Rosedale Products, Inc. 3730 West Liberty Road Ann Arbor, MI 48103 IOM 7_2_12 Model G4 300&500 Psig.wpd n:\iom\



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INSTALLATION, OPERATION, & MAINTENANCE MANUAL

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

ROSEDALE PRODUCTS, INC.



MODEL G4

300 & 500 PSIG RATED FILTER UNIT

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I. Installation

Please remove all shipping and crating materials carefully. Be sure to remove the plugs from the inlet and outlet openings. Dispose of all crating materials safely.

The Model G4 Filter unit is capable of having several different piping variations based upon the outlet style of your unit. The inlet service line should be connected to the inlet flange or NPT coupling located near the middle or bottom of the unit (below 2-340 O-ring seal, see spare parts diagram).

The outlet service line should be connected to the outlet flange or coupling, located near the top of the unit depending upon the style of your unit (above 2-340 O-ring seal, see spare parts diagram).

There are two 1/4" NPT ports on the shell and one 1/4" NPT port on the cover of the Model G4 Filter. These ports can remain plugged or used for pressure gauges or special fittings as your application requires.

Some installations require electrical grounding of all equipment, be sure to provide adequate grounding where necessary.

After completing installation be sure to double check connections for integrity. Your Model G4 Filter unit has been factory pressure tested leak free, therefore, any seepage problems usually occur from improper installation connections.

You are now ready to install the Filter Element Assembly. Remove cover by loosening the cover eyenuts. The eyenuts in the slotted corners should be loosened sufficiently to swing free. Loosen the third eyenut sufficiently to allow the top cover and closure assembly to swing away from the top of the unit.

Loosen the wing nut located on the top of the Filter Element Assembly. Remove the Bridge w/O-ring groove from the threaded rod. Place cartridge element over threaded rod and seat it flush onto the bottom plate. Replace the Bridge w/O-ring groove and tighten wing nut, ensuring top and bottom of the cartridge element are concentric with plates on both ends.

Inspect the O-ring on the Filter Element Assembly and replace if necessary. Place the Filter Element Assembly into the filter housing, make sure the Seal Sleeve firmly seated into the Seal Collar.

Before replacing cover assembly, inspect the cover gasket (replacing as necessary). Close cover and alternately tighten the three clamp assemblies evenly to ensure a leak proof seal between the cover and housing body. Torque closure assemblies to a maximum of 30-45^{ft-lbs}. Each installation may have different closure bolting torque requirements to effectively seal the filter vessel cover. Many installations require significantly lower closure bolting torque due to the variables explained below. The suggested torque values are for reference only. They are to be used as a guideline by maintenance personnel. These values are meant as a guideline for safe operation of the filter vessel without leaks. These variables include the diameter of the bolt, type and number of threads, material type and grade, condition of the nut bearing surface and lubrication of bolt threads and nut bearing surfaces. Other factors such as the condition of the o-ring, o-ring material, viscosity of the fluid being filtered, operating pressures, temperature, and the closure assembly tightening procedure must also be considered.

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Your Rosedale Model G4 is now ready for operation!

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II. Operation

Filter System Start-Up Procedure:

Prior to turning on the flow to the inlet service, please make the following checks:

- 1. Check inside filter unit to be sure filter element is in housing and does not require cleaning or replacement. If necessary install a clean filter element.
- 2. Check that filter unit cover is securely fastened to housing. You are now ready to open the flow to the inlet service line. Slowly open the inlet service line approximately 25% of normal operational flow (open slowly as not to displace filter bag inside the housing). After filter unit is pressurized and vented, slowly open outlet service line unit valve until completely open. Complete opening of inlet service line until desired flow rate is reached.

Once the desired service flow has been established, the filter will operate efficiently until dirty. However, under no circumstances should more than *30 PSI Differential Pressure* through the element be obtained. Operating the filter unit with a high differential may cause the element to collapse and/or cause damage to filter system and downstream equipment.

To prevent excessive drop through the filter unit, regular inspection of the filter media is required. Monitoring of differential pressure through the housing can be utilized as a means of determining whether or not the filter media needs cleaning or replacement.

When it becomes necessary to clean or replace filter media, follow the procedure outlined below:

- 1. First close the flow from the inlet service line.
- 2. Close the flow to the outlet service line. (In some applications closing flow to outlet is not required.)
- 3. Relieve the pressure from the filter unit.



- 4. Drain housing sufficiently to access the Filter Element Assembly.
- 5. Remove cover by loosening the cover eyenuts. The eyenuts in the slotted corners should be loosened sufficiently to swing free. Loosen the third eyenut sufficiently to allow the top cover and closure assembly to swing away from the top of the unit.
- 6. Remove cartridge element and clean thoroughly.
- 7. Remove debris and sludge from inside the inlet portion of housing to avoid interference with cover seal or flow of fluid being filtered.

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- 8. Remove all seals and inspect, replace if necessary.
- 9. Install clean element into the assembly. Place assembly into the filter housing, make sure the Seal Sleeve firmly seated into the Seal Collar.
- 10. Inspect cover gasket for cuts or other signs of failure and make sure it is properly seated.
- 11. Close cover and alternately tighten the three clamp assemblies evenly to ensure a leak proof seal between the cover and housing body. Torque closure assemblies to a maximum of 30-45^{ft-lbs}. Each installation may have different closure bolting torque requirements to effectively seal the filter vessel cover.

Your Rosedale Model G4 Filter unit is now ready for operation. Refer to filter system start-up procedure.

III. Spare Parts List

Your Rosedale Model G4 Filter unit will give you many years of reliable service provided periodic inspections are made of various components and replacement of worn parts are made promptly. The following is meant to be a recommended spare parts list, these parts are illustrated on the following page.

| SPARE PARTS LIST | | | | |
|------------------|---------------------------|-------------|------------|--|
| Balloon | Description | Part Number | Time-Frame | |
| 1 | Top Collar Seal | 4300CG-* | as needed | |
| 2 | Filter Element Ass'y Seal | C-6404 | as needed | |
| 3 | Filter Element Assembly | per drawing | as needed | |
| 4 | Cover | 4*300 | as needed | |
| 5 | Eye Nut | 4ENNI | as needed | |
| 6 | Rod End | 9RENI CART | as needed | |
| 7 | Clevis Pin Assembly | 9CPNI | as needed | |
| 8 | Filter Element | (See Order) | as needed | |

* Select Material Designation:

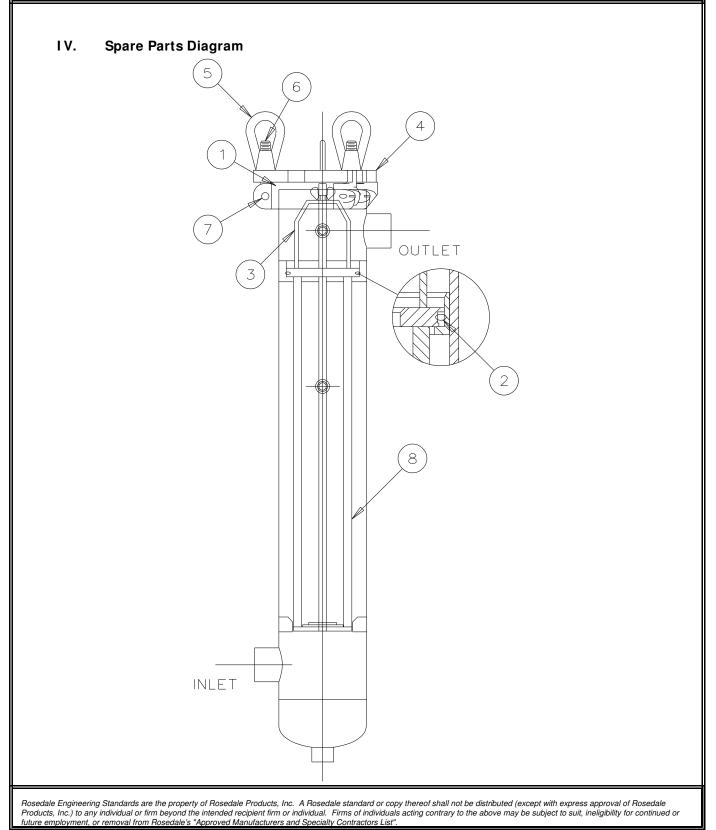
C=Carbon Steel S=304 Stainless Steel S316=316 Stainless Steel B=Buna N E=Ethylene Propylene V=Viton TEV=Teflon Encapsulated Viton TSW=Teflon Solid White

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Important Notice

<u>Warranty:</u> In the event any Rosedale Products, Inc. filtration product is found to be defective in material, workmanship, or not in conformance with any express warranty for a specific purpose, Rosedale's only obligation and your exclusive remedy, shall be to repair, replace or refund the purchase price of such parts or products upon timely notification thereof and substantiation that the product has been stored, maintained and used in accordance with Rosedale's written instructions.

<u>EXCLUSIONS TO WARRANTY:</u> THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, EXCEPT OF TITLE AND AGAINST PATENT INFRINGEMENT.

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THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

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