



**Title:** Preventive Maintenance of Air Compressor

<b>SOP No.:</b>		<b>Revision No.:</b>	00
<b>Effective Date:</b>		<b>Supersedes No.</b>	Nil
<b>Review Date:</b>		<b>Page No.</b>	1 of 3

**1.0 OBJECTIVE**

- 1.1 To describe a procedure for the preventive maintenance of air compressor.

**2.0 SCOPE**

- 2.1 This procedure applies to the Engineering department.

**3.0 RESPONSIBILITY**

- 3.1 Engineering

**4.0 ACCOUNTABILITY**

- 4.1 Plant Head

**5.0 REFERENCE (S)**

- 5.1 In-house.

**6.0 PROCEDURE**

- 6.1 Procedure for mechanical work:
- 6.1.1 Switch off the power supply to the machine and put “under maintenance” label.
  - 6.1.2 Check pedestal bearing grease.
  - 6.1.3 Check thickness of all exposed bolts & nuts.
  - 6.1.4 Check crankshaft thrust.
  - 6.1.5 Clean & inspect compressor valves.
  - 6.1.6 Clean & inspect unloaders.
  - 6.1.7 Clean & inspect gasket surfaces & air passages.
  - 6.1.8 Check for blow-by & excessive oil leakage.
  - 6.1.9 Check cases for centralized on rod.
  - 6.1.10 Inspect piston rings.
  - 6.1.11 Check oil quality & change the oil if necessary.
  - 6.1.12 Change oil filters.
  - 6.1.13 Visually inspect crankcase.
  - 6.1.14 Analysis of water condition.
  - 6.1.15 Inspect coolant system for sludge & scale.
- 6.2 Procedure for electrical work:
- 6.2.1 Check connections of motor.
  - 6.2.2 Check the loader & unloaders.
- 6.3 Procedure for trial run:
- 6.3.1 Switch on the power supply.
  - 6.3.2 Switch on the air compressor.
  - 6.3.3 Switch on the air dryer.
  - 6.3.4 Run the compressor according to SOP.
  - 6.3.5 Check for the set pressure loading & unloading.
  - 6.3.6 Check & record the observations as per Format.
  - 6.3.7 Switch off the compressor.
- 6.4 Procedure of handover of the machine.
- 6.4.1 Remove under maintenance label & affix Preventive maintenance status tag and inform the concerned department.



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6.5 Frequency of preventive maintenance is monthly.

## 7.0 HISTORY

7.1 Details are given below

SOP No.	REASON FOR CHANGE	EFFECTIVE DATE

## 8.0 ABBREVIATIONS: The abbreviations used in the SOP are as follows:

- 8.1 SOP - Standard Operating Procedure
- 8.2 No. - Number
- 8.3 QA - Quality Assurance



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## ANNEXURE-I

### PREVENTIVE MAINTENANCE CHECK LIST FOR AIR COMPRESSOR.

Equipment ID No. \_\_\_\_\_

Date: \_\_\_\_\_

S.No.	Particulars	Done/Not Done	Remarks
1	Check drive motor ampere & winding Temperature.		
2	Check crankcase oil level.		
3	Check crankcase oil temperature & pressure.		
4	Check lubricator pump units for proper operation.		
5	Check compressor cylinder suction & discharge.		
6	Check cooling water pressure, temperature & flow.		

\_\_\_\_\_  
Done by  
(Sign & date)

\_\_\_\_\_  
Checked by  
(Sign & date)