

A•dust^{4F} Dust filter

The Absolent type A•dust^{4F} dust filter is based on the latest and most efficient filter technology. This compact filter unit with automatic compressed-air cleaning function is especially well suited for continuous operation. Depending on the nature of the particles to be filtered, the A•dust^{4F} filter can handle applications with air volumes up to 2500m³/h.

Best possible separation degree for a safe and attractive working environment.

The objective of a dust filter is to get rid of unhealthy particles. For the best possible result, we use a HEPA-filter as the final filter step. With that, the air usually becomes so clean that it can be returned to the premises.

Longest possible service intervals.

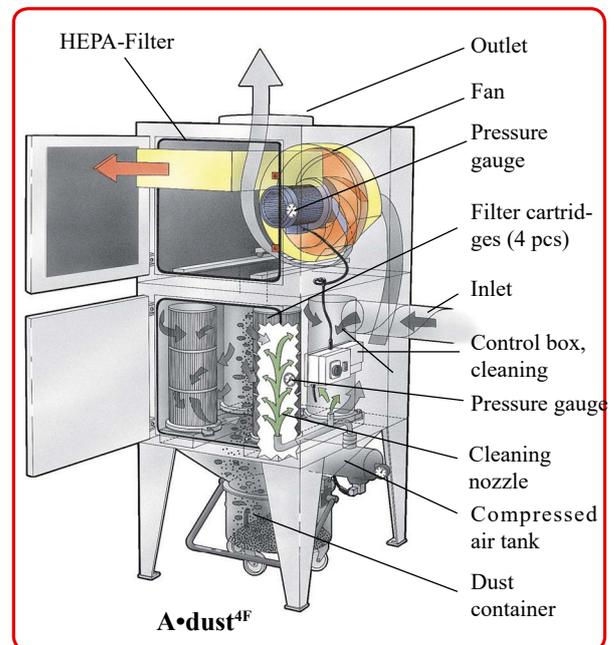
Absolent is probably the only dust filter producer in the world who utilizes the "Down flow" technique to the full: The air is sucked down-ward, in the same direction as the dust particles fall. This is extremely important dealing with small particles. With that, we achieve a long time between the compressed-air blows, which gives our filter cartridges a long life span. Absolent's filter cartridges can be washed, which contributes to an unbeatably low total cost of ownership. The filter cartridges have a normal life span of 2-4 years before they have to be exchanged.

Very easy to install.

Absolent delivers an assembled product with filters, fan and drive ready to start. You just connect the tubes, electricity and compressed air, it can't get easier than that!

Low noise level

The noise level in operation is as low as 67 dB(A).



Operation

The dust-laden air is sucked into the upper part of the filter. The heaviest dust particles fall directly into the dust container. The air is sucked into the filter cartridges, where most of the remaining particles stick on the outside of the cartridges. The cleaned air goes through the fan into the HEPA-filter, which has a guaranteed and consistent collecting efficiency of 99.95% mpps (most penetrating particles).

The HEPA-filter has a pressure gauge that shows when the cassette should be replaced. Whenever the pressure drop across the filter cartridges exceeds a preset limit value, the valves in the tank for cleaning air open and a pulse of compressed air (approx. 4 Bar) is discharged into the filter cartridges from the cleaning nozzles (1 nozzle per filter cartridge). The compressed air pulse causes the dust collected on the filter surface to loosen and fall down into the dust container.

Range of Application

The Absolent A•dust^{4F} is well suited for use in applications where dry dust is generated, e. g.:

- Welding
- Laser cutting and plasma cutting
- Grinding and polishing

Design

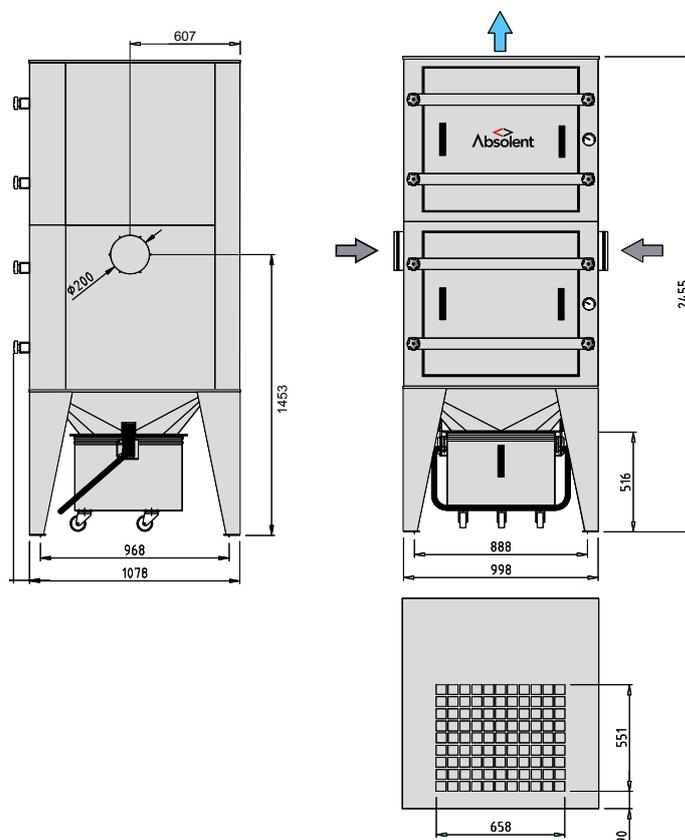
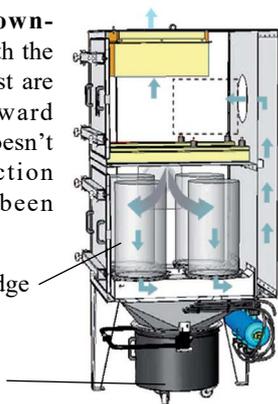
The big service door makes service quick and easy. The filter cartridges have a quick-snap lock, which makes it easy to change them without any tools. The filter is supplied with a baked powder painted finish.

Down-Flow Principle

Genuine "Down-Flow", i.e. both the air and the dust are blown downward and the air doesn't change direction until it has been filtered.

Filter cartridge

Dust container



Automated pulse-cleaning system

The standard Absolent A•dust filter is equipped with an advanced automated pulse-cleaning system with the following functions:

- Digital pressure gauge that indicates the pressure drop across the filter cartridges.
- Pressure-controlled pulse cleaning; a compressed-air cleaning cycle is activated when the pressure drop across the filter cartridges exceeds the preset level. A cleaning cycle involves cleaning of all the cartridges.
- If pressure-controlled cleaning is not desirable, the unit can be preset for cleaning at an adjustable time interval instead.
- Adjustable alarm level that warns when the in-service limit is reached and the filter cartridges need to be cleaned or replaced. The alarm signal cable can be extended for connection to controls at an external location.
- The automated equipment includes a subsequent cleaning function that is activated when the filter is shut down. Between 0-10 subsequent cleaning cycles can be set.
- The automated pulse-cleaning system is enclosed to degree of protection IP 65.
- Cleaning can also be started by a floating distance.

Compressed air equipment

Compressed air consumed (compressed air-pulse cleaning): 20-100 l/min.

The volume of compressed air consumed depends on how often the filter needs to be cleaned. This depends on how heavily the filter is loaded with dust. The compressor and air tubing should be sized for 100 l/min consumed during the cleaning cycle.

Pressure in cleaning tank: 4 Bar at max.

Technical data

| | | |
|--|---------------------|-------|
| Max permissible air volume ¹⁾ | [m ³ /h] | 2500 |
| Sound level (operation/cleaning) ²⁾ | [dB(A)] | 67/84 |
| Weight (clean cartridges) | [kg] | 600 |
| Available dim. ext. pressure drop | [Pa] | 900 |
| Number of cartridges | [pc] | 4 |
| Total filter area (cartridges) ³⁾ | [m ²] | 31 |
| Filter area (HEPA-filter) ⁴⁾ | [m ²] | 24 |

Fan Data

| | | |
|-------------------------|-------|------|
| Motor output | [kW] | 4,0 |
| Rated current (3-Phase) | [A] | 7,41 |
| Power supply (3-Phase) | [V] | 400 |
| Speed | [rpm] | 2910 |

¹⁾ The max. permissible air volume depends on the type of particles to be filtrated.

²⁾ The standard filter has a filter area of 31m², but the filter area can be increased to as much as 40m².

³⁾ Approx. sound level measured 1m in front of the filter in a normal room. The higher figure has been measured during a cleaning pulse. Please get in touch with Absolent or one of our dealers for assistance with sound calculations.

⁴⁾ Collecting efficiency down-stream of the HEPA-filter: 99.95% mpps.

Standard Equipment

- RAL 7035 fine structure SK3
Other colours on request!
- Automated pulse-cleaning system containing an advanced microprocessor and an automated electronic sequencer
- Pressure gauges for reading the pressure drop across the filter
- Integrated fan
- HEPA-filter
- Dust container with a 90l volume

Accessories

- Extension legs
- Precoating of the filter cartridges
- Rotary vane feeder
- Special colours