

Automatic Degassing Valve (ADV) and Standoff Installation Guide



This exclusive technology reduces the risk of vapor lock and eliminates the need for external degassing components, ensuring seamless performance. The ADV System delivers consistent and reliable liquid metering by expelling trapped gases, making it ideal for demanding applications.

These instructions will guide you through the process of replacing original ball checks with the new style ball checks and ADV (automatic degassing valve). Instructions are also provided if you are replacing the two (2) pump stand-off pieces. These new stand-off pieces will further improve the degassing in the pump head and increase flow rate. (Refer to pump datasheet for flow rates.)

ADV (Automatic Degassing Valve) Kits Available

KIT-DVA1	Cartridge Valve Degassing Kit, Aflas (includes six cartridge valves and one de-gas valve)
KIT-DVE1	Cartridge Valve Degassing Kit, EP (includes six cartridge valves and one de-gas valve)
KIT-DKA1	Cartridge Valve Degassing Kit, Aflas (includes six cartridge valves, one de-gas valve, and two standoffs)
KIT-DKE1	Cartridge Valve Degassing Kit, EP (includes six cartridge valves, one de-gas valve, and two standoffs)



<--- Scan this QR code for a
video on installing the ADV System

Scan this QR code for more information
on the ADV System ---->



ADV (Automatic Degassing Valve) Replacement Diagram



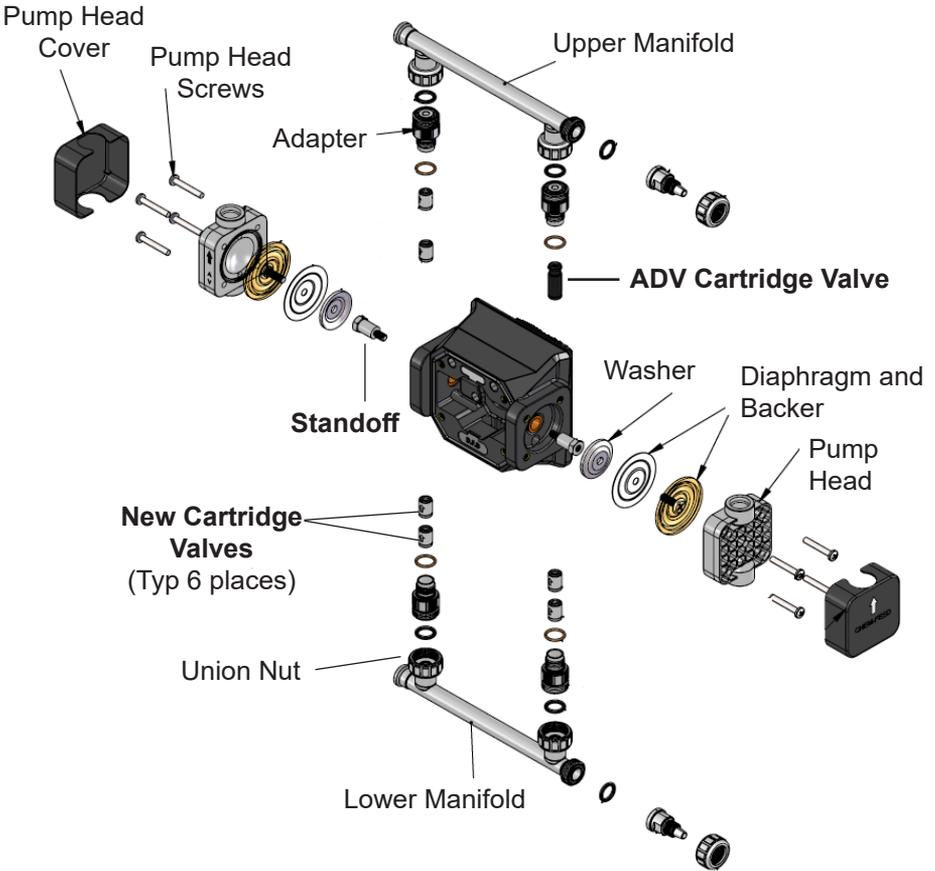
De-gas Valve



Cartridge Valves



Standoff



Installation

Step by step

Required tools

Phillips torque screwdriver, 1/2" socket wrench

1 Remove Pump from Service

Remove pump from service and disconnect any suction and discharge tubing / piping. If removing stand-off pieces, keep power to the pump for ease in removing diaphragms.



Instructional Video

2 Remove Manifolds

Remove top and bottom manifolds by hand by unscrewing unions nuts.

3 Remove Adapters and Cartridges

Remove all four adapters from the pump heads. Twist by hand to remove. Do not use tools. Ball check cartridges can now be removed. Remove all four ball check cartridges. Be careful not to lose adapter o-rings.

4 Install New Cartridges and ADV

Place new ball check cartridges into adapters. Note the direction of arrows on the cartridges. Be sure arrow goes in direction of flow. Both bottom (suction) adapters will use two (2) new cartridges each. One top (discharge) adapter will use the two (2) new cartridges, and the other top adapter will use the new ADV cartridge. Preferred location of the ADV is on the side of the pump where the suction tubing connects. (For example, id suction tubing/piping connects on right side of manifold, then install the ADV on the right side discharge adapter.)

5 Re-install Adapters

Re-install each of the adapters by screwing in by hand. Be careful to keep all o-rings in place and seated properly.

6 Re-install Manifolds

If replacing the pump stand-off pieces, please skip to next page for further instructions. Otherwise, re-install top and bottom manifolds and re-connect tubing / piping. Pump is now ready for service.

Installation (continued)

Use instructions 7- 11 when replacing pump standoffs

7 Remove Pump Head

With adapters secured to pump heads and manifolds removed from the pump, the pump head assemblies can now be removed. Remove pump head cover. Remove the four screws from each pump head and remove pump heads.

8 Remove Diaphragms

Power on the pump and run at 5-10% motor speed to allow positioning of one diaphragm at the full stroke position (fully extended out.) Stop pump in fully extended position. This will allow easy removal of the diaphragm by simply unscrewing from pump standoff. Keep white backing piece and back-up washer with diaphragm. Note orientation of these when removing. Repeat the process with the other diaphragm.

9 Replace Standoffs

Use 1/2" socket wrench to remove stand-off pieces. Grease threads on new standoff. Install new stand-off pieces.

10 Re-install Diaphragms

Re-install each of the diaphragms/backing/back-up washer using the same process of fully extending the stand-off. Re-tightening each diaphragm by hand.

11 Install Pump Heads and Manifolds

To install the pump heads, run the pump so the diaphragm is fully pulled in. Attach the pump head with arrows pointing upwards using the four screws. Tighten each screw at intervals using a star pattern until uniformly secure at 20 in-lbs per screw. Attached pump head cover. Attached manifolds. Pump is now ready for service.

Have Questions?

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