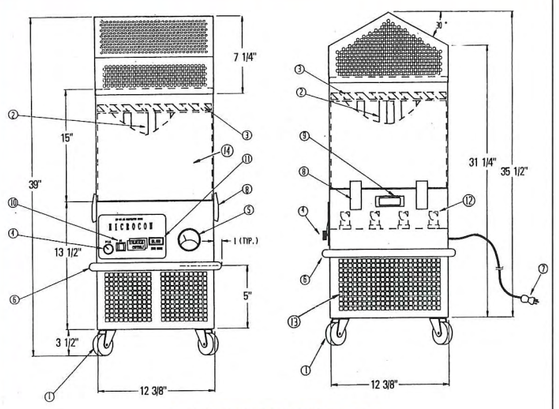
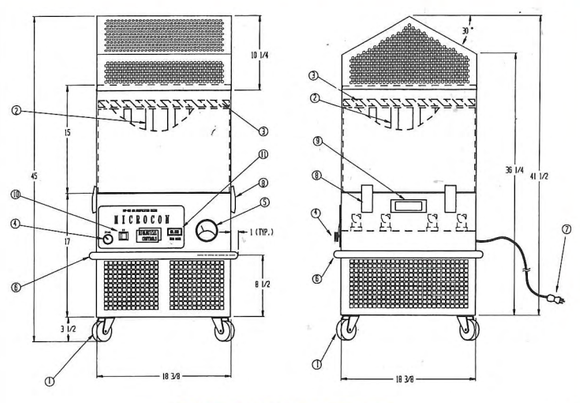
S P E C I F I C A T I O N S



MICROCON MAP-400
FRONT VIEW SIDE VIEW



MICROCON MAP-800
FRONT VIEW SIDE VIEW

Blower:
- Backward curved motorized impeller
- 115 volts
- 1200 CFM @ 0" WG (MAP-800)
- 530 CFM @ 0" WG (MAP-400)
- 250-725 CFM delivered (MAP-800)
- 150-300 CFM delivered (MAP-400)
- 2.1 amps, 240 watts (MAP-800)
  .7 amps, 80 watts (MAP-400)
- Dynamically balanced, vibration-free
- Low noise performance
- Permanently assembled to the rotors so there are no set screws to come loose or any mechanical adjustments; 360-degree air discharge pull-through design so impeller is never contaminated or exposed to the airstream
- Brushless external rotor motor
- Maintenance-free motor
- Excellent heat dissipation
- Maintenance-free ball bearing construction

MAP-800 Dimensions:
(H) 45" (W) 18.25" (D) 18.25"
Weight 86 lbs.
Foot print 2.31 sq. ft.

MAP-400 Dimensions:
(H) 39" (W) 12-3/8" (D) 12-3/8
Weight 45 lbs.
Foot print 1.06 sq. ft.

Filter:
- Certified High Efficiency Particulate Air (HEPA)
- Minimum efficiency 99.97% on .3 micron particles
- 100% waterproof filter media, glass microfiber
- Safety edge aluminum separators
- Fire-retardant adhesive/sealant
- Dual safety filter seal
- 1" - 35% synthetic prefilter
- 4" charcoal filter (optional)

Cabinet:
- 20-gauge painted or stainless steel
- Perforated top section painted or stainless
- Filter cube, powder-coated baked enamel or laminated plastic enclosure
- Base painted enamel stippled finish (beige) or stainless
- 4 casters (2 locking)
- Multi-volume speed control
- Heavy duty perimeter bumpers
- 2 recessed transport handles
- 360-degree intake and exhaust
- Minihelic gauge

Electrical Requirements:
115V, single phase, 60Hz, 4.5 FLA
- (MAP-800) 4 ea. 24-watt UV germicidal lamps, (MAP-400) 4 ea. 8-watt UV lamps
- Hospital grade 115V cord

LEGEND:

(1) 4 ea. swivel plate casters with solid black rubber wheels (2 ea. with brakes & 2 ea. without brakes)

(2) MAP-800: 1 ea. 18" x 18" x 11.5" plywood-framed HEPA filter with 99.97% minimum efficiency on particles .3 microns in size or larger

(2) MAP-400: 1 ea. 12" x 12" x 11.5" plywood-framed HEPA filter with 99.97% minimum efficiency on particles .3 microns in size or larger

(3) 1 ea. two-ply polyester 35% efficient panel-type pre-filter

(4) Electronic speed control switch

(5) Minihelic static pressure gauge

(6) 1" black vinyl bumper molding on all four (4) sides

(7) 1 ea. six (6) foot power cord, 18/3 cord with 115V, 1 PH, 60 Hz hospital grade plug

(8) 4 ea. non-corrosive black vinyl draw latches

(9) 2 ea. flush-mounted black vinyl pocket pull

(10) Illuminated on-off switch for UV (germicidal) lamps and for the electronic hour meter

(11) Electronic hour meter for UV (germicidal) lamps

FDA Medical Device Listing Number

400/800M	FDA 510K Classification No. K974682
400/800MUV	FDA 510K Classification No. K972064

RGF-BioControls™
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MICROCON® 800/400

How to Control Infectious Airborne Pathogens in Healthcare Environments.

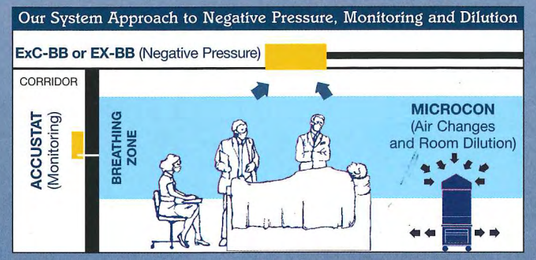
- 360° air intake and exhaust
- High air change capacity
- Breathing zone filtration
- Certified HEPA filtration
- Portability
- Modular design

The MICROCON® is a high capacity mobile air purifier specifically designed to remove hazardous microbial airborne particulate. It is the only system available that offers our unique CIRCUMFLOW® air distribution pattern. This is created by the 360-degree air intake and exhaust, which are unique only to the MICROCON series. No other competitive units replicate this feature, which has been documented, to greatly improve "Breathing Zone Filtration" within a room.

It is available in two models, the MICROCON MAP-800 and 400. Either meets the CDC requirements for HEPA filtration and exceeds their recommendations for room air changes per hour. (Each unit is portable and can be positioned for spot or more permanent applications. It does not restrict room use since it's not a permanent installation, allowing you flexibility on planning patient load.)

BREATHING ZONE FILTRATION

The MICROCON intakes air from the top of the unit in a 360-degree direction from within the "breathing zone". This zone measures anywhere from 3 ft. to 7 ft. from the floor level. Eliminating sub micron-size infectious airborne particles from this zone reduces airborne microbial migration and the risk of inhalation.



AIR CHANGES

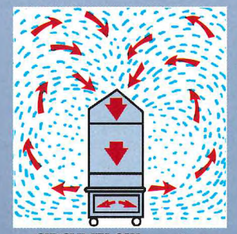
The Centers for Disease Control (CDC) recommends 12 Air Changes per Hour (ACH). With the variable volume speed control and cfm capacities ranging in volume from 150 to 725 (MAP-800), we can increase your air change rate 2 to 5 times the CDC recommendation, depending upon room volume.

PLACEMENT

Besides patient and isolation rooms, critical areas of use would include admittance, waiting and emergency areas. In-room placement of the MICROCON, to achieve the best results, should be closest to the source of the contamination. We would refer to this as source or control capture. Capturing it at the source eliminates further airborne transmittal.

ADAPTABILITY

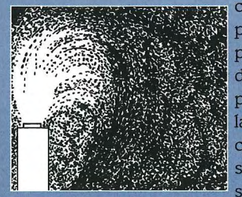
Both models have an optional germicidal UV lamp system available. Direct air intake is available through an optional bronchoscopy cap. The units' portability allows them to be positioned virtually anywhere. Our unique modular concept and filter seal maintains filter integrity even when unit is repositioned.

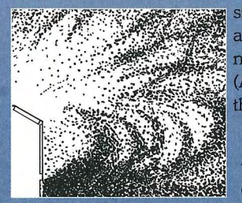


CIRCUMFLOW: creating consistent airflow patterns.

AIR DISTRIBUTION

The MICROCON 800 and 400 series creates a CIRCUMFLOW air distribution pattern within the room that draws in air 360 degrees from the "breathing zone." By exhausting air 360 degrees at the bottom, we create air currents and establish airflow patterns within the room to provide for proper air mixing and dilution. CIRCUMFLOW helps prevent air stagnation, stratified air layers and stagnant air pockets that can exist with uni-directional (one-sided exhaust) air re-circulation systems. Based upon the room size and volume setting, we are able to provide the required air mixing and air change per hour (ACH) requirements as outlined by the CDC Guidelines.





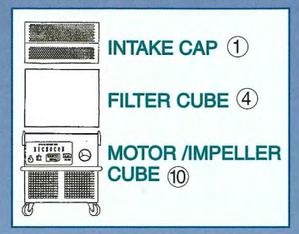
Uni-directional airflow systems create irregular airflow patterns.

AIRBORNE INFECTION CONTROL SOLUTIONS

THE MICROCON 800 & 400 SYSTEMS

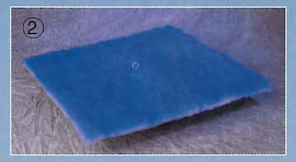
MODULAR DESIGN

Both models consist of three modular components— the Intake Cap, Filter Cube, and the Motor/Impeller Cube. Modularity allows components to be shipped virtually anywhere overnight.



THE INTAKE CAP ① consists of an inclined perforated steel enclosure that allows for 360° air intake, while housing and protecting the pre-filter and HEPA filter. Inclined cap prevents placement of objects.

SYNTHETIC POLYESTER PRE-FILTERS ② are utilized primarily as roughing filters to extend the life of the HEPA or final filter. In the center of each panel on the inlet side, an extraction tab is attached to aid in removal.



CHARCOAL FILTERS ③ are effective in removal of odors and gases. In combination with a HEPA, a broad range of source capture for filtration and gaseous removal is achieved.

MODULAR HEPA FILTER CUBES are steel ④ or laminated plastic and wood ⑤ enclosures. Each HEPA filter is individually tested and certified to a minimum efficiency of not less than 99.97% on .3 micron-size particles. HEPA filters are the only type filter recognized in the CDC guidelines. The HEPA is permanently sealed and encapsulated within the Filter Cube. This design provides a perfect self-aligned leak-free HEPA seal. True bag-out filter replacement eliminates exposure risk to personnel. Compactible and/or incinerable filter cubes reduce disposal costs.

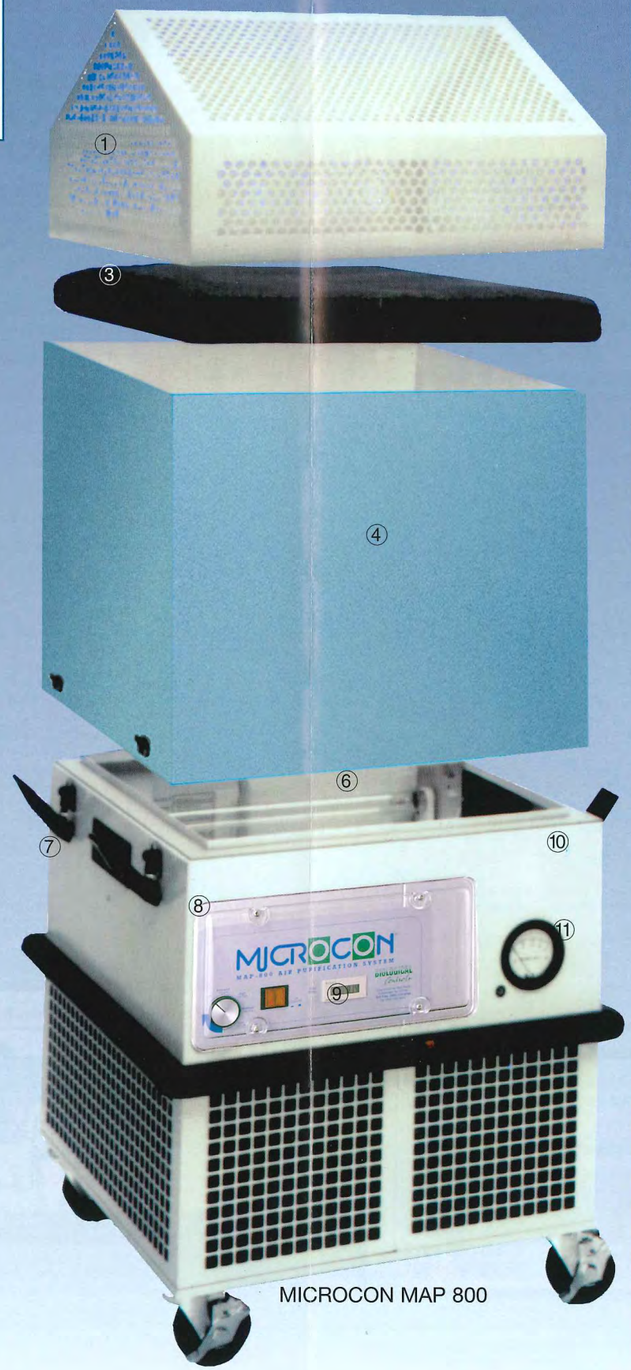
Four- 254 nm **GERMICIDAL ULTRA VIOLET (UV) LAMPS** ⑥ are available on either model. Lamp life expectancy is rated at 5000 hrs. Positioned downstream of the HEPA, they are fully shielded and eliminate the maintenance requirements of competitive units when UV bulbs are directly in the air stream attracting dust particulate to bulb surface and diminishing irradiation. An electronic sensor bar, to continually monitor bulb malfunction, and hour meter, to register system operation time, are available.

TAMPER-PROOF LATCHES ⑦ are a standard feature on the MUV units. Screws can only be removed using a spanner tool to prevent unauthorized entry or tampering, and unauthorized exposure to the lighted UV bulbs.

A **CLEAR PLASTIC MOLDED FULL PANEL COVER** ⑧ is available preventing unauthorized tampering with the settings and controls. A lighted switch on the control panel indicates UV bulbs are activated.

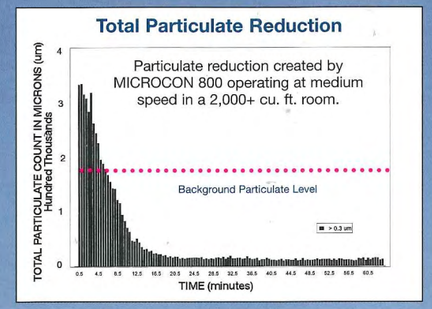
The **HOUR METER (OPTIONAL)** ⑨ monitors continuous unit operation time, providing a convenient way to determine UV lamp replacement or filter change requirements. Meter has a zero reset feature.

The **MOTOR/IMPELLER CUBE** ⑩ base is totally self contained and maintenance free. It houses and shields the UV lamps on the MUV models, but allows easy and safe accessibility with the proper tamperproof tool. The minihelic or pressure gauge monitor, fan control and UV activation switch are displayed on this face panel.



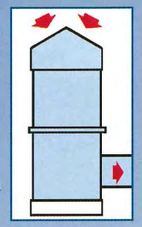
MICROCON MAP 800

The **PRESSURE DIFFERENTIAL GAUGE** ⑪ provides an accurate and objective means to monitor the MICROCON's ongoing filter performance. No idiot lights or inaccurate warning signals, just precision readings to provide valuable information to assure peak filtration performance.



ACCESSORIES

The MICROCON exhausts air through four (4) sides at its base for in-room dilution and air changes. For exhaust, a portion of this filtered air can be redirected by attachment of an oval or rectangular exhaust duct to one side of the base. Depending upon the exhaust volume required, several or all of the vents may need to be sealed. Exterior room exhaust will create in-room negative pressurization. One or more base exhaust vents left open in addition to the exhausting duct, will add additional in-room dilution.



MICROCON with exterior exhaust option.

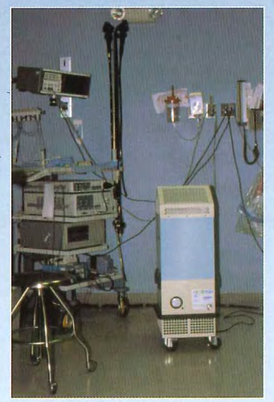
The **OVAL EXHAUST DUCT** ⑫ requires a flexible hose to allow for exhaust through a window or wall.

The **RECTANGULAR DUCT** ⑬ attachment can be ducted directly to a wall exhaust. In either instance, negative pressure can be achieved. However, based upon your need to create negative pressure, the EX series units may be better suited.

In applications where portability is less desirable and a more "permanent" installation is required, the reinforced steel **PEDESTAL BASE** ⑭ securely fastens the MICROCON to the floor preventing mobility and providing a secure installation.

When a more localized air intake is required, the multi-directional perforated cap can be exchanged with a **10" DIAMETER CAP** ⑮ that accepts a flexible duct or hose. This allows air to be drawn from a localized area or drawn from an enclosure.

A **MODIFIED FILTER CUBE** ⑯ with uni-directional intake allows for several filtration or exhaust options.



MICROCON 400 in a respiratory care setting.

CONCLUSION

Consider the MICROCON as a tool for fighting infectious airborne pathogens. Biological Controls has developed the most complete line of products and systems available for airborne infection control. We realize there is no single solution to the various aspects of complying with the CDC guidelines, OSHA and JCAHO regulations. Therefore, we have addressed individual issues with individual product solutions. Ask for our complete product line catalog, because every challenge has a solution.

AN INVESTMENT IN INFECTION CONTROL