



Run Clean. Run Smart.

Cleaning Diesel Fuel Tanks with Fuel Right Technology

Introduction

Contaminated fuel is an indication that a fuel tank is severely contaminated and requires cleaning. Tanks that are not regularly maintained for cleanliness are also more prone to corrosion specifically microbially influenced corrosion. (Also known as MIC)

New tanks being put into service should also be cleaned prior to being put into service as they may contain contamination such as grinding dust, welding slag or other waste and debris left behind during the manufacturing process.

It is important in all cases that monitoring and cleaning tanks to ensure clean fuel is done on a regular basis to avoid catastrophic engine damage.

Fuel Right Technology

Fuel Right technology was specifically designed to dissolve sludge and install a microscopic corrosion layer to protect fuel tanks from MIC. It also helps to clean fuel and remove water and can play a role in the tank cleaning process.

In all cases, when using Fuel Right as an aid to cleaning, it is no longer required to use other additives such as fuel stabilizers or biocides once a tank has been cleaned.

Products

There are various derivatives of Fuel Right that can be used for tank cleaning.

30K – This product treats at a ratio of 1:30,000 and is our concentrate additive typically used in very large bulk applications.

15K – This product treats at 1:15,000 contains our proprietary chemistry along with a fuel line anti-freeze. This is suitable for cooler climates where fuel line freezing may occur.

ProActive – This product treats at 1:10,000. This is our premium performance additive and contains our proprietary chemistry along with some fuel line anti-freeze and enhanced lubricity.

Each product is suitable for tank cleaning applications.



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Procedure

When preparing to clean a tank, Fuel Right should be used at shock dose rates and allowed to soak in the tank. For example, if using Fuel Right 30K, treat ratio should be 1:12,000. One liter of Fuel Right 30K should be used to treat 12,000 liters of fuel.

Recommended soak time should be 7-14 days with longer soak times being more ideal. Shorter soak times are also acceptable. (see below) This soak time allows Fuel Right to perform a few functions;

1. Clarify and push water out of the fuel to the bottom of the tank
2. Dissolve suspended sludge (sloughing) to ease removal during fuel polishing phase
3. Break down and remove sludge adhesion on tank walls to ensure a more thorough cleaning during polishing

What is the benefit of soak time?

Typical polishing procedures deploy the use of bag filters as the first stage of fuel polishing. These bag filters capture the majority of the severe contamination prior to the use of cannister filters. When using Fuel Right to soak in a tank, the first stage of polishing will capture more contamination in the bag filtration than without. This will ease cleaning and reduce cleaning time. Fewer cannister filters will be required to get the fuel to meet ISO 4406 18/16/13 cleanliness standard.

Benefits to the contractor

1. Majority of contaminants are caught in bag filtration process
2. Easier to remove water in the process
3. Fewer cannister filters required to meet ISO 4406 18/16/13 fuel cleanliness standard
4. Faster clean time
5. One product required – no fuel stabilizer and/or biocide required

No Soak Time?

If the tank cleaning timeline does not allow you to “soak” the tank as prescribed, this is not a concern. Simply use the same shock dose in the tank prior to your set-up to allow Fuel Right to start the process of pushing water out of the fuel.

Continue with normal tank cleaning (fuel polishing process) until you achieve the fuel cleanliness required. Fuel Right will remain in the tank and continue to clean any areas of the tank that were not remediated in the fuel polishing process.

A follow-up inspection one to six months after cleaning is recommended.



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Follow-Up

Typically, the first time a tank is cleaned, residual sludge will remain adhered to the interior of the tank in areas where it is hard to reach. That could be irregular sections, gussets, baffles etc. Fuel Right will continue to work away at any inaccessible areas over time and dissolve the adhered sludge. This may release minor amounts of water into the tank and should be remediated if found.

Subsequent Maintenance

A continuous Fuel Right program will prevent the further development of sludge (even with the presence of water) and protect the tank from corrosion. For emergency stand-by power systems in critical applications, long-term maintenance programs with an annual shock dose treatment should only require the removal of any water intrusion or sediment that entered the tank from upstream.

Typically, a tank on a Fuel Right program after its first year, can be cleaned with a one (1) micron filter with single stage cleaning. This reduces the contractor time and costs to service an emergency stand-by system.

Less critical fuel tanks should be capable of storing diesel fuel up to at least 2 years with a shock dose Fuel Right program after a tank has been cleaned.

Validation

We recommend that fuel samples be taken to validate the fuel cleanliness meets the World-Wide Fuel Charter ISO 4406 18/16/13.

Fuel Right APP

Please visit the Apple APP Store or Google Play and download the Fuel Right app. This calculator will help you determine dose rates for our products for each application you do.

