Kennedy Swing Check Valves

A.W.W.A. C508 was developed in 1976 to set a standard for the manufacture, testing and application of Iron Body Bronze Mounted (IBBM) Check Valves. The valves are designed with an iron body and include either metal-to-metal or composition-to-metal seating.

Kennedy Swing Check Valves are designed and manufactured in conformance with A.W.W.A. C508 and are for use on water, oil and gas lines. Under certain circumstances where it is desirable to have more positive control of the closing of the disc, the valves can be supplied with either lever-and-spring or lever-and-weight. For restricted spacing requirements Kennedy Valve manufactures a Wafer Check Valve that also helps to control water hammer.

Features

Swing Check Valve-AWWA
- Stainless steel hinge pin.
- Working parts are removable through the top of the valve.
- Tapped bosses available.
- Available with lever-and-spring or lever-and-weight.
- Double bronze side plug construction.
- Bodies are made of high strength cast iron with reinforced flanges - ANSI B 16.1/125 # flanges.
- May be installed in a vertical line with the flow up.

- Figure #1106 Series
  Test Pressure - Seat and Shell 400 PSI
  Working Pressure - non-shock CWP 200 PSI

- Figure #106 Series
  Test Pressure - Seat and Shell 300 PSI
  Working Pressure - non-shock CWP 150 PSI

FLOW VERSUS PRESSURE DROP

Data Representative of Kennedy Figure 1106 and 1106A Swing Check Valves
It is generally recommended, that when using Kennedy swing check valves, that you locate the valve at least 5 to 10 pipe diameters down stream from any flow disturbance or obstruction (valve, pump, elbow, reducer, etc.). Turbulence close to the check valve may result in valve "chatter" resulting in premature failure of the check valve.

As stated in AWWA C508, "Conditions of water hammer, hydraulic pulsation, and excessive operating noise are results of system design rather than valve design and are beyond the scope of this standard and require special design and construction considerations."
If possible, it is preferable to eliminate water hammer. The best way to eliminate water hammer is in the design of the piping system. For most cases where water hammer exists it is preferable to reduce its effects by causing the check valve to close so quickly that the flow is not able to reverse. Kennedy Valve makes a Figure 706 Wafer Check Valve that is intended as an anti-water hammer valve. Kennedy Valve also has available lever and weight and lever and spring arrangements on the Figure 1106 Check Valve.

In some cases the customer may want an arrangement that retards the closing of the check valve. The customer may want such an arrangement for those cases where the water column actually has an opportunity to reverse or even separate, such as might occur when the check valve is not at the lowest elevation in the system.
For those customers, Kennedy Valve makes available the Figure 1206 Cushion Check Valve. The Figure 1206 Cushion Check Valve is a Figure 1106, AWWA valve with a lever and weight and a pneumatic cylinder arrangement. The pneumatic cylinder has a needle valve that allows the customer to adjust the time required for the valve to close.

The Figure 1206 Check Valve may be ordered from the factory either as flow horizontal or flow up. The cylinder arrangement is available mounted on either side unless specified the Figure 1206 valve will be supplied with the cylinder on the right side (when facing the inlet) and for horizontal flow.

The Figure 1206 has internal components identical to the Figure 1106 except that the hinge pin is made from heat treated, type 431 stainless steel and is unique to the Figure 1206.