



**STANDARD OPERATING PROCEDURE**

**Department:** Production

**SOP No.:**

**Title:** Operation of Bin Washing & Drying Machine (Cybernetik)

**Effective Date:**

**Supersedes:** Nil

**Review Date:**

**Issue Date:**

**Page No.:**

**1.0 OBJECTIVE:**

To lay down a procedure for operation of Bin washing and Drying Machine (Cybernetik).

**2.0 SCOPE:**

This procedure is applicable to operation of Bin washing and Drying Machine (Cybernetik) in granulation area.

**3.0 RESPONSIBILITY:**

Production: Technical associate/Officer /Executive/Assistant Manager

Head Production: To ensure execution and compliance

Head QA: To ensure the compliance.

**4.0 PROCEDURE:**

**4.1 Operation:**

- 4.1.1 Remove "CLEANED" status label from Bin washing and Drying machine and affix "UNDER PROCESS" status label.
- 4.1.2 Bring unclean IPC/BIN near to Bin washing and Drying machine and open the discharge valve of the BIN/IPC and open the top lid and remove top lid gasket and affix 'Under cleaning' label by removing the 'To be cleaned' label on Bin/IPC.
- 4.1.3 Dismantle the inlet and outlet port of BIN by unscrewing the triclover clamp.
- 4.1.4 Clean the gasket along with dismantled parts with purified water and then wipe with wet lint free cloth.
- 4.1.5 Switch ON the main by pushing the green button of control panel from the unclean side to power on the touch screen and main control circuit of the system.
- 4.1.6 Open the door of Bin washing and Drying machine by gently pulling from "UNCLEAN DOOR" side and place the unclean IPC/ Bin into the machine and ensure that the discharge port is in the centre of 4 bottom external nozzle.
- 4.1.7 Close the door by pushing the door for 3-4 second to lock.



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4.1.8 Fill the required soap solution (eg: For 1 liter 2% Sodium Lauryl Sulphate, dissolve 20g Sodium Lauryl Sulphate in purified water and make it to 1 liter with purified water) in the soap holding tank if required.

4.1.9 Before navigating the Touch Panel, ensure that all system required Parameters are as follows.

- 4.1.10
- a. Hot Water Temp -  $70 \pm 10^\circ\text{C}$
  - b. Hot Air Temp -  $60 \pm 10^\circ\text{C}$
  - c. Int wash Pressure -  $15 \pm 3 \text{ Kg/cm}^2$
  - d. Ext wash Pressure -  $7 \pm 2 \text{ Kg/cm}^2$

4.1.11 After switch on the panel the screen shows as follows.

DATE	TIME
IBC WASHING SYSTEM Manufactured by Cybernetic Technologies Pvt. Ltd	

4.1.12 Touch on the above screen and the screen shows as follows:

ACK	AUTO	
	MANUAL	
	PARAMETERS	
	I/O STATUS	
	ALARMS	
HOME		LOGIN

4.1.13 From the above screen we can select the auto mode machine operation, manual mode machine operation, parameters check, the input and output status of machine and alarm as per requirement.



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- 4.1.14 There are three level password protection for operation of machine as follows
1. Level One – Technical Associate, machine operation and cleaning. At Level one machine operates in auto mode only.
  2. Level Two – Officer & executive, operate the machine in auto and manual mode.
  3. Level Three – Manager; Edit, delete and preparation of recipe.

4.1.15 To create or edit recipe login with level three password and then select the PARAMETERS recipe of the above screen and the screen shows as follows

WASH RECIPE : _____				
1. Int Cold Wash ----	2. Ext cold wash ----			
3. Int Soap Wash ----	4. Ext Soap Wash ----			
5. Int Hot Rinse ----	6. Ext hot Rinse ----			
7. Ext purified wash ----	8. Int purified wash ----			
9. Air Purging ----	10. Drying ----			
NOTE: ALL TIMINGS ARE IN SEC.				
HOME	Store	Load	Delete	NEXT

- 4.1.16 Enter all parameters as per required recipe in to the above screen.
- 4.1.17 Recipe can be edited, loaded or deleted for both auto and manual mode.
- 4.1.18 After complete addition of all data touch on ‘Store’ key and the screen will shows as follows:

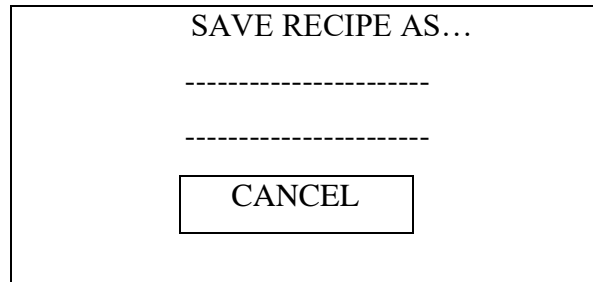
SAVE RECIPE
REPLACE EXISTING
SAVE AS NEW
CANCEL

4.1.19 Touch the suitable key as ‘REPLACE EXISTING’ or ‘SAVE AS NEW’. If touch ‘REPLACE EXISTING’ and the screen will display:



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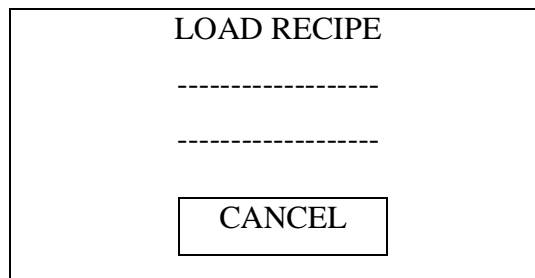
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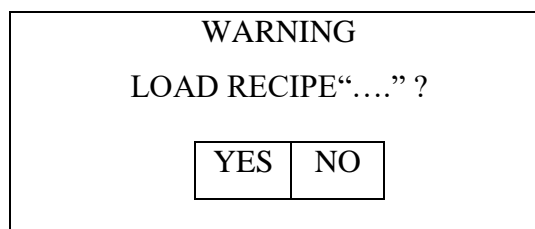
4.1.20 Select the recipe from the above screen and the screen will display as 'SAVING' -----

4.1.21 For new product select 'SAVE AS NEW' and screen will display alphanumeric table. Write the product name as per BMR using suitable key and then save the recipe and the screen will display 'SAVING' -----

4.1.22 Touch 'LOAD' key and the screen will display:

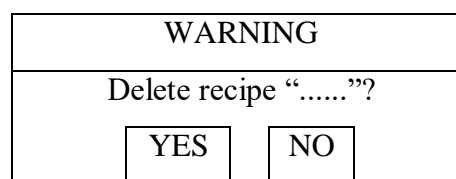


4.1.23 Select the product name or symbol as per BMR and screen will display:



4.1.24 Touch 'YES' and the screen will display 'LOADING'-----

4.1.25 To delete already exist recipe by touching the 'Delete Recipe' and the screen shows:



4.1.26 Touch on 'YES, key to delete already exist recipe and the screen will shows ----- 'IS NOW DELETED'.



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4.1.27 After complete addition of recipe then select the 'NEXT' key and the 'PARAMETER VIEW' screen displays as:

PARAMETER VIEW		
Hot water Temp	°C	
Hot air Temp	°C	
Int Wash Pressure	kg/cm <sup>2</sup>	
Ext Wash Pressure	kg/cm <sup>2</sup>	
		

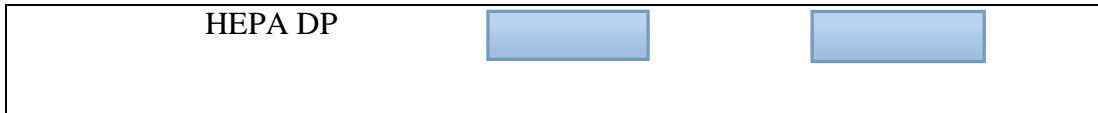
4.1.28 Set the limits for hot water temperature, hot air temperature, internal wash pressure, external wash pressure and then select the next key and set all the alarm limit parameters and screen will displays:

ALARM LIMIT PARAMETER		
	LOW LIMIT	HIGH LIMIT
HOT WATER TEMP		
HOT AIR TEMP		
INT WASH PRESSURE		
EXT WASH PRESSURE		



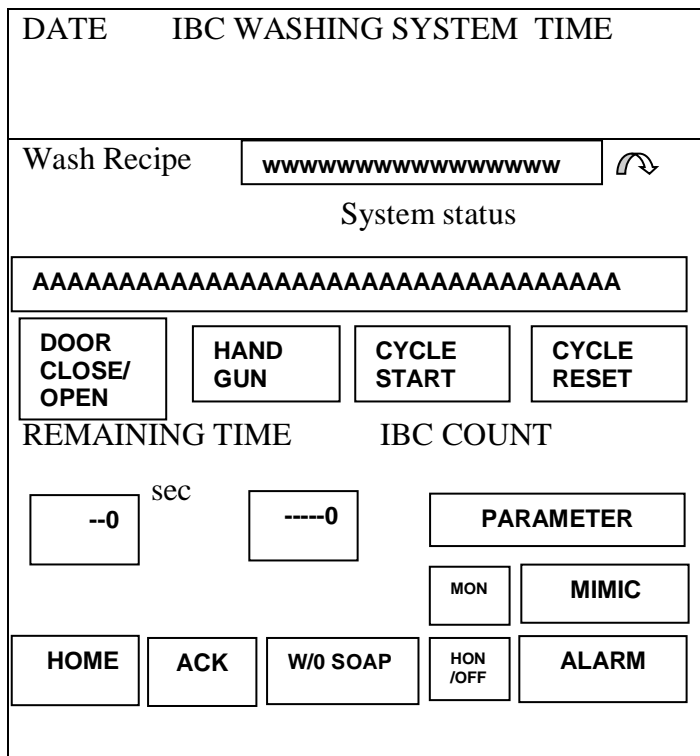
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**4.2 Auto Operation of Bin Washing Machine**

- 4.2.1 Select the AUTO from the mode selection screen.
- 4.2.2 The AUTO MODE SCREEN appears as shown below



- 4.2.3 AUTO MODE SCREEN helps to operate the system in Auto Mode or in sequential manner.
- 4.2.4 Before operating this screen ensure all entered parameters and required utilities are correct and as per requirement.
- 4.2.5 Close unclean side door for continuous cycle and wait until PRESS START display on the STATUS block.
- 4.2.6 Select 'W/O SOAP' touch button if required.
- 4.2.7 Before starting of operation touch 'HON' button on 'MMI' for Bin/IPC and then touch 'ACK'.
- 4.2.8 To initialize the cycle press "CYCLE START" touch button.
- 4.2.9 All running status of continuous washing and drying cycle is displayed on this screen in



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SYSTEM STATUS block.

- 4.2.10 To reset the cycle press CYCLE RESET.
- 4.2.11 From here navigate to HOME and MIMIC screen.
- 4.2.12 Check the operating parameters by pressing the PARAMETERS. Below screen will display.

DATE	TIME
<b>PARAMETER VIEW</b>	
Hot Water Temp	--0      °C
Hot Air Temp	--0      °C
Int Wah Pressure	--0      kg/cm sq
Ext Wash Pressure	--0      kg/cm sq
	<b>ACK</b>

- 4.2.13 After completion of auto cycle machine stop automatically.
- 4.2.14 Open the clean side door and take out IPC/Bin from machine.
- 4.2.15 Wipe the outer surface of IPC/Bin and discharge port with dry lint free cloth.
- 4.2.16 Wipe the vent inside, top lid inner surface and PU wheel with the wet lint free cloth followed by dry lint free cloth. Ensure the absence of water residue from inner surface of top lid.
- 4.2.17 Wipe the inner inverted surface of Bin with wet lint free clothe soaked in 70% V/V IPA solution for cleaning of water droplet impression.
- 4.2.18 Check the integrity of top lid gasket and vent and assemble the vent to the Bin/ IPC at the time of use and check the inner surface and butterfly valve of IPC/Bin.
- 4.2.19 Close the butterfly valve, vent and top lid after cleaning of IPC/Bin.
- 4.2.20 Affix 'CLEANED' status label having Equipment ID, Previous product, Previous batch No. Done by, Checked by Production Officer with Date.
- 4.2.21 Record the Bin/ IPC cleaning start and completion time in equipment sequential log book as per SOP.

**4.3 Manual Operation of Bin Washing Machine**

- 4.3.1 Select the MANUAL mode from the mode selection screen.



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- 4.3.2 Follow the step 4.1 Operation of Bin Washing Machine.
- 4.3.3 To start any output touch the selected components in the screen.
- 4.3.4 The selected output and the flow will appear in green colour when it is "ON".
- 4.3.5 To stop that running output touch again and after stop shows red in color.
- 4.3.6 After completion of manual cycle, stop the machine.
- 4.3.7 Open the clean side door and take out IPC/Bin from equipment.
- 4.3.8 Wipe the outer surface of IPC/Bin and butterfly valve with dry lint free cloth.
- 4.3.9 Wipe the vent inside, top lid inner surface and PU wheel with the wet lint free cloth followed by dry lint free cloth. Ensure the absence of water residue from inner surface of top lid.
- 4.3.10 Wipe the inner inverted surface of Bin with wet lint free cloth soaked in 70% V/V IPA solution for cleaning of water droplet impression.
- 4.3.11 Check the integrity of top lid gasket and vent and assemble the vent to the Bin/ IPC at the time of use and check the inner surface and butterfly valve of Bin/ IPC.
- 4.3.12 Close the butterfly valve, vent and top lid after cleaning of IPC/Bin.
- 4.3.13 Put 'CLEANED' status label with date and signature of the Production Officer.
- 4.3.14 Record the Bin/ IPC cleaning start and completion time in equipment sequential log as per SOP.

**4.4 Precaution**

- 4.4.1 At running of machine if any alarm rise, then check the alarm and acknowledge the alarm.
- 4.4.2 Before start the operation check all the utility parameters like hot water temperature, hot air temperature, inlet wash pressure and external wash pressure.

**5.0 ANNEXURE (S) :**

Nil

**6.0 REFERENCE (S):**

SOP: Preparation, approval, distribution control, revision and destruction of Standard Operating Procedure (SOP).  
SOP: Procedure for area line clearance.





# PHARMA DEVILS

PRODUCTION DEPARTMENT

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### 7.0 ABBREVIATION (S) / DEFINITION (S):

SOP: Standard operating procedure

No. : Number

SS : Stainless Steel

IPC : In process Container

QA : Quality Assurance

IPA : Isopropyl Alcohol

IPC : In Process container

V/V : Volume/Volume

Gm : Gram

### REVISION CARD

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