Safe collection and disposal of reactive powders and particulate with Inert Powder Filtration Systems
Inert’s Powder Filtration Systems can be purchased as standalone tools for retrofitting to third party systems in the field, or integrated into Inert’s PowderShield enclosures in a closed-loop inert gas system for safe powder and soot collection and disposal. The line of Powder Filtration Systems can be used with many additive manufacturing (AM), laser welding and other applications that require particulate collection. The PF Systems are electrically grounded to ensure that all reactive powders are contained without a spark or ignition. Disposal of spent powders is made easy and safe through water passivation of the particulate, preventing accidental combustion. Each model in the Powder Filtration series has features that make them suitable for a variety of applications:

PF-1 is excellent for use removing soot created as a byproduct of laser welding.
PF-2 has a higher max flow rate for various additive manufacturing processes.
PF-3 contains a ceramic filter that can be safely used with higher temperatures.

### APPLICATIONS
- Additive Manufacturing
- Laser Welding
- Soot Removal
- Powder Handling

### SAFETY FEATURES
- Electrically Grounded
- Isolation Valves
- Water Passivation

### ARGON GAS COMPATIBILITY
- Al alloys
- Ti alloys
- Co-Ni alloys
- Stainless steels (PH)
- Zirconia
- Air-sensitive powders

Most ferrous and non-metal powders may be used with nitrogen gas.

### DIMENSIONS
1182mm W x 906mm D x 1950mm H

### INTERNAL FINISH
Type 304 stainless steel, #4

### EXTERNAL SURFACES
RAL 7035

### FILTERS
1 quad HEPA cluster (99.99% vs 0.3 micron MPPS)

### WATER PASSIVATION
Handling of reactive powders
Capability to safely clean filter

### MAGNEHELIC GAUGE
0-50 in (127cm) / water
Pressure indication
Filter verification for replacement

### POWER
100-120 or 200-240 VAC 50/60 Hz 10 Amp

### PLUMBING
304 stainless steel tubing

### BLOWER
Single speed 101 m³/h (60 CFM)

### CABINET
Lockable cabinet with easy key access for filter removal

### PARTICLE RANGE
.3 to 200 micron

www.inertcorp.com
THE BENEFITS OF POWDER FILTRATION

Handling AM powders with low ppm O₂ levels prevents oxidizing micronic powders for safe handling while avoiding possible combustion. With an Argon Management System, the levels of oxygen and moisture during powder filtration can be registered for record keeping and quality assurance, and reduce the accumulation of pyrophilic particulate. Inert PF Systems are electrically grounded, preventing any build up of static electricity.

- Lockable, hinged cabinet with keyed access
- Quad HEPA filter cluster traps particulate and is easily swapped out
- Single speed blower 101 m³/h (60 CFM)
- Powder passivated by water for safe collection and disposal
- Use with powders, soot, particulate, or vapors
- Magnehelic Gauge indicates pressure
- Stainless steel plumbing prevents rust or contamination
- Flexible design for easy customization and integration
- Reactive powders can be collected safely in <1ppm O₂ + H₂O inert gas