



PHARMA DEVILS

PRODUCTION DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Production	SOP No.:
Title: Cleaning and Operation of Induction Cap Sealer Machine(Make: CVC)	Effective Date:
Supersedes: Nil	Review Date:
Issue Date:	Page No.:

Vernacular SOP: No

1.0 OBJECTIVE:

1.1 To lay down a procedure for cleaning and operation of induction cap sealer machine (Make: CVC)

2.0 SCOPE:

2.1 This SOP is applicable for cleaning and operation of induction cap sealer machine (Make: CVC) in production.

3.0 RESPONSIBILITY:

- 3.1 Technical Associate : Operation and cleaning
3.2 Officer and Executive : Supervision for cleaning and operation
3.3 Officer and Executive IPQA : Line clearance and SOP Compliance
3.4 Head Production : SOP Compliance

4.0 DEFINITION (S):

4.1 NA

5.0 PROCEDURE:

5.1 Cleaning procedure for batch to batch or product to product changeover.

- 5.1.1 Ensure that all the materials of previous batch are removed
5.1.2 Remove "EQUIPMENT STATUS" label and affix "TO BE CLEANED" label on the machine with date and sign of the production officer.
5.1.3 Switch "OFF" the electric supply before start the cleaning activity of machine
5.1.4 Clean the operator panel, cooling vents, sealing coil and all the outer surface of machine with dry lint free cloth.
5.1.5 If any sticky material available on sealing coil, rejection swipe arm and conveyor belt wipe with lint free cloth moisten with 70% v/v IPA solution.
5.1.6 Replace the "TO BE CLEANED" status label by "CLEANED" status label on the machine with date and sign of the production officer.
5.1.7 Record the cleaning activity in equipment usage log as per SOP ("Making entries in equipment usage and cleaning log sheet").
5.1.8 If machine is ideal for more than 72 hrs. Then clean the machine with lint free cloth dipped in 70% v/v IPA solution



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5.2 **Settings and operation of Induction sealer machine.**

- 5.2.1 Turn "ON" the main electric supply of machine and then turn "ON" the switch from operator panel
- 5.2.2 Press the start button from operator panel which will activate the machine for operation and swipe arm moves inward
- 5.2.3 Place a bottle with closure below the sealing coil.
- 5.2.4 Adjust the vertical crank to maintain the clearance between the bottom of the coil and top of the cap.
- 5.2.5 Slide the bottle from one end to other end under the induction sealing coil to check the uniform clearance
- 5.2.6 Uniform spacing to be achieved from one end to the other end of the sealing coil.
- 5.2.7 Loosen the coil mounting clamp lever and adjust the sealing coil to centerline and then tighten the coil mounting clamp lever.

5.2.8 **Setting for No foil Sensor:**

- 5.2.8.1 Place a properly tighten bottle with cap(with foil) under the 'No foil sensor'
- 5.2.8.2 Adjust the 'No foil sensor' so that it is in center of the bottle.
- 5.2.8.3 Adjust the height of the 'No foil sensor' so that the LED indicator on the sensor glows.
- 5.2.8.4 Adjust the position of 'bottle present sensor' that when a bottle without foil pass under the 'no foil sensor' it to be reject by the rejection system and fall into rejection box.

5.2.9 **Setting of Fallen bottle sensor:**

- 5.2.9.1 Place a bottle on conveyor belt.
- 5.2.9.2 Set a ray light emitted by sensor on bottle neck.
- 5.2.9.3 Now pass a fallen bottled on conveyor belt.
- 5.2.9.4 Fallen bottle must be rejected by pusher and fall into rejection box.

5.2.10 **Setting of Cross cap Sensor:**

- 5.2.10.1 Take a bottle with properly tight closure on it.
- 5.2.10.2 Place bottle on conveyor belt and set the 'cross cap sensor' that it emit the ray of light just above the upper surface of closure.
- 5.2.10.3 When a cross capped bottle pass through the sensor it rejected by rejection system and it fall into rejection box.



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5.2.11 **Setting of Burn seal sensor:**

5.2.11.1 Set the height of IR Sensor according to the height of bottle.

5.2.11.2 Press the push reset button twice then red indicator will glow and yellow indicator will blink.

5.2.11.3 Now seal the bottle by setting the induction power as per limit given in BPR and check for normal seal of bottle and pass the sealed bottle again below the sealing coil and stop the conveyor belt and place the bottle below the IR sensor.

5.2.11.4 Then teach the sensor by pressing the push reset button for single time.

5.2.11.5 So green indicator will glow which indicates that machine is ready to work.

Note: All bottles used for setting of machine should be segregated and destroy after completion of activity.

5.2.12 After completion of sealing activity press the stop button from operator panel to stop the operation and it will move the swipe arm forward.

5.2.13 Turn off the power switch from operator panel which will cut off the electric power of the machine.

5.2.14 Now turn off the main Power switch of main.

5.3 **Challenge test for cross cap sensor:**

5.3.1 Take a capped bottle having cross cap and pass it through the 'cross cap sensor'

5.3.2 It must be rejected.

5.3.3 Record the observation in Annexure-I("Challenge test for induction cap sealer machine").

5.4 **Challenge test for fallen bottle sensor:**

5.4.1 Pass a fallen bottle on conveyor belt through the fallen bottle sensor.

5.4.2 It must be rejected.

5.4.3 Record the observation in Annexure-I("Challenge test for induction cap sealer machine").

5.5 **Challenge test for without foil sensor:**

5.5.1 Affix a cap (i.e. without foil) on bottle and mark them with pen marker.

5.5.2 Place the marked bottle on conveyor belt before without foil sensor.

5.5.3 It must be rejected.

5.5.4 Record the observation in Annexure-I("Challenge test for induction cap sealer machine").

5.6 **Challenge test for burn seal sensor:**

5.6.1 Take a properly capped bottle mark it with pen marker and pass it under the induction sealer two to three times.



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5.6.2 It must be rejected.

5.6.3 Record the observation in Annexure-I (“Challenge test for induction cap sealer machine”).

Note:

(1) Destroy the tablets/Capsules of burn seal challenge test bottles at the end of activity.

(2) The challenge test shall be performed at every start up, after four hours and at the end of process.

6.0 ABBREVIATION (S):

6.1 SOP - Standard Operating Procedure

6.2 HMI - Human Machine Interface

6.3 IPA – Isopropyl alcohol

6.4 v/v- Volume by Volume

6.5 SPD – Speed

6.6 ORT BLT SPD – Orientating Belt Speed

7.0 RERERENCE (S):

7.1 SOP No.: Status labeling

7.2 SOP No.: Making entries in equipment usage and cleaning log sheet.

8.0 ANNEXURE (S):

Annexure no.	Title of Annexure	Format No.	Mode of Execution
Annexure - I	Challenge test for induction cap sealer machine		Format

9.0 DISTRIBUTION:

9.1 **Master Copy** : Quality Assurance

9.2 **Controlled Copy (S)** : Production Department (01), Quality Assurance (01)

9.3 **Reference Copy (S)** : Production Department (01).

10.0 Revision History:

S.No.	Version No.	Change Control No.	Reason (s) for Revision	Details of Revision	Effective Date



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ANNEXURE I

CHALLENGE TEST FOR INDUCTION CAP SEALER MACHINE

FREQUENCY: AT EVERY START UP, AFTER EVERY FOUR HOURS AND AT END OF OPERATION

PRODUCT NAME:

BATCH No.:

DATE	TIME	Sensor				Checked by Production	Verified by QA
		# Cross Cap	# Fallen Bottle	# Without Foil	# Burnt Seal		

Mark 'OK' in observation if bottle 'rejected' & Mark 'not ok' in observation if bottle not rejected.