Now you can have a pollution free environment

We are an ISO 9001:2015 Company

Powertech Pollution Controls Pvt. Ltd.

Bangalore, India.

Company Profile

Powertech Pollution Controls Pvt Ltd was established in the year 1996 , for the design and manufacture of a wide range of air pollution control equipment , specifically Electrostatic Filters, for the capture and control of most types of fumes , mist , smoke and fine dust , generated on the shop floor , during the production process. Electrostatic filters are marketed under the brand name of Fumekiller® and Dustkiller® throughout India and abroad.

These systems are highly efficient (90% to 98%), use 40% less power, have very low maintenance,use permanent , many times re-usable filter media ,and can capture particulates down to 0.01 micron level (theoretical limit of 2-stage electrostatic filtration), and are ideal for the capture of fumes, smoke,oil/coolant mist and fine powders with the additional advantage of possible reuse of the collected oil/coolant or powder. These Filters may also be used for Clean Room applications of upto Class 1,00,000, and as efficient prefilters for higher class of Clean Rooms (where the life of expensive terminal HEPA filters can be extended by about 3 times).

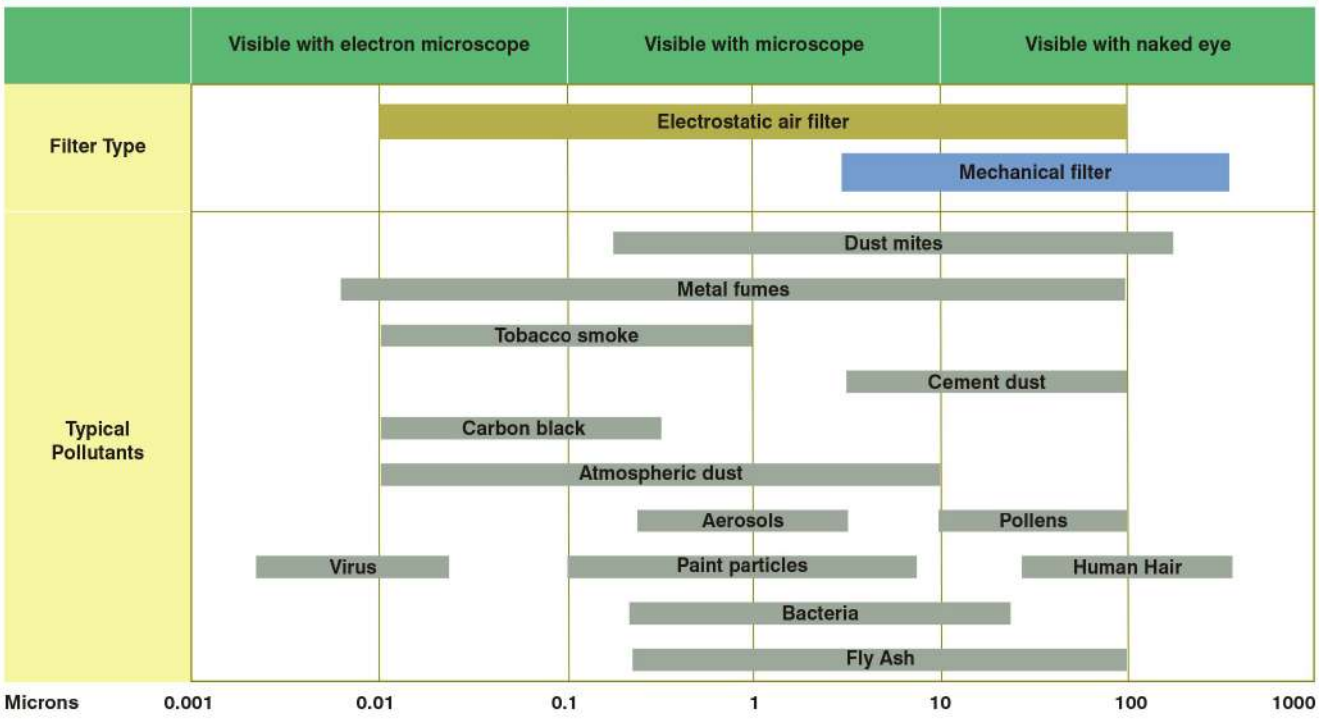
A wide range of 2-stage Electrostatic filters are being used by many industry leaders, including Wipro Infrastructure Ltd,Toyota Kirloskar Motors , TVS Motor Co., Hindusthan Aeronautics Ltd, Bharat Electronics Ltd, Yuken India Ltd, Kennametal India Ltd, Maruti Suzuki India Ltd., Bhaba Atomic Research Centre, Automotive Axles Ltd , Vikram Sarabhai Space Centre , Delphi TVS Ltd , Reserve Bank of India , Titan Industries Ltd , Exide India Ltd , ABB Ltd , among many others.

These are typically used for the capture of fumes , smoke ,mist and fine dust from welding , CNC machining , quenching , hardening , heat treatment ,annealing , soldering , tinning , diesel gensets , curing ,boilers , furnaces , etc.

Our fume extraction systems have been approved by Agie Charmilles Technologies, Switzerland, for use with their Electro Discharge Machines in India , for the control of fumes. We also manufacture a range of unit dust collectors under the brand name of DustBag® which are used for the capture of most types of dry and mildly wet dust from cast iron machining , surface grinders , tool & cutter grinders, deburring , polishing , mixing , stripping , etc

The Managing Director - Mr. Philip Thomas, B.E. (Hons.) Electronics, B.E. (Hons.) Electrical, M.B.A has over a decade of Industrial experience in senior management positions . With his association with the Semiconductor industry, he initiated the design and manufacture of Electrostatic Filters using state-of-the-art technology. Our marketing team consists of engineers, who will undertake technical site study and suggest the optimal solution. The company has a team of dedicated representatives in place , throughout India, who will provide excellent application study and service backup, to solve most of your problems concerning airborne pollutants. Quality Control is an obsession through out the organisation and is evident in the list of our highly satisfied customers.

Particle Sizes



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Dustkiller®

Dustkiller® - Dust filtration system, is a high-efficiency, two-stage electrostatic precipitator, designed, developed and manufactured by Powertech Pollution Controls Pvt. Ltd. Bangalore, India.

Features: This equipment can achieve a high level of dust control in any closed area . Very fine floating particles can be captured before they can settle down on sensitive precision equipment . It provides high dust capture efficiency . All filter modules are many times washable and re-usable during the life of the equipment.Maintenance and running costs are low when compared to conventional mechanical filters.We have incorporated safety features such as high voltage fault trip circuitry for reliable , safe and efficient functioning. These systems contribute to a safer , healthier work environment where toxic airborne pollutants are removed. We provide excellent factory support and product expertise based on years of industrial process emission control.

Applications : Dustkiller® can be used for controlling dust and fine particles in any closed room, preferably but not necessarily fitted with window / split type airconditioners - electronic labs, mechanical precision assembly areas, standards room, metrology labs, pharmaceuticals, bio-tech labs etc., or wherever dust control is a necessity. Dustkiller® can be quickly installed without major changes in the existing area.

How it Works: Dust and fine particulate matter are sucked in with the air stream by the centrifugal blower (1) through the inlet (2) on top. These enter the prefilter (3) where large particles are removed . The remaining fine particles then enter the electrostatic modules (4) where, between a series of parallel aluminium plates, they receive a high +ve charge. These positively charged particles then pass through another series of aluminium plates which are negatively charged. Here, the particles are attracted to the oppositely charged aluminium plates and stick to them just like iron filings are attracted to a magnet, but with one difference - the particles remain adhered to the plates even when the electrostatic filter is switched off. The air, now devoid of particles, escape through the outlet (5) as clean air. The postfilter (6) help in even distribution of air flow through the electrostatic module and also controls odor & smell when filled with activated carbon granules.

Technical Specifications*

Model	DK250	DK500	DK1000
Air Flow Capacity	250Cu mtrs/hour	500Cu mtrs/hour	1000Cu mtrs/hour
Input Voltage	230V±10%	230V±10%	230V±10%
Current Drawn	0.25Amps	0.35Amps	0.7Amps
Filters	Prefilters : Wire mesh Filter Modules : Electrostatic with aluminium plates & high voltage insulators. Postfilter : Activated carbon granules	Prefilters : Wire mesh Filter Modules : Electrostatic with aluminium plates & high voltage insulators. Postfilter : Activated carbon granules	Prefilters : Wire mesh Filter Modules : Electrostatic with aluminium plates & high voltage insulators. Postfilter : Activated carbon granules
Filter Efficiency	90% to 98% for airborne particles	90% to 98% for airborne particles	90% to 98% for airborne particles
Power Pack	4KV to 6KV DC	4KV to 6KV DC	8KV DC - 10KV DC 4KV DC - 6KV DC
Suction Fan	Centrifugal blower, 60 watts, 1 phase	Centrifugal blower, 80 watts, 1 phase	Centrifugal blower, 160 watts, 1 phase
Dimensions in mm (LxWxH)	Enclosure 400x320x660	Enclosure 500x360x850	Enclosure 900x360x850
Mounting	Table top, Floor mounted, Wall mounted with fixtures	Floor mounted, Wall mounted with fixtures	Floor mounted, Wall mounted with fixtures

* Due to continuous innovation, specifications are subject to change without notice.

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Filter Modules

These Filter Modules are high-efficiency, two-stage electrostatic filters, designed, developed and manufactured by Powertech Pollution Controls Pvt. Ltd. Bangalore, India.

Features: The filter modules are many times washable and re-usable during the life of the equipment. Maintenance and running costs are low when compared to conventional mechanical filters.We have incorporated safety features such as high voltage fault trip circuitry for reliable , safe and efficient functioning. These systems contribute to a safer , healthier work environment where toxic airborne pollutants are removed. We provide excellent factory support and product expertise based on years of industrial process emission control.

Applications : These modular filters are used for custom-built applications & can be added module by module to suit various air flow rates. These modules are used as primary filters for class 100,0000 Clean Rooms & as prefilters for higher Class levels of Clean Rooms. When used as prefilters for higher class levels, they can increase the life of the terminal filters. The total pressure drop as compared to conventional prefilters is negligible. These filters can be used in a centralized system for removal of fumes, smoke, oil mist, coolant mist, dust and fine powders from many in - plant industrial processes which generate pollutants rendering the shop floor unhealthy.

How it Works : Each filter module can handle an air flow rate as specified. The required quantity of modules are placed in an MS painted enclosure. The air inlet side is placed in the air stream using a suitable adaptor ducting. The power pack feeding the electrostatic voltages to the Modules is separately mounted in a control panel near the MS enclosure with the electrical connections made through conduits. Prefilters and post filters are placed before and after the electrostatic filter module. Dust and file particulate are sucked into the filter module with the air stream. These first enter the prefilters which prevent large particles entering the modules. The fine particles then enter the modules where, between a series of parrallel aluminium plates, they receive a high positive charge. The positively charged particles then pass through another series of negatively charged aluminium plates. Here, the particles are attracted to the oppositely charged plate and stick to them like iron filings to a magnet, but with a difference - the particles remain adhered to the plates even when the electrostatic filter is powered off. The clean air, devoid of particles, escapes through the after filters. The postfilters help in distribution of the air flow through the electrostatic filter modules.

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Technical Specifications*

Filter Modules	FF 4000	FF 3000	**FF 2000**	FF 500	FF 250
Air Flow Capacity	4000-5000 Cu Mtrs./hour	3000-3500 Cu Mtrs./hour	2000-2500 Cu Mtrs./hour	500-550 Cu Mtrs./hour	250 Cu Mtrs./hour
Input Voltage	230V±10%	230V±10%	230V±10%	230V±10%	230V±10%
Module Material	Aluminium, Stainless Steel, Ceramic insulators	Aluminium, Stainless Steel, Ceramic insulators	Aluminium, Stainless Steel, Ceramic insulators	Aluminium, Stainless Steel, Ceramic insulators	Aluminium, Stainless Steel, Ceramic insulators
Enclosure for Module	Mild Steel, Powder Coated	Mild Steel, Powder Coated	Mild Steel, Powder Coated	Mild Steel, Powder Coated	Mild Steel, Powder Coated
Filters Efficiency	90% to 98% for airborne particles	90% to 98% for airborne particles	90% to 98% for airborne particles	90% to 98% for airborne particles	90% to 98% for airborne particles
Dimensions in mm of Modules (LxWxH)	685x310x715	550x310x715	410x310x715	377x195x290	235x195x290
Power Pack High Voltage	8KV DC to 10KV DC & 4KV DC to 6KV DC	8KV DC to 10KV DC & 4KV DC to 6KV DC	8KV DC to 10KV DC & 4KV DC to 6KV DC	8KV DC to 10KV DC & 4KV DC to 6KV DC	4KV to 6KV DC
Safety Features	Electronic trip for high voltage Limit switch trip for opening of door	Electronic trip for high voltage Limit switch trip for opening of door	Electronic trip for high voltage Limit switch trip for opening of door	Electronic trip for high voltage Limit switch trip for opening of door	NA
Mounting	Floor mounted enclosure, angle stand	Floor mounted enclosure, angle stand	Floor mounted enclosure, angle stand	Floor mounted enclosure, angle stand	Floor mounted enclosure, angle stand

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DustBag®

Dust Bag®, dust collectors, are fitted with Non-woven polyster fabric capable of capturing dust particles as small as 10 microns and are designed, developed and manufactured by Powertech Pollution Controls Pvt. Ltd., Bangalore, India.

Features: This equipment can capture large quantities of dust from any generating source with high capture efficiency . The DustBag® uses non-woven polyester cloth as the filter media . We can incorporate additional safety features such as pressure differential switch , fire retardant as well as antistatic filter media , etc , as optional accessories. These systems contribute to a safer , healthier work environment where toxic airborne pollutants are removed. We provide excellent factory support

Applications : DustBag®, dust collectors can be used to capture dry or mildly wet particles from tool & cutter grinders, cast iron machining, graphite / carbon machining, surface grinders, drilling, milling, deburring, polishing, mixing etc.,

How it works: The DustBag® dust collector can be used in 2 ways. It can be used for pedestral grinders or similar applications where the grinding wheel can be enclosed upto 70% with a specially designed suction hood. It can also be used for surface grinders, CNC machining, or similar application where the wheel or machining tool cannot be enclosed. In this case a rectangular suction hood can be placed facing the stream of the dust particles near the grinding wheel edge or machining tool edge. During the dust generation process, dust particles are drawn into the DustBag® through the suction hood. The larger dust particles in the airstream, after entering the DustBag® fall to the bottom collection tank immediately. The finer dust particles reach the filter bag and are trapped there. The filter bags can be de-dusted manually or automatically (option). It is not necessary to remove the bags for cleaning.

Technical Specifications*

Model	DB 425/0.75hp	DB 875/1.5hp	DB 1750/3hp	DB 3000/5hp	DB 4500/7.5hp
Air Flow Capacity	425 Cu mtrs./hr	875 Cu mtrs./hr	1750 Cu mtrs./hr	3000 Cu mtrs./hr	4500 Cu mtrs./hr
Input Voltage	415V±10%	415V±10%	415V±10%	415V±10%	415V±10%
Power Consumption	0.5KW, 3phase	1.1KW, 3phase	2.2KW, 3phase	3.7KW, 3phase	5.5KW, 3phase
Suction Fan	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Filter Media	Polyster Non-woven fabric, 10 micron	Polyster Non-woven fabric, 10 micron	Polyster Non-woven fabric, 10 micron	Polyster Non-woven fabric, 10 micron	Polyster Non-woven fabric, 10 micron
Protection	DOL starter with overload relay	DOL starter with overload relay	DOL starter with overload relay	DOL starter with overload relay	DOL starter with overload relay
De-dusting	Spring mounted bag with lever. When lever is shaken bag dedusts. Collected dust can be removed from collection bin at bottom	Spring mounted bag with lever. When lever is shaken bag dedusts. Collected dust can be removed from collection bin at bottom	Spring mounted bag with lever. When lever is shaken bag dedusts. Collected dust can be removed from collection bin at bottom	Spring mounted bag with lever. When lever is shaken bag dedusts. Collected dust can be removed from collection bin at bottom	Spring mounted bag with lever. When lever is shaken bag dedusts. Collected dust can be removed from collection bin at bottom
Suction hood	Special suction hood to cover 70% of the grinding wheel if possible or with freely placed suction hood near dust generation spot.	Special suction hood to cover 70% of the grinding wheel if possible or with freely placed suction hood near dust generation spot.	Special suction hood to cover 70% of the grinding wheel if possible or with freely placed suction hood near dust generation spot.	Special suction hood to cover 70% of the grinding wheel if possible or with freely placed suction hood near dust generation spot.	Special suction hood to cover 70% of the grinding wheel if possible or with freely placed suction hood near dust generation spot.
Dimensions (LxWxH)	850x620x1300	880x670x1300	1100x780x1800	1250x870x1800	1250x950x2700
Suction Pressure Static	8" WG	8" WG	8" WG	8" WG	8" WG
***Tapered dust collection bin** fitted with trapdoor or rotary valve for dust removal (other specifications will remain the same as above)**					
Model	DB 425/0.75hp/TB	DB 875/1.5hp/TB	DB 1750/3hp/TB	DB 3000/5hp/TB	DB 4500/7.5hp/TB
Demensions (LxWXH)	850x700x2350	850x700x2450	950x780x2650	1060x800x2900	1150x900x3700

The following can be provided as optional extras : Motorised de-dusting(motorised bag shaker), Extractor Arm can be fitted, Tapered dust collection tank with trapdoor or rotary valve for dust removal

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DustBag® Reverse-Pulsed-jet(RPJ)

DustBag® Reverse-Pulsed-jet(RPJ), is a trademarked,high-efficiency dust collector with reverse-pulsed-jet cleaning system for the filter cartridges, designed , developed and manufactured for the control of most types of dust , both fine and coarse ,generated during machining operations and processes on the shop floor

Features: DustBag® Reverse-Pulsed-jet(RPJ) is an air pollution control equipment, which can capture large quantities of dust , from any generating source, with high efficiency.The DustBag® uses polyester non-woven Easyfit cartridges with filtration capability of 3 micron and larger with 99% efficiency. The Reverse-pulsed-jet cleans the cartridges continuously during operation without shutting down the DustBag operation. Optional accessories such as motorised rotary air lock, spark arrestor with or without water cooling, differential pressure switch, pressure release valve and dust collection trolley, may be provided.

Applications : The equipment can be used effectively for the capture and control of dust, in large quantities, from most dust generating operations . The DustBag® does not require periodic shutdown for de-dusting of the filter cartridges . Specific applications are - capture of dust from the machining of graphite and carbon components , ceramic and talcum dust . It may also be used in dust-capture applications where the dust collector is to be working continuously with only short breaks , if at all . The collected dust may be re-used , if required. Since the filter cartridges are cleaned continuously by the pulsed air-jet , operation is hands-free , except for the removal of collected dust for disposal

How it Works : The built-in suction fan driven by an induction motor provides a powerful suction which sucks the dust into the DustBag® Reverse-Pulsed-jet(RPJ) . The dust as small as 3 micron and larger is filtered by the polyester non-woven filter cartridges with 99% efficiency. The clean air is released through the suction fan outlet fitted with a silencer for noise reduction . The continuous cleaning system which de-dusts the filter cartridges , uses compressed air at 5bar to 8bar (to be provided by the customer at site) in pulsed jets into each filter cartridge through a set of solenoids fired by an electronic sequential timer . The pulsed air jets clean the cartridges continuously . The dust falls into the tapered collection bin and is removed through a rotary air lock into a trolley . The collected dust may be disposed as required.

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Technical Specifications*

	DB1750/RPJ/3hp	DB3000/RPJ/5hp	DB4500/RPJ/7.5hp
Suction capacity	1750 Cu mtrs per hour(CMH)	3000 Cu mtrs per hour(CMH)	4500 Cu mtrs per hour(CMH)
Input Voltage	415V + /- 10% , 50Hz	415V + /- 10% , 50Hz	415V + /- 10% , 50Hz
Power / Current drawn	2.2Kw / Approx.3 amps / ph	3.7Kw / Approx.5 amps / ph	5.5Kw / Approx. 7.5 amps / ph
Filtration method	Polyester non-woven cartridges with 3 micron and larger filter capability, 3x2 matrix	Polyester non-woven cartridges with 3 micron and larger filter capability, 3 x 3 matrix	Polyester non-woven cartridges with 3 micron and larger filter capability, 4 x 3 matrix
Filter efficiency	99% for dust 3 micron and larger	99% for dust 3 micron and larger	99% for dust 3 micron and larger
Suction Fan / motor	Centrifugal ,2.2Kw , 3-phase 2-pole	Centrifugal, 3.7Kw, 3-phase 2-pole	Centrifugal, 5.5Kw, 3-phase 2-pole
De-dusting of filter cartridges	Pulsed air jet at 5 to 8 bar (compressed air customer scope)	Pulsed air jet at 5 to 8 bar (compressed air customer scope)	Pulsed air jet at 5 to 8 bar (compressed air customer scope)
Additional components	Air valves , sequential timer, compressed air filter / regulator	Air valves , sequential timer, compressed air filter / regulator	Air valves , sequential timer, compressed air filter / regulator
Dimensions (mm) L x W x H	1050x1000x4000, incl stand, motor	1200x1100x4000, incl stand, motor	1550x1100x4000, incl stand, motor
Weight	Approx. 350kg	Approx. 500kg	Approx. 750kg

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A few of our esteemed customers:

Agie Charmilles International S.A.
Ashok Leyland Ltd.
Automotive Axies Ltd.
Bharat Electronics Ltd.
Bhabha Atomic Research Center
Brakes India Ltd.
Delphi Automotive Systems Pvt. Ltd.
Exide Industries Ltd.
FCI OEN Connectors Ltd.
Gabriel India Ltd.
GH Induction India Pvt. Ltd.
Greaves Cotton Ltd.
Hindusthan Aeronautics Ltd.
IFB Industries Ltd.
Kennametal India Ltd.
Lashmi Machine Works Ltd.
Larsen & Toubro Ltd.
Lucas TVS Ltd.
Maruti Udyog Ltd.
Reserve Bank of India
Rane Engine Valves Ltd.
Schneider Electric India Pvt. Ltd.
Super Auto Forge Ltd.
Suprajit Engineering Ltd.
Titan Industries Ltd.
Toyota Kirloskar Motors Ltd.
Toyota Boshoku Automotive India (P) Ltd.
TVS Motor Co. Ltd.
Tyco Electronics Corporation India (P) Ltd.
Wipro Infrastructure Ltd.
..... among many others

Marketed by:

2017

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