PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE CAPACITY:500 LITER

EQUIPMENT ID No.	
LOCATION	**CIP/SIP ROOM**
DATE OF QUALIFICATION	
SUPERSEDED REPORT NO.	**NIL**

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

REPORT CONTENTS

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

1.0 REPORT PRE APPROVAL:

PREPARED BY:

DESIGNATION	NAME	SIGNATURE	DATE
OFFICER/EXECUTIVE (QUALITY ASSURANCE)			

REVIEWED BY:

DESIGNATION	NAME	SIGNATURE	DATE
OPERATING MANAGER (QUALITY ASSURANCE)			
HEAD (ENGINEERING)			

APPROVED BY:

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (PRODUCTION)			

AUTHORIZED BY:

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (QUALITY ASSURANCE)			

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

2.0 OBJECTIVE:

The objective of this validation report is to establish documented evidence that the CIP-SIP Module is suitable for cleaning and sterilization of the manufacturing vessels & Holding vessels along with the associated product line with filter housings and filters can repeatedly and reproducibly be able to sterilize effectively the subjected system within the established acceptance criteria limits.

3.0 SCOPE:

The scope of this particular validation report is applicable to the CIP-SIP of manufacturing vessels and Holding vessels, associated product line, installed in the CIP/SIP area.

4.0 RESPONSIBILITY:

- The Validation Group, comprising of a representative from each of the following Departments, shall be responsible for the overall compliance of this Report:

DEPARTMENTS	RESPONSIBILITIES
Quality Assurance	• Preparation, Review, authorization and Compilation of Performance qualification Reports • To provide analytical support for validation activity.
Quality Control	• Analytical Support (Microbiological Testing / Analysis)
Production	• Review of Performance Qualification Report. • To co-ordinate and support Performance qualification Activity.
Engineering	• Review of Performance Qualification Report. • To co-ordinate and support Validation Activity. • Responsible for Trouble shooting during execution (If Occurs).
External Qualification Agency if Applicable)	• Performance of qualification activity as per protocol

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

5.0 EQUIPMENT DETAILS:

Equipment Name	CIP/SIP Module
Equipment ID.	
Manufacturer's Name	
Supplier's Name	
Capacity	250 Ltr.
Place of Installation	CIP/SIP Room

6.0 PRE – QUALIFICATION REQUIREMENTS:

6.1 Verification of Documents:

S. No.	DOCUMENT NAME	DOCUMENT / SOP NO.	COMPLETED (YES/NO)	CHECKED BY (QA) SIGN/DATE
1.	Executed & approved DQ Protocol Cum Report			
2.	Executed & approved IQ Protocol Cum Report			
3.	Executed & approved OQ Protocol Cum Report			
4.	Approved PQ Protocol			
5.	SOP for Operating, Cleaning of the CIP/SIP Module			
6.	SOP for Preventive Maintenance of the CIP/SIP Module			

Inference:

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Reviewed By
(Manager QA)
Sign/Date:…….

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.0 TESTS AND CHECKS:

7.2 TEST FOR EFFICIENCY OF WASHING CYCLE FOR MANUFACTURING TANK (1000 Ltr.) & CONNECTED LOOP:

Date of Test		**Equipment Name**	
Block		**Equipment ID**	
Area		**Batch Size**	
Tank capacity		**Equipment Make**	
B.No. of NaOH			

CIP Cycle with 5% NaOH

Parameter	Result
pH	
Conductivity	

CIP Cycle with 10% NaOH

Parameter	Result
pH	
Conductivity	

CIP Cycle with 15% NaOH

Parameter	Result
pH	
Conductivity	

ACCEPTANCE CRITERIA:

S.No.	Critical variables	Acceptance criteria
1.	pH	5.0 to 7.
2.	Conductivity	NMT 1.3 µs

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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Reviewed By
(Manager QA)
Sign/Date: ……..

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.3 TEST FOR EFFICIENCY OF WASHING CYCLE FOR MANUFACTURING TANK (2000 Ltr.) & CONNECTED LOOP:

Date of Test		**Equipment Name**	
Block		**Equipment ID**	
Area		**Batch Size**	
Tank capacity		**Equipment Make**	
B.No. of NaOH			

CIP Cycle with 5% NaOH

Parameter	Result
pH	
Conductivity	

CIP Cycle with 10% NaOH

Parameter	Result
pH	
Conductivity	

CIP Cycle with 15% NaOH

Parameter	Result
pH	
Conductivity	

ACCEPTANCE CRITERIA:

Sr. NO.	Critical variables	Acceptance criteria
01	pH	5.0 to 7.
02	Conductivity	NMT 1.3 µs

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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Reviewed By
(Manager QA)
Sign/Date: ……..

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.4 TEST FOR EFFICIENCY OF WASHING CYCLE FOR HOLDING TANK(2000 Ltr.) & CONNECTED LOOP:

Date of Test		**Equipment Name**	
Block		**Equipment ID**	
Area		**Batch Size**	
Tank capacity		**Make OF Manufacturing Vessel**	
B.No. of NaOH			

CIP Cycle with 5% NaOH

Parameter	Result
pH	
Conductivity	

CIP Cycle with 10% NaOH

Parameter	Result
pH	
Conductivity	

CIP Cycle with 15% NaOH

Parameter	Result
pH	
Conductivity	

ACCEPTANCE CRITERIA:

Sr. NO.	Critical variables	Acceptance criteria
01	pH	5.0 to 7.
02	Conductivity	NMT 1.3 µs

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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Reviewed By
(Manager QA)
Sign/Date: ……..

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.5 HEAT DISTRIBUTION STUDY FOR MANUFACTURING TANK (1000 Ltr.) & CONNECTED LOOP:

Test Instrument Name		**Model No**		**Calibration done Date**	
Sensors type & Qty.		**Make**		**Calibration due Date**	

Name of Cycle	**Heat Distribution Study**		
Date of test		**Equipment Make**	
Equipment Name		**Equipment ID**	
Capacity of vessel		**Equipment Location**	

Set Parameters:	Acceptance Criteria	Observation
Leak test Pressure	1.50 bar	
Stabilization time	2 Minute	
Leak Test Time	3 minute	
Leak Rate	0.20 bar	
Purging time	030 Second	
Sterilization Pressure	1.50 Bar	
Pressure Dead Band	0.02 bar	
Pulsation temperature	115.0°C	
Sterilization Temperature	122.0 °C	
Heating ON Temperature	123.5 °C	
Heating OFF Temperature	124.0°C	
Sterilization Hold Time	30 Minute	
Sterilization Fail Temperature	120.5^{0}C	
Overshoot Temperature	127 ^{0}C	
Drain Time	2 Minute	
Cooling Temperature	80 ^{0}C	

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..

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Reviewed By
(Manager QA)
Sign/Date: ……...

PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

OBSERVATION	Cycle-1		Cycle -2		Cycle-3	
	Internal	External	Internal	External	Internal	External
Cycle Start Date						
Cycle Start Time						
Cycle End Date						
Cycle End Time						
Sterilization Temperature start Time						
Sterilization Temperature end Time						
Total Hold time						
Cold Spot Location						

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..

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Reviewed By
(Manager QA)
Sign/Date: ……..

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.5.1 Fo CALCULATION

(a) (a) Numerical F_0 Value:

Calculate numerical F_0 value for below given formula.

$F_0 = dt \sum 10^{(T-121)/Z}$ _____

F_0=

Where,

dt : Time interval between successive temperature measurements (in min).
T : Observed temperature at that particular time (as per the actual temperatures recorded)

Z = change in the heat resistance of *Geobacillus stearothermophilus* spores as temperature is changed (10^0C or as mentioned in COA).

(b) F_0 Value for Biological Indicators:

The biological Fo value for biological indicator strip exposed during the sterilization can be calculated as follows.

$F_0 = D_{121}$ (log A – log B) _____

F_0=

Where,

D_{121} : D value of the biological indicator at 121^0C
A : Experimental Biological indicator concentration or spore population
B : Desired level of sterility (SAL- 10^{-6})

(c) Desired Spore log reduction:

Calculate the desired reduction in spore population by using the formula-

$SLR_{desired}$ =log A- log $SAL_{desired}$ _____

$SLR_{desired}$ =

Where,

A : Experimental population of Biological Indicator

$SLR_{desired}$: Desired level of sterility (10^{-6})

(d) Actual Spore log reduction

Calculate actual reduction in spore population by using the formula

$SLR_{Actual} = F_0 / D_{121}$_____

SLR_{Actual} =

Where,

F_0 : Minimum Calculated $F_{0\ value}$

D_{121} : D value of the Biological Indicator at 121^0C

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.5.2 OBSERVATIONS:

Cycle : 01

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…

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Reviewed By

(Manager QA)
Sign/Date: ……

PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Cycle : 02

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…
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……

Reviewed By
(Manager QA)
Sign/Date: ……

PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Cycle : 03

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…

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Reviewed By

(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.6 HEAT DISTRIBUTION STUDY FOR MANUFACTURING TANK (2000 Ltr.) & CONNECTED LOOP:

Test Instrument Name		**Model No**		**Calibration done Date**	
Sensors type & Qty.		**Make**		**Calibration due Date**	

Name of Cycle	**Heat Distribution Study**		
Date of test		**Equipment Make**	
Equipment Name		**Equipment ID**	
Capacity of vessel		**Equipment Location**	

Set Parameters:	Acceptance Criteria	Observation
Leak test Pressure	1.50 bar	
Stabilization time	2 Minute	
Leak Test Time	3 minute	
Leak Rate	0.20 bar	
Purging time	30 Second	
Sterilization Pressure	1.50 Bar	
Pressure Dead Band	0.02 bar	
Pulsation temperature	115.0°C	
Sterilization Temperature	122.0 °C	
Heating ON Temperature	123.5 °C	
Heating OFF Temperature	124.0°C	
Sterilization Hold Time	30 Minute	
Sterilization Fail Temperature	120.5^0C	
Overshoot Temperature	127 ^{0}C	
Drain Time	2 Minute	
Cooling Temperature	80 ^{0}C	

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..

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Reviewed By
(Manager QA)
Sign/Date: ……..

PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

OBSERVATION	Cycle-1		Cycle -2		Cycle-3	
	Internal	External	Internal	External	Internal	External
Cycle Start Date						
Cycle Start Time						
Cycle End Date						
Cycle End Time						
Sterilization Temperature start Time						
Sterilization Temperature end Time						
Total Hold time						
Cold Spot Location						

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..

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Reviewed By
(Manager QA)
Sign/Date: ……..

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.6.1 Fo CALCULATION

(a) (a) Numerical F_0 Value:

Calculate numerical F_0 value for below given formula.

$F_0 = dt \sum 10^{(T-121)/Z}$ _____

F_0=

Where,

dt : Time interval between successive temperature measurements (in min).
T : Observed temperature at that particular time (as per the actual temperatures recorded)

Z = change in the heat resistance of *Geobacillus stearothermophilus* spores as temperature is changed (10^0C or as mentioned in COA).

(b) F_0 Value for Biological Indicators:

The biological Fo value for biological indicator strip exposed during the sterilization can be calculated as follows.

$F_0 = D_{121} (\log A - \log B)$ _____

F_0=

Where,

D_{121} : D value of the biological indicator at 121^0C
A : Experimental Biological indicator concentration or spore population
B : Desired level of sterility (SAL- 10^{-6})

(c) Desired Spore log reduction:

Calculate the desired reduction in spore population by using the formula-

$SLR_{desired} = \log A - \log SAL_{desired}$ _____

$SLR_{desired}$ =

Where,

A : Experimental population of Biological Indicator

$SLR_{desired}$: Desired level of sterility (10^{-6})

(d) Actual Spore log reduction

Calculate actual reduction in spore population by using the formula

$SLR_{Actual} = F_0 / D_{121}$_____

SLR_{Actual} =

Where,

F_0 : Minimum Calculated $F_{0\ value}$

D_{121} : D value of the Biological Indicator at 121^0C

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.6.2 OBSERVATIONS:

Cycle : 01

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…
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Reviewed By
(Manager QA)
Sign/Date: ……

PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Cycle : 02

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…
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Reviewed By
(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Cycle : 03

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…

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Reviewed By

(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.7 HEAT DISTRIBUTION STUDY FOR HOLDING TANK (2000 Ltr.) & CONNECTED LOOP:

Test Instrument Name		**Model No**		**Calibration done Date**	
Sensors type & Qty.		**Make**		**Calibration due Date**	

Name of Cycle	**Heat Distribution Study**		
Date of test		**Equipment Make**	
Equipment Name		**Equipment ID**	
Capacity of vessel		**Equipment Location**	

Set Parameters:	**Acceptance Criteria**	**Observation**
Leak test Pressure	**1.50 bar**	
Stabilization time	**2 Minute**	
Leak Test Time	**3 minute**	
Leak Rate	**0.20 bar**	
Purging time	**030 Second**	
Sterilization Pressure	**1.50 Bar**	
Pressure Dead Band	**0.02 bar**	
Pulsation temperature	**115.0°C**	
Sterilization Temperature	**122.0 °C**	
Heating ON Temperature	**123.5 °C**	
Heating OFF Temperature	**124.0°C**	
Sterilization Hold Time	**30 Minute**	
Sterilization Fail Temperature	**120.5^{0}C**	
Overshoot Temperature	**127 ^{0}C**	
Drain Time	**2 Minute**	
Cooling Temperature	**80 ^{0}C**	

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……

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Reviewed By
(Manager QA)
Sign/Date: ……

PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

OBSERVATION	Cycle-1		Cycle -2		Cycle-3	
	Internal	External	Internal	External	Internal	External
Cycle Start Date						
Cycle Start Time						
Cycle End Date						
Cycle End Time						
Sterilization Temperature start Time						
Sterilization Temperature end Time						
Total Hold time						
Cold Spot Location						

Checked By
(Production)
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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Reviewed By
(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.7.1 Fo CALCULATION

(a) (a) Numerical F_0 Value:

Calculate numerical F_0 value for below given formula.

$F_0 = dt \sum 10^{(T-121)/Z}$ _____

F_0 =

Where,

dt : Time interval between successive temperature measurements (in min).
T : Observed temperature at that particular time (as per the actual temperatures recorded)

Z = change in the heat resistance of *Geobacillus stearothermophilus* spores as temperature is changed (10^0C or as mentioned in COA).

(b) F_0 Value for Biological Indicators:

The biological Fo value for biological indicator strip exposed during the sterilization can be calculated as follows.

$F_0 = D_{121}$ (log A – log B) _____

F_0 =

Where,

D_{121} : D value of the biological indicator at 121^0C
A : Experimental Biological indicator concentration or spore population
B : Desired level of sterility (SAL- 10^{-6})

(c) Desired Spore log reduction:

Calculate the desired reduction in spore population by using the formula-

$SLR_{desired}$ =log A- log $SAL_{desired}$ _____

$SLR_{desired}$ =

Where,

A : Experimental population of Biological Indicator

$SLR_{desired}$: Desired level of sterility (10^{-6})

(d) Actual Spore log reduction

Calculate actual reduction in spore population by using the formula

$SLR_{Actual} = F_0 / D_{121}$_____

SLR_{Actual} =

Where,

F_0 : Minimum Calculated $F_{0\ value}$
D_{121} : D value of the Biological Indicator at 121^0C

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

7.7.2 OBSERVATIONS:

Cycle : 01

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:……..…

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Reviewed By

(Manager QA)

Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Cycle : 02

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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Reviewed By
(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

Cycle : 03

Probe No	Sterilizing Temperature (°c)		F_o Value		Spore Log Reduction		Biological Indicator Status
	Maximum	Minimum	Numerical	BI	Desired	Actual	

Checked By
(Production
Sign/Date: ……..

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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……...

Reviewed By
(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

8.0 CHECKLIST OF ALL TESTS AND CHECKS:

TESTS OR CHECKS	EXECUTED [Y/N]	REMARK
Test for Efficiency of washing Cycle for Mixing tank & Connected Loop		
Test for Efficiency of washing Cycle for Mixing tank & Connected Loop		
Test for Efficiency of washing Cycle for Holding tank & Connected Loop		
Heat distribution study for Manufacturing Tank (1000 Ltr.) & Connected Loop		
Heat distribution study for Manufacturing Tank (2000 Ltr.) & Connected Loop		
Heat Distribution Study For Holding Tank (2000 ltr.)& Connected Loop		
Biological challenge Study		

Verified By
(Quality Assurance)
Sign/Date: .....

Inference:

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Reviewed By
(Manager QA)
Sign/Date: ……

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

9.0 DOCUMENTS TO BE ATTACHED:

- Raw data of Chemical Analysis.
- Calibration Certificates for Conductivity Meter.
- Calibration Certificates for pH Meter.

10.0 NON COMPLIANCE:

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11.0 DEVIATION FROM PRE-DEFINED SPECIFICATION, IF ANY:

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12.0 CHANGE CONTROL, IF ANY:

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13.0 REVIEW (INCLUSIVE OF FOLLOW UP ACTION, IF ANY) :

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14.0 CONCLUSION:

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15.0 RECOMMENDATION:

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16.0 ABBREVIATIONS:

QA	:	Quality Assurance
QC	:	Quality Control
No.	:	Number
Ltd.	:	Limited
ID No.	:	Identification Number
ml	:	Milliliter
CIP	:	Clean In Place
SIP	:	Sterilization in Place
DQ	:	Design Qualification
IQ	:	Installation Qualification
OQ	:	Operational Qualification
PQ	:	Performance Qualification
SOP	:	Standard Operating Procedure
SLR	:	Spore log reduction
SAL	:	Sterility assurance level
%	:	Percentage
°C	:	Centigrade

PERFORMANCE QUALIFICATION REPORT FOR CIP-SIP MODULE (250 LITER)

17.0 REPORT POST APPROVAL:

PREPARED BY:

DESIGNATION	NAME	SIGNATURE	DATE
OFFICER/EXECUTIVE (QUALITY ASSURANCE)			

REVIEWED BY:

DESIGNATION	NAME	SIGNATURE	DATE
OPERATING MANAGER (QUALITY ASSURANCE)			
HEAD (ENGINEERING)			

APPROVED BY:

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (PRODUCTION)			`