

# HYDROMAX<sup>™</sup>

## HIGH EFFICIENCY WET COLLECTOR

**MICROAIR**

**Clean. Easy. COMPLIANT.**

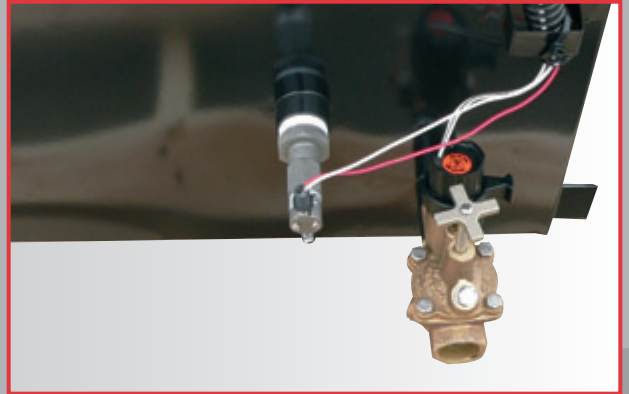


**COMBUSTIBLE DUST SOLUTION**

Aluminum • Magnesium • Niobium • Tantalum • Titanium • Zirconium • Other

# Economical, simplified solution to dust collection in applications where there is risk of deflagration or explosion.

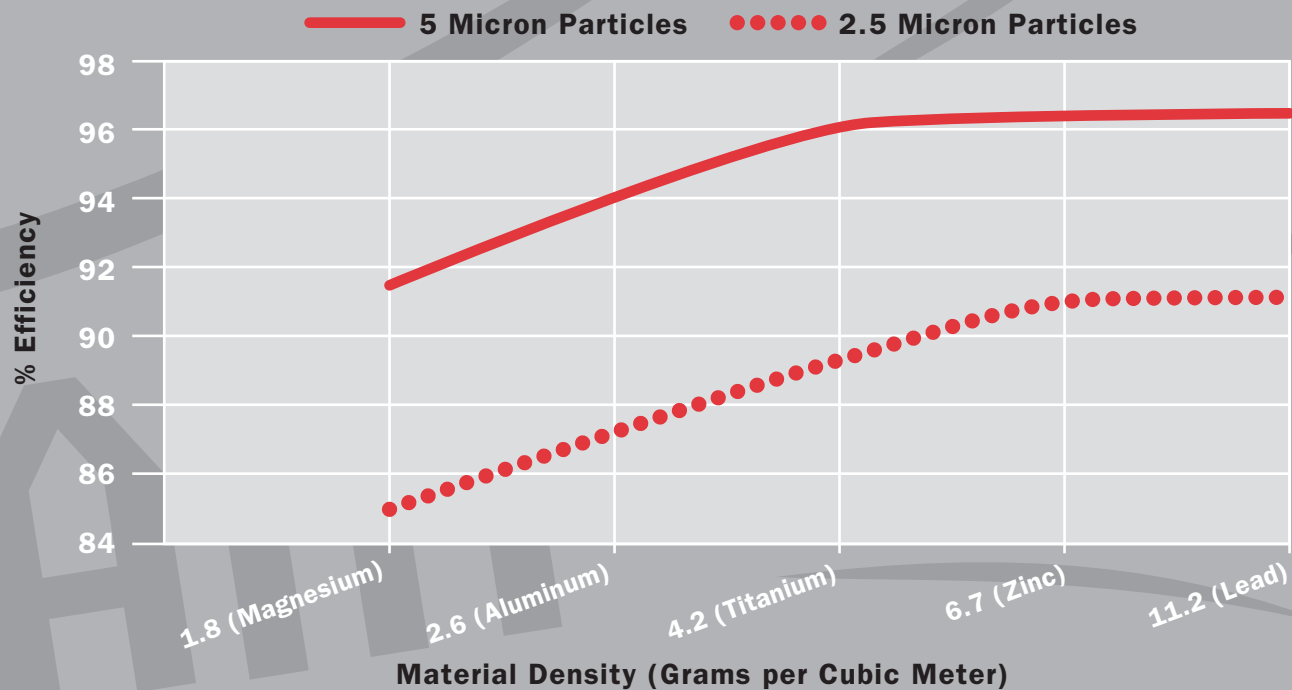
- Complies with NFPA 484 in combustible dust applications without the addition of costly components required with traditional dust collectors, ie. explosion vent, backblast dampers, fast-acting valves, chemical isolation.
- Auto-fill valve fails in closed position to prevent overflow.
- Low level interlock switch allows for tie in of dust collector to dust producing equipment. Should the water level in the wet collector become low, the interlock switch shuts down the HYDROMAX Wet Collector, and the piece of equipment it is collecting from.
- Wet collection allows for air to be returned to the building without the addition of costly suppression equipment required in traditional dry dust collectors in most cases.



- Automatic off-gas damper.
- NEMA 4-pre-wired control panel with push-button start/stop...plug & play operation.
- Digital flow control with head's up display.
- Water level controlled by static pressure rather than typical float valves used in competitive wet collectors...much more efficient and eliminates the possibility of mechanical failure.
- All stainless steel construction.
- Durable marine-grade powder coat finish.
- Rear intake collars. Size varies with model.
- High collection efficiencies.

# HYDROMAX offers unmatched efficiency.

## HYDROMAX Collection Efficiency



### Overall Efficiency is 97.2% tested with Arizona Test Dust.

Testing performed on inlet and outlet samples taken with TSI model 8520 Dusttrack. Test dust loaded at .055 lbs/min. All tests performed in the Micro Air in house testing laboratory.

## Typical Uses and Setup



**DUCTED TO A PROCESS**

Ducted to a combustible dust producing piece of equipment such as a router, mill, lathe, saw, etc.



**CONFIGURED WITH OPTIONAL DOWNDRAFT TABLE**

Ducted to a Micro Air Downdraft Table for grinding, buffing and other tabletop processes.



**CONFIGURED IN A BOOTH**

Ducted into a booth or room for isolation and control of an entire work area.



# OSHA NATIONAL COMBUSTIBLE DUST EMPHASIS

## Solutions For Your Plant.

Micro Air's line of HYDROMAX Wet Collectors offers the most technologically innovative design available. Competitors may offer all stainless construction, TEFC wash-down motors and/or NFPA compliant packages as expensive add-on options, while Micro Air has built all of it into our standard product offering at a very competitive price.

### HOW IT WORKS...

Combustible dust enters the HYDROMAX Wet Collector through ducting in the rear of the filter cabinet and is run through an aqueous bed of water and a series of internal baffles, utilizing engineered water streams to drop out and filter the combustible dust. Dust is contained in the bottom of the collector for safe removal at necessary intervals. Water levels are automatically controlled through the Micro Air engineered flow valve system that can be interlocked with the dust producing equipment to meet OSHA and NFPA Codes.



STANDARD FEATURES	WC1200	WC2500	WC5000
	1200 CFM	2500 CFM	5000 CFM
NFPA compliant automatic low-level shut-off and motor-run interlock capability is standard	✗	✗	✗
Auto-fill valve controlled by static pressure	✗	✗	✗
NEMA 4-wire, pre-wired control panel with push-button start/stop	✗	✗	✗
Digital flow control and heads-up display	✗	✗	✗
All 304SS construction with black marine grade powder epoxy finish	✗	✗	✗
Standard aluminum mesh after-filter built-in	✗	✗	✗
4" power sump vent damper meets NFPA requirements	✗	✗	✗
Rear intake collar	6"	10"	14"
95% efficiencies	✗	✗	✗

### WET COLLECTOR APPLICATION NOTES - NFPA 484

Sump vent shall terminate outside of the building on magnesium applications.

Use of additional dry filter medium shall not be permitted on aluminum applications.

Sump vents shall remain open and unobstructed when machine is shut down.

Interlock to dust producing equipment shall provide protection from loss of collector power or low water levels.

Minimum conveying velocity 4500 ft/min.

Must have positive venting (blower assist not less than 10% of fan) when shutdown on magnesium applications.

### TYPICAL COMBUSTIBLE DUST APPLICATIONS:

Aluminum • Magnesium • Niobium • Tantalum • Titanium • Zirconium • Other

# Options To fit Your Application.



## **DOWNDRAFT ATTACHMENT:**

Comes in various sizes.

24"x30", 36"x30",

48" x 30" 72"x30"

or custom built to your specs.



## **VACUUM ATTACHMENT:**

allows for a combination wet collector/wet vacuum system to contain the process and area cleanup required by OSHA. In many cases, this eliminated the need to purchase a separate wet vac system.



## **99.97% DOP HEPA AFTERFILTER:**

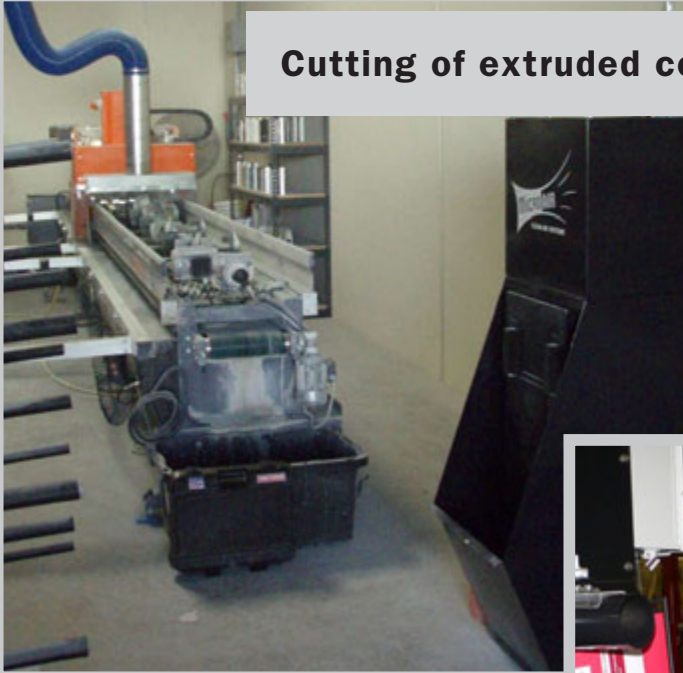
For applications where a 99.97% DOP HEPA is required.



## **POWERED SUMP FAN**

250 CFM blower for venting of any off-gas from the sump during non-operational time periods. Required on magnesium applications per NFPA/OSHA.

# HYDROMAX Can Be Configured To



**Cutting of extruded concrete with aluminum core.**



**Grinding on combustible material.  
High-sparking application using the  
optional Micro Air Downdraft Table**



**Vacuum attachment in use.**



# Meet Your Application Requirements.

**Titanium polishing operation at an aircraft parts fabricator.**



**Combination of Booth Enclosures and Downdraft Tables ducted to combustible dust operations with titanium and aluminum.**



**Booth application on combustible dust.**

# MICRO AIR®

## Clean. Easy. RED.

For more than 35 years, Micro Air has manufactured clean air systems that are simple to use and remarkably efficient.

**Call us today, or visit:**

**[www.microaironline.com](http://www.microaironline.com)**

for a **FREE EVALUATION AND PRICE QUOTE.**

### APPLICATIONS

- **WELDING** smoke and fumes
- **MACHINING** mist and smoke
- **METALWORKING** dust
- **PROCESS** dust and powder
- **COMMERCIAL** applications

### SOURCE CAPTURE

Hoods, arms, booths, enclosures, portable units and direct-mounted units.

### AMBIENT COLLECTION

Floor, ceiling and wall-mounted units.

DISTRIBUTED BY:



## Intelli-Touch™ Energy Savings Control Panel

- Reduces energy consumption by using only the brake horsepower needed to maintain the set CFM. Built-in variable frequency drive automatically slows or speeds the motor RPM based on CFM needed at the running static pressure.
- Reduces peak energy consumption costs by utilizing a soft-start or slow ramp up of motor speed, eliminating sudden surges of power usage.
- Increases expected filter life by automatically adjusting filter cleaning based on system needs.
- Can dramatically reduce compressed air usage.
- Allows for quieter operation through utilization of lower fan speeds.
- Built-in pulse on demand feature and static pressure monitoring system eliminates the need for a Magnahelic or Photohelic gauge.
- Eliminates the need for external dampers or slide gates in ductwork. Simply touch the arrow on the touchscreen to adjust CFM.
- Built-in diagnostics feature tracks pertinent data such as CFM, Static Pressure, amp draw, RPM pulse settings, hours of operation.
- Capability to change usage. Size system for 20 Hoods in the future, use only 10 today.
- Application specific (plasma, laser, wood-working, grinding, etc.) set-up feature reduces installation time.

Investment payback in as little as 6 months depending on energy costs and application usage. Visit our website, [www.microair.com](http://www.microair.com), and use the savings calculator to see how fast of a payback you can expect.



Source Capture



Mist Collectors



Dust Collectors



Clean Air Booths

Ambient Air Cleaners



## Clean. Easy. RED.

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# MICRO AIR

CLEAN AIR SYSTEMS