

Valve Gaskets

With Spartan NSF Butterfly Valves, the elastomer seat extends beyond the valve face and provides a tight seal between the valve and the mating surface (pipe flange face). Gaskets are not required and should NOT be used when the valve is installed between standard slip-on and weld neck type flanges.

Valve Seat Position

All butterfly valves are completely bi-directional, so installation does not depend on seat orientation.

Installation Position

Before installation, it is important to ensure that the inside diameter of the pipe and pipe flanges are large enough so that the edge of the disc can be operated to the open position without interference.

To avoid damaging the disc and the seat during the installation process, the valve disc should be slightly open but not extending beyond the face of the elastomer seat. Positioning the disc in this manner, also referred to as "almost closed" (Approx. 20° open), ensures that interference with seat and the resulting increase in installation torque are minimized.

Opening Rotation

The NSF Butterfly valve disc can be rotated 360° without damaging the valve or elastomer seat. The valve is designed to open either clockwise or counterclockwise rotation of the shaft.

Valve and Flange Preparation

It is important that the valve and mating pipe are properly prepared for the installation process, there by future problems can easily be avoided. All valve seat and pipe flange surfaces must be free of dirt, grit, dents, scrapes, and other surface defects that could affect the ability of the sealing surface to properly mate. The sealing surface of the valve disc should also be carefully checked to ensure that no foreign objects interfere with the operation of the valve.

Installation Tools

The only tool required for installation is a suitable wrench for tightening the flange bolts required to secure the valve in line.

Required Bolting

Use only Lug Style Cap bolts. The required bolting information is listed in Table 1 on page 2, which is made to provide information regarding size, type, and quantity of bolting recommended.

Handling and Storage Instructions

1. Check packing list to verify the valve received is correct in size, material and trim as ordered.
2. Check for any damage during shipment.
3. When moving, do not damage the flange face, disc sealing edge, and operators.
4. If storage is required before installation, the valve should be protected from harsh environmental conditions.
5. Store the valve in clean, dry and cool location, and away from direct sunlight and rain.

Pre-Installation Procedure

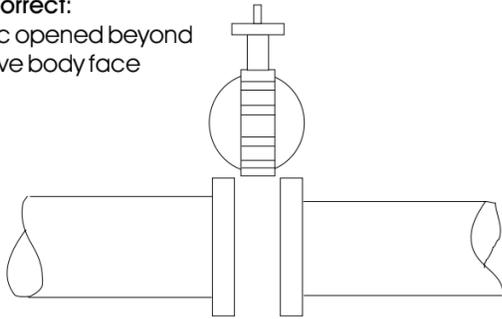
1. Remove any protective flange covers from the valve.
2. Inspect the valve to ensure the flow path is free from dirt and foreign matter. Be careful about the mating pipeline is free from dirt and any foreign material such as rust, pipe scale, and welding slag which can damage the seat and disc.
3. Check the valve identification tag to ensure the valve material and operating conditions are correct for application.

Valve Installation Procedure

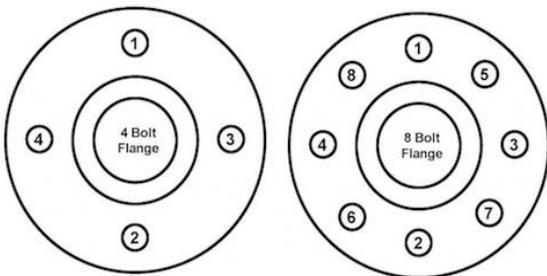
It is important to align the pipe flanges properly before valve installation. Make sure there is enough space between the flanges so that the valve body can fit without contact or damage. Make sure the valve disc is in the “almost closed” (Approx. 20° open) position before installation.

Incorrect:

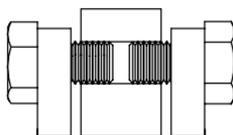
Disc opened beyond valve body face



1. Place the valve between the flanges.
2. Insert all bolts to attach valve to flanges. Hand tighten all bolts.
3. Before tightening the bolts, valve needs to be centered, so that disc movement is free and unobstructed.
4. Tighten the bolts evenly on **BOTH SIDES** as per the sequence given to assure uniform compression. **DO NOT OVERTIGHTEN THE BOLTS. SEE REQUIRED TORQUE CHART IN TABLE 1. HIGHER TORQUE COULD DAMAGE VALVE, MOTOR OR RESULT STEM LEAKAGE.**



CRITICAL: Front and back sides of each location should be tightened before moving to the next location.



SIZE	BOLTS PER SIDE	THREAD SIZE	BOLT LENGTH LUG (inch)	REQ. TORQUE FOR STD (Ft-lbs)	REQ. TORQUE FOR NSF (Ft-lbs)
2	4	5/8-11	1.25	15	30-35
2.5	4	5/8-11	1.50	15	30-35
3	4	5/8-11	1.50	15	35-40
4	4	5/8-11	1.75	15	35-40
6	8	3/4-10	2.00	25	35-65
8	8	3/4-10	2.25	25	45-80
10	8	7/8-9	2.25	50	55-100
12	8	7/8-9	2.50	50	65-120

Table 1: Bolting Requirements

Maintenance Recommendations

Safety Precautions

IMPORTANT: Before Removing the valve from line or loosening any bolts

1. Make sure the line is depressurized and adequately drained.
2. Be sure about the pipeline media and take necessary precautions.
3. Make sure the valve disc is in the closed position before removing the valve.
4. The operator should be attached to the valve while the line is pressurized and when removing the valve

Basic Maintenance

To ensure safety and to lengthen the life, the following preventive maintenance practices and scheduled inspections are recommended.

1. Visually inspect the body for any leaks and/or signs of wear and tear.
2. Operate the valve from full open to full closed to assure operability.
3. Check the tightness of flange bolting.
4. Check the valve and surrounding for previous or existing leakage.