

Water Absorbing Filter Elements



EXAPOR® AQUA

Quick and efficient dewatering of hydraulic and lubrication oils

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

- Radiator leakage
- 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 changes, 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 In order to avoid economic damage, the oil must be protected against free water or existing water must be withdrawn as fast as possible.

Large water quantities can be withdrawn by oil change, flushing of the system with dewatering units. On systems with hygroscopic (materials that absorb water are described as hygroscopic) oils 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 installed permanent 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. 1300 ml/element. The combination of water-



Filling unit
FA 016



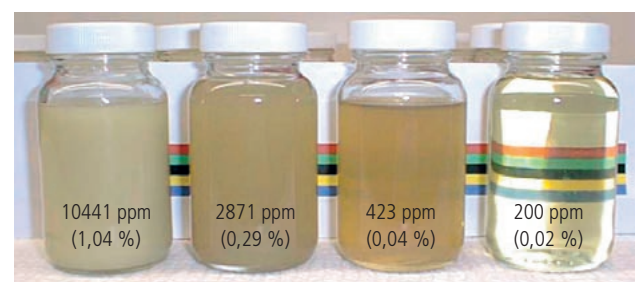
Oil service unit
UM / UMP 045

absorbing filter layers with micro-filter material in the EXAPOR® AQUA also permits the use in hydraulic and lubrication systems with high requirements to the oil cleanliness.

Simply the cooled down oil sample can be judged optically. As long as a turbidity is visible in the cooled down oil, the water content will be 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 after the Karl Fischer method in accordance with DIN 51777).



EXAPOR® AQUA filter elements



Oil samples with varying water content

EXAPOR® AQUA Filter element	Water capacity per element at $v = 30 \text{ mm}^2/\text{s}$	Filter fineness	Dirt-holding capacity (values in g test dust ISO MTD according to ISO 16889)	Applicable in ARGO-HYTOS filter units
Y7.1220-05	350 ml	8E-A $\beta_{8(c)} \geq 200$	64 g	FA 016, FNA 008, FNA 016, FAPC 016 (with filter element size V7.1220)
Y7.1560-05	1300 ml	8E-A $\beta_{8(c)} \geq 200$	240 g	UM 045, UMP 045, FNA 045



We produce fluid power solutions

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