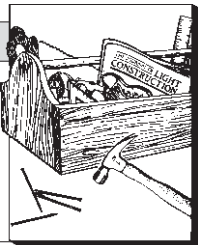


Portable Thickness Planers

by Clayton DeKorne



Few contractors think of thickness planing as an option in the field. Most thickness planers are heavy machines that, for practicality, are confined to the shop. But in the last few years, several models have been introduced which are lightweight and portable enough to carry on site. One builder I spoke with regularly planes stock to the print dimensions. "You'd be surprised," he said "how seldom 5/4 stock comes in from the yard 1 inch thick and how often it's drawn up that way. Or how seldom framing lumber is 1 1/2 inches and how often it matters. An extra 1/8 inch can add up in a hurry." And one remodeler told me his planer ended up solving a lot of shimming problems where continuous dimension stock was needed. "I rely on [the thickness planer] more often than I could possibly have imagined without it," he claims. "It's nice not having to think in terms of commercial thicknesses all the time."

There are a number of portable thickness planers on the market. I tested the Ryobi AP-10 (1424 Pearman Dairy Rd., Anderson, SC 29625; 800/323-4615) and the Makita 2012 (14038 Northam St., La Mirada, CA 90638; 213/926-8775)—two of the most talked about machines of late. I also looked at a third made by a Taiwanese manufacturer that is marketed in this country by Jet Equipment and Tool (P.O. Box 1477, Tacoma, WA 98402; 206/572-5000) and Penn State Industries (2850 Comly Rd., Philadelphia, PA 19154; 800/288-7297). None of these are production machines. The largest stock that will go through the Makita and the Jet/Penn State machines is 12 inches wide by 6 inches thick; for the Ryobi the maximum dimensions are 10

inches wide and 5 inches thick. The most these machines will take off in a single pass is about 3/32 inch. In fact, all of them give their smoothest cuts at about 3/64 inch.

Smoothness Counts

In theory, the smoothness of a board's surface is determined by the number of cuts per foot. Since you get more cuts per inch from a faster motor or a slower feed rate, these are generally the first variables to look for when shopping for a planer. All three of these machines run at 8,000 rpm and have a feed rate of 26.2 feet/minute. With two blades on the cutterhead, this makes for about 51 cuts per inch. Compared to similar capacity but much heavier shop machines, this is a bit low. A Delta DC-33, for example, is rated at 82 cuts per inch; a Powermatic 100 is rated at 73. Nevertheless, the surface produced from the portable planers is respectably smooth.

I tested each planer on pine, vertical-grain fir, red oak, cherry, and, for the ultimate test, curly maple. All three planers were capable of producing an acceptably smooth surface on all these woods, except the curly maple. The surface on the cherry was most surprising. Typically, surface planing cherry is difficult because of the complexity of the grain. And as far as the curly maple is concerned, I've yet to find a planer that wouldn't produce some tear-out on curly grain and birdseye.

My initial testing was done with factory-honed blades installed. Here, the Makita produced a slightly smoother surface. However, once I honed the blades on the Ryobi and the Jet/Penn State, I was able to get a

surface as smooth as the Makita's. Makita uses disposable blades—very narrow two-sided blades that are not supposed to be sharpened; they come razor sharp right out of the package and are a bit treacherous to handle as a result.

All the machines have two rubber rollers that pull stock through, but not all with equal consistency. The feed on the Makita was remarkably uniform and consequently the surface was very even. The feed rate on the other machines would occasionally slow down with heavy stock, causing occasional deep bites (called "snipe") in the middle of a board. Thus, with anything on the order of a 4x4 or larger, the Ryobi and Jet/Penn State machines needed constant pressure (pushing and pulling) to keep the stock moving.

Setup

With its disposable blades, the Makita machine avoids the usual painstaking procedures needed to set the knives. Since the knives don't get sharpened, the depth never changes and never has to be adjusted. A plate that locks securely in a groove on the narrow blade is bolted to the cutterhead. To avoid slicing fingers on the keen edges, Makita supplies two magnets for pulling the knives out of the head. (I ended up using these magnets when handling the knives on the other machines.)

The Ryobi has sharpenable knives. A setting gauge similar to many hand-held power planers is used to adjust the take and parallel of the blades. The gauge is used to set the knives on a plate when it's out of place, and then the whole assembly fits in a positive position on the cutterhead.

The setup for the Jet/Penn State machine most closely resembles that for larger machines. The two knives must be adjusted for parallel using a feeler gauge between the knife edge and a beveled block you make to the manual's specifications. And the height of the blades must be adjusted in the cutterhead. This procedure, and the poor Taiwanese translation of the manual, make this setup grueling.

The arrangement of the table with respect to the motor is also worth noting. To adjust the depth-of-cut, the motor on the Ryobi and Penn State planers moves up and down, while the table is fixed. This arrangement makes it very convenient to set up supports for long material. Ryobi even provides two additional rollers that can be mounted for this purpose. The table on the Makita, however, moves up and down and the motor is fixed. This means a stand, if used, must be constantly adjusted.

One shouldn't expect these lightweight planers to last a lifetime, as you might with an expensive shop model that can weigh upwards of 400 pounds. But then, these portable machines weigh about 60 pounds and can be moved in and out of a pickup truck with ease. And you can't beat the price. The Ryobi and Penn State machines sell for about \$350. The Makita is slightly more at about \$475 from some discount houses. All have optional stands for about \$40, which are well worth the price. Even though a stand makes these tools a little less compact, they readily put the machines at a comfortable height. Otherwise, you have to clear precious bench space or work on your knees. ■

TOOL BITS

By Clayton DeKorne

Plastic nails are making inroads, according to the British trade magazine *Building Today*. The Japanese tool maker Kowa makes a pneumatic nailer that shoots plastic nails. The nails can reportedly be planed over and sawn through without damage to a blade, they won't corrode, and the pulling strength is claimed to be as high as steel equivalents. I'll bet they weigh a lot less in your nail bags, too.

Clamping a miter has always been a challenge. One woodworker I know swears by a set of spring clamps with pivoting jaws and tiny burrs that grab the edges on each side of the miter and pull it together (available from *Woodcraft Supply*, P.O. Box 1686, Parkersburg, WV 26102-1686; 800/225-1153). Another type made by *The Hartford Clamp Company* (P.O. Box 280131, East Hartford, CT 06128-0131; 203/528-1708) also has burrs and an eccentric lever that pulls the work together. This kind is nice because it holds the joint perfectly square and freshly glued pieces don't slip around as easily. However, the burrs on both types will scar the wood slightly. If this is unacceptable, *Woodcraft Supply* also carries a "right arm clamp." This has two vise clamps positioned 90° to each other, but it can only be used on pieces up to 2 inches thick. *The American Clamping Corporation* (P.O. Box 399, Batavia, NY 14021; 716/344-1160) offers the Bessey Angle Clamp with two clamping arms that draw the miter in against an angled "support jaw." One model spreads up to 6 inches. And, if you're really serious, *Welter Clamp* (P.O. Box 175, Mount Bethel, PA 18343; 717/897-7101) has a "universal clamp" that can be used to clamp any angle together. This clamp has two bar clamps with a lever for pulling the joint closed. All four companies offer a free catalog.

Hand protection with work gloves is not very conducive to fine workmanship and few tradespeople wear them. But there are some good reasons for protecting your hands on the job. Take, for example, the white bloom you occasionally find on a piece of pressure-treated wood. I was told by a chemist at the University of Mass. that the white crystals are a precipitate of excess preservative. Then there's the caustic effect of concrete. Or the fact that mineral spirits (the kind I soak my hands in when cleaning off paint) is easily absorbed through the skin. Thinking of this prompted me to experiment with three barrier creams—pr 88 (GAMP Enterprises, P.O. Box 1230, Gibsonia, PA 15044; 412/443-7546), *Multi Shield* (Interpro, P.O. Box 1823, Haverhill, MA 01831; 800/456-6489), and *North Protective Glove* (North Health Care, 1515 Elmwood Rd., Rockford, IL 61103; 813/877-2531). These creams provide a non-greasy film that protects the skin from irritants. The film is not sticky, but you can tell it's there; it feels like having sweaty hands except your skin isn't moist. I can't say for sure if these barriers are keeping distillates from being absorbed through my skin. But oil-based paint, tar, and construction adhesive come right off with soap and water, so at least I'm not soaking my hands in mineral spirits. ■



Several new thickness planers—Ryobi's AP-10 (upper left), Makita's 2012 (upper right), and Penn State Industries' Super 125—are lightweight and portable enough to carry on site.