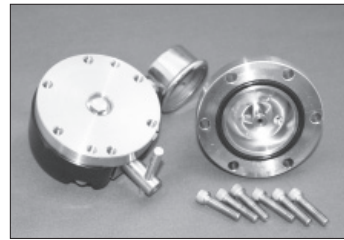


Gas Spot Sampling Valve - Seal Kit Instructions

Disassembly Procedure

Liquids Separator

Remove the 6 socket-head cap screws using a 3/16" allen wrench to separate the body bottom (17) from the valve body (18). **Be extra careful handling the bodies while cleaning to prevent any scratches on the sealing surfaces.** Remove and discard the O-ring (12).



Valve Seats

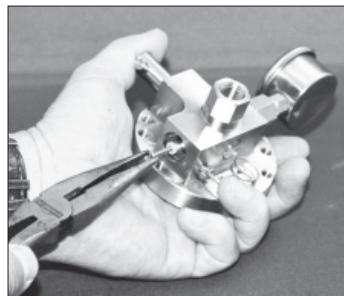
To remove the Inlet Valve Seat...

1. Remove the liquids separator body by removing the 6 socket-head cap screws (2).
2. Remove the inlet valve support (16) using a 3/8" socket.
3. Remove the inlet valve poppet and spring (14)(15).
4. Use a 4-40 x 5/8" long screw (included in the seals kit) to thread into the nylon seat (13) several turns or enough for the screw to grip the seat.
5. Pull on the end of the screw with needle-nose pliers to remove the nylon seat (13).



To remove the Vent Valve Seat...

6. Remove the top cover (3) by removing the two socket-head cap screws.
7. Remove the vent valve cap (23) using an 11/16" open-end wrench.
8. Remove the vent valve poppet (20) and spring (21).
9. Use a flat blade screw driver to unscrew the Vent Valve Support (19).
10. Use a 4-40 x 5/8" long screw (included in the seals kit) to thread into the nylon seal several turns or enough for the screw to grip the seat (13).
11. Pull on the end of the screw with needle-nose pliers to remove the seat (13).

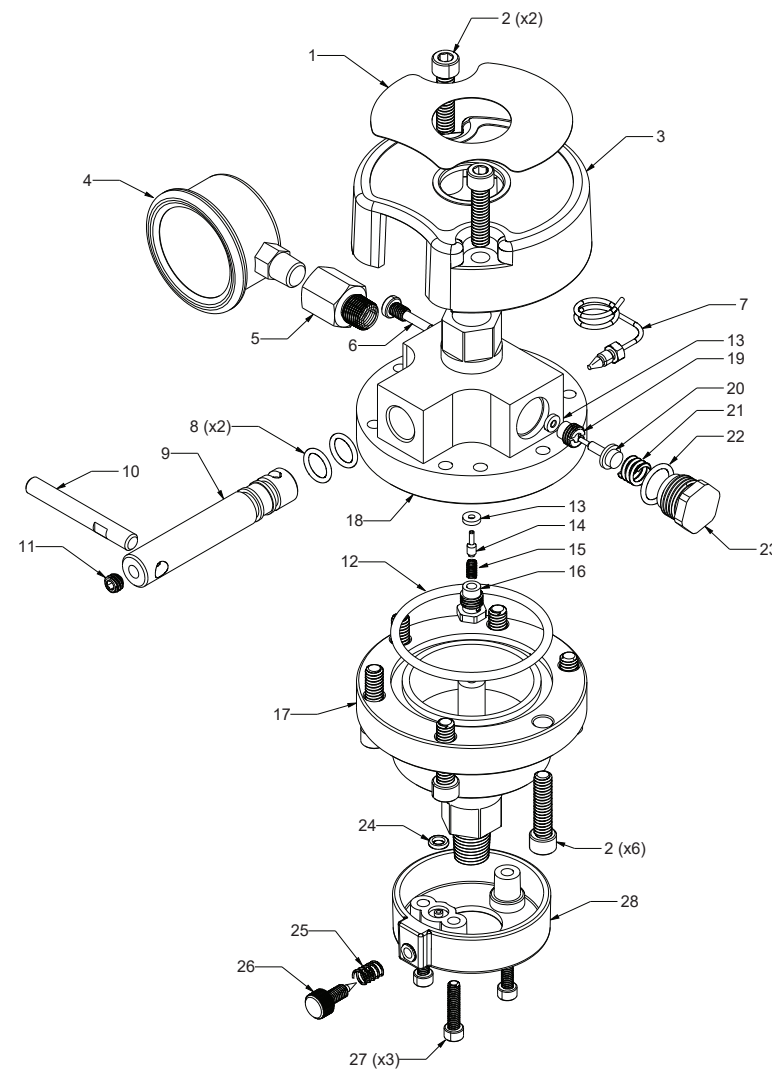


Cam Seals

12. Follow the instructions to remove the Inlet and Vent valve poppets (14)(20). **Never try to remove the cam with the poppets in place.**
13. Remove the top cover (3) by removing the 2 socket-head screws (2).
14. Remove the pressure gauge pipe adapter (5) to gain access to the cam stop screw (6).
15. Remove the cam stop screw (6).
16. Using the valve handle (10), pull the cam (9) out of the body (18). a slight twisting motion while pulling will help the cam o-rings slide out.
17. Remove the cam o-rings (8) and discard.

Bypass Valve

Three socket-head cap screws (27) hold the bypass valve isolator (28) to the liquids separator body (17). If the valve gets plugged it can be cleaned with a fine gauge wire or a needle smaller than 0.03" diameter. Care should be taken when cleaning, especially the hole behind the thumb screw. If the hole gets distorted the thumb screw will no longer seal and the bypass valve assembly will need to be replaced. Remove and discard the O-ring (24).



WARNING

This device is designed to operate at high pressures.

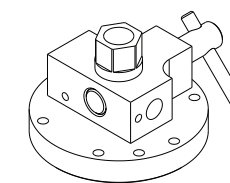
Only trained experienced operators should perform this procedure.

Item	Qty	Part Number	Description
1	1	130-0024	SSV Label
2	8	122-0006	Cap Screw 1/4-20 x 1
3	1	450-0008	Top Cover
4	1	122-0010	Pressure Gauge
5	1	122-0009	Pipe Adapter 1/8 NPT
6	1	203-0026	Cam Stop Screw
7	1	301-0004	Vent Tube Assembly .03 ID
8	2	126-0006	O-Ring 70 Duro Buna-N -012
9	1	203-0016	Valve Cam
10	1	203-0023	Valve Handle
11	1	122-0007	Set Screw 1/4-20 x 3/16
12	1	126-0003	O-Ring 70 Duro Buna-N -226
13	2	450-0015	Valve Seat Nylon .03 ID
14	1	203-0017	Inlet Valve Poppet
15	1	122-0017	Inlet Valve Spring
16	1	203-0019	Inlet Valve Support
17	1	203-0010	Body Bottom
18	1	203-0011	Valve Body
19	1	203-0020	Vent Valve Support
20	1	203-0018	Vent Valve Poppet
21	1	122-0018	Vent Valve Spring
22	1	126-0005	O-Ring 70 Duro Buna-N -014
23	1	203-0015	Vent Valve Cap
24	1	126-0004	O-Ring 70 Duro Buna-N -007
25	1	122-0019	Bypass Valve Spring
26	1	203-0021	Bypass Valve Thumb Screw
27	3	122-0034	Cap Screw 8-32 x 3/4
28	1	301-0005	Bypass Valve Isolator

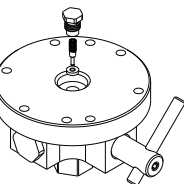
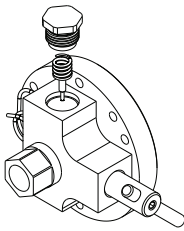
Re-Assembly Procedure

Before assembling with the new seals clean all of the parts, especially the sealing surfaces using a soft cloth. Avoid using chemicals that could alter the gas sample results. Contact cleaner that evaporates without leaving a residue works well. Always coat the seals and surfaces with Dow Chemical Molykote 1292 or equivalent light bearing grease. Choose a grease that will not alter the sample results. Before re-assembly, inspect the cam and poppets for wear and replace if necessary.

1. Replace the O-rings (8) on the cam (9). Lightly coat the O-rings, O-ring grooves, and cam area that will be inside the valve body with grease.
2. Rotate the cam while pressing it into the body (18) to allow the O-rings to compress while being inserted. The cam is fully inserted when the shaft is flush with the body.
3. With the handle between the fill and empty position, insert the cam stop screw (6).
4. Lightly coat the new nylon seat (13) with grease and drop



5. it into the vent valve opening. Screw in the vent valve support (19) to press the seat into place. **DO NOT OVER TIGHTEN.** Torque to 10-15 inch/lbs.
6. Lubricate and replace the O-ring (22) on the vent valve cap (23).
7. Coat the vent valve poppet and spring (20)(21) with grease. Drop in the poppet and spring into the body (18). The poppet and spring should be attached together before inserting into the body.
8. Screw in the vent valve cap (23) and snug tight using a 11/16" end wrench.
9. Drop in a lightly lubricated valve seat (13) into the inlet valve hole.
10. Coat the inlet poppet and spring (14) (15) with grease. The poppet and spring should be attached together. Insert the poppet and spring through the seat (13). The tip of the poppet should go through the hole in the seat.
11. Screw in the inlet valve support (16). **DO NOT OVER TIGHTEN.** Torque to 10-15 inch/lbs.
12. Use teflon tape or thread sealer on the pressure gauge pipe adapter (5) threads and screw the gauge into the body (18).
13. Replace the top cover. Align the vent tube (7) with the cover while sliding on the cover. Replace the 2 cap screws. Do not over tighten the cover screws.
14. Replace O-ring (12) on the body bottom. Lightly lubricate the O-ring before placing it in the groove.
15. Place the valve body (18) on top of the body bottom (17). Flip over the assembly and insert the 6 socket-head screws (2). The O-ring provides the seal so excessive torque on the screws is not required.
16. Clean the O-ring groove in the Isolator body (28). Lightly lubricate the new O-ring (24) before reassembling. Do not over-tighten the mounting screws (27). If the plastic bypass valve is damaged in any way it should be replaced.



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