

	<p style="text-align: center;"><b>Scope of Work</b></p>	<p style="text-align: center;"><b>Generation</b></p>
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**Compiled by:**



**KM Losaba**  
System Engineer

Date: 07/11/2024

**Supported by:**



**SM Buthelezi**  
System Engineer

Date: 2024/11/07

**Supported by:**



**G Nkuna**  
Auxiliary  
Engineering  
Manager

Date: 2024/11/07

**Authorized by**



**J Mathobela**  
Engineering  
Manager

Date: 2024/11/07

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### CONTROLLED DISCLOSURE

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## 1. INTRODUCTION

Matimba Power Station uses valves and strainers to control processes in plants such water treatment plant and LPS services.

## 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 Valves and strainer 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 valves and strainers 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

	Material No	Material description
1	67091	BODY, VALVE: VALVE STYLE: BUTTERFLY; VALVE SIZE: 150 MM; MATERIAL: CI DUCTILE; CONNECTION: CLAMPE; RATING: 16 BAR; SUPPL P/N: 150-612XG6S; SHAFT: 316 STAINLESS STEEL DISC WITH HEXAGON MACHINED END, DISC MATERIAL: 316 STAINLESS STEEL WITH HEXAGON MACHINED CENTRE HOLE, LINER MATERIAL: E.P.D.M., BONDED LINER, WORKING PRESSURE: 10 BAR, SEAT TEST PRESSURE: 18 BAR, TEST PRESSURE: 24 BAR, MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
2	670314	ASSEMBLY: TYPE: DIAPHRAM VALVE; APPLICATION: SULPHARIC ACID; DIMENSIONS: LG 310 MM; MATERIAL: CARBON STEEL; COMPRISING: VALVE & ACTUATOR ES64; WITH SAFE SPRAY CLOSE; COMPLETE WITH ND100 VALVE; RUBBER LINED INTERNALLY WITH BUTYL RUBBER ND100; 8 HOLES X M16; PSC 180MM
3	636185	ASSEMBLY: TYPE: BALL ACTUATOR VALVE; APPLICATION: AUX COOLING POND MAKE-UP; DIMENSIONS: 500 X 250 MM; MATERIAL: STAINLESS STEEL; SPECIFICATION: ANSI 150; COMPRISING: ACTUATOR; VALVE; WITH TT SEATS COMPLETE WITH S/STEEL MOUNTING HIT & HABONIM C45 ACTUATOR; 8 BOLTS FLAGED

### CONTROLLED DISCLOSURE

4	67438	VALVE, CHECK: TYPE: SWING WAFER; VALVE SIZE: 700 MM; DESIGN RATING: 1.6 MPA; TEMPERATURE RATING: 80 DEG C; CONNECTION: FLANGE RF; BODY MATERIAL: CI; FACE TO FACE LENGTH: 1.437 M; OPERATED: NRV SWING OPERATED; STYLE: BOLTED CAP; TRIM: BOLTED BONNET/HINGE PIN SS; APPLICATION: AUX COOLING CLOSED CIRCUIT DISCHARGE PIPES; GRADE: CI 250; SS 304; 24 X 30 MM HOLES; 840 MM PCD; UNLINED; AIV CLASS 16; DRILLED TO BS 4504 TABLE 10/3; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
5	68327	BONNET, VALVE: VALVE STYLE: DIAPHRAGM; VALVE SIZE: 50 MM; MATERIAL: CI; REFERENCE NO: DM20/E/9/81; ASSEMBLY FOR SAUNDER TYPE A WITH RISING HANDWHEEL INDICATION; LENGTH:120MM; WIDTH:120MM; HEIGHT:126MM
6	224917	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 500 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 80 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CAST IRON; OPERATED: GEARBOX; TRIM: DISC SS GR 304; SOFTGOODS LINER; GEARBOX AND HANDWHEEL TO BE SUPPLIED
7	63341	VALVE, BUTTERFLY: TYPE: GEARBOX OPERATED; VALVE SIZE: 600 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGE; BODY MATERIAL: CI; FACE TO FACE LENGTH: 180 MM; OPERATED: GEARBOX; APPLICATION: AUXILIARY COOLING; TEMPERATURE RATING AMBIENT; 20 X 30 MM HOLES, PCD: 710 MM, GEARBOX TYPE MDFS3, CAST IRON CONSTRUCTION WITH PROTECTIVE COATING; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
8	67101	BODY, VALVE: VALVE STYLE: BUTTERFLY; VALVE SIZE: 200 MM; MATERIAL: CI DUCTILE; CONNECTION: CLAMPE; SUPPL P/N: 200-612X6S; SHAFT: 316 STAINLESS STEEL WITH HEXAGON MACHINED END, DISC MATERIAL: 316 STAINLESS STEEL WITH HEXAGON MACHINED CENTRE HOLE, LINER MATERIAL: E.P.D.M., WORKING PRESSURE: 10 BAR, SEAT TEST PRESSURE: 18 BAR, TEST PRESSURE: 24 BAR, MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
9	67103	BODY, VALVE: VALVE STYLE: BUTTERFLY; VALVE SIZE: 300 MM; MATERIAL: CI; RATING: 16 BAR; SUPPL P/N: 300-515-GO-6S; REFERENCE NO: 300-515-GO-6S; GEAR OPERATED, SHAFT: 316 STAINLESS STEEL SPLINED END, DISC: 316 STAINLESS STEEL SPLINED CENTRE HOLE, LINER: E.P.D.M. SEAT TEST PRESSURE: 18 BAR: TEST PRESSURE: 24 BAR, MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

10	67092	BODY, VALVE: VALVE STYLE: BUTTERFLY; VALVE SIZE: 300 MM; MATERIAL: CI DIN 50049/3.1B; CONNECTION: WELD ON; RATING: 16 BAR; SPECIFICATION: TEST/CERTIFICATION DIN 50049/3.1B; REFERENCE NO: 300-515-6S; LEVER OPERATED, SHAFT 316 SS WITH HEX MACHINED END, DISC 316 SS WITH HEX CENTRE HOLE, LINER: E.P.D.M. SEAT TEST PRESSURE 18 BAR, TEST PRESSURE 24 BAR; MAT/TEST/CERT TO BE SUPPLIED ON DELIVERY
11	224697	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 450 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 80 DEG C; CONNECTION: FLANGE; OPERATED: GEAR; TRIM: DISC SS GR 304; SOFTGOODS: LINER EPDM; MODEL NO: 615; GEARBOX AND HANDWHEEL TO BE SUPPLIED; LINER REPLACEABLE
12	746521	DIAPHRAGM, VALVE: DIMENSIONS: WD 251 X HT 449 MM; MATERIAL: CAST IRON; VALVE SIZE: 50 MM; TEMPERATURE RATING: -10 TO 100 DEG C; VALVE TYPE: WEIR; REFERENCE NO: DM22/E/9/81; CONNECTION FLANGE, DIAPHRAGM MATERIAL NBR GR B, FACE TO FACE LENGTH 127 MM, OPERATED HANDWHEEL, SAUNDERS, TYPE A, FITTED WITH ES61 ACTUATOR, MATERIAL AND
13	67334	TEST CERTIFICATES TO DIN 50049/3.1B.
14	68715	DIAPHRAGM, VALVE: DIMENSIONS: ID 245 X OD 370 X THK 3 MM; MATERIAL: RUBBER; REFERENCE NO: G56180001; SUPPL P/N: G56.180.001
15	211416	DIAPHRAGM, VALVE: MATERIAL: NITRILE; VALVE SIZE: 420 MM; SUPPL P/N: 309/A309CMOD; FOR SAUNDERS ACTUATOR; RATING: 10BAR; SIZE: 390MM PCD
16	67041	DIAPHRAGM, VALVE: DIMENSIONS: ID 8.5 X OD 69.7 X THK 2.5 MM; MATERIAL: RUBBER; SUPPL P/N: 2953.2500; REFERENCE NO: 2953-2500; SPARES FOR H2 PRESSURE REDUCER VALVE; TYPE: 9681101/F; TYPE: MEMBRANE
17	67028	DIAPHRAGM, VALVE: DIMENSIONS: DIA (110 X 125) X THK 95 MM; MATERIAL: RUBBER; VALVE SIZE: 125 X 110 MM; SUPPL P/N: MKW61AA001; MKW71AA001; REFERENCE NO: 350104040716; 5.01.23.05; FOR CAMFLEX VALVE SERIE 35002
18	241278	DIAPHRAGM, VALVE: DIMENSIONS: SQ 50 MM; VALVE SIZE: 50 MM; RATING FLUORO RUBBER, FOR KB TYPE, SUITABLE FOR USE ON SULPHURIC ACID 98PCT, GRADE 226
19	78990	DIAPHRAGM, VALVE: DIMENSIONS: WD 101 X LG 110 X THK 5 MM; MATERIAL: BUTYL GR B; VALVE SIZE: 50 MM; REFERENCE NO: K050BBKB50B; FOR TYPE: KB
20	78989	DIAPHRAGM, VALVE: DIMENSIONS: WD 105 X LG 124 X THK 6 MM; MATERIAL: BUTYL GR B FIBER REINFORCED; VALVE SIZE: 50 MM; FOR SAUNDERS VALVE; TYPE: A; SIZE: LG 130MM X 110MM WIDE X 7MM THICK; 4 X 12MM HOLES
21	596346	GATE, VALVE: TYPE: RESILIENT SEAL; VALVE SIZE: 80 MM; MATERIAL: CI; VALVE TYPE: FLANGE; PCD 160MM; HOLES=8; PRESSURE RATING: 16BAR; FACE TO FACE LENGTH 229MM; FLANGED THICKNESS 20MM

**CONTROLLED DISCLOSURE**

22	717392	GATE, VALVE: TYPE: RISING SPINDLE; VALVE SIZE: 100 MM; MATERIAL: CARBON STL; VALVE TYPE: BOLTED BONNET; FLANGED 8 HOLE; HANDWHEEL OPERATED; 16 BAR PRESSURE RATED; RESILIENT SEAL
24	67614	BODY, VALVE: VALVE STYLE: CHECK; VALVE SIZE: 100 MM; MATERIAL: SS GR 316; CONNECTION: WAFER; REFERENCE NO: 3000/S1308/0; 3284009201; 3284/009/201; FOR WAFER SWING, UNLINED, 61MM OVERALL LENGTH
25	207778	VALVE, CHECK: TYPE: VOSA NON RETURN REFLUX; VALVE SIZE: 400 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGE; BODY MATERIAL: SGI; FACE TO FACE LENGTH: 860 MM; OPERATED: AUTOMATIC; FIG NO: 6254; TABLE 16/3; NUMBER OF HOLES 16 X M24; PITCH DIA 510.5 MM
26	617699	ORIFICE, PLATE: TYPE: CONCENTRIC SHARP EDGED; PIPE SIZE: NB 150; ORIFICE SIZE: 110 MM; DIMENSIONS: THK 3.5 MM; MATERIAL: SS GR 316; FACE TO FACE 85.5 MM; COMPLETE WITH TWO CARRIER RINGS (NOT FLANGED); FLANGE RATING: BS4504; LP & HP SIDE CONNECTION TYPE: THREADED NPT; LP & HP SIDE CONNECTION ORIENTATION; LINEAR; NOT OFF-SET; LP & HP SIDE CONNECTION SIZE: 1/2 INCH; GENERAL ARRANGEMENT DRAWING TO BE SUPPLIED; MEDIUM: DEMIN WATER; RUBBER PIPE; INNER DIAMETER OF CARRIER: 146 MM; BS
27	732372	GATE, VALVE: TYPE: PENSTOCK; VALVE SIZE: 600 X 600 MM; MATERIAL: CAST IRON; VALVE TYPE: WALL MOUNTED; DRAWING NO: 20.58/56801; WTP GRAVITY SAND FILTER OFF SEATING PRESSURE WALL MOUNTED PENSTOCK VALVE
28	247218	STRAINER, PIPING: TYPE: RESIN TRAP; DIMENSIONS: DIA 45 MM X LG 1.22 M; PRESSURE RATING: 6 BAR; MATERIAL: SS GR 316; CONNECTION: BSP; MESH: 1.17 M; MESH LENGTH: 1.17 M; CONNECTION SIZE: 40 MM; 1 1/2 INCH; PLUS 10 MM;THREADED END 50 MM LG PIPE WITH 48 MM OD AND 42 MM ID; BSP THREADED FOR 21 MM; CAPPED AT ONE END AND THREADED AT THE OTHER END; USED IN WATER TREATMENT PLANT
29	69011	STRAINER: TYPE: BOTTOM; DIMENSIONS: DIA 200 MM X LG 1.29 M; MATERIAL: STAINLESS STEEL; PROFILE WIRE FILTER LANCE DN150; COMPLETE WITH WELDING RING; GROOVED RING WITH O-RING 126X7MM AND COUNTER RING
30	730998	VALVE, CHECK: TYPE: FLOW CONTROL; VALVE SIZE: ID 42 X OD 95 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 30 DEG C; CONNECTION: WAFER; BODY MATERIAL: TEFLON; FACE TO FACE LENGTH: 20 MM; OPERATED: SWING; .

**CONTROLLED DISCLOSURE**

31	219036	VALVE, BALL: VALVE SIZE: 100 MM; DESIGN RATING: 150 LB; TEMPERATURE RATING: 80 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CS; OPERATED: LEVER; STYLE: 1; TRIM: BALL SS; SEAT PTFE; SOFTGOODS: PTFE; PORT TYPE: REDUCED BORE; GRADE: WCB; REFERENCE NO: IPV523R100
32	68301	VALVE, BALL: VALVE SIZE: 100 MM; DESIGN RATING: 20; TEMPERATURE RATING: 30 DEG C; CONNECTION: FLANGE; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 229 MM; OPERATED: ACTUATOR; STYLE: 2 WAY; TRIM: BALL SS GR 316; SEAT PTFE; GRADE: 316; REFERENCE NO: AF51-6666TT; WORCESTER; WIDTH: 200 MM; HEIGHT: 201 MM; BORE: 82.6 MM; FITTED WITH NORBO DOUBLE ACTING ACTUATOR NO 30 RKA 40 WITH MOUNTING BRACKETS; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
33	67595	VALVE, BALL: VALVE SIZE: 15 MM; DESIGN RATING: 56 BAR; TEMPERATURE RATING: 7 BAR AT 230 DEG C; CONNECTION: BSP; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 53 MM; OPERATED: LEVER; STYLE: 2 WAY; TRIM: BALL SS; SEAT PTFE; GRADE: 316
34	67086	VALVE, BALL: VALVE SIZE: 20 MM; DESIGN RATING: 16 BAR; CONNECTION: THD UNION FEMALE; BODY MATERIAL: PVC; OPERATED: T HANDLE; STYLE: 2 WAY; TRIM: SEAT TEFLON; SOFTGOODS: O-RING VITON; REFERENCE NO: 668306; DURAPIPE, 1/2 IN; ABS; FOR USE WITH 20 MM PVC PIPE, SOLVENT WELDED ENDS MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY, FOR USE ON WATER TREATMENT PLANT
35	619162	VALVE, BALL: VALVE SIZE: 20 MM; DESIGN RATING: 36 BAR; TEMPERATURE RATING: 80 DEG C; CONNECTION: BW; BODY MATERIAL: SS GR 316L; FACE TO FACE LENGTH: 120 MM; OPERATED: HAND; TRIM: STAINLESS STEEL; SOFTGOODS: VITON; PORT TYPE: BALL 20 MM; APPLICATION: TURBINE CONTROL OIL; GRADE: ASME 16.34; TYPE: FLEXIBLE HOSE ISOLATION; VALVE MUST BE PROVIDED WITH LOCKING FACILITY FOR BOTH FULLY OPEN & CLOSED POSITIONS; VALVE MATERIAL CERTIFICATE & COMPONENT MATERIAL LIST MUST BE PROVIDED
36	68297	VALVE, BALL: VALVE SIZE: 20 MM; CONNECTION: FBSP; BODY MATERIAL: STAINLESS STEEL; OPERATED: LEVER; STYLE: 2 WAY; REFERENCE NO: 1002-2; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
37	70127	VALVE, BALL: VALVE SIZE: 25 MM; DESIGN RATING: 150 LB; TEMPERATURE RATING: 0-100 DEG C; CONNECTION: FLANGE RF; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 127 MM; OPERATED: LEVER; STYLE: 2 WAY; SPLIT BODY; TRIM: BALL SS; SEAT PTFE; SOFTGOODS: SEALS PTFE; PORT TYPE: FULL BORE; GRADE: 316; REFERENCE NO: HF3; 25HF3CF8M; FLOATING; ASME B16.5; DRILLING; COMPLETE BODY; P.C.D. 79 MM; 4 X 16 MM HOLES

**CONTROLLED DISCLOSURE**

38	67080	VALVE, BALL: VALVE SIZE: 25 MM; DESIGN RATING: 56 BAR; TEMPERATURE RATING: 7 BAR AT 230 DEG C; CONNECTION: FBSP; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 72 MM; OPERATED: LEVER; STYLE: 2 WAY; TRIM: BALL SS; SEAT PTFE; GRADE: 316; SUPPL P/N: VR2000; ROUND BODY; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
39	67278	VALVE, BALL: VALVE SIZE: 50 MM; DESIGN RATING: 19.3 BAR; TEMPERATURE RATING: 10 BAR AT 200 DEG C; CONNECTION: FLANGE RF; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 178 MM; OPERATED: LEVER; STYLE: 2 WAY; SPLIT BODY; TRIM: BALL SS GR 316; GRADE: 316; FIG NO: ASA 150/VDN F316; REFERENCE NO: 11/86-N2554; UNDRILLED; BREMMER; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
40	67283	VALVE, BALL: VALVE SIZE: 50 MM; CONNECTION: THD FEMALE; BODY MATERIAL: SS CD PLTD; FACE TO FACE LENGTH: 112 MM; OPERATED: LEVER; STYLE: 2 WAY; TRIM: BALL SS; SEAT PTFE; PORT TYPE: REDUCED BORE; 32MM
41	68201	VALVE, BALL: VALVE SIZE: 80 MM; DESIGN RATING: 19.3 BAR; TEMPERATURE RATING: 10 BAR AT 200 DEG C; CONNECTION: FLANGE RF; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 203 MM; OPERATED: ACTUATOR; STYLE: 2 WAY; TRIM: SS GR 316; SEAT PTFE REINFORCED; SOFTGOODS: SEALS PTFE; GRADE: 316; CF8M; MODEL NO: HF-3 FULL BORE; TYPE: ONK FIG: N-715SS (CF8M), 150LB, FIRE SAFE TO BS 5146, LEVER OPERATED, FLANGED AND DRILLED TO BS4504 TABLE 10 CLASS 16, FLANGED 8 X 18 DIAMETER HOLES ON 160 MM PCD, VALVE LENGTH: 203 MM, PRESSURE RATING: 100 BAR
42	527768	VALVE, BUTTERFLY: VALVE SIZE: 300 MM; DESIGN RATING: 16 BAR; CONNECTION: FLANGE; FACE TO FACE LENGTH: 110 MM; OPERATED: ACTUATOR; APPLICATION: RAW WATER; DOUBLE FLANGE; NUMBER OF BOLTS (12); BOLT SIZE 22 MM; PCD 395 MM
43	242054	VALVE, BUTTERFLY: VALVE SIZE: 350 MM; DESIGN RATING: 10 BAR; CONNECTION: DOUBLE FLANGE (16) DIA 22 MM, PCD 460 MM; BODY MATERIAL: DI; FACE TO FACE LENGTH: 140 MM; OPERATED: GEARBOX; TRIM: DISC STL; SOFTGOODS: SEAL RING EPDM; TWO HOLES ON TOP, M20 BOLT
44	242053	VALVE, BUTTERFLY: VALVE SIZE: 500 MM; DESIGN RATING: 10 BAR; CONNECTION: DOUBLE FLANGE (20) DIA 26 MM, PCD 600 MM; BODY MATERIAL: DI; FACE TO FACE LENGTH: 155 MM; OPERATED: GEARBOX; TRIM: DISC STL; SOFTGOODS: SEAL RING EPDM; TWO HOLES ON TOP, M24 BOLT

**CONTROLLED DISCLOSURE**

45	527764	VALVE, BUTTERFLY: TYPE: DOUBLE FLANGED; VALVE SIZE: 400 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGE; BODY MATERIAL: CI; FACE TO FACE LENGTH: 145 MM; OPERATED: GEARBOX; APPLICATION: RAW WATER; DOUBLE FLANGED; NUMBER OF BOLTS (16); BOLT SIZE 26 MM; PCD 525 MM; FOR USE AT RECOVERY WATER PUMP SACTION VALVES
46	577268	VALVE, BUTTERFLY: TYPE: DOUBLE OFFSET; VALVE SIZE: 700 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 37 DEG C; CONNECTION: FLANGE; BODY MATERIAL: SGI; FACE TO FACE LENGTH: 290 MM; OPERATED: GEAR; APPLICATION: COOLING WATER; PCD=830 MM
47	577267	VALVE, BUTTERFLY: TYPE: DOUBLE OFFSET; VALVE SIZE: 800 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 37 DEG C; CONNECTION: FLANGE; BODY MATERIAL: SGI; FACE TO FACE LENGTH: 241 MM; OPERATED: GEAR; APPLICATION: COOLING WATER; PCD=940 MM
48	67090	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 MM; DESIGN RATING: 980 KPA; TEMPERATURE RATING: 0-120 DEG C; CONNECTION: CLAMP; BODY MATERIAL: CI/DI; FACE TO FACE LENGTH: 350 MM; OPERATED: LEVER TRIGGER; TRIM: DISC/SHAFT SCS14; SEAT EPDM; SOFTGOODS: EPDM; SUPPL P/N: 100-612X6S; VALVE SHAFT 316 STAINLESS STEEL DISC WITH HEXAGON MACHINED END; DISC MATERIAL: 316 STAINLESS STEEL WITH HEXAGON CENTRE HOLE; LINER MATERIAL E.P.D.M; WORKING PRESSURE 10 BAR; SEAT TEST PRESSURE 18 BAR; BODY TEST PRESSURE 24 BAR; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
49	67133	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 MM; CONNECTION: BOLTED; BODY MATERIAL: CI; FACE TO FACE LENGTH: 50 MM; OPERATED: LEVER TRIGGER; TRIM: DISC CI; REFERENCE NO: WH2; UNLINED BODY; LEVER OPERATED WITH SPRING LOADED LOCK; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
50	66750	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 80 DEG C; CONNECTION: CLAMP; BODY MATERIAL: CAST IRON; FACE TO FACE LENGTH: 52 MM; OPERATED: LEVER; TRIM: DISC SS; SEAT EPDM; REFERENCE NO: 3T6PSGX4; EPDM RUBBER LINED; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
51	67284	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 250 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 120 DEG C; CONNECTION: SPLINED END; BODY MATERIAL: DI; FACE TO FACE LENGTH: 100 MM; OPERATED: GEAR; TRIM: DISC/SHAFT SS GR 316; SEAT EPDM; SUPPL P/N: 250-612XG06S; LINER EPDM; SEAT TEST PRESSURE 18 BAR; BODY TEST PRESSURE 24 BAR; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

52	67102	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 250 MM; DESIGN RATING: 16 BAR; CONNECTION: CLAMP; BODY MATERIAL: CI; OPERATED: LEVER; TRIM: DISC SCS13/14; SEAT EPDM; SHAFT SS GR 316; REFERENCE NO: 250-515-LO-6S; 24 BAR; SHAFT WITH HEXAGON MACHINED END; DISC STAINLESS STEEL 316 WITH HEXAGON MACHINED CENTRE HOLE; LINER: E.P.D.M; SEAT TEST PRESSURE: 18 BAR; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
53	67134	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 350 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: CLAMPED; BODY MATERIAL: CAST IRON; FACE TO FACE LENGTH: 96 MM; OPERATED: GEARBOX; TRIM: DISC SS GR 304; SEAT RUBBER; SOFTGOODS: LINER RUBBER; APPLICATION: W.T.P AND CPP; SPECIFICATION: MAT/TEST DIN 50049/3.1B; MODEL NO: 615 X
54	66749	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 130 DEG C; CONNECTION: BOLTED; BODY MATERIAL: CI; FACE TO FACE LENGTH: 96 MM; OPERATED: ACTUATOR; TRIM: DISC STL 13CR; SEAT EPDM; REFERENCE NO: V7716P3XV00; V771693XV00DN400; PN 110; T10; SERIES 12.6; LINED; PCD 26 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
55	68940	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 MM; DESIGN RATING: 10 BAR; CONNECTION: CLAMP; BODY MATERIAL: CI; OPERATED: GEARBOX; TRIM: DISC SS; REFERENCE NO: 3594-1; TEMPERATURE RATING AMBIENT, FLANGELESS
56	585799	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 60-70 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CAST IRON; FACE TO FACE LENGTH: 100 MM; OPERATED: MANUAL; TRIM: DISC SS GR 304; SPECIFICATION: DIN50049/3.1B; MODEL NO: 615 X
57	70469	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 50 MM; DESIGN RATING: 980 KPA; TEMPERATURE RATING: 0-120 DEG C; CONNECTION: CLAMP; BODY MATERIAL: FC250; OPERATED: LEVER TRIGGER; TRIM: DISC SCS14; SOFTGOODS: EPDM; SUPPL P/N: 050515 4S; OKUMURA
58	66748	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 500 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 120 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI; FACE TO FACE LENGTH: 150 MM; OPERATED: ACTUATOR; TRIM: SPINDLE SS; APPLICATION: TANK 1 RECYCLE; REFERENCE NO: V7716P3XV00B; PCD=620 MM; 20 HOLES; RUBBER INSERT; ROUND CASING OF CAST IRON WITH MOUNTING HOLES AROUND; O/DIAMETER 700 MM; RUBBER INSERTION 35 MM THICK; DRILLED TO B/S 4504 TABLE 10 USED ON MAJ 11/12AA101; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

59	67279	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 65 MM; DESIGN RATING: 16 BAR; CONNECTION: CLAMP; BODY MATERIAL: CI; OPERATED: LEVER; TRIM: DISC/SHAFT SS GR 316; SEAT EPDM; REFERENCE NO: 065-515-6S; DISC/SHAFT HEXAGON MACHINED CENTRE HOLE; LINER: E.P.D.M; SEAT TEST PRESSURE: 18 BAR; BODY TEST PRESSURE: 24 BAR; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
60	67089	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 80 MM; DESIGN RATING: 1 MPA; TEMPERATURE RATING: 0-120 DEG C; CONNECTION: CLAMP; BODY MATERIAL: CI; FACE TO FACE LENGTH: 281; OPERATED: LEVER TRIGGER; TRIM: DISC/SHAFT SS GR 316/SCS14; SEAT EPDM; REFERENCE NO: 612X; WAFER TYPE WITH PIPING GUIDE RIB; VALVE SHAFT: 316 SS WITH HEXAGON MACHINED END; DISC WITH HEXAGON MACHINED CENTRE HOLE; DISC MATERIAL: 316 SS; LINER MATERIAL: E.P.D.M; WORKING PRESSURE: 16 BAR; MAX SERVICE PRESSURE 1 MPA; HYDROSTATIC SEAT TEST 1.5 MPA HYDROSTATIC SHELL TEST: 1.1; VALVE-END DIMENSIONS TO FIT ACTUATOR BRACKET: (SQUARE END=70 MM; HOLE SIZE=9 MM & HOLE CENTRE=50 MM); VALVE DIMENSIONS: ID 84 MM; OD 115 MM; THICKNESS 46 MM; DISC CENTRE 89 MM FROM BOTTOM AND 192 MM FROM TOP; LEVER LENGTH 200 MM; LEVER TO BE DELIVERED WITH CABLE TIED TO VALVE BODY; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
61	68400	VALVE, CHECK: VALVE SIZE: 20 MM; DESIGN RATING: 20 BAR; TEMPERATURE RATING: 9 BAR AT 180 DEG C; CONNECTION: THD FEMALE; BODY MATERIAL: BRZ; STYLE: THD CAP; TRIM: DISC BRZ; MODEL NO: SS3501/M; REFERENCE NO: ES701; TYPE LIFT; IN LINE; CKI; FOR USE ON BOILER; MATERIAL AND TEST CERTIFICATES, TO DIN 50049/3.1B, ARE TO BE SUPPLIED ON DELIVERY
62	63362	VALVE, CHECK: TYPE: BALL; VALVE SIZE: 32 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: SOLVENT WELD; BODY MATERIAL: ABS/PVC; FACE TO FACE LENGTH: 118 MM; OPERATED: HAND; TRIM: PVC; REFERENCE NO: 11668308; INLINE; PLAIN SOCKETED ENDS; FOR USE WITH 32 MM OD PIPE; CODE 12836308; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY; 25 MM
63	68200	VALVE, CHECK: TYPE: BALL; VALVE SIZE: 41 X 28 MM; CONNECTION: CLAMP; BODY MATERIAL: STAINLESS STEEL; TRIM: BALL SS; REFERENCE NO: 3050458030R; ASSY; CONSIST OF 1 BALL- 40MM O/D; 1 SLEEVE 63MM O/D; 52MM HIGH; 1 FLANGE WITH 2 RAISED FACES; O/D 63MM; I/D 28MM; 10MM THICK

**CONTROLLED DISCLOSURE**

64	67981	VALVE, CHECK: TYPE: LIFT; VALVE SIZE: 15 MM; DESIGN RATING: 40 BAR; TEMPERATURE RATING: 14.5 BAR AT 450 DEG C; CONNECTION: BW; BODY MATERIAL: C22.8; FACE TO FACE LENGTH: 130 MM; OPERATED: PRESSURE; STYLE: BOLTED CAP; TRIM: SEAT X5CRNI GR 18.9; REFERENCE NO: RXS1240; TYPE LIFT; HARD FACED; WITH WELD IN ENDS; 21.3 X 2 MM; DIN 2559; CODE 22; INSTALLATION; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
65	63350	VALVE, CHECK: TYPE: PISTON; VALVE SIZE: 80 MM; DESIGN RATING: 16 BAR; CONNECTION: FLANGE RF; FACE TO FACE LENGTH: 310 MM; STYLE: BOLTED CAP; TRIM: STAINLESS STEEL; GRADE: GG25; REFERENCE NO: B0AH; BOAH; MANUFACTURED BY KSB; PCD 160 MM; 8 X 18 MM HOLES; TO: BS 4504; TABLE 10; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
66	624473	VALVE, CHECK: TYPE: DELIVERY; VALVE SIZE: DIA 152 X HT 68 MM; DESIGN RATING: 11 BAR; TEMPERATURE RATING: 180 DEG C; CONNECTION: INTERNAL; BODY MATERIAL: STEEL; FACE TO FACE LENGTH: 68 MM; OPERATED: AIR; APPLICATION: ELECTRIC COMPRESSOR; OEM P/N: PSB 029 083
67	68929	VALVE, CHECK: TYPE: SWING; VALVE SIZE: 100 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGE; BODY MATERIAL: CI; FACE TO FACE LENGTH: 292 MM; OPERATED: BACK PRESSURE; STYLE: FLANGED; TRIM: F6; APPLICATION: FUEL OIL; GRADE: WCB; REFERENCE NO: 12680; SERIES:VALVOMETAL; PCD 180 MM; 8 X M20 HOLES; UNLINED; DRILLED TO SABS 1 TABLE 1000/3; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
68	67352	VALVE, CHECK: TYPE: SWING; VALVE SIZE: 25 MM; DESIGN RATING: 200 LB; CONNECTION: FBSP; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 90 MM; STYLE: THD BONNET; TRIM: DISC CF8; SOFTGOODS: GASKET ASB; GRADE: 316; CF8; REFERENCE NO: 3284009193; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
69	708216	VALVE, CHECK: TYPE: WAFER DUAL DISC; VALVE SIZE: 80 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 50 DEG; CONNECTION: CLAMPED; BODY MATERIAL: CAST IRON; FACE TO FACE LENGTH: 65 MM; OPERATED: NON RETURN VALVE; APPLICATION: FIRE SYSTEMS; MATERIAL DATA SHEET AND TEST CERTIFICATES TO BE PROVIDED ON DELIVERY.
70	67270	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 1895 KPA; CONNECTION: CLAMP; BODY MATERIAL: CI; FACE TO FACE LENGTH: 98 MM; TRIM: DISC SS GR 316; SOFTGOODS: SEAT METAL TO METAL; GRADE: GC40; FIG NO: 35233; IPV; UNLINED BODY, MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

71	67271	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 200 MM; DESIGN RATING: 285 LB; CONNECTION: CLAMP; BODY MATERIAL: CI; FACE TO FACE LENGTH: 73 MM; TRIM: DISC SS; FIG NO: 5-590; RIGHT; 1600 KPA WORKING PRESSURE; UNLINED BODY; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
72	67272	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 250 MM; DESIGN RATING: 285 LB; CONNECTION: CLAMP; BODY MATERIAL: CI; FACE TO FACE LENGTH: 76 MM; TRIM: DISC SS; FIG NO: 5-591; RIGHT; UNLINED BODY; WORKING PRESSURE 4000 KPA; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
73	67273	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 300 MM; DESIGN RATING: 1600 KPA; CONNECTION: CLAMP; BODY MATERIAL: CI; FACE TO FACE LENGTH: 83 MM; TRIM: DISC SS; FIG NO: 5/590; RIGHT; UNLINED BODY; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
74	68302	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 350 MM; DESIGN RATING: 285 LB; TEMPERATURE RATING: 76 DEG C; CONNECTION: CLAMP; BODY MATERIAL: CI; FACE TO FACE LENGTH: 184 MM; OPERATED: AUTO; TRIM: DISC DI GR CF8; PIN SS; SEAT BUNA-N; SPRING SS GR 316; APPLICATION: CPP PUMP; REFERENCE NO: IAJ11-1A; WINN; OD 415 MM; BORE: 317 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
75	68077	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 40 MM; DESIGN RATING: 40 BAR; TEMPERATURE RATING: 21 BAR AT 400 DEG C; CONNECTION: CLAMP; BODY MATERIAL: X10CR13; FACE TO FACE LENGTH: 32 MM; TRIM: DISC SS; REFERENCE NO: RK46; 1.4006; INLINE, GESTRA NON RETURN; FOR INSTALLATION BETWEEN FLANGES; DIN 2635; FORM C; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
76	68078	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 50 MM; DESIGN RATING: 40 BAR; TEMPERATURE RATING: 29 BAR AT 400 DEG C; CONNECTION: CLAMP; BODY MATERIAL: X10CR13; FACE TO FACE LENGTH: 40 MM; OPERATED: MANUAL; REFERENCE NO: RK46; INLINE; GESTRA NON RETURN; FOR INSTALLATION BETWEEN FLANGES; DIN 2633; FORM C; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1 ARE TO BE SUPPLIED ON DELIVERY, AE
77	67285	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 65 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 16 BAR AT 50 DEG C; CONNECTION: CLAMP; BODY MATERIAL: STAINLESS STEEL; FACE TO FACE LENGTH: 48 MM; OPERATED: SPRING LOADED; TRIM: DISC SS; FIG NO: 16XMZ; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY; SIZE 44 X 76 MM

**CONTROLLED DISCLOSURE**

78	69022	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 65 MM; DESIGN RATING: 40 BAR; CONNECTION: CLAMP; BODY MATERIAL: X10CR13; TRIM: SEAT EPDM; SOFTGOODS: SEAL EPDM FLEXIBLE; INLINE; PC. DISCO RETUR; TYPE RK46; INTERMEDIATE FLANGE DESIGN; WITH SPECIAL SPRING OPENING PRESSURE 5 M BAR AND FLEXIBLE FABRIC SEAL MADE OF EPDM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
79	646660	VALVE, CHECK: TYPE: Y SPRING; VALVE SIZE: 25 MM; DESIGN RATING: CL600; TEMPERATURE RATING: -40 TO 232 DEG C; CONNECTION: BUTT WELD; BODY MATERIAL: SS GR 316; FACE TO FACE LENGTH: 95 MM; OPERATED: MANUAL; STYLE: 1 WAY; TRIM: SPRING SS; APPLICATION: SULPHURIC ACID/WATER; GRADE: 316
80	695511	VALVE, CHECK: TYPE: Y SPRING; VALVE SIZE: 40 MM; DESIGN RATING: CL600; TEMPERATURE RATING: -40 TO 232 DEG C; CONNECTION: BW; BODY MATERIAL: SS GR 316; FACE TO FACE LENGTH: 95 MM; OPERATED: MANUAL; STYLE: 1 WAY; TRIM: SPRING SS; APPLICATION: SULPHERIC ACID/WATER; GRADE: 316L
81	66741	VALVE, DIAPHRAGM: TYPE: STRAIGHT WAY; VALVE SIZE: 50 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: -10 TO 90 DEG C; CONNECTION: FLANGE FF; BODY MATERIAL: CAST IRON; DIAPHRAGM MATERIAL: RUBBER GR B; FACE TO FACE LENGTH: 190 MM; OPERATED: HANDWHEEL; REFERENCE NO: KB; SAUNDER; UNLINED; NON-RISING SPINDLE; 4 X 18 MM HOLES; PCD: 104 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1 ARE TO BE SUPPLIED ON DELIVERY
82	68339	VALVE, DIAPHRAGM: TYPE: WEIR; VALVE SIZE: 100 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: -10 TO 85 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI; DIAPHRAGM MATERIAL: RUBBER GR B; FACE TO FACE LENGTH: 313 MM; OPERATED: HANDWHEEL; STYLE: RISING SPINDLE; WEIR; REFERENCE NO: DM17/E/9/81; UNDRILLED; SAUNDERS; TYPE A; HARD RUBBER LINED; INDICATION; WIDTH: 280 MM; HEIGHT: 246 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
83	68314	VALVE, DIAPHRAGM: TYPE: WEIR; VALVE SIZE: 25 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: -10 TO 100 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CAST IRON; DIAPHRAGM MATERIAL: NBR GR B; FACE TO FACE LENGTH: 127 MM; OPERATED: HANDWHEEL; REFERENCE NO: DM22/E/9/81; SAUNDERS; TYPE A; FITTED WITH ES61 ACTUATOR; WIDTH 251 MM; HEIGHT 449 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

84	68337	VALVE, DIAPHRAGM: TYPE: WEIR; VALVE SIZE: 65 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: -10 TO 85 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI; DIAPHRAGM MATERIAL: RUBBER GR B; FACE TO FACE LENGTH: 224 MM; OPERATED: HANDWHEEL; STYLE: RISING SPINDLE; WEIR; REFERENCE NO: DM17/E/9/81; SAUNDERS; TYPE A; HALAR/HARD RUBBER LINED; INDICATION BONNET ASSEMBLY; WIDTH:170 MM X HEIGHT 178 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
85	67264	VALVE, GATE: VALVE SIZE: 100 MM; TYPE: RESILIENT SEAL; CONNECTION: FLANGE RF; FACE TO FACE LENGTH: 254 MM; BODY MATERIAL: CI; TRIM: GATE RUBBER; OPERATED: HANDWHEEL; SOFTGOODS: PTFE; STEM DESIGN: RISING OS; STYLE: BOLTED BONNET; TEMPERATURE RATING: 10 BAR AT 100 DEG C; APPLICATION: BOILER; GRADE: 1.4903; DESIGN RATING: 10-16 BAR; FACE LENGTH 254 MM; FLANGED O/D; 220 MM X 19 MM THICK; 8 X 18 MM HOLES; PCD 180 MM; DRILLED TO TABLE: 16/3 BS4504; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
86	68924	VALVE, GATE: VALVE SIZE: 150 MM; TYPE: DOUBLE WEDGE; CONNECTION: FLANGE RF; FACE TO FACE LENGTH: 450 MM; BODY MATERIAL: CI; TRIM: DISC/SEAT/STEM F6; OPERATED: HANDWHEEL; STEM DESIGN: RISING OUTSIDE SCREW; STYLE: BOLTED BONNET; TEMPERATURE RATING: 10 BAR AT 100 DEG C; APPLICATION: BOILER; GRADE: WCB; DESIGN RATING: 64 BAR; SUPPL P/N: 7MT01425; CAT NO: 12518; REFERENCE NO: N150; VALVOMETAL; 278 MM PCD; 8 X 34 MM HOLES; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY; SIEVA
87	611912	VALVE, GATE: VALVE SIZE: 150 MM; TYPE: WEDGE; CONNECTION: FLANGE; FACE TO FACE LENGTH: 280 MM; BODY MATERIAL: CI; OPERATED: HANDWHEEL; STEM DESIGN: NON RISING; STYLE: BOLTED BONNET; TEMPERATURE RATING: AMBIENT; APPLICATION: RAW WATER; DESIGN RATING: 16 BAR; PCD: 240 MM; 8 HOLES X M20
88	612515	VALVE, GATE: VALVE SIZE: 200 MM; TYPE: WEDGE 664; DESIGN PRESSURE: PN16; DESIGN TEMPERATURE: 10-50 DEG C; CONNECTION: FLANGE; FACE TO FACE LENGTH: 320 MM; BODY MATERIAL: CAST IRON; TRIM: DISC SS GR 316; OPERATED: HANDWHEEL; SOFTGOODS: EPDM RUBBER; STEM DESIGN: NON RISING; STYLE: BOLTED BONNET; TEMPERATURE RATING: AMBIENT; APPLICATION: RAW WATER; DESIGN RATING: 16 BAR; .
89	67266	VALVE, GATE: VALVE SIZE: 200 MM; TYPE: WEDGE FLEXIBLE; CONNECTION: FLANGE RF; FACE TO FACE LENGTH: 310 MM; BODY MATERIAL: CI; TRIM: WEDGE RUBBER; OPERATED: HANDWHEEL; STEM DESIGN: RISING OUTSIDE SCREW; STYLE: BOLTED BONNET; DESIGN RATING: 16 BAR; FLANGE SIZE OD 350 X 30 MM THK; PCD 295 MM; 8 X 22 MM HOLES; DRILLED TO BS 4505 TABLE 10/3; UNLINED; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

90	612548	VALVE, GATE: VALVE SIZE: 200 MM; TYPE: WEDGE; CONNECTION: FLANGE; FACE TO FACE LENGTH: 315 MM; BODY MATERIAL: CI; OPERATED: HANDWHEEL; STEM DESIGN: NON RISING; STYLE: BOLTED BONNET; TEMPERATURE RATING: AMBIENT; APPLICATION: RAW WATER; DESIGN RATING: 16 BAR; PCD 295 MM; 8 HOLES X M20.
91	67267	VALVE, GATE: VALVE SIZE: 250 MM; TYPE: RESILIENT SEAL; CONNECTION: FLANGE RF; FACE TO FACE LENGTH: 355 MM; BODY MATERIAL: CI; TRIM: GATE RUBBER; OPERATED: HANDWHEEL; STEM DESIGN: RISING OUTSIDE SCREW; STYLE: BOLTED BONNET; DESIGN RATING: 16 BAR; AINSWORTH RSV; FLANGE O/D 405 MM X 30 MM THICK; 12 X 22 MM HOLES; PCD: 348 MM; DRILLED TO TABLE: 1600/3 SABS 1123; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
92	68015	VALVE, GATE: VALVE SIZE: 50 MM; TYPE: SOLID WEDGE; CONNECTION: FLANGE RF; FACE TO FACE LENGTH: 250 MM; BODY MATERIAL: C22.8; TRIM: SEAT 17CR; SPINDLE 13CR; OPERATED: HANDWHEEL; STEM DESIGN: RISING SPINDLE; STYLE: BOLTED BONNET; TEMPERATURE RATING: 150-400 DEG C; DESIGN RATING: 16 BAR; DRAWING NO: 0.58/4688RO REV 1; STAAL ISOLATING; COMPLETE; WITH CONNECTION FLANGES DIMENSIONED AND DRILLED TO DIN 2633; INSTALLATION LENGTH 250 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
93	63357	VALVE, GLOBE: VALVE SIZE: 80 MM; FACE TO FACE LENGTH: 304 MM; OPERATED: HANDWHEEL; CONNECTION: FLANGE RF; BODY MATERIAL: GG25; TRIM: CI; CONE X5CRNI 18.10; SOFTGOODS: PACKING GRAPHITE; STEM DESIGN: RISING SPINDLE; STYLE: BOLTED BONNET; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 13 BAR AT 350 DEG C; SERIES: PN16 TYPE: BOA/HSG25, PCD: 160 MM, 8 X 17,5 MM HOLES, DRILLED TABLE 10/3, MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B IS TO BE SUPPLIED ON DELIVERY
94	63369	VALVE, NEEDLE: VALVE SIZE: 1/2 IN; DESIGN RATING: 6000 LB; TEMPERATURE RATING: 200 DEG C; CONNECTION: NPT; BODY MATERIAL: SS GR 316; FACE TO FACE LENGTH: 105-110 MM; OPERATED: T HANDLE; STYLE: 5 WAY; TRIM: 17-4 PH; GRADE: 316; MANIFOLD; DIRECT MOUNTED; TYPE: MSTD4NAT; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B TO BE SUPPLIED ON DELIVERY
95	615041	VALVE, RELIEF: VALVE SIZE: 1 X 1 IN; SET PRESSURE: 76 KPA; TEMPERATURE RATING: -19 TO 120 DEG C; CONNECTION: THREADED FEMALE; BODY MATERIAL: STAINLESS STEEL; TRIM: DISC SS; FACE TO FACE LENGTH: 260 MM; OPERATED: SPRING; SPECIFICATION: BS 6759; APPLICATION: AIR BLOWERS; STYLE: TOP GUIDE; DESIGN RATING: 24 BAR; PRESSURE RANGE: 76-88 KPA; REFERENCE NO: P-490; TEST CERTIFICATE TO BE SUPPLIED

**CONTROLLED DISCLOSURE**

96	67291	VALVE, RELIEF: VALVE SIZE: 100 MM; TEMPERATURE RATING: 4-80 DEG C; CONNECTION: BOLTED; BODY MATERIAL: STAINLESS STEEL; TRIM: NOZZLE SEAT RUBBER NATURAL; OPERATED: AIR; DESIGN RATING: 16 BAR; PRESSURE RANGE: 16 BAR; MODEL NO: 100-RB2224; REFERENCE NO: 100RB1600; VACUUM RELEASE; VENT-O-MAT; WORKING PRESSURE: 1000 KPA; ALL STAINLESS STEEL CONSTRUCTION; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B, ARE TO BE SUPPLIED ON DELIVERY
97	67142	VALVE, RELIEF: VALVE SIZE: 1-1/4 IN; SET PRESSURE: 1850 KPA; TEMPERATURE RATING: 35 BAR AT 200 DEG C; CONNECTION: BSP; BODY MATERIAL: ALUMINIUM; TRIM: ALLOY; FACE TO FACE LENGTH: 175 MM; OPERATED: SPRING; DESIGN RATING: 17.2 BAR; PRESSURE RANGE: 250 PSI; FIG NO: NH3; REFERENCE NO: 3284/009/237; AA3135XNB; PRESSURE, MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
98	527773	VALVE, RELIEF: VALVE SIZE: 14MM X 1/2IN; SET PRESSURE: 0.3-10 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: THD; BODY MATERIAL: STAINLESS STEEL; TRIM: STAINLESS STEEL; FACE TO FACE LENGTH: 55 MM; OPERATED: AIR; APPLICATION: AMMONIA; PRESSURE RANGE: 0.3-0.10 BAR; REFERENCE NO: 56791; PR/PL; INLET & OUTLET FEMALE 1/2INCH; SERIES 1100
99	67292	VALVE, RELIEF: VALVE SIZE: 150 MM; TEMPERATURE RATING: 4-80 DEG C; CONNECTION: BOLTED; BODY MATERIAL: STAINLESS STEEL; TRIM: NOZZLE SEAT RUBBER NATURAL; OPERATED: AIR; APPLICATION: RAW WATER; STYLE: VACUUM AIR RELEASE; DESIGN RATING: 25 BAR; PRESSURE RANGE: 25 BAR; FIG NO: 150RB2224; REFERENCE NO: GP359; WORKING TEMPERATURE: 4-80 DEG C; MAX. FLOW RATE: NO FLOW; VENT-O-MAT; RELEASE; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY; FOR USE ON OUTSIDE PLANT BOILER
100	67288	VALVE, RELIEF: VALVE SIZE: 25 MM; TEMPERATURE RATING: 4-80 DEG C; CONNECTION: 1 IN-FBSP; BODY MATERIAL: STAINLESS STEEL; TRIM: FLOAT HDPE; OPERATED: AIR; DESIGN RATING: 25 BAR; PRESSURE RANGE: 0.5-25 BAR; SUPPL P/N: 025 RBX 2511 S4; VACUUM RELEASE; VENT-O-MAT
101	68299	VALVE, RELIEF: VALVE SIZE: 25 MM; CONNECTION: FBSP; BODY MATERIAL: CI; TRIM: BALL SS; SEAT NITRILE; OPERATED: AIR; DESIGN RATING: 16 BAR; PRESSURE RANGE: 0-16 BAR; REFERENCE NO: 786; AMBIENT; VOSA SINGLE AIR RELEASE FITTED WITH TOYA 1002-2; WD 192 MM; HT 265 MM; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY
102	67289	VALVE, RELIEF: VALVE SIZE: 50 MM; TEMPERATURE RATING: 4-80 DEG C; CONNECTION: THD FEMALE; BODY MATERIAL: STAINLESS STEEL; TRIM: NOZZLE SEAT RUBBER NATURAL; OPERATED: AIR; DESIGN RATING: 1000 KPA; PRESSURE RANGE: 1000 KPA; MODEL NO: 050RBX251154; VACUUM RELEASE; VENT-O-MAT; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B ARE TO BE SUPPLIED ON DELIVERY

**CONTROLLED DISCLOSURE**

103	67290	VALVE, RELIEF: VALVE SIZE: 80 MM; SET PRESSURE: 1000 KPA; TEMPERATURE RATING: 4-80 DEG C; CONNECTION: BOLTED; BODY MATERIAL: STAINLESS STEEL; TRIM: NOZZLE SEAT RUBBER NATURAL; FACE TO FACE LENGTH: 612 MM; OPERATED: AIR; SPECIFICATION: ANSI B16.5 CL 150/300; DESIGN RATING: PN16; PRESSURE RANGE: 1000 KPA; MODEL NO: 080 RB 1601 S; VACUUM RELEASE; VENT-O-MAT; MATERIAL AND TEST CERTIFICATES TO DIN 50049/3.1B, ARE TO BE SUPPLIED ON DELIVERY
104	589395	VALVE, RELIEF: VALVE SIZE: NB 150; SET PRESSURE: 2.1-16 BAR; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGED & DRILLED; BODY MATERIAL: DUCTILE IRON; TRIM: SS FUSION BONDED EPOXY COATED; FACE TO FACE LENGTH: 325 MM; OPERATED: MANUAL; SPECIFICATION: BS 10 T/D; APPLICATION: RECOVERY DAMS LEAK-OFF; DESIGN RATING: 16 BAR; PRESSURE RANGE: 2.1-16 BAR; RUBBER LINED FLANGE AND INTERNAL; PRESSURE REDUCING VALVE; BODY AND COVER-DUCTILE IRON; FUSION BONDED EPOXY COATED WITH RED BRAUN TO A MINIMUM OF 250 MICRON; INCLUDING AUXILIARY PIPEWORK WITH COPPER TUBING AND BRASS FITTINGS; INCLUDING CRD PRESSURE REDUCING PILOT AND PRESSURE GAUGE; REDUCING RATIO 4:1; ADJUSTABLE DOWN STREAM SET RANGE BETWEEN 2.1 -16 BAR TO REDUCE PRESSURE FROM 6.6 TO 4.5 BAR; CV VALUE 331/S; FF: 350 MM
105	226511	VALVE: TYPE: CONTROL; VALVE SIZE: 40 MM; DESIGN RATING: 0-16 BAR; TEMPERATURE RATING: -40 TO 120 DEG C; FACE TO FACE LENGTH: 3.39 MESH; CONNECTION: CLAMP; OPERATED: ELECTRICAL; BODY MATERIAL: STL GALV; STYLE: 2 WAY; SPECIFICATION: DIN 2635; SPECIAL FEATURES: COAX; SUPPL P/N: KF40DRNO; REFERENCE NO: 201.01100310; 0-16BAR; MINERAL OIL; PN1624VDC; 120DEG C; PN40C22.8; 24LITRE; CONNECTION ADAPTOR; 24VDC; S1 CONVEYOR FLUID DRIVE COUPLING; OIL FILLING
106	609268	VALVE: TYPE: DELIVERY AIR 1ST STG; VALVE SIZE: 151.8 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 177 DEG C; FACE TO FACE LENGTH: 60 MM; CONNECTION: BOLTED; OPERATED: AIR; BODY MATERIAL: STL; STYLE: 1 WAY; SPECIFICATION: PSB 029-083-1; REFERENCE NO: PSB 029 083-1
107	226510	VALVE: TYPE: DRAIN VALVE; VALVE SIZE: 32 MM; DESIGN RATING: 0-16 BAR; TEMPERATURE RATING: -40 TO 120 DEG C; CONNECTION: FLANGE; OPERATED: ELECTRICAL; BODY MATERIAL: STL GALV; STYLE: 2/2 WAY; SOFTGOODS: SPECIAL SEALS; SPECIAL FEATURES: PLUG WITH LED; OEM P/N: FK32NO; REFERENCE NO: 201.01100210; NORMALLY OPEN; 24VDC; S1 CONVEYOR FLUID DRIVE COUPLING; OIL DRAIN; ORIFICE: DN32
108	603340	VALVE: TYPE: PRESSURE REGULATING; VALVE SIZE: 300 MM; DESIGN RATING: 500 KPA; TEMPERATURE RATING: 40 DEG C; FACE TO FACE LENGTH: 850 MM; CONNECTION: FLANGE; OPERATED: WATER; BODY MATERIAL: CI; PCD 430; 16 HOLES; M27; NORMAL FLOW-RANGE: 56-212 L/S; 359L/S (1292M3/H)

**CONTROLLED DISCLOSURE**

109	609267	VALVE: TYPE: SUCTION AIR; VALVE SIZE: 151.8 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: -7 TO 177 DEG C; FACE TO FACE LENGTH: 95 MM; CONNECTION: BOLTED; OPERATED: AIR; BODY MATERIAL: STL; STYLE: 1 WAY; OEM P/N: PSB 027-001
110	609269	VALVE: TYPE: FINAL AIR; VALVE SIZE: 151.8 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: -10 TO 177 DEG C; FACE TO FACE LENGTH: 60 MM; CONNECTION: BOLTED; OPERATED: AIR; BODY MATERIAL: STL; STYLE: 1 WAY; OEM P/N: PSB029 083-2; FOR LPS COMPRESSORS ELECTRICAL MODEL: UH56N

**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 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.

**CONTROLLED DISCLOSURE**

#### 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 require.

#### 5. REPLACEMENT/UPDRAGE/MODOFIED 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

#### 3. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Sizwe Buthelezi	SSC System Engineer
Sivuyile Khwezi	Senior Technician Maintenance
Gift Nkuna	Auxiliary Manager
Jacky Mathobela	Engineering Manager

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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:

- Sizwe Buthelezi
- Sivuyile Khwezi

#### 6. ACKNOWLEDGEMENTS

Not Applicable

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