Tool Test

Trim Routers

For light routing, these laminate trimmers do more with less

by Brent Hull

When you're working with historic buildings, you've got to be prepared for just about anything. Over the past 150 years, changes in hardware and trim details, along with other product introductions and evolutions (weather-stripping, for example), have led to the need for a versatile tool like a trim router — also called a laminate trimmer or laminate router — that can make new things fit into old and odd places. We use trim routers all over the job site to mortise hinges, make notches for retrofitting hardware, and dado wood for custom grooves and joinery. Occasionally, we even work laminate.

Trim routers have come a long way in the last five years. Traditionally geared for use exclusively with laminate countertops, they are more versatile than ever and are great for getting out of small chiseling and routing binds where accuracy and precision are required. And since my company specializes in installing and remodeling historic millwork and trim on historic structures, there are plenty of binds to be gotten out of.

Test Criteria

We tested five trim routers: the Bosch PR20EVSK, the DeWalt DW673K, the Makita 3708FC, the Porter-Cable 97310, and the Ridgid R2400. While you can buy the tools with just a simple base (like a standard router), we tested them in kit form and evaluated not only the tools but the attachments. During the eight-week test period, I looked for simplicity, convenience of tool operation, and a smart case. I checked for power and appraised each tool's feel. I also watched for quick bit switch-out, easy and accu-

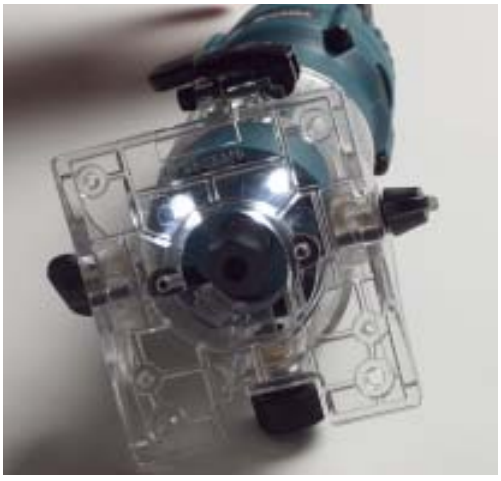

Figure 1. Although the author had concerns about its durability, Makita's clear plastic base provided the best visibility of any of the trimmers; the work light helped, too.

rate fence adjustments, and bases that make sense on the job. Too much head-scratching when you're trying to set up a tool wastes time and money.

Finally, we evaluated these tools for accuracy. When mortising a hinge or cutting for hardware, I like to cut right to the line — which means there's no need for a chisel after I'm done.

Configuration and Bases

All the tools come with an edge guide that's used to bear against the edge of the material to cut a straight line — very handy for cutting a small groove or dado. The DeWalt and Ridgid employ a sealed bearing guide that worked best, while the Bosch, Makita, and Porter-Cable guides are just open rollers that can get clogged.

Visibility vs. durability. Because of all the freehand work we do with trim routers, it's vital to be able to see the bit contact the work. The Makita has a clear base, which makes seeing the work incredibly easy (see Figure 1). The tool is great for cutting hinge mortises freehand; I could easily cut right to the pencil line of my pattern. The Makita even has a work light, something all the trim routers should have. These features really make getting accurate cuts easy, but there's a trade-off: The clear plastic base doesn't seem as durable as combination metal/plastic bases.

Thus, it was somewhat harder to see the work through the aluminum/plastic base configurations of the Bosch, DeWalt, Porter-Cable, and Ridgid models, but what was lost in visibility was gained in strength — and that's important for a tool that lives in a truck or gang box. Of these bases, the Porter-Cable's angled opening gave us the best view. Bosch and DeWalt also provided nice sight lines. Ridgid's was a little more constricted, but still okay.

Bases and micro adjustment. While you can buy trim routers by themselves, they usually come packaged as kits, which include various bases for multiple applications. There's a great range of base types among the tools we tested; we found both function and frustration. Porter-Cable has the best base and accessories system, which makes it perfect for dedicated work in laminates. There's one screw that attaches each base to the router.

Porter-Cable's micro-adjustment system also works nicely. It consists of a simple screw that allows for slight up and down movements in the base, and it works great setting depth for a mortise or a custom groove.

DeWalt (Figure 2, facing page) offered the same base configurations as the Porter-Cable, yet it was confusing and the least intuitive to set up. Despite the tool's instructions, which spell out each step, we spent a lot of time trying to get comfortable with how and where each different piece went and its intended use. Still, the lever nut used to tighten and loosen the base for adjustment or replacement works well, and I do like DeWalt's micro-adjustment system for dialing in a depth setting.

Makita's system also left us scratching our heads. The main base design is confusing, but what really got us was the collection of small nuts, bolts, and flat and split washers that hold it together. And there's no micro adjustment.

The Bosch ships with a standard base; a tilting base is available as an accessory for use with laminates. The standard base is excellent — nicely designed for how we use these tools. And the twist-and-lock system allows the tool motor to slide up and down in the housing for adjustment or base replacement (Figure 3, facing page). This felt and worked great. The angled base works the same way, and the tilting is indexed so you know

the exact tilt angle. The micro adjustment works well, too, like a small router.

The Ridgid adjustment system is good. Though it worked well, there was an element of precision missing in the plastic lock nut and geared roller. The tool lacks micro adjustment.

Power

To test power, we installed a new, sharp, 3/8-inch plowing (or dado) bit on each router, a pretty big bit for these tools. This allowed us to look for effective stock removal and — when the bit was lowered 1/4 inch into oak — to gauge the tools' grace under pressure. Because you typically operate a trim router one-handed, smooth operation is vital and affects accuracy. If the tool is strained, it can wobble; if it wobbles too much it becomes uncomfortable to use and potentially unsafe, and may lead to sloppy work.

To my surprise, however, each tool performed very well in the power category. All the tools cut confidently through hardwood without any trouble.

Features and Feel

How a tool feels in your hand — and how it performs once it's there — is really where the rubber meets the road with trim routers. The ones that are designed like small routers — rather than like laminate-specific units — were the ones that felt best to us.

The Bosch is the most nicely equipped. It has a nice soft-start feature that makes working near critical cuts more comfortable, and its adjustable speed makes cutting in various materials much easier. The variable speed allowed us to slow the tool down, making it easier to control bit burn on the wood and giving us exacting control when cutting a critical line. Plus the body design just felt good to work with.

The Ridgid unit is also nicely appointed (Figure 4, next page). It has a comfortable soft-start feature and adjustable speed, like a larger router, and it felt good in my hand. Its 12-foot-long cord has a light that lets you know when it's hot, which is cool. The tool even boasts a long three-year warranty (plus parts and service for life). Very nice.

Figure 2. DeWalt's laminate trimmer kit includes an angled base, edge guide, and offset base.

The DeWalt, Makita, and Porter-Cable tools all function fine either tricked out with all their bases or in simple trim-routing applications; however, they are instant-on, have no speed control, and the body designs aren't as plush as those of the Bosch and Ridgid.

Tool Boxes and Bit Change

Nowadays, I expect most new tools to have their own case to keep them safe and ready for action; when there's no case, I feel a little cheated. Except for the Makita, all the tools came in their own case.

The cases for the Bosch, DeWalt, Porter-Cable, and Ridgid are well laid out and serviceable. The DeWalt and Porter-Cable tools come with the most

Figure 3. Bosch's twist-and-lock adjustment allows you to move the motor up or down quickly and to change bases.

Figure 4. The author found the Ridgid comfortable to use and liked its extra features, including the soft-start motor; an easily accessible speed control (right); and, at the end of its cord, a light that tells you the tool is plugged in (below).

accessories, and their boxes accommodate the pieces and parts nicely, right down to places for spare bits.

Bit change. Bosch, DeWalt, and Porter-Cable each have a spindle lock that enables you to loosen the bit with one wrench, which is the approach that works best. The Makita and Ridgid require you to use two stamped steel wrenches that are short and hard to use. In addition, the Ridgid requires removing the base to change bits.

Winners

Choosing the winner depends in part on your routing/trimming needs.

If you do a lot of laminate work, the Porter-Cable is an ideal system. The basic tool design and base setup are the simplest and cleanest. The

Trim Routers

Bosch
PR20EVSK

DeWalt
DW673K

Makita
3708FC

Porter-Cable
97310

Ridgid
R2400

Trim Router Specs

	Bosch PR20EVSK	DeWalt DW673K	Makita 3708FC	Porter-Cable 97310	Ridgid R2400
Weight (pounds)	3.3	3.6	2.9	5	3.4
Speed (rpm)	16,000–35,000	30,000	26,000	30,000	20,000–30,000
Amps	5.7	5.6	4.4	5.6	6
Base Size (inches)	3 11/16 x 3 3/8	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 3/8 x 3 5/8	3 1/2 (diameter)
Height (inches)	7 1/4–8 1/2	9	8 1/4	7 1/2	7
Tilt Base	Accessory	Yes	Yes	Yes	No
Included Accessories	Fixed base, wrench, straight router guide	Tilt, offset, and round bases; solid-surface skis, bearing guide	1/4-inch collet cone, two wrenches, template guide	Offset and tilt bases, edge guide, two bits	Wrenches, edge guide, 1/4-inch flush trim bit, bearing guide, guide bars
Street Price	$120	$180	$159	$199	$100

tool offers lots of bells and whistles — but few parts to lose. Add to that its ease of use and smart design, from box to bits.

The DeWalt kit offers a lot for laminate work, too, but it was confusing to use. If the company can streamline that system, its router could challenge the Porter-Cable.

For our needs — odd-job routing and laminate work — the Bosch wins. The base is the best, the tool body is the most ergonomic, and the soft-start feature won over everyone on my team. Ridgid comes next. Just about everything on this tool is well thought through. The accessories are basic but well made, and although the base isn't the best, the lifetime parts and service warranty is a great backup. Both of these well-designed tools allowed us to rout and dado smoothly near critical work and cut comfortably right to the line.

The Makita is a mixed bag: The work light and plastic base were great, but the nuts, bolts, and washers that were required for adjustment, along with the handle design, could use improvement.

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