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Downdraft Jig

In this plan you will be getting:

- Step by Step construction instruction.
- A complete bill of materials.
- Exploded view and elevation drawings.
- How-to photos with instructive captions.
- Tips to help you complete the project and become a better woodworker.



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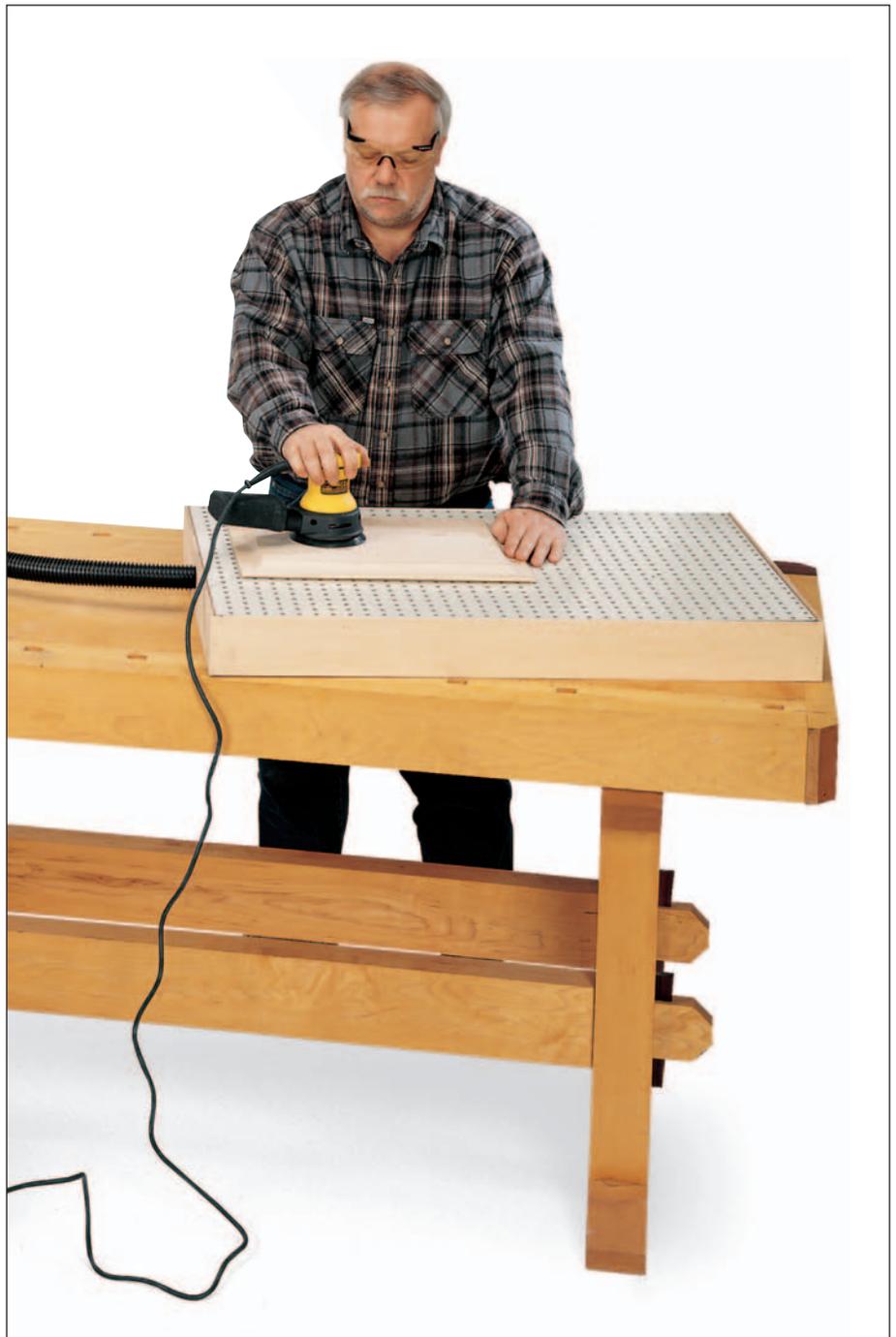
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Tabletop Downdraft Jig

A downdraft table for your day-to-day sanding doesn't have to be an intricate, time-consuming project with squirrel-cage fans and layers of filters. This little beauty comes together in one afternoon and will handle the lion's share of your shop dust.

Here's a helpful accessory for anyone who wants to breathe a little easier during sanding, especially with those wood species like cedar, walnut or cocobolo that can cause allergic reactions. And, given the recent research that suggests wood dust might be a carcinogen, anything we "lifer" woodworkers can do to manage dust is a good idea. Even with this jig, continue to use your sander's dust bag or canister for added dust control.

The jig is essentially an air box. Its thin profile keeps the volume of air to a minimum. This increases the airflow rate, which improves efficiency. Storing

it is easy. The case is only the thickness of a 2 x 4, so it hangs neatly out of the way on the shop wall. (You can make the sidewalls higher if you need to accommodate a larger dust hose.) When it's on the workbench, that thin profile also means the top of the jig is low enough to work on without raising your arms too high—which is a prescription for fatigue.

It's a good idea to cover the empty portion of the table

with paper or hardboard during use, to boost suction in the section of the top you are using.

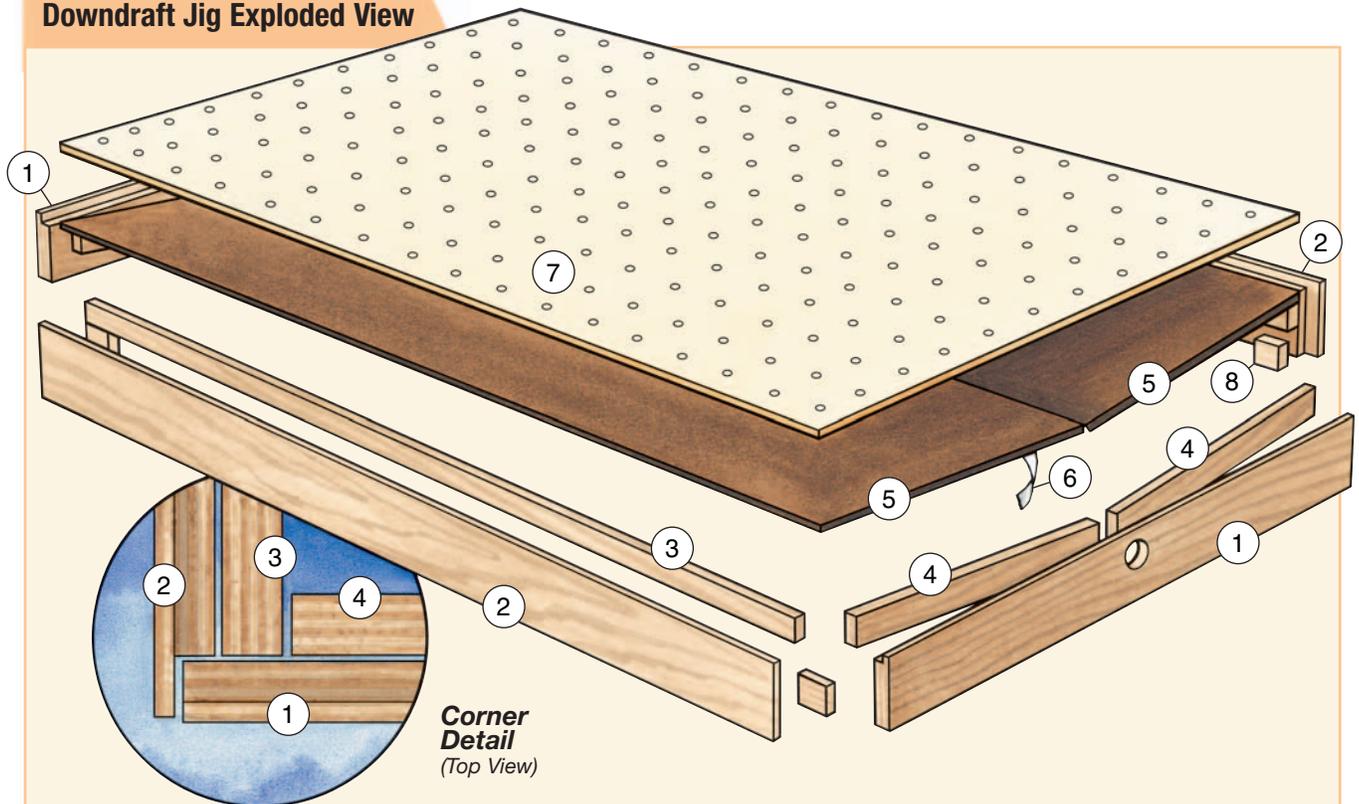
Start construction by cutting the ends, sides, and cleats (pieces 1 through 4) to size, then secure the corners with glued and nailed butt joints. Cut the bottoms (pieces 5) next, and install them in two halves to form a slight V-shape, as shown in the *Exploded View* on the next page.

The V-shape creates a valley that catches dust and fun-



This tabletop downdraft jig is a handy to use, easy to store addition to anyone's shop.

Downdraft Jig Exploded View



MATERIAL LIST – Downdraft Jig

	T x W x L		T x W x L
1 Ends (2)	3/4" x 3 1/2" x 23"	5 Bottom Halves (2)	1/4" x 11" x 34 1/2"
2 Sides (2)	3/4" x 3 1/2" x 36"	6 Bottom Tape (1)	Duct tape
3 Long Cleats (2)	3/4" x 1 1/2" x 34 1/2"	7 Top (1)	1/4" x 23" x 35 1/4"
4 Short Cleats (4)	3/4" x 1 1/2" x 20 1/2"	8 Glue Blocks (4)	3/4" x 1" x 1 3/8"

nels it more efficiently toward the vacuum. To begin, glue and nail (or screw) all four cleats in place, at the locations shown on the *detail drawing* above. Cut the bottom to size and temporarily install the two halves.

Clamp a few scraps to the sides, just to hold the bottom in place for a minute. Then turn the jig upside down and apply duct tape (piece 6) along the joint. Turn the jig back upright and secure the bottom to the cleats with small nails or brads, squaring the box as you go.

The top (piece 7) is nothing more than a piece of 1/4" pegboard. We used a brand with a finished face to help prevent scratching. You can cut it

to rest on the top and secure it with duct tape or trim it to fit just inside the box and let it rest on the bottom. Either method allows for easy replacement when it gets a worn. If the top flexes too much, add a couple of band-sawn triangular cleats to the carcass ends.

Hooking It Up

Attaching a vacuum or dust collector hose is generally just a matter of drilling the right size hole for the hose end. Or, you can buy a flange that screws to the box to connect your dust collector or vacuum hose. Bring your hose to a home center and spend a little time in the plumbing aisle to find the

We use a shop vacuum with a special switch designed to be used with dust-creating power tools. When you plug your sander into the vacuum, each time you start the tool the vacuum turns on as well. When you turn your tool off, the vacuum continues for a short time to catch the last bit of dust.



right connector—there's bound to be one that fits. Virtually any size dust collector will work with this jig, but it goes without saying that bigger is better—just be sure to wear ear plugs.