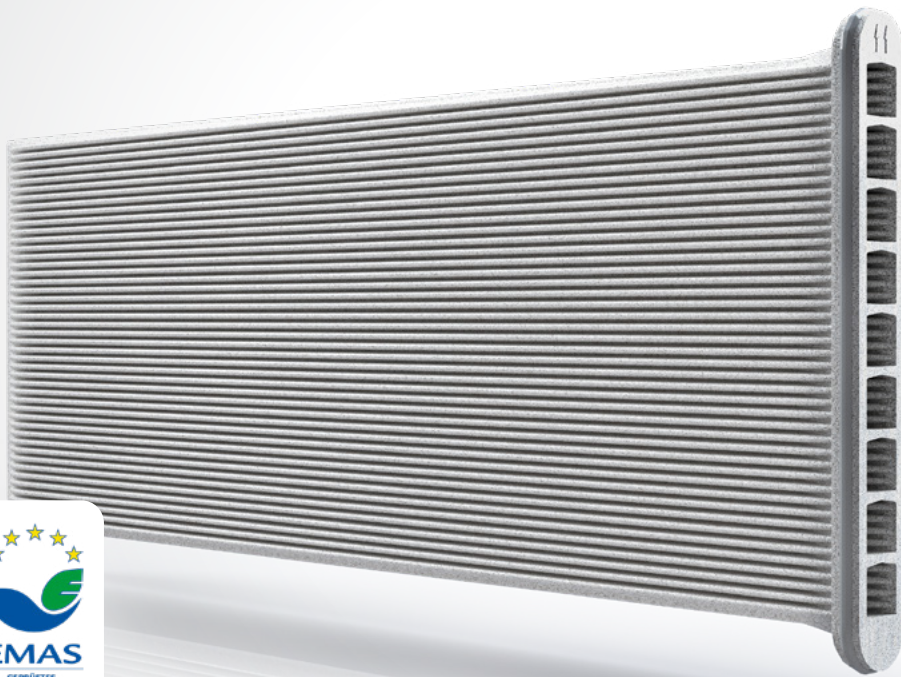


*pure productivity*  
*durable. effective. filter.*

**BATTERY** PRODUCTION



THE ORIGINAL  
BY HERDING

● ● ●  
made in germany



## BENEFITS

### SAFE FILTRATION IN BATTERY PRODUCTION

Highly efficient filtration technologies are indispensable in the battery life cycle when it comes to handling bulk materials, powders or particulate products. And primarily where filter systems are integrated into the respective process, the focus is on aspects such as easy cleanability, contamination-free recovery and chemical resistance in addition to high separation performance.

Herding® filter systems meet these highest requirements and also feature temperature resistance of up to 450°C, unique durability and safe handling. Even the finest particle fractions are reliably separated based on pure surface filtration. Extremely low clean gas values, consistent operating conditions and maximum availability and energy efficiency are the key features of this innovative technology. 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**



**RESISTANT  
TO CHEMICALS**

**CONSTANT  
OPERATING CONDITIONS**



**COMPACT  
DESIGN**

**ENERGY EFFICIENCY DUE TO  
LOW CLEANING PRESSURE**



**OPERATIONAL SAFETY  
DUE TO RIGID FILTER MATRIX**

**LOWEST CLEAN GAS VALUES  
FROM PRIMARY FILTER STAGE ON**



**PURE RECOVERY THROUGH  
FIBER-FREE FILTER MEDIUM**

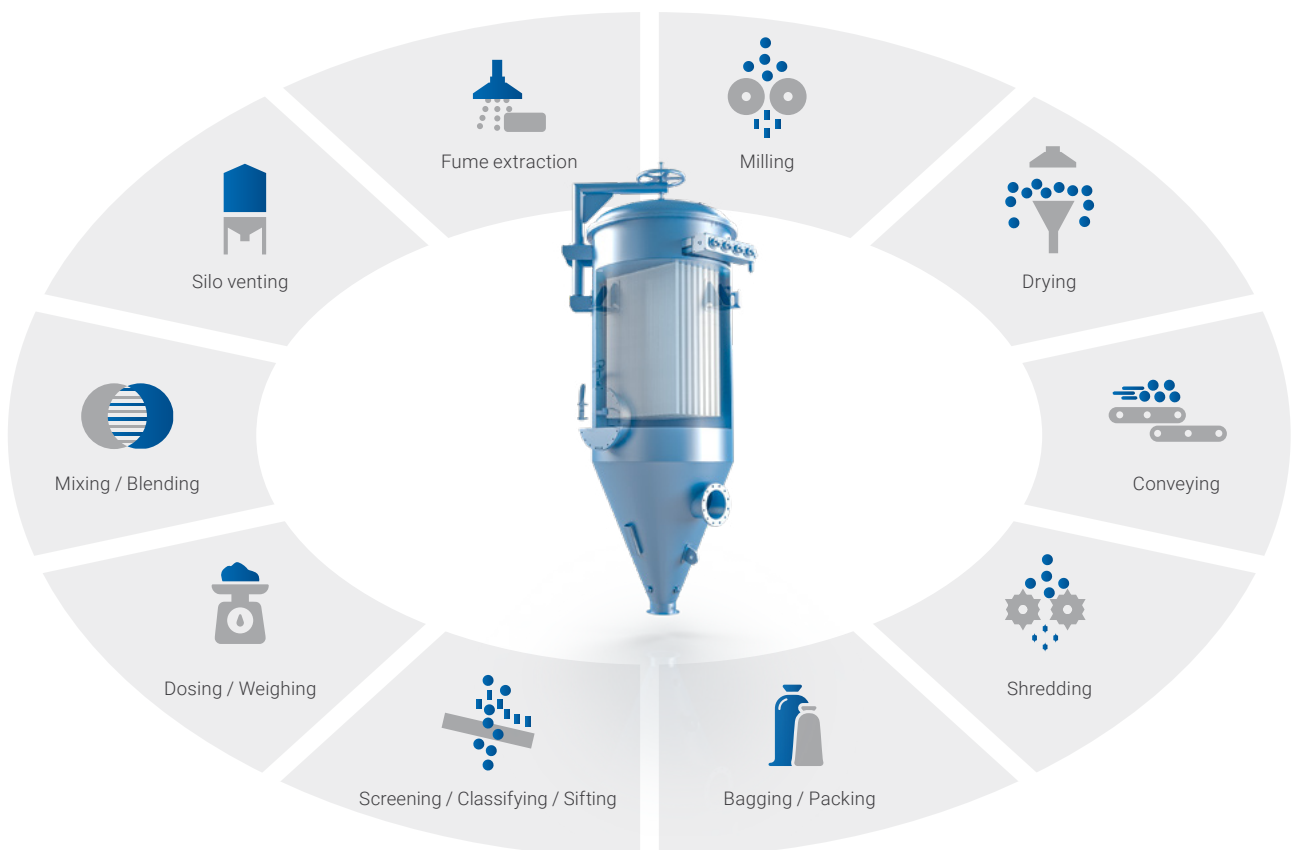


Source: Adobe Stock

# PROCESSES

## SUSTAINABLE FILTRATION FOR ALL SECTORS

Pure product recovery, easy and complete cleaning options and maximum separation performance are essential quality requirements for filter systems in raw material extraction and battery production through to battery recycling. Even the slightest impurities in the product can often lead to entire production batches having to be discarded with considerable losses. In addition, even the slightest contamination in the ambient air of production facilities can have health effects on employees. Herding® Filter Technology enables maximum availability and safe plant operation in almost all processes that generate particulate emissions.



## PROCESS CHAIN BATTERY PRODUCTION

### The right filter unit - every step of the way

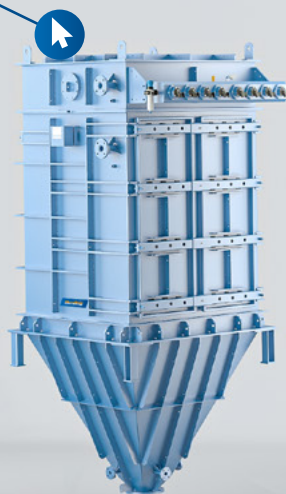
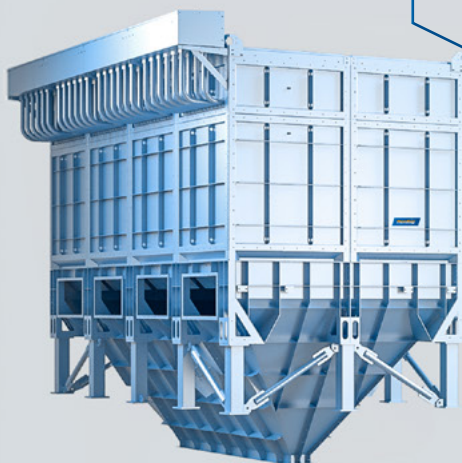
A well-thought-out modular principle enables a variety of system types, individually adapted to the diverse applications and requirements of the battery industry. The range of variations is complemented by a wide range of housing and construction materials that enable optimal adaptation to different operating conditions. A separate production area ensures a high degree of cleanliness – an essential factor for the quality and reliability of sensitive manufacturing processes.

#### HERDING PROCESS

Easy to clean and available in different material diversity

#### HERDING FLEX

The flexible type series



#### HERDING MAXX

For very large air volumes

#### HERDING RESIST

Easy cleanability, high pressures and special coating



Raw materials



Refining



Component Production



Cell Manufacturing



Battery Pack



Recycling & Second Life

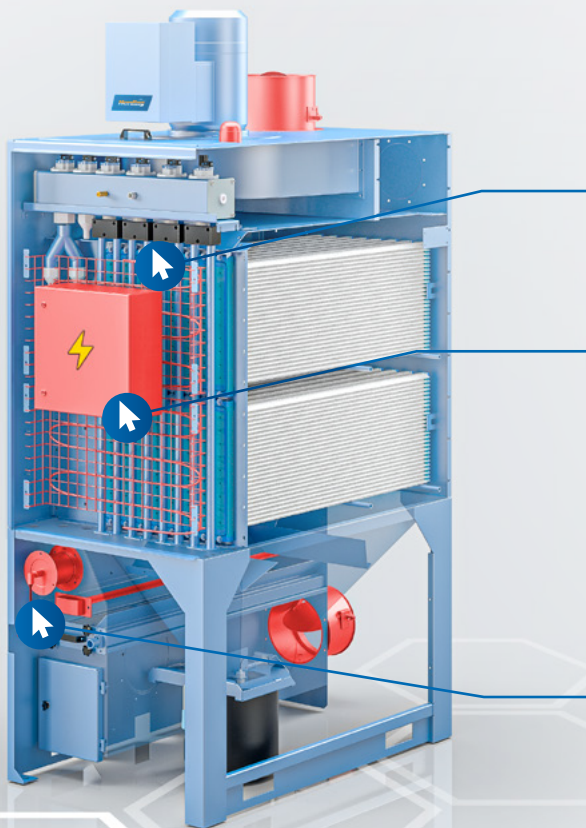
## FIRE AND EXPLOSION PROTECTION

The composition, particle size distribution and specific explosion characteristics of the various particulate materials in chemical often require a protection concept tailored to the application due to the resulting explosion hazard.

Herding® Filtertechnik provides the user with a wide-ranging portfolio of preventive and constructive safety technology for filter systems. From advice and selection of the appropriate protection concept to the safe and compliant design of the filter systems through to their installation, commissioning and maintenance.

### FIRE PROTECTION CONCEPT

Herding FLAMEBREAK is an object protection system for Herding filter systems with fire detection, detection and suppression to minimise damage in the event of a fire.



#### Fire detection

With a detection cable for both suction operation and when the filter system is at a standstill.

#### Fire alarm

With integrated control for the signal processing of fire detection with signal transmission:

- Externally as a potential-free contact
- directly on site for visual and acoustic alarm signalling
- for firefighting

#### Fire fighting

By automatically switching off the filter operation and releasing the extinguishing agent aerosol or argon (depending on the fire load).

**!** Herding FLAMEDETECT can alternatively be used for fire detection and signalling if firefighting is to be carried out on site by the operator.

**Heat detection**  
for fire detection



**Aerosol generator**  
for fire fighting



**Aerosol spread**  
during fire fighting





## EXPLOSION PROTECTION

The Herding® Sinter-Plate Filter as a rigid body is the only filter element that acts as a DustEx zone barrier, which means that there is no dust-explosive atmosphere on the clean gas side of the filter system.

In many applications, preventive measures are sufficient to ensure that explosions in the filter system are avoided. In addition, constructive explosion protection measures can be applied.

### Preventive, primary measures

Avoid explosive atmospheres with passivation, inertization or process engineering decomposition Preventive.

### secondary measures

Avoid effective ignition sources in filter systems.

### Constructive measures

- Explosion-proof design for the maximum explosion overpressure in accordance with EN 13445
- Explosion-proof design for the reduced maximum explosion overpressure in accordance with EN 14460 with measures:
  - Explosion pressure relief on the raw gas side (rupture disk)
  - Flameless explosion venting on the raw gas side (rupture disk with downstream quench element)
  - Explosion suppression
- Additionally with measures for explosion decoupling at the interfaces of the filter system (raw gas line, clean gas line, dust discharge)

Ex

## SPECIAL DESIGNS

- Customer-specific material specifications, e.g. stainless steel, non-ferrous metal-free
- Wear protection against mechanical or chemical attack, e.g. armouring, special coatings (ceramics, ETFE, PFA,...)
- Avoidance of deposits on components that come into contact with the product, e.g. polishing or grinding



## DUST DISCHARGE

- Continuous or discontinuous systems, tailored to application and customer requirements
- Examples: Rotary air locks, valves, screw conveyors, etc.

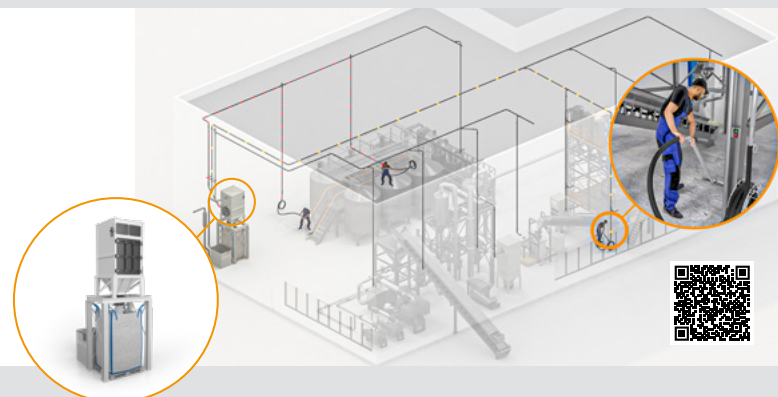
## HERDING® SAFE CHANGE

- For safe dust discharge and disposal at the interface with highest frequency for the operator. Herding SAFE CHANGE with Bag-In/Bag-Out has been proven to meet high standards up to OEB5
- Secondary filter, optional with Bag-In / Bag-Out



## DUST COLLECTION

- Central disposal of separated dust in a filter system
- Central dust collectors





## CONTACT

Please feel free to contact us! You can fill in the form and send it to us by e-mail.

Company

First name

Family name

Phone

E-mail

Branch

Application

Comments

Herding® is a registered trademark // V1.4

Herding GmbH Filtertechnik  
August-Borsig-Str. 3  
92224 Amberg / Germany

Phone: +49 9621 630-0  
Mail: [info@herding.de](mailto:info@herding.de)  
[www.herding.com](http://www.herding.com)

FOLLOW US ON

