



Inhalation is a major route of entry of chemical into the body.

Chemical fumes and vapours can directly enter our bloodstream and small particles can lodge in the alveolar region of our lungs.

A properly designed and operated fume -hood reduces exposure to hazardous fumes, vapours,gases and dusts.

A fume-hood confines hazardous airborne material by diluting it with a large amount of air,drawing it through an exhaust system and then expelling the air in vents locate on the roof of building.

SPECIFICATION:

Design Structure	Aerodynamic, Floor Mounted
Overall Fume Hood Dimensions with base cabinet	L= 915 mm (3fitt) X D= 762 mm X H= 2400 mm L= 1200 mm (4fitt) X D= 762 mm X H= 2400 mm L=1500mm (5fitt) X D= 762 mm X H= 2400 mm L=1800mm (6fitt) X D= 762 mm X H= 2400 mm
Base Cabinet dimensions:	L= - mm X D= 650mm X H= 700mm
Inside Fume Hood working volume:	L= 610mm X D= 625 mm X H= 1150 mm L= 915 mm X D= 625 mm X H= 1150mm L= 1200mm X D= 625 mm X H= 1150mm L=1500mm X D= 625 mm X H= 1150mm
Inside Fume Hood Interior	Polypropylene (PP) Chemical & Heat Resistant, Fire Retardant, Smooth Finish, Easily Cleanable Panels Made out of durable PP integral work walls (5 mm thick).
Height of worktop from Ground level	200 mm

Airflow Type	Low Constant Volume (for A.C. environment)
Construction (Exterior)	Anti-corrosive Powder coated Pre-treated with 8 tank chemical processes and powder coated with highly chemical resistant epoxy Colors having dry film thickness of 70 to 80 microns. Passes all conformity performance tests as per IS standards.
Construction (Interior)	Chemical (especially strong acid like H ₂ SO ₄ and HNO ₃) resistant & Heat Resistant, Fire Retardant, Smooth Finish, Easily Cleanable Panels. PP
Front Top Panel	Easily open able hinged Top Panel for easy access to Flow Control Valve and Electrical Lighting fixtures for maintenance.
Worktop	Chemical resistant splash & spillage proof. Made by Jet Black granite (2cm thickness)
Water tap with drain Arrangement	Will have oval/round shaped 100 mm X 200 mm sink for drainage with water tap.
Sash (Shutter)	Vertical rising counter-balanced sash. Toughened Float Glass sash(6 mm thick).Clear openable height = 700 mm. Fail safe device – Shutter fail-safe locking arrangement to prevent sudden breakdown of shutter.
Wet & Dry Service fittings	Remotely operated Colour coded Brass Needle Valves for fine control over utilities total 4 nos. service valves with PU plumbing with 6 mm internal dia, withstands up to 5 kgf pressure <ul style="list-style-type: none"> · 1 for Raw water · 1 for Nitrogen · 1 for Vacuum · 1 for Compressed Air
Lighting	Fluorescent light (40 watt, 1 Nos.) with vapour-proof fitting for proper illumination.
Electrical Utilities	Two nos. electrical sockets (230 V, 6/16 A,50 Hz) and witch.light switch on front facia. Cables & wires Fire Retardant grade. On right hand side
Cable entering port	For easy access of cables from fume hood to electrical sockets.

Chemical Storage Base Cabinet	<p>Internal special chemical resistant material lining to the cabinet walls. Two exhaust ports connected to the fume hood exhaust system internally.</p> <p>Complete powder coated Rigid structure to support Fume hood.</p> <p>One removable horizontal partition to store chemicals.</p> <p>Double skin hinged doors with hinges made of Polyamide for Chemical resistance and hassle free operations in the corrosive lab atmosphere.</p> <p>PP Trays for chemical storage.</p> <p>Fully openable back panels for service line access.</p>
Apparatus Holding Grid	<p>A grid made up of MS Powder coated rod (Dia. 12.7 mm) to hold the apparatus.</p> <p>It will cover the entire length of the fume hood and will be built-in at fume hood backside.</p> <p>Installed at the distance of 150 mm from backside of fume hood.</p>
Level adjusting screws	<p>Made of P PBolts to adjust the fume hood level by ± 10 mm</p>
Centrifugal Blower	<p>Silent PP + FRP high efficiency remote blower, consisting of continuous rating motor and chemical resistant impeller.</p> <p>All impellers are dynamically balanced.</p> <p>The capacity Of the blower is approx. 1000 CFM, the impeller is fixed 1 HP</p> <p>1 phase 1440 RPM Motor. Strater</p>
Ducting :	<p>Chemical resistant PP 2.5Kg rigid & flexible ductwork from Fume hood to exhaust stack point with weatherproof canopy.</p> <p>Total ducting with horizontal, vertical members, flanges, bends, bracketed supports and goose neck exhaust stack. Duct dia. 177 mm</p>
Air Suction Capacity	<p>600 CFM confirming to international face velocity norms and as per safe fume hood airflow pattern</p>
Construction	<p>SISW type, chemical & heat resistant PP + FRP blower with aerodynamically balanced PP impeller, with drain plug.</p>
Installation	<p>Should be carried out by your skilled team with ductwork design, fitting, fixing of blower, commissioning & testing of the same.</p>
Noise Level	<p>< 70db at 1 meter from fume hood.</p>