



Title : Operation, Cleaning Sentino Pump

SOP NUMBER : SOP/PMH/015-00

EFFECTIVE DATE : 17/04/2026

DEPARTMENT: Microbiology

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1.0 OBJECTIVE

To lay down the Procedure for operation and cleaning of Sentino pump (Make: Pall).

2.0 SCOPE

This procedure is applicable for operation of Sentino Pump in Microbiology laboratory of Pharma Micro Hub Pvt Ltd.

3.0 RESPONSIBILITY

3.1 All Personnel who are operating the Sentino pump in Microbiology Laboratory are responsible for adherence to this procedure.

3.2 Head Microbiology/his designee is accountable for overall compliance of this procedure.

4.0 PROCEDURE

4.1 Operational Procedure:

4.1.1 Prior to the placement of filtration assembly unit in the LAF, clean the LAF work bench.

4.1.2 Sentino pump will contain the following components. Refer Diagram 1 and 2.



Diagram: 01 Sentino pump front view



Diagram: 02 Sentino pump Back view

1. **Battery status indicator:** When plugged into the power transformer and power source, this symbol will indicate the battery is charging by an illuminated blue LED. When the battery is fully charged, the blue LED will turn off.
2. **Fault indicator:** This symbol will illuminate yellow upon detection of a fault in the system operation. Flashing indicates battery is running low and solid illumination indicates other faults detected.
3. **Pulse button:** The pump will operate only while the button is pressed. This feature is ideal for small fluid volumes that require momentary filtration intervals.
4. **Main power indicator:** A green LED will illuminate when the pump is plugged into the power transformer and power source. This LED will not be illuminated when operating on battery power



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5. **Power on/Off button:** Press the power On/Off button to turn on the pump. Press the power On/Off a second time to turn off the pump
6. **Drive tube guide:** Used to fix the tube.
7. **Stage with adaptor guide:** Used to place filter funnel onto adaptor on pump stage
8. **Power entry socket:** Used to attach power entry plug from power transformer into the power socket.

4.1.3 Attach power cord plug from power transformer into the power entry socket.

4.1.4 Confirm main power indicator is illuminated (Green colour). Battery status indicator should be illuminated (Blue colour) to indicate battery is charging.

Note: The pump can be used while on the power transformer as battery is charging.

4.1.5 Fluid path installation

4.1.5.1 With unit positioned on bench top, open pump loading door fully as per the following diagram. Diagram 3 and Diagram 4.



Diagram 3. Open pump loading Door.

Diagram 4. Closed pump loading Door.


4.1.5.2 Slide adapter into the guide on the pump housing until it is firmly seated.


4.1.5.3 Tuck the tubing into the slot in the pump head and position the tube into the guide slot in the base and close the pump loading door.

4.1.6 Fix the sterile filtration cups/ ready to use filtration cups to the holder of the sentino pump.

4.1.7 To start filtration, press and release the power  "ON/OFF" button.

Note: If pump head fails to rotate when turn ON button pressed, Check that drive tube slot in pump head is free of foreign objects and verify Fluid Path is properly loaded.

4.1.8 Ensure the sample is filtered completely through the membrane. After completion of the filtration, stop the sentino pump by pressing  "ON/OFF" button.

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- 4.1.9 Gently remove the filtration cup, aseptically lift the membrane using sterile forceps and transfer the membrane onto the plate.
- 4.1.10 Repeat the filtration activity for next samples as per the procedure mentioned in point no. 5.2.8 to 5.2.9.
- 4.1.11 Pulse or momentary operation: This feature is ideal for small fluid volumes that require momentary intervals. The Pulse or momentary operation described below.
- 4.1.11.1 Press and hold the pulse button to perform momentary filtration.
- 4.1.11.2 Release the pulse button to stop filtration.
- 4.1.11.3 Perform rinses in the same manner as sample filtration.
- 4.1.12 Disconnect the assembly and transfer the tubing, used filter cups and other articles to the wash area.
- 4.1.13 If any malfunctioning of the instrument, inform to the immediate Supervisor/Head-Microbiology.
- 4.2 Cleaning Procedure:**
- 4.2.1 Clean the Sentino pump body and pump head wiped down with a lint free mop moistened with 70% isopropyl alcohol (IPA).
- 4.2.2 Flush the fluid path pump with 70% IPA for 5 Seconds.
- 4.2.3 Cleaning shall be performed prior to use/ on daily basis.

5.0 ABBREVIATIONS

- 5.1 LAF - Laminar Air Flow
- 5.2 LED - Light Emitting Diode

6.0 ANNEXURES

Annexure -1 Sentino Pump Usage Log

7.0 REFERENCES

- 7.1 User manual.

8.0 CHANGE HISTORY

- 8.1 New SOP

END OF DOCUMENT



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**ANNEXURE-I
SENTINO PUMP USAGE LOG**

Equipment Name:

Equipment ID:

Date	Activity Details	Activity start Time	Activity End Time	Done by	Reviewed By	Remarks