



STANDARD OPERATING PROCEDURE

Department: Production	SOP No.:
Title: Procedure for polishing of Dies and Punches	Effective Date:
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1.0 OBJECTIVE:

To lay down the Procedure for polishing of Dies and Punches.

2.0 SCOPE:

This procedure is applicable for polishing of Dies and Punches.

3.0 RESPONSIBILITY:

Officer /Executive/Assistant Manager

Head Production: To ensure execution & compliance.

Head QA: To ensure the compliance

4.0 PROCEDURE:

This procedure is applicable for Polishing of dies and punches and its maintenance, content of Punch polishing kit and to perform Polishing of dies punches as per defined procedure.

4.1 Punch & die polishing:

4.1.1 Fix the nylon brush depending on punch type to the motor assembly.

4.1.2 Switch 'ON' the motor and apply small quantity of emery paste / silicon paste to the punch tip.



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- 4.1.3 Holding the punch in hand, carefully rotate the tip against the brush Applying very little pressure (Do not flatten the nylon bristles against the tip).
- 4.1.4 After few seconds of cleaning, check the cleaning of the punch and dip the tip into emery flour for punch polishing.
- 4.1.5 Check the polishing of the punch; continue the operation for all punches.
- 4.1.6 For polishing of die bore use nylon brush, round type with Emery paste followed by Emery polishing using felt bob flat type.
- 4.1.7 Finally check punches and dies for proper polishing using magnifying glass and store the polished punches and dies into respective SS cabinet of punch set cabinet.

Frequency of Polishing of Punch and Dies:

- 4.2 At every six months + 15 days and whenever any of below mentioned problem is observed during operation, polished the Punch and Dies.
- 4.2.1 Record the same in Die Punch Utilization Record of usage of tool.

4.3 Punch should be polished when:

There is a burr or claw on punch tip or Punch tip turns black.
Punch tip turns black and Roughness on the tip is observed.
Sticking found in embossing and punch surface appearance of tablet becomes dull and roughness is observed on body & Punch tip.



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4.4 Die should be polished when:

There is a ring formation inside die bore.

Die bore turns black.

Roughness is observed at inside the die bore.

4.5 Table for usage of contents of punch polishing kit:

Content	Usage
Emery Flour	For polishing of dies and punches.
Emery Paste/Silicon Paste	For cleaning of punch tip and die, when surface finish is deteriorating in case of plain tips and embossed tips.
Polishing Compound	For polishing of punch face.
Nylon Brush – Round Type	For cleaning of flat beveled edge punch and dies & concave punch (deep, standard and shallow concave).
Magnifying Glass	For identifying the damage surface and finishing of tips.
Motor Assembly	Used for fixing of nylon brush for cleaning and polishing purpose.

4.6 Usage of Punch Polishing kit:

Punch Polishing has to be done very carefully as each punch tip is machined to a very high degree of accuracy and can tolerate very slight wear.

4.6.1 Improper or excessive polishing can completely spoil the tips of punches.

4.6.2 All polishing operations, abrasion the surface, it is therefore essential that all polishing is kept to a minimum.

5.0 ANNEXURE (S):

Nil

6.0 REFERENCE(S) :

SOP: Procedure for Procurement, inspection, receipt and destruction of Dies and Punches.

7.0 ABBREVIATION (S) /DEFINITION (S) :

BPR : Batch Packing Record

BMR : batch Manufacturing Record

QA : Quality Assurance



PHARMA DEVILS

PRODUCTION DEPARTMENT

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REVISION CARD

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