

	Scope of Work	Generation
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1. INTRODUCTION

Matimba Power Station uses Pneumatic Actuators to controls valves in plants such water treatment plant and CPP.

2. SUPPORTING CLAUSES

2.1 SCOPE

2.1.1 PURPOSE

The purpose of this document is to outline the scope of work (SOW) for the supply and delivery of the Pneumatic Actuator Spares as stock items on an “as and when” required basis for a period of Five (5) years to Matimba Power Station (PS). The scope included here does not substitute procurement procedures that will be followed during the procurement process.

2.1.2 APPLICABILITY

The document applies to Matimba Power Station.

2.1.3 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.1.4 NORMATIVE

- [1] ISO 9001 Quality Management Systems.
- [2] Occupational Health and Safety Act, Act 85 of 1985
- [3] Eskom Safety, Health, Safety, Environmental and Quality Policy 32-727

2.2.ABBREVIATIONS

Abbreviation	Meaning given to the abbreviation
BBA	Boiler Bottom Ash
CAC	Coarse Ash Conveyor
ISO	International Organization for Standardization
PS	Power Station
QC	Quality Control
SOW	Scope of Work

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2.3. ROLES AND RESPONSIBILITIES

2.3.1. Contract Manager:

Contract Manager: Assurance that all actions listed in this SOW are undertaken (follow up, advice, consultation) and Implementation of this SOW, random reviews, and audits for adherence, provide assurance that any deviations will be corrected.

2.4. PROCESS FOR MONITORING

The Contractor will do the works reporting to the relevant Eskom personnel with QC documents and progress reporting on the delivery. There will be a QC evaluation of the equipment with the end-user on deliveries and invoices.

2.5. RELATED/SUPPORTING DOCUMENTS

[1] Not applicable.

3. SCOPE

3.1. SUPPLY AND DELIVERY OF SPARES

The contractor shall be responsible to supply and deliver pneumatic actuator spares. A list of the stock items is shown below as per when required (the request must be from Eskom representative).

3.1.1. Normal Spares

Item Nr.	Material	Material Description	Unit of Measure	Est.Qty 5Yrs
1	0564380	BREATHER: TYPE: FILTER; MATERIAL: POLYAMIDE; DIMENSIONS: DIA 118 X LG 131 MM; REFERENCE NO: HC0293SEE5; USED ON HNP022 OIL PURIFIER; NON-CORRODE WITH OLEO PHOBIC RESIN-BONDED FILTER FIBRES	EA	25
2	0612902	BREATHER: TYPE: SPIN ON; MATERIAL: STL; DIMENSIONS: 1.5 IN; CONNECTION: BSP; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	EA	15
3	0246203	ACTUATOR, PNEUMATIC: DIMENSIONS: LG 150 MM; PRESSURE RATING: 8 BAR; 120 PSI; TRAVEL: 1/4 IN; OPERATED: AIR; SUPPL P/N: C20R3M-SS-E; TO BE SUPPLIED WITH AN ADAPTOR AND MOUNTING BRACKET THAT CAN EASILY CONNECT TO A 50 MM OKUMURA BUTTERFLY VALVE	EA	20

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4	0669183	ACTUATOR, PNEUMATIC: DIMENSIONS: DIA 160 X LG 515 MM; PRESSURE RATING: 4 BAR; TRAVEL: 90 DEG; OPERATED: ELECTRO POSITIONER; MATERIAL: STAINLESS STEEL; SCOTCH YOKE WITH YTS ELECTRO PNEUMATIC POSITIONER FITTED TO 400MM EPDM LINED BUTTERFLY VALVE; STAINLESS STEEL DISC; WAFER TYPE; PN10; SIZED AT 4BAR INSTRUMENT AIR PRESSURE AND 10 BAR LINE PRESSURE; MATERIAL DATA SHEET TO BE SUPPLIED ON DELIVERY	EA	10
5	0669188	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 150 X LG 255 X HT 100 MM; PRESSURE RATING: 6 BAR; TRAVEL: 90 DEG; OPERATED: AIR; MATERIAL: ALUMINIUM; INLET CONNECTION TYPE: BOLTED M12; INLET CONNECTION SIZE: 76 MM; OUTLET CONNECTION TYPE: BOLTED M12; OUTLET CONNECTION SIZE: 76 MM; COMPLETE WITH YTC POSITIONER (YT1200RS52250)	EA	20
6	614641	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 168 X LG 320 X HT 160 MM; PRESSURE RATING: 6 BAR; TRAVEL: 90 DEG C; OPERATED: PNEUMATIC; MATERIAL: ALUMINIUM; 150/90 DE ROTOR; DOUBLE ACTING ACTUATOR; 61.8KGM; TORQUE: 13.1KG; 1600CM3 AIR CONSUMPTION; FOR RESIN TRANSFER VALVES	EA	10
7	727602	ACTUATOR, PNEUMATIC: DIMENSIONS: LG 400 MM; PRESSURE RATING: 10 BAR; TRAVEL: 90 DEGREE; OPERATED: AIR; OEM P/N: RC260-SR087; ACTUATOR: F12/F10-27; USED ON BUTTERFLY VALVE; TORQUE OUTPUT: 4400NM; MAX VOLUME: 2.88l; AIR TO OPEN; SPRING TO CLOSE; COMPLETE WITH MOUNTING BRACKET AND COUPLER TO CONNECT TO A 200MM	EA	20
8	732136	ACTUATOR, PNEUMATIC: DIMENSIONS: 145 X 130 MM; PRESSURE RATING: 10 BAR; TRAVEL: 90 DEG; OPERATED: AIR; TO BE DELIVERED WITH A 100MM DIAPHRAGM VALVE (TYPE: WEIR); DIAPHRAGM MATERIAL: RUBBER GR B; TEMPARATURE RATING:	EA	15

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9	0528068	BLOWER: TYPE: AIR/ROTARY; CAPACITY: 103 M3/HR; SIZE: WD 252 X LG 248 X HT 223 MM; POTENTIAL: 380 V; CURRENT: 15 A; POWER: 11 KW; REFERENCE NO: RBS 15/V; HORIZONTALLY MOUNTED; MOUNTING FEET CENTRE DISTANCE 175 MM; 4 HOLES X 13 MM DIAMETER; FLANGE FACE TO FACE 222 MM; CONNECTION FLANGE: 4 HOLES X 125 PCD; HOLES SIZE 18 MM; DRIVE SHAFT SIZE 24 MM; OIL LUBRICATED; SIGHT GLASS ON DE & NDE; TO BE SUPPLIED WITH MOUNTING FEET; EXCCO 4001; FILTED INLET; PRESSURE: 72 KPA; FLOW: 107 M3/HR	EA	15
10	0500935	BLOWER: LOBE BLOWER; MIN 1980; MAX 3810 M3 BLOWER: TYPE: LOBE BLOWER; CAPACITY: MIN 1980; MAX 3810 M3; SIZE: 8 IN; POTENTIAL: 380 V; POWER: 37 KW; REFERENCE NO: GAGLBPA 7LP; 7 L PROCESS; SO3 PROCESS BLOWER	EA	10
11	0615749	BLOWER: POSITIVE ROTARY; 0.36 CM3/S; 100 MM. BLOWER: TYPE: POSITIVE ROTARY; CAPACITY: 0.36 CM3/S; SIZE: 100 MM; POTENTIAL: 380 VAC; CURRENT: 79 A; POWER: 30 KW; REFERENCE NO: 873-837-60; SUCTION + DISCHARGE: 4 IN	EA	20
12	0564447	BREATHING: AIR FILTER; OD 80 X LG 60 MM BREATHING: TYPE: AIR FILTER; MATERIAL: INORGANIC FIBRE PAPER; DIMENSIONS: OD 80 X LG 60 MM; REFERENCE NO: 852519; FILTRATION RATING: 10 MICRON; NORMAL FLOW: 1000L/MIN; RESISTANCE TO HYDRAULIC OIL & WATER BASED FLUIDS	EA	120
13	0564062	BREATHING: AIR INDICATOR; POLYCARBONATE BREATHING: TYPE: AIR INDICATOR; MATERIAL: POLYCARBONATE; DIMENSIONS: OD 30 X LG 42 MM; REFERENCE NO: HC0293D004; USED ON HNP022 OIL PURIFIER AIR BREATHING	EA	20
14	0642846	BREATHING: AIR; PLOYPROPYLENE; MBSP ¾ IN BREATHING: TYPE: AIR; MATERIAL: PLOYPROPYLENE; DIMENSIONS: DIA 85 X HT 77 MM; CONNECTION: MBSP 3/4 IN; MANUF P/N: HH3050C12RF20VR01F200; COMPLETE WITH 1 INCH 2 MICRON ABSOLUTE BETA 5000 ELEMENT	EA	100
15	0501569	BREATHING: AIR; POLYPROPYLENE; 1-1/2 IN BREATHING: TYPE: AIR; MATERIAL: POLYPROPYLENE; DIMENSIONS: DIA 118 X LG 151 MM; CONNECTION: 1-1/2 IN; MANUF P/N: HC0293SEE5; 3 MICRON ELEMENT, 16 UN - 2B	EA	10
16	0593554	BREATHING: AIR; PP OLEOPHOBIC BREATHING: TYPE: AIR; MATERIAL: PP OLEOPHOBIC; DIMENSIONS: ID 27.5 X OD 63.5 MM; MANUF P/N: R01F400; AIR BREATHING WITH 4 MICRON ELEMENT FOR 3050 TYPE BREATHING	EA	100
17	0640682	BREATHING: DESICCANT DC-2; PLASTIC	EA	100

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		BREATHING: TYPE: DESICCANT DC-2; MATERIAL: ACRYLIC; WEIGHT: 1.37; DIMENSIONS: HT 226X OD 114 MM; CONNECTION: 1 IN-BSP; BREATHING ABSORBER		
18	0671858	BREATHING: FEED WATER SYSTEM; BSP 3/4 IN BREATHING: TYPE: FEED WATER SYSTEM; MATERIAL: CHROME PLATED STEEL CAP; DIMENSIONS: DIA 77 X LG 75 MM; CONNECTION: BSP 3/4 IN; REFERENCE NO: TB25-10; DISPLACEMENT 400 LPM; RATING: 10 UM FILTER; THE BREATHING IS FITTED ON EFP MAIN PUMP DRIVE END AND NON-DRIVE END BEARING HOUSING; SPONGE FILTER FITTED WITH RELEASE VALVE	EA	180
19	0256672	BREATHING: FILTER AIR; PAPER; G3/4 IN BREATHING: TYPE: FILTER AIR; MATERIAL: PAPER; DIMENSIONS: DIA 75.5 X LG 81.5 MM; CONNECTION: G3/4 IN; REFERENCE NO: 306336-21/10; MICRON 3; APPLICATION: OIL TANK; SHAPE ROUND, USED AT H P BYPASS AND REHEAT SAFETY VALVES; DESIGNATION BFP G10W, THREAD 150228	EA	20
20	0592752	BREATHING: PLASTIC; DC-3; 1-1/2 IN BREATHING: TYPE: DRYING AIR/PREVENT WATER INGRESSION; MATERIAL: PLASTIC; DIMENSIONS: DC-3; CONNECTION: 1-1/2 IN; REFERENCE NO: 145-DC03001	EA	50
21	0024771	BREATHING: PUROLATOR; PAPER BREATHING: TYPE: PUROLATOR; MATERIAL: PAPER; DIMENSIONS: DIA 75 X HT 70 MM; SUPPL P/N: PI0113MIC; COMPLETE HOLDER WITH CARTRIDGE, AFTER	EA	200
22	0052896	BREATHING: SILICA GEL; AL/GLASS; THD BREATHING: TYPE: SILICA GEL; MATERIAL: AL/GLASS; DIMENSIONS: OD 90 X LG 170 MM; CONNECTION: THD; MODEL NO: TX1; REFERENCE NO: 291001; FOR USE ON TRANSFORMERS, OIL CAPACITY 1.530; WEIGHT 0.459KG	EA	50
23	0052895	BREATHING: TYPE: TRANSFORMER; MATERIAL: PLASTIC; CONNECTION: BSP 3/4 IN; MODEL NO: TX2; REFERENCE NO: 291002; OIL CAPACITY IN LITRES: 3000, WEIGHT 0.900 KG, BLUE GEL;	EA	20
24	0596795	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 82 X LG 160 X HT 91 MM; PRESSURE RATING: 6 BAR; TRAVEL: 90 DEG; OPERATED: AIR; OEM P/N: 75/90DE; ROTOR TYPE; BUTTERFLY VALVE; VALVE SIZE: 50MM	EA	10

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25	0610223	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 259 X LG 532 X HT 231 MM; PRESSURE RATING: 0-6 BAR; TRAVEL: 50.3 MM; OPERATED: SPRING RETURN; MATERIAL: AL ALLOY; INLET CONNECTION TYPE: FLANGE; INLET CONNECTION SIZE: 1/4 IN; OUTLET CONNECTION TYPE: FLANGE; OUTLET CONNECTION SIZE: 1/4 IN; OEM P/N: ES950M2A05A36DO; METRIC ISO5211; WITH STANDARD PAINT SPECIFICATION; DOUBLE STROKE ADJUSTMENT LIMIT STOPS; STANDARD TEMPERATURE RANGE BELOW 80 DEG C	EA	50
26	0610224	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 259 X LG 440 X HT 231 MM; PRESSURE RATING: 0-6 BAR; TRAVEL: 50.3 MM; OPERATED: DOUBLE ACTING; MATERIAL: AL ALLOY; INLET CONNECTION TYPE: FLANGE; OUTLET CONNECTION TYPE: FLANGE; OEM P/N: P-ED950M2A00A36DO	EA	20
27	0605285	ACTUATOR, PNEUMATIC: DIMENSIONS: 185 X 115 MM; PRESSURE RATING: 8 BAR; TRAVEL: 90 DEG; OPERATED: AIR; MATERIAL: ALUMINIUM; MODEL NO: C30SR-3MET; AIR TO OPEN; SPRING TO CLOSE; COMPLETE WITH MOUNTING BRACKET & COUPLER TO CONNECT TO A 100 MM BUTTERFLY/WAFER VALVE	EA	10
28	0615040	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 220 X LG 655 X HT 282 MM; PRESSURE RATING: 2-10 BAR; TRAVEL: 0-90 DEG; OPERATED: SPRING TO CLOSE; MATERIAL: ALUMINIUM; REFERENCE NO: RC270; HOUSING IN ANODISED; SUPPLY WITH MOUNTING BRACKET & COUPLING FOR 500MM BUTTERFLY VALVE; DEMIN STORAGE TANK-RECYCLE	EA	10
29	0246204	ACTUATOR, PNEUMATIC: DIMENSIONS: LG 268 MM; PRESSURE RATING: 10 BAR; 1 MPA; 150 PSI; TRAVEL: 0-90 DEG; OPERATED: AIR; MATERIAL: STL; SUPPL P/N: RC240-DA-ST-N-RA-1-XP-SD-A; DOUBLE ACTING; FACE TO FACE: 225MM; PCD: 190MM; SHAFT SIZE: M16 THREADED SQUARE; DOUBLE ACTING (AIR TO CLOSE & OPEN) TO BE SUPPLIED WITH AN ADAPTOR AND MOUNTING BRACKETS SUITABLE TO CONNECT TO 100 MM IPV BALL VALVE	EA	15
30	0615044	ACTUATOR, PNEUMATIC: DIMENSIONS: WD 283 MM X LG 1.2 M X HT 220 MM; PRESSURE RATING: 2-10 BAR; TRAVEL: 90 DEG C; OPERATED: SPRING TO CLOSE; MATERIAL: ALUMINIUM; REFERENCE NO: RC280; TO BE SUPPLIED WITH MOUNTING BRACKET & COUPLING FO 600MM BUTTERFLY VALVE	EA	10

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31	615962	ACTUATOR, PNEUMATIC: DIMENSIONS: 914 CM2; PRESSURE RATING: 30-120 PSI; TRAVEL: 0-90 DEG; OPERATED: PISTON; REFERENCE NO: C45 SR	EA	15
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The following are the Supplier's and Employer's requirements:

- ❖ The Supplier will ensure that the correct spare is supplied and will replace or be liable for damage at his/her cost if the incorrect or defective spare/s is supplied.
- ❖ The Supplier may, at the Employer's discretion, be given access to the plant to verify the information of the installed spare.
- ❖ The spare must be to the exact same specification as installed in the plant and specified on the order text. Notwithstanding the stipulated condition that the Supplier is responsible for verifying the correctness of the spare's information provided by the Employer in relation to the existing installed spare. This may include the Supplier consulting the original supplier of the spare to ensure correctness of information provided by the Employer.
- ❖ The Employer may at his/her discretion make the Employer's Engineer or employees or others available to the Supplier for the purpose of soliciting additional information or verifying information as the need arises.
- ❖ The Supplier will supply any additional information such as brochure, general arrangement drawing, certificates, detailed specification, etc.
- ❖ Where the spare requires testing, the Supplier will inform the Employer to invite or make available the Employer's System Engineer to witness the tests.
- ❖ Should the Employer be dissatisfied with all or certain aspects relating to specific spare tests (including but not limited to suspected inferior quality or non-compliance) the Supplier will make

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good, rectify the faults, or supply a new spare at his/her cost.

- ❖ The Employer may make clarification sessions available to either prospective Supplier/s to further assist the prospective Supplier's to meet the requirements of the work to be performed by the Supplier.
- ❖ The Supplier will supply the lead time of all required items in the tender for contract.
- ❖ The Supplier must ensure that all parts supplied must be individually packed in such a way as to protect the parts during transport and storage. The packaging must also include the necessary labels to identify the items.

4. ACCEPTANCE OF SPARES

- ❖ No incorrect, damaged, or faulty spares will be accepted.
- ❖ All the spares will be inspected before payment could be processed.
- ❖ Where applicable; test certificates, material certificate, manuals, data sheet and signature shall be provided as required.

5. REPLACEMENT/UPGRADE/MODIFIED SPARES

- ❖ Where equipment or spares, including the whole assembly, have been upgraded / modified the Employer shall indicate this to the contractor.

6. PACKAGING

- ❖ All supplied spares shall be packaged in such a manner that they will be transported and stored without damage. This includes preventing damage due to moisture ingress, dust, and foreign objects.
- ❖ Different spare types shall be packaged separately such that each spare type can be stored separately. Packaging shall be such that the spare can be identified without opening the packaging. Packaging shall be of material that will not be damaged, to an extent possible, by harsh weather conditions during transportation. If that is not possible, then the packaging shall be protected against such conditions.
- ❖ Where possible, packaging to be such that procured spares can be positively identified through the packaging. Where this is not possible, the packaging to be such that it allows opening and closing of packaging and still maintain the packaging integrity thereafter.
- ❖ Delivery packaging to have the following details:
 - Order number
 - Physical address of Matimba Power Station and the Supplier
 - Contact details of the Supplier
 - Delivery note number

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3. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Sivuyile Khwezi	Senior Technician Maintenance
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4. REVISIONS

Date	Rev.	Compiler	Remarks
October 2024	1.0	KM Losaba	Final Document

5. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- Sivuyile Khwezi

6. ACKNOWLEDGEMENTS

Not Applicable

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