

# Shop Vacs vs. Dust Collectors



When I hooked my dust collector up to my sander, the built-in dust extraction system hardly worked at all. Is there something wrong with my dust collector, or is the problem in the sander's dust pick-up design?



The problem is that your dust collector simply can't pull a useful amount of air through the sander's 1" port. Starved for air, the impeller cavitates and lets the sander blow dust as usual.

Movement of air through vacuum sources is measured two ways: cubic feet per minute and static pressure. Static pressure is a measure of how forcibly the vacuum source operates. Dust collectors typically move a great deal of air, generating the high-speed draft needed to grab large amounts of waste from relatively diffuse sources. They don't develop much static pressure, however. By contrast, shop vacs generate very high static pressure, but they usually don't move a lot of CFM.

Hook your shop vac to your sander, and you'll see the kind of performance we've enjoyed here. The vac has the static pressure to pull a high-speed stream of dust-laden air through the sander base; its modest CFM rating is quite adequate for the small source area through the perforated paper. The only drawback is having to listen to a screaming shop vac. (Which presents an irresistible opportunity to segue into a commercial for our pleasantly quiet Fein vacuums, described on our website and in our catalog).