

Filter Elements

EXAPOR®AQUA

For water separation



EXAPOR®AQUA Filter Elements



Oil Service Unit FAPC 016



Off-line Filter Unit FNA 008/016

Description

Application

Quick and efficient dewatering of hydraulic and lubrication oils.

Water in hydraulic and lubrication oils may have the following causes:

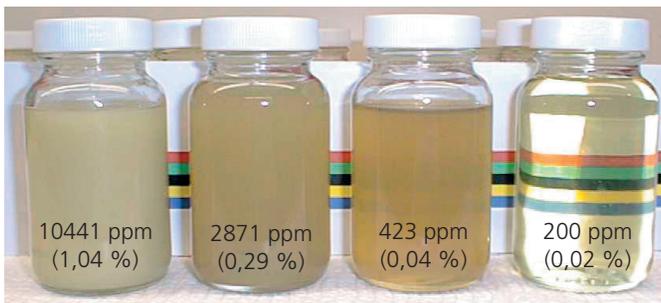
- › Cooler breakage
- › Environment humidity
- › Spray-water
- › Fresh oil

Already small quantities of free water in oil can lead to acidification. Corrosion of surfaces at components can be the result. Due to free water, the oil characteristics change, e.g. decreased load-carrying capacity, reduced temperature resistance. In order to avoid economic damage, the oil must be protected against free water or existing water must be withdrawn as fast as possible.

Large water quantities can be withdrawn by oil change, flushing of the system or with dewatering units. At systems with hygroscopic oils (materials that absorb water are described as hygroscopic) or with permanent water entry through seals (e.g. hydraulic excavator used in water constructions), ARGO-HYTOS off-line filters and filter units with EXAPOR®AQUA filter elements can be permanently installed in the system, in order to withdraw water. To withdraw remaining water quantities, e.g. after new filling, the ARGO-HYTOS EXAPOR®AQUA elements in portable off-line filter units also can be used during operation of the system.

EXAPOR®AQUA filter elements are applicable in different ARGO-HYTOS filter units. Depending on the operating situation, the water absorption amounts to approx. 350 ml / element. The combination of water absorbing filter layers with micro-filter material also allows the use of EXAPOR®AQUA in hydraulic and lubrication systems with high requirements to the oil cleanliness.

The efficiency of the EXAPOR®AQUA filter elements can be analyzed on-site. As long as a turbidity is visible in the cooled down oil, the water content is, in most cases, unacceptably high. If the cooled down oil sample appears clear, the water content usually lies in the permissible range. An exact measurement of the water content is made by an oil sample analysis in the laboratory (e.g. water content regulation with the Karl Fischer method in accordance to DIN 51777).



Oil samples with varying water content

Selection chart

| EXAPOR®AQUA Filter element designation | Water capacity per element at $v = 30 \text{ mm}^2/\text{s}$ / 140 SUS | | Filter fineness | Dirt-holding capacity (values in g test dust ISO MTD according to ISO 16889) | | | Applicable in ARGO-HYTOS filter units |
|--|---|------|--------------------|---|-------|------|--|
| | ml | gal | | | l/min | gpm | |
| Y7.1560-05 | 1520 | 0.40 | 7 μm | 590 g at | 45 | 11.9 | FNA 045, UM 045, UMPC 045 |
| Y7.1220-113 | 340 | 0.09 | 3 μm | 64 g at | 60 | 15.9 | FA 008, FA 016, FAPC 016, FNA 008, FNA 016 (with filter element size V7.1220) |
| Y7.1220-05 | 370 | 0.10 | 7 μm | 44 g at | 60 | 15.9 | FA 008, FA 016, FAPC 016, FNA 008, FNA 016 (with filter element size V7.1220) |
| Y7.1230-153 | 520 | 0.14 | 3 μm | 130 g at | 60 | 15.9 | FN 060, FNS 060, FNA 040 |