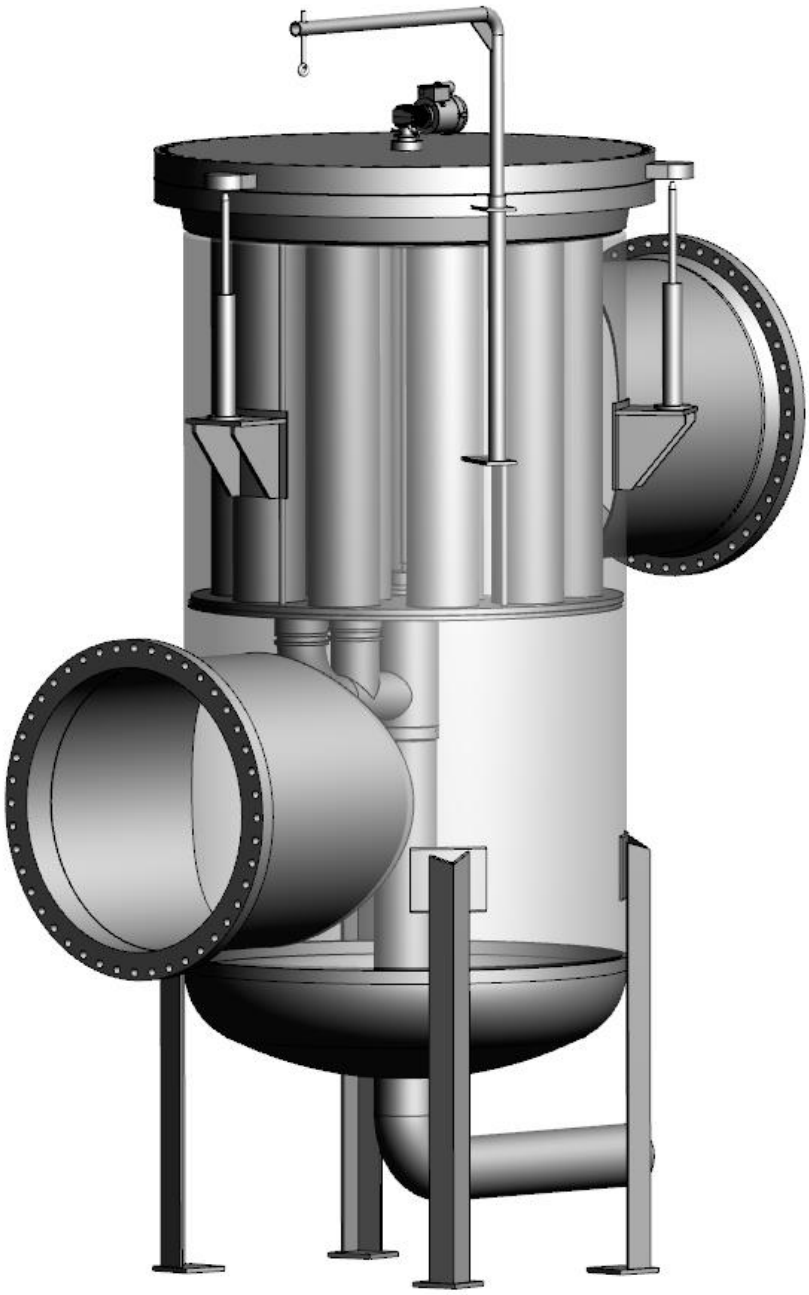
Automatic Self-Cleaning Filters

Solid - Liquid Separation

SUNGOV



Salient Features

- For uninterrupted flow applications
- No routine service downtime of filter elements
- Filter ratings from 50µm and coarser
- Fully automatic operation as standard
- Online self-cleaning i.e., simultaneous filtration and self-cleaning cycles

Advantages over Conventional Filters

- No shutdown required for cleaning or changing of filter elements
- Suitable for heavy solid contaminant loading where conventional filters choke too quickly
- Suitable for large flow capacities where the cost of a standby line is prohibitive

Key Competitive Advantage

Sungov's Self-Cleaning Filters are designed for online self-cleaning, that is, self-cleaning cycle is initiated when filtration cycle continues to be in progress. At no point in the self-cleaning operation, the filtered fluid flow is interrupted. This technology allows our design to be best suited for applications where fluid flow cannot be interrupted like upstream of seawater intake pumps, cooling water pumps or boilers and the like protecting our customer's assets.

Design Features

- Customized geometry filter elements aiding in higher efficiency of filtration and self-cleaning
- Low fluid loss during self-cleaning cycles
- Low pressure loss across the entire system
- Surface or depth filter media options resulting in optimal price-performance ratio
- Differential pressure automation or timer-based automation based on customer requirement
- Low energy consumption through use of low power geared motors (as low as 90W) for high torque self-cleaning mechanism
- Customizable control system: relay based, PID based or PLC based control depending the extent of automation required by the customer
- Interface with plant DCS an option
- Cathodic protection as option to prolong service life of filter elements
- Built to ASME Sec VIII Div 1 as standard; ASME Code stamping as option
- ASME Sec IX compliant weld procedures/welders as standard
- Skid mounted two/three line system with actuated valves, stand-alone control system as option

Capacities

- Maximum height of single element – 2500mm
- Maximum flow capacity up to 8000 cubic meter per hour
- Maximum filter area per unit element – Up to 7 m2
- Vessel size up to 3m
- Pressure ratings up to #2500
- Removal of particles down to 50µm

Possible Materials of Construction

- SA 516 Gr. 70N, SA 105N
- SA 106 Gr. B, SA 105N
- SA 333 Gr. 6, SA 350 Gr. LF2
- SA 240 TYP 316/316L, SA 182 Gr. F316/316L
- SA 240 TYP 304/304L, SA 182 Gr. F304/304L
- SA 240 TYP UNS S31803, SA 182 Gr. F51
- NACE MR 0175/ISO 15156 compliant materials
- Clad/weld overlay with exotic alloys
- Other carbon steels
- Low alloy steels
- Nickel alloys
- Copper alloys

Industries Used In

- Oil & Gas Production
- Petroleum Refining
- Petrochemical Mfg.
- Environmental
- Power Generation
- Marine

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