

FTR Series

Tank And Vessel Heating



MODELS

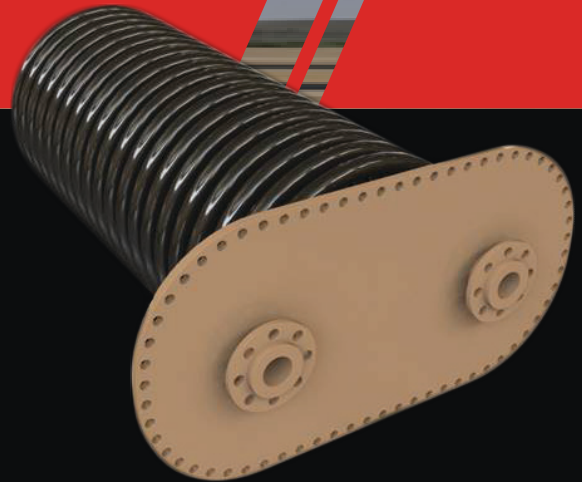
- FTR-80 80,000 BTU/HR
- FTR-160 160,000 BTU/HR
- FTR-280 280,000 BTU/HR

DESIGN

- Continuous duty design built to replace fire tube in storage tanks and pressure vessels with a circulation coil insert.
- System safely heats and circulates heating medium to heat process in a safe, efficient, and controlled manner.
- Typically used for Heater/Treaters and Storage Tanks with circulation coil.
- No modification to tank or vessel required.

OPTIONS

- 12/24 VDC & 120/240 VAC Available



SAFETY AND ENVIRONMENT

- Flameless, explosion proof heater technology.
- Hazardous area classification for Class I, Div.II
- Minimal emissions—Virtually zero VOC's & NOX's
- Safely raises and maintains temperature of produced fluids.



Comparisons

Fire Tube Systems

- Poor Thermal Efficiency (40-45%).
- Poor thermal efficiency means Fire Tube has to be built larger than what is required.
- Poor efficiency results in increased fuel gas consumption and increased emissions.
- Extreme temperatures can be very hazardous.
- Gasket failures due to high heat are common.
- High temperatures prevent placement of fire tube in oil column. Must be in the water column. Poor separation process.
- Scale from water can reduce heat transfer.
- Fire Tube failure is probable. Requires inspection on regular intervals.
- Fire Tube failure is usually catastrophic resulting in fire.
- Fire Tube can be costly if a burner management system is required.
- Operator anxiety when lighting burners is commonplace. Incidents are well reported.
- Fire Tubes are passive, requiring no power source.

Vs.

Kold Katcher Flameless Heating Systems

- Better thermal efficiencies through design (60-75%).
- System can be built smaller saving on capital output costs.
- Better heat transfer results in less fuel gas consumption and less emissions.
- No special permits required. No extreme temperatures.
- No Gasket failures.
- Internal pipe coil can be designed for placement into oil column. Enhanced separation process.
- Thermal heat transfer remains consistent because there are no scale deposits on internal pipe coil.
- Internal pipe coil does not require time consuming and costly inspections.
- No risk of fire as heating system is explosion proof.
- Lower cost of operation.
- Operator & Construction friendly.
- Continuous duty results in less cycling and more operational continuity.
- Kold Katcher flameless heating systems must have a power source.

Model: FTR Series Specifications

Fittings	
Adjustable Hi-temp Shutdown Valve	Standard
Adjustable Temperature Control	Standard
Pressure Cap on Fluid Reservoir	7 PSI–49 kPa
Threaded Fittings (Painted)	3000 lb forged steel
Tubings and Fittings	Stainless Steel
Heat Exchanger	Stainless Steel ASME Rated

Pump	
Maximum operating pressure	200 PSI
Operating temperature range	–30°F to 200°F
Flow rate	5–10 gpm

Mark II Flush Mount Catalytic Heaters	
Heat Input	80,000 to 280,000 Btu/hr
Face temp. of Heater @ maximum output	750°F
Gas Consumption @ maximum output	80–280 SCF/Hr

Dry Weight of Unit – Approx. 450 pds	
Fluid capacity	6 gal
Fluid reservoir - Working volume	4 gal
Fluid reservoir expansion volume	3 gal

Electrical	
Mag drive pump	120 /240 VAC
Auto gas shutoff	Integral
Flow Switch	Standard

Options	
Waste Heat Recovery System (WHRS)	Optional

Heating Medium

Waterless Coolant



WATERLESS COOLANTS OFFER SEVERAL ADVANTAGES:

- **No Corrosion:** Waterless coolants prevent water-caused corrosion.
- **No Erosion:** Coolant remains in liquid form and does not vaporize, preventing the “pitting” caused by water vapor.
- **No Overheating:** Waterless coolants prevent over-boiling by raising the boiling point of antifreeze from 223°F for water-based antifreeze to 375°F—far above normal operating temperatures.
- **No Pressure:** Because waterless coolants remain in liquid form, they prevent stress on cooling system components such as hoses, pump seals and heat exchanger seams due to high water pressure.
- **No Freezing:** Waterless coolants have natural antifreeze properties down to -40°F.
- **No Flushing:** Waterless coolants do not degrade and are designed to last the life of the heating system, so you’ll never need to add or change coolant.
- **Cost Savings:** Using waterless coolant will reduce operating costs and improve pump performance and heat transfer.
- **Less Toxicity:** Waterless coolant is classified as non-toxic.