

SECTION 221123 PUMPS FOR PLUMBING SYSTEMS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. General pump requirements
- B. Requirements for circulating water pumps

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Wiring for Motors and Motor Controllers: Section 260523.
- B. Motors and Motor Controllers: Section 260221.

1.03 SUBMITTALS

- A. Product Data: Catalog sheets and installation instructions for each type or size pump.
- B. Schedule: Pump schedule showing pump specifications and application.
- C. Quality Control Submittals:
 - 1. Performance curves for each pump, showing gpm, brake HP and efficiency from free delivery to shut-off. Chart curves on manufacturer's factory tests shall be conducted in accordance with the recommended procedures of the Hydraulic Institute, and certified thereto by the manufacturer.
- D. Contract Close Out Submittals:
 - 1. Operation, Maintenance Data, and Parts Lists: Deliver 2 copies, for each type of pump or pumping apparatus, to the Director's Representative.

1.04 MAINTENANCE

- A. Spare Parts: Deliver one spare set of mechanical seals for each size and type of pump equipped with mechanical seals, to the Director's Representative, who will sign receipt for same. Furnish seals of type as required for the particular pump application and the chemical water treatment being utilized. Suitably box and label spare seals as to their usage.

PART 2 - PRODUCTS

2.01 PUMPS - GENERAL

- A. Design pumps to operate continuously without overheating bearings or motors at every condition of operation on the pump curve, or produce noise audible outside the room or space in which installed.
- B. Equip pumps complete with electric motor and drive assembly, unless otherwise indicated. Design pump casings for the indicated working pressure and factory test at 1-1/2 times the designed pressure.
- C. Manufacture domestic hot water pumps of all-bronze construction.

- D. Pumps of the same type, shall be the product of a single manufacturer, with pump parts of the same size and type interchangeable.

2.02 CIRCULATING WATER PUMPS

- A. In-Line Pump: Single stage volute type pump, with Bronze impeller, replaceable mechanical seals, oil lubricated shaft sleeve bearings, and cast iron casing with flanged inlet and outlet connections. Direct connect pump to electric motor with flexible coupling.
 - 1. Motor Requirements (Supplementary to Section 260221):
 - 2. Equip motor with built-in thermal overload protection.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in-line circulating pumps between pipe flanges in piping systems. Install overhead pipe supports, both sides of in-line pumps, installed in horizontal piping runs.
- B. Timer and aquastat to be wired to the Circulating Pump for Building Owner flexibility.

END OF SECTION 221123