

Technical Specification for Laboratory Fume CupboardFume cupboard with exhaust system and bottom arrangement:**QUANTITY: 01 No.**

Fume cupboard with exhaust system should be fully assembled for light and heavy duty chemical applications. It should be suitable to remove toxic harmful fumes which are generated during samples digestion by HF, HNO₃, HClO₄, H₂SO₄ acids etc. and ideal for use in industrial laboratory. It should have such features as a non-absorbent lining, explosion proof lights and electrical receptacle, a fire-suppression system and spark resistant exhaust fan. Fume cupboard with exhaust system should be designed as per the guidelines ASHRAE 110-1995. It should have the following technical specifications and configuration.

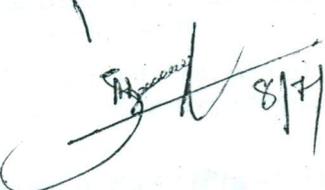
Dimension	(1550 L x 750 W x 2500 H)mm
Bed Size	(1450 X 750) mm
Material of Construction	6 mm thick asbo polyester resin lined FRP Bisphenol 'A' fumerate resin reinforced 18 SWG Electro-Galvanised sheet or 18/20 SWG CRCA sheet.
External finish	Painted with epoxy paint
Door	single, automatic, vertical, sliding, concealed type, balanced with counter weights, sash weights, wire rope etc.
Ducting	It should be 200/225 mm dia 4mm thick rigid FRP pipe and accessories.
Impeller	Dynamically balanced FRP Impeller
Baffled by	3 mm thick FRP sheet
Exhaust blower	In built centrifugal blower of Dulvin type of suitable capacity of CFM fitted with ISI mark -3 phase, 415V, and 1440 RPM Electrical motor of suitable rating/required capacity to achieve the right CFM for better fume exhaust.
Casing	6 mm thick FRP Bisphenol 'A' fumerate resin.
Standard	As per IS - 325
Temperature to with-stand	180°C
Pressure	2" S.W.G.
Coupling	Direct
Suction expected	1000/1200 cfm per minute
Balanced by	3000 RPM (By suitable machine)
Flooring	Working surface should be of 20 mm thick premium quality black granite dished all sides with ply backing.
Bottom arrangements	3' Height table made out of 19 mm board with sliding door, open door and one number horizontal partition internally coated with epoxy paint. All the drawer should have Godrej make locking arrangements.
Utilities Services	2 Nos. of 3 pair 15/5 Amp. Sockets with Control switch bush starter and indicator lamp. One no. 4' tube light with toughened glass protection. Panel mounting valves (two ways) for gas. All utilities valves should be made of high quality brass. Respective internal wiring should be terminated at rear side on top/bottom of fume cupboard for further connection
Colour	Industrial ivory - blue colour combination

1

[Signature]
8/7/16

Note:

1. The party should be capable of designing, engineering, planning, manufacturing, fabrication, supply, erection, inspection & testing, installation and commissioning of laboratory fume cupboard. They should be conversant with the latest technology and the work to be executed should be of high quality.
2. Catalogue with detailed technical specifications of item must be enclosed with offer.
3. The party should furnish a detailed list of deviations/confirmations point wise as per our technical specifications, if there is any, in their offer. The advantageous features of such deviations/exceptions should be mentioned.
4. The party should provide List of customers of their laboratory fume cupboard in India along with name, address and telephone numbers etc.
5. All the point wise compliance statement/technical specification should be provided directly by the manufacturer through their printed brochure only in English.
6. Dealership/Authorization certificate from the manufacturer must be attached.
7. The final inspection of the item will be done at our site.
8. **Installation and commissioning of the laboratory fume cupboard should be done at our site by the party.**
9. The party shall guarantee the item in his supply against improper design, defective material, poor workmanship, poor finish or failure in normal usages. This guarantee will repair or replace the defective materials/devices at no extra cost.
10. **If any other items/features not covered in the above specifications and are likely to be required in an advanced analytical laboratory must be quoted separately along with the supporting literature.**


8/7/18