

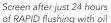
CUT FLUSHING DURATION AND COST BY COMPLETELY CLEANING YOUR OIL SYSTEM AND DRYING TO -40°F DEW POINT—BEFORE INTRODUCING CLEAN OIL FOR FLUSHING.

Mixing debris and oil is a recipe for extended flushing duration. That's why traditional oil flushing methods frequently take much longer than anticipated and quoted. ICCI has developed a completely different and far more effective approach. RAPID (Real Acceleration Pigging Including Drying) service is an optimized combination of three specialized services that first cleans the lube oil system (and dries it thoroughly) before clean lube oil is introduced for flushing. This prevents mixing debris with clean oil when flushing your lube system.

APPLICATIONS

- Lubrication oil systems attached to compressors, turbines, and other rotating equipment.
- Hydraulic oil systems in all industrial applications including turbine and compressor control systems.
- Projects that make "clean-build" methodology impractical or impossible.
- Tightly budgeted and scheduled projects with extremely low tolerance for delays caused by unanticipated flushing time extensions.







Screens pulled during a conventional oil flush

Finally, ICCI's proprietary, high-velocity, oil-flushing step is performed. A permanent oil reservoir and skid are added to the oil-flushing loop and oil (highly filtered on fill) is added. A temporary, "off-board" flushing pump, with filters and heater, is used to circulate the oil, achieve the correct Reynolds numbers, and prove the system clean. ICCI uses the latest particle-counting technology to ensure results are quickly recorded and the system is cleaned to the desired specification.

Compact, modular equipment. ICCI's three-step, oil-flushing service components are compact and modular. We can rig up and down safely, in limited space, to minimize impact on nearby construction work. Core equipment can be moved quickly and easily, using a pallet jack or small forklift.

ADVANTAGES

Greatly reduced oil flushing duration. Because the system is clean and dry before oil is introduced, the oil-flushing step of the RAPID service is of much shorter duration. And, there's much less risk of time extensions.



Debris removed during Hydro Pig cleaning of a lube oil system

Reliable, three-step process using proven ICCI proprietary services:

First, Nautilus Hydro Pig® service thoroughly cleans the system. This hydro-pneumatic pig is a precisely controlled mix of highly turbulent air bubbles and small water droplets, traveling throughout the system piping being cleaned at high speeds. Highly turbulent flow flushes everything from large bolts and pipe fragments from fabrication down to microscopic particles. It empties into a three-phase separator that safely

dissipates the pig's energy, with little noise or water discharged in surrounding areas. Water and debris drain from the three-phase separator and air vents to atmosphere. This process allows for testing with water, which eliminates repairing oil-laden lines if the pressure test fails.

Next, ICCI Nautilus Ultra Dry service dries oil systems up to -40°F dew point so that the system is completely clean and dry prior to introducing oil. Once the system is filled with oil, ICCI carries out a high velocity oil flush to ensure the oil is clean in compliance with ISO codes. Nautilus Ultra Dry services makes drying with air equally as effective as drying with inert gases such as nitrogen. It is also far safer, because the asphyxiant risk is eliminated. Dryness is verified by a dewpoint meter at local points in the system and at the combined exit point.

ADDITIONAL INFORMATION

An operator used RAPID oil flushing service on three identical systems to beat a national specification between 9 and 12 days per system. Conventional flushing was carried out by others on two identical, adjacent systems. Conventional flushing required between six and eight weeks, while achieving an inferior result.

Choosing RAPID lube oil flushing service from ICCI is your best assurance of an efficient, effective, on-schedule, oil-flushing project. When you're ready to reduce your risk of unplanned schedule extensions, contact us today for more information.



ICCI's conventional oil flushing equipment is compact and modular

