FILTERING UNITS | Centralized systems

Modular expandable filters

FILTERING UNIT MODULES

Filter modules were developed for use as filtration systems in centralized systems or individual work stations for the extraction of welding fumes.
They are proposed in three versions, different from each other by type of filtration and the context to be used in depending on the pollutant that must be filtrated:

- **electrostatic filtration**: the particles can be solid or liquid, but it is particularly suitable for the treatment of powders and fumes. The particle separation take place by applying a high potential difference between the emission and collection electrodes: in this way a strong electric field is created and the air flow is ionized. The resulting ions collide with the polluting particles by giving them an electric charge. In this way, the charged powders are drawn to the collecting electrodes where they are retained and subsequently removed;

- **mechanical filtration with rigid bag pocket filters**: suitable for powders. The separation of the solid particles present in the airflow to be treated, is made by using a physical filtering element. Before this phase there is a pre-filtering step for the abatement of coarse powders which is performed through the use of panels;
- **filtration with activated carbons**: suitable to intercept almost all compounds of organic origin (VOCs and odorous emission), and many of inorganic origin. The **adsorption** consists in **removing and retaining the gas molecules** and other pollutants within the cavities existing on the coal, and this thanks to electrostatic bonds.

The three types in some cases may be combined with each other (e.g. mechanical + activated carbon) to get even more complete solutions.

Given the high level of efficiency of the filters installed in the various modules they can be

extended also to handle other types of fumes. For example, depending on their composition, these filters can handle welding fumes (also oil laden), for air treatment in civil plants, to eliminate low concentration of airborne solvent, and for general deodorization processes. Given their compact dimensions, the filters can be installed in confined spaces. In addition, smaller equipments may have hanging applications, in order to optimize the use of available space in the workplace.
Contact us to know prices and special discounts related to these products!