



**STANDARD OPERATING PROCEDURE**

<b>Department:</b> Quality Control	<b>SOP No.:</b>
<b>Title:</b> Procedure for Operation and Calibration of Vacuum Oven	<b>Effective Date:</b>
<b>Supersedes:</b> Nil	<b>Review Date:</b>
<b>Issue Date:</b>	<b>Page No.:</b>

**1.0 OBJECTIVE:**

To lay down a procedure for operation and calibration of Vacuum Oven.

**2.0 SCOPE:**

This procedure is applicable for operation and calibration of Vacuum Oven in the Quality control department.

**3.0 RESPONSIBILITY:**

Officer, Executive - Quality Control.

Head - Quality Control.

**4.0 PROCEDURE:**

**4.1 Operation:**

4.1.1 Ensure that the instrument is clean and free from dust.

4.1.2 Switch ON the Mains of the power supply.

4.1.3 Open the door of the instrument by rotating the knobs in anti-clockwise direction.

4.1.4 Insert the trays after loading them with the material to be tested and close the door tightly by rotating the knobs in clock-wise direction so as to ensure complete leak proof system.

4.1.5 Connect the vacuum pump to the oven to the inlet valve present on the left side of the instrument through rubber tubes. Simultaneously check that the outlet valve present on the right side is tightly closed.

4.1.6 Open the vacuum valve and start the pump. Evacuation of the chamber starts which is indicated by dial gauge.

4.1.7 When the desired vacuum is reached stop the pump and close the valve tightly. Wait for sometime for any leakage which is indicated by drop of vacuum on the vacuum gauge.

4.1.8 If there is any leakages check the door and tighten the same and again start the vacuum pump after opening the valve.

4.1.9 Switch ON the instrument switch and three heat switch as per requirement.

4.1.10 Set the desired temperature by pressing key ▼, ▲ and provided on a temperature controller display.



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4.1.11 After operation switch OFF the Mains.

**4.2 Calibration:**

4.2.1 Calibration for temperature controller, vacuum gauge of the instrument shall be done by engineering department as per SOP.

4.2.2 Temperature distribution study shall be done once in “year”.

**5.0 ANNEXURE (S) :**

Nil

**6.0 REFERENCE (S):**

SOP: Preparation, Approval, Distribution control, revision and destruction of Standard operating Procedure (SOP).

SOP: Calibration of temperature Gauge, Wet & Dry Hygrometer, Glass and Digital Thermometer.

**7.0 ABBREVIATION (S)/DEFINITION (S):**

SOP: Standard Operating Procedure

°C : Degree centigrade

Hg : Mercury

mm : Millimeter

hr. : Hour

**REVISION CARD**

S.No.	REVISION No.	REVISION DATE	DETAILS OF REVISION	REASON (S) FOR REVISION	REFERENCE CHANGE CONTROL No.
1	00	----	----	New SOP	----