Bust Dust for Good

A dust collector handles the big stuff. A mid-sized dust collector is a smart bet for the table saw, planer and other big machines. Keep it connected to the most-used chip makers. Add blast gates and an expandable hose to extend its reach to other machines.
Ears ago, woodworkers considered dust as a nuisance, or a by-product of a busy shop. Back then, “dust collection” was mainly focused on grabbing the big chips to avoid sweeping the floor at the end of the day.

Today we know that fine dust is the real problem. Those microscopic particles that hang in the air the longest and clog the furnace filters are the same ones that can become embedded in your lungs. Breathe in clouds of it for years on end, and wood dust becomes a carcinogen, according to the National Institute for Occupational Safety and Health (NIOSH). But even the smaller amounts can complicate the symptoms associated with seasonal allergies, or (if you work with a lot of MDF or exotic woods) trigger a host of annoying—for some, potentially serious—allergic reactions.

Lucky for us, the woodworking marketplace has heard the cry for more effective dust collection, and answered with a host of practical solutions, from better tool ports to finer filters, making it easier than ever to keep your lungs clean and, yes, avoid sweeping too, which is nothing to sneeze at.

Imagine being able to use almost any machine or tool in the shop for hours at a time with nary a wood chip in sight and the air as clear as when you walked in. The dream is closer than you think. Whether you are just setting up your first workshop or you’re ready to step up your game and bust dust for good, this two-step approach will help you get started.

**fastFACTS**

- The secret to a clean shop is collecting dust at the source. That keeps it out of your airways and can eliminate the need for an overhead air cleaner.
- New tools and machines have better dust exhaust ports. For older tools, you can seal up cabinets, add ports, and improve hose fittings.
- Filters are better than ever. High-Efficiency Particle Attractant (HEPA)-level filters are available for vacs and dust collectors alike, leaving your lungs and your shop clean and happy.
- A host of new accessories make it easier to turn on collectors and vacs, connect them to tools, and keep filters clog-free.
Woodworkers know that a shop vac is the first step to a cleaner shop, but many don’t make the most of this workhorse. To get started, figure out how to connect your vac to all the tools and machines you can (see photos, facing page, top). With the right collection of fittings, it can be a decent partner for many benchtop tools and a great upgrade for any portable power tool that sports a dust bag or canister. For example, dump that useless little bag or canister on the end of your random-orbit sander, attach your vac, and you’ll be shocked at how dust-free sanding will be. The benefits extend beyond a clean shop. Cleaner sanding discs will boost the tool’s efficiency, resulting in less time sanding and longer-lasting abrasives.

The latest generation of shop vacs offer some attractive features (see photo, facing page, bottom), but if you already own one, you can do a lot to improve it. Start by switching out the existing foam or fabric filter with a HEPA-level filter to catch the finest, most troublesome dust. Finer filters are more prone to clogging, but there are a number of solutions. Disposable collection bags can serve as a pre-filter, but buying bags is pricey and inconvenient. I recommend investing in Oneida’s Dust Deputy. This ingenious sidecar cyclone canister grabs 95% of the dust and chips and deposits them in a plastic bucket that’s easy to remove and empty. More than eliminating the hassle of shaking out the filter when you empty the can, the cyclone keeps the filter clean so that the vacuum continually works at peak performance.

HIGH-PERFORMANCE UPGRADES

Add a HEPA filter. HEPA-rated filters are available for all vac models old and new. They pop in easily and capture the finest dust.

The clogging problem. All shop-vac filters clog, but HEPA-rated filters clog even more quickly.

Dust deputy keeps filters clean. I’ve found Oneida’s Dust Deputy to be an amazing accessory for any vac. It will collect almost all of the dust and chips in its big pail, keeping the filter clean and suction at the max. The Deputy comes with casters and an attachment kit so you don’t have to drag it around.
Add a remote trigger. If your vac doesn’t have an auto-start outlet, you can activate it remotely with this two-part gadget that goes on the end of the cord and the end of the hose, right by the tool you are using.

Connect to everything. Inexpensive aftermarket hoses and fittings can connect any vac to almost any tool. I built a dust box on my router-table fence to accept the hose. The vac-assist on my miter saw grabs three-quarters of the mess, which I consider a victory with this notorious chip sprayer.

Buying New?

Today’s shop vacs are designed to function more efficiently and quietly than their predecessors. Premium models like these offer features like auto-start outlets and filter cleaners.
Step up to a full-sized dust collector

As souped-up as your shop vac now is, it still won’t move enough air to grab the big chips thrown off by your big machines: table saw, jointer, planer, bandsaw. Considering that those are the tools you use frequently, it’s best to have a dust collector dedicated to them, hooked up permanently with a blast-gate system and multiple hoses.

For most folks, a single-stage dust collector is the practical choice. A 1½-hp unit will provide the air volume and velocity to keep your biggest machines almost dust-free, as long as you limit the hose lengths to around 8 feet. (longer runs decrease airflow).

Like everything related to wood dust, full-sized collectors have gotten better, thanks to new filter technology. Old dust bags only grabbed particles bigger than 30 microns, blasting out the finest, most dangerous dust at head height. Next-generation dust bags boast 5-micron filtration, which helps keep shops cleaner, but still leaves fine dust in the air.

A pleated cartridge filter is a smart investment for single-stage collectors. The increased surface area allows very fine filtration without choking airflow. If you are in the market for a new dust collector, get one with a pleated filter, sometimes called a cartridge or canister filter. If you already own a collector with one of those dusty old bags, a canister is a simple upgrade.

Like a shop vac’s HEPA filter, a pleated cartridge filter with a single-stage collector is prone to clogging, especially if you let the chips pile up in the bottom bag. Although most employ internal flappers, which rattle the pleats to shake out caked dust, the flappers can abrade the paper and wear out your filter. To protect your investment, blast it out with compressed air once a week, or after heavy use.

SIMPLE AND SMART COLLECTOR UPGRADE

Ditch the bag and bust the dust. Canister filters provide better filtration and eliminate the dust cloud caused when the bag inflates. Once installed, the canister stays put.

Unclog it regularly. Blowing out the filter with compressed air eliminates the wear and tear that happens from using the internal flappers. Stay 6” away to avoid perforating the paper.

Add blast gates. A simple two-gate system lets me keep a short hose permanently connected to the table saw and offers a second hose for other machines.

Another awesome remote. Just plug your dust collector into this controlled outlet, turn it on, and use your remote control to switch the collector on and off. This unit keeps the collector running for a bit after you switch it off to clear the machine and line.
Permanent connection. Dedicate a standard hose to the machine that gets used most, like your table saw. I’ve retrofitted my old saw with a dust port and a raised floor in the cabinet to maximize dust collection. Don’t forget to shut the blast gate when you’re working on other machines.

New models to consider
Single-stage models are still the best deal in dust collection. Basic units start at $300, but better collectors, like this Jet with a 2-micron pleated cartridge filter, keeps your shop and lungs cleaner. Cyclone collectors, like Laguna’s C|Flux:2 cost significantly more, but these units provide even better filtration—99.7% of particles 1 micron or larger.