



Temperature Control Units

Integrated Heat Transfer Equipment
for Heating and Cooling
-150°F to +750°F



Temperature Control Units

Overview

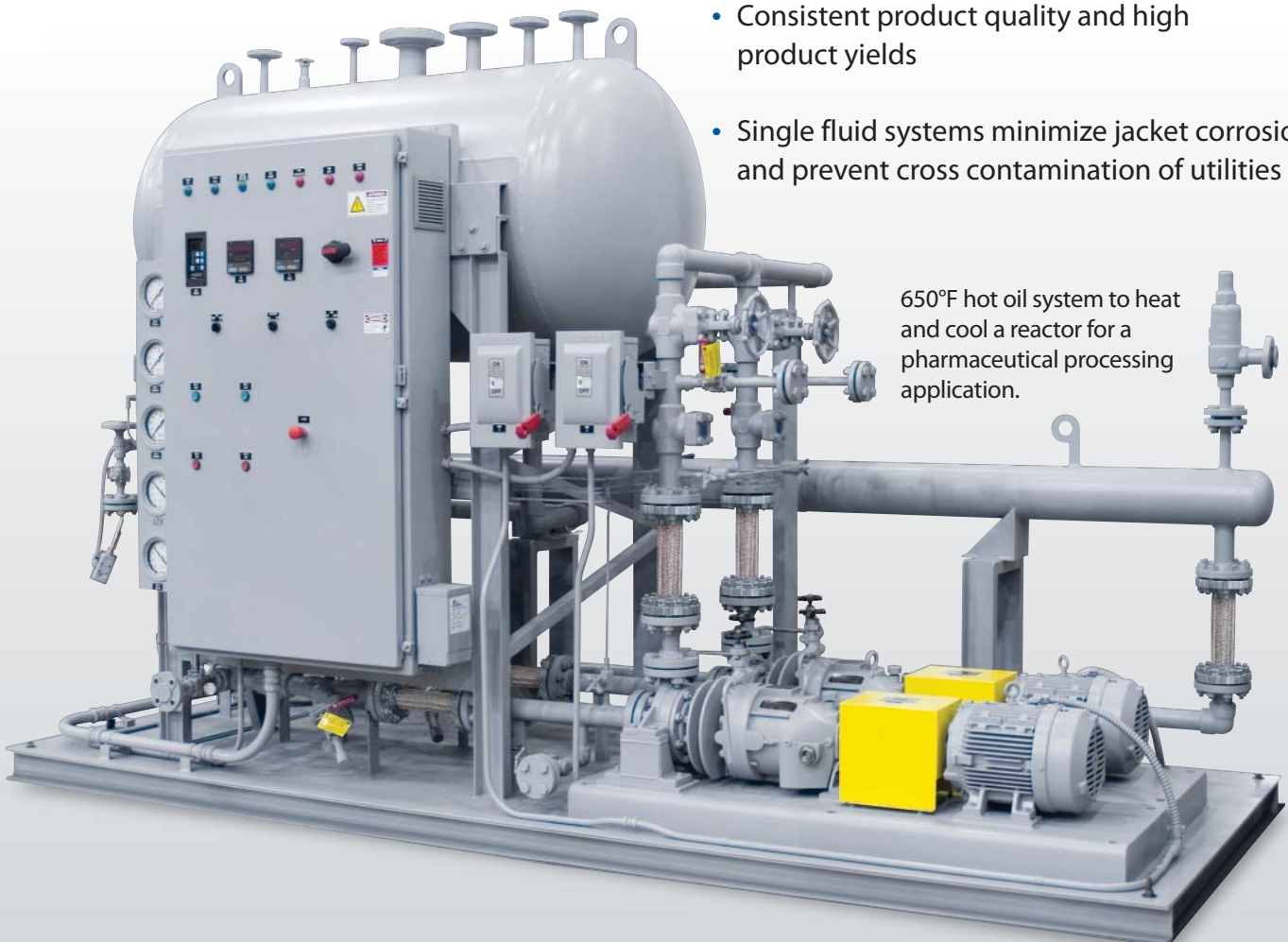
Fulton Thermal Corporation's Temperature Control Units (TCU's) solve some of the industry's most demanding control problems, including customized heat/cool systems for batch reactors or continuous processes with temperatures from -150°F to +750°F.

Temperature Control Units (TCU's) are closed loop systems designed for aqueous and non-aqueous (thermal fluid) heating and/or cooling using a single circulating media. Our applications and engineering staff is available to offer engineering assistance, discuss ideas and answer questions for your specific process requirements.

Save Time and Money

Single fluid systems offer key benefits for your manufacturing process:

- Highly experienced staff with diverse expertise to design and build to unique specifications
- Single source responsibility
- Turnkey operation
- Ease of automation and operation
- Ease of repetition for validation processes
- Consistent product quality and high product yields
- Single fluid systems minimize jacket corrosion and prevent cross contamination of utilities



650°F hot oil system to heat and cool a reactor for a pharmaceutical processing application.

A Wide Range Of Applications



Various Industries

With temperature capabilities ranging from -150°F to +750°F, Temperature Control Units from Fulton are ideal for heating and/or cooling of batch or continuous processes.



TCU's benefit industries such as chemical, pharmaceutical, inks and dyes, plastics, rubber, textile, water treatment and food processing.



Common Applications:

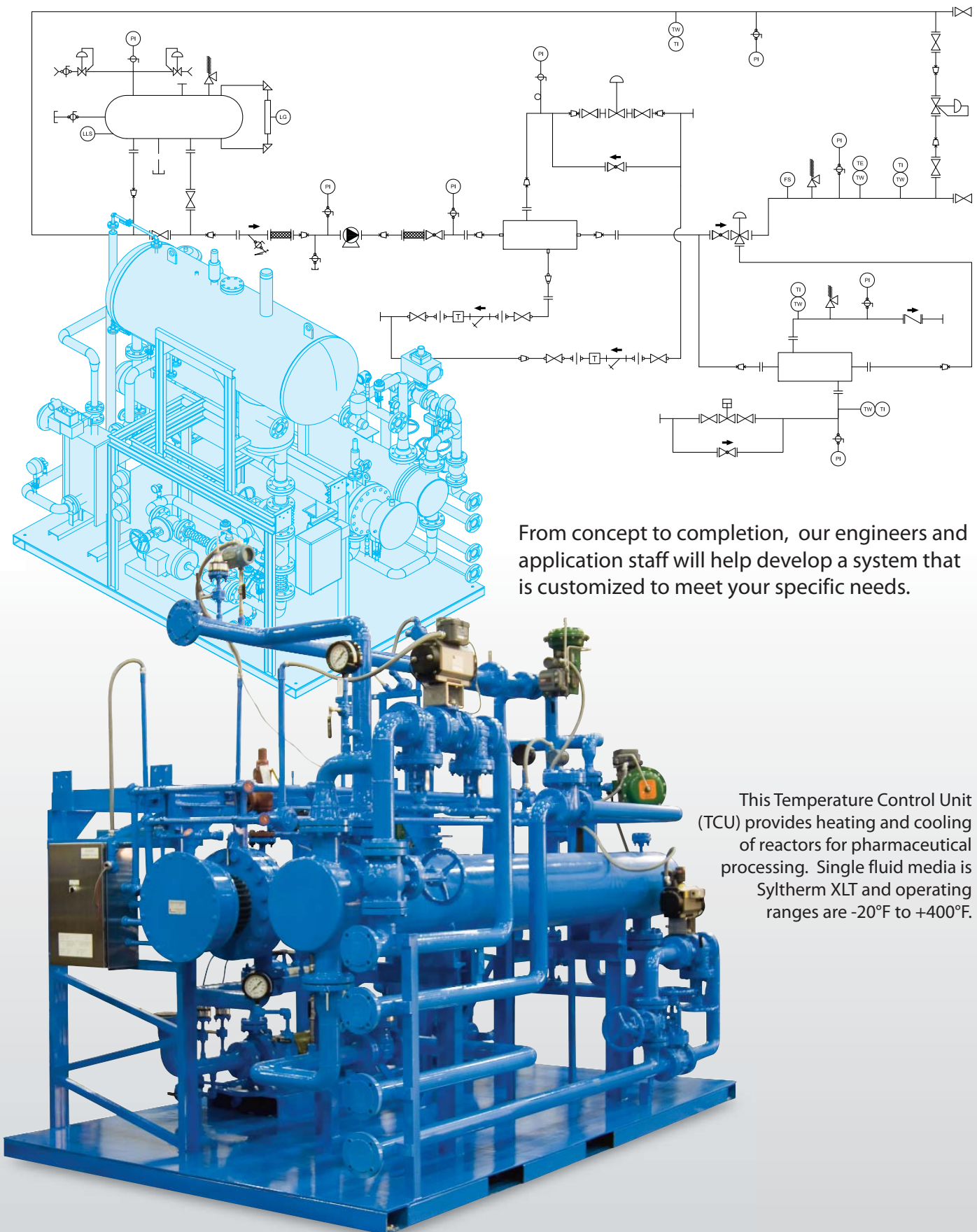
- Batch Reactors & Autoclaves
- Tray and Rotary Dryers
- Wiped Film Evaporators
- Distillation Columns
- Laminates, Molds, Presses and Extruders



This skid system includes one FT-0240-C thermal fluid heater with a skid mounted circulation pump and FT-0500-L expansion tank. The system also includes two specialty heat exchangers. One exchanger uses thermal fluid to heat water, while the other heat exchanger is used to heat ethylene glycol.



Engineering Capabilities



From concept to completion, our engineers and application staff will help develop a system that is customized to meet your specific needs.

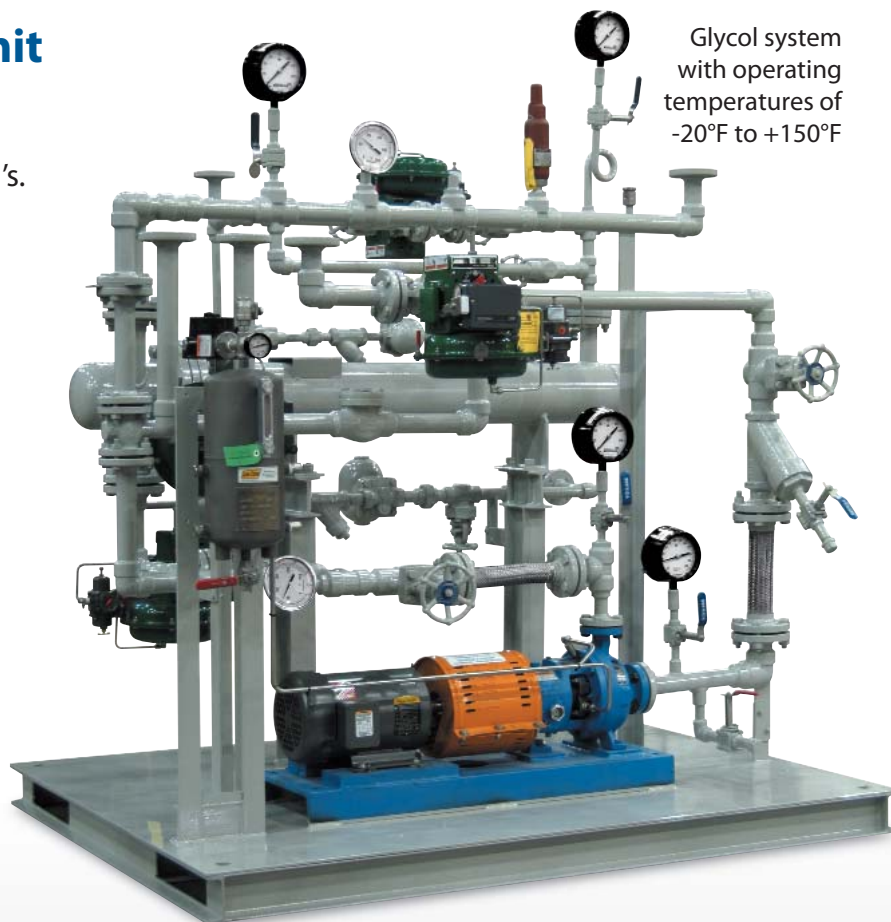
This Temperature Control Unit (TCU) provides heating and cooling of reactors for pharmaceutical processing. Single fluid media is Syltherm XLT and operating ranges are -20°F to +400°F.

System Components

Temperature Control Unit Components

Fulton offers a variety of compact TCU's. Our application staff will recommend and design the best solution for your heat transfer needs.

- Customized Electric Heaters
- Shell & Tube Heat Exchangers
- Plate & Frame Heat Exchangers
- Welded Plate Exchangers
- Expansion Tanks
- Control Valves
- PLC's & Control Strategies
- Pumps



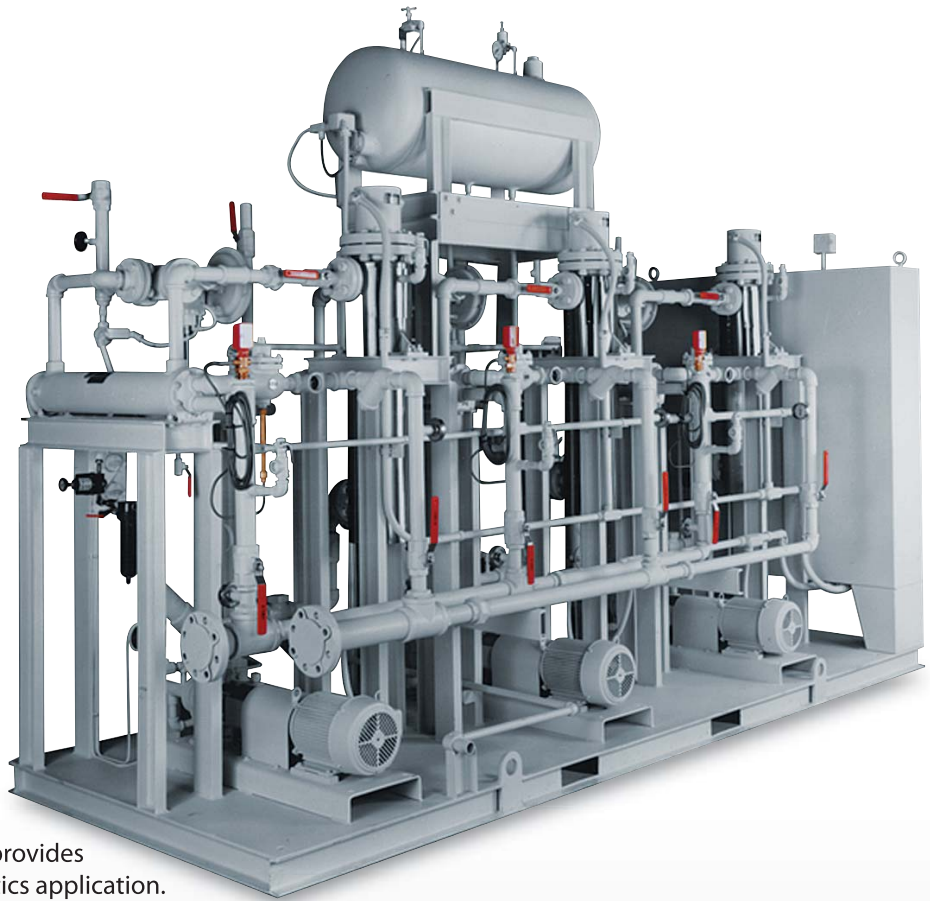
	High Temperature Thermal Fluid Systems	Glycol Systems	Specialty Thermal Oil Systems & LN2000 Technology
Operating Temps:	To +750°F	-20°F to +350°F	-150°F to +400°F
Heating Utility:	Thermal Fluid or Electricity	Steam, Thermal Fluid or Electricity	Steam, Thermal Fluid or Electricity
Cooling Utility:	Air cooling tower water or chilled water	Glycol	Chilled water or Glycol*
Sub Cooling:	N/A	N/A	Nitrogen
Piping System	Carbon or stainless steel	Carbon or stainless steel	Stainless steel
Applications	<ul style="list-style-type: none">• Resin & plastic platens• Extruders• Hot melt exchangers• Tempered sheet rolls• Food processing• Reactors• Evaporators• Distillation columns• Dryers	<ul style="list-style-type: none">• Glassed reactors• Conventional reactors• Condensers• Half pipe reactors• Alloy reactors• Tumble, rotary & tray dryers	<ul style="list-style-type: none">• Reactors• Condensers• Exchangers• R&D facilities• Pharmaceutical applications• Pilot plants <p>* Thermal fluid may also be used for intermediate cooling.</p>

Custom Solutions

Features / Benefits

- Small Footprint
- Fixed Ramp Rates
- +/- 2°F Temperature Control
- Reduced Operating Pressures
- Low Temperature Operation Using Low Viscosity Fluids
- Applicable For Cryogenic Applications

High temperature Thermal Fluid System with electric heaters and chilled water exchangers; operating temperatures to +750°F. This system provides heating and cooling of rolls for a plastics application.



This TCU utilizes hot oil to provide heating and cooling to glass lined reactors for the manufacture of dyes for the textile industry.



Water is used as the single fluid media for the TCU pictured above, providing heating and cooling for rubber processing. Operating temperatures are between +40°F and +400°F for this highly cyclical application.

Global Availability

Capability

- Global manufacturing facilities
 - United States
 - Great Britain
 - China
- Sales and Engineering Office in Canada
- Full ASME Section I, IV and VIII Certification
- UL Panel Shop
- Worldwide Sales and Service Network
- Dedicated R&D Facilities





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Fulton is a global manufacturer of steam,
hot water & thermal fluid heat transfer systems

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