



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT
ARIYALUR
INSTRUMENTATION MANUAL**



Issue No. 01	Rev. No: 02	Effective Date: 20.09.2017	INST/SOP/26
Issued By: M.R		Approved By: HOD - INSTRUMENTATION	
SOP for online printing machine Maintenance			

Scope: Maintenance of online printing machine

Responsibility: Instrumentation technician.

Accountability: Instrumentation - Section Engineer.

PPE:

- Safety helmet
- Safety shoe
- Mask
- Goggles
- Hand gloves

Tools required:

- Insulated Screw Driver
- Hand Blower
- Allen key set

Hazard Analysis:

Risks associated

Electrocution

Ink and solvent splash on the body

Mitigating Measures

Use Insulated hand glove

Use proper PPE & follow the MSDS during emergency



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Precaution to be taken during Maintenance

1. Switch off the system and disconnect it from the mains before you work on any electrical part
2. Use Safety Goggles to Protect the Eyes.
3. Use the hand Gloves to Protect the Hand from getting in contact with Ink & Solvent.
4. Do not inhale the vapor of Solvent and Ink.
5. In case of the emergency refer to the MSDS of the Ink & Solvent.
6. In case Ink or Solvent came in contact with body part, wash with clean water.
7. Use appropriate container to avoid the ink or solvent spillage on the Floor and eliminate the Land Contamination Hazard.
8. Clean the Print Head with solvent and use only required quantity to save our resources.
9. After completing the job dispose the PVC Container at designated place.

SOP for Bag Printing Machine Maintenance

1. Check the Quality of Printing during Packer running.
2. Clean the print head Nozzle orifice once in Shift.
3. Check for the ink & solvent level in the respective reservoirs.
4. Fill ink/solvent by Switching “OFF” the machine & Remove the tank cap.
5. Use the appropriate PPE for handling/filling the ink and solvent.
6. Use the proper container for filling up and cleaning the printing Head
7. After filling the ink/solvent hand tighten the tank cap and kept the empty PVC container at the designated place.
8. Check the loose connections between the hand held terminal, print head & sensor with Controller and ensure all the screws tightened fully.



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9. Switch on the power supply and ensure the healthiness of Print Head by checking the LED status in Print Head.
10. Wait till pressure generate.
11. Check the bag sensing proxy operation and ensure the distance from the top shall be 100mm approximately & print head at the side (approx. 10-15mm) position from the substrate.
12. Edit the text which needs to be printed with the help of hand held terminal/Remote PC & take a test print to ensure for the quality print.
13. Purge the print head if require, getting the print quality by pressing switch located on the back side of print head.
14. Close the enclosure properly which protect controller & hand held terminal from dust.
15. Use the machine which is ready for the printing.
1. Emergency number 3108/9865152222/9750963761.



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Records/Annexure:

1. JSA as enclosed below.
2. MSDS for the ink and solvent

JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: Checking and Maintenance of Instrumentation panels	Date: 21.09.2017	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: INST - TECHNICIAN	Supervisor: SECTION ENGINEER	Department: INSTRUMENTATION	Section: Packing Plant	Approved by: HOD
Req' d/recommended PPE: SAFETY HELMET, SAFETY SHOES, GOGGLES, DUST MASK, HAND GLOVES				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Clean The Print Head Nozzle	Cleaning Solvent may splash on the hand	Wear Hand Gloves	Skin Dryness	Ensure the PPE Conditions before Wear
Fill the Ink in the printing machine tank	Storage Tank Cap may Hit the Body.	Remove the Tank Cap slowly from the ink tank.	Cap may get Damage	Check the Cap Before fixing on Tank
	Eye Irrigation	Use the Goggles before starting the job	Poor clarity on eye vision	Check the Goggles Condition before wear
	Skin Dryness and Cracking	Wear Hand Gloves	Hand glove may damage.	Inspect the Hand gloves before use
Blower the Printing Machine	Drowsiness	Wear Nose Mask	Leak through Nose mask	Check the Nose mask periodically
	Dust may come from the Printing machine	Use the Goggles and Nose mask before starting the job	Poor clarity on eye vision	Check the Goggle, Nose mask and Hand gloves



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