



# MOBILE PARTICULATE REMOVAL SYSTEM ELECTRONIC AIR CLEANER

# **Description**

- The new Electro-Air Mobile Electronic Air Cleaner can be used anywhere on the shop floor.
   Captures a wide range of harmful airborne pollutants as small as 0.01 micron (0.01 micron = 1/2,540,000 of an inch), such as welding fumes, oil mist, dust and lots more.
- Powerful source capture zone works directly at the point of maximum concentration, up to 20 inches (50.8 cm) away.
- Contains an Environmentally-Friendly, Lifetime Filter System that never needs replacing. Simply washes clean.
- Delivers high performance, quiet operation and easy handling. Easy to maintain.

### **Benefits**

- Dramatically Lowers Energy Costs by recycling rather than exhausting expensive heated/cooled air
- Reduces Absenteeism and Turnover by providing a healthier, safer environment for the process operator and surrounding work force.
- Increases Productivity and Accuracy resulting from a more comfortable breathing zone.
- Prevents Contaminant Build-Up on Finished Products so there is far less time and energy spent on cleaning and re-work.
- *Improves Indoor Air Quality* for a healthier, more efficient and profitable work environment.

#### **Features**

- Source Capture Arm: Self-supporting frame inside the flex duct allows for clean looks and easy maneuverability. Four (4) adjustable friction lock joints secure arm in desired position. Industrial grade, urethane, chemical resistant, high temperature flexible duct. Arm has 7.0 ft (2.1 m) reach, 360° swing, 8 in (20.3 cm) diameter. Capture nozzle is cone shaped with a capture zone of 12-20 in (30.5-50.8 cm).
- <u>Prefilter:</u> Washable, multi-layered aluminum mesh prevents large pollutants from entering collector cell.
- <u>lonizer:</u> Rust-resistant satin coat steel frame with ten (10) Tungsten wires.



- Collector Cell: Captures welding fumes, oil mist, dust and other pollutants down to 0.01 micron. Washable, corrosionresistant aluminum cell has surface area of 62.8 ft² (5.83 m²).
- After Filter: Washable, multi-layered aluminum mesh filter collects agglomerated dust, maintans back pressure and keeps efficiency constant.
- <u>Clean Air</u> <u>Discharge:</u> Located above the breathing zone of process operator.
- Motor & Blower:
   Two AC motorized

centrifugal impellers are utilized to draw air evenly across the face of the cell. The single inlet blower wheels are backward curved, measuring 9 in. diameter by 4 in. wide (22.9 x 10.2 cm). The energy efficient, ball bearing fan motors draw only 185 watts each.

- Control Panel: ON/OFF Lighted Rocker Switch controls voltage to collector cell. Fan ON/OFF Lighted Rocker Switch allows easy drying of collector cell after washing. Performance Indicator Light shows collector cell is operating properly at a glance.
- <u>Electrical Cabinet:</u> Protects electronics from contaminant build-up. Removable. Unique, solidstate power supply is field adjustable for increased efficiency.

## **Cabinet Construction Features**

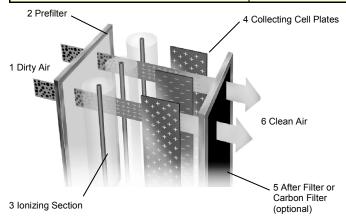
- Heavy gauge steel with powder-coat paint finish resists wear and tear. Mounted on 4 heavy-duty swivel locking casters.
- Interlocked Access Door allows entry to ionizer, cell and filters.

#### **Options Available**

- 10 ft (3.05) Source Capture Arm comes with outriggers, 360° swing, 8 in (20.3 cm) diameter.
- High Speed Capture Nozzle.
- Activated Carbon Filter removes noxious odors and gases.

## **SPECIFICATIONS**

MODEL	MPRS1000
Air Capacity	1000 CFM (1700 m³/hr)
Rated Capture Velocity	1100 FPM (225.3 m/min)
Power Consumption	120 V 60 Hz 1 phase 3.6 A
Motor	Contains (2) Energy Efficient, High End European Motors 120 V 60 Hz 1 Phase 1.5 A
Power Cord	10.0 ft (3.05 m) with 3-prong plug
Overall Dimensions	28.0 L x 18.0 W x 36.0 H in (71.0 L x 45.7 W x 91.5 H cm)
Weight	281.0 lbs (127.5 kg)
Shipping Weight	310.0 lbs (141.0 kg)
Cleaning Solution	DAX Detergent—Available in 4.4 gal (20 l), 45 gal (204.6 l) drum containers. Heavy duty cleaner expressly for removal of accumulated pollutants on collector cell plates.



**Electrostatic Precipitation** 

## **HOW IT WORKS**

The MPRS1000 Sourcer operates on the principle of "Electrostatic Precipitation". Airborne pollutants are drawn in though the direct capture arm and first pass through to the prefilter, where large particles are caught. Next, smaller particles move to a two-stage electrostatic collector cell where they are given a powerful positive charge by the ionizing wires. Charged particles then move into the collecting area where they are attracted to a series of alternately charged and grounded plates. Pollutants are held on the plates like a magnet until washed away during cleaning. Air passes through the after filter to collect any agglomerated dust and is then dispersed from the top of the unit.

# **TYPICAL APPLICATIONS**

- Brazing
- Cold Forming
- Gear Cutting
- Heating Treating
- Induction Heating
- Machining
- Milling
- Plasma Cutting

- Plastic and Rubber Forming
- Quenching
- Soldering
- Threading
- Welding
- Wet Grinding
- Wire Drawing

Manufacturer reserves the right to discontinue or change at any time, specifications or designs without notice or without incurring obligations.





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