

CSX

Instantaneous Blend-down Steam-to-Water Heater

Standard and Optional Equipment

Product Profile

CSX is a factory packaged domestic water heater utilizing 5 to 150 psi steam as the energy source to provide 120, 140 or 160°F outlet temperature potable water. The water is heated instantaneously in a shell-and-tube heat exchanger and blended with cold water to the required outlet temperature through two separate mixing valves. Floor space is minimized due the high density of heating coils in the exchanger and a counter-flow principle of steam and domestic water across the exchanger. All components are mounted on a steel skid requiring only contractor connection to steam, water and electricity.

Standard Equipment

- Fully passivated, 316-L stainless steel, counter-flow, shell-and-tube heat exchanger with helical, corrugated, 316-L tubing
- ASME stamp for 150 psi
- Fully assembled non-ferrous waterside piping including all valves and gauges (if selected)
- Factory ready for connection to the building's domestic water re-circulation piping
- Dual, independent, self-contained outlet water temperature control valves
- ASME pressure relief valve
- Over-temperature solenoid shutoff valve
- Float and thermostatic condensate trap
- Vacuum breaker in condensate piping
- Steam control valve with pressure pilot (for supply steam pressures greater than 15 psi) includes carbon steel piping from steam valve to exchanger and includes a vacuum breaker
- Heavy-duty steel stand with industrial finish
- Threaded CIP fittings (no valve or piping disassembly when cleaning the waterside of exchanger)

Optional Equipment

- Steam control valve with pressure regulating pilot (for supply steam pressures of 15 psi and lower) includes carbon steel piping from steam valve to exchanger and includes a vacuum breaker
- Temperature gauges for water inlet and outlet
- Y-strainer for supply steam (ships loose for field assembly)
- Auxiliary condensate trap for supply steam (ships loose for field assembly)
- Steam pressure gauge (at steam valve inlet)
- Water pressure gauge (at heat exchanger outlet)
- Pressure gradient monitoring system (shuts down steam flow and potable water flow when possible tube breach is detected in order to avoid possible cross contamination) (PGM system requires factory-supplied steam control valve)

Application Note: This 316L stainless steel heat exchanger should not be applied in water systems with chloride levels at or above 70 ppm. Chloride levels can be obtained from the local water supply company. In addition, a regular maintenance schedule for inspection and removal of lime scale deposits is recommended.

