Safe post processing of additive manufactured parts with PowderShield and Argon Management
Inert’s PowderShield is a customizable workstation for post processing of additive manufactured parts. Keeping airborne particulate within PowderShield’s controlled atmosphere eliminates dangerous operator health risks, inhalation of and exposure to powders, damage to area electronics, and fire hazards related to the combustibility of reactive powders. This technical overview details just some of the many options that are available for this system — tailored to your application’s requirements.

PowderShield’s flexible design allows for integration with automated sieving stations, powder hoppers, and other third party equipment to create unique closed-loop post processing systems for additive manufacturing. Engineered with modular connections and subcomponents, PowderShield is easy to clean and maintain for optimal performance and lifespan, and the system can be easily grounded for a safe, anti-static powder handling workspace.
THE BENEFITS OF POWDERSHIELD

Safety
Post processing AM parts in PowderShield prevents the inhalation of particles which can cause respiratory problems for those that handle powders. Maintaining low ppm O₂ levels prevents oxidizing micronic powders for safe handling while avoiding combustion or ignition of powders.

Traceability
Many Q/A processes require that atmospheric conditions be well documented. An Argon Management System offers a simple and effective way to register and record the levels of oxygen and moisture during AM post processing.

Savings
Post processing in an inert environment allows excess powders to be reclaimed and reused due to the lack of atmospheric contamination. PowderShield’s built-in gravity fed powder collection system funnels powders to sieves or hoppers for characterization, and reuse.

Features
- Hinged front window for easy introduction and removal of printed parts
- Two glove ports for interior manipulation of objects
- Inflatable gasket makes a repeatable, hermetic seal for powder and operator protection
- Argon blow off gun depowders parts safely
- Argon Management maintains <1ppm O₂ + H₂O
- Lockable build plate holds printed part in place for depowdering
- Flexible design for easy customization and integration
- Powder chute collects excess particulate for reuse
- Rotating tilt table lets operators access the part from all angles