

Sludge Series Part III: How to Clean Sludge Out of Your System

In [Part II](#) of this 3-part series we told you how to keep sludge out of your heat transfer system. This week we'll look at some measures you can take to clean up a system that's already been fouled up.

If you have sludge in your system, don't lose hope. There are a few things you can do to save your system.

The first thing you'll want to do is have your fluid tested. Fluid analysis will give you an indication of the system condition and will help in determining the severity of the problem. Most major heat transfer fluid vendors offer an analysis service (Duratherm offers a [free service](#)) but independent labs can also perform heat transfer specific tests such as flashpoint, viscosity and TAN.

Now that fluid analysis has told you part of the story, it's time to start connecting the dots. Have a closer look at your system. Sludge tends to build up in areas like expansion tanks and reservoirs. If it's possible to access these areas, take a look for sludge deposits to give you a better idea of the scope of the problem.

What are my options?

Manual Cleaning

If the system can be taken apart or accessed, the sludge can often be cleaned manually. Expansion tanks and reservoirs may have access points allowing for easy cleaning. Lines and hoses can also be removed/separated and mechanically cleaned with brushes or scrapers.

System Cleaners

If manual cleaning isn't feasible or just too time consuming, most fluid vendors offer system cleaners that can be run through your system to break down and dissolve sludge build-up. There are different types of cleaners available depending on your needs, your system, and the severity of the problem.

If you've just slightly overextended your fluid's service life and are only showing minor signs of sludge build-up, a system cleaner and heat transfer fluid combination such as [DuraClean](#) can be used as both a system cleaner and heat transfer fluid. It's also ideal for preventative maintenance because these types of cleaners clean while running production.

Products like this work better for smaller systems with frequent oil changes and can be used for example at every third or fourth oil change to prevent ongoing buildup.

For larger systems, additive-style cleaners such as [DuraClean LSC](#) can be added to existing fluids to break down sludge build-up and seamlessly clean systems while running production. These are typically added to your existing fluid at 5-10% concentration. Products like DuraClean LSC can be left in the system indefinitely, while others are intended for use just prior to a fluid change. Check with your vendor for specific instructions.

For severely fouled systems there are cleaners, such as [DuraClean Ultra](#), which are more aggressive solvent-like cleaners that can strip away and dissolve sludge in a matter of hours. These are especially useful for severely fouled systems that have experienced nearly complete shutdown due to excessive sludge.



Sludge Series Part III: How to Clean Sludge Out of Your System

These cleaners will require the old fluid to be drained and often flushed but can be the fastest way to get your system cleaned and back up and running. We recommend working with both your equipment and fluid provider to make sure you're using the most suitable cleaning method for your particular needs and equipment.

If you're experiencing troubles with sludge, talk to us. We're here to help.

Michael Bates, Technical Director

1-800-446-4910 ext. 111