Installation, Operation and Maintenance Instructions For Haleson Resilient Seated Butterfly Valves ANSI Class 150 & ANSI Class 300

Flange Requirements:

HALESON's resilient seated valves are designed for installation between ANSI Class 125/150 & 250/300 flat or raised faced flanges. Gaskets are not required. Pipe or flanges must have a minimum allowable inside diameter to clear the disc sealing edge when opening the valve.

Storage:

The valves should be stored in a clean, dry warehouse. The valves shall not be piled-up in storage. If the valves must be stored for a short period outside, the following apply:

- 1. Valves must be kept off the ground high enough to avoid standing water;
- 2. Cover the valves with water repellant (not included with valve), and cover with plastic sheet.

Prior to installation, all valves shall be inspected for damage or dirt accumulation during transport and handling.

Service Locations:

For service or technical information, please contact us: (450) 686-6663 / email: info@halesoninc.com or visit us at our website www.halesoninc.com

Maintenance:

Routine maintenance or lubrication is not required.

Installation Instructions:

HALESON's resilient seated valves are bidirectional and will control flow equally well in either direction. For the best results in slurry service regarding sedimentation, position the valve assembly so that the valve stem is in the horizontal position and the lower disc edge opens downstream. This will create a self-flushing effect, thereby extending the service life of the valve.

Consideration should be given to the location of the valves in the piping system. The valve should not be placed too close to other valves, elbows, etc.

- 1. Spread the flanges to exceed the valve's face-to-face dimension by 3/16" to 1/4" before placing the valve in position to prevent distortion and/or damage to the seating face of the seat.
- 2. Center the valve body between the flanges and span the valve body with all flange bolts possible. Turn the disk to the fully open position.
- 3. Tighten the bolting **hand tight**. Slowly close the valve to check for adequate disc clearance.

HALESON BUTTERFLY VALVES

HALESON

Montréal Tel: (450) 686-6663 Fax: (450) 686-7776

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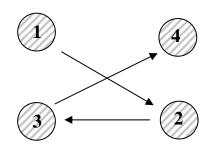
4. Cross-tighten all bolting to the proper torque specification (see Table 1 and Figure 1 below):

Table 1. Bolt Torques

Flange Size	Recommended Min. Bolt Torques
2" – 4"	20 – 30 ft. lbs.
5" – 8"	33 – 50 ft. lbs.
10"	53 – 75 ft. lbs.
12"	80 – 110 ft. lbs.
14" – 16"	140 – 200 ft. lbs.

Flange Size	Recommended Min. Bolt Torque
18" - 20"	150 – 210 ft. lbs.
24" – 30"	215 – 300 ft. lbs.
36"	300 – 375 ft. lbs.
42" – 48"	350 – 425 ft. lbs.

Figure 1. Bolt Tightening Sequence



5. Again, check for adequate disc clearance. If the installation is satisfactory, the valve is ready for service and/or installing the valve actuator.

NOTE: After bolts have been tightened, it is good practice to re-check flange bolt torques ½ to 1 hour after initial tightening (particularly when stainless steel bolting is used).

Gear Actuator Adjustment

The standard gear actuator is provided with factory-set open and close position stops to properly center the disc in full opened and full closed positions. No field adjustment is necessary unless partial opened or partial closed positions are required. In such case, the stops must be adjusted with an Allen Key.

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Valve Operation

- a. All HALESON butterfly valves feature ¼ turn operation. Turning the valve handle 90° will fully open the valve.
- b. The valve handle also serves as a ball orifice position indicator. When the valve handle is parallel to the pipe, the valve is open, when perpendicular to the pipe, the valve is closed.
- c. To provide the longest possible service life, the valve should be operated in either its fully open or fully closed position. If an intermediate operating position is to be utilized, it shall be selected with the help of your area sales representative. Excessive pressure drops could adversely affect the service life of the valve.
- d. All valves are factory assembled using a lubricant. If the presence of this lubricant is objectionable, the valve can be ordered from the factory assembled without lubricant.
- e. During operation, do not exceed the valve's NON-SHOCK pressure / temperature rating. DO NOT open/close the valve abruptly. Open /close the valve slowly.

Maintenance & Troubleshooting

During its normal service life, the only items that may need replacement are the rubber seat and the shaft O-rings. A qualified valve repair person must be able to accomplish this using only standard shop tools and care.

Rebuilding

WARNING: Most valves on the market today regardless of manufacturer can trap fluids under pressure in the valve when closed. If your valve has been used to conduct <u>hazardous media</u>, the following steps should be taken <u>prior</u> to removal from line.

CAUTION: Always advise maintenance personnel when they are maintaining or rebuilding a valve that has been conducting a <u>hazardous material</u>. The use of eye protection and protective clothing must be stressed.

- a. Relieve the line pressure and install the necessary blind flanges.
- b. Place the valve in its half-open position and flush the line to remove hazardous material from the valve. The valve can now be removed from the pipeline.
- c. The replacement of worn out parts and the rebuilding of the valves shall be carried on by qualified personnel only.
- d. Use only original HALESON replacement parts.

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