

## AMERICAN AIR FILTER COMPANY INC.

673 Central Avenue, Louisville, Ky.

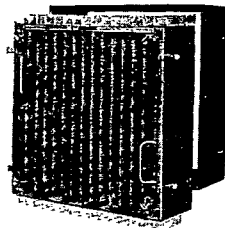
Representatives in Principal Cities

**Dust Engineering**—Dust Engineering is that branch of applied science which deals with the origin, nature and characteristics of the small solid air-borne particles called "dust," and the development of methods, processes and apparatus for its control or elimination.

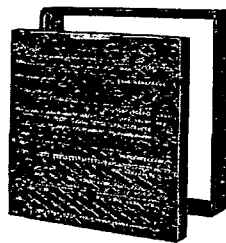
The American Air Filter Company, Inc., has had an important part in advancing the science of Dust Engineering. The efforts of its Research and Engineering Staff for the past twelve years have been devoted exclusively to the study of dust problems and the development of a complete line of air cleaning equipment for modern air conditioning, building ventilation and the control of process dust in industry.

American Air Filter products, therefore, not only embody the knowledge accumulated from years of constant research and the experience gained from designing, building and applying thousands of air filters, but are backed by ample technical and financial resources to insure their outstanding position in the Dust Engineering field.

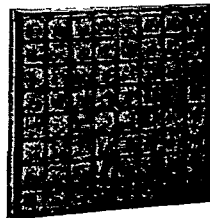
**Products**—American Air Filters are available for every condition, with operating characteristics and efficiencies to suit specific problems. In general, there are two distinct types based upon the "viscous



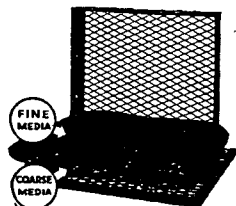
Airmat Type PL-24 Filter



M/W 2 Filter



Throwaway Air Filter



Renu-Vent Filter

film" and "dry mat" principles. Each type is made in several styles which differ in method of operation, servicing, space required and initial cost to meet the various conditions encountered in air cleaning problems. A discussion of various filter types will be found in the Technical Data Section under "Air Cleaners."

Air filters are generally

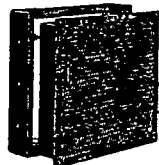
used for the removal of dust, dirt, bacteria and other foreign matter from the air and are applied to general ventilation, modern air conditioning, process dust control; for air compressors and Diesel Engines; mill motors, turbo-generators and other electrical applications; and for air or gas under pressure to remove entrained oil, moisture and dirt.

**Air Filters in Air Conditioning**—Filtered air is today recognized as essential in modern air conditioning. There are other important factors which contribute to our comfort such as temperature, air movement and humidity, but science today emphasizes the prime necessity of pure air for health and efficiency.

Air cleaners have, of course, always been considered an integral part of large central systems. These are usually of the fully automatic type such as the American Automatic Self-cleaning filter or the self-cleaning Electro-Matic.

There are now available to manufacturers of unit air conditioners moderate priced unit filters such as the Renu filter, the Throwaway filter, and other types of filters illustrated on this page.

The Renu filter is an entirely new departure in air filter construction. It consists of a permanent metal frame provided with a removable cover and renewable filter pad. The cover



Standard Viscous Unit Filter

is easily removed without the use of tools, and filter pad can be lifted out and replaced with a new one at very small expense.

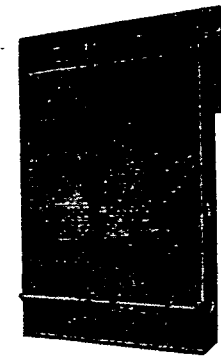
The Throwaway filter, as the name implies, is designed to be discarded after it has served its maximum period of usefulness and replaced with a new filter unit. The Filter pad is enclosed in a perforated cardboard container which makes it possible to readily dispose of the dirty filter by burning it.

There is probably no single item which costs as little and may mean as much in the design of an air conditioner as air filtration. These units are furnished in any dimensions or shapes desired—usually in units handling 400 cfm and from 2 in. to 4 in. thick. They are usually made in the following sizes—20 x 20 in., 16 x 25 in. and 16 x 20 in. High cleaning efficiencies can be secured, with a resistance to air flow ranging from  $\frac{1}{16}$  in. to  $\frac{3}{8}$  in. water gauge.

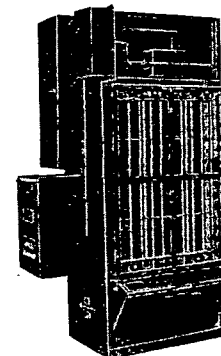
**The American Multi-Duty Self-Cleaning Air Filter**—Is a development of AAF Engineers in which the best features of the former Multi-Panel and Double-Duty filters have been incorporated in a single unit to obtain the combined advantages of both types of construction.

The use of thermoplastic finishes for refrigerators, stoves, automobiles, and other metal products has created the need for clean air in finishing rooms. This type of finish is hardened by baking, so the product on which it is used must be protected from dust and dirt from the time it is sprayed until it leaves the oven.

Spray booths exhaust large quantities of air, and if this air is drawn from other parts of the plant, it will contain considerable dust and dirt. If dirt and dust particles are permitted to settle upon freshly spray-



American Automatic Self-Cleaning Filter



Electro-Matic Air Filter

ed surfaces, they will be trapped in the semi-tacky coating and cause blemishes.

This trouble can be eliminated only by enclosing the finishing room and installing a filtered air supply system with sufficient capacity to provide a constant supply of clean air in excess of the volume exhausted by the spray booths.

High efficiency air filters are needed for this service to minimize rejects and do-overs. The automatic self-cleaning filter has proved the most practical type because of its ability to maintain a constant, uniform air volume with the minimum of attention.

**Three Types of Panels**—MV, MS and DD—Are available with the Multi-Duty filter. Type MV is the designation for Multi-Panel armored panels with "V" or low resistance spacing; Type MS signifies Multi-Panel armored panels with "S" or high efficiency spacing; and Type DD indicates Double-Duty die-stamped louvre panels.

**Electro-Matic Air Filter**—Incorporates electrical precipitation as an integral function of an automatic self-cleaning viscous filter to obtain a higher over-all efficiency in the collection of the finer dust particles and smoke. In combination, these two methods of cleaning air not only give the highest efficiency in dust removal but offer operating advantages found only in the automatic self-cleaning filter.

**Standard Viscous Unit**—The American Unit Air Filter incorporates the time tested unit principle of construction. Each unit consists of a standard steel frame and interchangeable cell equipped with automatic latches to facilitate removal for cleaning and recharging.

**Airmat Filter Dry Type**—The filtering media in this type is the Airmat sheet, a dry filter mat composed of thin sheets of gauzy, cellulose tissue. The Airmat sheets are supported in screen pockets mounted in a unit frame of box-like construction. These unit frames can be set up to meet any capacity requirement or space condition. Airmat sheets are renewable—their life depending on dust conditions and hours of service.

Airmat filters are used both for comfort and industrial air conditioning. In the latter field they are particularly well adapted for the recovery of valuable dusts and for abating the dust nuisance prevalent in so many industrial plants.