

Equipment Specification Data Sheet

Equipment Name: ELISA Plate Washer

Document No.: DS-ELW 01

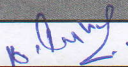


Revision: 02

Project No.: 120310

Project Name: Integrated Vaccines Complex,  
Chengalpattu

Block Code	Block Name	Identification No.	Capacity	Quantity
G1	Animal house	G1-ELW-01	-	1
Q1	Admin, QA & QC	Q1-ELW-01	-	1

NNE Pharmaplan India Limited

Name	Designation	Signature	Date
<b>Prepared by</b>			
Ms. Niharika Ruhela	Engineer - Process		6/7/2015
<b>Checked by</b>			
Mr. Yogesha M J	Engineer - Process		6/7/2015
<b>Approved by</b>			
Mr. Vikas Katial	GM - Projects (SME) & Head COC Vaccines		6/7/2015



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Project Name: Integrated Vaccines Complex,  
Chengalpattu

HLL Biotech Limited

Name	Designation	Signature	Date
<b>Reviewed by</b>			
Sangeet Kumar	Manager	Sge	8/7/2015
Yashwanth Reddy	Deputy Manager	Yashwanth Reddy	9/7/2015
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<b>Approved by</b>			
Subhakar V	Manager	Subhakar	10/7/2015
Dr. K. A. Anil Anand	Manager	K. A. Anil Anand	10/7/2015
Suresh Babu. R	DUM	A. Suresh Babu	10/7/2015
<b>Authorized by</b>			
Ramas. K. Ramachandran	CEO	Ramas. K. Ramachandran	13/7/2015



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HLL Biotech Limited, Chennai

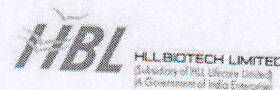
INTEGRATED VACCINES COMPLEX,  
CHENGALPATTU

nne pharmaplan®

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## 1 Process requirements

1.1 The microplate washer is designed and shall be for washing various types of standard 96-well microtitre plates and 384 well microtitre plates, microstrips and microarrays for ELISA and related applications.

## 2 Equipment ID

2.1 G1-ELW-01

2.2 Q1-ELW-01

## 3 Technical Specification

3.1 Microplate type 96 and 384 Wells

3.2 Washing Wells Must be suitable for washing all 96/384 wells of different bottoms- flat, round bottomed, U or V shapes. Must also be programmable to wash particular rows/columns.

3.3 Wash mode Strip and plate

3.4 Fluid Inlets Two fluids inlets with additional programming capabilities

3.5 Dispense Precision  $\pm 5\%$

3.6 Wash cycles Vendor to specify

3.7 Processing speed Depends upon number of cycles up to 9 times

3.8 Vacuum Integrated vacuum pump, 9 L/min

3.9 Aspiration time Vendor to specify

3.10 Aspiration maximum residual volume in a well  $< 2 \mu\text{L}$  per well

3.11 Volume range 50 to 300  $\mu\text{L}$  per well

3.12 Soaking time 0 to 60 minutes

3.13 Shaking time 0 to 60 minutes

3.14 Bottle volume 2000 mL

3.15 Microprocessor controlled program Required

3.16 Display Front display panel with soft touch keys


3.17 Software Create ,Edit and Run multiple protocols.Programmable automatic washing

3.18 Dimension (W x H x D) Vendor to specify


3.19 Power Requirement To be compatible to standard Indian Power Supply socket

3.20 Weight Vendor to specify




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4	<b>Material of Construction</b>		
4.1	Enclosure Box	<i>Vendor to specify</i>	
4.2	Wash Heads	SS 304	
5	<b>Specific Equipment requirement</b>		
5.1	The unit shall be designed for use in closed rooms with relative humidity 15-85% and temperature 10 °C to 35 °C.		
5.2	Reliable positive-displacement dispense pump that assures accurate and consistent dispensing.		
5.3	Aspiration to be facilitated with a vacuum pump		
5.4	Choice of 3 washing liquid bottles(1 for wash,1 for rinse and 1 for waste)		
5.5	Automated plate platform and washing head movement		
5.6	Unit to allow bottom washing and overflow washing		
5.7	Allow Manifold changeability in minutes		
5.8	Soft-touch keys on the display panel are used to create and store up to 50 user-defined programs.		
5.9	Programmable horizontal and vertical needle positions should be provided.		
5.10	8 and 12 channel autoclavable adaptors (for filling and washing) shall be provided.		
5.11	Equipment shall be compatible for cleaning with all standard disinfectants		
6	<b>Other requirement</b>		
6.1	Automatic shut off shall be provided		
6.2	Training/Demo for the users on operation and cleaning to be provided		
6.3	System shall have communication cable - RS 232 or RJ45 ethernet cable		
6.4	Vendor shall provide the option to monitor the flow rate continuously		
7	<b>Regulatory aspects</b>		
7.1	CE certification		
8	<b>Safety requirements</b>		
	<b>Following facilities must be provided to protect personnel and equipment.</b>		
8.1	In the event of equipment / system malfunction or loss of utilities, the unit must contain all necessary protection devices to ensure that the equipment / system and the article remain in a safe condition		
8.2	Appropriate closure of all parts.		
8.3	Proper earthing is necessary.		
9	<b>Documents</b>		
	<b>Following documents, but not limited to these, are expected from the vendor as part of the supply package in hard copy as well as editable electronic file</b>		
9.1	IOQ documents		
9.2	Operation and maintenance manuals shall be provided along with IOQ documents during installation at site.		
9.3	Warranty letter for 1 year from date of supply.		



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 <b>HLL BIOTECH LIMITED</b> <small>(Subsidiary of HLL Lifecare Limited)  (A Government of India Enterprise)</small>		
9.4	Calibration certificate of critical instrument with respect to the traceable national reference standard instrument and their calibration procedures.	
10	<b>Timelines</b>	
10.1	Not Applicable	
11	<b>Preferred list of Makes</b>	
11.1	Bio-Rad, Biotek , Thermo Scientific	
	<b>NOTE:</b> Accurate size and technical specification need to be mentioned by the vendor	



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	Revision No.	02			
<b>Table-1: Equipment location</b>					
Equipment ID	Block Name	Room Name	Room No	Room dimension in mm	Room height in mm
G1	Animal house	Lab area - Testing	G1G055	4700 X 7300	2700
Q1	Admin, QA and QC	Immuno chemistry lab	Q1S026	5360 X 5520	2400
<b>Table-2: Change Log</b>					
Date	Name	Revision	Section	Change/Comment	
11-07-2014	Niharika Ruhela	00	-	New document	
07-01-2015	Yogesha M J	01	All	Updated as per comments given by HBL team during meeting dated 07-01-2015 at HBL office	
07-05-2015	Niharika Ruhela	02	All	Updated as per clients comments on 27.02.2015	
<b>Table-3: Annexure</b>					
Not applicable					