



**STANDARD OPERATING PROCEDURE**

**Department:** Quality Control

**SOP No.:**

**Title:** Operation and Calibration of Electromagnetic Sieve shaker

**Effective Date:**

**Supersedes:** Nil

**Review Date:**

**Issue Date:**

**Page No.:**

**1.0 OBJECTIVE:**

To lay down a procedure for operation & calibration of Electromagnetic Sieve shaker.

**2.0 SCOPE:**

This procedure is applicable to operation and calibration of Electromagnetic Sieve Quality control department.

**3.0 RESPONSIBILITY:**

Officer, Executive – Quality Control.

Head – Quality Control

**4.0 PROCEDURE:**

**4.1 Cleaning:**

4.1.1 Do not use dissolvent or any hard material for cleaning.

4.1.2 Use ultrasonic and detergent for sieves less than 500 microns. Gently clean the sieves by keeping it in ultrasonic for 4 to 5 minutes.

4.1.3 For sieves having mesh size more than 500 micron clean with soft brush followed by ultrasonic cleaning.

4.1.4 After cleaning rinse the sieves thoroughly and left to dry in an upright position.

**4.2 Operation:**

4.2.1 Ensure that the instrument and the surrounding area is clean and free from dust and the clamping rods are tightly fitted.

4.2.2 Loosen the sieve-clamping knob.

4.2.3 Integrity of each sieve should be check visually before starting and after completion of the test and same will be recorded in respective datasheet.

4.2.4 Place the material to be sieved into the sieve and arrange the sieves on the receiver one above the other as per the requirement.



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4.2.5 Place the top lid on the top sieve. Now place the Horizontal bar above the lid so that the rubber pad touches the sieve.

4.2.6 Lock both the sieve clamp knobs by turning it in clockwise direction.

4.2.7 Switch 'ON' the power by pressing the switch present on the rear of the instrument.

4.2.8 The display will flash and shows

ELECTROMAGNETIC SIEVESHAKER EMS-8
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4.2.9 The display will flash again and shows the screen for the Time and Power setting.

4.2.10 The '<' screen shows

TIME	POWER
< 99	15

the display shows the type of vibrations selected i.e. INTERMITTENT or CONTINUOUS.

4.2.11 Set the desired Time as specified in the STP by pressing the increment (▲) and the decrement (▼) keys present on the front panel.

4.2.12 Set the POWER as specified in the STP by pressing the increment (▲) and the decrement (▼) keys.

4.2.13 Now press the START key from the front panel to start the test.

4.2.14 After the set time is over instrument will STOP.

4.2.15 Switch 'OFF' the mains and loosen the sieve clamping knobs and take out the sieves.

4.2.16 After use clean the sieves as per point no. 4.1.

4.2.17 Record the operational details in instrument log book.

4.2.18 Each sieve should be given own identification no. at the time of receiving as per below procedure:

QCD/SE-001

Where, QCD – Stand quality control department

Next character is / (slash)

SE - Sieve

Next character is – (dash)

001 Serial number given for respective sieve (i.e 001, 002,003, ...)

4.2.19 Each sieve identification no. shall be recorded as per annexure – II.



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**4.3 Precautions :**

- 4.3.1 Always check the integrity and cleanliness of all the sieves before start of the analysis.
- 4.3.2 Before starting the test make sure the clamping rods are properly tightened.
- 4.3.3 Never loosen the clamps while the test is going on. Do not operate the instrument without sieves.
- 4.3.4 Press RUN/HALT key to start the test.

**4.4 Calibration:**

**4.4.1 Timer Calibration:**

- 4.4.1.1 Frequency of Calibration: Once in six months.
- 4.4.1.2 Check the integrity and cleanliness of all the sieves and shall be record as OK/Not OK in Annexure – I.
- 4.4.1.3 Set the time 5, 10 & 15 minutes by the increment and decrement key provided at the front panel for the “**TIME**”.
- 4.4.1.4 Press the”**START**” key from the front panel, and simultaneously start the stopwatch.
- 4.4.1.5 On completion of vibration up to the set time limit (5, 10 & 15 minutes), press “**STOP**” key.
- 4.4.1.6 Put “**OFF**” the main switch.
- 4.4.1.7 Acceptance Criteria:
  - 5 minute  $\pm$  12 seconds.
  - 10 minute  $\pm$  12 seconds.
  - 15 minute  $\pm$  12 seconds
- 4.4.1.8 If the instrument is out of calibration, put Out of calibration label and proceed as per SOP.

**5.0 ANNEXURE (S) :**

- Annexure – I: Sieve Identification Record.
- Annexure –II: Calibration record for Electromagnetic Sieve Shaker.

**6.0 REFERENCE (S):**

- SOP: Handling of Out of calibration of Instruments.
- SOP: Preparation, Approval, Distribution control, revision and destruction of Standard operating Procedure (SOP).



**PHARMA DEVILS**  
QUALITY CONTROL DEPARTMENT

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

STP : Standard Testing Procedure

SOP : Standard Operating Procedure

**REVISION CARD**

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



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**ANNEXURE I**  
**CALIBRATION RECORD FOR ELECTROMAGNETIC SIEVE SHAKER**

<b>CALIBRATION RECORD FOR ELECTROMAGNETIC SIEVE SHAKER</b>			
Reference SOP			
<b>Location</b>		<b>Page No.</b>	1 of 1
<b>Manufactured By</b>		<b>Model No.</b>	
<b>Frequency</b>		<b>Identification No.</b>	
<b>Date of Calibration</b>		<b>Next Calibration Due on</b>	

Stop watch ID No.: \_\_\_\_\_ Calibration due date of stop watch: \_\_\_\_\_

<b>Set Time</b>	<b>Observed time</b>	<b>Acceptance Criteria</b>
<b>5 minute</b>		<b>5 minute ± 12 seconds</b>
<b>10 minute</b>		<b>10 minute ± 12 seconds</b>
<b>15 minute</b>		<b>15 minute ± 12 seconds</b>

**Opinion:** The Instrument Calibration is **OK / Not OK** as per **/In-House** requirements.

<b>Calibrated By:</b>	<b>Checked By :</b>	<b>Approved By :</b>
<b>Date:</b>	<b>Date:</b>	<b>Date:</b>

