

PT 5000

Particle Trap 5000

An ideal clean room contamination control solution for parts-cleaning, when particles really count!



"Compact Design, Affordable and Effective"



PT5000

An ideal clean room solution for parts cleaning,
when particles really count!



CONTAMINATION APPLICATIONS

- Cleaning medical parts / assemblies
- Cleaning automotive parts / assemblies
- Cleaning molded parts / assemblies
- Cleaning optics
- Graphic Arts, Sign Shops
- Art Conservation
- Electronics Assembly
- Particulate Control
- Manufacturing Processes
- Air Purification

FUME EXTRACTION APPLICATIONS

- Soldering
- Histology
- Cover Slipping
- Staining
- Pathology
- Graphic Arts, Sign Shops
- Art Conservation
- Electronics Assembly



PT5000

Ductless Enclosures, Low-Profile Horizontal Design

- Low-profile, completely portable, no ductwork required.
- Compact size, easily positioned on shallow countertops or counters with overhanging wall cabinets.
- Clear viewing enclosure for optimal visual inspection.
- Modular design permits multiple configurations.

PT5000V (vertical) shown

INTRODUCTION

The CEMS Particle Trap 5000 is a source capture tool that solves a major problem related to blowing off particles in manufacturing and clean room environments. Clean your parts with confidence without compromising the integrity of your clean room.

CEMS PT5000 FILTRATION TECHNOLOGY SYSTEM

The PT5000 utilizes a unique filtration system that includes a pre-filter (included) and (optional) main filter to create a chemical, physical or combination architecture to adsorb, neutralize or trap the target chemical or particulate while constant negative pressure removes vapors and particulates from the user's breathing zone. Clean, filtered air is returned to the clean room or laboratory, eliminating the need for external ducting and minimizing loss of treated, conditioned air from the facility.

- An electrostatic polyester fiber pre-filter with 95% particulate arrestance intercepts larger particulates to help extend HEPA and carbon filter life.
- The (optional) activated carbon filter adsorbs organic odors and hazardous vapors such as xylene and toluene.
- An (optional) HEPA filter traps particles larger than 0.3 microns inside the chamber.

PT5000 FILTRATION SYSTEM FILTERS

- Pre-Filter. The electrostatic pre-filter protects the main filters from aerosols, dust and particulates with filtration efficiency superior to 95.5% down to 0.5 microns.
- Main Filter. Activated carbon FILTCO sourced. A single carbon filter containing chemically-formulated activated carbon granules is selected when ordering to accommodate a specific vapor or family of vapors.
- HEPA Filter. A self-contained Camfil Farr HEPA filter is designed to physically capture particles larger than 0.3 microns.

CEMS carbon filters are based on enhanced, activated carbon particle formulations from specially selected, naturally occurring raw material superior to wood or other organic sources. The carbon is treated to attain the proper porosity and aggregate surface area and to react with several ranges of aerosolized chemicals moved through the filter by an air handling blower.

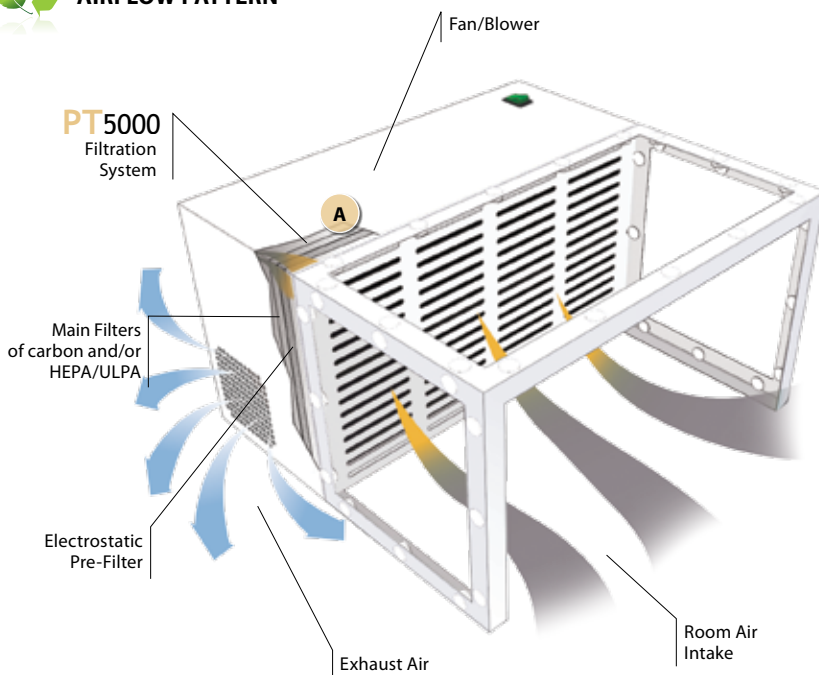
THE CEMS PERFORMANCE ADVANTAGE

Each CEMS PT5000 includes features expressed through sound design and certified quality construction. Options and accessories add functional performance to meet specific applications.

- **Professional Quality.** CEMS enclosures comply with current technical and safety regulations.
- **Advanced Filtration.** CEMS PT5000 FILTRATION TECHNOLOGY SYSTEM provides high performance protection.
- **Industrial Components.** The enclosure frame and work surfaces are durable and chemically resistant.
- **Reliability.** Internal systems are isolated from contamination, extending product life.



FUME BOX AIRFLOW PATTERN



- PT5000 (horizontal) shown with PT5000 FILTRATION TECHNOLOGY SYSTEM.
- Room air enters from the front of the cabinet through the pre-filter where larger particles are trapped, increasing the service life of the main filter.
- The PT5000 maintains a constant face velocity of 100 fpm in compliance with U.S.A. and international standards for safety and performance. Contaminated air is pulled through the filtration system where a HEPA/ULPA filter traps particulates and/or an activated carbon filter adsorbs chemical vapors (if used). Clean air is returned to the room.
- **A.** The main filter is easy to replace. The filter clamps tightly against the filter gasket to prevent filter bypass and to maintain filter integrity.

CEMS FILTER SUMMARY

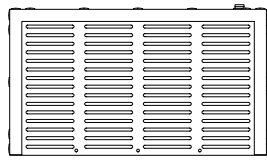
Formula	Description
GP Plus!	The most widely used filter in the range, primarily for solvent, organic, and alcohol removal.
ACI Plus!	Neutralizes volatile inorganic acid vapors.
ACR	Iodine and methyl iodide vapors. Frequently used for iodination reactions with low level radioactive iodine.
ACM	Mercury vapor.
AMM	Removes vapors from dilute ammonia solutions and removes low molecular weight amines.
SUL	Designed to remove hydrogen sulphide and low molecular weight mercaptans.
CYN	Removal of hydrogen cyanide. Many cyanide compounds will evolve HCN gas if acidified, so this filter is normally specified if working with any cyanide compound.
FOR	Designed to oxidize formaldehyde and glutaraldehyde fumes. Widely used in hospital pathology laboratories.
ETH	Diethyl ether is adsorbed on activated carbon, but because of its low boiling point, the local head adsorption can reduce the capacity of the filter. Special impregnation allows a chemical reaction which increases the filter capacity.
EDU	Designed to handle chemicals normally used in a university level chemistry curriculum.
MIL	As the name implies, this filter is designed for military applications involving war gasses.
HEPA/UPLA	Powders and particulates.



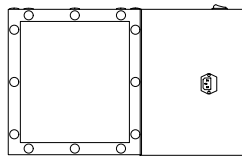
The optional source capture hose converts the PT5000 to a fume extraction unit with a 6" diameter (152 mm) hose to capture pollutants at their source. Hose can attach to any vented enclosure, exhaust port on your equipment or desk mount scoop. Catalog No. PT5000EX



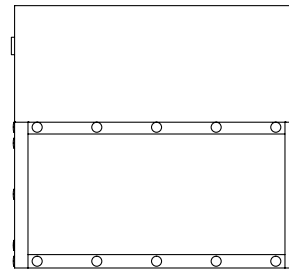
The PT5000 incorporates an energy-efficient ebmpapst permanently lubricated direct drive centrifugal blower for maximum operational savings, low noise and minimal vibration.



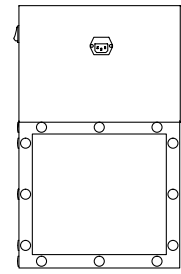
PT5000



Side View



PT5000V



Side View

MODEL	DIMENSIONS		WEIGHT (lbs/Kg)	
	(W x D x H)	Shipping (W x D x H)	Net	Ship
PT5000				
PT5000	21.25" x 19.75" x 12" 540 x 502 x 305 mm	24" x 22" x 14" 610 x 559 x 356 mm	29 / 13	31 / 14
PT5000V	21.25" x 12" x 19.75" 540 x 305 x 502 mm	24" x 22" x 14" 610 x 559 x 356 mm	29 / 13	31 / 14

PRODUCT SPECIFICATIONS

PT5000 Model	PT5000 and PT5000V	PT5000-120 and PT5000V-120
Filter Weight	----- 7 lbs / 3.5 kg -----	
Pre-Filter Weight	----- 1 lb / 0.4 kg -----	
Airflow	----- 135.9 cfm -----	
Face Velocity	----- 100 fpm -----	
Construction	----- White epoxy-coated steel filtration unit with blue enclosure. Clear sides and top panels. -----	
Blower	----- ebmpapst™ centrifugal fan -----	
Electrical	220V, 50Hz	120V, 60Hz 1Ph
Electrical Controls	----- Main ON/OFF switch -----	

OPTIONS AND ACCESSORIES

Horizontal Mount*	Unit mounts vertically to create an upflow airflow stream.	PT5000V
Ionizing Blow-off guns	Optimize cleaning of your parts with an ionizing blow-off gun, eliminating electrostatic attraction that can prevent efficient cleaning of parts and lead to recontamination.	Call factory for recommendations
Ionizing Air Knives	Similar to an ionizing blow-off gun, an air knife delivers a continuous curtain of ionized air to blow contamination off your parts and prevent recontamination.	Call factory for recommendations
Source Capture Hose*	Converts the PT5000 to a fume extraction unit with a 6" diameter (152 mm) hose to capture pollutants at their source. Hose can attach to any vented enclosure, exhaust port on your equipment or desk mount scoop.	PT5000EX
Polypropylene Construction*	Units available in all polypropylene construction.	PT5000-PP PT5000V-PP PT5000EX-PP
Spill Tray	Polypropylene spillage tray, slides out for easy cleaning.	TRAY- PT5000
HEPA Filter	Replacement HEPA filter for all PT5000.	PT5FLTH
GP Plus! Filter	Replacement GP Plus! filter for solvents and organics for all PT5000 systems.	PT5FLTGP

* Factory installed. Specify when ordering.

Specifications are subject to change without notice.



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