

AQUAFORCE™

P U M P S T A T I O N S

The AquaForce VS (Variable Speed) pump stations are a pre-engineered and fabricated line of packaged booster systems that provide maximum hydraulic capabilities of 1600 GPM and up to 300 PSI.

The AquaForce provides pressure boosting for a variety of applications including high-rise buildings, industrial plants, municipal and rural water districts, and Ag/irrigation.

The AquaForce pump controller utilizes our unique ITT pump control logic, to create an intelligent pump system providing superior energy efficiency and system protection. This robust, reliable controller provides maximum value and lifetime for AquaForce pump stations.

Even with the most challenging, changing system demands, the AquaForce pumping station provides consistent performance.



- 2- or 3-pump configuration
- Flow ranges up to 1600 GPM at 300 psi system pressure
- UL/cUL Listed for pump packages and control panels
- No flow shutdown
- Modbus serial communications
- System pressure sensor package mounted

STANDARD FEATURES

- Redundant discharge pressure sensor
- Suction pressure switch
- Suction pressure sensor
- Loss of prime switch
- 4 pump configuration
- Individual pump high temperature relief valves
- System flex connectors
- Lightning arrestor
- Outdoor applications

OPTIONAL FEATURES

- High rise buildings
- Industrial plants
- Municipal and rural water districts
- Ag/irrigation

TYPICAL INSTALLATIONS



Engineered for life

SPECIFICATION*

Furnish and install as shown on the plans an AquaForce Pressure Booster Station as manufactured by ITT Goulds Pumps or approved equal.

The packaged pumping system shall be constructed with Type 304 SS headers. Unit shall be rated up to 300 PSIG working pressure. Headers shall be easily removable to allow for service access and moving the package through doorways. Manufacturer shall be listed by Underwriters Laboratories as a manufacturer of packaged pumping systems. The entire pumping package shall be NSF/ANSI-61 certified for potable drinking water and NSF/ANSI-61 Annex G for a wetted area, weighted average lead content $\leq 0.25\%$. Entire package shall be constructed to UL Category QCZJ Packaged Pumping Systems and bear this label prior to shipment.

Motors shall meet NEMA specifications and shall be of the size, voltage, and enclosure called for on the plans. The pump manufacturer will be one in the same as the pressure booster manufacturer to ensure single source unit responsibility.

The manufacturer will have in place a quality assurance program. The manufacturer shall be in the business of manufacturing pressure boosters for a minimum of 30 years. Proof of certification and insurance showing a minimum general liability coverage of \$1,000,000 and an excess liability coverage of \$10,000,000.

Systems shall ship complete with ITT Goulds Pumps Stainless Steel e-SV vertical multistage, SSH end-suction or NPE end-suction pumps. All pumps shall be NSF/ANSI-61 certified for potable drinking water and NSF/ANSI-61 Annex G for a wetted area, weighted average lead content $\leq 0.25\%$.

The pump station frame shall be designed and fabricated to provide structural support for all attached equipment, and provide anchor bolt support. The base shall supply sufficient rigidity to withstand the stresses of reasonable and competent transportation to site, off loading, installation, and operation.

All piping shall be constructed from 304 stainless steel, schedule 10 type or heavier pipe as required to maintain a 3 to 1 pressure safety factor (including 1/16" corrosion allowance).

Isolation ball valves and/or grooved butterfly valves shall be certified to NSF/ANSI-61 for use with potable drinking water and shall be certified as low lead having wetted surface area with a weighted average lead content $< 0.25\%$. Isolation ball valves shall be rated for 600psi WOG / 150psi WSP for valves 1/4" to 2" and 400psi WOG / 125psi WSP for valves 2-1/2" to 4". Isolation grooved butterfly valve bodies shall be investment cast C8FM to ASTM A743 with integral neck and ISO mounting top. Valve handle shall be a 304 stainless steel.

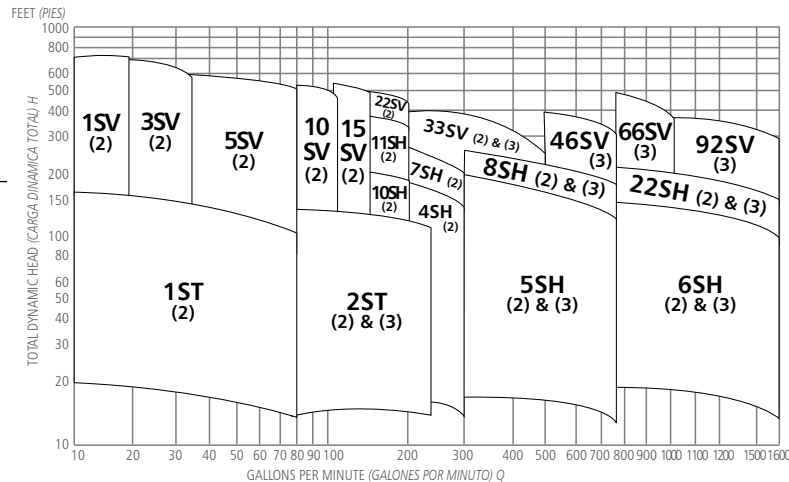
Bourdon tube glycerin filled pressure gauges shall be provided for the suction and discharge manifold. Accuracy shall be $\pm 1.5\%$

Bolts shall be zinc plated and shall meet ASTM Grade A193 B7.

The finish coat shall be acrylic enamel to a thickness of no less than 3 mils.

Package shall be hydrostatically and electrically tested prior to shipment.

PERFORMANCE RANGE



Designations
 (2) = Duplex *SV = e-SV vertical multi-stage *ST = End suction NPE
 (3) = Triplex *SSH = End suction SSH

*Pumping Package only NSF/ANSI-61 and NSF/ANSI-61 Annex G certification pending

ITT
 2881 East Bayard Street
 Seneca Falls, NY 13148
 Phone: (315) 568-7123
 Fax: (315) 568-7973
 www.goulds.com

