Rosedale Products, Inc. 3730 West Liberty Road Ann Arbor, MI 48103 IOM 7_6_2 Multi Bag 150 Duplex.wpd n:\iom\



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Revision Date: 30May2003

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INSTALLATION, OPERATION, & MAINTENANCE MANUAL

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

ROSEDALE PRODUCTS, INC.



DUPLEX MULTI-BASKET STRAINER & MULTI-BAG FILTER

(w/ Mechanical Single Lever Actuator, Typically 2", 3" & 4" Valve Sizes)

150 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.

After positioning the Duplex Multi-Basket Filter into its proper location, secure the (6) support legs to the floor or platform. On each support pad is a mounting hole to allow positive attachment to the floor or a base.

The duplex system is normally supplied with the inlet-outlet connections in a horizontal orientation (facing in opposite directions) as shown on the last page of this manual. However, the inlet-outlet orientations can be varied depending on your application.

The duplex system is now ready for connection to the system. The inlet service line should be connected to the inlet flange. It is very important to identify which flange is the inlet side of the duplex unit. The inlet side of the unit consists of a riser pipe which carries the fluid from the inlet flange to the top of the housing, above basket level (see spare parts diagram). The inlet side of the duplex system can also be identified as the side with the balancing valve assembly. Connect the outlet service line to the outlet flange.

There is a 1/2" NPT port on each cover of your duplex system. These ports can remain plugged, used for a pressure gauge, special fitting, or as a blow down, as your application requires.

There are (3) NPT drains on each housing located on the inlet, outlet and the bottom of the housing. These ports allow complete drainage of the filter housing including the inlet riser.

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 Duplex Multi-Basket Filter 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 baskets and bags. (Your Rosedale Duplex Multi-Basket Filter unit consists of two Rosedale Multi-Basket Filter units. They are designed for continual flow through one unit while servicing the other). Remove cover by loosening closure assemblies sufficiently to allow them to swing free. Turn handwheel on the top of the housing to lift cover clear of basket retainer plate. Swing cover away from housing to gain access to strainer baskets and/or filter bags.

The next step is to install the strainer or filter bag basket. If you've ordered the strainer basket option. A basket seal is utilized which prevents unfiltered liquid from by-passing the basket.

If your installation requires a filter bag, insert bag into the bag basket making sure filter bag ring is firmly seated inside the basket retainer plate opening. No basket seal is necessary when a filter bag is used. For best results, be sure filter bag is installed fully extended to the bottom of the basket.

Before replacing cover assembly, inspect cover seal (replace as necessary). Close cover and alternately tighten the closure assemblies evenly to ensure a leak proof seal between cover and housing body. The recommended torque value for each Multi-Basket Filter closure assemblies is 160-240^{ft-lbs}.

Your Rosedale Duplex Multi-Basket Filter unit 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 baskets and filter bags (if applicable) are in housing and do not require cleaning or replacement. If necessary install clean filter baskets and bags (if applicable).
- 2. Check that filter unit cover is securely fastened to housing (see page 1). 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 trapped air is vented, slowly open outlet service line 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. With the standard filter basket no more than 15 PSI Differential Pressure through the filter should be attained (higher differential baskets can be specially ordered). Operating the filter unit with a high differential may cause filter bags to rupture and/or cause damage to filter system or 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:

Filter Media Cleaning/Replacement Procedure (Side of duplex not in service):

The duplex system features continuous filtering capabilities. When it becomes necessary to clean or replace filter media during continuous operating conditions, follow the procedure outlined below:

- 1. Open balancing valve to fill clean vessel and equalize pressure in both housings.
- 2. Slowly move the mechanical actuator lever 90° to divert the flow to the clean filter vessel.
- 3. Close balancing valve.
- 4. Relieve the pressure from the filter vessel being serviced.

CONTENTS UNDER PRESSURE Relieve Pressure in accordance with Manufacturer's instructions before opening Filter Vessel. FAILURE TO DO SO MAY RESULT IN SERIOUS BODILY INJURY.

- 5. Drain housing sufficiently to access filter basket.
- 6. Remove cover by loosening closure assemblies sufficiently to allow them to swing free. Turn handwheel on top of housing to lift cover clear of basket retainer plate. Swing cover away from housing to gain access to strainer baskets and/or filter bags.
- 7. Remove filter basket and clean thoroughly, remove the filter bag (if applicable) and dispose of properly.
- 8. Remove debris and sludge from inside of bag/basket sealing surface and O-ring groove to

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avoid interference with cover seal or flow of fluid being filtered.

- 9. Install clean filter basket and filter bag (if applicable). Be sure filter bag is seated inside the basket retainer plate.
- 10. Inspect cover gasket for cuts or other signs of failure and make sure it is properly seated.
- 11. Swing cover back into position, and alternately tighten closure assemblies evenly to ensure a leak proof seal between cover and housing body. The recommended torque value for each Multi-Basket Filter closure assemblies is 160-240^{ft-lbs}.

Your Rosedale Duplex Multi-Basket Filter is now ready for operation. Refer to **Filter System Start-Up Procedure**.

III. Spare Parts List

Your Rosedale Duplex Multi-Basket 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	Cover Seal	#150CG-*	as needed		
2	Basket Seal	9BG-*	as needed		
3	Handwheel	♦HDW	as needed		
4	Eye Nut	♦ENNI	as needed		
5	Rod End	♦RENI	as needed		
6	Clevis Pin Assembly	◆CPNI	as needed		
7	Filter Bag	(See Order)	as needed		
8	Filter Basket	(See Order)	as needed		
9	Duplex Package	D"**	as needed		
10	Butterfly Valve	"*butterfly valve	as needed		

* Select Material Designation: C=Carbon Steel B=Buna N

S=304 Stainless Steel E=Ethylene Propylene S316=316 Stainless Steel V=Viton

HC22=Hastelloy C-22 TEV=Teflon Encapsulated Viton

TSW=Teflon Solid White

Select Model Designation: 16-18-22-24-30-36-42-48

◆ Select Size Designation: 9 = 7/8"-9 (Models 16-30) 36 = 1"-8 (Models 36-48)

" Nominal Size 2", 3", 4".

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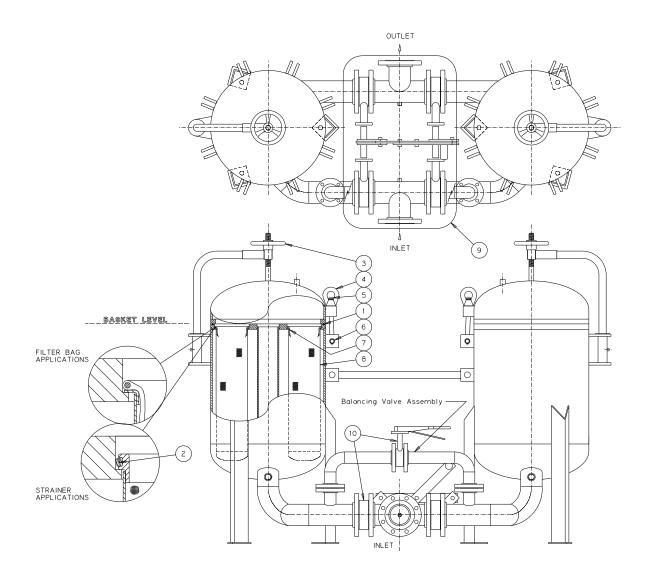


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IV. Spare Parts Diagram



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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.

EXCLUSIONS TO WARRANTY: 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.

LIMITATION OF LIABILITY: Except as provided above, Rosedale shall not be liable or responsible for any loss or damage, whether direct, incidental, special or consequential, arising out of sale, use or misuse of Rosedale filtration products, or the user's inability to use such products.

THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

Rosedale Products, Inc.

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