



PHARMA DEVILS

PRODUCTION DEPARTMENT

STANDARD OPERATING PROCEDURE

Title: Operation and Cleaning of Laminar Air Flow Unit

SOP No.:		Department:	Production	
		Effective Date:		
Revision No.:	00	Revision Date:		
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1.0 OBJECTIVE:

To lay down a procedure for Operation and Cleaning of Hanging Laminar Air Flow Unit.

2.0 SCOPE:

This SOP is applicable for Operation and Cleaning of Hanging Laminar Air Flow Unit.

3.0 RESPONSIBILITY:

Officer / Executive - Engineering: For cleaning of pre filter and effective implementation of SOP.

4.0 ACCOUNTABILITY:

Head Production

5.0 ABBREVIATIONS:

ΔP	Differential Pressure
HEPA	High Efficiency Particulate Air
ID No.	Identification Number
IPA	Iso Propyl Alcohol
LAF	Laminar Air Flow
Ltd.	Limited
mm	Millimeter
Pa	Pascal
Pvt.	Private
QA	Quality Assurance
SOP	Standard Operating Procedure

6.0 PROCEDURE:

6.1 OPERATION:

- 6.1.1** Ensure that the lights and blower of LAF are in working condition before start of any activity inside the LAF.
- 6.1.2** Check the reading of differential pressure for Pre filter and HEPA on Magnehelic gauge and ensure that it should be maintained between, 2.0 to 8.0 mm of water for pre filter & 05-15 mm of water for HEPA filter.
- 6.1.3** If any abnormal sound is observed from the LAF Unit, the LAF Unit must be checked for its wear and tear.
- 6.1.4** After completion of work, mop the working surface with 70% IPA solution.
- 6.1.5** Check the integrity of HEPA filters when reading on Magnehelic gauge if not showing in between 05-15 mm of water.
- 6.1.6** If any HEPA filter is damaged replace it with new HEPA filter.



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6.1.7 Check the start indication light etc. frequently if required.

6.1.8 Before and after operation, Record the Differential Pressure details in **Annexure-II**,

6.1.9 Differential pressure of Bench/ Hanging LAF must be recorded once in a day in **Annexure-II**, Titled- **“LAF Differential Pressure Record”**.

6.2 CLEANING:

6.2.1 Switch ‘Off’ the LAF unit.

6.2.2 Pre filter Cleaning Activity shall be performed by trained maintenance person.

6.2.3 Take out the outer perforated frame and send it to washing area for cleaning.

6.2.4 Take gentle moping with 70% v/v filtered IPA of outer surface of HEPA.

6.2.5 Take out the pre-filters of LAF, place in a polybag and Label it with “To be cleaned” status label and transfer it to designated washing area.

6.2.6 Clean it with purified water followed by filtered air.

6.2.7 Spray 70% v/v IPA solution on it.

6.2.8 After Cleaning the frame and Pre -Filters shall be taken in the respective area.

6.2.9 Whole unit of LAF should be cleaned / mopped with 70% v/v filtered IPA solution.

6.2.10 Spray 70% v/v filtered IPA solution all over the filters and cover frame.

6.2.11 Attach the Pre - Filter and cover frame at its specified place. After that clean the LAF outer surface with clean mop using 70% IPA solution.

6.2.12 Record the Cleaning details in **Annexure-I**, Titled- **“LAF Grill & Pre-Filter Cleaning Record”**.

6.2.13 **Frequency:** LAF grill & pre-filter monthly.

7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	LAF Grill & Pre-Filter Cleaning Record	
Annexure-II	LAF Differential Pressure Record	

ENCLOSURES: SOP Training Record.



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8.0 DISTRIBUTION:

- Controlled Copy No. 01 Quality Assurance
- Controlled Copy No. 02 Production
- Master Copy Quality Assurance

9.0 REFERENCE:

Not Applicable.

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Change Control No.	Details of Changes	Reason for Change	Effective Date	Updated By

