Eskom		

Title: **Manufacture and delivery of Sicon Idlers at Kendal Power Station on an "as and when required" basis.**

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Content

1. Introduction

Kendal Power Station intends to partner with a reputable service provider to ensure a reliable and continues supplier of goods "as and when" required by the station. This document details the scope of work and all the mandatory requirements from the suitable contractor for this service.

2. Supporting Clauses

2.1 Scope

The scope of this document is the Scope of work and requirements for the Manufacture and delivery of Sicon idlers to Kendal Power Station.

2.1.1 Purpose

The purpose of this document is to describe the Scope of work and requirements of the products to be supplied to Kendal Power Station.

2.1.2 Applicability

This document shall apply to Kendal Material Management Department, Engineering Department, Maintenance Department, Contractor, and anyone who is involved in the manufacture, assembly, delivery, storage and use of the products listed in this contract.

2.1.3 Effective date

This document is effective from commencement of the contract date until revised or end of contract date.

2.2 Normative/Informative References

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

2.2.1 Normative

[1] SANS 1313-1,2,3

[2] ISO 9001 of 2008: Quality Management Systems.

[3] GPM/0147 User requirement specification guidelines.

[4] Occupational Health and Safety Act 85 of 1993.

[5] ISO 14001 of 2004: Environmental management system.

2.2.2 Informative

[1] Safety Health and Environment Specifications for Contractors - GVLIR 0007

[2] Construction, Safety, Health and Environment Management in Eskom - 32/136 Rev 0 -

[3] Eskom Information Security Policy - 32-85 Rev 0

[4] Eskom Vehicle and Driver Safety Management Procedure - 32-93 Rev 0

[5] Integrated Business improvement – prevention and improvement Standard - 6-366 Rev 0

[6] Smoking Policy - 32-36 Rev 0

[7] Alcohol Policy GGP 1209

[8] Incident Management 32-95

[9] Mandatory SHE requirements for the Eskom procurement and Supply chain management process - 32-726 Rev 0

2.3 Definitions

- **Accuracy of measurement** - The closeness of the agreement between the result of a measurement and the (conventional) true value of the measurement.
- **Competence** - The ability to apply knowledge and skills to achieve the intended results.
- **Idler** – A free running rotating roller intended to support or guide the Sicon conveyor belt.
- **Nonconforming wor*k*** - Any manufactured item, process or work performed that is found to be outside of the accepted or documented standards or tolerances.
- **Roller** – Another name for an Idler as described in this document.
- **Sicon** - The brand name of the OEM who manufactures a conveyor belt system intended to convey materials without spillages. There are 6 Sicon conveyors installed at Kendal Power Station.

2.4 Abbreviations

Abbreviation	Explanation
ISO	International Organisation for Standardisation
KKS	Kraftwerk-Kennzeichensystem (Function, Equipment and Component Identification System for Power Stations)
U.H.M.W.P.E.	Ultra-High Molecular Weight Poly-Ethelene
OEM	Original Equipment Manufacturer
SAP	Systems, Applications and Products. (Software products that allow businesses to track customer and business interactions.)

3. Document Content

3.1 Project description

Manufacture and delivery of Sicon Idlers at Kendal Power Station on an "as and when required" basis.

3.2 General requirements

(a) All orders and purchases shall be done on System Application and Products (SAP) for Eskom records.
(b) The Contractor shall only deliver the product to the premises after a Purchase Order (PO) number has been released by the Eskom Contract Manager.
(c) The contractor shall manufacture all the components and assemble the idlers on his own premises. All components that are manufactured or bought out from sub-contractors need to be supplied to the contractor as per the required latest specifications approved by the Eskom System Engineer. The contractor remains responsible and accountable to correct and carry all associated costs to replace or repair defective products for any non-conformances found on any components. The contractor cannot refer any quality issues from the Eskom representative to any sub-contractor.
(d) The Eskom representative shall perform quality control of the products received before accepting the products at stores as per International Standards Organisation (ISO 9001) standards. The contractor shall fetch rejected products from Kendal Power Station at own cost and as soon as being notified by the Eskom representative. Any rejected products that are missing due to delays by the contractor to fetch from Kendal Power Station are for the contractor account.
(e) If the material or products received was accepted and indicated to be of good quality during quality evaluation but fails prematurely after installation, an investigation must be done by both parties and if an error is found to be from the service provider a replacement unit must be delivered within a reasonable time.
(f) The contractor shall ensure that labelling or marking of product is clear and corresponds with the order number when delivery is made. The product must be delivered in fixed batch quantities for the ease of counting and verifying the items.
(g) The contractor shall request approval from the Eskom Engineering representative before intending to make any changes, modification, or amendments to the products. No such changes may be made until written approval is granted by the Eskom Engineering representative.
(h) All deliveries should be made from 07:15 am to 16:30 pm from Monday to Thursday and from 7:15 am to 12:15 pm on Friday, no deliveries should be made after the specified times or on a weekend unless otherwise arranged prior with the Eskom representative.
(i) Supplier will keep a minimum stock level of all idler wheels enough to service one complete conveyor.

3.3 Technical requirements

The contractor shall manufacture and deliver Sicon Idlers at Kendal Power Station on an "as and when required" basis to the following requirements:

(a) Supplier to provide detailed design drawing of each part to be evaluated before contract is issued. Note Eskom will only supply the outer dimensions as per the Eskom Stock number

description. Supplier to design and manufacture internals and supply materials according to the relevant specifications.

(b) Technical Evaluation will be done at the suppliers' premises before the contract is issued.
(c) Material and manufacturing certificates will be issued with each roller.
(d) Supplier shall provide an Eskom Approved quality check document and procedure.
(e) Quality checks of the manufacturing and assembly process may be done by the Engineer and Technician at the supplier premises while the contract is running.
(f) Standard materials approved by the Eskom Engineering representative to be used. No deviation will be allowed unless it is approved.

3.4 Technical specifications

a) Detailed description of parts:

i) Eskom Stock number: 38932

ROLLER: TYPE: BELT SUPPORT

DIMENSIONS:

- FACE DIA 125 MM
- FACE WIDTH: 25MM,
- SHAFT DIAMETER: 25MM; CORROSION PROTECTION
- SHAFT LENGTH: 55MM

SUPPLIED WITH 1 OFF M10 x 25 GRADE 4.8 GALVANIZED BOLT AND 2 OFF WASHERS

BELT WIDTH: 800MM,

IDLER, SICON, MATERIAL: U.H.M.W.P.E,

OEM DRAWING NO: 4-60141

ii) Eskom Stock number: 38933

ROLLER, CONVEYOR: TYPE: IDLER

DIMENSIONS:

- FACE DIA 89MM
- FACE WIDTH: 95 MM
- SHAFT DIAMETER: 25 MM CORROSION PROTECTION
- SHAFT LENGTH: 57 MM

SUPPLIED WITH 2 OFF M20 GALVANIZED NUTS AND 1 OFF WASHER

ROLLER MATERIAL: U.H.M.W.P.E

BELT WIDTH: 800MM,

TYPE: BELT SUPPORT

OEM DRAWING NO: 4-60140

iii) Eskom Stock number: 38934

ROLLER: TYPE: BELT GUIDE

DIMENSIONS:

- FACE DIA 108 MM
- FACE WIDTH: 95 MM,
- SHAFT DIAMETER: 25MM, CORROSION PROTECTION
- SHAFT LENGTH: 57MM,

SUPPLIED WITH 2 OFF M20 GALVANIZED NUTS AND 1 OFF WASHER

MATERIAL: U.H.M.W.P.E

BELT WIDTH: 800MM

OEM DRAWING NO: 4-60004

iv) Eskom Stock number: 38936

ROLLER: TYPE: BELT SUPPORT

DIMENSIONS:

- FACE DIA 159 MM
- FACE WIDTH: 95 MM,
- SHAFT DIAMETER: 25MM, CORROSION PROTECTION
- SHAFT LENGTH: 57MM,

SUPPLIED WITH 2 OFF M20 GALVANIZED NUTS AND 1 OFF WASHER

MATERIAL: U.H.M.W.P.E,

BELT WIDTH: 800MM

OEM DRAWING NO: 4-60005

b) Manufacturing specifications of sub-components:

i) The roller to be manufactured from U.H.M.W.P.E. Other materials such as Nylon, Acrylic, PVC's etc are not acceptable unless approved in writing from the Eskom System Engineer. Material certificates to be available on request with traceability to each batch that is delivered. The roller to be machined on CNC machines to ensure correct tolerance repeatability. Tolerances for Roller bearing bores to be P7 interference fit and Tolerance for seal bore to be N7 interference fit unless otherwise approved in writing from the Eskom System Engineer

ii) The shaft to be manufactured from high grade Tin plated - EN8 shaft material or equivalent. The shaft to be machined on CNC machines to ensure correct tolerance repeatability. Tolerances for Roller bearing landings to be h5 transition fit. Surface finish on seal landing to be polished to N4 or better.

iii) Two deep groove single roller bearings to be used per idler. The bearings shall be C3 tolerance with rubber sealed bearing. The only acceptable bearing manufacturers are FAG, NSK, SKF, NTN or Timken. The bearing brand should be clearly visible on the bearing race. (Beware of imitations.) Any other bearing brands are not acceptable.

iv) One standard double lip oil seal will be incorporated in the design with the running contact on the inner shaft landing. The seal must be lubricated with water resistant silicon grease during assembly. The supplier may propose additional seal designs for consideration by the Eskom System Engineer.

v) Other components such as circlips, washers and nuts to be good quality materials. The idler shall be supplied with two galvanised washers and one Nyloc nut on the shaft.

vi) Idlers shall be tested for minimum rolling resistance as specified in SANS 1313-3 approved by the Eskom Engineering representative.