



PHARMA DEVILS

PRODUCTION DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Production	SOP No.:
Title: Cleaning and Operation of Air Jet Cleaner	Effective Date:
Supersedes: Nil	Review Date:
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1.0 OBJECTIVE:

1.1 To lay down a procedure for Cleaning and operation of Air Jet Cleaner.

2.0 SCOPE:

2.1 This procedure is applicable for Cleaning & Operation of Air Jet Cleaner in production department.

3.0 RESPONSIBILITY:

3.1 Technical Associate : Cleaning and operation of Air Jet Cleaner

3.2 Officer and Executive - Production Department : Supervision

3.3 Manager - Production Department : Compliance of SOP

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 from the cubicle.

5.1.2 Remove "UNDER PROCESS" 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 from main junction box and compressed air before start the cleaning of machine.

5.1.4 Clean the control panel with clean and dry lint free cloth.

5.1.5 Clean the top and outer surface of machine with the dry lint free cloth.

5.1.6 Open the guards of machine clean the area inside the guard with clean and dry lint free cloth and then moist lint free cloth.

5.1.7 Clean the conveyor belt, Hook unit, "T" shaped bottle rotating assembly, Slide assembly plate with clean and dry lint free cloth and then with moist lint free cloth Open the guard of hopper and clean the hopper with dry lint free cloth and wipe with 70% v/v IPA solution

5.1.8 Clean the Elevator and rotating disc (orienter disc) and rotating Fan with dry lint free cloth and wipe with 70 %v/v IPA solution.

5.1.9 Clean the air nozzle of air jet cleaner, Discharge bin and Vacuum filter after every batch.



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- 5.1.10 Replace the “TO BE CLEAN” status label by “CLEANED” status label on the machine with date and sign of the production officer.
- 5.1.11 Record the cleaning activity in equipment usage log as per SOP (Making entries in equipment usage and cleaning log sheet).
- 5.1.12 Clean the area as per SOP (Cleaning of production area).
- 5.1.13 If machine is not used with in 72 hrs. Then mop the machine with 70% v/v IPA solution

5.2 BASIC SETTINGS OF MACHINE:

- 5.2.1 Adjust the all five-conveyor belt (horizontal position) as per the bottle size, By losing the adjusting knob of the conveyor belt.
- 5.2.2 Adjust the hook unit for rotating the bottle for traveling in the right way
- 5.2.3 Adjust the hopper and orienter disc sensor in such a manner the elevator should be stop if jamming of bottle occur in orienter disc
- 5.2.4 Adjust the ” T” shaped assembly for change the direction of bottle before and after air jet cleaning at the both side of air jet cleaning assembly. Adjust the position of rotating fan by loon the knob to stop jamming of bottle.

5.3 OPERATING PROCEDURE:

- 5.3.1 Feed the empty bottle in the hopper manually.
- 5.3.2 NOTE:** After feeding the empty bottle lock the acrylic door of the feeding port.
- 5.3.2 Switch “ON” the main supply switch on the bottom left of the machine control which will activate

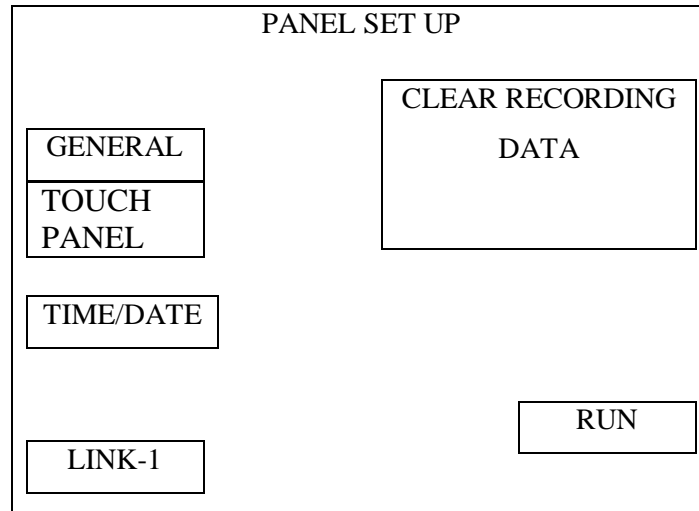


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5.3.3 The screen will displaying these setting (1) General (2) Touch panel (3) set date/ time (4) link 1 (5) Clear recording (5) Run.

5.3.4 Press the run key to view the welcome screen of panel the screen will show setting (1) bottle counter 272 (2) counter reset (3) switches.

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DATE	UNSCRUMBLER	TIME
	BOTTLE COUNTER	272
	COUNTER RESET	SWITCH



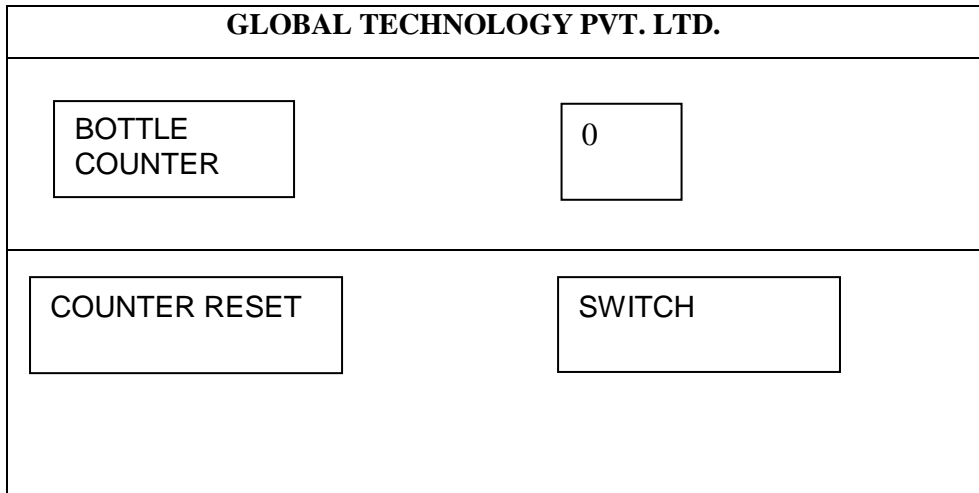
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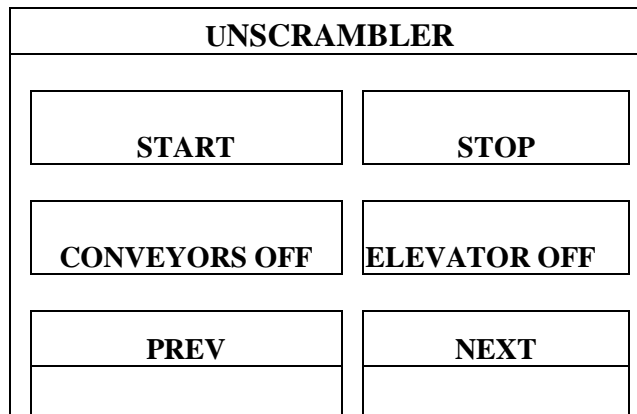
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5.3.5 Press the counter reset key to reset the bottle counter to “0”



5.3.6 Press the switch key to view the Switch screen



5.3.7 Press the start key and the conveyor and elevator on key to start the machine for operation

5.3.8 The moving elevator carries the empty bottles from the hopper and starts traveling towards the orienter disc and stores the empty bottles in the rotating disc. The rotating disc starts rotating and allows the empty bottles to rotate from a line, where the rotating fan does not allow the bottle jamming inside the rotating disc.



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5.3.9 Further the guide track guides the empty bottles to travel in the right path. During the travel the bottles should be in horizontal position and facing its bottom face. Opposite traveling bottle are rotated by the hook and made straight, further the bottle guide (Round Teflon ring) directs the bottle to form its right way for further traveling.

5.3.10 The "T" shaped bottle rotating assembly tilts the bottle upside down for air jet cleaning. The air purging unit blows the fresh air inside the bottle where on the other side the vacuum unit sucks the dust particles from the bottle and the sucked dust particles are collected in the vacuum filter provided on the left side of the air jet cleaner unit.

5.3.11 The cleaned bottles travel to the slide assembly where a plate in between changes the reverse direction of the bottles making it straight and allows the bottle to get discharge the collection bin.

5.3.12 After bottle cleaning press the stop key in the HMI to stop the operation. Switch off the main supply switch on the control panel to in – activate the machine operating panel.

5.3.13 Switch off the mains from the main junction box which will cut off the electric power from the MACHINE.

6.0 ABBREVIATION (S):

6.1 SOP - Standard Operating Procedure

6.2 HMI - Human Machine Interface

6.3 IPA – Iso Propyl alcohol

6.4 v/v- Volume by Volume

7.0 REFERENCES (S):

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

7.2 SOP: Cleaning of production area.

8.0 ANNEXURE (S):

8.1 NA

9.0 DISTRIBUTION:

9.1 **Master Copy** : Quality Assurance

9.2 **Controlled copy (S)** : Production department (02), Quality Assurance (01)

9.3 **Reference copy (S)** : Production department (01)



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10.0 REVISION HISTORY:

S. No.	Version No.	Change Control No.	Reason (s) for Revision	Details of revision	Effective Date
1.					