



## DALMIA CEMENT (B) LIMITED – ARIYALUR



### MECHANICAL

Issue No. 01	Rev. No: 02	Effective Date: 17.10.2017	SOP/MEC/06
Issued By: M.R		Approved By: HOD-Mechanical	
MAINTENANCE OF ROTO PACKER			

**Scope** : This SOP is applicable to Safe working for Roto packer Work

**Responsibility** : Section Engineer.

**Accountability** : Section Head –Packing house

**PPE:**

1. Safety helmet,
2. Safety shoe,
3. Mask.
4. Cotton Knitted hand Gloves.
5. Ear Plug
6. Safety belt
7. Goggles

**Tools:**

1. Tool Box with Spanner set Both DE & Ring.

**Hazards:**

**Risks associated**

Fine Dust

**Mitigating Measures**

Wear Goggle and Mask

**Training needs:**

1. Emergency preparedness
2. On job training

LOTO required for:

1. Packer drive

Isolation Required:

1. Compressed Air Line
1. Take the line clearance of Roto packer machine.
2. The line clearance paper should be with the person working in the site.



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3. Then take confined work area permit from the relevant department and allow the person to work.
4. Use PPE's while working.
5. Remove the impeller assembly guard and V - belts.
6. Remove the impeller box cover and clean the cement inside to box.
7. Remove the impeller from casing and check the condition of impeller.
8. If any damage or cracks of impeller, Replace the impeller and tight to locking bolts.
9. Fix to cover, V- belt and give to belt tension.
10. Fix the V – belt guard.
11. Remove the air line connection from aeration valve.
12. Remove the all silencer from impellor box and clean it.
13. Checks the silencer condition if silencer condition is not good replace.
14. Then fix the silencer in original positions. Open the air line connection from aeration valve.
15. Disconnect the main air line connection.
16. Disconnect the all main drive electrical connection.
17. Disconnect the slip ring electrical connection.
18. Drain the gear box oil sump.
19. Dismantled the packer drive pinion and main gear.
20. Lift the packer by 10mm with the help of 2nos x 5 ton chain block on both side the hooks.
21. Place the supports at packer bottom by heavy slippers.
22. Dismantled the locking spilt cover with bolts.
23. Lift the packer by 5mm with the help of chain block.
24. After lifting the packer remove the locking split spacer.



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25. Remove the bearing housing along with bearing.
26. Replace the new bearing and fix the bearing housing and than fix the locking split spacer and its cover and fix the Allen bolts.
27. Lower the packer by removing the bottom slippers
28. After lowering of packer assemble the gear & pinion its drive assembly.
29. Then open the reject hopper door and check the bottom bearing clearance.
30. If the bearing is not good. Dismantled bottom bearing spilt flange, bolt and cover.
31. Change the new bearing and fit the cover, bolt and flange.
32. Refit the locking split spacer, assemble the gear pinion, slip ring and main air line.
33. Clear the line clearance.

#### **Emergency / Emergency Shut OFF:**

If any injury takes place, provide First aid and inform to the Safety department or Call Emergency number 3108/9865152222.

Records & Annexures:

JSA

Isolation Matrix.

<b>Job Safety Analysis</b>	Job: Bags replacement	Date: 11 – 08 - 2012	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Section Engineer	Supervisor: Section Head	Department: Mechanical	Section: Bag House and Bag filters	Approved by: HOD-Mechanical
Req'd/recommended PPE: Helmet, Shoe, Nose mask, Cotton Gloves, Ear plug, Safety belt, Goggles				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Valve plate changing	Hit injury	Using the proper tools	Valve plate get crack and fall down	Ensure the proper tools
Impeller Assembly changing	Hit injury	Proper arrangements of rope for removing the impeller assembly	rope get damage and fall down	Ensure the Proper arrangements of rope.



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### MAINTENANCE OF ROTO PACKER

Top bearing changing	Hand injury	Using proper chain blocks	Chain get damage and fall down the packer	Ensure the proper chain blocks with bottom hooks.
Remove the locking split spacer	Hand injury	Using the proper tools	Locking split spacer open with help of screw drivers	Ensure the proper tools are using.

SL No	Activity		Isolation Matrix for Packing Plant									
			Isolation Type									
			Electrical Energy					Other Energy				
6	Packer's maintenance work	Name and Tag for the Equipment	Packer main drive					Manual gate closed & locked	Isolate the air entry for dozzing valve			
7	Vibrating screen maintenance work	Name and Tag for the Equipment	Vibrating screen	Elevator main drive	Elevator Auxiliary drive							