ROTH PUMP COMPANY

SPECIFICATION FORM FOR 250°F CONDENSATE RETURN STATIONS

Furnish and install as shown on the drawings OR as specified below:

Roth 250°F Condensate Return Station – Model # _____or equal.

(One)(Two) 1 Foot NPSHr Pumps For _____ GPM at _____ PSI at 250°F.
Receiver capacity shall be (30)(60)(100)(200)( ) gallons.
Receiver material shall be steel (50)(100)(200) PSIG ASME Code construction, with Code stamp.
Motor(s) shall be for _____ Voltage (60)(50) cycle (1)(3) phase current (drip proof)(TEFC)(TEFC Svr Duty)((Explosion Proof) all- angle construction.
Float switches/mechanical alternator shall be NEMA (1)(4)(7,9).
(Optional) Starter(s) enclosure shall be NEMA (1)(4)(4X)(7,9)(12) with a control voltage of _____.

Unit shall be furnished as a factory package unit and shall include the following components:

1. Pump(s) shall be Low NPSH centrifugal or regenerative turbine type with bronze impeller, renewable liners and stainless steel shaft. Pump NPSHr shall be a constant 1 Foot/ 0.3 Meter across the entire operating range. Pump must handle full rated capacity without loss or vapor binding at 1 ft. NPSHr. The pump(s) shall contain a mechanical seal with a silicone carbide seat suitable for 250°F water.

2. Pump(s) to include the following:
   A. A pressure gauge(s) stem mounted with 3-1/2 inch dial, drawn steel case, phosphor bronze tube and brass socket, complete with shut off cock.

3. One horizontal steel receiver of stated capacity and ASME code construction pressure rating with ASME Code stamp, and connections for inlet, outlet, drain, thermometer, vapor vent, pressure gauge, gauge glass, and float switch/mechanical alternator. Receiver shall be bolted to channel legs for easy field removability.

   Receiver to include the following items:
   A. One thermostatic air vent to vent noncondensable gasses.
   B. Level Gauge: One 1/2 inch, 175 lb. Pressure polished brass water gauge of proper size with bronze valve bodies conforming to ASTM specification B62, 1/8 inch bronze drain cock, non-heat round die cast valve wheels, 3/16 inch bronze guard rods and 5/8 inch high pressure glass tubing.
   C. Tank Thermometer: One stem mounted bi-metal thermometer with 3-1/2 inch dial, 50°-500°F range, and 4 inch stem, complete with thermowell.
   D. Tank pressure gauge.

4. Piping between the receiver and pump to consist of a gate valve and L-type strainer must be sized for
less than 3 ft/second velocity liquid flow at maximum pump capacity and specified operating head.. All pipe fittings suitable for 125 PSI.

5. Motor(s) shall be sized to be non-overloading at any working pressure below design pressure. The service factor of a motor shall not be utilized on TEFC or XP motors.

6. Motor/pump coupling is to be Woods with suitable coupling guard to meet current OSHA regulations.

7. One float switch/mechanical alternator with float rod packed for 250°F condensate.

For single pump stations the float switch shall be 2-pole Square D or equal suitable for across-the-line starts on single phase current up to 1 HP load, direct actuated by float and float rod.

For two pump stations the mechanical alternator shall be 2-pole Square D or equal to select first one pump and then the other and arranged to start the second pump if the first pump cannot handle peak returns.

8. (Optional) Magnetic starter(s) with HOA switch(es), disconnect(s), and control transformers shall be factory mounted in one enclosure and wired to the motors.

GENERAL REQUIREMENTS

Each bidder's written proposal shall include the equipment and materials as specified herein as their base bid. However, if the bidder desires to submit one or more alternate proposals, a summary of advantages to the purchaser, with complete descriptive, technical, dimensional, and price data, shall be submitted in writing for each proposal. Alternate proposals will not be given consideration if adequate information is not included.

Any exception to the specification shall be clearly stated in writing. If any of the requirements cannot be fulfilled, the bidder shall state his reasons in detail and propose a reasonable alternate. If no exceptions are taken, it will be understood that the bidder's proposal is based on strict conformance to all requirements of the specification and related attachments.