



## DALMIA CEMENT (B) LIMITED



ARIYALUR

MECHANICAL

Issue No. 01	Rev. No: 00	Effective Date: 01-11-2019	SOP/MECH/198
Issued By: M.R		Approved By: HOD (Mech)	
SOP-JSA FOR STP SCREW PUMP			

**Scope** : This SOP is applicable to Safe working for STP SCREW PUMP .

**Responsibility** : **Section Engineer – Mech.**

**Accountability** : **Section Manager – Mech.**

**PPE:**

1. Helmet.
2. Safety shoe.
3. Ear plug.
4. Safety goggles.
5. Rubber hand gloves.
6. Hand Gloves.
7. Nose mask.

**Tools:**

1. Box Spanner set.
2. Ring Spanner set.
3. Waste cloth.



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### Hazards:

#### Risks associated

Electrical shock

Pressurized water release/

Rotating parts.

Fall of objects

#### Mitigating Measures

1.Safe and tested tools and tackles

2. on job training

1. Safe pressure release on pipeline.

1. Usage of certified lifting tools.

### Training needs:

1. Fire fighting.
2. Emergency preparedness.
3. Electrical prevention training.
4. Assembly procedure.
5. Safe work near running equipment's.



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**Procedure:**

1. Once the tank reached 80% set the screw pump on operation.
2. Open the inlet valve of the pump.
3. Release the pressure on the pump.
4. Check the cloths on the pump and tighten the cloths by jacking screw.
5. Check the motor to pump pulley belt for condition.
6. Start the feed and the pump.
7. Once sludge is filled on the cloth water drained to collection pit.
8. Around 3hrs of running
9. Check the chocking of cloth



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10. after an hour remove the cloth by losing the jack bolt and store it for further use for garden as fertilizer.

### Emergency / Emergency Shut OFF:

1. If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 3108/ 9865152222

### Records/Annexure:

1. JSA is enclosed below.
2. Isolation Matrix.



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## JOB SAFETY ANALYSIS :( JSA)

Job Safety Analysis	Job: Sludge screw pump operation	Date: 04— 05 - 2020	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Section Engineer	Supervisor: Section Engineer	Department: Mech.	Section: UTILITY	Approved by: HOD Mechanical
Req'd/recommended PPE: Safety helmet, Safety shoe, Safety goggles, Ear plug, nose mask & Rubber hand Gloves.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Valve operation	Hand injury / Fatal	Closed the out let valve and open the drain (manual) valve	System will be pressure raised it will blasting the system	Ensure valve condition before start the work
Rotating parts	Major injury/Fatal	Proper guard fixing	Rotation may cause hand injury Tools will be slip	Not removing of guards while running.
Jacking of cloths	Hand injury / Fatal /fall	Proper tools usage while jacking	Slip,trip,and injury may occur.	Proper and firm usage of jack bolt.

## Isolation Matrix:



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SL No	Activity			Isolation Matrix for Utility & General Equipment.									
				Isolation Type									
				<b>Electrical Energy</b>					<b>Other Energy</b>				
1	<b>STP SLUDGE SCREW PUMP OPERATION</b>	-		<b>Isolate the Related other energy isolation</b>					<b>Isolate or closed the valves</b>				