



Powering Business Worldwide

Industrial Filter Cart



Read all instructions before installation or operation of equipment. Failure to comply with these instructions could result in bodily injury and/or property damage.

Operational Instructions – FloWash Industrial Filter Cart

1. **Starting the Filter/Pump:**

- a. Install filter bag in housing. The new filter does not have a bag installed.
- b. Install the inlet and outlet hoses. Install optional wands if desired.
- c. Ensure the strainer drain valve is closed.
- d. Ensure the ½” air supply valve (found on the air filter/regulator) is in the off position.
- e. Install air supply to the ½” NPT air filter/regulator. A male quick disconnect fitting works well.
- f. The air filter/regulator is preset at 30 psi, a pressure found to work well with the bags.
- g. Place the inlet and outlet hoses/wands in the appropriate locations, insuring they are secure.
- h. Open the 1-1/2” inlet valve.
- i. To begin pump/filter operation, turn the ½” air supply valve to the open position.
- j. The filter will begin operation.

2. **Stopping the Filter/Pump:**

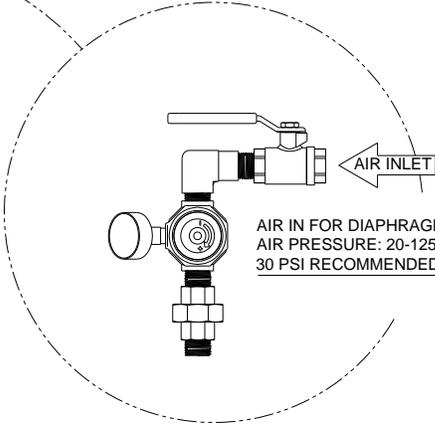
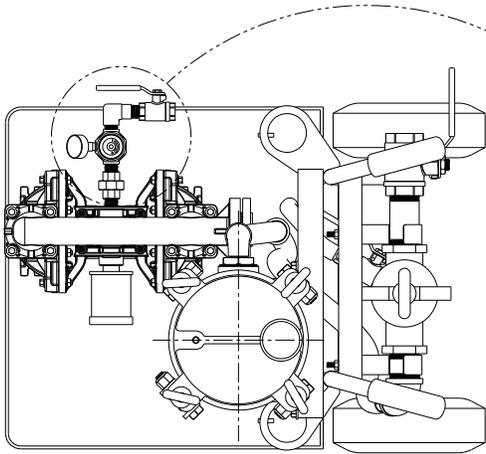
- a. Close the ½” air supply valve (found on the air filter/regulator).
- b. Remove air supply from the air filter/regulator
- c. Close the 1-1/2” inlet valve.

3. **System Operations and Notes:**

- a. The gauge on the lid shows the differential pressure (DP) measured across the filter bag. As debris builds on the inside of the bag, the gauge reading will rise. Do not restrict the outlet of the filter or damage can occur due to the positive displacement dual diaphragm pump.
- b. Maximum DP is 10 to 15 psi.
- c. When the filter bag is filling up, the gauge will rise, and the pump will begin to sound labored. Change the filter bag.
- d. If too much air pressure is applied to the air filter/regulator, you may burst a bar. The pump will go from the sound of it working (lower cycles per second) to an unrestricted sound (more cycles per second). This will happen quickly. If this happens, turn down the air pressure and change the bag.

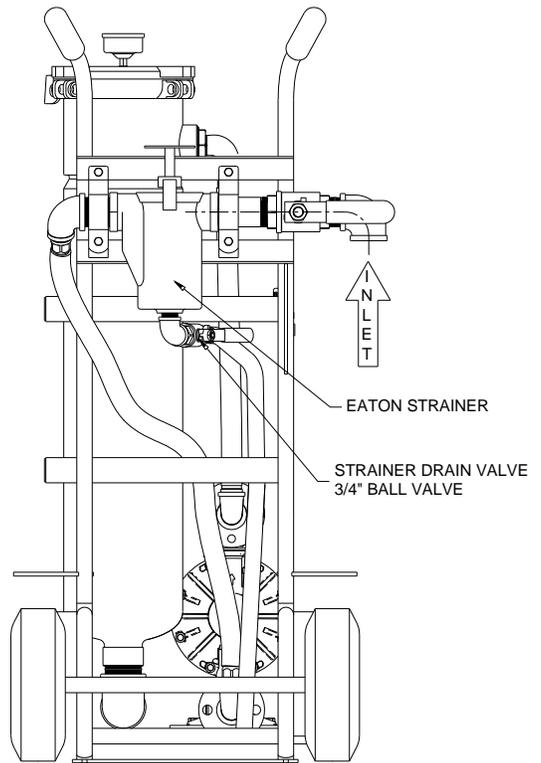
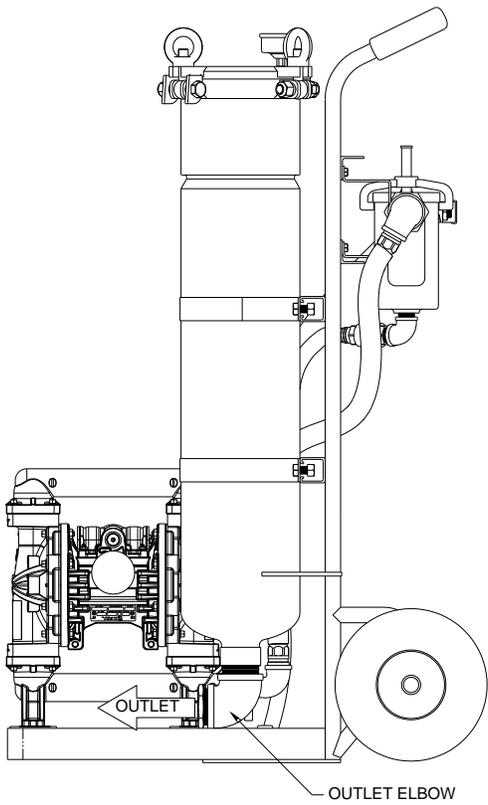
Pump Operations manual

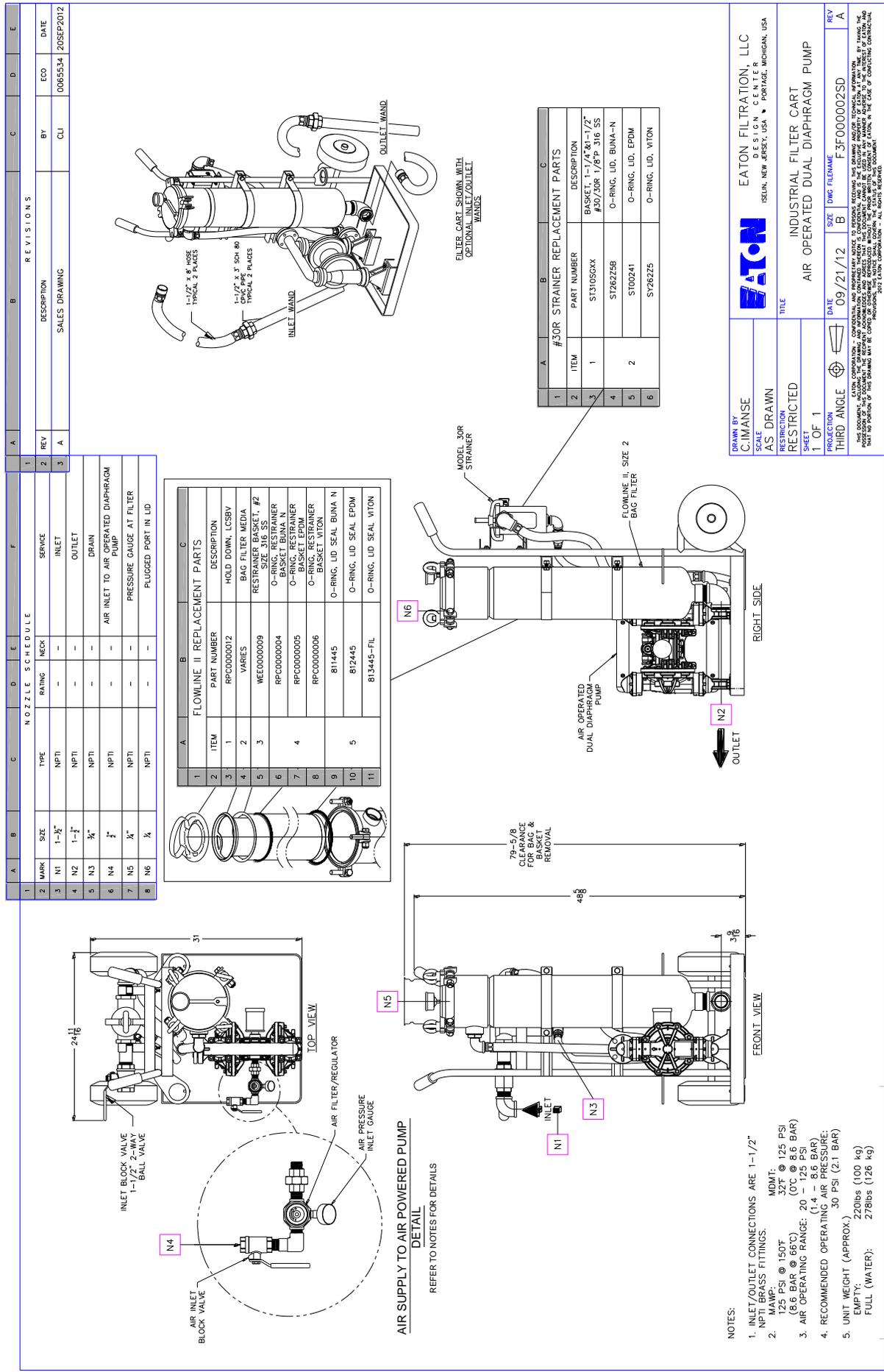
1. For further operations, performance and parts information concerning the pump refer to Graco® Husky® 1050 Air-Operated Diaphragm Pump 312877L.



AIR IN FOR DIAPHRAGM PUMP 1/2" NPT
 AIR PRESSURE: 20-125 PSI [1.4-8.6 BAR]
 30 PSI RECOMMENDED

AIR SUPPLY TO AIR POWERED
 PUMP DETAIL





NOZZLE SCHEDULE		REVISIONS	
MARK	SIZE	REV	DESCRIPTION
N1	1-1/2"	1	SALES DRAWING
N2	1-1/2"	2	
N3	3/4"	3	
N4	3/4"		
N5	3/4"		
N6	3/4"		

ITEM	TYPE	RATING	NECK	SERVICE
1	NPTI	-	-	INLET
2	NPTI	-	-	OUTLET
3	NPTI	-	-	DRAIN
4	NPTI	-	-	AIR INLET TO AIR OPERATED DIAPHRAGM PUMP
5	NPTI	-	-	PRESSURE GAUGE AT FILTER
6	NPTI	-	-	PLUGGED PORT IN LID

ITEM	PART NUMBER	DESCRIPTION
1	RPC0000012	HOLD DOWN, LCBSEV
2	VARIES	BAG FILTER MEDIA
3	ME0000009	RESTRAINER BASKET, #2 SIZE 316 SS
4	RPC0000004	O-RING, RESTRAINER BASKET BUNA N
5	RPC0000005	O-RING, RESTRAINER BASKET EPDM
6	RPC0000006	O-RING, RESTRAINER BASKET VITON
7	811445	O-RING, LID SEAL BUNA N
8	812445	O-RING, LID SEAL EPDM
9	813445-FIL	O-RING, LID SEAL VITON

ITEM	PART NUMBER	DESCRIPTION
1	ST10S0XX	BASKET, 1-1/4" x 1-1/2" #30/30R 1/8" P, 316 SS
2	ST26275B	O-RING, LID, BUNA-N
3	ST00241	O-RING, LID, EPDM
4	ST26275	O-RING, LID, VITON

EATON EATON FILTRATION, LLC
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DRAWN BY: C-IMANSE
 SCALE: AS DRAWN
 RESTRICTION: RESTRICTED
 SHEET: 1 OF 1
 PROJECTION: THIRD ANGLE
 DATE: 09/21/12
 SIZE: B
 DWG FILENAME: F3F000002SD
 REV: A

TITLE: INDUSTRIAL FILTER CART
 AIR OPERATED DUAL DIAPHRAGM PUMP

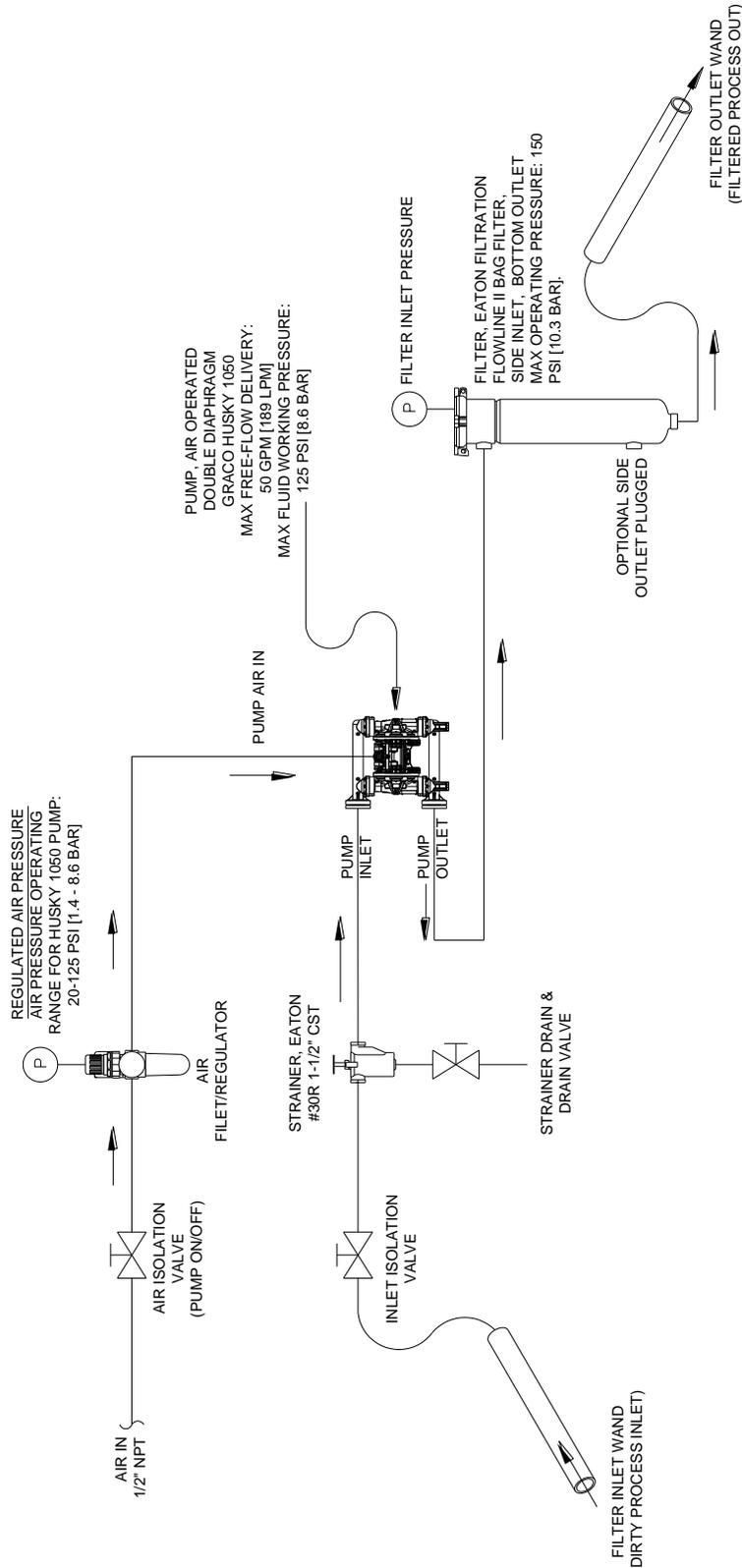
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AIR SUPPLY TO AIR POWERED PUMP

REFER TO NOTES FOR DETAILS

- NOTES:
- INLET/OUTLET CONNECTIONS ARE 1-1/2" NPTI BRASS FITTINGS.
 - MAMP: 125 PSI @ 150°F (5.6 BAR @ 66°C) 32F @ 125 PSI (8.6 BAR @ 66°C) (0°C @ 8.6 BAR)
 - AIR OPERATING RANGE: 20 - 125 PSI (1.4 - 8.6 BAR)
 - RECOMMENDED OPERATING AIR PRESSURE: (APPROX.) 30 PSI (2.1 BAR)
 - UNIT WEIGHT (APPROX.): 220lbs (100 kg) FULL (WATER): 278lbs (126 kg)

A	B	C	D	E
1	REVISIONS			
2	REV	DESCRIPTION	BY	DATE
3	A	RELEASED	CLI	9 JULY 2012



NOTES:
 1. DIMENSIONS ARE IN INCHES.

 EATON FILTRATION, LLC DESIGN CENTER ISELIN, NEW JERSEY, USA • PORTAGE, MICHIGAN, USA	
INDUSTRIAL CART P & ID EDEN PRAIRIE FILTER CART	
DRAWN BY C. IMANSE	DATE 07/09/12
SCALE AS DRAWN	SIZE A
RESTRICTION RESTRICTED	DWG FILENAME CART P AND I DRAWING
SHEET 1 OF 1	REV A
PROJECTION THIRD ANGLE	TITLE INDUSTRIAL CART P & ID EDEN PRAIRIE FILTER CART

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SPECIFICATIONS

MATERIAL: Carbon Steel, 304 Stainless steel or 316 Stainless Steel. **The material selection for this vessel is based on the information provided when the unit was ordered. It is the customer's responsibility to ensure material compatibility with process conditions and chemistry.**

CONNECTIONS:

Inlet / Outlet: 2" NPTI , 2" or 3" 150# ANSI Flanged, DIN50 or DIN80 PN16 Flanged
 Drain: 2" NPTI (On In-Line and Loop configured units)
 Vent and Gauge Ports: 1/4" NPTI.

ELASTOMERS: Buna N, EPDM or Viton®.

DESIGN PRESSURE: Maximum working pressure: 125 PSI (8.6 bar), **Maximum filter media differential pressure:** 30 PSID (2.1 bar).

DESIGN TEMPERATURE: 250° F (121° C).

FILTER VOLUME:

Size #2 filter housing: .9 ft³ (0.025 m³) or 6.6 gal. (25.0 liters)

INSTALLATION INSTRUCTIONS

Upon receipt of the vessel(s), carefully inspect the unit(s) for damage that may have been caused during shipment. Report all claims of damage to the carrier immediately. Remove the unit from the carton or skid and properly dispose of the shipping materials.

1. Install the filter as close to the final process as possible.
2. Secure the filter unit frame legs to a foundation.
3. Attach the customer supplied inlet and outlet connection piping. Insure that this piping is adequately supported. The filter is not intended to be used as a pipe support.
4. Note – Isolation block valves (supplied by others) are required on all process connections to allow the unit to be isolated from the process liquid during bag change-outs. Pressure gauges (optional equipment) are also recommended before and after the filter to monitor differential pressure across the filter.

INSTALLATION CHECKLIST

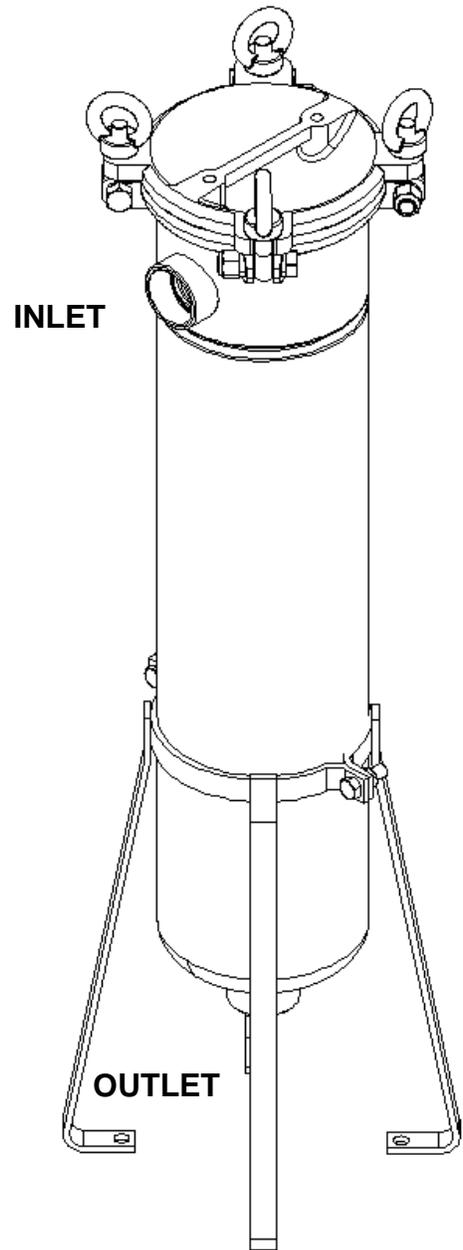
Complete this checklist before operating the system:

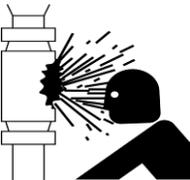
- Insure that all connections are secure and free of leaks.
- If the unit is installed in a new piping run, the filter vessel should be inspected after system flush to insure that any dirt and debris is removed prior to system start-up.
- Insure that the cover and restrainer basket o-rings are properly installed
- Insure that a new, clean bag is properly installed prior to system start-up (see section on Bag Change-out).

MAINTENANCE

As with all equipment, some maintenance is required to ensure a long and productive vessel life.

- 1) The cover and restrainer basket o-rings require routine inspection. Remove the o-rings and wipe away any residual process fluid and clean the o-ring seating surfaces of any solids that may have built up. Inspect each o-ring visually for abrasion, cracks or other deterioration that may prevent proper sealing. Replace as necessary. Bending the o-ring by hand will make the wear indicators more visible.
- 2) Reinstall both o-rings.
- 3) Inspect the bag hold down after cleaning away any solids or debris and replace if there are any breaks or tears.
- 4) **DO NOT** re-pressurize the vessel until the lid closure bolting is tightened to a recommended torque of 30 to 50 ft.-lbs. (3.8 to 5.6 N-m).
- 5) When gauges are installed, insure that calibration is current and up to date to prevent inaccurate readings that may lead to equipment and process damage.



 <h2 style="margin: 0;">WARNING</h2> <p style="margin: 0;">Pressure vessel.</p>	
	<p>Maximum working pressure is: 125 PSI (8.6 bar)</p>
	<p>Maximum filter media differential pressure is: 10 - 15 PSI (0.69 – 1.03 bar)</p>
<p>This unit is a pressure vessel. Extreme care must be taken when inspecting or</p>	

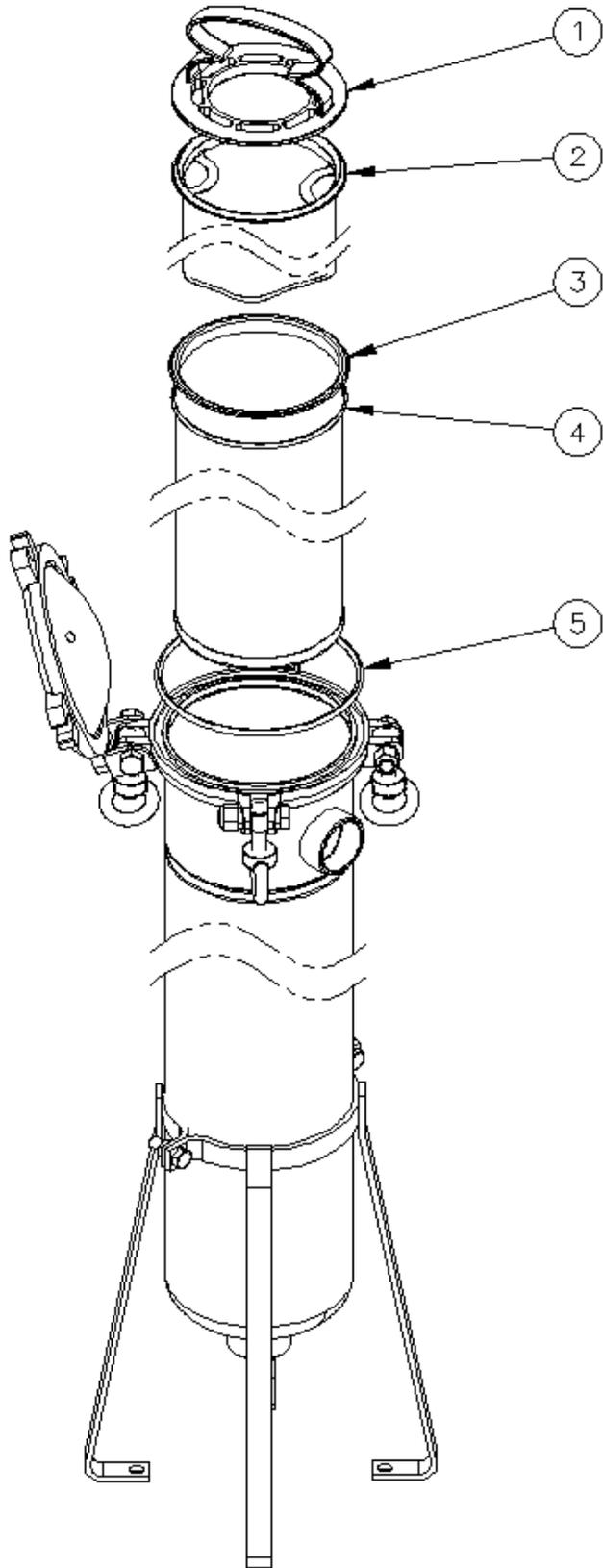


Figure 2

BAG CHANGE-OUT

- 1) Close isolation valves and open the unit drain and/or vent to relieve any residual pressure in the vessel.
- 2) Open the cover and remove the bag hold down. Remove the Bag Positioner or Displacement Balloon if either was used. Grasp the bag by the media handles and remove from the basket.
- 3) Discard the dirty bag in a safe and environmentally friendly manner.
- 4) Prepare a new, clean bag for installation by removing any ID tags and pre-wetting the media if required. Enter the ID tag information in your maintenance records. Slightly fold the bag lengthwise and insert into the restrainer basket. Use a Bag Positioner to properly seat the bag in the basket. Install the Displacement Balloon if one is used.
- 5) Install the bag hold down.
- 6) Close the cover and tighten the bolts to the recommended torque of 30 to 50 ft.-lbs.
- 7) Slowly open the upstream valve before slowly opening the downstream valve to prevent backflow.
- 8) Open the vent valve (customer supplied) to bleed air from the vessel. Apply system pressure slowly.

TABLE 1 – REPLACEMENT PARTS		
Ref	Part Number	Description
1	RPC0000012	HOLD DOWN, LCSVB
2	VARIABLES	BAG FILTER MEDIA
3	WEE0000009	RESTRAINER BASKET, #2 SIZE 316 SS
	WEE0000010	RESTRAINER BASKET, #1 SIZE 316 SS
4	RPC0000004	O-RING, RESTRAINER BASKET BUNA N
	RPC0000005	O-RING, RESTRAINER BASKET EPDM
	RPC0000006	O-RING, RESTRAINER BASKET VITON
5	811445	O-RING, LID SEAL BUNA N
	812445	O-RING, LID SEAL EPDM
	813445-FIL	O-RING, LID SEAL VITON

WARRANTY

All products manufactured by Seller are warranted against defects in material and workmanship under normal use and service for which such products were designed for a period of eighteen (18) months after shipment from our factory or twelve (12) months after start-up, whichever comes first. OUR SOLE OBLIGATION UNDER THIS WARRANTY IS TO REPAIR OR REPLACE, AT OUR OPTION, ANY PRODUCT OR ANY PART OR PARTS THEREOF FOUND TO BE DEFECTIVE. SELLER MAKES NO OTHER REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WE SHALL NOT BE LIABLE FOR CARTAGE, LABOR, CONSEQUENTIAL DAMAGES OR CONTINGENT LIABILITIES. OUR MAXIMUM LIABILITY SHALL NOT IN ANY EVENT EXCEED THE CONTRACT PRICE FOR THE PRODUCT.

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Eaton Filtration, LLC reserves the right to change specifications, dimensions and model



Operating Instructions

Model 30R Simplex

Read all instructions before installation or operation of equipment. Failure to comply with these instructions could result in bodily injury and/or property damage.

Installation

Each strainer is shipped completely assembled and ready for installation. Note that the “Inlet ” must be correctly oriented during service. Although all Eaton Strainers are 100% hydrostatically tested at the factory,

it is recommended that you inspect all strainer closures prior to putting the strainer into service. Check that all hardware is secure and that the gaskets and/or o-rings seal properly.

Operation

Be sure the cover and drain are tightly closed. Open the valve on the outlet side of the strainer. Slowly open the valve on the inlet side of the strainer (to prevent damage from water hammer). The strainer is now in service.

Basket Cleaning

Close the valve on the inlet and outlet side of the strainer and open the drain. To remove the basket from the strainer, loosen the cover clamp T-bolt and remove the cover from the top of the strainer. The basket handle will protrude slightly out of the strainer well. (This unique design offers both a means of removing the basket easily and also allows the basket to be firmly seated around the machined seating surface when closed.) Remove the basket from the well by pulling straight up on the basket handle.

Clean the basket by using a brush or by soaking in a solvent or cleaning solution. Avoid striking baskets to loosen their contents. This will dent them out of shape and eventually break the welds. Baskets should be cleaned as soon as possible after removal from the strainer. Otherwise, the contents may harden and become difficult to remove. It is recommended that one spare basket be kept on hand at all times. When changing baskets for cleaning, we suggest that the spare or cleaned basket be installed in the strainer so your start up is not delayed cleaning the used basket.

Install the basket in the strainer. Be sure the cover O-ring is on the cover. The basket should be properly centered in the well and firmly seated. Replace the cover. The cover should be centered before the T-bolt is tightened. Tighten only until a seal is made between the cover and the strainer body. The O-ring should be periodically inspected for nicks and tears. A spare O-ring should also be kept on hand. Check the O-ring seating surface, it should be kept free of dirt and grit. The strainer is now ready to be put back in operation. Follow the steps listed above under “Operation”

Recommended Spare Parts

1 Eaton Replacement Screen and 1 Eaton Replacement Gasket or O-Ring.

Always use genuine Eaton replacement parts for guaranteed fit and performance. When ordering parts specify all nameplate data as well as the description and quantity of the parts.

Visit our web site www.eaton.com/filtration for more information about Eaton Strainers.