reine Produktivität

Herding FILTERTECHNIK



pure productivity

durable. effective. filter.

POWDER BED FUSION



THE ORIGINAL
BY HERDING

made in germany

PFAS FREE

BENEFITS

SAFE FILTRATION OF CONDENSATES

In the field of additive manufacturing of metallic materials, more and more attention is being paid to safety aspects. The metallic raw materials are in most cases highly reactive and place maximum demands on sustainable safe handling. The reactive particle loads must therefore not enter the atmosphere of the production room. However, condensate and dust should not remain in the building chamber either as the quality of a build job in almost all additive manufacturing processes is directly related to the degree of embedded contamination and foreign particles.

The optimum solution is offered by the realization of pure surface filtration with the Herding® Sinter-Plate Filters in combination with safe, consistent passivation as well as integration into the inert gas circuit of the systems. Herding® filter media show extremely durability and, depending on the process, long service life times of more than 15 years. Additionally, all Herding filters based on polymers are completely PFAS-free – a unique global feature that once again demonstrates technological leadership and confirms responsibility for environmental protection and sustainability.

DURABLE LONG SERVICE LIFE

CONSTANT OPERATING CONDITIONS

COMPACT DESIGN

ENERGY EFFICIENCY DUE TO LOW CLEANING PRESSURE

SAFE HANDLING OF REACTIVE METALS

PURE GAS DUE TO LOWEST CLEAN GAS VALUES

SUSTAINABLE PROVEN TECHNOLOGY

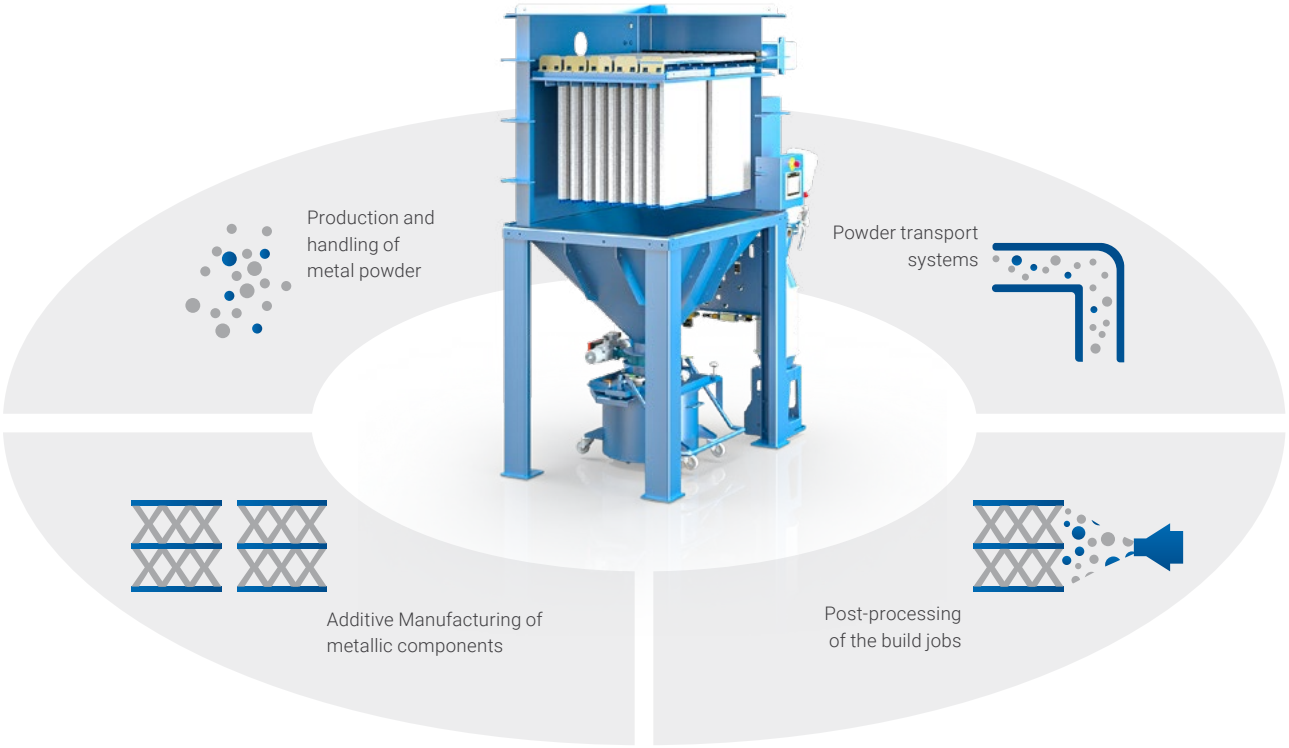


PROCESSES

FILTRATION SAFETY ALONG THE PROCESS CHAIN

Reliable and efficient filtration is necessary for sustainably safe additive manufacturing processes. Herding® filter technology provides safe handling and constant production in almost all areas of powder bed fusion. This already starts in the production of the metal powder and continues in the component production, in which its safety properties set standards. A sophisticated modular principle allows a variety of system designs which give the possibility to adapt individually to building chamber size as well as the number and power of the lasers.

The systems with the Herding® rigid-body filter medium are also used in the field of integrated automated powder transport systems for the supply and disposal of metal powders as well as in mechanical post processing where support structures are removed and surfaces get optimized.





SAFE SYSTEM EQUIPMENT

For Maximum Process Stability

- **Gas-tight filtration systems with the Herding® sintered lamella filter**
  Monitored by intelligent sensor technology, including an oxygen sensor – enabling controlled and process-safe separation of highly reactive materials.
- **Absolutely constant differential pressure through pure surface filtration**
  Stable, laminar flow in additive manufacturing systems – ensuring reproducible component quality.
- **Maximum operational reliability through durable filter technology**
  The robust rigid-body filter medium ensures exceptionally long service life. Eliminating regular filter replacements reduces system interventions and exposure risks, while sustainably increasing plant and workplace safety.
- **Integrated side channel blower**
  For autonomous, continuous and energy-efficient system operation.
- **Individually configurable control system**
  Autonomous or seamlessly integrated into higher-level control systems – flexibly adaptable to specific plant requirements.
- **Optional customer-specific enclosure**
  Optimal adaptation to customer-specific design specifications.

EXPERTISE AND QUALITY

For the Highest Demands

Our comprehensive value creation in Germany stands worldwide for uncompromising quality, maximum flexibility and sustainable value creation. Herding Filtertechnik develops and implements customized system concepts – from prototype to series production.

Through in-house development and manufacturing expertise, solutions are created that increase productivity, stabilize processes and ensure the highest level of safety.





HERDING **COATER**

Safety by Passivation

The automatic addition of inert material by the Herding COATER significantly reduces the reactivity of condensate and metal powder residues both during dust discharge and when changing the filter elements, thereby guaranteeing a high level of safety.

Various systems are available for safe dust removal.

HERDING **OXISAFE**

Safe Oxidation of Reactive Condensates in Additive Metal Printing

In additive metal printing, highly reactive metal condensates are generated as process by-products during the melting process. These ultrafine particles are continuously separated from the process chamber via the filtration system. Due to their high chemical reactivity and large specific surface area, they pose significant risks – including self-ignition, explosion hazards, and increased requirements for safe handling, transport, and disposal.

The patented add-on unit Herding® OXISAFE enables the targeted, controlled oxidation of these condensates – completely without oils, inert solids, or other additives.

Through precise process control, the particles are directly converted within the system into stable, permanently safe oxides. This transforms a safety-critical by-product into a manageable solid material.

OXISAFE

MAXIMUM PROCESS SAFETY

- Controlled reduction of fire and explosion risks

SIMPLIFIED HANDLING

- Additives largely eliminated
- No additional material handling required
- Long-term cost efficiency

SUSTAINABLE SOLUTION

- Simple and safe disposal
- Infrequent container emptying
- Reduced disposal costs





CONTACT

Please feel free to contact us! You can fill out the form and send it to us.

Company

First name

Surname

Phone

E-Mail

Branch

Application

Comments

send by e-mail

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