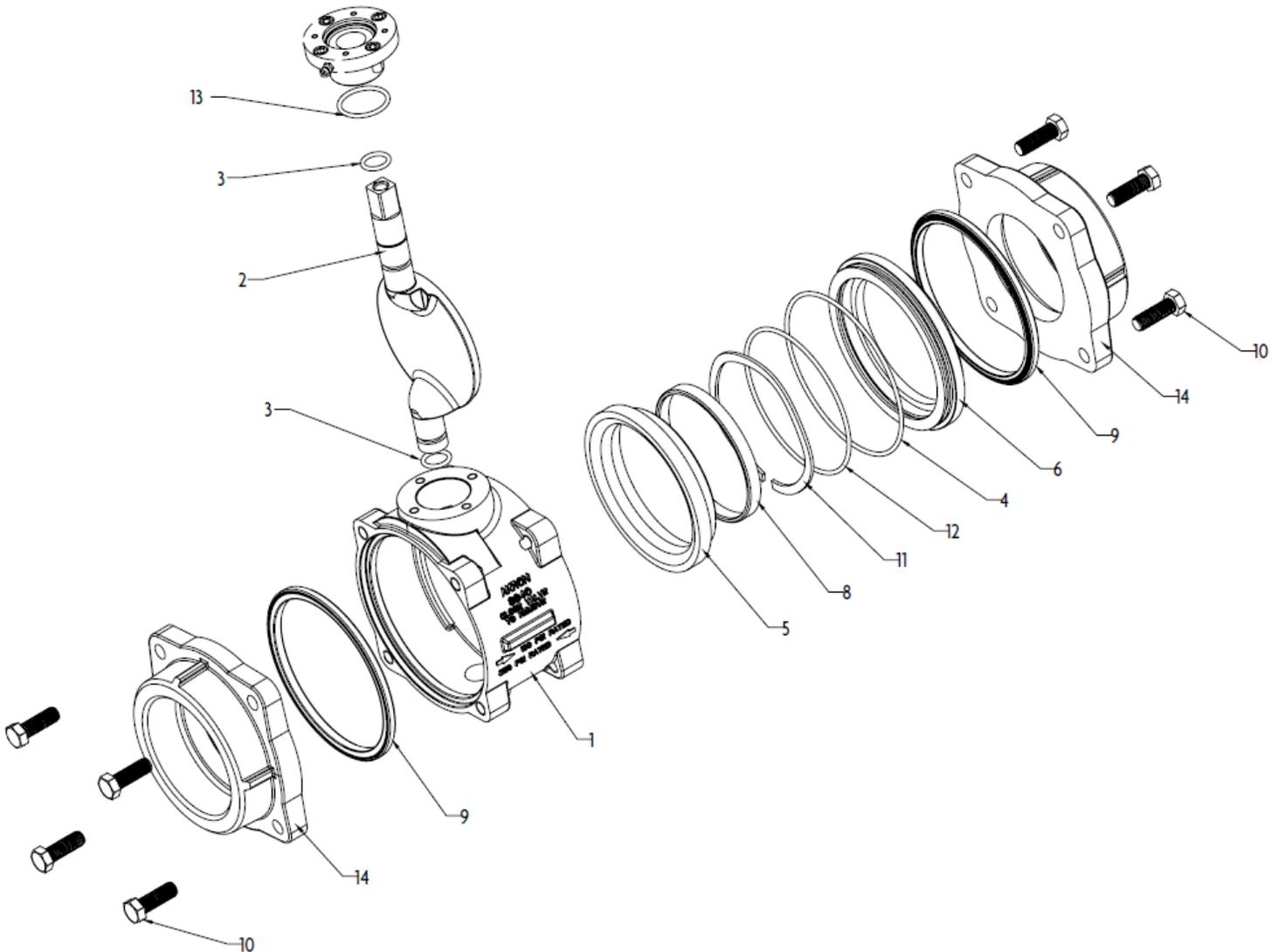




STYLE 9166 FIELD SERVICE KIT FOR 8840 4" SWING-OUT™ VALVE

The following is intended to provide the basic instructions for servicing a style 8840 Swing-out™ valve. Read and understand these instructions before kit installation.





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Parts List

Item No.	Description	Part Number	Quantity
1	Valve Body	118153	1
2	Flat Ball – Electric & Gear	118154	1
2	Flat Ball – Air	118155	1
2	Flat Ball – Electric w/ magnet	88400881	1
3*	O-Ring 2-210	757226	2
4*	O-Ring 2-255	757338	1
5*	Valve Seat	769797	1
6	Seat Retaining Ring	118156	1
7	Grease Fitting	713034	1
8	Seat Ring	118158	1
9*	Flange Seal	768309	2
10	Adapter Bolts, 1/2" – 13 x 1-1/2"	756140	8
11	Wavy Spring	784138	1
12*	O-Ring 2-252	757371	1
13*	O-Ring 2-222	757006	1
14	Adapters	**	2

* Items included in Field Service Kit #9166.

** See current catalog for complete list.

BEFORE DISASSEMBLY

- Before beginning the repair of the valve, be sure it is in the closed position. This will allow for the valve ball to pass by the flanges during the repair process.
- The 4" Valve has one of three types of actuators. Actuation will be by handwheel (direct or remote), air or electric. Depending on the type of actuator, there may be a need to remove or disconnect part or all of the actuator before beginning the actual repair of the valve.

DISASSEMBLY OF THE VALVE

1. To swing the valve out of line to repair, simply remove 3 sets of bolts (10) and loosen the 4th set. This will allow the valve to swing out for easier repair. If this is not practical, the 4th set of bolts can be removed and the valve placed on a bench for repair.

Note: If the valve is taken out of line, it is important to note the direction of the flow arrow on the valve. When reassembling the valve, it must be returned with the arrows pointing in the original direction.

All Style 8840 valve body castings show "250 PSI RATED" The arrow [→] points to the side of the valve with the seat and assembly being repaired.

2. Once the valve is out of line, partially open the valve ball to gain access to grip and remove the entire seat assembly.



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3. Once removed, separate and identify the following parts:

Description	Item No.	Notes
Seat Ring	8	Save! Must be reused! (Remove from item # 5)
Wavy Spring	11	Save! Must be reused!
Seat Retaining Ring – brass	6	Save! Must be reused!
Flange Seal – white	9	Discard
Valve Seat – white	5	Discard
2 O-Rings	4 & 12	Discard
3 O-Rings	3 & 13	Discard

Disassembly is now complete.

BEFORE REASSEMBLY

- Lay out the parts to be reused along with replacement parts from the kit.
- Coat the 2 replacement O-rings with Parker O-Ring Lube, or equivalent petroleum-based lubricant. Be sure not to place any excess lubricant on the seat or flat ball as they may collect dirt that will cause excess wear.
- At this time, it's a good idea to inspect the condition of the Flat Ball (#2). Run a finger over the edges of the flat ball to check for sharp edges or nicks. If there is a sharpness or nick to any edge use a 400 grit paper to remove. Once complete be sure to remove any grit from the flat ball.
- The flat ball should not be removed unless leakage has been noted through the top or bottom trunnion. If necessary to remove, the 2 O-rings (Item #3) on the top and bottom of the flat ball trunnion will need to be replaced.
- Check the surfaces of the valve body and adapters. If necessary, use a flat file to remove any paint, corrosion or raised lip around the bolt holes. Always file diagonally to assure the surfaces remain flat.

REASSEMBLY OF THE VALVE

1. Replace the wavy spring (11) in the recess of the seat retaining ring (6).
2. Install the O-rings (4 & 12) on the retaining ring (6).
3. Install the O-rings (3 & 13) on the flat ball (2).
4. **Install the seat ring (8) on the new valve seat (5).**
Note: There is a chamfer on one side of the ID of the seat ring. Be sure the seat ring is installed with the chamfer down and inside the seat.
5. Place the new valve seat and seat ring inside the seat retaining ring assembly.
6. Place the complete assembly in the valve.



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7. Add the flange seal (9).
8. Return the valve body assembly back inline and loosely install the adapter bolts.
9. Tighten the adapter bolts in an "X" pattern and torque to 60-70 ft-lbs.
Do Not Over Tighten
10. Reattach the actuator and operate the valve and inspect for leaks.

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