

ULTIDRI[®]

CLEAN DRY OIL



OIL & GAS SEPARATIONS



ULTIDRI® launches a revolution in achieving clean, dry oil. It combines Pentair's advanced separation technologies with a patented water removal design and process to provide the first, easy-to-use, oil dehydration system.

ULTIDRI® removes free, emulsified and dissolved water from petroleum-based and synthetic oils down to 50 ppm (0.0050%) or less. The degree of water removal will depend on the type of oil, its affinity for water or water solubility, rate of water ingress, additive package, and the size and model of the ULTIDRI® that is used.

ULTIDRI® filter-dehydrators also come with Pentair's high performance Strataform™ glass microfiber media for achieving optimum ISO cleanliness levels. Pentair's technology ensures high fluid quality while simultaneously lowering overall operating costs and reducing waste. ISO Cleanliness Code 4406 level down to 14/12/10 or lower can be obtained.

ULTIDRI CLEAN, DRY OIL

ADVANCED TECHNOLOGY

ULTIDRI® employs an advanced water removal technology developed by Pentair. The secret lies in the proprietary hollow fiber membrane contactor. This technology allows water to pass from the oil into a dry air stream (or vacuum) without the problems usually associated with conventional oil purifiers (foaming, flooding, viscosity changes, etc.). Plus, moisture removal is achieved without the need and expense of heaters or water cooled exchangers.

Not only does ULTIDRI® remove free, emulsified and dissolved water (as well as particulates and gases), but its patented technology brings a whole new concept to the industry - scalable modularity. That means that while ULTIDRI® technology can be used for large and expensive equipment, it can also be scaled down in size for virtually any flow rate at a cost-effective price! Scalable modularity makes ULTIDRI® a practical and effective solution for virtually any application or reservoir size.

DEDICATED OPERATION

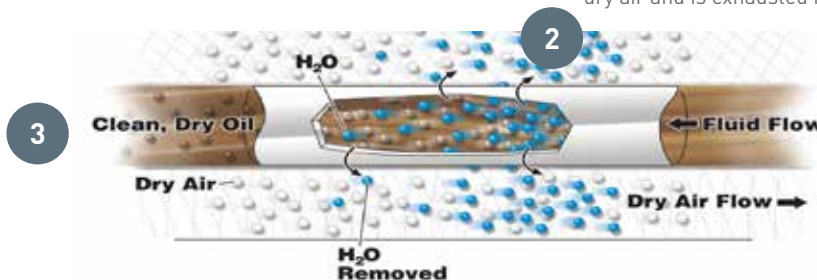
The ULTIDRI® filter-dehydrator has been engineered to provide water and particulate removal in a compact, totally self contained, package. Because it is self contained, all that is required is a dry, compressed air source power. A benefit of the ULTIDRI® is that it can be dedicated to an individual system or reservoir and operated continuously.

HOW IT WORKS

Oil flows through the high performance proprietary prefilter where solid particles are removed. A portion of the oil then flows through the ULTIDRI® dehydrator and passes over a patented hollow fiber contactor which distributes the oil into relatively thin films with a large surface area. Water diffuses from the oil into the relatively dry air and is exhausted into the atmosphere in vapor form. Internally, the proprietary hollow fiber membrane contactor prevents oil and oil vapor from entering the dry, sweep air and being exhausted into the surrounding environment with the water vapor.

Water diffuses from the oil through the DURION™ membrane into the dry air and is exhausted into the atmosphere in vapor form

Clean dry oil exits the ULTIDRI® contactor



Oil flows through the ULTIDRI® System where the patented hollow fiber contactor distributes the oil into relatively thin films to encourage dehydration

TRANSPARENT OPERATION

The beauty of ULTIDRI® is its “transparent” operation - you may not even realize it’s there! ULTIDRI® was designed with ease-of-use-in mind. ULTIDRI® dehydrators can be operated continuously - without any operator intervention. Operation is simple. Just turn on the power and ULTIDRI® does the rest. No valves to turn. No controls to program. No adjustments to make. No sight glasses to monitor. No sweat. The only routine maintenance would be the replace with high performance particle filtration element is essentially all that’s required to ensure trouble free operation.

ECONOMIC VALUE

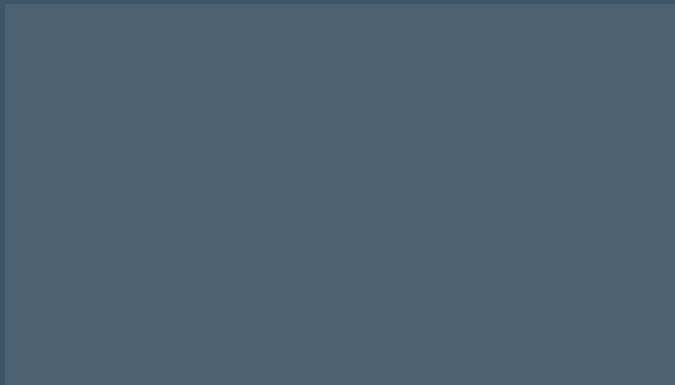
ULTIDRI® also represents another important breakthrough- exceptional economical value. ULTIDRI® works around the clock, 24 hours per day, 7 days a week without operator intervention. This means more continuous time removing water - and the benefits of clean, dry oil - lower operation and maintenance costs. In addition, the elegance of the ULTIDRI® design makes acquisition costs substantially lower than conventional vacuum oil purifiers - as much as 50 to 75% lower!

PARADIGM SHIFT

ULTIDRI® represents a paradigm shift in the way engineers and operators can think about lubrication and hydraulic system design. No longer is water removal a luxury for only the largest and most expensive systems. With an ULTIDRI® filter-dehydrator, it is now possible to truly maintain clean, dry oil for virtually any lubrication or hydraulic system - continuously and cost effectively. For systems designers, ULTRIDRI® filter-dehydrators can easily be integrated into an OEM’s system design - in much the same way as a heat exchanger or filter - thus affording clean, dry oil at all times. This ensures reliable and predictable operation of the OEM’s equipment. For operators, ULTIDRI® can be easily installed to upgrade existing systems. This can be on a recirculating loop off the oil reservoir, or downstream of low pressure pumps (<100 psig) in lubrication or hydraulic systems. Here’s another technological breakthrough - clean, dry oil for mobile equipment too. ULTIDRI® is so technologically advanced, it can even be used on mobile equipment - while it’s operating and moving!

ULTIDRI®





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