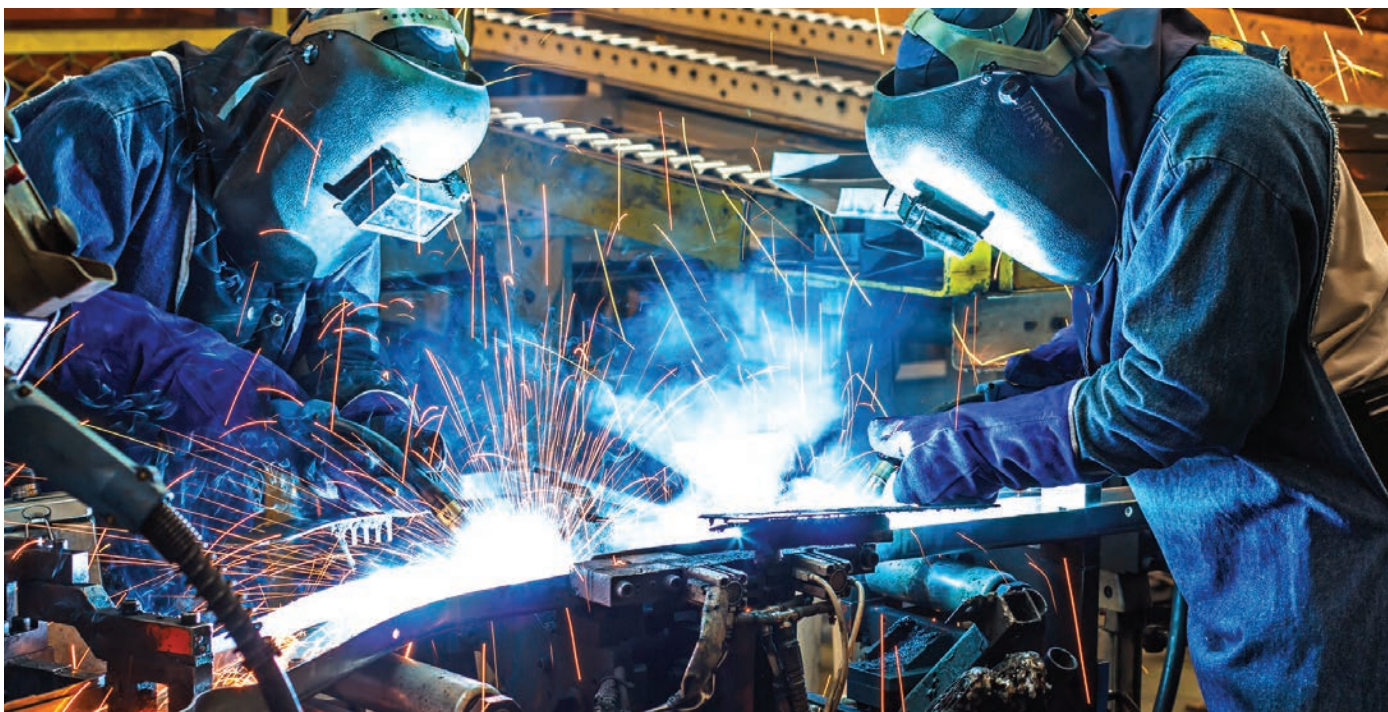


Metalworking Environmental Equipment

Delivering Reliable Solutions for a Safe Environment



BETTER AIR IS OUR BUSINESS®



Protect Your Environment — and Your Bottom Line

The metalworking industry is quite diverse and covers a wide spectrum of industry segments. With increasingly demanding regulations, operators and facility managers face numerous challenges to ensure the **safety** of their facility and employees. Keeping up with these industry demands requires a knowledgeable partner who can offer reliable solutions **while keeping costs at a minimum.**

Combustible Dust

There is a high risk for combustible dust related fire and explosions in metalworking. Facility inspections and risk assessment are key to addressing and preventing explosive dust hazards. AAF's dust collection and explosion protection systems are a critical component of facility compliance with combustible dust applications.

Safety and Compliance

Inefficient dust collection systems can compromise the safety of your facility and employees, resulting in fines, penalties, and facility shutdowns. Our equipment is designed to *comply with the following guidelines: NFPA 484, 68, 69, 654, OSHA, Factory Mutual (FM), and Industrial Ventilation Guide (ACGIH)*; so you can be confident your dust collection system is in compliance.

Occupational Hazards

Health risks due to grinding, polishing, buffing and other similar processes that produce airborne dusts have been linked to numerous respiratory and neurological diseases when workers are not protected with proper dust collection systems. Some of these processes cause chromium dust, which has been associated with lung cancer. Respiratory related illnesses due to poor air quality must be mitigated to protect employees' health and safety.

Operating Costs

Keeping operating costs and downtime to a minimum are critical to your bottom line. All of AAF's equipment is thoughtfully designed with this in mind. That's why you'll find our dust collectors have *smaller footprints, longer lasting filters, and are easier to maintain* than most dust collection equipment.

Comprehensive Solutions to Meet Industry Demands

With over 90 years of experience, AAF has extensive expertise in the design and manufacturing of filtration equipment for the metalworking industry. Through careful assessment of your facility's current system, our team of experienced filtration experts will work with you to select an efficient, safe, and cost effective dust collection solution to meet your specific needs. Knowing the volume and properties of the material being handled, processed, regulatory requirements, and space restraints are just some of the considerations in determining an appropriate solution.

No matter the type of metalworking process, we have a dust-control solution to ensure your facility runs safely and efficiently, while saving on total operating cost. In the Automotive and Aerospace industries, carbon fiber technology is rapidly replacing metalworking processes and AAF can provide an effective dust collection solution to meet your needs.

Processes

	Dry	Wet
Blasting	•	•
Buffing	•	•
Casting	•	•
Coating	•	•
Deburring	•	•
Deslagging	•	•
Drilling	•	•
Extruding	•	•
Forging	•	•
Grinding		•
Laser Cutter	•	
Lathe	•	
Light metals		•
Machining	•	•
Metallizing	•	
Milling		•
Plasma Cutter	•	
Polishing	•	•
Stamping	•	
Surface Finishing	•	•
Thermal spray	•	
WaterJetCutting		•
Welding/brazing/soldering	•	

This table should be used as a guide. For specific questions about your application, contact AAF for assistance.

Collector may vary based on application.

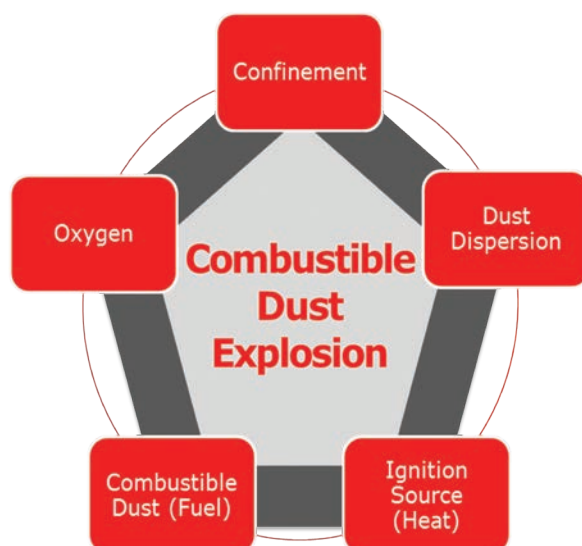


NFPA® 484: Standards for Combustible Metals

AAF Dust Collectors and NFPA 484

According to recent OSHA reports, 30% of dust explosions are started by mechanical sparks. The most recent version of *NFPA 484: Standard for Combustible Metals* was released in 2015 to help mitigate potential explosions in the metalworking industry. The cost of preventing industrial dust explosions is necessary, but could be expensive. AAF's line of wet dust collectors can reduce this cost significantly in comparison with dry dust collectors.

NFPA 484 applies to all who are involved in any way in the “production, processing, finishing, handling, recycling, storage, and use of all metals and alloys that are in a form that are capable of combustion or explosion” (NFPA 484-15, paragraph 1.1). All who are involved should be fully conversant with the provisions of NFPA 484 and shall comply in full with all of its various requirements. Specifically detailed in this standard are the “light metals” that are aluminum, magnesium, niobium, tantalum, titanium, zirconium, and hafnium.



What causes a dust explosion?

A dust explosion can only occur when the following 5 factors are present:

- 1 | Fuel in the form of dust particles
- 2 | Dispersion of the fuel in the form of a dust cloud (frequently produced when a dry filter is pulsed clean)
- 3 | Oxygen in the form of air
- 4 | Confinement of the dust cloud in the form of a container (e.g. a dust collector)
- 5 | A source of ignition

These five factors form **the explosion pentagon** (as adapted from OSHA SHIB 07-31-2005; updated 11-12-2014).

By controlling or eliminating just one of these key factors, the risk of a dust explosion decreases dramatically.

The wet dust collector is a solution to the explosive dust problem.

Wet dust collection eliminates some of the factors that contribute to dust explosions. Once the dust has been wetted the level of explosiveness dramatically reduced. The transfer of the dust from the air removes it from an oxygen rich environment. Without oxygen combustion cannot occur. The use of water eliminates any potential source of combustion. This also eliminates the need for spark detection and extinguishing systems. Since the dust has been eliminated from the air and is now in a “wetted” state there is no mechanism by which a dispersed dust cloud can form.

AAF wet collectors eliminate three of these factors!

PulsePak® Prime

Dry Dust Collector

This compact workhorse is ideal in applications where dust loadings are high or in areas where water is not available. Additionally, the PulsePak can be used at higher temperatures (270° F) such as furnace ventilation and hot work applications. Its true DOWNFLOW design combined with its PanelPak filters rivals any cartridge collector in dust release, holding capacity and cost effectiveness.

True Downflow Design

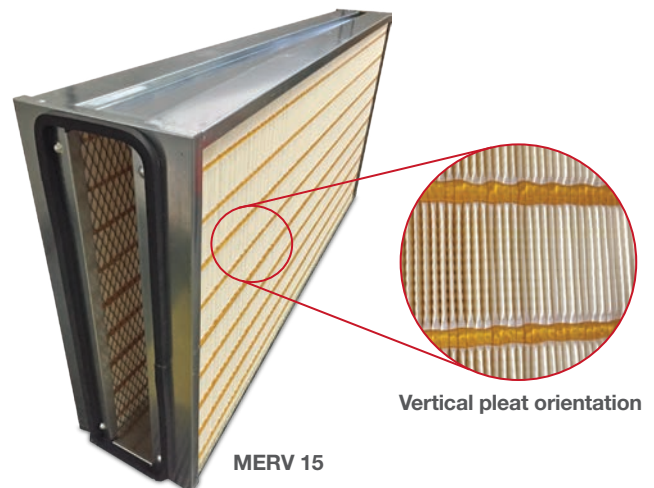
Many applications require a solution that can manage high dust loadings, quickly and efficiently. The PulsePak Prime is engineered for superior dust release with each powerful pulse it delivers. Designed with a top air inlet, incoming dirty air is forced to flow straight down, forcing larger particles to drop directly into the hopper. The remaining dust particles are captured by the PulsePak's unique PanelPak filters. Unlike other cartridge dust collectors using rounded cartridges, the PulsePak's filters are vee-shaped with a smooth metal top-surface. This difference prevents dust that normally settles on the tops of filters from accumulating and clinging to the media, protecting against cross contamination and increasing filter life.

Downflow designs have been proven by the EPA to have superior performance. The Pulsepak Prime utilizes the true downflow principle and provides unobstructed "free-fall" of the dust into the hopper. As a result, the PulsePak Prime operates with less internal turbulence and a lower differential pressure which the vertical cartridge design of our competition does not offer.

Cost Savings Benefits

When compared to a typical baghouse or cartridge dust collector, the Pulsepak Prime delivers the following benefits:

- | MERV 15 efficiency, highly efficient for continuous self-cleaning operation
- | Easy and quick filter change-out
- | Longer filter life
- | Fewer filters required
- | Small footprint for large airflows
- | Reduces energy cost with low differential pressure
- | Rugged welded construction for standard explosion protection
- | No confined space entry required



The ONLY DOWNFLOW cartridge collector on the market that uses 100% of the media, 100% of the time.

The revolutionary combination of the PulsePak's downflow operation and unique filter design, ensures your facility runs safely and efficiently, all while saving on total operating cost.

RotoClone™ N

Wet Dust Collector

The RotoClone™ N combines high efficiency, low maintenance costs, simplicity, flexibility and low water usage to maximize performance. The RotoClone™ N has solved thousands of dust collection problems around the world.

Benefits

- Low maintenance
- Low water usage
- Efficient
- Robust
- Proven
- Flexible
- Versatile

Features

- Designed for continuous operation with minimum service
- Available for both normal and heavy-duty service
- Access doors with quick-opening handles provide accessibility to the interior
- Minimizes the build-up of dust deposits



The RotoClone™ N is a flexible design for a wide range of operating conditions with minimal servicing requirements. Collection efficiencies, including the most challenging particle sizes, are equal to or better than any wet dust collector with comparable energy consumption.



RotoClone™ LVN

The RotoClone™ LVN is an efficient, compact and economical wet dust collector specifically designed for air volume requirements of 2,000 CFM (3,400 m³/h) or less. It's source capture and dust removal features allow recirculation of in-plant air in most applications. This helps conserve energy and provides a clean working environment.

The RotoClone™ LVN provides the same benefits and performance as the RotoClone™ N with these additional features:

- Ideal for light metals such as aluminum and titanium
- Collects the dust from equipment that uses water, lubricants and oil, such as CNC machines
- Easy direct connection to the dust source, such as booth enclosures, grinding tables, surface finishers and other metalworking equipment
- Designed for Plug-n-Play operation (all controls included)
- High quality 304 SS construction for long lasting use in tough environments



Aftermarket Filter Offerings to Optimize Performance

AAF offers a complete line of replacement filters to fit all brands of dust collection equipment. This broad range of filters allows us to be your single source for all your filtration needs.

Applications

- Blasting
- Laser Cutter
- Polishing
- Thermal Spray
- Grinding
- Metal Foundries
- Surface Finishing
- Welding

AAF can deliver quality products for your metalworking application.

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