



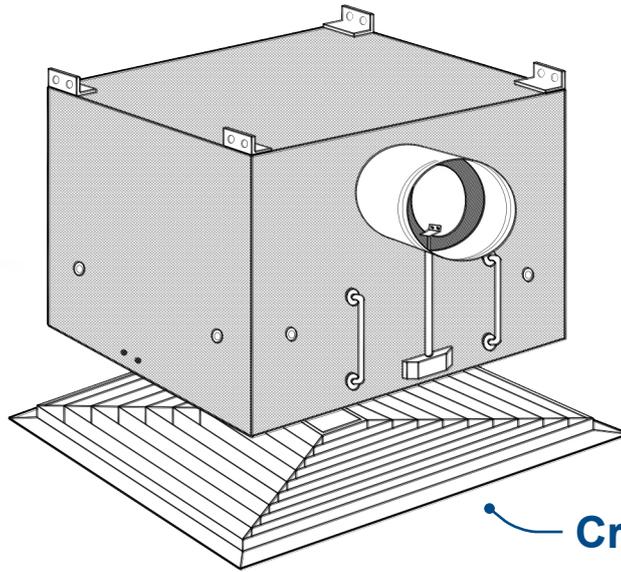
AIRTECHNIC

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Air-Conditioning & Ventilation Components & Systems

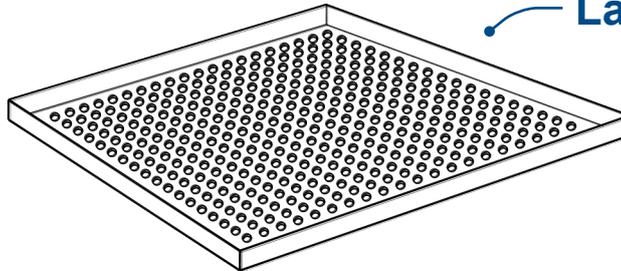
● ABSOLUTE FILTER BOXES BAF 13 & BAF 14

150 ÷ 1.800
m³/h



— Cross flow (CF)

— Laminar flow (LF)



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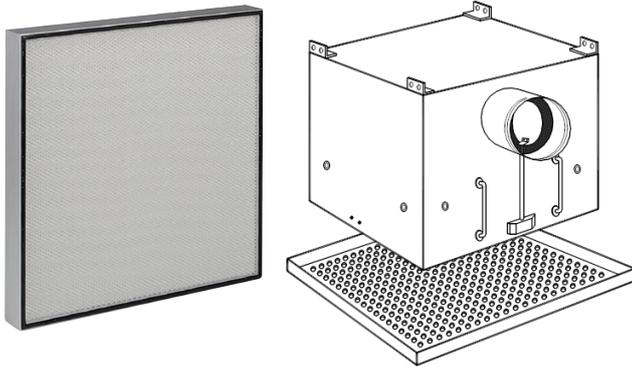
V. 4



Absolute filter boxes

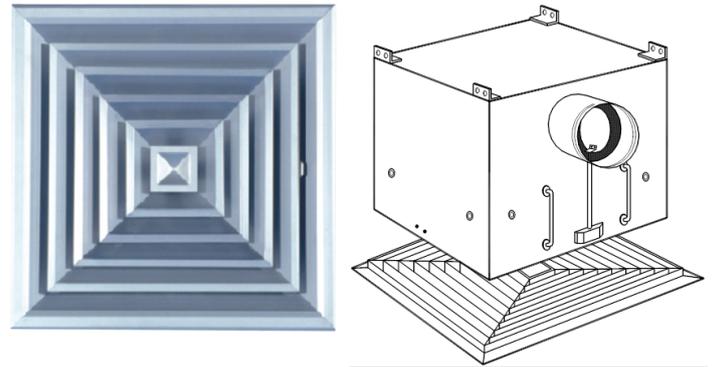
BAF 13 & BAF 14

AIRTECHNIC's absolute filter boxes are suitable for use in hospitals, laboratories, pharmaceutical industries, food industries and in clean rooms. They are manufactured in two types :



BAF / LF

Laminar Flow (Perforated grille).



BAF / CF

Cross Flow (4-way diffuser).

Box type **BAF / LF** (Laminar Flow)

It consists of a shell made of galvanized sheet steel, aluminium, copper or stainless steel electrostatically painted in white color RAL 9016, inside which the absolute filter class H13 or H14 is placed, retention 99.95 99.995 % @ MPPS, according to EN1822.

The filter is placed inside the box in a completely airtight manner to ensure 100% air tightness and is easily replaced by removing the grille from the bottom of the box, without having to move it.

The box on the side or on the top, has a flange of a suitable diameter for connection to the air duct network and an optional volume damper. The adjustment of the air supply can be done through the damper by opening the false ceiling plate or, with extra charge, inside the box by removing the grille and adjusting the damper of the box.

The box has a perforated grille that ensures the linear flow of air.

The box, absolute filter and grille assembly is suitable for installation in a false ceiling plate. Its fixing is done from the ceiling in at least 4 points by supports arranged for this purpose.

Optionally and for an extra charge, only holes or two tubes for measuring the pressure difference between the two sides of the filter can be provided.

Box type **BAF / CF** (Cross flow)

It consists of a shell made of galvanized sheet steel, aluminium, copper or stainless steel electrostatically painted in white color RAL 9016 with a rectangular or square anodized aluminium ceiling diffuser, with fixed 45° tilt blades that distribute the air in 4 directions.

Inside the shell is the absolute filter of 99.95 or 99.995% @ MPPS quality, according to EN1822, which is easily replaced by removing the diffuser from the bottom of the box, without having to move it. The filter is held in place by a pressure mechanism in a completely leak-proof manner.

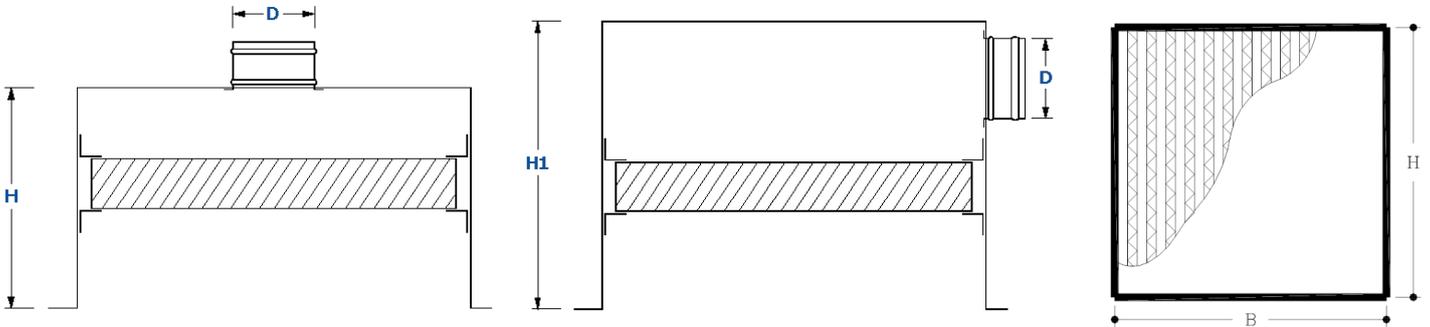
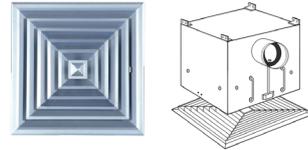
On one side, the shell has a flange of suitable diameter to connect the box to the installation's ventilation network.

The box, absolute filter and diffuser assembly is suitable for installation in a false ceiling plate. Its fixing is done from the ceiling in at least 4 points by supports arranged for this purpose.

Optionally and for an extra charge, only holes or two tubes for measuring the pressure difference between the two sides of the filter can be provided.



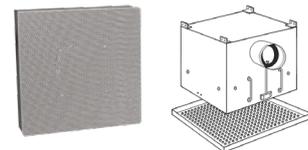
Box type BAF / CF (Cross flow) - Diffusers



FILTER DIMENSIONS mm		AIR FLOW * m ³ /h	BOX DIMENSIONS mm		BOX HEIGHT mm		FLANGE mm	DIFFUSER DIMENSIONS mm			
B	H				H	H1		NOMINAL		OUTER	
305	x 305	150	320	x 320	390	420	150	230	x 230	354	x 354
380	x 380	280	395	x 395	390	470	150	300	x 300	429	x 429
457	x 457	340	472	x 472	390	520	200	380	x 380	506	x 506
545	x 545	580	560	x 560	390	520	250	450	x 450	595	x 595
610	x 610	600	625	x 625	390	520	250	610	x 610	659	x 659
545	x 1.145	1.160	560	x 1.160	390	520	2 x 250	495	x 1.090	595	x 1.190
610	x 1.220	1.200	625	x 1.235	390	520	2 x 250	565	x 1.230	665	x 1.330

* The air flow refers for an initial pressure drop of 125 Pa.

Box type BAF / LF (Laminar flow) - Perforated



FILTER DIMENSIONS mm		AIR FLOW * m ³ /h	BOX DIMENSIONS mm		BOX HEIGHT mm		FLANGE mm	GRILLE OUTER DIMENSIONS mm	
B	H				H	H1			
305	x 305	150	320	x 320	350	400	150	354	x 354
380	x 380	280	395	x 395	350	400	150	429	x 429
457	x 457	340	472	x 472	350	450	200	506	x 506
545	x 545	580	560	x 560	350	500	250	595	x 595
610	x 610	600	625	x 625	350	500	250	659	x 659
545	x 1.145	1.160	560	x 1.160	350	500	2 x 250	595	x 1.190
610	x 1.220	1.200	625	x 1.235	350	500	2 x 250	665	x 1.330

* The air flow refers for an initial pressure drop of 125 Pa.

REMARK!

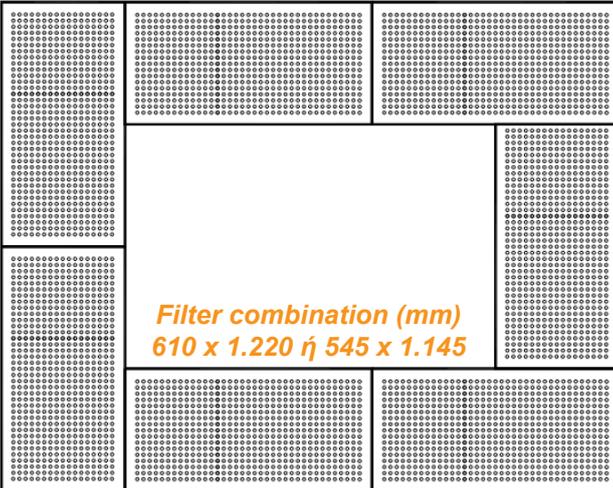
The manufacture of absolute filter boxes with different dimensions and air supply is possible.



Combination possibilities

There are many combinations of absolute filter boxes.
Box combinations can be delivered with a peripheral protective profile (connecting angle T or L) for an extra charge.

One of the many box combinations is shown in the following image :



T-BAR/50 Profile
in aluminium or white color.



L-BAR/50 Profile
in aluminium or white color.

Pressure drop (Pa)

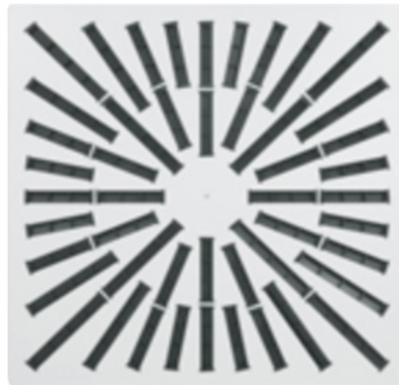
The outputs given in the Absolute Class filter tables are nominal for an initial pressure drop of 125 (Pa).
Of course, a smaller or larger air flow can pass through the filters, while increasing the air flow does not affect the efficiency of the filter. In smaller supply, the degree of efficiency increases as well as the duration of their use.
The final pressure drop of the filters is 600 Pa.

Air diffusers

The diffusers that can also be used in AIRTECHNIC's absolute filter boxes are :



SD-8



SD-9



OP/K4



Absolute filters

The absolute filters used in **AIRTECHNIC's BAF** absolute filter boxes are class **H13 Min. 99.95% @ MPPS**, as per **EN1822 & Class H14 Min. 99.995% @ MPPS**, according to **EN1822** and are used to contain suspended materials such as microbes, toxic dusts, aerosols, etc. They are used in medical and pharmaceutical areas according to DIN 1946, e.g. surgeries, testing rooms (laboratories) as well as in absolute precision techniques, i.e. always where absolutely clean air and free of germs, dust, etc. is required.

Absolute filters are also used for exhaust air if pathogenic, toxic or radioactive air particles are to be removed from it.

They are manufactured in various types and sizes where high quality glass paper with various retention and separation coefficients is always used as filter material. The absolute filter has protective grids painted with epoxy paint on the air outlet & inlet side.

The material of the outer frames of the absolute filters can be anodized aluminium or MDF, while the rubber sealing material on the air inlet side is of high strength.

Sealing gaskets can be fitted on both sides of the filter.

Each absolute filter comes with its own measurement certificate and SCAN TEST.

Under request the boxes can be fitted with manometers or differential pressure switches to measure the pressure drop.



The maximum air supply temperature is 80 °C.

Lifespan & replacement of absolute filters

Absolute filters are made for 1 use only. They are then disposed. **AIRTECHNIC's BAF** outlets and boxes can be reused.

The lifespan of an absolute filter depends on the air supply, pressure drop and the amount of particles in the air. Generally when you reduce the air supply by 25%, the lifespan of the filter doubles.

The replacement period of absolute filters can be extended by using prefilters.

Also, the more frequent replacement of the prefilters extends the lifespan of the absolute filter. Filter cleanliness is displayed on the differential pressure switch.



When the filter is replaced, we remove the air outlet by unscrewing the screws, loosen the supports that hold the filter in the box and take out the used filter, wearing gloves and a mask. Then we clean the box of the absolute filter and the air outlet and install the new absolute filter.



ISO 9001:2015



ISO 14001:2015

Management System
ISO 14001:2015
Valid until:
2024-05-24



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