



*Together we can
save the Earth*

www.mantrafiltration.com



Mantra Filtration Products
Supplier of Air Pollution Control Systems & Spares

An Introduction of "MANTRA FILTRATION PRODUCTS"

At MFP, we introduce us as environmental engineering professional designing, manufacturing, marketing and installing the best systems for Air Pollution Control.

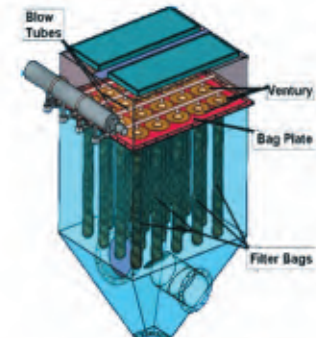
Our products house a wide range of Dust Collector & Electrostatic Precipitator and spare parts like Filter Bags, Cages, Ventury, Pulse Valve, Timer, Rotary Air Lock Valves, Screw Conveyors, I.D./F.D. Fan, Air slide, Collecting Plates, Discharge Electrodes, all type of Insulators etc.

Pulse Jet Bag Filter System:

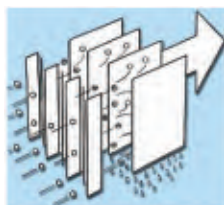
A filter-cleaning apparatus utilizes pulsed air to remove matter collected on a first surface of a filter. Reverse flow loosens the material which is collected in a hopper on the upstream side of the filter. The collected matter may then be combusted in the hopper so that the amount of material collected is minimized. The pulses are directed at the filter with a controlled shape and time to optimize reverse pulsing. Pulsing occurs while the thermal exhaust flow continues so that operation of the engine is not interrupted. A number of valves may be utilized to clean one or more filters.

MFP Manufactures & Supplies of Pulse Jet Bag Filter Systems with below feature:

- High Collecting Efficiency
- Low pressure drop
- Economically Designed
- Low Maintenance & Operative Cost



Electrostatic Precipitator Systems :

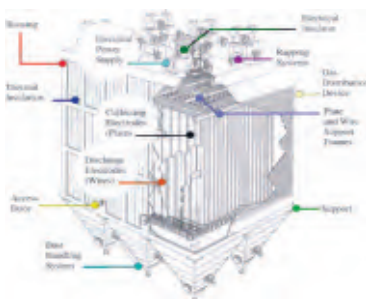


Electrostatic precipitation removes particles from the exhaust gas stream of an industrial process. Often the process involves combustion, but it can be any industrial process that would otherwise emit particles to the atmosphere. Six activities typically take place:

- Ionization - Charging of particles
- Migration - Transporting the charged particles to the collecting surfaces
- Collection - Precipitation of the charged particles onto the collecting surfaces
- Charge Dissipation - Neutralizing the charged particles on the collecting surfaces
- Particle Dislodging - Removing the particles from the collecting surface to the hopper
- Particle Removal - Conveying the particles from the hopper to a disposal point

MFP Supplies of Electrostatic Precipitator Systems with below features:

- Low Pressure Drop
- Low sensitivity to high temperature and aggressive gases
- High Collecting efficiency well in excess of 99%
- Low Maintenance



Spares of Pulse Jet Bag Filter System

Filter Bags/Dust Collector Bags :

For optimum filtration performance we manufacture high quality dust collection conventional bags. These dust collection conventional bags are made from minutely selected media as per the process industry. Different types of media such as needle felt, monofilament and multi-filament are used to develop these bags. With the support of filter cages, these are placed in dust collector. These bags are more effectual in minimizing dust emission level as per requirement of industries. Through the top chamber all the solid contaminants get deposited. With the help of shaking mechanism or reverse pulse jetting mechanism, the particles retained at the outer surface get collected at the bottom.

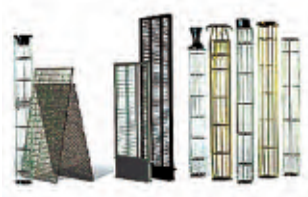


MFP manufactures & Supplies the widest selection of filter bags for practically any application and for any OEM style bag house.

Available Filter media like Polyester, Polypropylene, Homopolymer, Co-Polymer, PPS(Ryton), Nomex, Fiber Glass, PTFE, P-84 with finishes for enhance the performance of bag like Water repellent, Water & Oil repellent, Antistatic, Flame retardant, PTFE Coated, PTFE Membrane Laminated.

Filter Media selection Chart:

Fiber Properties							Max. Operating Temp. °F (°C)	
Fiber	Available In	Tensile Strength	Abrasion Resistance	Acid Resistance	Alkali Resistance	Supports Combustion	Continuous	Surges
Cotton	Woven	Good	Good	Poor	Good	Yes	180 (82)	200 (93)
Polypropylene	Woven, Felted	Excellent	Excellent	Excellent	Excellent	Yes	170 (77)	200 (93)
Nylon	Woven	Excellent	Excellent	Poor	Excellent	Yes	200 (93)	250 (121)
Wool	Woven, Felted	Poor	Fair	Good	Poor	No	200 (93)	230 (110)
Homopolymer Acrylic	Woven, Felted	Good	Good	Very Good	Fair	Yes	260 (127)	284 (140)
Copolymer Acrylic	Woven, Felted	Average	Fair	Good	Fair	Yes	230 (110)	248 (120)
Polyester	Woven, Felted, Knit, Spun Bonded	Excellent	Excellent	Fair	Fair	Yes	275 (135)	300 (149)
Aramid	Woven, Felted	Very Good	Excellent	Fair	Good	No	375 (191)	425 (218)
Teflon®	Woven, Felted	Average	Fair	Excellent	Excellent	No	450 (232)	500 (260)
Fiberglass	Woven, Felted	Excellent	Fair	Good	Fair	No	500 (260)	550 (288)
Ryton®	Woven, Felted	Very Good	Excellent	Excellent	Very Good	No	375 (191)	425 (218)
P84®	Felted	Very Good	Excellent	Very Good	Fair	No	500 (260)	550 (288)



Bag Supporting Cages & Ventury :

Pulse-jet style bughouses are designed to utilize fabric filter bags with internal support structures commonly referred to as cages. Cages provide a means of holding the filter bag open during the particulate collection cycle. Cages must be strong to withstand the pressure from the filter bag exerted during the particulate collection cycle.



MFP provides a wide range of configurations to best fulfill your needs in MS, GI, SS304, SS316 & SS316L with 8, 10, 12, 16 & 20 vertical wires and any spacing of horizontal rings made by 3mm, 4mm & 5mm wire diameter.

We can also supply Ventury made of MS, Aluminium, Cast Iron & Cast Aluminium in any type of design.

Pleated Cartridge Filter Bags :

MFP supplies Deep Pleat Cartridges increase effective filter area significantly over conventional pleated synthetic media. Deeper pleats are allowable media which prevents collapsing of pleats under operating pressure. This unique design uses staggered dimpling on the filtering side which, unlike other dimpling patterns, provides unrestricted air flow and pulse cleaning at the extreme ends of the pleats.



Filter media available in spunbond polyester and polypropylene, PTFE membrane, Aramid, and antistatic (aluminized) media.

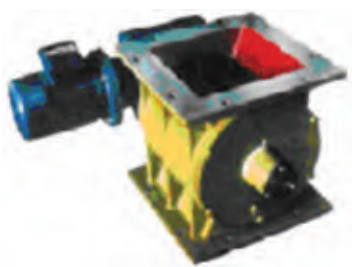
Solenoid Pulse Valve & Sequential Timer :

Pulse-jet cleaning bag Filter system utilise diaphragm valves to pass compressed air from the air supply lines and manifold into the blow piped within the bag filter. These diaphragm valves are usually actuated with electrically operated pilot solenoids.

Solenoid Valves are available in 3/4" to 2" suitable for 24V DC & 110V/230V AC.

Sequential timer controls are important for effective filter bag cleaning. Excessive differential pressure, increased fan power consumption, reduced production process air flow, and decreased filter bag life can result if timer controls are not functioning properly.

Sequential timers are available from 3 to 40 channels.



Rotary Air Lock Valves & Screw Conveyor :

We have in store for our clients, a highly functional gamut of rotary air lock valves that is used to minimize the system loses, while transferring the material between the vessels with different pressure or a volumetric feeder for metering material at specified low rates. Qualitative in nature, these valves hold the below mentioned specifics:

Materials of Construction

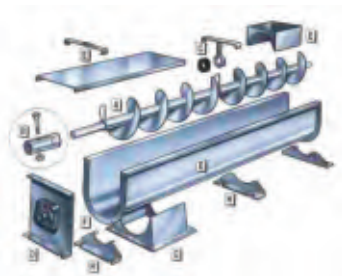
- Cast Iron
- Cast steel
- Aluminium
- Heat resistant steel

Construction detail: From 150 mm to 1000 mm size to meet capacities up to 500Nt/rev.

The Conveyor Screw imparts a smooth positive motion to the material as it rotates within the trough Couplings and Shaft connect and transmit motion to the subsequent screw conveyors. Held in place by self-locking Tem-U-Lac bolts.

Materials of Construction

- M.S.
- Stainless Steel



Accessories for RABH

MFP supplies, designs and sizes of J-Hooks, D-caps and spring assemblies, SS Clamp for all designs of RABH bags.

We offer 100% polyester air-slide fabrics. Airslide fabric (hose) is used for material handling system and pneumatic conveying and is the ideal product for unloading or loading powder. We can supply following sizes:

Thickness: 4mm, 4.5mm 5.0mm.5.5mm,6.0mm.7.0mm.8.0mm
Width: 40mm-2100mm



ID Fan / FD Fan :

MFP can also supply ID FAN/FD FAN of all ranges (1,000-1,00,000 m³ /hr). We can design the ID Fan as customer requirement.

We also supply Diaphragm, FRL unit, manometer, Moulded Coil, Laser cut Tube sheet, Differential Pressure Gauge, Pressure switch, Blow pipes & Pneumatic Tensioning Tool etc.

Spares of Electrostatic Precipitator Systems

Insulators

High voltage support insulators mechanically support and electrically isolate the discharge electrodes from the grounded ESP casing and collecting curtains. Support insulators are designed for high compressive strength to support the loads imposed by the high voltage electrodes and associated framing. Providing the primary application point for high voltage and located in close proximity to the gas stream, high voltage support insulator design must also consider the voltage applied and operating environment.

MFP supplies support insulator suitable for all type of ESP like Thermax, Alstom, ACC, VT Corp, ELS-Elex etc.

We can also Supply various insulator for any type of ESP as follows:

Shaft Insulators, Pin Insulators, Bust Duct Insulator, Wall Through Bushing insulators, Antisway insulator



Collecting plates :

A typical collecting plate used in electrostatic precipitators.



1. Collecting plates are made from rolled steel, and are welded together in the factory to reduce the installation time at the jobsite. Each plate contains electrodes which are positively charged. When the particulate gas enters the electrostatic precipitator and is struck with a negative charge electrode, the positively charged plates act as a magnet and pull the particulate gas to them.

2. The plates have both top and bottom stiffeners and plates which allow better mounting and the ability to deal with more abuse from the rappers. The plates are arranged to form a series of gas passages.

3. There can be anywhere from 30-35 passages inside the electrostatic precipitator shell. The plates are placed parallel to the incoming particulate gas.

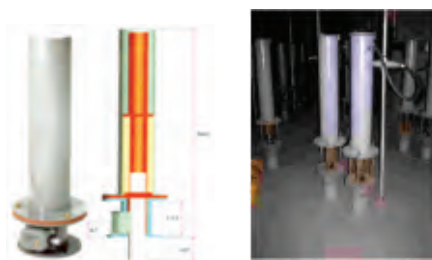
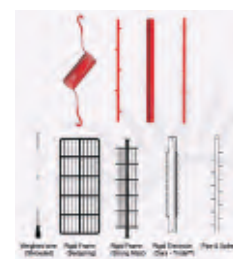
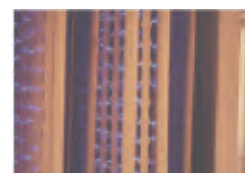
MFP supplies collecting plates suitable for all type of ESP like Thermax, Alstom, ACC, VT Corp, ELS-Elex etc.

Discharge Electrode / Emitting Spring :

The Discharge electrode is the heart of any Electrostatic precipitator and its characteristics are the key to the ESP performance, its annealed copper nails ensure sharp corona points over along time. Most advantage of D.E. is higher corona generation and lower corona onset voltage.

MFP can fulfill your discharge electrode needs for most designed Electrostatic Precipitators. We can supply you with the material, style & size to fit the requirements of your existing precipitation system in Straight round Wire, barbed discharge wire, rigid masts, rigid frames, Rigid Spiked Pipes, & Spiral wire.

MFP supplies discharge electrodes suitable for all type of ESP like Thermax, Alstom, ACC, VT Corp, ELS-Elex etc.



Migi Rapper Coil :

The MIGI rapper is a general use rapper that is ideal for most applications. The MIGI is capable of delivering strong shearing forces to remove even the most tenacious of dusts from collecting curtains and rigid mast designed high voltage systems.

We also supply following parts of ESP

- | | | | |
|-----------------------------|------------------|-------------------------|-------------------|
| ◆ Hyploon Boot seal & Clamp | ◆ PTFE Bearing | ◆ Perforated sheet/PDPL | ◆ TR Set |
| ◆ Thermocouple | ◆ Sensor probe | ◆ Pneumatic cylinder | ◆ RALV |
| ◆ Purge air filter | ◆ Thermostat | ◆ Expansion joint/Cloth | ◆ Slide Gate |
| ◆ Antisway Insulator | ◆ ID. Fan Damper | ◆ Hopper Heater & | ◆ Rapper Plunger |
| ◆ All type of diode | ◆ Bus duct seal | ◆ Rapping Motor | ◆ Asbestos Gasket |

Technical Services & Annual Maintenance Contract

Mantra Filtration Products gives technical services after sales to enhance performance of Bag Filter system & ESP. Technical services & Annual Maintenance Contract comprised of following services:

Technical Services

- Supervision of Erection & Commissioning for Bag Filter System & ESP.
- Project design & Planning
- Inspection
- Start up & Shutdown support and recommending solution to your specific Problem.

Annual Maintenance Contract

- Shut down Maintenance
- Monthly or quarterly basis Maintenance.
- Trouble Shooting

Vision, Mission and Values

Vision

Protecting the environment for future generations with innovative solutions in pollution control.

Mission

MFP is committed to **our customers** by offering to them the experience of a reliable dedicated team that strives to respond to their needs, meeting or exceeding expectations. Our goal is to furnish our customer the solution that provides their organization the best value. We will not sell something they do not need. Our mission is to get it right the first time and every time.

Values

- Honesty** : There is truth, and then there is everything else.
- Integrity** : To mean what we say and do with sincerity.
- Respect** : To treat everyone we encounter as our neighbor.
- Family** : To balance work and what it provides with the reasons why we work.
- Faith/Belief** : To know our purpose and place in life.

Quality Assurance :

1. Provides the best Air Pollution Controlling products to our customer requirement of affordable prices.
2. We treat our customer as partner in solving their APC problems.
3. We provides contentions up gradation in knowledge & skills of people at all levels to improve quality of services & products using by customers.



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738, Krishna Bagh Colony, Behind Press Complex, Indore-452 010

TeleFax : +91-731-2576424 Mobile : +91-97555-89150

E-mail : sales@mantrafiltration.com Website : www.mantrafiltration.com