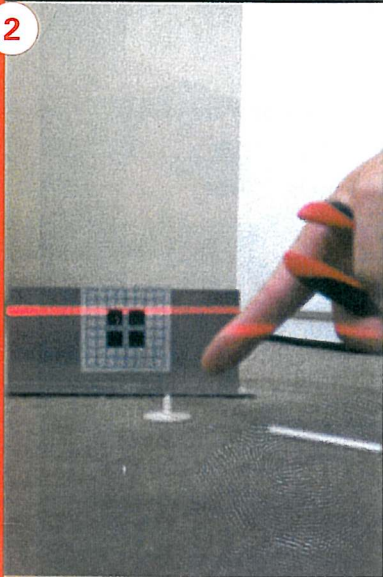


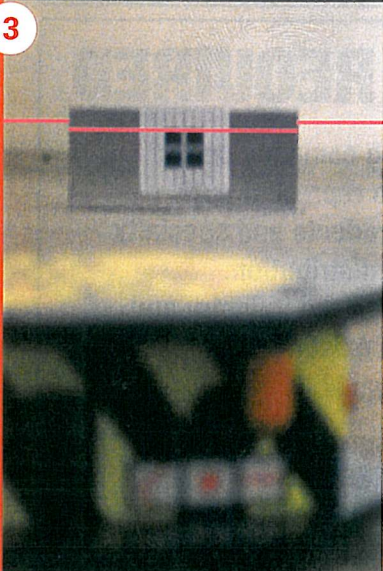
1



2



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4



## Checking Deflection and Floor Prep with Lasers

**BY DAN LOUIS,  
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If you measure floors, prep sub floors, do layout plans, or check for deflection (which basically covers everyone) without using a laser, you're wasting a whole lot of time, and you are probably costing yourself a whole lot of money. For now we will focus on just two of the ways that a laser can make you more efficient, deflection and floor prep.

### Deflection

The truth is most professional tile installers and dealers do not know how to check a floor to assure that the installation will not fail because of deflection.

What is deflection? To put it simply, deflection is how much the floor sags. The minimum deflection for ceramic tile is 1/360th of the span of the floor and stone is 1/720th. To illustrate, imagine five or six average weight people standing in the middle of your kitchen 15 feet across the span. The floor cannot deflect (or bend) more than 1/2 an inch in the middle for tile or 1/4-inch for stone or marble. That's not much, and yet it happens more than you would like to think. (70 percent for tile and 78 percent for stone).

Construction plans are supposed to take this into account, but what the plans say and what the floor does are often two different things. If you

install a floor in Mrs. Smith's house and there is too much deflection in the floor, when she has a dinner party and six or seven people race to the kitchen fighting over the last slice of pie, there is a good chance the grout will start to loosen or crack. Eventually the tile pushes up and/or cracks, and you have a real mess on your hands. Guess who gets stuck with the bill? I'm sure many of you know the answer to that! You!

So how do you check for deflection? Well, one way involves a bunch of string and a lot of frustration, and the other way involves a laser, a target, and a few seconds. With a laser you can take more accurate measurement in a fraction of the time and feel confident about site conditions.

### Floor Prep

How many times do we need to screw-up the schedule and aggravate the customer with an add-on before we realize that there is a better way. The guys on the other end of the building figured this out about 50 years ago. Their product costs much less than ours, the labor is much less sophisticated, and their liability is way less. That's right, the Ceiling guys. Why do they all own a \$2-3,000 dollar laser? Because it saved



## CHECKING DEFLECTION AND FLOOR PREP WITH LASERS

them \$1,200-1,800 per month in labor and a lot of aggravation. You don't necessarily need a seasoned pro to look at each job if you have the proper tools. It's a great sales tool too (more about that later).

The person that initially looks at the job simply sets the laser on the floor and shoots a target or two across the room then moves the target across the room and it will indicate exactly where the floor is out-of-flat and how much. Then a few simple notes on the diagram and a very short but informative discussion with the customer and everybody has the proper expectation of what needs to be done, and there is no surprises when installation day comes. The customer recognizes your professionalism and will even pay more because you have demonstrated the ability to do the job properly. This is invaluable. And for the installer, any low spot in the floor gets a small plastic pin that gets snipped off to leave a dipstick for his patch material (**Photos 1-3**), and it also doubles as a screed point to feather out the birdbath (**Photo 4**).

### Square

With over 60 percent of homes being out-of-square, wouldn't it be prudent to tell ask the customer which wall she would like to be straight and prep her for the fact that other (less important) walls might run off. If the same laser shot two 90-degree lines down

both major walls, anyone could show her where the problem lay (**Photo 5**). This even works instantly on 45-degree walls too. Speaking of square, wouldn't it be better to give installers a square cut instead of a parallelogram for each job? This is why the average warehouse person adds an additional

three inches to each cut. Do some math here and you'll see \$18,000-\$25,000 per year in useless landfill.

Remember that lasers can help you do measurements, layouts, and more with greater accuracy, and in a fraction of the time. A laser tool designed for flooring is arguably the most valuable tool you could have. ♦

