ENGINEERED PRODUCTS

INLINE 400 PRESSURE BOOSTING SYSTEMS

ENGINEERING SPECIFICATIONS

1.01 SINGLE SOURCE RESPONSIBILITY: The pressure booster system (motor, pump end & control unit) shall be provided as a complete system by the pump manufacturer.

1.02 CERTIFICATIONS: The system must be UL listed and certified to NSF/ANSI 61 & 372.

1.03 SERIAL NUMBER: Each package shall be given a unique serial number for tracking purposes and the unique number must be provided on a label supplied with the unit. The unique serial number must enable the supplier to identify the date code for assembly and test records.

2.01 SCOPE: Factory-assembled and tested booster pump package for use in potable water systems. The system to be equipped with the following attributes/capabilities:

A. Mounting: The unit shall be constructed so it can be placed on a level floor or able to be wall hung to reduce floor space required.
B. Pump Electrical Connections: Each pump shall be equipped with connection plug for 60Hz (115V or 230V) and a 6-foot cord or larger to permit the pump to be electrically connected or disconnected for servicing without requiring any specialized tools.
C. Internal pressure rating: 100 psi (6.9 bar).
D. Water temperature rating: 120 °F (49 °C).

2.02 CONSTRUCTION: The pump and motor assembly shall be of water-cooled type to reduce noise levels to a minimum and provide a long service life by keeping operating temperatures to a minimum. Additionally, the unit shall have the following characteristics:

A. Suction & Discharge connections: 1.25" NPT threaded.
B. Backflow Prevention: Unit shall have an internal check valve on the discharge side of the pump.
C. Motor unit: Permanent Split Capacitor type. Encapsulated stator with internal thermal protection. Single phase. Rated for 1/3 HP with 1.75 Service Factor.
D. Pump unit: Multi-stage type. Rated for 15gpm at BEP.

2.03 CONTROLS/ELECTRICAL: The control module must be equipped to sense and interrupt the pump from operating in case of:

- Motor overload
- Under voltage
- Over voltage
- Over temperature
- Insufficient water supply (dry run)
- High inlet pressure

2.04 PUMP PERFORMANCE/SPECIFICATION:

A. Pump & motor assembly to provide at least 32 psi incremental pressure boost at 15 gpm, 44 psi incremental boost at 10 gpm, and 50 psi incremental boost at 5 gpm without exceeding 60 psi boost at shut-off.
B. Pump Power Rating: 1/3 hp (0.25 kw).

3.01 INSTALLATION: Install package system according to manufacturer's written instructions and with access for periodic maintenance, including removing motors, impellers, couplings, and accessories.

3.02 COMMISSIONING: Verify that system controls have been set up correctly for the required application.

3.03 START UP: Engage a factory-authorized service representative to train owner's maintenance personnel to adjust, operate, and maintain pumps.

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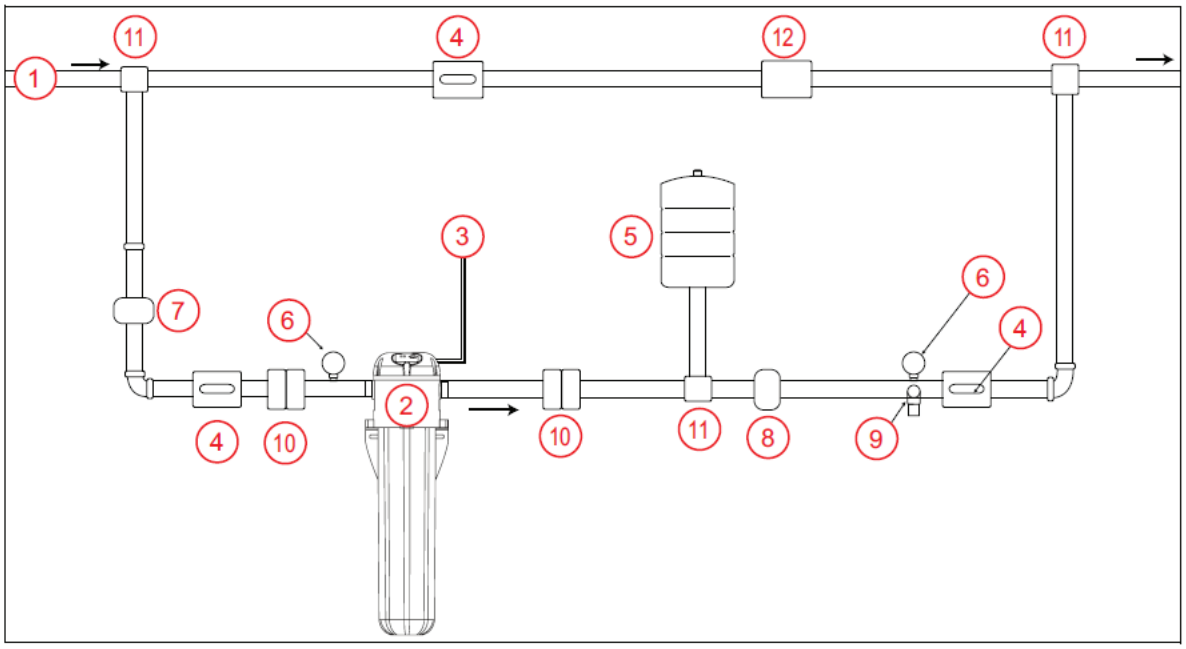
TYPICAL INSTALLATION DIAGRAM



1. Water from source
2. Inline 400
3. Power Cord
4. Ball valve
5. Pressure Tank (no further away than 5' / 1/5 m from the pump)
6. Pressure Gauge
7. Inlet Pressure Reducing Valve (optional)
8. Outlet Pressure Reducing Valve (optional)
9. Pressure Relief Valve
10. Union Coupling
11. Pipe Tee
12. Check Valve