



Shell & Tube Heat Exchangers

Thermaline stainless steel Shell & Tube heat exchangers are manufactured in accordance with ASME and TEMA standards. Standard with a mechanical solid seal backed with a self energized o-ring ensuring years of uninterrupted service.

Options:

- 304, 316, Duplex, AL6XN and other materials
- Single or multi pass
- Single and double tube sheet
- Insulation - Stainless Steel/PVC/Blanket
- High purity surface finishes

HYGX

Standard Shell & Tube designed for utility-type applications where the process water is not in the same circuit as food products. Closed loop and instant hot water applications.

- Inner tubes - 2B finish and laser welded seams
- Tube to tube sheet connection- rolled and expanded into the sealing groove
- Connections and distribution area 32 RA polish

HYGA

Sanitary Shell & Tube meeting 3-A Sanitary standard 12-09. Can be used to process food products, personal care products, and CIP circuits that come in direct contact with processing circuits.

- Seamless inner tubes with 32 RA ID finish
- Tube to tube sheet connection - rolled and expanded into the sealing groove
- Seal welded tube to tube sheet face
- Connections and distribution area 32 RA polish

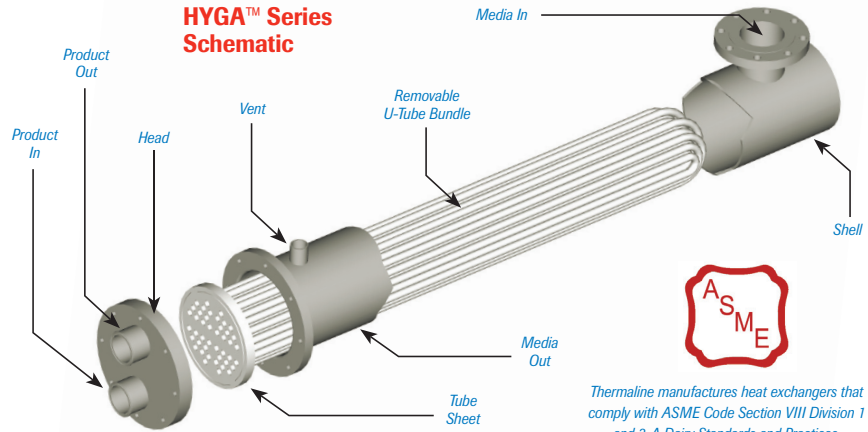
BIOX

Pharmaceutical grade Shell & Tube manufactured in accordance with ASME/BPE for bioprocessing, pharmaceutical, and personal-care products industries, as well as other applications with high levels of sanitary requirements.

- High purity inner tube surface finish
- Tube to tube sheet connection - rolled and expanded (hydro-swaged) into the sealing groove
- Precision machine welded tube-to-tube sheet face
- High purity connections and distribution area



HYGA™ Series Schematic



Thermaline manufactures heat exchangers that comply with ASME Code Section VIII Division 1 and 3-A Dairy Standards and Practices.

Hot Water Sets

Close approach temperatures, precision control, and dependability all come standard on every Thermaline hot water set. Each hot water set is designed around your process, closely matching the steam characteristics with the thermal demand for optimal performance, but still providing the power needed for startups and high demands.

Closed Loop Applications

- HTST/UHT Loop water
- Utility water
- Jacketed tanks

Continuous Duty

- Clean-In-Place (CIP)
- Batch heating
- Hose stations
- Instant hot water

Features

- Thermaline HYGX, HYGA, and BIOX Shell & Tube heat exchanger
- Stainless steel frame with adjustable ball feet or mounting tabs
- Stainless steel or carbon steel steam components
- ASME Steam and relief components

Options

- Process water pump (stainless steel or painted motor) piped to the Shell & Tube with port for RTD
- Control panel stainless steel enclosure with precision loop controller
- Condensate return - electric or pressure motive
- Stainless steel or Carbon steel expansion tank (when applicable)



Expansion Tanks

Thermaline offers a full range of all stainless steel expansion tanks which are used on closed loop systems to displace expanding fluids and limit the pressure in heating systems. Thermaline expansion tanks are made of 304 or 316 stainless steel and built in accordance to ASME standards. Custom and standard sizes available.