



Dust Collector



**Eco
Friendly**

Technology For A Sustainable Life

we are harnessing technology to deliver more by utilising the minimum possible natural resources. Join us and be a part of this initiative for a greener tomorrow.





Introduction of Dust Collector

Industrial Dust Collectors are in mandatory requirement to meet the pollution control norms for keeping the environment eco-friendly. Dust collectors separate any metallic or other dust particles from the blasting/thermal spraying/painting/grinding/buffing & clean air is let out in the atmosphere.

Product ranges developed by **PCS** are as follows and they are available in both standard as well as custom made requirements of the customers.

Cyclone Type Dust Collector - Multi Clones | Fabric Bag Type Dust Collector (Manual & Motorized Bag Shaking)
Fabric Bag Cage Type Pulse Jet Dust Collector | Cartridge Type Pulse Jet Dust Collector
Pleated Bag Type Pulse Jet Dust Collector | Wet Scrubbers (Horizontal & Vertical
Weld Fume Dust Collector) | Centrifugal Fans & Blowers | Central Dust Collection System

Industries Served For Ventilation & Dust Collection

PCS has served in almost every industry till now and has created vast knowledge database on the basis of which **PCS** is providing the best solution to all customers:

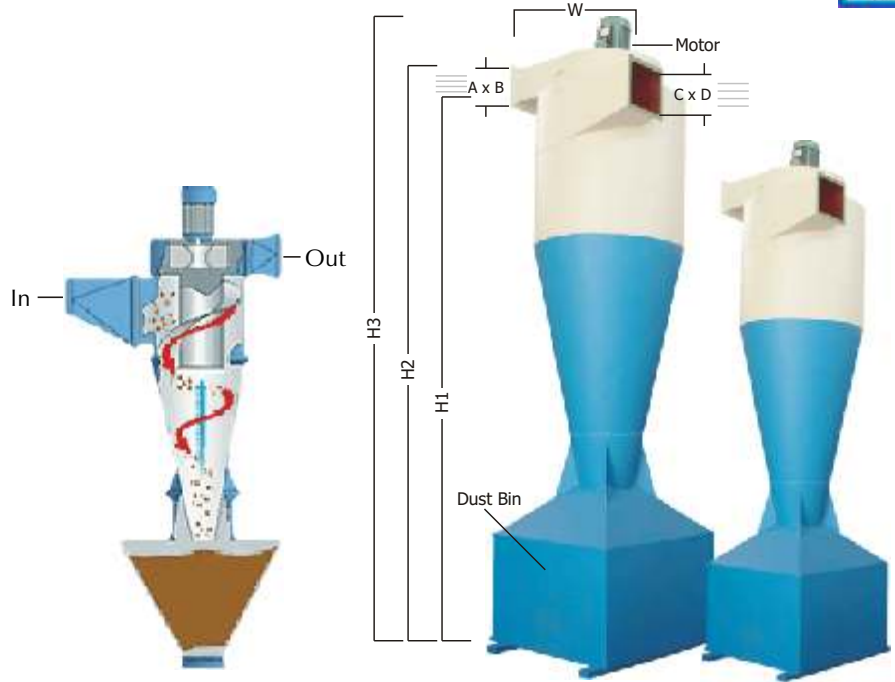
- :: Foundry
- :: Pharma
- :: Iron/steel
- :: Textile
- :: Food
- :: Plastics
- :: Rubber
- :: Cement
- :: Pipe Manufacturing
- :: Machining
- :: Grinding
- :: Glass Manufacturing
- :: Welding
- :: Solar Panel Manufacturing
- :: Diamond/jewellery





Cyclone Dust Collector

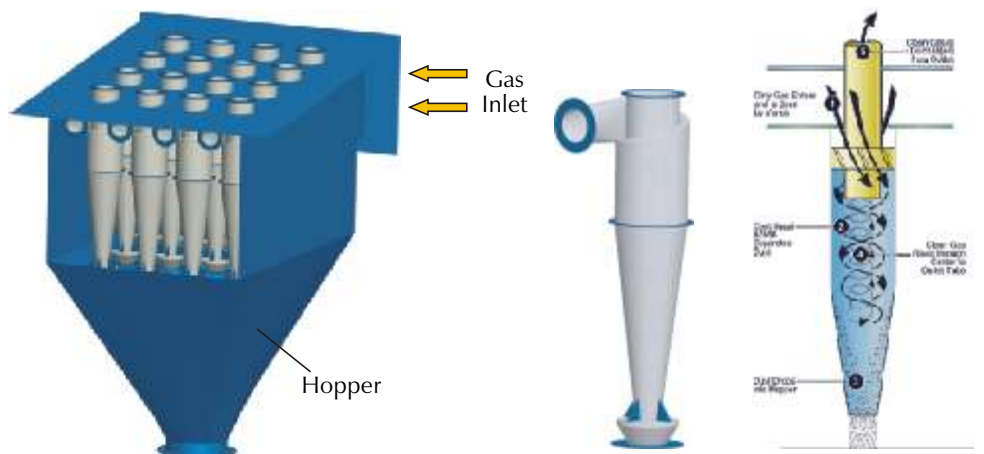
A cyclone dust collector is to separate any metallic or other dust particles from the spraying/ Blasting room and discharge clean air to the atmosphere. In this the suction created by Exhaust Fan causes the dust laden air to enter the Cyclone Dust Collector. In the cyclone the dust particles get separated by a centrifugal action and get settled in a Dust Tray at the bottom of the cyclone. The dust free clean air escaped to the atmosphere through the Exhaust Fan. There by allowing dust to be collected in the dust tray. The collected dust in a dust tray at the bottom of the Cyclone Dust Collector is taken out manually, from time to time.



Model (Dustex)	Blower Capacity (CFM)	Motor H.P.	Dimension							
			A	B	C	D	H1	H2	H3	W
CL-800	800	1.5	120	120	150	200	1590	1800	2050	660
CL-1500	1500	3.0	150	150	200	215	2100	2375	2690	710
CL-3000	3000	5.0	200	200	200	225	2710	3035	3370	830
CL-4000	4000	7.5	240	240	225	265	3330	3675	4055	940
CL-5000	5000	10.0	300	300	250	340	3900	4300	4720	1345

Multiclone Dust Collector

Multiclone is a primary collector with or without the optional after-filter, to separate dust of moderate to coarse particle size. The PCS multiclone will remove up to 90% (above 40 microns) of dust generated during blasting.



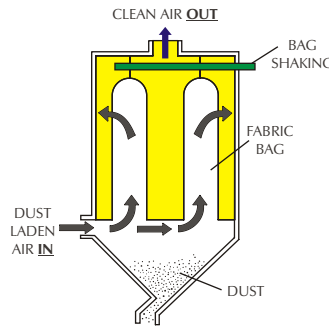
Fabric Bag Dust Collector

How it Works

Dust laden air is drawn into dust collector through inlet due to suction created by exhaust fan and passes through fabric bags. Heavier dust particles fall into hopper due to loss of momentum. Finer dust gets deposited on inner surface of fabric bags and clean air passes across outer surface of filter bags and then exit into atmosphere through outlet. Bags are cleaned through motorised shaking arrangement. When motor is switched OFF, shaking cycle gets activated automatically and bags are shaken for preset time through timer. Dust released from filter bags slides downward into hopper for further collection into dust bin.

Special Features

- :: Modular Design with no moving parts :
- :: Low maintenance and replacement of fabric bags is easy and quick.
- :: Fair Air to filter ratio :
- Assures longer life of bags.
- :: Variety of fabric material :
- Fabric bags are normally of cotton wovensatin cloth. However, other materials can be supplied to suit individual application.



Specification Sheet

Model Dustex™	Height mm	Width mm	Depth mm	Filter Area (sq. ft.)	No. of Bags	Capacity Cfm. cub.ft./min. (cub.mtr./hr.)		Fan Motor HP (KW)	Shaker Motor HP (Qty.)
FB-36-75	5050	2000	1650	485	36	3000	(5100)	7.5 (5.5)	0.5 (1)
FB-48-100	5050	2400	1650	645	48	4000	(6800)	10 (7.5)	0.5 (1)
FB-60-125	5050	2800	1650	805	60	5000	(8500)	12.5 (9.3)	0.5 (1)
FB-75-150	5050	3200	1650	970	72	6000	(10200)	15 (11)	1 (1)
FB-96-200	5050	4000	1650	1290	96	8000	(13600)	20 (15)	1 (1)
FB-120-250	5050	4800	1650	1610	120	10000	(17000)	25 (18.5)	1 (1)
FB-144-300	5050	5800	1650	1940	144	12000	(20400)	30 (22)	1 (2)
FB-192-400	5050	7300	1650	2580	192	16000	(27200)	40 (30)	1 (2)
FB-240-500	5050	9000	1650	3220	240	20000	(34000)	50 (37)	1 (3)
FB-288-600	5050	11000	1650	3875	288	24000	(40800)	60 (45)	1 (4)
FB-360-750	5050	13000	1650	4830	360	30000	(51000)	75 (56.5)	1 (4)
FB-480-1000	5050	17200	1650	6440	480	40000	(68000)	100 (75)	1 (5)
FB-600-1250	5050	21300	1650	8050	600	50000	(85000)	125 (94)	1 (5)

* These data are at 200 mm WC Static Pressure & are indicative only.

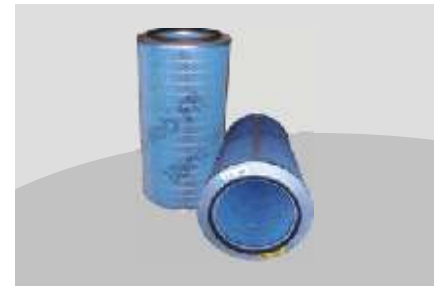
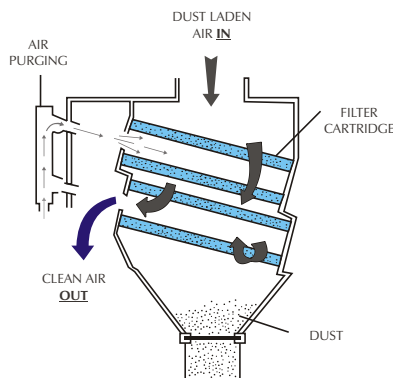
Cartridge Dust Collector

How it Works

Dust laden air is drawn into dust collector through inlet due to suction created by exhaust fan and passes through filter cartridge elements. The abrasive resistant inlet promotes dropping out high particulate, generates uniform air flow, thus increases filter life. The dust gets deposited on outer surface of cartridges and clean air flows through the center passage of cartridge into clean air plenum. Clean air further exit into atmosphere through outlet duct. Cartridge are periodically and automatically get cleaned through air purging. Sequence circuit activates solenoid valves for high pressure air purging of preselected cartridges. Dust released from cartridges slides downward into the hopper for further collection into the dust bin.

Special Features:

- :: Downflow Principle :
Assures high collection efficiency.
- :: Modular Design with no moving parts :
Low maintenance and replacement of cartridge element is easy and quick.
- :: Fair Air to filter ratio :
Assures longer life of cartridges
- :: Variety of fabric material :
Cartridges are normally of synthetic webbed material. However, other materials can be supplied to suit individual application.
- :: Quality & reliability :
Dependable products with in-build quality for trouble free operation.



Specification Sheet

Model Dustex™	Height mm	Width mm	Depth mm	Filter Area (sq. mtr.)	No. of Sole Valve	Capacity Cfm. cub.ft./min. (cub.mtr./hr.)	Fan Motor HP (KW)
CT-1-1-10	1320	1660	605	16	1	500 (850)	1 (0.75)
CT-2-2-20	1870	1660	605	32	2	1000 (1700)	2 (1.5)
CT-3-3-30	2420	1660	605	48	3	1500 (2550)	3 (2.25)
CT-2-4-50	2030	1100	1525	64	4	2000 (3400)	5 (3.8)
CT-3-6-75	2460	1100	1525	96	6	3000 (5100)	7.5 (5.5)
CT-2-8-100	1280	1100	2320	128	4	4000 (6800)	10 (7.5)
CT-3-12-125	3440	1100	2320	192	6	5000 (8500)	12.5 (9.4)
CT-3-12-150	3440	1100	2320	192	6	6000 (10200)	15 (11.3)
CT-4-16-200	3870	1100	2320	256	8	8000 (13600)	25 (15)
CT-3-24-250	3440	2100	2320	384	12	10000 (17000)	20 (18.75)
CT-3-24-300	3440	2100	2320	384	12	12000 (20400)	30 (22.5)
CT-4-32-400	4520	2045	2320	512	16	16000 (27200)	40 (30)
CT-4-48-500	4200	3120	2320	768	24	20000 (34000)	50 (37.5)
CT-4-48-600	4200	3120	2320	768	24	24000 (40800)	60 (45)
CT-4-64-750	4520	4100	2320	1024	32	30000 (51000)	75 (56.3)
CT-4-80-1000	4520	5040	2320	1280	40	40000 (68000)	100 (75)

* These data are at 200 mm WC Static Pressure & are indicative only.

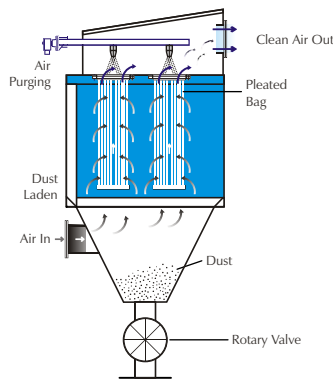
Pleated Bag Dust Collector

How it Works

Dust laden air is drawn into dust collector through inlet due to suction created by exhaust fan and passes through Pleated Bag elements. The abrasive resistant inlet promotes dropping out high particulate, generates uniform air flow, thus increases filter life. The dust gets deposited on outer surface of Pleated Bag and clean air flows through the center passage of Pleated Bag into clean air plenum. Clean air further exit into atmosphere through outlet duct. Pleated Bag are periodically and automatically get cleaned through air purging. Sequence circuit activates solenoid valves for high pressure air purging of preselected Pleated Bag. Dust released from Pleated Bags slides downward into the hopper for further collection into the dust bin.

Special Features:

- :: Fair Air to filter ratio :
Assures longer life of cartridges
- :: Variety of material :
Cartridges are normally of synthetic webbed material. However, other materials can be supplied to suit individual application.
- :: Modular design with no moving parts.



Typical Application for Ventilation & Dust Collection

- :: Shot Blasting Rooms.
- :: Metal and Powder Spraying Enclosures.
- :: Plasma Spray Acoustic Chamber.
- :: Smoke and Welding Fume Extraction.
- :: Wherever Dust Extraction is a necessity.



Specification Sheet

Model	Height mm	Width mm	Depth mm	Filter Area (sq. ft.)	No. of Bags	No. of Sole Valve	Capacity Cfm. (cub.ft./min. (cub.mtr./hr.))	Fan Motor HP (KW)
PJ-12-75	6090	1500	1200	496	12	3	3000 (5100)	7.5 (5.5)
PJ-16-100	6090	1500	1500	661	16	4	4000 (6800)	10 (7.5)
PJ-20-125	6090	1800	1500	826	20	5	5000 (8500)	12.5 (9.3)
PJ-24-150	6090	2100	1500	992	24	6	6000 (10200)	15 (11)
PJ-32-200	6090	2700	1500	1322	32	8	8000 (13600)	20 (15)
PJ-40-250	6090	2700	1800	1652	40	8	10000 (17000)	25 (18.5)
PJ-50-300	6090	3300	1800	2065	50	10	12000 (20400)	30 (22)
PJ-60-400	6090	3900	1800	2478	60	12	16000 (27200)	40 (30)
PJ-75-500	6090	5000	1800	3100	75	15	20000 (34000)	50 (37)
PJ-100-600	6090	7700	1800	4130	100	20	24000 (40800)	60 (45)
PJ-120-750	6090	8900	1800	4956	120	24	30000 (51000)	75 (56.3)
PJ-150-1000	6090	10000	1800	6200	150	30	40000 (68000)	100 (75)
PJ-210-1250	6090	14000	1800	8670	210	42	50000 (85000)	125 (94)

* These data are at 200 mm WC Static Pressure & are indicative only.

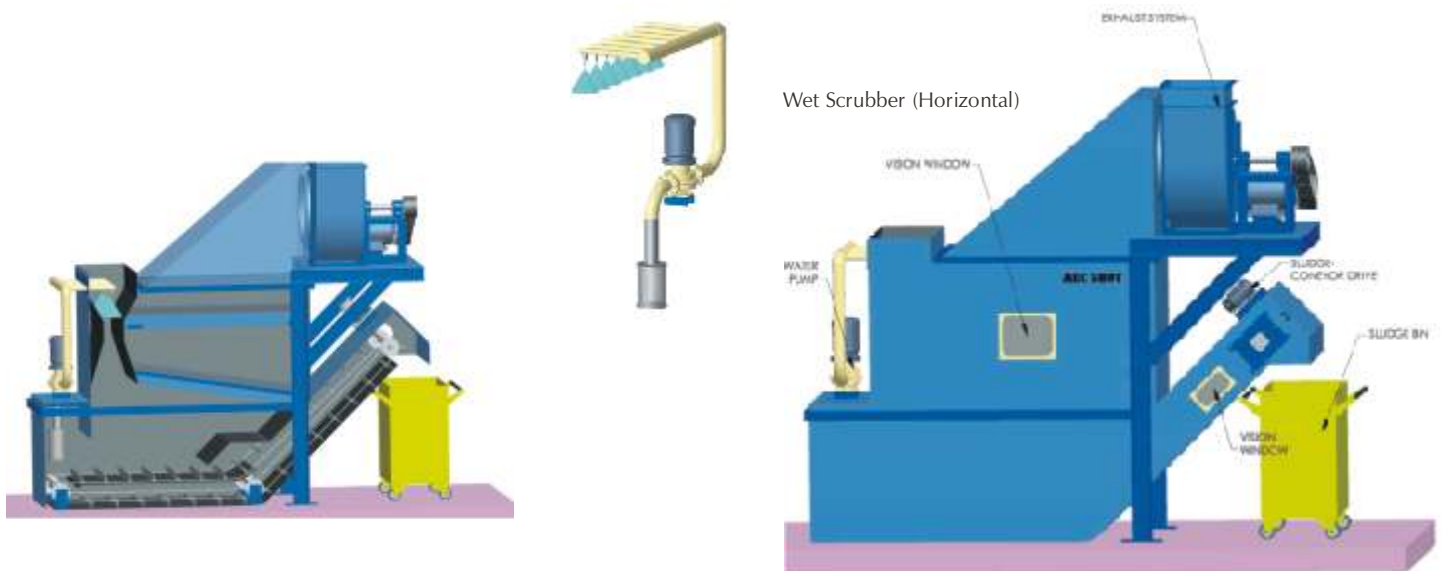


Wet Scrubber (Horizontal & Vertical)

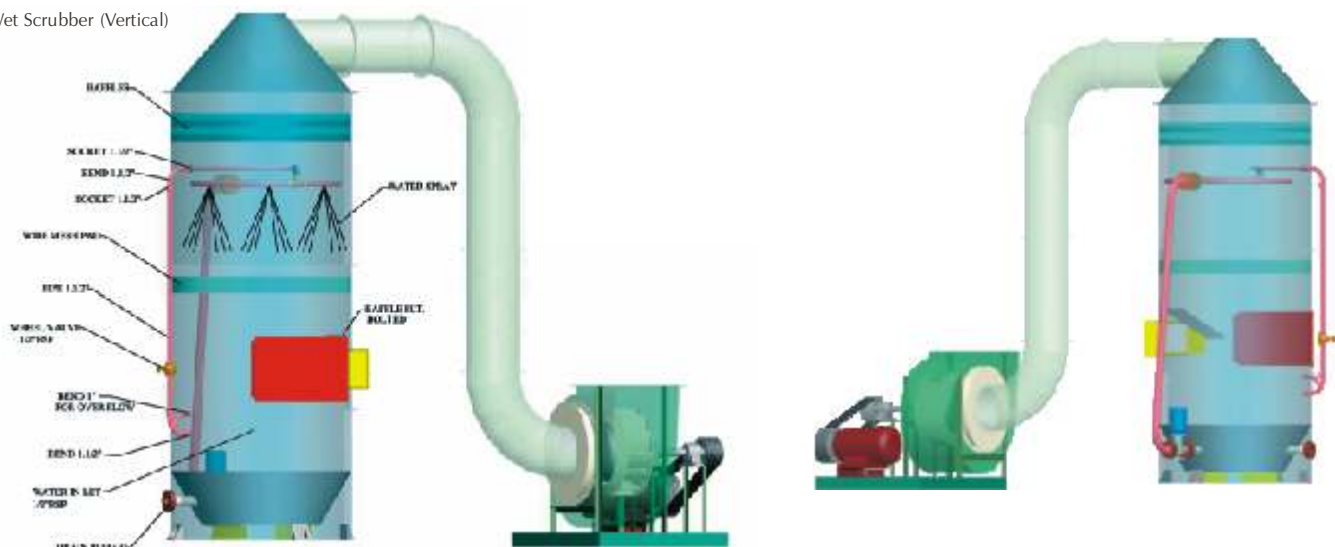
Scrubbers are generally used for different kind of application where fabric filters some time fail to arrest pollutant.

P C S Wet Scrubber consisting of single stage scrubbing Filters which is located at the bottom of Multi Nozzles. The Nozzles Sprays water to clean the Scrubber Filters. This compact apparatus integrates of a conventional exhaust gas cleaning process, i.e. Paint Spray Fume separation by wet cleaning. Hence, investment and running costs for the Fume separation process is reduced without any loss of separation efficiency.

The Paint Spray Fume Scrubber is suitable for collecting 3 micron and above sized particulate. In Scrubber the fume is sucked through the ducts connected from Paint Spray Room to the scrubber fume Inlet and flows upward through the single stage Scrubbing Filter. The contaminated air get washed by spraying water from Spray sections tangential set of vanes and flows out through the Exhaust Fan. Thus keeping the environment friendly.



Wet Scrubber (Vertical)



Centrifugal Fan & Blowers

These fans are available in different configurations - Double inlet double width, Single inlet single width and Inline duct fans with different impeller blade profiles.

Radial blades, backward inclined, backward curved, aerofoil, forward curves, padel type etc. to meet different duty conditions with low pressure, medium pressure and high pressure applications)

These fans are ideally used in Air-conditioning and Ventilation, Pollution Control, Fume Extraction, Dust collection, ID fans for boilers and furnaces, paper industries, process industries etc.



Exhaust & Ventilation Systems

Ambient air can be put to ventilation use by employing micron filters, ductwork, grilles and blower. Room pressurization can be done with these equipments for providing higher inside pressure than ambient to prevent outside dust ingress. Tunnel ventilation fans are offered for long distance ventilation.

Axial fans are widely used in ventilation application, Driers, Food processing Industry, Railway Locomotives, Power plants etc.,



Weld Fume Dust Collector

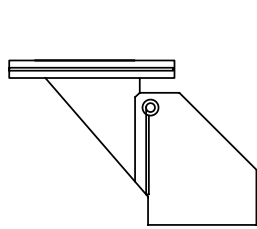
PCS Weld Fume Dust Collector is to separate any metallic or other dust particles from the spraying zone and discharge clean air to the atmosphere.

During the spray process dust is generated. To keep the environment friendly suction is created by an Exhaust Fan causes the dust laden air to strike the water curtain enter a wider area after an abrupt change in its direction.

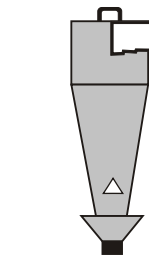


Dust Collector Accessories / Spares

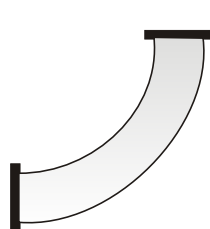
All the accessories are available for **PCS** Dust Collector. All the specification will be available on request for the accessories :



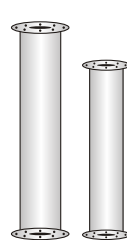
Flap Valve



Cyclones & Multi-cyclones



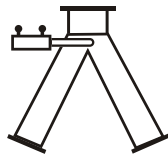
Bends



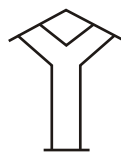
Ducts



Pipeline



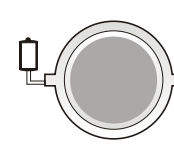
Diversion Y-pieces



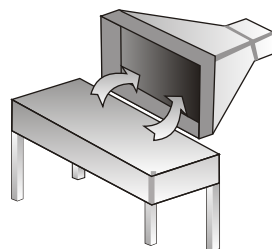
Discharge Vents



Hoppers



Actuators With Valves/dampers



Catching Hood



Swivel Hood



Dust Collector Accessories / Spares

All the accessories are available for **P C S** as well as other brands equipments.

All the specification will be available on request for the accessories :



Fabric Bag & Cages

Fabric Bags are fitted from the clean plenum and have snap ring for the fitting in the tube sheet. Cages are the support for bags in vacuum.



Sequential Timer

Sequential programmable timers are supplied with dust proof protection.



Cartridge Filter

We offer widest range of cartridges filter, panels for the dust removal technology.



Venturies

Venturi is a flow enhancer and is fitted in the cage with the help of screws. Unique designs to facilitate quick removal of bags from top clean plenum available in various material of construction.



Pleated Bag Filter

We offer widest range of Pleated Bag Filter for the dust removal technology.



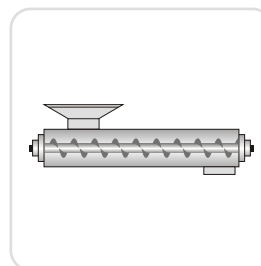
Rotary Valve

The prime function of a rotary valve is to allow the flow of dust from one hopper to another while maintaining a good airlock condition.



Solenoid Pulse Valve

Pulse Jet Valves are of diaphragm type, which are actuated by an attached solenoid coil. Solenoid coil gets energized by signal provided by timer, which in turn operates the diaphragm valve.



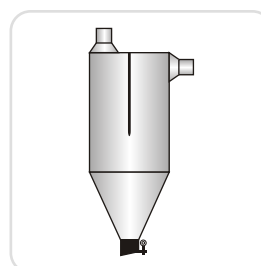
Screw Conveyers

We offer a wide range of conveying capacities and lengths screw conveyors.



Manometer

Manometer is indicates the choking of Filter bags / elements



Media Trap

Media Trap used for Trapping the usable media going to dust collector.



Dust Collector at site for Blast Room



Pleated Bag Dust Collector for Airless M/c

Pleated Bag Dust Collector for Airless M/c

Fabric Bag Dust Collector at site for Blast Room



Cartridge Dust Collector



Fabric Bag Dust Collector



Dust Collector with Manual Shaking



Fabric Bag Dust Collector



Blasting, Metallizing & Painting Equipments

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