



ICCI E⁴ Precommissioning Cleaning Services:
EXPERT. EXPERIENCED. EFFICIENT. EFFECTIVE.

VACUUM DEHYDRATION AND OIL FILTRATION SERVICES



EFFICIENTLY AND ECONOMICALLY REMOVE WATER, GAS, AND PARTICULATE CONTAMINATION FROM YOUR LUBE, HYDRAULIC, AND TRANSFORMER FLUIDS.

The presence of water and other contaminants can adversely affect your oil's viscosity, lubricity—and, in the case of hydraulic oil—its power transfer properties. This can lead to corrosion, increased wear, and unwanted deposits in your critical oil systems.

ICCI's proven vacuum dehydration and oil filtration system (VDOF) is derived from vacuum distillation processes used in refineries. It efficiently and economically removes water, gas, and particulate contamination from your lube, hydraulic, and transformer fluids. VDOF systems can remove 100% of free water and gasses and 90% or more of dissolved water, air, and gases from your oil systems. ICCI VDOF service is highly cost-effective for systematic dehydration.

APPLICATIONS

- Contaminated lube oil and hydraulic oil systems
- Contaminated glycol systems

ADVANTAGES

Returns your oil to near its peak condition. You can be sure your oil functions per manufacturer specifications. Oil life is extended, critical components are protected from excess wear, and maintenance costs are reduced.

Trouble-free, 24/7 uninterrupted operations. ICCI VDOF systems are equipped with automatic drains and controlled startup and shutdown routines.

High value service options. Enhance your service with onsite, third-party verification of particle contamination and fluid analysis; and mobile filter skids to eliminate particle contamination.

Removes water and gasses. ICCI's VDOF service uses a vacuum distillation process to remove water contamination from oil (free, emulsified, and dissolved), to achieve very low overall PPM water content. This service also effectively removes entrained air and gases from the oil (benzene, propane, methane, etc.).

Removes particulate matter. Using high-efficiency, pleated microglass filter elements rated Beta(c)>1000 per ISO 16889, our VDOF system can achieve very low particle counts in oil, to meet or exceed and ISO 14/13/11.

Removes varnish. when combined with ICB (ION Charge Bonding) element skids (an optional accessory), our VDOF system can help to restore oil solubility by removing the soluble varnish causing contamination. Other technologies can't do this. Restoring solubility enables the oil to chemically remove previously formed varnish deposits and reduce QSA® or MPC varnish potential numbers from critical (red) to normal (green) condition.

Customized maintenance programs. The numerous types of oils, with a variety of chemical properties and applications, make it important to choose the right methods and additives to correct varnish problems, without damaging equipment. We work with you to identify specific issues and configurations so that the best method is chosen. We can also develop a cost-effective, customized plan for controlling varnish on an ongoing basis, to minimize future system downtime.

ADDITIONAL INFORMATION

Effects of water. Chemical properties on which even small amounts of water can have a measurable effect include:

- Thermo-oxidative stability. The reaction of oxygen with fluid base-stock forms oxygenated compounds and is accelerated by heat and the presence of water. Metals, in the form of wear debris, often act as a catalyst. Oxidation ultimately leads to higher viscosity and deposits such as polymeric compounds or sludges.
- Hydrolysis—the decomposition of ester-based fluids as a result of heat and water—results in acids and alcohols, leading to increased corrosion.
- Deposition characteristics (soot, coking).
- Premature additive depletion and additive precipitation, which impacts fluid performance.
- Learn more about how ICCI VDOF System helps maintain your oil's original viscosity, ensure its optimal performance, and extend its life as a lubricant. Contact us today, and start eliminating the harmful effects of water, entrained gases particulate, and varnish contamination in your lubrication and hydraulic oil



ICCI VDOF skids are modular, compact and easily portable



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Precommissioning Cleaning Done Right