

# Circulation Heaters

## Typical Applications

Heatrex circulation heaters are used to maintain, raise, preheat and boost process temperatures from -50° F to 1200° F for a wide variety of liquids and gases found in commercial, industrial and military applications.

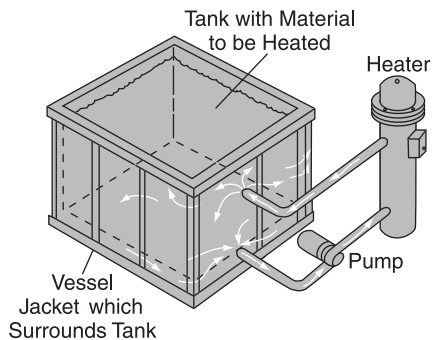
- Adhesives
- Air Heating (Process)
- Ammonia
- Anodizing Equipment
- Automotive and Engines
- Chemical Processing
- Curing
- Cryogenic Processing
- Degreasing Tanks
- Desalinization Equipment
- Dessicant Drying
- Drying
- Food Processing
- Freeze Protection
- Fuel Oils
- Gasoline Refining
- Heat Transfer Systems
- High Pressure Air or Gases
- Hydraulic Oils
- Laboratory Work
- Lubrication Oils
- Metal Cleaning Baths
- Nitrogen
- Oil Purifiers
- Oil Refining
- Oils
- Paint Lines
- Pasteurizing
- Pipeline Heating
- Plastic Machinery and Processes
- Platens
- Plating Tanks
- Preheating
- Presses
- Process Air and Liquids
- Purification Systems
- Rinsing/Cleaning
- Rolls and Cylinders
- Steam Heating
- Superheating
- Tank Heating (Process, Storage)
- Textiles
- Wash Tanks
- Waste Water/Sewage Treatment
- Water (Deionized, Potable, Process)

## System Configurations

### Closed Loop Systems

The circulation heater is installed in a system where the liquid or gas to be heated is recirculated through the heater in a closed loop configuration.

Applications of this method fall into the two distinct categories of Indirect and Direct Heating.



### Indirect Heating:

A heating medium such as Dowtherm, Therminol, ethylene glycol, water, oil or steam is heated as it flows through the heater. The heating medium is continuously recirculated through coiled tubing, pipes or vessel jackets which are wrapped around or inserted directly into storage tanks, vessels, molds, dies, presses and rolls which are to be heated.

### Typical Applications Include:

Viscous fluids and other temperature sensitive materials such as adhesives, asphalt, chocolate, syrups and varnish found in tanks and process vessels.

Corrosive materials like acids and chemicals which would quickly corrode heating elements directly immersed in the material.

Platens, molds, presses or rolls found in plastic injection molding/extrusion processes, textile industries and food processing plants. Some systems may involve high temperatures and pressures.

