

SECTION 223500

DOMESTIC WATER HEATERS

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 ELECTRIC STORAGE HOT WATER HEATERS

- A. Provide storage type electric hot water heaters where indicated and with rated capacities as scheduled on the Construction Documents.
- B. Each heater shall be capable of being disassembled in place for maintenance and inspection purposes without having to remove the shell from the domestic water piping.
- C. Each water heater shall consist of the following components, completely factory-assembled, ready for connection to services:
 - 1. Storage tank construction: Steel construction.
 - 2. Interior Finish: Seamless Hydrastone cement applied via centrifugal spinning process to guarantee uniform distribution of ½" thick cement over all interior surfaces, and a cement density of 0.20 lbs/cubic inch minimum in order to provide increased longevity and inhibit oxidized water ingress.
 - 3. Each heater tank shall be fitted with non-ferrous solid copper-silicon threaded connections for maximum corrosion resistance.
 - 4. Drain Valve: Corrosion-resistant metal complying with ASSE 1005.
 - 5. Insulation: Insulation to be a minimum 2" thick polyurethane foam which will exceed ASHRAE/IESNA 90.1 standard for heat loss.
 - 6. Jacket: High impact colorized composite that does not rust or corrode.

7. Heating elements shall be immersion type, copper sheathed. Dual elements shall be interlocked to allow step control. Provide single or dual elements as scheduled.
8. Heater shall have a safety high-limit cutout set to 190°F and manual reset button.
9. Temperature Control: Adjustable thermostat, to setting of at least 170°F.
10. Heater shall be furnished with a bronze ASME rated temperature and pressure-relief valve set at 210°F (98.8°C) and 150 psig (10.3 bar).
11. Heater shall be suitable for operation on **xxx** volts, 1 phase, 60 Hz, AC power.

D. Electric storage type domestic hot water heaters shall be Hubbell Heater Co. Model E series commercial water heater.

3.1 INSTALLATION

- A. Install water heaters as recommended by manufacturer. Provide final connections as required. Coordinate water heater location with other Contractors.
- B. Warranty on all electrical components against defects in workmanship and material for a period of one (1) year from date of start-up, and the storage tank for a full five (5) years from date of start-up, provided that the unit is started within three (3) months of date of shipment.
- C. All fabrication and assembly shall be performed in the U.S.A.
- D. Initial start-up shall be provided by representative of manufacturer.

END OF SECTION