



## Semi-Instantaneous Water Heater Steam-to-Water or Water-to-Water Application

**6–55 Gallon capacity, up to  
12 kW, single phase and three  
phase options available**

**Provides commercial and institutional  
buildings with potable hot water**

**Available in horizontal or vertical orientation**

**Prepackaged system with factory sized  
components, making for an easy installation**

**Outstanding thermal efficiency,  
high quality ASME coded construction**

- Heating coil is available in single and double wall tubing with various material options
- Additional options to meet diverse application needs

### **Applications**

Hospitals, correctional facilities, office buildings, university dormitories, military bases.



SYNERGY STEAM SERIES  
**STX**

### **A long lasting, trouble-free water heater**

The Synergy Steam STX is a fully packaged semi-instantaneous steam fired water heater that heats potable water. It has digital temperature controls, outstanding thermal efficiency, stainless steel ASME pressure vessel, and requires minimal floor space.

### **Over 100 years of water heating expertise**

Hubbell water heaters are the right choice for your commercial and industrial applications. We have water heating solutions for most energy sources with storage capacities from 1–10,000 gallons—all designed, engineered, and manufactured for reliability and longevity coupled with unparalleled support and service.

**NOTE:** Manufactured in an ISO 9001:2015 facility.  
BABA & BAA compliance is available upon request.



Meets the requirements of the ASME  
Boiler and Pressure Vessel Code

## Standard Features

- Close temperature controls with  $\pm 4^{\circ}\text{F}$  at heater hot water outlet under normal operating conditions
- Solid rust-free stainless steel construction on the entire domestic water side and standard stainless steel mirror finish jacket
- Compactly sized requiring minimum space for installation, with vertical or horizontal heater choice
- Tube bundle readily accessible without removing shell or foundation for all single wall models; recommended horizontal mounting of double wall due to coil length
- Standard sizes cover hot water output from 5 to 650 GPM simplifying size selection and layout

## Standard Equipment

### Shell & Tube Bundle

- ASME Section VIII Division I vessel stamped for 150 psig design working pressure (MAWP).
- National Board registered
- Vertical or horizontal model with solid 316L stainless steel construction and 304L stainless steel fittings
- Steel vertical stand
- SB-75 seamless copper U-tube
- 304 stainless steel tube sheet

### Controls

- Electric, Pneumatic and Pilot operated control valve for steam
- Electric and Pneumatic control valve for water
- 150 psig ASME pressure relief valve
- High limit aquastat
- Safety solenoid valve
- NEMA 1 control panel
- Control voltage 120V/1ph/60Hz, 10 amps
- Temperature gauge
- 1/25 HP recirculator pump
- Condensate orifice trap and steam strainer (for steam models)







### 1. Digital

Uses microprocessor based PID loop controller with RTD temperature sensor. The controller includes digital outlet temperature readout on two line/four button user interface, auto tuning, manual output control, high/low deviation alarm, 4-20mA control signal.

### 2. Electro-Pneumatic

Uses microprocessor based PID loop controller with RTD temperature sensor. The controller includes digital outlet temperature readout on two line/four button user interface, auto tuning, manual output control, high/low deviation alarm, 4-20mA control signal. The 4-20 mA signal is converted to an air control signal using an I/P (Current-to-Pneumatic) positioner.

### 3. Pilot

A pilot control valve senses fluid temperature with a bulb and capillary tube, then uses that signal to automatically adjust a larger main valve, controlling the flow to maintain a set temperature.

### 4. Pneumatic

The fluid temperature is sensed using a bulb that is integral to the temperature regulator. The temperature regulator is robust, non-indicating, and modulates the flow to maintain a set temperature.

### BMS

Ace Heaters products come equipped with a digital PID control panel, capable of communicating with Building Management Systems (BMS) over Modbus Serial (RS-485), Modbus TCP/IP (Ethernet) or BACnet/IP (Ethernet). A communications router is available separately if BACnet/MSTP (serial) is required for the installation. The communications protocols allow near complete control over the unit remotely, allowing the operator to view and change an extensive list of available operational parameters.

### Remote setpoint

A remote setpoint is a desired target value for a control system that is entered electronically from an external source, rather than directly on the device itself. It allows adjustment of the setpoint using a 4-20mA signal from a different location, enabling automated control in complex systems, multi-zone setups, or master/slave configurations.

Control Method	Standard Control	Digital Control	BMS	Remote Set Point
1. Digital	✓	✓	○	○
2. Electro-Pneumatic	✗	✓	○	○
3. Pilot	✗	✗	✗	✗
4. Pneumatic	✗	✗	✗	✗

✓ Available    ○ Optional    ✗ Not Available

### The STX Temperature Control System

The temperature control system keeps the heated water within four degrees of the selected temperature. This is accomplished by placing the temperature control element directly in the constant flow path of the water leaving the heating surface making “anticipator” devices unnecessary. After the water passes over the control element it enters a tempering chamber between the heating surface and the water outlet.

Another essential part of the temperature control system is the integral circulator. This small pump (1/25 HP):

- Constantly recirculates a portion of the heated water to the cold water inlet making the total volume of the heater a tempering chamber.
- Eliminates any overheated water pockets caused by control valve lag when hot water demand is suddenly reduced.
- Can be used to provide recirculation of the water from the fixtures through a tee fitting that is provided with the package.
- When the hot water return system requires greater recirculation the integral pump size can be pre-selected to provide the duty.

### Robust Construction

The STX features total rust free construction with austenitic stainless steel and copper for all domestic water contact surfaces, providing high quality, low maintenance and an extremely cost-effective domestic water heating package. Non-metallic PTFE baffles are used to prevent tube damage.

The **vertical STX** semi-instantaneous heater saves floor space, is simple to install and very easy to service and maintain. The vertical unit also provides complete drainage of condensate. Universal mounting brackets allow the STX to be mounted in the horizontal position.



## Advantages of the Synergy Steam STX

### Condensing Design – Sub-Cooled Condensate

Sub-cooling condensate maximizes the heat transfer efficiency of a heat exchanger. By using a condensing design, the STX condenses steam in the tubes and cools condensate well below its flash temperature. This is achieved by simultaneously flowing entering cold water across the tubes carrying exiting condensate while using an orifice to restrict condensate drainage. Depending on the load, exiting condensate temperatures are typically 10-15 degrees higher than the exiting domestic hot water temperature which negates the need for a steam trap or flash tank.

Several benefits are realized from sub-cooling condensate:

- Sub-cooling can increase efficiency by as much as 25% which results in less steam required to heat the same GPM.
- No steam trap means no possibility for steam trap failure
- Heat typically lost to flash heats the domestic water instead of being lost
- in the condensate receiver or flash tank.
- Mechanical spaces are much cooler.
- Pumping cooler condensate greatly extends the life of pumps.

### Heavy Wall Heat Exchanger Tubes

The Ace Series STX uses heavy duty, 0.049" wall copper heat exchanger tubes... twice the wall thickness as tubes used by other leading water heater manufacturers. Thicker tube walls increase the longevity of the heat exchanger and provide improved efficiency. Thin wall tube bundles cost less, but can result in premature failure and high replacement cost. 0.049" tubing can last up to 25 to 30 years. 0.049" wall seamless SB75 copper tubing is standard on Hubbell STX.

### Double Solenoid High Temperature Safety Systems

The double solenoid system adds safety and guards against scalding. At a pre-determined high temperature setpoint, the system provides annunciation to the EMS system before a dangerous condition develops or the domestic hot water loop cools down. The system discharges at a lower temperature before the relief valve discharges (at 210°F). This safety system is optional on Hubbell STX and storage water heater packages.

### Extended Non-Prorated Warranty

The Hubbell STX offers a factory extended, 10-year (or 10/20-year), non-prorated warranty that includes all wetted components (shell, heat exchanger tube sheet, etc).





## Steam-To-Water STX

### ASME Code, Section VIII, Division 1

constructed pressure vessel, National Board registered. All stainless steel construction on the water side, pressure vessel quality carbon steel on the steam side.

**1.5" thick rigid fiberglass insulation** with a 24 gauge annealed stainless steel jacket. Minimizes standby heat loss, is durable and looks great.

**NEMA 4X, UL listed control panel** with a user friendly control interface, off/on switch, power indicator, and over temperature alarms. All internal components are sized accordingly.

**Electric steam control valve**, fail closed in the event of power loss or over temperature. Available in pneumatic, electro-pneumatic, and pilot

**Teflon baffles** extend the life of the tube bundle.

**Steam inlet strainer**

**Steam pressure gauge** with isolation valve and siphon.

**Steam vacuum breaker**

**Single wall tube bundles** can be removed from the bottom without removing the shell or steel base. Double wall tube bundles require shell removal.

**Structural steel base** requires minimum floor space.

**HOT WATER OUTLET**

**Secondary high temperature set point** opens a water solenoid valve, dumping hot water down a drain.

**Water temperature gauge.**

**ASME temperature and pressure relief valve.**

**Integral stainless steel circulator**, acts as an anticipator and eliminates stratification. Provided with isolation valves for ease of maintenance.

**Water drain valve**

**COLD WATER INLET**

**Single or double wall tube bundle**, available in copper, 90/10 copper-nickel, 316/L Stainless steel and titanium.

**Orifice union** with an engineered opening functions as a simple steam trap.

**CONDENSATE OUTLET**





### Construction

All semi-instantaneous water heaters must have non-ferrous shell construction to accommodate rust-free domestic, potable water. The STX shell construction is unlined 316L stainless steel. Other leading manufacturers use a carbon steel shell with a thin copper lining on the water side. Liners are problematic because they can separate or split. Such failure exposes domestic water to carbon steel and can result in rusty, discolored, and contaminated water. Conversely, unlined shells are trouble-free. The Hubbell STX unlined 316L stainless steel shell construction has no equal in the industry and is far superior to a copper-lined, carbon steel shell.

### Design Versatility

The Hubbell STX is ideal for small mechanical spaces. The STX unit is available in a variety of configurations including vertical and horizontal, and single or double wall tubes. Horizontal units are preferred where headroom is a constraint. In the horizontal configuration, dual units can be stacked to minimize required floor space and reduce installation cost. If the condensate line is too high, the horizontal unit will enable gravity discharge of condensate and eliminate the need for a condensate receiver and pumpset. The vertical configuration has an extremely small footprint and does not require significant headroom clearance for servicing.

### Temperature Control

There are two basic types of temperature controls used on semi-instantaneous water heaters: active systems (with a pump) and passive systems (without a pump). Both designs are characterized as 'anticipatory feed-forward' type temperature control systems and will control  $\pm 4^{\circ}\text{F}$  at 'normal load variations'. The STX uses an active system which uses a 1/25 HP, all bronze circulator to maintain constant flow over the temperature sensing element. This ensures fast response and tight temperature control at all load profiles. Passive systems rely on the differential pressure of the water flowing over the heat exchange surface and can save the cost of operating the small circulator. However, they cannot control temperature as well as pumped systems can at low flow conditions. With a pumped system, temperature control is very tight at all load profiles. The STX temperature control system is simple, fast and accurate.

### Serviceability

Servicing the STX is fast, easy, and inexpensive. Parts are reasonably priced and readily available. The O & M manual outlines respective part numbers for each accessory manufacturer. All of the STX accessories are readily available from local plumbing supply houses. In addition, the STX is designed to be completely serviced in place without an overhead clearance requirement or the need to lay the unit horizontally. On single-wall vertical units, enough clearance exists under the stand to completely remove the heat exchanger.

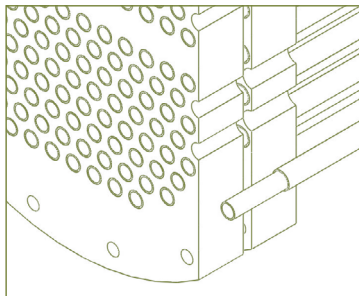


**Health Issues (i.e. Legionella)**

The three conditions that must be present to promote the growth of the Legionella organism are:

- Host (usually in the form of scale)
- Low velocity
- Water temperatures between 68°F - 122°F.

The Hubbell STX is designed to keep the shell side domestic water in constant circulation via the 1/25 HP circulator. This keeps the entire volume of water in the shell at set-point temperature and eliminates temperature stratification common in the designs of our leading competitors. Most importantly, the STX design eliminates the proliferation of Legionella bacterium by maintaining safe water temperatures and higher water velocities and minimizing scale formation.



The Hubbell STX water heater has been tested and used for more than two decades in demanding, high volume water heating applications. It is a proven design that is simple, efficient, and trouble-free and offers building owners and maintenance personnel numerous end-user features and benefits. Specifying the Hubbell STX water heater combines the highest levels of quality, efficiency, and safety with a long lasting, cost-effective design that is inexpensive to operate and easy to service.





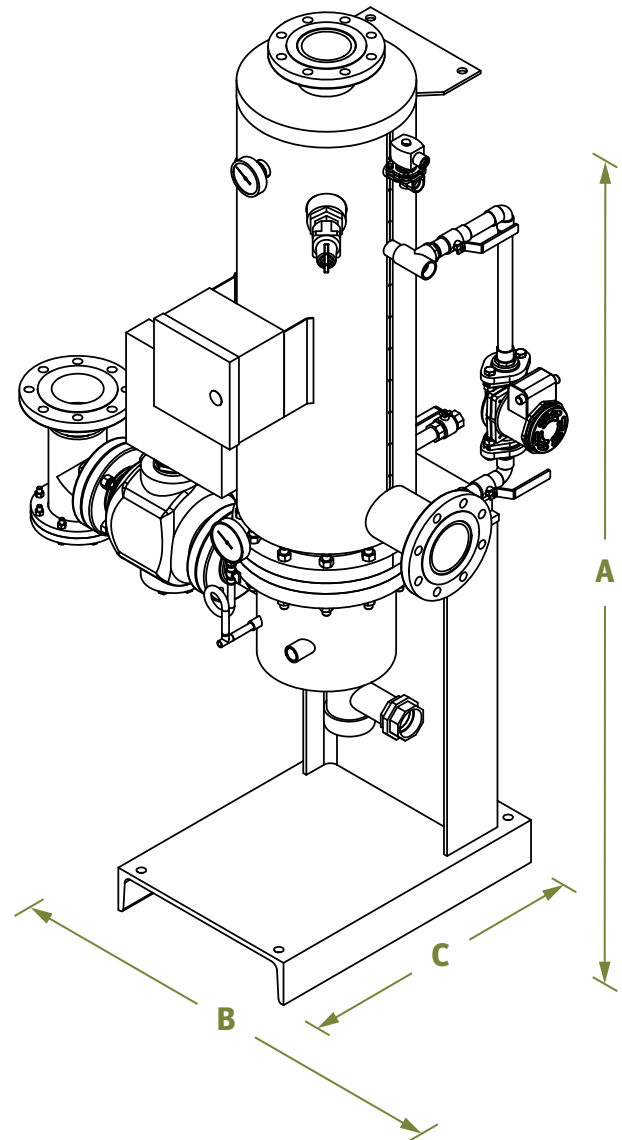
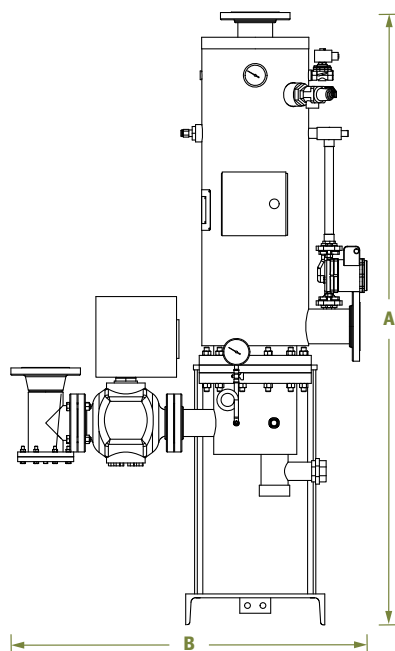
## Single-Wall Steam-to-Water Dimensions

### Vertical

Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXVSW-4S	82 15/16	33 1/4	21	350
STXVSW-5S	69 11/16	35 3/4	21	400
STXVSW-6S	85 13/16	36 1/2	21	500
STXVSW-8S	75 5/16	38 3/4	21	600
STXVSW-8LS	88 5/16	38 3/4	21	650
STXVSW-10S	79 1/4	46 3/4	27	900
STXVSW-10LS	92 1/4	46 3/4	27	950
STXVSW-12S	83 1/4	49 3/8	27	1,125
STXVSW-12LS	107 1/4	49 3/8	27	1,175
STXVSW-14S	98 1/4	52 5/8	30	1,700
STXVSW-14LS	128 1/2	52 5/8	30	1,800
STXVSW-16S	121 3/4	56 7/16	30	2,200
STXVSW-16LS	135 3/4	56 7/16	30	2,350

All dimensions in inches. Dimensions are subject to change.  
See Page 14 for complete model number schema.

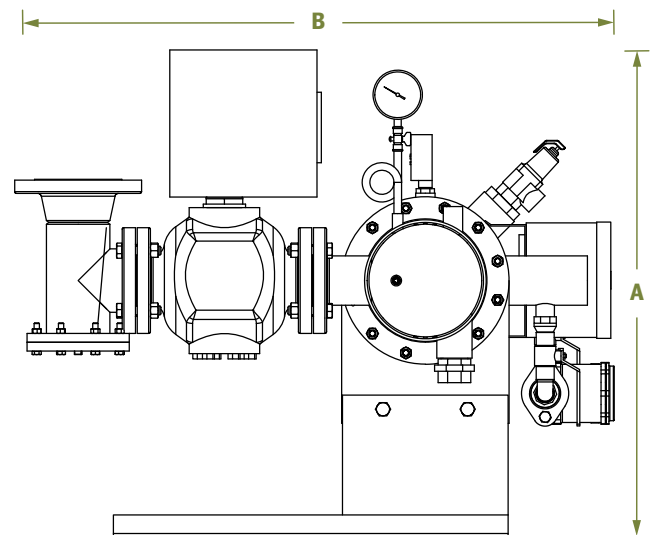
<sup>1</sup>Connections 4" IPS and above 150# ANSI FLG



## Single-Wall Steam-to-Water Dimensions

### Horizontal

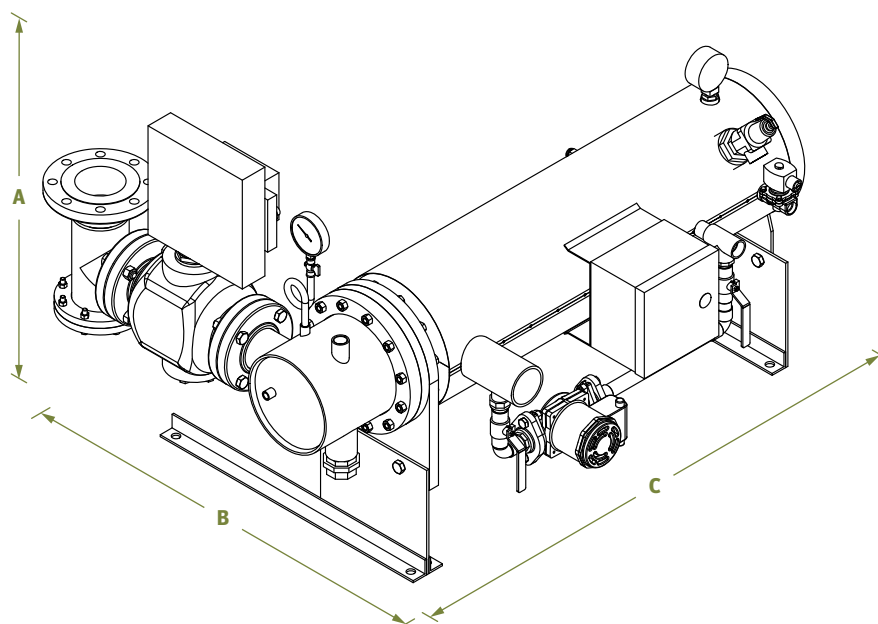
Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXHWS-4S	31 3/4	33 1/4	56	300
STXHWS-5S	33 7/8	35 3/4	49	350
STXHWS-6S	36 1/4	36 1/2	57 3/8	450
STXHWS-8S	41 3/16	38 3/4	53 7/8	550
STXHWS-8LS	41 3/16	38 3/4	59 7/8	600
STXHWS-10S	45 1/16	46 3/4	57	850
STXHWS-10LS	45 1/16	46 3/4	63	900
STXHWS-12S	49 3/4	49 3/8	63 15/16	1,075
STXHWS-12LS	49 3/4	49 3/8	75 15/16	1,125
STXHWS-14S	49 3/4	52 5/8	73 1/16	1,650
STXHWS-14LS	49 3/4	52 5/8	88 5/16	1,750
STXHWS-16S	51 1/4	56 7/16	88 1/16	2,150
STXHWS-16LS	51 1/4	56 7/16	102 1/16	2,300



All dimensions in inches. Dimensions are subject to change.

See Page 14 for complete model number schema.

<sup>1</sup>Connections 4" IPS and above 150# ANSI FLG





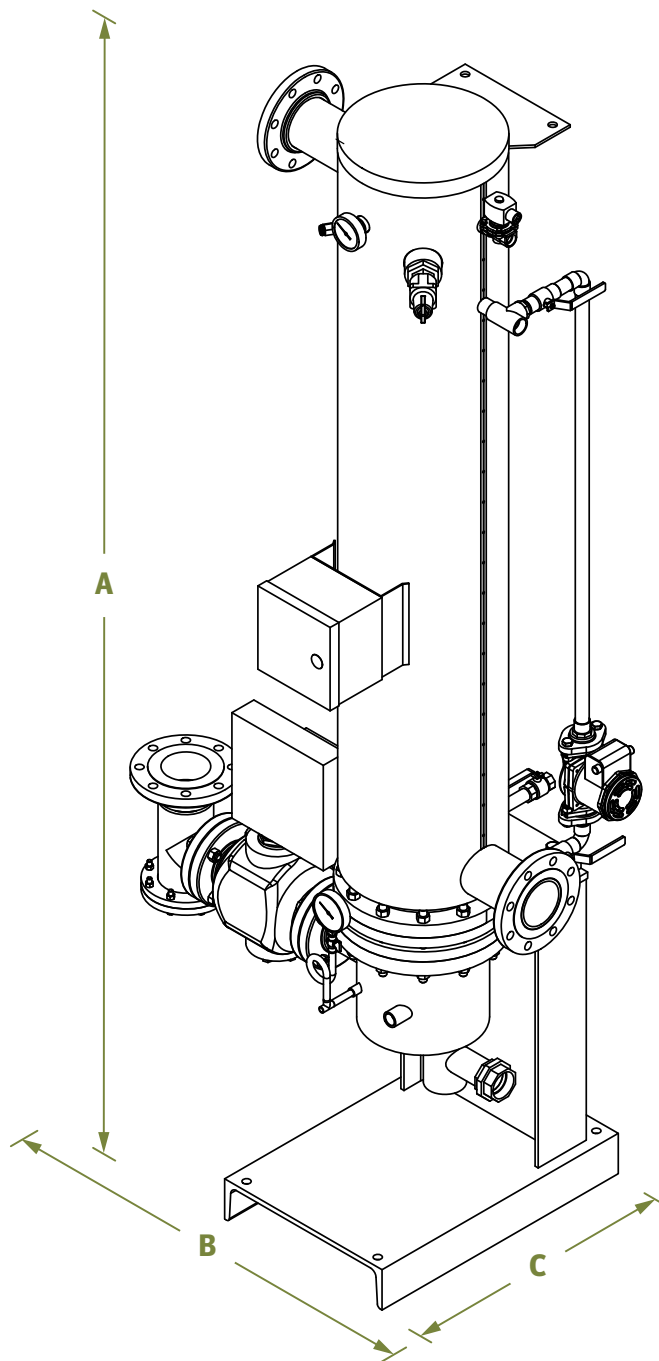
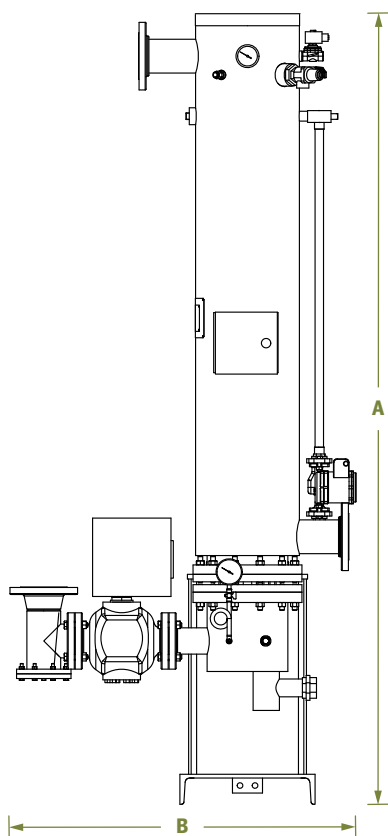
## Double-Wall Steam-to-Water Dimensions

### Vertical

Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXVDW-5S	93 7/8	35 3/4	21	400
STXVDW-6S	97 3/8	36 1/2	21	500
STXVDW-8S	98 5/8	38 3/4	21	600
STXVDW-10S	105 1/4	46 3/4	27	1,000
STXVDW-12S	110	49 3/8	27	1,300
STXVDW-14S	121	52 5/8	30	1,900
STXVDW-16S	127	56 7/16	30	2,450

All dimensions in inches. Dimensions are subject to change.  
See Page 14 for complete model number schema.

<sup>1</sup> Connections 4" IPS and above 150# ANSI FLG



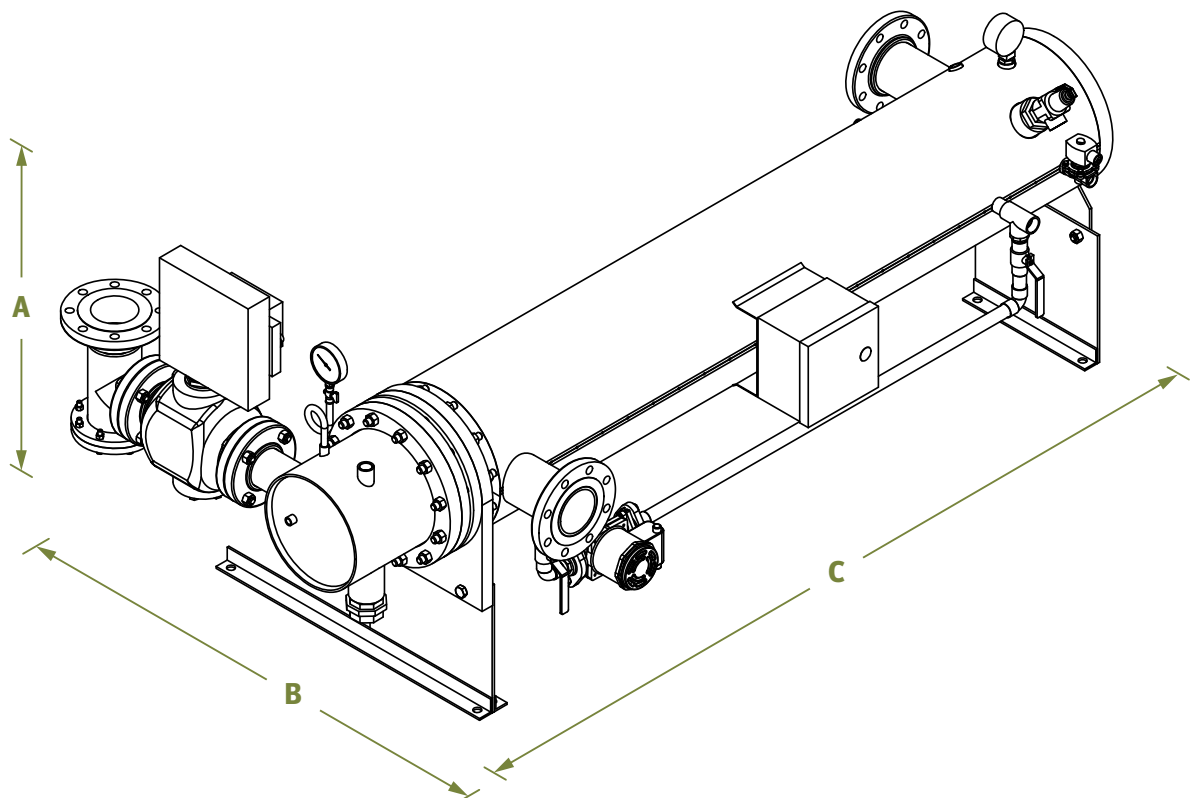
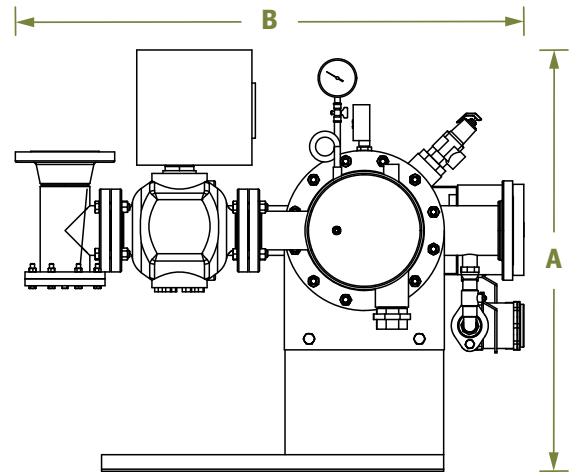
## Double-Wall Steam-to-Water Dimensions

### Horizontal

Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXHDW-5S	33 7/8	37 7/8	80 3/16	435
STXHDW-6S	35	60 1/8	81 5/16	535
STXHDW-8S	39 1/16	57 1/8	83 9/16	635
STXHDW-10S	43 1/4	54 1/2	87 1/8	950
STXHDW-12S	48 1/8	46 1/2	94 7/16	1,200
STXHDW-14S	48 7/8	38 3/8	104 1/16	1,750
STXHDW-16S	49 5/8	63 1/8	110 15/16	2,250

All dimensions in inches. Dimensions are subject to change.  
See Page 14 for complete model number schema.

<sup>1</sup> Connections 4" IPS and above 150# ANSI FLG





## Single-Wall Water-to-Water Dimensions

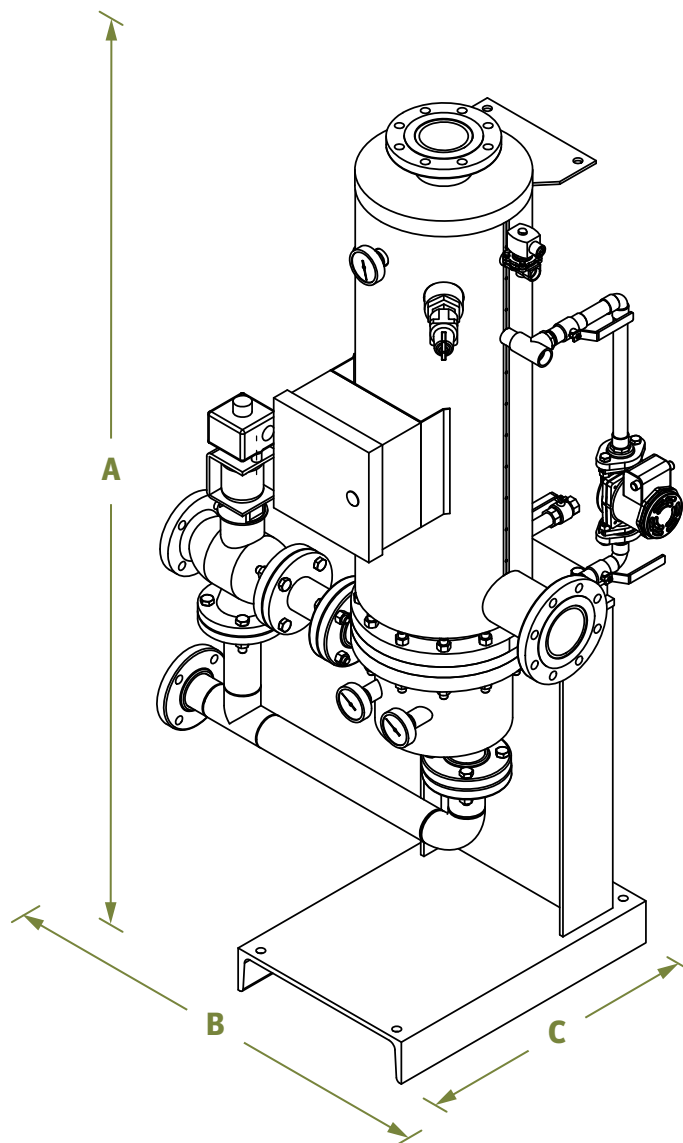
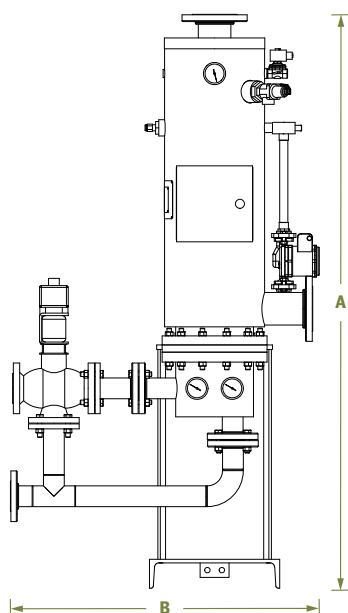
### Vertical

Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXVSW-4W	82 15/16	24 5/8	21	300
STXVSW-5W	69 11/16	29 11/16	21	350
STXVSW-6W	85 13/16	31 1/4	21	400
STXVSW-8W	75 5/16	33 5/16	21	500
STXVSW-8LW	88 5/16	33 5/16	27	550
STXVSW-10W	79 1/4	35 15/16	27	850
STXVSW-10LW	92 1/4	35 15/16	27	900
STXVSW-12W	83 1/4	40 7/16	27	1,075
STXVSW-12LW	107 1/4	40 7/16	27	1,200
STXVSW-14W	98 1/4	43 3/4	30	1,550
STXVSW-14LW	128 1/2	43 3/4	30	1,850
STXVSW-16W	121 3/4	47 5/8	30	2,125
STXVSW-16LW	135 3/4	47 5/8	30	2,350

All dimensions in inches. Dimensions are subject to change.

See Page 14 for complete model number schema.

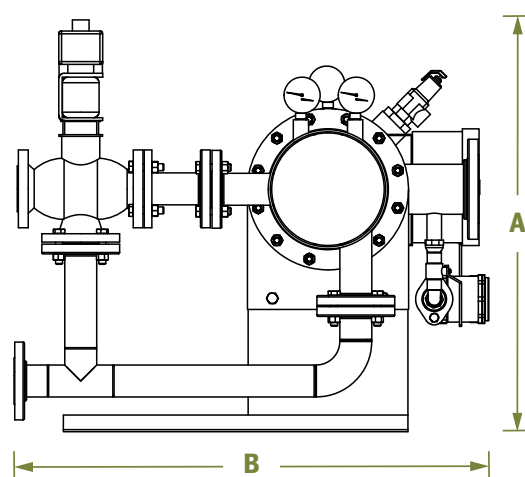
<sup>1</sup>Connections 4" IPS and above 150# ANSI FLG



## Single-Wall Water-to-Water Dimensions

### Horizontal

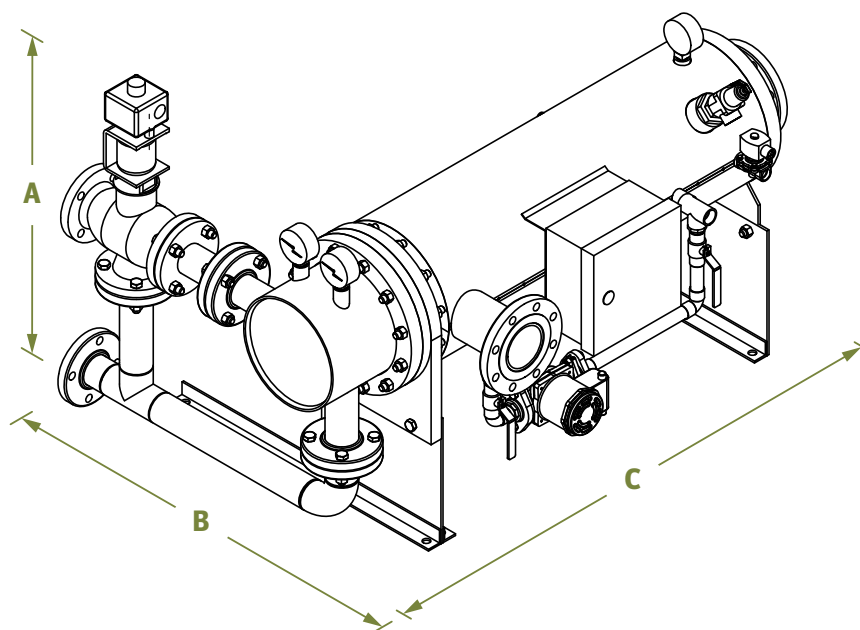
Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXH5W-4W	30 1/8	28 7/16	56	275
STXH5W-5W	33 7/8	30 7/8	49	300
STXH5W-6W	35	31 5/8	57 3/8	350
STXH5W-8W	39 1/16	32 3/8	53 7/8	450
STXH5W-8LW	39 1/16	32 3/8	59 7/8	500
STXH5W-10W	43 1/4	36 5/8	55 1/2	800
STXH5W-10LW	43 1/4	36 5/8	61 1/2	850
STXH5W-12W	47 7/8	39 1/8	57 15/16	1,025
STXH5W-12LW	47 7/8	39 1/8	69 15/16	1,150
STXH5W-14W	48 1/8	42 7/16	69 7/8	1,500
STXH5W-14LW	48 1/8	42 7/16	85 1/8	1,800
STXH5W-16W	49 5/8	46 3/16	83 5/8	2,075
STXH5W-16LW	49 5/8	46 3/16	97 5/8	2,300



All dimensions in inches. Dimensions are subject to change.

See Page 14 for complete model number schema.

<sup>1</sup>Connections 4" IPS and above 150# ANSI FLG





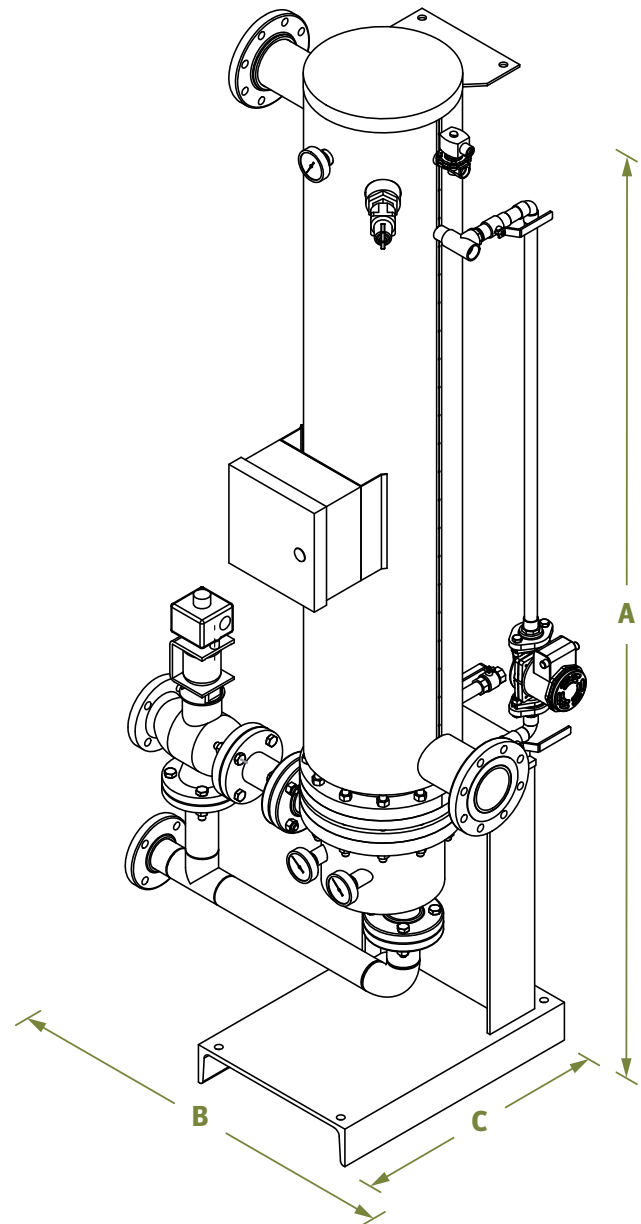
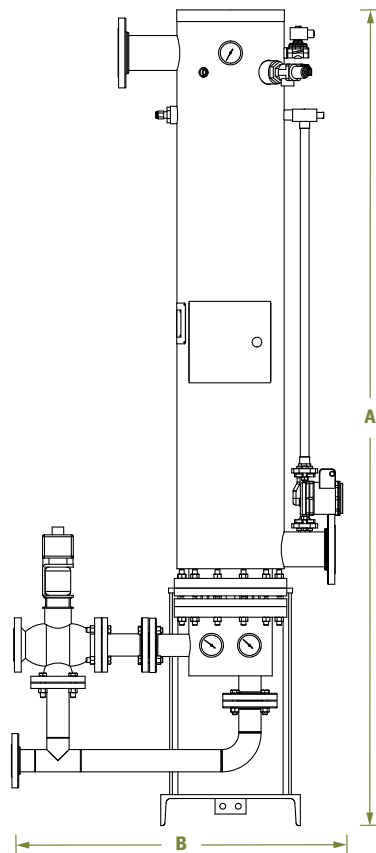
## Double-Wall Water-to-Water Dimensions

### Vertical

Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXVDW-5W	93 7/8	25 3/4	21	425
STXVDW-6W	97 3/8	27 1/2	21	500
STXVDW-8W	105 1/4	29 1/2	21	700
STXVDW-10W	98 5/8	39 3/4	27	1,100
STXVDW-12W	110	42 1/4	27	1,425
STXVDW-14W	121	45 1/4	30	1,975
STXVDW-16W	127	48 1/4	30	2,475

All dimensions in inches. Dimensions are subject to change.  
See Page 14 for complete model number schema.

<sup>1</sup> Connections 4" IPS and above 150# ANSI FLG



## Double-Wall Water-to-Water Dimensions

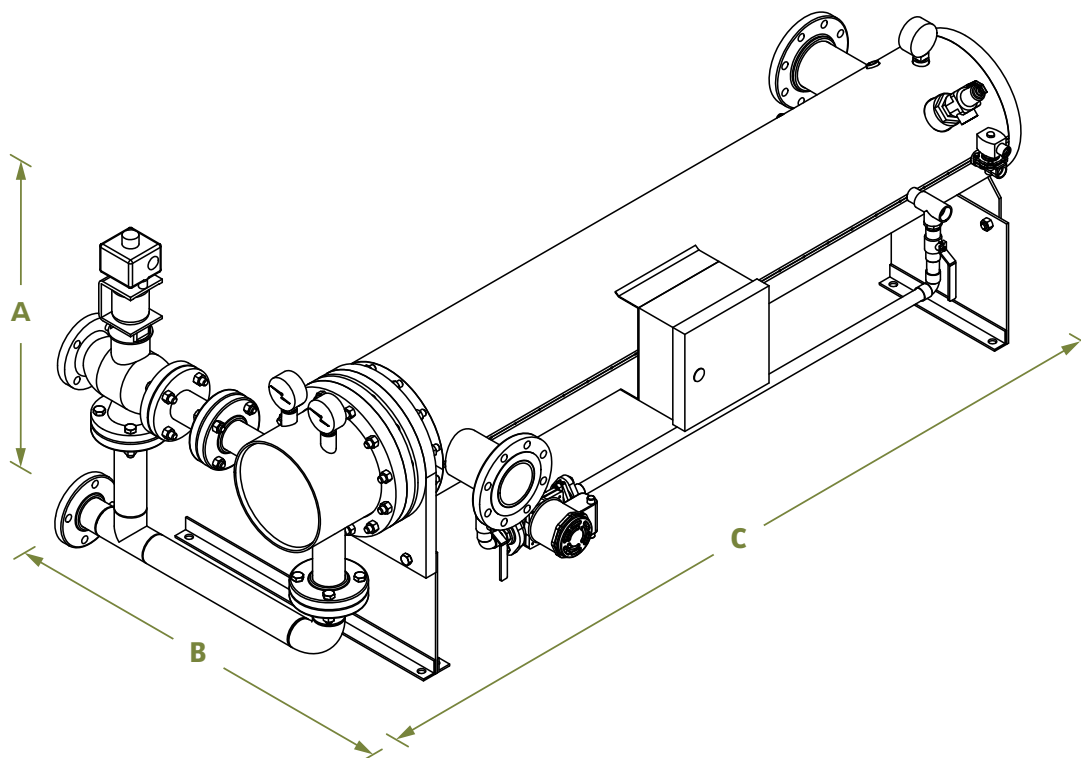
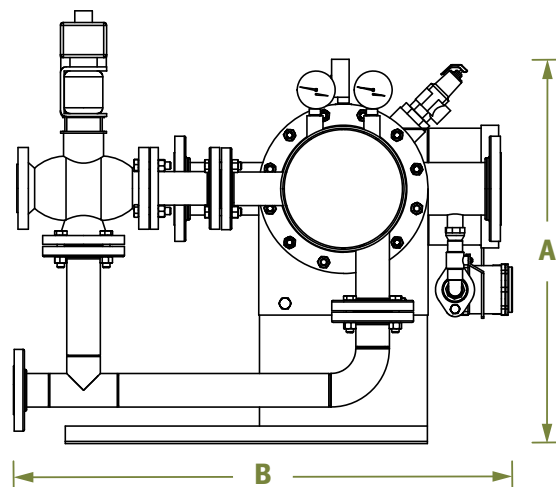
### Horizontal

Model	Height A	Width B	Depth C	SHIPPING WEIGHT (LBS)
STXHWD-5W	33 7/8	25 3/4	80 3/16	375
STXHWD-6W	35	27 1/2	81 5/16	450
STXHWD-8W	39 1/16	32 1/2	83 9/16	650
STXHWD-10W	43 1/4	39 3/4	85 9/16	1,050
STXHWD-12W	47 7/8	42 1/4	88 7/16	1,375
STXHWD-14W	48 1/8	45 1/4	100 7/8	1,925
STXHWD-16W	49 5/8	48 1/4	106 1/2	2,425

All dimensions in inches. Dimensions are subject to change.

See Page 14 for complete model number schema.

<sup>1</sup> Connections 4" IPS and above 150# ANSI FLG



## Single Wall

### Temperature Rise 40° to 120° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	4S	4S	4S	4S	4S	4S
20	4S	4S	4S	4S	4S	4S
30	4S	4S	4S	4S	4S	4S
40	6S	5S	5S	5S	5S	5S
50	6S	5S	5S	5S	5S	5S
60	8S	6S	5S	5S	5S	5S
80	8S	6S	6S	5S	5S	5S
100	8S	8S	8S	8S	8S	5S

## Single Wall

### Temperature Rise 40° to 140° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	4S	4S	4S	4S	4S	4S
20	4S	4S	4S	4S	4S	4S
30	4S	4S	4S	4S	4S	4S
40	6S	5S	5S	5S	5S	4S
50	8S	6S	5S	5S	5S	5S
60	8S	6S	6S	5S	5S	5S
80	8S	8S	6S	5S	5S	5S
100	10S	8S	8S	8S	8S	6S

## Single Wall

### Temperature Rise 40° to 160° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	4S	4S	4S	4S	4S	4S
20	4S	4S	4S	4S	4S	4S
30	6S	5S	4S	4S	4S	4S
40	8S	6S	6S	5S	5S	4S
50	8S	6S	6S	5S	5S	5S
60	8S	8S	6S	5S	5S	5S
80	10S	10S	8S	6S	5S	6S
100	10S	10S	10S	8S	8S	6S



## Single Wall

### Temperature Rise 40° to 180° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	4S	4S	4S	4S	4S	4S
20	5S	4S	4S	4S	4S	4S
30	6S	5S	5S	4S	4S	4S
40	8S	6S	6S	5S	5S	5S
50	8S	8S	6S	5S	5S	5S
60	8S	8S	8S	5S	5S	5S
80	10S	8S	8S	6S	6S	6S
100	10S	10S	10S	8S	8S	6S

## Double Wall

### Temperature Rise 40° to 120° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	5D	5D	5D	5D	5D	5D
20	5D	5D	5D	5D	5D	5D
30	5D	5D	5D	5D	5D	5D
40	6D	5D	5D	5D	5D	5D
50	6D	6D	6D	6D	6D	5D
60	8D	6D	6D	6D	6D	6D
80	8D	6D	6D	6D	6D	6D
100	8D	8D	8D	8D	8D	6D

## Double Wall

### Temperature Rise 40° to 140° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	5D	5D	5D	5D	5D	5D
20	5D	5D	5D	5D	5D	5D
30	6D	6D	5D	5D	5D	5D
40	6D	5D	5D	5D	5D	5D
50	8D	6D	6D	6D	6D	5D
60	8D	6D	6D	6D	6D	6D
80	8D	8D	6D	6D	6D	6D
100	10D	10D	10D	8D	8D	8D

## Double Wall

### Temperature Rise 40° to 160° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	5D	5D	5D	5D	5D	5D
20	5D	5D	5D	5D	5D	5D
30	6D	5D	5D	5D	5D	5D
40	8D	6D	5D	5D	5D	5D
50	8D	6D	6D	6D	6D	6D
60	8D	8D	6D	6D	6D	6D
80	8D	8D	8D	8D	6D	8D
100	10D	10D	10D	8D	8D	8D

## Double Wall

### Temperature Rise 40° to 180° F

STEAM PRESSURE TO CONTROL VALVE						
GPM	5 psi	10 psi	15 psi	30 psi	50 psi	75 psi*
10	5D	5D	5D	5D	5D	5D
20	5D	5D	5D	5D	5D	5D
30	6D	6D	5D	5D	5D	5D
40	8D	6D	6D	5D	5D	6D
50	8D	8D	8D	6D	6D	6D
60	8D	8D	8D	6D	6D	8D
80	10D	8D	8D	8D	8D	8D
100	10D	10D	8D	8D	8D	8D

## Synergy Steam STX Number Designation

MODEL	VESSEL TYPE	COIL SIZE (DIAMETER INCHES)	COIL TYPE	COIL MATERIAL	VALVE TYPE	VALVE SIZE (INCHES)	OPTIONAL EQUIPMENT
<b>STX</b> = Vertical <b>STXH</b> = Horizontal	<b>SS</b> = Stainless Steel <b>CN</b> = Copper Nickel	4	<b>S</b> = Single wall <b>D</b> = Double wall	<b>C</b> = Copper <b>CN</b> = Copper Nickel <b>S</b> = Stainless Steel (Single wall only)	<b>P</b> = Pilot <b>A</b> = Pneumatic <b>E</b> = Electric	050 = ½	<b>C20</b> <b>C21</b> <b>C36</b> <b>C37</b>
		5				075 = ¾	
		6				100 = 1	
		8				125 = 1-¼	
		8L				150 = 1-½	
		10				175 = 1-¾	
		10L				200 = 2	
		12				250 = 2-½	
		14				300 = 3	
		16				400 = 4	

### Example: STXSS-4S-CE125-C36

A vertically installed semi-instantaneous steam fired water heater with a 316L stainless steel pressure vessel, 4-inch single wall copper coil, electric 1-1/4 valve and an optional BACnet Gateway module.

## Optional Equipment

**Note:** Optional equipment must be called out in the written specifications, use the codes below.

### Controls

- C20** Enable/Disable Relay (Specify Voltage)
- C21** Dry Contact for Remote Alarm Capability (Specify Condition)
- C36** BACnet Gateway Module
- C37** Lontalk Gateway Module

**Please Note:** Optional equipment may impact overall dimensions and weight. Please request submittal drawing from factory.

