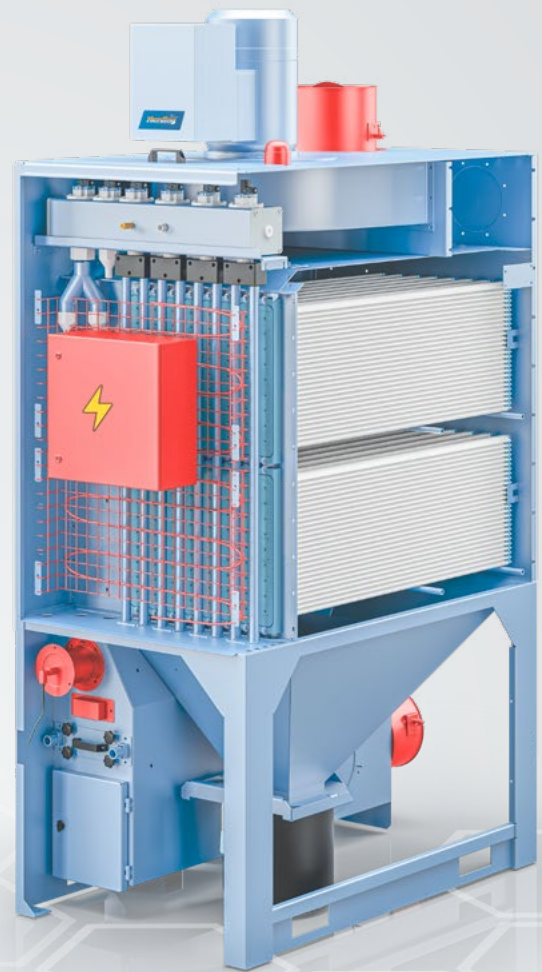




Herding **FIRE- & EXPLOSION PROTECTION**

FIRE & EXPLOSION PROTECTION FOR FILTER SYSTEMS

Combustible or explosive dusts and gases place high demands on the safety of filter systems. To effectively minimize risks, precisely tailored fire and explosion protection measures are essential. Herding supports its customers from risk analysis through to implementation and, based on its extensive experience, develops the optimal protection concept for each application. The result is a coordinated solution combining the highest level of safety with economic efficiency.

FIRE PROTECTION

Herding® FLAMEBREAK (fire extinguishing agent aerosol) is an object protection for Herding Filter systems in accordance with the VdS-Bulletin 3445 „Fire Protection in De-Dusting Systems“. The concept is designed to limit damages respectively to minimize risks.

FIRE PROTECTION CONCEPTS

Preventive, Primary measures

Reducing the combustibility of the dust by adding inert bulk material or operating under an inert gas atmosphere.

Preventive, Secondary measures

Preventing effective ignition sources within the filter system through an ignition-source-free design, from external sources by means of spark pre-separators or similar equipment, and from the dust itself by minimizing the quantity and location of stored dust.

Constructive fire protection measures

Fire detection

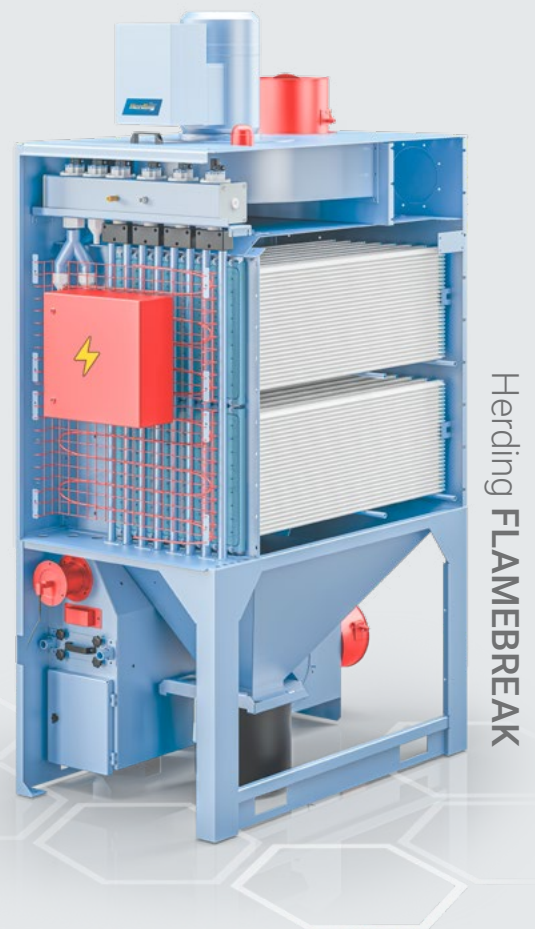
Automatic: detection cable / manual detection by the operator

Fire alarm

The control system evaluates the signals from the fire detection system, shuts down the filter system fan, activates potential-free contacts for alarm transmission, and controls the audible and visual alarm devices.

Fire fighting

After the shut-off devices in the raw gas and clean gas ducts have been closed, the extinguishing agent selected to match the fire load (dust and filter media) is released into the filter system.



Detection cable
for fire detection



Aerosol generator
for fire fighting



Aerosol spread
during fire fighting



EXPLOSION PROTECTION

Herding® Filtertechnik offers a comprehensive portfolio of preventive and constructive safety technologies for filter systems. **The Herding® Sinter-Plate Filterr acts uniquely as a DustEXZoneBarrier, preventing the formation of a dust-explosive atmosphere on the clean gas side of the filter system.** The effectiveness of this proven feature has been demonstrated in more than 200 dust and gas explosion tests.

EXPLOSION PROTECTION CONCEPTS

Preventive, primary measures

Preventing the formation of an explosive atmosphere by adding inert bulk material or inert gas, or by process-engineering separation of the extraction process into sections with and without organic solvents.

Preventive, secondary measures

Preventing effective ignition sources in filter systems by identifying potential sources and implementing appropriate protective measures as part of an ignition source and ignition hazard analysis.

Constructive explosion protection measures

Reducing the effects of an explosion event (in the filter system) to an acceptable level:

- Explosion-proof design - Herding® RESIST
- Explosion suppression
- Explosion volume limitation
- Explosion pressure relief, raw gas side (e.g. with rupture disc)
- Flameless explosion pressure relief, raw gas side (e.g. with rupture disc and flame arrester)

- Flameless and smoke-free explosion pressure relief on the clean gas side – Herding® FLAMELESS



Explosion pressure relief
raw gas side with pressure
and flame emission



Explosion pressure relief
raw gas side flameless
with smoke emission



Explosion pressure relief
clean gas side flameless
and smoke-free with
Herding® FLAMELESS





SEMINARS

PRACTICAL KNOWLEDGE TRANSFER – ANALOG AND DIGITAL

Under the umbrella of the Herding ACADEMY, we offer practical expert knowledge in various training formats for operators of units. Train yourself, live in a 2-day practical seminar at our premises or at your site in individual workshops. *(Practical seminar is conducted in German)*

PRACTICAL SEMINAR FIRE- AND EXPLOSIONPROTECTION

SAFETY FIRST for filter systems

The practical seminars on fire and explosion protection provide safety-critical knowledge for operators of filtration systems, combining theoretical expertise, practical application, and direct exchange with safety engineering experts

PRACTICAL SEMINAR DUST REMOVAL TECHNOLOGY

Added value: Get expert answers to your questions

Information and practice event around the topic dust. Provides extensive opportunity for the exchange of experiences and the transfer of knowledge on dust generating, dust collection, dust transport up to dust separation.

Herding® is a registered trademark//V1.0

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