



# Hot Water Generation – Steam/Water Single Wall

## Digital-Flo® Steam/Water Shell and Tube Heat Exchanger

### Model DF535P50

DF535P50 is a complete pre-piped parallel (redundant) instantaneous steam/water shell and tube heater. The assembly includes a properly sized shell and tube heat exchanger with a Digital Recirculating Valve (DRV50).

Digital technology provides enhanced water temperature control accuracy and enhanced user safety in a single control component.

### Operational Specifications

- +/-2°F water temperature control at points of use 25' downstream during demand
- +/-2°F water temperature control during zero system demand "idling" periods
- 2°F minimum valve inlet to outlet temperature requirement (system recirculation temperature loss)
- Automatic shutoff of hot water flow upon cold water inlet supply failure
- Automatic shutoff of hot water flow in the event of a power failure
- Programmable set point range of 81-158°F (27-70°C)
- Programmable 1st level hi/lo temp alarm display
- Programmable temperature error level for double safety shutdown.

### Technical Specifications

- Maximum steam pressure: 15 PSIG
- Maximum domestic pressure: 150 PSI
- Minimum recirculation flow: 10 GPM
- Design conditions: Domestic-41 GPM (Redundant)/73 GPM (Parallel) at 100°F delta T using 15 PSIG steam
- Complete assembly Lead Free Compliant
- All domestic side valve fittings and isolation valves, strainers, inlet/return check valves, inlet system blend and return thermometers pre-piped.
- DRV – all wetted parts 316 stainless steel
- DRV to be UL Listed
- Heat exchanger tubes shall be straight 5/8" OD admiralty brass expanded into Navel Brass tube sheets with a free floating bolted end cover
- Water pipe of type L copper
- Fabricated carbon steel frame with machine grade enamel paint
- 120 volt power supply required
- Secondary (double) safety shut-off valve included

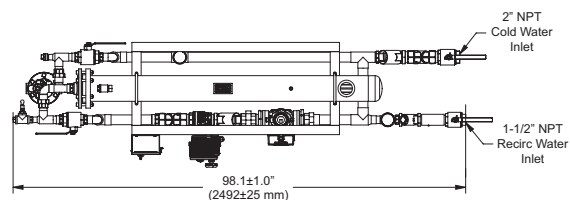
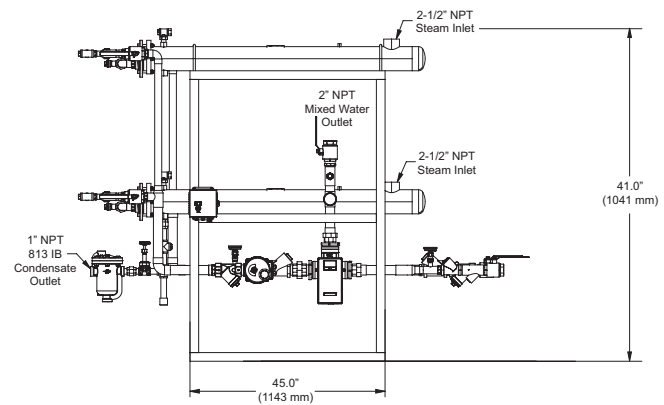
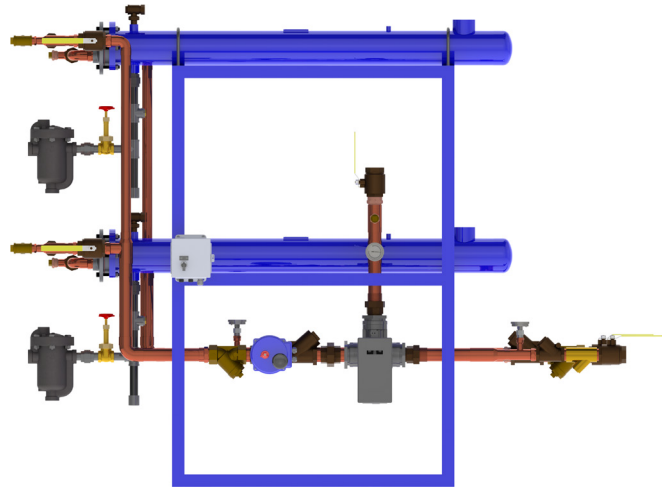
### Connectivity

**SPCO Relay Outputs** – Relay which is energized during operation.

**LCD Display** – Provides information on set point, delivered temperature, error messages and alert conditions.

**RS485 Serial Port** – Connects the DRV to either Modbus RTU or BrainScan®. (See DF535P50BS for package with BrainScan®.)

**Modbus RTU** – DRV can be configured to communicate directly with Building Automation Systems (BAS) using Modbus RTU protocol.



For a submittal drawing, refer to D589709.