



Your project – Together we succeed

Tank-mounted return filter E 451-156
with AirEX air separation

INITIAL SITUATION

Air in hydraulic fluids has been a recurring topic at hydraulics conferences in recent years. The reason for this lies in the sometimes serious effects that air can have in the hydraulic system. Since air is a gas mixture containing approx. 20% oxygen, it not only increases the compressibility, but also the oxidation rate and thus the aging of the hydraulic medium. Free air can also favor the combustion of the oil (diesel effect) and thus generate very high temperatures locally. Therefore, the typical effects of air in the hydraulic system are dynamic operating problems due to increased compressibility, accelerated oil aging / micro-diesel effect, temperature increase, efficiency losses in pumps, cavitation damage to components and noise generation.

At a „Tech Day“ in February 2020, a customer largely confirmed the occurrence of these effects. Especially when starting the machines, it was observed that a lot of free

air is generated by the negative pressure in the suction line. During the investigation of pump damages with transparent suction hoses, this fact was also proven.

At the time of the „Tech Day“, our customer had not yet found an adequate solution to this problem.

SOLUTION

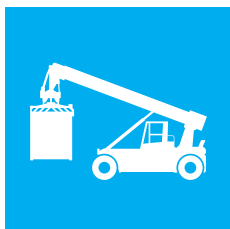
ARGO-HYTOS had almost simultaneously developed a new type of air separation system for return filters, which is currently available in two different designs. The AirEX air separator in TE design attached to the filter outlet was ideally suited to the requirements of the above-mentioned customer, as it did not require any modification to the tank design and can also be retrofitted. The AirEX air separation module reduces the air content in the hydraulic system by an average of 40% (taking into account all working conditions), independent of volume flow and viscosity.

CUSTOMER BENEFITS

- Reduction of the air content in the hydraulic system by up to 40%
- Avoidance of cavitation damage
- Reduction of the oil change quantity and extension of the oil change interval
- Easy adaptation to all ARGO-HYTOS return filters
- Reduction of the tank volume by up to 30% possible
- Cost and installation space savings
- Maximum availability due to reduced downtimes of the working machines



APPLICATIONS



Curious?

Do you have a similar challenge for us?

Our experts will be happy to advise you!



Mr. Eduard Koch
Phone: +49 7250 76-431

ARGO-HYTOS GMBH
Industriestrasse 9
76703 Kraichtal-Menzingen
Germany