



SERIES 'S' PLASTIC FILTER CHAMBERS

OPERATION AND
SERVICE GUIDE
O-886B
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Refer to Bulletin C-106 and
Parts List P-4400.

! SAFETY PRECAUTIONS BEFORE USING CHAMBER

1. Read operating instructions and instructions supplied with chemicals to be used.
2. Refer to a chemical resistance data chart for compatibility of all materials with solution to be used.
3. Note pressure limitations.
4. Operating personnel should always wear suitable protective clothing: face mask or goggles, apron and gloves.
5. All piping must be supported and aligned independently of chamber.
6. Always close valves slowly to avoid hydraulic shock.
7. Ensure that all fittings and connections and cover are tightened.

BEFORE CHANGING APPLICATION OR PERFORMING MAINTENANCE

1. Wear protective clothing as described in item 4 above.
2. Flush chamber thoroughly with a neutralizing solution to prevent possible harm to personnel.
3. Verify compatibility of materials as stated in item 2 of Safety Precautions above.

! CAUTION

Series 'S' Chambers are available in a variety of materials for cover, shell base assembly and gasket elastomers. Refer to unit Model No. and bulletin to identify materials of construction for your model. Verify solution compatibility of all components with solution, maximum operating temperature and pressure. These units incorporate a gasket seal at cover and vent. Verify solution compatibility with gasket material. **DO NOT OVER-TIGHTEN COVER.** Cover should be sealed securely, but not overtight to cause stress or failure of cover. If leakage occurs, open the unit and clean and inspect gasket. A suitable lubricant (such as petroleum jelly) applied to the gasket will facilitate the seal. Replace if stretched or otherwise damaged.

INSTALLATION

Carefully note IN, OUT and DRAIN connections. Install in the proper direction of flow. Unit is shipped completely assembled and ready for installation. Filter cartridges are not included. Cartridges must be ordered separately. Have replacement quantity in stock.

1. Filter chamber is free standing and stable when inlet and outlet piping is completed.
2. Inlet and discharge piping should be 1" or 1 1/4". Smaller pipe size for low flow rates is acceptable when consideration for system pressure loss is included. Effluent drain is 1/2".
3. Install valve on inlet and outlet of chamber to facilitate cartridge replacement.
4. Inlet and drain may be switched for convenience of piping.

OPERATION

Open inlet valve slowly, checking for gasket leak. See CAUTION if leakage occurs. Loosen vent to bleed entrapped air. Tighten when liquid without bubbles appears. As the filter cartridge removes the contaminants, the pressure drop across the unit will slowly rise. This can be noted by pressure gauge mounted on chamber cover. In normal operation, it is desirable to change cartridges when a rise of 15 to 20 PSI above initial pressure has been reached. In no case should 45 PSI differential be exceeded. Rise in pressure will be reflected by a drop in flow if a centrifugal pump is being used. When flow drops below an acceptable point, filter cartridges should be changed.

Chamber will accept 10", 20", 30" or 40" wound depth cartridges or combination of these lengths to achieve the equivalent cartridge height required for these chambers. Wound, pleated, membrane and carbon cartridges may be installed. Standard model chamber accepts DOE (double open end) cartridges. Chambers with optional 222 "O" ring cartridges (SOE) are available. SOE (single open end) cartridges must be full unit length, i.e. they cannot be stacked to attain the desired height.

TO REPLACE DOE FILTER CARTRIDGES

1. Stop pump. Close inlet and outlet valves, open drain and vent. Loosen tee handles at cover and lift cover off shell.
2. Remove top spring seat assemblies.
3. Grasp the end of the cartridge and lift straight up to remove from chamber. Set aside for cleaning or disposal. For chambers using less than full length cartridges, the cross post or center guide can be lifted after removing the top cartridge.
4. Insert new cartridges. Replace top seat and spring assembly. Be sure cartridges are flushed properly if made of synthetic fibers.
5. Replace cover on shell and pull cover down by tightening two diametrically opposite swing bolts. Be sure shell is properly positioned under cover gasket. Tighten remaining swing bolts, keeping the cover even.
6. Close drain, open outlet and inlet valves. As the solution rises in the chamber, air will escape at the vent. Close vent plug when solution appears without bubbles.

MAXIMUM CARTRIDGE DIAMETER

2.6". (2.7" on models with -2 option)

TO REPLACE SOE FILTER CARTRIDGES

1. Stop pump. Close inlet and outlet valves, open drain and vent. Loosen tee handles at cover and lift cover off shell.
2. Grasp end of cartridge with hand or tool, and lift straight up. Set aside for disposal.

3. Insert new cartridge, firmly pressing down so 222 'O'-rings are seated.
 4. Replace cover on shell and pull cover down by tightening two diametrically opposite swing bolts.
- Be sure shell is properly positioned under cover gasket. Tighten remaining swing bolts, keeping the cover even.

SLEEVE FILTRATION (Bulletin M-108)

All models are available with reusable sleeve filter assemblies for use as a precoat filter only. Refer to Parts List P-4400 for correct numbers to convert from cartridge to sleeve filter. When using as a precoat sleeve filter, the solution clarification will be in the sub-micron to 5 micron range. Each 10" of sleeve length is .6 sq. ft. of precoat area. Polypropylene sleeves may be laundered and reused or a second set of sleeves may be purchased to permit alternate usage. Flow will gradually diminish as dirt is removed from the tank. Flow rate may be prolonged by periodically adding

small amounts of filter aid. When flow rate has reduced to the point where it is no longer practical to continue filtration, the filter must be backwashed or removed and cleaned. The pressure gauge is valuable in determining when backwashing is required. An approximate 10 to 15 PSI drop from the initial point is a workable guideline.

Each 'S' chamber holds 3 sleeves. Sleeve length depends upon the chamber's height.

SLEEVE LENGTH	10"	20"	30"	40"	50"
OZ. OF FILTER AID	5	10	15	20	25



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