

Air Handling Systems

by Manufacturers Service Co., Inc.

Spot Dust Collection vs. General Ventilation

Question: I have a single stage dust collector (Delta) rated at 1200 CFM*. It has two inlets to the collector. I would like to connect one inlet to a plenum, which would have a 24" X 24" filter in it. My intention is to run the unit continuously during sanding operations so that the wood dust in the general shop air will be continuously filtered. Is this feasible?

Answer: It is not recommended to attach a filter plenum to your dust collector. First of all you do not have enough volume (CFM). Also dust collectors are for spot, source dust collection, not for general ventilation. In addition, the filter resistance is a problem.

To collect dust from a sanding operation: Attach a nozzle (type 3) to the end of flex hose, with the other end of the flex attached to a branch from your dust collection system. You can position the nozzle right where you are sanding.

To filter the shop air: Purchase a Delta 50-860 Air Cleaner or similar unit that you could hang in the shop or set on a workbench. This would be an efficient and inexpensive solution to filter the shop air.

*Additional notes: Watch the CFM rating on dust collection units. Most of the time, the manufacturer is referring to free air. That is how much CFM is available without any pipe hooked up yet. Once pipe, fittings and flexhose is connect to the collector, you need to factor in the Static Pressure. The more pipe, elbows, and hose used the higher your Static Pressure. The higher the Static Pressure the lower the available CFM will be. Delta and other dust collection companies offer Performance Ratings for their dust collectors that show how much CFM is available at various Static Pressures. For information on how to figure the Static Pressure for your dust collection system refer to the design instructions in our Air Handling Systems catalog.