



## FLUID AND SYSTEMS MAINTENANCE

Proper and regular maintenance is an important part of keeping any piece of equipment running smoothly and heat transfer systems are no different. For the most part, thermal fluids can be considered maintenance-free but any system, regardless of size, should be monitored and serviced accordingly. And of course there will come a time when you'll need to consider changing the fluid too.

### **The Benefits Of Regular Fluid Analysis**

Routine fluid analysis is an essential maintenance tool for any system as it will help identify a problem early on and allow you time to remedy the situation before it leads to complete fluid failure. For large systems, an annual sample analysis is usually sufficient but for smaller systems with exposure to air, a more frequent sampling schedule should be part of any good maintenance plan.

When starting-up any new piece of equipment or after a complete system clean out and refill, take the opportunity to take a fresh sample of your thermal fluid for analysis. This sample will give you a baseline representation of your system that can be used to compare future samples against over time.

### **Maintaining Your System**

Whether you operate a large thermal fluid system or series of smaller, stand-alone temperature control units, keep in mind the following points to ensure extended, trouble-free operation:

- Have boilers inspected and serviced on a an annual basis to keep them operating at peak efficiency.
- Inspect electric heating elements for carbon build up with any noted change in operating performance.
- Try and maintain a maximum temperature of no more than 93°C in expansion tanks and reservoirs.
- If an inert gas blanket is used, confirm there is a sufficient amount of gas blanketing the fluid and replace the supply gas when empty.
- Check for leaks on a regular basis and schedule repair as soon as possible.
- Monitor and record flow rates and pressures throughout your system to ensure continued efficiency.
- Regularly inspect and clean any filters and strainers to remove any debris.
- Keep all quick connect fittings clean and free of excess oil and sludge.
- Do not over tighten compression fittings – tighten only to the point where weeping around the fitting stops.
- Ensure any seals, O-rings and gasket materials are compatible with the thermal fluid you are using.