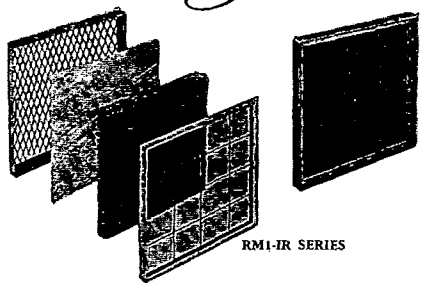
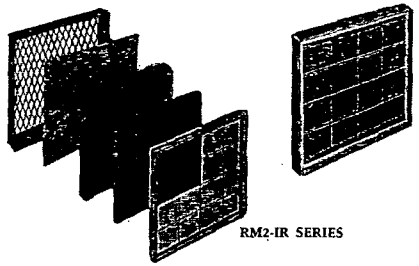
BURKE AND COMPANY

2902 Hyde Park Boulevard, Los Angeles 43, California

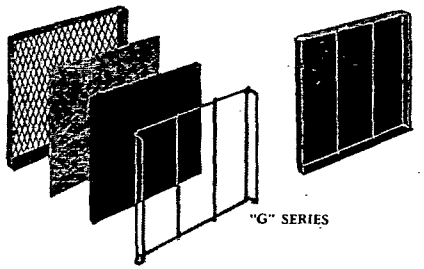
ROTO*Aire*® REPLACEABLE MEDIA AIR FILTERS GAS AND VAPOR ADSORBERS



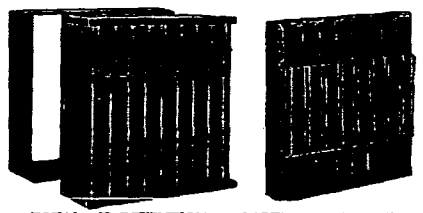
RM1-IR SERIES



RM2-IR SERIES



"G" SERIES



TOTAL AIR DETENTION PARTIAL AIR DETENTION

Roto Aire RM1-IR Series Impingement-Strainer Type Replaceable Media Air Filters with Integral Retainer

The Roto Aire RM1-IR Series impingement-strainer type replaceable media air filter with integral retainer is the "advanced design" air filter which combines the filter holding device and the filter itself. It is comprised of a heavy gauge retaining frame which is faced with a sheet of 1" diamond, flattened, expanded steel and equipped with filter case centering dimples and spring loaded positive filter media case face-locking devices. The filter media case is likewise constructed of heavy gauge steel and is faced with a 4" mesh 12 gauge welded steel rod grid. The spring loaded positive filter media case face locks permit the installation of filters on any angle and press the filter case against the retainer so securely that by-pass of dirt laden air is eliminated. The filtering medium is glass fiber and consists of one filter pad that has a bulk thickness of 2" and one strainer mat that is .025" in thickness. Each medium is treated with Type 201 non-inflammable binder, and the 2" filter medium is treated with TCP (Tri-Cresyl Phosphate adhesive), the surface chemistry of which is cationic.

Roto Aire RM2-IR Series Impingement-Strainer Type Replaceable Media Air Filters with Integral Retainer

Roto Aire RM2-IR Series air filters differ from the RM1-IR Series to the extent that the filter media case is 2" in depth to accommodate three distinct types of filtering media namely large particle preload paper in addition to the media employed in the RM1-IR Series. These media perform the various functions of retaining airborne substances over the wide range from lint collection to retention of 0-5 micron particles. Greater economics in operation are to be realized because of their high dirt holding capacity and low face loading characteristics.

Roto Aire G Series Impingement-Strainer Type Replaceable Media Air Filter with Integral Retainer

The Roto Aire G Series air filter is comprised of a retainer, a gate lock grid and two types of fiber glass filter media that combine to form an integral filter cell. The retainer consists of an "L" type welded frame that is faced with flattened expanded steel to form a case for the filtering medium. Clips for hinging and locking the grid are also provided in the retainer. The grid is fabricated from steel wire and shaped so that when opened it sets off to permit easy installation of replacement filter media. Like the Roto Aire I.R. Filter, the G Series filter may be installed at any angle, and the grid, when locked in place, presses the filter media against the retainer so securely that by-pass of dirt laden air is eliminated. The filtering medium is glass fiber and consists of one filter pad that has a bulk thickness of 2" and one strainer mat that is .025" in thickness.

Roto Aire Gas and Vapor Adsorbers

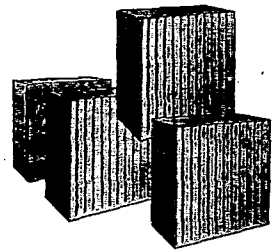
ROTO AIRE GAS AND VAPOR ADSORBERS increase comfort and physical efficiency because they purify air by removing noxious gases and vapors. The air purifying agent in Roto Aire Gas and Vapor Adsorbers is granular carbon that has been processed at high temperature to expel hydrocarbonic impurities and increase its porosity. The surface of carbon granules so refined becomes super active and contains the remarkable power of arresting noxious gases and vapors from ventilation and recirculated air. This phenomenon is known as adsorption and is easily likened to flies clinging to fly paper. ROTO AIRE GAS AND VAPOR ADSORBERS make it possible to greatly reduce, or even eliminate, contaminated outside air for ventilation purposes. Air conditioning installation and operational expenses therefore decrease because there is no need to heat or cool this additional air. There are no anoxia concerns because unavoidable infiltration factors exceed by many times the air volume necessary for oxygen replenishment. Partial air detention type Roto Aire Adsorbers are designed to process air at high efficiency on a by-pass basis. Therefore only a part of the air passes through the carbon cartridges where up to 25% of air borne contaminants are removed. Their use is recommended to process ventilation and recirculated air when ventilation air requirements are less than 10% of the total air volume. They are also recommended for use in systems where outside air is excluded and the total quantity of supply air is recirculated.

CAMBRIDGE FILTER CORPORATION

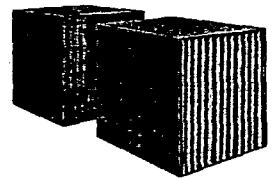
736 EAST ERIE BOULEVARD, SYRACUSE 1, N. Y.

Cambridge®

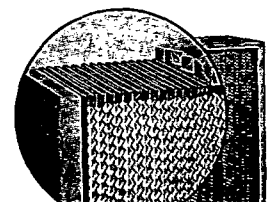
Representatives in Principal Cities



Cambridge AEROSOLVE® Filter Efficiencies 35% to 95% Discoloration Test, Atmos. Dust



Cambridge High-Velocity AEROSOLVE® Filter



Cambridge ABSOLUTE® Filter Guaranteed 99.97% Efficient on 0.3 Micron Particles

High-Efficiency Air Filters

Cambridge air filters are positive, strainer-type, high-efficiency filters which provide trouble-free air cleaning without electric, water or drain connections. They are enonomically installed and, except for infrequent replacement, require no maintenance. In relation to efficiency, initial pressure drops are exceptionally low.

Cambridge AEROSOLVE® Filters

Consist of permanent cadmium-plated steel frames with easily replaceable and interchangeable cartridges available in efficiencies of 35 percent, 85 percent and 95 percent efficiency (discoloration test with atmospheric dust). This test was developed by the National Bureau of Standards and is used for rating electric precipitators. Most commercial filters test 5 percent to 15 percent by this method. Changes in efficiency requirement are easily met without major change in the system simply by substituting cartridges. Cartridges slide easily into frames and are secured by quick-acting fasteners. Integral prefilters are available where desired.

Standard units are designed for face velocity of 250 fpm and can be used at higher velocities by V-ing the filter bank. High-Velocity units, face velocity 450 fpm, can be installed in the plenum in a straight bank, for even greater economies.

	High Velocity	Standard	
Face Area	24" × 24"	24" × 24"	24" × 12½"
Rated Face Velocity	450 fpm	250 fpm	250 fpm
Rated Capacity	1800 cfm	1000 cfm	500 cfm
Area, Filter Medium	86 sq ft.	43 sq ft.	22 sq ft.

Low Pressure Drop

	AEROSOLVE 95	AEROSOLVE 85	AEROSOLVE 35
Average Discoloration Efficiency	95 percent	85 percent	35 percent
Initial Δp (Standard)	0.35" w.g.	0.22" w.g.	0.16" w.g.
Initial Δp (High-Vel.)	0.45" w.g.	0.32" w.g.	0.25" w.g.
Final Δp (Standard)	0.80" w.g.	0.60" w.g.	0.60" w.g.
Final Δp (High Vel.)	0.90" w.g.	0.70" w.g.	0.70" w.g.

The great area and thickness of AEROSOLVE filter cartridges provide long life which, with low initial cost, guarantees economical owning and operating costs.

Cambridge ABSOLUTE® Filters

New glass-asbestos filter medium now used in ABSOLUTE Filters is an improvement both in efficiency and in air-handling capacity over the medium which Cambridge originated for removal of radioactive particles from exhaust systems in *AEC* installations. 99.97 percent removal of 0.3 micron particles is guaranteed. Essentially removes all smoke, dust, bacteria and mold spores and is widely used by industry in applications where the highest degree of air cleaning is required. Every filter individually tested. Maximum penetration of 0.03 percent guaranteed. Initial pressure drop 1.0 in. w.g. at rated air flow. Each filter self-supporting—no permanent frame required. Easily installed. Standard size units from 30 cfm to 1375 cfm in stock for immediate shipment. Special sizes and shapes available on order.

MICRETAIN Series ABSOLUTE Filters

Similar in construction to ABSOLUTE Filters, but with initial pressure drop 0.4" w.g. and efficiency of 99 percent NBS dust spot and 95 percent DOP. Available in special sizes and shapes, including cylindrical.

Size, In.	Standard ABSOLUTE		MICRETAIN Series	
	Model	Rated Cap. cfm @ 1" w.g.	Model	Rated Cap. cfm @ 0.4" w.g.
8 x 8 x 3½	1A*-25	30	7A*-25	25
8 x 8 x 5½	1A-50	50	7A-50	50
24 x 24 x 5½	1A-600	650	7A-600	600
24 x 24 x 11½	1A-1000	1100	7A-1000	1000
24 x 30 x 11½	1A-1250	1375	7A-1250	1250

* A Series, max. temp. 220° F., max. R.H. 85%. Other series available for extremes of temperature, humidity, fire resistance and corrosion.