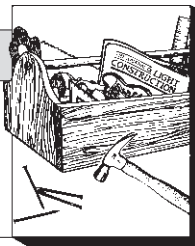


Putting Random-Orbit Sanders to the Test

by Robert Dick



I've had the opportunity to extensively test three random-orbit circular sanders — a Bosch model 3283DVS, a Porter-Cable model 7334, and a Marshco sanding head on a 4-inch angle grinder. After using all three sanders in my stair-building business for a period of several months, I find that each one can cut the time I spend finish-sanding by at least 30 percent. Sanding across grain is possible without leaving sander marks, so nosing returns are no longer a problem. And the resulting finish is noticeably smoother than with a palm sander. I didn't get swirl marks on oak with 120-grit or finer paper, and with 80-grit paper, the marks were very slight.

Different Strokes

Each of the sanders I reviewed differs in style, power, and features. For me, these differences greatly affected the performance of the tools.

Bosch 3283DVS. Manufactured by Robert Bosch Power Tool Corp. (100 Bosch Blvd., New Bern, NC 28562; 800/334-5730), this sander features a dust removal system and a variable-speed motor. Dust collection is a definite plus with these machines. The Bosch dust system pulls dust through holes in the paper and pad. This worked well, picking up dust even on curved sections of handrails.

The variable-speed motor runs from 8,000 to 11,000 orbits per minute (opm). This feature lends some control, but once I got used to the feel of the orbital action, it wasn't needed. At slow speeds, the

sander seemed to lose some of the random orbit so it acted more like a disc sander, leaving swirl marks.

Despite the advantage of the dust system, the Bosch sander disappointed me in several ways. Unlike the other two sanders, this machine slowed noticeably under load. Also, the Bosch is a drum-style sander with a motor located directly over the pad. This configuration works well for sanding open, flat surfaces, but caused problems for me because the 7-inch height is too high to get into the nooks and crannies of handrails. And because the front handle and dust bag project beyond the pad, it is difficult to sand in the corners of stairs, baseboards, and inside cabinets.

Bosch uses a Velcro-type backing pad, so you need to buy specialty sanding discs. According to Bosch, the list price of a box of 100 120-grit discs is \$35, or 35¢ per disc, but I couldn't find this price from the discount tool houses in the Washington, D.C. area. I had to pay around 75¢ apiece for the Bosch discs, as opposed to less than 11¢ apiece for the adhesive-backed variety. The Bosch paper lasted about twice as long, but not long enough to offset the higher cost. This may change as more manufacturers enter the market with the Velcro-type sanding discs. Currently I can only find generic Velcro-backed disks in this area at about 45¢ per disc in bulk, but they do not have the holes needed for the dust collection system.

Porter Cable 7334. The Porter Cable sander (Porter Cable Corp., P.O. Box 2468, Jackson, TN 38302-

2468; 800/321-9443) is set up like an angle grinder. This configuration worked much better for me. The Porter-Cable is well-balanced, and the auxiliary handle proved useful for added control. This sander uses the readily-available self-stick sanding discs. And it did not slow down, no matter how much pressure I exerted.

Porter-Cable recently introduced a dust removal system for the sander. I didn't have a chance to test it for this review, but based on the literature, it looks intriguing. The system pulls dust through holes in the pad like the Bosch, and the Porter-Cable also has a hood to collect dust that can be hooked up to a shop vac, so it might pull away a lot of dust when using conventional sanding discs.

The main disadvantage of this sander is the slow speed. At only 6,000 opm, the Porter-Cable removed material much more slowly than the other sanders, although its discs wore out just as fast. The Porter-Cable sander isn't as tall as the Bosch, so it's more maneuverable. But it's a little taller than the Marshco.

Marshco Products. This company (RFD 2, Box 490, Brooks, ME 04921; 207/722-3523) manufactures a sanding head which can be screwed onto any 4- or 5-inch grinder. Of the sanders I tested, I preferred the Marshco head by far. I like its lower height and the faster rpms of most grinders. Because it fits on the grinder that I already own, I have one less tool to fill up my already crowded work vehicle. And the head uses any of the readily available 5-inch, self-sticking sanding discs.

I received the Marshco attachment on an older model Makita grinder. This grinder runs at 10,000 rpms, which is slightly slower than the highest speed on the Bosch (not noticeable), but about 4,000 rpms faster than the Porter-Cable sander (very noticeable). Of the three sanders I tested, the combination of the head and the grinder was the most aggressive in removing stock. The grinder was very noisy (probably due to its age), and I have since set it up on my Black and Decker model 2750 grinder. This grinder has a rocker switch that is easy to use, and a lock button that can't be turned on inadvertently.

For Different Folks

Since my uses as a stairbuilder are fairly specialized, I loaned the Bosch and Porter-Cable sanders out to a floor sanding company, and to a nearby mill shop. I let them check out the Marshco, but wouldn't give it up for any length of time.

The folks at the mill shop have been using air-powered, random-orbit circular sanders for years, so they had a good perspective for comparison. They found the Porter-

Cable sander worked as well as their air-powered sanders, but was heavier. This didn't seem to effect the performance of the sander, however. They didn't like the cost of the velcro-backed paper for the Bosch, and also reported that they occasionally ran into problems with the size on the inside of cabinets and built-ins. They did think that variable-speed control would be an advantage on both the Porter-Cable and the Marshco models.

After using these small orbital sanders, the floor sanders decided to outfit each of their trucks with a Porter-Cable random-orbit sander. They preferred the Porter-Cable to the Bosch because it's more maneuverable, and can get under the kick spaces of built-in cabinets and bookcases where an edge floor sander can't go.

The Bosch sells for about \$110 from mail-order tool houses; the Porter-Cable sells for about \$130. The Marshco head retails for about \$60, not including a grinder. The Marshco head is also available on a grinder from AEG for about \$135. ■

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TOOLBITS

Good first aid kits are available from Zee Medical (7 Holland Ave., Irvine CA 92718; 800/621-5891) and Masuen (490 Fillmore Ave., P.O. Box 901, Tonawanda, NY 10151; 800/831-0894). Unlike most first aid kits that seem to have more cotton balls and gauze than adhesive bandages, Zee and Masuen offer sensible kits in a variety of sizes. These kits are arranged so that a single item can be found quickly and pulled easily. The scissors are the surgical variety, the tweezers are made for splinters, and the adhesive bandages are made of flexible, elastic fabric that bends well and sticks when wet. Plus these bandages are stocked in a variety of shapes for holding over fingertips, knuckles, elbows, and knees. Zee and Masuen both offer a whole line of medical supplies. Zee sells on site out of a van; Masuen sells mail order and is a little cheaper. But if you can't spring for the entire kit from either company, at least add these specialty items to your own first aid kit: *Spray-on bandage* from Zee is great for cuts in unbandageable spots such as between the fingers. Masuen offers *Masco Handy-Bands* — rugged, heavy-gauge plastic strips that are water-proof, oil-resistant, and have vent holes only over the pad to ensure a tight bond with the skin — and *Bloodstopper Wound and Trauma Dressing* — a big bandage for nasty wounds which has two



Random-orbit circular sanders let you sand across the grain without leaving sander marks. The three setups shown are a Marshco sanding head on a Makita grinder (far left in photo), a Porter-Cable model 7334 (top left), and a Bosch model 3283DVS (right).