



REPCO offers a wide range of custom built booster pump packages. Each package is engineered to provide the performance that you require for uninterrupted pressure and flow.

Because providing you with optimal water system operation, our priority is to offer a wide variety of booster pump packages engineered to meet your specific needs.

Variable Speed Booster Pump Package

Maintaining our commitment to 'You Bought The Best', REPCO's variable speed booster package gives you the latest energy saving motor-drive technology with a user-friendly panel mounted interface. REPCO systems provide quiet and reliable pump operation while minimizing the energy consumption and giving exceptional booster pump performance.

Operator Status Information

- System pressure (psi) • Supply pressure (psi)
- Station flow (gpm) • Motor voltage • Motor amperage
- Pump run status • Operating rpm • Alarm fault status



REPCO Controls Standard Features:

Visual alarm conditions, Non-volatile memory, Factory settings reset button, Watertight touch-screen interface, Easy to read backlit display, Password protected system parameters, Field-adjustable on-screen display of pump system Parameters, suction, discharge and flow transducers, 24-hour automatic alternation, elapsed run time meters with reset, built-in pump start-delay and minimum run timers, individual pump status, drive/motor failure, low system pressure, high system pressure, low suction pressure, no-flow shutdown, on-screen operator adjustable operation and alarm setpoints, on-screen alarm display for low suction pressure, low system pressure, high system pressure, high suction pressure, controller failure, pump failure, suction or discharge transmitter failure, drive faults

REPCO PUMPS and CONTROLS

Water Booster System Specifications

SECTION 1. - WATER BOOSTER SYSTEM CONTROLS

.01 SCOPE: The scope of this section of the specifications includes the furnishing of a REPCO CONTROLS panel as described herein, as manufactured by R.E. Prescott Co., Inc. The Control Panel is to provide the control functions of a water supply system consisting of 2 booster pumps, 1 suction transmitter and 1 pressure transmitter.

.02 ENCLOSURE: The control panel will be housed in a lockable NEMA 12 enclosure with stainless steel hardware. Panel enclosure fabricated out of 14 gauge steel. Exterior coating is ANSI-61 grey. All seams are continuously welded.

.03 BACK PANEL: Interior control devices are to be mounted on a steel control panel backplate. Backplate is fabricated out of 12 gauge steel. Finish is white polyester paint.

- Manual lockable disconnects for each pump
- Motor Starters, VFD, AB, PowerFlex Series
- Power fuse blocks and fuses for each pump
- Control Circuit Breaker
- Control Transformer
- Programmable Logic Controller, Allen Bradley, 1500 series
- Control Relays
- Power Supplies
- Remote Control Devices
- Control Fuses and Holders

.04 EXTERNAL CONTROL PANEL DOOR: A continuous hinge is provided on the long side. The door can be removed by pulling the hinge pin. The control panel door will have the following components wired and mounted:

- Individual Motor Disconnects with Lockout Protection
- Pump Run Indication
- Individual Hand-Off-Automatic Selector Switches
- Manual speed potentiometers for each pump
- Pilot Light Indicators
- General Alarm Indication
- Human-Machine interface panel, Allen Bradley, PV-550

.05 CONTROL DEVICES: Industrial grade pressure transmitters are included for



the linear measurement of the station suction pressure and station discharge pressure. The transmitters are 4-20mA, 2 wire transducers with a 0.5% accuracy. The power supply is 12-30 VDC. Pressure transmitters are 316 stainless steel wetted parts and optional flow transmitters as manufactured by ONICON model F1111.

.05 FUNCTIONS: The control panel provides system control functions. Motor VFDs, HOA switches, potentiometers, and run lights are incorporated in the controls. The control panel is to provide the following operating functions:

1. The control panel will provide output signals for 2 booster pumps to operate in a lead/lag manner with alternation after each pumping cycle or on a 24 hour basis. Control of the booster pumps is based on inputs from the pressure transmitter for off, lead on, lag on and alarms. Low suction protection is provided for the booster pumps in automatic mode based on inputs from suction transmitter.
2. The control panel will provide a startup time delay on each pump. These time delays are to provide the staging on of the pumps following a loss of electrical power.
3. The transmitters will operate on a sensing voltage of 24 VAC through a regulated power supply.
4. The control panel is to be line powered by 208-230/480 VAC, single or three Phase, 60 Hz with a control transformer for 115 VAC control power.
5. An uninterruptible power supply, UPS is also included.

.06 DOCUMENTATION: Documentation provided for the control panel to include the following information:

1. Installation and operating instructions.
2. Description of control panel functions.
3. Replacement Parts list.
4. Wiring diagrams

SECTION 2. - WATER BOOSTER PUMPS

.01 GENERAL ASSEMBLY

1. Booster system is factory assembled on a structural steel skid.
2. An optional Cycle Tank is shipped loose and field installed next to the package.
3. All pumps, piping, fittings and control panel are pre-wired and pre-piped for single point connections.
4. Suction and discharge headers are constructed of non-ferrous material in accordance with AWWA standards for potable water.
5. Each pump is equipped with flange union connections for ease of service.
6. Each pump has a discharge check valve and ball valve isolation valves.
7. Factory finished in enamel blue paint.

.02 VERTICLE PUMPS

1. System includes two multi-stage, vertical centrifugal pumps with ANSI flanges.
2. Pumps are constructed of stainless steel as supplied by the pump

manufacturer.

3. Pumps are equipped with mechanical shaft seals
4. Pump motors will be of the horsepower required to provide system operation specifications and be 208-230/480 Volt, 60 Hz and 3 Phase.

03. CHECK and BALL VALVES

1. Each pump is fitted with silent check valves as manufactured by Flomatic Valve Corp.
2. Each pump is fitted with quarter turn ball valves as manufactured by A.Y. McDonald Mfg.

.04 THERMAL PURGE (Optional)

1. A 2 GPM recirculation line with an electric solenoid valve that will recirculate water to the suction header during times of no flow when the pumps are running is available.
2. During times of system flow greater than 3 USGPM the solenoid is off preventing recirculation.

.05 HYDRO-PNEUMATIC TANK (Optional)

1. 185 gallon hydro-pneumatic tank is manufactured by Flexcon Industries
2. Tank is manufactured out of carbon steel.
3. A replaceable bladder is standard.
4. Tank is stamped with the ASME code and rated for 200 PSI.
5. Tank is shipped loose for field installation by others.

.06 MANUFACTURERS:

This is to be a REPCO PUMPS and CONTROLS Water Booster System by:

R.E. Prescott Co., Inc.; 10 Railroad Ave.; Exeter, NH 03833; 603-772-4321
Est. 1954

