



# DUSTdown<sup>®</sup> | Self-cleaning bag filter

Reverse jet technology bag filters for industrial applications

## What is DUSTdown<sup>®</sup> self-cleaning bag filter?

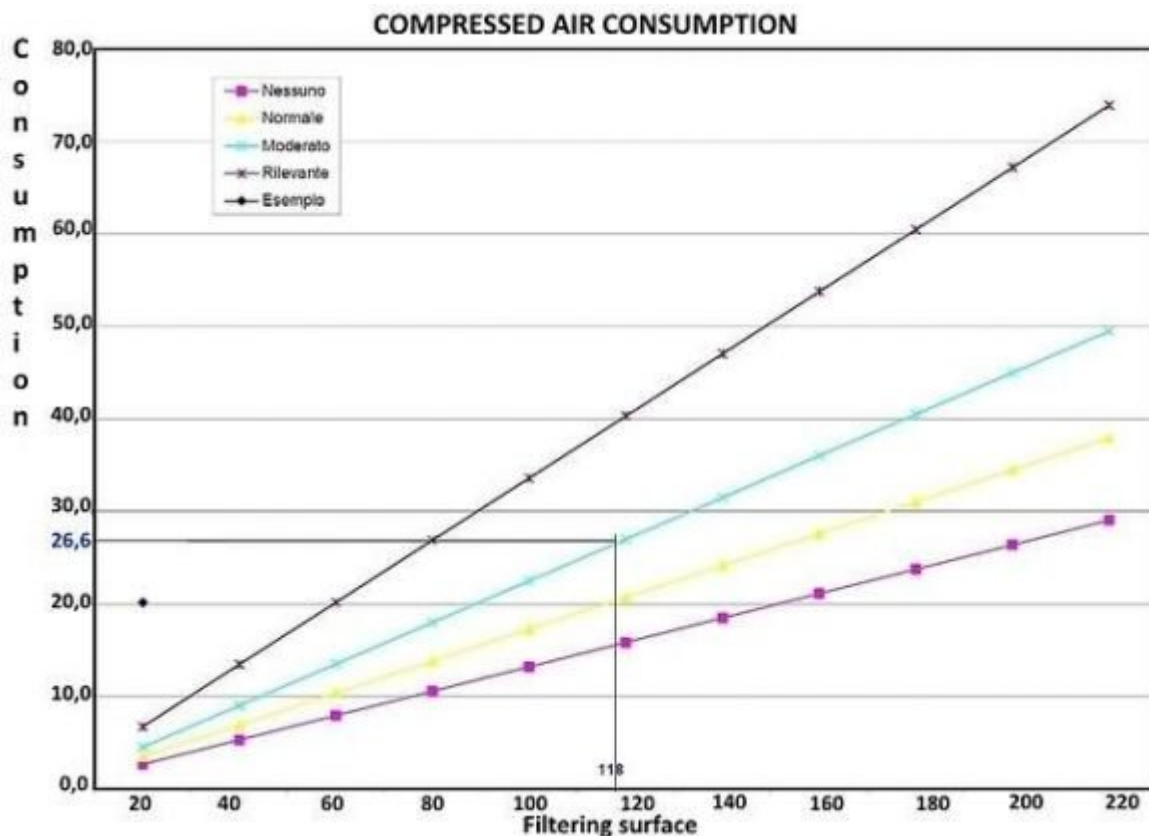
Dustdown<sup>®</sup> is a very high efficiency self-cleaning mechanical filter, equipped with an automatic on-line cleaning system with a Reverse Jet of compressed air. Dustdown<sup>®</sup> was designed by Tecnosida<sup>®</sup> to address the specific problems associated with treating emissions that contain a wide assortment of dust types; fine, very fine, potentially explosive (ATEX version), particulates, smoke and unburnt dust (BIOMASS version).

## Gallery

### How does the DUSTdown<sup>®</sup> bag filter 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 then 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. The filtering surface is kept in perfect condition thanks to automatic cleaning cycles. These are managed on the basis of the filter pressure loss readings to limit the compressed air consumption (graph to the side) and increase the lifetime of the sleeves.



Filtering fabrics can also be made with different materials and with different features depending on the intended use. The following table shows the main variables:

	MAXIMUM TEMPERATURE	RESISTANCE TO HYDROLYSIS	RESISTANCE TO ACID	RESISTANCE TO ALKALI	RESISTANCE TO OXIDATION
Polypropylene	90/100	excellent	excellent	excellent	bad
Polyolefina for high temperature	125/130	excellent	excellent	excellent	bad
Polyamide	110/115	bad	moderate	good	moderate
Polyacrylonitrile c.	110/115	good	moderate	moderate	good
Polyacrylonitrile o.	125/130	good	good	moderate	good
Polyester	150/150	bad	moderate	bad	good
M-aramid	180/220	moderate	moderate	moderate	good
Polytetrafluoroethylene	250/280	excellent	excellent	excellent	excellent

## Strenghts of the DUSTdown<sup>®</sup> filter

- **CUSTOMISATION:** The Dustdown<sup>®</sup> filter is built and configured according to the customer's specific use and dimensional needs in terms of flow volume, quantity/quality of the dusts, (grain size) and temperature;
- **EFFICIENCY:** The Dustdown<sup>®</sup> is designed to reach very high efficiency levels. More than 99.9% of the dust can be removed;
- **BY-PRODUCT RECOVERY:** Dustdown<sup>®</sup> technology allows the recovered solid residues to be completely reused;
- **ECONOMY:** is considerably more economical in terms of purchase and maintenance costs, when compared with other dust removal technologies;

- May be designed for low or high volumetric flow rates, being constituted by modular panels;
- Is available in a version that is compliant with ATEX certification in accordance with the 2014/34/EU directive.

## DUSTdown<sup>®</sup> standard equipments

- Filtration chamber;
- Filtering bag with snap ring;
- Hopper with inspection hatches, collectors and support legs;
- Pneumatic cleaning system of the bags/cartridges, set by a differential pressure switch/economizer;
- Pre-separation chamber;
- Ladder and railing for maintenance;
- Triboelectric sensor (mandatory for some applications).

## DUSTdown<sup>®</sup> available options

- Pressure regulator;
- Economiser;
- Anti-fire systems;
- Vibrators;
- Insulation.



## DUSTdown<sup>®</sup> filter: maintenance service

Tecnosida<sup>®</sup> 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