

# CLEAN AIR BOOTH

**MICROAIR**

**Clean. Easy. RED.**



# An Environment You Can Work With



The Micro Air **Clean Air Booth** is a unique blend of simple modular construction and leading edge air cleaning technology. It's a self-contained, ductless system that provides maximum manufacturing flexibility while protecting workers from the airborne hazards associated with applications such as cutting, welding, grinding, sanding, finishing and many other operations that produce airborne particulates. Capturing contaminants is often impossible when attempting to utilize source capture arms or hoods.

Worker efficiencies also improve with unrestricted range of movement, improved vision and breathing zones. Whether you need a small 4 ft. wide single booth or an extra wide booth for very large items or multiple operations where workers can move about in a protected environment, Micro Air's modular design allows you to customize your booth to your requirements. Every Clean Air Booth power module offers innovations that set it apart from "Blowers in a Box".

## **Modular Design, Custom Capability**

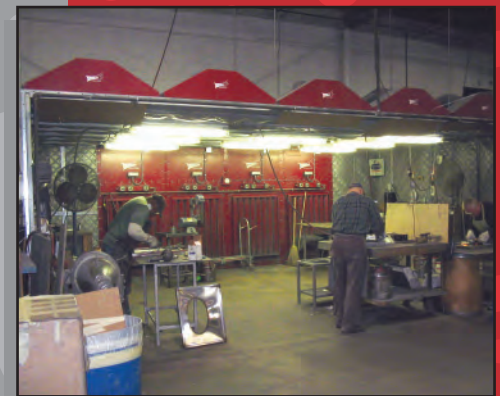
Walls and ceiling construction are made from 2'x4' galvanized panels, providing maximum design flexibility for width, depth and height requirements. You can construct custom booths to meet your application requirements or order pre packaged kits, complete with support structure.

## **High Capacity Power Module with Direct Drive Motor/Blower Assembly**

Provides maximum air movement at high static pressure to maintain more CFM throughout filter life. Impeller wheel-type blowers experience significant performance loss as filters become loaded. Micro Air provides highest CFM retention on the market. Direct Drive power reduces maintenance and operating costs.

## **Quietest On The Market**

Sound levels within the booth are the lowest in the industry according to published test data. "Banging" associated with reverse pulse filter cleaning systems is eliminated, providing an improved working environment. With the "quiet cleaning power" Micro Air provides, there's no need to delay pulse cleaning until the workers have left the booth.



**24' X 16' Booth with Regain Air in Grinding Work Cell**



**Quiet Power**

### **Multiple Exhaust Options**

Air is exhausted out the top of the power modules, returning clean conditioned air into the facility. This eliminates heat/cool loss and the need for make up air units thereby significantly reducing overall operating costs. Exhaust options include silencers, regain air supply systems, and HEPA after filter modules where maximum filtration is required.



### **Regain Air System (optional)**

Increases airflow velocities as regain air is ducted to the front of the booth and directed into the booth to “wash” the worker’s breathing and vision zones, thus forcing particulate away from workers and increasing capture velocities of airborne contaminants.



### **Exclusive REDMAX!<sup>TM</sup> High Efficiency Filter**

Equipped with exclusive Micro Air REDMAX! Filters, available in multiple blends of cellulose and synthetic fibers to match specific applications.



### **Easy Access To Filters And Dust Drawer**

Removal of the louvered inlet grille is simple, providing quick access to the primary filters. The large capacity dust drawer is easily accessed from the front of the power module.



### **Spark Arrestor Inlet**

When sparks are present, the optional spark arrestor louvered inlet grille is designed to collect sparks before they reach the cartridge filters.

### **All-Inclusive Design**

Eliminates the need for ductwork and allows free mobility throughout the booth area.



**Exclusive Roto-Pulse™ cartridge cleaning, whisper-quiet operation, highest CFM available, optional regain air systems, heavy-duty components, expert distributor service and factory technical support assure you of the performance and value you expect from Micro Air.**

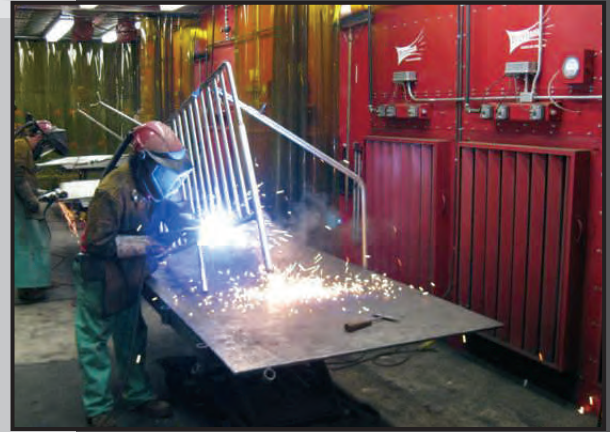


How does it work? The air is pulsed into a specially designed stainless steel, incrementally rotating tube with pre-drilled holes. When pulsed, compressed air exits through the pre-drilled holes at specific angles of flow. The result is that the air hits the full length of the inside of the cartridge, pulsing dirt and contaminants away from the filter for the most efficient cleaning cycle available.

With conventional Reverse Jet or Jet Pulse systems, clean air is pulsed into the cartridge. Typically only 60-70% of the cartridge is cleaned because the air is directed at the opposite end of the cartridge. Air distribution within the cartridge is erratic resulting in inefficient cleaning.



**Multiple Clean Air Booths with Regain Air in Welding/Grinding Operation**



**4-Module CAB Collects 99.99% of Hexavalent Chromium Contaminants Generated in Stainless Steel Welding Operation, Exceeding OSHA's Stringent New Standard for Cr(VI).**



**3-Module Clean Air Booth in Welding Operation**



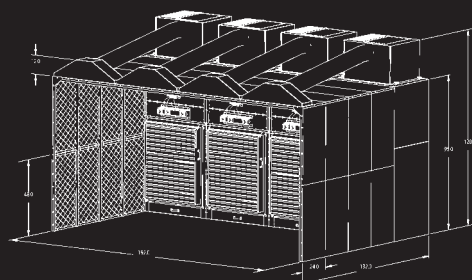
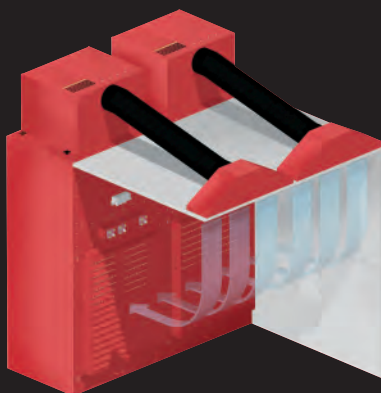
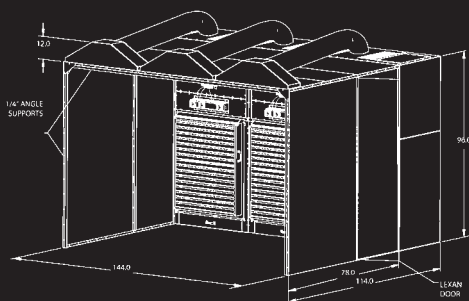
**Clean Air Booth with Crane Slot**

# Clean Air Booth Specifications

MODEL	CAB8-881	CAB8-882	CAB12-882	CAB12-883	CAB16-883	CAB16-884	Custom
<b>Booth Dimensions (WxHxD)</b>	8'x8'x8'	8'x8'x8'	12'x8'x8'	12'x8'x8'	16'x8'x8'	16'x8'x8'	Per Specifications
<b># of Power Modules</b>	1	2	2	3	3	4	Any
<b>CFM</b>	4500	9000	9000	13500	13500	18000	up to 100,000
<b>Booth Face Velocity (feet per minute)</b>	70	140	94	140	105	140	Varies
<b>80/20 Filter Area (Sq. Ft)</b>	1250	2500	2500	3750	3750	5000	Per Specifications
<b>Number of Filters</b>	5	10	10	15	15	20	Per Specifications
<b>Insulated Wall Panels</b>	Optional	Optional	Optional	Optional	Optional	Optional	Optional
<b>Regain</b>	Optional	Optional	Optional	Optional	Optional	Optional	Optional
<b>Spark Arresting Inlet Available</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**Booths can be configured taller, deeper, or wider in two foot increments upon request**

Custom configurations are available up to 100 feet wide



## STANDARD FEATURES

<b>Construction</b>	12 and 14 gauge steel
<b>Paint</b>	Industrial grade crimson red, textured baked enamel, inside & outside
<b>Compressed Air</b>	Requires 90 PSI for incremental rotos
<b>Control Panel/ Electrical</b>	All package collectors come complete with factory installed motor starter and overload protection, step-down transformer, 20 mm pushbutton start/stop switches, solid state timer board with fuse protection
<b>Housing Pressure</b>	Rated to +/- 20 inches w.c.
<b>Filtration Efficiency</b>	99.999% > .8 microns, 99.995% .3 to .8 microns, rated by ASHRAE 52.2 using atomite test dust
<b>Filter Access</b>	Easy front access to filters through the louvered inlet
<b>Motor/Blower</b>	Heavy duty backward inclined blower with TEFC motors

## APPLICATIONS

**Metalworking • Composites • Woodworking • Pharmaceutical • Chemical • Food Processing • Pulp & Paper**



# Clean Air Booth Power Module Specifications

## Overall Dimensions – Single Power Module:

97.50" H. X 48" W. X 36" D. w/Std. Exhaust Grille  
121.75" H. X 48" W. X 36" D. w/Optional Exhaust Plenum  
99.50" H. X 48" W. X 36" D. w/Optional Regain Outlet

## Weight – Single Power Module:

Base Unit: 815 lbs. Shipping Weight: 890 lbs

## Cabinet:

14 Gauge Welded Steel w/Internal Supports

## Finish:

Industrial Grade Crimson Red, Textured, Baked Enamel Paint  
Inside and Outside

## Filters:

5 ea. 80/20, 250 S.F. Media Cartridges  
Optional-5 ea. 80/20, 291 S.F. Media Cartridges  
Optional-5 ea. Polyester Spun Bond, 150 S.F. Media Cartridge  
Optional-5 ea. Polyester Spun Bond, HO Treated, 150 S.F. Media Cartridge

## Filter Area:

1250 S.F. per module (250 S.F. Media Cartridges)  
1455 S.F. per module (291 S.F. Media Cartridges)  
750 S.F. per module (150 S.F. Media Cartridges)

## Filter Cleaning:

Automatic, self-cleaning Roto-Pulse™ cleaning system, using 80 PSI of compressed shop air. Air is pulsed to cartridges through a 1" Goyen valve.

## Air Consumption:

Factory set at 2.7 SCFM @ 90 PSI

## Air Line Requirements:

3/4" pipe will accommodate up to three power modules.

## Cleaning Frequency:

Pulse time is 0.07 seconds. Time between pulses ranges between 5 and 30 seconds.

## After Pulse System:

Standard equipment designed to clean filters after unit is turned off. Timer can be adjusted between 0 and 15 minutes.

## Roto Pulse™ Assemblies with 5 Year Limited Warranty:

Unique cartridge cleaning system...The air is pulsed into a specially designed stainless steel, incrementally rotating tube with pre-drilled holes. When pulsed, compressed air exits through the pre-drilled holes at specific angles of flow. The result is that the air hits the full length of the inside of the cartridge, pulsing dirt and contaminants away from the filter for the most efficient cleaning cycle available.

## Filter Access:

Front access through inlet grille frame.

## Air Flow:

Through inlet at the front lower portion of the unit, exhausted vertically through the top of the unit.

## Motor/Blower Options:

5 HP, 3 Ph., 60 Hz, 208/230 – 460 V., TEFC Motor with Direct Drive Blower  
5 HP, 3 Ph., 60 Hz, 575 V., TEFC Motor with Direct Drive Blower  
3 HP, 3 Ph., 60 Hz, 208/230 – 460 V., TEFC Motor with Direct Drive Blower  
3 HP, 3 Ph., 60 Hz, 575 V., TEFC Motor with Direct Drive Blower  
Option for Explosion Rated Motor — 3 HP & 5 HP

## Amperage:

5 HP, 208/230 volt: maximum 12.5 F.L. Amps  
5 HP, 460 volt: maximum 6.2 F.L. Amps  
5 HP, 575 volt: maximum 4.8 F.L. Amps  
3 HP, 208/230 volt: maximum 8.0 F.L. Amps  
3 HP, 460 volt: maximum 4.0 F.L. Amps  
3 HP, 575 volt: maximum 3.0 F.L. Amps

## Air Volume:

4500 CFM Nominal (5 HP option)  
3000 CFM Nominal (3 HP option)

## Dust Tray:

6" H. X 39.75" W. X 34.75" D. Capacity: 4.8 c.f.

## Controls Options:

Power box with timer, start/stop buttons, transformer and motor starter/overload relay.  
Optional Power Box with Timer Only

## Inlet Options:

Spark Arrestor Inlet  
Inlet w/2" Filter Track (Non-Sparking Applications)

## Exhaust Options:

Regain Air Diffuser System  
Adjustable Exhaust Grille with Regain Outlet  
Silencer with Regain Outlet  
99.97 % HEPA After-Filters with Regain Outlet  
Std. Exhaust Grille Only

## Gauge Options:

Magnahelic Gauge (1 per system, additional gauges ordered separately)  
Photohelic Gauge (1 per system, additional gauges ordered separately)

## Clean Air Booth Assemblies:

CAB8-881 – 8' X 8' X 8' Insulated panel & support kit for use with 1 power module  
CAB8-882 – 8' X 8' X 8' Insulated panel & support kit for use with 2 power modules  
CAB12-883 – 12' X 8' X 8' Insulated panel & support kit for use with 3 power modules  
CAB16-884 – 16' X 8' X 8' Insulated panel & support kit for use with 4 power modules  
CABR8-881 – 8' X 8' X 8' Insulated panel & support kit for use with Regain Air System equipped w/ 2 Diffusers for 1 power module.  
CABR8-882 – 8' X 8' X 8' Insulated panel & support kit for use with Regain Air System equipped w/2 Diffusers for 2 power modules.  
CABR12-883 – 12' X 8' X 8' Insulated panel & support kit for use with Regain Air System equipped w/3 diffusers for 3 power modules  
CABR16-884 – 16' X 8' X 8' Insulated panel & support kit for use with Regain Air System equipped w/4 Diffusers for 4 power modules

## Options:

ILF Standard Industrial Lighting Fixture (wiring & bulbs not included)  
IDPLF Industrial Dust Proof Lighting Fixture (wiring & bulbs not included)  
RAD Regain Air Diffuser w/o Booth Option (Includes 2 ea. Gear Clamps) (Order Flex Duct Separately)  
RAFD Regain Air Flex Duct (Unit of measure per Foot) (Order 2' per Regain Diffuser Plus number of feet required for booth depth)  
GBP 2' X 4' Galvanized Booth Panels w/Hardware  
GBPI 2' X 4' Galvanized, Insulated Booth Panels w/Hardware  
RGBP Regain Top Panel—Galvanized Booth Panel w/Hardware  
RGBP I Regain Top Panel Insulated—Galvanized, Insulated Booth Panel w/Hardware

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