

Metraflex Series 700 & 900 Silent Check Valves OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

General: Metraflex Series 700 Wafer style and Series 900 Globe check valves are center guided spring loaded single disc valves used to prevent backflow, while also minimizing the effects of water hammer due to the reversal of fluid flow operating smoothly and silently.

Application:

1. The valve can be installed either horizontally or vertically, with the flow arrow pointing in the direction of flow when the system is in operation. Consult Metraflex If installing in vertical down flow applications.
2. Damage to the valve or internal leakage may result if pipe flanges other than those with standard flat faces conforming to ANSI B16.5 are used. **The mating flange inside diameter and gasket must overlap the valve seat to provide proper seat retention.** See "Maximum Allowable Inside Diameter of Flange" table below.
3. Center guided spring loaded check valves are designed for fluid applications. They are not designed for use in applications that include particulate matter or suspended solids.
4. Installing valve with three to four diameters of straight pipe from the pump is recommended to prevent turbulent flow streams through the valve, which can cause vibration and wear. If the valve is installed with less than 10 pipe diameters Metraflex recommends the installation of a Vane Flex.
5. Check clearances when installing on a butterfly valve. The Butterfly Valve must be installed on the discharging side only. The 700 series valves are not compatible with Butterfly Valves.
6. Do **NOT** mount the intake side of the check valve on any type of elastomeric seat or gasket.

Installation:

1. Inspect valve for shipping damage, insure all parts are intact.
2. **The mating flange inside diameter and gasket must overlap the valve seat to provide proper seat retention.**
3. 1/16" thick full face gasket is recommended, centering the gasket is important to prevent internal valve leakage.
4. Bolt diameter to be in accordance with ANSI B16.5, Table 7 for 150 lb. Flanges and Table 8 for 300 lb. Flanges
5. Do not lift valve by the trim
6. Flow arrow must point in the direction of flow when system is operating.
7. The valve and adjacent piping must be supported and aligned to prevent stress from being transferred to the valve's flanges.
8. The torquing of the flange bolts should be done in several graduated steps, using the number sequence shown in Figure 1. This even loading of the flange bolts will eliminate concentrated stresses which could fracture the valve's flanges
9. For installation video, visit www.metraflex.com


Testing: Valve may be one-time pressure tested to 1-1/2 times the product's maximum operating pressure. Do not exceed maximum pressure or temperature during operation.

Precautions:

Do NOT inspect the seat area of the valve by removing the piping from the inlet side of the valve when back pressure is present. This will result in the seat and trim of the valve being damaged.

Storage:

Store valves with flow arrows pointing upwards

CUSTOMER _____ PROJECT _____ ENGINEER _____ ARCHITECT _____ PRO. OR P.O. NO. _____				
	DESCRIPTION: Series 700 & 900 Silent Check Valves Operation, Installation and Maintenance Instructions			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">DRAWING BY: JC</td> <td style="width: 33%;">DATE: 12-18-12</td> <td style="width: 33%;">DRAWING NO. SLNT CHK VLV-OIM 1 of 2</td> </tr> </table>	DRAWING BY: JC	DATE: 12-18-12	DRAWING NO. SLNT CHK VLV-OIM 1 of 2
DRAWING BY: JC	DATE: 12-18-12	DRAWING NO. SLNT CHK VLV-OIM 1 of 2		

Metraflex Series 700 & 900 Silent Check Valves OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

Installation Continued:

Maintenance:

Silent Check Valves have no serviceable parts and do not require maintenance. Metraflex recommends periodic inspection.

Maximum Allowable Inside Diameter of Flange								
Valve Size	2 1/2	3	4	5	6	8	10	12
Flange ID (in)	2.94	3.57	4.57	5.66	6.72	8.72	10.88	12.88
Valve Size	14	16	18	20	24	30	36	42
Flange ID (in)	14.14	16.16	18.18	20.20	24.25	30.25	36.35	42.25

Note: The mating companion flange I.D. must overlap the valve seat. This is required to provide proper seat retention.

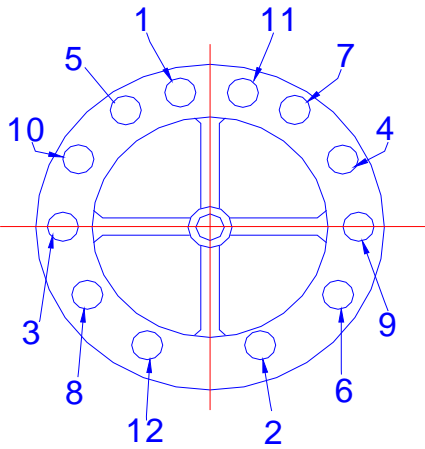



Figure 1. Bolt Torque Sequence

CUSTOMER _____ PROJECT _____ ENGINEER _____ ARCHITECT _____ PRO. OR P.O. NO. _____				
	DESCRIPTION: Series 700 & 900 Silent Check Valves Operation, Installation and Maintenance Instructions			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">DRAWING BY: JC</td> <td style="width: 33%;">DATE: 12-18-12</td> <td style="width: 33%;">DRAWING NO. SLNT CHK VLV-OIM 1 of 2</td> </tr> </table>	DRAWING BY: JC	DATE: 12-18-12	DRAWING NO. SLNT CHK VLV-OIM 1 of 2
DRAWING BY: JC	DATE: 12-18-12	DRAWING NO. SLNT CHK VLV-OIM 1 of 2		