	PHARMA DEVILS	
	PRODUCTION DEPARTMENT	

STANDARD OPERATING PROCEDURE		
Department: Production	**SOP No.:**	
Title: Cleaning and Operation of Metal Detector	**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 Metal Detector.

2.0   SCOPE:

2.1   This procedure is applicable to the Cleaning and Operation of Metal Detector in Production Department.

3.0   RESPONSIBILITY:

3.1   Technical Associate: Cleaning and Operation

3.2   Production Officer/Executive: Checking cleaning /Operation and Challenge Test

3.3   Head Production: SOP Compliance

3.4   IPQA Person: Line Clearance & Cleaning Checklist

4.0   DEFINITION (S):

4.1   NA

5.0   PROCEDURE:

5.1   **CLEANING:**

5.1.1   Ensure that all the materials of previous batch are removed.

5.1.2   Replace 'EQUIPMENT STATUS' label with 'TO BE CLEANED' label filled and signed by production officer.

5.1.3   Record the cleaning start time in equipment usage log.

5.1.4   Turn OFF the all utility supply before cleaning.

5.1.5   Clean the metal detector body, control panel and utility cables using a dry lint free duster.

5.1.6   Clean the rejection tray with dry lint free cloth.

5.1.7   Clean the standard bids (Ferrous, Non-ferrous and S.S) used for metal detector challenge test with dry lint free cloth.

5.1.8   Replace the "TO BE CLEANED" status label with "CLEANED" status label with date and signature of Production Officer and verified by QA Officer.

5.1.9   Enter the cleaning details time in equipment usage log.

5.2   **Setting and Operation procedure for Model Metal trap SS30.**
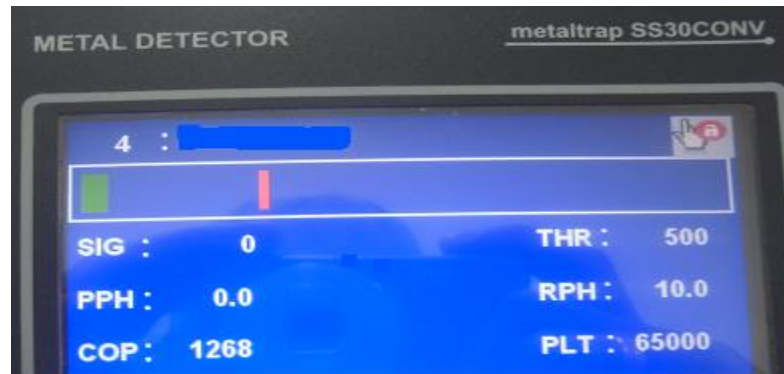
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5.2.1   Turn "ON" the ON/OFF knob of metal detector will turn ''ON'' and opening screen will displayed on the screen. Home screen will be displayed as follow:

5.2.2   Details of the screen are:

Product sr.no. will be displayed at the top left hand corner

Product name: 16 alpha numeric characters can be entered.

LOCK key: Key visible it means password protection activated.

SIG: current signal after passing bottles.

PPH: Online running phase of product passing through head.

COP: Output of coil at scanning head.

THR: It is the threshold level of product.

RPH: it is the compensated phase for product/vibration, where signal level is minimum (it varies from 0.0 to 179.9).

PLT: It is the threshold level of product amplitude. Whenever a threshold value crosses the limit it actuates the rejection system.

5.2.3   To change the parameters first unlock the screen by pressing against the lock key displayed at right hand top corner.

5.2.4   On completion of operation, turn OFF the ON/OFF knob of the metal detector**.**

5.3   **Setting and Operation procedure for Model Metal trap 03.**

5.3.1   Switch ON the main power supply. Turn 'ON' the metal detector by rotating 'ON/OFF' knob on metal detector. Metal detector will produce the beep sound and opening screen will display on screen of control panel. At the mean time rejection flapper will open and finally close. Metal detector screen will show:

SIG: Value   THR: Value

5.3.2   Press 'SETUP' key on control panel. Display will show:

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ENTER PROD.NAME: (*)

5.3.3 Press 'ENTER' key display will show:

ENTER PASSWORD # 2 "* * * *"

5.3.4 Again press 'ENTER' key and use '◄▲▼►' keys on control panel to enter the password. Press 'ENTER' key to enter the product name. Display will show: **ENTER PROD.NAME: (*).**

Enter the product name by using '◄▲▼►' keys and press 'ENTER' key to save product name. Press '►' key display will show: **ENTER BATCH NUMBER:**

5.3.5 Press 'ENTER' key to enter the batch number. Use '◄▲▼►' keys to enter the batch number as per Batch Record. Press 'ENTER' key to save the batch number.

Press '►' key display will show: **ENTER DEFECT THR. (*)   Value mV**

5.3.6 Press 'ENTER' key to enter this value. Set the threshold value in between the maximum S_{max} value of product and minimum S_{max} value of bids by pressing '◄▲▼►' keys. Press 'ENTER' key to save the value.

Press '►' key display will show: **ENTER OPRATE DLY. (*)   Value mSec.**

5.3.7 Press 'ENTER' key to enter the operate delay time. Use '◄▲▼►' keys to enter the operate delay time as per product requirement. Press 'ENTER' key to save the value.

Press '►' key display will show: **ENTER HOLD DELAY: (*)   Value mSec.**

5.3.8 Press 'ENTER' key to enter the hold delay time. Use '◄▲▼►' keys to enter the hold delay time as per product requirement. Press 'ENTER' key to save the value.

Press '►' key display will show: **ENTER PROD.LIMIT: (*)   Value mV**

5.3.9 Press **'ENTER'** key and use '◄▲▼►' keys to enter the value. Press 'ENTER' key to save the value.

Press '►' key display will show: **ENTER PROD.PHASE: (*).   Value (Degree).**

5.3.10 Press 'ENTER' key to enter this value according to product requirement for product phase. Use '◄▲▼►' keys to enter the value. Press ENTER' key to save the value. Press '►' key display will show: **ENTER PROD.NAME: (*)**

5.3.11 On completion of operation, turn OFF the ON/OFF knob of the metal detector.

5.4 **Setting of Threshold value:**

5.4.1 Pass five bottles containing product through the metal detector apperture and record the each bottle S_{max} value in BPR.

5.4.2 Pass a bottle containing product with Ferrous bid and record S_{max} value.

5.4.3 Pass a bottle containing product with Non Ferrous bid and record S_{max} value.

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5.4.4 Pass a bottle containing product with SS bid and record S_{max} value.

5.4.5 Set the threshold value in between the maximum S_{max} value of product and minimum S_{max} value of bids and record it in BPR.

5.4.6 Collect the standard bids from the rejection box and clean them with lint free cloth and reconcile them in batch record.

Note: In case of sachet containing metal ingredient metal detector will not be functional and activity for that process should not be applicable.

6.0   ABBREVIATION(S):

6.1   IPA   :   Iso-Propyl Alcohol

6.2   SOP   :   Standard Operating Procedure

6.3   V/V   :   Volume/Volume

7.0   RERERENCE (S):

7.1   SOP: Making entries in equipment usage and cleaning log sheet.

8.0   ANNEXURE (S):

8.1   Nil

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 (06)

10.0   REVISION HISTORY:

S.No.	Version No.	Change control No.	REASON (S) FOR REVISION	DETAILS OF REVISION	Effective Date
01	00		New SOP	NA	