

A•dust⁵, A•dust¹⁵ Dust Filters

The Absolent type A•dust Dust filter is based on the latest and most efficient filter technology in every respect. It is a compact, compressed air pulse-cleaned filter that is especially well suited for use in installations that operate around the clock. Depending on the nature of the particles to be filtered, the A•dust filter handles applications with air volumes up to 17000 m³/h.

Patent pending Down-flow technique offers better filter cleaning.

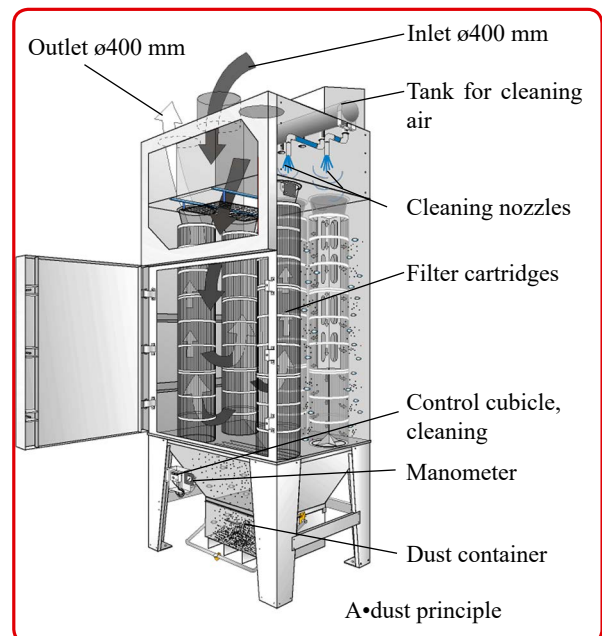
The Absolent A•dust is probably the only dust filter in the world that utilizes the "down-flow" technique to the full. "Down-flow" involves a downward airflow in-side the filter unit. Thanks to this flow technique, the particles to be cleaned from the filter medium need not fall against the direction of the airflow in order to reach the dust container below the filter medium. There are several filters currently available on the market, which are equipped with horizontal cartridges. Dust can easily collect on the upper side of such cartridges and drastically reduce their filter area. Absolent has instead chosen to equip the A•dust filters with vertical hanging cartridges that completely prevent any reduction in filter area.

Design

The A•dust is a robust and compact unit that requires a minimum of floor space. It is supplied with a baked powder painted finish that adds colour to the shop floor.



A•dust⁵



Operation

The dust-laden air is sucked into the inlet on top of the filter. The heaviest dust particles fall directly into the dust container. The air and the lighter particles are sucked further to the filter cartridges where the dust collects. The filtered air is then sucked out through the outlet of the filter by an external fan. 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 is discharged from the cleaning nozzles. 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 is well suited for use in applications where dry dust is generated, such as the following:

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

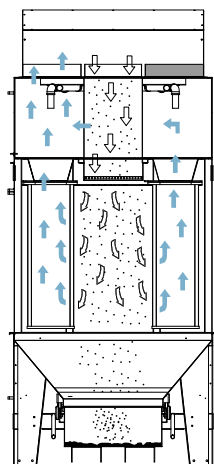
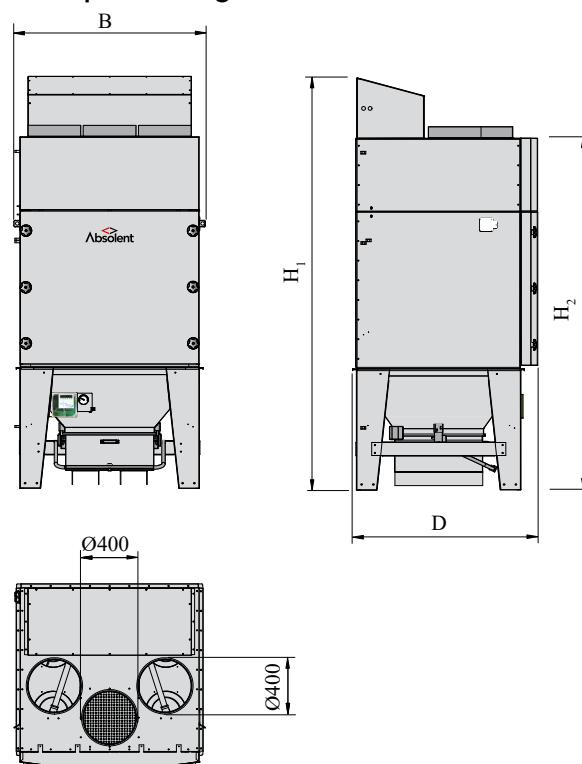
Service and Maintenance

The large servicedoor enables easy access to the inside of the unit for simple and quick servicing. The filter cartridges are provided with an easy-to-use, quick-release clamping device for simple cartridge withdrawal from the unit.

Environmental considerations are very important to the staff at Absolent; this has prompted the use of washable filter cartridges. Furthermore, washing prolongs the useful filter life time.

Down-Flow Principle

”Down-Flow” means that both the air and the dust are blown down-ward and the air doesn’t change direction until it has been filtrated.

A•dust⁵**Principle drawing A•dust****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 all the cartridges.
- 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.

Compressed air equipment

Compressed air consumed (compressed air-pulse cleaning): 40-200 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 200 l/min consumed during the cleaning cycle.

Pressure in cleaning tank: 4 Bar

Technical data

		A•dust ⁵	A•dust ¹⁵
Max. permissible air vol. ¹⁾	[m ³ /h]	9500	17000
Weight, incl new cartridges	[kg]	620	820
Height incl. compressed air tank, H ₁	[mm]	3145	3945
Height front, H ₂	[mm]	2682	3482
Width, B	[mm]	1463	1463
Depth, D	[mm]	1414	1414
Number of cartridges	[st]	5	15
Filter area (cartridges) ²⁾	[m ²]	85	150
Separation degree acc. to BIA test category IEC 60 335-2-69 (valid for quartz dust), dust class M	[%]	99,95	99,95
Sound level (Operation only) ³⁾	[dB(A)]	<60	<60

Sequencer

Power supply, single-phase	[V]	220-240	220-240
Motor output	[W]	30	30

¹⁾ The air volume depends on the type of particles to be filtrated and the type of cartridge used.

²⁾ The filter area can be increased to 105 m² resp. 189 m².

³⁾ Approx. sound level measured 1m from the filter in a normal room.

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 gauge for reading the pressure drop across the filters.
- Volume standard dust container: 120l.

Accessories

- External fan
- Frequency converter
- Differential pressure sensor
- Extension frame
- Pre-coating of the filter cartridges.
- Rotary vane feeder
- Special colours