

# SAMPSON

## BAG FILTER HOUSING **User Manual**



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## Notice

The information contained within this manual is vital to the proper operation for the **Sampson™ Bag Filter Housing**. It is strongly urged that all operators read the manual carefully and become thoroughly familiar with its contents.

This manual uses IMPORTANT, CAUTION, and, NOTE information where appropriate to draw attention to pertinent facts relating to safety hazards that could personal or equipment damage. End users are expected to comply with all notices, to operate the **Sampson™ Bag Filter Housing** in a safe manner, and to periodically check the system during operation.

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### Filter Bags Available In:

- Polypropylene
- Nylon
- Polyester
- 0.5 - 2000 micron sizes



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## BAG FILTER HOUSING USER MANUAL

### Introduction

Sampson™ Bag Filter Housing Sampson™ uPVC bag filter vessels are non coded economical designed that features the integrity of a swing bolt for fast and easy access to the bag filter. Sampson Bag Filter vessels are the new generation of filter bag housings made out of uPVC. Their unique body design material makes them ideal for corrosive environments and processes. They are characterized with a high precision, high flow capacity as well as being easily installed and serviced.

Their light weight design also makes them ideal for portable filtration system as they only weight a fraction of what their carbon steel or stainless steel counterparts do.

They also possess the great advantage of being shipped unassembled, reducing shipping cost, and are assembled in only 4 easy steps in less than 10 minutes.

All models come with a flange adaptor to quickly change from a 2.5" FNPT connector to a 2" flange.

Industries where it can be used are:

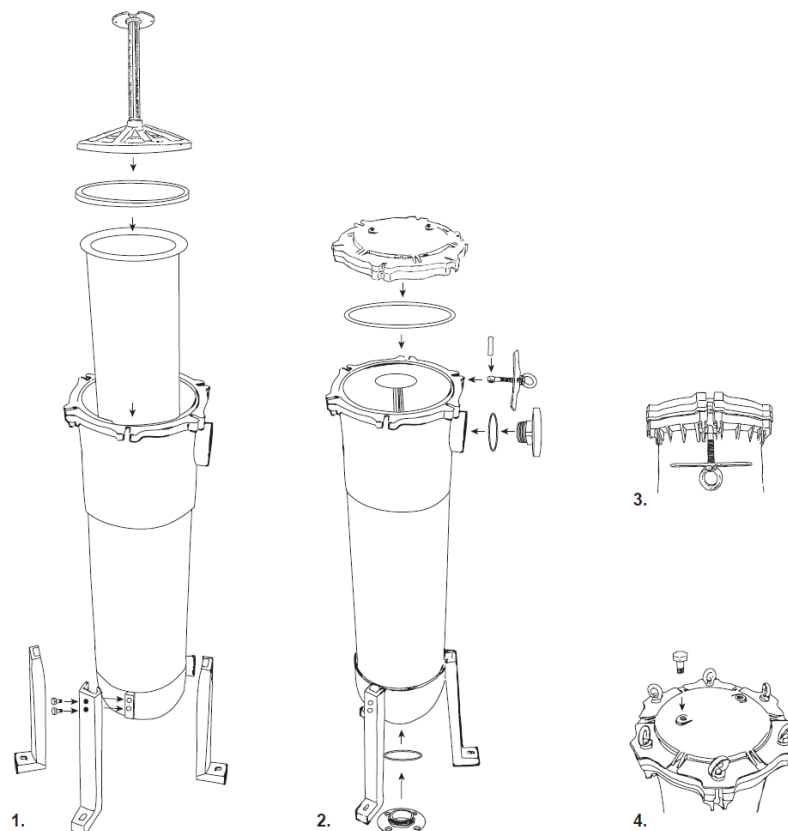
- Food,
- Cosmetic,
- Chemical,
- Medical,
- Textile,
- Dewatering,
- Wastewater, etc...

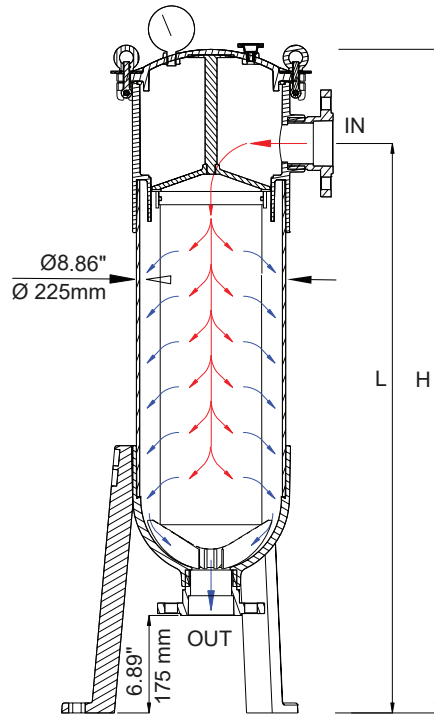
### System Specifications

ERS-90-SE-PL		ERS-180-SE-PL	
Maximum pressure	100 PSI	Maximum pressure	100 PSI
Maximum temperature	45°C	Maximum temperature	45°C
Maximum flowrate	90 GPM	Maximum flowrate	180 GPM
All body parts made of	uPVC	All body parts made of	uPVC
Filter bags size	#1 (7"Ø x 17"L)	Filter bags size	#1 (7"Ø x 32"L)
Weight	27 lbs	Weight	37 lbs
Dimensions*	30" x 13" x 12"	Dimensions*	43" x 13" x 12"

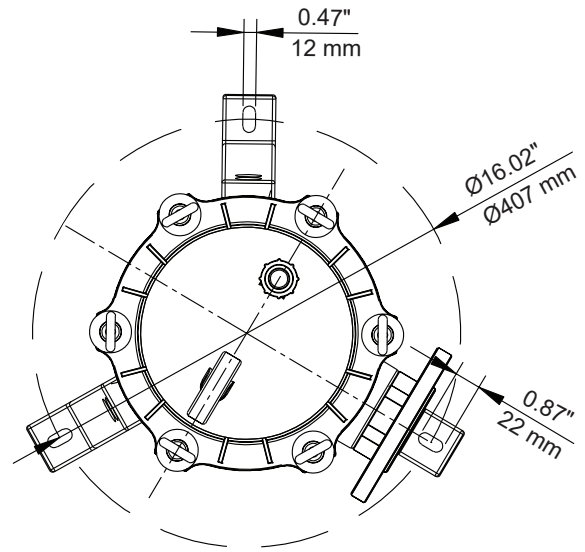
\*in box, before assembly

### Housing Assembly





Water Flow Diagram



Mechanical drawing

### Safety Checklist

- ✓ This manual should be examined before using the Sampson™ Bag Filter Housing.
- ✓ Do not pump anything into the unit for which it has not been designed for.
- ✓ Use known and accepted chemical resistance material to prevent bag and housing damages.
- ✓ Always wear safety glasses with side shields. Use additional or other eye/face protection if required for the substances being processed.
- ✓ Check work platforms to be sure that they are sturdy and will not be slippery when wet.
- ✓ Do not move the unit when it is full.
- ✓ Saturated bags should be properly disposed off.
- ✓ Make sure that cover is properly secured and that vents have been plugged with a plug cap, pressure gauge, automatic vent or sampling port with valve



**DO NOT EXCEED MAXIMUM PRESSURE RATING OF 100 PSI**

### Principles of Operation

The **Sampson™ Bag Filter Housing** system is intended to be used for filtration of contaminated stream, such as industrial process, wastewater, holding tank rain runoff water basin and contaminated groundwater.



## System Start Up & Commissioning

**Sampson™ Bag Filter Housing** systems are designed for easy installation. Final installation requires appropriate size piping or flexible hose for connection of the **Sampson™ Bag Filter Housing** to the process outlet. The following steps are recommended prior to start up.

- Position the **Sampson™ Bag Filter Housing** on a level area close to the source. The area should be flat, accessible, and must be able to support the weight of the housing when filled and saturated.
- Check and make sure all safety labels are visible.
- Check and make sure that the Sampson sediment filter housing has a filter bag.
- Inspect and clean the gasket before placing it on the flanged area, replace if worn or damaged.
- After placing the lid, start tightening the bolt and nut in a star like format. Bolts should be tightening from loose to tighter in the same “star” formation until firm to reassure that the whole lid is seated and tightened properly. (See “**Changing the Sampson™ Bag Filter**”)
- Make sure that the drain and sample valves are closed.
- Make sure that the effluent (water outlet) valve is open and properly piped out.
- Make sure that there is no pressure build up in the housing; you can bleed the air from the sample port if there is no automatic vent.
- **Please contact ERE’s technical department for any questions.**



### Caution:

**Do not operate system if installed out in the open environment at a temperature of below zero degrees Celsius. The system must be fully drained and media to be removed prior to winterizing the system.**

DO NOT USE WITH TOXIC LIQUIDS REQUIRING ASME APPROVED VESSELS AND OR IS NOT COMPATIBLE WITH THE VESSELS CONSTRUCTION MATERIAL.

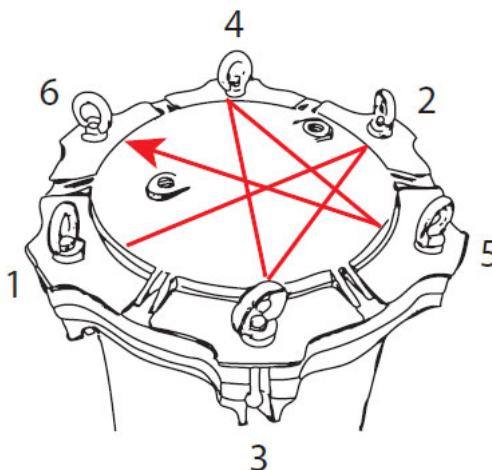
CONTENTS UNDER PRESSURE-RELEASE PRESSURE IN ACCORDANCE WITH INSTRUCTIONS PRIOR TO OPENING.



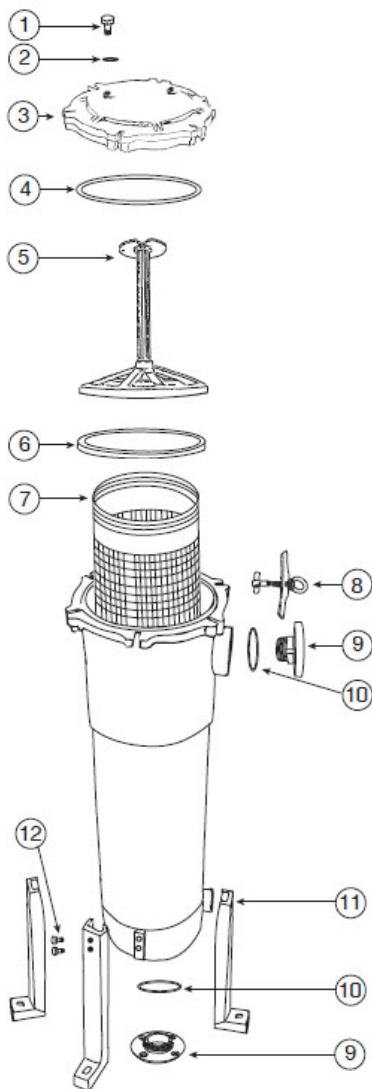
**DO NOT EXCEED MAXIMUM PRESSURE RATING OF 100 PSI**

## Changing the Sampson™ Bag Filter

- First, make sure that the process is stopped from. Safety glasses and gloves are recommended at this point.
- **Make sure that there is no pressure build up in the housing; you can bleed the air from the sample port. ERE can provide various venting and or sampling ports if requested.**
- Next, drain the filter housing by a valve which is situated under the Sampson™ Filter. Water drained from the filter housing may be contaminated and may need proper storage and disposal.
- At this time, unscrew the 6 lid fasteners located on top of the filter housing. Once removed, you can now take out the filter bag and replace it with a new one. Then, replace the lid and tighten the lid fasteners in a “star” formation once again.



### Replacement Parts and Accessories



Replacement Parts		
Ref. #	Part Number	Description
1	ERS-PL-001	Vent Plug
2	ERS-PL-002V	Vent Plug O-Ring (Viton)
	ERS-PL-002B	Vent Plug O-Ring (Buna)
3	ERS-PL-003	Cover
4	ERS-PL-004E	Cover O-Ring (EPDM)
	ERS-PL-004V	Cover O-Ring (Viton)
	ERS-PL-004S	Cover O-Ring (Silicon)
	ERS-PL-004B	Cover O-Ring (Buna)
5	ERS-PL-005	Bag Holding "Spring"
6	ERS-PL-006	Plastic & Silicon ring
7	ERS-PL-007	Inside Strainer
8	ERS-PL-008	Clamp Assembly
9	ERS-PL-009	Flange adaptor
10	ERS-PL-010V	Flange O-Ring (Viton)
	ERS-PL-010B	Flange O-Ring (Buna)
11	ERS-PL-011	Leg
12	ERS-PL-012	Screw

Accessories	
Part Number	Description
WA-FV-4M1-1/4	Automatic Air Vent 1/4"
OBS-GO-0-60PP	Pressure Gauge 0-60 PSI
ER-SAMPLEPORT	Sampling Port Assembly *Pressure Gauge required

### Limited Warranty

Environmental Remediation Equipment Inc. warrants that equipment shall be free from defects in material and workmanship for a period of **90 days** from the time equipment is put into service. In any event, the warranty period will not exceed **6 months** from the date of shipment.

ERE's liability shall be limited to replacement of components or equipment (at the manufacturer's discretion) that have been determined by the manufacturer to be faulty. No claims in excess of component replacement value will be recognized. ERE will not be held liable for damages or lost business relating to a warranty claim. Specifically excluded from this warranty are claims deemed by the manufacturer to have resulted from normal wear and tear, improper use, or abuse of the equipment.

### Warning

DO NOT USE WITH TOXIC LIQUIDS REQUIRING ASME APPROVED VESSELS AND OR IS NOT COMPATIBLE WITH THE VESSELS CONSTRUCTION MATERIAL.

CONTENTS UNDER PRESSURE - RELEASE PRESSURE IN ACCORDANCE WITH INSTRUCTIONS PRIOR TO OPENING.

### DO NOT EXCEED MAXIMUM PRESSURE RATING OF 100 PSI