

KLEENOIL OIL RECYCLING SYSTEMS



The Kleenoil Oil Recycling System is an onboard engine and hydraulic oil recycling system that reduces wear, downtime, and oil and maintenance costs.

HOW IT WORKS: The Kleenoil Bypass Filter System is a bypass oil filtration system that passes only a small portion of the total oil flow through a very dense filter cartridge at about 2 to 3 quarts per minute. At this speed, it is possible to remove particles down to 1 micron (3 absolute) and remove 99.95% of all water, greatly decreasing engine wear and prolonging oil life. Kleenoil can eliminate water and particle contamination, extend oil life up to 5 times and hydraulic oil up to 10 times, reduce engine wear and component wear, dramatically reduce downtime, remove particles down to 1 micron (3 absolute), and is applicable to engines as well as hydraulic systems.



ALL BENEFITS OF KLEENOIL

- ✓ Extended oil drain intervals.
- ✓ Reduced new oil purchases.
- ✓ Better maintained oil viscosity.
- ✓ Decreased sludge and varnish deposits.
- ✓ Reduced operational costs.
- ✓ Extend depreciation costs.
- ✓ Reducing oil disposal fees.
- ✓ Keeping your equipment and vehicles on the job site longer.
- ✓ Enhanced environmental commitment and awareness.
- ✓ Improved daily vehicle availability through quicker scheduled maintenance, 5 minutes vs. 1 hour.
- ✓ Reduced unscheduled service breakdowns and costly repairs.
- ✓ Freed up technicians to perform other important tasks.
- ✓ Virtually eliminate engine wear.
- ✓ Remove 99.95% of all water from your oil.
- ✓ Remove all wear causing particles down to 1 micron.
- ✓ Leaves additive package components in oil.



**AUTOMATIC LUBE SYSTEMS, INC.
HAS GONE GREEN AND KLEEN.
WE ARE NOW A DISTRIBUTOR OF
KLEENOIL ONBOARD OIL RECYCLING SYSTEMS.**

WANT TO KNOW MORE?

AUTOMATIC LUBE SYSTEMS, INC
Phone: (844) LUBE-SYS or (844) 582-3797
Website: www.automaticlubesystems.com
Email: sales@automaticlubesystems.com



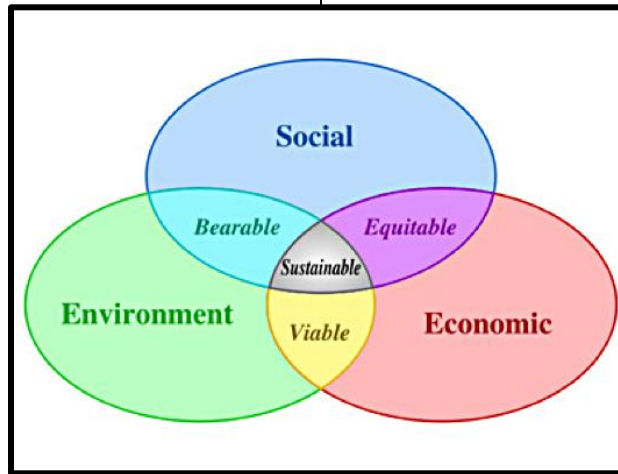
ECONOMIC BENEFITS

Real Cost Savings

The equation is pretty simple, extended drains + less engine wear + less new oil purchased =

Fiscal Responsibility & Economic Prosperity

- Increased productivity and improved operations
- Extends oil drain intervals
- Scrub current oil to cleaner than new oil while it's being used
- Extends equipment life
- We are committed to helping you reduce your OTR truck oil usage up to 80%.
- A Kleenoil Recycling System can pay for itself in less than one year.



ENVIROMENTAL BENEFITS

Go Green...Profitably

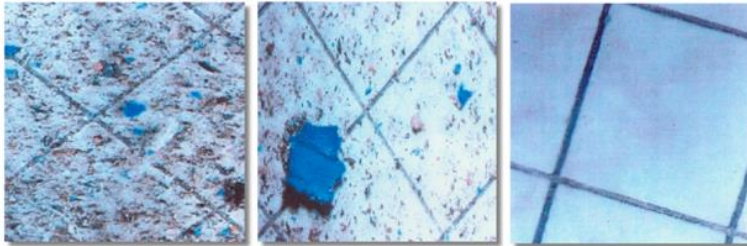
The equation is pretty simple, less new oil = less waste oil = cost savings =

Social Accountability & Resource Responsibility

- ✓ Oil is a finite resource
- ✓ Reduce the amount of waste oil
- ✓ Reduce the chance of spilled oil

Companies are realizing now more than ever that the business world is linked to the environment, in more ways than they probably realize. The environment provides critical support to the economic ecosystem, not only in terms of financial capital but also from natural capital as well.

The Kleenoil Cartridge will Ensure No Particles Above 1 Micron Nominal (3 Absolute)!



Sample #1 The first photo shown here is a sample of oil taken from a power steering unit of a large commercial scraper at time of refurbishment.

Sample #2 The second photo shown here is a sample of oil taken from a test unit with 10 micron filtration.

Sample #3 The third photo shown here is a sample taken from the same source as Sample #1 after passing through the Kleenoil BY-PASS Filtration System.

KLEENOIL

SAE Technical Article on Diesel Engine Wear with Spin On and Bypass Lube Oil Filters

By O.H. Phillips and P.D. Lane, Fleetguard Inc. and M.C. Shadday, Cummins Engine Co.

"Our analysis of the data revealed that rod bearing wear was reduced 89% with the bypass filtration unit."

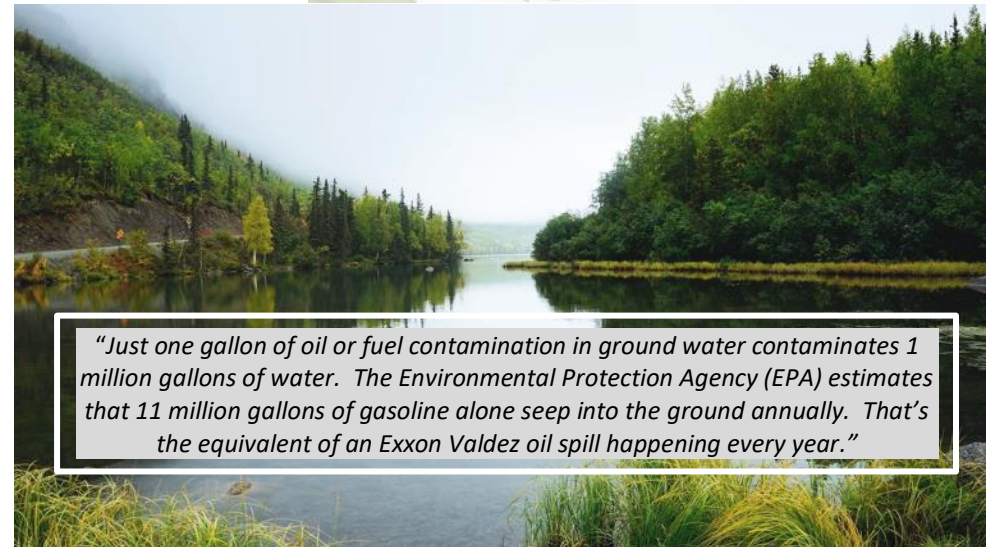
"Main bearing wear was reduced 93% with the bypass filtration unit."

"Ring wear was reduced 83% with the bypass filtration unit."

"Oil analysis revealed that a 98% reduction in silicon levels of samples taken from the bypass filtration test.....similarly the wear metal levels were 84% lower for the bypass filtration test."

Summary and Conclusions from the test

1. Engine wear was directly related to the degree of filtration of the bypass and full flow filters and the levels of abrasives left in the oil.
2. The use of the combination full flow and bypass filtration systems can reduce the wear rate to less than 1/2 that resulting from only using a full flow filter system.
3. Due to extended engine life with the use of bypass filters, the extra cost of installing and maintaining the bypass filtration system is recovered many times over, providing the lowest total cost for the engine user.



"Just one gallon of oil or fuel contamination in ground water contaminates 1 million gallons of water. The Environmental Protection Agency (EPA) estimates that 11 million gallons of gasoline alone seep into the ground annually. That's the equivalent of an Exxon Valdez oil spill happening every year."

ScienceDaily –
<https://www.sciencedaily.com/releases/2004/01/040115074647.htm>

- The approximate one billion gallons of used oil generated in the United States each year comes primarily from lubricating oils – motor and transmission oils – and from hydraulic and cutting oils used in industry.
- There are three primary ways of managing used oil: about 14% of old oil is re-refined; 11% is treated and recycled for heating fuel; and 75% is resold, without treatment, as fuel oil to industrial consumers. It's the latter that presents the biggest problem.
- Only 10% of the more than 100 million gallons of used oil generated each year in California is recycled to produce useful lubricants, just as paper is recycled to produce paper again.