

Staynew Filter Corporation

Air Filters for Every Purpose

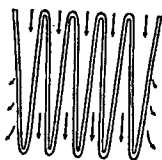
6 Leighton Ave.

Rochester, N. Y.



PROTECTOMOTOR DRY TYPE FILTERS

(For removing foreign matter from air at atmospheric or other pressures, with various types for building ventilation, dust recovery, oxygen chamber and all air cleaning purposes.)



Cross Section of Panel Insert

One basic principle—the fin or V-Type construction—is employed in a slightly different manner for every Protectomotor dry filter. This basic principle permits (1) a large area of filtering medium to occupy the smallest possible space, and (2) the intake currents to move parallel to the filtering surface at low velocity. Protectomotor Dry Filters require no oil or other adhesive material to catch dust—clean, dry, odorless air is assured. Authorities agree that the positive dry type filter is most efficient in stopping the smaller air borne particles. Protectomotor dry filters actually prevent the passage of pollen, bacteria and soot.

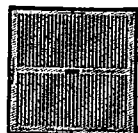


Cross Section of Multi-V-Type Insert

Cleaning is easily and quickly effected during operation by use of a special vacuum cleaner nozzle. Protectomotors operate from 3 months to a year without attention under average conditions. Panel Units average slightly longer wear than Multi-V-Type Units—several years at least without replacement.

Resistance to the flow of air is less than 0.25 in. water gauge for Panel Units or Multi-V-Type Units when operated at rated capacity.

Panel Units: These consist of a panel insert and frame. The panel insert is composed of two rows of 60 hollow loops or fins 6 in. in depth. These fins are formed of special rust resisting embossed wire mesh, supported by a retaining grate of steel



Front view Panel Unit showing spacing grate and frame



Rear view Panel Unit showing Fin Construction

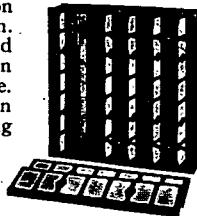
or aluminum and a similar spacing grate. Each row of fins is covered with a single piece of Feltex filtering medium. This medium is a felt-like material, especially prepared for the application. Specifications below.

Size of filter and frame	20 x 20 x 6 5/8 in.
Size of filter panel	19 1/2 x 19 1/2 x 6 in.
Capacity of filter unit (normal air)	800 c.f.m.
Surface of filtering medium	42 sq. ft.
Linear velocity of air through filter medium	18 f.p.m.
Resistance of clean filter to flow of air	1/4 in. water gauge
Weight of filter panel	18 lb.
Weight of filter panel and frame	28 lb.

Multi-V-Type Filter Unit: Similar in fundamental construction to the Panel Unit, but employing a slightly different filtering medium. The Multi-V-Type medium is of closely pressed cotton fibres held between two sheets of cotton gauze. The medium is arranged in patented V shaped pockets in a fibre board and pressed metal frame. These patented cells can be quickly and inexpensively replaced when worn out. Their arrangement makes possible an active filtering surface of 27 times face area—the highest ratio of filtering surface to face area of any Protectomotor, making the Multi-V-Type ideal where face area is limited.

In certain installations the Multi-V-Type is more practical than the Panel Unit because its construction fits the available space better, or because it is lighter in weight per square foot of filtering area.

Space is lacking to give complete specifications, but these will be mailed promptly on request.



Multi-V-Type Filter Unit

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PROTECTOVENT

A Window Ventilator unit that supplies clean air at all times to home or office. Motor driven fan, filter and silencer combined in a practical device with many obvious applications. No draft—no outside noises! Helpful to hay fever sufferers, since the Multi-V-Type filter medium removes 99.9 per cent of all pollen and dust as well as 98 per cent of bacteria.



Protectovent Window Ventilator

PROTECTOMOTOR IMPINGEMENT AUTOMATIC AIR FILTER

(A filter for efficiently and economically handling large volumes of air for all ventilating purposes.)



Automatic Filter

In this model foreign matter is removed from the air by impingement on two endless revolving curtains. Most filters of this type possess one curtain only. The first curtain passes through an oil bath, where foreign matter drops off and sinks to the bottom. This oil bath moistens the curtain thoroughly with oil.

The second curtain does not pass through the oil bath. Its purpose is to arrest the slight amount of oil entrained in the air stream from the first curtain and any finer particles of dust that might remain in the air stream. The second curtain makes clean, dry air a certainty.

Two additional exclusive features are to be noted. One is the compressed air cleaner system (see diagram) consisting of copper tubes drilled with holes, placed at the lower edge of each curtain and connected with an air line. These cleaners provide a positive method of cleaning the curtains from time to time and what is even more important—prevent oil entrainment. Such a method is desirable under conditions of heavy dust concentration.

Another exclusive feature relates to the direction of curtain travel. Ordinarily in filters of this type, the direction of rotation is such that dust collected on the intake side is carried over to the outlet side before passing through the oil bath. In this Protectomotor model, dust collected on the intake side is removed by passing through the oil bath before the curtain which had been carrying the dust returns to the outlet side.

Curtain travel is intermittent, rotating 4 3/4 in. during the operation of the mechanism which is approximately 20 seconds each half hour. The mechanism is actuated by a 1/8 h.p. motor controlled by a telechron motor for A.C. circuits or electrically wound clock for D.C. A.C. timing devices are adjustable for various periods of operation.

The oil bath is charged with Pingene, a highly viscous, odorless, germicidal liquid, with high fire and flash points and low pour test. Average operating resistance is 0.35 in. water gauge.

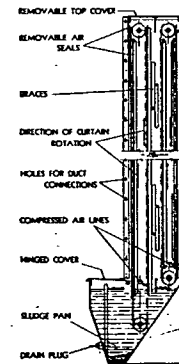


Diagram of Automatic Filter

Protectomotors also made for Internal Combustion Engines, Compressors, Turbo-Generators, Air Transmission Lines, etc.

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