

METRORAIL DEPOTS PLANT COMPRESSED AIR SUPPLY			
Doc No & Version		Engineer Technician	Sihle Jali
Creation Date	2024-05-06	Systems Engineer	Thabo Mokoena
Last Edit Date	2024-05-10	Head of Department	Manekie Tapu




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## 1. Scope.

**This specification covers PRASA requirements for the following.**

The scope of works entails the supply, delivery, installation and commissioning of Air-Dryer, Piping, Water-trap, and high-pressure hoses.

## 2. Definitions.

- 2.1. **Metrorail:** Suburban commuter rail transport.
- 2.2. **EMU:** Electrical Multiple Units
- 2.3. **PRASA:** Passenger Rail Agency of South Africa.
- 2.4. **"Supply"** includes fabrication, installation, testing and commissioning and Certification of the equipment/Instruments/Tools.

## 3. Terms of reference.

Rolling stock core function is to do maintenance of trainsets and thus obliged to ensure compliance to the legislated safety standards as set out in the OHS ACT85 and to Prasa maintenance and Standard requirements for world class best practices.

The procurement of the service and equipment, will allow Braamfontein depot a sound plant & equipment system, along with the forms and safety standards which support the process. The acquisition of plant compressor is imperative to ensure maximum plant uptime availability for efficient and uninterrupted maintenance execution.

## 4. Scope of Supply.

The scope of works entails the supply, delivery, construction, installation and commissioning of Air-Dryer, Piping, Water-trap, and high-pressure hoses as per and not only limited to this specification. The location of installation is Braamfontein Rolling Stock Depot. It is a legislative requirement that all the plant equipment and machinery comply to General Machinery Regulation 4 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), which is referred to as "Code of Practice 29" in the South African Rail Transport Industry.

### Tool/Equipment Supply:

#### 4.1. Quality Assurance:

- 4.1.1. **Standards Compliance:** Ensuring all tools and equipment meet relevant industry standards and specifications.
- 4.1.2. **Inspection and Testing:** Pre-delivery inspection and testing of tools and equipment to ensure they are in proper working condition.

#### 4.2. After Sale Support: Warrantee, Spares, Technical service.

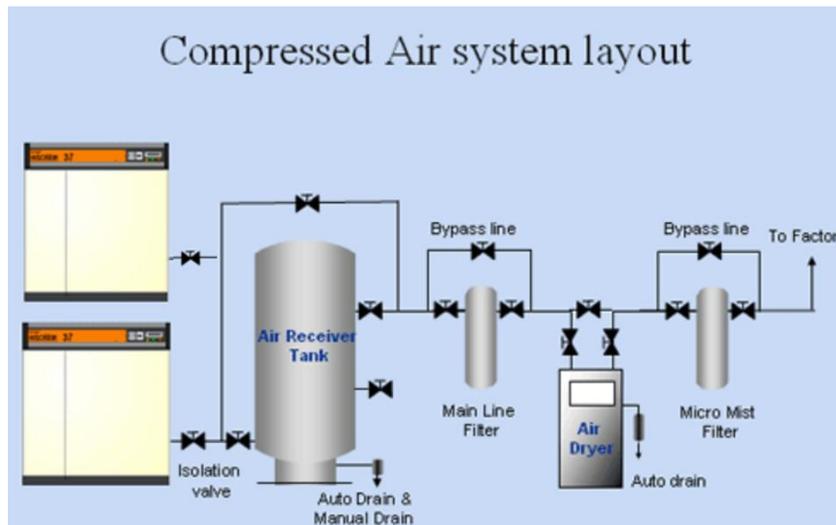
#### 4.3. Technical Documentation:

- 4.3.1. **User Manuals:** Detailed manuals for all supplied tools and equipment.
- 4.3.2. **Standards Compliance:** Provide compliance certification

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## 5. Technical Requirements.



- 5.1. Remove the existing Air-dryer.
- 5.2. Install new air-dryer and main filters.
- 5.3. Install 7.5Bar regulator to supply old system vessels with compressed air
- 5.4. Adjust the 13bar Compressor to 7.5bar.
- 5.5. Supply, deliver, install and commission water traps and high pressure hoses.
- 5.6. Pressure tests the complete system and issues compliance certificate.

### Guarantee and Inherent Defects:

- 5.7. The works shall be guaranteed for a period of 12 months commencing from the date of commissioning or hand over to Metrorail whichever comes first.
- 5.8. The contractor shall rectify defects that may arise during the guarantee period within 7 days of being notified by Metrorail.
- 5.9. Should the Contractor fail to comply with the requirements stipulated above, Metrorail shall be entitled to undertake the necessary repairs of work or effect replacement of defects apparatus or material and the contractor shall reimburse the client the total cost of such repair or replacement, including labour costs incurred in replacing defective apparatus or materials.
- 5.10. Metrorail shall issue a completion certificate indicating the completion date.
- 5.11. Quality of work must be as set by Prasa requirements and relevant standards.
- 5.12. The approved supplier shall guarantee that when the equipment fails will be repaired and returned to service within 10 (ten) working days, from the date of being notified of the defect.

### 5.13. Document Management.

- 5.13.1. Standard certificate of compliance, calibration and guarantee should be submitted during the delivery.

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5.13.2. Technical and Service manuals should be submitted during the delivery.

**The User’s Manual shall contain, at a minimum:**

- 5.14. Simplified operating principles.
- 5.15. A description of all users’ interactive hardware including disconnect switches and status indicators.
- 5.16. Procedures for the proper system operation, including a list of load limitations and any problem loads.
- 5.17. Any user maintenance items.
- 5.18. Emergency shutdown procedures and recommendations for extended periods of system non-use.
- 5.19. A user trouble shooting guide.

**6. Pricing and delivery schedule**

**Definitions/Abbreviations**

- SANS 3000– South African National Standard
- ISO – International standard organisation
- ARR- Association of American Railroads
- Electrical Wiring work (Standard SABS 10142-1:2009)
- SANAS
- BUREAU VERITAS.

**7. Specifications of the Work or Products or Services Required definitions**

**SPECIAL CONDITIONS**

- 7.1. A work program shall be submitted to the Project Manager within 5 days from the date of the acceptance of the tender and shall match the duration stated in the specification.
- 7.2. A fully complete and compliant safety file (ANNEXURE A) as per the attached safety check list shall be submitted to the Project Manager within 5 days from the date of the acceptance without failure. No work will commence without an approval of fully complete and compliant safety file
- 7.3. The duration of the project shall be 3months and the contractor is expected to commence work within 10 days upon receipt of the appointment letter
- 7.4. Failure to adhere to specified timelines will result in termination of appointment.

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### ANNEXURE HEALTH AND SAFETY REQUIREMENTS FOR ISSUING ACCESS

- The purpose of this checklist is to guide the contractors and their sub-contractors as to what documents are required for them to prepare a safety file that must be issues to PRASA Cres Regional Departments or Head Office for evaluation before a site access is issued.
- This checklist was revised to cater for **COVID 19** requirements as per RSA Government Disaster Management Act as amended and its Regulations.
- Human Coronaviruses are common throughout the world. There are many different coronaviruses identified in animals but only a small number of these can cause disease in humans.
- On 7 January 2020, 'Severe Acute Respiratory Syndrome Coronavirus 2' (SARS-CoV-2) was confirmed as the causative agent of 'Coronavirus Disease 2019' or COVID-19. The majority of the case-patients initially identified were dealers and vendors at a seafood, poultry and live wildlife market in China. Since then, the virus has spread to more than 100 countries, including South Africa.
- The spread of the disease is thought to happen mainly via respiratory droplets produced when an infected person coughs or sneezes, like how influenza and other respiratory pathogens spread. Thus far, the majority of cases have occurred in people with close physical contact to cases and healthcare workers caring for patients with COVID-19.
- Current symptoms reported for patients with COVID-19 have included mild to severe respiratory illness with cough, sore throat, shortness of breath or fever.
- The complete clinical picture regarding COVID-19 is still not fully clear. Reported illnesses have ranged from infected people with little to no symptoms to people being severely ill and dying.

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**Name of the Contractor:**

**Project:**

**Safety File Assessor and Date:**

#	Requirement(s)	Compliance Status (Yes / No)	Comment(s)
1	Scope of works and Project Duration		
2	Notification to DOL (If applicable and as defined in the 2014 Construction Regulations)		
3	Registration of the project with DOL for the construction permit if the total project value is more than R45 Million (If applicable and as defined in the 2014 Construction Regulations)		
4	Valid Letter of Good Standing		
5	Employee List and Certified Copies of their Identity Documents (RSA Citizens) or Passports or Work Permits for foreign Nationals (Employee register); Home address; Contact Numbers; Residential Address; Name of Next of kin with Contacts (Very critical issue for contact tracing)		
6	Approved Organizational Structure		
7	Approved S/HE Policy		
8	Approved COVID 19 Policy / Declaration		
9	Approved S/HE Plan		
10	Risk Assessments for the projects as per project scope approved by the Risk Assessor and they should cover COVID 19 related risk and mitigation measures.		
11	Proof of medical fitness of employees who will be working on the project and they should be from the Occupational Health Practitioner not a General Practitioner. <ul style="list-style-type: none"> <li>• Protocols for dealing with COVID 19 positive cases.</li> <li>• Screening of contractor's employees including sub-contractor</li> <li>• The type of thermometer that will be utilized and its calibration status.</li> </ul>		

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12	Statutory Appointments including competency certificates and CVs e.g., COVID 19 Compliance Officer; First Aider and etc. (Signed by the appointer and accepted by appointee's include CV's and competency certificates)		
13	Tool inspections Checklists and Register		
14	PPE Matrix and Records include COVID 19 PPE Requirements and a list of the PPE to be provided.		
15	Safe Working Procedures or Method Statements Including COVID-19 control measures. A list of the documents required here is identified as a minimum <ul style="list-style-type: none"> <li>- Waste management protocol on how COVID 19 related waste will be managed.</li> <li>- Incident reporting procedure.</li> <li>- Emergency procedure.</li> <li>- COVID 19 case handling.</li> </ul>		
16	Tool box Talks Templates to include COVID 19 information for awareness purposes. Include induction material covering COVID 19		
17	Equipment Maintenance (Calibrations, Safe Working load certificates and Decontamination or Sanitation Records etc.) if applicable		
18	Chemicals substances list; MSDS for chemicals to be used (14-point format) including Proof of training on MSDS if applicable.		
19	Excavation plan (when applicable)		
20	Scaffolding plan (when applicable)		
21	Declaration of Sub-contractors (when applicable)		
22	Proof of Third-Party Liability Cover		
	<b>Conclusion / Statement of Compliance</b>		



**END OF DOCUMENT**