

American Wheatley Dual Disc Check Valve

Installation, Operation & Maintenance

GENERAL INFORMATION:

American Wheatley Dual Disc Check Valves are designed to automatically prevent back-flow in systems where it is desirable to permit flow in one direction and prevent flow in the opposite direction. When the pump starts and the downstream flow creates the required pressure drop in the forward direction, the disc will automatically open. When the pump stops and the flow ceases, the force of the spring will automatically close the disc prior to flow reversal. This creates a positive shutoff against flow reversal and minimizes system surges and water hammer.

For additional information regarding American Wheatley's Dual Disc Check Valves, please refer to published catalog information.

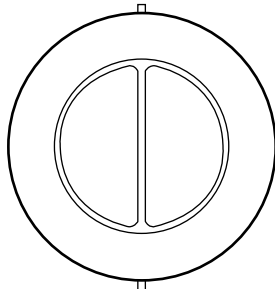
Prior to selection of a American Wheatley Dual Disc Check Valve, the following factors must be determined:

- Material construction requirements of the Check Valve
- Design and working pressure/temperature requirements
- Operating conditions

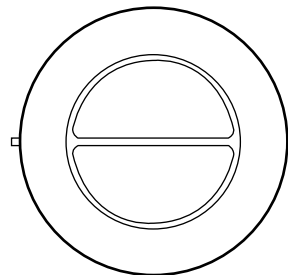
HORIZONTAL INSTALLATION:

IMPORTANT: The valve must be installed perpendicular to the flow. To insure that it is accurately installed make sure the valve center guide is horizontal.

Correct
Installation



Incorrect
Installation



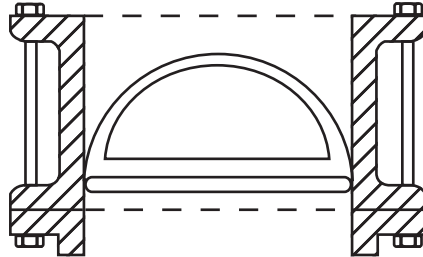
JOB NAME _____
LOCATION _____

CONTRACTOR _____
CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

VERTICAL INSTALLATION:

Orientation of the valve rib is necessary to assure an equal loading on the Dual Plates. See illustration below. NOTE: the weight of the discs will cause additional pressure drop.



OPERATION:

Start-up Procedure: Once proper installation has been successfully completed, start the system gradually, at start up as well as after shut down. This eliminates sudden shock to the Check Valve and other equipment in the line.

MAINTENANCE:

American Wheatley Check Valves are designed to provide trouble-free service and seldom require maintenance. If removal of Check Valve is required for inspection, please follow these steps.

Valve Removal:

Step 1: To remove the Check Valve from the pipeline, first isolate the Check Valve by shutting off the upstream pump and closing the downstream isolation valve. Drain the system as much as possible.

Step 2: Relieve pressure from both sides of the Check Valve by venting the line.

Step 3: Loosen the outlet side bolts, securing the valve to the pipeline, never loosen the inlet side. Once pressure has been relieved, the inlet bolts may be loosened & removed.

Step 4: Remove Check Valve from the pipeline and place the Check Valve with outlet side on the ground. Inspect internal components for wear or damage. If replacement parts are required, please contact American Wheatley for repair recommendations.

SPARE PARTS LIST:

For the bill of materials and spare parts listing of each Dual Disc Check Valve, please refer to published catalogue information.

TROUBLE SHOOTING:

Leakage: Periodic inspections for leakage should be performed. If leakage is present, check the flange gasket and flange bolt torque. In some situations, it may be necessary to isolate the Check Valve by shutting off upstream and downstream valves. Then remove the Check Valve and inspect the seating surfaces for damage.

Vibration: Verify that flow rate is within published recommended range. Additionally, verify that the Check Valve is 5 to 10 pipe diameters from any turbulence producing devices (elbows, pumps, tees, expansions, reductions, and swages). Remove Check Valve from piping system and inspect the spring. Verify that the spring is providing the proper tension.

Restricted Flow: If flow is halted at the Check Valve, verify that the flow direction arrow (casted into the side of the body or printed on the nameplate) is pointing in the direction of the flow. Remove Check Valve from piping system and inspect the spring. Verify that the spring is providing the proper tension