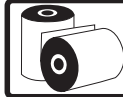




## Optimicron® Pulp & Paper Filter Elements ON/PP

for use in paper mills  
up to 10 bar



**Optimicron®**  
Pulp & Paper

### 1. OPTIMICRON® PULP & PAPER ELEMENT

#### 1.1 DESCRIPTION

Drawing on HYDAC's many years of experience in the paper and pulp industry our new Optimicron® Pulp & Paper series elements have been specially developed for use in paper mills. Typically they are used in classic lubrication applications such as the dry and wet end, in the calender and in the cooling oil filtration circuit of the press section.

Thanks to innovative characteristics such as the HELIOS pleat geometry and the optimised micro-glass media, the new industry-specific filter elements satisfy the typical requirements demanded of a filter element in such applications.



#### 1.2 GENERAL DATA

Collapse stability	10 bar for return line filter elements
Temperature range	-30 °C to +100 °C For sealing material FPM to -10 °C
Flow direction	From outside to inside
Filtration rating	5 µm, 10 µm
Bypass cracking pressure	Return line filter element ("R"): standard 3 bar (others on request)
Category of filter element	Single use element

#### 1.3 STAT-FREE® ELEMENT TECHNOLOGY OPTIONAL

By completely revising the materials used, e.g. through the use of conductive plastics, fully discharge-capable filter elements are the result. Electrical charging of the filter elements during operation has therefore been reduced to a negligible level. The risks of sudden sparking and the subsequent formation of soot or sludge in the oil are therefore reliably eliminated.

With the new Stat-Free® filter elements, HYDAC has for the first time succeeded in combining excellent electrostatic characteristics with filtration performance. Unprecedented low charge generation in the filter element and in the system fluid is achieved with a new type of filter mesh pack and element design.



#### 1.4 INNOVATIVE OUTER WRAP WITH IMPROVED DIFFUSER EFFECT FOR PRINTING WITH CUSTOMER LOGO

Since the outer wrap can be printed with the customer logo, it also acts as an advertising medium for the OEM and guarantees security of the spares business. At the same time, the user can be certain of obtaining an original spare part. Particular benefit: the logo remains perfectly legible even in the contaminated condition.



#### 1.5 COMPATIBILITY WITH HYDRAULIC FLUIDS TO ISO 2943

- Hydraulic oils H to HLPD DIN 51524
- Lubrication oils DIN 51517, API, ACEA, DIN 51515, ISO 6743
- Compressor oils DIN 51506
- Biodegradable operating fluids VDMA 24568 HETG, HEES, HEPG
- Fire-resistant fluids HFA, HFB, HFC and HFD
- Operating fluids with high water content (>50% water content) on request

## 2. MODEL CODE

### 2.1 MODEL CODE FOR STANDARD RETURN LINE FILTER ELEMENTS

(Can be used in filters: NF und NFD, starting at size 1340)

	1300	R	005	ON/PP	/-KB
<b>Size</b> 1300, 2600					
<b>Type</b> R Return line filter element					
<b>Filtration rating in µm</b> 005, 010					
<b>Filter material of element</b> ON/PP Optimicron® Pulp & Paper, collapse stability up to 10 bar					
<b>Supplementary details</b>					
V FPM (Viton) seal					
KB without bypass valve					
SFREE Stat-Free® element technology					

## 3. FILTER CALCULATION / SIZING

The total pressure drop of a filter at a certain flow rate Q is the sum of the housing  $\Delta p$  and the element  $\Delta p$  and is calculated as follows:

$$\Delta p_{\text{total}} = \Delta p_{\text{housing}} + \Delta p_{\text{element}}$$

$\Delta p_{\text{housing}}$  = see housing curve in the relevant filter brochure

$$\Delta p_{\text{element}} = Q \cdot \frac{SK^*}{1000} \cdot \frac{\text{viscosity}}{30}$$

(\*see Point 4.1)

## NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

## 4. ELEMENT CHARACTERISTICS

### 4.1 GRADIENT COEFFICIENTS FOR FILTER ELEMENTS

The gradient coefficients in mbar/(l/min) apply to mineral oils with a kinematic viscosity of 30 mm<sup>2</sup>/s. The pressure drop changes proportionally to the change in viscosity.

Return line filter element "R"...ON/PP		
Size	5 µm	10 µm
1300	0.59	0.35
2600	0.29	0.18

For information on bypass valve curves, please see Filter Element (Quick Selection) brochure no.: E 7.221../..

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