

PART 1 – GENERAL

1.1 REFERENCE

- A. Work under this Section is subject to requirements of Contract Documents including General Conditions of Contract, Supplementary Conditions, and sections under Division 01 General Requirements.

1.2 QUALITY ASSURANCE

- A. Water heating equipment shall conform to State and Local Codes, meet national standards, and be certified by respective organization and bear its stamp.

1.3 SUBMITTALS

- A. Shop drawings on items specified herein.

PART 2 – PRODUCTS

2.1 Materials specified herein shall be new unless otherwise noted.

2.2 SEMI-INSTANTANEOUS STEAM WATER HEATER

- A. Manufacturers: Hubbell
- B. Water heater shall be vertical single, (optional double wall) wall semi-instantaneous steam to water heat exchanger.
- C. Water heater shall have flanges or unions at steam, condensate and water connection points. Vessel shall be ASME rated for working pressure of 150 psig. Vessel shall be insulated, painted steel jacket and mounted on a structural steel frame.
- D. Material in contact with product water, including fittings, and piping, shall be non-ferrous. Steam bundle shall be copper with nonferrous tube sheet and baffles. Hot water shell shall be 304 stainless steel, (Optional 316L stainless steel or 90/10 copper nickel).
- E. Water temperature control shall be provided by 2-way, normally closed, steam control valve. Control valve shall have stainless steel trim, TFE seat and packing, sensing bulb, adjustable controller and load anticipator. Outlet water temperature shall be controlled to within +/-4°F of set point over flow range of 3-100% of rated flow. High temperature limit system with automatic reset shall be provided to close steam valve on over-temperature condition. Wiring to be factory packaged enclosed in conduit or control enclosure.

- F. Water heater shall come packaged with an ASME temperature and pressure relief valve, steam and condensate strainers, main and auxiliary steam traps, vacuum breaker, inlet and outlet water thermometers, steam pressure gauge, painted structural steel support frame, lifting lugs, copper water piping, Schedule 40 black steel steam piping, and Schedule 80 black steel condensate piping.
- G. Basis of design water heater is Hubbell model STX capable of **insert #** gph recover at a 100°F temperature rise with **insert #** psig to the steam coil. Outlet water temperature to be 140 °F.
- H. Refer to Water Heater Schedule for water heater capacity required.

3.1 INSTALLATION

- A. Install water heaters as recommended by manufacturer. Provide final connections as required. Coordinate water heater location with other Contractors.
- B. Provide steel support frame to raise condensate trap outlet to 12" above floor minimum for steam fired units.
- C. Initial start-up and balancing services shall be provided by representative of manufacturer.

END OF SECTION