



**PHARMA DEVILS**  
QUALITY CONTROL DEPARTMENT

**USER REQUIREMENT SPECIFICATION**

**Name of Item:** Fume Hood

**Protocol No.:**.....

**Functional Area:** Quality Control

**Page No.:** 1 of 7

**Name of Equipment:** Fume Hood

**Document Reference Number:**.....

**Effective Date:**



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**1.0 Approval:**

Signing of this approval page of URS indicates agreement in this document. Should Modifications to the user Requirements Specification approach become necessary, an addendum will be prepared and approved.

| <b>Prepared by</b> | <b>Signature</b> | <b>Date</b> |
|--------------------|------------------|-------------|
|                    |                  |             |
| <b>Checked By</b>  | <b>Signature</b> | <b>Date</b> |
|                    |                  |             |
| <b>Reviewed By</b> | <b>Signature</b> | <b>Date</b> |
|                    |                  |             |
| <b>Approved By</b> | <b>Signature</b> | <b>Date</b> |
|                    |                  |             |



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**3.0 INTRODUCTION:**

This document is generated for the purpose of specifying the user requirements for a fume hood.

The URS shall be recognized as the integral part of the procurement agreement with the selected equipment vendor. The equipment supplier or vendor shall abide by the information and condition set forth by this document as well as purchasing and delivery terms and conditions of the Client.

Fume hood shall be interfaced with Lab centrifugal blower. This fume Hood shall be used to throw out the fume from hot zone area.

**4.0 OVERVIEW DEFINITION:**

**4.1 The FUME HOOD shall have the following features:**

- 4.1.1. The fume hood shall have updated with centrifugal blower.
- 4.1.2. The centrifugal shall be designed, chemical & heat resistant and blower with aerodynamically balanced impeller with drain plug.
- 4.1.3. The fume hood base cabinet shall be designed to provide the chemical resistant rigid and flexible duct work from fume hood to exhaust stack point with weatherproof canopy.
- 4.1.4. The fume hood shall be provided with internal special chemical resistance material lining to the cabinet walls.
- 4.1.5. The fume hood base cabinet shall be provided with two exhaust ports connected to the hood exhaust system internally.
- 4.1.6. The fume hood base cabinet should be provided with complete powder coated attractive color combination rigid structure to support fume hood.
- 4.1.7. The fume hood base cabinet should be provided two adjustable horizontal partitions to store chemicals.
- 4.1.8. The fume hood base cabinet should be provided double skin hinged doors.
- 4.1.9. The fume hood should be provided fully open able back panel for service line access.
- 4.1.10. The fume hood should be provided with sink water tap with drain arrangement.
- 4.1.11. The fume hood should be provided interstitial 3 – point suction system with baffle to ensure smooth and immediate exhaust of fume.
- 4.1.12. The fume hood base cabinet should be provided powder coated durable attractive grey and blue 1.5 mm gauge heavy sheets with rigid structure.

**4.2 The fume hood shall be used for:**

The fume hood should be used to exhaust the fumes.



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**4.3 Technical Specifications:**

- 4.4.1 Fume hood overall dimension** :1200 x 1000 x 1600 mm
- 4.4.2 Base cabinet overall dimension** :1200 x 700 x 700 mm
- 4.4.3 Fume hood internal work volume** :920 x 750 x 1150 mm
- 4.4.4 Worktop Size** : 920 x 750 mm
- 4.4.5 Worktop height from the ground level:** 850 mm

**4.4 The machine is to be used at the following environmental conditions:**

- 4.4.1 Room Temperature:** Ambient
- 4.4.2 Relative Humidity:** Ambient

**4.5 Base Utilities Available:**

- Electrical** : **Single Phase, 230V  $\pm$  10 % 50 HZ**
- Ducting** : **Suitable Length**
- Blower** : **Centrifugal Blower**

**5.0 OPERATIONAL REQUIREMENTS:**

**5.1 OPERATION:**

The fume hood shall operate with a minimum of operator involvement. Operation shall be safe both from an user and environmental standpoint.

**5.2 POWER FAILURE/RECOVERY:**

In the event of a power failure, the system will stop automatically and will require operator intervention to re-start.

**5.3 SAFETY FEATURE:**

The system shall be stop safely in emergency.



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**6.0 SALIENT FEATURES:**

**6.1 COMPATIBILITY AND SUPPORT:**

**ELECTRIC CONTROL:**

The fume hood should consist of electrical on / off switch for operation.

**UTILITIES:**

The Supplier shall specify utility requirement. The User shall ensure that the utilities are available.

**6.2 MATERIAL OF CONSTRUCTION:**

**Construction (Exterior) :** Power coated durable attractive grey & blue 1.5 mm gauge heavy duty CRCA ( as per IS:513) sheets with rigid structure.

**Construction (interior) :** Chemical and heat resistance, fire retardant, smooth finish, easily cleanable panel made out of durable special material integral work walls (6 mm thick).ASTM flam spread index < 25

**6.3 Instruments and control : On/Off switch**

**7.0 MAINTENANCE:**

Do's and Don'ts to be provided

- 7.1 Preventive maintenance system and checks to be provided (Maintenance and operation manuals of vendor equipment)
- 7.2 A comprehensive lubrication list and recommended lubrication schedule
- 7.3 A comprehensive recommended maintenance (regular recommended inspection intervals, wear points, recommended spare parts list)
- 7.4 Supplier shall supply 2 Copies of Operation, Installation, and Maintenance manuals., DQ, Electrical drawing

**8.0 DELIVERY:**

The Fume hood with all options, equipment, and the documentation listed below, shall be delivered to the Client Site.

Delivered should be confirmation of the purchase order.



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**9.0 DOCUMENTATION:**

- 9.1 The Supplier shall provide the documentation for preliminary review. The Supplier shall provide documentation reflecting “as-built” condition with final delivery.
- 9.2 All final documents shall be shipped with transmittals that identify them as contractually required documents. All final documents and drawings shall reflect “As-Built” condition.
- 9.3 All documents shall be in English language and supplied with hard copies and supplied in the format identified for each document:
- 9.4 Design qualification
- 9.5 Installation Qualification
- 9.6 Operational Qualification
- 9.7 Maintenance and service manuals
- 9.8 Instrument listing
- 9.9 Material of construction