

Packaged Pumping System

(Closed System)
 Model PPS-C

The Model PPS-C, Packaged Pumping System is a UL-Listed factory assembled and tested system used for fluid handling systems which are configured in closed circuits. The PPS-C 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 air-free flow rate is controlled by use of a manually-adjusted flow control valve. The PPS-C also allows for system thermal expansion based on the system volume. 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-C 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

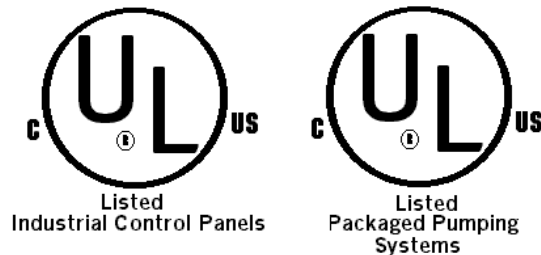
CONDITIONS OF OPERATION

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. Air Separator with Auto Air Vent
- E. Bladder-Type Expansion Tank
- F. Pump Differential Pressure Gauge
- G. UL-listed Electrical Control Panel



SYSTEM OPTIONS

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

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

Form 00-PPS-C

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
- Pressure Gauges
- Pump Suction Diffuser
- Vertical In-line Pump
- Split-coupled Vertical In-line Pump
- Closed-coupled end-suction Centrifugal Pump
- Auto standby pump start on lead pump failure
- Auto Pump Alternation
- Remote start connection

- Panel-mounted Differential Pressure Gauges
- Pump Run Time Hour Meter
- Outdoor use Rating
- Outdoor Cabinet
- System Inlet/Outlet Isolation Valves
- System Flow Switch
- Differential Pressure Switch across Pump suction/discharge
- System drain valves
- 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.
PO Box 857 • Georgetown, SC 29442
Phone (843) 546-7400 / Fax (843) 546-7407
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Typical Specifications for PPS-C

Furnish and install one **EnviroSep**
Model PPS-C- [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.

AIR REMOVAL EQUIPMENT- System shall
include one tangential air separator with internal
stainless steel collector tube. Connections to be
flanged with a rating of 150 psig. System shall be
equipped with ¾" Pressure Relief Valve, ¾" Pressure
Regulating Valve, ASME Compression / Expansion
Tank (sized by or provide system volume and
temperature difference), and tank fitting, sight glass,
and tank drain connections to tank. Bladder-type

expansion tank may be substituted as alternate.

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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