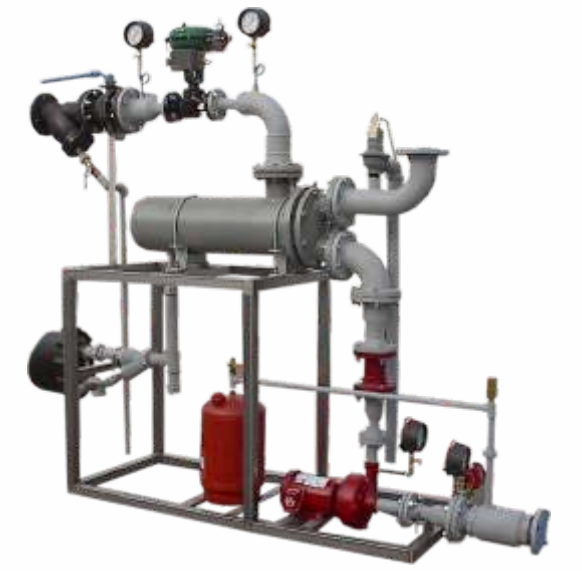
Hot Water Sets



TriStar LTD's Hot Water Sets provide all components, including controls, between the boiler and heat exchanger in heat exchanger systems. Commonly used in Chemical, Food & Beverage, and Pharmaceutical industries for:

CIP Systems
Pasteurization Systems
Industrial Laundry
Process Heating
Reactor Vessels
Water Heaters

Our Hot Water Sets are available in standard models to work with most systems. Flow rates range from 25 GPM to 400 GPM. Shell and Tube or Brazed Plate designs are available in carbon steel or 316 stainless steel. TriStar will custom design and build other systems to match your unique specifications.

Standard Features

- Air/Water Separator and Vent
- Condensate Trap
- Expansion Tank
- Manual Shutoff Valve
- 3 Pressure Gauges
- Recirculation Pump
- Shell & Tube or Brazed Plate Heat Exchanger
- Stainless Steel Base and Rack with Adjustable Ball Feet
- Steam Control Valve - Three Control Options Available
- Steam Safety Relief Valve
- Steam Trap
- 2 Thermometers
- Vacuum Breaker
- Water Make-up and Relief Valves
- Y Strainer on Steam Line

Models and Options

Use the model number chart (below) to configure your system. Factors to consider include water flow rate, heating range, materials of construction, and connection types.

HWS150185-200-SSF-EP

Heat Exchanger
S - Shell and Tube
B - Brazed Plate

Flow Rate (Max GPM)
025
075
150
250
400

Temperature Range (Deg F)
160-210
170-200
185-200
195-200

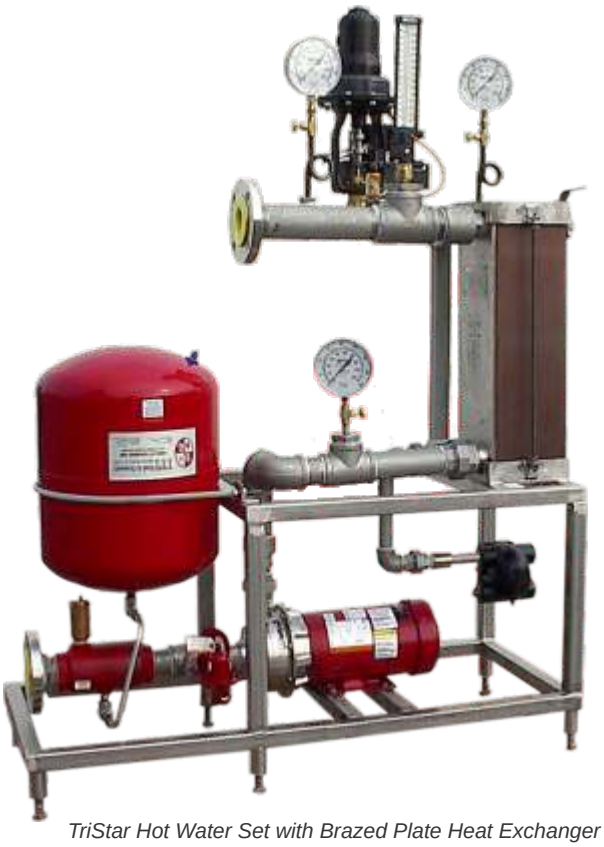
Service Fluid (Hot Water) Piping
C - Carbon Steel
S - Stainless Steel

Steam Piping
C - Carbon Steel
S - Stainless Steel

Connection Type
T - Threaded (1/4" to 2")
F - Flanged (2 ½" and Up)

Control Loop Options
SE - Steam Valve Only, 4-20 ma
SA - Steam Valve Only, 3-15 PSI
EP - Electro-Pneumatic
SO - Self Operating

Hot Water Sets



TriStar Hot Water Set with Brazed Plate Heat Exchanger

Control Loop Options

Depending on the heat transfer application and plant layout three different control options are available.

Steam Control Valve Only

For plants and applications where the hot water set is going to be operated by the plant's Distributed Control System (DCS). Also for applications where the temperature sensor (RTD) is located far from the hot water set. A pneumatically operated steam control valve is supplied. Two signal types are available:

- 4-20 ma - Standard configuration
- 3-15 psi air - For air-only operation

Electro-Pneumatic Control Loop

A complete control system for applications where sudden or large load changes, or rapid temperature changes occur. The system senses the current temperature of the process using an RTD. It then compares the current temperature to the set point using an electronic controller. The controller sends a corrective 4-20 ma electric signal to the positioner. The signal then controls pneumatic air supply to the steam control valve which increases or decreases the steam flow into the system. The change in steam flow raises or lowers the water (service fluid) temperature. Components include:

- Steam Control Valve
- Thermowell
- Temperature Sensor (RTD)
- RTD Extension Wire
- Electronic Controller
- Enclosure for Electronic Enclosure

Self-Operating Control Loop

Simple and economical control loop uses hydraulic line for controlling relatively stable systems, where small valve stroke modulations will correct temperature drift. The temperature sensing bulb sends a hydraulic control signal to the special steam valve. Components include the Self-Operating Temperature Regulator and the Thermowell for the temperature sensor.

Call (716) 873-0081 or email: sales@tristarltd.com

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