



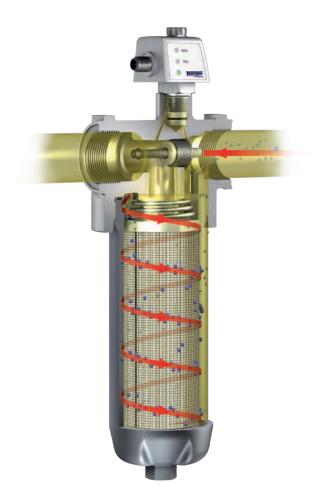
## Filter Elements Generation 5

with PURE POWER



## Sustainable reduction filtration costs

Filters ensure high system reliability in machines and systems with liquid operating media. As part of a holistic filtration concept, Hengst has completely revised their filter material. The development focus was on increasing the dirt-holding capacity compared to the previous design. This extends the replacement intervals and reduces labor, material and disposal costs.





The incoming fluid no longer flows directly on the filter element, but flows tangentially to it and moves downwards around the filter element in a helical pattern. This feature, for which a patent

is pending, transports heavy dirt particles to the outside and prevents the filter pores from blocking prematurely These heavier particles will accumulate on the inside and bottom of the filter bowl, depending on the actual fluid flow conditions, increasing the dirt holding capacity and extending the time between element replacements by 7-10 %.



Filter elements with PURE POWER now absorb up to 50 % more particles, with a comparable retention rate and low differential pressure. All filter elements are equipped with an electrically

conductive fleece as a standard feature, this reduces the risk of electrostatic charging and discharging in the filter.

## The Filter Element with PURE POWER

The filter element consists of a 6-layer material combination, the core of which is made up of asymmetrically arranged filter layers of inorganic glass fiber layers. The layers are designed in such a way, that the combination achieves a high retention rate and dirt holding capacity, in conjunction with a low clean differential pressure drop. This increase in performance is achieved by means of three effective micro-glass layers in combination with an electrically conductive fleece and support fabric as part of the standard range. This increased performance is achieved by three effective micro glass layers as standard in combination with an electrically conductive layer and a supporting mesh. The filter material is pleated and wrapped cylindrically round the support tube and glued so it is impermeable to liquid along the material seam and top and bottom end caps.

The below cut away pattern shows the fan shaped structure of filter element.



① **Supporting mesh**—Supporting mesh is used to protect filter material on the inlet flow



Micro glass-pre filter to relieve the intermediate and main filter regarding of dirt holding capacity

③ Intermediate-filter

Micro glass-intermediate filter for supporting the main filter

(4) Main-filter

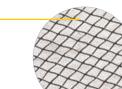
Micro glass-main filter for fine particle filtration and ensuring the nominal filter fineness

**(5)** Electrically conductive layer

Protective layer – antistatic finished, reduces the risk of electrostatically charge and discharge in the filter system

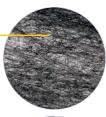
6 Supporting mesh

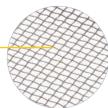
Supporting mesh is used for filter material protection on the downstream side













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