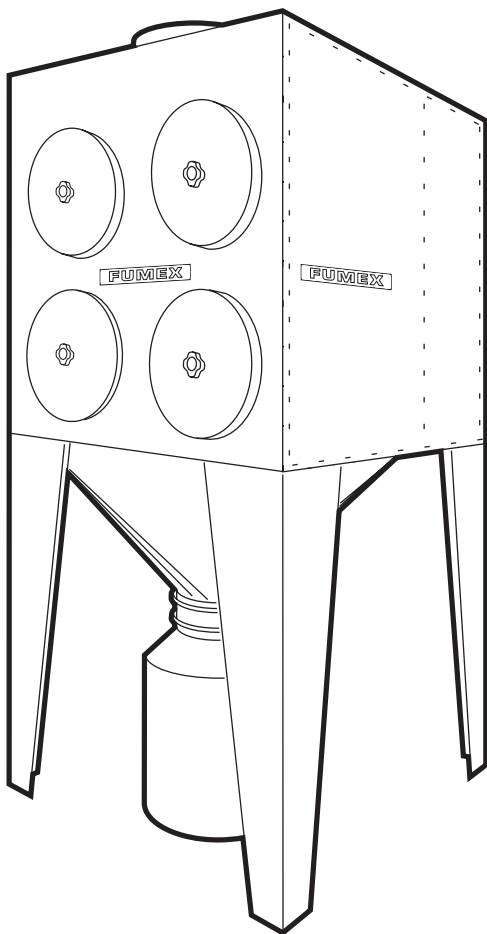


# FILTER

**Foto saknas**



## CARTRIDGE FILTER

# PF

The FUMEX PF is a modular design filter cartridge for air flows from 1000 m<sup>3</sup>/h to 65 000 m<sup>3</sup>/h with solid state control timer cleaning.

The FUMEX PF is suitable for removing dry particles and welding fumes from plants in the mechanical industry. The PF also removes other particles like cement, plaster, graphite, talcum, ceramic powder, sand and stone dust efficiently.

Each module is equipped with four horizontal filter cartridges that are cleaned with high pressure air pulses during operation.

The media, with a filtering degree from 99% to 99.9% and according to the BIA, is equivalent to EU10 to EU12.

The modular design makes it possible to assemble 16 modules with a total of 64 filter cartridges, that can handle an air flow of up to 65 000 m<sup>3</sup>/h.

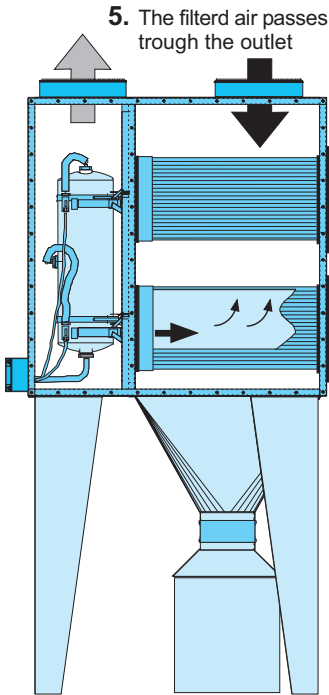
The PF provides the best filtering efficiency by using pre-treatment of filter cartridges, optimal design of the filter cabinet with ample fall room for particles as well as a suitable high pressure air flow.

The design with horizontal filter cartridges facilitates replacement.

*Fumex also offers a range of fans, accessories and automatic control devices for our local extractors.*

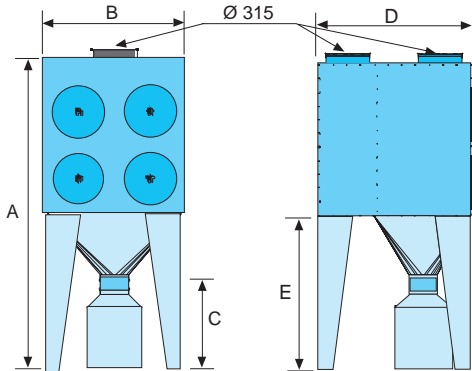
**FUMEX**<sup>®</sup>  
LOCAL EXTRACTOR  
**Pure advantage**

### This is how the cartridge filter works



5. The filtered air passes through the outlet
1. Polluted air enters the filter through the top inlet. The dust passes naturally down through the filter.
2. The filter cartridges (4x23m<sup>2</sup>) remove dust with a high separation degree, up to 99.99%. The horizontal location of the cartridges facilitate accessibility during servicing.
3. A time control diaphragm valve sends high pressure air pulses that blow the collected dust off the cartridge. The high pressure air supply must be completely free from oil and liquid, with an operating pressure of 6.5 bar.
4. The dust is then collected in the hopper and carried down into the dust collector.

### Specification measurements weights



\*Designation PF a-b: a= number of modules horizontally b= number of modules vertically

Dimensions PF a - b*	Number of cartridges	Filter Area m <sup>2</sup>	A mm	B mm	Weight kg
PF 1	4	92	2200	1000	210
PF 1-2	8	184	3000	1000	360
PF 2-1	8	184	2200	2000	400
PF 1-3	12	276	4400	1000	500
PF 3-1	12	276	2200	3000	580
PF 1-4	16	368	5500	1000	650
PF 2-2	16	368	3300	2000	660
PF 4-1	16	368	2200	4000	670
PF 2-3	24	552	4400	2000	920
PF 3-2	24	552	3300	3000	960
PF 2-4	32	736	5500	2000	1180
PF 4-2	32	736	3300	4000	1260
PF 3-3	36	828	4400	3000	1340
PF 3-4	48	1104	5500	3000	1670
PF 4-3	48	1104	4400	4000	1700
PF 4-4	64	1472	5500	4000	2200

### Specification\*

Pollution	Max. air flow per module	Type of cartridge
Welding fumes	3 300 m <sup>3</sup> /h	Flame resistant/polyester
Plasma & Laser cutting fumes	1 650 m <sup>3</sup> /h	Flame resistant/polyester
Metal grinding dust	4 100 m <sup>3</sup> /h	Flame resistant
Sand	4 100 m <sup>3</sup> /h	Standard/polyester
Stone dust	4 100 m <sup>3</sup> /h	Standard/polyester

The amount of air that can be treated by each module is, among other things, determined by kind of pollution, particle size and concentration

At small particle sizes and high concentrations, a smaller amount of air can be treated per module than at large particle sizes and low concentrations.

At concentrations over 2.0-4.0 g/m<sup>3</sup>/h depending on kind of dust, pre-separation is recommended.

\*N.B! The table is only a key diagram, please contact FUMEX for exact dimensioning.

### Filter types

All filter cartridges are tested according to BIA and are standard types.

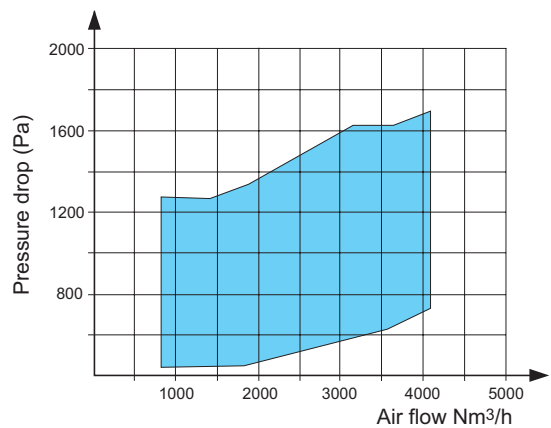
**Standard** Phenol resin-treated cellulose with a high degree of filtering BIA USG (99% 0.3m), suitable for most applications.

**Flame-resistant** Special-treated cellulose with a high degree of filtering BIA USG (99% 0.3m), suitable for worksites with sparking risk.

**Polyester** Polyester filter with a high efficiency BIA USGC (99% 0.3m), suitable for worksites with abrasive material.

The pre-treated filter cartridges provide a very high efficiency. For special requests, other filter cartridges than the ones mentioned are available to order.

### Pressure drop including filter cartridges



The fan should be selected to produce a pressure drop close to the one in the upper graph, since the filter cartridges during the greater part of their life, work in an area higher than 50% of the final pressure drop. In order to compensate for the low initial pressure drop, an adjusting valve must be mounted between the filter and the fan.