



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



Issue No. 01	Rev. No: 00	Effective Date: 25.05.2016	SOP/INST/14
Issued By: S & P		Approved By: HOD - INSTRUMENTATION	
SOP for Calibration of Schenck make Bin Weighing system.			

**Scope:** To calibrate Schenck make Bin weighing system.

**Responsibility:** Instrumentation Section Engineer.

**Accountability:** Instrumentation – Section Manager.

**PPE:**

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

**Tools required:**

- Multimeter
- Tester
- Screw Driver

**Hazard Analysis:**

**Risks associated**

Electrocution

Hand/Leg injury

**Mitigating Measures**

Use Insulated Tools/ hand glove

Use Hand gloves and shoes



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



Issue No. 01	Rev. No: 00	Effective Date: 25.05.2016	SOP/INST/14
Issued By: S & P		Approved By: HOD - INSTRUMENTATION	
SOP for Calibration of Schenck make Bin Weighing system.			

**Procedure:**

1. Get work permit and line clearance if required.
2. Use PPE and hand gloves while handling the calibration weight.
3. Ensure the signal interlocks and block the interlock if necessary.
4. Use the Multimeter with insulated probes for checking the signals.
5. Check all the load cell Earthing.
6. Clean the load cells and load cell junction Box with hand blower.
7. Check the load cell connections and tightness of the terminal blocks.
8. Ensure the Bin is empty. Check all the inlet, outlet & venting flexible joints and weighing parts are physically free from stationary parts.
9. If bin weight indicates zero, go to step 13, else next step.
10. To start taring, Select **setup** -> **Calibration** -> **TB** -> **start** button from the operator panel.
11. After a few second the bin weight will get tare.
12. The display will indicate zero after taring.
13. Load a known weight, more than one ton on the bin. Let this be 'A' tons
14. Note the bin weight. If it is not showing 'A' ton, then adjust the bin weight range correction parameter P22.24.

$$\text{New Correction factor} = \text{Old Correction factor} \times \frac{\text{(Bin Indicated weight)}}{\text{(Actual weight)}}$$

15. After inserting the new correction factor, the bin weight will show 'A' tons.
16. Remove the weights from the bin and note down the readings.



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



Issue No. 01	Rev. No: 00	Effective Date: 25.05.2016	SOP/INST/14
Issued By: S & P		Approved By: HOD - INSTRUMENTATION	
SOP for Calibration of Schenck make Bin Weighing system.			

17. Load a few ton of coal into the bin and note the reading. Let this reading be 'Y' tons.

18. Load a known weight 'A' tons on the bin and display should show 'Y + A' tons.

19. Remove the known weight 'A' ton from the bin and note down the reading.

**Emergency / Emergency Shut OFF:**

1. If any unconsciousness is there, give First aid and inform to the Safety department or Call Emergency number 222/233/9865155288

**Records/Annexure:**

1. JSA as enclosed below.

**JOB SAFETY ANALYSIS :( JSA)**

<b>Job Safety Analysis</b>	Job: Checking of Bin weighing system	Date: 25.05.2016	Analysis by: Section Incharge	Reviewed by: Section Head
Title of employee doing job: INST – SECTION ENGINEER	Supervisor: SECTION MANAGER	Department: INSTRUMENTATION	Section: COAL MILL, PYRO , CEMENT MILL & PACKING PLANT	Approved by: HOD INSTRUMENTATION
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
1. CLEAN THE LOAD CELL & JUNCTION BOX WITH HAND BLOWER.	MAY COME OUT OF THE JUNCTION BOX DUST	WEAR GOOGLES,HAND GLOVES & NOSE MASK BEFORE BLOWERING	COUGHING,EYE IRRITATION MAY OCCUR	USE GOOGLES, DUST MASK AND HAND GLOVES
2. PLACING /REMOVING THE WEIGHT ON THE BIN	ELECTROCUTION  WEIGHT MAY SLIP FROM THE HAND.	ENSURE THE FITNESS CERTIFICATION FOR PORTABLE INSTRUMENTS  WEAR HAND GLOVES	RESULTING ELECTROCUTION  LEG INJURY	CHECK THE INSTRUMENTS HEALTHINESS AND FITNESS CERTIFICATE VALIDITY  USE HAND GLOVES AND SAFETY SHOES BEFORE LIFTING THE WEIGHT