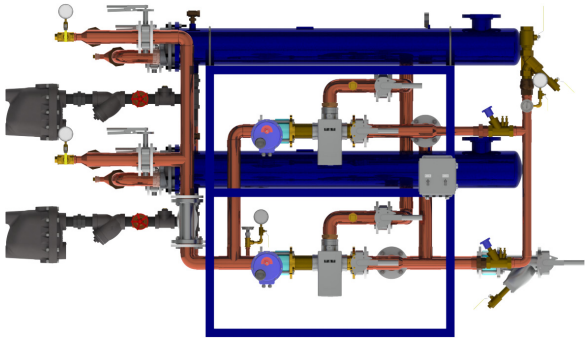
Digital-Flo® Shell and Tube Heat Exchanger Pre-Piped Tempered Water

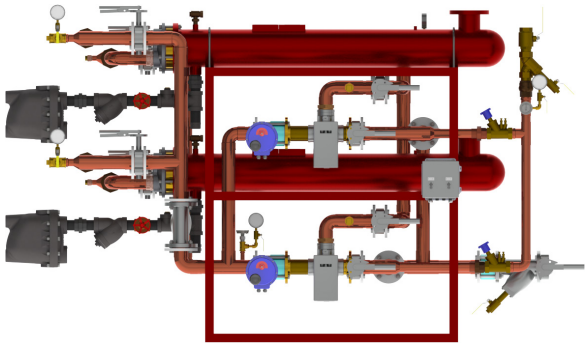
Digital Recirculating - Redundant
Model DF8120P80-80 & DF8120DWP80-80

A complete pre-piped assembly with redundant heat exchangers, and redundant DRV80's. Available with single wall or double wall (DW) tube bundles.

Digital technology provides precise water temperature control, enhanced user safety, and versatile Building Automation System (BS) connectivity options in a single-source assembly.



DF8120P80-80
Single Wall



DF8120DWP80-80
Double Wall

Operational Specifications

- +/-2°F DRV water temperature control at peak, moderate or zero fixture demand on hot water system designed for continuous recirculation
- 2˚F minimum recirculating water temperature differential
- LCD display which indicates: set point, delivered temperature, error codes and alarm conditions capable of BAS and mobile connectivity
- Programmable set point range of 81-158°F (27-70°C) capable of BAS or mobile monitoring and adjustment
- Programmable thermal disinfection range of 158-185°F (70-85°C)
- Programmable 1st level hi/lo temp alarm display capable of BAS or mobile alerting
- Automatic safe closure of hot water inlet in response to: inlet supply failure, 120V power failure, or programmable high temperature error
- Automatic safe closure of hot water inlet powered by a replaceable lithium battery monitored for low-level alerting
- Automatic safe closure response relayed to secondary safety shutoff valve

Technical Specifications

- Maximum steam pressure: 15 PSIG
- Maximum water pressure: 150 PSIG
- Minimum recirculation flow: 10 GPM per DRV
- Design conditions: Domestic - 165 GPM at 7.5 ft/sec velocity, 15 PSIG steam at 6,834 lbs/hr, DRV setpoint of 120°F. Second heat exchanger and DRV configured for redundant backup service.
- Complete assembly lead free compliant
- Pre-piped isolation valves, strainers, check valves, relief valves, condensate trap, thermometers and pressure gauges
- DRV conforms to ASSE 1017, CSA B125.3-11, UL E357437, and CE
- Single wall heat exchanger tubes shall be straight 5/8" x .065" OD Admiralty Brass expanded into Naval Brass tube sheets with a free-floating bolted end cover
- Double wall heat exchanger tubes shall be 5/8" x .040" copper inner, and 3/4" x .062" grooved copper outer U-tubes expanded into brass/carbon steel tube sheet with leak indicating weep holes
- 120 volt power supply required
- Integral MODBUS RTU for direct connectivity to BAS, or SAGE™

Standard Materials of Construction

- Two-Pass Head: Stainless Steel
- Water pipe: Type L copper
- Fittings: Lead free brass/bronze
- Single wall tube bundle: Admiralty Brass
- Double wall tube bundle: Copper
- Heat Exchanger Shell: Carbon Steel
- Steam Trap Model 20JD8 F&T: Ductile Iron
- Air Vent Model TS2: Bronze
- Vacuum Breaker: Brass
- Pressure Relief Valve: Stainless Steel
- Digital Mixing Valve: 316L Stainless Steel
- Fabricated carbon steel frame with machine grade enamel paint

Connectivity

Integral MODBUS RTU for direct connectivity to BAS, or SAGE™

See models DF8120P80-80BS and DF8120DWP80-80BS for SAGE™ (BS) module available with specific ProtoCessor cards for BAS connectivity to systems which operate on Modbus TCP, BACnet™, or LonWorks™ protocols. Mobile connectivity features smart hot water system dashboard monitoring, secure remote programming, multi-location view, temperature and system diagnostic alerts, with unlimited digital documentation and automated report generation. Mobile connectivity may be enabled by a customer activated no-term subscription.