Eskom	Strategy	Generation/Kriel PS

Title: **Technical Evaluation Strategy (TES) For the Supply and Delivery of Sulphur Trioxide (SO_3) Plant Mechanical Spares "as and when required" for a period of five years at Kriel Power Station**

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Compiled by	Reviewed By	Functional Responsibility	Authorized by
[redacted]	[redacted]	[redacted]	[redacted]
System Engineer	**Chief Engineer (Gx Engineering Specialist)**	**Boiler Engineering Manager**	**Engineering Manager**
Date: 2025/07/18	**Date:** 2025/07/18	Date: 18/07/2025	Date: 18/07/2025

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1. Introduction

Kriel PS condition the dust particles with SO_3 to reduce the high resistivity and increase the ESP collection efficiency and as results achieve the emissions limit requirements of 100 mg/Nm^3 on a daily basis. It is requirement for the licence holder to ensure that these conditions are always adhered to through a continuous focus on the operating, optimization, and maintenance of the plant. For this to happen effectively, maintenance work must be done at both all moving and damaged non-rotatable components

2. Supporting Clauses

2.1 Scope

This document discusses the different technical aspects that will be evaluated and scored by the Technical Evaluation Team (TET) for Electrostatic Precipitator (ESP) mechanical spares supply scope of work. The team members who will be involved in the evaluation are listed and appointed in this document along with their responsibilities. This document also describes the acceptable and unacceptable risks and qualifications and/or conditions that will be applicable to the Scope of Work. Once the Technical Evaluation Strategy is authorised, no changes will be made to the evaluation criteria without the appropriate authorisation.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

2.1.2 Applicability

This document shall apply to Kriel Power station.

2.1.3 Effective date

This document will be effective on the date the document is authorised.

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] 240-168966152: Generation Tender Technical Evaluation Procedure

2.2.2 Informative

[2] ISO 9001 Quality Management Systems

2.3 Definitions

Electrostatic Precipitator	A device that removes suspended dust particles from a gas or exhaust by applying a high-voltage electrostatic charge and collecting the particles on charged plates.

2.4 Abbreviations

Abbreviation	Explanation
ECN	Engineering Change Notification
EDMS	Engineering Document Management System
ECM	Engineering Change Management
ESP	Electrostatic Precipitator
UCLF	Unplanned Capability Loss Factor
TET	Technical Evaluation Team

2.5 Roles and Responsibilities

- Boiler Engineering: Responsible for compiling the strategy and ensure that the respective areas are and adhered to this procedure.
- Technical Evaluation Team (TET) Member: The delegated engineers/technical specialist are responsible for review and evaluate technical aspects of the tender documentation Tender TET.

2.6 Process for Monitoring

Inspection of the supplied components and signed off delivery notes.

2.7 Related/Supporting Documents

[3] 240-53716726: Tender Technical Evaluation Scoring Form

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

Mandatory Technical Evaluation Criteria (gatekeepers) are 'must meet' criteria. These criteria shall not be weighted or point scored but shall be assessed on a Yes/No basis as to whether or not the criteria are met unless set otherwise. An assessment of 'No' against any criterion shall technically disqualify the tenderer and shall not be further evaluated against Qualitative Criteria.

Qualitative Technical Evaluation Criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer after determining that all the Mandatory Evaluation Criteria have been met.

The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion. The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70%.

3.2 TET MEMBERS

Table 1: TET Members

TET Number	TET Member Name	Designation
1	[redacted]	Engineer, Kriel Boiler Plant Engineering
2	[redacted]	Senior Engineer, Kriel Boiler Plant Engineering
3	[redacted]	Chief Engineer – Gx Engineering Specialist
4	[redacted]	Senior Supervisor Mechanical Maintenance

3.3 CRITERIA

3.3.1 Mandatory Technical Evaluation Criteria

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1	The Principal Contractor must be ISO 3834 accredited (Quality management system for welding) ISO 3834-1:2005 provides criteria to be considered for the selection of the appropriate level of quality requirements for fusion welding of metallic materials.	Valid Certification by a SANAS/SABS accredited entity or body.	To ensure correct and proper usage of Welder Performance Qualification Record (WPQR) and Welding Procedure Specification (WPS).

3.3.2 Qualitative Technical Evaluation Criteria for Part 1

Table 3: Qualitative Technical Evaluation Criteria Scoring Definition

Score	(%)	Definition
5	100	**COMPLIANT** • Meet technical requirement(s) AND; • No foreseen technical risk(s) in meeting technical requirements.
4	80	**COMPLIANT WITH ASSOCIATED QUALIFICATIONS** Meet technical requirement(s) with; • Acceptable technical risk(s) AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions.
2	40	**NON-COMPLIANT** • Does not meet technical requirement(s) AND/OR; • Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions.
0	0	**TOTALLY DEFICIENT OR NON-RESPONSIVE**
Note 1: The scoring table does not allow for scoring of 1 and 3. **Note 2:** Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.		

Table 4: Qualitative Technical Criteria

	Qualitative Technical Criteria Description	Reference to Technical Specification/Tender Returnable	Criteria Weighting (%)
1.	**Material Supply Qualitative Criteria**		
1.1	**Company Experience and Capacity:**		**40 %**
	Proof of previous successfully executed supply and delivery works of similar mechanical components as per the listed components on **Appendix A** within the last 5 years in any industry. • There is no signed off delivery notes and purchase order submitted or there is a delivery note and purchase order submitted but not signed and no verifiable contact details. **0 pts**. • There is minimum of 10 off signed delivery notes and Purchase orders with the date, address and verifiable contact details for the supply of mechanical components submitted. **2 pts**. • There is minimum of 15 off signed delivery notes and Purchase orders with the date, address and verifiable contact details for the supply of mechanical components submitted. **4 pts**.	Signed delivery note and purchase Order number with the date, address and verifiable details for the contact Person.	

	• There is minimum 20 off or more signed delivery notes and Purchase orders with the date, address and verifiable details for the supply of mechanical components submitted. **5 pts**		
1.2	**Material Technical Specification**		**40 %**
	Material data sheets of the following items as listed on appendix A The criterion covers material technical specification as per the scope of work. Service provider shall provide material data sheets as listed on **appendix A.** • There is no proof of correct material data sheets for supply of mechanical spares as listed in appendix A or there is a maximum of 10. **0 pts**. • Minimum 11 and maximum of 18 correct material data sheets for supply of mechanical spares as listed appendix A. **2pts** • Minimum of 19 and maximum of 36 correct material data sheets for supply of mechanical spares as listed on appendix A. **4 pts** • Minimum of 37 and maximum of 45 correct material data sheets for supply of mechanical spares as listed on and appendix A. **5 pts**	Material Data sheet specifications as per scope of work.	

1.3	**Material Safety Data Sheet (MSDS)**		**20 %**
	Material data sheets for the Catalyst and Ceramic Balls • No Material Safety Data Sheet submitted. **0 pts** • If one of the Material Safety data sheets of either the catalyst or Ceramic balls submitted**. 2 pts** • Material Safety Data Sheet for both the catalyst & Ceramic balls submitted but not detailed. 4pt. • Material Safety Data Sheet for both the catalyst & Ceramic balls Submitted with detailed information. **5 pts**	Material data sheets for the Catalyst and Ceramic Balls that provides detailed information about but not limited to, potential hazards, first aid measures, safe handling and storage.	
	TOTAL		**100%**

3.4 TET Member Responsibilities

Table 5: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4
1. Valid ISO 3834 Certificate	X	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**		**TET 3**
1. Company Experience and Capacity	X	X	X	X
2. Material Technical Specification	X	X	X	X
3. Material Safety Data Sheet (MSDS)	X	X	X	X

FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

Table 6: Acceptable Technical Risks

Risk	Description
1.	None

Table 7: Unacceptable Technical Risks

Risk	Description
1.	Material data sheets, ISO 3834, certificates not submitted.

3.6 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	None

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Submission of purchase orders without signed off delivery notes.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
[redacted]	Chief Engineer (Gx Engineering Specialist)
[redacted]	Boiler Engineering Manager
[redacted]	Engineering Manager
[redacted]	Senior Supervisor Mechanical Maintenance

5. Revisions

Date	Rev.	Compiler	Remarks
July 2025	01	[redacted]	New document

6. Development Team

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

- [redacted]
- [redacted]
- [redacted]

7. Acknowledgements

N/A

Appendix A : Material Supply List

ITEM NO	STOCK NUMBER	UNIT OF MEASURE	SHORT DESCRIPTION	LONG DESCRIPTION	QUANTITY REQUIRED
1	608942	EA	GASKET PC:ID 585 X OD 625 MM;THK 5 MM	GASKET, PRE CUT: DIMENSIONS: ID 585 X OD 625 MM; THICKNESS: 5 MM; TYPE: INSULATOR; MATERIAL: FIBER; SHAPE: ROUND; TEMPERATURE RATING: 0-1100 DEG C; ISOPLAN 1100; LYTHERM; DATA SHEET REQUIRED FOR QUALITY AND CERTIFICATION PURPOSES; BURNER OUTLET FLANGE	80
2	608938	EA	GASKET, PRE CUT: DIMENSIONS: ID 330 X OD 370 MM; THICKNESS: 5MM; TYPE: ISOLATION; MATERIAL: FIBRE CERAMIC; SHAPE: ROUND;	GASKET, PRE CUT: DIMENSIONS: ID 330 X OD 370 MM; THICKNESS: 5 MM; TYPE: ISOLATION; MATERIAL: CERAMIC FIBER; SHAPE: ROUND; TEMPERATURE RATING: 0-1100 DEG C; ISOPLAN 1100; LYTHERM; BURNER OUTLET FLANGE NO: 2; DATA SHEET REQUIRED FOR QUALITY AND CERTIFICATION PURPOSES	120

3	608939	EA	GASKET PC:ID 485 X OD 525 MM;THK 5 MM	GASKET, PRE CUT: DIMENSIONS: ID 485 X OD 525 MM; THICKNESS: 5 MM; TYPE: ISOLATION; MATERIAL: CERAMIC FIBER; SHAPE: ROUND; TEMPERATURE RATING: 0-1100 DEG C; ISOPLAN 1100; LYTHERM; DATA SHEET REQUIRED FOR QUALITY AND CERTIFICATION PURPOSES; BURNER LANCE FLANGE	80
4	608944	EA	GASKET PC:ID 1.475 X OD 1.515 M;THK 5 MM	GASKET, PRE CUT: DIMENSIONS: ID 1.475 X OD 1.515 M; THICKNESS: 5 MM; TYPE: INSULATOR; MATERIAL: CERAMIC FIBER; SHAPE: ROUND; TEMPERATURE RATING: 0-1100 DEG C; ISOPLAN 1100; LYTHERM; DATA SHEET REQUIRED FOR QUALITY AND CERTIFICATION PURPOSES; GASKET IS 5 TIMES SEGMENTED; BURNER LID GASKET	80
5	608943	EA	GASKET PC:ID 330 X OD 370 MM;THK 5 MM	GASKET, PRE CUT: DIMENSIONS: ID 330 X OD 370 MM; THICKNESS: 5 MM; TYPE: INSULATOR; MATERIAL: CERAMIC FIBER; SHAPE: ROUND; TEMPERATURE RATING: 0-1100 DEG C; ISOPLAN 1100; LYTHERM; DATA SHEET REQUIRED FOR QUALITY AND CERTIFICATION PURPOSES; BURNER INLET FLANGE	80

6	608941	EA	GASKET PC:ID 91 X OD 183 MM;THK 5 MM;190	GASKET, PRE CUT: DIMENSIONS: ID 91 X OD 183 MM; THICKNESS: 5 MM; TYPE: INSULATOR; MATERIAL: CERAMIC FIBER; SHAPE: ROUND; TEMPERATURE RATING: 0-1100 DEG C; NOMINAL FLANGE SIZE: 190 MM; ISOPLAN 1100; LYTHERM; DATA SHEET REQUIRED FOR QUALITY AND CERTIFICATION PURPOSES; FOR FLEXIBLE HOSES	300
7	621332	EA	VALVE GLB:1/2 IN;32.8 MPA;80 MM;MANUAL	VALVE, GLOBE: VALVE SIZE: 1/2 IN; DESIGN PRESSURE: 32.8 MPA; DESIGN TEMPERATURE: 427 DEG C AT 76 BAR; FACE TO FACE LENGTH: 80 MM; OPERATED: MANUAL; CONNECTION: BW; BODY MATERIAL: ASTM A105; TRIM: F6/STELLITED; GRADE: ASTM A105; STEM DESIGN: YOKE; STYLE: T PATTERN; APPLICATION: CONDENSATE DRAIN; TYPE: FLOW; DESIGN RATING: 800 LB; TEMPERATURE RATING: 427 DEG C	130

8	621237	EA	BASKET STRNR:WD 10 X HT 11 IN;SS GR 316	BASKET, STRAINER: DIMENSIONS: WD 10 X HT 11 IN; MATERIAL: SS GR 316; PERFORATION SIZE: 1/16 IN; TYPE: DUPLEX; MEDIA FOR WHICH DESIGNED: LIQUID SULPHUR; SHAPE: RECTANGULAR; APPLICATION: TRANSPORTATION AND FILTERING MOLTEN LIQUID; FLANGE: CF8M; STYLE: SSDXF; CLASS: 150LB; SIZE: 1IN; SEALS: VITON; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	70
9	56531	EA	HOSE ASSY, NON MTLC;65 MM, LG 1000 MM	HOSE ASSEMBLY, NON METALLIC: HOSE SIZE: 65 MM; LENGTH: 1.1 M; CONNECTION 1: FLANGE FLOATING (4) HOLES DIA 18, PCD 145 MM; CONNECTION 2: FLANGE FLOATING (4) HOLES DIA 18, PCD 145 MM; CORE MATERIAL: STAINLESS STEEL; COVER MATERIAL: SS BRAIDED; TYPE: FLEXIBLE CORRUGATED; FOR SO3 PLANT; SIZE 76MM OD	360

10	157226	EA	CATALYST: VANADIUM PENTOXIDE XLP-110	CATALYST: TYPE: VANADIUM PENTOXIDE XLP-110; FORM: RIBBED RING; CONTAINER: DRUM 200 L; FOR USE IN SO3 SYSTEM CONVERTER; SIZE: 12 MM; REQUIRED A MATERIAL SAFETY DATA SHEET WITH EVERY DELIVERY; SULFURIC ACID CATALIST	200
11	69159	EA	BALL:SO3 CONVERTER;20 MM;CER	BALL: TYPE: SO3 CONVERTER; DIAMETER: 20 MM; MATERIAL: CERAMIC; THE ITEM MUST BE SUPPLIED IN A SEALED 210L STL DRUM; ONE DRUM = ONE EACH	200
12	750486	EA	ORING SET:ROUND;2;VITON	O RING SET: TYPE: ROUND; APPLICATION: SEALING OF STRAINER COVERS; QUANTITY: 2; MATERIAL: VITON; SIZE RANGE: OD 60 X ID 52 XTHK 4 MM; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	200

13	750484	EA	ORING SET:ROUND;2;VITON	O RING SET: TYPE: ROUND; APPLICATION: SEALING OF STRAINER COVERS; QUANTITY: 2; MATERIAL: VITON; SIZE RANGE: OD 90 X ID 80 X THK 5 MM; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	280
14	750483	EA	ORING SET:ROUND;2;VITON	O RING SET: TYPE: ROUND; APPLICATION: SEALING OF STRAINER COVERS; QUANTITY: 2; MATERIAL: VITON; SIZE RANGE: OD 58 X ID 48 X THK 5 MM; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	280
15	750485	EA	ORINGSET: ROUND;2;VITON	O RING SET: TYPE: ROUND; APPLICATION: SEALING OF STRAINER COVERS; QUANTITY: 2; MATERIAL: VITON; SIZE RANGE: OD 20 X ID 16 X THK 2 MM; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	280

16	210360	EA	SHEET GSKT:THK 1.5 MM;LG 2 M;WD 1.5 M	SHEET, GASKET: THICKNESS: 1.5 MM; LENGTH: 2 M; WIDTH: 1.5 M; MATERIAL: NBR/WOOL MINERAL FIBER; SUPPL P/N: WEBA6000; SUPPLIER NOTE ONLY BURGMANN BRAND ACCEPTABLE, STEAM APPLICATION: PEAK TEMPERATURE; 440 DEG C, CONTINIOUS TEMPERATURE; 350 DEG C, TEMPERATURE WITH STEAM; 300 DEG C, PRESSURE: 120 BAR/1740 PSI	360
17	210362	EA	SHEET GSKT:THK 3 MM;LG 2 M;WD 1.5 M	SHEET, GASKET: THICKNESS: 3 MM; LENGTH: 2 M; WIDTH: 1.5 M; MATERIAL: NBR/WOOL MINERAL FIBER; SUPPL P/N: WEBA6000; SUPPLIER NOTE ONLY BURGMANN BRAND ACCEPTABLE, STEAM APPLICATION: PEAK TEMPERATURE: 440 DEG C, CONTINIOUS TEMPERATURE; 350 DEG C, TEMPERATURE WITH STEAM; 300 DEG C, PRESSURE: 120 BAR/1740 PSI.	360
18	189955	EA	GREASE INDSTRL: BEARING;55 DEG C;125/WA2	GREASE, INDUSTRIAL: TYPE: BEARING; TEMPERATURE RATING: 55 DEG C; VISCOSITY RATING: 125/WA2; COLOR: GREEN; CONTAINER: 125 ML; SUPPL P/N: LAGD125/WA2; FOR USE ON MILL SEAL AIR AND SO3 FAN BEARINGS, TO BE SUPPLY IN CANISTERS WIT GAS ADJUSTER ON TOP.	15000

19	718046	EA	STRAINER:DUP;WD10 X HT11 IN;149 MM;100	STRAINER: TYPE: DUPLEX; DIMENSIONS: WD10 X HT11 IN; MATERIAL: STAINLESS STEEL 316; FILTERING RETENTION: 149 MM; MESH: 100; MICRON: 149 MM; SPECIFICATION: SSDPXF	80
20	73541	EA	TRAP STEAM:BW 25 MM;110 BAR;13CRMO44	TRAP, STEAM: CONNECTION: BW 25 MM; PRESSURE RATING: 110 BAR; MATERIAL: 13CRMO44; SUPPLIER NOTE: THE ITEM MUST BE PROTECTIVE PACKED AND CLEARLY MARKED, BSV116/BK29/PN160; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	420
21	59004	EA	TRAP STEAM:BELLOWS AIR/WATER;BSP 1/2 IN	TRAP, STEAM: TYPE: BELLOWS AIR/WATER; CONNECTION: BSP 1/2 IN; PRESSURE RATING: 17 BAR; MATERIAL: PC; SUPPL P/N: 4539D; SCHRABER, FOR DRY DUST BLOWPOTS, TEMPERATURE RANGE -10 DEG C TO +50 DEG C; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	420

22	73690	EA	VALVE GATE:1/2 IN;WEDGE;THD;80 MM;MANUAL	VALVE, GATE: VALVE SIZE: 1/2 IN; TYPE: WEDGE; CONNECTION: THD; FACE TO FACE LENGTH: 80 MM; BODY MATERIAL: FST ASTM A105; TRIM: DISC/SEAT F6-HF; STEM F6; OPERATED: MANUAL; STEM DESIGN: RISING SPINDLE; STYLE: BOLTED BONNET; TEMPERATURE RATING: 0-850 DEG F; DESIGN RATING: 800 LB; CAT NO: L813; OMB; FOR ASH HOPPERS.	200
23	74272	EA	VALVE GLB:50 MM;AIR;FLANGE;CS;300 LB	VALVE, GLOBE: VALVE SIZE: 50 MM; OPERATED: AIR; CONNECTION: FLANGE; BODY MATERIAL: CS; STEM DESIGN: RISING SPINDLE; STYLE: BOLTED BONNET; DESIGN RATING: 300 LB; REFERENCE NO: 667ES; 20X6 MM; FISHER	50
24	750578	EA	BOLT ASSY:FULLY THREADED M20 X 120MM;16	BOLT, ASSEMBLY: TYPE: FULLY THREADED M20 X 120MM; NOMINAL DIAMETER: 16 MM; LENGTH: 75 MM; HEAD: 24 MM; GRADE: 8.8; MATERIAL: STAINLESS STEEL; THREAD LENGTH: 65 MM; THREAD: RIGHT HAND; NUT QUANTITY: 1; NUT MATERIAL: STAINLESS STEEL; RIGHT HAND THREAD DIRECTION, PITCH SIZE X 2.5 MM	600

25	750581	EA	BOLT ASSY:THD;20 MM;LG 75 MM;30 MM;8.8;1	BOLT, ASSEMBLY: TYPE: THREADED; NOMINAL DIAMETER: 20 MM; LENGTH: 75 MM; HEAD: 30 MM; GRADE: 8.8; MATERIAL: STAINLESS STEEL; THREAD LENGTH: 50 MM; THREAD: RIGHT HAND; NUT QUANTITY: 1; NUT MATERIAL: STAINLESS STEEL; NUT GRADE: 8.8; RIGH HAND THREAD DIRECTION,	600
26	751406	EA	BOLT ASSY:STUD;16 MM;LG 150 MM;HEXAGON;2	BOLT, ASSEMBLY: TYPE: STUD; NOMINAL DIAMETER: 16 MM; LENGTH: 150 MM; HEAD: HEXAGON; GRADE: 8.8; MATERIAL: STAINLESS STEEL,316; THREAD LENGTH: 150 MM; THREAD: HEXAGON; NUT QUANTITY: 2; NUT MATERIAL: STAINLESS STEEL ,304; THREAD 1 LENGTH X 30 MM, THREAD 2 LENGTH X 30 MM AND SHANK LENGHTH X 90MM; THREAD DIAMTER X 16 MM AND PITCH 2.5 MM; STUDS ARE THREADE ON BOTH SIDES WITH A SHANK IN THE MIDDLE	600

27	751405	EA	BOLT ASSY:STUD;16 MM;LG 140 MM;HEXAGON;2	BOLT, ASSEMBLY: TYPE: STUD; NOMINAL DIAMETER: 16 MM; LENGTH: 140 MM; HEAD: HEXAGON; GRADE: 8.8; MATERIAL: STAINLESS STEEL,316; THREAD LENGTH: 140 MM; THREAD: RIGHT HAND; NUT QUANTITY: 2; NUT MATERIAL: STAINLESS STEEL ,304; THREAD 1 LENGTH X 30 MM, THREAD 2 LENGTH X 30 MM AND SHANK LENGTH X 80MM; THREAD DIAMTER X 16 MM AND PITCH X 2.5 MM; STUDS ARE THREADED BOTH SIDES WITH A SHANK IN THE MIDDLE	600
28	751404	EA	BOLT ASSY:STUD;20 MM;LG 145 MM;HEXAGON;2	BOLT, ASSEMBLY: TYPE: STUD; NOMINAL DIAMETER: 20 MM; LENGTH: 145 MM; HEAD: HEXAGON; GRADE: 8.8; MATERIAL: STAINLESS STEEL,316; THREAD LENGTH: 145 MM; THREAD: RIGHT HAND; NUT QUANTITY: 2; NUT MATERIAL: STAINLESS STEEL ,304; THREAD 1 LENGTH X 30 MM, THREAD 2 LENGTH X 30 MM AND SHANK LENGTH X 85 MM; THREAD DIAMETER X 20 MM AND PITCH X 2.5 MM; STUDS ARE THREADE ON BOTH SIDES WITH A SHANK IN THE MIDDLE.	600

29	58802	EA	TRAP STEAM:FLOAT AIR;BSP 1/2 IN;4.5 BAR	TRAP, STEAM: TYPE: FLOAT AIR; CONNECTION: BSP 1/2 IN; PRESSURE RATING: 4.5 BAR; MATERIAL: STL; SUPPL P/N: FT14TV4-5; COMPLETE, TMO:- 156 DEG CELSIUS,(TV = THERMOSTATIC AIR VENT), FOR S03; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	160
30	751400	EA	ELBOW:UNION;8 MM;TUBE;SS;90 DEG	ELBOW: TYPE: UNION; SIZE: 8 MM; CONNECTION: TUBE; MATERIAL: STAINLESS STEEL; DEGREE: 90 DEG; LENGTH X 29.4 MM, NUT X 15.87 MM; TUBE TO TUBE CONNECTION	500
31	750579	EA	UNION: PIPE;8 MM; THD;SS	UNION: TYPE: PIPE; SIZE: 8 MM; CONNECTION: THREADED; MATERIAL: STAINLESS STEEL; 1/2 INCH THREADED PITCH AND 20 MM THREADE LENGTH	500
32	750488	EA	INSERT TUBE:OD 14.28 MM;ID 8 MM	INSERT, TUBE: OUTSIDE DIAMETER: 14.28 MM; INSIDE DIAMETER: 8 MM; MATERIAL: STAINLESS STEEL, 316; UNION TEE, LENGTH X 30 MM; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	500

33	751401	EA	CONNECTOR:NPT THREAD;DIA9.53 X LG39.5 MM.	CONNECTOR: TYPE: NPT THREAD; DIMENSIONS: DIA9.53 X LG39.5 MM; MATERIAL: STAINLESS STEEL; TUBE TO MALE CONNECTOR	500
34	751402	EA	CONNECTOR:TAPERED THREADED;SS	CONNECTOR: TYPE: TAPERED THREADED; DIMENSIONS: DIA8 X LG 41 XTHK 1 MM; MATERIAL: STAINLESS STEEL; TUBE TO MALE CONNECTOR	500
35	750491	EA	INSERT TUBE:OD 12 MM;ID 8 MM.	INSERT, TUBE: OUTSIDE DIAMETER: 12 MM; INSIDE DIAMETER: 8 MM; MATERIAL: STAINLESS STEEL, 316; FRONT FERRULE, 8 MM PIPE FITTING CONNECTION; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	200
36	750487	EA	INSERT TUBE:OD 12 MM;ID 12 MM	INSERT, TUBE: OUTSIDE DIAMETER: 12 MM; INSIDE DIAMETER: 12 MM; MATERIAL: STAINLESS STEEL, 316; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	200

37	750489	EA	INSERT TUBE:OD 8 MM;ID 6 MM	INSERT, TUBE: OUTSIDE DIAMETER: 8 MM; INSIDE DIAMETER: 6 MM; MATERIAL: STAINLESS STEEL, 316; LENGTH X 6.1 M; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	200
38	753602	EA	ELBOW:ASTM A234 WPD;21.3 MM;BUTT WELD;90	ELBOW: TYPE: ASTM A234 WPD; SIZE: 21.3 MM; CONNECTION: BUTT WELD; MATERIAL: CARBON STEEL; DEGREE: 90 DEG; RADIUS: 38.1 MM; SCHEDULE: 40; GRADE: ANSI B16.9; SPECIFICATION: ANSI B16.9; BUTT WELD FITTING, WALL THICKNESS X 2.7 MM AND ID X 15.88	300
39	750580	EA	ELBOW:ASTM A234 WPD;21.3 MM;BUTT WELD;90	ELBOW: TYPE: ASTM A234 WPD; SIZE: 21.3 MM; CONNECTION: BUTT WELD; MATERIAL: CARBON STEEL; DEGREE: 90 DEG; RADIUS: 38.1 MM; SCHEDULE: 80; GRADE: ANSI B16.9; SPECIFICATION: ANSI B16.9; BUTT WELD FITTING, WALL THICKNESS X 3.73 MM AND ID X 13.9 MM	300
40	63690	EA	GREASE: BEARING; 20 DEG C;CAN 1 KG	GREASE: TYPE: BEARING; TEMPERATURE RATING: 20 DEG C; CONTAINER: CAN 1 KG; REFERENCE NO: LGHT3; REQUIRE A MATERIAL SAFETY DATA SHEET WITH EVERY DELIVERY	18000

41	69158	EA	TUBE LNCE:64053001L00006	TUBE, LANCE: DRAWING NO: D64053001 L00006 REV 1; REFERENCE NO: 64053001L00006; INJECTION FOR S03 PLANT INJECTION TO AIR HEATER OUTLET; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	144
42	649006	EA	VALVE GLB:1 IN;103 BAR;-18 TO 232 DEG C	VALVE, GLOBE: VALVE SIZE: 1 IN; DESIGN PRESSURE: 103 BAR; DESIGN TEMPERATURE: -18 TO 232 DEG C; FACE TO FACE LENGTH: 197 MM; OPERATED: ACTUATOR PNEUMATIC; CONNECTION: FLANGE RF; BODY MATERIAL: STL GR WCC; TRIM: BOLTED BODY/BONNET; PLUG SS 416; RING RETAINER CB7CU-1SST; SEAT RING SS 541600; STEM 3/8 IN SS 316; GRADE: WCC; CL 300; SOFTGOODS: PTFE; STYLE: SINGLE PORT; APPLICATION: S03 PLANT COMMON STEAM SUPPLY; SPECIFICATION: NPS1-EZ; DESIGN RATING: CL 300; REFERENCE NO: EZ-6-80155; BONNET STYLE PLAIN; GASKETS NICKEL ALLOY N06600; STUDS SA-193-B7/ NUTS NCF2; FISHER CONTROL VALVE, ACTUATOR SPRING/DIAPHRAGM, ACTUATOR 667134I; SEAT METAL	18

43	41552	EA	FILTER AIR: PRIMARY INLET; GLASS FIBER	FILTER, AIR: TYPE: PRIMARY INLET; DIMENSIONS: WD 290 X LG 590 X DP 360 MM; MATERIAL: GLASS FIBER; AP	300
44	161400	EA	GREASE: BEARING;20 DEG C; CAN 1 KG	GREASE: TYPE: BEARING; TEMPERATURE RATING: 20 DEG C; CONTAINER: CAN 1 KG; REFERENCE NO: LGHT3; REQUIRE A MATERIAL SAFETY DATA SHEET WITH EVERY DELIVERY	12000
45	152059	EA	GLASS SGHT: DIA 100 X THK 10 MM;GLASS;500	GLASS, SIGHT: DIMENSIONS: DIA 100 X THK 10 MM; MATERIAL: GLASS; COLOR: TRANSPARENT; RATING: 500 DEG C; QUARTS, QUALITY: HERASIL3, POLISHED ON BOTH SIDES, FOR USE ON SULPHUR FURNACE	48