

SECTION 11201 - HOT WATER CIRCULATING PUMPS

City of San Diego, CWP Guidelines

PART 1 - GENERAL

1.1 THE REQUIREMENT

- A. The WORK of this Section includes providing hot water circulating pumps with horizontal electric motors, and all appurtenant work, complete and operable.

1.2 RELATED SECTIONS

- A. The WORK of the following Section applies to the WORK of this Section. Other Sections of the specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.

- 1. Section 11175 Pumps, General

PART 2 - PRODUCTS

2.1 HOT WATER CIRCULATING PUMPS - (P-[] through P-[])

- A. **General:** Hot water circulating pumps shall conform to the following requirements:

- 1. Type of pump-In-line or base-mounted centrifugal pump
- 2. Number of pumps - []
- 3. Water heater number - []
- 4. Location - []
- 5. Service - []
- 6. Operation (hours per day) - []

- B. **Operating Conditions:**

- 1. Capacity (gpm) - []
- 2. Pump head (TDH-ft) - []
- 3. Liquid to be pumped - []
- 4. Specific gravity of liquid - []
- 5. Liquid temperature (degrees F) - []
- 6. Max pump speed (rpm) - []
- 7. Min motor size (hp) - []

8. Max motor speed (rpm) - []

C. Pump Dimensions:

1. Min impeller diameter (in) - []

2. Min size of suction (in) - [Flanged] [screwed] []

3. Min size of discharge (in) - [Flanged] [screwed] []

2.2 PUMP REQUIREMENTS

A. Construction: Construction of hot water circulating pumps shall conform to the following requirements:

1. Casing - [Bronze] [Cast Iron]

2. Impeller - Bronze

3. Shaft - Stainless steel

4. Bearings - Sleeve or ball bearings, [60,000] hours L-10 life, grease-lubricated.

5. Coupling - Flexible shaft coupling with guard

6. Seal - Mechanical seal, suitable for hot water

7. Pump base - [Cast iron or fabricated steel with drain] [none]

8. Mounting method - [Base-mounted] [wall mounted with baseplate and wall brackets] [in-line pipe mounted]

9. Accessories - Electric immersion thermostat in return line

B. Drive: Direct drive with horizontal, open drip-proof electric motor suitable for [115-volt, single-phase, 60-Hz] [480-volt, 3-phase, 60-Hz] AC power supply, in accordance with Section 16040.

2.3 SPARE PARTS

A. The following spare parts shall be provided for each pump:

1. 3 sets of all gaskets and O-rings

2. 1 set of all pump bearings

3. 1 mechanical seal

B. Spare parts shall be packaged and boxed as indicated in Section 11000.

2.4 MANUFACTURERS

- A. Pumps shall be manufactured by one of the following (or equal):
 - 1. Armstrong Pumps, Inc., model [];
 - 2. Crane Company, Deming Division, model [];
 - 3. Decatur Pump Company, (Burks Pumps), model [];
 - 4. ITT (Bell and Gossett), model [];
 - 5. Taco, Inc., model [].
- B. Immersion thermostats shall be manufactured by one of the following (or equal):
 - 1. Barber-Colman Co.
 - 2. Honeywell, Inc.,
 - 3. Johnson Controls, Inc.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Pumping equipment shall be installed in accordance with approved procedures submitted with the shop drawings and as indicated.
- B. General installation requirements shall comply with Section 11175.

**** END OF SECTION ****