



MDB-COMPACT

Compact filtration units with a proven and unbeaten technology



DO YOU CONTROL DUST AND FUMES?

We do. Controlling fumes and dust in a production plant significantly contributes to a better work environment. Background concentrations of dust and fumes must be kept as low as possible. This can be realized by using the right processes and using quality fume and dust extraction and filtration, which prevents accumulation of fumes in your working environment.

As a specialist in air cleaning technology and expert in filtering fumes from metal-working industry, Plymovent offers various solutions to control fumes and dust, like source extraction, extraction hoods and general ventilation and filtration systems.

MDB-COMPACT

With the MDB-COMPACT Plymovent brings you the proven and unbeaten technology of the MultiDust Bank in a compact and pre-assembled range of models. The MDB-COMPACT is available with a wide choice of filter media and can be used for almost any airborne dust pollutant*. Due to its compact design the MDB-COMPACT is the ideal choice for applications where a filter is needed near to the source of pollution. Plymovent is renowned for its expertise in capturing and filtering fumes from metal welding and cutting. In this industry the MDB-COMPACT is the filter of choice for automated production processes that need a small dedicated filter like (laser) welding, and cutting. Whether the fumes are dry or oily** the MDB-COMPACT can do the job.

SilentFlow™ duct free silencer

The MDB-COMPACT has an integrated fan placed in a SilentFlow™ sound absorbing box. SilentFlow™ reduces both the mechanical and airflow noise of the fan. Conventional boxes are designed for mechanical noise only and require additional duct silencers to reduce the airflow noise. SilentFlow™ can do

both, by using an innovative air flow path, acoustic panels and a specially designed outlet. An acceptable noise level without additional ducting*** at the exhaust side of the filter makes the overall installation more compact and easier to install.

Ram-Air™ low operational costs

The MDB-COMPACT features a Ram-Air™ pulse amplifier, a powerful part of the back pulse cleaning system, that enhances the cleaning efficiency. A Ram-Air™ pulse amplifier is placed in each filter cartridge and disperses the pulse energy directly to the filter medium. The results are significant: cleaner filters; lower pressure drop, less compressed air and energy consumption. Ram-Air™ means low operational costs.

* Not explosive dust

** At high oil content OilShield limestone feeder is recommended

*** If allowed by local standards, codes and legislation

Plymovent BiCo filter cartridges last longer

Filter life is not only determined by cleaning efficiency but more often by the strength of the bonding between the fibers in the media. This is where most cartridges fail but not Plymovent's.

When the bonding breaks pressure drop rises immediately and airflow drops. This normally means a costly filter cartridge replacement. BiCo Plymovent cartridges are based on state of the art bi-component technology. This technology uses differences in melting point between core and surface of the fibre to enhance the bonding without increasing pressure drop of the filter medium.

Only a very few companies have truly mastered this technology and can guarantee a consistent quality. Plymovent selects only media with a proven performance and that is why Plymovent cartridges last longer.

Plymovent BiCo cartridge have enhanced pulse stability, low pressure drop and long filter life

Pre-assembled compact design with integrated fan

Integrated lifting lugs

Front panel cartridge changing

Easy to empty dust drawer

SilentFlow™ duct free noise reduction for compact installation

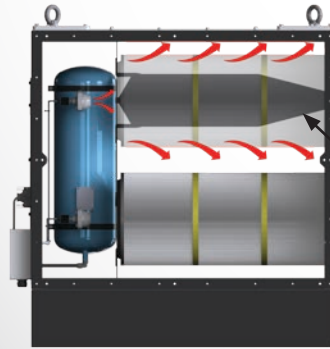
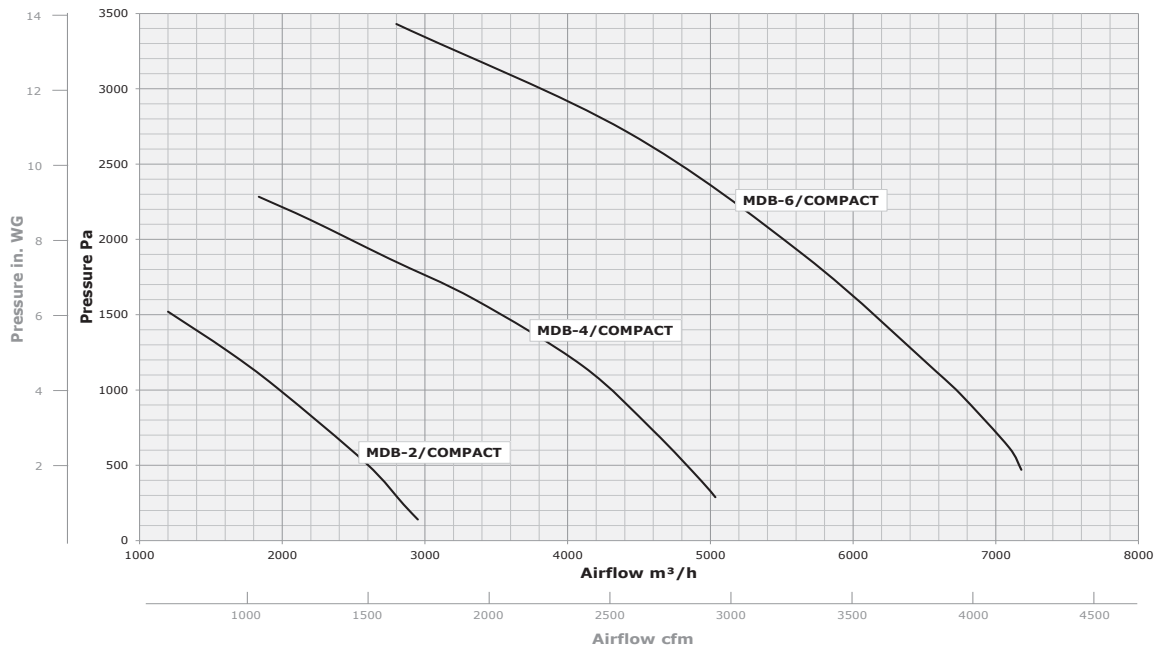


Image: side view

Ram-Air™ pulse amplifier provides better cleaning for longer filter cartridge life and lower pressure loss

PERFORMANCE CHART*



*Net extraction capacity at the filter inlet (clean filters)

TECHNICAL SPECIFICATIONS

	MDB-2/COMPACT	MDB-4/COMPACT	MDB-6/COMPACT
Number of filter cartridges	2	4	6
Connection voltage of the fan	230V/3ph/60Hz* / 460V/3ph/60Hz / 575V/3ph/60Hz		
Filter control	100-240V AC single phase 50-60Hz		
Capacity of dust drawer	33 litres (8.7 gallon)	72 litres (19 gallon)	72 litres (19 gallon)
Power (fan)	2.2 kW (3 HP)	4.0 kW (5 HP)	7.5 kW (10 HP)
Weight**	335 kg (739 lbs.)	425 kg (937 lbs.)	600 kg (1323 lbs.)
Inlet connection	Ø 250 mm (9.8 inch)	Ø 355 mm (14.0 inch)	Ø 400 mm (15.7 inch)
Nominal sound level***	69 dB(A)	71 dB(A)	71 dB(A)
Max. airflow****	2850 m³/h (1675 cfm)	5025 m³/h (2960 cfm)	7180 m³/h (4225 cfm)

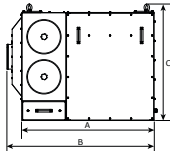
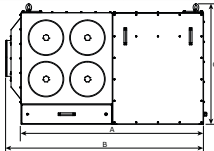
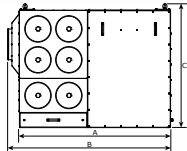
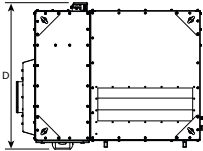
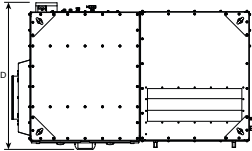
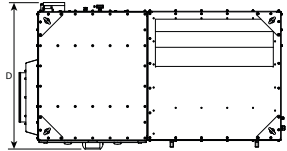
* The compact design in combination with a high air performance is achieved by using 60Hz fan technology. This means that for 50Hz power grids (e.g. Europe) a Variable Frequency Inverter is needed.

** Without filter cartridges

*** Nominal sound level at 1 m (3ft) @ 1000 m³/h (589 cfm) per filter cartridge

**** With new CARFD filter cartridges; free-blowing

DIMENSIONS

	MultiDust Bank-2/COMPACT		MultiDust Bank-4/COMPACT		MultiDust Bank-6/COMPACT	
Front view						
	mm	inch	mm	inch	mm	inch
A	1348	53.1	1801	70.9	2004	78.9
B	1502	59.1	1955	77.0	2158	85.0
C	1186	46.7	1190	46.9	1641	64.6
Top view						
	mm	inch	mm	inch	mm	inch
D	1197	47.1	1206	47.5	1206	47.5

PLYMOVENT®
clean air at work

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PLYMOVENT OFFERS COMPLETE SOLUTIONS FOR AIR CLEANING

For over 45 years, Plymovent has been gaining experience in the field of air cleaning. We have extensive knowledge of the extraction and filtration of welding fumes and oil mist in metalworking industries. Additionally, we are also specialised in the removal of vehicle exhaust fumes.

Your authorised Plymovent distributor:

Plymovent cares about the air you breathe. We offer products, systems and services which ensure clean air at work, anywhere in the world.

We respect the environment and we deliver high-quality products. Our expertise gained over many years and our genuine commitment to customer requirements enable us to provide precisely the solutions you need.