

Leaky System? Simple Steps Help Seal the Deal

If you've invested in a quality heat transfer fluid (we'd prefer [Duratherm](#), of course) the last thing you want to deal with are system leaks. Not only do they cost you money, but they also lead to safety issues, from pools of oil causing slip hazards to potential fire risks.

Here are a few tips for common, easy-to-fix issues that cause system leaks:

The heating and cooling of thermal oils across extreme temperature ranges – from ambient to 600°F in some cases – cause pipes and fittings to contract and expand significantly, especially for systems that are started up and shut down daily. This can cause the fittings to leak – not ideal!

Pipe fittings need to be made leak-free by using thread seal tape (e.g. Teflon tape) or pipe dope (thread sealing compounds). When the standard grade isn't effective enough we recommend using a thick, high-density Teflon tape, typically available from most industrial suppliers. It expands and contracts more than standard tape and that means a better, longer-lasting seal.

For the ultimate seal, consider X-Pando. This pipe dope is impervious to just about anything and can handle heat up to 1000°F. The catch? It can be really tough to separate joints once they've been attached.

Compression Fittings

When using compression fittings, be careful not to over-tighten them. Over tightening can cause the internal components of the fitting to deform and the seal will fail. The nut should be tightened by hand and the seal tested for weeping. If the fitting weeps, tighten it with a wrench slowly until the weeping stops.

Quick-Connect Hose Fittings

One of the most common problems we see with quick-connects happens when oil gets into the fittings. Sludge will form over time as the oil oxidizes from exposure to air and high temperatures. This clogs up the fitting and prevents a proper seal.

If you're already having this problem, fear not – it's fairly easy to deal with. Just use a solvent to remove the sludge from the fittings – this should restore the quick connects and help avoid further leaking.

Seals/O-Rings/Mechanical Gaskets/Elastomers

The most important thing to remember when it comes to seals is compatibility, which usually refers to their chemical compatibility with fluids and application temperatures. If you're not sure about this, contact your fluid vendor for help.

We generally recommend Buna-N or Viton seals. They perform well at higher temperature ranges and are generally compatible with most of our fluids. Using the proper seal is critical to avoiding system leaks.

These basic steps should do the trick with most leaky systems. Need more advice? Just [give us a call](#) – we're here to help.



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