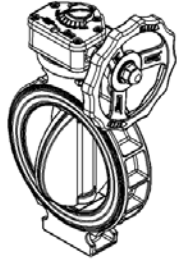




**WAFER BUTTERFLY VALVE  
GEAR OPERATOR KIT & CHAINWHEEL OPERATOR KIT  
INSTALLATION INSTRUCTIONS**

**WBF-3B-0426**



Operator or Chainwheel Operator mounts directly to Spears® Wafer Butterfly Valve stem shaft using the following kit components:

**Gear Operator Kit**

- Gear Operator Assembly
- Handwheel & Nut
- Mounting Bolts (4)
- Lock Washers (4)
- Flat Washers (4)
- Mounting Bolts (4)
- Nuts (4)

**Chainwheel Operator Kit**

- Gear Operator
- Chainwheel Assembly
- Drive Bushing
- Lock Washers (4)
- Nuts (4)
- Mounting Bolts (4)

Please read all instructions carefully before proceeding. "Unit Installation" and "Position Adjustment" instructions apply to both Gear Operator Kits and Chainwheel Operator Kits.

**Unit Installation**

**IMPORTANT:**

Chainwheel operated valves should be mounted in the inverted (stem down) position to assure proper chain clearance with piping system.

- Step 1** Install Handwheel onto Gear Operator shaft adapter and secure with Nut. Tighten snug. Remove nuts & washers from bolts. **DO NOT** remove O-ring located at each bolt hole. (Chainwheel is pre-assembled onto Gear Operator shaft).
- Step 2** Rotate valve Disc to full open position. Rotate handwheel to position Gear Operator at full open position (confirm open position on top indicator).
- Step 3** Place Gear Operator housing on Wafer butterfly valve stem being sure to align housing so that the Gear Operator shaft is perpendicular (90°) to the direction of Flow. If operational interference is encountered, remove Gear Operator housing and rotate 180°.  
**NOTE:** If the butterfly valve shaft does not line up, rotate the Gear Operator handwheel until valve shaft and mounting bolts align.
- Step 4** Align mounting holes on valve platform with Gear operator and install Mounting Bolts & Nuts with Lock Washers (note: Handwheel/Chainwheel can be rotated open slightly to aid alignment and mounting). Tighten Mounting Bolts to 10 ft-lbs torque.

**Position Adjustment**

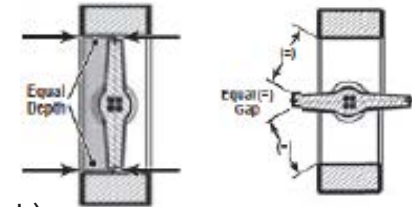
**Note: All operators are pre-adjusted at the factory before shipping. If additional adjustment is needed follow the instructions below.**

- Step 1 Closed Adjustment:** Rotate Handwheel/Chainwheel to full closed position. Measure distance from both leading edges of the disc (perpendicular to stem) to the gasket sealing surface on the seat side of valve. These distances should be equal when properly adjusted for the closed position. If not, use an Allen wrench to adjust the stop. (See table below). Clockwise rotation will reduce the disc travel. Adjust until proper position is reached (See figures below).
- Step 2 Open Adjustment:** Rotate Handwheel/Chainwheel to full open position. Disc should be positioned squarely at 90° to valve body when properly adjusted for the open position. If not, use an Allen wrench to adjust the stop.

- Clockwise rotation will reduce the disc travel.
- Counterclockwise rotation will increase the disc travel.

Adjust until proper position is reached (See figures below).

Allen Wrench Sizes	
Gear Operator Size	Wrench Size
1-1/2" & 2-1/2"	9/64"
3" to 12"	5/32"
14" to 24"	3/16"



**WAFER BUTTERFLY VALVE**

**Chain Installation (Chainwheel Operator only):**

- Step 1** Special Lock Link chain (purchased separately) is required and should be ordered to the desired length. Chain length is determined by Chainwheel height from floor. Refer to "HOW TO ORDER CHAIN" on price schedule.
- Step 2** Insert a minimum chain length of 3-feet through lower side of the Chain Guide eyelet. Lay chain links over each tooth on the upper side of the Chainwheel Sprocket being sure that chain is not twisted. Thread chain down through the opposite Chain Guide eyelet.  
**Directions For Making Endless Chain**  
1 CUT HERE USE EITHER FILE SAW OR CHISEL  
2 READY FOR HOOKING END ON  
3 CLOSE GAP BY HAMMERING HERE  
MAKE CONNECTIONS AT BOTTOM LOOP OF CHAIN WITH VALVE CLOSED
- Step 3** Attach chain ends according to the following directions:

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