



Magnetic Scrubber Removes Iron & Other Ferrous Contaminants from Bulk Diesel Fuel Tanks

The Challenge

Using the cleanest fuel possible helps improve fuel economy and prolongs engine life. Many users find it necessary to filter diesel as it becomes contaminated during processing and transportation phases. In Alberta, diesel fuel has an average of 300 PPM of ferrous contamination between 50 microns and 1 micron in size. These hard metal particles (iron & steel) can score fuel injectors and cause injector valves to stick, producing inefficient combustion.

The Solution

The Valley View Hutterite Colony installed FilterMaster 5000 Series Magnetic Scrubbers on their 10,000 litre bulk fuel tanks to remove ferrous and non-ferrous contaminants.

“This colony runs an enormous amount of equipment and we find large reductions in maintenance time when we use cleaner fuel.” says David Sthal, the Farm Boss. He continues, “It was no surprise the first time the magnetic rod was removed for cleaning. It was totally covered with super fine particles. These are the same contaminants that would have run through our engines. We have not had to do any fuel system overhauls since the Scrubbers have been in place – and because we keep detailed records we have noticed that our fuel economy has increased too.”

Cleaner fuel also means fewer environmentally harmful emissions – especially CO₂ and heavy metal particulate. Fuel filters last longer and are more effective as removed metal does not have an opportunity to “worm hole” through filters causing channels for contaminants to flow through.

Technical

Designed for inline installation on bulk fuel, oil, hydraulic and coolant reservoirs with high flow rates in high & low pressure systems, FilterMaster Series 5000 Scrubbers:

- Are constructed of 316 stainless steel offering high corrosion resistance, no reduction in flow pressure, and no internal bypassing
- Have a magnetic filter that is also made from 316 stainless steel with patented high-strength rare-earth magnetic technology
- Have an optional Cam-loc closure for easy inspection and cleaning
- Are vibration resistant and capable of constant operation at 300°F
- Are warranted for 5 years with an operational life longer than 10+ years
- Tested and charted as per industry standards and CWB certified.

The incredibly strong magnetic fields generated by the Series 5000 allow it to remove ferrous contamination from most all fluids. Magnetic fields of this strength are needed to filter very fine particles – less than 10 microns – with a small mass especially when the fluids are traveling in “high flow” and “high pressure” applications.



Above: Series 5000 Scrubber Rod with ferrous contamination from a diesel bulk fuel tank.
Below: 5000 Scrubber installed inline before the traditional fuel filter

