

# AIR repair

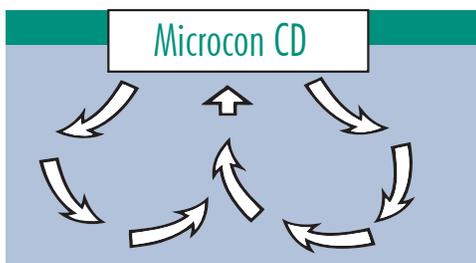
## 2x4 Ceiling Diffuser Unit

- Up to 99.99% efficiency on sub-micron particles
- Progressive filtration system
- Controls both airborne particulate and gas-phase pollutants
- Mounts flush with ceiling
- Multi-directional exhaust louvers
- Baked on white enamel finish

The Microcon CD is a ceiling hung high efficiency air filtration system specifically designed for the removal of both airborne pollutants and gas phase contaminants. The potential for exposure to biological health hazards such as bacteria, viruses, mold, mildew, dust and gaseous odors, contributes to health concerns, Sick Building Syndrome (SBS) and building-related illnesses. Most people spend 90% of their time indoors. Breathing contaminant laden air slowly begins to wear down ones immune system. If contaminants are airborne the potential for inhalation is greatly increased. Small micron sized contaminants can remain suspended indefinitely in the air and travel on air currents throughout the internal environment.

Units can be placed in a standard 2' x 4' T-bar ceiling channel or suspended and be free hanging. Air is drawn through the center inlet grille, pre-filtered, and then final filtered before passing over high intensive germicidal UV lamps (option) before being exhausted through two (2) specially constructed gas phase carbon capture cell. Clean, safe air free of particulate matter and gaseous odors is introduced to the area. Air changes, filtration, dilution and gas phase contaminant removal will provide a healthier environment.

## Air Distribution Pattern



The MICROCON® CD, a tool of the trade  
Your airborne contamination  
and gas phase pollution solution.

## Applications

Increasingly, numbers of people are reacting to environmental conditions in their work, recreation and residential environments. A host of reactions ranging from headaches, nausea, eye, nose and throat irritation, dizziness and odor sensitivity can be triggered by various air pollutants and chemicals to which we are exposed in our everyday lives. Some reactions may either be the result of combustion pollutants such as carbon monoxide, carbon dioxide and dust, or biological air pollutants such as mold, pollen, bacteria, mildew, or other associated allergens. Besides particulate contamination, volatile organic compounds (VOC) such as solvents, vapors, chemicals and various cleaning agents become more than a mere nuisance but irritants that affect our lives until they are identified, addressed and remediated.

## Filtration

The MICROCON CD is a three-stage progressive filtration system. The first stage is a 1" thick synthetic pre-filter designed to contain larger size airborne particles thereby extending the life of the final filter. The secondary or final filter is a hospital-grade, high-efficiency pleated filter cell capable of removing virtually 100% of airborne particles in the sub-micron range. Since removal of gas phase pollutants require a different capture mechanism — carbon or charcoal, a unique carbon composite cell is utilized as the last stage which allows for higher adsorbent loading at a lower pressure drop than comparable carbon cells.

## Installation

The MICROCON CD, electrically prepared at 115V or 230V and with maintenance-free fan, is a flush-mounted design that easily installs into a standard 2' x 4' T-bar ceiling grid. The unit is unobtrusive and blends well with any décor or setting. Once installed, all maintenance procedures such as filter renewal are performed from below the unit without the need of tools.

## Performance

The MICROCON CD delivers up to 1000 cfm of filtered air at varying speeds. For example, in a room that measures 20 feet square, with an eight-foot ceiling, over 18 air changes per hour can be achieved or one air change every 3.5 minutes. Exhaust louvers are positioned to channel filtered exhaust air in four different directions to provide for good air dispersion and mixing within a room. Air quality improvement will result by maximizing the air movement and creating airflow patterns throughout the room. The entire exhaust plenum interior is lined with foam soundproofing material to further reduce sound levels.

## Warranty

All parts and labor are covered for a period of one year from purchase date excluding filters. The life expectancy for the primary filter is estimated at 4-6 months, while the final filter and carbon cells life expectancy is estimated at 12-24 months. These estimates may vary based upon usage and contaminant concentration levels.

# MICROCON®

Carbon composite gas-phase filter cell (2)

Multi-directional baked enamel exhaust louvers

Optional UV lamps (2)

All zinc-coated steel construction

Maintenance-free, high-capacity fan

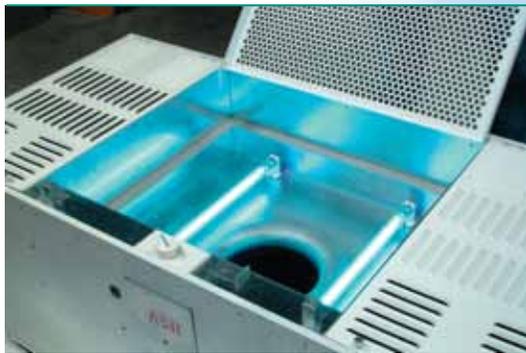
Baked enamel swing-down inlet grille

Polyester pre-filter

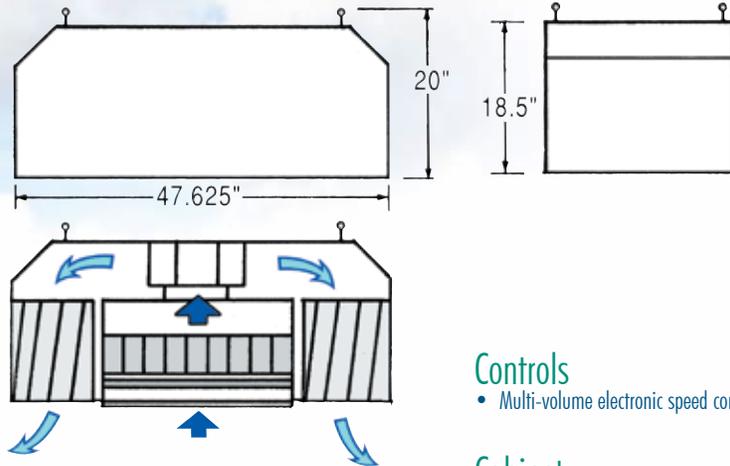
High-efficiency final filter

Electronic variable volume speed control

1/2" acoustical foam soundproofing



## MICROCON® CD Model MCD-002 Specifications



### MICROCON® CD with optional UV lamps

Ultraviolet germicidal (UV) radiation in the 254-nanometer wavelength has proven effective in killing most types of airborne bacteria and viruses. Coupled with a high efficiency filter cell upstream of the two UV lamps the germicidal effectiveness is greatly enhanced. The addition of the UV lamps to the MICROCON CD provides for a "total air quality solution" for just about any indoor environment.

Model No.	Model	Filters
MCD-002	Microcon CD	Pre-Filter, Final Filter, Carbon Cells (2)
MCDH-002	Microcon CD HEPA	Pre-Filter, HEPA Filter, Carbon Cells (2)
MCDHUV-003	Microcon CD HEPA UV	Pre-Filter, HEPA Filter, Carbon Cells, UV Lamps (2)

#### Dimensions

- (H) 23.625" (W) 47.625" (D) 18.5"
- Weight 125 lbs.

#### Blower

- Backward curved motorized impeller
- 1690 rpm
- Dynamically balanced, vibration-free
- Maintenance-free sealed ball bearings

#### Filtration Rate

- 30,00 to 54,000 cubic feet per hour
- Variable speed 550 cfm to 1000 cfm

#### Power Requirements

- 115V, 2.6 amps, 240 watts
- 230V, 1.3 amps, 240 watts

#### Controls

- Multi-volume electronic speed control

#### Cabinet

- 20-ga. zinc-coated steel
- 18-ga. baked white enamel intake grille
- 18-ga. baked white enamel multi-directional exhaust louver
- 4 heavy duty suspension eye bolts

#### Sound Absorbency

- 1/2" acoustical absorbing foam sheet

#### Filters

- Pre-Filter: 20x23.5x1" - 35% synthetic polyester pad
- Final Filter: 19.5x23.5x4" - Hospital grade high-efficiency cell of waterproof micro-glass media in a separatorless configuration, 106 sq. ft. of media area
- Gas Phase: 12x23.5x12" - Dry process carbon composite cell

\*HEPA and/or Germicidal UV optional

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