



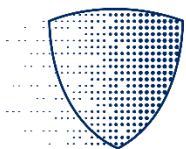
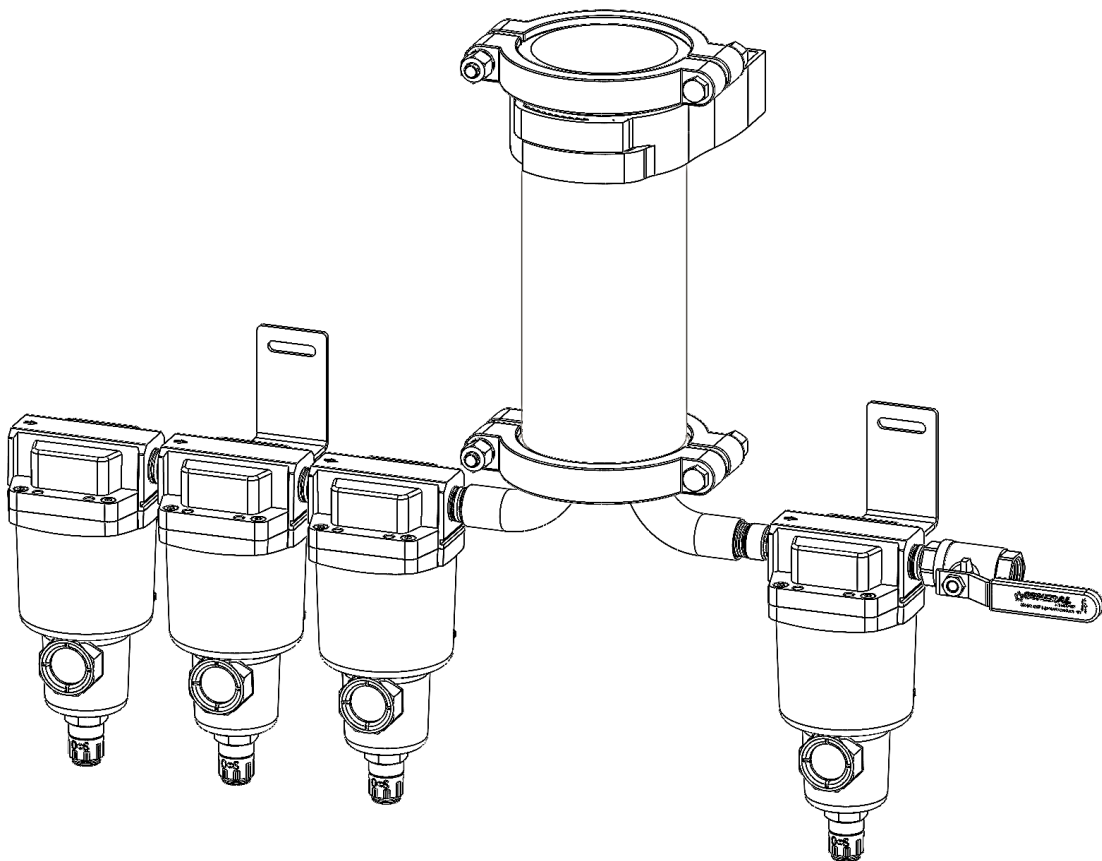
Vapor Pipe Shield™

ENGINEERED VAPOR-PHASE CORROSION INHIBITOR SYSTEMS

For Dry Pipe & Pre-Action Fire Sprinkler Systems

Maintenance Manual

Models: VPS-500A / VPS-1000A / VPS-1500A / VPS-2000A



VAPOR
Pipe Shield



Maintenance Video

Technical Assistance:

800-345-8207

Additional Product Information:

generalairproducts.com

Version 1.16
Sept-2024

6 MAINTENANCE SCHEDULE

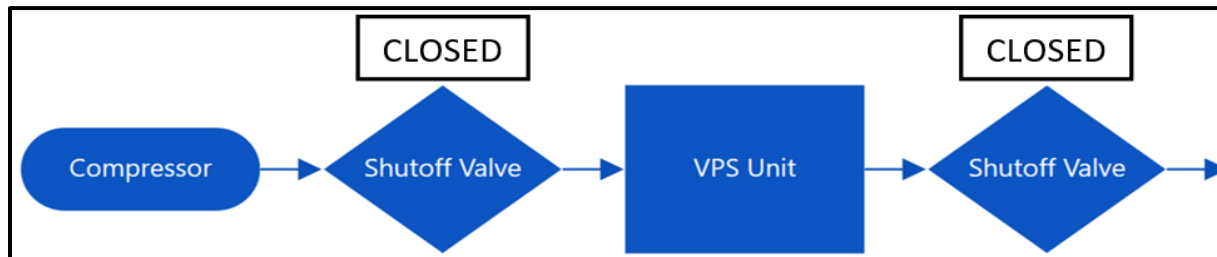
The Vapor Pipe Shield (VPS) unit requires **Annual Maintenance**, ideally when the sprinkler system is inspected. Maintenance Kits are available with all necessary materials for each Annual Maintenance Period. The adjacent table shows the specific Maintenance Kit required for each VPS unit.

Packages	Kit #	Description
VPS-500A Maintenance Kit	VPS-500-MKA	Includes Replacement Filter Element(s) & Cartridge(s)
VPS-1000A Maintenance Kit	VPS-1000-MKA	Includes Replacement Filter Element(s) & Cartridge(s)
VPS-1500A Maintenance Kit	VPS-1500-MKA	Includes Replacement Filter Element(s) & Cartridge(s)
VPS-2000A Maintenance Kit	VPS-2000-MKA	Includes Replacement Filter Element(s) & Cartridge(s)

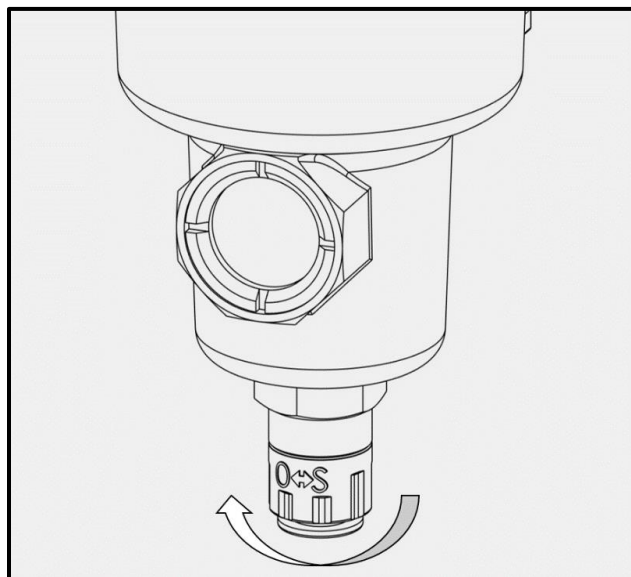
If one or more VPS Expansion Kits were added to the system, contact your local supplier, or General Air Products Technical Assistance at (800) 345-8207 for the correct Maintenance Kit.

6.1 STANDARD MAINTENANCE PROCEDURE (ANNUAL)

- 1) Isolate the VPS unit by closing any Shutoff Valves directly before and after the VPS unit.



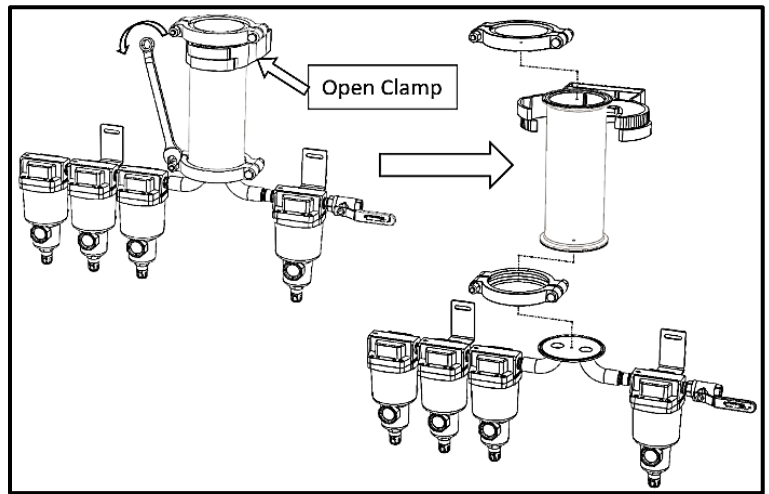
- 2) Depressurize the VPS unit to atmosphere (0 PSIG) by slowly opening the Drain Port on any filter. This can be accomplished by rotating the Knob at the very bottom of any filter **Clockwise** to the position marked "O". Do not disengage the bowl from any filter or attempt to loosen any other fittings to depressurize the VPS unit.



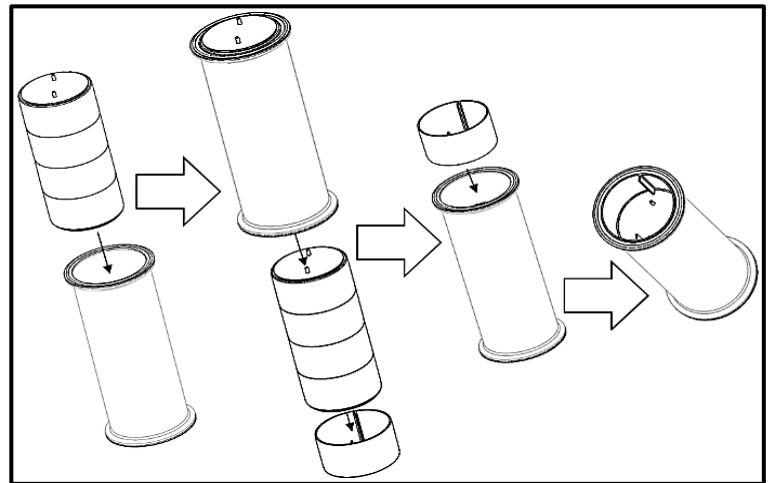
WARNING

Failure to depressurize the VPS unit prior doing maintenance work on the VPS unit may result in a potentially hazardous situation which COULD result in death or serious injury. All components under pressure must be inspected before use.

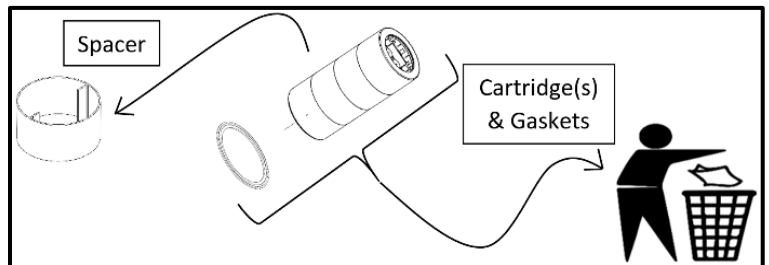
- 3) After the VPS unit is depressurized to atmospheric pressure (0 PSIG), open the Upper Clamp, and remove & separate each Module from the assembly. A **5/8" wrench** can be used to remove all Bolted Clamps securing the Module(s), as shown in the adjacent figure.



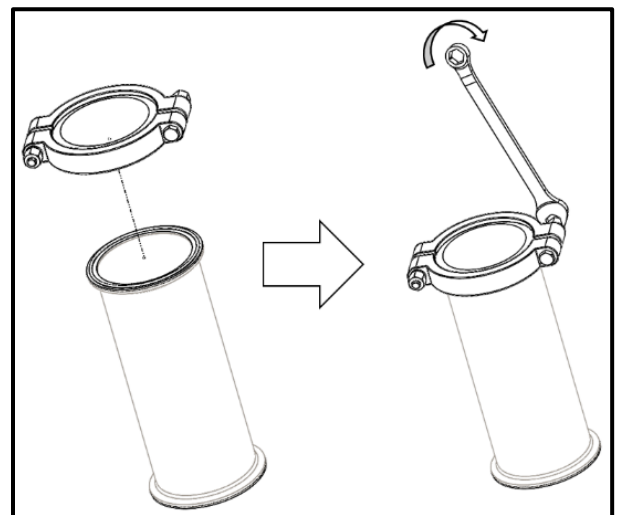
- 4) Remove the old Cartridge(s) & Spacer from the Module(s) by **PUSHING** a new Cartridge into each Module, and in the process ejecting each old Cartridge(s) & the Spacer. Then reinsert the Spacer in the 10" Module on the same side as the Cartridge's alignment pins. Note that **only** the 10" Module has a Spacer, the 8" Expansion Modules only have a Cartridge, see adjacent figure.



- 5) Dispose of the used Cartridge(s) & Gaskets by conventional means, in accordance with state and local guidelines if applicable. Save the Spacer, and store for later reuse, see adjacent figure.



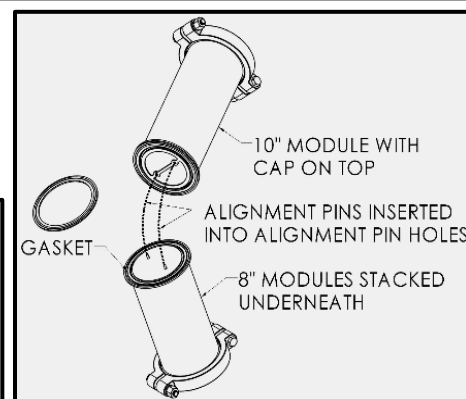
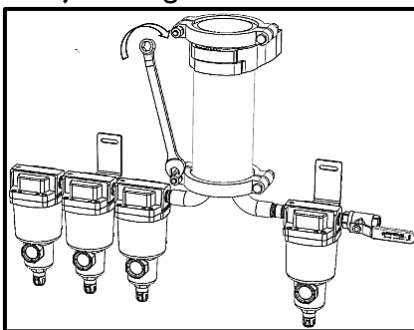
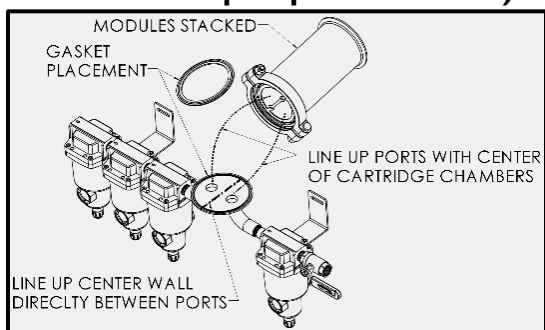
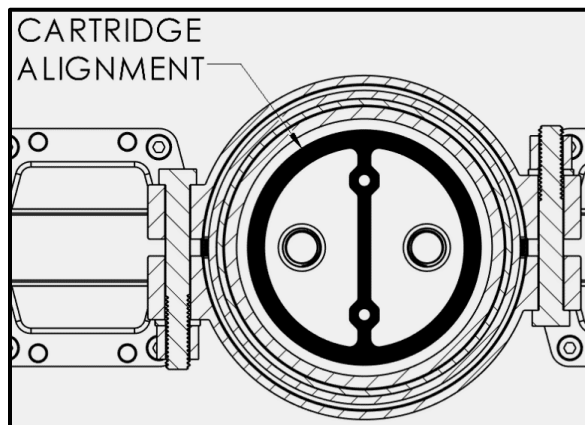
- 6) Reinstall the Cap and Bolted Clamp on the 10" Module (on the side with the Alignment Pins and the Spacer). A **5/8" Wrench** can be used on the two nuts to evenly secure the Bolted Clamp, see adjacent figure. (**Reference torque spec: 20 ft. lbs.**)



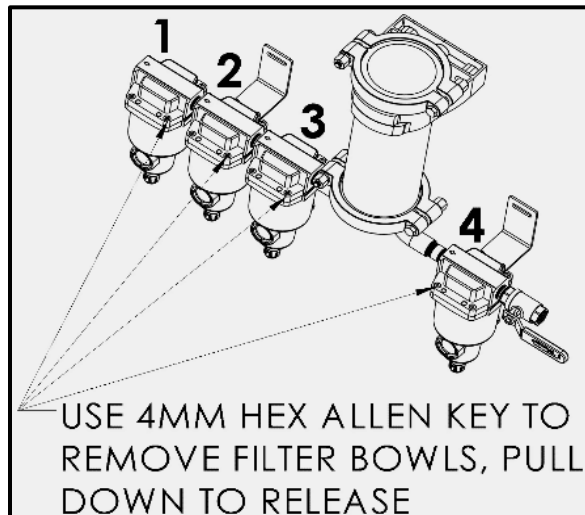
- 7) If a **Single Module** (VPS-500) is used, take the 10" Module with the Cap; and with the cap-side up, line up the I/O Manifold's inlet / outlet ports with the center of each of the Cartridge's chambers.

If **Multiple Modules** (VPS-1000 +) are used, stack the 8" Modules first, lining up the I/O Manifold's inlet / outlet ports with the center of each of the Cartridges' chambers. Then stack the remaining Modules on top of one-another, lining up the Cartridges' chambers & alignment pins with their mating Cartridge(s)'. The 10" Module with the Cap always goes on top.

A **5/8" wrench** can be used on the two nuts to evenly secure all Bolted Clamps. (**Reference torque spec: 20ft. lbs.**) See adjacent figures.



- 8) Remove the Filter Bowls by removing the screws (4 each) located on the top of each filter using a **4mm hex key**. Filter Elements 2 & 3 require replacement on an annual basis. Filter Elements 1 & 4 may be cleaned / replaced as needed. See adjacent figure.
- 9) Dispose of the used Filter Elements, in accordance with state and local guidelines if applicable. Replace the Filter Elements inside the Filter Bowls with the hole-side of each facing up. Then replace the filter bowls & screws on each filter using a **4mm hex key**. Ensure all O-rings / Gaskets are in place as shown prior to reassembling. See figures below.



- 10) If an Air Storage Tank(s) is present before the VPS unit, the Tank(s) should be completely drained of water prior to start, and ensure all fittings are installed and tightened properly.



WARNING

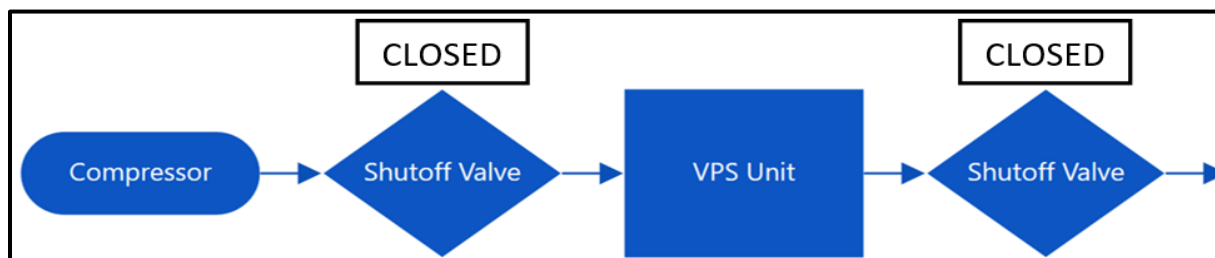
Failure to check all pressurized fittings may result in a potentially hazardous situation which COULD result in death or serious injury. All components under pressure must be inspected before use.

- 11) With both the Shutoff Valves directly before and after the VPS unit closed, and any Air Maintenance Device (sold separately) closed, as shown in the diagram below; turn on the Air Source to pressurize the lines up to the first closed inlet Shutoff Valve (sold separately) to standard operating pressure for that equipment.

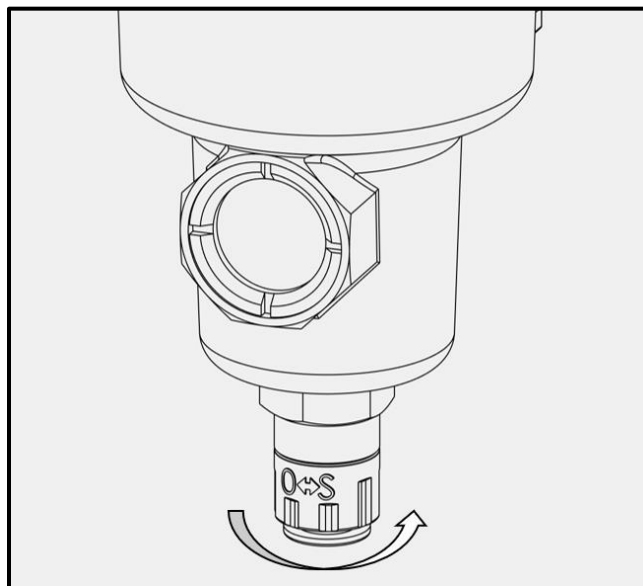


NOTICE

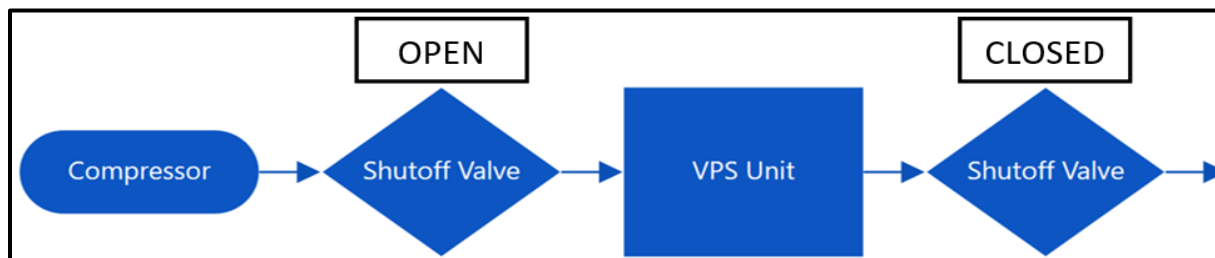
Although a Shutoff Valve on the inlet side of the VPS unit is recommended, it is NOT required. In such cases, specific instructions for operation of the inlet Shutoff Valve may be disregarded; however, continue to follow all other instructions as described.



- 12) Check all parts and fittings on the VPS unit for tightness, and confirm that all Drain Ports on the VPS unit are set to the closed position by rotating the knob at the very bottom of each filter bowl (x4 total) **Counter-Clockwise** in the direction marked “S”, as shown in the adjacent figure.



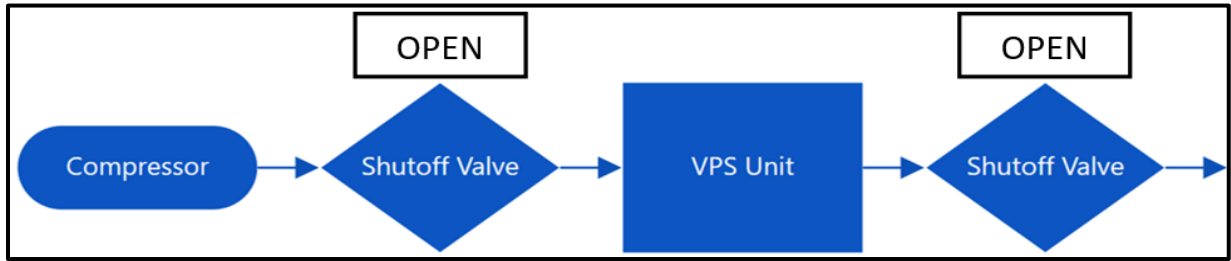
- 13) Slowly open the inlet Shutoff Valve directly before the VPS unit to pressurize the VPS unit as shown in the diagram below. Note that while the air source pressurizes the VPS unit, the filters may temporarily purge air until enough pressure is built up to seal their respective Drain Ports.



14) Once the pressurization of the VPS unit is complete, perform a leak test and fix any leaks found, then slowly open the VPS discharge Shutoff Valve, as shown in the diagram below.



Failure to perform a leak test or check all parts & fittings for tightness may result in a potentially hazardous situation which COULD result in death or serious injury. All components under pressure must be inspected before use.



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