

### Fume Hood (FH)

A **fume hood** or is a type of local ventilation device that is designed to limit exposure to hazardous or toxic fumes, vapors or dusts. A fume hood is typically a large piece of equipment enclosing five sides of a work area, the bottom of which is most commonly located at a standing work height.

Two main types exist, ducted and recirculating (aka ductless). The principle is the same for both types: air is drawn in from the front (open) side of the cabinet, and either expelled outside the building or made safe through filtration and fed back into the room.

Other related types of local ventilation devices include: clean benches, biosafety cabinets, glove boxes and snorkel exhausts. All these devices address the need to control airborne hazards or irritants that are typically generated or released within the local ventilation device. All local ventilation devices are designed to address one or more of three primary goals:

- \* to protect the user from inhaling toxic gases (fume hoods, biosafety cabinets, glove boxes);
- \* to protect the product or experiment (biosafety cabinets, glove boxes);
- \* to protect the environment (recirculating fume hoods, certain biosafety cabinets, and any other type when fitted with appropriate filters in the exhaust airstream).

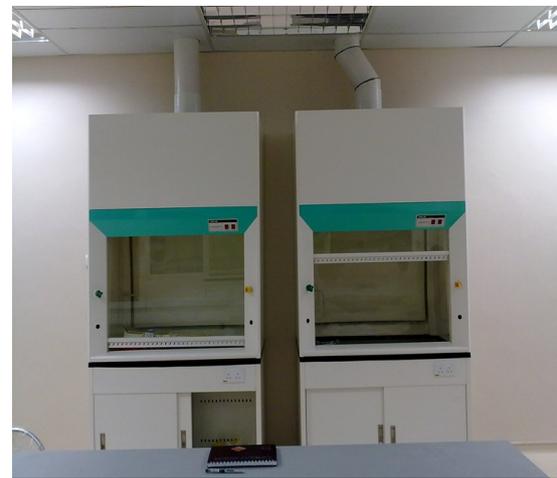
Secondary functions of these devices may include explosion protection, spill

A general but non-specific term for some of these local ventilation devices is Laminar flow cabinet. This category may include clean benches, biosafety cabinets and other devices characterized simply by the laminar nature of their airflow. The term laminar flow cabinet, however, is insufficient to identify their actual design and use - some will protect the product but not the user, and others will protect both. Terminology for local ventilation devices has been, and remains, unclear and non-specific, and the reader is advised to take special care in selection and specification based upon which of the three primary goals (listed above) are to be met.

Fume hoods typically protect only the user, and are most commonly used in laboratories where hazardous or noxious chemicals are released during testing, research, development or teaching. They are also used in industrial applications or other activities where hazardous or noxious vapors, gases or dusts are generated or released.

Because one side (the front) of a fume hood is open to the room occupied by the user, and the air within the fume hood is potentially contaminated, the proper flow of air from the room into the hood is critical to its function. Much of fume hood design and operation is focused on maximizing the proper containment of the air and fumes within the fume hood.

As most fume hoods are designed to connect to exhaust systems that expel the air directly to the exterior of a building, large quantities of energy are required to run fans that exhaust the air, and to heat, cool, filter, control and move the air that will replace the air exhausted. Significant recent efforts in fume hood and ventilation system design have focused on reducing the energy used to operate fume hoods and their supporting ventilation systems.



## **POLYPROPYLENE FUME HOOD**

Accustrong offers a wide range of custom made Polypropylene Fume hood, manufactured from high-quality non-corrosive polypropylene with excellent chemical resistance. Polypropylene increases the product's tensile strength and improves its thermal characteristics.

The Polypropylene Fume hood protect laboratory staff from noxious fumes released by acids, dangerous gas and organic solutions - materials and acids which regular steel hoods may not withstand.

Harmful and unpleasant chemical fumes are removed from the controlled environment to facilitate a safe, pleasant work environment. The Fume Cupboard channels chemical vapors out of the building using an external fan installed on the roof or on an external wall.

The cupboards are designed for work with heavy chemicals, and have been independently tested to meet the requirements of relevant international standards.

### **FEATURES**

- \* White/grey colour polypropylene (PP) structure featuring high chemical resistance
- \* One-piece welded structure
- \* Built-in polypropylene worktop
- \* Transparent PVC / Acrylic / Polycarbonate counter weight door
- \* Exhaust outlet
- \* Lighting separated from the fuming hall
- \* Lower base cabinet
- \* Optional: sink/water tap/gas tap/vacuum tap
- \* 2ft fluorescent light - 1 unit and 13A single phase power socket - 2 units

### **Applications:**

Semiconductor, Microelectronics, Waste & Water Treatment, Research & Trace Metal Labs, Chemical Analysis, Pharmaceutical Manufacturing, Curing, Etching Processes, Plating Processes, Cleaning Processes, Photonics

### **Dimensions**

<b>Model</b>	<b>Dimension (mm)</b>	<b>Exhaust Outlet (mm)</b>
FH 1200	1200 (L) x 800 (D) x 2000 (H)	150
FH 1500	1500 (L) x 800 (D) x 2000 (H)	200
FH 1800	1800 (L) x 800 (D) x 2000 (H)	250
FH 2400	2400 (L) x 800 (D) x 2000 (H)	300

### **Contact Us:**

**accustrong**

MECHANICAL & ELECTRICAL ENGINEERING, AIR POLLUTION CONTROL SPECIALIST

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