

Watts BF-03 and BF-04

Resilient Seated Butterfly Valves

Size: 2" - 24" (50-600mm)

Installation and Repair Instructions

Watts Series BF-03, BF-04 butterfly valves are designed for use between ANSI 125 and 150 class flanges of either flat or raised face type.

Note: Installation between class 150 flanges does not increase the valve 200 psig (13.8 bar) rating

Installation

Note: When using piping reducers, the transition area of said reducers must be sufficient enough so as to allow disc protrusion as the valve opens. The same consideration applies when using heavy schedule or lined pipe.

Warning: Failure to ascertain adequate clearance **before** installation could damage the disc's sealing surface.

A. Installation Between Existing Flanges

Note: To avoid forcing the valve between flanges and subsequent distortion or damage to the valve seat it may be necessary to spread mating flanges. **See Note 1.**

1. Rotate valve clockwise to position the disc sealing edge approximately 1/2" from the valve sealing face.
2. Insert the valve between the flanges, loosely assemble flange bolts and align by:
 - A. BF-03-Bolting the valve to the flanges
 - B. BF-04-By positioning the valve equidistant from the bolt studs and aligning body O.D. with flange raised face.
3. Turn valve to its full open position and hand tighten flange bolts. Operate the valve to assure proper alignment and clearance.
4. Return valve to its full open position and tighten all bolts in a sequential pattern to the proper torque for the bolting and flanged material selected.
5. Install valve handle - See Note 2.

B. Installation in New Piping Systems

1. Follow steps 1 - 4 as outlined in section A, however, the valve should be aligned as above and assembled between the flanges if they are to be welded. Use the assembly for fit-up and centering to the pipe.
2. Tack weld the flanges and then remove the valve assembly.
3. Complete welding the flanges and allow them to cool completely before reinstalling the valve. Failure to do so could damage the valve seat.

Removal From Line For Rebuild

A. Removal from Line

1. Place valve approximately 20° open.
2. Loosen and remove bolting, spread flanges and remove valve.

B. Disassembly

1. Place valve in its full open position, remove handle or operator.
2. Remove disc pins. (Pins will have to be replaced).
3. Remove stem from body.
4. Remove disc from seat and store in such a manner so as to not to damage its sealing surface. (If damaged, disc and stem must be replaced.)
5. Remove seat from body.

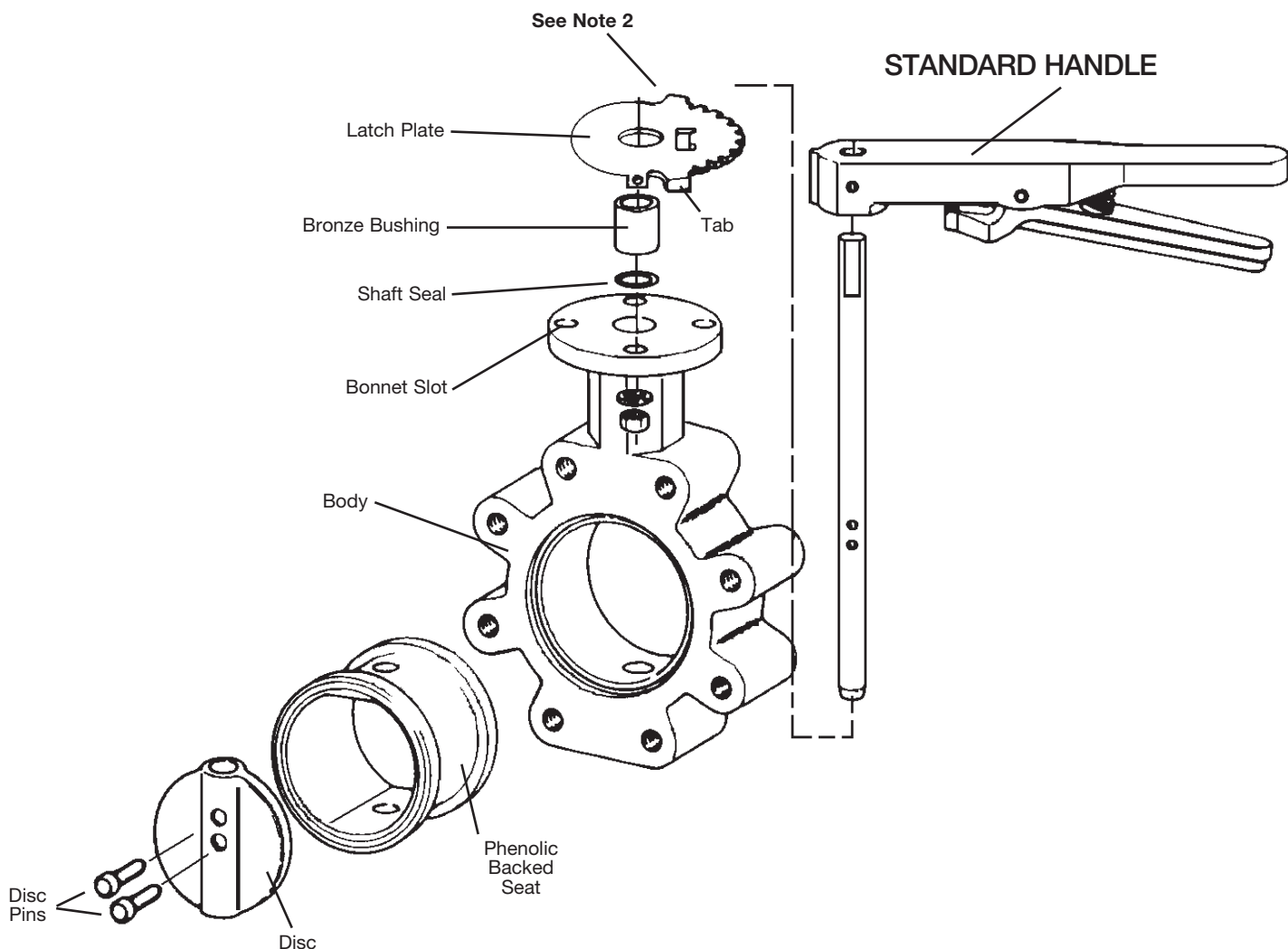
C. Reassembly

1. Inspect and clean all parts to be used.
2. Insert disc into seat (aligning stem holes).
3. Press seat into body (aligning stem holes).
4. Insert stem taking care not to dislodge and or damage the seat.
5. Close valve aligning stem flat parallel to closed valve.
6. Drill and ream (per specification) thru disc and stem. (Do not use oil when drilling)
7. Place disc pins and knock pin into place.
8. Clean valve free of shavings.

Note 1 - Valve seat also serves as flange gasket

Note 2 - Standard handle must be field mounted.

** (See back for handle information)*



2" to 4" - 1 pin
 5" and up - 2 pins

Note 2: Standard handle must be field mounted.

Note: Product information is subject to change without notice and supersedes all previous publications.

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 For more information: www.watts.com/prop65

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