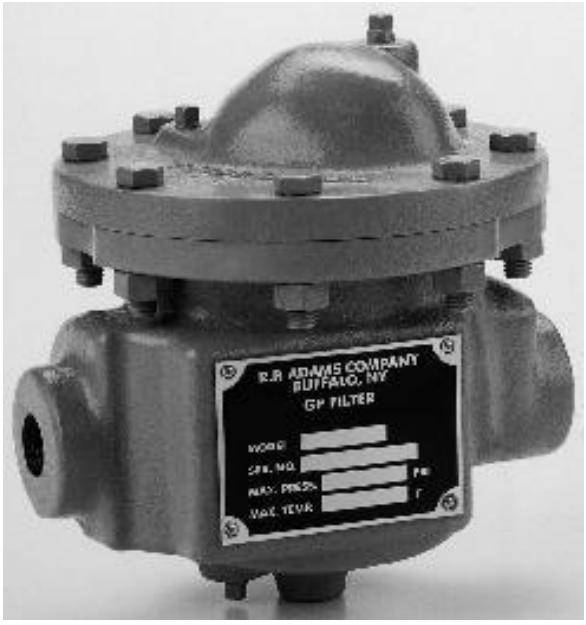
INSTALLATION AND MAINTENANCE MANUAL

FOR THE

GP PORO-STONE GAS FILTER



R. P. Adams
P.O. Box 963
Buffalo, NY, 14240 USA
Toll Free: 800-896-8869
Telephone: 716-877-2608
Fax: 716-877-9385
E-mail: info@rpadams.com
Website: www.rpadams.com

1) GENERAL

1.1 The Adams GP Series filter can be used for continuous or intermittent compressed air and gas service and is designed to provide long life if properly installed, operated and maintained. The GP filter uses the exclusive Adams Poro-Stone tube element that provides superior durability and performance.

2) INSTALLATION

2.1 Purge the pipeline before installing the filter to rid the system of particles that may prematurely plug the Poro-Stone filter element.

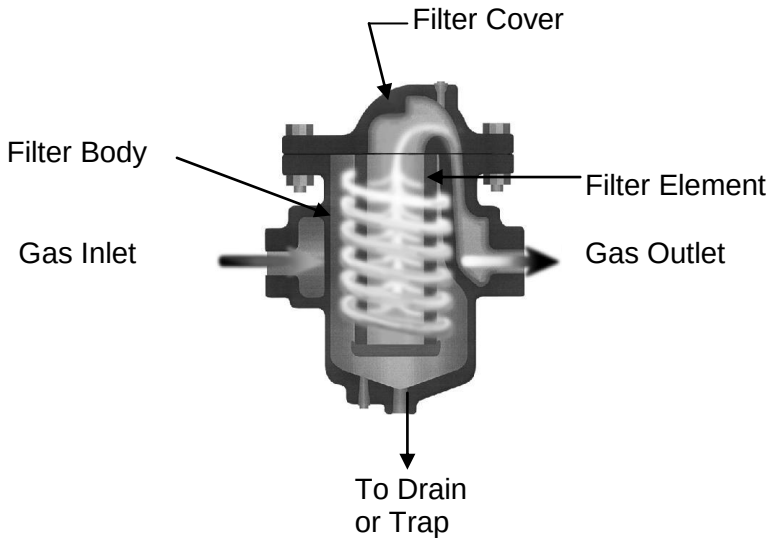
2.2 Always install the Adams GP Series Gas Filter close to the point of use and in a vertical position. Make sure there is enough clearance above the filter for maintenance and removal of the tube element. Also provide adequate clearance below the filter for the installation of a condensate trap.

2.3 A suitable automatic trap, which is available from the R. P. Adams, to drain condensate is recommended since the filter is not designed to store condensate. The Poro-Stone tube element is subject to erosion if condensate is not continually removed from the filter. The filter drain trap connection is ¼" FPT for GP sizes ½" to 3" and ½" FPT for GP sizes 4" to 6".

☑ Caution: Do not operate the filter beyond the design pressure and temperature capabilities stated on the nameplate of the unit.

3) OPERATION

3.1 The Adams GP Series Gas Filter provides a nominal five micron filtration. Separation is performed in a two step operation. Gas is directed in a tangential flow around the element and against the inside wall, providing separation of larger particles and droplets. Contaminants are captured in patented vertical slots located on the filter's side walls. A gas flow interrupter at the bottom of the unit improves draining efficiency and reduces condensate re-entrainment from liquid collected before the drain. The gas is then diffused through the Poro-Stone tube to achieve maximum filtration.



4) MAINTENANCE AND CLEANING

4.1 The filter tube is accessible for inspection and cleaning by removing the bolts that secure the cover to the filter body. The Poro-Stone filter element is attached to the filter cover in a single assembly that permits easy removal and cleaning without contaminating the filtered side.

☑ **Caution: Make sure the gas line is turned off before performing any inspection or maintenance.**

4.2 The Poro-Stone tube element should be inspected and cleaned or replaced periodically. Generally the filter element should be inspected, cleaned or replaced about once a year or when pressure differential across the unit so dictates.

4.3 If excessive iron oxide (rust) is present, soak the tube in a 2½% solution of muriatic acid (hydrochloric) four (4) to six (6) hours and rinse well in clean water.

4.4 Clean the inside of the filter housing to remove any contamination that may foul the automatic trap. When reassembling, be sure to use the tube element gaskets to seal ends of all tubes. The top cover gasket should also be aligned properly on the internal cast partition for Models ½" GP-22, ¾" GP-31, 1" GP-47, 1½" GP-99, 2" GP-132, and 3" GP-283.

5) REPLACEMENT PARTS

5.1 When replacing or reinstalling the Poro-Stone tube element, be sure to also replace the filter tube element gaskets and filter cover gaskets. Parts can be obtained through your local R. P. Adams sales representative or through our sales department in Buffalo, NY.

5.2 To keep downtime to a minimum, it is beneficial to have a spare tube element on hand for quick change out. The dirty tube element can be cleaned as time permits.

5.3 When ordering parts, please be sure to have the GP model and design pressure available. This information is located on the nameplate of the unit.

5.4 An illustrated parts list for each GP Gas Filter is given in Section 7 of this manual.

6) TROUBLESHOOTING

6.1 Filter has a pressure drop greater than 5 PSI.

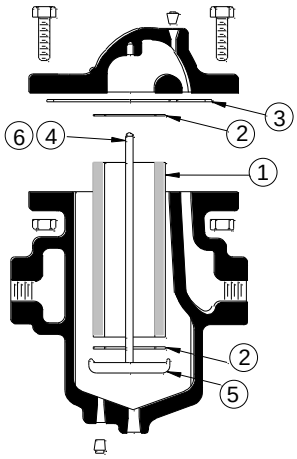
a) High pressure drop may be caused by a dirty filter element. Inspect the filter tube element to determine if it requires cleaning.
b) If the tube element is clean, then it is possible that there is more air or gas being put through the filter than proper for its size. Contact your local Adams R. P. Adams sales representative or the factory for further assistance.

6.2 Particles are being found downstream from the filter.

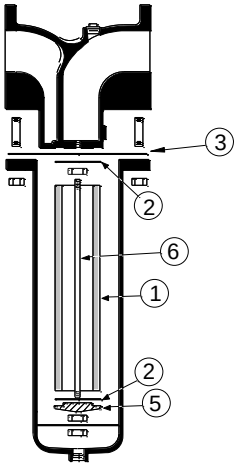
a) Particulate downstream of the filter may be the result of a system not being purged prior to installation and startup.
b) The Poro-Stone tube element may be cracked or broken.
c) The Poro-Stone tube element end gaskets may be missing or not correctly installed.

For further technical support, please contact your local R. P. Adams sales representative or the factory at the address and telephone number found on the cover of this brochure.

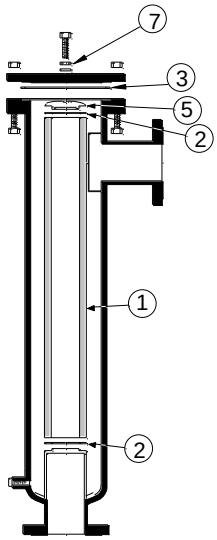
7) PARTS LIST FOR STANDARD GP GAS FILTERS



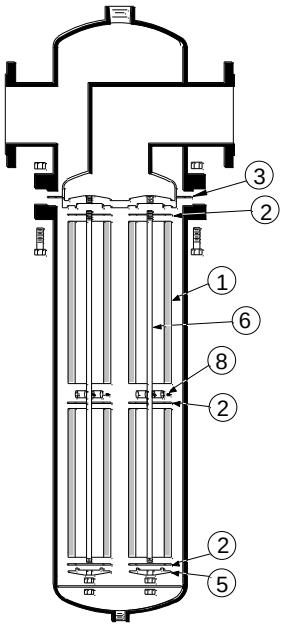
1/2" TO 3"
GP FILTERS



4" GP-508
150 PSIG
NONCODE ONLY



4" GP-508-HD
150 PSIG & 300 PSIG
ASME ONLY



6" GP-1527

Note: Tube Holder assembly is a one-piece part that consists of a closure plate and suspension rod. The 3" GP uses a separate closure plate and suspension rod.

PARTS LIST BY MODEL

	Poro-Stone Tube	Tube Gasket	Cover Gasket	Tube Holder Assembly	Tube Closure Plate	Tube Suspension Rod	Centering Screw Gasket
Item No.	1	2	3	4	5	6	7
½" GP-22	121413	121808	121804	49545-001			
¾" GP-31	121413	121808	121804	49545-001			
1" GP-47	121414	121808	121804	49545-002			
1½" GP-99	121821	121809	121805	49552-001			
2" GP-132	121822	121809	121805	49552-002			
3" GP-283	121958	122519	122518		50537-001	50536-001	
4" GP-508 150 PSIG Noncode Only	103509	122395	122522		15405-002	14359-001	
4" GP-508-HD 150 & 300 PSIG ASME Only	103509	122395	122393		101632		116414
6" GP-1527	103865	122395	122499		15405-002	26708-001	

Revised 05/18/11

Intel1/00 5M