

### 12.2.1 DESCRIPTION

#### EPE Italiana Filter Elements for filters

##### Application

Filtration of hydraulic fluids, lubricants, industrial liquids and gases.

##### Construction

Special star pleated media filter, mounted on a perforated support tube. It is glued with a 2-component adhesive in a longitudinal direction and with metal end-caps.

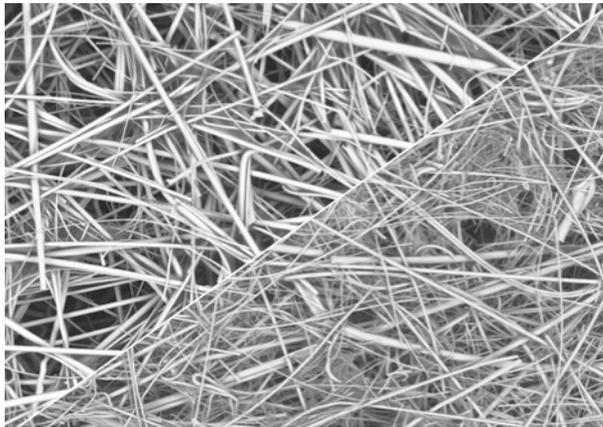
Sealed with O-ring or profile seal.

##### Media Filter H...XL

Combination of inorganic glass fibre paper laminated with protective non-woven media, high dirt holding capacity through 2-layer glass fibre technique.

Filtration grade: 1/3/6/10/16/20  $\mu\text{m}$  "absolute". For performance data complying with ISO 16889, please refer to "filter element characteristics".

Use: for highest cleanliness requirements of hydraulic fluids and lubricants. Non cleanable.



12.2a

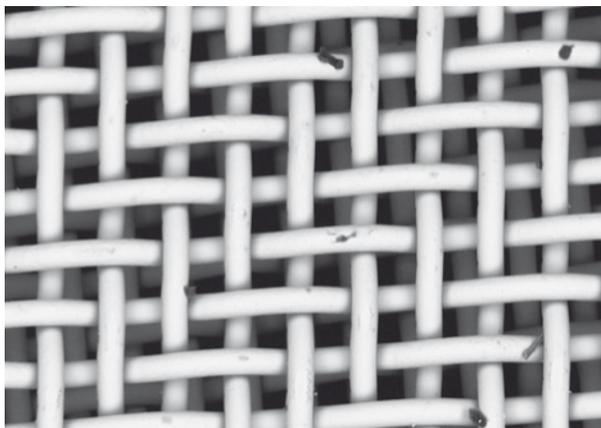
##### G...

Surface filter made of stainless steel mesh underlaid with supporting mesh.

Mesh size: 10-1500  $\mu\text{m}$ .

Use: For protective, surface, coarse and pre-filtration.

Cleanable, regenerative.



12.2b



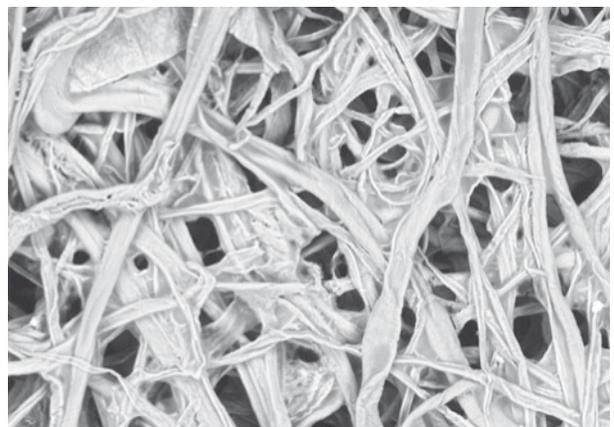
12.2c

##### P...

Low-priced depth filter made of filter paper, underlaid with supporting mesh. Made of special impregnated cellulose fibres to resist moisture and swelling.

Nominal filtration grade: 5/10/25  $\mu\text{m}$ .

Use: for coarse and preliminary filtration. Non cleanable.



12.2d

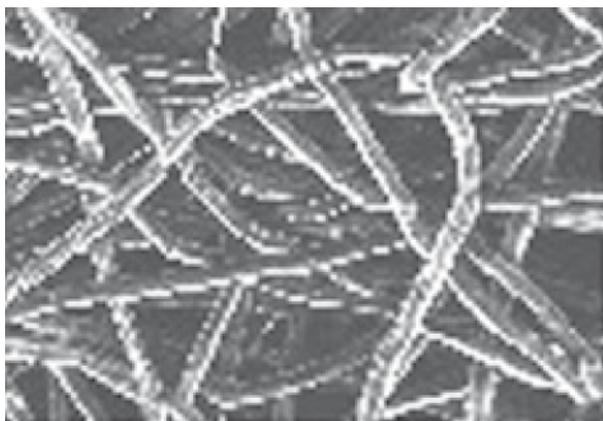
##### M...

Depth filter in stainless steel fibre with supporting fabric underlay.

Filtration grade 5, 10, 15  $\mu\text{m}$  "absolute" according to ISO 16889.

Use: for highest cleanliness requirements with aggressive industrial and chemical liquids at high operating temperatures.

Cleanable dependent on application.



12.2e

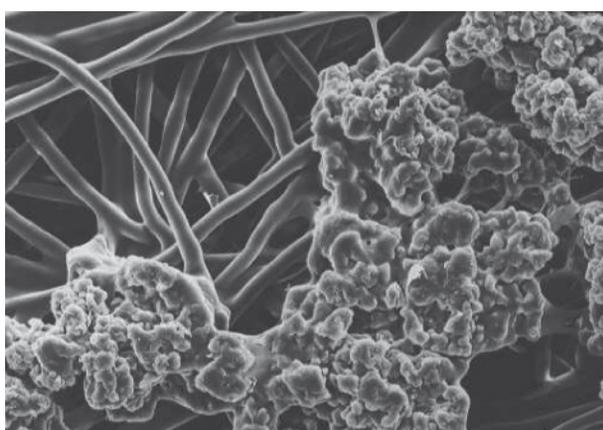
**VS...**

Surface filter of extremely solid reinforced fibre made of polyethylene-wrapped polypropylene fibre.

Filtration grade: 25, 40 and 60  $\mu\text{m}$  nominal.

Use: surface, coarse and pre-filtration.

Especially recommended for cooling lubricants. Non cleanable



12.2f

**AS...**

Nonwoven media with water-adsorbent material combined with glass fibre paper.

Filtration grade: 1/3/6/10/20  $\mu\text{m}$  "absolute" according to ISO 16889.

Use: Dehydration of hydraulics, lubricants and air. Non cleanable.



12.2g

**Filtration grade and achievable oil cleanliness code**

Besides the direct protection of machine components, the most important target when using an industrial filter is to achieve oil cleanliness. This is defined by oil cleanliness codes which classify the particle size distribution of the existing contamination.

**Filtration ratio  $\beta_x$** 

The filtration ratio  $\beta_x$  represents the most important filter efficiency characteristic for a hydraulic filter. The average value during initial and final test  $\Delta p$  is measured by the multi pass test method according to ISO 16889, using ISOMTD test dust contaminant. It is defined as the ratio of particles upstream divided by the particles downstream larger than the size of interest.

Previously, the  $\beta$  - ratio was measured according to the multi pass test as per ISO 4572. The test results from ISO 4572 are not directly comparable to those of ISO 16889. Further information about the  $\beta$  - ratio characteristic is given in our technical documentations.

**Dirt holding capacity**

This is also measured using the Multipass test and gives the amount of test dust ACFTD or ISOMTD that the filter media can retain until a definite increase in pressure is reached.

Compared to the conventional filter material, the EPE material displays superior dirt holding capacity, due to its two separate filter layers.

 **$\Delta p$  (Pressure Drop)**

The sizing of the EPE filter and filter element by means of the initial  $\Delta p$  or pressure drop can be easily carried out with the filter data sheet.

**Filter Element Test**

EPE Filter elements are tested at our own test benches in accordance with various ISO test standards.



12.2h

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In the spirit of continuous improvement, our products may be changed.