



# **INSTALLATION QUALIFICATION PROTOCOL FOR VERTICAL LAMINAR AIR FLOW UNIT**

**CUSTOMER:**

**EQUIPMENT:**

**VERTICAL LAMINAR AIRFLOW UNIT**

( \_\_\_\_\_ W x \_\_\_\_\_ D x \_\_\_\_\_ H mm)

**SUBMITTED BY:**

**PHARMA ENGINEERS**

PLOT NO. 113/A/1, LANE 8, PHASE II,  
IDA CHERLAPALLI, HYDERABAD- 500051.

Tel No.91-40 27261113, 27261114

## INSTALLATION QUALIFICATION PROTOCOL APPROVAL

This document is prepared by the documentation team of **M/S. PHARMA ENGINEERS** for

**EQUIPMENT** : VERTICAL LAMINAR AIRFLOW UNIT ( \_\_\_\_\_ **TAG NO**)

**PLANT /PROJECT** :

**CLIENT** :

Hence this document before being effective shall be approved by **Client / Customer**

**M/s. PHARMA ENGINEERS:**

	Name	Designation	Signature	Date
Prepared By				
Reviewed By				

**CLIENT / CUSTOMER:**

	Name	Designation	Signature	Date
Reviewed By				
Approved By				

Client:

Supplier/ Manufacturer: PHARMA ENGINEERS, HYDERABAD

Equipment: VERTICAL LAMINAR AIRFLOW UNIT ( \_\_\_\_\_ W x \_\_\_\_\_ D x \_\_\_\_\_ H mm)

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**INSTALLATION QUALIFICATION (IQ)**

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PHARMA ENGINEERS®  
HYDERABAD  
MASTER DOCUMENT

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**INSTALLATION QUALIFICATION (IQ)**

## **1. OBJECTIVE**

The objective of this document is to verify that the Vertical LAF ( \_\_\_\_\_ **TAG NO**) is installed with due considerations as specified in DQ of Vertical LAF ( \_\_\_\_\_ **TAG NO**).

## **2. RESPONSIBILITIES**

**M/s. Pharma Engineers:**

1. To install and position the equipment with proper orientation.
2. To provide the necessary test certificates as per technical specifications specified in DQ.
3. To Complete the equipment qualification.



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### INSTALLATION QUALIFICATION (IQ)

## 3. SCOPE OF SUPPLY OF COMPONENTS:

### PURPOSE

This test is to verify that the equipment dimensions, position and sizes of utility connections are in compliance with the design qualification and also with as-built drawing.

### PRE-REQUISITES

1. As built drawing
2. Measuring tape
3. Approved Design Qualification Document

### TEST METHOD

1. Physically check the dimension of the equipment in length, width, and height and confirm with design document.
2. Physically check and confirm that required indications are mentioned on the equipment like, safety indication.
3. Deviations or remarks may be documented along with summary of all test results

## COMPONENT VERIFICATION

SR.NO	DESCRIPTION	SPECIFICATIONS AS PER DESIGN QUALIFICATION	CRITERIA FULFILLED (YES/NO)
1.	<b>CONSTRUCTIONAL DETAILS:</b>		
	Equipment TAG Number		
	Unit Serial Number		
	Manufacturers name	M/s Pharma Engineers	
	Qty	01 No.	
	Internal size (width x Depth x Height) mm	1860 X 762 X 620 mm	
	External size (width x Depth x Height) mm	2000 X 950 X 2150 mm	

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**INSTALLATION QUALIFICATION (IQ)**

SR.NO	DESCRIPTION	SPECIFICATIONS AS PER DESIGN QUALIFICATION	CRITERIA FULFILLED (YES/NO)
	M.O.C	SS 304, 20G, Matt Finish	
2.	<b>BLOWER DETAILS</b>		
	Make	ZIEL - ABEGG	
	Model	GR19V 41P.Z8.AR	
	Power	Ø1, 50 Hz, 150 W	
	Qty	4 Nos	
	Serial Number		
3.	<b>FILTRATION SCHEME WITH IN EQUIPMENT</b>		
	<b>PRE-FILTER</b>		
	Make	M/s. ULTRAFIL AIR SYSTEMS	
	Type	Flange Type	
	Test Method	EN 779	
	Filter Classification as per EN779	G4	
	Media	Synthetic media	
	Avg. arrestance of synthetic dust	$90 \leq Am$	
	Equivalent particle size in terms of market language	10 microns -Un authenticated data	
	Size	610X305X50 mm	
	Qty	4 No's	
		Serial Number	
4.	<b>HEPA FILTER</b>		
	Make	AAF	
	Type of filter	BOX	
	Test method	EN 1822	
	Filter classification	H-14	
	Avg. efficiency at MPPS	<99.995%	
	Media MOC	Micro fiber glass	
	Washable compatibility	No	
	Equivalent particle size in terms of market language	99.999% down to 0.3 micron- Un authenticated data	
	Size	915 X 762 X 69 mm	
	Qty	2 No's	
		Serial Number	
	I.P.D of Filter (Approximate)	10 to 15 mm of WC	

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**INSTALLATION QUALIFICATION (IQ)**

SR.NO	DESCRIPTION	SPECIFICATIONS AS PER DESIGN QUALIFICATION	CRITERIA FULFILLED (YES/NO)
	F.P.D of Filter (Approximate)	50 mm of WC	
	NOTE: I.P.D & F.P.D values change based on AIRFLOW; hence customer should set the limits after commissioning.		
	<b>INSTRUMENTATION DETAILS</b>		
	<b>DIFFERENTIAL PRESSURE GAUGES</b>		
5.	Make	DWYER	
	Type	Analog Gauge	
	Range	0 to 50 mm of WC	
	Location	Across HEPA Filter	
	Qty	1 No	
	Serial Number		
		<b>CFL LIGHT</b>	
6.	Make	HAVELLS	
	Length	4'	
	Qty	1 No	
		<b>UV LIGHT</b>	
7.	Make	OSRAM	
	Length	4'	
	Qty	1 No.	
	<b>HOUR METER</b>		
8.	Make	Selec	
	Range	999999 Hrs	
	Qty	01 No's	
	<b>ACCESSORIES</b>		
9.	ON/OFF Switch for Blower	6 Amps Selector Switches / 01 No's	
	ON/OFF Switch for UV/ CFL LIGHT	6 Amps Selector Switches / 01 No's	

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**INSTALLATION QUALIFICATION (IQ)**

SR.NO	DESCRIPTION	SPECIFICATIONS AS PER DESIGN QUALIFICATION	CRITERIA FULFILLED (YES/NO)
	PAO, ATM & DOP Ports	SS 304 with Matt finish	
	Gasket	Food grade gasket	

**ACCEPTANCE CRITERIA**

Dimensions and supply connections of the system should comply with DQ document and as built drawings.

However, the acceptance is up to the judgment of experts if any deviation in the readings.

**REMARKS (IF ANY):**

Test Conducted By

Test Witnessed By



Client:

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INSTALLATION QUALIFICATION (IQ)

**4. VERIFICATION OF CALIBRATION OF INSTRUMENTS**

S.no.	Instrument Type	Location	Instrument Tag Number	Calibrated on	Calibration Due
1.					
2.					
3.					

Remarks (if any):

Submitted By

Checked By

Client:

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**INSTALLATION QUALIFICATION (IQ)**

**5. LIST OF DOCUMENTS ENCLOSED**

S.NO	DOCUMENT NAME	ENCLOSED (YES/NO)
1.	TEST CERTIFICATE OF VERTICAL LAF	
2.	TEST CERTIFICATE OF BLOWER	
3.	TEST CERTIFICATE OF FILTERS	
4.	TEST CERTIFICATE OF MAGNEHELIC GAUGE	

**Remarks (if any):**

Submitted By

Checked By