



PHARMA DEVILS

MICROBIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE

Title: Cleaning and Operation of Laminar Bench

SOP No.:		Department:	Microbiology
		Effective Date:	
Revision No.:	00	Revision Date:	
Supersede Revision No.:	Nil	Page No.:	1 of 5

1.0 OBJECTIVE

To lay down procedure for cleaning and operation of Laminar bench (Horizontal).

2.0 SCOPE

This SOP is applicable for all the horizontal laminar benches, Make - Klenz Flo used in microbiology laboratory.

3.0 RESPONSIBILITY

Prepared by - Executive Microbiology

Checked by - Assistant Manager Microbiology / QC

Approved by - Head QA, QC

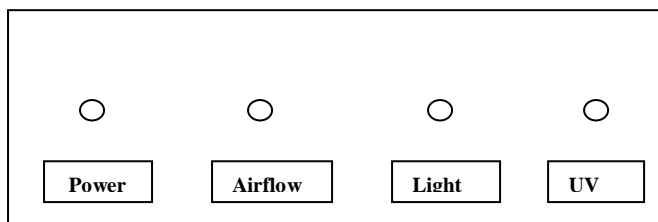
4.0 PROCEDURE

4.1 Operation

4.1.1 Before switch on the mains power supply ensure that the laminar air flow bench is cleaned.

4.1.2 Switch on the mains power supply.

4.1.3 The front panel of the laminar air flow bench contains the following buttons.



4.1.4 Gently press the power button and observe that the red light above the power button will glow, which indicates there is proper power supply.

4.1.5 Gently press the Airflow button to turn the motor on and observe the Pressure differential across the HEPA filter in the Magnehelic gauge provided in the front panel of the laminar air flow bench.

4.1.6 The pressure differential across the HEPA should be in between 10 -15 mm of water.

4.1.7 Switch on the UV lamp by gently pressing the UV button.

4.1.8 Allow the laminar air flow bench to expose to UV light for about 30min and then switch off the UV lamp by gently pressing UV button.

4.1.9 Switch on the florescent light by gently pressing Light button.

4.1.10 After performing the work under laminar airflow bench switch off the laminar air flow bench Light, airflow and power supply by gently pressing respective buttons.



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4.1.11 Clean the laminar bench.

4.1.12 Magnehelic gauge readings of the laminar bench should be within the set limit. It should be zero when laminar air bench is in off position.

4.1.13 Record the magnehelic gauge reading (pressure differential) twice in a day i.e. the morning and in the evening.

4.1.14 Maintain the record of magnehelic gauge reading (pressure differential) as per Annexure - I.

4.1.15 Record the burning hours of U.V. light daily in the morning.

4.1.16 Maintain the record of burning hours of U.V. light as per Annexure - II.

4.2 Cleaning

4.2.1 Ensure that the laminar airflow bench power supply is OFF.

4.2.2 Clean the inner walls, grill and workbench of laminar air flow bench before commencement and after completion of each work with the help of a lint free cloth soaked in 70 % filtered IPA.

4.3 Preventive Maintenance (Prefilter cleaning)

4.3.1 Take out the prefilter from the chamber.

4.3.2 Clean the prefilter with plenty of purified water.

4.3.3 Wash the prefilter with a detergent solution.

4.3.4 Wash it with plenty of water to remove the traces of detergent solution.

4.3.5 Dry the prefilter spraying compressed air.

4.3.6 Clean the prefilter chamber and the grills with a clean cloth soaked in sterile 70% IPA solution.

4.3.7 Place the prefilter at its position.

4.3.8 Switch on the laminar bench. Check the pressure differential across the HEPA filter.

4.3.9 The pressure differential across the HEPA should be in between 10 -15 mm of water.

4.3.10 If pressure reading on Magnehelic gauge is not achieved, put a status label 'Under Maintenance' & inform to concern department for necessary action.

4.3.11 Cleaning is to be done under the supervision of Executive /Jr. Executive microbiology.

4.3.12 Incase of any malfunctioning, inform to concern department for rectification.

4.3.13 Frequency of Cleaning of prefilter: 30 ± 5 days.

5.0 SAFETY & PRECAUTIONS



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Ensure that UV light tube is changed after every 5000 burning hours (Burning hours are recorded on calibrated UV usages meter).

6.0 REVISION HISTORY

Revision No.	Reason for Revision	Superseded from & date
00	First Issue	-----

7.0 REFERENCES

Not applicable.

8.0 ABBREVIATIONS

SOP	:	Standard Operating Procedure
%	:	Percentage
IPA	:	Iso Propyl Alcohol
HEPA	:	High Efficiency Particulate Air
UV	:	Ultra Violet
LAF	:	Laminar bench

9.0 ANNEXURES

- Annexure - I** : Magnehelic gauge reading (pressure differential) of laminar bench
- Annexure - II** : U.V. light burning hour's record of LAF



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ANNEXURE - I

MAGNEHELIC GAUGE READING (PRESSURE DIFFERENTIAL) OF LAMINAR BENCH

Date	Location of LAF	LAF ID	Magnehelic Gauge Reading (mm of water)				Checked by	
			Before switching on	After switching on (10 - 15 mm of water)				
				Morning	Recorded by	Evening		Recorded by
	BET Room							
	MLT Room							
	Sterility Room							
	BET Room							
	MLT Room							
	Sterility Room							
	BET Room							
	MLT Room							
	Sterility Room							
	BET Room							
	MLT Room							
	Sterility Room							



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ANNEXURE - II

U.V. LIGHT BURNING HOUR'S RECORD OF LAF

Date	Location of LAF	LAF ID	Burning hours	Recorded by	Checked by
	BET Room				
	MLT Room				
	Sterility Room				
	BET Room				
	MLT Room				
	Sterility Room				
	BET Room				
	MLT Room				
	Sterility Room				
	BET Room				
	MLT Room				
	Sterility Room				
	BET Room				
	MLT Room				
	Sterility Room				