

# **KEYSTONE** F250 / F251 REPAIR AND MAINTENANCE INSTRUCTIONS

# KEYSTONE F250 / F251 HYGIENIC BUTTERFLY VALVES

## Repair and maintenance instructions for F250/F251 butterfly valves.

### DISASSEMBLY INSTRUCTIONS

1. Locate handle in the closed position before removing the valve from the pipeline.
2. Remove plug (10) from top of handle.
3. Remove handle screw (9), spring washer (8) and flat washer (7).
4. Remove handle (6) and notch plate (5).  
For clamp ends
- 5a. Remove clamps separate pipe ends apart, and remove valve as complete unit. Take care not to loose clamp end seals.  
For union ends
- 5b. Loosen union nuts separate pipe ends apart, and remove valve as complete unit. Take care not to loose union seals.
6. Remove body screws (11) and nuts (12).
7. Separate body halves (1).
8. Remove disc stem (3) and seat (2) assembly.
9. Remove upper and lower bearing strip (4) and rotate the disc to the open position.
10. Stretch seat (2) over bottom of disc stem (short end), then remove from discstem along the upper stem.
11. Disassembly is now complete.



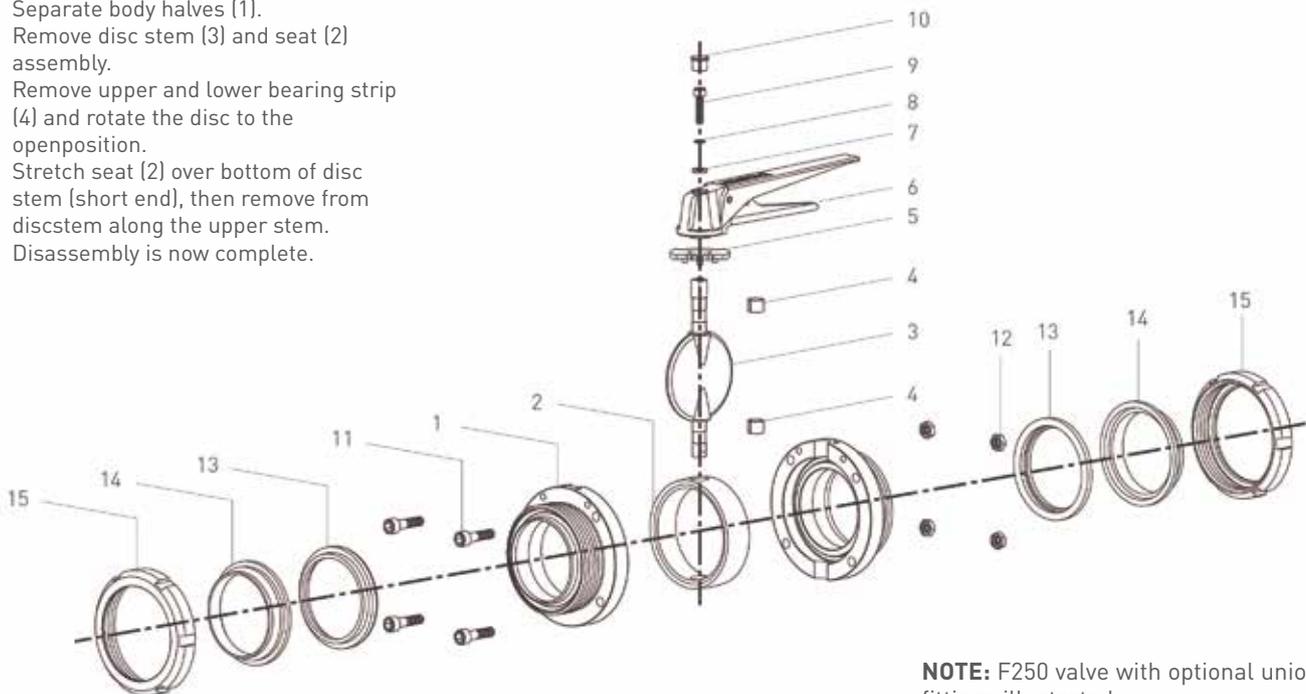
### SAFETY PRECAUTIONS

#### Caution!

This symbol indicates important messages and safety instructions.

For safety reasons, it is important to take the following precautions before working on the valve.

Whenever a valve is being installed or removed from the pipeline, ensure that the pipeline is relieved of all pressure, and the media evacuated.



**NOTE:** F250 valve with optional union fittings illustrated

# KEYSTONE HYGIENIC BUTTERFLY VALVES

## F250/F251 REPAIR AND MAINTENANCE INSTRUCTIONS

### ASSEMBLY INSTRUCTIONS

All parts need to be thoroughly cleaned and inspected for damage prior to reassembly. The stem (3) and seat (2), should be lubricated with foodgrade FDA approved lubricant, eg. Rocol BG741 (for silicon seats only). Rocol MX22 (for all other seats). Or equivalents.

1. Push seat (2) over upper disc stem (3) (long end), then stretch over bottom disc stem. Ensure that seat is all the way down on disc hubs.
2. Fit upper and lower bearing strip (4) in their respective grooves on the stem (3).
3. Rotate disc stem to the closed position in the seat.
4. Separate body halves (1).
5. Fit disc stem and seat assembly, taking care not to lose bearing strips. Ensure the drive end of the disc stem is towards the mounting hole side of the bodies.
6. Line up body halves (1), then carefully release pipe ends working the seat into it's cavity so that body halves are properly aligned.
7. Fit body screws (11) and nuts (12), tighten up to recommended torques.

#### Values

DN 25 to 65 = 12 Nm  
DN 80 to 100 = 20 Nm  
DN 125 to 150 = 28 Nm.

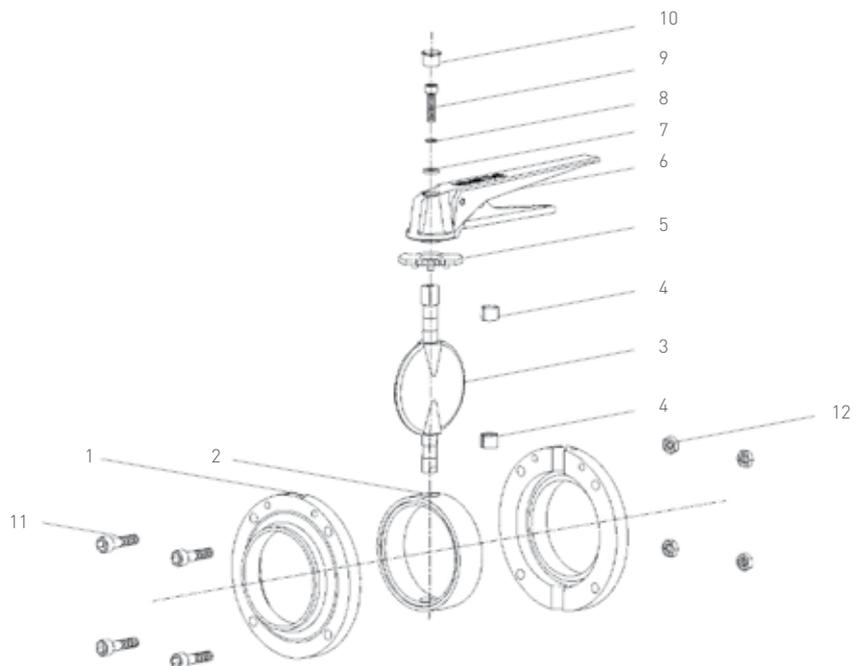
8. Fit notch plate (5) over the stem and locate lugs on notch plate in body. This can be fitted to give either two or multi position operation.
9. Fit handle (6), to the disc stem (3), so that the handle is in-line with the disc, then fit the flat washer (7), spring washer (8) and handle screw (9) and tighten to the following recommended torque.  
8mm squ. = 12 Nm  
10 & 12mm squ. = 16 Nm  
15mm squ. = 20 Nm.
10. Fit plug (10) to handle.

#### For clamp ends

- 1a. Place seals in the valve end grooves.
- 2a. Separate pipe ends sufficiently to align valve in pipeline without seals or spigots being damaged.
- 3a. Release pipe ends carefully onto valve seals.
- 4a. Fasten clamps, ensure correct pressure to allow effective sealing.

#### For union ends

- 1b. Place union seals in the valve end grooves.
  - 2b. Separate pipe ends sufficiently to align valve in pipeline without seals or spigots being damaged.
  - 3b. Release pipe ends carefully onto union seals.
  - 4b. Tighten up union nuts firmly to allow effective sealing.
11. Cycle the valve to check assembly and inspect for leakage at plant start up



**NOTE:** F250 butt weld valve illustrated



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