SCI Series 16

Resilient Seated Butterfly Valve

Installation, Operation and Maintenance Instructions

Figure 1 – Series 16 Butterfly Valve Illustration

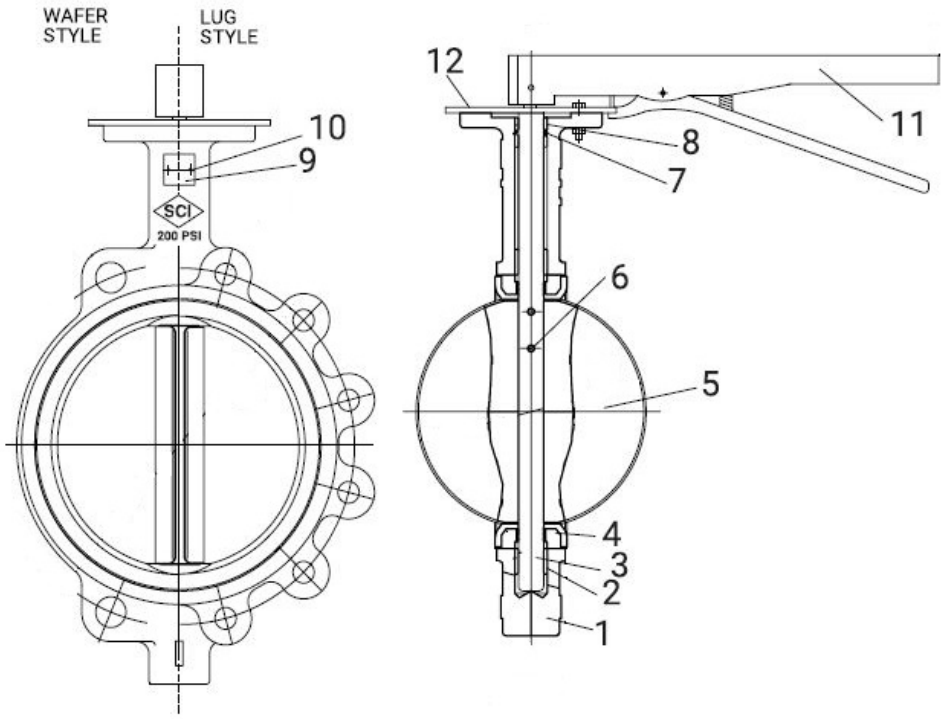

Table 1 – Series 16 List of Materials (See Figure 1 for items illustrated)

Part Number	Part Description	Material
1	Wafer Body	Cast Iron ASTM A126
1	Lug Body	Ductile Iron ASTM A536
2	Bushing	PTFE
3	Stem	ASTM A582 416 Stainless Steel ASTM A276 316 Stainless Steel with Stainless Disc
4	Seat / Liner	Buna-N or EPDM
5	Disc	Ductile Iron Nickel Plated ASTM A536 Or 316 Stainless Steel / CF8M - ASTM A276
6	Taper Pin	ASTM A276 316 Stainless Steel
7	O-Ring	Buna-N or EPDM
8	Bushing	PTFE
9	Plate Rivet	Aluminum
10	Name Plate	Aluminum
11	Handle	Malleable Iron
12	Throttle Plate	Plated Steel

Valve Maintenance [Numbers in parentheses ( ) refer to the drawing in Figure 1 and Table 1 descriptions]

DANGER – Do not attempt to perform maintenance on valves in pressurized lines. Doing so may result in severe injury or death if there is an uncontrolled release of pressure.

If leakage is evident from the stem (3) area in the upper section of the valve body (1), it is recommended that an ASC authorized technician should service the valve to replace the outer stem seal o-ring (7) and bushings (2, 8) if worn or necessary. This will require the valve to be unbolted from the pipeline and removed from in between the flanges and taken to a bench or maintenance area to perform service.

If excessive leakage past the main seat/liner (4) is evident or suspected, this will also require complete removal of the valve from the pipeline to service or repair the valve. It is normally recommended to replace the valve due to main seat leakage, but replacement of the seat/liner (4) will require an authorized technician to perform this service. This would involve removing the handle (11) or operator, stem pins (6), stem (3) and disc (5), stem o-ring seal (7) and bushings (2, 8) from the valve to access and remove/replace the seat/liner (4). However, excessive damage or erosion of the valve body (1) behind the seat/liner should result in replacement of the entire valve.

Valve Installation

These valves may be installed in the pipeline between ASME Class 125 or 150 raised-face flanges in any orientation or position using good piping practice. However, it is recommended to install the valve with the handle or gear operator handwheel above the flow axis (in horizontal pipe) for optimum access and operation of the valve by the user.

Valve Operation [Numbers in parentheses ( ) refer to the drawing in Figure 1 and Table 1 descriptions]

These are quarter-turn (90° rotation) butterfly valves which are typically fitted with a latching lever handle or a manual gearbox. The 10-position handles contain stops to limit travel at the open and closed positions and have stops in between at approximately every 10 degrees (every 11%).

To open the valve, remove the lock on the lever handle (if so equipped), pull up the lever beneath the handle (11) and turn the handle counterclockwise to the desired open position – release the lever to lock the valve in position. To close the valve, pull up the lever and turn the handle clockwise – releasing lever when complete.

WARNING – Manual Gear Operators are recommended for 6” and larger sizes because the force of the pipeline fluid flow on the disc can be too great to safely use a standard handle. Failure to use a Gear Operator in these applications may result in the inability to open or close the valve. Consult sales or applications engineering or the valve product datasheet for more guidance on selecting a lever or gear operator.

Manual Gear Operators which have a mechanical advantage (e.g., with a worm gear shaft and gear sector) typically require multiple turns of the handwheel to open or close the valve. Most standard gear operators will open the valve when the handwheel is turned counterclockwise and close the valve when turned clockwise.