



K-LOK® High Performance Butterfly Valve Seat Replacement Instructions

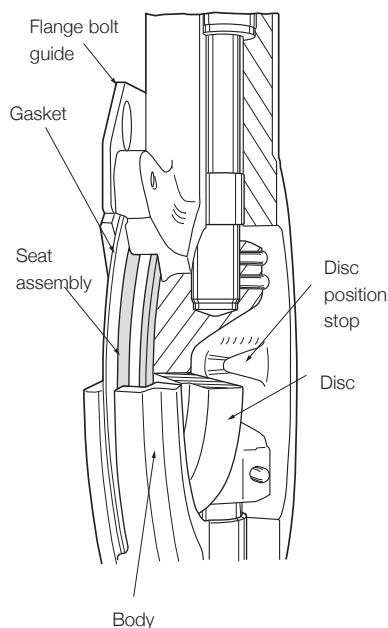
PTFE, RTFE and UHMWP Seats

CAUTION

Always use the cardboard or brass shims to protect the valve body, disc, flange and sealing surfaces from damage. Failure to do so may result in serious damage to the valve.

1. Remove the socket head screws which secure the flange bolt guides on wafer-style valves, the retaining clips on lug-style valves, or the seat retaining ring on bi-directional dead-end service valves.
2. Remove the flange bolt guides or retaining clips.
3. Remove the seat-retaining ring. Do not gouge or leave a raised edge on the seat-retaining ring.
4. Remove the seat and external gasket. Seat consists of the seat, wire wrap, and seat backing ring.

Figure 1



5. Check and clean the disc edge and seat pocket. If the disc edge is damaged, contact the factory for a disc replacement assembly. Make certain that all gasket and sealing surfaces are clean and undamaged. Remove any gasket material that may have adhered to the mating body surfaces.
6. Close the disc. Make sure the disc is centered in relation to the body waterway bore. If it is not centered, contact the factory. Be sure to position the disc against the disc position stop located in the valve body.
7. With the disc in the closed position, install the new seat and external gasket. Refer to Figure 1 for proper orientation.

Note: Installing a seat in a valve that has been modified for Bi-directional Dead End Service:

To allow the seat retainer dead end service bolts to pass through the gasket, modify the seat retainer ring gasket by following these steps:

- a. Use the dead end service seat retainer ring to layout the bolt hole pattern.
- b. Using a hole punch, make the required holes in the gasket.

8. Install the seat-retaining ring using the flange bolt guide or retaining clips to align the ring with the body.
9. Install and tighten the socket head screws.

CAUTION

The standard seat retainer screws only provide enough force to hold the seat retainer ring for shipment and installation. If cycling or testing of the valve is required prior to installation, the seat retainer must be pressed into the seat to prevent damage to the seat or leakage past the seat.



10. When pressing the seat retainer into the seat and body, use C-Clamps. The number of C-Clamps used should equal half the number of flange bolts of the valve. For instance, if the valve has 12 flange bolts, 6 C-Clamps should be used. To press the seat retainer ring with the C-Clamps, place the C-Clamps around the valve assembly to allow an even load to be applied all around the seat retainer ring. Tighten until the seat retainer gasket is compressed. After the gasket is compressed by the C-Clamps, complete the tightening of the socket head screws.

NBR, EPDM and Fluoroelastomer (FKM) Seats

Follow Steps 1 - 3 for the PTFE, RTFE and UHMWP seated valves on page 1.

4. Remove the seat. Seat assembly consists of a rubber ring. Seat retaining ring gaskets are not used with the elastomer seats.
5. Check and clean the disc edge and seat pocket. If disc edge is damaged, contact the factory for a disc replacement assembly. Make certain that all gasket and sealing surfaces are clean and undamaged.
6. Close the disc. Make sure the disc is centered in relation to the body waterway bore. If it is not centered, contact the factory. Be sure to position disc against disc position stop located inside the valve body.
7. With the disc in the closed position, install a new seat. Do not use any gaskets between the valve body and seat-retaining ring when installing an elastomer seat. Refer to Figure 2 for proper orientation.
8. Install the retaining ring using the retaining

clips to align the ring with the body.

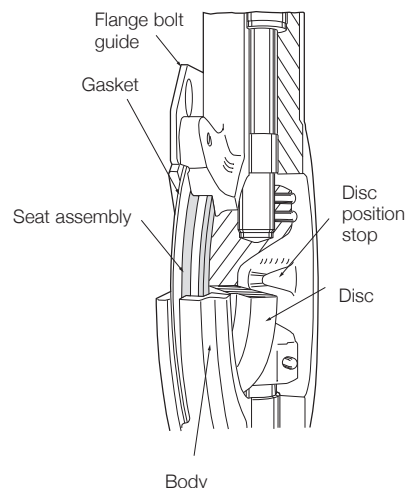
9. Install and tighten the socket head screws.

CAUTION

The standard seat retainer screws only provide enough force to hold the seat retainer ring for shipment and installation. If cycling or testing of the valve is required prior to installation, the seat retainer must be pressed into the seat to prevent damage to the seat or leakage past the seat.

10. When pressing the seat retainer into the seat and body, use C-Clamps. The number of C-Clamps used should equal half the number of flange bolts of the valve. For instance, if the valve has 12 flange bolts, 6 C-Clamps should be used. To press the seat retainer ring with the C-Clamps, place the C-Clamps around the valve assembly to allow an even load to be

Figure 2



applied all around the seat retainer ring. Tighten until the seat retainer gasket is compressed. After the gasket is compressed by the C-Clamps, complete the tightening of the socket head screws.

Metal and Fire-safe Seats

1. Remove the socket head screws that secure the bolt guides on wafer-style valves, the retaining clips on lug-style valves or seat retaining ring on bi-directional dead-end service valves.
2. Remove the flange bolt guides or retaining clips.
3. Remove the retaining ring.
4. Remove the seat and external gasket. Be sure to remove both the convoluted stainless steel portion of this two-part seat as well as the RTFE.
5. Check and clean the disc edge and seat pocket and make certain that all gasket and sealing surfaces are clean. If disc edge is damaged, contact the factory for a disc replacement assembly. Remove any gasket material that may have adhered to the mating body surfaces.
6. Close the disc. Be sure to position disc against disc position stop located in the valve body. Make sure the disc is centered in relation to the body waterway bore.
7. Install new gasket.
8. Install new two-piece fire-safe or one-piece metal seat in seat pocket. Refer to Figure 3 for proper orientation.
9. Install retaining ring using flange bolt guides or retaining clips to align retaining ring with the body.
10. Install and tighten the socket head screws.

CAUTION

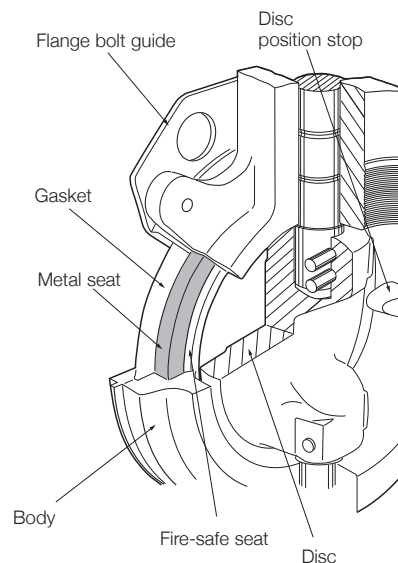
The standard seat retainer screws only provide enough force to hold the seat retainer ring for shipment and installation. If cycling or testing of the valve is required prior to installation, the seat retainer must be pressed into the seat to prevent damage to the seat or leakage past the seat.

Note:

Sizes 14" - 24" body valves employ both clips (for wafer and for lug) and locating plates to retain the seat retainer ring. Size 30" and 36" wafer and lug body valves use seat retainer screws instead of the hex socket flat head screws with clips or locating plates. These seat retainer screws are located directly in the face of the seat. Two of these seat retainer screw holes are tapped. The two tapped holes allow the use of eye bolts so the seat retainer ring can be lifted to and from the body.

11. When pressing the seat retainer into the seat and body, use C-Clamps. The amount of C-Clamps used should equal half the number of flange bolts of the valve. For instance, if the valve has 12 flange bolts, 6 C-Clamps should be used.

Figure 3



To press the seat retainer ring with the C-Clamps, place the C-Clamps around the valve assembly to allow an even load to be applied all around the seat retainer ring. Tighten until the seat retainer gasket is compressed. After the gasket is compressed by the C-Clamps, complete the tightening of the socket head screws.

Note: refer to installation, operation, maintenance, and troubleshooting guide for more information.

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