

Deck Details

To the Editor:

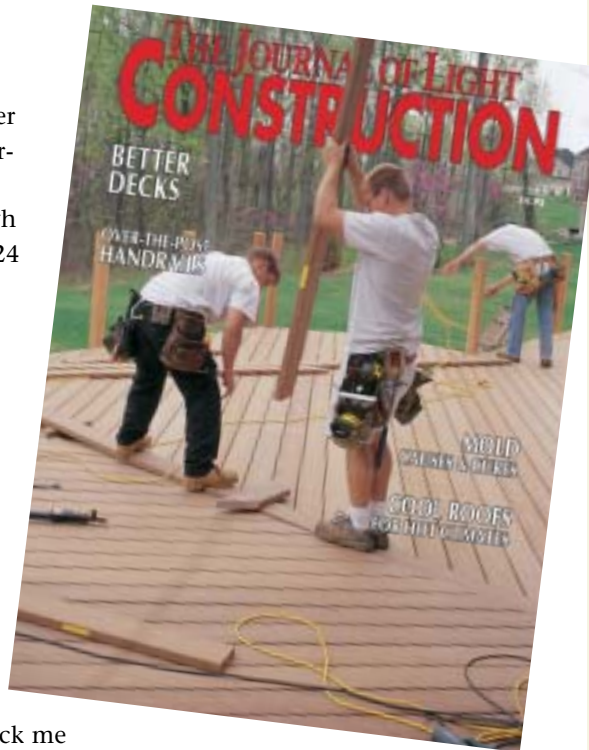
The article "Building Better Decks" (6/03) was very informative. We too work in the north Virginia area, although we probably only do 12 to 24 decks, screen porches, and patios a year, along with kitchens, bathrooms, basements, and small additions. I agree with much of what Jim Craig writes, especially his main message, that quality options, materials, and workmanship command higher prices and create happier customers. I thought some of his details were very good.

However, one picture struck me as incorrect based on what I have read about Trex from the manufacturer. The cover photo shows two men slamming a Trex deck board into place. The picture leads me to believe that the space for the board is so tight that they have to wedge it into place.

If you have worked with Trex, you know the material characteristics allow for this to happen (the boards can be manipulated in various ways), but everything I have read from the manufacturer states that you must leave substantial room for expansion, including at the ends of the boards. Here you have ends butting to the side of a Trex board apparently so tight the crew has to force it into place. We generally use a 3/16-inch to 1/4-inch space between all Trex boards.

Tom McMurray, Owner
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Lorton, Va.

Jim Craig responds: Your concerns about the expansion of Trex in relation-



ship to the spline board being forced into place are valid. In this case, the air temperature had reached 85°F and hotter, so we knew the Trex boards had probably reached their full expansion. We cautiously gave aesthetics precedence: If we had left a gap along both sides of our 2x6 spline board, the gap would have grown and become caked with organic debris from the trees overhead. On page 58 of the article, you can see how we continuously block beneath both edges of the 2x6 spline board. Unfortunately, that also allows organic debris to collect in this location if the gap is too big. Our experience with this tight-fitting installation on hot (85°F plus) days has been very favorable. We are currently building about 90 Trex decks a year.

Defending Gable Vents

To the Editor:

I just read the Q&A "Can You Combine Ridge and Gable Vents?" (6/03) and couldn't believe the advice. There were no details on the

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size of the gable vents, the length of the ridge, or the geometry of the house, which undoubtedly change performance. However, if you have spent any time in attics, I think you will agree that most ridge vents do not provide for much air flow. The tiny gable vents shown in the diagram surely won't provide much either, but an adequately sized set will out-ventilate ridge vents in most situations.

I also doubt that the air will stagnate as profoundly as described. In most cases, the breeze will deflect off of the framing in the attic, creating eddies that cause the air to mix. As far as pulling rain and snow in through ridge vents, most have small enough holes that it would not be significant.

I have held the back of my hand up to the inlet into ridge vents in many attics and have yet to feel any air movement. The temperatures in any attic that relied on eaves and ridge vents have always been higher than ones with adequate gable vents. Although attic physics is complex, I believe that most attics would be better served by leaving the gable vents open.

Wayne Appleyard
Architect
Ann Arbor, Mich.

Mike Keogh responds: Your letter assumes that I condemn gable vents in favor of ridge vents. In fact, I promote the use of gable vents provided they are sized and placed correctly and are complemented by "field" or "pot" vents to optimize performance of the venting system.

The undimensioned diagram in the article illustrated a simple rectangular building with full ridge and two gables and assumed vents would be sized to the minimum area required by code. You are correct in stating that the

geometry of the house affects performance. However, only if the gable-width-to-ridge-length ratio did not allow for installing sufficient ridge vent capacity would I opt for gable vents supplemented by field vents. Adequately sized gable vents, even with continuous soffit venting, cannot match performance of the same roof with a good ridge vent replacing the gable vents. Ideally, air should flow over the entire underside of the roof deck, collecting solar heat and venting it to the atmosphere. The ridge-soffit combination is undoubtedly the most effective way to achieve that.

There are many ridge vents to choose from, and, despite manufacturers' claims, all are not equal. When assessing airflow performance of different vents, some might say, as with beer, "There is no such thing as a bad one, just some better than others." Unfortunately, that is not entirely true, and I have, on several occasions, removed the vent "filter" material to increase air flow, thus curing a performance problem with no adverse effects later. The architect or reroofer must assess available products, make a sensible choice, and ensure that they are correctly installed.

My own observations of dry powder snow as well as attic smoke tests have confirmed University of Illinois research that proved this phenomenon. Incidentally, a surprising amount of dry powder snow can penetrate relatively small vent mesh (smaller than 1/8 inch). It is typically only noticed later when it melts and stains the ceilings below. (Often vapor barriers keep moisture away from the drywall, but saturated insulation has no R-value and can trigger attic mold and rot.)

Checking air flow with the back of your hand can be misleading because in well-designed systems, the volume of air exhausting is distributed over the entire ridge, reducing velocity at any

one spot. Also, summer temperatures in the attic will generally be above blood temperature, and so the stream is less detectable. Of course, poor flow may indicate insufficient or blocked intake at the eaves, blockage of exhaust vent filter media, or incorrect installation.

Reader Wants Balance

To the Editor:

I would like to respond to the article on improving safety standards for hot water heaters (*In the News*, 6/03). It is to be desired and encouraged that all of us in the industry work to improve safety. Improving the safety of hot water heaters is no exception. My suggestion is that the article lacks an opposing balance.

The unpleasant subtheme of this article is that irresponsible behavior leads to tragic results; innocent third parties often suffer. Storage of gasoline in or around a hot water heater is irresponsible behavior. Every example cited in the article is of negligent human behavior causing a tragedy.

Viewed from a broader perspective, the article actually documents the admirable safety of current standards. Water heaters are not defective. Of the hundreds of thousands, perhaps millions, of water heaters in use at this time, there are only 2,000 fires, only 300 injuries, and only 19 deaths annually. Statistically speaking, one probably has a greater chance of winning the lottery than of dying in a water heater accident. The sad fact is that most of these tragedies were easily preventable.

It should not be assumed that a higher standard would save lives.... Up to a point, improving water heaters only encourages people to be even more negligent. People will come to believe that they are not dangerous at all, resulting in even

more accidents.

We should treat new systems with caution if not skepticism. We have good intentions in improving hot water heaters, but we should be very circumspect about the results. My challenge to *JLC* is to provide clear, balanced, factual articles.

Greg Casorso
Casorso Construction
Orinda, Calif.

Screening Chimney Pots

To the Editor:

Your item on chimney pots (*Products: On the Job*, 6/03) recommends screening the top with 1/2-inch wire mesh. Screening is a great

idea for keeping birds and animals out of a chimney, but it should be noted for safety's sake that the net-free area of the 1/2-inch mesh screen must not be less than four times the area of the outlet of the chimney flue it serves. Screening flat across the top of the pot can cause blockage and result in carbon monoxide backing up into the residence.

Typically, the screen should be built with four sides and a top for a rectangular flue; for a round chimney pot, the screen could go around the circumference of the opening and rise with a round screen cap on top. Stainless-steel wire works well to "sew" the pieces together.

The larger screen area may not be as pleasant to the eye, but safety should be the number one concern.

Bob Hart, Former President
Chimney Safety Institute of America
Pagosa Springs, Colo.

KEEP 'EM COMING!

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