



**PERFORMANCE QUALIFICATION REPORT  
FOR  
DYNAMIC PASS BOX**

<b>PROTOCOL No.:</b>
<b>REVISION No:</b>
<b>REPORT No.:</b>
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**EQUIPMENT ID No.: .....**

**AREA: MICROBIOLOGY LAB (QA/QC BLOCK)**

**LOCATION: .....**

<b>Report No.</b>	
<b>Supersedes Document Number</b>	
<b>Ref. Report No.</b>	
<b>Completion Date</b>	
<b>No. of Pages</b>	32



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**1.0 REPORT APPROVAL:**

This is a specific Report for Re-qualification of Dynamic Pass Box (Equipment ID No.:.....) which is installed, in Microbiology Lab (QA/QC Block).

This Report has been prepared, checked and approved by the following:

**INITIAL APPROVAL**

This protocol has been approved by the following:

**PREPARED BY:**

Name	Designation	Department	Signature	Date
		QC Microbiology		

**CHECKED BY:**

Name	Designation	Department	Signature	Date
		Quality Control		
		Engineering		
		Quality Assurance		



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**2.0 OVERVIEW:**

**2.1 OBJECTIVE:**

To establish the methodology for the Re-qualification of Dynamic Pass Box (Equipment ID No.:.....) which is kept in Microbiology lab (QA/QC Block) of .....

**2.2 PURPOSE AND SCOPE:**

The purpose of this Report is to establish documentary evidence that Dynamic Pass Box (Equipment ID No.: .....) should be qualified to maintain class 5 as per ISO 14644-1 standard within the working area for performing microbiological testing.

This Report is applicable for the Performance Qualification of the Dynamic Pass Box (Equipment ID No.:.....) which is kept in Microbiology lab (QA/QC Block) of .....

**2.3 RESPONSIBILITY:**

- **Protocol / Report Preparation:** Executive Microbiology
- **Protocol / Report checking :** Manager QC / Manager QA
- **Approval of Protocol / Report:** Head QA
- **Execution of Qualification Activity:** Executive Microbiology

**2.4 QUALIFICATION TEAM**

- Microbiologists/ Executive Microbiology
- Quality Assurance Executive / Manager



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**3.0 TRAINING RECORD:**

**3.1 PURPOSE:**

The purpose of the training is to familiarize the trainees with the overall strategy of Qualification of Dynamic Pass Box (Equipment No.:.....).

**3.2 SCOPE:**

This Training is applicable to the Qualification of Dynamic Pass Box (Equipment ID No.: ....).

**3.3 TOPICS:**

The following topics shall be covered during training:

- Overall strategy of qualification process.
- General precautions / guidelines to be followed during qualification.
- **Training records shall be attached with the report as Annexure – 01.**



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**4.0 QUALIFICATION REQUIREMENTS**

Following instruments shall be required for the Re-Qualification of Dynamic Pass Box (Equipment ID No.: .....).

S.No.	Instrument Name	Instrument Code / Sr. No.	Calibration Certificate No.	Calibration Due On
1.	Differential Pressure Gauge			
2.	Anemometer			
3.	Laser Particle Counter			
4.	Photometer			

Calibration Certificates shall be attached as **Annexure-04**.



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**5.0 SYSTEM / EQUIPMENT DESCRIPTION:**

**5.1 SYSTEM / EQUIPMENT DETAILS:**

The Dynamic Pass Box (Equipment ID No.:.....) shall be used to transfer the material from sterility lab to MLT/BET lab and samples and other testing aids from non-sterile area to sterility lab.

**5.2 SYSTEM /EQUIPMENT IDENTIFICATION:**

<b>Component</b>	<b>Specifications</b>
Name of equipment	Dynamic Pass Box
Model	CP-DPB-2'X2'
Serial Number	.....
Tag No.	.....
Name of the Manufacturer	Chempharm Industries India (P) Ltd.
Overall Dimensions	830 x 690 x 1390 mm
Working Area	610 x 610 x 610 mm
HEPA filter	610 x 610 x 69 mm -01No.
Pre-Filter	275 x 325 x 50 mm -01No.
UV Lamp	Philips 15 watt
Hour meter	
Details of Purchase Order No.	
Equipment Location	Microbiology laboratory (QA/QC Block)



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**6.0 QUALIFICATION PROCEDURE:**

The following procedure shall be used for the Qualification of the Dynamic Pass Box (Equipment ID No.:.....).

Tests to be performed by out side party:

- ◆ Differential Pressure
- ◆ Air velocity
- ◆ Non viable air borne particle count
- ◆ Filter Leakage test (HEPA filter Integrity test)
- ◆ Air Flow Patterns
- ◆ Air viable count by active air sampling (Using Air Sampler)
- ◆ Passive Air Sampling (Settle Plate Method)
- ◆ Surface Monitoring by Contact plate method
- ◆ Recovery Study

**6.1 DIFFERENTIAL PRESSURE:**

**OBJECTIVE:**

To demonstrate the capability of the Dynamic pass box to provide pressure gradient between working area and surroundings.

**PROCEDURE:**

- 6.1.1 Differential pressure shall be monitored from the calibrated magnehelic gauge for three consecutive days.
- 6.1.2 Dynamic pass box shall be continuous operation while taking observations.
- 6.1.3 Observations shall be recorded as per **Exhibit-05**.

**ACCEPTANCE CRITERIA:** 10-15 mm of WC (Water Column).





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**6.2 AIR VELOCITY:**

**OBJECTIVE:**

To demonstrate that the air system is balanced and capable of delivering air velocity so that air flow remains in Laminar Fashion.

**PROCEDURE:**

- 6.2.1 Air velocity shall be recorded using calibrated digital Anemometer.
- 6.2.2 Anemometer shall be kept at the distance of approximately 6 inches from the grill of HEPA filter.
- 6.2.3 Five reading shall be taken from the locations as shown in the fig. V1, V2, V3, V4, AND V5. Record the Air velocity at five locations V1, V2, V3, V4 and V5.
- 6.2.4 Average velocity (V) in FPM shall be calculated as follows:

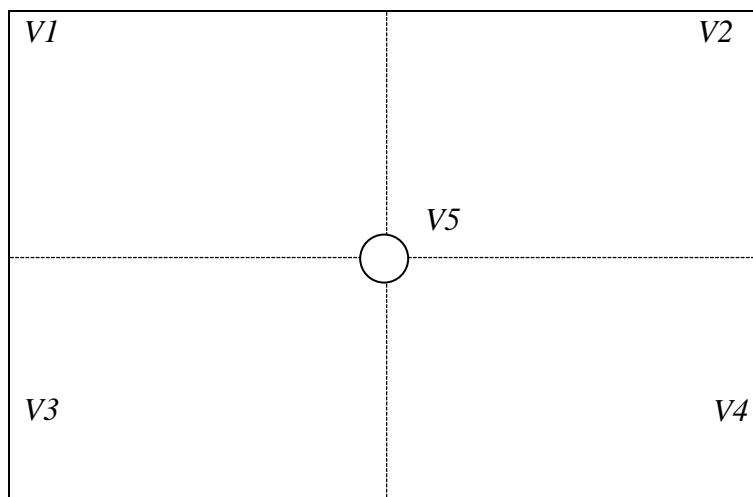
$$V = \frac{\sum V_i}{5}$$

Where i is the location 1 to 5 and Vi is the velocity at location 1 to 5.

- 6.2.5 The observations of Air velocity shall be recorded as per **Exhibit-E01**.

**ACCEPTANCE CRITERIA:** The average velocity shall be within  $90 \pm 20$  % Feet per minute.

**Diagram showing Hypothetical division of HEPA grill**





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**6.3 NON -VIALE AIR BORNE PARTICLE COUNT TEST**

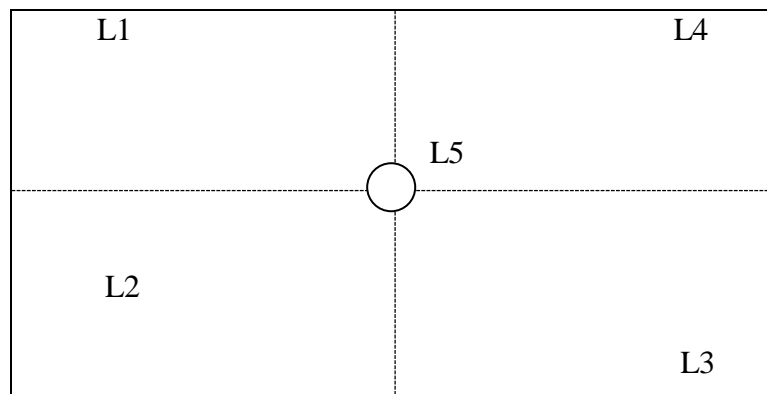
**OBJECTIVE**

To establish that Dynamic Pass Box working area meets the requirement for cleanliness Class 5 as per ISO 14644-1 standard.

**PROCEDURE**

- 6.3.1 After moping the Dynamic Pass Box with 70% IPA let the air flow for 30 minutes prior to perform this test and the particle count shall be done at rest conditions.
- 6.3.2 Record the particle count greater than  $0.5\mu$  and  $5.0\mu$  size at 5 different locations as shown in the diagram given below.

**Diagram showing locations of air sampling for nonviable particle count**



- 6.3.3 The minimum volume to be sampled shall be calculated by the following equation:

$$V_s = (20 / C_{n,m}) \times 1000$$

Where:  $V_s$  is the minimum sample volume, in litres

$C_{n,m}$  is the class limit (in number of particles per cubic meter for a given particle size)

- 6.3.4 The minimum sample time at each location must be 1 minute and the minimum volume of air sampled at each location shall be 2 Liters.
- 6.3.5 Count the number of particles using Laser Particle Counter.
- 6.3.6 Three readings shall be taken at each location.



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6.3.7 **Mean of averages,  $M = (A_1 + A_2 + \dots + A_n) / n$**

Where  $A_1, A_2$  are the average of three reading taken at each location.

**ACCEPTANCE CRITERIA:** The number of particles shall not increase more than the limit Mentioned in the table below.

Class	Maximum permitted no of particles / m <sup>3</sup> of air	
	≥0.5μ	≥5.0μ
	Particles /m <sup>3</sup>	Particles /m <sup>3</sup>
<b>100</b>	<b>3520</b>	<b>29</b>

6.3.8 The observations of nonviable particle count shall be recorded as per **Exhibit-E02**.

**6.4 FILTER LEAKAGE TEST (HEPA FILTER INTEGRITY TEST)**

**OBJECTIVE**

Filter leak test shall be checked in order to find out that HEPA filter are not damaged and there is no leakage from the filter media joints and frames etc.

**PROCEDURE**

6.4.1 Filter integrity testing shall be checked using PAO (Poly-alpha olefin) smoke generator Aerosol photometer.

6.4.2 Position the smoke generator and introduce PAO smoke into the upstream air through port at the concentration of 20 mg/m<sup>3</sup> (μg/l) and 80 mg/m<sup>3</sup> (μg/l).

6.4.3 Hold the probe in front of HEPA filter grill, switch ON the photometer and allow stabilizing.

6.4.4 Move the probe along the joints slowly.

6.4.5 Record the observation as per **Exhibit-E03**.

**ACCEPTANCE CRITERIA:** Not more than 0.01% PAO shall penetrate across the HEPA filter and no leakage shall be observed from the fitment.



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**6.5 AIR FLOW PATTERNS:**

**OBJECTIVE:**

To demonstrate that the air pressure is balanced and air is flowing from high pressure zone to low pressure zone and uniform laminar flow. The test shall be performed to check the air flow patterns in the Dynamic pass box using  $TiCl_4$ .

**PROCEDURE:**

- 6.5.1 Take a glass rod.
- 6.5.2 Dip it in  $TiCl_4$  and keep in front of air flow of the running Dynamic pass box.
- 6.5.3 Pattern of air flow shall be recorded by video camera.
- 6.5.4 The observations shall be recorded as per **Exhibit-E09**.
- 6.5.5 CD shall be enclosed along with the report as **Annexure-03**.
- 6.5.6 The observations shall be recorded as per **Exhibit-09**.

**ACCEPTANCE CRITERIA:** The air flow patterns shall be in vertical direction in a laminar fashion.

**6.6 AIR VIABLE COUNT BY ACTIVE AIR SAMPLING**

- 6.6.1 Sanitize the Dynamic pass box with 70% v/v Isopropyl alcohol properly.
- 6.6.2 Switch ON the UV lamp for 15 minutes. Switch ON the air flow also.
- 6.6.3 After 15 minutes switched OFF the UV lamp.
- 6.6.4 Let the air flow as such for 15 minutes before sampling.
- 6.6.5 Dynamic pass box monitored for Air viable count for three consecutive days using Soyabean casein digest agar plates pre- incubated at 30 to 35<sup>0</sup>C for at least 24-48 hrs before air sampling.
- 6.6.6 1000 Liter of air shall be sampled from two locations as shown in the fig as per Exhibit-06
- 6.6.7 After air sampling media plates shall be incubated first at 20 to 25<sup>0</sup>C for 72 hrs and then shifted to 30 to 35<sup>0</sup>C for next 48 hrs



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6.6.8 The observations shall be recorded first after 72 hrs and then 48 hrs as per **Exhibit-06**.

6.6.9 Growth promotion test of the media shall be performed as per current SOP on “Growth promotion test”.

**ACCEPTANCE CRITERIA:** <1 cfu per m<sup>3</sup>.

**6.7 PASSIVE AIR SAMPLING (SETTLE PLATE METHOD):**

6.7.1 Follow the steps 6.6.1 to 6.6.5.

6.7.2 Divide the Dynamic pas box working table in to four equal rectangular parts and expose five plates. Out of five, one plate shall be in the middle of each rectangular division and one in the middle of the working table as shown in the diagram as per **Exhibit-07** for NLT 4 hrs.

6.7.3 Mark the location of sampling end date of exposure on each plate and then incubate them.

6.7.4 After air sampling media plates shall be incubated first at 20 to 25<sup>0</sup>C for 72 hrs and then shifted to 30 to 35<sup>0</sup>C for next 48 hrs

6.7.5 The observations shall be recorded first after 72 hrs and then 48 hrs as per **Exhibit-07**.

6.7.6 Growth promotion test of the media shall be performed as per current SOP on “Growth promotion test”.

**ACCEPTANCE CRITERIA:** <1 cfu per plate.

**6.8 SURFACE MONITORING BY CONTACT PLATE METHOD:**

6.8.1 Surface monitoring of flat surfaces of Dynamic pass box shall be done by this method for three consecutive days.

6.8.2 Contact plate of 55mm diameter shall be used for this purpose.

6.8.3 Brought the contact plate in contact with the surfaces and press it gently there so that surface which is to be monitored can be brought in contact with the surface.

6.8.4 Location of sampling and sampling date shall be marked on each plate.

6.8.5 Cover the plate with the lid and incubate them incubated first at 20 to 25<sup>0</sup>C for 72 hrs and then shifted to 30 to 35<sup>0</sup>C for next 48 hrs.



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6.8.6 The observations shall be recorded first after 72 hrs and then 48 hrs as per **Exhibit-08**.

6.8.7 After sampling mop the area first with sterilized purified water and then with 70 % IPA.

**ACCEPTANCE CRITERIA:** NMT 3 cfu per plate.

Certificate of Analysis the 55mm dia contact plate shall be attached as **Annexure-04**.

**6.9 RECOVERY STUDY:**

**OBJECTIVE**

This test is performed to determine the ability of the installation to eliminate airborne particles.

**EQUIPMENT AND INSTRUMENT:**

Calibrated Particle counter

**PROCEDURE**

- The area is left aside for 20 minute before starting the measurement.
- Set particle counter in designated area, & set the sampler and collect the data for 0.5  $\mu$  & 5  $\mu$  particle.
- Switch off the AHU and continuously perform the Particle Count till the count goes beyond the acceptance criteria to next lower cleanliness level.
- Switch ON the AHU & continuously perform the Particle Count till time, the counts original at rest condition is achieved.
- The observations shall be recorded as per **Exhibit-E10**.

**ACCEPTANCE CRITERIA:**

Recovery period should not be more than 15 minutes.

**6.10** Any deviation observed during Re-qualification shall be recorded in the observed deviation, corrective action and justification report section.

**6.11** Observed deviation shall be reported to the department head and quality head.

**6.12** If the observed deviation does not have any major impact on the qualification the final conclusion shall be provided.



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**6.13** If the observed deviation has major impact on the qualification, deviation shall be reported to the manufacturer for the corrective action and qualification activity shall be performed again.

**7.0 ACCEPTANCE CRITERIA:**

Re-qualification shall be considered acceptable when requirements listed in section 6.0 of this Report has been fulfilled and all the components of Dynamic Pass Box are performing as per intended purpose.

**8.0 Summary and Conclusion**

Based on Re-Qualification data of dynamic Pass Box (Equipment ID No.: ..... ) in Microbiology lab it is evident that the desired cleanliness level is maintained as per the acceptance criteria in the dynamic pass box.

Hence the dynamic pass box stands qualified and dynamic pass box can be used for the routine testing in Microbiology lab.

**9.0 APPROVAL OF QUALIFICATION REPORT:**

The report shall be evaluated and proper references / conclusions / recommendations shall be recorded by quality assurance.

The Re-qualification report shall be evaluated and finally approved by Head Quality Assurance.



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**10.0 RE-QUALIFICATION ACTIVITY PLAN:**

<b>Test Parameter</b>	<b>Max Time Interval</b>	<b>Remarks</b>
<b>Differential Pressure</b> (To verify no cross contamination)	6 Months or when filter changed	For qualification activity data of three consecutive days shall be reported at the interval of 4hours twice in each general shift.
<b>Air velocity</b> (To verify unidirectional flow or containment Conditions)	6 Months or when filter changed	Air velocities for containment systems and unidirectional flow protection systems to be measured.
<b>Non viable air borne particle count</b> (To verify cleanliness level)	6 Months or when filter changed	Dust particle counts to be carried out & result printouts to be produced.
<b>Filter leakage test (HEPA filter integrity test)</b> (To verify filter integrity)	6 Months or when filter changed	Filter penetration tests to be carried out by competent person to demonstrate filter media and filter seal integrity. Only required on HEPA filters.
<b>Air flow patterns</b> (To verify Laminarity)	6 Months or when filter changed	Air flow test shall be performed for checking the laminarity of the air down streams.
<b>Air viable count by active air sampling (Using Air Sampler)</b> (To verify cleanliness level)	6 Months or when filter changed	For qualification activity, area should be monitored for air borne viable count daily for three consecutive days.
<b>Passive Air sampling (settle plate method)</b> (To verify cleanliness level)	6 Months or when filter changed	For qualification activity, area should be monitored for air borne viable count daily for three consecutive days.
<b>Surface monitoring by contact plate method</b> (To verify cleanliness level)	6 Months or when filter changed	For qualification activity, area shall be monitored for surface borne viable count by contact plate method for three consecutive days.
<b>Recovery Study</b> (To verify cleanliness level)	6 Months or when filter changed	For Recovery Study activity shall be monitored the particle count till the count goes beyond the acceptance criteria to assure that GSC will remains is working condition.





**PHARMA  
DEVILS**

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**11.0 OBSERVED DEVIATION**

<b>Sr. No.</b>	<b>Page No.</b>	<b>Point No.</b>	<b>Observed Deviation</b>	<b>Deviation Reported By</b>	<b>Deviation Approved By</b>	<b>Corrective Action Taken</b>	<b>Justification of Corrective Action</b>	<b>Corrective action taken and justification given by</b>	
<b>Report Approved By</b>									
<b>Department Head</b>						<b>Quality Head</b>			



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**12.0 LIST OF EXHIBITS / ANNEXURE:**

**12.1 LIST OF EXHIBITS**

<b>Exhibit No.</b>	<b>Exhibit Title</b>	<b>No. of Pages</b>
<b>E01</b>	Air Velocity	
<b>E02</b>	Non Viable Air Borne Particle Count	
<b>E03</b>	HEPA Filter Integrity Testing	
<b>E04</b>	Calibration Status Verification Checklist	
<b>E05</b>	Differential Pressure	
<b>E06</b>	Data sheet for viable count (by Active air sampler)	
<b>E07</b>	Data sheet for viable count (by Settle plate method)	
<b>E08</b>	Data Surface monitoring for viable count (by Contact plate )	
<b>E09</b>	Air Flow Pattern Test	
<b>E10</b>	Recovery Test Report	
<b>Total No. of Pages</b>		

**12.2 LIST OF ANNEXURE**

<b>Annexure No.</b>	<b>Annexure Title</b>	<b>No. of Pages</b>
<b>1.</b>	Training Record	
<b>2.</b>	Test Reports	
<b>3.</b>	Video Compact Disc for Air Flow Pattern	
<b>4.</b>	Calibration Certificates of Instruments	
<b>Total No. of Pages</b>		

**13.0 REFERENCE DOCUMENTS**

- ISO 14644 of Clean Rooms and Associated Controlled Environments.
- Validation Master Plan.
- Schedule - M – “Good Manufacturing Practices and Requirements of Premises, Plant and Equipment for Pharmaceutical Products.”



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**EXHIBIT-E01  
AIR VELOCITY**

Date of test \_\_\_\_\_

Name of the Instrument used for test \_\_\_\_\_

Make \_\_\_\_\_

Model \_\_\_\_\_

Date of calibration \_\_\_\_\_

Due date of calibration \_\_\_\_\_

Sr. No. \_\_\_\_\_

Location	Air velocity v (FPM)
V1	
V2	
V3	
V4	
V5	
Average	
Witnessed by	

Acceptance Criteria: The Average air velocity shall be within  $90 \pm 20\%$  FPM.

**Remarks:** Results are **within/ not within** limit.

**Reviewed By:** \_\_\_\_\_  
 (QC)                      (Name)                      (Sign)                      (Date)

**Verified By:** \_\_\_\_\_  
 (QA)                      (Name)                      (Sign)                      (Date)



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**EXHIBIT – E02**

**NON VIABLE AIR BORNE PARTICLE COUNT**

Date of test \_\_\_\_\_ Desired Cleanliness level \_\_\_\_\_  
 No. of locations to be sampled \_\_\_\_\_ Witnessed By \_\_\_\_\_  
 Instrument used for test \_\_\_\_\_ Make \_\_\_\_\_  
 Model \_\_\_\_\_ Sr. No \_\_\_\_\_  
 Date of calibration \_\_\_\_\_ Due date of calibration \_\_\_\_\_  
 Volume of air sampled \_\_\_\_\_ Time for which air sampled \_\_\_\_\_

Locatio n	Particle count 0.5µ per m <sup>3</sup>				Particle count 5.0µ per m <sup>3</sup>			
	1	2	3	Avg.	1	2	3	Avg.
L1								
L2								
L3								
L4								
L5								
Mean of average, M= (A <sub>1</sub> +A <sub>2</sub> + ----- + A <sub>n</sub> ) / n								

**Acceptance criteria:**

Class	Maximum permitted no of particles / m <sup>3</sup> of air	
	≥ 0.5 µm	≥ 5.0 µm
100	3520	29

**Remarks:** Results are **within/ not within** limit.

**Reviewed By:** \_\_\_\_\_  
 (QC) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
 (QA) (Name) (Sign) (Date)



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**EXHIBIT-E03**

**HEPA FILTER INTEGRITY TESTING**

Date of test \_\_\_\_\_

Name of the Instrument used for test \_\_\_\_\_

Make \_\_\_\_\_

Model \_\_\_\_\_

Date of calibration \_\_\_\_\_

Due date of calibration \_\_\_\_\_

Sr. No. \_\_\_\_\_

Concentration of PAO upstream \_\_\_\_\_

<b>Maximum Downstream Concentration of PAO observed</b>	<b>Remarks</b>	<b>Witnessed By</b>

**Acceptance criteria:** NMT 0.01% PAO shall penetrate across the HEPA filter and no leakage shall be observed from the fitment.

**Remarks:** Results are **within/ not within** limit.

**Reviewed By:** \_\_\_\_\_  
(QC) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)



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**EXHIBIT-E04**

**CALIBRATION STATUS VERIFICATION CHECKLIST**

Equipment Name / Description: Dynamic Pass Box

Tag No. :

Location : Microbiology Lab (QA/QC Block)

S. No.	Instrument Name	Instrument Code / Sr. No.	Calibration Certificate No.	Calibration Due On
1.	Differential Pressure Gauge			
2.	Anemometer			
3.	Laser Particle Counter			
4.	Photometer			

**Remarks:** Calibration status is OK / Not OK

**Reviewed By:** \_\_\_\_\_  
(QC) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)



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**EXHIBIT – E05**

**Differential Pressure**

**Instrument:**

**Instrument ID:**

Date	Observed Differential pressure, DP (mm of WC)		
	Time	DP	Observed by

**Acceptance criteria:** 10-15mm of WC.

**Remarks:** Observations are **within/ not within** limit.

**Checked By:** \_\_\_\_\_  
 (QA) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
 (QA) (Name) (Sign) (Date)



**PHARMA  
DEVILS**

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**EXHIBIT –E06**

**DATA SHEET FOR VIABLE PARTICLE TEST (ACTIVE AIR SAMPLING)**

Media used \_\_\_\_\_

1<sup>st</sup>Incubation temp/period \_\_\_\_\_

Incubator ID (20° to 25°C) \_\_\_\_\_

2<sup>st</sup>Incubation temp/period \_\_\_\_\_

Incubator ID (30° to 35° C) \_\_\_\_\_

Sampling location	Class	Exposure Date: Completion Date:		Exposure Date: Completion Date:		Exposure Date: Completion Date:		Limit CFU/m <sup>3</sup>
		Plate Exposure Time:		Plate Exposure Time:		Plate Exposure Time:		
		Observation (72 Hrs) CFU/m <sup>3</sup>	Observation (120 Hrs) CFU/m <sup>3</sup>	Observation (72 Hrs) CFU/m <sup>3</sup>	Observation (120 Hrs) CFU/m <sup>3</sup>	Observation (72 Hrs) CFU/m <sup>3</sup>	Observation (120 Hrs) CFU/m <sup>3</sup>	

Positive control (+): \_\_\_\_\_ -: denotes characteristic growth

Negative control (-): \_\_\_\_\_ -: denotes no growth

**Remarks:** Observations are **within/ not within** limit.

**Checked By:**

(QA) \_\_\_\_\_ (Name) \_\_\_\_\_ (Sign) \_\_\_\_\_ (Date)

**Verified By:**

(QA) \_\_\_\_\_ (Name) \_\_\_\_\_ (Sign) \_\_\_\_\_ (Date)





**PHARMA  
DEVILS**

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**EXHIBIT –E07**

**DATA SHEET FOR VIABLE PARTICLE TEST (SETTLE PLATE METHOD)**

Media used \_\_\_\_\_

1<sup>st</sup>Incubation temp/period \_\_\_\_\_

2<sup>st</sup>Incubation temp/period \_\_\_\_\_

Incubator ID (20° to 25°C) \_\_\_\_\_

Incubator ID. (30° to 35° C) \_\_\_\_\_

Sampling location	Class	Exposure Date: Completion Date:		Exposure Date: Completion Date:		Exposure Date: Completion Date:		Limit CFU/4hrs
		Plate Exposure Time:		Plate Exposure Time:		Plate Exposure Time:		
		Observation (72 Hrs) CFU/4hrs	Observation (120 Hrs) CFU/4hrs	Observation (72 Hrs) CFU/4hrs	Observation (120 Hrs) CFU/4hrs	Observation (72 Hrs) CFU/4hrs	Observation (120 Hrs) CFU/4hrs	

Positive control (+): \_\_\_\_\_ -: denotes characteristic growth

Negative control (-): \_\_\_\_\_ -: denotes no growth

**Remarks:** Observations are **within/ not within** limit.

**Checked By:**

(QA) \_\_\_\_\_ (Name) \_\_\_\_\_ (Sign) \_\_\_\_\_ (Date)

**Verified By:**

(QA) \_\_\_\_\_ (Name) \_\_\_\_\_ (Sign) \_\_\_\_\_ (Date)



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**EXHIBIT –E08**

**SURFACE MONITORING FOR VIABLE COUNT (BY CONTACT PLATE METHOD)**

Type of plate used \_\_\_\_\_

1<sup>st</sup>Incubation temp/period \_\_\_\_\_ 2<sup>st</sup>Incubation temp/period \_\_\_\_\_

Incubator ID (20° to 25°C) \_\_\_\_\_ Incubator ID. (30° to 35° C) \_\_\_\_\_

Exposure Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

Sampling location	Class	Observation (72 Hrs) CFU/plate	Observation (120 Hrs) CFU/plate	Limit CFU/plate

**Acceptance Criteria:** Limits for class 100 is not more than 3 CFU/contact plate.

**Remarks:** Observations are **within/ not within** limit.

**Checked By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)



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**EXHIBIT –E09  
AIR FLOW PATTERN TEST**

<b>Instrument Name</b>		<b>Date of Test</b>	
<b>Make</b>		<b>Instrument ID.</b>	

<b>Area</b>	<b>Air Flow Pattern should be from Supply to Riser</b>	<b>Air Flow Pattern should Observed Positive Pressure to Negative Pressure</b>	<b>Visibility of Smoke Generated (Yes/No)</b>

**Acceptance criteria:** The Air flow direction should be move in a downward direction.

**Remarks:** Air flow direction **Comply/does not comply** as per the acceptance criteria.

**Checked By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)



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**EXHIBIT –E10**

**RECOVERY TEST REPORT**

<b>Equipment Name</b>		<b>Equipment Tag No.</b>	
<b>Room Name / No.</b>		<b>Grade</b>	
<b>Testing Instrument</b>		<b>Instrument ID / S. No.</b>	
<b>Calibration Done on</b>		<b>Calibration Due on</b>	

<b>Initial Count</b>	<b>≥ 0.5 μm</b>	<b>≥ 5.0 μm</b>

<b>Counts/Minute</b>	<b>≥ 0.5 μm</b>	<b>≥ 5.0 μm</b>
<b>0 min</b>		
<b>1 min</b>		
<b>2 min</b>		
<b>3 min</b>		
<b>4 min</b>		
<b>5 min</b>		
<b>6 min</b>		
<b>7 min</b>		
<b>8 min</b>		
<b>9 min</b>		
<b>10 min</b>		
<b>11 min</b>		
<b>12 min</b>		
<b>13 min</b>		
<b>14 min</b>		
<b>15 min</b>		
<b>Recovery time (100:1) in minute</b>		

**Acceptance Criteria:** Recovery period should not be more than 15 minutes.

**Conclusion:** The recovery time for Room No. ....is .....minutes.

**Checked By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)

**Verified By:** \_\_\_\_\_  
(QA) (Name) (Sign) (Date)



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**Annexure – 01**

**TRAINING RECORD**

<b>Equipment Name:</b>	Dynamic ,Pass Box
<b>Equipment ID No.:</b>	
<b>Location:</b>	Microbiology Lab (QA/QC Block)
<b>No. of Pages:</b>	



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**Annexure – 02**

**TEST REPORTS**

<b>Equipment Name:</b>	Dynamic Pass Box
<b>Equipment ID No.:</b>	
<b>Location:</b>	Microbiology Lab (QA/QC Block)
<b>No. of Pages:</b>	



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**Annexure – 03**

**VIDEO COMPACT DISC FOR AIR FLOW PATTERN**

<b>Equipment Name:</b>	Dynamic Pass Box
<b>Equipment ID No.:</b>	
<b>Location:</b>	Microbiology Lab (QA/QC Block)
<b>No. of Pages:</b>	



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**Annexure – 04**

**CALIBRATION CERTIFICATES OF INSTRUMENTS**

<b>Equipment Name:</b>	Dynamic Pass Box
<b>Equipment ID No.:</b>	
<b>Location:</b>	Microbiology Lab (QA/QC Block)
<b>No. of Pages:</b>	