

# Dust Collector

## Model BMF-H

The BMF dust collectors meet the most demanding environmental protection standards, and are appropriate for the most different applications that need retention of solid and dry particles such as, for example, on blasting machines or rooms, (powder) painting, plasma, crushing plants, foundries, cement, etc. They can even be employed to collect dusts that are dangerous to the health in accordance with the certification BIA, ZH 1/487 paragraph 2. The filtering cartridges with non-woven polyester filter elements have an extraordinary capacity of retention, added to an excellent permeability to air, which makes it possible to use fans with lower pressures than other filtering elements, thus significantly reducing the power of the fans, as well as the noise level.

Another important advantage is the high useful life of these filtering elements, since it is a non-woven fabric, it features an excellent mechanical resistance and resistance to water. It can even be washed. They are highly resistant to chemical attacks and to corrosion and can be used at temperatures of up to 100°C (depending on the composition of the gasses in question). In the majority of applications this element has a useful life approximately 15/20 times longer than the filter with elements in cellulose fiber.

The exclusive fastening system of the filtering elements to the separator plate (patented) ensures perfect sealing. This, added to the high quality of the filtering element, ensures very low rates of residual dust. As an example, we mention a typical blasting application with steel grit where the volume of residual dust obtained is only 2mg/m<sup>3</sup>, much below the determinations of the CE standard that stipulates a maximum of 5mg/m<sup>3</sup>.



The BMF-H type dust collectors are built in a modular form in order to meet the most varied flow needs, and can still be grouped in order to meet large flows, thus forming multiples of the modular systems listed in the table on the reverse page. Built with a very resistant metallic structure, the dust collectors are equipped with the serial items described on the reverse page.



### Automatic cleaning system:

The filtering cartridges are automatically cleaned by a pulse-jet type system. This system consists of valves with a large flow which are controlled by an electronic board that actuates the valves in an alternate manner for a certain time (the actuation and the duration of the pulse are adjustable in order to adapt to the most different applications). The valves, when actuated, normally during approximately 10 milliseconds, release a strong jet of compressed air which has its power amplified manifold when it goes through a venturi that is positioned at the upper part of the filtering cartridge. This way, a strong air counter-flow is produced which releases the residues from the filter, which will then be deposited in the hopper located under the filters. The compressed air pressure is regulated through a filter / pressure regulator located in the air lung, where the valves are mounted.

### Hopper/Unloading valve:

The hopper, built with a strong inclination, ensures the flow of the several dusts collected, no matter how fine they are. The unloading valve is positioned at the lower part of the hopper and can be actuated manually. It performs sealing through a counterweight system.

### Air intake valve:

A butterfly type air intake valve is located beside the hopper. This valve allows the adjustment of the total flow of the manifold.

### Inspection door:

Mounted at the side of the dust collector, it allows easy access to the filtering elements for inspection and / or replacement. The exclusive sealing system ensures smooth closing and perfect sealing.

### Differential manometer:

Measures the pressure difference between two chambers located in the dust collector, thus indicating the degree of saturation of the filtering elements and providing guidance on the ideal regulation of the pulse-jet system.

### Fan:

The dust collectors are supplied with a fan or motor fan, appropriate to every need, both regarding pressure and flow. The fans are statically and dynamically balanced.

### Optional:

The BMF-H type dust collectors can be supplied with a series of optional items, among which the following stand out:

- Access platforms.
- Automatic unloading systems of the revolving valve type or with screw conveyor.
- Noise dampers.
- HEPA type rear filters that ensure extremely low levels of residual dust.

Example: in a typical blasting application with grit, a residual lower than 0.4 mg/m<sup>3</sup> is obtained.

- Air ducts and collectors.



HEPA type posterior filter



Non-woven polyester filtering element

## Technical Specifications

Model	Filters	Filtering Area (sqft)	Dimensions		
			Height (in)	Width (in)	Length (in)
BMF-02-H	02	409	110 23/64"	22 7/16"	44 7/8"
BMF-03-H	03	613	139 1/2"	22 7/16"	67 21/64"
BMF-04-H	04	818	139 1/2"	44 7/8"	44 7/8"
BMF-06-H	06	1227	139 1/2"	44 7/8"	67 21/64"
BMF-09-H	09	1840	139 1/2"	67 21/64"	67 21/64"
BMF-12-H	12	2454	139 1/2"	67 21/64"	89 3/4"
BMF-15-H	15	3067	139 1/2"	67 21/64"	88 9/16"
BMF-18-H	18	3692	139 1/2"	67 21/64"	134 5/8"
BMF-21-H	21	4294	139 1/2"	67 21/64"	157 1/16"

Note: The dimensions are approximate and do not include the fan.



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