



SERIES 'SS' (304) CARTRIDGE FILTER CHAMBERS

OPERATION AND
SERVICE GUIDE
O-2225A
JAN. 1998

Refer to Bulletin C-206.

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 materials of construction 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 pump 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

Verify solution compatibility of all components, maximum operating temperature and pressure. These units incorporate a gasket seal at cover. Verify solution compatibility with gasket material. Cover should be sealed securely, not overtight to cause stress or failure of cover. If leakage occurs, open the unit and clean and inspect the gasket. A suitable lubricant (such as Vaseline) 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. 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 same as in/outlet port line size. Smaller pipe size for low flow rates is acceptable when consideration for system pressure loss is included.
3. Install valve on inlet and outlet of chamber to facilitate cartridge replacement.

TYPICAL INSTALLATIONS

See Figure 1

1. Install 1½" "T" on center nipple.
2. Pipe water from discharge of pump to one side of this "T".

3. Install a 1½" x approximately 10" nipple from other side of this "T" with 1½" valve at end of nipple. This is for draining filter unit.
4. Install 1½" elbow on other nipple as illustrated. This is the outlet line.

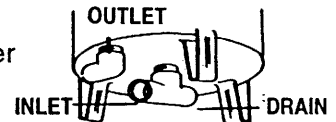


Figure 1: Models SS7, 14, 24

See Figure 2

1. Install thread to socket "T" on side nipple. Pipe water from discharge of pump to one side of this "T".
2. Install nipple and valve in other side of this "T". This is the drain for emptying filter housing.
3. Install thread to socket elbow on center outlet. This is the outlet line.

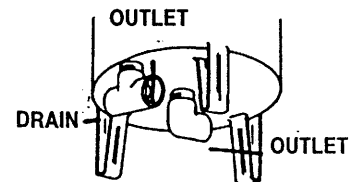


Figure 2: Models SS45, 75

To protect against electrolysis, all housings should be grounded using a wire to the hole in one of the legs.

OPERATION

Open inlet valve to filter slowly, checking for gasket leak. See CAUTION if leakage occurs. As the filter cartridges remove the contaminants, the pressure drop across the unit will slowly rise. This can be noted by pressure gauge mounted on inlet piping. In normal operation, it is desirable to change cartridges when a rise of 15 to 20 pounds above initial pressure has been reached. In no case should 45 PSI 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 9¾", 10", 19½" or 29¼" cartridges or combination of these lengths to achieve the equivalent cartridge height required for these chambers. Wound depth, pleated, membrane and carbon cartridges may be installed. Standard model chamber accepts DOE (double open end) cartridges.

DEPTH FILTER CARTRIDGES

Standard depth type filter cartridges wound from synthetic fibers (polypropylene, mod-acrylic, rayon, etc.) may require an application of an anti-static agent (organic) for cartridge winding during manufacture. This agent may be removed by flushing the cartridge in warm water or a dilute acid compatible with the filtration process. Recirculation through a slurry tank is a convenient and recommended method. Two or more changes of "rinse" solution may be required. The more critical the filtration

requirement, the greater the care necessary to flush and rinse. The presence of tiny bubbles or foam in the rinse solution is the result of the anti-static agent. Directing flow of rinse solution or plating solution through a chamber containing granular activated carbon will also remove the agent.

TO REMOVE AND REPLACE CARTRIDGE CLUSTER AND CARTRIDGES

1. Open unit by unscrewing nuts and removing lid.
2. Lift out cartridge cluster.
3. Clean cartridges as described on page 1 or replace them as follows. Unscrew pipe caps from bottoms of cartridge holding rods. Slide used cartridges off holding rods and slide on new cartridges. Screw on pipe caps by hand to properly seal cartridges.
4. Make sure that all dirt particles are removed from the rim gasket and the "O"-ring at top of standpipe.
5. Replace cartridge cluster in filter housing, making sure that rim gasket and "O"-rings are in proper position.
6. Replace lid.
7. Grease studs.
8. Tighten nuts systematically. First tighten opposite nuts lightly, then repeat tightening operation several times around top of unit until all are tight (12 ft. -lbs.).

TO REMOVE AND REPLACE CARTRIDGE LIFTERS

Models: SS-42, SS-75

1. Drain filter housing.
2. Remove nuts.
3. Lift lid from unit.
4. Lift SS top disc from inside unit.
5. Remove top rubber seal from unit.
6. Lift cartridge lifter with cartridges from unit.
7. Clean cartridges per instructions below.
8. Replace cartridge lifters (with cartridges) in unit.
9. Replace top rubber seal.
10. Replace SS top disc.
11. Replace lid.
12. Replace and systematically tighten nuts. Tighten opposite nuts until all are tight (12 ft. - lbs.).
13. Close drain valve.
14. Put filter unit back into service.

To remove and replace cartridges simply slide cartridges over lifter.

CARTRIDGE CLEANING INSTRUCTIONS

The depth cartridge should be discarded after use. However under some circumstances they may be washed off, back-flushed and reused for limited service. Cleaning for reuse will depend on liquid being filtered and dirt being removed. When cartridges are rinsed and reused, care should be taken to insert a rubber spacer between each two adjacent cartridges to assure a pressure tight seal.

(All Models)

NOTE: Remove rim gasket from cartridge cluster to prevent damaging rim gasket during cleaning.

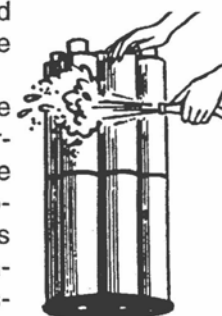
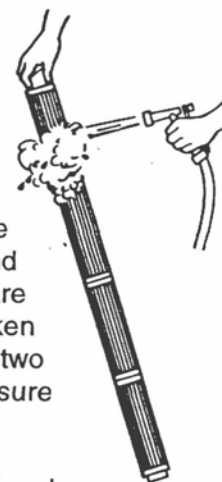
AQUEOUS APPLICATIONS

Cartridge cleaning is necessary only when flow falls below that required or when pressure exceeds 10-12 PSID for pleated filters or 25-30 PSID for depth filters.

In most cases you can clean pleated cartridges by using a pressure nozzle on the end of a standard hose, and directing spray at cartridges at an angle to remove dirt (see illustration). If particulate deposits are high, they may be removed by soaking cartridge in a solution of 1 part muriatic acid to 20 parts water. Soak for approximately 10 minutes. To remove algae and clay deposits, make a strong solution of trisodium phosphate and water, soak cartridges as long as necessary to remove remaining deposits. **Flush cartridges with water after muriatic or tri-sodium phosphate baths.**

NON-AQUEOUS APPLICATIONS:

Petroleum-base products, cutting and quenching oils. Cartridges cannot be recleaned and must be replaced when pressure drop across the filter exceeds above values.



SERFILCO[®], LTD.

1777 Shermer Road 847-559-1777
Northbrook, IL 60062-5360 U.S.A. (800) 323-5431
Email: sales@serfilco.com FAX: (847) 559-2905
Web: <http://www.serfilco.com>

WESTERN

13721 Alma Avenue 310-532-0801
Gardena, CA 90249-2513 FAX: 310-532-0866