

MAINTENANCE SPARES AND CONSUMABLES

NB: The list is not exhaustive, and it is just an example of the spares that might be required.

Lot 1: Electrical, Automation & Cables

No.	Item Description	Specification
1	Relays	230v,10A, 8pin
2	ACDC Dynamics	DP2/8 6-360S
3		DP2/8 1-60S
4	Asco solenoid	SC B320 B176,230V,50HZ
5	Contactora	LC1D32,ITH=50A,230V COIL
6	Overload	12-18A
7	Lime vibrator	AMV000-0.3AM,3000RPM,W25,0.15A,220V
8	Contactora	LC1D0910 ,25A
9	Auxillaries	Telemanique LADN11
10	Contactors	TC1-D2510,25A,230V COIL
11	Overload	2.5-4A
12	Circuit breakers	20A,15A,15A,30A,100A
13	Scottchcasts	A1&A2
14	Circuit breakers	Terasaki,s250-NJ,UI 800V,UIMP 8KV,IN250A 380/415V ,36KA
15	Contactora	TC1D8011,80A,230V COIL
16	Auxillary	TA1DN22,UI690VITH10A
17	Overload	80-104A
18	Lucino ms250 c/b	ui 690v,uimp 8kv,ue400 -415v,ie250,23A iec 947-3,Bs5419,ute63-130
19	Pressure switch	CONDOR MDR43/3,Art-NO212782 ,UI 500V,ITHR 10A,230V,EN60947-5-1 ,2,0BAR
20	Fuses	80A,nh000gG/GI,120ka,500v,cd/pb-frei,80NHG000B
21	Delay timer	DP1 ,11PIN,2-10A
22	Contactora	Allen bradley 100-c37*00,en 60947,iec 60947,uimp8kv,50A
23	Contactora	Telemanique LC1F115
24	Contactora	Sprecher schu+schuh,CA6-105,IEC 947 EN 60947 ,1000V,160A UIMP 12KV ,415V,75KW,
25	Fuses	siemens 3NA3817,40A,600V,IR100KA,NH00-GI/Gg,500v/120ka
26	Input and Output Control	Micrologix 1000 20 points controller, 120v/240vac, 12(24) vdc digital inputs,4 analog inputs 8 relay outputs 1 analog output
27	Input and Output Control	Micrologix 1000 16 points controller, 120v/240vac, 10(24) vdc digital inputs, analog inputs 6 relay outputs 1 analog output
28	Input and Output Control	Micrologix 1000 32 points controller, 120v/240vac,20(24)vdc digital input,12 relay output
29	Power Supply	Xle power supply 120w,24vdc 1606-XLE120e
30	Transducers	Function-Ac current,type-CA5-DINA SERIAL NO-9807276,Input-0-5A,Output-4-20mA,EXT Load <750ohms,class-0.5

31	Transducers	Function-Ac current,type-CA6-DINA SERIAL NO-1401065,Input-0-1(5)A,Output-4-20mA,EXT Load <500ohms,class-0.5
32	New lec	Serial no-208095,aux volts-110/220vac,model kc 25 direct measurement
33	Batteries	phase failure 400vac supply
34	batteries	Star/delta timer relay 110vac supply
35	batteries	two level liquid control relay 220vac supply
36	batteries	Delay on timer relay 220vac supply
37	Transformer	Rating -250VA, Inputs volts-400v,outputs-230v, Size: w=10mm,h=75mm,Ø=90mm
38	Transformer	Rating -500VA, Inputs volts-220v,outputs-24v, Size : W=10mm,h= 75mm, Ø= 90mm
39	Surge arrestors	vc-275v,lmax-40kA,with one pole,with DIN width
40	Transformer	vc-275v,lmax-65kA,with one pole,with DIN width
41	Fanner flex coupling/Rubber coupling	Sizes:F60,F80 and F90
42	Gland Packing	for pump and valves 10mm
43		Replaceable wear plate
44		V-belt 16N/SPN*1800
45	V-Belt for Blowers	Antistatic wedge belt spa 1800*072
46	Oil	SAE 30
47	Breakers	63A, 400V, lcn-6KA, 3pole.
48	Breakers	100A,400V,lcn-2.5KA,3pole
49	Breakers	6A,230/400V,lcn-6KA,Single pole, for Din rails
50	Overload	Range 24-34A,400V,Auto reset
51	Overload	Range 37-50A,380/400V,Auto reset
52	Overload	5-29A Range,400V,Auto Reset,5-29A,400V, Auto Reset
53	Fuses	2A,300V,0.4,lnc-120KA
54	Contactors	18.5Kw,400,40A,Coil-230V,lnc+1NO contacts
55	Contactors	30Kw,400V,54.5A,INC+INO contacts,Coil-230V
56	Contactors	11KW,400V,21.2A,Coil-220V,1No+INC Contacts
57	Circuit Breaker	3 phase, Make-Chint, Amps- 250A*4, 200A*4, 100A*4KA-25
58	Circuit Breaker	3phase Circuit breaker *4 ,40 AC60N 10KA
59	Circuit Breaker	3phase Allen Bradley Contactor *4 Model: 10-C85230V Coil
60	Circuit Breaker	3phase contactor *4 Model:TC1-D8011,240V Coil
61	Circuit Breaker	Hour meter *10, Type: Revalco, Size: 50*50
62	Circuit Breaker	3phase Timer *4 S/D timer,ST 130/230V
63	Circuit Breaker	2* Allen Bradley,Smart motor controller, Model: 150-C37NBD(SMC-3)
64	Circuit Breaker	Multi-fuction timer *3, Model: ST 100/230V
65	Circuit Breaker	16A Single 4*4 plugs & covers & 4*4 extenction boxes *5
66	Circuit Breaker	Scotch cast cable joint A2*10,A1*10
67	Circuit Breaker	3phase Allen Bradler Contactors *2,Model:100-D420,Coil Voltage: 230-240V
68	Circuit Breaker	Inlet Solenoid Valve
69	Malekana Inlet Actuator Valve	Motor: AUMA, Power:0.37kW,lnc: 4.6A,Voltage: 220-240V 1Ø,Speed: 2800rpm
70	Malekana Inlet Actuator Valve	SAR 07.5-F10 Com no: 13177638,Speed: 16rpm,T Close: 30-60Nm,T Open: 30-60Nm
71	Malekana 3Ø UPS	Make: APC by Schneider Electric, Model: MGE Galaxy 300,15KVA, 342-475V(phase to phase),Output: 3

		phase+N+PE,V(out): 380/400/415V, I(out) 23/22/21A, P(out): 12kw/15kVA, Freq: 50/60Hz
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76	Con: Telemechanique	Size LC F630 square D
77	CT's	CT's:800:5
78	Auxillary Contactor:	2 Normally open and 2 Normally closed
79	Cables	150mm Square Flexible heat resistant type (50 Meters)
80	Saftronic Softstarters	Make: SS6-710A
81	Rotork/Actuator	380Volts
82	Contactor	22KW,7kw,11kw,5.5Kw and 220 volts AC coil
83	Timer	Star/Delta electronics 220 Volts
84	Overload	9-13A,34-50A,14-20amps
85	Transformer	1.5KVA,input:380Volts,output:110Volts AC
86	Relays	10,250 V AC Volts AC, Coil :110Volts AC
87	DIN HRC Fuses links and Carriers	50 Amps, 100Amps and 160Amps fuses
88	Emergency start Button	Emergency starter button release
89	Running Hour Meters	230Volts AC and 110Volts AC
90		3 level liquid, Level Relay DLR1 220Volts and 110Volts
91	Split Transformer	Split core current transformers
92	Current Transformers	Ring:800 Amps
93	white Metal Bearings	95mm,DE ,Make:Sulzer, Year:2003,Rpm:1480,Nr: mp22720, KPA: 4400, Pump Type: hpl
94	white Metal Bearings	80mm nde, Make: Sulzer, Year: 2003, Rpm:1480, NR: mp22740,KPA: 440, Pump Type:hpl
95	Wearing Ring	d: 340/280/18, Make Sulzer, Impeller Ø420
96	Gear Coupling	shaft Size:90mm, Key: 24mm for Pump Flange half Coupling,Motor shaft Size: 85mm,Key: 22mm,Bore and Key Hub to 80mm
97	Motor Bearing	Size:11kw,Rpm: 1465, Bearing de: 6309-22, Bearing nde: 6209-22
98	Rural Pumps	Bearings to fit pumps: pump type: HPL-32-17.5 3STG
99		Mechanical Seal to fit pumps type :HPL-32-17.5 3STG
100	Impeller	impeller 320Ø
101	High lift pumps (Sulzer Pumps)	Bearings to fit pumps: pump type: HPL-54-30 3STG, Impeller 508Ø
102	Pipeline and Off-Takes	10*100mm Air Valves,10 *100mm Gate valves,5*150mm Gate Valves,5*80mm Gate Valves,20*250mm PVC pipes Class16 and Repair Couplings, 20*160mm PVC Pipes class 16 and Repair Couplings, 20*110mm PVC pipes Class 16 and Repair Coupling, 20*75mm PVC pipessnd Repair couplings.
103	Aqualocks	20*75mm , 20* 110mm, 20*160mm, 20*250mm Aqualocks
104	Non Return Valve for High Lift Pumps	Ref:0/27220, Mass:350, Size:DN 350,Item:TDRU,WP:40 bar

105	Rotork Valve for high lift pumps	Serial No: SA01630101,wiring diagram: 3010-100-09,Actuator type: 1Q25 F14 B4, Speed: 96RPM,Torque Max: 230Nm, Enclosure : IP68,Lubrication: SAE 80EP, Motor rating: 1.29Kw-15 min,Motor Supply: 400-3-50, Nomonal Motor : 2.70AMP,Indication Contact: Amp-5 vac-120 vdc-30, Unit Weight:52kg
106	Fuse	63A 10KV, 10/63SRpr, 25KA, 7/68. HRC, AC550V, 80KA, BS 88- 2 :1988.TCP80A,50003 01Gg/Q1. In:63A,UN=6/12KV,D-44534
107	Limit Switch	10-125A or 300VAC,Type WL CL,1/2Hp 123 VAC
108	High Voltage Vacuum Contactor	Rated Voltage 7.2/3.6KV,type -CV-6HA, Rated OPE Current-400A,Thermal Current-450A,Interrupting Current-6KA,Rated CTL Voltage-220V.AC/DC Serial No:1022413
109	Contactor	HL 40-31E Plus N/O and N/C Auxilliaries 220V 50/60
110	Contactor	Siemens, 3 UN8 002,110V AC.
111	Overload	32 -50A
112	Timer	Multifunction Timer 220 V
113	Circuit Breaker	415 V-%0HZ 6KA,30A,60A,100A
114	Carbon Brushes for Slipping Motor	CG4500,0023215/1
115	Circuit Breaker	Mitsubishi, No fuse breaker, NF 250-SWA 250A
116	Soft Starter	Allen-Bradley SMC-FLEX-150-F135NBDB
117	Relays	Allen-Bradley 11 pin Relays
118	Thermistor Relay	SNB 303001900-8175-PCT-230ser B
119	Timer	Allen Bradley-FEB3T
120	Ammeter	200/5A-CP-72-Range 0-400
121	Circuit Breaker	63A breaker-3Poles, 32A breaker -3poles,20A breaker-3pole,10A breaker
122	Earth Leaker	63A/30M-4Pole
123	Circuit Breaker	Mitsubishi, No fuse breaker,NF125-SW-63A
124	Circuit Breaker	Mitsubishi, No fuse breaker,NF125-SW-125
125	Circuit Breaker	2Pole-NF206AC6
126	Contactor	Allen- Bradley-100-C600*00B-100A
127	Overload	Allen-Bradley-E1 plus- Range 18-90
128	Timer	Allen-Bradley -F5Y2
129	Phase Failure Phase Sequence Relay	Avanti-11 Pin-PFPSR
130	Liquid Level Control	Avanti-2 wire Connection-LLC
131	Circuit Breaker	ABB-SACE T5N 400
132	Soft Starter	ABB-PSTB 370-600-70
133	Circuit Breaker	ABB SACE-T3C 250-250A
134	Soft Starter	ABB SACE-PST210-600-70
135	Contactor	TC1-D25 10
136	Overload	TR2 DO9-314
137	Overload	Allen-Bradly-CAT 825-MCM 630
138	Circuit Breaker	Terasaki-E630-NE
139	Contactor	Allen Bradley-100-D250-350A
140	Contactor	Allen Bradly-100-D140
141	Circuit Breaker	Metasol
142	Circuit Breaker	Mitsubishi Circuit breaker-Model-NF 250-SE-No Fuse breaker 250Amps
143	Circuit Breaker	Terasaki Circuit breaker -model:ZE 250-NJ-250 Amps
144	Circuit Breaker	Hy-mag,Model:J 500-175 Amps

145	Circuit Breaker	Merlin gerin compact circuit breaker, Model: NS 160 N-160 Amps
146	Circuit Breaker	Mitsubishi circuit breaker-Model-NF 400-CW-400 Amps-No fuse breaker.
147	Line Choke	380V-0.027MH515M
148	CPT(CIPROTEC CIRCUIT BREAKER) Neutral	PSM -20N, I Max 20KA, UC 255V AC, IN 10KA, UP<1.5KV
149	CPT(CIPROTEC CIRCUIT BREAKER) L1, L2,L3	I Max 63 AGL, UC 320 V AC, IN 10KA, UP<1.4KV
150	ABB (SACE PR 231/P)CIRCUIT BREAKER	IN=1600A, UE=690V, UI=100V, UIMP=8K.
151	HAGER(ZR 2013)(L1,L2,L3)	LS=501,10.3*38, 32A MAX, 690 V AC
152	SCHNEIDER ELECTRIC L1,L2,L3+N	IC 60A, C6A
153	FINDER D42V RELAY AND BASE	24VDC 8A,250V
155	BUSSMUNN FUSE	800A,100KA,600V

Lot 2: Instrumentation Spares

No.	Item Description	Description
1	Telemetry	Spectrum Communications
2	Voice + Data Radio	Protec Communications
3	PLC + HMI	Artiflex
4	Rotork Valve Actuators	Falcon Distributors
5	Flow Meters Batteries Magnetic	KR Technologies
6	Scales	Richter Scale Company
7	PLC +HMI	GCMA Engineering
8	Temperature and Pressure Instrument	Wika
9	Flow Meter Magnetic	Sensus Metering
		Endres + Hausser
		KR Technologies
10	Flow Meter Magnetic	Sensus Metering Endres + Hausser Atlanta instruments
11	Temperature and Pressure Instrument	Wika
12	Siemens Mag 6000 Conpoloc	6000 Series Signal converter Power: 230V AC and 24VDC
13	Display Backlit	20 Character flow direction Uni/bi-directional Accuracy± 0.25% Output 0/4 - 20 mA Current Pulse or Frequency
14	3 core braided shield signal cable for remote installation	
15	Teleflex CPU -05	Spectrum telemetry System
16	Submersible level Transducer	0-5 Bar ,7-30 VDC,4-20mA 0-10Bar,7-30VDC ,4-20mA
17	Power Supply	Input 230 VAC, Output 12VDC,10A 230 VAC, Output 24VDC,10A

18	Ethernet PCI Card	
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Lot 3: Mechanical Spares

No.	Item Description	Description
1	Rural Pumps	Sulzer Pumps(Pump Type: HPL-32-17.5 3STG, Impeller Ø320
2		Bearing
3		Mechanical Seals
4	High Lift Pumps	Sulzer Pumps(Pump Type: HPL-54-30 3STG, Impeller Ø508
5		Bearing
		Mechanical Seals
	Pipeline and Off- takes	
6		100mm Air Valves
8		150mm Gate Valves
9		80mm Gate Valves
10		250mm PVC Pipe Class 16 and Repair Coupling
11		160mm PVC Pipe Class 16 and Repair Coupling
12		110mm PVC pipes Class 16 and repair Coupling
13		75mm PVC pipes Class 16 and repair Coupling
	Aqualocks	
14		75mm
15		110mm
16		160mm
17		250mm
18	Schiettocht	
		Mather and platt pump 5"/6" DME
19		Drive end
20		Non drive end
21		Fenner Coupling F100
	Lulekani	
22		Houden Attack HSL10Y
23		Drive End
24		Non drive end
25		Fenner Coupling F100
	Lulekani Booster	
26		Sigmund Pulsometer HSB60/S
27		Drive end
28		non drive end
29		ESCO gear coupling F75
	Lulekani Booster	
30		HartlandDSB200
31		Drive end, Non drive end, Coupling
	Town South	
		KSB eta 250/50
32		Drive end
33		Non drive end
34		Coupling

	Town North	
		Mather and Platt Pump 8"/10" BLE
35		Drive end
36		Non drive end
37		Coupling
	Phalaborwa Copper	
		Mather and Platt Pump 5"/6" SDC
38		Drive end
39		Non drive end
40		Coupling
	Ext 8 & 9	
		Mather and Platt Pump 7" SBD
41		Drive end
42		Non drive end
43		Coupling
	Barrage	
		KSB RDLO 400-525A SC PF
44		Drive End
45		Non drive end
46		Coupling
		KSB RDL 500-640 B
48		Drive end
49		Non drive end
50		Coupling
		KSB RDL 500-640 B
51		Drive end
52		Non drive end
53		Coupling
	Backwash	
		Orbit pump type 200 I ST 5 BL
53		Drive end
54		Non drive end
55		Coupling
		K.S.B Omega 200-320A
56		Drive end
57		Non drive end
58		Coupling
		K.S.B E T A 250/33
59		Drive end
60		Non drive end
61		Coupling
	P.M.C Industrial	
		KSB Omega 300-700A
62		Drive end
63		Non drive end
64		Coupling
	Foscor Industrial	
65		Sisa weir S.D.C 10\14 Harland Drive end
66		Non drive end
67		Coupling

68	Clear Water Pumps	8AB KSB R.D.L400- 620A Drive End
69		Non Drive End
70		Coupling
71		2AB Sulzer SM 402-570 Drive end
72		Non Drive End
73		Coupling
74		6AB MATHER+PLATT 10\12DME Drive end
75		Non Drive End
76		Coupling
	Foscor 15	
77		Sulzer SM 303-800 Drive end
78		Non Drive end
79		Coupling
	Dosing CL2	
80		3 Meter flex conectors
81		2 Meter flex conectors
82		Vacuum regulator S10K
83		Flow meter 5 kg
84		Injector valve 5kg\hour
85		4Liter catch pot
	Pipe Coupling sizes	
86		Ranger Coupling 302mm to 325
87		457mm dedicated coupling
88		711mm dedicated coupling
89		271mm to 289mm coupling
90		560mm Coupling
91		500mm to 508mm dedicated coupling