

EF VOL

Electrostatic Line





PRODUCT

Electrostatic filters “EF-VOL” are designed for providing a free electrostatic air filtration, so without the installation of a suction system.

If an industrial area is affected by a problem of generalised pollution, that affects the entire structure or a considerable part of it, it is both technically and economically convenient intervening with a filtration that covers the volume of the entire polluted area (from this derives the name of the model).

If it is not possible installing capillary filtration systems or if it is necessary improving the efficiency of a centralized system, the use of “EF-VOL” filters becomes indispensable. Those filters are suitable for pollutants like welding fumes, processing fumes, powder and oil mists of various origins.

“EF-VOL” electrostatic filters are constructed with a strong structure of bent sheet metal, suitable for the suspended installation; the height from the ground can vary, according to the consistency and the density of the pollutants, from 3 to 5 meters.

The units are equipped with a conveyor (for the air inlet); a suction fan with baffles for the correct addressing of air in outlet; a control panel separated from the unit for an easy installation of the unit into the structure; an electric panel placed on the machine with a red light that signals the anomalies (well visible also from a big distance).

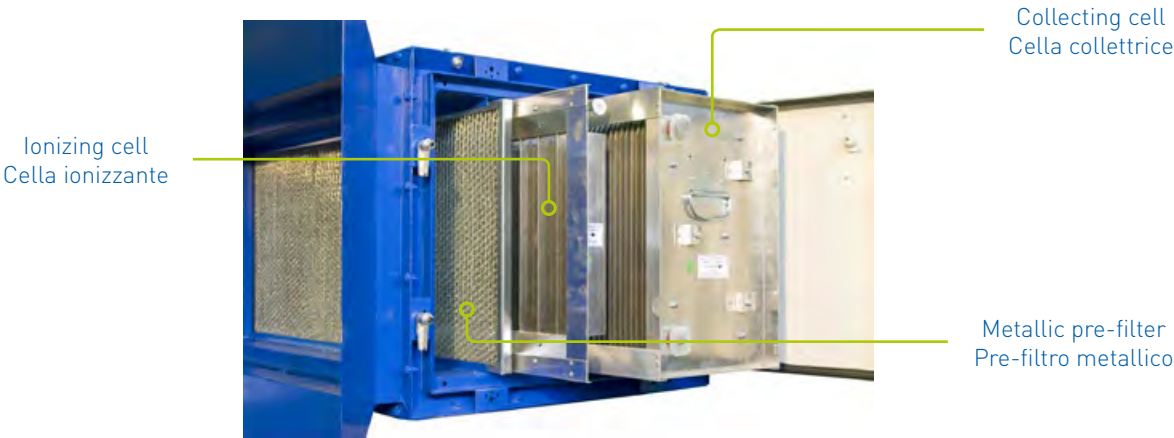
The height from the ground for the installation of the volumetric should be calculated according to the type of pollutant and the structure of the building.

FEATURES

Electrostatic filters ensure the purification of the air from polluting elements like fumes, dusts, oil mists, welding and processing fumes. Those pollutants can have granulometry with values that vary from 10 to 0,01 micron.

The flow resistance of the electrostatic filter can vary from 40 Pascal (filter clean) to 80 Pascal (filter dirty).

The inlet concentration of the pollutant can be up to 50 mg/m. the temperature of the fluid must not exceed 60°C and the relative humidity can vary from 20% to 99%.

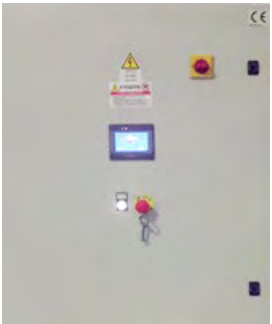


OPERATING PRINCIPLE

The polluted particles contained within the gaseous flow, passing through the ionising section, are charged with unipolar electricity (thanks to the tungsten wires fed with 10 kV direct current suspended between electrodes connected to the ground).

In the following collecting section (composed by pure aluminium plates fed with 5Kv current, alternated with plates connected to the ground) the particles are repelled by the plates fed to the plates connected to the ground.

Those last plates have the function to catch the polluting particles present in the fluid. The polluting particles kept in the filter must be periodically removed with simple maintenance operations.



AUTOMATIC MONITORING SYSTEM

The Automatic Monitoring System (AMS) is an electronic control device which allows to manage the filtering unit. Available with remote access and in two different versions for the models AR VOL:

- AMS Local: each single machine has its own AMS alphanumeric;
- AMS Centralized: there is a centralized touch screen with all the graphic monitoring functions for more than one machines.

Model	Electrostatic filters (Nr.)	Total Power (W)	Nominal air-flow (m³/h)	Electrical connection	Noise level (dB(A))	Weight (Kg)
EF 1x1 VOL	1	250	2.500	230V-1PH/50Hz	70	105
EF 2x1 VOL	2	500	5.000	230V-1PH/50Hz	72	210
EF 1x2 VOL	2	500	5.000	230V-1PH/50Hz	72	210
EF 2x2 VOL	4	550	10.000	400V-3PH+N/50Hz	73	400

