Sarala

SUBURBAN INDUSTRIAL WORKS PVT. LTD.

SARALA INSERTABLE VENT FILTERS

ABOUT US

SUBURBAN INDUSTRIAL WORKS PVT. LTD. was established in the year 1981 for manufacture of Centrifugal Fans, Axial Flow Fans, and other Ventilation and Pollution Control Equipment with complete infrastructure setup with design, manpower, plant, and machinery. Personnel with decades of experience in respective fields, along with technically and qualified support staffs, soon changed the complexion of the organization. Mingled with strong product quality, and a well-spread marketing network, within a short span of time, the Company emerged as a force to be reckoned with in the HVAC, processing and other core sector industries.

COMPANY PHILOSOPHY

With our established product credibility throughout the country, our mission is to keep pace with continuous up-gradation of technology as per demands of different segments of the industry, and simultaneously excel with the product quality. In support of our mission we are already an ISO 9001:2015 certified organization.

QUALITY MANAGEMENT

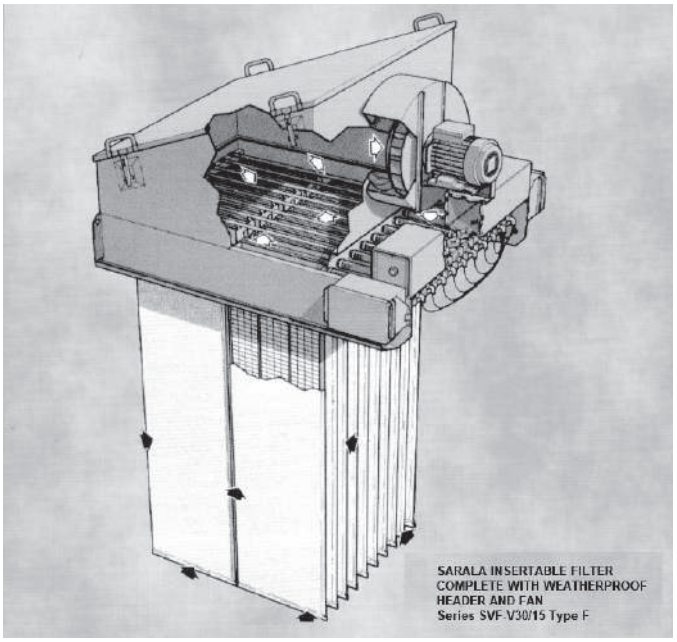
The Company has adopted very strict quality measures to ensure uniform acceptable quality in view of the requirement of products, and their applications, are met at all times. Right from inputs to finished products, the raw materials are tested from reputed and government approved test house before processing of the finished products.

During manufacture all products are subject to DP, radiographic, ultrasonic, x-ray tests, as and when required. All rotor portions are subject to Dynamic Balancing before assembly as per ISO: 1940.
Any further tuning required is carried out by our additional facility of Portable Dynamic Balancing Machine. To ensure meeting guaranteed performance of products, we have testing laboratory/ test beds for testing of fans as per IS 4894, BS, and AMCA standards, supported with varied range of measuring instruments with updated

SARALA INSERTABLE VENT FILTERS

The SARALA Insertable Vent Filter was originally designed to deal with the heavy dust burdens and high filtration velocities encountered in the pneumatic conveying of particulate products. Simply inserted into a silo, it provided continuous filtration of the conveying and displaced air and maintained high collection efficiency at constant resistance to airflow. The range has been continually developed and now consists of 80 different filters with a wide variety of applications in the handling, processing and storage of bulk materials and powders.

Based on the compact SARALA Reverse Jet Filter, the flat pad shaped filter elements are cleaned in turn by short bursts of compressed air, automatically and continuously using an electronic controller. No moving mechanical components are involved and inspection and routine maintenance are from the clean side of the filter. One man can change any size of filter element. Only top quality felt media - vital to proper filter performance - is used. Advanced automated production methods ensure accurate easy to assemble components and inherently strong high quality products.



FILTER CONSTRUCTION

Each type is available in 14 different filtration areas depending on the air volume capacity required. They are based on two sizes of seal frame, containing either six or ten filter elements in one of three lengths: 0.7m, 1.0m. or the 1.5 m. These are assembled into three module sizes that can be used singly or joined together in twos or threes in the configurations shown in the table opposite.

Each filter module consists of an outer frame surrounding a seal frame through which a number of flat pad shaped filter elements are inserted.

Each filter element consists of a felted fabric pad supported on a rigid mesh frame or 'insert', which has an integral header and sealing flange welded to its mouth. A continuous sealing ring of the same felted fabric is stitched round the open end of the pad. When the filter is assembled clamps compress the sealing ring between the flange and the seal frame slot to give an exceptionally tight and effective seal. The clamps also ensure that the pads are properly aligned.

A jet tube is located along the mouth of each insert header and is connected via a diaphragm valve to a compressed air distribution manifold fitted to the outer frame. This valve is linked to a solenoid-operated pilot valve that is governed by an electronic timer. The controller assembly, consisting of pilot valves and timer, is housed in a weatherproof steel box usually mounted on the outer frame.

In applications involving an explosion risk, a pneumatically operated controller that has no electrical components, can be used to control filter cleaning.

APPLICATIONS

In pneumatic conveying systems, SARALA Vent Filters can be inserted in the top of silos and storage vessels to separate the product from conveying and displaced air and so prevent product loss and dust nuisance. The collected dust returns directly to the bulk content of the silo. SVF-V Type B and W are normally applied in blowing systems. Type F and H are used where a suction fan is needed to relieve pressure from the system.
In mechanical conveying systems the dust cloud at loading, discharge and transfer points can be controlled by a SVF Type F in an enclosure. The collected dust is returned directly to the product beneath. This saves space, makes ducting and other ancillary equipment unnecessary and avoids the problem of collected dust disposal.
SARALA Vent Filters can also be integrated within process machinery requiring dust control such as fluid bed reactors, mixers, blenders, mills and crushers, or be used to ventilate powder spray booths, automatic bag pleating machines and a wide variety of similar equipment.
Important Safety Note - Whenever the dust involved represents an explosion risk, the silo, or process equipment concerned should be provided with adequate explosion relief. The filter itself should be specially strengthened.

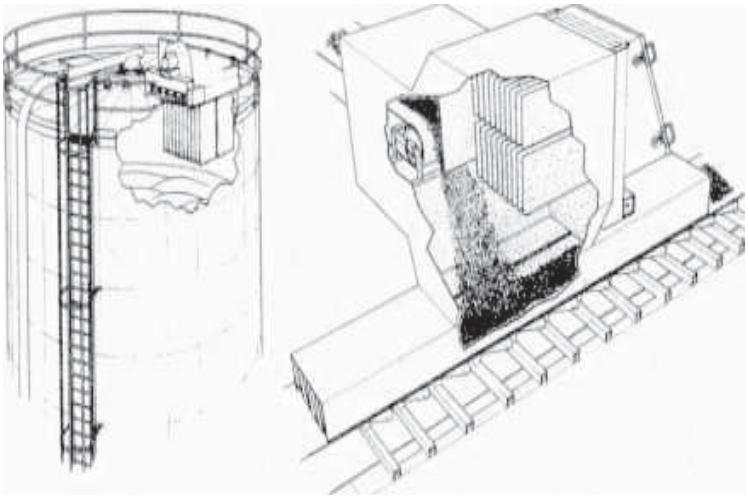


Fig. 1 SVF Type F venting silo fed by pneumatic conveying system
Fig. 2 SVF Type F mounted above belt transfer point

Mounting positions - All SARALA Vent Filters can be mounted either vertically or horizontally whichever is the best position for the particular application. (see figs. 1 & 2 for examples).

There are three types of SARALA Vent Filters.

Type H Filter with exit Header for connection to a fan or discharge ducting. The filter is weather proof and suitable for inside and outside applications.

Type W Filter with a Weather cowl for presure systems where the filter is located outside or exposed to adverse conditions.

Type F Weather-proof filter fitted with an integral Fan for applications normally operating below atmospheric pressure.

FILTER DESIGNATION

The designation of SARALA Vent Filters begins with the prefix SVF and is followed by size and type.

Example are:

SVF 4/7B	SARALA Insertable with filter area of 4m^2 and 0.7m long pads. Basic type.
SVF 6/1 OH	SARALA Insertable with filter area of 6m^2 and 1 -0m long pads, fitted with exit header.
SVF 9-15W	SARALA Insertable with filter area of 9m^2 and 1.5m long pads, fitted with weather cowl.
SVF I0/10F3.	SARALA Insertable with area of 10m^2 and 1.0m long pads fitted with integral size 3 fan.

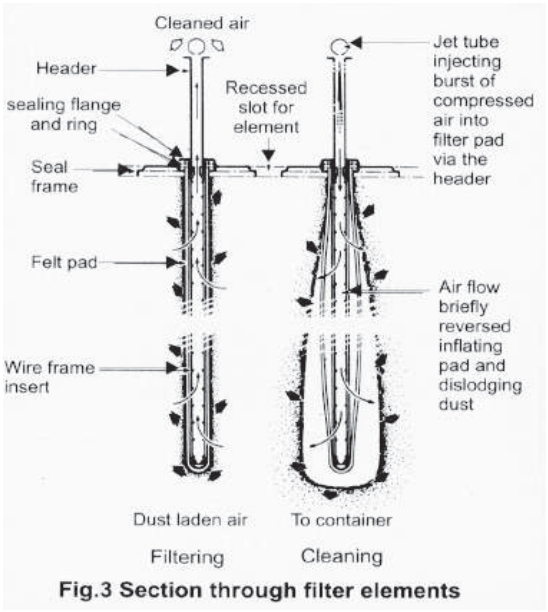
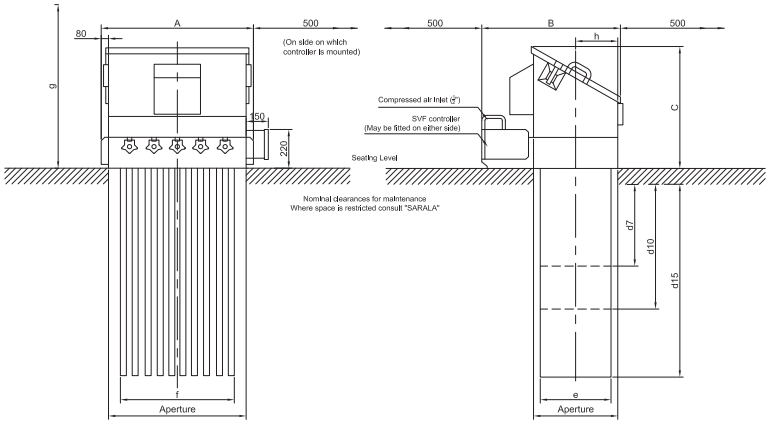


Fig.3 Section through filter elements

FILTER CLEANING

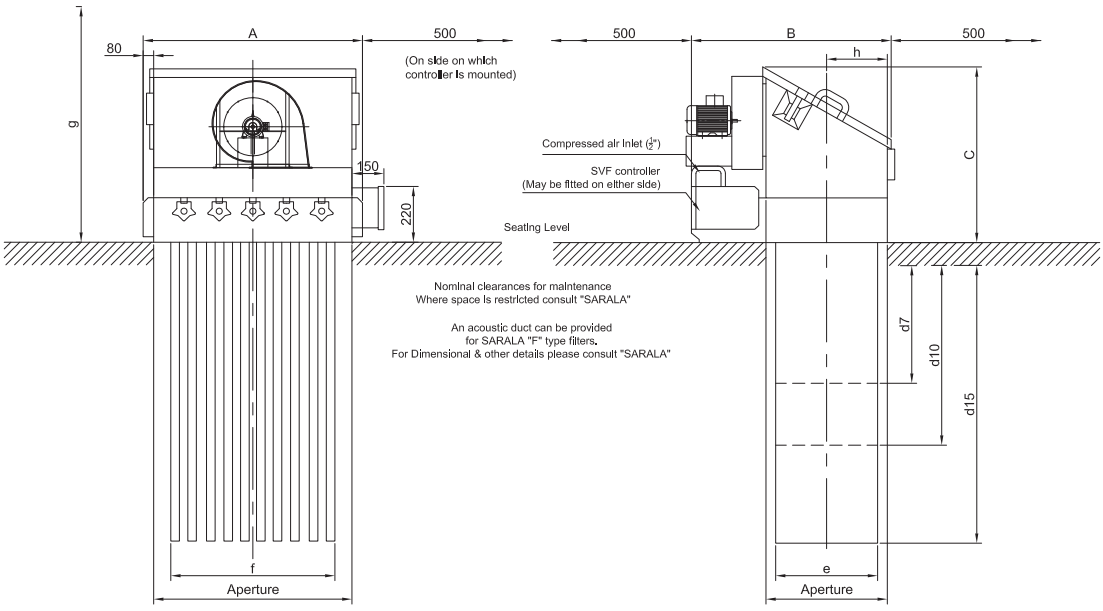
The electronic timer activates each pilot valve in sequence at predetermined intervals in a continuous cycle. The pilot valve in turn opens the diaphragm valve. A short burst of compressed air is released and injected by the jet tube through the insert header into the filter pad. This causes a momentary reversal of the airflow through the filter pad. The effect is a brief controlled inflation of the pad so that the accumulated dust or 'dust cake' is dislodged from its surface. Simultaneously the reversed airflow through the fabric itself assists dust removal. The collected dust falls directly into the silo below or into the process served.



SIZE SVFW 15/15W illustrating, broken lines representing SVF7/7W & SVF10/10W

Dimensions
(Tolerance +2 mm on main Dimensions)

Model	A	B	C	$^{0}7$	$^{d}10$	$^{0}15$	e	f	g*	h	APPROX net
SVF-4/7W	700	975	815	700	-	-	480	470	1150	310	135kg
SVF-6/10W	700	975	815	-	1000	-	480	470	1450	310	145kg
SVF-9/15W	700	975	815	-	-	1500	480	470	1950	310	155kg
SVF-7/7W	1100	975	865	700	-	-	480	820	1150	310	200kg
SVF-10/10W	1100	975	865	-	1000	-	480	820	1450	310	220kg
SVF-15/15W	1100	975	865	-	-	1500	480	820	1950	310	240kg
SVF-8/7W	700	1585	905	700	-	-	1005	470	1150	575	215kg
SVF-12/10W	700	1585	905	-	1000	-	1005	470	1450	575	235kg
SVF-18/15W	700	1585	905	-	-	1500	1005	470	1950	575	260kg
SVF-14/7W	1100	1585	905	700	-	-	1005	829	1150	575	335kg
SVF-20/10W	1100	1585	905	-	1000	-	1005	820	1450	575	370kg
SVF-30/15W	1100	1585	905	-	-	1500	1005	820	1950	575	420kg
SVF-21/7W	1100	2185	1065	700	-	-	1605	820	1150	875	465kg
SVF-30/10W	1100	2185	1065	-	1000	-	1605	820	1450	875	510kg
SVF-45/15W	1100	2185	1065	-	-	1500	1605	820	1950	875	570kg
SVF-60/15W	1100	2707	1065	-	-	1500	2130	820	1142	1142	870kg



FRONT ELEVATION

SIDE ELEVATION

SIZE SVFW 15/15W illustrating, broken lines representing SVF7/7W & SVF10/10W

Dimensions
(Tolerance +2 mm on main Dimensions)

Model	A	C	$^{0}7$	$^{d}10$	$^{0}15$	e	f	g*	h	Bi	Fan	Fan Motor	Approx Weight
SVF-4/7W	700	815	700	-	-	480	470	1150	310	1095	F1	0.75	160kg
SVF-6/10W	700	815	-	1000	-	480	470	1450	310	1095	F1	0.75	170kg
										1095	F1	0.75	180kg
SVF-9/15W	700	815	-	-	1500	480	470	1950	310	1095	F3	2.2	195kg
SVF-7/7W	1100	865	700	-	-	480	820	1150	310	1095	F1	0.75	225kg
										1095	F3	2.2	240kg
SVF-10/10W	1100	865	-	1000	-	480	820	1450	310	1095	F1	0.75	245kg
SVF-15/15W	1100	865	-	-	1500	480	820	1950	310	1095	F3	2.2	260kg
										1095	F3	2.2	280kg
SVF-8/7W	700	905	700	-	-	1005	470	1150	575	1095	F5	3	285kg
										1620	F1	0.75	240kg
SVF-12/10W	700	905	-	1000	-	1005	470	1450	575	1620	F3	2.2	255kg
										1620	F3	2.2	275kg
SVF-18/15W	700	905	-	-	1500	1005	470	1950	575	1620	F5	3	280kg
										1620	F3	2.2	300kg
SVF-14/7W	1100	905	700	-	-	1005	829	1150	575	1620	F5	3	305kg
SVF-20/10W	1100	905	-	1000	-	1005	820	1450	575	1635	F6	4	320kg
										1620	F3	2.2	375kg
SVF-30/15W	1100	905	-	-	1500	1005	820	1950	575	1620	F5	3	380kg
										1620	F3	2.2	410kg
SVF-21/7W	1100	1065	700	-	-	1605	820	1150	875	1620	F5	3	415kg
SVF-30/10W	1100	1065	-	1000	-	1605	820	1450	875	1635	F6	4	430kg
										1620	F5	3	465kg
SVF-45/15W	1100	1065	-	-	1500	1605	820	1950	875	1635	F6	4	480kg
										1750	F10	5.5	485kg
SVF-60/15W	1100	1065	-	-	1500	2130	820	2210	1142	2220	F3	2.2	500kg
										2220	F5	3	505kg
										2235	F6	4	520kg
										2220	F5	3	550kg
										2235	F6	4	565kg
										2330	F10	5.5	570kg
										2235	F6	4	625kg
										2330	F10	5.5	630kg
										2330	F11	7.5	635kg
										2707	F11	7.5	930kg

OUR OTHER PRODUCTS

- CYCLONE SEPARATOR

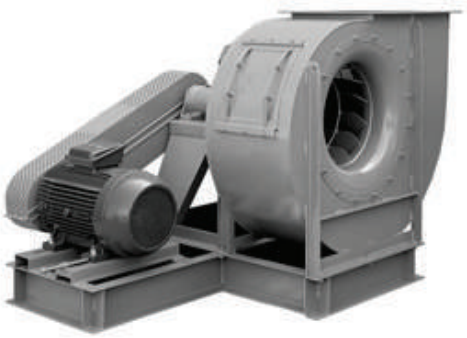
- HI – PRESSURE FANS
  - INDUCED DRAFT (ID) FAN
  - FORCED DRAFT (FD) FAN

- AXIAL FLOW FANS
  - TUBE AXIAL FLOW FANS
  - BIFURCATED AXIAL FLOW FAN
  - ROOF EXTRACTOR/ ROOF VENTILATOR

- CENTRIFUGAL FANS FOR INDUSTRIAL AND PROCESS APPLICATION

- MINE VENTILATION FANS
  - MAIN MINE VENTILATION FANS
  - AUXILIARY MINE VENTILATION FANS

AXIAL FLOW FAN



CENTRIFUGAL FAN

MAIN MINE VENTILATION FAN

Sarala

SUBURBAN INDUSTRIAL WORKS PVT. LTD.

HEAD OFFICE/WORKS

57/2A, Diamond Harbour Road
Kolkata - 700 023, India
Phone: +91-33-2449 5343, 84438 24010
Telefax: +91-33-2449 5343
Email: siwlkolkata@saralafans.com
www.saralafans.com

BANGALORE
CHENNAI
NEW DELHI
BHUBHANESHWAR