

**SECTION 22 3000  
PLUMBING EQUIPMENT**

**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Electric water heaters.

**1.2 REFERENCE STANDARDS**

- A. ASHRAE Std 90.1 I-P - Energy Standard for Buildings Except Low-Rise Residential Buildings; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- B. UL 174 - Standard for Household Electric Storage Tank Water Heaters; Current Edition, Including All Revisions.

**1.3 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements for submittals procedures.
- B. Product Data:
  - 1. Provide dimension drawings of water heaters indicating components and connections to other equipment and piping.
  - 2. Provide electrical characteristics and connection requirements.
- C. Operation and Maintenance Data: Include operation, maintenance, and inspection data, replacement part numbers and availability, and service depot location and telephone number.
- D. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Village of Ardsley's name and registered with manufacturer.

**1.4 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.
- B. Certifications:
  - 1. Electric Water Heaters: UL listed and labeled to UL 174.
  - 2. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc., as suitable for the purpose specified and indicated.

**1.5 DELIVERY, STORAGE, AND HANDLING**

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

**1.6 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide 5-year manufacturer warranty for domestic water heaters. Complete forms in Village of Ardsley's name and register with manufacturer.

**PART 2 PRODUCTS**

**2.1 WATER HEATERS**

- A. Electric Water Heaters:
  - 1. Type: Automatic, electric, vertical storage.
  - 2. Minimum Efficiency Required: ASHRAE Std 90.1 I-P.
  - 3. Performance:
    - a. Storage Capacity: 10 gal.
    - b. Heating Element Size: 1650 kW.
    - c. Number of Heating Elements: 1.
    - d. Minimum Recovery Rate: 8 gph with 100 degrees F temperature rise.
  - 4. Electrical Characteristics:

- a. 120 VAC, single phase.
- 5. Tank: Glass lined welded steel, thermally insulated with one inch thick glass fiber; encased in corrosion-resistant steel jacket; baked-on enamel finish.
- 6. Controls: Automatic water thermostat with externally adjustable temperature range from 120 to 170 degrees F, flanged or screw-in nichrome elements, enclosed controls and electrical junction box and operating light.
- 7. Accessories:
  - a. Water Connections: Brass.
  - b. Dip Tube: Brass.
  - c. Drain valve.
  - d. Anode: Magnesium.
  - e. Temperature and Pressure Relief Valve: ASME labeled.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION**

- A. Install plumbing equipment in accordance with manufacturer's instructions, as required by code, and complying with conditions required for applicable certifications.
- B. Electrical Work: Provide manual control and protective devices with associated wiring to interconnect related interfaced devices required for specified operation.
- C. Coordinate system, equipment, and piping work with applicable electrical and drain support interconnections as included or provided by other trades.

**END OF SECTION**