

# SERIES 'Y' **RUBBER LINED STEEL FILTER CHAMBERS**

**OPERATION AND** SERVICE GUIDE O-865A FEB. 1997

### **SAFETY PRECAUTIONS BEFORE STARTING**

- Read operating instructions and instructions supplied with chemicals to be used.
- 2. Refer to Chemical Resistance Data Chart for compatibility of materials in filter with solution to be used.
- Note pressure/temperature limitations.
- Personnel operating filter should always wear suitable protective clothing: face mask or goggles, apron and gloves.
- 5. All piping must be supported and aligned independently
- Always close valves slowly to avoid hydraulic shock (water-hammer).
- 7. Ensure that all fittings and connections are properly tight-

## **BEFORE CHANGING APPLICATION** OR PERFORMING MAINTENANCE

- 1. Wear protective clothing as described in Item 4 above.
- 2. Flush filter housing thoroughly with a neutralizing solution to prevent possible harm to personnel.
- 3. Verify compatibility of materials as stated in Item 2 above.
- Shut off power to motor at disconnect switch.

#### **INSTALLATION**

- Filter is supported by three legs which may be bolted to deck plate or floor.
- Carefully note side inlet and bottom outlet flange connection. Install in the proper direction of flow
- All necessary parts except filter cartridges are supplied with the filter.

#### **OPERATION**

- 1. Open inlet valve to filter slowly, checking for gasket leak.
- Loosen cover vent plug to bleed trapped air.
- Tighten when liquid appears around plug.
- As the filter cartridges remove contamination, the pressure drop across the unit will slowly rise. This can be determined by a pressure gauge installed upstream of the filter. In normal operation, it is desirable to change cartridges when a rise of 20 to 25 pounds above initial inlet pressure has been reached. In no case should a 35 PSI differential pressure be exceeded.

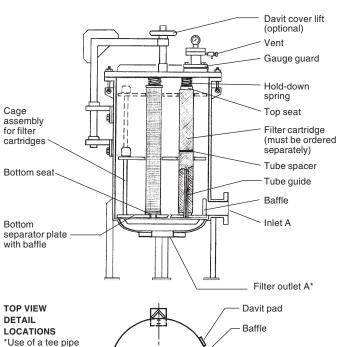
If no pressure gauges are available, rise in pressure will be reflected by a drop in flow if a centrifugal pump is being used. When flow drops below an acceptable point, cartridges should be changed.

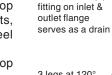
#### TO REPLACE FILTER MEDIA

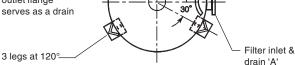
- Stop pump, close inlet valve, close outlet valve.
- 2. Open drain valve, open vent and drain chamber.
- To remove cover, loosen nuts on short swing bolts and drop bolts away from cover. Loosen nuts on long swing bolts, then swing bolts away from cover. Turn davit handwheel to raise cover, then swing cover clear of chamber.
- Remove top seat and spring assemblies and lift out top row of cartridges.

#### Refer to Bulletin C-203 and Parts List P-192.

- **NOTE:** Spacer washers may be used between new or used cartridges to provide a positive seal and proper cartridge column height.
  - Remaining cartridges can be removed, or lifted out with the cross post. The middle tube divider is positioned above the bottom separator plate to keep cross-posts and cartridges properly aligned.
  - The divider is removable, but care should be taken to assure its proper replacement. When replacing new or cleaned cartridges, be sure of proper alignment and that all cartridge columns are installed.
- Replace top seat and spring assemblies. Swing cover over chamber and adjust cartridge positions if necessary.
- Align cover slots over swing bolts, then lower cover onto springs.
- IMPORTANT: Unscrew handwheel to top of stem before tightening down cover with swing bolts. Secure cover to chamber by drawing down on swing bolts until cover contacts top of flange. Do not overtighten.
- Position and gradually tighten swing bolts until they are snug. Then tighten all bolts, making sure to work on alternate sides of cover until all bolts are tight.
- 10. Adjust valves, start pump, and vent as required.











CAUTION: Do not use air or gas as the operating or testing medium.

