



# SERIES 'S-640' PLASTIC FILTER CHAMBERS

OPERATION AND  
SERVICE GUIDE  
O-889A  
MAY 1998

Refer to Bulletin C-110 and  
Parts List P-9500.

## **! 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**

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

## **CHAMBER 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 may not be included, therefore verify before use. Record filter cartridge number and 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. Influent drain is 1". Effluent drain is 1/2".
3. Install valve on inlet and outlet of chamber to facilitate cartridge replacement.
4. Inlet and influent drain may be switched for convenience

of piping.

5. Install filter cartridges before allowing solution to enter chamber.

## **CARTRIDGE INSTALLATION**

Type "PL" pleated paper cartridge, 2-micron, 4" diameter x 36" long. Bulletin M-206.

2 depth type Maxi-Wind cartridges, 1, 5, 10, 20, 50 micron, 4" diameter x 18" long. Bulletin M-109.

1. Loosen tee handles, remove cover assembly and unscrew cap (8) from dispersion tube.
2. The chamber will accept one PL pleated paper cartridge or two depth type Maxi-Wind cartridges. For cartridge specifications refer to bulletin.
3. Install cartridges over center dispersion tube and secure in position by tightening cap assembly.
4. Replace cover on shell and position swing bolts. Be sure shell is properly positioned under cover gasket. Tighten swing bolts, keeping the cover even.

## **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.

## **TO REPLACE 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. Unscrew top cap and remove.
3. Grasp the end of the cartridge and lift straight up to remove from chamber. Set aside for cleaning or disposal. For chambers using two Maxi-Wind cartridges, the second cartridge must also be removed.
4. Insert new cartridges. Replace and tighten top cap. Be sure cartridges are flushed properly if made of synthetic fibers.
5. Replace cover on shell and position swing bolts. Be sure shell is properly positioned under cover gasket. Tighten swing bolts, keeping the cover even.
6. Close drain, open outlet valve and inlet valve. As the solution rises in the chamber, air will escape at the vent. Close vent plug when solution appears without bubbles. Note, air can be forced from chamber by temporarily throttling outlet valve.



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