



DUSTdown[®] ATEX | Bag filters for potentially explosive atmospheres

Self-cleaning mechanical filter for potentially explosive atmospheres

DUSTdown[®] ATEX

Dustdown[®] ATEX is a very high efficiency self-cleaning mechanical filter, equipped with an automatic on-line cleaning system with a Reverse Jet of compressed air. Dustdown[®] was designed by Tecnosida[®] to address the specific problems associated with treating emissions potentially explosive that are subject to the 2014/34/EU directive.

Gallery

How does the DUSTdown[®] ATEX work?

The air to be treated enters the lower part of the dust remover, passes through a pre-filtering chamber that allows the coarse dust to precipitate, protecting the filter from excessive dust loads.

The flow then reaches the filtering surface and passes through it with consequent realization of the separation of the particulate. The dust collected by the numerous sleeves precipitates to the bottom of the filter where the hoppers direct it to the collection system (cochlea, rotary star valve, clapet valve or screw with conduit/pipe) or automatic discharge. In this case, the hopper must be more angular than the friction angle of the recovered pollutant, in order to avoid deposits of material.

The filtering surface is made of sleeves of various antistatic materials suitable for use in potentially explosive areas. It is kept in perfect condition thanks to automatic cleaning cycles managed on the basis of the filter pressure loss readings to limit the compressed air consumption and increase the lifetime of the sleeves.

DUSTdown[®] ATEX: structural features

DUSTdown[®] ATEX is equipped with a sealing structure made of reinforced material able to withstand high pressure resulting from possible explosions. The junction flanges are also equipped with jumpers which guarantee equal-potential continuity.

Depending on the classification of the application area, the filter is equipped with various components specially sized for use in potentially explosive atmospheres.

DUSTdown[®] ATEX: components

The main components of the ATEX filter are:

- Non-return valve = placed on the inlet pipe to avoid propagation of the explosion inside the suction line;
- Breakage panel = whose function is the discharge of pressure from the explosion and the protection of the filter structure and surrounding environment;
- Star valves or exhaust augers with a high level of protection in accordance with ATEX;
- Differential pressure switch for detecting the clogging status of the hoses.



DUSTdown[®] ATEX: maintenance service

Tecnosida[®] is a perfect partner for planning and execution of ordinary and extraordinary maintenance services required to :

- Verify filter's proper functioning
- Keep high filtration efficiency
- Reduce economic and energetic wastes
- Comply with safety and environmental rules and regulations

Contact us for more information