Panel Filter RELIM with FIBERPLAST-frame

FUNCTIONALITY, QUALITY, INNOVATION

Kalthoff RELIM panel filters in the filter classes G4-F9/EN 779 as well as ISO ePM10 - ISO ePM1/ISO 16890 guarantee efficient air filtration and low pressure drops through the utilization of synthetic multi-layer micro spunbond. The FIBERPLAST-frame provides the filter media with secure sealing, a high level of stiffness and the maintenance of dimensional accuracy, as well as the possibility of residue-free combustion.

1 HIGH **PROCESSING STANDARD**

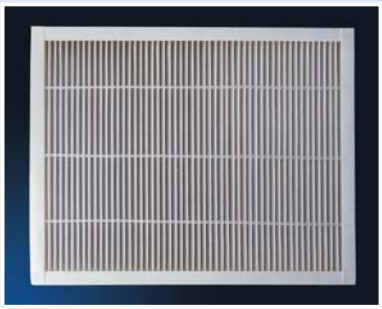
RELIM panel filters are water-rejecting, moisture-proof and microbiologically inert. The utilization of fully-synthetic materials supports a hygienic, trouble-free operation as required in VDI Directive 6022.

The processing standard is characterized by the retention of dimensional accuracy, orthogonality and streamlined contours. The inflammability test in accordance with DIN 53438 results in Fire Classification F1 "self-extinguishing". A secure and reliable operation is guaranteed.

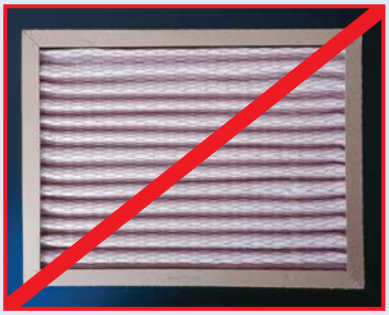
Traditional filters are frequently provided with decomposable, moisture-sensitive cardboard frames, inconsistent processing with high leakage rates and deficient maintenance of dimensional accuracy, which prevents hygienic trouble-free operation.

2 LOW **PRESSURE DROPS**

Kalthoff RELIM panel filters have a filter surface area three times higher than usual traditional panel filters. Filter media velocity and pressure drops are lowered significantly, and this results in a saving on energy costs.



Optimized pleat distances allow for a uniform airflow and maximum utilization of filter area. This enables long service lives with low operating costs.



On the other hand, wide and inaccurate pleating implementation leads to small filter areas. These filter types are characterized by short service lives and high operating costs.

Your partner for filter technology

Kalthoff Luftfilter und Filtermedien GmbH | Tel.: +49-2592-965-0 | www.kalthoff-luftfilter.de

3 HIGH **FILTER SECURITY**

The application of a leak-free hot-melt bond allows for maximum sealing between filter media and frame. As a result of this, the airstream is possible to access the border areas of the filter.

The exact and leak-free geometry of the filter is identifiable under the frame cut to size. As a result of this, a high level of filter security is guaranteed up to filter class F9/EN 779 resp. ISO ePM1/ISO 16890.

Traditional filters are frequentliy only folded over in the border area. High leakage rates prevent their application above filter class G4/EN 779 resp. ISO Coarse/ISO 16890.

4 OPTIMIZED **PLEATING GEOMETRY**

A significant feature of the Kalthoff RELIM panel filters is the high level of uniformity and accessibility of the filter media. The sharp V-shaped pleating structure enables a maximum depth effect.

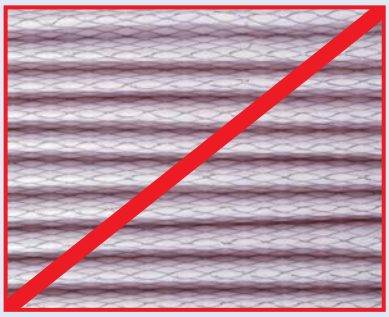
The hot-melt pleating system provides for complete filter media use with favorable differential pressure drop characteristics and a longer filter service life.

Large pleat distances and round pleat shapes: The airflow scarely reaches the pleating ground. Dust deposition occurs on the surface and service lives are reduced.

5 MAXIMUM **ENVIRONMENTAL COMPATIBILITY**

All components of the RELIM filters are based on a pure-grade polyester-polyolefin combination. The filter media are free of binding agents, solvents or coloring agents.

The design type completely dispenses with metal parts and glass-fiber component parts, for which only pure organic polymers as specified by VDI 6022 are used.



Metal braces or mesh are frequently used for stabilization. These hinder waste disposal and increase waste volume and weight.