

	Scope Of Work	Hendrina Power Station
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Title: **Scope of Work for Supply and delivery of C&I non or stock item spares at Hendrina Power Station for a Period of 5 Years**

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1. INTRODUCTION

The purpose of this document is to provide a clear statement of the scope of work for the Supply and delivery of C&I non or stock item spares at Hendrina Power Station for a Period of 5 Years. This document defines detail description of C&I components' requirements, which shall be met by the supplier.

This document collects all the information related stakeholder requirements for the supply of spares and forms the basis of the scope.

2. SUPPORTING CLAUSES

2.1 SCOPE.

This document describes the detail scope of work required for the Supply of C&I spares at Hendrina Power Station, however not limiting the unforeseen during the maintenance/work.

2.1.1 Purpose

The purpose of this document is to provide or outline area of responsibility during Supply of C&I spares at Hendrina Power Station.

This document shall apply to Eskom Hendrina Power Station

2.2 NORMATIVE/INFORMATIVE REFERENCES

2.2.1 Normative

N/A

2.2.2 Informative

N/A

2.3 DEFINITIONS

N/A

2.3.1 Disclosure Classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 ABBREVIATIONS

Abbreviation	Description
C&I	Control & Instrumentation
CPU	Central Processing Unit
EMS	Environmental Management Systems
HMI	Human Machine Interface
LCS	Local Control Station
OEM	Original Equipment Manufacturer
OTS	Operating Technical Specifications
SOW	Scope of Work

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2.5 ROLES AND RESPONSIBILITIES

C&I Engineering at Hendrina Power Station is responsible for issuing spares SOW.
Materials Management will be responsible for managing the contract.

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

N/A

3. SYSTEM REQUIREMENTS

3.1 7 C&I SPARES SUPPLY REQUIREMENTS

As per scope of work:

Below are C&I components that Hendrina Power Station currently using, scope of work does not limit any C&I components that might require to be supplied at Hendrina Power Station.

Group 1 consist of diaphragms, flow meters, valves, springs...etc

	DESCRIPTION OF GOODS		UNIT	MAXIMUM QUANTITY IN 5 YEARS PERIOD
73331	VALVE:LOCK UP;1/2 IN;1.4-7 BAR;THD;STL	VALVE: TYPE: LOCK UP; VALVE SIZE: 1/2 IN; DESIGN RATING: 1.4-7 BAR; CONNECTION: THD; OPERATED: SPRING; BODY MATERIAL: STL; STYLE: BOLTED BONNET; TRIM: STAINLESS STEEL; SOFTGOODS: STAINLESS STEEL; MODEL NO: X-PLU-D; TYPE HITACHI DOUBLE ACTING; PRESSURE TEST CERTIFICATES TO BE SUPPLIED ON DELIVERY	ea	20

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174673	REGULATOR PRESS:AIR;1/4 IN	REGULATOR, PRESSURE: TYPE: AIR; CONNECTION: 1/4 IN; SUPPL P/N: C11G; CIIG; 0-16 BAR PRESSURE GAUGE; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	ea	20
70510	DIAPHRAGM ACTTR:DIA 215 MM;CONTROL VALVE	DIAPHRAGM, ACTUATOR: DIMENSIONS: DIA 215 MM; TYPE: CONTROL VALVE; REFERENCE NO: 24950626; 24810; FOR USE ON DIRECT DEMINERALISED WATER TO CONDENSOR	ea	50
70593	DIAPHRAGM VLV:DIA 520 X THK 1.5 MM	DIAPHRAGM, VALVE: DIMENSIONS: DIA 520 X THK 1.5 MM; MATERIAL: BUNA-N NYLON; SUPPL P/N: Y30053909; FOR BLAKEBOROUGH VALVE; TYPE BV 803/A40A	ea	25
212946	DIAPHRAGM ACTTR:ID 25 X OD 110 X THK 6	DIAPHRAGM, ACTUATOR: DIMENSIONS: ID 25 X OD 110 X THK 6 MM; MATERIAL: NITRILE/NYLON; PRESSURE RATING: 0.4-20 BAR; ACTUATOR SIZE: 46 MM; SUPPL P/N: 2E859802202; FOR FISHER 667 ACTUATOR; MUST BE INSPECTED AT RECEIVING	ea	6
212947	FISHER REPAIR KIT P/NO R667X000502	KIT, ACTUATOR REPAIR: SUPPL P/N: R667X000502; FOR 667 DIAPHRAGM, COMPRISE OF NITRILE O RINGS TWO BIG/TWO SMALL AND COMPOSITION GASKET, MUST BE CHECKED AT RECEIVING	ea	6

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218613	POSITIONER VLV:LOCK UP;140 KPA	POSITIONER, VALVE: TYPE: LOCK UP; SUPPLY PRESSURE: 140 KPA; INPUT: 20-103 KPA; BLOCKING RELAY, FOR USE WITH SINGLE ACTING CONTROL VALVES, MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON THE SHELF; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	ea	20
149937	DIAPHRAGM ACTTR:DIA 310 MM;VULKOLLAN	DIAPHRAGM, ACTUATOR: DIMENSIONS: DIA 310 MM; MATERIAL: VULKOLLAN; FOR USE ON HANNEMANN CONTROL VALVES; MAILING ADDRESS: P.O.BOX 50206 RANDBURG 2125 PHONE NUMBER:011 793 6831 FAX NUMBER:011 793 7172	ea	60
149938	DIAPHRAGM ACTTR:DIA 430 MM;VULKOLLAN	DIAPHRAGM, ACTUATOR: DIMENSIONS: DIA 430 MM; MATERIAL: VULKOLLAN; REFERENCE NO: STP301R; FOR USE WITH HANNEMANN CONTROL VALVE; MAILING ADDRESS: P.O.BOX 50206 RANDBURG 2125 PHONE NUMBER: 011 793 6831 FAX NUMBER: 011 7930 7172	ea	60
149939	DIAPHRAGM ACTTR:DIA 580 MM;VULKOLLAN	DIAPHRAGM, ACTUATOR: DIMENSIONS: DIA 580 MM; MATERIAL: VULKOLLAN; FOR USE WITH HANNEMANN CONTROL VALVE; MAILING ADDRESS: P.O.BOX 50206 RANDBURG 2125	ea	60

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		PHONE NUMBER: 011 793 6831 FAX NUMBER: 011 793 7172		
149933	DIAPHRAGM ACTTR:OD 320 X THK 5 MM	DIAPHRAGM, ACTUATOR: DIMENSIONS: OD 320 X THK 5 MM; MATERIAL: VULKOLLAN; FOR STP II A ACTUATORS, FOR HANNEMANN CONTROL VALVE, 12 HOLES OF DIA 11MM, 297MM PCD, HOLES EQUALLY SPACED, CENTRE HOLE: 32MM DIA, MAILING ADDRESS: P.O.BOX 50206 RANDBURG 2125 PHONE NUMBER 011 793 6831 FAX NUMBER 011 793 7172	ea	60
149934	DIAPHRAGM ACTTR:DIA 430 MM;VULKOLLAN	DIAPHRAGM, ACTUATOR: DIMENSIONS: DIA 430 MM; MATERIAL: VULKOLLAN; REFERENCE NO: STP111A; FOR TYPE 3A ACTUATORS UNITS 1-5; MAILING ADDRESS: P.O.BOX 50206 RANDBURG 2125 PHONE NUMBER 011 793 6831 FAX NUMBER 011 793 7172	ea	60
149935	DIAPHRAGM ACTTR:DIA 570 MM;VULKOLLAN	DIAPHRAGM, ACTUATOR: DIMENSIONS: DIA 570 MM; MATERIAL: VULKOLLAN; FOR HANNEMAN TYPE 4A ACTUATOR; MAILING ADDRESS: P.O.BOX 50206 RANDBURG 2125 PHONE NUMBER: 01193 6831 FAX NUMBER: 011 793 7172	ea	60
110039	SPRING COMPRSN:ID 54 MM;OD 78 MM;LG 170	SPRING, COMPRESSION: INSIDE DIAMETER: 54 MM; OUTSIDE DIAMETER: 78 MM; LENGTH: 170 MM; COILS: 7; MATERIAL: STL; REFERENCE NO: 65S1Y E5-7; 11,	ea	15

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		SUITABLE FOR STP 11 AND STP 201		
110040	SPRING COMPRSN:ID 65 MM;OD 95 MM;LG 215	SPRING, COMPRESSION: INSIDE DIAMETER: 65 MM; OUTSIDE DIAMETER: 95 MM; LENGTH: 215 MM; COILS: 9; MATERIAL: STL; REFERENCE NO: 65S17E5-2; TYPE 6 FOR PNEUMATIC ACTUATOR OF THE TYPE 3A, KRISCH ENGINEERING	ea	15
110041	SPRING COMPRSN:ID 74 MM;OD 112 MM;LG 333	SPRING, COMPRESSION: INSIDE DIAMETER: 74 MM; OUTSIDE DIAMETER: 112 MM; LENGTH: 333 MM; COILS: 11; MATERIAL: STL; REFERENCE NO: CRV4E5-21; TYPE 10 FOR PNEUMATIC ACTUATOR TYPE 4A, KRISCH ENGINEERING	ea	15
218775	PLATE:TOP MEMBRANE;OD 320 MM;STL	PLATE: TYPE: TOP MEMBRANE; DIMENSIONS: OD 320 MM; MATERIAL: STL; DRAWING NO: D02-7130 REV 1; D02-7130 ITEM 15 REV 1; DIAPHRAGM; FOR USE IN STP 2A HANNEMAN CONTROL VALVES; MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON THE SHELF	ea	6
218776	PLATE:TOP MEMBRANE;OD 430 MM;STL	PLATE: TYPE: TOP MEMBRANE; DIMENSIONS: OD 430 MM; MATERIAL: STL; DRAWING NO: D02-7130 REV 1; D02-7130 ITEM 15 REV 1; DIAPHRAGM; FOR USE IN STP 3A HANNEMANN CONTROL VALVE; MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON THE SHELF	ea	6

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218777	PLATE:TOP MEMBRANE;OD 570 MM;STL	PLATE: TYPE: TOP MEMBRANE; DIMENSIONS: OD 570 MM; MATERIAL: STL; DRAWING NO: D02-7130 ITEM 15 REV 1; D02-7130 REV 1; DIAPHRAGM; FOR USE IN STP 4A HANNEMANN CONTROL VALVE; MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON THE SHELF	ea	6
218778	DISC VLV:STL;CONTROL;DIA 320 MM	DISC, VALVE: MATERIAL: STL; VALVE STYLE: CONTROL; DIMENSIONS: DIA 320 MM; DRAWING NO: D02-7130 ITEM 16 REV 1; D02-7130 REV 1; BOTTOM MEMBRANE; DIAPHRAGM PLATE FOR USE ON STP 2A HANNEMANN VALVE; MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON THE SHELF	ea	6
218779	DISC VLV:STL;CONTROL;DIA 430 MM	DISC, VALVE: MATERIAL: STL; VALVE STYLE: CONTROL; DIMENSIONS: DIA 430 MM; DRAWING NO: D02-7130 REV 1; D02-7130 ITEM 16 REV 1; BOTTOM MEMBRANE; DIAPHRAGM PLATE FOR USE ON STP 3A HANNEMANN VALVE; MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON THE SHELF	ea	6
218780	DISC VLV:STL;CONTROL;DIA 570 MM	DISC, VALVE: MATERIAL: STL; VALVE STYLE: CONTROL; DIMENSIONS: DIA 570 MM; DRAWING NO: D02-7130 REV 1; D02-7130 ITEM 16 REV 1; BOTTOM MEMBRANE; DIAPHRAGM PLATE FOR USE ON STP 4A HANNEMANN VALVE; MUST BE CHECKED AT RECEIVING BEFORE	ea	6

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		BEING PLACED ON THE SHELF		
113775	SEAL RNG:PISTON;ID 18 MM;OD 139.7 MM	SEAL, RING: TYPE: PISTON; INSIDE DIAMETER: 18 MM; OUTSIDE DIAMETER: 139.7 MM; THICKNESS: 18 MM; MATERIAL: RUBBER; SUPPL P/N: HP	ea	120

113775	SEAL RNG:PISTON;ID 18 MM;OD 139.7 MM	SEAL, RING: TYPE: PISTON; INSIDE DIAMETER: 18 MM; OUTSIDE DIAMETER: 139.7 MM; THICKNESS: 18 MM; MATERIAL: RUBBER; SUPPL P/N: HP	ea	120
40522	CYLINDER ASSY HYD:POWER;STL	CYLINDER ASSEMBLY, HYDRAULIC: TYPE: POWER; BODY MATERIAL: STL; SIZE: 770MM LG; FOR USE ON PA FANS; VENDORS ARE RESPONSIBLE FOR	ea	15
156893	WIPER:PISTON ROD;ID 25 X OD 42 X THK 6	WIPER: TYPE: PISTON ROD; DIMENSIONS: ID 25 X OD 42 X THK 6 MM; MATERIAL: FELT; FOR KENT POWER CYLINDERS, 5-1/2 INCH X 7 INCH	ea	25
212948	KIT CYL REPR:REPLACEMENT	KIT, CYLINDER REPAIR: TYPE: REPLACEMENT; SUPPL P/N: DN-160-PPV-A; MUST BE CHECKED AT RECEIVING	ea	25
600507	PANEL ELECT PWR:FIRE CONTROL;230 KVAC;1	PANEL, ELECTRICAL POWER: TYPE: FIRE CONTROL; DIMENSIONS: WD 410 X LG 540 X DP 137 MM; POTENTIAL: 230 KVAC; CURRENT: 1 A; CLASSI	ea	6
600509	DETECTOR FIRE PROT:SMOKE;-10 TO 75 DEG C	DETECTOR, FIRE PROTECTION: TYPE: SMOKE; TEMPERATURE RATING: -10 TO 75 DEG C; POTENTIAL: 20 V; SPECIFICATION: EN 54 PT7; MANUF P	ea	50

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	Description of the goods		Unit	Maximum Quantity In 5 Years Period
	PYROMETERS AND FLOW METERS			
149978	LENS:RADIOMATIC;DIA 37 MM;GLASS	LENS: TYPE: RADIOMATIC; DIMENSIONS: DIA 37 MM; MATERIAL: GLASS; SUPPL P/N: 30075526-000; FOR RADIOMATIC HEAD, THERMOPILE	ea	300
611093	CONVERTER:ANALOG;I/P 0.04-23.66 MIL V	CONVERTER: TYPE: ANALOG; INPUT: 0.04-23.66 MIL V; OUTPUT: 4-20 MA; APPLICATION: THERMOPILE; SCREW TERMINAL CONNECTION; WAS4 PRO	ea	100
589229	PYROMETER:250-2000 DEG C;24 VDC	PYROMETER: RANGE: 250-2000 DEG C; POTENTIAL: 24 VDC; MANUF P/N: 7MC3001-8BA; PZ20AF1; MEASURING RANGE 250 TO 2000 CEL; DISTANCE	ea	8
149966	METER FLW:HYDROGEN;5/8 IN-BSP;0-999.999	METER, FLOW: TYPE: HYDROGEN; CONNECTION: 5/8 IN-BSP; RANGE: 0-999.999 GAL; MATERIAL: BRASS; MEDIUM: HYDROGEN; 48 PLANT ENTRY	ea	6
149967	METER:HYDROGEN GAS;0-999999 M3;ANALOG	METER: TYPE: HYDROGEN GAS; RANGE: 0-999999 M3; READOUT: ANALOG; STYLE: SQ FRONT; MODEL NO: A.L. 800	ea	6
218611	METER FLW:HYDROGEN;1-1/4 IN-BSP;0-12 M3	METER, FLOW: TYPE: HYDROGEN; CONNECTION: 1-1/4 IN-BSP; RANGE: 0-12 M3; MATERIAL: AL CAST; MEDIUM: HYDROGEN; SUPPL P/N: AL425-25	ea	6
155549	METER FLW:WATER;FLANGE 210 MM;0-100 L/HR	METER, FLOW: TYPE: WATER; CONNECTION: FLANGE 210 MM; RANGE: 0-100 L/HR; MATERIAL: STL; MEDIUM: WATER; REFERENCE NO: HSS08198	ea	8
156869	METER FLW:WATER;FLANGE 300 MM;0-10 M3	METER, FLOW: TYPE: WATER; CONNECTION: FLANGE 300 MM; RANGE: 0-10 M3; MATERIAL: STL; MEDIUM: WATER; 150MM INFERENCE TYPE, INTE	ea	4

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219720	TRANSDUCER:LEVEL;I/P 0-8 M;O/P 4-20 MA	TRANSDUCER: TYPE: LEVEL; INPUT: 0-8 M; OUTPUT: 4-20 MA; POWER SOURCE: 90-250 VAC; SUPPL P/N: FMP40-ABB2GRJG21AA; GUIDED RADAR,	ea	6
207406	SWITCH LVL:RISING LEVEL;24 VDC	SWITCH, LEVEL: METHOD OF ACTUATION: RISING LEVEL; POTENTIAL: 24 VDC; SUPPL P/N: FTL260-0120; LIQUIPHANT T AC; +24VDC OUTPUT	ea	6
149971	ASSY:COUNTER/UNDER GEAR	ASSEMBLY: TYPE: COUNTER/UNDER GEAR; SUPPL P/N: 6K1400; AND UNDER GEAR; FOR KENT 6 WATER METER	ea	6
63937	VALVE DIAPH:6 MM;16 BAR;-20 TO 100 DEG C	VALVE, DIAPHRAGM: VALVE SIZE: 6 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: -20 TO 100 DEG C; CONNECTION: FEMALE THD; BODY M	ea	60
51896	MANIFOLD VLV:3 WAY;STL ALLOY;FNPT	MANIFOLD, VALVE: STYLE: 3 WAY; BODY MATERIAL: STL ALLOY; CONNECTION: FNPT; NDLE VLV 8128F8J BLRS; VENDORS ARE RESPONSIBLE FOR E	ea	45
121762	CHAMBER:FLOAT	CHAMBER: TYPE: FLOAT; SUPPL P/N: 1027-7C7-CL-RXXX; REFERENCE NO: HAA-01-041; HIGH TEMPERATURE, COMPLETE WITH BESTA HIGH TEMPERA	ea	10
70600	MANIFOLD VLV:3 WAY;1/2 IN;3000 PSI;SS	MANIFOLD, VALVE: STYLE: 3 WAY; SIZE: 1/2 IN; DESIGN RATING: 3000 PSI; BODY MATERIAL: STAINLESS STEEL; CONNECTION: NPT; SUPPL P/	ea	50
70601	MANIFOLD VLV:3 WAY;1/2 IN;6000 PSI;SS	MANIFOLD, VALVE: STYLE: 3 WAY; SIZE: 1/2 IN; DESIGN RATING: 6000 PSI; BODY MATERIAL: STAINLESS STEEL; CONNECTION: NPT; SUPPL P/	ea	50
121763	CHAMBER	CHAMBER: SUPPL P/N: S021-1RC-RXXX; MATERIAL: CARBON STEEL, TYPE: BESTA, COMPLETE WITH FLANGED HIGH	ea	10

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		TEMPERATURE BESTA FLOAT SWIT		
152135	METER FLW:ALARM;FLANGE 148 MM;10-100	METER, FLOW: TYPE: ALARM; CONNECTION: FLANGE 148 MM; RANGE: 10-100 L/MIN; MATERIAL: SS GR 316; MEDIUM: LIQUID; 2 INCH FLOWMETER	ea	20
152136	METER FLW:ALARM;FLANGE 220 MM;100-1000	METER, FLOW: TYPE: ALARM; CONNECTION: FLANGE 220 MM; RANGE: 100-1000 L/MIN; MATERIAL: SS GR 316; 3 INCH GMT VAMPIRE 80MM, COMPL	ea	20
73126	MANIFOLD VLV:5 WAY;8 MM;400 BAR;1000;STL	MANIFOLD, VALVE: STYLE: 5 WAY; SIZE: 8 MM; DESIGN RATING: 400 BAR; TEMPERATURE RATING: 1000 DEG C; BODY MATERIAL: STEEL; CONNEC	ea	120
189819	FLOAT:LEVEL SWITCH;DIA 62 X LG 215 MM;SS	FLOAT: TYPE: LEVEL SWITCH; DIMENSIONS: DIA 62 X LG 215 MM; MATERIAL: STAINLESS STEEL; SUPPL P/N: 2662; VENDORS ARE RESPONSIBLE	ea	25
154274	TRANSMITTER LVL:0-4 M;O/P 4-20 MA;10-30	TRANSMITTER, LEVEL: RANGE: 0-4 M; OUTPUT: 4- 20 MA; SUPPLY: 10-30 VDC; CONNECTION: FLANGE; WORKING PRESSURE: 4 M H2O; ELECTRICAL	ea	6
149976	METER FLW:3/8 IN-NPT	METER, FLOW: CONNECTION: 3/8 IN-NPT; FOR GAPMETER TYPE GS SS	ea	15
611243	TURBIDIMETER:LOW ANALYZER;0- 100 NTU;12	TURBIDIMETER: TYPE: LOW ANALYZER; RANGE: 0-100 NTU; POWER SOURCE: 12 VAC; MANUF P/N: 1720E; MEASURING UNITS MG/L; NTU; DEGREE; RESOLUTION 0.0001 NTU UP TO 9.9999 NTU; SAMPLE FLOW RATE REQUIRED 250 TO 750 ML/ MINUTE; OPERATING TEMPERATURE 0 TO 50 DEG C; OPERATING HUMIDITY 5 TO 95 PCT NON CONDENSING; POWER REQUIREMENTS 12 VDC; 12.5 WATTS MAX; SENSOR CABLE LENGTH 2 M; MOUNTING OPTIONS BODY AND HEAD ASSEMBLY:	ea	25

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		WALL/FLOOR STAND; INDOOR INSTALLATION ENVIRONMENT; INCLUDE CALIBRATION CYLINDER 1 L 20 NTU STABLCAL; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).		
246002	ANALYZER GAS:HYDROGEN IN NITROGEN	ANALYZER, GAS: TYPE: HYDROGEN IN NITROGEN; SUPPL P/N: XMTC-62-11; RANGE 90-100 PCT POWER SOURCE 2/24 VDC 1.2 A ANLOGUE OUTPUT 4-20 MA ISOLATED 800 OHMS MAX INGRESS PROTECTION IP66 RESPONSE TIME 20 SECONDS 90% STEP CHANGE ACCURACY +/- 20% OF SPAN LINEARITY +/- 1% OF SPAN REPEATABILITY +/-0.5 % OF SPAN ZERO STABILITY +/- SAN PER WEEK CALIBRATION CERTIFICATE EEX D IIC T6 RATED	ea	6
737601	PUMP:XSP9- 7/O.25L;X2211010004;1.25 IN;SS	PUMP: TYPE: SUBMERSIBLE; SIZE: 1.25 IN; CAPACITY: 150 L/MIN; SPEED: 2860 RPM; RATING: 0.25 KW; POTENTIAL: 220 VAC; CASING MATERIAL: STAINLESS STEEL; OEM P/N: XSP9-7/O.25L; X2211010004; XSP9-7/O.25 L 220 VAC SUBMERSIBLE PUMP COMPLETE WITH FLOAT SWITCH	ea	60
736555	METER FLW:ULTRASONIC;RS 232;0- 1000 L/S	METER, FLOW: TYPE: ULTRASONIC; CONNECTION: RS 232; RANGE: 0-1000 L/S; MATERIAL: PLASTIC; ULTRAFLUX; OUTPUT: 4-20 MA; ENCLOSURE: IP67/EN IEC 60529; ACCURACY: 0.5 PCT; OPERATING TEMPERATURE: 60 DEG C; GRAPHIC LCD SCREEN; USED ON ALL	ea	50

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		HOMOGENOUS PIPE MATERIALS		
0631022	PUMP: TYPE: SUBMERSIBLE; SIZE: 32 MM	PUMP: TYPE: SUBMERSIBLE; SIZE: 32 MM; CAPACITY: 130 L/MIN; SPEED: 2860 RPM; RATING: 130 L/MIN; DRIVER: ELECTRIC MOTOR; POTENTIAL: 220-240 V; FURNISHED ITEMS: COMPLETE SET; ZIMELT V250F DRAINAGE PUMP MAXIMUM HEAD OF 7 METRES; MAXIMUM FLOW OF 130 L/MIN; VOLTAGE SINGLE PHASE; INPUT POWER 250 WATTS; IP68; INSULATION CLASS B; FULL LOAD CURRENT OF 1.8 AMP	ea	50
0633142	PUMP, CENTRIFUGAL: NPSH: 0 M; CAPACITY: 3 L/S;	PUMP, CENTRIFUGAL: NPSH: 0 M; CAPACITY: 3 L/S; TOTAL HEAD: 5 M; SIZE: 50 MM; SPEED: 2010 RPM; STAGE: 1; TYPE: SUBMERSIBLE; VS40-VS/CS/GS50-VS/CS/65-VS/CS/80-VS/CS/100-VS/CS/150	ea	50

Group 2 consist of switches, computers, electronics, transmitters, relays and fittings

	DESCRIPTION OF GOODS		UNIT	MAXIMUM QUANTITY IN 5 YEARS PERIOD
246002	ANALYZER GAS:HYDROGEN IN NITROGEN	ANALYZER, GAS: TYPE: HYDROGEN IN NITROGEN; SUPPL P/N: XMTC-62-11; RANGE 90-100 PCT POWER SOURCE 2/24 VDC 1.2 A ANLOGUE OUTPUT 4-20 MA ISOLATED 800 OHMS MAX INGRESS PROTECTION IP66 RESPONSE TIME 20 SECONDS 90% STEP CHANGE ACCURACY +/- 20% OF SPAN LINEARITY +/- 1% OF SPAN REPEATABILITY +/-0.5 % OF SPAN ZERO STABILITY +/-SAN PER WEEK CALIBRATION	ea	6

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		CERTIFICATE EEX D IIC T6 RATED		
737601	PUMP:XSP9-7/O.25L;X2211010004;1.25 IN;SS	PUMP: TYPE: SUBMERSIBLE; SIZE: 1.25 IN; CAPACITY: 150 L/MIN; SPEED: 2860 RPM; RATING: 0.25 KW; POTENTIAL: 220 VAC; CASING MATERIAL: STAINLESS STEEL; OEM P/N: XSP9-7/O.25L; X2211010004; XSP9-7/O.25 L 220 VAC SUBMERSIBLE PUMP COMPLETE WITH FLOAT SWITCH	ea	60
736555	METER FLW:ULTRASONIC;RS 232;0-1000 L/S	METER, FLOW: TYPE: ULTRASONIC; CONNECTION: RS 232; RANGE: 0-1000 L/S; MATERIAL: PLASTIC; ULTRAFLUX; OUTPUT: 4-20 MA; ENCLOSURE: IP67/EN IEC 60529; ACCURACY: 0.5 PCT; OPERATING TEMPERATURE: 60 DEG C; GRAPHIC LCD SCREEN; USED ON ALL HOMOGENOUS PIPE MATERIALS	ea	50
736554	TRANSMITTER FLW:100-300 MM;O/P 4-20 MA	TRANSMITTER, FLOW: TYPE: ULTRASONIC CLAMP-ON PROBE; RANGE: 100-300 MM; OUTPUT: 4-20 MA; SUPPLY: 10-32 VDC; MODEL NO: SE 1595; ULTRAFLUX; TX CONNECTION; POTTED CABLE THROUGH CABLE GLAND MOUNTING ON PIPE FROM DN80-DN4500; OPERATING TEMPERATURE: -20 TO 80 DEG C; INGRESS PROTECTION EN/IEC 60529 IP68; FOR LIQUID FLOW MEASUREMENT ON A FULL PIPE;	ea	50
0631022	PUMP: TYPE: SUBMERSIBLE; SIZE: 32 MM	PUMP: TYPE: SUBMERSIBLE; SIZE: 32 MM; CAPACITY: 130 L/MIN; SPEED: 2860 RPM; RATING: 130 L/MIN; DRIVER: ELECTRIC MOTOR; POTENTIAL: 220-240 V; FURNISHED ITEMS: COMPLETE SET; ZIMELT V250F DRAINAGE PUMP MAXIMUM HEAD OF 7 METRES;	ea	50

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		MAXIMUM FLOW OF 130 L/MIN; VOLTAGE SINGLE PHASE; INPUT POWER 250 WATTS; IP68; INSULATION CLASS B; FULL LOAD CURRENT OF 1.8 AMP		
0633142	PUMP, CENTRIFUGAL: NPSH: 0 M; CAPACITY: 3 L/S;	PUMP, CENTRIFUGAL: NPSH: 0 M; CAPACITY: 3 L/S; TOTAL HEAD: 5 M; SIZE: 50 MM; SPEED: 2010 RPM; STAGE: 1; TYPE: SUBMERSIBLE; VS40-VS/CS/GS50-VS/CS/65-VS/CS/80-VS/CS/100-VS/CS/150	ea	50

Group 2 consist of switches, computers, electronics, transmitters, relays and fittings

225775	CABLE ASSY ELECT:HEAT SENSOR;1 M	CABLE ASSEMBLY, POWER ELECTRICAL: TYPE: HEAT SENSOR; OVERALL LENGTH: 1 M; SUPPL P/N: A-88.155.120; FOR RLUT, UP-CON 1000 SENSORS, MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON SHELF; MATERIAL: PLASTIC COVER	ea	6
225774	SENSOR TEMP	SENSOR, TEMPERATURE: SUPPL P/N: A-87.334.100; REFERENCE NO: PT1000; CONDUCTIVITY, RANGE: 0.055 TO 1000 MICRO SIMENS/CM, MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON SHELF, CABLE LENGTH 1M, CELL CONSTANT 0.04/CM-1, CONNECTION 3/4 INCH NPT, MATERIAL SS	ea	6
225773	CELL CNDCTVY:FLOW;0.04/CM-1;SS GR 316L	CELL, CONDUCTIVITY: TYPE: FLOW; CELL CONSTANT: 0.04/CM-1; CELL MATERIAL: SS GR 316L; ELECTRODE: TITANIUM; SUPPL P/N: A-83.228.123; VENDORS ARE RESPONSIBLE	ea	6

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		FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).		
225772	TRANSMITTER:CONDUCTIVITY;0.055-30 MS/CM	TRANSMITTER: TYPE: CONDUCTIVITY; RANGE: 0.055-30 MS/CM; OUTPUT: 0/4-20 MA; SUPPLY: 220 VAC; SUPPL P/N: A-13.463.100; MUST BE CHECKED AT RECEIVING BEFORE BEING PLACED ON SHELF	ea	6
148028	TRANSMITTER LVL:0-12 M;O/P 4-20; 0-20 MA	TRANSMITTER, LEVEL: RANGE: 0-12 M; OUTPUT: 4-20; 0-20 MA; SUPPLY: 110-230 VAC; TYPE: ULTRASONIC; SENSOR: MICRO PROCESSOR PROGRA	ea	6
150031	CONVERTER:ROTATION	CONVERTER: TYPE: ROTATION; SUPPL P/N: 00335; INDICATOR, ROTATE WE77-DRM-PUMP	ea	10
150036	ALARM:BACKUP UNIT;220 V AC 4-20 MA 50 HZ	ALARM: TYPE: BACKUP UNIT; RATING: 220 V AC 4-20 MA 50 HZ; REFERENCE NO: 42866/08; SINGLE AND DUAL, ET 1215, OUTPUT: 2 SPDT; VEN	ea	6
151107	SENSOR:PROBE	SENSOR: TYPE: PROBE; SUPPL P/N: NCB10-30GM40-NO	ea	25
207464	SWITCH SNSTV:24 VDC	SWITCH, SENSITIVE: POTENTIAL: 24 VDC; SUPPL P/N: WLCA2Y; DOUBLE CONTACT MICRO SWITCH	ea	60
207466	SWITCH SNSTV:MICRO	SWITCH, SENSITIVE: BODY STYLE: MICRO; SUPPL P/N: BA02MS; LEVEL; DOUBLE SWITCH	ea	60
207463	SWITCH LMT:24 VDC;10 A;SPST;RELAY;IP66	SWITCH, LIMIT: POTENTIAL: 24 VDC; CURRENT: 10 A; ACTION: SPST; ACTUATOR: RELAY; CONTACT ARRANGEMENT: 1NO 1NC; ENCLOSURE: IP66;	ea	80
219721	KIT:BRACKET;REED SWITCH	KIT: TYPE: BRACKET; APPLICATION: REED SWITCH; SUPPL P/N: 4624A	ea	80

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207465	TRANSMITTER:POSITION;0-18 DEG;O/P 4-20	TRANSMITTER: TYPE: POSITION; RANGE: 0-18 DEG; OUTPUT: 4-20 MA; SUPPLY: 13-36 VDC; SUPPL P/N: TGM 5; V14436A-1011130/303; ANGULA	ea	8
189810	TRANSDUCER: TYPE: TEMPERATURE; INPUT: 0-200 DEG C;	TRANSDUCER: TYPE: TEMPERATURE; INPUT: 0-200 DEG C; OUTPUT: 4-20 MA; POWER SOURCE: 24 V; SUPPL P/N: T19.30.1PO-1; ANALOGUE TRANSMITTER, DIN RAIL MOUNT, PT 100,ADJUSTABLE ZERO AND SPAN	ea	50
148884	TRANSMITTER:ANGLE TO CURRENT;0-120 DEG C	TRANSMITTER: TYPE: ANGLE TO CURRENT; RANGE: 0-120 DEG C; OUTPUT: 4-20 MA; SUPPLY: 24 VDC; SUPPL P/N: TGM 4/TGM5; 314050; 14436-	ea	25
61235	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: FNPT; MATERIAL: BRA	ea	2000
61236	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;3/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 3/8 IN; PIPE CONNECTION: FNPT; MATERIAL: BRA	ea	500
61222	ADAPTOR TUBE-PIPE:1/8 IN;COMPRESSION;1/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/8 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	600
61224	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/8 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	1500
61225	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	2000
60534	UNION TUBE:8 MM;BRS;COMPRESSION	UNION, TUBE: SIZE: 8 MM; MATERIAL: BRASS; CONNECTION: COMPRESSION; SUPPL P/N: 8UBRME	ea	5000

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61229	ADAPTOR TUBE-PIPE:8 MM;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 8 MM; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: BRASS;	ea	1500
61230	ADAPTOR TUBE-PIPE:3/8 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 3/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	500
61231	ADAPTOR TUBE-PIPE:3/8 IN;COMPRESSION;3/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 3/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 3/8 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	500
60647	ADAPTOR TUBE-PIPE:1/2 IN;COMPRESSION;1/2	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/2 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	500
60363	ADAPTOR TUBE-PIPE:1/8 IN;COMPRESSION;1/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/8 IN; PIPE CONNECTION: NPT; MATERIAL: SS G	ea	2500
60370	ADAPTOR TUBE-PIPE:3/8 IN;COMPRESSION;3/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 3/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 3/8 IN; PIPE CONNECTION: PT; MATERIAL: STAIN	ea	1000
58282	ADAPTOR TUBE-PIPE:3/8 IN;COMPR;1/2 IN	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 3/8 IN; TUBE CONNECTION: COMPR; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: SS GR 316;	ea	1000
60549	ELBOW TUBE ADPTR:1/4 IN;COMPRESSION;NPT	ELBOW, TUBE ADAPTOR: SIZE: 1/4 IN; INLET CONNECTION: COMPRESSION; OUTLET CONNECTION: NPT; MATERIAL: BRASS; DEGREE: 90 DEG; SUPP	ea	1000
59449	ELBOW TUBE ADPTR:1/2 X 1/4 IN;NPT;BRS;90	ELBOW, TUBE ADAPTOR: SIZE: 1/2 X 1/4 IN; INLET CONNECTION: NPT; OUTLET CONNECTION: COMPRESSION; MATERIAL: BRASS; DEGREE: 90 DEG	ea	500

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60356	TEE TUBE:1/4 IN;COMPRESSION;BRS;6 BAR	TEE, TUBE: SIZE: 1/4 IN; CONNECTION: COMPRESSION; MATERIAL: BRASS; RATING: 6 BAR; SUPPL P/N: 4TTT; ALL AROUND COMPLETE WITH FER	ea	600
61250	TEE TUBE:8 MM;COMPRESSION;BRS	TEE, TUBE: SIZE: 8 MM; CONNECTION: COMPRESSION; MATERIAL: BRASS; SUPPL P/N: 8TTTBRME	ea	500
61251	TEE TUBE ADPTR:3/8 IN;BRS;COMPRESSION	TEE, TUBE ADAPTOR: SIZE: 3/8 IN; MATERIAL: BRASS; FIRST END CONNECTION TYPE: COMPRESSION; SECOND END CONNECTION TYPE: COMPRESSI	ea	500
60372	TEE TUBE:1/2 IN;COMPRESSION;BRS;6 BAR	TEE, TUBE: SIZE: 1/2 IN; CONNECTION: COMPRESSION; MATERIAL: BRASS; RATING: 6 BAR; SUPPL P/N: 8TTT; HENDRINA GYROLOK BRAND ONLY	ea	500
60371	TEE TUBE:1/2 IN;COMPRESSION;SS	TEE, TUBE: SIZE: 1/2 IN; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; SUPPL P/N: 8TTT-316	ea	500
60401	UNION TUBE BHD:OD 1/4 IN;COMPRESSION;STL	UNION, TUBE BULKHEAD: OUTSIDE DIAMETER: 1/4 IN; CONNECTION: COMPRESSION; MATERIAL: STL; SUPPL P/N: 4BCM4-S; HENDRINA GYROLOK BR	ea	50
58292	UNION TUBE BHD:OD 3/8 IN;COMPRESSION;SS	UNION, TUBE BULKHEAD: OUTSIDE DIAMETER: 3/8 IN; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; SUPPL P/N: 6BU-316	ea	50
61241	UNION TUBE:1/4 IN;BRS;COMPRESSION	UNION, TUBE: SIZE: 1/4 IN; MATERIAL: BRASS; CONNECTION: COMPRESSION; SUPPL P/N: 4U	ea	4000
61242	UNION TUBE:3/8 IN;BRS;COMPRESSION	UNION, TUBE: SIZE: 3/8 IN; MATERIAL: BRASS; CONNECTION: COMPRESSION; SUPPL P/N: 6U	ea	1500
60361	UNION TUBE:1/2 IN;BRS;COMPRESSION	UNION, TUBE: SIZE: 1/2 IN; MATERIAL: BRASS; CONNECTION:	ea	1500

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		COMPRESSION; SUPPL P/N: 8U		
60377	UNION TUBE:5/16 IN;STL;COMPRESSION	UNION, TUBE: SIZE: 5/16 IN; MATERIAL: STEEL; CONNECTION: COMPRESSION; SUPPL P/N: 8US-MME; HENDRINA GYROLOK BRAND ONLY	ea	1500
60390	ADAPTOR TUBE-PIPE:5/8 IN;COMPRESSION;1/2	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 5/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	500
60537	REDUCER TUBE:1/4 X 1/8 IN;COMPRESSION	REDUCER, TUBE: NOMINAL SIZE: 1/4 X 1/8 IN; CONNECTION: COMPRESSION; MATERIAL: BRASS; SUPPL P/N: 4RU2	ea	1600
60396	UNION TUBE:3/8 IN;SS;COMPRESSION	UNION, TUBE: SIZE: 3/8 IN; MATERIAL: STAINLESS STEEL; CONNECTION: COMPRESSION; SUPPL P/N: 6U316; GYROLOK BRAND ONLY	ea	1000
59447	ADAPTOR PIPE:1/8 IN;FNPT;1/8 IN;NPT;BRS	ADAPTOR, PIPE: INLET SIZE: 1/8 IN; INLET CONNECTION: FNPT; OUTLET SIZE: 1/8 IN; OUTLET CONNECTION: NPT; MATERIAL: BRASS; SUPPL	ea	1000
58277	TEE TUBE:1/4 IN;COMPRESSION;SS	TEE, TUBE: SIZE: 1/4 IN; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; SUPPL P/N: 4TTT-316	ea	1000
174680	REDUCER TUBE:1/4 X 1/8 IN;COMPRESSION;SS	REDUCER, TUBE: NOMINAL SIZE: 1/4 X 1/8 IN; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; SUPPL P/N: 4RU2-316; HENDRINA GY	ea	1000
174679	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/8 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	1200
174678	ADAPTOR TUBE-PIPE:1/8 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	2000

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174677	ADAPTOR TUBE-PIPE:1/8 IN;COMPRESSION;NPT	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/8 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	2500
174676	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;NPT	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	2000
60575	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: SS G	ea	2200
60429	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: BRAS	ea	2200
60362	UNION TUBE:5/8 IN;BRS;COMPRESSION	UNION, TUBE: SIZE: 5/8 IN; MATERIAL: BRASS; CONNECTION: COMPRESSION; SUPPL P/N: 10U; GYROLOK BRAND ONLY	ea	1500
61297	ADAPTOR TUBE-PIPE:3/8 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 3/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: SS G	ea	750
59455	ADAPTOR TUBE-PIPE:10 MM;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 10 MM; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: SS GR	ea	750
59445	ADAPTOR TUBE-PIPE:14 MM;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 14 MM; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: SS GR	ea	750
59446	ADAPTOR TUBE-PIPE:10 MM;COMPRESSION;1/2	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 10 MM; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: SS GR	ea	750

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59444	ADAPTOR TUBE-PIPE:14 MM;COMPRESSION;1/2	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 14 MM; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: SS GR	ea	750
60394	ADAPTOR TUBE-PIPE:12 MM;COMPRESSION;1/2	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 12 MM; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: BRASS	ea	750
59453	ELBOW TUBE ADPTR:10 MM X 1/4 IN;NPT;90	ELBOW, TUBE ADAPTOR: SIZE: 10 MM X 1/4 IN; INLET CONNECTION: COMPRESSION; OUTLET CONNECTION: NPT; MATERIAL: SS GR 316; DEGREE:	ea	750
59448	ELBOW TUBE ADPTR:10 MM X 1/2 IN;NPT;90	ELBOW, TUBE ADAPTOR: SIZE: 10 MM X 1/2 IN; INLET CONNECTION: NPT; OUTLET CONNECTION: COMPRESSION; MATERIAL: SS GR 316; DEGREE:	ea	750
59452	ELBOW TUBE ADPTR:14 MM X 1/2 IN;NPT;90	ELBOW, TUBE ADAPTOR: SIZE: 14 MM X 1/2 IN; INLET CONNECTION: NPT; OUTLET CONNECTION: COMPRESSION; MATERIAL: SS GR 316; DEGREE:	ea	750
59450	ELBOW TUBE ADPTR:12 MM X 1/4 IN;NPT;BRS	ELBOW, TUBE ADAPTOR: SIZE: 12 MM X 1/4 IN; INLET CONNECTION: COMPRESSION; OUTLET CONNECTION: NPT; MATERIAL: BRASS; DEGREE: 90 D	ea	750
59454	UNION TUBE:6 MM;SS;COMPRESSION	UNION, TUBE: SIZE: 6 MM; MATERIAL: STAINLESS STEEL; CONNECTION: COMPRESSION; SUPPL P/N: 6U-316/MM; HENDRINA GYROLOK BRAND ONLY	ea	500
60367	UNION TUBE:8 MM;SS;COMPRESSION	UNION, TUBE: SIZE: 8 MM; MATERIAL: STAINLESS STEEL; CONNECTION: COMPRESSION; SUPPL P/N: 8U316; HENDRINA GYROLOK BRAND ONLY	ea	750
60378	UNION TUBE:10 MM;SS;COMPRESSION	UNION, TUBE: SIZE: 10 MM; MATERIAL: STAINLESS STEEL; CONNECTION: COMPRESSION; SUPPL P/N: 10U316MME; HENDRINA GYROLOK BRAND ONLY	ea	750

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59451	UNION TUBE:14 MM;SS;COMPRESSION	UNION, TUBE: SIZE: 14 MM; MATERIAL: STAINLESS STEEL; CONNECTION: COMPRESSION; SUPPL P/N: 14U-316/MM; HENDRINA GYROLOK BRAND ONL	ea	750
154449	ADAPTOR TUBE-PIPE:1/8 IN;COMPRESSION;1/8	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/8 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/8 IN; PIPE CONNECTION: NPT; MATERIAL: STAI	ea	2000
154450	ADAPTOR TUBE-PIPE:1/4 IN;COMPRESSION;1/4	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/4 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/4 IN; PIPE CONNECTION: NPT; MATERIAL: SS G	ea	2000
61766	TEE TUBE:12 MM;COMPRESSION;SS	TEE, TUBE: SIZE: 12 MM; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; SUPPL P/N: 12TTT316/MM	ea	250
60558	TEE TUBE:10 MM;COMPRESSION;SS	TEE, TUBE: SIZE: 10 MM; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; SUPPL P/N: 10TTT316MM	ea	500
61302	ADAPTOR TUBE-PIPE:1/2 IN;COMPRESSION;1/2	ADAPTOR, TUBE TO PIPE: TUBE SIZE: 1/2 IN; TUBE CONNECTION: COMPRESSION; PIPE SIZE: 1/2 IN; PIPE CONNECTION: NPT; MATERIAL: SS G	ea	500
174669	TEE TUBE:14 MM;COMPRESSION;SS;6 BAR	TEE, TUBE: SIZE: 14 MM; CONNECTION: COMPRESSION; MATERIAL: STAINLESS STEEL; RATING: 6 BAR; SUPPL P/N: 14TTT-316MM; HENDRINA GYR	ea	500
189815	ADAPTOR PIPE:12 MM;FEMALE;1/2 IN;NPT;SS	ADAPTOR, PIPE: INLET SIZE: 12 MM; INLET CONNECTION: FEMALE; OUTLET SIZE: 1/2 IN; OUTLET CONNECTION: NPT; MATERIAL: STAINLESS ST	ea	500
207458	ELBOW TUBE ADPTR:8 MM X 1/4 IN;NPT;BRS	ELBOW, TUBE ADAPTOR: SIZE: 8 MM X 1/4 IN; INLET CONNECTION: NPT; OUTLET CONNECTION: COMPRESSION; MATERIAL: BRASS; DEGREE: 90 DE	ea	500

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60373	ADAPTOR PIPE:1/4 IN;NPT;1/4 IN;FNPT;STL	ADAPTOR, PIPE: INLET SIZE: 1/4 IN; INLET CONNECTION: NPT; OUTLET SIZE: 1/4 IN; OUTLET CONNECTION: FNPT; MATERIAL: STL; SUPPL P/	ea	250
149089	SENSOR:SPEED;10-30 VDC	SENSOR: TYPE: SPEED; RATING: 10-30 VDC; DSH 1280 K TV	ea	10
149090	MONITOR:SPEED;0.1-3600 S;24 VDC	MONITOR: TYPE: SPEED; RANGE: 0.1-3600 S; POWER SOURCE: 24 VDC; MODEL NO: FTR1643; JAQUED	ea	10
149091	CONVERTER:SPEED	CONVERTER: TYPE: SPEED; SUPPL P/N: FTW1413-UC3	ea	10
150006	TRANSMITTER:O/P 4-20 MA;12 VDC	TRANSMITTER: OUTPUT: 4-20 MA; SUPPLY: 12 VDC; SUPPL P/N: FTG 1053/S11; WITH 2M CABLE, RANGE WATER	ea	12
175853	SENSOR:SPEED;0-25 MA;24 VDC;5 M	SENSOR: TYPE: SPEED; RANGE: 0-25 MA; RATING: 24 VDC; CABLE LENGTH: 5 M; SUPPL P/N: DSF2210.005HV; FOR USE ON UNIT 6-10; TURBINE	ea	6
154442	SENSOR:MAGNETIC SPEED;0-600IPS;24 VDC	SENSOR: TYPE: MAGNETIC SPEED; RANGE: 0-600IPS; RATING: 24 VDC; SUPPL P/N: 5430-929; WOODWARD PICK-UP, LONG STANDARD MODEL, INCL MAGNETIC PICK-UP P/NO: 625500	ea	6
154411	MODULE:VALVE RANGE POSITION	MODULE: TYPE: VALVE RANGE POSITION; SUPPL P/N: RWG 4020; VALVE RANGE POSITION CARDS, WITH 5 K OHM SINGLE POT PART NUMBER SINGLE	ea	500
124214	CONN COMM:PLUG;1-1.5 MM;25	CONNECTOR, COMMUNICATION: TYPE: PLUG; CONDUCTOR: 1-1.5 MM; POSITION: 25; SUPPL P/N: 12-301-021; SOCKET	ea	50
240573	MONITOR VIDEO:LCD;24 IN;100/240 VAC	MONITOR, VIDEO: TYPE: LCD; SIZE: 24 IN; POWER SOURCE: 100/240 VAC; RESOLUTION: 1920 X 1200 PX; MANUF P/N: P2400-6 IPS; SUPPL P/	ea	200
149017	CONVERTER SGNL:FREQUENCY TO CURRENT;24	CONVERTER, SIGNAL: TYPE: FREQUENCY TO CURRENT; OUTPUT: 4-20 MA; POWER SOURCE: 24 VDC; MODEL NO: KFD2-	ea	100

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		UFC-EX1.D; REFERENCE NO:		
184018	SEAL RNG:ID 18 MM;OD 25.4 MM;PTFE	SEAL, RING: INSIDE DIAMETER: 18 MM; OUTSIDE DIAMETER: 25.4 MM; MATERIAL: PTFE; WITH A CHAMFER ON ONE SIDE; 4.3MM ON THE INSIDE	ea	5000
209533	RELAY:24 VDC;1NO;6 A;SPDT;SCREW;AGSNO	RELAY: COIL VOLTAGE: 24 VDC; CONTACT ARRANGEMENT: 1NO; CONTACT RATING: 6 A; ACTION: SPDT; TERMINAL: SCREW; MOUNT: CLIP RAIL; CO	ea	100
214751	RELAY:SINGLE POINT ALARMER;24 VDC;1NO	RELAY: TYPE: SINGLE POINT ALARMER; COIL VOLTAGE: 24 VDC; CONTACT ARRANGEMENT: 1NO; CONTACT RATING: 0-10 VDC; ACTION: SPDT; TERM	ea	20
218267	RELAY:PHOENIX;24 VDC;1NO;6 A;SPDT;PIN	RELAY: TYPE: PHOENIX; COIL VOLTAGE: 24 VDC; CONTACT ARRANGEMENT: 1NO; CONTACT RATING: 6 A; ACTION: SPDT; TERMINAL: PIN; MOUNT:	ea	300
218275	TRANSDUCER:HEAD MOUNT;O/P 4-20 MA	TRANSDUCER: TYPE: HEAD MOUNT; OUTPUT: 4-20 MA; VARIOUS INPUT; LOOP POWERED; TO FIT ANSI HEAD, RANGE 0-150 DEG CELCIUS, MUST BE	ea	120
219729	CCT:ELECTRONIC;FEEDBACK CARD	CIRCUIT: TYPE: ELECTRONIC; FUNCTION: FEEDBACK CARD; SUPPL P/N: RWG 4020; FOR 4-20 MA, 24 VDC SUPPLY, SIGNAL FROM 3 WIRE, 5 KOHM	ea	400
253703	RELAY;2814252,AUXILIARY	RELAY;2814252,AUXILIARY PROTECTION ~ RELAY; TYPE AUXILIARY PROTECTION, CONTACT RATING 24 VAC, CONTACT ARRANGEMENT 11NO 1NC, CONTACT MATERIAL POLYAMIDE, ACTION 12P6T, COI L VOLTAGE 8-30VAC/DC, TERMINAL 12 PIN PLUG IN, MOUNT 19 INCH RACK, ENCLOSURE RATING GLASS/PLASTIC,	ea	200

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		REFERENCE NO: MCR-CLP-UI-1-4, PART NUMBER: 2814252; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).		
728426	SAMSUNG 43INCH LED MONITOR	MONITOR, VIDEO: TYPE: LED; SIZE: 43 IN; POWER SOURCE: 220 VAC; MODEL NO: LH43QMEEBGCXXA; REFERENCE NO: LH 43 QMBE; SAMSUNG 107.9 CM	ea	20
523622	MONITOR:LCD;100-230 VAC;46 IN	MONITOR: TYPE: LCD; POWER SOURCE: 100-230 VAC; SIZE: 46 IN; MANUF P/N: X 4615; FREQUENCIES: HORIZONTAL 31.5 - 91.1 KHZ; VERTICAL 50 - 85 HZ; RESOLUTION: NATIVE RESOLUTION 1920 X 1080 AT 60 HZ; ORDER CODE: 60003056; ACTIVE SCREEN AREA: 1.018 X 572 MM; ASPECT RATIO: 16:9	ea	15
154444	INDICATOR:DIGITAL;0-99.99;PLASTIC	INDICATOR: TYPE: DIGITAL; DIMENSIONS: WD 115 X LG 260 X HT 112 MM; RANGE: 0-99.99; MATERIAL: PLASTIC; SUPPL P/N: L2Q9-R-P; 4-20	ea	20
154445	CONVERTER:FREQUENCY TO CURRENT	CONVERTER: TYPE: FREQUENCY TO CURRENT; SUPPL P/N: 7MV1110-1AC20-Z	ea	100
149088	TRANSMITTER TEMP:0-300 DEG C;O/P 4-20 MA	TRANSMITTER, TEMPERATURE: RANGE: 0-300 DEG C; OUTPUT: 4-20 MA; SUPPLY: 24 VDC; TYPE: THERMOCOUPLE; MOUNT: HEAD; SUPPL P/N: K; R	ea	100
149087	TRANSMITTER TEMP:0-600 DEG C;O/P 4-20 MA	TRANSMITTER, TEMPERATURE: RANGE: 0-600 DEG C; OUTPUT: 4-20 MA; SUPPLY: 24 V; TYPE: ANALOG; MOUNT: HEAD; SUPPL P/N: T21-31-110;	ea	100

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179400	CONTROLLER:WOODWARD	CONTROLLER: TYPE: WOODWARD; SUPPL P/N: 9907-053; 9907-164; TYPE 505 DIGITAL TURBINE GOVERNOR, RATING 18-32VDC; VENDORS ARE RESP	ea	6
606578	SWITCH LVL:FLOAT;19.6 BAR;240 VAC;15 A	SWITCH, LEVEL: METHOD OF ACTUATION: FLOAT; RANGE: 19.6 BAR; POTENTIAL: 240 VAC; CURRENT: 15 A; ACTION: (2) SPDT; CONTACT ARRANG	ea	25
174675	RESISTOR VAR:5 K OHM;25 W;LUG;METAL;0.5	RESISTOR, VARIABLE: RESISTANCE: 5 K OHM; RATING: 25 W; CONNECTION: LUG; MATERIAL: METAL; TOLERANCE: 0.5 PCT; SUPPL P/N: SINGLE	ea	600
90448	WASHER SEALG:16.2 MM;ID 6.35 MM;OD 16.2	WASHER, SEALING: NOMINAL SIZE: 16.2 MM; INSIDE DIAMETER: 6.35 MM; OUTSIDE DIAMETER: 16.2 MM; THICKNESS: 3 MM; MATERIAL: COPPER;	ea	6000
150004	VALVE:SHUT OFF;1/2 IN;0-100 BAR;MS	VALVE: TYPE: SHUT OFF; VALVE SIZE: 1/2 IN; DESIGN RATING: 0-100 BAR; TEMPERATURE RATING: 14.5 BAR AT 450 DEG C; CONNECTION: 1/2	ea	200
189816	SWITCH LVL:MAGNETIC;-40 TO 55 DEG C;250	SWITCH, LEVEL: METHOD OF ACTUATION: MAGNETIC; RANGE: -40 TO 55 DEG C; POTENTIAL: 250 V; CURRENT: 5 A; ENCLOSURE: IP65; SUPPL P/	ea	50
189817	MODULE:SWITCH	MODULE: TYPE: SWITCH; SUPPL P/N: A BINARY; SINGLE	ea	50
189818	SWITCH SNSTV:1NO 1NC;5 A;MICRO;SCREW	SWITCH, SENSITIVE: CONTACT ARRANGEMENT: 1NO 1NC; CURRENT: 5 A; BODY STYLE: MICRO; MOUNT: SCREW; REFERENCE NO: 2799 A; ACTION SN	ea	50
631663	PROBE:ULTRAFLUX;40 MM;LG 64 MM;1-100 CM3	PROBE: TYPE: ULTRAFLUX; DIAMETER: 40 MM; LENGTH: 64 MM; RATING: 1-100 CM3; CABLE LENGTH: 80 M; MATERIAL: STAINLESS STEEL; MANUF	ea	40

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70580	VALVE:CHLORINE REGULATING;8 MM;BSP;LEVER	VALVE: TYPE: CHLORINE REGULATING; VALVE SIZE: 8 MM; CONNECTION: BSP; OPERATED: LEVER; BODY MATERIAL: STL; TYPE C7700; PRESSURE	ea	12
154410	REGULATOR PRESS:CHLORINATOR;0-15 BAR	REGULATOR, PRESSURE: TYPE: CHLORINATOR; INLET PRESSURE: 0-15 BAR; CONNECTION: COUPLING 3/4 IN; SUPPL P/N: C2210; REFERENCE NO:	ea	12
148985	TRANSDUCER:IPQ203	TRANSDUCER: REFERENCE NO: MSP90-E12B; IPQ203; SONA PULSE BRAND; NON CONTACT ULTRASONIC LIQUID LEVEL WITH SPECIAL FLANGE TO BE I	ea	12
528972	PIPE:ID 8 MM;LG 1 M	PIPE: INSIDE DIAMETER: 8 MM; LENGTH: 1 M; MATERIAL: CADMIUM COATED COPPER; MANUF P/N: 64.6 CHLORINE 10023; COATED CONNECTION LI	ea	25
611242	CONTROLLER:MICROPROCESSOR;0.001-100 NTU	CONTROLLER: TYPE: MICROPROCESSOR; RANGE: 0.001-100 NTU; RATING: 10-240 VAC; OUTPUT: 4-20 MA; MOUNTING: WALL; SC 200 CONTROLLER	ea	25
207467	SWITCH FLW	SWITCH, FLOW: SUPPL P/N: T FTM 260; SOLIPHANT	ea	50
736554	TRANSMITTER FLW:100-300 MM;O/P 4-20 MA	TRANSMITTER, FLOW: TYPE: ULTRASONIC CLAMP-ON PROBE; RANGE: 100-300 MM; OUTPUT: 4-20 MA; SUPPLY: 10-32 VDC; MODEL NO: SE 1595; ULTRAFLUX; TX CONNECTION; POTTED CABLE THROUGH CABLE GLAND MOUNTING ON PIPE FROM DN80-DN4500; OPERATING TEMPERATURE: -20 TO 80 DEG C; INGRESS PROTECTION EN/IEC 60529 IP68; FOR LIQUID FLOW MEASUREMENT ON A FULL PIPE; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT	ea	50

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0742135	BATTERY: TYPE: APCRBC 115;	BATTERY: TYPE: APCRBC 115; POTENTIAL: 48 V; LEAD-ACID	ea	40
0742136	DRIVE, DISK: DESIGN TYPE: SATA;	DRIVE, DISK: DESIGN TYPE: SATA; DRIVE SIZE: 3.5 IN; DATA STORAGE CAPACITY: 4 TB; UNIT DESIGN: NAS HDD; OEM P/N: WD 40 EFAX	ea	20
0742137	UNINTERRUPTIBLE POWER SUPPLY:	UNINTERRUPTIBLE POWER SUPPLY: APPLICATION: SERVERS; INPUT: 230 V; RATING: 1500 VA; OUTPUT VOLTAGE: 230 V; OUTPUT CURRENT: 6.5 A; OEM P/N: SMX1500RMI2U; RACK MOUNT	ea	10
0742138	DRIVE, DISK: DESIGN TYPE: SAS 10 K	DRIVE, DISK: DESIGN TYPE: SAS 10 K; DRIVE SIZE: 2.5 IN; DATA STORAGE CAPACITY: 1.2 TB; UNIT DESIGN: HPE SERVER HDD; OEM P/N: 872737-001	ea	20
0742139	DRIVE, DISK: DESIGN TYPE: SATA;	DRIVE, DISK: DESIGN TYPE: SATA; DRIVE SIZE: 3.5 IN; DATA STORAGE CAPACITY: 1 TB; UNIT DESIGN: HDD; OEM P/N: WD 10 PURX	ea	60
0744613	COMPUTER, SERVER: UNIT TYPE: RACK MOUNT;	COMPUTER, SERVER: UNIT TYPE: RACK MOUNT; PROCESSOR CHIP TYPE: INTEL XEON SILVER 4110; MEMORY: 16 GB; HARD DRIVE: 2 X 1.2 TB SAS 10K; NETWORK CARD: HPE ETHERNET 1GB 4 PORT 366T ADAPTOR; DRIVE: 10 000 RPM SAS; POWER SUPPLY: 220 VAC; PROCESSOR CLOCK SPEED: 2.1G (1 X ROCESSORS) HZ; OEM P/N: 6DU7050-OXG03-8XA0;	ea	10

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		HDD, WINDOWS 2016 SERVER, 2 X HOTSWAP POWER SUPPLY		
0744615	COMPUTER, SERVER: UNIT TYPE: QNAP;	COMPUTER, SERVER: UNIT TYPE: QNAP; PROCESSOR CHIP TYPE: AL324 64BLT ARM CORTEX A57 4 CORE; MEMORY: 2 GB; HARD DRIVE: 4 TB X 4 NAS HDD; NETWORK CARD: 1.7GHZ; DRIVE: NAS HDD; POWER SUPPLY: 220 VAC; PROCESSOR CLOCK SPEED: 1.7G (4cores) HZ; OEM P/N: TS-432PXU-RP-2G; WITH REDUNDANT POWER, RACK MOUNT NAS SERVER WITH 4 X NAS HDD 2 GB UDIMM DDR4 1 X 2GB, 2 X 2 5 GBE AND 2 X 10GBE NETWORK CARDS. 2 5GBE NETWORK CARDS S/NO REAL TEK RTL 6125 RJ45, 10GBE NETWORK CARD S/NO ANNA PURNA - SFP + RJ45	ea	8
0744617	PRINTER, MULTIFUNCTIONAL:	PRINTER, MULTIFUNCTIONAL: TYPE: COLOR LASER; PRINT CAPACITY: WD 210 x LG 297 MM; OEM P/N: M555DN 7ZU78A; SUPPLY 220 VAC	ea	20
0744621	COMPUTER, PERSONAL: MEMORY: 8 GB	COMPUTER, PERSONAL: MEMORY: 8 GB; PROCESSOR CLOCK SPEED: 3.4 G HZ; MEMORY TYPE: UDIMM 288 PIN; PROCESSOR CHIP TYPE: INTEL CORE 13; DATA STORAGE CAPACITY: 1 TB; SCREEN SIZE: 24 IN; NETWORK: PCLE ETHERNET; CONNECTIONS: PCLE ETHERNET; UNIT DESIGN: THINK STATION; OEM P/N: 6DU7000-OXMOO-8XAO; CLIENT SPPA-T3000 R8 2 SP3, P340 SFF, WITH NVIDIA GRAPHICS QUADRO P620 2 GB GDDR 5 512 CUDA CORE CARD; (5M30Z71648), (WDIOEZEX)	ea	20
0744645	COMPUTER, SERVER: UNIT TYPE: RACK MOUNT	COMPUTER, SERVER: UNIT TYPE: RACK MOUNT; PROCESSOR CHIP TYPE: INTEL XEON SILVER 4110;	ea	8

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		MEMORY: 64 GB; HARD DRIVE: 2 X 1.2 TB SAS 10 K; NETWORK CARD: HPE ETHERNET 1GB 4 PORT 366T ADAPTOR; DRIVE: 10 000 RPM SAS; POWER SUPPLY: 220 VAC; PROCESSOR CLOCK SPEED: 2.1G (2 X ROCESSORS) HZ; OEM P/N: 6DU7042-0XG00-8XA0; HPE PROLIANT DL360 GENIO, 64GB RAM, HPE ETHERNET 1GB 4 PORT 3661T ADAPTOR NETWORK CARD WITH 2 X HOTSWAP POWER SUPPLY		
0737282	SENSOR: TYPE: PAIR, FLOW; RATING: -40 TO 120 DEG	SENSOR: TYPE: PAIR, FLOW; RATING: -40 TO 120 DEG C; MODEL NO: SITRANS FSS200-D3; ULTRASONIC; SUPPLY 90-250 V; OUTPUT 4-20 A; OUTER DIAMETER RANGE 203-610 MM; INCLUDING MOUNTING FRAME, COAX PVC CABLES, F-CONNECTOR; SUBMERSIBLE UP TO 10 M; RANGE: 0-12 METER PER SECOND	ea	50
744614	SWITCH, NETWORK: TYPE: SCALANCE SC636-2C;	SWITCH, NETWORK: TYPE: SCALANCE SC636-2C; PORT TYPE: 6 X RJ45, 2 X COMBO; OEM P/N: 6GK5636-2GSOO-2AC2; INDUSTRIALSEC URITY APPLIANCE PROTECTION OF DEVICES AND NETWORKS	ea	8
744616	SWITCH, NETWORK: TYPE: SCALANCE SC636-2C;	SWITCH, NETWORK: TYPE: SCALANCE SC636-2C; PORT TYPE: 5 X RJ45, 3 X MM FO ST. 1 X CONSOLE; OEM P/N: 6GK5205-3BB00-2AB2; SCALANCE XB205-3 MANAGEABLE LAYER 2 IE SWITCH 5 X 10/100 MBITS RJ 45 PORTS	ea	2
744646	SWITCH, NETWORK: TYPE: SCALANCE XC208G; PORT	SWITCH, NETWORK: TYPE: SCALANCE XC208G; PORT TYPE: 8 X RJ45; OEM P/N: 6GK5208-OGA00-2AC2; XC208G MANAGEABLE LAYER 2 IE SWITCH 8 X 10/100/1000 MBITS RJ 45 PORTS, 1 X CONSOLE	ea	4

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	Description of the goods		Unit	Maximum Quantity In 5 Years Period
		PORT OFFICE FEATURES (RSTP, VLAN) PROFINET 10 DEVICES, DIAGNOSTICS LED REDUNDANT POWER SUPPLY IEC 624434-2 CERTIFIED IEEE 1588V2 PTP, DIN RAIL S7 MOUNTING RAIL/WALL REDUNDANCY. ETHERNET IP-COMPLAINT C-PLUG SLOT		
	PRESSURE SWITCHES			
189813	SWITCH PRESS:0.2-1.6; DIF 0.04; MAX 6;24	SWITCH, PRESSURE: RANGE: 0.2-1.6; DIF 0.04; MAX 6 BAR; POTENTIAL: 24 VDC; CURRENT: 8 A; ACTION: SPST; CONNECTION: 1/2 IN-BSP; E	ea	50
122535	SWITCH PRESS:GP;2-2.5 BAR;250 V;8 A;SPDT	SWITCH, PRESSURE: TYPE: GENERAL PURPOSE; RANGE: 2-2.5 BAR; POTENTIAL: 250 V; CURRENT: 8 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2	ea	50
122537	SWITCH PRESS:1-75 PSI;250 V;10 A;SPDT;AL	SWITCH, PRESSURE: RANGE: 1-75 PSI; POTENTIAL: 250 V; CURRENT: 10 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2 IN-NPT; ENCLOSURE RATI	ea	150
207461	SWITCH PRESS:0.2-1.6; MAX 6 BAR;IP65	SWITCH, PRESSURE: RANGE: 0.2-1.6; MAX 6 BAR; ENCLOSURE RATING: IP65; MODEL NO: DCM 1-351; SWITCHING DIFFERENCE MEAN VALUE 0.04	ea	100
121729	SWITCH PRESS:3-16 BAR;250 V;10 A;SPDT	SWITCH, PRESSURE: RANGE: 3-16 BAR; POTENTIAL: 250 V; CURRENT: 10 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2 IN-NPT; ENCLOSURE RATI	ea	150
122536	SWITCH PRESS:CGE;0-0.36 PSI;250 V;10 A	SWITCH, PRESSURE: TYPE: CGE; RANGE: 0-0.36 PSI; POTENTIAL: 250 V; CURRENT: 10 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2 IN-NPT; E	ea	150

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149974	SWITCH PRESS:GP;0.75-20 PSI;250 VAC;10 A	SWITCH, PRESSURE: TYPE: GENERAL PURPOSE; RANGE: 0.75-20 PSI; POTENTIAL: 250 VAC; CURRENT: 10 A; ACTION: SPDT; CONNECTION: BOTTO	ea	50
122542	SWITCH PRESS:VACUUM;0-30 IN;250 V;15 A	SWITCH, PRESSURE: TYPE: VACUUM; RANGE: 0-30 IN; POTENTIAL: 250 V; CURRENT: 15 A; ACTION: SPDT; CONNECTION: BOTTOM 1/4 IN-FNPT;	ea	20
121764	SWITCH PRESS:DUAL DIFFERENTIAL;0-6 BAR;8	SWITCH, PRESSURE: TYPE: DUAL DIFFERENTIAL; RANGE: 0-6 BAR; POTENTIAL: 250 V; CURRENT: 8 A; ACTION: SPDT; CONNECTION: 1/4 IN-FNP	ea	150
121765	SWITCH PRESS:AIR;150-600 MBAR;250 V;8 A	SWITCH, PRESSURE: TYPE: AIR; RANGE: 150-600 MBAR; POTENTIAL: 250 V; CURRENT: 8 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2 IN-BSP;	ea	50
121766	SWITCH PRESS:AIR;250 V;8 A;SPDT	SWITCH, PRESSURE: TYPE: AIR; RANGE: 200-600 MBAR; MAX 16 BAR; POTENTIAL: 250 V; CURRENT: 8 A; ACTION: SPDT; CONNECTION: BOTTOM	ea	150
121767	SWITCH PRESS:AIR;0.5-2.5; MAX 16 BAR;250	SWITCH, PRESSURE: TYPE: AIR; RANGE: 0.5-2.5; MAX 16 BAR; POTENTIAL: 250 V; CURRENT: 8 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2 I	ea	300
121768	SWITCH PRESS:AIR;0-25; MAX 60 BAR;250 V	SWITCH, PRESSURE: TYPE: AIR; RANGE: 0-25; MAX 60 BAR; POTENTIAL: 250 V; CURRENT: 8 A; ACTION: SPDT; CONNECTION: BOTTOM 1/2 IN-NPT; ENCLOSURE RATING: IP65; NEMA 13; SUPPL P/N: DCM25-ZF351; ADJUSTABLE DEAD BAND 1.3-6.0 BAR	ea	100
121770	SWITCH PRESS:DUAL DIFFERENTIAL;1.25-20	SWITCH, PRESSURE: TYPE: DUAL DIFFERENTIAL; RANGE: 1.25-20 KPA; POTENTIAL: 480 VAC; CURRENT: 15 A; ACTION: SPDT;	ea	10

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		CONNECTION: 1/4 IN-FNPT; ENCLOSURE RATING: NEMA 13; SUPPL P/N: J120-455; DIAPHRAGM: BUNA-N		
	SOLENOID VALVES			
62198	KIT VLV RPR:SOLENOID	KIT, VALVE REPAIR: TYPE: SOLENOID; CAT NO: 302-752; REFERENCE NO: 24251 SA; FOR ASCO	ea	100
231974	VALVE SLND:1/4 IN;3 WAY;24 VDC;240 KPA	VALVE, SOLENOID: PIPE SIZE: 1/4 IN; STYLE: 3 WAY; POTENTIAL: 24 VDC; DESIGN RATING: 240 KPA; BODY MATERIAL: ALUMINIUM; ENCLOSUR	ea	450
62401	VALVE SLND:18 MM;4 WAY;220 VAC;140-1035	VALVE, SOLENOID: PIPE SIZE: 18 MM; STYLE: 4 WAY; POTENTIAL: 220 VAC; DESIGN RATING: 140-1035 KPA; CONNECTION: NPT 1/4 IN; BODY	ea	100
62494	VALVE SLND:1/4 IN;2/5 WAY;110 VAC;FNPT	VALVE, SOLENOID: PIPE SIZE: 1/4 IN; STYLE: 2/5 WAY; POTENTIAL: 110 VAC; DESIGN RATING: 140-1000 KPA; CONNECTION: FNPT; BODY MAT	ea	250
134184	KIT VLV RPR	KIT, VALVE REPAIR: SUPPL P/N: 302-372 (104/0468); REFERENCE NO: C02C72	ea	600
62505	VALVE SLND:1/2 IN;2 WAY;24 VDC;300 KPA	VALVE, SOLENOID: PIPE SIZE: 1/2 IN; STYLE: 2 WAY; POTENTIAL: 24 VDC; DESIGN RATING: 300 KPA; CONNECTION: THD; BODY MATERIAL: BR	ea	450
182824	VALVE SLND:1/4 IN;3 WAY;24 VDC;10 BAR;AL	VALVE, SOLENOID: PIPE SIZE: 1/4 IN; STYLE: 3 WAY; POTENTIAL: 24 VDC; DESIGN RATING: 10 BAR; CONNECTION: FNPT; BODY MATERIAL: AL	ea	350
207407	VALVE SLND:2 IN;24 VDC;18 BAR;FEMALE;BRS	VALVE, SOLENOID: PIPE SIZE: 2 IN; POTENTIAL: 24 VDC; DESIGN RATING: 18 BAR; CONNECTION: FEMALE; BODY MATERIAL: BRASS; ENCLOSURE	ea	150

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62495	VALVE SLND:1/4 IN;2/3 WAY;24 VDC;FNPT;AL	VALVE, SOLENOID: PIPE SIZE: 1/4 IN; STYLE: 2/3 WAY; POTENTIAL: 24 VDC; DESIGN RATING: 140-1000 KPA; CONNECTION: FNPT; BODY MATE	ea	120
	Description of the goods		Unit	Maximum Quantity In 5 Years Period
244520	SENSOR CNDCTVY:PH;6 M;SS;PANEL	SENSOR, CONDUCTIVITY: TYPE: PH; CABLE LENGTH: 6 M; MATERIAL: STAINLESS STEEL; MOUNT: PANEL; MANUF P/N: PD IRI; SUPPLY VOLTAGE 2	ea	15
244521	TRANSMITTER FLW:CONDUCTIVITY;2 MM;220;8 HACH	TRANSMITTER, FLOW: TYPE: CONDUCTIVITY; RANGE: 2 MM; OUTPUT: 4-20 MA; SUPPLY: 220 VAC; WORKING PRESSURE: 8 BAR; CONNECTION: 1/2	ea	25
244522	TRANSMITTER FLW:8.8-9 PPM;O/P 4-20 MA;8 HACH	TRANSMITTER, FLOW: RANGE: 8.8-9 PPM; OUTPUT: 4-20 MA; SUPPLY: 220 VAC; WORKING PRESSURE: 8 BAR; CONNECTION: 1/2 IN; BODY MATERI	ea	25
244523	TRANSMITTER FLW:TURBONY SENSOR;0.2 CM;8 HACH	TRANSMITTER, FLOW: TYPE: TURBONY SENSOR; RANGE: 0.2 CM; OUTPUT: 4-20 MA; SUPPLY: 220 VAC; WORKING PRESSURE: 8 BAR; BODY MATERIA	ea	20
244524	TRANSMITTER FLW:2 MM;O/P 4-20 MA;220 VAC HACH	TRANSMITTER, FLOW: RANGE: 2 MM; OUTPUT: 4-20 MA; SUPPLY: 220 VAC; WORKING PRESSURE: 8 BAR; CONNECTION: 1/2 IN; BODY MATERIAL: S	ea	25
244525	TRANSMITTER FLW:8.8-9 PPM;O/P 4-20 MA;8 HACH	TRANSMITTER, FLOW: RANGE: 8.8-9 PPM; OUTPUT: 4-20 MA; SUPPLY: 220 VAC; WORKING PRESSURE: 8 BAR; CONNECTION: 1/2 IN; BODY MATERI	ea	25
244526	TRANSMITTER FLW:INSERTION;40 DEG C;12-36 BURKERT	TRANSMITTER, FLOW: TYPE: INSERTION; RANGE: 40 DEG C; OUTPUT: 4-20 MA; SUPPLY: 12-36 VDC; WORKING PRESSURE: 8 BAR; BODY MATERIAL	ea	30

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Scope of Work for Supply and delivery of C&I non or stock item spares at Hendrina Power Station for a Period of 5 Years

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244527	TRANSMITTER FLW:O/P 4-20 MA;220 VAC;8 HACH	TRANSMITTER, FLOW: OUTPUT: 4-20 MA; SUPPLY: 220 VAC; WORKING PRESSURE: 8 BAR; BODY MATERIAL: BACALINE; DIAPHRAGM MATERIAL: BAKA	ea	24
244517	SENSOR CNDCTVY:2 MM;2.1 M;PLASTIC;25 MM	SENSOR, CONDUCTIVITY: CELL CONSTANT: 2 MM; CABLE LENGTH: 2.1 M; MATERIAL: PLASTIC; CONNECTION: 25 MM; MOUNT: PANEL; SUPPL P/N:	ea	25
244518	SENSOR CNDCTVY:2 MM;6 M;PLASTIC;25 MM	SENSOR, CONDUCTIVITY: CELL CONSTANT: 2 MM; CABLE LENGTH: 6 M; MATERIAL: PLASTIC; CONNECTION: 25 MM; MOUNT: PANEL; SUPPL P/N: 32	ea	25

4. AUTHORISATION

This document has been seen and accepted by:

Name & Surname	Designation

5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2026	1		Long description components reviewed

6. DEVELOPMENT TEAM

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

7. ACKNOWLEDGEMENTS

N/A

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