

SECTION 15185 - HYDRONIC PUMPS

PART 1 - GENERAL

SUMMARY

This Section includes the following:

- In-line circulators.
- Pump accessories.

SUBMITTALS

Product Data: Include certified performance curves and rated capacities; furnished specialties; final impeller dimensions; and accessories for each pump indicated. Indicate pump's operating point on curves.

Wiring Diagrams: Power, signal, and control wiring.

Operation and maintenance data.

QUALITY ASSURANCE

UL Compliance: Fabricate and label pumps to comply with UL 778, "Motor-Operated Water Pumps," for construction requirements.

Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

PART 2 - PRODUCTS

MANUFACTURERS

In other Part 2 articles where subparagraphs titles below introduce lists, the following requirements apply for product selection:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.

GENERAL PUMP REQUIREMENTS

Pump Units: Factory assembled and tested.

Motors: Include built-in, thermal-overload protection and grease-lubricated ball bearings. Select each motor to be nonoverloading over full range of pump performance curve.

COMPACT IN-LINE CIRCULATORS

Cartridge type, horizontal, in-line, compact, seal-less, centrifugal, and single stage. Include pump and motor assembled on a common shaft in cartridge-type, hermetically sealed unit, without stuffing boxes or mechanical

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seals. Include isolation of motor section from motor-stator windings by corrosion-resistant, nonmagnetic, alloy liner. Include design rated for 125-psig (860-kPa) minimum working pressure and a continuous water temperature of 225 deg F (107 deg C).

Available Manufacturers:

Amtrol, Inc.
Armstrong Pumps, Inc.
Bell & Gossett ITT; Div. of ITT Fluid Technology Corp.
Grundfos Pumps Corp.
Hartell Div.; Milton Roy Co.
PACO Pumps.
Taco; Fabricated Products Div.

Casing: Cast bronze or cast iron, with stainless-steel liner, static O-ring seal to separate motor section from motor stator, and flanged piping connections.

Impeller: Overhung, single suction, closed or open, nonmetallic.

Shaft and Sleeve: Stainless-steel shaft with carbon-steel sleeve.

Motor: Single speed.

PART 3 - EXECUTION

PUMP INSTALLATION

Install pumps to provide access for periodic maintenance, including removing motors, impellers, couplings, and accessories.

CONNECTIONS

Install piping adjacent to machine to allow service and maintenance.

Connect piping to pumps. Install valves that are the same size as piping connected to pumps.

Install suction and discharge pipe sizes equal to or greater than diameter of pump nozzles.

Install check valve and throttling valve on discharge side of in-line circulators.

Install electrical connections for power, controls, and devices. Electrical power and control wiring and connections are specified in Division 16 Sections.

Ground equipment.

Install controls, control wiring and devices.

END OF SECTION 15185