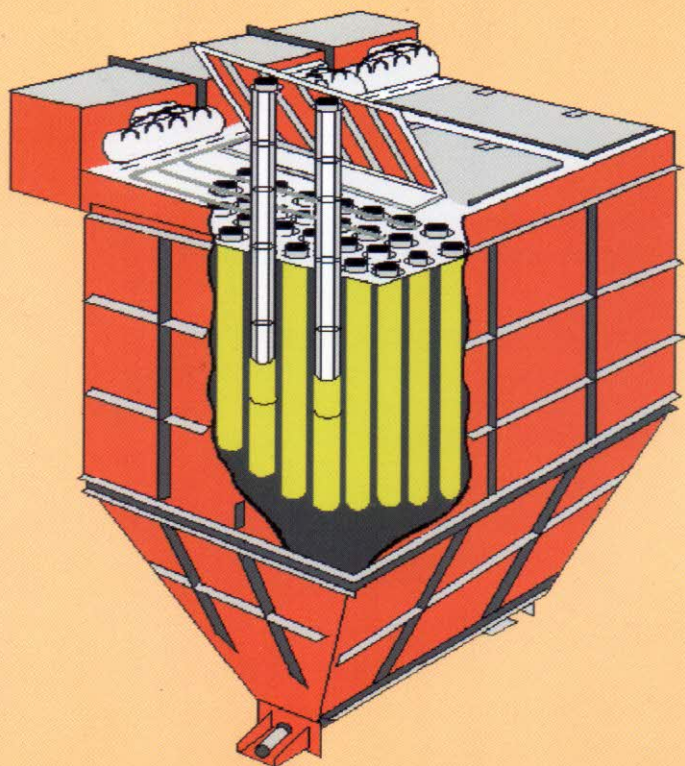


# PULSE JET BAG FILTER



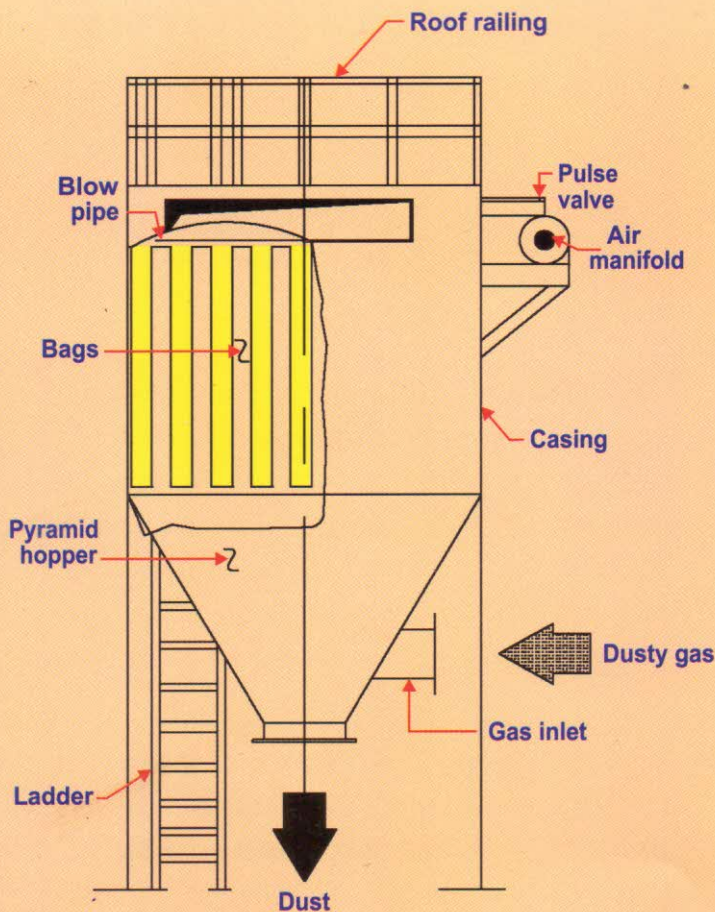
The AVENIR Group manufactures several ranges of fabric filters for dry separation of particulate matter from dust laden air /gases. These filter are used for air /gas temperature up to 200°C and for various type of dust.

The pulse jet bag filter comprises tubular sleeves or bags arranged in a square or rectangular matrix. These sleeves contain cylindrical cages inside, to prevent them from collapsing.

The dust laden air / gas is drawn through the sleeves by air externally connected centrifugal fan and during this process dust gets collected on the out side of the bags.

The bags are periodically cleaned by a short quick pulse of air (Compressed air) directed downwards from top of the bags through a solenoid operated diaphragm valve. The compressed air direction is opposite to the flow of the dust laden air. This reverse flow flexes the fabric bags away from the cages and loosens the dust collected on the bags. Since the duration of pulse is very short in the order of few milliseconds there is no need to shut off the filtration while the cleaning is on. Once, one row of bags is cleaned the next valve is actuated for cleaning the next row of bags. The bags rows are cleaned one after the other till the end which completes one cycle of cleaning. A new cycle starts after an interval as demanded by the process.

## CONSTRUCTION



### CASING & HOPPER :

Shop fabricated mild steel panel of 2/2.5/3mm thickness duly painted externally, which are erected, assembled and seal-welded at site in case of a large fabric filter. However, for smaller transportable size, the filter casing and hopper are shop assembled and welded.

### FILTER MEDIA :

Polyester needle felt of 500gms/m<sup>2</sup> which has good filtration efficiency, abrasion resistance and withstand moderate heat and slight acidity in the collected dust. Other fabrics can also be used if necessary with properties matched to the dust and air conditions.

Sleeve plate : 3 mm MS

Sleeve cages : Steel wires bright zinc plated.

Cleaning of bags : Compressed air at 5-7kg/cm<sup>2</sup> is required.

### BAG FILTER CONTROLLER :

Sequence controller is used for operating the pulse cleaning solenoid valves in a respective sequence in a Bag Filter System.

### DUST DISCHARGE DEVICE :

Rotary air lock is provided at the bottom of the hopper, on request.

## SOME UNIQUE FEATURE

- ★ Compact design
- ★ High collecting efficiency
- ★ Automatic discharge device
- ★ Easy access for maintenance
- ★ Easy replacement of bags
- ★ Simple and reliable operation
- ★ Suitable for out door installation
- ★ Suitable for high or low dust concentration.

## SCOPE OF FIELD AND RANGE OF ACTIVITIES SYSTEMS AND EQUIPMENTS

- Dust proofing / P&V system
- Process Air Conditioning System
- Evaporative Air Cooling System
- Humidification & Ventilation System.
- Hot Air Blowing System
- DC/HT Mill Motor Ventilation System
- Fume Extraction & Scrubbing System
- Pulse Jet Bag Filter & Cyclone
- Paper / PVC Fills & Unitary Air Washer
- Refrigeration System & Cooling Tower
- High, Medium & low Pressure fans
- Limit Load & Industrial Blowers
- Axial Flow & Roof Extractor Fans
- Air Handling & Fan Coil Units
- Water & Air cooled Chilling Units
- Condenser, Chiller & Cooling Coils
- Mist Eliminator, Louvers & Nozzles
- HDPE Pre & Fine air Filter
- Self Cleaning Auto Viscous Air Filter
- Grills, Diffusers & Dampers

SERVICE FROM CONCEPT OF DESIGN TO ERECTION & COMMISSIONING OFFERED BY :-



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