

Oil and Fuel Filtration – Introduction



Where are Magnet Filters used?

Magnets are used in fuel applications for a number of reasons and also in a number of applications.

These Magnetic Filters are used throughout the process in the following areas.

- Offshore
- Refineries
- Bulk Lines
- Tank Cleaning
- Between tank and pump
- Point of sale
- On the vehicle



Refineries

From the Crude entering the refinery to the Fuels that exit the plant there are many applications where Magnetic filtration can be placed to reduce contamination and also reduce the bacterial growth during the process.

Incoming pipe lines

Protect the plant from the introduction of contamination from the ships.

Mid Process

Provides a constant check on the stages of the process, any steel pipe work and tank scale is removed.

Outlet

Ensures that the fuels and oils being supplied to the tankers / pipelines is of the highest standard, protecting your customers.

Why are magnets used ?

Removal of Ferrous particulate.

From the drilling of oil wells, through to the final delivery at the forecourt magnets are used for the removal of suspended iron oxides collected from pipe work and storage tanks. Oil / fuel is processed and stored in steel equipment and containers.

Throughout the process ,the fuels continue to have issues of collecting ferrous contamination that need to be resolved



Reduction and control of Bacterial growth.

The increase in Bio-Diesels has highlighted an underlying issue with bacterial growth in oils.

Magnets can be used to halt the rate of growth and ensure that the fuel remains usable for longer and also burn cleaner.

The bacteria being burnt in a combustion engine caused issues. Filters blocking, damaged injectors cause failure and the added sight of black smoke as the un burnt bacteria is passed through the engine.



Tank Cleaning

All forecourt storage tanks are drained and jet cleaned on a regular basis. This removes all loose scale, iron oxides and some of the bacteria from the storage tanks.

Diesel fuels suffer from bacterial growth, Bio diesels being the worst as they collect suspended contamination which is not readily released to settle. The Filtramag units when used in conjunction with the cleaning application collects both contamination and bacteria at the same time.

In addition the bacteria that passes through the magnet filter is damaged and will be stunned for approximately 3 months.

The image shows a typical collection when tank cleaning.



Forecourt

Magnets can be used to assist normal bag filtration at forecourts.

Offset Fill

Eclipse Magnetics produce 2 size of filters for this application, Standard unit , this will filter 1,100 ltrs /min as the tanker unloads, the second quick fill offset filter is rated at 2,000 ltrs/min.



Point of sale

We have fuel filters for the point of sale
These are rated at 45 and 90 ltrs/min

Application

These are mainly directed at Diesel applications
They are used for the halting of bacterial growth
This is a very significant problem with the
Increase in diesel use.

On Vehicle

The magnet filters are used to cut and stun the bacteria prior to the filter, this allows the fuel to pass the filters and be burned effectively.

The magnets reduce the level of breakdowns that are caused due to: -

Blocked filters
Damaged injectors.

The effect of the magnets may also reduce the Black Smoke that can be seen when the engine is burning poor contaminated fuel.





Any Questions?

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