

## SECTION 22 13 33 PACKAGED, SUBMERSIBLE SEWERAGE PUMP UNITS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Packaged submersible centrifugal sewerage pump.

#### 1.2 RELATED WORK

- A. Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.
- B. Section 22 05 12, GENERAL MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT.

#### 1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturer's Literature and Data:
  - 1. Pump:
    - a. Manufacturer and model.
    - b. Operating speed.
    - c. Capacity.
    - d. Characteristic performance curves.
  - 2. Motor:
    - a. Manufacturer.
    - b. Speed.
    - c. Current Characteristics and W (HP).
- C. Certified copies of all the factory and construction site test data sheets and reports.
- D. Complete operating and maintenance manuals including wiring diagrams, technical data sheets and information for ordering replaceable parts:
  - 1. Include complete list indicating all components of the system.
  - 2. Include complete diagrams of the internal wiring for each item of equipment.
  - 3. Diagrams shall have their terminals identified to facilitate installation, operation and maintenance.

#### 1.4 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. National Electrical Manufacturers Association (NEMA):
  - ICS6-93 (R2006).....Industrial Control and Systems Enclosures
  - 250-2008.....Enclosures for Electrical Equipment (1000 Volts Maximum)

C. Underwriters' Laboratories, Inc. (UL):

508-99 (R2008).....Standards For Safety Industrial Control  
Equipment

## **PART 2 - PRODUCTS**

### **2.1 SUBMERSIBLE SEWERAGE PUMP UNIT SP1**

- A. Cast iron switch case and pump housing, corrosion resistant powder coated epoxy finish, engineered plastic base. Non-clogging vortex impellor design, engineered plastic impeller with metal inserts. Stainless steel screws, bolts, handle, guard and arm and seal assembly. Fifteen foot UL listed 3-wire neoprene cord. 1/2HP, 115V, 1 phase, 60Hz, 1725 RPM oil-filled, hermetically sealed UL listed motor, automatic reset thermal overload protected, oil lubricated bearings, carbon and ceramic shaft seal, 2" NPT discharge, 25 GPM at 18' TDH. Zoeller Pump Co. Item 266-0002 (pump model N266) or equal.
- B. Simplex single phase control panel, clear dead front panel, (3) variable level float switches with 20ft. cord, equipment disconnect, motor contactor, NEMA 4x watertight enclosure with lockable latch, top mounted alarm light, 83 to 85 decibel high water alarm horn, pump run indicator light, horn silence and alarm test toggles, Hand/Off/Auto switch, dry auxiliary contact, 115V, UL listed, 7-15 amp range. Zoeller Pump Co. Item 10-1037 or equal.
- C. 24" diameter x 36" deep simplex basin, 12ga. steel simplex cover, 2" vent and discharge, 4" cast iron inlet hub shipped loose. Zoeller Pump Co. Item 31-0668 or equal.

## **PART 3 - EXECUTION**

### **3.1 STARTUP AND TESTING**

- A. Make tests as recommended by product manufacturer and listed standards and under actual or simulated operating conditions and prove full compliance with design and specified requirements. Tests of the various items of equipment shall be performed simultaneously with the system of which each item is an integral part.
- B. The tests shall include system capacity, and all control and alarm functions.
- C. When any defects are detected, correct defects and repeat test.

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