

The new generation of Industrial filters – “strong in aspiration – good for the environment”

## SCUMAX INDIA

Dust extraction and filtration technology

German filtration expertise.....



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# Scumax extraction systems and filtration equipment

## For clean air in your production environment

Innovative extraction and filtration systems from Scumax have been keeping the air clean in production and in the workplace in small-scale and industrial operations in the metal, wood, plastics, paper, chemical, pharmaceutical and food industries.

## About us

### Potential to lead clean air upward

Public awareness of air quality and pollution control has never been higher than it is today. Particulate matter levels in cities and air quality in buildings such as schools and public offices as well as in production operations are in the public eye. This is a long-established topic at Scumax Group.

In the last 02 years we have grown to become the premium manufacturer of extraction and filtration systems for workshops and industry. By extracting your dust and chip waste, you increase machine availability, provide for healthy air conditions in the workplace and simultaneously increase productivity

## Our benefits

### For greater operation reliability

Scumax develops and manufactures state-of-the-art extraction solutions. As competent partners, we support you in mastering all challenges arising in relation to the disposal of your production dust – from mobile single-point extraction to large-scale dust collection for complete manufacturing processes, from workshop to industrial-scale operations.

With our network of manufacturing activities at our locations throughout India, we can reduce production lead times and shorten delivery routes. We can also guarantee that our customer service is on site quickly when you need it. You can count on having optimal production availability.

We are a genuine full-service provider offering you competent, individualised and on-time full service to ensure that our system meets your expectations.

## Design & Projection

### From theory to practice

On the basis your individual criteria from the stocktaking, we will plan a suitable solution for your requirements. For this, we may need to prepare technical drawings in our CAD department. Once all questions related to the detailed planning have been clarified in terms of operational, functional and movement criteria's, you will receive an individual quotation including the delivery and installation date.

As soon as we receive the order, we will start with the detailed project planning and specify the concrete work steps for the on-schedule realisation of your solution.

# Products & Systems

## 1) Cassette Type Filters

We Manufacture and supply two types of cassette filters.

- ▶ Reverse air impulse cleaning
- ▶ Pulse Jet nozzle compressed air cleaning

### Reverse air impulse cleaning Cassette Type Filters



Scumax SXRT cassette type dust collector (reverse air impulse cleaning) includes an inlet hood for dust-crude gas, the filter casing and the dust collection hopper with support structure and a discharge unit.

The cassettes are arranged horizontally in the crude gas chamber, and the connection with the slotted wall by a clamping frame with clamp holding handles is airtight (sealed). Air flow direction through the filter is from top to bottom (down-flow principle). The gas enters the clean gas chamber of the filter through the cassette. During this process, the dust is detained back by the filter media and forms a filter cake which is important for dust filtration.

The fully programmable dedusting process is activated after a specific time period and the dust is cleaned out of the filter cassette. For this, **Intelligent air cleaning system** Reverse air impulse fan is used to blow the air in reverse direction. The air blown by the fan creates a balloon effect on the fabric and the dust falls into the collecting hopper designed with valley angle for easy dust transfer and is discharged through Rotary airlock valve or Double flap valve and finally through a screw conveyor.

The Reverse air impulse fan is located outside the filter. The cleaning air is connected to the mobile cleaning carriage via a flexible hose, telescopic pipe. The cleaning carriage is driven by a maintenance-free rope-and-chain drive. There is a pre-programmed indexing mechanism to move the cleaning carriage connected to reverse air fan for cleaning of filter bags.

### Pulse Jet nozzle compressed air cleaning Cassette Type Filters



Scumax SXPT cassette type dust collector, the construction of this filter is the same as the reverse air cleaning type, except that compressed air at 5 bar pressure is used.

The cassettes are arranged horizontally in the crude gas chamber, and the connection with the slotted wall by a clamping frame with clamp holding handles is airtight. The jet nozzle pipes are arranged in series with respect to centre line of the clamping frame with unique nozzle design to purge the air to create balloon effect on the fabric and the dust falls into collecting hopper.

The fully programmable dedusting process is activated after a specific time of period, top mounted compressed air tank connected with the solenoid valve will release the air to jet nozzle as per the timer control panel command and the dust is cleaned out of the filter cassette.

This product is mainly used for online filters where dust is likely to exhibit sticking properties. Then it is cleaned with compressed air. of filter bags.

## Advantages of Cassette Type Filters

Our modular cassette type filters are the ideal solution to dust problems in a wide range of industrial sectors. It is built for a long-time durability in industrial process filtration and dust collection applications and it meets the very high demand for cassette filters due to its reliability, low dust emissions, high separation efficiency, low differential pressure. It is furthermore designed to operate continuously with a high filtration velocity and space saving conception.

The compact cassette filter makes it possible to build a compact designs filter suitable to separate particulate matter in both indoor and outdoor applications. It is possible to mount a fan on top of the standard model, or stand-alone remote fans can be used instead.

Installers especially enjoy the short installation time because of the compact steel construction and that it can be transported on a trailer and with a mobile crane.

### Another great advantage

Another great advantage is that our Modular cassette dust collector has a very low operation and maintenance costs because of its simple, operator-friendly maintenance that is easily maintained through the front doors, and filter media replacements are fast and easy to make. All these elements combined to ensure low operating costs.

Cleaning is also extremely efficient with compressed air consumption reduced to a minimum because of the proven filter cassette design. The cleaning is further improved by the electronic controlled reverse air pulse cleaning system.

Filter cassette materials in a wide variety of materials for most applications are available, dependent on dust type, dust load and efficiency requirements. And Low energy consumption adds to the reasons why our modular cassette dust collector is so popular among installers.

## 2) Cartridge Type Filters

### Compressed air cleaning Cartridge Type Filters



Scumax SXCT Cartridge type dust collector, the construction of this filter cartridge elements in a cartridge filter system are built out of fine filter media arranged in a pleated manner, due to which a very large filter area is accommodated in a very small cylindrical shape. The net effect is that a cartridge filter system occupies much smaller area and space compared to a conventional bag filter system (one-eighth).

The architecture of the cartridge filter system is designed in such a way that servicing or replacement of filters takes just a few minutes and can be carried out by one person, unlike a conventional bag filter system which requires up to several days to open and replace filters.

The dust dislodged by the reverse pulse jet cleaning system is pushed down. This obviates re-entrainment of the dust into the filters. The filters are continuously cleaned with reverse air blasts controlled by an electronic sequential controller. The filter system remains continuously operative at its peak efficiency.

In summary cartridge filter systems offer greater filtration efficiency at a reduced cost and therefore, are a better choice where the dust has to be completely removed or recovered. In many filtering applications, a choice between the use of a cartridge filter and a bag filter has to be made.

## Compressed air cleaning Cartridge type Silo vent Filters



Scumax SXVT silo vent filters, a compressed air cleaned cartridge filter with 87m<sup>2</sup> filter surface, used for silo ventilation. Also available with 3.7 hp fan assist, strong welded construction. Filters can be replaced very easily as hinged lid opens upwards and the cartridge are replaced from above needless to say.

Benefits:

- Compact design = easy to position'
- Up to 87m<sup>2</sup> filter surface, which means that the filter can handle most bulk deliveries
- Easy to replace the filter by opening the lid
- Patented unclean cartridge gives long service life.

## Advantages of Cartridge Type Filters

Cartridge filters are preferable for systems with particles are finer.

Cartridge filters can be surface or depth type filters:

- Surface filters are best if you are filtering sediment of similar-sized particles. If all particles are e.g. five microns, a pleated 5-micron filter works best because it has more surface area than other filters
- Depth-type filters capture particles and contaminants through the total thickness of the medium. Compared with pleated surface filters, depth filters have a limited surface area, but they have the advantage of depth.

It can be generally stated that if the size of filter surface is increased, higher flows are possible, the filter lasts longer, and the dirt holding capacity increases.

Cartridge filters are normally designed disposable: this means that they have to be replaced when the filter is totally damaged. Compared to a conventional bag filter that offers a maximum of 99% efficiency for particle range to 7 microns, cartridge filter systems can filter up to 99.97% to 1 micron. (Today, we also have cartridges which can filter to 0.3 microns).

## Special Features

Compact equipment, requiring small footprint and minimal foundation

Very low outlet emission level (less than 5mg/M<sup>3</sup>) makes these suitable for indoor installation

Available in capacities from 1,500 Am<sup>3</sup>/h to 30,000 Am<sup>3</sup>/h

- Emissions are guaranteed at <5 mg/Nm<sup>3</sup> (< 2mg/Nm<sup>3</sup> can be achieved with an additional secondary filter)
- Chimney not required – cost saving
- ID fan mounted on top of filter
- Compact design and small footprint area
- Special cartridge design to handle fine metal dust.
- Efficient automatic cleaning mechanism
- High energy savings by automatic damper control
- VFD controlled fan to save energy
- Inbuilt spark arrestor to ensure safety
- Easy dust removal and handling
- Factory tested, easy to install – plug and play
- No special foundation required

3) Surface cooling units.

4) Wet scrubber units.

5) Customized Shot Blasting machines.

## Our areas of competence



### 1) Metal processing Industries:

#### 1.1 Extraction system for Foundry.

- ⊙ Sand Plant, sand cooler, dust extraction.
- ⊙ Shakeout dust extraction.
- ⊙ Furnace fume extraction.
- ⊙ Sand reclamation, Thermal and Mechanical dust extraction.
- ⊙ Pouring and cooling line fume extraction.
- ⊙ Core shop Mixers.
- ⊙ Sand storage silos.
- ⊙ Fettling shop.
- ⊙ Shot blasting machine.
- ⊙ Magnesium and other treatment fumes extraction. Etc.

#### 1.2 Extraction system for Forging.

- ⊙ Shot penning machine dust extraction.

#### 1.3 Extraction system for Steel processing plants.

#### 1.4 Extraction system for Spring and Piston rings manufacturing industries. (grinding application).

#### 1.5 Extraction system for Bus bar manufacturing industries.

#### 1.6 Extraction system for Customer specified unique applications in Metal processing industries.

## 2) Food processing Industries:

- 2.1 Extraction system for Flour mills.
- 2.2 Extraction system for Rice mills.
- 2.4 Extraction system for cattle, poultry feeds manufacturing mills.
- 2.4 Extraction system for Coffee and tea powder manufacturing industries.
- 2,5 Extraction system as per Customer specified unique applications in Food processing industries.

## 3) Cement Plants.

- 3.1 Ball mills
- 3.2 Processing and material handling discharge points.

## 4) Lime and Gypsum Industries.

## 5) Quarry, Mining and Minerals Industries.

## 6) Pharmaceutical Industries.

## 7) Chemical Industries.

## 8) Wood processing Industries.

## 9) Fertilizers Industries.

## 10) Tobacco processing industries.

## 11) Boiler application.

## 12) Also specialized in the customized dust extraction and filtration of customer specified requirement.

## Ducting Fabrication & Erection



Scumax India undertake Turn-key projects, from Filter supply to commissioning of the equipment with all type of fabrication and erection as per the committed time line,

Scumax Team is expertise in the Fabrication of Ducting components with outstanding quality and on time delivery as per the project time line, even we are well groomed in the erection of equipment ducting components and other filter accessories as per the layout drawing.

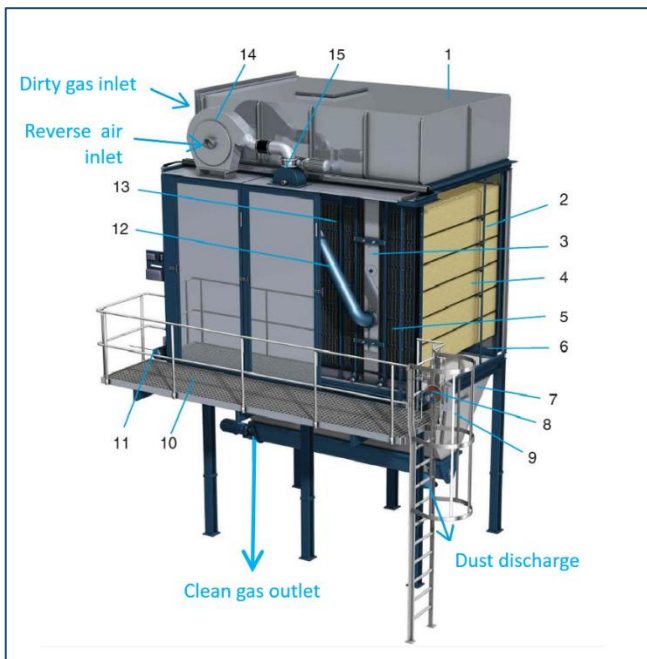
Scumax India have its own expertise erection team undergone safety training to perform height work and other major critical works without violating safety norms of our customers.

# Spares & Services

Scumax India supply the Genuine spare parts of all brands Cassette type and tubular type dust extraction systems (Both Online and Offline filters) and also of Cartridge type dust extraction system, we ensure the quick response for spare request with instant dispatch of all spares parts on customer emergency.

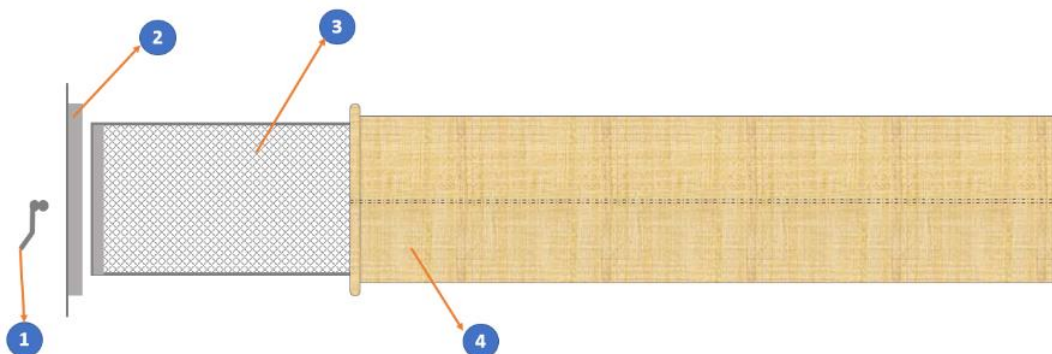
Scumax Service team is always available for the customer support, service team members are expertise in all type of problem solving i.e. Electrical, Mechanical, and also Electromechanical issues.

## Cassette type dust extraction systems Spare list.



SL No	DESCRIPTION
1	Dirty gas intake manifold.
2	Cassette filter bag support.
3	Cleaning transmission mechanism.
4	Flat Cassette filter bag with spacer mat.
5	Cassette locking plate and handle
6	Dirty gas chamber.
7	Dust collection hopper.
8	Carriage movement pully mechanism.
9	Maintenance inspection door.
10	Maintenance Platform with access ladder.
11	Cleaning transmission drive unit with indexing wheel.
12	Cleaning hose (Telescopic pipe or Flexible hose).
13	Cassette locking plate with locking handle
14	Cleaning Reverse air fan.
15	Cleaning fan flop valve assembly.

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### CASSETTE ASSEMBLY SPARE PARTS.

- 1) T handles / Spring Clips.
- 2) Clamping plate / Segment frame.
- 3) Distance Mat.
- 4) Flat filter bags.

Filter bags specifications will be as per the customer application is available at Scumax India.



## Spares list:

- 1) Rotary Air lock valve. (RAV)
- 2) Gravity double flap valve. (GDFV)
- 3) Motorized double flap valve. (MDFV)
- 4) ID and FD Fans.
- 5) Reverse air cleaning Impulse fan.
- 6) Solenoid valves for pulse jet filters (Compressed air cleaning Filters).
- 7) Tubular Cage with venturi.
- 8) Tubular Filter bags.
- 9) Screw conveyor.
- 10) Bucket elevators.
- 11) Pneumatic conveyors.
- 12) Automated Telescopic furnace fume extraction units.
- 13) Pouring line fume extraction system.
- 14) Jet Nozzle pipes for compressed air cleaning cassette type filters.
- 15) Cartridges of various diameters.
- 16) Cleaning carriage units with rollers and felt of all brands.
- 17) Cleaning carriage hose, (High Temperature hoses for temperature applications).
- 18) Cleaning carriage drive motors with accessories.
- 19) Reverse air Impulse flap valve assembly with torque motor.
- 20) Pneumatic Dampers with actuators.
- 21) All related spares as per the customer demand.
- 22) Cyclonic pre separators (Spark arresters).

Scumax India provide the fibre analysis test certificates for filter media, inspection, material test reports for spare parts, we provide warranty for spare drives.

## Modernisation of old dust extraction units

Scumax India is expertise in undertaking the modernisation of all type of dust collectors which are not performing, frequently fail or stop due to OEM design failures.

Scumax team audit the old dust collectors and prepare the case to case study with basic FMEA, and we will eliminate the possible failures and take the corrective action and preventive action to ensure the healthy running of the equipment's, and also Scumax offer AMC for existing dust collectors to up keep the equipment operations without any maintenance cost.

For example, OEM will supply the equipment and fails to give after sales service support which will lead to stoppage, operation failures of equipment's call for frequent maintenance. Instead of problem-solving OEM will trade the spares and treat the dead equipment's with unnecessary spare parts, Scumax will identify such cases and guide the customer towards permanent solution for their issues.

Scumax even improve the emission levels of existing dust collectors where OEM failed their commitment to prove emission levels within the committed values.

We also under take the ID fan refurbishment like increasing the efficiency, pressure, and volume with minor changes to support the customer for cost optimization. i.e. instead of investing on new ID fan existing ID fan will be refurbished for required additional volume and pressure.

## Upcoming products at Scumax Group

Scumax India is innovating new reliable products to support customer in reducing the process time and cost. upcoming products from Scumax are as below.

- 1) Magnesium treatment wire feeder equipment with attached fume extraction system.
- 2) Furnace fume extraction close capture hood.
- 3) Mobile dust extraction system up to 30000 CMH volume.
- 4) Customized shot blasting machines.
- 5) Cooling towers and wet scrubbers.

Scumax group is floating a new company M/s. Scumatic technologies to support our customers in industrial atomization.

Scumax team is motivated towards innovation and we will deserve the best position in the market by creating the benchmark in our innovative products.

We accepted challenges and give the satisfactory solutions to our customers, without compromising in quality, delivery with effective cost.

Our core values are Quality, Delivery, Cost, and Environment.

## Scumax Group Vision and Mission

### Vision:

Scumax group vision is to become a global leader in the manufacturing and supply of dust extraction systems for all industries to keep their work place environment clean and green, and to innovate the new products to support customer in reducing the process time and cost.

### Mission:

Scumax group work towards customer satisfaction with reliable products and solutions, Scumax team is working towards the growth of the company with individual KPI's to achieve the projected turnover of 20 crores by 2022.

Scumax India will be elevated to Ms. Scumax India Private Limited from April – 2020 to build a competent team by appointing 4 directors having vast experience in Manufacturing, Design, Sales and service support in dust extraction and filtration technology.

## Scumax Infrastructure and facility

Scumax India is having infrastructure of 40000 square feet factory shed furnished with 5 and 10 Tons over head cranes, shearing, bending, and rolling machines, Scumax group is having manufacturing networks in major cities like Chennai, Pune, Jamshedpur, and Ahmedabad in India to support the customer for swift delivery of equipment's.

We welcome our customer for vendor evaluation to authenticate the capability of the assignment.

We are pleased to meet you in person and  
invite you for our factory Visit.

## **CONTACT US**

### **SCUMAX INDIA**

Dust extraction and filtration technology....

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