



Operation:

Flomatic check valves are designed to give years of trouble free operation without maintenance when properly installed and in a properly selected pumping application with regards to flow and maximum system pressures.

Construction:

The Flomatic check valve body has been constructed to handle the rated system flow and pressures as stated and in addition support the weight of the submersible pump, pipe and the water in the riser pipe. In addition the valves have been uniquely designed to absorb some of the hydraulic water shocks associated with well water pumping when the check valve installation instruction are followed below.

IMPORTANT INSTALLATION INSTRUCTIONS

It is very important to install a check valve properly to help insure a trouble free water system. If the installation instructions are not followed warranty or any warranty claims may be void. On the back of this page is a diagram of a typical submersible valve installation (Fig. 1). For the CL valves please refer to Certa-Loks Installation instructions.

- A. Pipe Flow Velocities: High Flow - When selecting a submersible check valve insure that the valve is sized properly to flows normally not to exceed 10 feet per second. Higher flow velocities will increase friction losses, hydraulic shocks and the possibility of destructive water hammer... B. System pressure: It is important to take the total system hydraulics into the calculation... C. Prior to installing check valve: Make sure that the check valve is free from defects... D. Install check valve vertically with arrow pointed up... E. In submersible pump applications, the first check valve should be installed directly on the discharge head... F. If the pump has a built-in check valve, the second check valve should be installed no more than 25 feet above the lowest pumping level in the well

Table with 3 columns: Submersible pump setting in well, Recommended Check Valve Installation, and Type Check Valve. Rows include settings for 200 feet or less, 200 feet to 600 feet, and 600 feet to 800 feet.



Note: 3" - 10" DIX valves may be used vertically or horizontally all others contact factory. 12" DIX and ALL DI valves are designed for vertical installation ONLY

Water Hammer

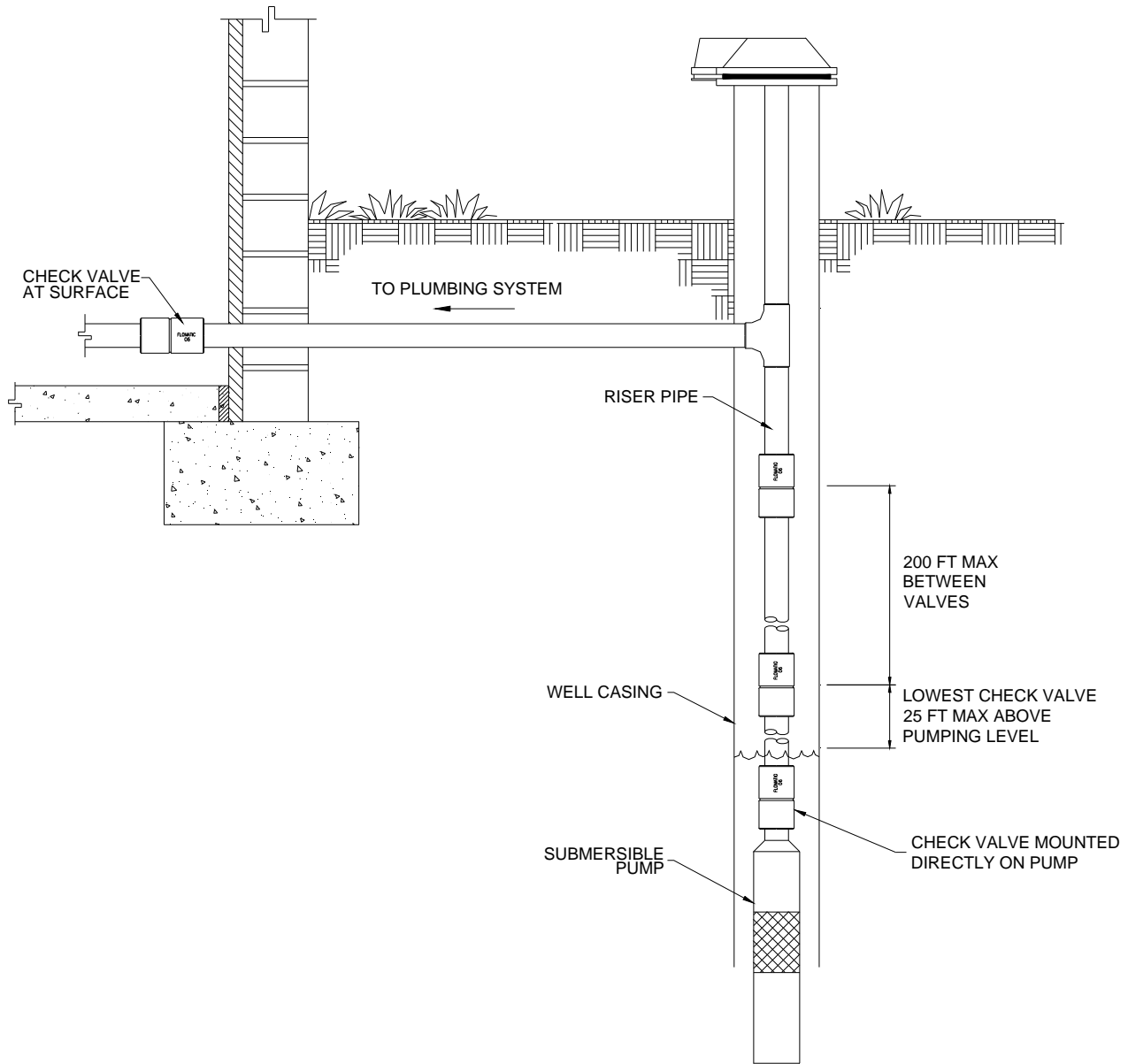
Water pumped and flowing through a piping system has a certain amount of energy (weight x velocity). If the pumping is stopped, the water continues to move and its remaining energy must be absorbed in some way. This absorption of energy can sometimes create undesirable noise and/or damage. This is called water hammer.

Water hammer can destroy piping systems, valves and related equipment. Water hammer varies in intensity depending on the velocity with which the water is traveling when the pump shuts down. It is very important for the installer to realize water hammer potential, and he must take this into consideration when sizing the system and deciding what material the valves should be made from.

It has been proven that for every foot per second of velocity 54 psi of backpressure is created. This means, in a 1" pipe, a flow of only 10 gpm could create a back pressure of 370 psi or more when the pump shuts down and the water column reverses.

IMPORTANT CHECK VALVE INSTALLATION INSTRUCTIONS

If the installation instructions are not followed warranty or any warranty claims may be void.
NOTE: On initial system start-up gradual priming of vertical water column is recommended to avoid valve damage due to water shock.



(Fig. 1)

PLEASE CONTACT FLOMATIC FOR ANY FURTHER INFORMATION

Limited One Year Warranty: Flomatic valves are guaranteed against defects of material or workmanship when used for the services recommended. If, in any recommended service a defect develops due to material or workmanship, and the device is returned, freight prepaid, to Flomatic Corporation within 12 months from date of purchase, it will be repaired or replaced free of charge. Flomatic Corporations' liability shall be limited to our agreement to repair or replacement of valve only.