POWERMATIC PM1300 Dust Collector

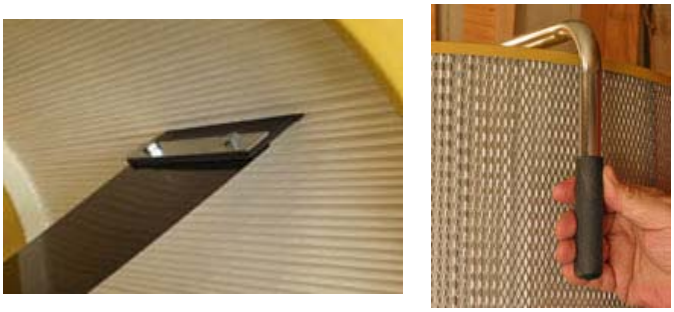
The POWERMATIC PM1300 is designed to bring substantial dust-evacuating suction with effective filtering to your shop and to pack those capabilities into a durable, space-saving package that accommodates virtually any shop size and needs.

While the Powermatic DC1300 itself is identical in both pictures above, the difference in the height of the fabric bag (left) vs. the canister style filter (right) is apparent.

The POWERMATIC PM1300 is shipped as a bare machine without a filter element or catch bags allowing the buyer to "design" the system they want. The fabric filter and catch bag set as well as the pleated canister filter with 5 plastic catch bags are sold as individual kits. This allows the purchaser to save money by getting the POWERMATIC PM1300 with the filter style wanted without paying for and then discarding an unused "standard" filter and bag set.

Filtering Efficiency

The bag filter element is 20" in diameter and 48" in length. An upright hook is included to support the bag when the POWERMATIC PM1300 is not running. A spring steel band clamp secures the filter bag to the collector housing. The fabric collector bag has a spring retaining ring sewn into its upper edge that fits into a groove in the collector housing making its installation and removal tool free. Many manufacturers use an outside band for securing the collection bag that can be very difficult to work with, especially when done alone.



To help maintain the filtering efficiency a pair of hands (left) wipe across the inside of the pleated canister element to knock off excess buildup. The hands are operated by a simple turn of the exterior handle (right). Giving the handle a single turn once per month is adequate in most situations.

The bag type element filters out 96% of 30 micron particles.

The canister filter is 20" in diameter and 29" long. The canister mounts directly to the collector housing and seals with a factory installed foam gasket within the canister flange. Four finger-operated knobs lock the canister to the collector

housing. The pleated filter element gives the canister a tremendous amount of filtering surface area despite its compact overall size.

The canister filters 86% of 1 micron particles and 98% of 2 micron particles. To maintain that efficiency, a top-mounted handle that when turned operates a pair of "hands" that wipe across the interior filter pleats. The hands flex the pleats, knocking off excessive dust buildup but leaving the beneficial layer. Turning the top-mounted handle one full revolution per month under normal conditions is all that is required. The oval POWERMATIC sticker on the canister exterior can be easily peeled off the canisters wire mesh if one wants to remove any possible impact on performance though none has been recorded.

The difference in height between the fabric and canister filter elements can be an issue in shop spaces with low ceilings or overhead clearances. The POWERMATIC PM1300 has an overall height of just under 6 feet with the canister installed compared to 92 ½" when equipped with the fabric filter bag and its hangar.

Collector (catch) bag capacity for both the fabric and plastic bags is 10 cubic feet.

Power and Control

The 1 3/4HP motor provides consistent, dependable power.

The POWERMATIC PM1300 is powered by a 1 3/4HP, 1Ph 115/220V (pre-wired 115V) TEFC (totally enclosed fan cooled) motor. POWERMATIC motors are rated using a continuous duty cycle rather than the "peak" or "max developed" claims so common in the industry. Very often new POWERMATIC users are pleasantly surprised by the amount of power our motors actually deliver when compared to other motors with similar power ratings in their shop.

The POWERMATIC PM1300 comes wired for 115V but can be converted to use 220V current when available. This 220V capability allows many users to reduce the load on the 115V circuits they have available.

The infrared remote makes using the DC1300 more user friendly, plus can reduce the number of steps you take each day in your shop.

The motor is secured to a common mount with the blower section, directly on the base platform. This creates a very low center of gravity that makes moving the POWERMATIC PM1300 safe and easy.

Because woodworkers sometimes locate their dust collector in an out of the way portion of the shop or connected to a permanently installed hard tubing system, we added a full-function, infrared remote control that emits its invisible light-based signal in a 120-degree cone. That means the pocket-sized remote unit will turn the POWERMATIC PM1300 on and off from virtually anywhere (line of sight) in most shops, saving untold numbers of steps and time. Eliminating those trips back and forth between a machine and dust collector can increase safety in the shop as well.

Our remote control also has a timer function that allows programming in a specific amount of run time between 1 and 99 minutes. When activated, the timer function allows the POWERMATIC PM1300 to run a specific amount of time before it shuts off automatically.

Fan System

We designed a super efficient air system for the POWERMATIC PM1300, based on a specially designed 12”-diameter impeller and housing. The heavy-duty impeller has been optimized to both move large amounts of air and to maintain that volume consistently in a wide range of usage situations.


The specially designed impeller insures strong, consistent airflow to maximize the effectiveness of the DC1300.

The fan section develops 1,064 CFM (cubic feet per minute) of airflow at 6” of water. Velocity, also at 6” of water is 5,374 FPM (feet per minute). Static pressure is 11.31 inches of water.

To make the POWERMATIC PM1300 compatible with the widest range of machines, it comes with a single 6”-diameter inlet port fitted with a dual 4”-port adapter. One of the 4” ports comes with a tethered, friction fit cover that seals it when not in use.

The inlet ports are mounted directly to the blower housing, putting them low on the POWERMATIC PM1300 and on an even plane with the dust outlets on many machines. This alignment keeps more of the hose flat on the floor for safety and eliminates much of the lifting loss higher inlet ports experience to enhance performance.


The smooth, flowing lines of this sheet metal chute make it very efficient. This chute replaces simple section of flex hose found on most dust collectors.

To further enhance overall airflow we replaced the common flex hose connection between the fan and collector housings with a curved, smooth-walled sheet metal chute. Both ends of the chute have flange-type connections with gaskets that help prevent even small leaks. This chute has a larger inside area than a hose initially, and then tapers down slightly as it runs to the collector housing. The smooth, flowing shape of the chutes interior surfaces move air efficiently and contribute to the overall performance of the POWERMATIC PM1300.

The strength and rigid mounting of the sheet metal duct adds a considerable amount of stability to the POWERMATIC PM1300 making it possible to eliminate two of the three legs normally needed to support the collector housing. Eliminating two legs creates substantially more unobstructed space that makes changing the collection bag much easier.

The collector housing is specially designed to a cyclonic effect that helps separate particles from the air to enhance filtering and venting. The swirl of air also helps distribute the dust evenly in the catch bag.

Mobility

The POWERMATIC PM1300 is built on a heavy-duty base that features full-swivel, smooth-rolling casters at each corner. This base, along with the low center of gravity makes moving the POWERMATIC PM1300 around the shop effortless and safe. We also added a pair of handles to the collector housing that make moving the POWERMATIC PM1300 easier.

Full swivel casters at each corner make the Powermatic DC1300 easy to move around the shop.