



## Your project - Together we succeed

### Return Filter -Series RFI 606 / 1006

#### INITIAL SITUATION

Compared to the currently used tank compartment solution, a future-proof and robust return filter concept was to be developed for new generations of wheeled excavators, which could be more easily integrated into the tank. In this context, the inlet from below and the bundling of several system returns by an external collector were requested. The return flow from the filter needed to be at the lowest possible velocities just below the surface of the oil to allow optimum air bubble separation.

#### SOLUTION

Together with the customer, a new filter series was developed combining many detailed solutions from familiar ARGO-HYTOS filters in a unique manner. In particular, the introduction of an injection-molded plastic filter bowl is an innovation for this performance class. The filter bowl and element are built into the tank, with only an aluminum cover visible on the tank surface.

The bypass valve, which is responsible for limiting the pressure in the return line, is connected thereon. Also attached to the cover are centering ribs providing for the centering of the filter element. Especially in this application with strong vibrations and shocks, they ensure a secure hold.

During operation, the hydraulic medium is fed through a generous connecting cross-section into the inner part of the filter element. There it distributes itself homogeneously and flows through the filter bellows from the inside to the outside.

This is where EXAPOR®MAX 3, the latest generation of ARGO-HYTOS filter material, is used. An end plate with a pressure-supported sealing lip connects the element to the bypass valve and filter bowl. This provides copy protection preventing the potential use of non-genuine filter elements.

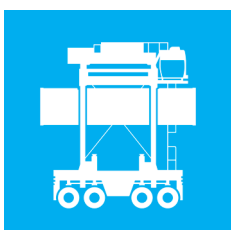
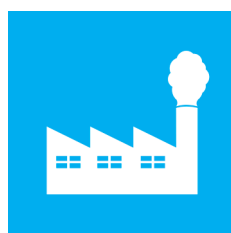
- Connection diameter 75 mm, with radial O-ring seal
- Nominal flow rate up to 1,000 l/min at 16 µm(c) fineness
- Cover made of corrosion-resistant aluminum
- Filter housing made of polyamide
- Max. operating pressure 8 bar
- Bypass valve response pressure 2.5 bar

### CUSTOMER BENEFIT

- Cost-optimized filter design through use of plastic parts with high functional integration
- Designed for an external collector, which allows optimized hose routing and a tidy tank surface
- Flow direction of the filter element from the inside to the outside and large out-flow cross-sections provide the best conditions for natural outgassing of air from the oil
- Service work is facilitated, among other things, by the plastic sealing lip which ensures low assembly forces
- No risk of plagiarism thanks to standard copy protection on the filter element



### APPLICATIONS



### Curious?

Do you have a similar challenge for us? Our expert Mr. Kaliciak will be happy to advise you!



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