



M&S-Dirt collecting filter general information

M&S dirt collecting filters are used for the filtration of pumpable media in a pipeline. Unwanted particles are filtered out so that downstream components are protected. Basically, they consist of a cylindrical housing with a cylindrical strainer insert made of perforated plate, gauze or slotted tube.

In contrast to the angular filters, dirt collecting filters have a smaller screen body with a lower capacity for dirt collection. These inserts also have a higher pressure loss due to the smaller open area in the screen body. The design of the housing facilitates easy removal and cleaning of the strainer insert without having to dismantle the actual pipeline.

M&S-Dirt collecting filter	Preferred flow direction
	

Usage	Features	Versions
<ul style="list-style-type: none"> Retention and removal of unwanted particles by size in pumpable media; Protection against foreign particles in sensitive plant components, such as pumps, apparatus and valves; Ensuring the required product quality. 		

Usage	Features	Versions
<ul style="list-style-type: none"> Flow in both directions possible with perforated plate or sandwich version; Simple assembly and handling; Very easy to clean and sterilise; Sieve cleaning without removing the housing; Sieve body with cover and support ring seal welded (figure 1) or partially welded (figure 2), depending on the version; Hygienic sealing of the sieve seat by means of an O-ring; Stable design of the strainer insert. 		 <p>Fig. 1</p>  <p>Fig. 2</p>



Usage	Features	Versions
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- Sizes: DN 25 bis DN 100;
- Permissible operating pressure:
 - * 10 bar;
- Process connections:
 - * Weld ends according to EN10357;
 - * Connecting elements from the M&S product range or others according to customer requirements;
- Materials:
 - * Housing: 1.4301/AISI 304, 1.4404/AISI 316L, other stainless steels, titanium or hastelloy
 - * Gaskets (FDA compliant): EPDM, FKM, HNBR;

• **Strainer insert**

- * Welded version (standard);
- * Plugged version with O-ring seal inside the blind cover;
- * Screwed version with round thread screwed into the blind cover.

• **Sieve body**

- * Perforated plate (round holes 0,5 mm to 10 mm, figure 3);
- * Perforated plate with gauze (45 µm to 1000 µm), internal or external, depending on the flow direction;
- * Sandwich version: combination of perforated plate/gauze/perforated plate (figure 4);
- * Slotted screen from 10 µm to 5000 µm (figure 5);
 - ◆ Flow direction inside to outside (FITO);
 - ◆ Flow direction outside to inside (FOTI);

The slotted tube screen consists of a radially arranged wedge-shaped profile wire, which is welded on the inside with support wires.

The filter fineness is determined by the spacing of the profile wire (figure 6).

The profile wire is impinged on the head side and the impurities are retained. The wedge-shaped geometry prevents blocking on the opposite side of the wire.

The stable design and the wedge-shaped geometry of the slotted tube screen allows very good backwashability.

Fig. 3

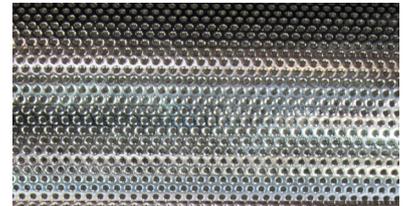


Fig. 4

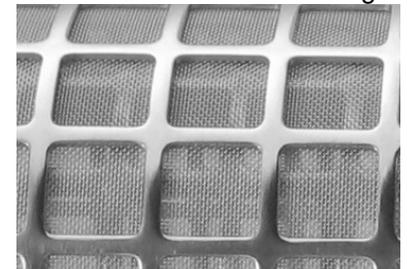


Fig. 5

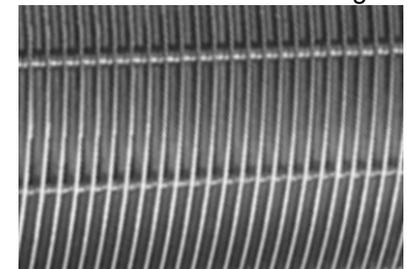
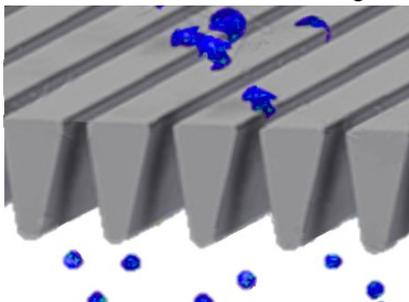


Fig. 6



Versions with modifications for different requirements available (see further product information sieves: safety, process, handling, hygiene)