

Engine Filtration Solutions from Applied® and One Eye Industries



In today's competitive E&P market, a dependable fleet is a priority. Failures in the field lead to spare requirements and penalties. This means lower profits due to unanticipated costs that are not recoverable. Magnetic Filtration by One Eye Industries is proving again and again its ability to:

- Drop ISO 25/24/16 hydraulic fluid to 17/14/10 in only a few hours in 500 gallons with particle captures below ½ micron.
- Drop engine lube oil in a Cat 3508 with a PQ of 12 to <1 in 250 hours and extend oil intervals to 500 hours.
- Achieve a 00 NAS in glycol subsea actuator fluid in a single pass filter with virtually no restriction in the line.
- Remove up to 80% non-ferrous particulate from streams to ½ micron and below.
- Do all of this with no more disposable cartridges.
- Eliminate disposal costs for filters and lower disposal for waste oil.
- Provide a much greener footprint.

Engine Filtration

Fuel Filtration is the first step in cleaning the engine. This is typically handled by a simple wye-strainer to remove ferrous wear articles from the fuel stream.

Engine Coolant is normally the last thing people think about when they begin an engine maintenance program. The coolant is usually contaminated when it is delivered new – and it only gets dirtier. Ferrous and non-ferrous contaminants cause pump, seal and gasket failures in engine cooling jackets. A simple wye-strainer type filter can remove these contaminants down to sub-micron levels and extend your coolant and engine life by several times.

Engine Lube Oil is handled by the Add-Vantage 9000, which is a dual filtration system that utilizes a stainless steel cloth media with an absolute 10 or 25 micron filtration capability and secondary filtration using a magnetic filter rod with patented radial fields that capture particles to sub-micron levels and trap them. Wear contamination is not restricted to ferrous particles. The strong magnetic fields have demonstrated the ability to capture calcium, silica and other common contaminants.

Applied® and One Eye Industries can also supply transmission filters that bolt into the transmission pan. This filter does not require modifications in any way. The new element and plate are easy to maintain and capture wear contaminants as they flow through the system.



ONE EYE INDUSTRIES INC.
ENVIRONMENTAL INDUSTRIAL FILTRATION SOLUTIONS



"PART OF THE SOLUTION"



APPLIED
Industrial Technologies®



Hydraulic Filtration

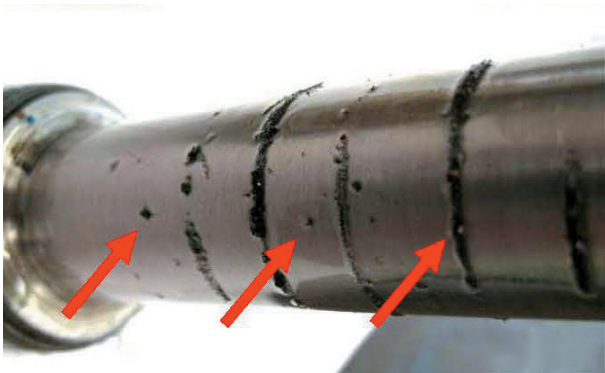
The first step is to filter hydraulic fluid before it goes into the hydraulic pump and is pumped out into the system. This can be handled by a simple wye-strainer or **Series 5000 Scrubber** to remove ferrous and non-ferrous wear particles from the hydraulic stream. These particles can be removed down to sub-micron levels. These are the particles that go straight through the typical paper, polymer or fiberglass filters and cause damage to seals, cylinders, motors, valves and pumps.

The **case drain filter** captures the most contamination caused by friction. These wear particles are associated with rubbing wear in the pump as well as frictional wear in the bypass system. Ferrous and non-ferrous contaminants cause pump, seal and gasket failures in hydraulic systems. A simple **wye-strainer type filter** can remove these contaminants down to sub-micron levels and extend your fluid life by several times.

The MIT in-tank return is handled by the **Add-Vantage 9000**, which is a dual filtration cartridge that utilizes a stainless steel cloth media with an absolute 10 or 25 micron filtration capability and secondary filtration using a magnetic filter rod with patented radial fields that capture particles to sub-micron and hold them. Wear contamination is not restricted to ferrous particles. The strong magnetic fields have demonstrated the ability to capture calcium, silica and other common contaminants. In this design, the filtration is inside-out with the fluid flowing over the magnet first, extending the cleaning interval of the cloth media. This design also allows top-up fluid to be introduced through the return system, removing contaminants within new oil.

One Eye Industries can design a **t** that brings all return circuits to a common monitoring point that is easily maintained. Here, the circuits would have individual filter rods that can be pulled and checked before dumping into the common return. This allows for a common location where all circuits can be inspected prior to sending a unit into the field.

If a single circuit is showing excessive contamination, it is then held back for maintenance.



Pump Lube Oil Filtration

Pumps or other related equipment that utilize a forced lubrication system would benefit by including a scrubber system in line before the lube pump. This will protect the pump from debris and clean the stream of lubricant going to the bearings. The **t** can be inserted past the pump for additional filtration should there be an issue of water contamination. In these services, a disposable water absorbent media can be included. The filter would operate in an inside-out orientation so that the magnetic element would capture the bulk of the contamination. As with all One Eye filters, the system never goes into total bypass. Magnetic filter rods are cleaned as needed and replaced. Oil change intervals are extended and lubrication quality is increased.

The One Eye Industries **patented magnetic filter** design does not remove molecules. It will not affect additives. Conversely, once an additive has precipitated into a solid by addressing its function, it will become a particle. Particles are captured by this filter.



Contact Your Local Applied® Service Centre



Authorised distributor:



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