



# Thermal News November 2010

*closing the loop on thermal solutions*

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[www.durexindustries.com](http://www.durexindustries.com)

## Welcome to the new Durex Industries.

First off, **Thank You** for making this a record breaking year at Durex! We are honored and humbled at the trust more and more customers like you are placing in Durex to fulfill their thermal product needs. We truly do appreciate your business!

This issue of Durex Thermal News introduces our newest product innovation, the **DFX™ Heat Exchangers**. This product will help our customers and channel partners differentiate themselves from the pack. Also in this issue, our Flexible Heater product line is in the news. We have made significant capability improvements that customers can take advantage of as they go into their design cycles. Finally, we highlight a **“Durex Win”** – where we pull out all the stops to help a customer in need.

## Newest Durex Innovation – DFX Cast Heat Exchangers

The *DFX* family of electric circulation heaters provides fast, safe and effective heating of liquids and gases...without the drawbacks of traditional electric circulation heaters. They provide gentle, indirect heating which is ideal for heating viscous and temperature sensitive fluids such as oils, grease, coatings, resins and solvents. Optional dual flow tube configurations also provide heat/cool capabilities for precise solvent, volatiles and viscous liquid temperature control.

Unlike traditional circulation heaters, the *DFX Series* heater elements are isolated from the medium flow path. A coiled, seamless, 316 stainless steel flow tube, along with the heater elements, is embedded in a light weight aluminum casing. The flow tube provides an isolated, contamination free flow path for de-ionized water, solvents, sterilization gases, analytical samples and other contamination sensitive substances. It also provides ultra-high pressure ratings not easily obtained in traditional circulation heaters.

The advantages keep coming for the *DFX Series* of cast circulation heaters. Aluminum's excellent thermal conductivity provides rapid heat transfer from the elements to the heated medium. This enables fast thermal response and excellent controllability. Heater element life is greatly extended due to rapid heat transfer. Corrosive attack on the heater element and build up of materials on the heater sheath causing premature failure are entirely eliminated.

*For more information, visit our website!*  
[www.durexindustries.com](http://www.durexindustries.com)



**DFX™ Heat Exchangers**

### Typical Applications for DFX™ Fluid Heaters

#### **Metal Fabrication & Finishing**

- Temp sensitive inks, coatings & paints

#### **Semiconductor Wet Processing**

- De-ionized water
- Solvents such as ACT, EKC, etc.
- Nitrogen & inert gases
- Supercritical Cleaning

#### **Packaging**

- Adhesives, resins & other viscous fluids
- Sterilization gases and vapors

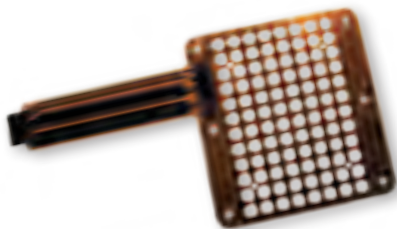
#### **General Industrial**

- Water, glycol & CIP solutions
- Lube and heat transfer oils
- Resins & other viscous fluids
- Temperature sensitive fluids
- Steam generation and superheating



**Flexible Heater Line  
Expands Thermal  
Solution Capabilities**

Durex Industries Flexible Heater assemblies can add value to your company above and beyond the heater element itself. Most often, a silicone rubber or Kapton® flexible heating element is assembled to or attached to a metal part on the customer's factory floor. More than likely it has a nearby temperature sensor and/or thermostat for control. It also may have connectors added to the power lead wires or flex circuit.



Why mess with these hassles? By utilizing Durex Industries' in-house fabrication and assembly capabilities, your company can purchase one complete heated part assembly, instead of five or six separate components. By allowing Durex Industries to factory bond the silicone or Kapton heating element to the required metal part, the speed of assembly at your factory is increased. Factory floor space can also

be dramatically reduced. Durex Industries proprietary attachment methods also give your customers a more reliable product allowing for higher heating element watt densities as well as longer heater life. And when integrating multiple components into one heated part, you can let Durex handle the hassles and headaches of assembly design, freeing your engineering people up to focus on core competencies.



In addition to bonding to parts, Durex has the capability to coat and surface treat metal parts to customer requirements. Special finishes such as anodization or Teflon coatings can be applied. We also have the capability to bond heaters to three dimensional shaped parts in order to satisfy space constraints.

If your company is considering a heated part redesign or is looking for ways to free up engineering capacity by outsourcing,

look no further than to Durex Industries. Our motto is "Durex Can!"

**Durex Pulls Out  
All the Stops to Keep  
Customer Warm!**

Durex was contacted by an engineering firm that needed freeze protection for eight large contaminated water tanks at a waste remediation site in the Northern U.S. The temperatures were dropping and time was running out to get tank heaters on site to prevent freezing. Durex swung into action with several design proposals. The client finally selected and ordered four re-circulating heater / control panel skid systems. However, they needed these systems designed, built and shipped within 2 weeks! To save time, the customer decided to use on site pumps and piping to connect and operate the systems, instead of incorporating this into the skid package. Durex employees worked overtime and on the weekend to get approval drawings to the customer within 2 days. The units were constructed and functionally tested prior to shipment within 2 weeks! **Durex Can!**

**Contact Durex Industries for  
all your thermal loop product  
and system requirements.**



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*Durex Pulls Out All the Stops  
to Keep Customer Warm!  
See story above - third column.*

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