

Ductless Fume Hood 5000 Series



“The World’s Most Extensive Selection of Ductless Fume Hoods.”

EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

- Protects the operator from fume and particle hazards.
- Easy to change filters.
- Improved filter clamping eliminates by-pass leakage.
- Low airflow alarm.
- 5036, shown with optional Filter Saturation Alarm (FSA) and air velometer



►► INTRODUCTION

Basic ductless fume hoods are a series of high efficiency products designed to protect the user and the environment from hazardous vapors generated on the work surface. At the heart of the fume hood product line is the innovative Analytical Technologies that creates a safe work environment over the widest range in the industry.

►► DUCTLESS TECHNOLOGY:

The Eco-friendly Choice

Advanced carbon filtration technology offers a safe, high performance alternative to conventional ducted fume hoods for a broad range of applications.

- **Environmental Benefits:**

Ductless fume hoods isolate and trap chemical vapors to prevent ecological impact through release into the environment.

- **Versatile:**

Each filtration system is selected for its specific application. The Multiplex Filter broadens the range of applications. Carbon filters are available in more than 14 configurations for use with vapors or organic solvents, acids, mercury and formaldehyde. HEPA/ ULPA filters can add to biological safety.

- **Easy to Install:**

The ductless fume hood is self-contained and does not require venting to the outside. Many units are portable and may be moved from one location to the next with minimal down-time and without filter changes. Set-up, operation and filter maintenance are straightforward.

- **Energy Efficient:**

Because filtered air is returned to the room, no demands are required of the facility HVAC capacity for make-up air.

- **Cost Effective:**

Facility ductwork, HVAC and construction costs are eliminated.

- **Safe to Use:**

Cabinet airflow and face velocity protect users from incidental exposures to fumes.

- **Self testing:**

(selected models) Electronic airflow monitoring assures continuous safety. An electronic gas sensor monitors carbon filter performance.

►► **PRODUCT FEATURES:**

- **A. Filter I.D. Window:** A strategically placed front cover window shows the installed filter part number and installation date for convenience and to encourage timely filter replacement.
- **B. Air Velometer: (Optional)** An analog air velocity meter in the field of vision of the user.
- **C. Hinged Front Sash:** When closed, the cabinet sash protects the contents from inadvertent external contact, and better isolates the air within. The sash is easy to open and close.
- **D. Control Panel:** Electronic controls and displays include switches for the blower and low airflow alarm.
- **E. Steel Support Frame:** The chemical resistant epoxy coated steel frame adds mechanical strength. Optional all polypropylene construction is available if desired; see Accessories.
- **F. Electrostatic Pre-Filter:** The 99.5% effective electrostatic pre-filter is accessible from inside the chamber to contain the release of any particulates that it traps. The pre-filter can be changed while the unit is operating to prevent operator exposure to chemical vapors.

- **G. Pass Through Ports:** Electrical cords and cables are safely routed into the cabinet through ports on the back and side walls.
- **H. Color:** The cabinet is white with blue trim; side and back panels are clear.
- **I. Airflow Alarm:** A continuous air velocity monitoring system alerts the operator upon unacceptable values.
- **J. Internal Manual Speed Controller:** Authorized personnel may set the centrifugal fan motor speed as desired.
- **K. Stand:** Optional mobile cart with locking casters.
- **L. Work Surface:** The internal work surface can be fitted with an optional polypropylene tray; see Accessories.
- **M. Filter Door Key:** Filter access keys prevent unauthorized removal or accidental exposure to dirty filters.



►► **OTHER FEATURES:**

360 Degree Visibility: Clear back and side panels allow ambient illumination into the chamber and provide users with an unobstructed view of its contents.

Standards Compliant: Performance specifications and construction meet or exceed OSHA, ANSI and relevant international standards to assure operator safety.

Construction: All models are available in either metal or polypropylene construction. See selection chart for specifications and dimensions. Specify metal or polypropylene when ordering. Available in 110V, 60Hz or 220V, 50Hz models.

Steel Support Frame: The chemical resistant epoxy coated steel frame adds mechanical strength. Optional all polypropylene construction is available if desired.

- 5024, shown with optional mobile cart and spill tray.

►► **PRODUCT FEATURES**



Optional **Advanced** control panel with hour meter to aid in determining available filter life and **Filter Saturation Alarm (FSA)**. The **FSA** adds an electronic gas sensor and emits audio and visual alerts when the main filter needs to be changed.

▶▶ ADVANTAGE

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

- **Professional Quality:**

Fume hoods comply with current technical and safety regulations.

- **Multiplex Filtration:**

Filter offers a range of options for high performance.

- **Industrial Components:**

The cabinet frame and work surfaces are durable and chemically resistant.

- **Reliability:**

Internal systems are isolated from fumes, extending product life.



Fume hoods use energy-efficient centrifugal blowers for long life, and dependable performance.

▶▶ **MULTIPLEX FILTRATION TECHNOLOGY**

Multiplex Filtration consists of a pre-filter and main filter to create a combination of chemical and physical architecture customized to each application. The mechanical design enhances safety, convenience and overall value.

- The electrostatic pre-filter is accessible from within the cabinet.
- A filter clamping mechanism allows for the filter to be easily installed and ensures an even seal at the filter peripheral face at all times to prevent bypass leakage.
- The filter chamber prevents contaminated air from contacting internal cabinet mechanisms.
- The main filter number and installation date are displayed in a front-access window. The carbon filtration technique is based on enhanced, activated carbon particle formulations from specially selected, naturally occurring raw material superior to PERFORMANCE ADVANTAGE Each fume hood includes features expressed through sound design and certified quality construction. Options and accessories add functional performance to meet specific applications.
- Professional Quality. Fume hoods comply with current technical and safety regulations.
- Multiplex Filtration. Filter offers a range of options for high performance.
- Industrial Components. The cabinet frame and work surfaces are durable and chemically resistant.
- Reliability. Internal systems are isolated from fumes, extending product life. 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 multiplex option permits one or more filtration options to be combined to meet a wider range of multiple-use applications. Multiplexing permits configuration for the capture of acids, bases and particulates such as biological aerosols when paired with HEPA or ULPA filters.
- The carbon filter is a self-contained assembly sized to fit the specified product model number, and configured to optimize airflow across 100% of the filter surface area for maximum efficiency, prolonged filter life, optimal diffusion and saturation capacity, and user safety. The single source supplier for all pre-filters and carbon filters used in its products, plus those of many other manufacturers.

►► FEATURES & BENEFITS

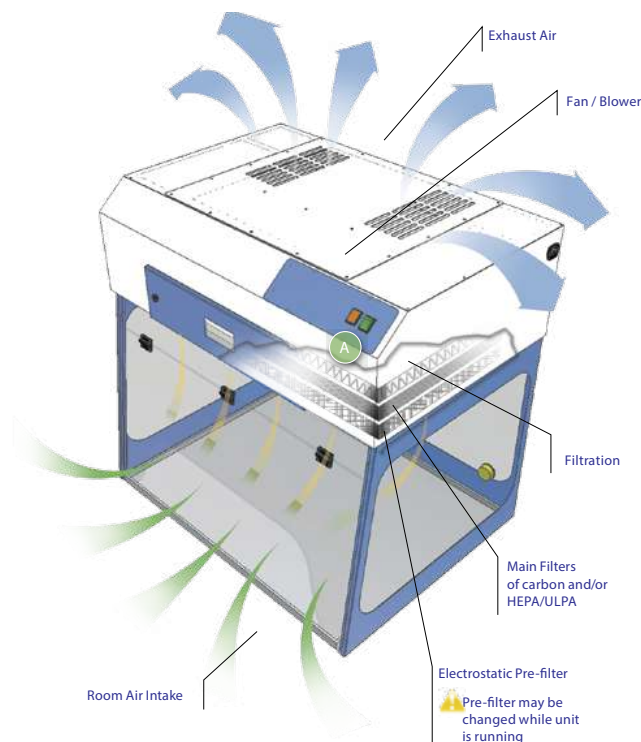
Basic products are available in 3 standard sizes, each with 4 configuration options and metal or polypropylene construction, totaling 24 standard models.

- High capacity air handling system delivers face velocity of 100 FPM.
- A low airflow alarm warns of insufficient face velocity.
- Filter assembly is easy to access, easy to change.
- A unique filter clamping design eliminates bypass leakage outside the cabinet.
- Accessories include an optional filter saturation alarm.



The Multiplex filter configuration permits a customized combination of filter media for a broad range of chemical families and biological agents if required.

►► AIRFLOW PATTERN

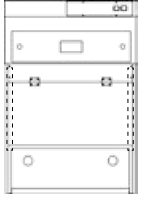


- 5036, shown with Multiplex Filtration System.
- Basic Series ductless fume hood maintains a constant face velocity of 100 FPM in compliance with international standards for safety and performance. Contaminated air is pulled through the Multiplex filtration system where activated carbon adsorbs chemical vapors and/or particulates if HEPA/ULPA filters are used. Clean air is returned to the room.
- A. The main filter is easy to replace, no tools required. The filter clamps tightly against the filter gasket to prevent filter bypass and maintain filter integrity.

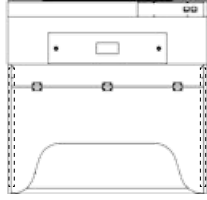
▶▶ MULTIPLEX FILTRATION SYSTEM, SUMMARY

| | Pre-Filter | Main Filter |
|--|---|-------------|
| Electrostatic | Protects the main filters from aerosols, mists, dust and particulates with filter efficiency superior to 95.5% down to 0.5 microns. | |
| | Standard | Standard |
| Activated Carbon | A single carbon filter containing activated carbon granules chemically formulated to capture one or more specific vapors or family of vapors. | |
| Single: | | |
| One type of activated carbon. | - | Specify |
| Stacked: | | |
| Two or more single filters each with a different type of carbon. | - | Specify |
| HEPA/ULPA | A self-contained filter designed to physically capture particles larger than 0.3 microns (HEPA) or 0.12 microns (ULPA). When used with a HEPA/ULPA filter the ductless fume hood may be applied as a Class I Biological Safety Cabinet. | |
| | - | Specify |

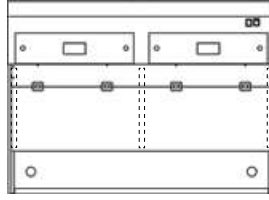
▶▶ PRODUCT SPECIFICATIONS



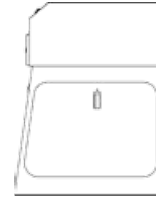
5024



5036



5048

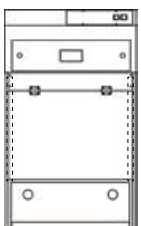


Standard

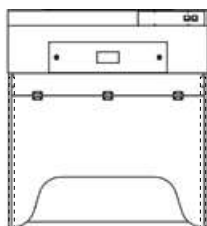


Straight

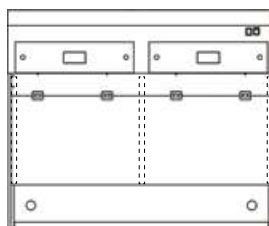
| MODEL | DIMENSIONS | | | WEIGHT (lbs/Kg) | |
|--|-----------------|--|--|-----------------|--------|
| | Internal Height | External (W x D x H) | Shipping (W x D x H) | Net | Ship |
| Standard Models | | | | | |
| 5024 | 19" 484 mm | 24" x 27" x 31" 610 x 676 x 781 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 68/31 | 125/57 |
| 5036 | 19" 484 mm | 36" x 27" x 31" 914 x 676 x 781 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 95/43 | 152/69 |
| 5048 | 19" 484 mm | 48" x 27" x 31" 1219 x 676 x 781 mm | 45" x 55" x 40" 1143 x 1397 x 1016 mm | 133/60 | 190/86 |
| Straight Models (Reduced Depth) | | | | | |
| 5024 | 19" 484 mm | 24" x 24" x 31" 610 x 610 x 781 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 65/29 | 110/50 |
| 5036 | 19" 484 mm | 36" x 24" x 31" 914 x 610 x 781 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 92/42 | 142/64 |
| 5048 | 19" 484 mm | 48" x 24" x 31" 1219 x 610 x 781 mm | 45" x 55" x 40" 1143 x 1397 x 1016 mm | 130/59 | 187/85 |



5024-XT



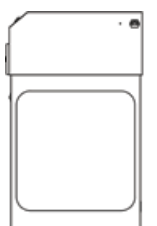
5036-XT



5048-XT



Extra Tall



Extra Tall Straight

| MODEL | DIMENSIONS | | | WEIGHT (lbs/Kg) | |
|---|-----------------|--|--|-----------------|--------|
| | Internal Height | External (W x D x H) | Shipping (W x D x H) | Net | Ship |
| Extra Tall Models | | | | | |
| 5024-XT | 23.6" 600 mm | 24" x 27" x 35" 610 x 676 x 889 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 72/33 | 129/59 |
| 5036-XT | 23.6" 600 mm | 36" x 27" x 35" 914 x 676 x 889 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 99/45 | 157/71 |
| 5048-XT | 23.6" 600 mm | 48" x 27" x 35" 1219 x 676 x 889 mm | 45" x 55" x 40" 1143 x 1397 x 1016 mm | 138/63 | 195/88 |
| Extra Tall Straight Models (Reduced Depth) | | | | | |
| 5024-XTS | 23.6" 600 mm | 24" x 24" x 35" 610 x 610 x 889 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 72/33 | 129/59 |
| 5036-XTS | 23.6" 600 mm | 36" x 24" x 35" 914 x 610 x 889 mm | 40" x 40" x 40" 1016 x 1016 x 1016 mm | 99/45 | 157/71 |
| 5048-XTS | 23.6" 600 mm | 48" x 24" x 35" 1219 x 610 x 889 mm | 45" x 55" x 40" 1143 x 1397 x 1016 mm | 138/63 | 195/88 |

| PRODUCT SPECIFICATIONS | | | |
|------------------------|--|------|--------|
| Airflow CFM | 135.9 | 206 | 281.25 |
| Face Velocity FPM | 100 | 100 | 100 |
| Noise, dBA, 1 meter | < 50 | < 50 | < 50 |
| Lighting | Compact fluorescent lamp | | |
| Construction | White epoxy coated steel frame and head unit. Clear sides and back panel | | |
| Blower | ebmpapst™ centrifugal fan | | |
| Electrical | 120V, 60Hz or 220V, 50Hz voltages available. Specify when ordering. Other voltage options available | | |
| Electrical Switches | Main On/Off | | |
| Monitoring | Low airflow alarm, standard | | |

| Filter Specifications | | | |
|-----------------------|--|-------------------|-------------------|
| Pre-Filter | Electrostatic, 1 lb / .45 kg (nominal) | | |
| Main* | (1) 11 lbs / 5 kg | (1) 11 lbs / 5 kg | (2) 11 lbs / 5 kg |

* Single stack; double stack doubles weight of all (i.e. 22, 22, 44).

► OPTIONS & ACCESSORIES

| | |
|----------------------------------|---|
| Advanced Control Panel* | Includes On/Off switch, low airflow alarm, and hour meter to aid in determining available filter life. Panel also comes equipped with a Filter Saturation Alarm with an electronic gas sensor that emits audio and visual alerts when the main filter needs to be changed. |
| Spill Tray | Polypropylene spillage tray, available in white or black, slides out for easy cleaning. |
| Dwyer Air Flow Meter | Continuous display of face velocity. |
| Base Stand, Mobile, with Casters | Provides a lower storage shelf; accommodates wheelchair access. Locking casters fix the hood in place. |
| Base Cabinet, Fixed | Provides storage space below and a cup sink, swan neck faucet, and service fixtures. |
| ADA Compliance* | Provides wheelchair access and lowered remote controls. |
| Polypropylene Construction* | Cabinets are available in all polypropylene construction. |
| Duplex Electrical Outlet* | Two NEMA-1420R receptacles with ground fault interrupter. 110V service standard; international fixtures available. |
| Service Valve* | Cabinets can be fitted with service fixtures such as petcocks, faucets or valves. |
| Stainless Steel Hanging Rod* | Hanging rod spans the width of the cabinet. |
| Cup Sink, Mounts into Tray* | Cup sink is fitted into the base tray. |
| UV lamp** | A UV lamp is available for overnight decontamination of interior surfaces. The UV kit includes a timer, door microswitch, fully closing front sash, and UV filtering clear polycarbonate panels. The UV operation must comply with local codes and facility safety practices. |

▶▶ **STANDARDS & COMPLIANCE**

| | |
|---|---|
| Quality Management Systems | ISO 9001 |
| Chemical Fume Containment | ANSI/ASHRAE 110 1995 |
| Carbon Filter Efficiency | BS 7989-2001 AFNOR NFX 15-211 |
| Biological Safety Filter Efficiency HEPA and ULPA | IENT-RP-CC-0034.2 IENT-RP-CC007.1 IENT-RP-CC001-4 EN 1822 |
| Electrical Safety | UL-C-61010-1 CE Mark ROHS Exempt under EEE Category 9 |
| Product Design | ANSI Z 9.5-2003 ANSI Z 9.7-1998 |
| OSHA, Occupational Safety and Health Administration | OSHA Standard -29 CRF, Safety and Health Regulations for General Industry, 1910.1450: Occupational exposure to hazardous chemicals in laboratories. Part B, definition, laboratory type hood. |
| Environment | ISO 14001 Energy Star Partner |

▶▶ **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. It is frequently used for iodination reactions with low level radioactive iodine. |
| ACM | Mercury vapor. |
| AMM | Removes vapors from dilute ammonia solutions and to remove low molecular weight amines. |
| SUL | Designed to remove hydrogen sulfide 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. It is widely used in hospital pathology laboratories. |
| ETH | Diethyl ether is adsorbed on activated carbon, but because of its low boiling point, local heat adsorption can reduce the capacity of the filter. Special impregnation allows a chemical reaction which increases the filter capacity. |
| HEPA/UPLA | Powders and particulates. |

▶▶ **Servicing, Validation, Trainings and Preventive Maintenance :**

- Servicing : We have team of service engineers who can attend to any make of instrument promptly @the most affordable cost.
- Trainings :We also take up preventive maintenance to reduce downtime of instrument's Trainings.
- AMC's/CMC : We offer user training both in-House and at customer sites on instrument principles, operations, troubleshooting.
- Validations : We have protocols for carrying out periodic Validations as per GLP/ GMP/USFDA norms.
- Instruments : We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.



▶▶ **About Analytical Technologies**

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the globe. Analytical Technologies Limited is an ISO :9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

▶▶ **Our Products & Technologies**

| | | | | | | |
|--|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| UV/VIS Spectro 2080+ Double Beam | Infra FTIR | Optima Gas Chromatograph 3007 | Optima Gas Chromatograph 2979 Plus | Flash Chromatograph | Atomic Absorption Spectrophotometer | Liquid Partical Counter |
|  |  |  |  |  |  |  |
| Optical Emission Spectrophotometer | DSC/TGA | Semi Auto Bio Chemistry Analyzer | HEMA 2062 Hematology Analyzer | Micro Plate Reader/Washer | URINOVA 2800 Urine Analyzer | Total Organic Carbon 3800 |
|  |  |  |  |  |  |  |
| Fully Automated CLIA | NOVA-2100 Chemistry Analyzer | PCR/Gradient PCR/ RTPCR | TOC Analyzer | Laser Particle Size Analyzer | Ion Chromatograph | Water purification system |

▶▶ Regulatory compliances



▶▶ Corporate Social Responsibility

Analytical Foundation is a Nonprofit Organization (NGO) found for the purpose of:



Analytical Foundation

1. Research & Innovation Scientist's awards / QC Professional Award: Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of Yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

▶▶ Reach us @



HPLC Solutions | MultipleLabs | Analytical Bio-Med | Analytical Distributors | Analytical Foundation (Trust)

Corporate & Regd. Office:
Analytical House, # E67 & E68,
Ravi Park, Vasna Road, Baroda,
Gujarat 390 015. INDIA

T: +91 265 2253620
+91 265 2252839
+91 265 2252370
F: +91 265 2254395

E: info@hplctechnologies.com
info@multiplelabs.com
info@analyticalbiomed.com

W: www.ais-india.com
www.analyticalgroup.net
www.hplctechnologies.com
www.multiplelabs.com

Sales & Support Offices:
across the country :
Distributors & Channel
partners World Wide

Note : Company reserves rights to add/delete/modify the contents /technical specifications of the catalogue without prior notice.