

## ENGINEERING STANDARDS

Rosedale Products, Inc.  
3730 West Liberty Road  
Ann Arbor, MI 48103

IOM  
"Q" style multi-bag  
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Issue Date: 16APR04  
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**7.6.7**  
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## INSTALLATION, OPERATION, & MAINTENANCE MANUAL

# INSTALLATION, OPERATION AND MAINTENANCE MANUAL

ROSEDALE PRODUCTS, INC.



## MULTI-BASKET STRAINER & MULTI-BAG FILTER WITH "Q" STYLE CLOSURE

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 Multi-Basket Filter into its proper location, secure the (4) support legs to the floor or platform. Provided on each support pad is a mounting hole to allow positive attachment to the base.

The Multi-Basket Filter 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 Multi-Basket Filter 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 the basket retainer plate (see spare parts diagram for part identification). Connect the outlet service line to the outlet flange.

There are (2) 1/2" NPT ports on the cover of your Multi-Basket Filter unit. The center cover port is intended for a vent and comes standard with 1/2" ball valve. The 2nd port is equipped with a safety valve with linkage assembly and a safety lock out plate. For the safety of the operator, the safety valve assembly **MUST NOT BE REMOVED OR MODIFIED IN ANY WAY**. Rosedale Products, Inc. recommends that the end user direct the discharge of the safety valve vent to a sump, etc.

There are (2) NPT drains located on the inlet and outlet of the housing. These ports allow complete drainage of the filter housing including the inlet riser.

Some applications require special procedures for proper installation such as electrical grounding, pressure relief valves, flow by-pass systems, etc.. Please consult with specialists regarding your specific needs.

After completing installation be sure to double check connections for integrity. Your Multi-Basket 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 basket and bag (if applicable). Be sure flow from the inlet and to the outlet (if required) are closed. Raise safety lock out plate to de-pressurize the housing and un-lock the clamp mechanism. Once the housing has vented completely, rotate the clamp handle counter clockwise until the clamp is fully expanded. Raise the cover to the fully open position and the cover locking pin engages (approximately 90 deg). Loosen the wingnut on the hold down clamp assembly and rotate the hold down clamp plate out of the way. Raise bag hold down assembly away from basket plate 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.

Lower bag hold down assembly, rotate hold down clamp into position and re-tighten wing nut.

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Before closing cover assembly, inspect cover seal and replace as necessary.

Dis-engage cover locking pin and lower cover. Rotate handle clockwise to close clamp until the safety lockout plate re-engages the clamp pins and closes the safety valve. You may need to rotate the handwheel back and forth to work the cover down and engage the clamp ring to the cover flange before tightening completely. Lower safety lock out plate making sure the lockout plate fully engages the clamp pins and closes the safety valve completely.

Your Rosedale 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 closed and safety valve is closed. 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:

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. Allow adequate time for the housing to depressurize before continuing.

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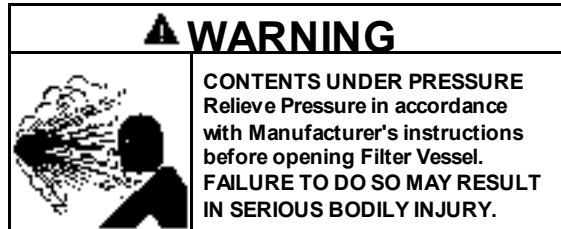
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4. Purge fluid for media removal. Rosedale Products recommends a complete evacuation of fluid from vessel to aid in media removal.
- 4.a For complete evacuation of fluid (from housing), open valve on the outlet or bottom drain and blow down fluid with pressurized air (5 psi max.) this will remove the majority of the fluids from the housing. When system has been evacuated, discontinue use of pressurized air blow down.
5. Open cover by raising safety lockout plate to open (service) position and allow proper time to vent completely. Rotate handwheel counter clockwise until the clamp is fully open. Raise housing cover to the open position and safety lockout pin engages. Loosen hold down wing nut and rotate hold down lock plate out of position. Raise bag hold down assembly away from basket plate to gain access to strainer baskets and/or filter bags.
6. Remove filter basket and clean thoroughly, remove the filter bag (if applicable) and dispose of properly.
7. Remove debris and sludge from inside of bag/basket sealing surface and cover seal groove to avoid interference with cover seal or flow of fluid being filtered.
8. Install clean filter basket and filter bag (if applicable). Be sure filter bag is seated inside the basket retainer plate. Lower bag hold down assembly, rotate hold down lock plate back into position and re-tighten wing nut.
9. Inspect cover gasket for cuts or other signs of failure and replace if necessary. Make sure cover gasket is properly seated.
10. Close cover by releasing the cover safety lock out pin and lowering cover to the closed position. Rotate handwheel clockwise until the clamp engages cover clamp ring. Rotate handwheel back and forth until the clamp ring pulls the cover down and the clamp ring fully engages. Rotate handwheel clockwise completely and lower safety lockout plate so it engages clamp pins and safety valve is completely closed (valve handle is horizontal).

Your Rosedale Multi-Basket Filter is now ready for operation. Refer to filter system start-up procedure.

### III. Maintenance

Your Rosedale Products Multi-Basket Filter unit is equipped with Rosedale Products 2<sup>nd</sup> generation Quick Action Clamp style closure ("Q") assembly. The "Q" clamp assembly is designed with an improved clamping assembly and a lip seal gasket. Routine inspection and maintenance should be performed to ensure a safe and reliable filter unit.

#### Gasket Maintenance:

With cover open, inspect lip seal gasket for damage. Replace gasket if it is nicked, cut or cracked.

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1. Do not use any tools to remove the gasket so you do not damage the housing gasket surfaces. Remove gasket by grabbing any portion of the old gasket by hand and peel outward. Once a hand hold is available, remove the entire gasket.
2. Inspect gasket surface area on the housing for any scratches nicks or burrs and repair if necessary.
3. Take extra care to not stretch the lip seal. Inspect the new gasket for nicks, cuts and cracks prior to installation.
4. Position the new lip seal gasket over groove and gently tap approximately 2" of the gasket into the groove with a leather or rubber mallet.
5. To reduce stretching of the gasket, do not work the gasket into the groove from one point. Repeat step 4 at 4"-6" increments around gasket making sure to not stretch the gasket.
6. Continue installing the gasket by gently tapping the remainder of the gasket into the groove until the gasket is fully installed.

#### Clamp Maintenance:

1. Inspect clamp ring, cover flange and housing flange for scratches, nicks and burrs. Repair as necessary.
2. Generously lubricate flange surfaces and inside clamp ring with lithium grease.
3. Lubricate clamping lead screw per normal shop practice.
4. Inspect safety lock pin and replace if damaged.
5. Inspect safety latch plate, safety valve and linkage. Repair or replace if necessary.

**CAUTION: DO NOT USE FILTER HOUSING IF THE SAFETY VALVE HAS BEEN REMOVED, DISABLED OR IF THE SAFETY VALVE ASSEMBLY HAS BEEN DAMAGED IN ANY WAY.**

#### Handwheel Orientation:

Clamp handwheel location can be switched from the right side of the clamp to the left side.

1. With the cover locked in the open position, tighten clamp ring to a neutral position. (No tension on the clamp from the leadscrew).
2. Remove (6) 1/4-20 cap screws from the clamp pivot collars and remove (2) collars from the clamp ring assembly.
3. Lift the lead screw out of the lower clamp brackets, align pivot pins in slots and rotate handwheel counter clockwise to expand pivot pins and work them through slots.
4. Rotate lead screw assembly to other side of clamp and reverse procedure to reinstall making sure the longer pivot pins are facing up.

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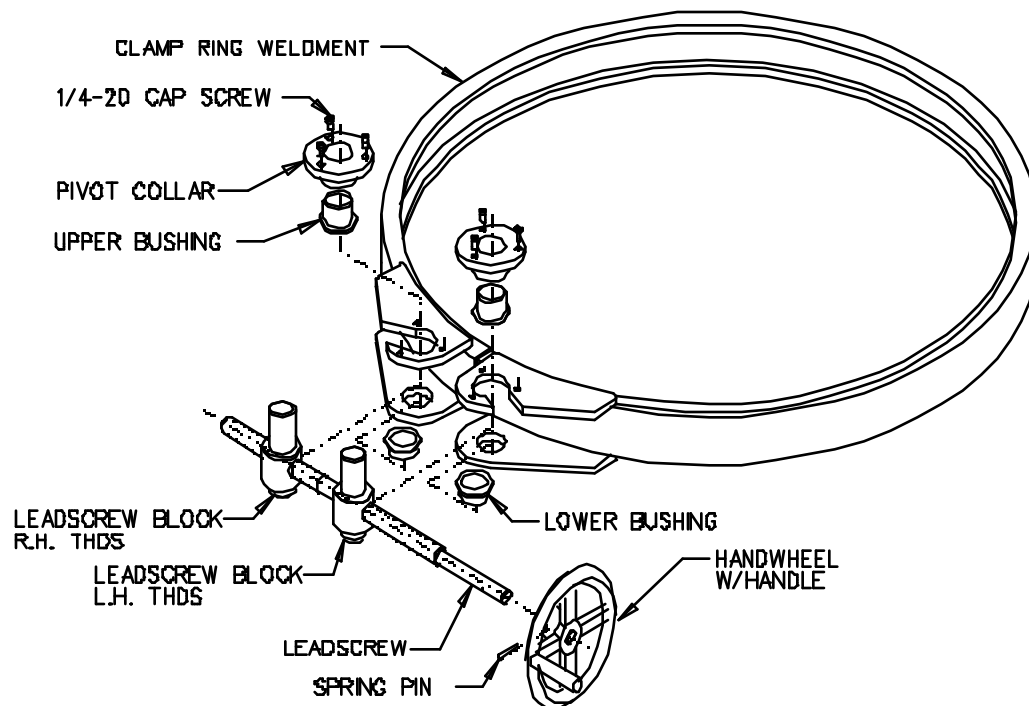
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CLAMP ASSEMBLY

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### V. Spare Parts List

Your Rosedale 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	(See Order)	as needed
2	Basket Seal	9BG-*	as needed
3	Filter Bag	(See Order)	as needed
4	Filter Basket	(See Order)	as needed
5	Safety Lockout Plate	(See Order)	as needed
6	Bolt Kit	(See Order)	as needed
7	Linkage	(See Order)	as needed
8	Safety / Vent Valve	(See Order)	as needed

\* Select Material Designation:    B=Buna N  
    E=Ethylene Propylene  
    V=Viton

# Select Model Designation:        16-48

Rosedale Products does not anticipate the need to replace the clamp assembly or any of its components for this filter housing. If for any reason any additional clamp components may be needed, please refer to the exploded view of the clamp assembly for the names of the item(s) needed.

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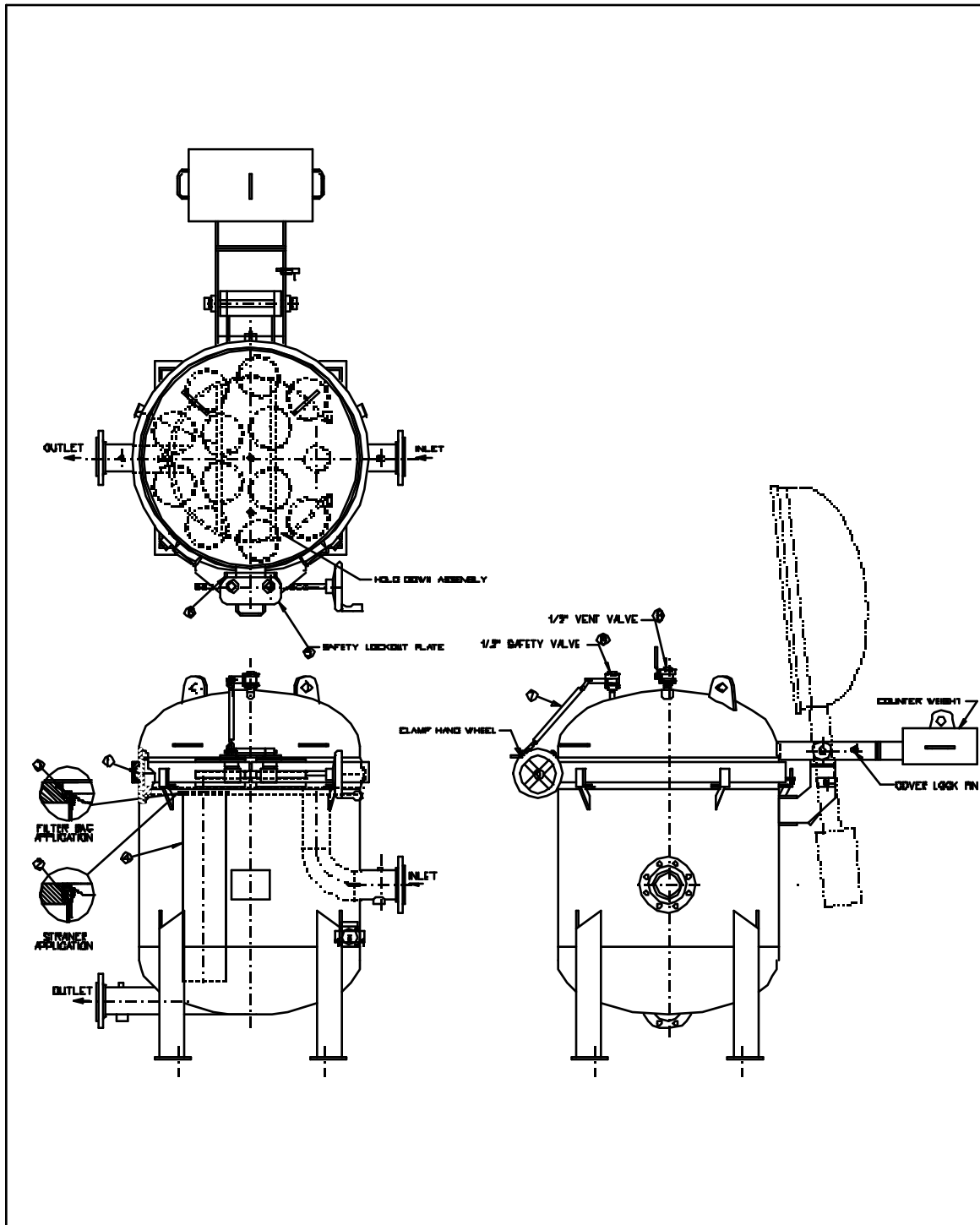


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#### V. Spare Parts Diagram





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### Important Notice

**Warranty:** 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, indirect, 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.

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