



SECTION 22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Commercial grade electric water heaters.

1.2 REFERENCES

- A. Comply with appropriate standards.
 - 1. American Society of Mechanical Engineers: ASME.
 - 2. California Energy Commission: C.E.C.

1.3 SUBMITTALS

- A. Submit data on all materials.
- B. Shop Drawings: Indicate heat exchanger dimensions, size of taps, and performance data. Indicate dimensions of tanks, tank lining methods, anchors, attachments, lifting points, taps, and drains.
- C. Product Data: Submit dimensioned drawings of water heaters indicating components and connections to other equipment and piping. Submit electrical characteristics and connection locations.
- D. Manufacturer's Installation Instructions: Submit mounting and support requirements.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 WARRANTY

- A. One year standard warranty.

PART 2 - PRODUCTS

2.1 COMMERCIAL GRADE ELECTRIC WATER HEATERS – TANK TYPE

- A. Manufacturers:
 - 1. **Lochinvar, LLC / A.O. Smith Water Products Company.**
 - 2. **Rheem Manufacturing Company.**
 - 3. **Bradford White Corporation.**



- B. Type: Automatic, electric, vertical storage.
- C. Tank: Glass lined welded steel, thermally insulated with one inch Non-CFC foam, encased in corrosion-resistant steel jacket with baked-on enamel finish, no dielectric fittings, brass ball valve and 6 inch nipple to connect to dissimilar pipes, brass drain valve, T&P relief valve.
- D. Controls: Automatic water thermostat with adjustable temperature range from 120 to 170 degrees F, flanged or screw-in nichrome elements, enclosed controls and electrical junction box and operating light. Wire double element units so elements do not operate simultaneously.
- E. Accessories: Seismic anchoring straps, State of California listed and approved.

2.2 COMMERCIAL GRADE ELECTRIC WATER HEATERS – INSTANTANEOUS/POINT-OF-USE

- A. Manufacturers:
 - 1. **Eemax Inc.**
 - 2. **Rinnai Corporation.**
 - 3. **Stiebel-Eltron.**
- B. Type: Factory-assembled and wired, electric, non-storage type.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install tank type water heater on concrete housekeeping pad, minimum 4 inches high and 6 inches larger than water heater base on each side or on listed and approved shelf.
- B. Connect domestic hot water and domestic cold water piping to supply and return water heater connections mixing valves and/or circulating pump as required.
- C. Install point-of-use type below counter height, adjacent to fixture on tank type.
- D. Install the following piping accessories.
 - 1. On supply:
 - a. Thermometer well and thermometer.
 - b. Strainer.
 - c. Pressure gage.
 - d. Shutoff valve.
 - 2. On return:



- a. Thermometer well and thermometer.
 - b. Pressure gage.
 - c. Shutoff valve.
- E. Install electrical devices furnished loose for field mounting.

3.2 TRAINING

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain heat exchangers. Provide minimum of 4 hours each (3 shifts) of classroom and hands on training to LAWA Facilities and Maintenance personnel.

END OF SECTION 22 33 00