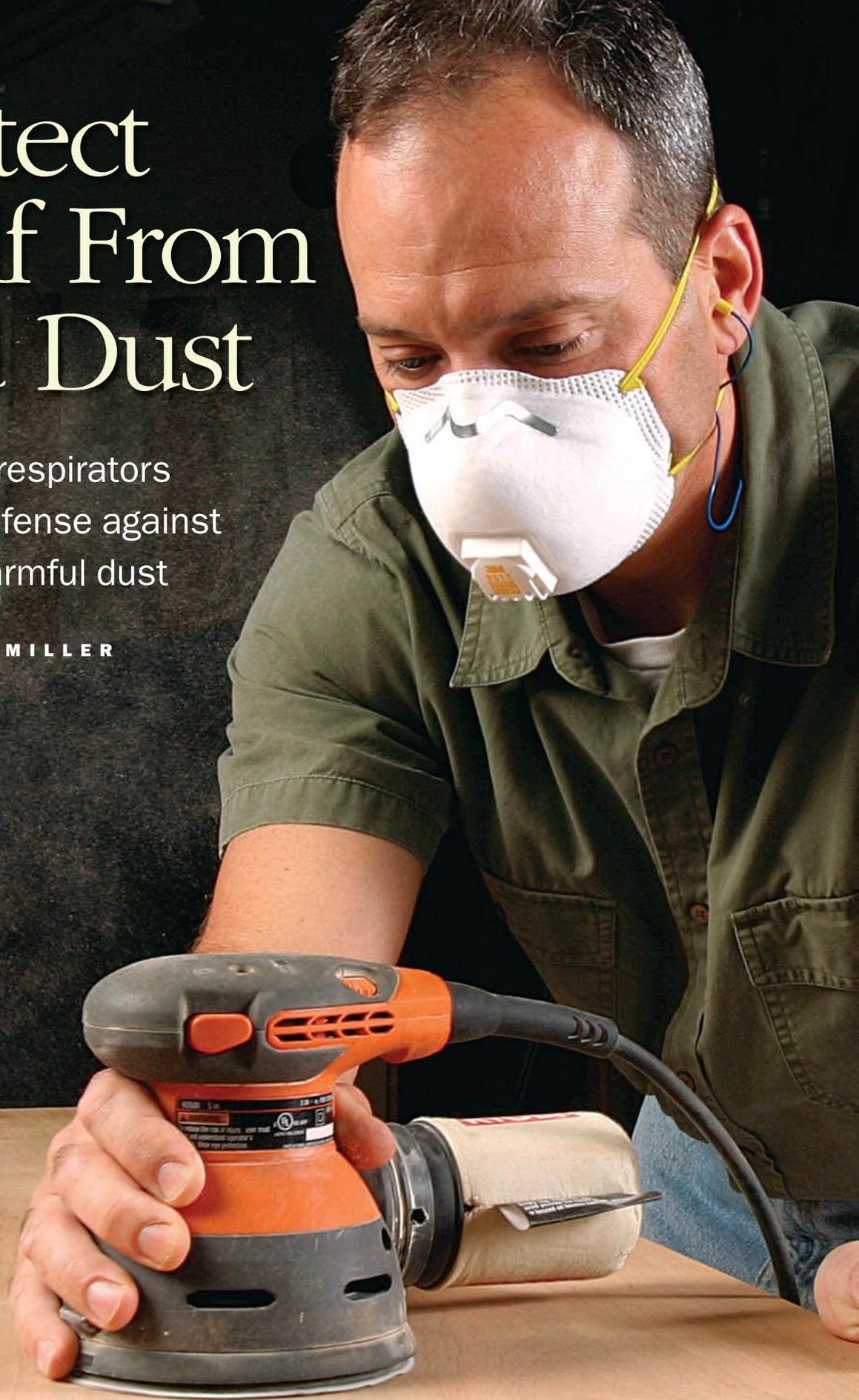


Protect Yourself From Wood Dust

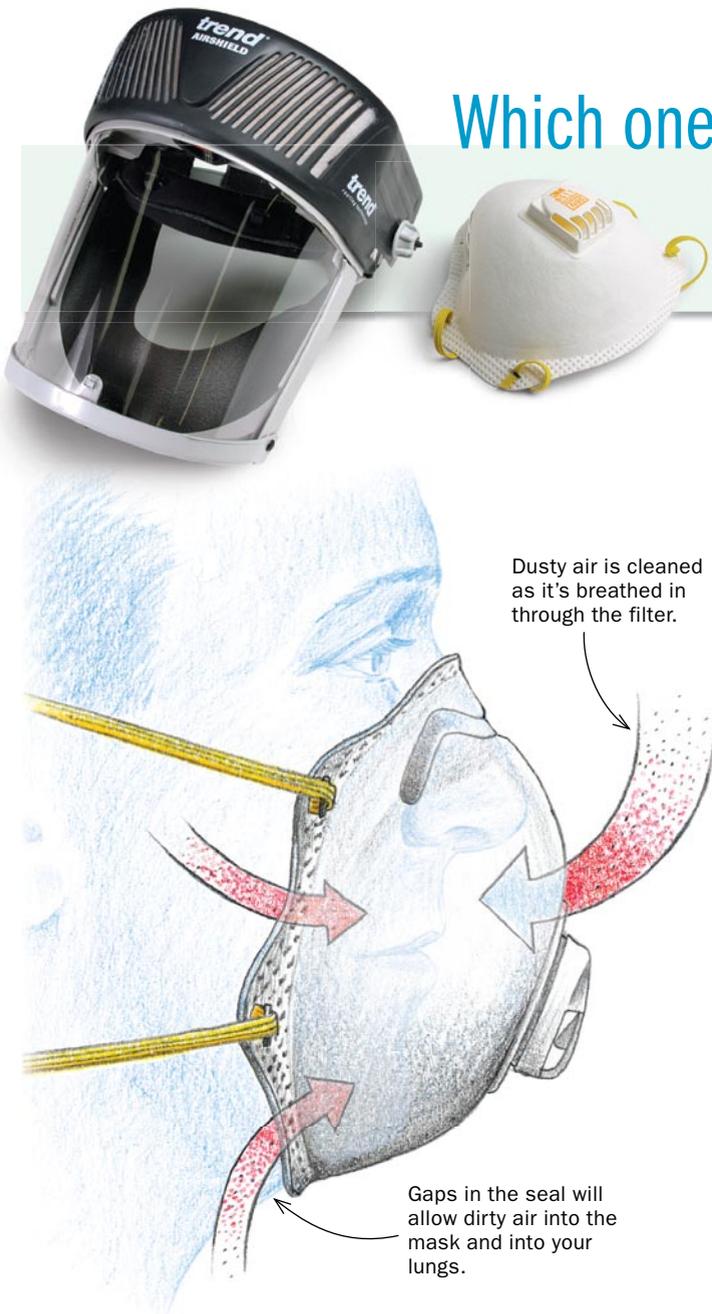
Masks and respirators are the best defense against the most harmful dust

BY JEFF MILLER



Which one is right for you?

For most people, a high-quality dust mask works great. A powered respirator is a better choice if you need protection from flying chips, or if you have facial hair, which keeps a dust mask from working properly. Most respirators have integrated, safety-rated face shields.

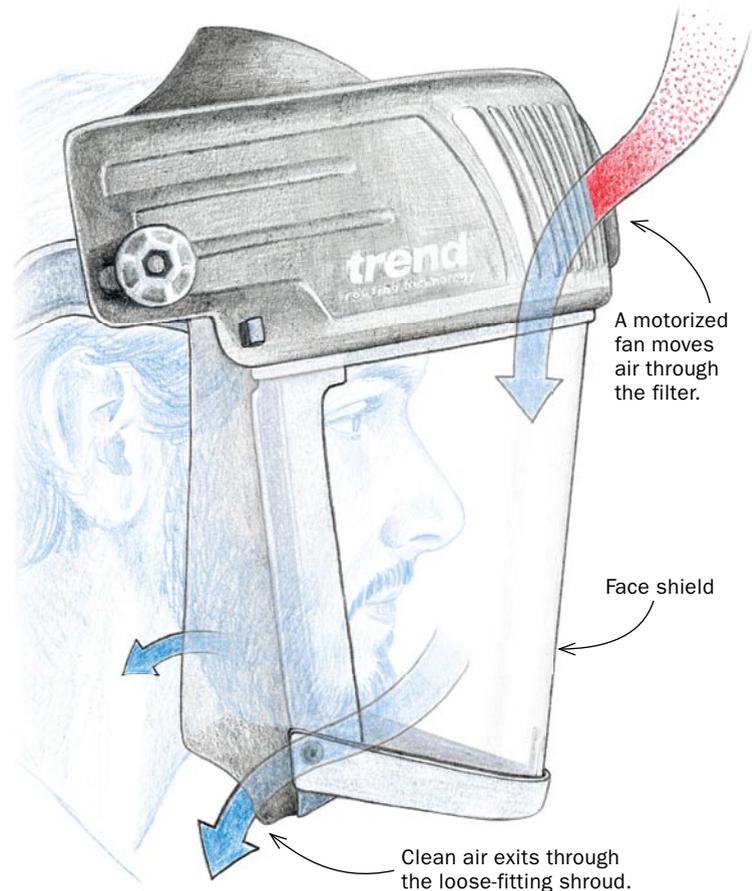


Dusty air is cleaned as it's breathed in through the filter.

Gaps in the seal will allow dirty air into the mask and into your lungs.

DUST MASKS REQUIRE A TIGHT FIT

A dust mask should seal tightly against your face. That keeps bad air from seeping in.



A motorized fan moves air through the filter.

Face shield

Clean air exits through the loose-fitting shroud.

POWERED RESPIRATORS USE POSITIVE PRESSURE

Respirators use a fan to pull dirty air through a filter. The clean air flows down over the face, preventing bad air from flowing into the mask.

Wood dust is a woodworker's constant companion and a constant threat. It doesn't take much airborne dust to exceed the exposure limits recommended by the National Institute for Occupational Safety and Health. In fact, you'll quickly blow past them when machining or sanding wood. Dust collectors and air cleaners help control wood dust, but even when optimized for your shop they don't catch it all. The smallest and most dangerous particles escape them.

Exposure to those minute particles can cause nasal and sinus-cavity irritation, allergies, lung congestion, chronic cough, and cancer. That's why it's important to wear a dust mask or a powered respirator whenever you're producing dust, or working in the shop afterward.

You're more likely to wear a dust mask or respirator if it's comfortable and fits well. You might need to look beyond your local hardware store, but great choices are out there. In fact, there are so many

Filters for wood dust

For protection from wood dust, look for a mask rated N95, N99, or N100.

The ratings don't apply to powered respirators, but all the respirators tested clean the air as well as an N95 mask.



Dust masks



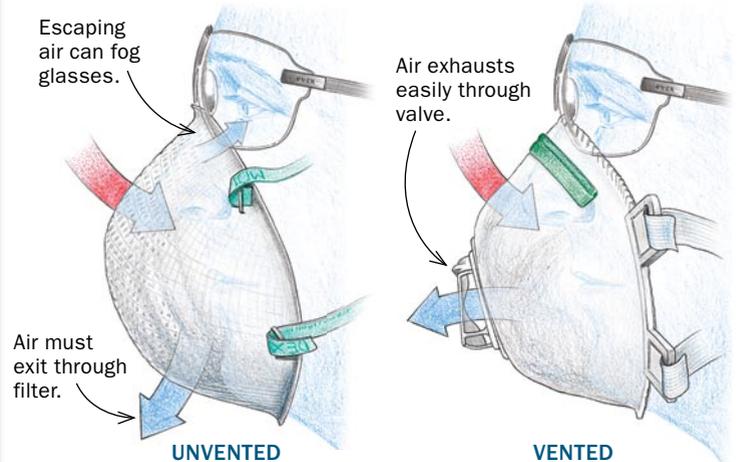
A place to hang your mask. The Moldex Handy Strap makes hanging a mask around your neck a snap (above), a big plus when you need to take it off momentarily to speak, get a drink, or make an adjustment. The strap makes putting the mask on easier, too (right).



A better fit for more noses. Masks with adjustable nosepieces work for more people because they can be tailored to the individual's nose. The nosepieces help prevent fogging by giving a better seal around the nose.

GET A VENT

Our testers clearly favored vented masks because they are more comfortable. They allow hot air to easily escape through the front of the mask, so your face stays cooler and your glasses won't fog.



options you might feel overwhelmed. But that won't happen if you know how dust masks and respirators work, how to tell if one fits you well, and which features make one more comfortable.

I recently tested a large selection of masks and respirators, and had the editors at *Fine Woodworking* do the same. I'll tell you what we liked about them and what we didn't. That will help you know where to begin your search for a good-fitting and effective dust mask or respirator.

After all of our testing, it's clear that there are a few key features that make for a great mask or respirator. You should put them at the top of your list before you shop.

Comfort and fit matter most

An exhaust valve is an indispensable feature on a dust mask. In fact, we recommend you steer clear of any dust mask that doesn't have one. Exhaust valves clear the warm air you exhale, prevent safety glasses from fogging, and help keep your face cooler.



3M 9211
www.masksnmore.com
5 for \$8.25

MOLDEX N95 WITH EXHAUST VALVE
www.leevalley.com
5 for \$20



MOLDEX EZ-ON WITH EXHAUST VALVE
www.labsafety.com
10 for \$28



NORTH CFR-1 COM-FIT

www.labsafety.com
 \$12 for mask and one filter;
 \$15 for 20 replacement filters

REUSABLE MASKS: A GOOD ALTERNATIVE FOR SOME

Disposable masks and those with replaceable filters clean air in the same way. The difference shows up when it's time to replace the filter. With a reusable mask, you replace just the filter section, and keep the "frame" that holds it. Although they cost more up front, their filters last longer and are less expensive. They are heavier and can be less comfortable than disposables, but if you find one that fits you well, a reusable mask could be a good option.



HALF MASK DUST RESPIRATOR

www.leevalley.com
 \$32 for mask and 6 filters;
 \$10 for 5 replacement filters



You also should look for a mask that is made from face-friendly material. The interior of the 3M 8511, for example, is soft and fleece-like. An adjustable nosepiece is important, because it allows the mask to form a tighter seal against your face and allows you to customize the mask to the shape of your nose.

Adjustable straps are a big plus, because they make for a tighter fit. Testers liked the adjustability of the straps on the Willson Saf-T-Fit Plus, and applauded the versatility of the Moldex Handy Strap, which

allows you to hang the mask comfortably around your neck.

Some features don't reveal themselves until you have a mask on. You don't want a mask that interferes with your vision or safety glasses, prevents you from speaking audibly, or interferes with hearing protection.

Because they have nearly all of these features, two masks really stood out

from the rest: the 3M 8511 and the Willson Saf-T-Fit.

Respirators are harder to peg than dust masks, but there are a few key features to look for. The weight and balance of the helmet, for example, are important. If a respirator doesn't sit well on your head, you'll take it off very

Our favorites



MOLDEX N100 WITH HANDY STRAP

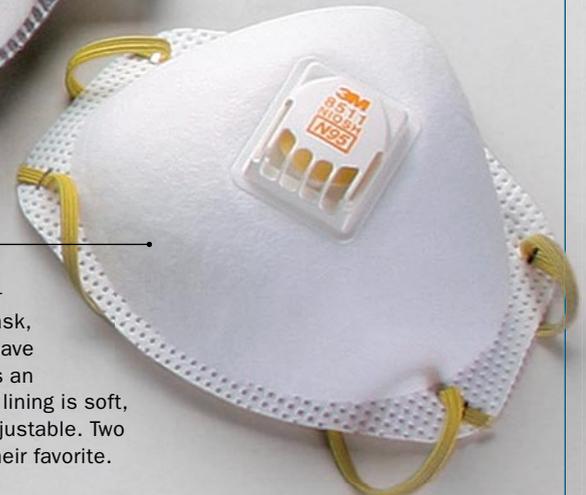
www.labsafety.com
 5 for \$34



WILLSON SAF-T-FIT

www.labsafety.com
 10 for \$28

This mask just about has it all. It's made from a comfortable material and has an exhaust valve, adjustable straps, an adjustable nosepiece, and a foam gasket that seals tightly against your face.



3M 8511

www.labsafety.com
 (No. 38025); 10 for \$21

This is another great mask, even though it doesn't have adjustable straps. It has an exhaust valve, the inner lining is soft, and the nosepiece is adjustable. Two testers picked this as their favorite.



Protection from the big stuff, too. Many respirators have an integrated safety-rated face shield, which makes them great for turners.

quickly. And the face shield shouldn't distort or interfere with your vision. You also should be able to wear some kind of hearing protection with the respirator on.

Of the respirators we tested, the Trend Airshield and Airshield Pro distinguished themselves for comfort, clarity of vision, and overall user-friendliness.

Keep the clean air flowing

Dust masks don't last forever. Replace yours when it becomes difficult to breathe through, when the mask no longer seals properly, or when it is damaged.

If you use a respirator, make sure to check its airflow regularly. When it doesn't move enough clean air, it's time to replace the batteries, the filter, or both. □

Jeff Miller designs and builds furniture, and teaches at his studio, J. Miller Handcrafted Furniture, in Chicago.

Powered respirators

If you've got a beard, a respirator is the way to go. And if you turn, you can find one with a safety-rated face shield for added protection.



TRITON POWERED RESPIRATOR

www.woodcraft.com
\$200

In addition to being a respirator, the Triton provides a full-face shield, a helmet, and integral hearing protection. A belt pack holds the fan, filter, and batteries. The fan and filter are connected to the helmet by a hose. It's great for rough work, but the face shield distorts your vision.



AIRCAP 2

www.woodcraft.com
\$205

The filters and a fan are perched on the cap of this lightweight respirator. The face shield is not a safety device.



POWER AIR RESPIRATOR

www.rockler.com
\$70

This respirator resembles a reusable dust mask, but it's heavier because the filter, fan, and motor are on the mask. The batteries go in a belt pack. Everyone who tested this one found it uncomfortable.



TREND AIRSHIELD

www.envirosafetyproducts.com
\$240

Testers found the Airshield comfortable because of its padded headband. And even though the fan, motor, filter, and battery are perched on your brow, its weight is reasonably well balanced.

TREND AIRSHIELD PRO

www.envirosafetyproducts.com
\$366

The filter, fan, motor, and battery are located on the top of this respirator, so its weight is very well balanced.

The optional earmuffs work well once you get everything adjusted. It provides the best filtration of all the powered respirators tested.

Our favorites

