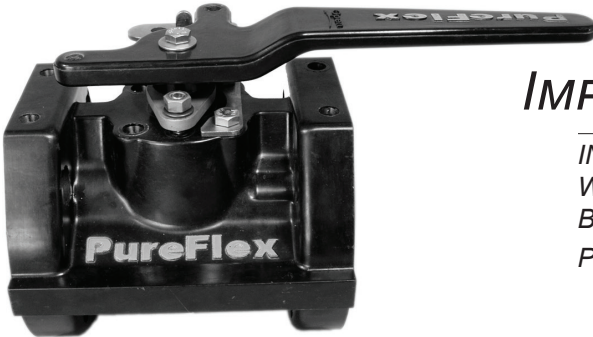




400 SERIES INSTALLATION GUIDE

PUREFLEX RESERVES THE RIGHT TO CHANGE PRODUCT AND PERFORMANCE SPECIFICATIONS WITHOUT NOTICE



IMPORTANT WARRANTY INFORMATION

IN ORDER TO BE ELIGIBLE FOR PUREFLEX'S 1 YEAR VALVE WARRANTY, THE ENCLOSED WARRANTY CARD MUST BE FILLED OUT BY THE END USER AND MAILED BACK TO PUREFLEX WITHIN 30 DAYS AFTER INSTALLATION.

1.0 INTRODUCTION

- 1.1 THIS GUIDE IS INTENDED FOR USE BY PERSONS HAVING TECHNICAL SKILL, AT THEIR OWN DISCRETION AND RISK.
- 1.2 QUESTIONS OR CONCERNS REGARDING THIS GUIDE SHOULD BE DIRECTED TO PUREFLEX AT 616.554-1100 OR YOUR AUTHORIZED STOCKING DISTRIBUTOR.

2.0 INSPECTION

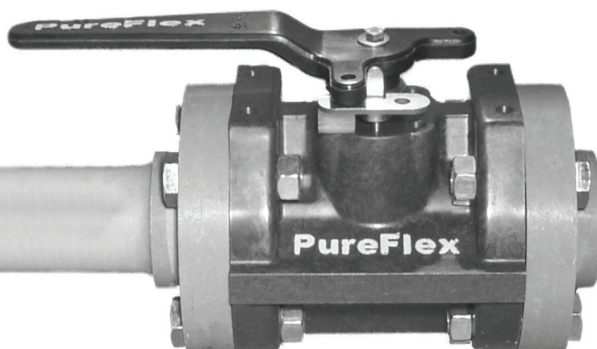
- 2.1 DO NOT REMOVE PROTECTIVE COVERS UNTIL JUST PRIOR TO VALVE INSTALLATION. IF COVERS ARE REMOVED FOR INSPECTION, THEY SHOULD BE REPLACED IMMEDIATELY. THIS PRECAUTION IS TO PROTECT THE VALVE FROM DEBRIS ENTERING IT DURING STORAGE AND HANDLING OPERATIONS.
- 2.2 MATCH THE SERIAL NUMBER ON VALVE SURFACE WITH THE SERIAL NUMBER ON THE ENCLOSED WARRANTY CARD. IF THE NUMBERS MATCH, PLEASE COMPLETE THE WARRANTY CARD AND MAIL IT BACK TO PUREFLEX. IF THE NUMBERS DO NOT MATCH, CONTACT THE PUREFLEX CUSTOMER SERVICE DEPARTMENT AT 616.554-1100.

3.0 INSTALLATION

- 3.1 CHECK THE VALVE LABEL BEFORE INSTALLATION TO ENSURE THAT THE PRESSURE RATING AND MATERIALS OF CONSTRUCTION ARE COMPATIBLE WITH THE INTENDED SERVICE CONDITIONS.
- 3.2 INSPECT ADJOINING PIPELINES AND REMOVE ANY MATERIAL THAT COULD DAMAGE THE VALVE DURING INSTALLATION AND ENSURE PIPELINE IS PROPERLY ALIGNED.
- 3.3 THE 400 SERIES VALVE IS DESIGNED TO BE INSTALLED BETWEEN ANSI CLASS 150 **FLAT FACE FLANGES**. WHEN INSTALLING VALVE AGAINST RAISED FACE FLANGES, PTFE RING SPACERS PLACED BETWEEN THE RAISED FACED AND THE OUTER EDGE OF THE FLANGE TO FORM A FULL FLAT FACE ON THE MATING FLANGE IS RECOMMENDED.



DO NOT REMOVE COVERS UNTIL JUST PRIOR TO INSTALLATION



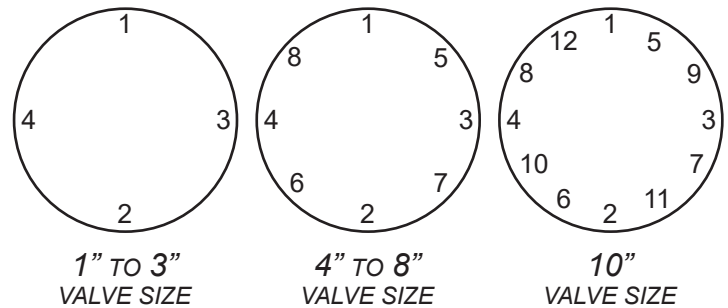
NOTE: WHEN CONNECTING PUREFLEX 400 SERIES VALVE TO FRP PIPING FLANGES, CONSULT YOUR PIPING MFG. FOR THEIR MAXIMUM FRP FLANGE TORQUES.

- 3.4 WASHERS MUST NOT EXCEED THE POINT TO POINT OF THE NUTS. NAS1149/AN960 WASHERS ARE RECOMMENDED.
- 3.5 ENSURE THAT ADJOINING FLANGES ARE CLEAN AND FREE OF DEBRIS
- 3.6 USE FULL FACE SOFT SEATED PTFE OR RUBBER GASKETS OF 50-70 DUROMETER ON A SHORE A SCALE.
- 3.7 SOME CARE MUST BE EXERCISED TO PRODUCE EQUAL TORQUE ON ALL BOLTS. THE USE OF A TORQUE WRENCH IS STRONGLY RECOMMENDED.
- 3.8 FLANGE BOLTS SHOULD BE TORQUED TO THE BELOW LISTED VALUES AND TORQUING SEQUENCE.
- 3.9 WHEN VALVE TERMINATES A LINE, THREADED INSERT SIDE OF VALVE SHOULD BE INSTALLED UPSTREAM.

**RECOMMENDED FLANGE TORQUES
(FT-LBS)**

Valve Size	Recommended Torque	Max Torque
1"	20-25	40
1 1/2"	20-25	40
2"	30-35	50
3"	30-35	50
4"	40-45	60
6"	40-45	60
8"	70-90	130
10"	100-125	150

TORQUE SEQUENCE FOR ANSI CLASS 150 FLANGES



WARNING: OVER TORQUING MAY DAMAGE VALVE FLANGE

- 3.10 IF A FLANGE LEAK OCCURS AND THE BOLTS OF THE LEAKING SIDE HAVE BEEN PROPERLY TORQUED, THEY SHOULD NOT BE TIGHTENED FURTHER OR DAMAGE TO THE VALVE FLANGES MAY OCCUR. INSTEAD, LOOSEN THE BOLTS ON THE OPPOSITE SIDE OF SAME FLANGE A HALF TURN AT A TIME AND THEN THE BOLTS ON THE LEAKING SIDE SHOULD BE TIGHTENED THE SAME AMOUNT.
- 3.11 IF LEAKS OCCUR AFTER SYSTEM HAS BEEN CYCLED TO ELEVATED TEMPERATURE AND BACK TO AMBIENT TEMPERATURE, RE-TORQUE BOLTS TO RECOMMENDED TORQUES AFTER COOL DOWN. NO FURTHER ADJUSTMENTS SHOULD BE NECESSARY.
- 3.12 WHEN MOUNTING GEARS OR ACTUATORS, INSTALL STUDS FULLY INTO BLIND MOUNTING THREADS, DO NOT USE BOLTS. TIGHTEN TO 30 TO 40 IN.LBS.

4.0 VIBRATING EQUIPMENT

4.1 SPECIAL CONSIDERATION SHOULD BE GIVEN WHEN INSTALLING VALVES TO PUMPS OR OTHER EQUIPMENT THAT INVOLVE VIBRATION, SHOCK LOADS OR OTHER MECHANICAL MOVEMENTS. IT IS RECOMMENDED TO INSTALL A PTFE BELLOWS TYPE EXPANSION JOINT SUCH AS THE ETHYLENE FLEXIJOUNT®. THE BELLOWS ABSORB VIBRATION AND ELIMINATE THE PLACING OF UNDUE STRAIN ON THE VALVE. DOING SO WILL AID IN LONG TROUBLE FREE SERVICE.



IF YOU HAVE ANY QUESTIONS REGARDING INSTALLATION OF THE 400 SERIES BALL VALVES PLEASE CONTACT PUREFLEX AT 616.554-1100



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