

SECTION 11930

PUMPS-GENERAL

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

The work covered by this section and the related sections consists of providing all labor, material, equipment and performing all construction required to install vertical pumps, motors, and pump control valves, including all accessories as specified and shown on the drawings.

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Drawings and general provisions of the Contract, including the General and Supplementary Conditions and Division 1 Specification sections, apply to this section.
- B. Section 01300 – Submittals
- C. Section 01730 – Operating and Maintenance Manuals
- D. Section 11931 – Submersible Wastewater Pumps

1.03 PUMP PERFORMANCE DATA

- A. Certified pump performance data (curves) are to be submitted to the Engineer for the pumps prior to delivery and pump installation. Performance data must be the results of actual pump operation of a complete pump assembly before shipment of pump. Also report amperage and voltage of each power leg, efficiency, horsepower.
- B. Pump shall not overload the motor across the entire operating curve of the pump.

1.04 QUALITY ASSURANCE

- 1. Provide shop drawings in accordance with Section 01300.
- 2. Provide operation and maintenance material and record drawings in accordance with Section 01720 and 01730.
- 3. Provide manufacturer's certification of correct installation after manufacturer's inspection.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

- 3.01** Install all equipment in strict conformance with the manufacturer's specifications and industry standards. Perform all work in a workmanlike manner.
- 3.02** Manufacturer's representative for pumps and valves shall inspect installation for correctness and compliance with manufacturers specifications and submit written certification that equipment is ready to be placed in service.
- 3.03** No piping connecting for any of the equipment will be jacked, pried or forced into position in any way. All piping must mate perfectly with the equipment it is attaching prior to installation of flange bolts or other connecting devices.
- 3.04** Clean and then flush thoroughly before making final connections to any assembly.
- 3.05** Field test pumps for conformance to specified operating conditions. Record initial flow, head, voltage and amperage for each power leg, ramp time to speed, full load speed. Adjust tolerances, if necessary and retest. Test pump and motor for amplitude and frequency of vibration. Measure noise (dBA) adjacent, at 10 ft., at 50- ft. Tests shall be performed to the satisfaction of the Engineer and meet the requirements of the Hydraulic Institute.
- 3.06** Store spare pumps, parts, drivers, etc. in strict accordance with manufacturer's recommendations. Notify the owner in writing of any special storage maintenance required, and provide such maintenance until final acceptance of contract.
- 3.07** Provide seal water piping as appropriate from nearest supply, including cut-off valve, and/or solenoid valve. All seal water piping to be installed by the qualified pump manufacturer.
- 3.08** Provide seal drain piping to nearest drain, as appropriate.
- 3.09** Pump impellers, bowl assemblies, tee head piping and all material of pump assembly must have smooth finish to minimize pitting corrosion potential.

3.10 All pumps shall meet or exceed the standards of the National Hydraulic Institute.

END OF SECTION