

## SECTION 224500 - PLUMBING EQUIPMENT

### PART 1 - GENERAL

#### 1.1 SUBMITTALS

A. Shop Drawings:

1. Include dimensions of tanks, tank lining methods, anchors, attachments, lifting points, tapings, and drains.

B. Product Data:

1. Include dimension drawings of water heaters indicating components and connections to other equipment and piping.
2. Provide electrical characteristics and connection requirements.

C. Manufacturer's Installation Instructions.

#### 1.2 OPERATION AND MAINTENANCE DATA

- A. Include operation, maintenance, and inspection data, replacement part numbers and availability, and service depot location and telephone number.

#### 1.3 QUALITY ASSURANCE

- A. Ensure products and installation of specified products are in conformance with recommendations and requirements of the following organizations:

1. National Sanitation Foundation (NSF).
2. American Society of Mechanical Engineers (ASME).
3. National Board of Boiler and Pressure Vessel Inspectors (NBBPVI).
4. National Electrical Manufacturers' Association (NEMA).
5. Underwriters Laboratories (UL).

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Provide temporary inlet and outlet caps. Maintain caps in place until installation.

#### 1.5 WARRANTY

- A. Provide ten year limited tank and three year unlimited heating module warranty.
- B. Provide entire water heater package with a one year unlimited warranty

- C. Warranty: Include coverage of domestic water heaters and in-line circulator.

## PART 2 - PRODUCTS

### 2.1 ELECTRIC WATER HEATERS

- A. Subject to compliance with requirements, manufacturers offering similar products that may be incorporated into the Work include, but are not limited to, the following:
1. Rheem
  2. Lochinvar
  3. A.O. Smith
- B. Type: Factory-assembled and wired, electric, vertical storage.
- C. Performance:
1. Maximum working pressure: 150 psig.
  2. Minimum efficiency of water heater shall meet the requirements of the Energy Code in effect for this region.
- D. Tank: Glass lined welded steel, thermally insulated with minimum 2 inches glass fiber encased in corrosion-resistant steel jacket; baked-on enamel finish.
- E. Controls: Automatic immersion water thermostat; externally adjustable temperature range from 60 deg F to 180 deg F, flanged or screw-in nichrome elements, high temperature limit thermostat.
- F. Accessories: Brass water connections and dip tube, drain valve, high-density magnesium anode, and ASME rated temperature and pressure relief valve.

## PART 3 - EXECUTION

### 3.1 WATER HEATER INSTALLATION

- A. Install water heaters in accordance with manufacturer's instructions and to UL requirements.
- B. Coordinate with plumbing piping and electrical work to achieve an operating system.

END OF SECTION 224500