

## Packaged Pumping System

(Open System)  
 Model PPS-O

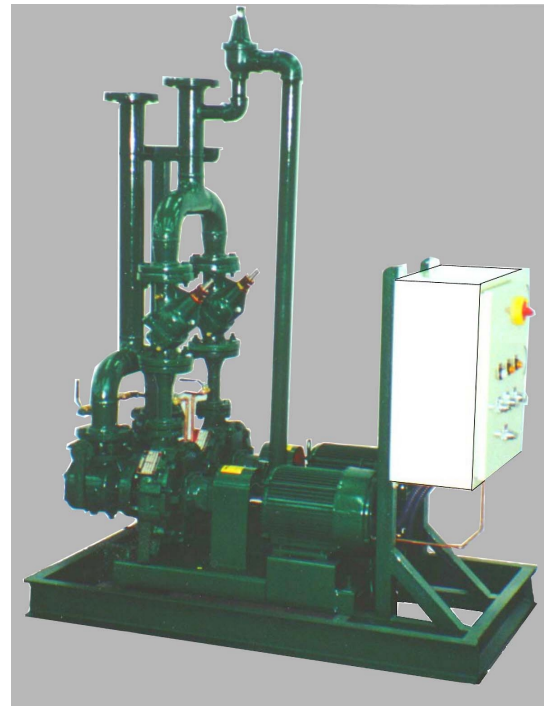
The Model PPS-O, Packaged Pumping System is a UL-Listed factory assembled and tested system used for fluid handling systems which are configured in open circuits. The PPS-O can be configured for pumping of a variety of fluids at a controlled flow rate in any industrial or commercial application. Process fluid enters a common system header and by use of centrifugal pumps is pumped at a controlled flow rate to a common discharge header. The flow rate is controlled by use of a manually-adjusted flow control valve. A UL-Listed control panel with single-point power connection is pre-wired to all electrical sources. Each Unit is custom engineered and designed to meet specific system requirements. All systems are fabricated and welded per ASME Section IX Code and Standards, and are Hydrostatically tested prior to shipment. The Model PPS-O speeds installation and start-up of fluid systems which provide significant savings to contractors, engineers, and facility owners.

### STANDARD CONSTRUCTION

- Structural Channel Base
- Carbon Steel Piping
- Operational Testing
- Pump Isolation Valves
- Hydrostatically Tested
- High Temperature Industrial Enamel Paint

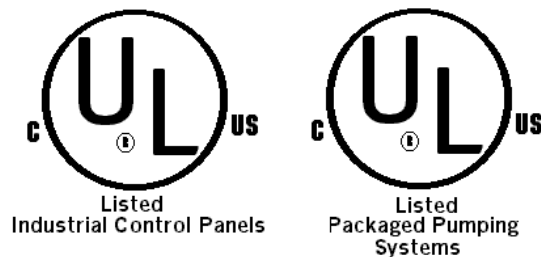
### CONDITIONS OF OPERATION

Max. Allowable Pressure:	125 psig / 8.6 bar
Max. Allowable Temperature:	240 °F / 115.5 °C



### Legend:

- A. Base-mounted, End-suction Centrifugal Pumps
- B. Triple Duty Valve
- C. System Inlet / Outlet Thermometers
- D. Pump Differential Pressure Gauge
- E. UL-listed Electrical Control Panel



### SYSTEM OPTIONS

- Stand-by pumps
- Suction Diffuser
- Panel-mounted Gauges
- Flexible Connectors
- Vibration Isolation

**Model PPS-O  
Packaged Pumping System Order  
Form**

Form 00-PPS-O

**Specify the following parameters:**

- I. System Flow Rate = \_\_\_\_\_ GPM
- II. System Differential Pressure Required = \_\_\_\_\_ psid
- III. System Inlet Pressure = \_\_\_\_\_ psig

- IV. System Temperature ( Min / Max ) = \_\_\_\_\_ °F
- V. System Fluid = \_\_\_\_\_
- VI. System Electrical = \_\_\_\_\_ V \_\_\_\_\_ Hz
- VII. System Volume = \_\_\_\_\_ Gal.

Note: System medium assumed to be water, unless otherwise specified.

**SYSTEM OPTIONS**

- |  |  |
|--|--|
| Stand-by Pump                                | Panel-mounted Differential Pressure Gauges                 |
| Pressure Gauges                              | Pump Run Time Hour Meter                                   |
| Pump Suction Diffuser                        | Outdoor use Rating   |
| Vertical In-line Pump                        | Outdoor Cabinet  |
| Split-coupled Vertical In-line Pump          | System Inlet/Outlet Isolation Valves                       |
| Closed-coupled end-suction Centrifugal Pump  | System Flow Switch   |
| Auto standby pump start on lead pump failure | Differential Pressure Switch across Pump suction/discharge |
| Auto Pump Alternation                        | System drain valves  |
| Remote start connection                      | Flexible Connectors  |
|  | Vibration Isolation  |

Regardless of system size, temperature, pressure, fluid medium, or space requirements, **EnviroSep** can provide solutions to all specialized needs.

**EnviroSep** • Fluid & Heat Recovery Systems  
A Division of TMT, Inc.  
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# Typical Specifications for PPS-O

Furnish and install one **EnviroSep** Model PPS-O- [A] - [B] - [C] - [D] Packaged Pumping System with the system capacity to pump \_\_\_\_\_ GPM of \_\_\_\_\_ (fluid) from \_\_\_\_\_ psig to \_\_\_\_\_ psig.

**KEY:**

- [A] = Model # (GPM)
- [B] = # of pumps (1,2,3,etc.)
- [C] = Parallel (P) or Stand-by (S) pump designation
- [D] = Manual (M) or Automatic (A) alternation for multiple pumps

**GENERAL** - This package shall be factory assembled with pump(s), fabricated steel frame, interconnection piping( welded per ASME Section IX certified welders), UL-listed Industrial Control Panel factory wired for single-point field connection per NEC.

**PUMPS**-Pump(s) shall be single, end-suction type with radically split, top center-line discharge, self-venting casing. Pump construction shall be cast iron, bronze fitted and shall be fitted with a long-life, product lubricated, drip tight mechanical seal, with O-ring seat retainer. Impeller shaft to be 416SS fitted with a SS shaft sleeve and be supported by two heavy duty ball bearings. The design shall allow back pull out servicing, enabling the complete rotating assembly to be removed without disturbing casing piping connections. The pump shall be mounted on a rigid, single base plate and by flexible with guard to the motor. Seal shall be rated for continuous duty at 270°F, motor shall be open drip proof, NEMA MG-1 with 1.15 service factor

**TRIPLE DUTY VALVE**- System shall include, on the discharge of each pump, a combination valve incorporating three functions in one body: tight shut-off, spring closure type silent non-slam check, and flow measured/throttling. Valve body shall be ductile iron with two ¼" NPT connections on each side of the valve seat. The valve disc shall be bronze plug disc type with high impact engineered resin seat to ensure tight shut-off and silent check valve operation. Valve stem shall be SS with flat surfaces provided for adjustment with open end wrench.

**SUCTION DIFFUSER**- System shall include, on the suction of each pump a suction diffuser with cast iron body, outlet guide vanes and removable SS strainer.

**CONTROL PANEL** - System shall include one (1) UL - Listed, NEMA 12, Industrial Control Panel with single-point power connection, pre-wired to all electrical components. Panel shall have thru-the-door fused disconnect; magnetic circuit breaker supplementary motor protector with fast-closing

contacts, non-reversing 3-pole contactor, and variable setting, bi-metallic overload relay for each motor; 30 mm Foundry-duty switches; 30 mm Corrosion Resistant pilot lights; control transformer; Automatic Alternator (if required). Operation of each pump shall be Hand-Off-Auto with external connection to terminal blocks. When standby pump(s) are used, the standby pump(s) shall manually/automatically(customer specified) start on primary pump failure. All internal wiring shall be placed in conduit.

**MANUFACTURER** - Shall assume system liability, and performance guarantee and warranty all equipment on system for 12 months after initial start-up.

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