

■ Design aspects - Fire prevention strategy

“Give us 5 minutes of your time ...
... and we will give them safely back!”



■ THE PROBLEM: Safe handling of flammable dust

Fine organic and metallic dust
 ⇒ in the metal-working industry
 ⇒ generated during grinding, welding, polishing or blasting operations
 ⇒ from oily sheet metal, sheet metal with paint residue or coated sheet metal can be flammable.



■ THE SOLUTION: Fire prevention on the Herding® filter units



If it is not possible to completely eliminate high-risk ignition sources from the machine, the dust or external equipment, it then becomes necessary to install an extinguisher system on the Herding® filter units.

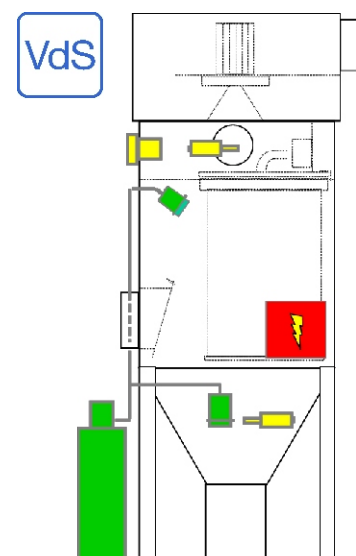
Development of a fire protection strategy for Herding® filter units using a test system to:

- ⇒ identify suitable detectors and the best location for the detectors in and on the filter unit
- ⇒ identify a suitable extinguishing agent and placement of the agent in the filter unit

Detectors

in the Herding® filter units:

- ⇒ heat sensors:  fire detection based on temperature rise; MINIMAX combined maximum and differential heat sensor with VdS device approval
- ⇒ spark detector:  infrared-based fire detection FM approved MINIMAX sensor and control unit



Extinguishing equipment

on Herding® filter units:

- ⇒ powder extinguishing agent to extinguish conventional metal fires (D rated)
- ⇒ fire-extinguishing gas, e.g. Argon (Ar) or nitrogen (N₂) on request
- ⇒ fire extinguisher with rapid-action valve
- ⇒ pipework from the extinguishing agent reservoir to the nozzles

Electrical control

for the fire extinguisher in the Herding® filter units:

- ⇒ battery backup and wire break detection for the sensors
- ⇒ floating external alarm contact
- ⇒ MINIMAX, VdS approved and FM recognized



Warranty

“... When the filter unit and fire extinguisher are operated properly by the user, we guarantee rapid fire detection, the capability to issue an alarm and extinguisher activation to minimize property damage ...” - maintenance must be performed annually.

Users have an obligation to continually conduct risk assessments and review the process parameters to ensure compliance with occupational safety, hazardous substance and work equipment safety regulations. Users must take appropriate action if they identify changes in intended use or other changes that have taken place since the design phase.

**“Talk to us ...
... and we will keep you out of harm's way”**

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