Concerned about the air quality in your factory?



Presenting clean air solutions for the metalworking industry



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Causes for workplace pollution

In the metalworking industry, various processes such as welding, grinding, machining, soldering, plasma cutting, laser cutting and buffing are inevitable. Such processes emit fumes, smoke, mist and dust of fine sub-micron particulates which cause pollution and result in poor air quality at the workplace. These pollutants are menacing and may affect the health of employees, causing fatigue and illness.

The result is lower efficiency levels and increased absenteeism. This impacts productivity and sometimes also endangers the life of assets.

Welding fumes, oil mist, suspended particles and other such pollutants must be dealt with carefully using efficient extraction and filtration systems. Filter-On offers a variety of solutions to address such requirements.

Why you need clean air solutions

- \(\begin{align*}
 & \text{Reduced health risks, so that} \\
 & \text{employees feel better, leading to} \\
 & \text{productivity improvement} \end{align*}
 \]
- Ÿ Avoid short-term and long-term health hazards to employees
- Ÿ Reduce absenteeism due to illness
- Ÿ Avoid damage to sensitive electrical and electronics equipment/machines
- ÿ Meet environmental regulations

- ÿ Over 5000 successful installations
- γ Proven expertise of over 35 years
- ÿ Present across India as well as globally
- ÿ Reputed customers from different industry verticals
- ÿ Efficient post-sales services through competent team
- ÿ Over 50 standard models to choose from
- ÿ Expertise in providing centralised systems



Here are the effective ways to tackle pollution arising from fumes, smoke, mist and dust

Clean air solutions from Filter-On

- ÿ Dry fumes extraction and filtration systems
- ÿ Oil mist extraction and filtration systems
- Dry dust collection systems
- Ÿ Electrostatic air filtration system for kitchen fumes and other clean room applications



engineers is extensively trained to carefully understand

your processes and problems. This ensures a practical

and workable solution in the given environment,

designed with a long-term perspective. This means a

system that can be easily adapted to your changing requirements through modifying the layouts and

upgradation. We have a well-equipped manufacturing plant in Pune,

India, having a large capacity to undertake multiple

projects simultaneously. We are an ISO 9001:2015 certified company. The quality of our equipment and

systems is ensured through proper engineering, using

high quality materials and by adhering to advanced

manufacturing practices. We also provide systematic

training for maintenance, which enables you to use the

That a significant share of our business comes through

repeat orders is itself a testimony to our expertise,

About Us

For over three decades, we have been providing efficient filtration solutions to ensure clean air at workplaces. Filter-On is one of the leading Indian companies in the field with over 5000 installations in the metalworking industry and large kitchens.

Everyday, our equipment and systems clean over 200 million cubic metres of air, providing clean and respirable air to more than 50,000 employees across various industries.

Providing well-engineered solutions developed after thorough evaluation of your present and future requirements is the speciality of Filter-On. Our experience in this field and a vast range of offerings enable us to provide turnkey solutions for your requirements. This is irrespective of the nature of your activity, type of pollutants and the size of your factory. We have the right solutions and suitable systems to address the air quality challenges faced by you. Our team of qualified project

Clean air solutions for

- ÿ Welding
- ÿ Plasma/Laser Cutting
- ÿ Laser Marking

- ÿ CNC Machining
- Ÿ Gear Cutting/Grinding
- ÿ Spark Erosion

- ÿ Grinding
- ÿ Soldering

Machines/EDM

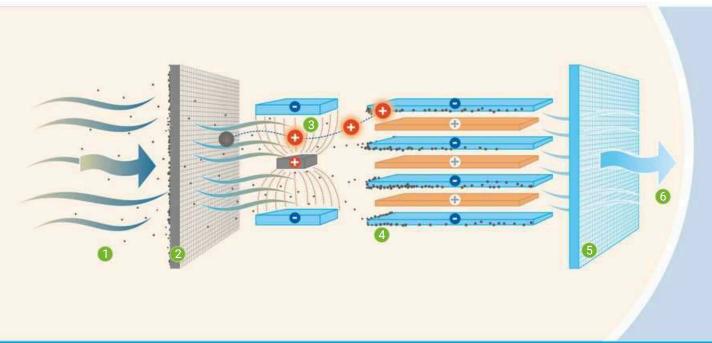


systems more effectively.

quality and service.

Technology

Our equipment and systems are engineered around two types of technologies, viz. Electrostatic Filtration and Cartridge Type Dust Collection.



Electrostatic (ESP) Filtration Technology





1 Dirty air 2 Pre-filter 3 Ionizing electrodes 4 Collection plates





(5) After-filter (6) Clean air



Electrostatic Filtration

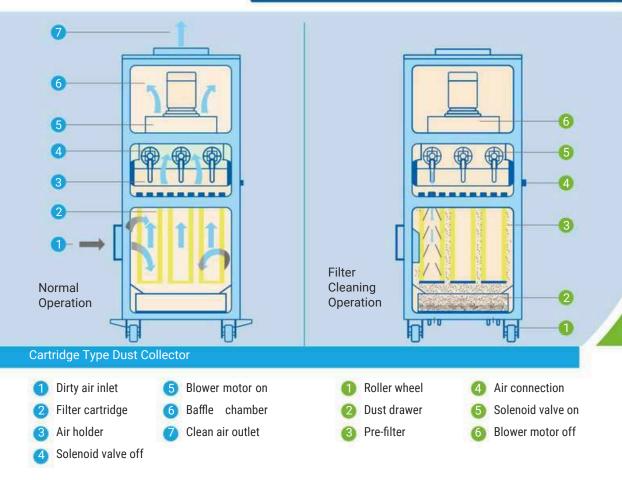
The Electrostatic Precipitator technology is effectively used to filter fumes, smoke, mist particles and dust particles. The technology is based on the principle of two-stage electrostatic air filtration. In this system, air is passed through an electrostatic field where fine suspended particles get charged. The charged particles get attracted towards opposite charged electrode plates and precipitate. As a result of this process, smoke-free, clean air is released back into the surroundings from the system exhaust. The filter elements are metallic and

washable. This makes it easy to maintain and eliminate recurring costs of filter replacement. The filters are capable of handling the smallest size of particles (0.01 micron to 10 micron). We offer various models of electrostatic precipitators depending upon the application, location, operational layout and performance requirements.

The Electrostatic Filtration System from Filter-On demonstrates high efficiency and an excellent return on your investment.

- ÿ Zero replacement cost
- Ÿ Low pressure loss Saves running cost
- Ÿ High efficiency even for submicron particles

Presenting clean air solutions for the metalworking industry



Cartridge/Bag Type Dust Collectors

This is a simple system and can be easily deployed for separation of dry dust/solid particles generated during various processes such as plasma cutting, laser cutting, grinding, polishing, welding, laser marking, graphite machining, woodworking, etc. Dust-laden air is collected (sucked) and passed through a chamber where it passes through a cartridge filter. Fine dust particles get arrested

on the surface of the filter and clean air passes through, which is then released back into the WOYKPIACE. In this system, filter cleaning is automatically achieved through reverse pulsed jets of compressed air and the dust get accumulated in a bottom tray which can be easily removed and cleaned.

- ÿ Routine maintenance is very easy as cleaning is automatic
- Ϋ High efficiency
- ÿ Works effectively for heavy dust loads



Dry Fumes Extraction & Filtration



M-02/0.3K

Electrostatic Filters

- Ÿ Accessories
 - Flexible pipes
 - Semi-rigid aluminium pipes
 - Flexible arms
 - Slotted bench
 - Top suction hood
- ÿ Suitable for
 - Capturing & filtration of small amount of dry fumes

Ÿ Applications

- Manual soldering stations
- Laser marking fumes

M-03K (HEPA) HDP Fine Filters + HEPA

- Ÿ Accessories
 - Flexible pipes
 - Semi-rigid aluminium pipes
 - Flexible arms
 - Slotted bench
 - Top suction hood
- ÿ Suitable for
 - Capturing & filtration of small amount of dry fumes

Y Applications

- Manual soldering stations and laser marking fumes (In clean rooms)

Note: Needs filter replacement

M-02/0.5K

Electrostatic Filters

- Ÿ Accessories
 - Flexible pipes
 - Semi-rigid aluminium pipes
 - Flexible arms
 - Suction hood
- Y Two configurations
 - Horizontal & vertical
- ÿ Suitable for
 - Capturing & filtration of small amount of dry fumes

Y Applications

- Spot welding
- Manual soldering/ wave soldering stations
- Laser marking fumes

- ÿ Zero replacement cost
- ÿ Compact
- Y Low running costs
- Easy installation

These equipment and systems are ideal solutions for welding, soldering and laser marking stations.





M-02/1K

Electrostatic Filters

- Ÿ Accessories Flexible pipes -Semi-rigid aluminium pipes -Flexible arms - Suction hood
- ÿ Suitable for
 - Capturing & filtration of medium amount of dry fumes

Ÿ Applications

- Fume extraction from small manual welding booths
- Welding rotators
- Small SPMs

Best solution for single torch welding rotators

M-02/2K

Electrostatic Filters

- Ÿ Accessories Mounting stand - Flexible pipes - Semirigid aluminium pipes -Flexible arms - Suction hood
- ÿ Suitable for
 - Capturing & filtration of medium to heavy amount of dry fumes

Y Applications

- Fume extraction from manual welding booths
- Welding rotators
- Small SPMs
- DID type welding stations
- Small robotic welding cells

Our most popular model for manual weld stations, DID stations and small robotic stations

M-02/4K

Electrostatic Filters

- Y Accessories
 - Mounting stand
 - Flexible pipes
 - GI ducting
 - Suction hood/canopies
- ÿ Suitable for
 - Capturing & filtration of medium to heavy amount of dry fumes

Ä Applications

- Fume extractor for large manual welding booths
- Welding SPMs
- DID type welding stations
- Robotic welding cells





Dry Fumes Extraction & Filtration



Advantages of individual units

- Ÿ Flexibility in layout
- Ÿ Easy to relocate
- Y Low power consumption
- ÿ Best part-load performance
- ÿ Ideal for phase-wise implementation

M-02/6K

Electrostatic Filters

\(\bar{Y} \) Accessories

- Mounting stand
- Flexible pipes
- GI ducting
- Suction hood/canopies

ÿ Suitable for

 Capturing & filtration of medium to heavy amount of dry fumes

Ÿ Applications

- Fume extraction for large robotic welding booths
- Welding SPMs
- DID type welding stations

Medium and heavy duty models cater to the requirements of multiple workstations while ensuring economy, portability and efficiency.





M-02/1200

Electrostatic Filters

- Ÿ Accessories
 - Self-standing suction arm with hood
- ÿ Suitable for
 - Capturing & filtration of medium to heavy amount of dry fumes

M-02/1600

Electrostatic Filters

- ÿ Accessories
 - 2 nos. self-standing suction arms with hood
- ÿ Suitable for
 - Capturing & filtration of medium to heavy amount of dry fumes

Y Applications

- Portable fume extraction
- Welding fumes extraction for large size jobs where canopy h oods can't be used
- Maintenance type heavy welding e.g. earthmover buckets welding, propeller shaft welding in shipyards, etc.

- Ϋ́ Compact and portable
- γ No filter replacement needed
- Ÿ Versatile Can accommodate change in operations



Standard Products

This range of standalone models best meets the requirements of small machine shops and machines of different capacities.



M-02/0.5K-DP-(H)

Electrostatic Filters

- ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand
- ÿ Suitable for
 - Capturing & filtration of medium amount of oil mist and fumes

Ä Applications

 Oil mist/coolant mist filtration for small CNC machines like ball pen tips making machines

M-02/1K-SP-(H) & M-02/1K-SP-(V)

Electrostatic Filters

- ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand
- ÿ Suitable for
 - Capturing & filtration of small amount of oil mist and fumes

Ÿ Applications

 Oil mist/coolant mist filtration for small CNC grinding machines using low pressure (less than 4 bar) coolants

M-02/1K-DP-(H) & M-02/1K-DP-(V)

Electrostatic Filters

- ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand
- Ÿ Suitable for
 - Capturing & filtration of medium amount of oil mist and fumes

Ä Applications

 Oil mist/coolant mist filtration for small CNC grinding machines using high pressure (above 4 to 6 bar) coolants

- ÿ Reliable ESP technology
- ÿ High efficiency for filtering oil mist and smoke
- ÿ Washable and reusable filters
- Ÿ Lower operating costs
- ÿ Dual benefits Safe environment and oil recovery as well

Oil & Coolant Mist Extraction & Filtration



M-02/2K-SP-(H) & M-02/2K-SP-(V)

Electrostatic Filters

- ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand

ÿ Suitable for

 Capturing & filtration of small amount of oil mist and fumes

Ä Applications

 Oil mist/coolant mist filtration for small to medium size CNC machines using low pressure (less than 4 bar) coolants

Best suitable for 5-Axis grinding machines, CNC machining centres, gear grinding, etc.

M-02/2K-DP-(H) & M-02/2K-DP-(V)

Electrostatic Filters

- ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand

Ÿ Suitable for

 Capturing & filtration of small amount of oil mist and fumes

Ä Applications

- Oil mist/coolant mist filtration for small to medium size CNC machines using high pressure (more than 4 to 6 bar) coolants



Oil & Coolant Mist Extraction & Filtration



M-02/4K-SP & M-02/4K-DP

Electrostatic Filters

- Ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand
- Ÿ Suitable for
 - Capturing & filtration of medium to high amount of oil mist and fumes

Ä Applications

- Oil mist/coolant mist filtration for medium to large size CNC machines using high pressure (more than 4 to 6 bar)coolants
- Cold forging
- Nut formers, etc.

M-02/6K-SP & M-02/6K DP

Electrostatic Filters

- Ÿ Accessories
 - Flexible pipes
 - PVC rigid piping
 - Drain pipe
 - Stand
- ÿ Suitable for
 - Capturing & filtration of medium to high amount of oil mist and fumes

Ä Applications

- Oil mist/coolant mist filtration for medium to large size CNC machines using high pressure (more than 4 to 6 bar)
- Coldatotsging
- Nut formers, etc.

Centrifugal Mist Collectors are ideally suitable where water soluble coolants are used in machining and component cleaning applications.

Standard Products



Centrifugal Mist Collectors

Centrifugal & Media Type Filters

- Y 4 Models ranging from 400 m3/hr to 2100 m3/hr - C7 - C21 - C27 -C35
- ÿ Accessories
 - Stand
 - Flexible pipes
 - Drain pipe

- ÿ Suitable for
 - Capturing & filtration of small to medium amount of mist

Ÿ Applications

- Mainly coolant mist filtration suitable for water soluble coolants for VMC, HMC, CNC lathes, etc.
- Component cleaning machines

How it works

Mist-laden air is sucked in the unit with the help of a high-speed Rotor. Due to centrifugal force, small particles coalesce, forming larger droplets of coolant.

The coolant, thus collected, is forced through drain and recycled back to the CNC machine.

Depending on the criteria such as application, mist concentrations, type of coolant, etc. different combinations of filters are used to ensure the best possible performance.

- ÿ Compact unit
- Ÿ Ease of installation
- Ÿ Ease of operations and maintenance



Centralised Systems for Extraction & Filtration of

- ÿ Dry Fumes
- ÿ Oil & Coolant Mist



Centralised Systems

Electrostatic Filters

Why Centralised System?

- Saves valuable floorspace Individual units occupy more shop-floor space, whereas in a centralised system, the main unit can even be installed outside the factory.
- Ease of maintenance Individual pieces of equipment are difficult to maintain and time-consuming as compared to a centralised system.

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 Ease of maintenance Individual pieces of equipment are difficult to maintenance Individual pieces of equipment Individual pieces Indi
- Ÿ Technology options Choice of ESP as well as cartridge filtration technology.
- § Stable system ensures reliable performance -Statically and dynamically balanced blowers for efficient, reliable and long-term operation.
- Flexibility Final drops with flexible pipes allow flexibility for small changes in layout.

Ä Applications

- Auto component welding lines (silencers, chassis, seating systems, etc.)
- CNC machine shops
- Gear shops
- Power train machining lines
- Tools (drills, taps, etc.)
- Manufacturing lines

Benefits

Outdoor Systems

Ÿ Save space inside the shop-floorŸEasier maintenanceŸCost of raised platform can be saved

Indoor Systems

ÿ Duct length and cost can be optimised

ŸLower pressure drop meaning lower HP Apart from the range of standard models, Filter-On specialises in offering centralised systems for mid-sized and large factories and continuously operating welding lines.

Customized Systems



Why only Filter-On for a Centralised System?

- Öptimised air flow calculations Better suction hood/enclosure designs based on guidelines of ACGIH (American Conference of Government & Industrial Hygienists).
- Ö Ducting design Through our unique design, we ensure effective suction at each suction point, resulting in low pressure drop and reduced power consumption. Provision is also made for rebalancing airflow any time with the help of dampers provided at each drop.
- Ÿ Accessories Ducting, Canopies, Flexible pipes, Mounting platforms

- Y Choice of filtration technologies We offer the option of Electrostatic Filtration or Cartridge Type Filtration. Select the one that suits your organisation's goals the most.
 - Electrostatic filtration assures zero replacement cost and lowest pressure drop, and thus lowest running costs plus the ability to filter mist droplets.
 - 2. The Cartridge system is a high efficiency system and has a very low maintenance cost.
- Fan/Blower selection -
 - Statically and dynamically balanced fans, optimised with careful selection of operating point
 - 2. Optional VFD ensures further power saving.
 - 3. Fan/blower are selected for optimised performance and require lesser power.



Standard Products

These equipment are suitable for standalone workstations where a heavy amount of fumes and/or dust is discharged.



Cartridge Dust Collectors with reverse-jet auto-cleaning system

Ä Applications

- Welding fumes extraction
- Grinding dust collection
- Plasma cutting fumes extraction
- Melting furnace fumes extraction
- Saw dust collection in woodworking industry

Features

- Fine dust filtration is possible. We use German cartridges having 99%+ filtration efficiency down to 0.5 micron par ticles
- Outlet air is clean, filtered and safe to be discharged in the working premises
- Automatic cleaning -No periodic maintenance needed
- Only periodic cleaning of dust collection tray needed
- Cartridge life 12 to 15 months depending upon applications
- Pressure gauge provided shows condition of cartridge filters
- Different sizes and configurations available as per application needs

Downdraft Tables

- Integrated dust collection system with worktable
- Best solution for manual grinding/buffing operations
- Self contained system having automatic cleaning arrangement
- Different sizes and configurations available based on different requirements of customers

- Ÿ Cartridge Dust Collector DC series models are available from 2000 CMH to any higher air flow capacity
- Ÿ Downdraft tables are available in three standard models with varied sizes and air flow capacity
- Ÿ Customised models to suit specific requirements can be offered on demand

Dry Dust Collection & Filtration



Venturi & nozzle fitment above cartridge for reverse jet cleaning



Internal fitting of cartridges



Downdraft Tables





Cartridge Dust Collectors

- Blower motor assembly
- Compressed air receiver tank
- 6 Pressure gauge
- 6 Electronic, adjustable timer for pulse frequency adjustment

- Solenoid valves
- Dust collection tray



Get exactly what you require to restrict your capital expenditure and also have the option to upgrade in the future.

Quick Selection Chart



Cartridge [Dust (Colle	ction	& Filt	ratio	n								
Application	DC-2K	DC-4K	DC-6K	DC-8K	DC-70K	DC-12K	DC-16K	DC-20K	DC-24K	DC-28K	DC-32K	DC-40K	DC-50K	DC-60K
Laser Cutting	1	1	1	1										
Plasma Cutting Machines				1	1	1	1							
Gauging Applications	1	1												
Dry Grinding & Buffing (Manual)	1	✓	✓	1										
Grinding (Pedestal type)	1	✓	✓	1										
Welding	Individual Stations			Common Centralised System										
Shot Blasting		1	1	1	1									
Induction Furnace				1	1	1	√	1	1					
Fettling Operations			1	1	1	1	1	1	1					
Forging		1	1	1	1	1	1							

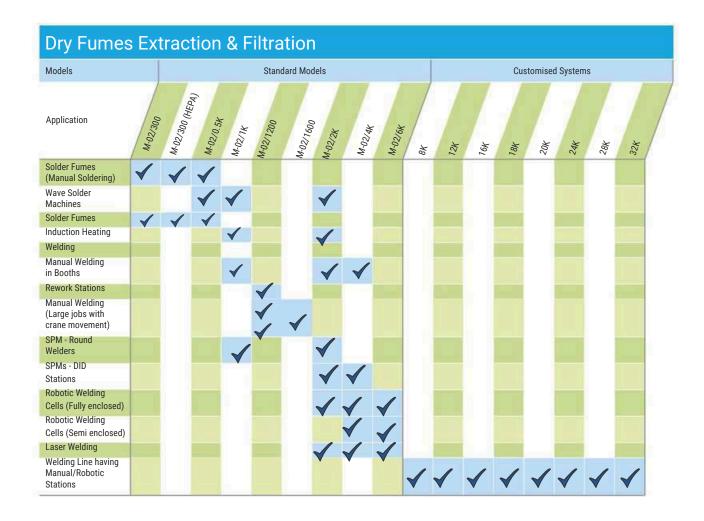


Electrostatic Air Filtration System for Other Industries

Most suitable for ŸClean rooms

- ÿ Kitchen exhausts
- Ÿ Intake air filtration

	Parameters	Advantages	
	Air Filtration Efficiency	Better than EU9 grade filtration efficiency Because of high efficiency even for submicron, fine and suspended particles, ESP becomes most suitable to filter smoke/fumes/fine dlist/ist, etc. which otherwise become difficult to filter	
	Pressure Drop Across Filters	VIt offers one of the lowest pressure drops. With Pre & Post Filter of wire-mesh type, maximum pressure drop is 8 to 10 mm WG VILOW pressure drop means saving in blower HP VILOW Ease of retrofitment in existing HVAC system	Without blower model
À	Virtually Infinite Life	 V Construction in aluminium electrode plates V Washable/cleanable and reusable for a long time V No cost of replacement of filters V Saves cost and is environment-friendly 	



Over 3500 installations across India

- ÿ Addison & Co.
- ÿ Bajaj Auto
- Ÿ Bhabha Atomic Research Centre
- ÿ Birla Precision Technologies
- ÿ Bombay Dockyard
- ÿ Crompton Greaves
- ÿ Cummins India
- ÿ Eaton
- ÿ Essem Tecnopinz
- ÿ Faurecia Automotive Seating
- ÿ FIAT India

- Ÿ Flextronics
- Ϋ́ Forbes & Co.
- Ÿ Hero MotoCorp
- Ÿ Honeywell
- Ÿ Indian Railways
- Ϋ Larsen & Toubro
- Υ Lear AutomotiveΥ Lucas TVS
- ÿ Magna Automotive
- ÿ Nuclear Fuel Complex (NFC)
 - Piaggio Vehicles

- Right Tight Fasteners
- S M Auto
- Schindler
- Ÿ Siemens
- Ÿ Sulzer India
- Ÿ Suzuki Motorcycles
- Ÿ Tenneco Automotive
- Ÿ TI Metal Sections
- Ÿ TM Seating
- Ÿ YG Cutting Tools
- Ÿ ZF India

and many more...



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