

Dust-Free Router

by Michael Standish

Router dust is a nuisance. On a remodeling job, it can strain customer relations; in the shop, it's a respiratory hazard and a nasty underfoot lubricant on a slick slab. It blinds you while you work, fouls up pilot bearings and fences, and provides kindling for scorchers on the edges of a router cut.

For all these reasons, routers are perfect candidates for dust control systems, even with a low-volume collector like a shop vac. Surprisingly, though, dust collection on a router is a rarity, even as an option. Most of the available add-ons feature bulky adapters that draw dust and chips through extra-thick, oversized baseplates. These clumsy configurations seem to be designed as an afterthought, and typically curtail visibility and decrease depth of cut. The dust collection hookup often makes for awkward handling as well, and won't fit easily into a tool case at the end of the day. Small wonder most add-on systems end up in cold storage.

The DeWalt 621 plunge router I recently got my hands on is another story altogether. It has a simple dust-collection hookup that would be an asset to any router, but the DeWalt proved to be an excellent all-around tool.

Integral Dust Collection

The DeWalt 621 is a 10-amp, 2-hp plunge router equipped with what the manufacturer calls "integral dust extraction through plunge column." Ports in the base casting funnel dust to a 1³/₈-inch vacuum hose adapter via a sleeve around the left plunge post. This doesn't increase the router's footprint, so you don't pay for dust collection

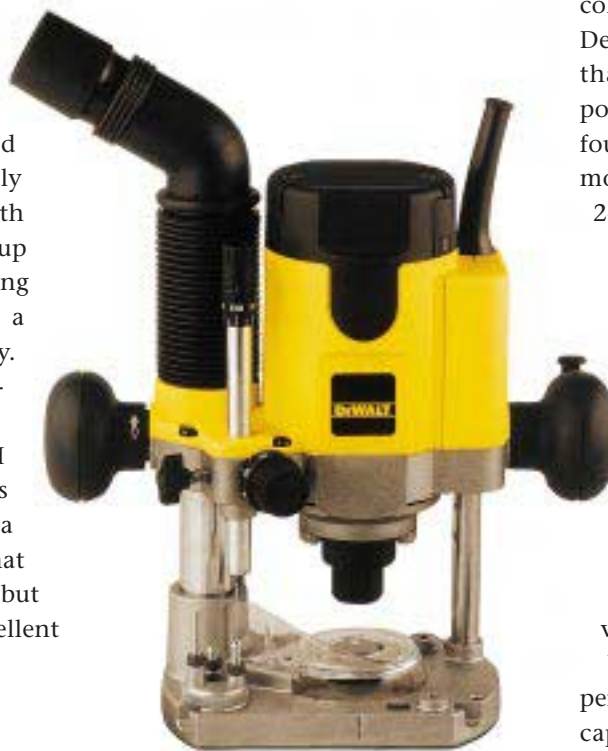
with reduced performance. In operation, the 621 collection system works much better than most add-ons, even on edge cuts, which typically throw the most dust. When cutting dadoes, where dust is corralled between the baseplate and the face of the stock, the 621 leaves almost no dust behind.

At 9 pounds, this machine handles well. It isn't top-heavy like many of the big, 3-hp rigs, which can weigh up to 18 pounds, and it's much more powerful than the sportier laminate

trimmers. The exceptionally smooth plunge and release action is controlled by the standard three-stop turret and rack-and-pinion depth gauge, but the DeWalt's depth-setting system is by far the best I've seen. The wheel for coarse adjustment is quick to set and lock, and microadjustments are extremely precise (assuming 1/128 inch is close enough). The scale is also easy to read because there's no plastic lens in your way.

The spindle lock requires just one wrench to change bits, and comes with collets for 1/4- and 1/2-inch shanks. DeWalt uses a six-finger collet design that provides much better holding power than the more common split or four-finger styles. The variable-speed motor operates at between 8,000 and 24,000 rpm, making this router suitable for use with a variety of materials. And the soft-start feature, which gradually increases rpm after startup, virtually eliminates kickback. The trigger lock engages easily, but it's mounted on the right handle, which may be inconvenient for southpaws. The clear plastic chip shield limits visibility, and it's a bit bothersome to continually have to rein in the vacuum hose.

Weighed against its excellent overall performance and superior dust control capability, however, these glitches struck me as reasonable tradeoffs. And if you need dust collection only occasionally, you can remove the shield and close off the adapter (a cap is provided), and still have a nifty tool. 



The DeWalt 621 plunge router features a dust collection system that works. It pulls debris from cast-in ports in the standard-sized baseplate through a sleeve around the left post. Other highlights include a one-wrench spindle lock and "soft start" mechanism that eliminates kickback by gradually increasing rpm when you pull the trigger.

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