

PRODUCTION DEPARTMENT

STANDARD OPERATING PROCEDURE			
Department: Production	SOP No.:		
Title: Operation and Cleaning of Capsule Polishing Machine	Effective Date:		
Supersedes: Nil	Review Date:		
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1.0 **OBJECTIVE:**

To lay down a Procedure for Operation and Cleaning of Capsule Polishing Machine.

2.0 SCOPE:

This SOP is applicable for operation and cleaning of capsule polishing machine in hard gelatin capsule section.

3.0 RESPONSIBILITY:

Officer / Executive Production

4.0 **ACCOUNTABILITY:**

Head Production

5.0 ABBREVIATIONS:

AHU Air Handling Unit

BMR Batch Manufacturing Record

Ltd. Limited Pvt. Private

QA Quality Assurance QC Quality Control

SOP Standard Operating Procedure

6.0 PROCEDURE:

6.1 OPERATION OF CAPSULE POLISHING MACHINE:

- **6.1.1** Ensure that the machine and surrounding area is clean.
- **6.1.2** Take line clearance from QA as per "Line clearance" SOP and enter the details in BMR.
- **6.1.3** Ensure that the AHU is "ON".
- **6.1.4** Ensure that the temperature and humidity of area is within limits as specified in BMR.
- **6.1.5** Affix the status label on the machine.
- **6.1.6** Load the filled capsules in hopper of polishing machine.



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- **6.1.7** Switch "ON" the mains.
- **6.1.8** Switch "ON" the machine.
- **6.1.9** Start the brush by pushing the brush button.
- **6.1.10** Start the vacuum pump by pushing the green button.
- **6.1.11** Adjust the speed of vibrator by rotating vibrator control knob.
- **6.1.12** Prior to start-up ensure that, all the accessories, connection, fasteners are tight & the timing bell is properly tightened, there is no interference during operation.
- **6.1.13** Check the direction of rotation of all the units' i.e. capsule polishing motor.
- **6.1.14** Ensure uniform capsule feed to polishing inlet chute as excessive feed may block the path, which result in capsule damaged.
- **6.1.15** Gradually vary the polishing motor to vary the nylon brush speed. Check some capsules for polishing quality. If found not satisfactory, vary the speed to get better polishing quality.
- **6.1.16** Collect the polished capsule through exit valve in labeled double polyethylene bag.
- **6.1.17** After completion the work, switch "OFF" the brush, vacuum pump and mains.
- **6.1.18** Maintain the operation record in "Machine Utilization Report".

6.2 CLEANING OF CAPSULE POLISHING MACHINE:

- **6.2.1** For product to product change over:
- **6.2.1.1** Switch "OFF" the mains electric supply to the machine.
- **6.2.1.2** Dismantle the hopper, cover of polishing brush, filter bag of ADU, and transfer to washing area.
- **6.2.1.3** Wash the above parts with potable water by using 2% Extran MA-02 solution.
- **6.2.1.4** Wash with potable water.
- **6.2.1.5** Finally rinse with purified water and dry the all parts by using dry lint free cloth.
- **6.2.1.6** Clean the machine with clean wet cloth.
- **6.2.1.7** Clean the machine with dry lint free cloth.
- **6.2.1.8** Check the polishing brush, filter bag, cover visually and then send swab test intimation cum analysis report to QA for collect the swab sample.
- **6.2.1.9** Officer / Executive QA shall collect the swab sample and send to QC for Analysis.



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- **6.2.1.10** Use the polishing machine after receiving swab test intimation slip cum analysis report from QC showing negative identification.
- **6.2.1.11** If report shows positive identification than repeat the procedure of step **6.2.1.3 to 6.2.1.10**.
- **6.2.1.12** Mop all the parts with 70% IPA.
- **6.2.1.13** Reset the machine after QC approval.
- 6.2.1.14 Affix a label as "Cleaned".
- **6.2.1.15** Maintain the cleaning record in "Machine Utilization Report".
- 6.2.2 For batch to batch change over:
- **6.2.2.1** Clean the hopper and machine outer part with clean and dry lint free cloth.
- 6.2.2.2 Maintain the cleaning record in "Machine Utilization Report".
- **6.2.3** Frequency of Cleaning:
- 6.2.3.1 Frequency of cleaning as per step-6.2.1
- **6.2.3.1.1** During product to product change over.
- **6.2.3.1.2** After 5 batch of the same product.
- **6.2.3.1.3** After major maintenance work involving the contact part of the equipment.
- **6.2.3.1.4** When new equipment or equipment after any modification is received.
- **6.2.3.1.5** Changeover of one Batch to Next Batch of the same Product with Descending Potency.
- 6.2.3.2 Frequency of cleaning as per step-6.2.2
- **6.2.3.2.1** During batch to batch change over.

7.0 ANNEXURES:

Not Applicable

ENCLOSURES: SOP Training Record

8.0 DISTRIBUTION:

• Controlled Copy No. 01 Quality Assurance

Controlled Copy No. 02 Production

• Master Copy Quality Assurance



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9.0 **REFERENCES:**

Operating Manual

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision	Change Control	Details of Changes	Reason for Change	Effective	Updated
No.	No.			Date	By