The Air-Maze Corporation

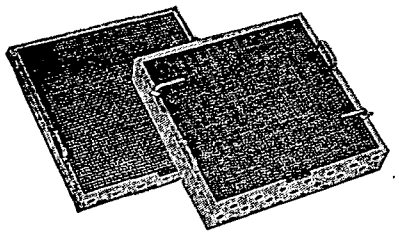
5202 Harvard Avenue, **Cleveland, Ohio**

ENGINEERS AND MANUFACTURERS OF AIR FILTERS EXCLUSIVELY

DIRECT FACTORY REPRESENTATIVES IN ALL INDUSTRIAL AREAS.

DISTRIBUTORS IN PRINCIPAL CITIES AND TOWNS THROUGHOUT THE UNITED STATES.

During more than a decade devoted exclusively to air filter engineering and manufacturing, a great deal about the control and elimination of dust, pollens and grit has been learned by AIR-MAZE engineers. Their design and development of a unique type of filter element construction, embodying distinctive advantages, has been considered a worthy contribution to the air filtering science and has resulted in wide acceptance of AIR-MAZE air filters in all fields of application.



2 in. Thick Panel *4 in. Thick Panel*

AIR-MAZE Permanent Cleanable Panel Filters.

Note Advantages Made Possible by Air-Maze Scientific Construction:

Costs Little to Clean—The separating layers and exact spacing of baffles permit free washing action between and around all baffles. Thus, cleaning and charging operations may be easily and economically performed.

Great Dust Capacity—Unique design of the AIR-MAZE screen wire element provides a vast area of baffles on which collected material can become impinged; thus great capacity is assured.

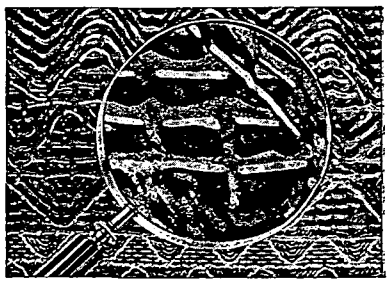
Vibration Proof—Vibrations in service cannot shake filter media out of position—the uniform density remains *permanently* perfect; **no replacements are necessary!**

AIR-MAZE Are Listed by Underwriters' Laboratories—When serviced according to the methods approved by the Underwriters' Laboratories, AIR-MAZE panel filters are approved as fire resistant air filters.

Efficiency—Tests under varying conditions, both in laboratories and field operations, show air filtering efficiency of from 98.00 to 99.83 per cent with practical dust.

No Clogging — Because AIR-MAZE panel filters are easy to *completely* clean and since the exact density enables uniform deposit of dust, no clogging can occur.

Adaptibility—In addition to air conditioning and power equipment installations AIR-MAZE panel filters are effectively used in humidifiers, water eliminator units, paint spray-booths, oil separators, range canopies in kitchens, and other applications where specific problems and unusual requirements are easily handled by adaptations of the panels. AIR-MAZE panels will be made to fit frames of existing installations and can be furnished with locking handles and latches, snap catches, or with flanged edges and lift handles.



Magnified Section of "Loaded" AIR-MAZE Air Filter Element. Note that dust has been quite evenly impinged on the wires. No obstructed spaces can be seen. This feature accounts for the Low Pressure Drop and Non-clogging characteristics of AIR-MAZE

TECHNICAL INFORMATION

Sizes—All sizes and thicknesses are available; two and four inch thick panels are the accepted standard. Installations using large sizes of these permanent panels are surprisingly low in cost.

Capacity—Recommended air capacity is 1½ to 2½ cfm per square inch. Thus, the capacity of a 20 x 20 in. panel is 600 to 1000 cfm. Normally, 2 cfm per square inch should be used.

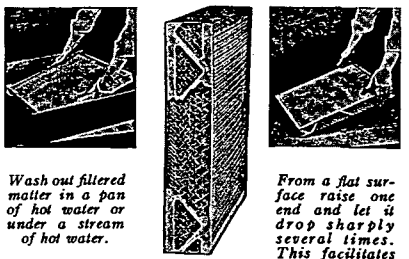
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Resistance—For 2 in. thick panels the resistance varies from 0.08 in. to 0.10 in. H_2O when handling 2 cfm per square inch of filter area (288 fpm velocity); and for 4 in. thick filters the resistance varies from 0.121 in. to 0.140 in. H_2O at 2 cfm per square inch (288 fpm velocity); the variation being in accordance with the different types of filter media construction available. To obtain specific restriction data write for graphs.

Construction—AIR-MAZE filters are of patented construction consisting of a maze of alternately placed and exactly spaced crimped galvanized wire screens of selected meshes; these are arranged with precision so as to create graduated and progressive density, and to positively embody the baffle impingement principle. The filter element is enclosed in a heavy gauge metalescent enameled steel frame having an open end to simplify servicing.

EASY TO CLEAN AND CHARGE



Wash out filtered matter in a pan of hot water or under a stream of hot water.

Cut-away View

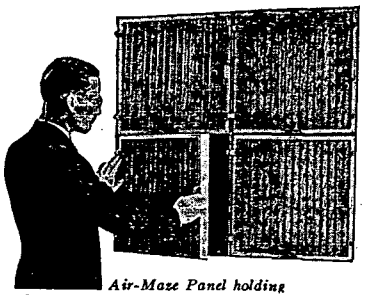
From a flat surface raise one end and let it drop sharply several times. This facilitates drainage.

After cleaning and also after charging, set panel on edge, with open end down, to drain.

Cleaning—Simply tap panel a few times on a hard surface to remove heavy accumulations and then wash under a stream of hot water or in a pan of hot water. Steam also cleans the panels quickly and effectively. Be sure filter is dry before charging.

Charging—(For general applications) Spray both front and back of panel with just enough oil to coat the wires. Any inexpensive oil of S.A.E. 40 or 50 viscosity is suitable. An ordinary hand spray gun will do the work splendidly. Or, if desired, panel may be immersed in oil and then thoroughly drained.

AIR-MAZE INSTALLATION FRAMES



Air-Maze Panel holding frames assure efficient, attractive installations.

AIR-MAZE panel holding frames are constructed of metalescent enameled heavy gage steel having ¾ inch flanged back edge. A thick felt lining on inside of flange insures against air leakage when panels are in place. One frame may be used alone in single panel installations, or a group of frames may be supplied, fixed together; thus a large bank of filter panels may be provided. Every 2 in. frame section is fitted with snap catches as standard equipment; a lift handle is installed on each panel; 4 in. panels and frames have *locking handles.*

In determining frame sizes, ⅝ inch is allowed over the EXACT width, and ⅝ inch over the EXACT height dimensions of the panels. These dimensions include frame edge, clearance and felt edge seals.

Specify AIR-MAZE—for all air filter installations and you will be assured of *efficient, economical* **performance.** Write for specification bulletin CCC-69.

Engineering Service Available—The Air-Maze Engineering Department will gladly offer installation suggestions for special air filter applications.

Other AIR-MAZE Products—In addition to the panel types, Air-Maze Corporation also manufactures a complete line of circular shaped air filters for use in various Railroad, Industrial and Automotive applications.

Literature Available—Catalog GPC-740 describing industrial types "A," "B," Greastop, and Kleenflo panel filters. Catalog describing Air-Maze Oil Bath type, Multimaze and Unimaze filters for internal combustion engine, air compressor and blower applications.