



MEC SHOT BLASTING EQUIPMENTS PVT. LTD.

An ISO 9001:2015 & ISO 14001:2015 Certified Company & Our Products Quality is **(** marked

Industrial Dust Collector





Technology For A Sustainable Life

At MEC SHOT 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 separates 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 "MEC SHOT" are as follows and they are available in both standard as well as customize 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

"MEC SHOT" has served in almost every industries till now and has created vast knowledge database on the bases of which "MEC SHOT" 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 Pannel Manufacturing
 - :: Diamond/jewellary







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 | Blower Capacity | Motor | Dimension | | | | | | | | |
|----------|-----------------|-------|-----------|-----|-----|-----|------|------|------|------|--|
| (Dustex) | (CFM) | H.P. | Α | В | С | 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 MEC SHOT 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 AreaNo. of(sq. ft.)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.

> AIR PURGING

> > CLEAN AIR <u>OUT</u>

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 | Height | Width | Depth | Filter Area | No. of | Capacity Cfm. | | Fan Motor | |
|---------------------|--------|-------|-------|-------------|------------|---------------|----------------|-----------|---------|
| Dustex [™] | mm | mm | mm | (sq. mtr.) | Sole Valve | cub.ft./min. | (cub.mtr./hr.) | 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) |

DUST LADEN AIR <u>IN</u>

> FILTER CARTRIDGE

DUST

* 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. The MEC SHOT 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.



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

MEC SHOT Weld Fume Dust Collector is to separate any metallic or other dust particles form 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 "MEC SHOT" Dust Collector. All the specification will be available on request for the accessories :



Dust Collector Accessories / Spares

All the accessories are available for "MEC SHOT" 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.

In House Facility:



NC Hydraulic Shearing Machine



Pinacho Lath Machines



CNC Press Brake Machine

Tubler Duct Manufacturing M/c



Fan Balancing M/c



Robotic Welding M/c



Packing Machine



Duct Manufacturing M/c





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 Collecto



Fabric Bag Dust Collector



Dust Collector with Manual Shaking



Fabric Bag Dust Collector



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