

 **ProVent** LLC
Industrial Process Ventilation Professionals

AIR CLEANING EQUIPMENT, INC.
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Featuring the unique
**UNIVERSAL
RACKING SYSTEM**
for complete flexibility in filter arrangement!



MACHINEMASTER™
OIL & WATER MIST COLLECTORS



Wet machining operations require mist collection to contain the process. MachineMaster™ and MachineMaster™ Junior Oil and Water Mist Collectors

provide continuous duty "single source" capture of machining oil, coolant mist, water mist and other air pollutants in vapor or particulate form.

STANDARD EQUIPMENT

- Systems available in 2,000, 4,000, 6,000, 8,000 and 12,000 CFM capacities.
- 14 and 16 gauge welded mild steel construction, primed and finished painted with an industrial acrylic enamel with hardners on both the interior and exterior of all cell sections.
- Hinged door access on each module and modular cell housing construction allows for easy system maintenance and the addition of optional cells with minimal system down time.
- In most cases, the following system sizes can be shipped from stock.

Model	Motor Horsepower	CFM
MM-2000	3 hp	2000
MM-4000	7.5 hp	4000
MM-6000	10 hp	6000

PRIMARY FILTER CELL

- Provides the filtration necessary for removal of mists, vapor and particulate in most wet machining applications and is required as an initial filtration stage in applications where optional HEPA filter cells are utilized.
- Positive Filter Seal Racking System.
- The Basic Primary Filter Cell System consists of the following:
 - **STAGE 1:** Aluminum chevron type mist eliminator, 24" x 24" x 4" prevents swarf, shavings, large particles and large fluid droplets from entering filters.
 - **STAGE 2:** Aluminum mesh pre-filter, 24" x 24" x 1", traps larger oil or water mist particles, which drain down into plenum.
 - **STAGE 3:** 10 pocket, lofted fiberglass V-bag filter, 95% (ASHRAE 52-76) 24" x 24" x 36", provides final air filtration prior to exhausting back into plant. 126 sq. ft. of area per filter.
- Optional Magnahelic Gauge provides pressure readings for ease in determining needed filter replacement and maintenance.

INLET PLENUM CELL

- Sealed, leak-free inlet plenum design.
- 1" NPT Drain Connection supplied in a welded inlet plenum. Plenum design is sloped for better drainage.
- Optional Inlet Cuts, duct work transitions and drain kits are available on all model sizes.
- Inlet Plenum Cell is not intended to be load bearing and is typically shipped pre-assembled to the leg and primary filter cell.

LEG CELL

- Provides all the support necessary for a free-standing MachineMaster™ System as well as support for inlet plenum during installation procedures.
- Includes multiple leg configurations (depending upon model size), bracing and inlet support platform.
- Typically shipped assembled to the Inlet Plenum Cell and Primary Filter Cell for ease of installation and assembly of entire system at the jobsite.
- Not required on systems which are to be ceiling or wall mounted.

MOTOR/BLOWER CELL

- AMCA rated, Class II steel constructed, centrifugal flat-bladed, backward curved fan packages include inlet cones to reduce horsepower consumption.
- All blowers are pre-mounted.
- Motors are wired to a NEMA-12 junction box (MM-6000, MM-8000, MM-12000 only).
- Fan curve and horsepower data is shown on adjacent pages.
- Optional NEMA or IEC motor controls are available on all systems.
- **NOTE:** The blower cell is located at the top of the machine, making the assembly top-heavy. All units should be securely anchored for safety purposes.

MACHINEMASTER™

Oil & Water MIST COLLECTORS

The manufacturer reserves the right to enhance the design or change the specifications without prior notice or obligation.

▲ All systems follow a vertical, upward flow pattern through complex filter stages. Gravity assists in continuous drainage of the filter media and allows for longer filter life.

MachineMaster™ systems are available from 400 to 12,000 CFM to efficiently prevent oil or water vapor contamination of the plant environment or final product. All systems have the universal racking system.



OPTIONAL EQUIPMENT

95% or 99.97% DOP HEPA Filter Cell

- The HEPA Filter Cell follows the Primary Filter Cell in applications where fine traces of smoke or other gases are associated with the process.
- HEPA Filter Cells are available on all sizes of MachineMaster Systems.

Carbon Filter Cell

- Utilized for removal of odors, gases, and vapors associated with a process.
- Filter trays are removable and refillable.
- Activated carbon may be replaced with potassium permanganate.
- Available only on the MM-2000, MM-4000 and MM-8000 models.

ACCESSORIES AVAILABLE

- Magnahelic Gauge Pressure Indicator, 0 - 3"
- NEMA or IEC Motor Controls
- Drain Kits
- Silencers with flanges
- Inlet Plenums Cut to Specifications
- Inlet and Exhaust Ductwork Transitions
- Replacement Filters
- External Fans for use in Higher Pressure applications
- Flex Hose and Hose Clamps
- Ceiling Mount Hangers



Welded and finish painted inside and out to stand up against the toughest industrial processes.



Larger MachineMaster™ systems are modular and vertical in configuration. Entire systems are easily installed on self-supporting leg sections next to an existing

operation, or may be wall or ceiling mounted. Larger system capacities allow for multiple operations to be ducted to one machine.



Option A:
36" Pocket Envelope Bag
4" Mist Eliminator
1" Metal Mesh



Option B:
36" Pocket Envelope Bag
4" 30% ASHRAE Filter
1" Metal Mesh



Option C:
Triple Impinger Cell



Option D:
12" 95% ASHRAE V-Bank
4" Mist Eliminator
4" Mist Eliminator



Option E:
12" 95% ASHRAE V-Bank
4" 30% ASHRAE Filter
4" 30% ASHRAE Filter



Option F:
12" 95% ASHRAE V-Bank
6" 40% ASHRAE Filter
4" 30% ASHRAE Filter
1" Metal Mesh



Option G:
12" 95% ASHRAE V-Bank
4" Mist Eliminator
4" 30% ASHRAE Filter



Option H:
(3) 4" 30% ASHRAE Filters

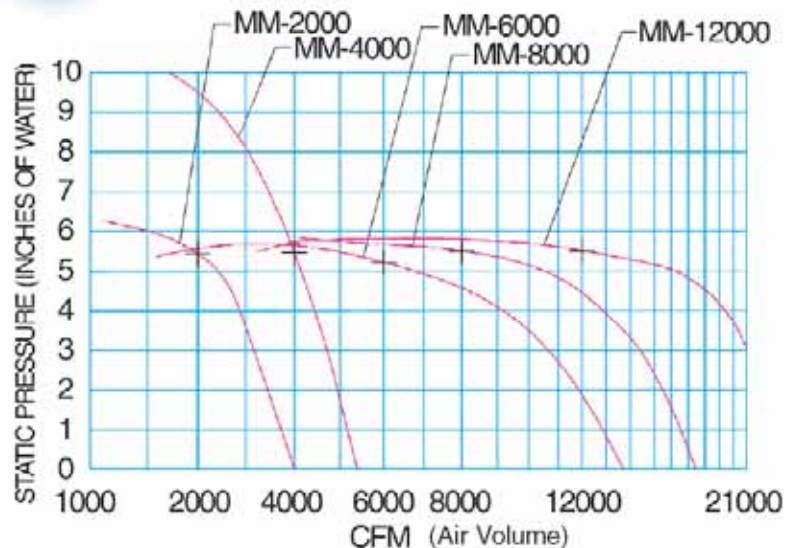
UNIVERSAL RACKING SYSTEM

FILTER OPTIONS

The Universal Filter Racking System enables you to configure your MachineMaster with the number and type of filters you need to most effectively and efficiently handle the job.

Examples of some of the possibilities are shown above. You can be as creative as you need to best fit the application!

PERFORMANCE CURVES



MACHINEMASTER™

Oil & Water MIST COLLECTORS



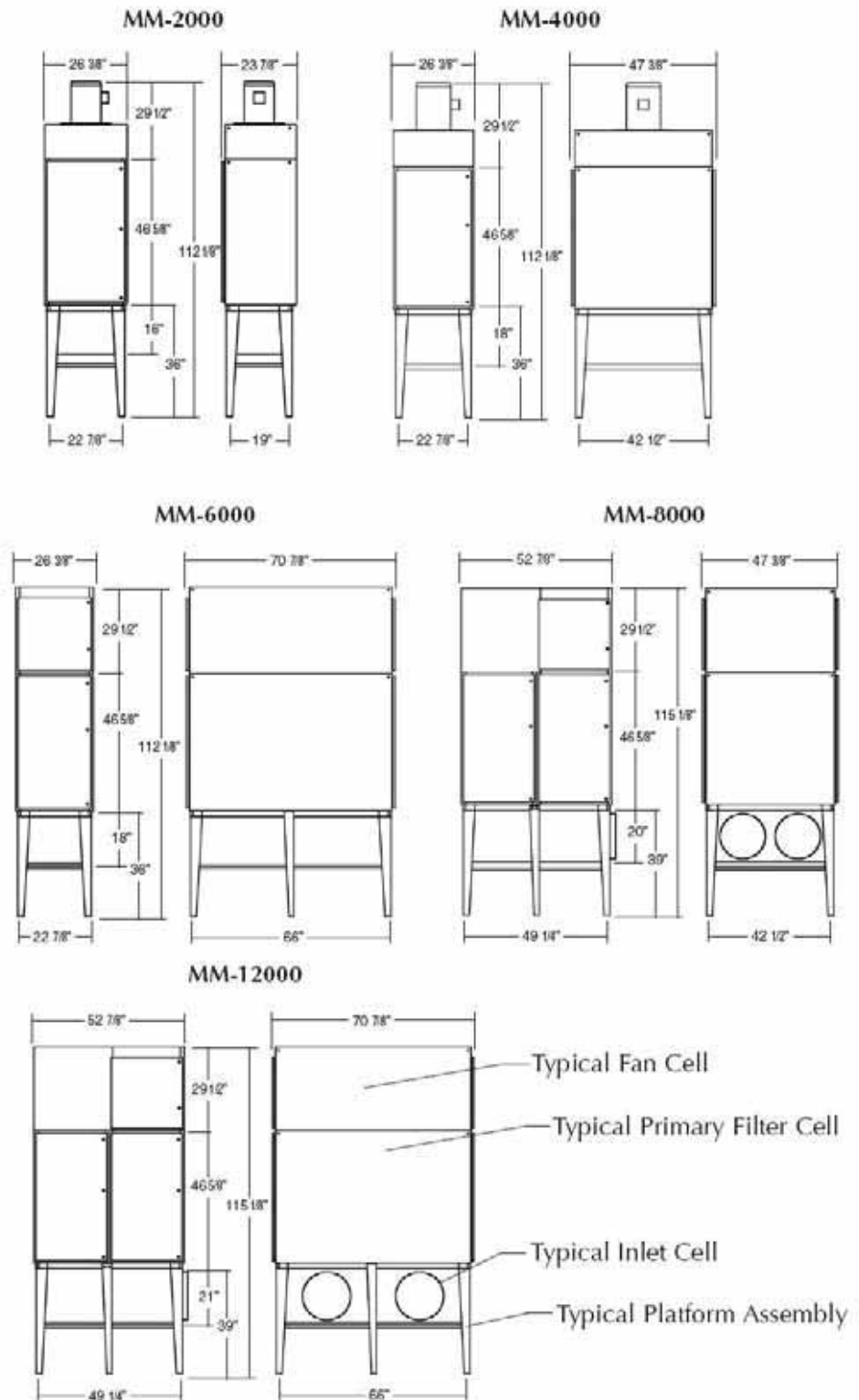
MachineMaster™ Mist Collectors provide a total solution for control of oil or vapor mist pollutants. Triple Impinger Cells (Option C), HEPA Filter Cells and Carbon Filter Cells

will increase efficiency and allow for capture of other contaminants such as excessive water/fluid mist, smoke and odors. Built of mild steel, and finish painted.

CELL TYPE	SYSTEM CFM	WEIGHT (lbs)
MODEL NUMBER		
MOTOR/BLOWER CELL		
IBC-2000-3	2000	187
IBC-4000-7.5	4000	390
IBC-6000-10	6000	420
IBC-8000-15	8000	785
IBC-12000-20	12000	845
PRIMARY FILTER CELL		
PFC-2000	2000	125
PFC-4000	4000	210
PFC-6000	6000	295
PFC-8000	8000	410
PFC-12000	12000	670
INLET PLENUM CELL		
IPC-2000	2000	25
IPC-4000	4000	37
IPC-6000	6000	53
IPC-8000	8000	74
IPC-12000	12000	105
LEG CELL & PLATFORM		
MP-2000	2000	40
MP-4000	4000	50
MP-6000	6000	65
MP-8000	8000	75
MP-12000	12000	90
HEPA FILTER CELL (Not Shown)		
HP-2000	2000	168
HP-4000	4000	295
HP-6000	6000	425
HP-8000	8000	595
HP-12000	12000	850
CARBON CELL (Not Shown)		
CC-2000	2000	190
CC-4000	4000	350
CC-8000	8000	700

For detailed drawings contact your local agent or call 800-610-6010

STANDARD UNIT FRONT AND SIDE ELEVATION VIEWS



Performance that prevents contamination of your process, your plant environment, and also protects your personnel.



MachineMaster™ Junior systems provide source capture of contaminants on wet machining operations such as fully enclosed grinding centers, screw machine applications and

EDM processes. Units may be direct-mounted or installed on self-supporting legs next to existing operations. Multiple operations may be ducted to a single unit.



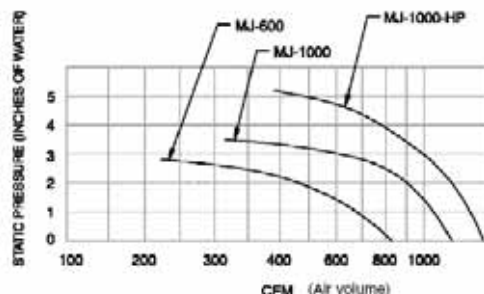
STANDARD EQUIPMENT

- Systems nominally available in 600 and 1000 CFM air flow capacities.
- MachineMaster™ Junior compact system includes standard configuration Inlet Plenum, Filter Cell and Motor/Blower Cell
- 16 gauge welded mild steel construction, primed and finish painted with an industrial acrylic enamel with hardeners on both the interior and exterior housings.
- Hinged door access on Primary Filter Cell allows for ease of system maintenance.
- Magnahelic Gauge Pressure Indicator, 0-3".
- In most cases, the following system sizes can be shipped from stock.

Model	CFM	T.P.	H.P.
MJ-600	600	1-1/2"	1/2
MJ-1000	1000	1-1/2"	1/2
MJ-1000-HP	1000	3"	1

MOTOR/BLOWER CELL

- MODELS MJ-600 AND MJ-1000 have 1/2hp, 3450 rpm direct drive motors. Model MJ-1000-HP has a 1hp 3450 rpm direct drive motor.
- Centrifugal, backward curved fan impellers are manufactured of reinforced polyamid, offering the mechanical strength of steel with a 50% reduction in wheel weight. This results in reduction loads on shafts and bearings, as well as a lower starting torque. Fan construction withstands exposure to a wide range of chemicals and has a natural resistance to fatigue failure.



THREE STAGE PRIMARY FILTER CELL

- Positive Filter Seal Racking System.
- Convenient, leak-free access door for ease of filter replacement.
- The Basic Primary Filter Cell System consists of the following:
 - **STAGE 1:** Aluminum chevron type mist eliminator, 24" x 24" x 4" prevents swarf, shavings, large particles and large fluid droplets from entering filters.
 - **STAGE 2:** Aluminum mesh pre-filter, 24" x 24" x 1", traps larger oil or water mist particles, which drain down into plenum.
 - **STAGE 3:** 10 pocket, lofted fiberglass V-Bank Box filter, 95% (ASHRAE 52-76) 24" x 24" x 12", provides final air filtration prior to exhausting back into plant. 110 sq. ft. of area per filter.

INLET PLENUM CELL

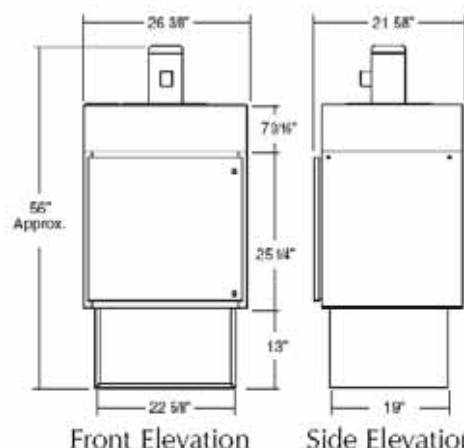
- Sealed, leak-free inlet plenum design.
- Deep Inlet Plenum allows for maximum 8 in. inlet cut height.

OPTIONAL EQUIPMENT

- Leg Platform and Inlet Support Cell
- HEPA Filter Cell
- Drain Connection

ACCESSORIES AVAILABLE

- NEMA or IEC Motor Control Package
- Inlet Plenum Cuts, Flanges and Transitions
- Pigtail Plug
- Casters, 5" dia. Heavy Duty
- Silencers with Flange
- Ductwork Transitions
- Special Inlet Plenum Configurations
- Ceiling Mount Hangers



MACHINEMASTER JUNIOR™

LOW VOLUME, COMPACT MIST COLLECTORS



Smaller operations or single machine applications benefit from lower capacity - dedicated mist collectors, such as the Junior or MP-400 models. All

MachineMaster Collectors can be wired into the operation to start and stop with the process. This reduces wear, conserves energy and unnecessary operation of the collector.

The MP-400 is a compact version of The Uni-Wash MachineMaster product line. It will supply outstanding and trouble free operation for many years.

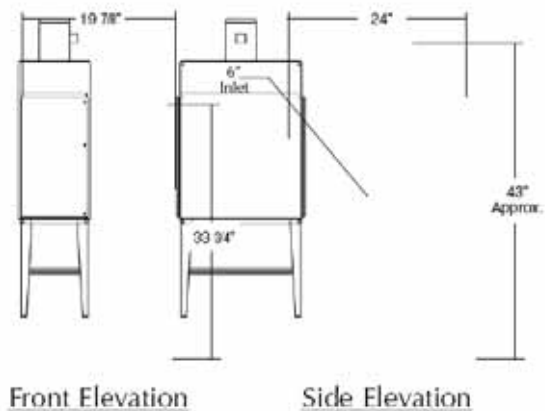
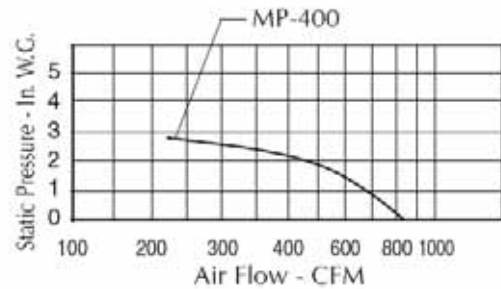
MP-400 single station oil mist collectors are ideal for smaller operations such as wet cutting, grinding, boring or other machining operations. These units can be mounted directly to, adjacent to, or hung from the ceiling near a piece of equipment. These units can be ducted to the machine being serviced.

STANDARD FEATURES

- Systems available in 400 CFM @ 1 1/2" TP air flow capacities.
- 16 gauge welded mild steel construction, primed and finish painted with an industrial acrylic enamel with hardeners on both the interior and exterior housings.
- Hinged door access allows for ease of system maintenance.
- Reinforced Fiberglass Backward Curve Fan and Inlet Cone
- Direct Connected 1/3 HP TEFC Single Phase Motor
- Three Stage Filtration system
- 95% ASHRAE Final Filter Performance
- Base Location Slots for Ease of Installation

THREE STAGE PRIMARY FILTER CELL

- Filter Seal Racking System.
- Convenient, leak-free access door for ease of filter replacement.
- The Basic Primary Filter Cell System consists of the following:
 - STAGE 1: Aluminum chevron type mist eliminator, 12" x 24" x 4" prevents swarf, shavings, large particles and large fluid droplets from entering filters.
 - STAGE 2: Aluminum mesh pre-filter, 12" x 24" x 1", traps larger oil or water mist particles, which drain down into plenum.
 - STAGE 3: Lofted fiberglass V-Bank Box filter, 95% (ASHRAE 52-76) 12" x 24" x 12", provides final air filtration prior to exhausting back into plant. 55 sq. ft. of area per filter.
- Magnahelic Gauge Pressure indicator, 0-3"



UNI-WASH™

*WET TYPE DUST COLLECTORS
WET TYPE DOWN DRAFT BENCH COLLECTORS
STATIONARY DOWN DRAFT WORK TABLES*

INTERCEPT™

*HORIZONTAL, VERTICAL & HIGH
PRESSURE DUST COLLECTORS*

INTERCEPT V-4000™

*VERTICAL CARTRIDGE DOWN DRAFT
BENCHES*

INTERCEPT WDT-3500™

*HORIZONTAL CARTRIDGE DOWN
DRAFT WALK-AROUND WORK TABLES*

SIDEKICK™

PORTABLE CARTRIDGE DUST COLLECTORS

ENVIRO-CELL™

ENVIRONMENTAL WORK BOOTHS

MACHINEMASTER™

OIL & WATER MIST COLLECTORS

TORNADO™

CYCLONE COLLECTORS

SHAKEMASTER™

SHAKER TYPE DUST COLLECTORS

SIDE-ARM™

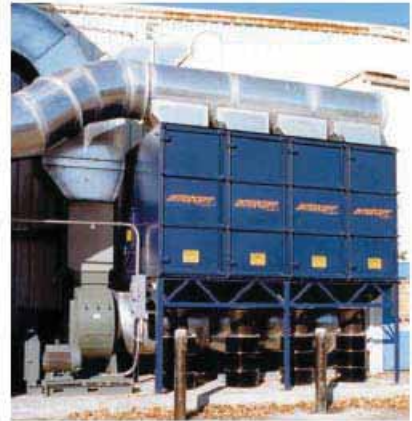
FLEXIBLE EXHAUST ARMS

BINPACK™

BIN VENTS

PULSEMAX™

CARTRIDGE FILTERS



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