

Powermatic PM1200 Air Filtration System

A large portion of the design and engineering effort behind the Powermatic PM1200 Air Filtration System was devoted to striking a good balance between airflow volume and efficient filtration. Even the fins on the blower fan were subjected to considerable research and development to be sure they made the most effective fan for this application. The result is an air filtration system specifically designed from the ground up to function effectively in the woodshop environment.



The PM1200 Air Filtration System is loaded with features that make it versatile and a great value for the workshop.

Legitimate Efficiency



A considerable amount of engineering was expended in the design of the PM1200 AFS filtration elements to ensure maximum efficiency.

It is important to understand the filtration numbers so often used to describe the efficiency of an air filter. Statements like “filters particles down to 5 microns” actually tell you little about efficiency. It is crucial to know the percentage of those particles actually captured as no filter is 100% effective. Increasing the filtration efficiency for a 1-micron particle for example becomes exponentially difficult. Knowing the percentage of a specific particle size an air filtration system removes is the only true indicator of how it will perform in your shop.

We at POWERMATIC believe in providing the most accurate and understandable efficiency numbers for all of our dust collection and air filtering equipment. That gives you the best information possible on which to base your buying decisions.

The Powermatic PM1200 Air Filtration System uses two filter stages, the outer to capture large particles and the inner smaller particles. The outer filter removes 99% of 5-micron particles. The inner filter captures 85% of 1-micron particles.

Filters

To make it easier to maintain the Powermatic PM1200 Air Filtration System we use 12” X 24” X 1” filters on the intake side. That size was picked because they can be found at virtually any local home center. The diffusion filter on the exit side does not require replacement in most cases and can be cleaned periodically



The inner and outer filter elements (left) can be removed or installed (right) without tools.

with a vacuum or compressed air. The outer filters could require more frequent cleaning or replacement in exceptionally dusty environments to maintain maximum filtering efficiency.

POWERMATIC does offer replacement filter elements for the Powermatic PM1200 Air Filtration System. We have specialized filter elements available including a washable (outer) intake filter #1791085. We also have a charcoal diffusion filter element (#1791084) that aides in removing non-flammable vapor contaminants and odors.

Filter Guards



Removing or installing the filter guards is also tool-free to make this service easier to do on a ladder!

Special attention was given to the inlet and outlet filter guards. The Powermatic PM1200 Air Filtration System filter guards are not only stylish but functional and do more than simply protect the filter elements from damage.

Both the inlet and outlet filter guards are easily removed and installed without tools. This eliminates trying to extract screws or operate complicated latches while on a ladder. The Powermatic PM1200 Air Filtration System grilles are secured with simple, finger-operated catches so they come off easily but stay in place during use.

The inlet filter guard is designed to help straighten the air as it enters the filter elements behind it. The exit filter guard works with the diffusion element to disperse the air as it leaves the Powermatic PM1200 Air Filtration System to limit disturbing nearby standing dust that could be dislodged and added to the suspended contamination.

Controls

Woodworking shops have changing levels of dust contamination so we added a full set of controls to the Powermatic PM1200 Air Filtration System. And, all of those controls are available on the Powermatic PM1200 Air Filtration System itself or the included remote control. The remote control has a LCD screen that provides graphical representations of the various functions and settings.

The Powermatic PM1200 Air Filtration System has three speed ranges – Low (547 CFM), Medium (706 CFM) and High 1196 (CFM). This range of operating speeds lets you set the Powermatic PM1200 Air Filtration System for the current conditions allowing you to save energy whenever possible.



The on-board panel and radio frequency remote control make using the PM1200 AFS easy from anywhere in the shop – or out of it!

We also added a programmable timer. This lets you set the Powermatic PM1200 Air Filtration System to run for one to nine hours to thoroughly clean the air after work has stopped. When the timer expires, the Powermatic PM1200 Air Filtration System shuts down automatically.

A re-settable, pop out fuse protects the Powermatic PM1200 Air Filtration System in the event of an overload or power surge. After three to five minutes, push the fuse button and restart the Powermatic PM1200 Air Filtration System.

We also added a “change filter” light that comes on after 200 hours of use. This indicator is intended as a guide or reminder. The actual intervals between cleaning or replacing filter media is determined by how much dust is being made in the shop. The change filter light has a reset button (accessed with a paper clip or similar wire) on the control panel of the Powermatic PM1200 Air Filtration System.

The remote control that comes with the Powermatic PM1200 Air Filtration System operates on a radio frequency rather than an infrared beam. Using radio frequency eliminates the line-of-sight limitation of the infrared types. The radio frequency remote supplied with the Powermatic PM1200 Air Filtration System works from anywhere in the shop or even from other nearby rooms.

Mounting and Locations



Along with the remote we include a hardware pack with threaded eyelets, nuts and washers to make hanging the PM1200 AFS easy and safe.

At 67 pounds the Powermatic PM1200 Air Filtration System is relatively light but requires a safe, secure mounting. High quality, appropriately sized fasteners that are properly installed into joists or rafters is required. We recommend avoiding the use of open hook-type connections. Using self-closing clip or loop-style connections will prevent one or more corners of the Powermatic PM1200 Air Filtration System from detaching should it be struck accidentally by a project or piece of wood.

The innumerable variations in the shape and configuration of woodworking shops make recommending standardized mounting locations virtually impossible. In many cases placing the Powermatic PM1200 Air Filtration System parallel to one of the walls will help promote circulation of the air within the space for the most effective cleaning of the air. In very large shops, two or more Powermatic PM1200 Air Filtration Systems can be installed nose-to-tail to more effectively clean the large volume of air.

If there is a particularly dusty location such as a permanent sanding station, some find it helpful to install the Powermatic PM1200 Air Filtration System so that the exit (filtered) airflow washes over that area. That introduces a stream of “rinsed” air to the immediate area and promotes circulating the contaminated air around the room to the inlet side of the Powermatic PM1200 Air Filtration System.