

## Milwaukee Valve Company Engineering Department

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## TECHNICAL BULLETIN

Rubber Lined Butterfly Valves used with PVC Flanges

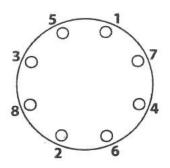
MVTB-14-001, Page 1 of 1 (3/28/14)

This technical bulletin addresses Milwaukee Valve Iron, Rubber Lined, Lugged Butterfly Valves used in PVC piping systems where PVC Schedule 80 flanges are used for piping connections.

Milwaukee Valve recommends the following to achieve a positive seal with our Butterfly Valves when used with PVC Flanges:

- The installer must use a Full-Face Elastomer Gasket (compatible with system/media requirements) that is 1/8" thick and has a durometer (hardness) of 70 +/- 5 Shore A at each flange connection. Note: Several PVC flange manufactures recommend the use of an elastomer gasket as just described.
- The recommended bolt torque to be used is detailed below. The torque values listed are Milwaukee Valve standard torques when used with metallic flanges. The torques listed below will also perform with PVC flange connections with the elastomer gasket as explained above. Note: PVC flange manufactures recommended bolt torque values are generally higher than the torques listed below. Milwaukee Valve recommends the torques listed below as a starting point and if any flange joint leakage occurs, to incrementally increase the bolt torque (continuing to use a star pattern) until leakage stops. Never apply torque to the flange bolting that exceeds the PVC flange manufacture's recommended torque. Always read the PVC flange manufacture's installation instructions prior to installation.

## **BOLT TIGHTENING SEQUENCE AND TORQUES**



SIZE VALVE	SIZE FASTENERS	TORQUE (FT - LBS)
2 - 4	5/8	13 - 15
5 - 8	3/4	24 - 26
10 - 12	7/8	38 - 40
14 - 16	1	56 - 58
18 - 20	1 1/8	78 - 80
24 - 30	1 1/4	114 - 116
32 - 48	1 1/2	198 - 200

Milwaukee Valve Company reminds our customers and end users that we manufacture valve products to industry specifications; all decisions regarding valve installation are job specific and the responsibility of the end user or the engineering designee to resolve.



