



MICRO AIR

CLEAN AIR SYSTEMS

®



LIFT
AND
TURN

Clean. Easy. RED.

Micro Air, a division of Metal Fab, Inc. located in Wichita, Kansas, is an industry leader in air cleaning and dust collection products. In business since 1959, we offer over 40 years of experience in clean air systems, specializing in industrial applications. Through continual product development and engineering, Micro Air has broadened its line of clean air systems to one of the widest selections offered in the industry. With distributors around the world, we offer a factory trained support system available to you before and after purchase.

This **APPLICATION GUIDE** has been formatted to help in the selection process of the various types of systems offered for typical applications.

- **WELDING SMOKE AND FUMES**
- **MACHINING MIST AND SMOKE**
- **METALWORKING DUST**
- **PROCESS DUST AND POWDER**
- **COMMERCIAL APPLICATIONS**

There are two general ways to capture airborne pollutants:

SOURCE CAPTURE – As the name implies, pollutants are captured at the source. Through the use of hoods, enclosures, and airflow, source capture provides the most effective means of controlling pollutants.

AMBIENT COLLECTION – Through filtering the ambient air (all the air in an area) we can clean that air by cycling it through filters. This method is a good option where source capture is impractical due to obstacles such as cranes, machinery, and/or layout of your facility, or for budgetary constraints.

As you will see in the guide, there will be many different options for any application. Your factory trained Micro Air representative can help you navigate through the selection process and design a system that will fit your unique needs.

If portability is important – WE CAN DO IT.

If a small footprint is what you need – WE CAN DO IT.

If high efficiency collection is what you need – WE CAN DO IT.

For clean air needs – MICRO AIR CAN DO IT!



Source Capture of Weld Smoke and Fumes



Ambient Mist Collection



Factory-trained representatives available to assist in tailoring Micro Air System to meet your needs



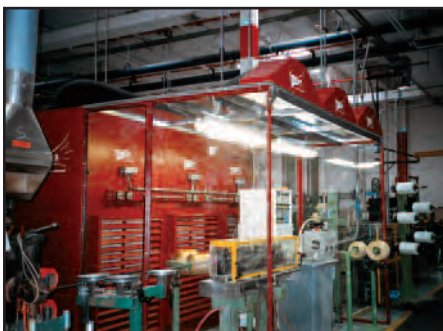
Ambient Weld Smoke/Fume Collection



RP8 with Spark Arrestor



TM1000 Portable Collector in Weld Cell



3-Module Clean Air Booth, collects dust in cable manufacturing operation

Match Micro Air with your needs with this quick reference selection guide.

PRODUCT APPLICATION CHART

| Models | Welding Smoke & Fumes | Laser & Plasma | Machining Mist & Smoke | Metalworking Dust | Process Dust & Powders | Commerical Applications | Source Capture | Ambient Capture |
|-----------------|-----------------------------|-------------------|------------------------------|----------------------|------------------------------|----------------------------|-------------------|--------------------|
| RP1 | x | | | x | x | | x | |
| RP2 | x | x | | x | x | | x | |
| RP4 | x | x | | x | x | | x | |
| RP6 | x | x | | x | x | | x | |
| RP8 | x | x | | x | x | | x | |
| RP6-2 | x | x | | x | x | | x | |
| RP8-2 | x | x | | x | x | | x | |
| RP6-3 | x | x | | x | x | | x | |
| RP8-3 | x | x | | x | x | | x | |
| Clean Air Booth | x | x | | x | x | | x | x |
| XA23 | x | | | x | x | | x | |
| XA34 | x | | | x | x | | x | |
| XA46 | x | | | x | x | | x | |
| DDT 4830 | x | | x | x | x | | x | |
| DDT 7230 | x | | x | x | x | | x | |
| OM6000DD | x | | x | x | | | x | |
| OM6000 | x | | x | x | | | x | |
| OM3510 | x | | x | x | | | x | |
| OM500 | x | | x | x | | | x | |
| OM550DD | x | | x | x | | | x | |
| MX6000 | x | | x | x | x | | x | x |
| MX3510 | x | | x | x | x | | x | x |
| MX1800 | x | | x | x | | | | x |
| MC3000 | x | | | x | x | | x | x |
| MC2500 | x | | | x | | | x | |
| MC1500 | x | | | x | x | | x | |
| TM1000 | x | | | x | | | x | |
| MA4210 | x | | | x | | | x | |
| M2150 | x | | | x | | | x | |
| SC150 | | | | x | | | x | |
| SCA Arms | x | | x | x | | | x | |
| 270BCC | x | | | x | | | n/a | n/a |
| Safety Filters | x | | | x | x | | n/a | n/a |
| Spark Arrestors | x | | | x | | | n/a | n/a |
| MT1251 | | | | | | x | | x |
| MT1252 | | | | | | x | x | x |
| MT800 | | | | | | x | | x |
| WM500 | | | | | | x | | x |

Welding Smoke & Fumes

When selecting a system for weld fume and smoke, there are many contributing factors to provide equipment that meets all of your needs. Micro Air can design the system to your unique filtration efficiencies, floor space utilization, worker mobility and portability, and budget, all while meeting OSHA and NIOSH standards. By using our high efficiency cartridge or HEPA units, we can eliminate the need for costly make-up air by filtering and exhausting the air back into your facility.

There are three methods to remove harmful weld fumes and smoke:

Exhausting — While the up front expenditures are usually lower for exhausting, and it does accomplish the goal of employee safety, it is generally more expensive in the long run due to increased energy costs to heat and cool a plant. Besides exhausting costly conditioned air, make-up air units may be needed to reduce the negative air pressure created. Micro Air provides several options including source capture arms if you choose to exhaust.

General Capture — General capture is a good way to capture pollutants and keep plant air below OSHA and NIOSH standards. In basic terms, we filter your plant air in problem areas to achieve desired air changes per hour based on pollutant levels. This can be a very cost effective way to increase worker safety levels and can greatly reduce the sick days that are caused by irritations of breathing the weld fume and smoke.

Source Capture — This is the most effective means for eliminating weld fumes and smoke. By capturing at the source, we can filter close to 100% of the harmful contaminants produced without any of it going through the worker's breathing zone. With literally hundreds of capture options, we will find the right fit for you.



Before



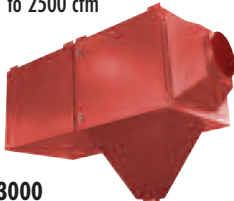
After



MX1800
Ceiling/wall mounted bag type — up to 2500 cfm



MX3510
Ceiling/wall mounted bag type — up to 3500 cfm



MC3000
Ceiling/wall mounted cartridge collector for source or ambient capture



MX6000
Ceiling/wall mounted bag type — up to 6000 cfm



SCA Arms
Source capture arms, 6" or 8" diameter



Clean Air Booth
5-cartridge design, modular-sized for your needs



Modular design and multiple power modules allow the Clean Air Booth to meet specific needs.



MC1500
Heavy production portable, cartridge filter



M2150
Portable light duty for small volume use



MC2500
Ceiling/wall mounted cartridge type with 2-4 source capture arms



MA4210
Portable bag type for odor and dust control



TM1000
Ultra flexibility, cartridge type, variety of attachments — articulated arm



XA34
Self-contained Downdraft Table, 3'x4'

NOT SHOWN:
XA23 2'x3'
XA46 4'x6'



DDT4830 - DDT7230
Downdraft Table
Non-powered 4' and 6' models



RP4
Dust collector, 4 cartridge



RP6
Dust collector, 6 cartridge



RP8
Dust collector, 8 cartridge

NOT SHOWN:
RP6-2
Dust collector, 12 cartridge

RP8-2
Dust collector, 16 cartridge

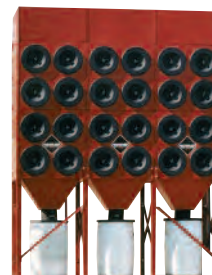
RP6-3
Dust collector, 18 cartridge



RP1 Twister™
Dust collector, 1 cartridge



RP2
Dust collector, 2 cartridge



RP8-3
Dust collector, 24 cartridge

Laser & Plasma

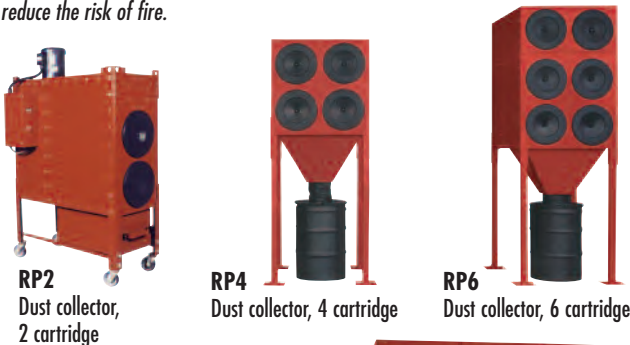
Machining Mist & Smoke



RP8 with Spark Arrestor collects smoke/fumes from plasma table

Laser and plasma table applications are among the trickiest to control for smoke and fumes. The particulate generated in these processes is very fine, tends to be sticky, typically is laden with sparks and hot slag, and at times oil burned from P & O material can generate an oily mist.

Micro Air offers a dust collector uniquely designed for this tough application. It all starts with our Roto-Pulse's unique ability to effectively clean the filter media in an application where many others cannot. We also offer factory engineered spark arrestor systems that can be added to greatly reduce the risk of fire.



RP2
Dust collector,
2 cartridge

RP4
Dust collector, 4 cartridge

RP6
Dust collector, 6 cartridge

NOT SHOWN:

RP6-2
Dust collector,
12 cartridge

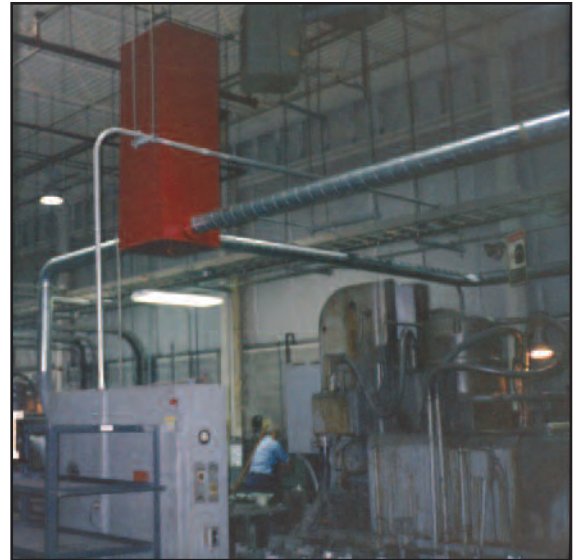
RP8-2
Dust collector,
16 cartridge

RP6-3
Dust collector,
18 cartridge



RP8
Dust collector, 8 cartridge

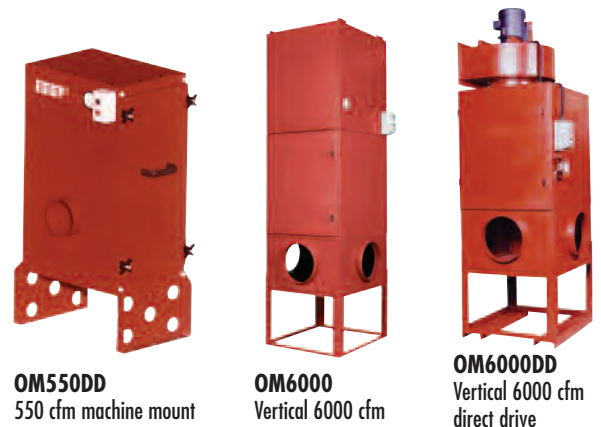
RP8-3
Dust collector, 24 cartridge



OM3510 Oil Mist Multidrop

Anyone who produces coolant mist and smoke knows the problems that arise if you don't effectively capture and filter it. From oil puddles on machinery and floors to the blue haze across the plant, oil mist and smoke become a maintenance issue. Oil residue is costly to clean up, may cause problems with equipment that are costly to repair.

From individual machine mounted units like our OM550DD to portable capture units to large central systems, we can offer filtration options that will solve any mist problems found in the industry. All of our units offer cost effective and low-maintenance removal of the pollutants. In most cases, we can return costly cutting fluid to your machinery. With our **Mist-X** mist eliminator, we can minimize filter costs. We also offer electrostatic precipitators if needed.



OM550DD
550 cfm machine mount

OM6000
Vertical 6000 cfm

OM6000DD
Vertical 6000 cfm
direct drive



OM3510
Vertical 1500-3500 cfm

OM500
Vertical 800 cfm

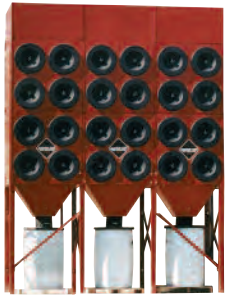
MX3510 w/Mist Module
Horizontal 1500-3500 cfm

MX6000 w/Mist Module
Horizontal 6000 cfm

Metalworking Dust

With one of the widest lines of metalworking dust capture systems, we can handle all of your grinding, sanding, torching and laser cutting needs plus countless other applications. From portable to central, systems for the budget minded to systems designed for applications where only the highest efficiencies will do, Micro Air fits the bill. With our exclusive Roto-Pulse™ self-cleaning cartridge system, we can often offer a smaller footprint, efficiencies up to 99.99% and a more cost effective solution than those using reverse or jet pulse cleaning. This is done by cleaning 100% of the filter rather than 60-70% typical with traditional methods. Effectively, Roto-Pulse provides more continuously cleaned filter area than the competition and can extend filter life significantly as well.

If you fabricate metal, let one of our experts design a system to meet your requirements.



RP8-3
Dust collector, 24 cartridge



RP8
Dust collector, 8 cartridge



RP4
Dust collector, 4 cartridge



RP6
Dust collector, 6 cartridge



RP2
Dust collector, 2 cartridge



RP1 Twister™
Dust collector, 1 cartridge



Clean Air Booth
5-cartridge design, modular-sized for your needs

RP6-2
Dust collector, 12 cartridge

NOT SHOWN:
RP8-2
Dust collector, 16 cartridge

RP6-3
Dust collector, 18 cartridge



SCA Arms
Source capture arms, 6" or 8" diameter



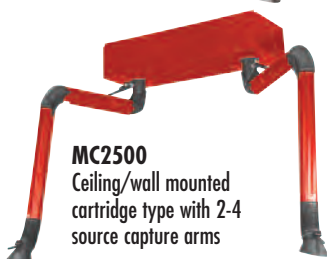
SC150
Table top solder smoke and fume collector



M2150
Portable light duty for small volume use



Modular design and multiple power modules allow the Clean Air Booth to meet specific needs.



MC2500
Ceiling/wall mounted cartridge type with 2-4 source capture arms



MC1500
Heavy production portable, cartridge filter



MA4210
Portable bag type for odor and dust control



MX3510
Ceiling/wall mounted bag type – up to 3500 cfm



MC3000
Ceiling/wall mounted cartridge collector for source or ambient capture



XA34
Self-contained Downdraft Table, 3'x4'



MX1800
Ceiling/wall mounted bag type – up to 2500 cfm



TM1000
Ultra flexibility, cartridge type, variety of attachments – articulated arm



TM1000
With long reach flex hose attachment



DDT4830 - DDT7230
Downdraft Table
Non-powered 4' and 6' models



MX6000
Ceiling/wall mounted bag type – up to 6000 cfm

Process Dust & Powder



RP8 ducted to wood finishing operation



MX6000
Ceiling/wall mounted bag type – up to 6000 cfm



SCA Arms
Source capture arms, 6" or 8" diameter

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Dust collector, 4 cartridge



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RP1 Twister™
Dust collector, 1 cartridge

RP6-2
Dust collector, 12 cartridge

NOT SHOWN:
RP8-2
Dust collector, 16 cartridge

RP6-3
Dust collector, 18 cartridge

Commercial Applications



WM500
Wall mount for smoke and odor

Our line of commercial units will solve a host of indoor air quality problems like cigarette smoke and odor, toner and/or paper dust problems, seafood odors in restaurants or markets, and many others. With options like wall mount, flush ceiling mount, and below or above ceiling-we will solve your specific air pollutant issues and fit within the aesthetic confines of your place of business.



SC150
Table top solder smoke and fume collector



MT800
Below ceiling for smoke and odor

NOT SHOWN:
MT1252
Above ceiling unit for smoke and odor

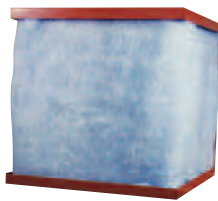


MT1251
Below ceiling unit for smoke and odor

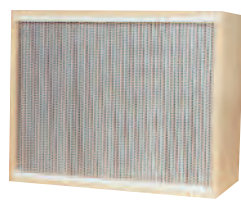
Wide selection of filters to meet your specific needs.



Media Bag filter 55% to 95% efficiencies



Wrap-around prefilter extends life of bag filter



HEPA filter up to 99.99% efficient



Cube filter for large particulate such as wood dust



Odor control refillable module



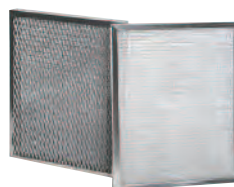
Mist X captures mist at peak efficiency



Oil impinger for coolant mist units



Maxigrid – Panel filter for coolant mist



Metal Mesh – Mist Pre-filter



Pleated and High Efficiency Pleated



REDmax! High Efficiency Filter Cartridges for Roto-Pulse™ models

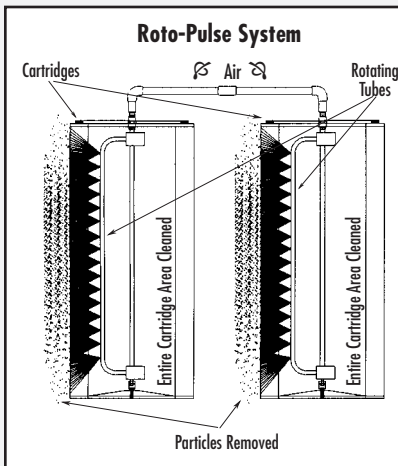
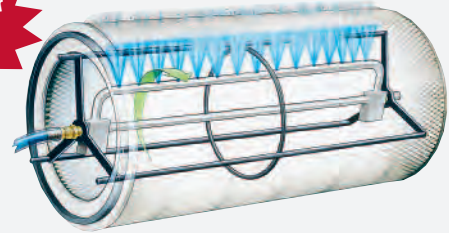
Exclusive Roto-Pulse™ extends filter life.

ROTO-PULSE™

- Lower SCF requirements than conventional backflush systems.
- More efficient cartridge cleaning per pulse than conventional backflush systems.

- Longer cartridge filter life than conventional backflush systems.
- Lower maintenance cost than conventional backflush systems.
- Better overall system operation.

New 5-year limited warranty



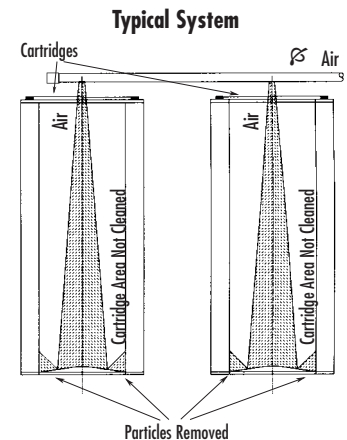
Micro Air Roto-Pulse™ Cartridge Cleaning System

Roto-Pulse™ provides for a much more efficient and thorough cleaning of cartridges. The air is pulsed into a specially designed stainless steel, incrementally rotating tube with pre-drilled holes. As the air enters this tube, the force of the air causes the tube to partially rotate around the filter. 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.

Typical Reverse Jet or Jet Pulse System

Air enters the cleaning pipe and is pulsed into the cartridge. The air hits only the back corners resulting in an inefficient cleaning of the cartridge. Typically only 60-70% of the cartridge is cleaned.

By cleaning the full cartridge with Roto-Pulse™ versus only 60-70% with typical cleaning systems, Micro Air effectively utilizes more filter area than conventional systems leading to fewer cartridge replacements and lower maintenance costs.



ACCESSORIES



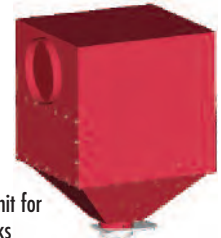
Intelli-Touch™ Energy Savings Control Panel



270BCC Blowerless Media Cabinet



Safety Filter HEPA module for return air



Spark Arrestor Drop-Out unit for heavy sparks

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Toll Free
1.866.566.4276

MICRO AIR
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P.O. Box 1138 • Wichita, KS 67201
316.946.5875 • FAX 316.219.2995
e-mail: info@microaironline.com
www.microaironline.com