

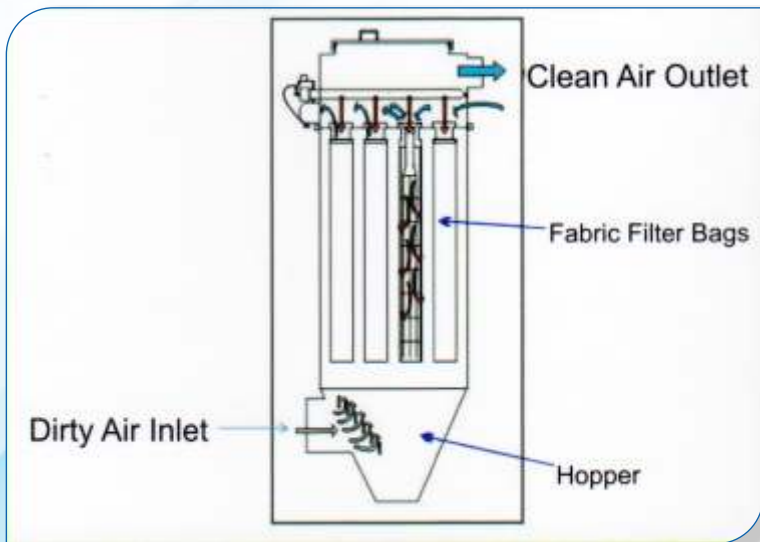


Salema 
Engineering India (P) Ltd.

*Air Pollution
Control Equipment*

We Work For A
*Cleaner
Tomorrow*





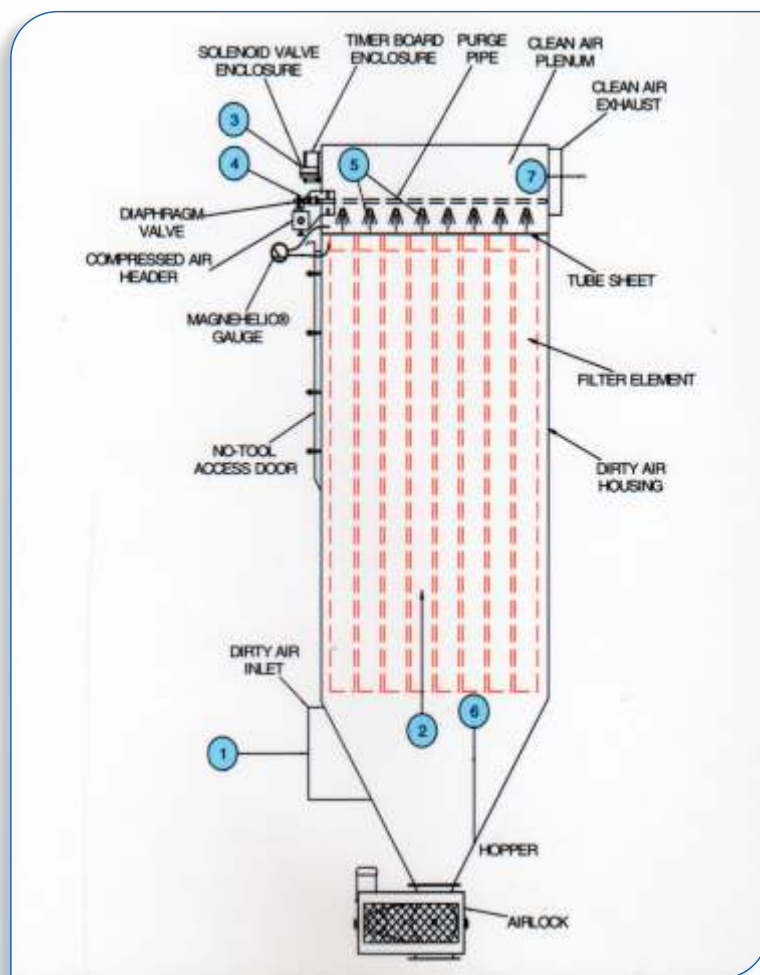
Pulse Jet Bag Filter

Pulse Jet BAG FILTERS (Dust Collectors)

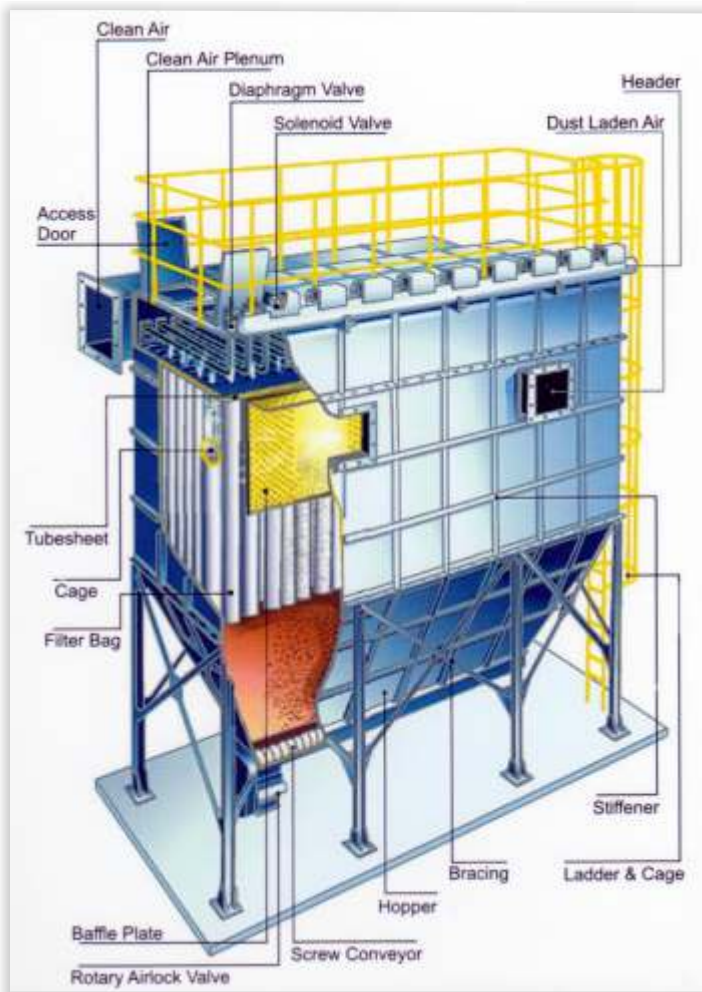
A Powerful shockwave passes through the filter cartridge during cleaning. The dust is dislodged from the filter surface and the downwards flowing air allows it to fall into the container. The pulse from the valve is distributed into the cartridge via a unique laser cut zigzag slot along the length of the blow pipe. The effect of the cleaning is further enhanced by the venturi shaped outlet of the cartridge. The result of the innovative cleaning and cartridge design gives an overall increased efficiency and lower operating costs.

Pulse Jet SEQUENCE of Operation

1. Dust laden air or gas enters the dust collector through the inlet.
2. Air passes through the filter media while solids are retained on the media's surface.
3. A signal from the timer actuates the opening of the normally closed solenoid valve.
4. Opening of the solenoid valve releases the air pressure in the tube connecting the solenoid to the diaphragm valve, causing the valve to open.
5. A momentary pulse of compressed air flows from the air header down the purge pipe and out into each filter bag. This momentary pulse takes all bags in one row off line through pressure reversal.
6. Solids are released to fall into the filter hopper or bin.
7. Filtered air exits through the clean air plenum exhaust.



Bag House Dust Collector



Rotary AIRLOCK VALVES

Rotary Airlocks being manufactured are very sturdy & budget friendly, which are widely used under dust collectors, cyclones and hoppers. Salemax Rotary Airlock Valves are used by large variety of Bulk and Specialty Material Handling Systems and other various types of Industrial units. Our specialization is in the customized design & manufacture of airlock rotary valve products which enhances the safety, reliability and efficiency of your feeding and metering operations.



Pulse Jet Bag House & Bag Filters

Fabric media filtration method is the most effective technique for the industrial material handling operations and gas exhaust from various processes. Bag filter is a filtration device for dust particles or for product recovery of useful products from air or any other gas flow of the manufacturing process.

Salemax provides you customized bag filters equipped with automatic cleaning and control devices for your unique filtration requirements varying from smallest to the largest volume flow rate.

Industrial CENTRIFUGAL FANS

We manufacture high quality sturdy Centrifugal Fans of various types with different types of impellers & fan arrangements which make their selection versatile. The types available are Backward Curved, Straight Backward Inclined, straight radial & straight radial without shroud.



ENVIRONMENT SOLUTIONS



BAG FILTER

- Optimal design to meet specified requirements
- Fully automatic bag cleaning mechanism.
- Constant pressure drop ensures economical operations.
- Available in square, modular and round shapes with top or side removal of bags.
- Effective air jet through nozzles on ventury
- Most suitable for separation of fine and difficult dust
- Combined primary and secondary air to enhance pulse modulation
- Effective cleaning mechanism for longer filter bags.



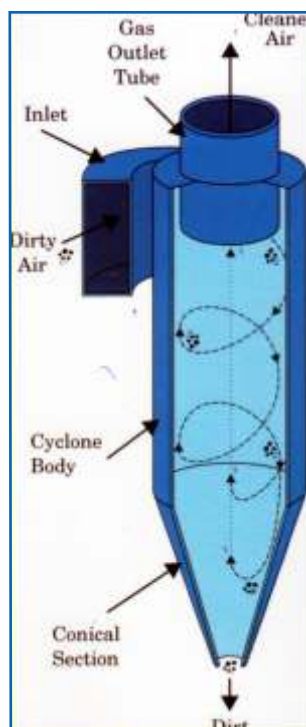
SCRUBBER

Centriscrub (Low Energy Scrubbers)

This unit is suitable for low pressure drop applications. It achieves high collection efficiencies in 5-10 micron range with low liquid rates. It utilizes a tangential gas inlet and stationary scrubbing vanes to induce centrifugal motion of the gas for removal of dust. There are no moving parts. It's non clogging, self-draining design makes it an ideal choice for may applications

Ventriscrub (High Energy Scrubbers)

Unit can be furnished with a fixed, butterfly or two door venturi throat section; smooth or flooded elbow and a conventional cyclonic mist separator. Larger separators may be furnished with radial inlet and mesh pad or chevron type demister section. High collection efficiency can be achieved.



CYCLONE

High Efficiency Cyclone Collectors

Salemax Cyclones are available in carbon steel, stainless steel or high alloy construction. Refractory and / or ceramic lined units are also available for abrasive/high temperature applications.

SINGLE, TWIN and QUAD arrangements are available as standard configurations. Special arrangements can be supplied to meet your plant layouts. Our common dust hoppers and outlet plenums are custom designed to suit each application.

Salemax Cyclone Collectors are designed to achieve high dust collection efficiencies at low pressure drops.

ESP

- Filtration of solid dust particles, drops and aerosols
- Dedusting of damp gases, oil vapours and tar mist
- Vertical gas flow through the honeycomb precipitation electrodes
- Large precipitation surface with small basic area
- Electrodes cleaned by periodic flushing system
- Gas conditioning and continuous moistening of the electrodes with spraying system
- Optimum gas distribution through perforated plates with guide supports and adjustable impact plates
- Gas cleaning with low pressure loss at high filtration rate.

SYSTEM WE OFFER

- Dust Extraction Systems
- Gas Cleaning Plants
- Fume Extraction Systems
- Ventilation Systems
- Multicell Dust Collectors

OUR EXTREME HIGH TEMPERATURE BAG FILTER

This new technology extends our air pollution control offering, as our Extreme High Temperature Bag Filter (EHT-Bag Filter) can remove both solids and tars while withstanding temperatures of up to 850°C (1562°F). It can even treat peak temperatures of **up to 1000°C** (1832°F).

Our EHT-Bag Filters are therefore ideal for the Oil & Gas industry and offer benefits for certain applications in the Cement, Metals & Mining and Waste-to-Energy & Biomass Power industries. Equipped with ceramic catalytic candles, our BHT-Bag Filters can be paired with our full flue gas treatment (FGT) system - whether to treat acid gases, mercury and metals or NO_x - or all of these pollutants.



Our Extreme High Temperature Bag Filters can withstand temperatures of up to 1000°C (1832°F)

ADVANTAGES OF OUR EXTREME HIGH TEMPERATURE BAG FILTER:

1. **Optimal performance.** Our filters can achieve near zero emission levels.
2. **Lower CAPEX & OPEX.** There's no need for further cooling systems, as the bags can withstand such high temperatures.
3. **Saves on energy costs.** It is possible to recover heat by installing a waste heat recovery system downstream of the EHT-Bag Filter.
4. **Safe.** Our special filter bags are non-flammable and 100% spark resistant.
5. **Easy installation and maintenance.** Our outer and inner collar sealing sets have readjustable bayonet locks and are flexible.

IDEAL APPLICATIONS FOR OUR EHT-BAG FILTER:

- Oil & Gas** industry (gasification)
- Cement industry** (clinker cooler)
- Biomass and WTE** (incineration)
- Metals & Mining** (aluminum calcination, melting process and separation of precious metals)

The design of our EHT-Bag Filter is not unlike our regular Bag Filters, but the filter material and the sealing technology are very different. The filters in the EHT-Bag Filter are rigid with a consistency like cardboard, and they don't need a cage inside as they are self-supporting.

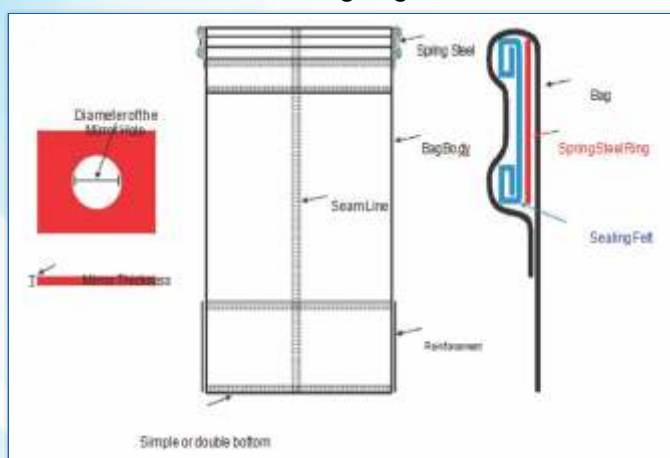
Components of Bag Filters

- Filtering Bags
- Cage
- Venturi
- Tube Sheets
- Solenoid Valve
- Diaphragm Valve
- Electronic Sequential Controller
- Compressed Air Header
- Pulse Pipe (Blowing Tubes)

Description of Components:

These are filtering elements made in needled felt through which the air and dust separation takes place, as the air goes through the filtering elements; solid particles are retained in their external wall. After a period, the bags get impregnated with dust and need to be cleaned. Such cleaning is performed with compressed air gush or in some cases by washing.

Filtering Bags



Description of Components:

These are metallic frameworks used to support the filtering bags by forming a rigid cylindrical assembly. The inner part closed while the top part is open, containing a venturi ejector.

Cages



Description of Components:

Venturis are accelerator metallic tubes that change the energy from injected compressed air into pressure energy, inducing the air through the filtering bag and, as a result from its magnitude to standard air flow, it sends a shock wave to the bag, cleaning it and dislodging impregnated material. The compressed air pressure is established as a function of the geometry or configuration of the venturi ejector, as well as the permeability of the bag to be cleaned.

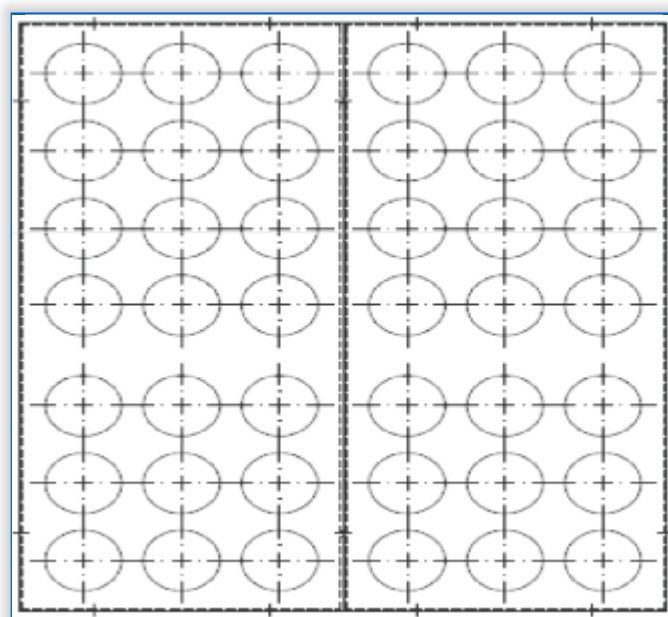


Venturi

Description of Components:

This is a plate where the sets of filtering bags/cages are distributed and attached. Perforating needs to be strictly in accordance with the project sizing to make possible the appropriate alignment of the blowing tubes (bags cleaning) and appropriate sealing on the bags attachment

Tube Sheets



Description of Components:

These are elements designed to change electric impulses generated in the electronic temporized sequencer controller into pneumatic impulses, which will act on the diaphragm-valves. Also known as quick escape, these are valves that allow the passage of a compressed air flow that cleans the bags. These valves are opened through pneumatic impulses produced by the solenoids.



Solenoid Valve Diaphragm Valves

Application of Bag Filter

- Steel Industry
- Distilleries
- Cement Industry
- Pulp & Paper Industry
- Tobacco Industry
- Power Industry
- Textile Industry
- Sugar Industry
- Diaries
- Rice Industry
- Non Ferrous Metallurgical Industry
- Pharmaceutical Industry
- Sponge Iron Industry
- Plywood Industry
- Laminate Industry
- And Many More...

Application of Bag Filter Steel Industry



Application of Bag Filter Cement Industry



APPLICATION OF BAG FILTER





Manufacturing of :

- AIR POLLUTION CONTROL EQUIPMENT
- BAG FILTER
- PLYWOOD MACHINERY

- EOT CRANE
- M.S. & S.S. PIPELINE
- M.S. & S.S. TANK FABRICATION

- STEEL STRUCTURE WORK
- PRE ENGINEERED BUILDING SYSTEM
- HEAVY FABRICATION



Salemex Engineering India (P) Ltd.

Regd. Office : Village Jorian, Harnoul Road, Yamuna Nagar-135001 Haryana

Works : Village Aurangabad, Delhi Road, Yamuna Nagar-135001 Haryana

Mob.: 093555-46180

Website : www.salemexindia.com • E-mail : salemexengineering@gmail.com, md@salemexindia.com