

Slipcover Stairs

by Richard Hark


I'm a custom stair builder. When possible, I prefer to build a staircase in my shop, then take it to the site in one piece and install it right over the site-built rough stringers that are already in place.

The rough stringers are cut by the builder to dimensions that I provide. But because I need a perfect fit when I drop the finish stair into place, I usually have to tune up the stringers first.

This would be a tall order for a 4-foot level and a measuring tape. Instead, I use a Laserjamb fitted with a Gizmo level. Following the calibrated marks on the Laserjamb, I can cast a level laser line at precise increments from a couple of inches off the floor to over 12 feet in height.

I build the finished stairs against a set of "air studs" — tall, rectangular aluminum tubes with a pneumatic ram affixed at the top — that I designed to quickly replicate on-site framing right in the shop. I first tack up the uncut skirt boards at their precise location. Then I use the laser to accurately mark the tread lines on both skirt boards at the same time. After cutting and routing the stringers, I set them back up and assemble the stairs, a tread and riser at a time. As the stair goes together and gets heavier, I add temporary supports to keep the treads true to the laser line, to ensure that cumulative errors don't occur.

Once on site, I again set up the Laserjamb, this time in front of the rough stringers. Using the same riser settings, I cast a level line at each tread height. All it takes to true up the rough cutouts is to grind or plane down the irregularities until the red line just disappears.

After that, the finished assembly clicks into place as if it grew there. 

Richard Hark is a stair carpenter in Harwich, Mass.



The author sets up "air studs" — aluminum tubes with pneumatic rams at the top — to support the finish stringers while he builds the stairs. A pole-mounted laser makes it possible to mark the tread cuts on both skirts at the same time.



On site, the laser provides a perfect reference for tuning up rough stringers. The finished stair then slips into place.

