Oil and Fuel Filtration

Oil & Petrol Filtration

Eclipse Magnetics filters use powerful high-intensity neodymium magnet material to remove ferrous and para-magnetic particles – down to less than a micron in size – from fluids.

How does magnetic filtration work?

With an ever increasing focus being placed on environmental awareness and the associated regulatory compliances more companies are seeking new and environmentally driven products that can assist and maintain operational continuity.

Magnetic filtration technology harnesses one of the most powerful natural energies available. Utilising the very latest in Rare Earth magnetic materials, we have been able to design and produce a comprehensive product range that can be tailored to suit almost any fluid application.

Changes in temperatures, however subtle, can generate moisture in the fluid being processed. This moisture can start to corrode and oxidise any ferrous contact parts such as pipe walls, valves and process machinery.

Magnetic filters are capable of removing ferrous and para-magnetic* contamination and non-magnetic metals and minerals such as Aluminium, Silicon, Calcium and Magnesium.

Advantages of magnetic filtration

Confirmed fuel quality
Eclipse Magnetics filters remove sub-micron magnetic contamination improving the quality and reliability of the fluids you supply.

No back pressure
Magnetic filters never build up back-pressure, even when full of contamination. In traditional media filters back pressure can result in burst socks or cartridges.

No loss of fuel
With traditional media filters you throw away expensive fluid every time you change a cartridge. Contanimation is removed from magnetic filters as a relatively dry 'cake' that can be easily disposed of, reducing overall environmental impact.

No consumables required
Simply wipe the magnet core clean and re use. No need for costly replacement filters.

Reduced costs
Less fuel thrown away with sodden filtration media. Lower disposal costs. No consumables at all.

No maintenance
Removal of the fine contamination will reduce the overall wear, and decrease the number of blockages in your system.

No downtime
Magnetic filtration can run 24/7 continuously without the need for operator intervention.

Safety
Reduction in intrusive line maintenance reduces overall risk.

MAGNETIC FILTRATION IN FUEL APPLICATIONS

Due to the extensive amount of processing required, ranging from drilling for oil through to the movement, storage and refining of the final product, there are many opportunities for contaminants to be introduced. Left unaddressed these contaminants can continue to generate more particles and in some cases render the fluid unusable.

Unlike conventional filtration media magnetic filters are capable of removing sub-micron sized contaminants with capacity to attract and hold large volumes.

The fluid simply passes the high-intensity magnetic fields where the particles are attracted. Eclipse Magnetics filters eliminate back pressure and the risk of a burst filter which is associated with media filtration.

Our filters are available for all applications ranging from 3/8" to 46" port sizes to suit installations in gas, oil and high pressure petro-chemical applications.

Filters can be supplied to meet ATEX *II 2G EEx IIBT3 and PED certified depending upon application and installation requirements.

Locations

For complete protection in bulk fluid applications we recommend filters are installed in the following critical control points:

Incoming bulk lines
Qualifies the fuels entering storage and prevents settlement in the main tank.

Between the tanks and pumps
Cleanses the fuel leaving the tanks and protect the pumps from contamination developing in the tank, scale rust oxides and some gelling.

Point of Sale
Micro filters mounted within the pump enclosure qualify the fuel at the point of sale.

Contaminants

A mix of contaminants, however mainly iron and ferrous oxides.

Magnets will attract a mixture of swarf / scale and coarse sub-micron particulate which has been released by the holding tank, pipe work or has been delivered via the supply tanker.

In addition there will be fine particulate suspended in the fluids as oxides as well as different fibres, which tests have proven are also collected by the magnets.

Eclipse Magnetics Filtration Products

Micromag

Micromag HP

Filtramag

Liquid filter

Automag

Autofiltrex

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