

# AD051, AD101, AD151

## Modular Industrial Dust and Fume Filters



- Optimised for high performance, low energy use and extended filter lifespan
- Modular construction enables short lead times for bespoke solutions
- CleanChange™ system enables safe, quick and clean maintenance
- Low running costs through Vertical Airflow Technology and inverter-driven fan options
- Galvan pre-coated steel as standard for enhanced durability and long-term corrosion protection

## Flexible filter unit for dust and fume applications

Modular dust filtration unit designed to be tailored to specific performance requirements and site conditions.

The AD-range delivers high performance in a compact footprint. The Vertical Airflow Technology improves particle separation, directs dust towards the hopper and reduces build-up on the filters, extending filter lifespan and lowering maintenance needs.

CleanChange™ positions the filter change mechanism in the clean air section, away from contaminated air. Maintenance becomes cleaner, easier and tool-free, with no need to enter the unit during service.

## Function

Modular dust filter that can be configured to meet specific performance requirements and customer needs.

Verical Airflow Technology, which combines a downflow air pattern with vertical filter elements, forces the separated dust down into the dust disposal solution and ensures that following pulse jet cleaning, the dust is directed downwards. The incoming air stream 'washes' dust from the vertical filter elements enabling a two-stage cleaning system for optimized efficiency. Vertical filter elements allow this washing due to their orientation - traditional horizontal filter elements can compact dust on the top. Using vertical filter elements also means that the dust that is cleaned from each element is directed straight into the dust disposal solution, not onto filters below as with a horizontal arrangement.

The cartridges can be monitored by a differential pressure sensor that measures the cleanliness of the filter elements and only cleans on demand to ensure optimal filtration efficiency and reduced energy consumption.

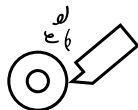
## Applications



Welding



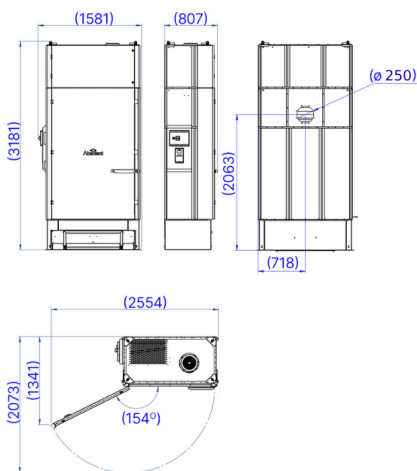
Laser cutting / Plasma cutting



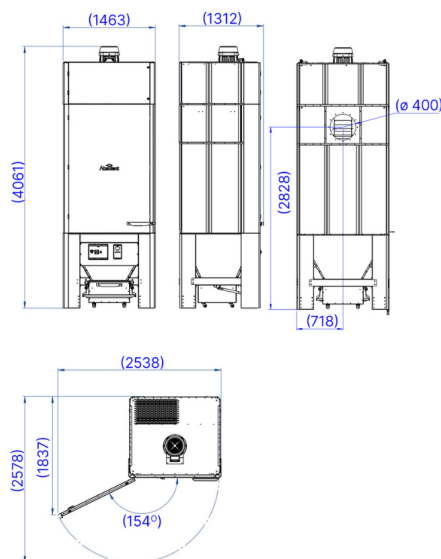
Dry machining

## Dimensions

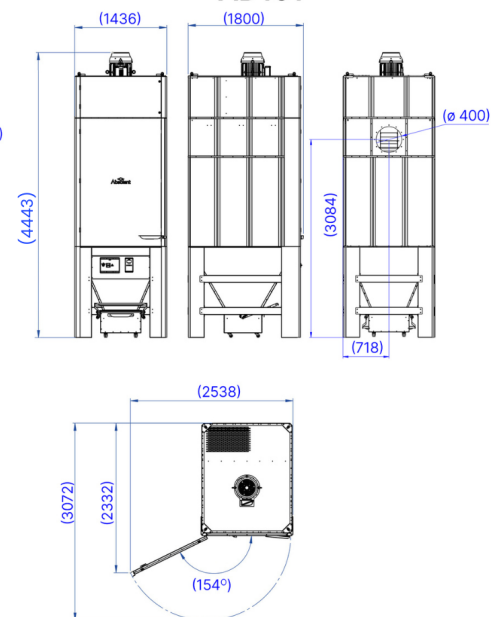
**AD051**



**AD101**



**AD151**



## Technical specifications

### Technical specifications AD051, AD101, AD151

	AD051	AD101	AD151
<b>General</b>			
Application	Hot & Abrasive Metal Fumes & Dust	Hot & Abrasive Metal Fumes & Dust	Hot & Abrasive Metal Fumes & Dust
Airflow range	1 200-3 600 m <sup>3</sup> /h	2 400-7 200 m <sup>3</sup> /h	3 600-10 800 m <sup>3</sup> /h
Maximum external pressure	3 000 Pa	3 000 Pa	3 000 Pa
Pressure drop of the unit	2 000 Pa	2 000 Pa	2 000 Pa
Fan motor power			
Inverter Driven	4,0 kW, 5,5 kW, 7,5 kW (integral)	7,5 kW, 11,0 kW, 15,0 kW (integral)	11,0 kW, 15,0 kW, 18,5 kW (integral)
Energy class	IE3	IE3	IE3
External Finish	Galfan pre-coated steel, high corrosion resistance	Galfan pre-coated steel, high corrosion resistance	Galfan pre-coated steel, high corrosion resistance
Material Thickness	2,5-3,0 mm	2,5-3,0 mm	2,5-3,0 mm
Location <sup>1</sup>	Indoor use only.	Indoor use only.	Indoor use only.
Delivery	Pre-assembled	Delivered in sections	Delivered in sections
<b>Connections</b>			
Inlet type	DIN 24154/T2	DIN 24154/T2	DIN 24154/T2
Inlet diameter	250 mm	400 mm	400 mm
Inlet placement	Rear	Rear	Rear
Outlet type	Via integral fan or open DIN 24154/T2 connection	Via integral fan or open DIN 24154/T2 connection	Via integral fan or open DIN 24154/T2 connection
Outlet diameter	250 mm	450 mm	450 mm
Outlet placement	Top	Top	Top
Compressed air supply	12 mm connection - 6 Bar Clean & Dry Supply	12 mm connection - 6 Bar Clean & Dry Supply	12 mm connection - 6 Bar Clean & Dry Supply
Electrical information	400V, 3 phase, 50 Hz	400V, 3 phase, 50 Hz	400V, 3 phase, 50 Hz
<b>Dust collection</b>			
Drawer	140l (37.0 gal (US))	280l (74.0 gal (US))	N/A
Bin	N/A	115l (30.4 gal (US))	115l (30.4 gal (US))
<b>Filter</b>			
Diameter Primary filter elements	324 mm	324 mm	324 mm
Number of Primary filter elements	2 pcs	4 pcs	6 pcs
Filter efficiency	All filter elements are in accordance with EN 60335-2-69:AA Dust Class M Rating. Dust Class M relates to an efficiency of > 99.9% under conditions given in EN 60335-2-69:AA.		
Filter media	Polyester & Polyester Nano Fibre	Polyester & Polyester Nano Fibre	Polyester & Polyester Nano Fibre
Total Filter area	40 m <sup>2</sup>	80 m <sup>2</sup>	120 m <sup>2</sup>
Filter cartridge length	1 200 mm	1 200 mm	1 200 mm
Secondary filter	Separate	Separate	Separate
Pre-treatment (Pre-coating Powder)	Yes, as option	Yes, as option	Yes, as option
<b>Physical properties</b>			
Width	1 581 mm (62.24 in)	1 436 mm (56.54 in)	1 436 mm (56.54 in)
Height	3 181 mm (125.24 in)	4 061 mm (159.88 in)	4 443 mm (174.92 in)
Depth	807 mm (31.77 in)	1 312 mm (51.65 in)	1 800 mm (70.87 in)
Weight with fan	802 kg (1769 lb)	1 188 kg (2619 lb)	1 800 kg (3968 lb)
<b>Sound level</b>			
Sound level Continuous (fan) <sup>2</sup>	75 db(A)	75 db(A)	75 db(A)

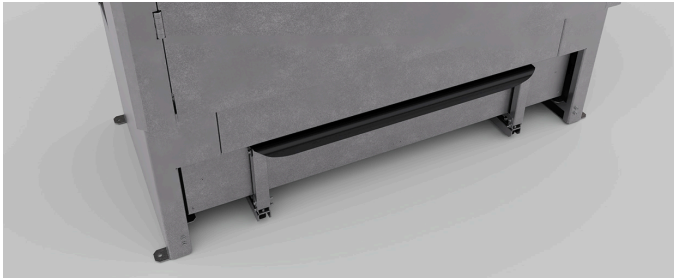
<sup>1</sup>Outdoor placement requires optional weather protection accessories.

<sup>2</sup>The sound level is measured 1 m from the filter unit under free field conditions. Contact Absolent or dealer/distributor for sound calculation on specific location.

## Description of the concept

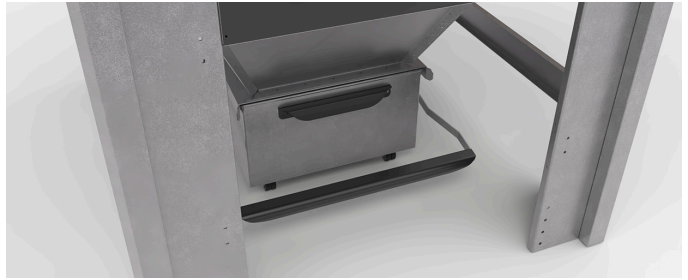
AD filters are designed with a modular architecture and state-of-the-art technology to provide the most advanced industrial filter on the market today. Our Vertical Airflow Technology enables us to provide the highest performance in all aspects, and full flexibility to ensure our customers' unique requirements are met.

## Dust disposal options



**Dust collection drawer**

Available for: AD051, AD101



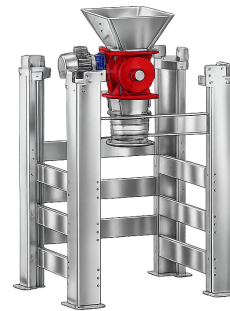
**Dust collection bin**

Available for: AD101, AD151



**Extension legs with drum connection**

Available for: AD101, AD151



**Extension legs with rotary valve and drum connection**

Available for: AD101, AD151

## Filter Elements

Industrial processes generate particles of various sizes and concentrations. Absolent's filter cartridges are available in several different materials and finishes, specially developed to cope with the variation in particulate characteristics.

### AD Filter Elements

Technical information AD Filter Elements	
Filter cartridge length	1200 mm
Diameter	324 mm
Filter media	Polyester / Polyester Nano Fibre
Removal	Outside of unit, no confined space working
Mechanism	In clean section, no exposure to contaminant
Total Filter area	20 m <sup>2</sup>