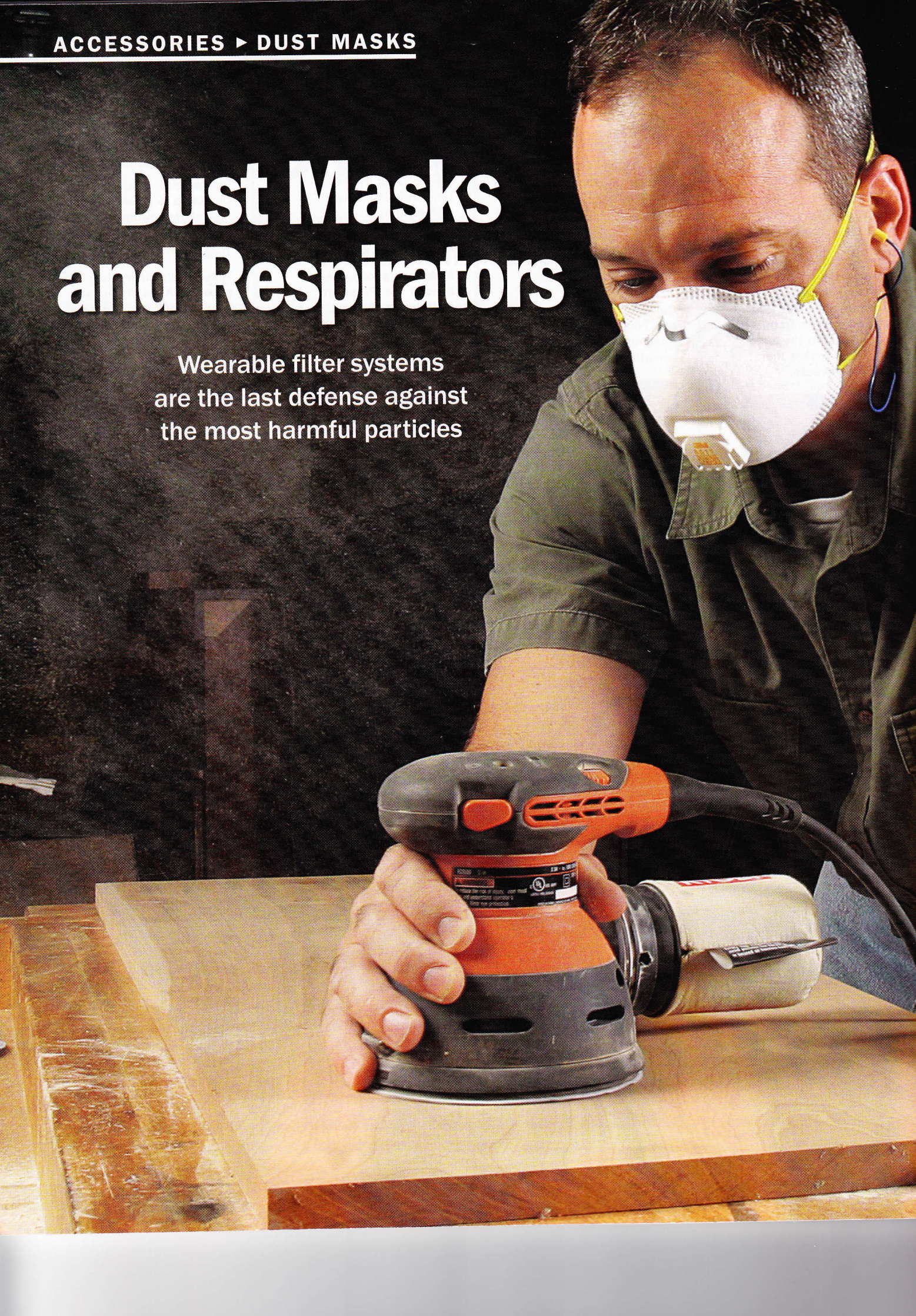


# Dust Masks and Respirators

Wearable filter systems  
are the last defense against  
the most harmful particles



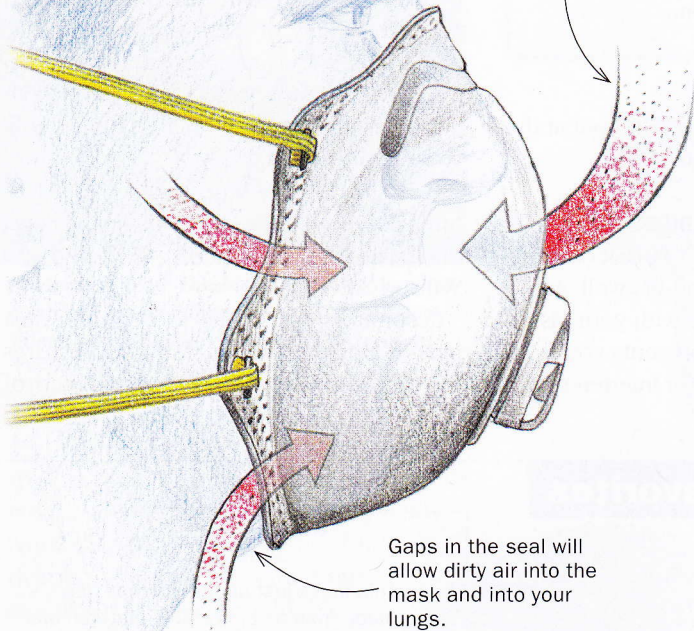


# Which one is right for you?

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.

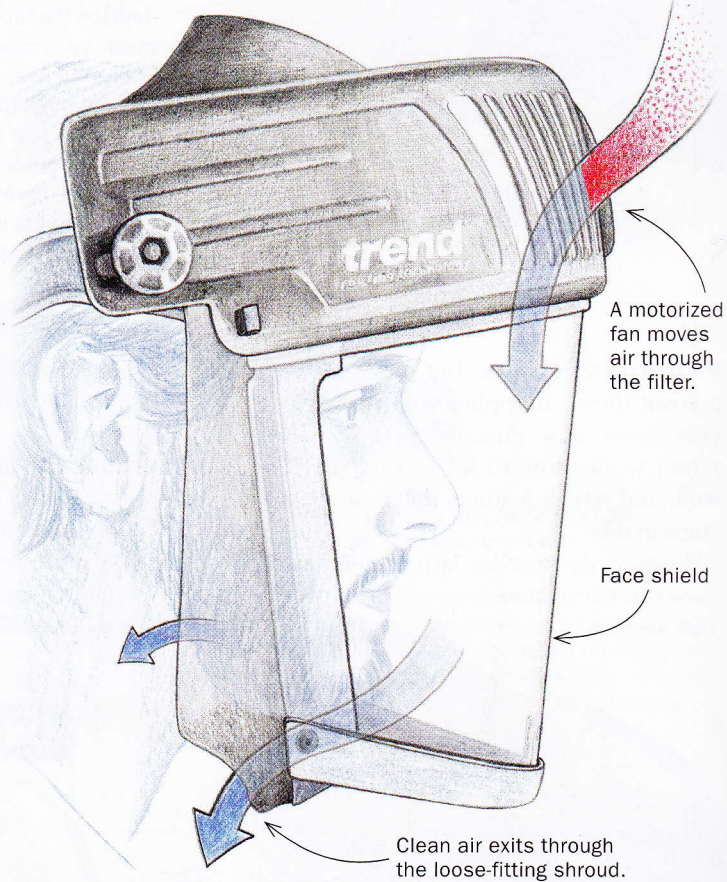
For woodworkers and home builders alike, dust is a constant—and unwelcome—companion. How unwelcome? Exposure to minute particles can cause nasal and sinus-cavity irritation, allergies, lung congestion, chronic cough, and—in the case of wood dust—cancer.

And 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. Unlike most job sites, a shop may have dust collectors or air cleaners to help control dust, but these machines still can't catch it all. The smallest and most dangerous particles escape them.

That's why it's important to wear a dust mask or a powered respirator whenever you're producing dust, or working nearby afterward.

To find a good mask or powered respirator, you might need to look beyond your



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.

## Rating dust filters

Get a mask rated N95, N99, or N100, based on the minimum percentage of dust filtered out by the mask. Powered respirators aren't rated, but those we reviewed clean the air as well as an N95 mask.





# Dust masks



**NORTH CF-1 COM-FIT**  
www.labsafety.com  
\$13 for mask and one filter;  
\$26 for 10 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.

hearing protection. Also steer clear of any dust mask that doesn't have an exhaust valve to vent the warm air you exhale. This indispensable feature prevents safety glasses from fogging and helps keep your face cooler.

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; it allows the mask to form a tighter seal against your face and lets you customize the mask to the shape of your nose.

Adjustable straps are a big plus, because they make for a tighter fit. Our 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.

Because they have nearly all of the features listed above, 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

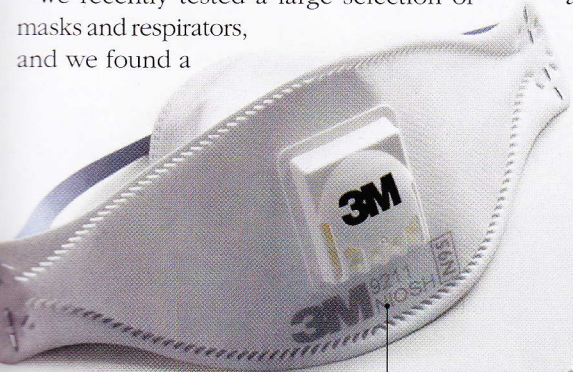
local hardware store, but great choices are out there. Shopping will be easier if you know how dust masks and respirators work, how to tell if one fits you well, and which features make one more comfortable.

We recently tested a large selection of masks and respirators, and we found a

few key features that you should put at the top of your list before you shop.

## Comfort and fit matter most

You're more likely to wear a mask or respirator if it's comfortable and fits well. Avoid a mask that interferes with your vision or safety glasses, prevents you from speaking audibly, or interferes with



**3M 9211**  
www.masksnmore.com  
10 for \$15



**MOLDEX N100 WITH HANDY STRAP**  
www.labsafety.com  
5 for \$34

## Our favorites



**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.







## 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.rockler.com](http://www.rockler.com)  
\$230

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.



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

the helmet, for example, are important. If a respirator doesn't sit well on your head, you'll take it off very 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 hard to breathe through, when the mask no longer seals properly, or when it is damaged.

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

*Jeff Miller contributed to this article.*



### POWER AIR RESPIRATOR

[www.rockler.com](http://www.rockler.com)  
\$75

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

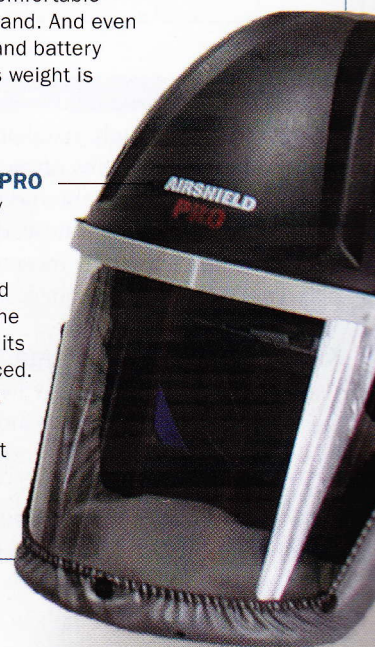
[www.envirosafetyproducts.com](http://www.envirosafetyproducts.com)  
\$240

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](http://www.envirosafetyproducts.com)  
\$320

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