



Standard Operating Procedure

HORIZONTAL LAMINAR AIR FLOW UNIT

Make/Model: Alpha Linear, Bangalore/ C-35

Location: Pharmaceutical Microbiology Lab 3

SOP Number:

Prepared date:

Review date:

PURPOSE:

Laminar air flow unit is used to provide aseptic conditions when working with microorganisms and during sterility testing.

PROCEDURE:

1. Switch ON the mains.
2. Ensure that the manometer is showing Zero reading before starting.
3. Turn the switch of the Air Flow to ON position. Ensure that the differential pressure is within the limit of 8 to 15 mm of water. Turn the switch of the UV light to ON position.
4. After 30 minutes, switch OFF the UV light and switch ON the visible light.
5. Perform aseptic transfer.

CLEANING OF PRE-FILTERS:

- Ensure that the LAF is switch off.
- Pre-filter is situated on the backside of the LAF, unscrew and then remove the pre-filter from LAF.
- Transfer the pre-filter to washing area and blow the compressed air from reverse side to blow out all the dust particles.
- Wash the pre-filter with DM water and then with liquid detergent solution. Finally wash again with DM water to remove the detergent solution.
- Remove the trapped water from the pre-filter by jerking and finally rinse with 70% IPA solution.
- Allow drying the pre-filter at room temperature.
- Assemble the pre-filter at their original place and tighten the screw properly.
- Switch ON the LAF unit and check the differential pressure is in between 8 to 15 mm of water gauge.
- Pre-filter of the LAF unit shall be cleaned once in three months.



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LAF QUALIFICATION:

- Air velocity test: ensure air velocity of the LAF is using calibrated anemometer.
- Acceptance criteria: the velocity of the laminar air flow should be within 90 ± 20 ft/min.
- Particulate count test:
- Ensure the particle count of the work station is done using a calibrated air borne particulate matter counter. 1 m^3 of air sample is collected per filter. Acceptance criteria: $\geq 0.5 \mu$ particles: NMT 3500 particles per m^3 $\geq 5.0 \mu$ particles: 00 particles per m^3 .
- HEPA filter integrity test/ HEPA filter leak test:

PRECAUTIONS

- Take care to prevent any damage to the integrity of filter during cleaning. In case of observation of any damage to filters, immediately inform to the technician.
- Instrument should be cleaned when the electrical connections of the equipment is in OFF position.
- Clean the laminar airflow chamber after every operation.
- Do not work when UV light is ON as it may cause eye damage.
- Maintain the level of the platform by adjusting the equipment from the base with the help of glass beads in such a manner that the platform level should remain horizontally flat.



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Prepared by: Soumya S and Madhumati HS III Sem M Pharm (Pharmacognosy)	Checked by: Prof. BS Hunasagi Associate Professor	Approved by: Dr. Gaviraj EN Professor & HoD