



# SWT850-OEM

Model 850 OEM Filter

**AUTOMATIC SELF-CLEANING FILTER**

V 1.8

## PRODUCT DESCRIPTION

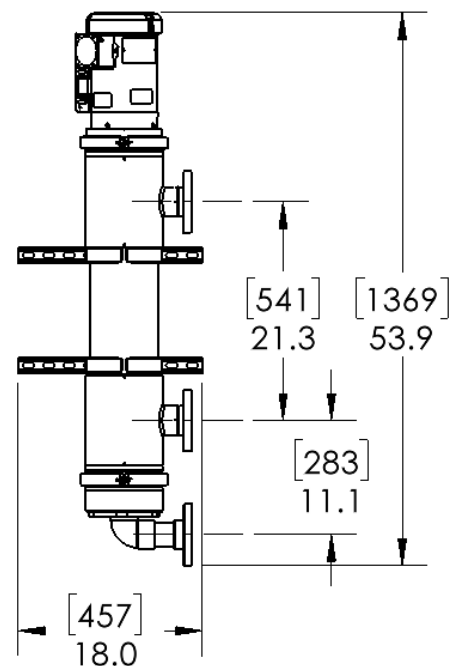
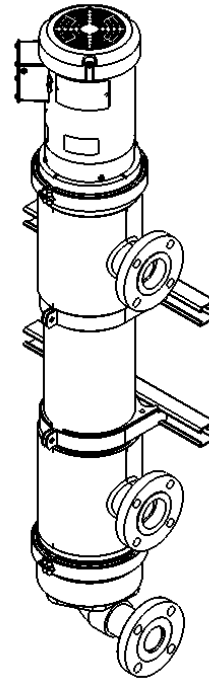
The SWT850-OEM is an automatic self-cleaning filter designed to remove Ultra High and Variable Total Suspended Solids (TSS) from a fluid stream. Each filter unit contains a motor-driven, spiral-shaped brush that continuously cleans collected debris from inside the filter element. Solids collect at the end of the filter housing to be expelled through an automatic purge valve or a continuous concentrate stream. The system does not require high pressures to operate and performs at very low differential pressure. No backwash, cross flow or booster pumps required. The Purge chamber can be configured to dump solids directly to waste or for concentration of solids.

## APPLICATIONS

Recycled Secondary Wastewater, Protection of Monitoring Equipment, Nozzle Protection, Bearing and Seal Protection, Wastewater, Recycled Water, TSS and BOD Reduction

## TECHNICAL SPECIFICATION

|                      |                           |
|----------------------|---------------------------|
| Inlet:               | 2" #150 Flange OR 2" MNPT |
| Filtrate Outlet:     | 2" #150 Flange OR 2" MNPT |
| Purge Outlet:        | 2" #150 Flange OR 2" MNPT |
| Max Flow:            | 10 – 75 gpm               |
| Filtration Rating:   | 15 – 100 micron           |
| Max TSS:             | 10,000+ ppm               |
| Max Operating Press: | 8.3 bar (120 psi) @70°F   |
| Min Operating Press: | <0.1 bar (<1 psi)         |
| Head Loss:           | <0.1 bar (<1 psi)         |
| Drive Motor:         | 1hp, 3-Ph, 230/460VAC     |



## MATERIALS OF CONSTRUCTION

|                  |                             |
|------------------|-----------------------------|
| Wetted Housing:  | PVC, 2205 SS                |
| Seals:           | EPDM, Buna-N or Viton       |
| Cleaning Brush:  | Acetal, Nylon 6.12 & 316 SS |
| Filter Elements: | 316L SS                     |

## PERFORMANCE SPECIFICATION

The spiral shaped brush is designed to rotate continuously, so there is always less than 1 psi head loss across the filter screen. Flow through the filter unit is limited by hydraulic loading on the screen, which is driven primarily by liquid flow rate and viscosity. Flow rates listed below assume a viscosity of 1.0 cP and TSS up to 1000 mg/l. The unit should be plumbed with a check valve on the filtered outlet with 2 psi cracking pressure. Operating pressure in the 1 to 10 psi range is optimal, though the unit is capable of 120 psi.

Liquid Recovery Rate: 99%  
Max Temperature: 120° F (49° C)

### Flow Rates for TSS up to 1000 ppm

| Filter Screen | Nominal Filtration Rating (microns) | Max Flow Rate (gpm, [m <sup>3</sup> /hr]) |
|---------------|-------------------------------------|-------------------------------------------|
| SWT810-FE-BB  | 15                                  | 20 [4.5]                                  |
| SWT810-FE-GG  | 20                                  | 30 [6.8]                                  |
| SWT810-FE-YY  | 25                                  | 40 [9.1]                                  |
| SWT810-FE-RR  | 50                                  | 75 [17.0]                                 |

Note: The higher the solids, the higher the perceived apparent viscosity. At TSS above 1000 ppm, lower flow rates are required to avoid fouling of the filter screen



Brush



Filter Screen