Start talking tools and most folks will listen in and often have something to say. It was no different when we chatted with a handful of contractors around the country about which tools delivered and which didn’t. In an industry that has been evolving since man quit relying on caves for shelter, it’s not surprising that no big technological breakthroughs seem to have occurred in this specific year just passed to boost production or...
ease of use on the job site. In fact, the tools that were most appreciated were old standbys, in the most part, or ones that had been around a while and become the norm.

When “Good and Screwed” Is Good

A hawk and trowel still can’t be beat when it comes to putting materials onto a wall, as far as the plaster contractors we talked to were concerned.

Screw guns and powder-driven nail guns are several times faster than conventional hammer/nail and screw/driver approaches, even when in the hands of an old hand, and almost every single contractor gave the nod to these tools, especially the better-quality battery-powered models. Not having to drag a cord around the site reduces time on the job 50 percent, according to a contractor from California. The Hilti 351 received a special mention from a Colorado contractor for its lo-shot magazine and its capability for dialing the load power up or down.

Another recurring winner for contractors is the laser. The rotating laser works well for a Californian who is a one-man show, because it allows him “to do several different things. You can transfer a green line, put down by an engineer, several hundred feet by yourself. You can plumb up vertical lines on a building several hundred feet by yourself. A lot of guys don’t know how to use their tools and so they aren’t getting the full bang for the buck out of them. When someone is trained on how to use them to their full potential, they can save a significant amount of time, reducing layout time by 70 percent.”

“Self-leveling, much more compact and easier to set up,” is how a contractor from Arkansas sees lasers these days, while talking of 100 percent improvement in productivity since they were introduced. “They also remain calibrated and accurate much longer, so we get better service from them.”

Plumb Gone

Lasers make an interesting case study when it comes to advances in building technology. They are based on Einstein’s idea 85 years ago that light energy isn’t a continuous wave or a particle but bundles of wave energy (called photons). It was a pretty weird idea at the time, but he earned a Nobel prize for his work on the subject. But the idea sat around
without any application to hang it on until the late 1950s and early 1960s. Even then, when the first optical laser was invented, it was called “an invention looking for a job.” Lasers were still a far cry from the job site.

It was not too long in the overall scheme of things before lasers left the welfare rolls. Now they shine in everything from “laser precise” hospital operations to supermarket scanners, compact disks to job sites. No doubt, in time, laser technology will also be discarded as hopelessly inefficient, based as it is on 19th century concepts of energy just as we are now discarding the old plumb bob.

But there was a time when the plumb bob, too, was cutting edge, hooking as it did onto the weird-for-the-time theory of gravity. The application of this theory to construction was assured with the keen observation that permanent dwellings stay more permanent if the walls are built upright, and that a plumb bob is just the ticket for achieving this standard.

There’s nothing wrong with a tool that remains in use for millennia, of course, but it does get a bit old after more than 4,000 years, especially when one is trying to use it in windy conditions and it moves around, or when one doesn’t have an infinity of time to complete a project. For the ancient Egyptians, their lives were more likely to be on the line if the pyramid ended up as a trapezoid than if the engineers didn’t make a deadline. So the plumb boards, A- and T-Levels, and plumb squares they used for surveying trueness of plumb or horizontal level were very adequate.

Spirit levels were the next big breakthrough during the Industrial Revolution in getting things straight, but plumb bobs were still needed to transfer an exact point from one height to another in tall buildings. But then came lasers, and they finally spelled the end for plumb bobs—and even for those unwieldy 4-foot spirit levels. As a Californian said without much regret, “Everything is pocket or ceiling lasers these days. I don’t think too many guys have plumb bobs anymore. I can still work one, but I don’t know if these other guys can.”

**America the Inventive**

And so, in our lifetimes, plumb bobs have joined the long list of tools and implements that have fallen from use, from buggy whips to smoke signals. What tool will be next? It’s hard to say. Contractors are pretty pleased with the tools...
in their workbox these days, as expressed by a Floridian when he said “there isn’t really a tool that hasn’t been invented.”

But it’s a question of frame of reference, or the “everyone knows that . . .” idea. Everyone knows that you need scaffolding. Well, is that really true? Technology already exists that would make scaffolding obsolete and nobody would shed a tear, especially those who have to put it up or those whose heads it falls upon from time to time. The ancient Egyptian theory of gravity, and Sir Isaac Newton’s, still hold true—or do they?

If there is one country where the spirit of adventure and drive to improve are still alive and well, it is the US of A, and the same folks who brought us lasers, screw guns and TrackFast (another tool mentioned by those surveyed as being especially useful for larger jobs), will keep pushing the envelope, trying this and that, and one day, the science fiction concepts will be old hat and “the way we do it.” Like lasers to measure, guns to fasten, and anti-gravitation devices instead of scaffolding.

Who better to come up with ideas for improvements than the folks faced with the problems on the job site, day in day out? So when one contractor from Georgia says that he’d like to see jet packs used to access higher floors or wall areas, then that’s an idea whose time has not only come but is long overdue. If James Bond used one in a movie 30 years ago, isn’t it time it arrived on the job site? There’s no reason jet platforms couldn’t be created, as well, but using some better form of beating gravity. “Beam me up, Scatty,” is understandably a few years up the line, but there has got to be a better way than scaffolding, which, incidentally, has been used in the building trade for at least 4,400 years, too.

Looking for Some Bite

Less futuristic, though, is finding a solution to a problem that, one-for-one, contractors working with exterior framing structural studs who were asked, were experiencing difficulty with: cutting heavier gauge studs with existing chop saws. One contractor from Colorado suggested “something similar to the tool the rebar people use, where you put the stud through a die, pull a handle and it cuts it like a shear. Or maybe some plasma arc cutter.”

For contractors experiencing similar
problems in cutting 16 or 18 gauge, there is already a solution on the market, however, and even if the cost is sky-high, it is actually more economical than existing alternatives.

An Arkansas contractor provides the heads-up. “We have started using a diamond-impregnated chop-saw blade that looks like a concrete blade. They are expensive—the regular trunk-slamming contractor wouldn’t be able to afford them at $300 plus—but they are worth every penny. You pay about $5 for a friction cut blade, and after a few cuts on structural studs, you have to change the blade, even though you have only used up half of its capacity, because it is past its capacity to cut the width of the stud you are working on. So then you have to take the blade off and put on another one or go find another one first. Meanwhile, you’ve lost the damned arbor bolt to secure the blade, and so it goes. We’ve done thousands and thousands of cuts with just one diamond blade, so they pay for themselves many times over just in material, let alone labor time saved on not having to change out blades.”

But as the same contractor points out, part of the problem is that “most chop saws do not have the power they really need to cut heavy gauge, wide studs. They need something with a little more ‘ass’ in it. We really need to see a chain saw motor with a round blade on it. Put a diamond blade on one of those that
can turn some RPMs, and that’s a bad boy, right there—it will do a number on the structural stud you are cutting, because it has enough RPMs and power to cut through it. Yet most electric chop saws are around 15 amps, and they just don’t have the horsepower they should have to cut through 16- and 18-gauge, regardless of the blade you are using.”

**Expecting Edsels**

Other contractor ideas for new tools include a magnetic tool for retrieving the hundreds of abandoned nails and screws on a job site and one that proportionately mixes and dispenses EIFS materials. Some contractor ideas may end up being the building-industry equivalent of the Edsel, but heck, if people didn’t try, we’d be using plumb bobs for another 4,000 years.

And that’s why we maybe shouldn’t be too harsh on those tools that don’t live up to their promise and that don’t stay in the workbox for long. Such as nail spotters that create more trouble than they are worth, arch benders that take forever to bend (5 years ago) so that the contractor only orders-in prefabs now, and “newfangled ways of applying EIFS materials such as pressure machines dispensing material through the end of a trowel,” according to a Californian contractor. “It’s pretty hard to beat the old hawk and trowel, although spraying in the right applications and Corneraid have made a huge difference in our industry.”
But those products that are just plain poorly made are the ones for which no real love is lost, only money. Such as plastic chalk boxes, 22-caliber fastener guns, and hammer drills that fall apart... and chop saws with plastic handles, and switches, that also fall apart, and reduction gears that tear up. And one-ton delivery trucks that are not only poorly designed from the standpoint of functionality, but also fall apart long before they should (according to a Colorado contractor who has been through most makes and models so far).

For any manufacturers who may still be producing such products, the writing is on the walls and ceilings, according to one contractor from Arkansas. When it comes to tools, most folks aren’t fools. As long as contractors keep shooting the breeze about their tools, word of mouth will drive tool selection more than any amount of convincing advertising, and toolboxes will continue to house only those tools that deliver on their promise. And the truth is that most do.

About the Author
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