure. Visit www.suredrive.com or booth W6090.

SIGNATURE STAIN BY TANDO

Signature Stain exterior cladding created by Tando is the latest product introduction from Derby Building Products, featuring a proprietary manufacturing

process that utilizes real semi-transparent wood stain to ensure the look is identical to actual stained wood shakes. Answering the market demand for mixed material exteriors, Signature Stain is impervious to moisture, so it's ideal for gables and dormers right up to the roof line. With an unmatched 50-year performance warranty, Signature Stain is available in three stain colors taken from nature: Fawn, Bark and Acorn. The product's lightweight design, resistance to high winds, and fast, one-person installation make it a win for DIY or pro projects. Signature Stain is available in 8 ft. lengths in single course profiles and is installed with the same tools as wood shake siding. Visit www.tandobp.com or booth S2254.

MAZE NAILS

Maze manufactures quality hot-dipped nails for fiber-cement siding, cedar and redwood siding, roofing, cedar shakes and shingles, PVC trim products, decking, fencing and post-frame building construction. The Maze Double Hot Dipped Galvanized Roofing



Nails are Miami Dade County-approved. All Maze nails are 100-percent made in the USA from recycled, re-melted steel, making them eco-friendly for sustainable building practices. Visit www.mazenails.com or booth W6193.

CALCULATED INDUSTRIES AIRSHIM PRO XL

Calculated Industries (CI) is one of the country's leading manufacturers of specialty calculators, apps, digital measuring tools, and precision hand tools for industry and personal use. New products Calculated Industries will feature at the 2018 IBS show include the AirShim Pro XL inflatable pry bar and leveling tool, Laser Dimension Master 165 with Bluetooth technology, AccuMASTER XT Moisture Meter, and the AccuMASTER Digital 7-in. Angle Finder Ruler.

Also on display, the industry's most widely used construction





math calculator is CI's Construction Master Pro, which is available as a hand held calculator, a desktop calculator, a mobile app, and for PCs. Also part of the Construction Master family are trade specific calculators for Concrete, Excavation, Landscape, Electrical, Pipefitting, Estimating, Machining, Welding and more. Each calculator features dedicated function keys that provide fast and accurate solutions that save time and money.

Calculated Industries also offers estimating and takeoff tools that help speed up takeoffs from out-of-scale blueprints, as well as digital measuring wheels to measure jobsites and interior projects. The laser measuring tools enable one person to measure jobs quickly and exactly, calculating distance, area and more. Lastly, the AccuMaster moisture meters can tell you when your wood's moisture content is "just right" for building, saving time and money. Visit www.calculated.com or booth W5693.

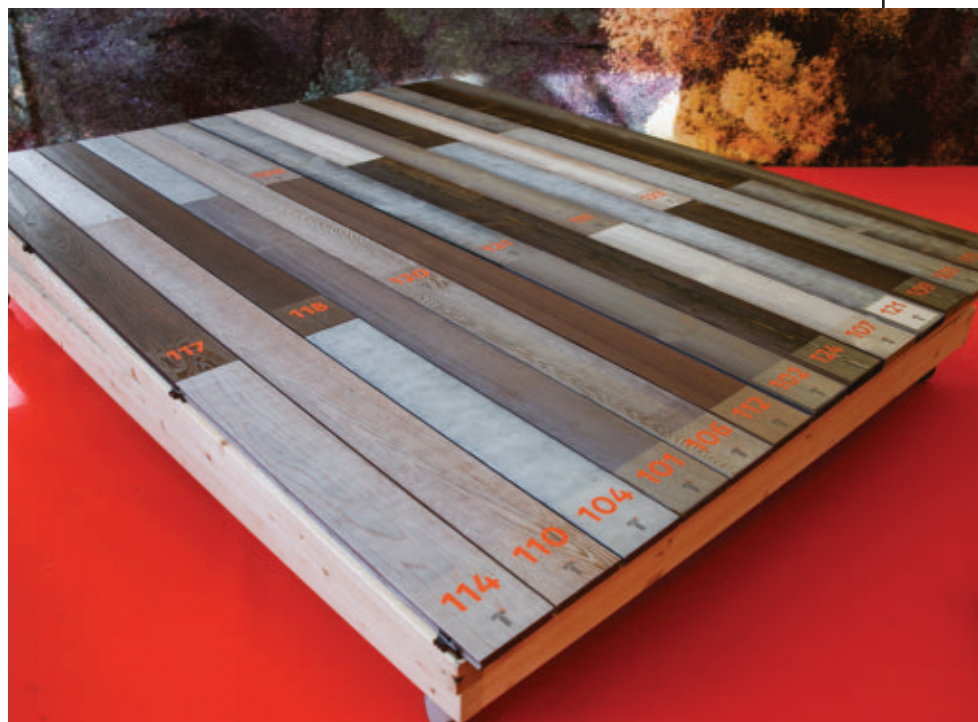
DRIFT CLADDING AND DECKING FROM THERMORY

Drift is the latest innovation from Thermory USA, manufacturer of thermally-modified exterior wood products for over fifteen years,

with European roots spanning decades. Created from thermally-modified Spruce, Drift provides the increasingly popular look and texture of reclaimed barn-wood but with consistent uniformity, performance and supply—ideal for those conscious of both design and functionality. Available in both cladding and decking products, Drift has a Class 1 durability rating, making it far more stable than any unmodified wood product alongside its overall captivating beauty and elegance. Visit www.ThermoryUSA.com or booth W8255.

NUDECK FROM UGL

United Gilsonite Laboratories (UGL) offers proven, quality products in the categories of waterproofing, patching, interior stains and finishes and exterior deck and siding. Manufacturing leading brands such as Drylok and ZAR since 1932, UGL offers customers specialty coating products of the





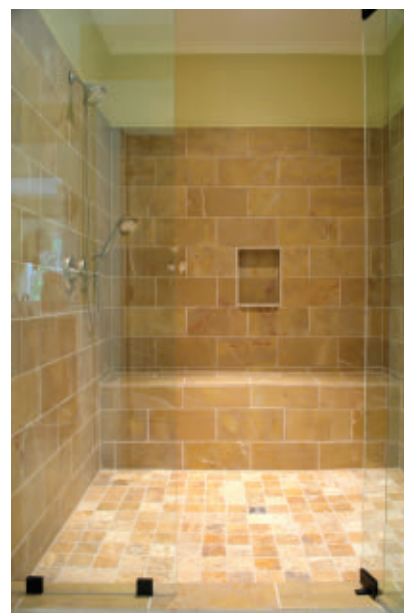
highest quality with the most personal service. UGL NuDECK Wood and Concrete Restorative Coating extends the life of a deck and patio with a paintable solution. From the can, it creates a new, slip-resistant surface for decks, walkways and patios. The tintable color palette coordinates with UGL ZAR Solid Color Deck and Siding Stain to complement the color of surrounding vertical surfaces such as siding, railings, posts and walls. The product is ten times thicker than paint or stain, so it locks

down splinters and fills 1/4-in. cracks and nail holes. NuDECK is easy to apply with a brush or roller and easy to clean up with soap and water. Visit www.ugl.com or booth S628.

GOOF PROOF SHOWERS

Mark E Industries has created eight products to simplify the art of shower and tile installation by focusing on some of the industry's more difficult and time-consuming tasks. These tools save the installer the valuable time required to complete such tasks, without the problems that can occur with traditional methods. Installing a shower pan is now easy, less time consuming, and less expensive with Goof Proof products that guide the slope of the floor. The products not only assist the professional contractor but any do-it-yourselfer looking to create a tile shower installation of any size or shape with consistently perfect results

every time. A shower pan can be water-proofed with many different membranes on the market today, and the Goof Proof products such as Pre-Pitch, Kirb-Perfect, Quick-Pitch or Handi-Kirb will work with all liners currently available. Visit markeindustries.com or booth S1037. **EHT**



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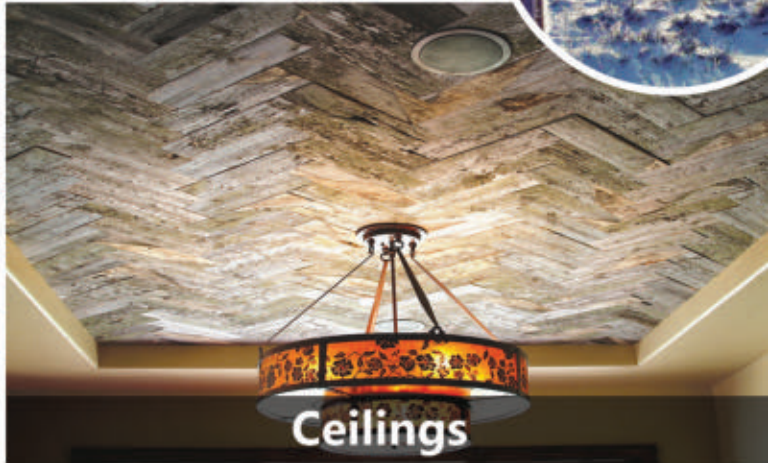


Reclaimed Wood

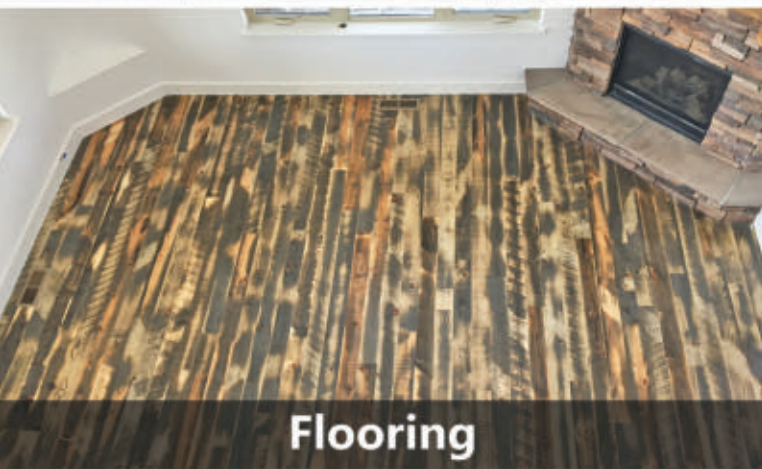
*from Wyoming
Snow Fence*



Interior Walls



Ceilings



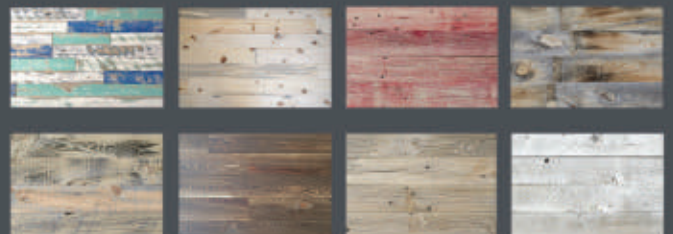
Flooring



Siding

Centennial Woods' reclaimed wood products are naturally weathered for decades and are carbon-negative, insect-free, and with zero VOCs. These reclaimed wood boards contribute towards satisfying Credits MR3, MR4, and MR5 (depending on project's location) under LEED®.

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SHIPLAP SOLUTIONS

*Installing
a Shiplap
Feature
Wall*

By Mark Clement

On Instagram the word (or words) shiplap has been hash-tagged 162,503-times, meaning shiplap is popular and is here to stay. I've made shiplap installation videos for both for HomeDepot.com and MyFixitUpLife's YouTube channel (please subscribe). Like any fad that sticks, it's not just because someone popular likes it (such as Joanna Gaines from HGTV's "Fixer Upper.") It sticks because it works. It's awesome.

I installed a feature wall in my living room and now I'm installing a different wall in my basement. I'll touch on both projects in this article. The shiplap I installed on both jobs is called Arauco TruChoice, and you can get it at Home Depot.

The first thing to sort out with shiplap is how you want it oriented on the wall. Unlike what may be its most antithetical wall cladding—dry-wall—shiplap boards can be installed just about any way you want them to achieve different

looks and textures. Mainly, it's installed horizontally, vertically, diagonally, or in a V-joint. However, because it's a wood product, the sky is the limit with how you can design patterns.

NAIL THE LAYOUT BEFORE NAILING THE BOARDS

Unless you're framing new walls (like in a basement reno), it'll be easiest to install shiplap horizontally because there are wall studs to nail into.

I have seen at least one video on installing a different, plankish wall-cladding product that left out so many aspects of real-world installation that its hard-sell of "this is soooooo easy" was almost criminal. So, don't get beguiled by beauty and a camera on Youtube. Shiplap is easy to install—if you know how to make it easy.

The first big decision you have to make: Top-down? Or bottom-up? And the main questions to wrap your head around are:

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1. How will the transition between the existing base molding and the shiplap work?

2. Can part of the existing base molding be removed? For example, does it have a "base cap" or is it a single piece? How does this affect how you'll install it?

3. Is there crown molding to deal with?

4. Is your starting point parallel (or reasonably close to parallel) with the end point? (Ours wasn't by about 1-inch, but we made it work.)

5. With near mathematical certainty, a board will need to be ripped to width on the table saw. Where do you want that rip located?

After answering these questions, I decided that installing the shiplap from the top down was best.

HORIZONTAL – HOW-TO

When you take all the stuff off the wall, have a place for the device covers and screws. Have a clean table or level surface to place your TV (if needed) that's safe from jobsite goings-on. Have a security team on high-alert for when you move the Rembrandt. Think it through.

Take all the stuff off the wall like TVs, sconces, switch plates, etc.

After removing the switch plate, you'll need to bring the device out to match the new wall surface. You may need to screw a box extender ring onto the existing switch box.

Next, take the measurements of the wall, floor and ceiling. Are the top and bottom borders of the horizontal shiplap wall parallel? This is important info.

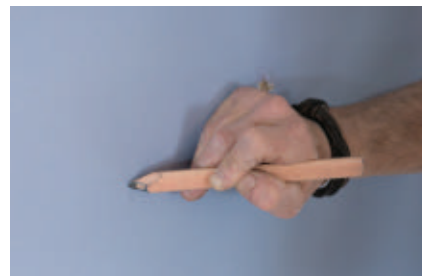


Measure to see if the top and bottom borders of the shiplap wall are parallel.

This will most likely show up in the Old House Shuffle, where the floor and ceiling aren't in the same physical universe as parallel. The house shown, in fact, was built

before the invention of the straight line, and required constant work-arounds to make the new stuff blend with the old.

Here I had to make a choice: Level or parallel. I'll get into how this worked out later. In the photo, my hair is falling out in clumps as I try to figure out how I'm going to compensate for the inch or so the layout is out of whack.



Mark the stud locations. One good way to find them is to look for tell-tales like proud spots or nail pops where drywall fasteners are.

Mark the stud locations. Just because they should be located on 16-in. centers doesn't mean they are. I try and find telltales to at least get me started. There's almost always a nail pop somewhere, which I can then locate and pull my tape from after that. A stud finder is also a handy tool to use.



A cut like this should be easy. It isn't. I use scraps to get it right.

Use a scrap piece of shiplap to mark (in real life, not with a

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SHIPLAP SOLUTIONS

tape measure) how a wall penetration like a device box intersects with a board. Transfer the marks to your actual shiplap workpiece.

Transfer the marks from the scrap to the actual piece.

Tape measures require interpretation. Pattern pieces require copying.



Copying is easier. Learning this instantaneously made me a better carpenter while simultaneously reducing my frustration level about a million percent.



The jigsaw is your friend here. And this little 12-volt is a nice one.

To be extra accurate on oddball cuts like notches, I sometimes use a miter or table saw to make the intersecting cuts. For this job, since it'll be covered by a switch plate, going full-tilt jigsaw was fine.



Top-down installation is easy and fast.

I snagged this concept from tiling: Sliver cuts—they are to be



GOOF PROOF[®] SHOWER

Installation System

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Kirb-Perfect® is a stay-in-place plastic form designed to eliminate the possibility of any nails puncturing the liner on the top or inside walls of



Quick-Pitch® is a stay-in-place screening guide system that guarantees a properly pitched shower floor every time regardless of size and shape.



String-A-Level™. Simultaneously attach and level a continuous string on which to stack heavy or large format tile vertically.



The Shower Seat is a heavy duty stay-in-place molded plastic form that is easily installed and can be tiled the same day. The Shower Seat is a standard 30" wide and has guide marks on the top surface to make it easy to trim the seat to 24" wide. The front face has a 3/16" wide tile support ledge for easier tile alignment and full tile support.

Mark E Industries, Inc. Toll Free: 1-866-771-9470 www.goofproofshowers.com info@markeindustries.com

avoided like the plague in anything we do. They show that you're not at the top of your game. Are they sometimes unavoidable? Sure. Are they harder to see when they're behind a couch or table? Uh-huh.

For this reason, mainly, I chose a top-down installation approach here. To make this work, nail the top of the upper board, then slot in the lower board. Use a tap block to protect the board when hammering.

Then, nail the bottom of the upper board. Nail the top of the lower board. Rinse. Repeat.



This is what a nail looks like that hits a drywall screw. No problem. Grab your "dikes" (diagonal cutters), nip the nail and move on.



Here's an example of a base cap, which is removable.

The world might throw you a bone, and your base molding might have a base cap that's removable. And your base molding might be parallel to your ceiling. (I have lived in old houses for so long, I'm not even sure I'd know what to do if that happened.)

The last piece...loving it!

On this project, we left the base cap on. That's because the floor and ceiling were soooo out of parallel to each other. The way



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SHIPLAP SOLUTIONS

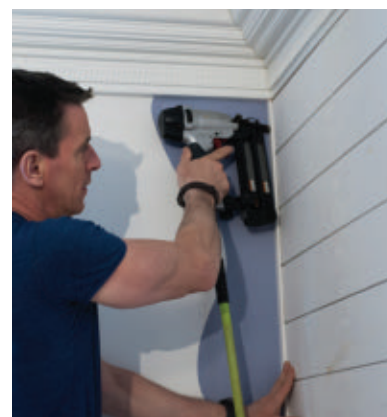
I disguised the problem was to table-saw a larger lap on the bottom of the last board, so it would lay over the tapered base cap. It was an elegant solution to an inel-

egant wall situation. Lesson: There's a way to make it look like it grew there. You'll figure it out. And don't settle for less than your best.



Rip the transition strip.

Nobody is paying me to say this, but after having installed a bunch of shiplap I've discovered its versatility is a one-stop-shop of sorts. One example is the transition strips for covering the end cuts where the feature wall meets the drywall. There's no need to manufacture something or to buy another type of material. Simply rip the lap off the ship, and you've got your transition strip. And in a basement reno, I've used shiplap as the base molding, and everything ties in together. I've made hatches and doors, and I could easily trim a deep window with it.



Nail end-strips with a brad nailer.

And, there's no need for big nails on small pieces. Once the end caps are ripped from a full piece of TruChoice, I pop them on with a brad nailer.

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SHIPLAP SOLUTIONS



For the painting phase, not all putty knives were created anywhere near as equal as this one.

After the last piece of carpentry, we become painters. Fill the fastener holes first. Make your life better and use a wicked awesome putty knife. And, maybe bypass the putty. I've had better luck and flatter fills with joint compound.



Caulk the seams.

Nothing tightens up some nice carpentry like a sweet bead of caulk. And for a professional looking caulk finish, use a bucket of water and a grout sponge. If you're wiping down caulk with a dry finger and a roll of paper towels, go back to the drawing board. As The Steve Miller Band said:

Everything's better when wet. Unless it's your attic, and it's raining. Then, not so much.



Clean out the filler before painting.

Four things to remember... First, TruChoice comes in 8-ft. lengths at The Depot, so on walls longer than 8 feet you'll need to "break" them on a stud. In other

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words, on a 12-ft. long wall you'll need an 8-footer and a 4-footer. But don't cut them 8 and 4. Cut them to transition so you can nail both ends to the same stud.

Second, the pattern should be random. Use two pieces on some courses. Three on another. Start with a long board, then start with a short one. If you don't do this, it'll look laddered and weird. Don't make short pieces too short. Anything under 2-feet-ish might look cobbled together.

Third, whatever you use for filler will get in the seam. Because wood is a natural product it can move with temperature and humidity changes. For this reason, I don't like to use a rigid filler in a potentially flexible application.

Fourth, there is no better tool to clean out the filler than my

Hyde multi-tool. More, it may be my most versatile tool, and I share that with you because NOT having one is costing you time and aggravation. I use

mine on nearly every job: Shim, gouge, lever, spacer and, yes, even to open paint cans. It lives either in my hand or in my tool pouch.



Brush on the paint finish.



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SHIPLAP SOLUTIONS

It took me a few minutes to realize that a brush-applied coating got the best results fastest. A roller will almost certainly leave drips. I found it

was fastest to slow down and brush the coating on. It really didn't take all that long and it kind of got hypnotic. TruChoice is double-primed at the factory,

which is nice, but to make the color and gloss truly even, two paint coats work best.

VERTICAL & DIAGONAL—NAIL IT RIGHT

For anything other than horizontal installations there needs to be what I call a "universal nailing surface." In other words, you need to be able to nail everywhere on the wall, not just the studs.



For non-horizontal installs, use a continuous backer like 1/2-inch OSB. Mark the stud locations for accurate fastening.

If you've got an open wall frame (as in, you're building a new wall in a basement reno) adding horizontal blocking between studs will do the job for a vertical install. I wouldn't go much more than 24-inches between blocks.

For diagonal or vertical where you don't have access to the framing, you have to go a little more Mac Daddy. Good news, the solution is easy. Simply sheet the wall with 1/2-in. plywood or OSB. I suppose 3/8-in. would work too if you're really sweating that extra 1/8-in., but I'd rather you stick to 1/2-in. for a good connection over time.

 The advertisement features a person using a green and black MURO power screwdriver on a wooden deck. A large coil of screws is shown next to the tool. The text 'SCREW IT! muro.com' is prominently displayed in yellow and white. Below this, it says 'Tackle projects with the premier driving system'. The MURO logo is at the bottom left, and a '26 YEARS IN BUSINESS' badge is at the bottom right.

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INSTALLING A V-PATTERN

To install a V-pattern, I use a header strip centered in the wall space. I think it looks good. And I know it is easier than lining up miters perfectly. Plumb is your friend here, moreso than even or parallel. Be extra careful to get this right and the rest of the job will go much easier.



A vertical piece—plumb and centered in the space—is a nice look for a V-Pattern.



A V-joint is awesome for small and large rooms. Make sure you're level and even, and you're off to the races.

Next step for a V-joint is to make sure the miters close at the bottom. Even more important: Make sure the tips of each wing are dead level with each other. Miss this early step and

you'll wonder, Why doesn't it happen like this on TV?!

Because even though TV and Joanna are driving the upsurge in shiplap's popularity, you have to install it in a real house and really look at it. The show goes on, whether you want it to or not, so it might as well be the best one you can produce.

Executive Producer: You. **EHT**

NEED TO PRY UP A PIECE OF SHIPLAP? USE A SCRAP.

This is a lesson in surface area, which is pretty much an esoteric concept no one cares about. However, you need to know that prying with a wide surface is easier on the wood than prying with a small surface. In this case, the wall was lumpy and I needed to jack the top

piece out a little. Rather than stick a skinny pry bar in there, I used a scrap piece. It's easier on the wood and waaaaaay less likely to break off the lap or sink into the drywall if the nails fight you too much.



Repair A Sagging Headliner

A tiny investment in time and money makes a big improvement inside your truck's cab.



By Bruce W. Smith

We seldom look at the roof above our heads when we get in a vehicle. That is unless the headliner material is starting to hang like baggy pants. Then you can't take your eyes off it. That's how the interior roof of my Ford Bronco was looking.

After more than two decades of being baked by the sun, heat had deteriorated the glue holding the thin cloth to the formed foam-board that served as a heat shield between the metal roof and the interior. With nothing to hold the cloth tight, it had begun to sag in

a multitude of places, including right above my head where it was becoming a major annoyance. It looked real ugly.

Sagging headliners are a very common malady of older vehicles, especially those left sitting out in the elements. When it comes to pickups and SUVs like my Bronco, the fix is very easy: It takes about two hours, doesn't require a degree in auto mechanics, and the cost of materials, picked up at any automotive upholstery supply shop, is less than \$30.

Here's how to do it.



Automotive headliners will sag after time, especially in vehicles left sitting out in the elements, exposed to the relentless heat of the sun, which can reach more

than 175-degrees, deteriorating the glue holding the cloth material. The fix is removing the old headliner and replacing the sagging material with new material that can be purchased at any auto upholstery shop or supplier.



First step is removing the trim that holds the headliner in place. A Phillips screwdriver is all that's needed. Be sure to keep the screws with the trim piece they came out of, because they could be different lengths.



The domelight must be removed as well. Pay close attention to how the light came out. In some vehicles the screws that hold the light in place also attach the wires that provide its power and ground.

The last items to remove are the screws that hold the sunvisors in place. Slowly remove both the swivel end and the lock end so you can see how they fit back into place. The latter has a locating pin on the back, and the swivel has a



notch to help position it during reinstallation so the screw holes line up.



To remove the headliner, carefully slide it toward the windshield and down. It's made from formed foamboard, so be very careful in handling. Most likely the corners where the sunvisor swivels attach will be cracked or broken. The ones in our truck were almost in two pieces. We'll show you how to fix them later.



Lay the headliner on a flat work surface, then carefully remove the old material. In some vehicles the

headliner and its thin foam backing will easily peel away from the headliner itself. If that's the case, use a stiff brush to remove all the old foam. The foam stayed put on our truck's headliner while the cloth came off easily, so we left the old foam in place as added insulation.



The only materials you need to recover the headliner are headliner material (it's thin cloth with a thin foam backer) and a heavy-duty trim adhesive that's designed to withstand high heat. We bought the Sprayway Fast Tack 92 and a yard (36"x60") of headliner material to match our interior at a local automotive upholstery supply shop for \$30. Some vehicles may require less or more material.

Both visor corners of our truck's headliner were cracked. To repair them we used a little J-B Weld and duct tape to make them one with the headliner. Duct tape holds the two pieces together until the do-it-all epoxy sets up, and it's good





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insurance we won't break them again during the re-install.

The next step is to lay the new headliner material over the clean headliner and use a couple small clamps near the middle along one edge to keep it from moving side-to-side. Then we folded back the cloth and sprayed the exposed half of both the headliner and the foam back of the cloth with the contact adhesive.



After the adhesive gets tacky (2-3 minutes), carefully spread the headliner cloth over the headliner, slowly working from the center out toward the corners so there are no wrinkles. Take your time and press down firmly to ensure the cloth adheres to the contours of your headliner.



Once the headliner material is smoothed in place, flip the headliner over and trim away the excess cloth. A great tool for this is a carpet layer's curved knife. A razor blade also does the job.



Be sure to trim any material covering the holes for the sunvisors' mounts and dome light.

The re-installation is simple: Reverse the steps in taking it out. This is best done with a helper, because holding the headliner in place while trying to install the screws in the front and rear trim pieces can be a bit tricky one-handed. The finished headliner looks awesome, and it will help keep the cab warmer in the winter, cooler in the summer. All for just a couple hours labor and thirty bucks. **EHT**



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Joe Weilnau is a do-it-yourselfer who purchased a Forney Easy Weld 125 FC and has successfully built a few projects around his house; "I've always wanted to learn how to weld and had a few metal projects in mind. I couldn't believe how simple it was to use this machine. So far, I've made a garden trellis for my cucumbers, a chiminea pizza smoker, and have been able to make small welds while building my motorcycle," Weilnau said. "The Forney Easy Weld machine plugs right into my garage outlet. It offers convenience, portability and it is easy to set up and instantly use. For my next project, I'll be making a trophy out of scrap car and metal parts, and I have a few ideas to build my own smoker." The price is just right and the possibilities are endless. If you're thinking about giving welding a try, start with a Forney Easy Weld.



HOT PRODUCTS

ENVI WALL-MOUNTED ROOM HEATER

The Envi Heater is designed to squeeze every last drop of heating power from a low wattage design using a patented process called “Stack Convection Technology” that boosts airflow without the need of a fan. It works by drawing cold air into the heater and then rapidly heating and circulating warmth around a room. The result is a super efficient heater, which costs as little as 4 cents/hour to operate. Customers who turn down their central heating and heat individual rooms with the Envi have reported savings of up to 50 percent or more on their heating bills. Built with fire-retardant materials, the Envi Heater is cool to the touch, has a thermal cut-off switch, and an additional wall-sensor that cuts power if the heater is knocked off the wall. With its fanless design, the Envi is totally silent and blows no dust or allergens into the air. It reduces the need to use ductwork plus the low-energy heating core maintains humidity and doesn’t dry out the air. The Envi can be simply installed in minutes by anyone, with just a screwdriver – no drilling required. Visit www.eheat.com.



MANSFIELD VANQUISH TOILET

With cumbersome seat hinges and stubborn stains on the bowl, cleaning a toilet is a bothersome task. Mansfield Plumbing Products has taken the toil out of toilets with Vanquish, the new commode that makes cleanup easy. Precisely designed with families in mind, Vanquish improves the standard toilet in three main ways: Side-mounted seat hinges—With this standout feature, you get a top surface that’s easy to wipe and cleans up quickly instead of maneuvering around stubborn, hard-to-clean corners and knobs. Twice the rinsing power—Using the same 1.6 total gallons per flush as other low-flow toilets, Vanquish directs twice as much water to rinse the bowl, leaving it sparkling clean. Additionally, the strong flush performance makes clogs less likely to occur. Quick-Wipe PuraClean Glazed Surface—This specially engineered glazed surface has a smooth finish that wipes down quickly and is bacteria resistant. The high-gloss finish sheds stains and debris, keeping the bowl cleaner longer. Visit www.mansfieldplumbing.com.



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The 650 Series Box Levels are designed specifically for reliable accuracy and performance in a compact and portable footprint. The all-metal aluminum frame offers a lightweight and durable solution to withstand jobsite conditions. Hybrid sub-flush vials are built to resist breaking, leaking or fogging, and deliver long-life accuracy. The patented high contrast vial surrounds provide easier viewing in all types of light conditions, while the patented Reinforced Vial Locking System protects the center acrylic block vial for longer life accuracy without compromising the 300-deg. viewing window for enhanced visibility from any angle. Available in 24-, 48-, and 72-in. lengths, the 650 Series also offers a continuous grip frame and optimized ergonomics. Visit empirelevel.com.



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You put the Locator magnet over the drywall near where you think the receptacle is, and the magnets will snap precisely into place. Once you mark around the locator, you can cut the drywall for a perfect opening. The exact alignment of the magnets eliminates costly measuring errors and reduces wasted drywall sheets. The original Blind Mark XT is used for locating single-gang or multi-gang rectangular outlet boxes. For other boxes you can use the Multi Mark Magnetic Drywall Locator Tool to locate and trace the exact outline of any shape. The Multi Mark can be used for practically all electrical boxes: metal, plastic, composite, rectangle, round, octagon, multi-gang, single-gang, standard or thin. Visit calculated.com.



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Klein Tools ET250 is a solid-state, digital voltage and continuity tester that measures AC/DC voltages up to 600V. Additionally, the ET250 tests GFCI-protected circuits to verify that the GFCI device is functioning appropriately. The tester has a backlit LCD display and integrated flash-light for working in reduced ambient lighting conditions. It automatically selects voltage or continuity and uses standard replaceable multimeter test leads. Visit kleintools.com.

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B'LASTER PB PENETRATING GREASE

The B'laster Corporation launched PB Penetrating Grease, a one-of-a-kind product that combines the Original PB B'laster, the top-selling penetrant, with a high-quality synthetic grease. The company also debuted a full line of professional-grade traditional greases. All B'laster greases serve a wide variety of industries, including automotive, farm and agriculture, construction, industrial, marine, and mining. The PB Penetrating Grease was designed to be the best grease for corrosive environments. Its unique time-release formulation allows the proprietary PB B'laster to wick its way into rusted or corroded areas over time. While this capillary action is occurring, the grease remains in place to provide superior lubrication and act as an anti-seize. PB Penetrating Grease is available as a cartridge, aerosol spray, brush top tube and squeeze tube. In addition, B'laster now offers a full line of professional-grade traditional greases all available as cartridges. Visit www.blastercorp.com.

GEARWRENCH 81269 3/8" DRIVE 120XP EXTRA LONG HANDLE RATCHET

GearWrench unveiled four new additions to its line of 120XP ultra-narrow swing arc ratchets. Three new extralong handle ratchets, measuring 9, 18, and 24 in. long, and a two-piece set now join the growing line. The 120XP ratchets feature 120 positions for every full rotation, allowing them to turn fasteners with a swing arc of as little as three degrees. The ultra-narrow swing arc allows users to reach fasteners in severely limited access applications. All 120XP ratchets have a 60-tooth gear that alternately engages the double-stacked pawls to produce the three-degree swing arc. The double-stacked pawls exceed ASME torque performance specifications. Like all 120XP ratchets, the new extra-long handle models have a teardrop-shaped, low-profile head and flush-mounted on/off switch with highly visible on/off markings for improved access in tight spaces. The enclosed head design resists dirt infiltration. Visit www.gearwrench.com.



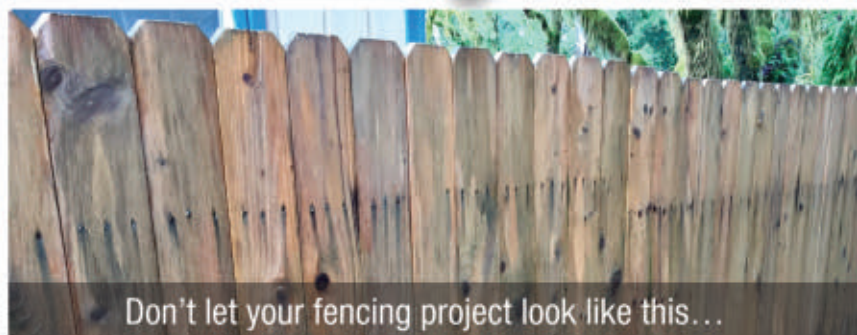
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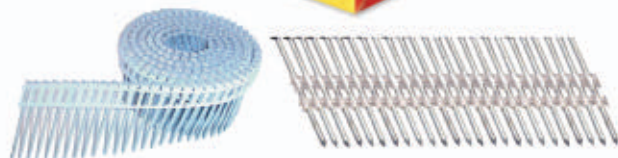
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