

REQUIREMENTS OF THE MAYORALTY OF BAGHDAD , PHASE 12

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5. FULL HYDRAULIC TRUCK CRANE 8×4 30 TON ,
6. WHEEL EXCAVATOR QTY 20
7. DRINKING WATER TANKER 6×4 QTY 20
8. ROAD SWEEPERS QTY.50
9. TIPPING TRUCK QTY 40
10. SELF PRIMING MOTOR PUMP SET -4" QTY 15
- SELF PRIMING MOTOR PUMP SET 6 " QTY 20
- SELF PRIMING MOTOR SET 8" QTY 15
11. MOTOR CYCLE 250 CC QTY 200
12. MAINTENANCE TRUCK 4×2 QTY 8
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1. SPARE PARTS FOR STYRE GARBAGE AND CRANE , MODEL WD615.61
2. SPARE PARTS FOR MAINTENACE OF ROAD (B.M.C) PRO 827(4×2) 6521
3. SPARE PARTS FOR TOWERING LIFTER (B.M.C) MODEL PRO 620 (4×2)
- 4.SPARE PARTS FOR STYRE GARBAGE AND CRANE , MODEL WD615.61
5. SPARE PARTS FOR MAINTENACE OF ROAD (B.M.C) PRO 827(4×2) 6521
6. SPARE PARTS FOR TOWERING LIFTER (B.M.C) MODEL PRO 620 (4×2)
7. SPARE PARTS FOR TIPPER RENAULT , KERAX 350.34 6×4
8. SPARE PARTS FOR TIPPER RENAULT , KERAX 350.34 6×4
9. SPARE PARTS FOR GARBAGE & CESSBITE MAN 18-263LC-KOL 4×2 ENGINE MODEL DO826LFL , GEAR BOX MODEL EATON 8209
10. SPARE PARTS FOR GARBAGE & CESSBITE MAN 18-263LC-KOL 4×2 ENGINE MODEL DO826LFL M GEAR BOX MODEL EATON 8209
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13. SPARE PARTS FOR RENAULT GARBAGESCONTAINER LIFT , KERAX 260.19 4×2
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- 15.SPARE PARTS FOR WHEEL EXCAVATOR DIWOO
16. SPARE PARTS FOR WHEEL EXCAVATOR DIWOO
- 17.SPARE PARTS FOR WHEEL EXCAVATOR DIWOO
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30. SPARE PARTS FOR JET VOLVO FL6 , PCFL618 4 ×2 , MODEL ENGINE D6A230
31. SPARE PARTS FOR JET VOLVO FL6 , PCFL618 4 ×2 , MODEL ENGINE D6A230
32. Spare parts related to Baghdad Mayoralty
33. SPARE PARTS FOR TIPPER CALABRESE Model 380 E 31
34. SPARE PARTS FOR IVECO EURO TRAKKER UNITS GARBAGE COLLECTION
35. SPARE PARTS FOR WHEEL LOADER ,TYPE ZL 40B
36. SPARE PARTS FOR WHEEL LOADER ,TYPE ZL 40ENGINE TYPE WD61500
15. COMPLETE ASPHALT PLANT . QTY : 4
16. DIFFERENT TYPE OF ROLLERS FOR ASHALT WORK , , STEEL , WHEEL , CMBINED
17. CRUSHERS WITH SPAIR PARTS . QTY: 4

REQUIREMENTS OF THE MAYORALTY OF BAGHDAD , PHASE 12

SECTION 1 : WATER TREATMENT PLNAT AND NETWORK REQUIREMENTS

SECTION 1-1 : SPARE PART LIST FOR WATER TREATMENT PLNAT

SECTION 1-1-1:ABU GHRAIB RES

CODE	DESCRIPTION	QTY
	SPARES FOR 400/400/410 PUMP	
03-01-0001	WEAR RING	4set
03-01-0002	THRUST WASHER	8
03-01-0003	LANTERN RING IN HALVES	2set
03-01-0004	COMPLET DRIVE SHAFTING INCLUDING PUMP COUPLINGS	2set
03-01-0005	NECK BUSH FIBER GLASS	2
03-01-0006	BOTTOM BEARING FIBER GLASS	2
03-01-0007	KEY FOR COUPLING DRIVE	5
03-01-0008	HEAD LAND "V" RING (VS)	10
03-01-0009	SPACER RING	2set

CODE	DESCRIPTION	QTY
	SPARES FOR 350/300/429 PUMP	
03-01-0010	WEAR RING	2set
03-01-0011	THRUST WASHER	6
03-01-0012	LANTERN RING IN HALVES	2set
03-01-0013	COMPLET DRIVE SHAFTING INCLUDING PUMP COUPLINGS	1set
03-01-0014	COMPLET PLUMMER BLOCK DESIGNATION SN 209	2
03-01-0015	NECK BUSH FIBER GLASS	2
03-01-0016	BOTTOM BEARING FIBER GLASS	2
03-01-0017	KEY FOR COUPLING DRIVE	2
03-01-0018	HEAD LAND "V" RING (VS)	6
03-01-0019	SPACER RING	4set

CODE	DESCRIPTION	QTY
	CONTACTOR : lth30A	
	V OPEN ENCLOSED	
03-01-0020	380 V 330KW 330 KW	8
	415 V 360 KW 360KW	
	CONTACTOR DIMENTION : LENGTH =26cm , WIDTH=15cm , HIGH=20cm	
	CONTACTOR : lth110A	
	380 V 55KW	
03-01-0021	415 V 60 KW	10
	CONTACTOR DIMENTION : LENGTH =10cm , WIDTH=10cm , HIGH=13cm	
	CONTACTOR : lth355A	
	380 V 185KW	
03-01-0022	415 V 200 KW	4
	CONTACTOR DIMENTION : LENGTH =15cm , WIDTH=15cm , HIGH=19cm	

CODE	DESCRIPTION	QTY
03-01-0023	ELECTRONIC TIMER	10
	110V A.C , 8-pin , RANGE : 0-3 min	
03-01-0024	ELECTRONIC TIMER	10
	110V A.C , 8-pin , RANGE : 0-1 min	

CODE	DESCRIPTION	QTY
03-01-0025	210 KW DISTRIBUTION PUMP POWER CONTROL BOARD	3
	RATED VOLTAGE 400V	
	RATED OPERATING CURRENT 37A	
	FREQUENCY 50 Hz	
	CONTROL CIRCUIT VOLTAGE 110V	
03-01-0026	110 KW DISTRIBUTION PUMP CONTROL BOARD	1
	110V CONTROL CIRCUIT , 240V HEATER	
03-01-0027	205 KW DISTRIBUTION PUMP CONTROL BOARD	1
	110V CONTROL CIRCUIT , 240V HEATER	
03-01-0028	INCOMER CIRCUIT BREAKER 1600 KVA FOR TRANSFORMER T1	1
	RATED VOLTAGE 415V	

	FREQUENCY 50 Hz , 3PH CONVENTIONAL lth 3250 A	
03-01-0029	BUS SUCTION CIRCUIT BREAKER RATED VOLTAGE 415V FREQUENCY 50 Hz , 3PH CONVENTIONAL lth 3250 A	1
03-01-0030	110 KW DISTRIBUTION PUMP POWER CONTROL BOARD RATED VOLTAGE 400V RATED OPERATING CURRENT 200A CONTROL CIRCUIT VOLTAGE 110V	1

SECTION 1-1-2:SOUTH RES

CODE	DESCRIPTION	QTY
	SPARES FOR 600/600/600 PUMP	
03-01-0031	THRUST WASHER	10
03-01-0032	COMPLET DRIVE SHAFTINGS	1
03-01-0033	MOTOR BEARING HOSING	2

CODE	DESCRIPTION	QTY
	SPARES FOR 500/500/405 PUMP	
03-01-0034	MOTOR BEARING HOSING	2
03-01-0035	CASING RING 2st	2
03-01-0036	FLANGE DRIVE SHAFT ITEM 30	2
03-01-0037	SLIP JOINT	2
03-01-0038	COUPLING FOR PUMP SHAFTING	1
03-01-0039	PLUMMER BEARING PACKING	4

SECTION 1-1-3: NORTH RES

CODE	DESCRIPTION	QTY
	SPARE PART FOR CAPCITORS	
03-01-0040	FUSE TYPE CEF IN40/UN 7.2 KV	30
03-01-0041	FUSE TYPE CEF IN63A/UN 7.2 KV	30

CODE	DESCRIPTION	QTY
	SPARE PART FOR GEAR TYPE VS/12	
03-01-0042	C.B 3.3 KV , 500A	1
03-01-0043	C.B 520 KW , 150A	1
03-01-0044	C.B 380 KW , 100A	1
03-01-0045	C.B 275 KW , 80A	1
03-01-0046	C.B 100KW ,+B67 200A	

CODE	DESCRIPTION	QTY
	SPARE PART FOR TOP CHANGE OVER FOR TRANSFORMAR 7500	
03-01-0047	STAR RELAY TYPE 14	2

SECTION 1-1-4: AL KARKH TREATMENT PLANT

CODE	DESCRIPTION	QTY
	POWER SUPPLY UNIT	
03-01-0048	3.8 A , 240 V AC I/P , 24V DC O/P	6
03-01-0049	7.6 A , 240 V AC I/P , 24V DC O/P	6
03-01-0050	4.9 A , 240 V AC I/P , 24V DC O/P	12
03-01-0051	16 A , 240 V AC I/P , 24V DC O/P	15
03-01-0052	2.8 A , 240 V AC I/P , 24V DC O/P	8
03-01-0053	5.10 A , 240 V AC I/P , 24V DC O/P	10
03-01-0054	5.7 A , 240 V AC I/P , 24V DC O/P	8

CODE	DESCRIPTION	QTY
	ULTRA SONIC FLOMETER WITH THE FLOWING SPECIFICATION , CLAMP ON TYPE . FLOW RAT FOR PIPE DIAMETER :	
03-01-0055	2300 MM	1
03-01-0056	2100 MM	6
03-01-0057	1800 MM	3
03-01-0058	450 MM	6

CODE	DESCRIPTION	QTY
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03-01-0059	PUMP COMPLET : Q = 158 L/S ,H= 32m , 1475 rpm , NPSH = 5m , POWER = 75 KW , HORIZONTAL DRIVE = DIRECT HORIZENRAL , 400V , 3PH , 50Hz	3
03-01-0060	PUMP COMPLET (WITH ALL SPARE PART) FOR ALUM SOLUTION : Q=2.22 L/S ,H= 34m , 2900 rpm , NPSH = 5m , POWER = 3 KW , SUCTION = 2 IN , DISCHARG = 1.5 IN	12
03-01-0061	PUMP COMPLET (WITH ALL SPARE PART) FOR ALUM SOLUTION : Q=3.06 L/S ,H= 10m , 2900 rpm , NPSH = 5m , POWER = 3 KW , SUCTION = 1.5 IN , DISCHARG = 1.5 IN	4
03-01-0062	SUBMERSIBLE PUMP FOR ALUM SOLUTION (ST.ST) : 10KW , Q=40L/S , H=14m	6
03-01-0063	BOOSTER PUMPS (PRE CHLORINATION) COMPLETE WITH SPARE PART(IMPELLER , SHAFT , BEARINGS) : Q=5.28 L/S , H=85m , 2900 rpm , MOTOR POWER =19.2KW , DRIVE DIRECT (HORIZONTAL)	5
03-01-0064	BOOSTER PUMPS COMPLETE WITH SPARE PART(IMPELLER , SHAFT , BEARINGS) : Q=2.5 L/S , H=45m , 2900 rpm , MOTOR POWER =4.2KW , DRIVE DIRECT (HORIZONTAL)	5

CODE	DESCRIPTION	QTY
03-01-0065	AIR COMPRESSOR WITH DRIER SINGL STAGE TYPE : 2050 13 CAPACITY EACH : 20 L/S AT 12.5 bar MOTOR : 5.5 KW SPEED : 1440 rpm 400V , 3PH , 50Hz SIZE FROM LENGTH 750mm FROM BALTE TO ANOTHER WIDTH 2340mm SIZE BOLT M15	

TREATED WATER PUMPING STATION

CODE	DESCRIPTION	QTY
03-01-0066	ROTATING DUST SEAL	8
03-01-0067	INSULATED THRUST COLLER COMP	4
03-01-0068	OIL RETAINING SLEEVE	4
03-01-0069	OIL THROWER	4

RAW WATER PUMPING STATION

CODE	DESCRIPTION	QTY
	(1000mm PUMP)	
03-01-0070	IMPELLER SHROUD	4
03-01-0071	BEARING SPIDER , MATERIAL : C.I. B.S.1452 , GR220	4
03-01-0072	BOWL CASING	2
03-01-0073	BEARING SPIDER , MATERIAL : C.I. B.S.1452 , GR220	4
03-01-0074	BEARING HOUSING (PUMP)	8
	(500mm PUMP)	
03-01-0075	SPLIT GLAND	6
03-01-0076	PUMP HALF COUPLING	6
03-01-0077	MOTOR HALF COUPLING	6
03-01-0078	BOWL CASING	4
03-01-0079	COUPLING BUSHES	75
03-01-0080	CASING EYE RING	6set

INDUCTION MOTOR

CODE	DESCRIPTION	QTY
03-01-0081	MOTOR TYPE : IS315L IS46LT 6 POLE 140KW , 983 rpm , 400V 3PH , 50Hz VERTICOL NUMBER OF HOLLE 8 SIZE 20mm DIAMETER OF SHAFT : 88.2mm	2

LAB. TESTING INSTRUMENT FOR KARKH TREATMENT PLANT

CODE	DESCRIPTION	QTY
03-01-0082	ANALYTICAL WEIGHING BALANCE - (SARTORIUS) 162 G RANGE TO 10 MG	1
03-01-0083	TOP LOADER WEIGHING BALANCE - (SARTORIUS) 5000G TO 0.01G	1

	LOVIBOND COMPARATOR DISCS FOR CHLORINE TEST -DPD 0.1 -2.00	
03-01-008	PPM	20
	LOVIBOND COMPARATOR DISCS FOR CHLORINE TEST -	
03-01-0085	ORTHOTOLUIDIN 0.15 -2.00 PPM PORTABLE PH METER (WTW) PH RANGE -2.00 - - 16.00 PH TEMP . -5.0 - - 99.9°C	20
03-01-0086	WITH STANDARD PH COMBINATION ELECTRODE - LABORATORY PH METER (WTW) PH RANGE -2.00 - - 16.00 PH TEMP . -5.0 - - 99.9°C PH ELECTRODES = 7 TEMP SENSORS = 7	17
03-01-0087	CALIBRATION & MAINTENANCE SUPPLIES PORTABLE CONDUCTIVITY METER (WTW) MEASURING RANGE 0.0 MS /CM -500 MS /CM TEMP. -5.0 - - 99.9°C TDS 0 - - 1999 MG /L	17
03-01-0088	STANDARD CONDUCTIVITY CELL - LABORATORY CONDUCTIVITY METER (WTW) MEASURING RANGE 0.0 MS /CM -500 MS /CM TEMP. -5.0 - - 99.9°C TDS 0 - - 1999 MG /L	17
03-01-0089	STANDARD CONDUCTIVITY CELL - U.V. VISIBLE SPECTROPHOTOMETER MODULE WITH EXTERNAL IBM COMPATIBLE COMPUTER WAVELENGTH RANGE 190 -900 NM SPECTRAL BANDPASS 0.1 -2.0 NM SCANNING SPEED : 5 -7000 NM /MIN DOUBLE BEAM, TOW CELL CHAMBER AUTOSIPPER FOR AUTOMATIC SAMPLE INTRODUCTION	17
03-01-0090	QUARTZ CELL ATOMIC ABSORPTION FLAME & FURNACE & HYDRIDE SYSTEM FOR MEASURING AG, AL, AS, AU, BA, CD, CO, CR, CU, FE, HG, J, MN, MO, NI, PB, SE, TI, V) 1-AUTOMATIC FLAME CONTROL 1-HIGH SPEED FLAME AUTO SAMPLER 1-FLAME ATOMIZATION SYSTEM 1-COMPUTER & SOFTWARE & DATA PROCESSING & GRAPHICS 1-FURNACE ASSEMBLY (3000 °) COOLING WATER REQUIREMENT 1-INERT GAS REQUIREMENT 1-HYDRIDE GENERATOR	17
03-01-0091		13
	POLYCARBONATE HOLDER FOR 47MM DIA. MEMBRANE FILTERS	
	CAPACITY FUNNEL & TIGHT FITTING LID WITHOUT RECEIVER FLASK FILTRATION AREA 12.5 CM	
03-01-0092	FLOW RATE AT 90% VACUUM -600 ML /MIN PLACE STAINLESS STEEL MANIFOLD	110
03-01-0093	POLYCARBONATE HOLDERS AUTOCLAVED AT 121°C	110
03-01-0094	RUBBER VACUUM HOSE	110
03-01-0095	WATER TRAP VACUART VACUUM PUMP 220V, 50 HZ, OIL FREE MEMBRANE MAX VACUUM 90 % 100 MBAR 76 TORR 80 W WITH SET OF NEOPRENE MEMBRANE VALVES SPRINGS &	
03-01-0096	NEOPRENE HEAD STEEL POLYCARBONATE HOLDER FOR 47MM DIA. MEMBRANE FILTER	17
03-01-0097	250 ML CAPACITY FUNNEL & RECEIVER WITH TIGHT FITTING LID	110
03-01-0098	HAND VACUUM PUMP WITH GAUGE REACTION FLASK, 2 L CAPACITY WITH 9MM O.D. PLASTIC HOSE	110
03-01-0099	RIPPLE FOR SAFE CONNECTION OF VACUUM HOSE GRIDDED MEMBRANES, STERILE & INDIVIDUALLY PACKED, 47MM	110
03-01-0100	DISCS COLONY COUNTER DIGITAL FOR PETRI DISHS UP TO Ø100MM WITH NUMERICAL DISPLAY : 3	1100×100
03-01-0101	DIGITS LABORATORY INCUBATOR DIGITAL	17

	TEMP. FROM -5°C TO $+80^{\circ}\text{C}$ IN 0.25°C	
03-01-0102	CAPACITY 36 L, SHELF POSITION 7	10
03-01-0103	ACCESSORIES: SHELVES & GUIDES DRYING & STERILIZATION OVENS – DIGITAL TEMP. FROM $+5^{\circ}$ TO 250°C , CAPACITY 36 L, SHELF POSITION 7, ACCESSORIES: GUIDES 2 SETS=20 & SHELVES=40 GLASS DRYING OVENS WITH FAN TEMP. FROM $+40^{\circ}\text{C}$ TO $+70^{\circ}\text{C}$, CAPACITY 126 L, SHELF POSITION 8 ACCESSORIES: SAFETY THERMOSTAT TIMER SWITCH 0 TO 120 MIN TIMER SWITCH 0 TO 12 HOUR SHELF GUIDES $\times$ 2 SHELF	7
03-01-0104	WATER BATH WITH DIGITAL CONTROL OF TEMP. & TIME CAPACITY 12 L, TEMP. MAX $+200^{\circ}\text{C}$ ACCESSORIES: GABLE LID WITH THERMOMETER POSITION HOLE PERFORATED SHELF COVERS HEATING ELEMENT FLAT LID WITH CONCENTRIC RINGS OF $\varnothing 105$, $\varnothing 80$, $\varnothing 60$, $\varnothing 37$ MM DIA. WITH THERMOMETER LOCATION HOLE SUPPORT FRAME FOR TUBE RACKS TUBE RACKS VARIOUS TUBE DIA. AVAILABLE NO. OF TUBE RACKS = 24 TUBE DIA. = 20 MM NO. OF TUBE RACKS = 36 TUBE DIA. = 13 MM LABORATORY REFRIGERATED CABINET CAPACITY 500 L, TEMP. $+4^{\circ}\text{C}$, DIGITAL TEMP. DISPLAY	17
03-01-0105	AIR CIRCULATION, NO DOOR GLASS, NO. OF SHELVES 5 RECTANGULAR PRECISION HOT PLATE	17
03-01-0107	TEMP. FROM -5 TO $+200^{\circ}\text{C}$, ELECTRONIC DIGITAL CONTROL DISPLAY REVERSIBLE MAGNETIC STIRRERS SPEED 100 TO 1000 RPM, REVERSE STIRRING MOTION MAX. VOL. = 2 L, DIGITAL READOUT WITH MAGNETIC STIR PLATE	17
03-01-0108	INSTALLATION	17
03-01-0109	MAGNETIC STIRRER WITH HEATING TEMP. FROM 50°C TO 300°C , CAPACITY 10 L, CONTROL SPEED 60 – 1600 RPM ACCESSORIES: STIR BAR WITH PIVOT RING, TEMP. RESISTANT TO 275°C $7\varnothing \times 20$ MM LONG $8\varnothing \times 40$ MM LONG OVAL STIR BAR TEMP. RESISTANT TO 275°C $16\varnothing \times 30$ MM LONG $20\varnothing \times 40$ MM LONG STIR BAR RETRIEVER, LENGTH 280 MM CONCENTRIC STIR BAR WITH BEAKER COVER RESISTS TEMP. TO $+160^{\circ}\text{C}$ STIR BAR WITH LID FOR BEAKER VOL 100 – 500 ML LENGTH 32 MM AUTOCLAVE: MANUAL & AUTOMATIC CAPACITY 75 L, CONTROL PANEL, SAFETY VALVE, SAFETY THERMOSTAT TEMP. $+100$ TO $+134^{\circ}\text{C}$ PRESSURE 0 TO 2 BAR MICROPROCESSOR CONTROL, VACUUM SYSTEM, PURGE FLOOR STANDING DRY SYSTEM ACCESSORIES: STAINLESS STEEL BASKET $\varnothing 28$ THERMOMETER MONITOR	7
03-01-0110	PRESSURE DOOR LOCK SAFETY DEVICE LABORATORY FLOCCULATE	17
03-01-0111	SPEED 15 TO 200 RPM, NO. OF PLACES 6 WITH 1 L BARS WATER STILL DISTILLING CAPACITY 6 L. HOUR CONDUCTIVITY AT 20°C = 0.3 MS/CM	17
03-01-0112	HARDNESS ≤ 0.25 MG IL MUFFLE FURNACE	17

03-01-0113	TEMP. UP TO 140°C CAPACITY 1.5 L CENTRIFUGE WITH DIGITAL SPEED INDICATOR MAX. VOL. = 400 ML NO. OF TUBES 4 × 100 ML	171
03-01-0114	MAX. SPEED 4400 RPM STERILIZE CONTAINER FOR PIPETTE (STAINLESS STEEL) Ø 100 MM HEIGHT 130	171
03-01-0115	Ø 100 MM NO. OF DISHES 18 HEIGHT 130	120
03-01-0116	130 18 400 MICROSCOPE HEAD = TRINOCULAR EYEPIECE WF 10X (18 Ø) OBJECTIVE PLANACHROMATIC (PL) 4X 10X 40X 100X TECHNICAL FEATURE = BRIGHT FIELD LIGHT SOURCE = TRANS 6V 120W HALOGEN ACCESSORIES EYEPIECE WIDE ANGLE LENS WF 5X (SINGLE) EYEPIECE WIDE ANGLE LENS WF 1.5X (SINGLE) EYEPIECE WIDE ANGLE LENS WF 1.6X (SINGLE) EYEPIECE WIDE ANGLE LENS WF 10X WITH RETICULE (SINGLE) EYEPIECE WIDE ANGLE LENS WF 10X = POINTER (SINGLE) CONTRAST PHASE KIT DARK FIELD CONDENSE MICROGRAPH KIT CAMERA MECHANISM WF 10X VISOR FOR FOCUS & PHOTOGRAPHIC OBJECTIVE OF 4X ADAPT. ABLE FOR	120
03-01-0117	CAMERA OF 35 MM USING UNIVERSAL MOUNT MOTORIZED CAMERA ATTACHMENT ADAPTER FOR A CCD VIDEO CAMERA BEAKER LOW FORM WITH SPOUT PYREX GLASS CAPACITY 25, 50, 100, 250, 400, 600, 800, 1000 ML	171
03-01-0118	BEAKER LOW FORM WITH SPOUT PYREX GLASS CAPACITY 2000 ML	1100 each
03-01-0119	BEAKER TALL FORM WITH SPOUT PYREX GLASS CAPACITY 100, 150, 250, 400 ML	120
03-01-0120	ERLENMEYER FLASKS WIDE NECK PYREX GLASS CAPACITY 100, 200, 250, 300 ML	150 each
03-01-0121	ERLENMEYER FLASKS NARROW NECK PYREX GLASS WITH GRADUATION CAPACITY 100, 250, 300 ML	1100 each
03-01-0122	ERLENMEYER FLASKS NARROW NECK PYREX GLASS WITH GRADUATION CAPACITY 500, 1000 ML	1100 each
03-01-0123	EVAPORATING DISHES WITH SPOUT PYREX GLASS CAPACITY 90, 170 ML	120 each
03-01-0124	WEIGHING BOTTLES WITH GRIP STOPPER CAPACITY 1.5, 30 ML	1100 each
03-01-0125	WATCH GLASS DISHES WITH FUSED EDGES Ø 150, 160, 1100	120 each
03-01-0126	JARS WITH LID Ø 160, 400, 800, 500, 1000, 600	150 each
03-01-0127	LABORATORY BOTTLES BOROSILICATE GLASS WITH DIN THREAD GRADUATED WITH PP SCREW CAP & PP POURING RING CAPACITY 100, 250, 500, 1000 ML	1100 each
03-01-0128	LABORATORY BOTTLES BOROSILICATE GLASS WITH DIN THREAD GRADUATED WITH PP SCREW CAP & PP POURING RING DARK CAPACITY 100, 250, 500, 1000 ML	1100 each
03-01-0129	BOTTLES REAGENT WIDE NECK SODA LIME GLASS CAPACITY 50, 100, 250, 500, 1000 ML	1100 each
03-01-0130	ASPIRATOR BOTTLES NS TABULATED INS STOP COCK INS STOPPER CAPACITY 5000, 10000, 20000 ML	18 each
03-01-0131	CENTRIFUGE TUBE CONICAL SODA LIME GLASS CAPACITY 50 ML	120
03-01-0132	CENTRIFUGE ROUND BOTTOM TUBE BOROSILICATE GLASS CAPACITY 50, 180 ML	120 each
03-01-0133	CULTURE TUBE WITH SCREW CAP WITH RUBBER GASKET CAN BE STERILIZED AT 120°C Ø 160, 160 MM	15000
03-01-0134	VOLUMETRIC FLASK	

03-01-0135	CAPACITY : 25 , 50 , 100 ML VOLUMETRIC FLASK	100 each
03-01-0136	CAPACITY : 200 , 250 ML VOLUMETRIC FLASK	12 each
03-01-0137	CAPACITY : 500 , 1000 ML MEASURING CYLINDER GRADUATED LOW FORM GLASS	50 each
03-01-0138	CAPACITY : 10 , 25 , 50 , 100 , 250 , 500 ML MIXING CYLINDERS WITH GLASS STOPPER GLASS	100 each
03-01-0139	CAPACITY : 10 , 25 , 50 , 100 ML AUTOMATIC BURETTE WITH 2 L RESERVOIR	20 each
03-01-0140	CAPACITY : 25 , 50 ML GRADUATED PIPETTE	25 each
03-01-0141	CAPACITY : 0.5 , 1 , 2 ML GRADUATED PIPETTE	50 each
03-01-0142	CAPACITY : 5 , 10 ML GRADUATED PIPETTE	200 each
03-01-0143	CAPACITY : 25 ML GLASS FUNNEL WITH SHORT STEM D x H = 30 x 55 MM D x H = 50 x 85 MM	20
03-01-0144	D x H = 70 x 120 MM	20 each
03-01-0145	FILTER PAPER TYPE GF/C 7 CM WHATMAN	50 x 100 pack
03-01-0146	FILTER PAPER NO. 1 11 CM WHATMAN	20 x 100 pack
03-01-0147	FILTER PAPER NO. 40, 1 11 CM WHATMAN	20 x 100 pack
03-01-0148	FILTER PAPER NO. 42, 1 11 CM WHATMAN	20 x 100 pack
03-01-0149	CRUCIBLE TONG	10
03-01-0150	BEAKER TONG DROPPING BOTTLE CLEAR GLASS WITH 16/15 PLASTIC STOPPER & GLASS PIPETTE	10
03-01-0151	CAPACITY : 30 , 60 , 120 ML DROPPING BOTTLE CLEAR GLASS WITH GROUND IN SLOTTED STOPPER	20 each
03-01-0152	CAPACITY : 30 , 50 , 100 ML WIDE SCREW NECK REAGENT BOTTLE CLEAR GLASS WITH BLACK PLASTIC SCREW CAP	20 each
03-01-0153	CAPACITY : 30 , 100 , 230 ML	20 each
03-01-0154	HAND BELLOW FLEXIBLE PLASTIC PUMPING BULB 53 MM	20
03-01-0155	BUNSEN BURNER FOR BUTANE PROPANE GAS	20
03-01-0156	METHYLATED SPIRIT BURNER	20
03-01-0157	BEAKER POLYPROPYLENE WITH SPOUT CAPACITY : 100 , 250 , 500 , 500 ML LOVIBOND COMPARTER GLASS CELL SQUARE SECTION OPTICAL	20 each
03-01-0158	PATH 13.5 MM NESSLER CYLINDER	200
03-01-0159	CAPACITY : 50 , 100 ML CRUCIBLE TRANSLUCENT SILICA WITHOUT LID	200 each
03-01-0160	CAPACITY : 80 , 150 ML CUVETTE LABORATORY TURBIDITY METER RANGE 0 - 1000 N.T.U. WITH	30 each
03-01-0161	STANDARDIZATION KIT & TEST CELL	10
03-01-0162	DISCATOR PYREX GLASS WITH PLATE 219 MM DIA MORTAR & PESTLE , AGATE	10
03-01-0163	CAPACITY : 100 MM x 125 ML	10
03-01-0164	PORCELAIN DISHES , FLAT BOTTOM , SPOUT GLAZED EXCEPT FOR RIM CAPACITY : 50 , 100 ML STORAGE BOTTLE WITH STOP COCK TAPS HDPE	100 each
03-01-0165	CAPACITY : 5 , 10 , 25 L STORAGE BOTTLE WITH SCREW CAP LDPE	10 each
03-01-0166	CAPACITY : 50 , 100 , 250 , 500 , 1000 ML WIDE MOUTH BOTTLE , ROUND LDPE	100 each
03-01-0167	CAPACITY : 500 , 1000 ML DIP SAMPLER MADE OF PP LENGTH 100 MM	40 each

03-01-0168	200CM 22 WASHING BOTTLE (LDPE)	10
03-01-0169	CAPACITY : 500 ML	50 each
03-01-0170	THERMOMETER -20°C TO 250°C	10
03-01-0171	SAFETY BURNER (ATP), BUTANE GAS PUSH BUTTON IGNITION LOOP END FOR KOLLE HANDLE, LONG HANDLE 43 MM	10
03-01-0172	LOOP Ø : 3 MM MADE OF IRIIDIOPLATINIUM LABORATORY DISSECTION FORCEPS - BLUNT END - CURVED BLUNT END	20
03-01-0173	HEAD & SPITS PROTECTION PAD GLOVES, FLEXIBLE SILICON	20 pairs
03-01-0174	GROOVED SPATULA, FLAT SPOON STAINLESS STEEL LENGTH 190 MM	40
03-01-0175	FLAT SPOON END SPATULA STAINLESS STEEL LENGTH 210 MM CAPS FOR BIOLOGICAL CULTURE TUBES ALUMINUM WITH STEEL SPRING INSIDE AUTOCLAVED AT 1 BAR	40
03-01-0176	CAPS FOR TUBES Ø 15-16 MM, COLOR GOLD & SILVER CAPS FOR BIOLOGICAL CULTURE TUBES ALUMINUM WITH STEEL SIRING INSIDE AUTOCLAVED AT 1 BAR	1000 each
03-01-0177	CAPS FOR TUBES Ø 24-26 MM, COLOR GOLD & SILVER BOTTLE TOP DISPENSER WITH DIGITAL VOLUME SETTING, THREAD A32 MM, 3 THREAD ADAPTERS (A28, S40 & A#5) ONE SECTION TUBE WITH SCREW ONE DISCHARGE TUBE UNIT	1000 each
03-01-0178	VOLUME 2.0 - 10.0 ML BOTTLE TOP DISPENSER WITH FIXED VOLUME SETTING, THREAD A32 MM, 3 THREAD ADAPTERS (A28, S40 & A#5) ONE SECTION TUBE WITH SCREW ONE DISCHARGE TUBE UNIT VOLUME : 5.0 ML	20
03-01-0179	10.0 ML	20 each
03-01-0180	SILVER NITRATE (AR)	1 kg
03-01-0181	DPD TABLETS NO. 1	5000 tab
03-01-0182	SULFANILAMIDE (AR)	2 kg
03-01-0183	POTASSIUM IODIDE (AR)	2 kg
03-01-0184	ETHANOL ABSOLUTE (99-100 %)	20 L
03-01-0185	SOLOCHROM CYANINE R	1 kg
03-01-0186	SODIUM ACETATE ANHYDROUS (AR)	1 kg
03-01-0187	HYDROXYL AMMONIUM CHLORIDE (AR)	2 KG
03-01-0188	FERRIC CHLORIDE HEXAHYDRATE (AR)	1 kg
03-01-0189	MANGANOUS SULPHATE TETRA HYDRATE (AR)	1 kg
03-01-0190	POTASSIUM THIOCYANATE (AR)	2 kg
03-01-0191	AMYL ALCOHOL (GPR)	10 L
03-01-0192	PETROLEUM SPIRIT (AR) #0 - 60°C	10 L
03-01-0193	GRAM'S IODINE STAINING SOLUTION	2 L
03-01-0194	KOVAC'S INDOL REAGENT	5 L
03-01-0195	SODIUM BICARBONATE (AR)	3 kg
03-01-0196	POTASSIUM HYDROGEN DI-IODATE (AR)	1 kg
03-01-0197	ERIOCHROM BLACK T	500 g
03-01-0198	4-P DIMETHYL BENZALDEHYDE	10 L
03-01-0199	MUREXIDE	500 g
03-01-0200	SODIUM SALICYLATE (GPR)	10 kg
03-01-0201	TRI SODIUM CITRATE (AR)	10 kg
03-01-0202	1,1,2-TRICHLOROTRIFLUOROETHANE (AR)	10 L
03-01-0203	SODIUM HYDROGEN ORTHOPHOSPHATE ANHYDROUS	2 kg
03-01-0204	POTASSIUM HYDROGEN ORTHOPHOSPHATE	2 kg
03-01-0205	HYDROCHLORIC ACID SP.G (1.18) AR	10 L
03-01-0206	HYDROCHLORIC ACID SP.G (1.16) AR	10 L
03-01-0207	ACETIC ACID GLACIAL 99.5% GPR	25x25L
03-01-0208	STABILIZING SOLUTION	25 L
03-01-0209	GLYCEROL GPR	5 L
03-01-0210	AMMONIA 0.88 25% AR	10 L

SECTION 1-1-5: TAJI RES.

CODE	DESCRIPTION	QTY
	SPARE PART FOR PUMPS 300/350/400 D.E.S.C	
03-01-0211	CASING EYE RING SET	6
03-01-0212	PLUMMER BLOAKS OF SN213 + 1213	4
03-01-0213	THRUST NUT	2

03-01-0214	STUD AND THRUST NET FOR SHAFT	30
03-01-0215	THRUST WASHERS	4

CODE	DESCRIPTION	QTY
	SPARE PART FOR PUMPS 250/252 D.E.S.C	
03-01-0216	CASING EYE RING SET	2
03-01-0217	PLUMMER BLOAKS OF SN213 + 1213	2
03-01-0218	THRUST NUT	1
03-01-0219	STUD AND THRUST NET FOR SHAFT	16
03-01-0220	THRUST WASHERS	2

SECTION 1-1-6: SPAR PARTS FOR AL- RASHED PROJECT

CODE	DESCRIPTION	QTY
	PUMP TYPE 10LR18A IDP O/N SP1720000 6-08	
03-01-0221	O-RING FOR SLEEVE SHAFT	20
03-01-0222	V-RING	20
03-01-0223	LANTERN RING	10
03-01-0224	LOCK NUT	20
03-01-0225	SHAFT NUT	20
03-01-0226	GLAND RING	20
03-01-0227	GLAND	10
03-01-0228	STUFFING BOX HOUSING	10
03-01-0229	CASING WEAR RING	10
03-01-0230	BEARING HOUSING	12
03-01-0231	BALL BEARING 6317	20
03-01-0232	BALL BEARING 6320	10
03-01-0233	BALL BEARING 6319	10
	PUMP TYPE 300 LNN 475 IDP SN/SP1720000 6-15	
03-01-0234	O-RING FOR SLEEVE SHAFT	20
03-01-0235	SHAFT SLEEVE	20
03-01-0236	V-RING	20
03-01-0237	LANTERN RING	10
03-01-0238	LOCK NUT	20
03-01-0239	SHAFT NUT	20
03-01-0240	GLAND RIN	20
03-01-0241	GLAND RIN	10
03-01-0242	STUFFING BOX HOUSING	10
03-01-0243	CASING WEAR RING	10
03-01-0244	BEARING HOUSING	12
03-01-0245	BALL BEARING 6322	20
03-01-0246	COUPLING	10
	PUMP TYPE Q=960 , H=20m , 980 rpm	
03-01-0247	SHAFT	4
03-01-0248	IMPELLER	4
03-01-0249	WEAR RING	10
03-01-0250	COMPLETE ROTATOR CONTIAN : SHAFT , IMPELLER , IMPELLER RING , BALL BEARING , SLEEVE SHAFT	2
03-01-0251	SLEEVE SHAFT	10
03-01-0252	LOCK NUT	10
03-01-0253	GAS GET	5
03-01-0254	BALL BEARING	20
03-01-0255	O-RING FOR SHAFT SLEEVE	20
03-01-0256	BEARING HOUSING	5
03-01-0257	SHAFT NUT	10
03-01-0258	LANTERN RING	10

CODE	DESCRIPTION	QTY
	PUMP TYPE Q=700 , H=16m ,1450 rpm	
03-01-0259	SHAFT	4
03-01-0260	IMPELLER	4
03-01-0261	WEAR RING	10
03-01-0262	COMPLETE ROTATOR CONTIAN : SHAFT , IMPELLER , IMPELLER RING , BALL BEARING , SLEEVE SHAFT	2
03-01-0263	SLEEVE SHAFT	10
03-01-0264	LOCK NUT	10

03-01-0265	GAS GET	5
03-01-0266	BALL BEARING	20
03-01-0267	O-RING FOR SHAFT SLEEVE	20
03-01-0268	BEARING HOUSING	5
03-01-0269	SHAFT NUT	10
03-01-0270	LANTERN RING	10
03-01-0271	BALL BEARING 6318	10
03-01-0272	BALL BEARING 6314	10

CODE	DESCRIPTION	QTY
03-01-0273	FLOCCULATOR FOR FLOCULTION TANK LENGTH OF SHAFT 2.90m DIAMETER OF SHAFT 20.5 cm WIDTH OF MIXER 1.5 m 400/230V 2.39 : 2.05 A 900/4 rpm	6

CODE	DESCRIPTION	QTY
03-01-0274	CHLORIN GAS DISPENSER CAPCITY : 10 Kg	2

SECTION 1-1-7: SPAR PARTS FOR AL- WAHDA PROJECT

CODE	DESCRIPTION	QTY
	PUMP TYPE 8LR20A	
03-01-0275	O-RING FOR SLEEV SHAFT	20
03-01-0276	V-RING	20
03-01-0277	LANTERN RING	10
03-01-0278	LOCK NUT	20
03-01-0279	SHAFT NUT	20
03-01-0280	GLAND RING	20
03-01-0281	GLAND	10
03-01-0282	STUFFING BOX HOUSING	10
03-01-0283	CASING WEAR RING	20
03-01-0284	BEARING HOUSING	10
03-01-0285	BALL BEARING 6317	20
03-01-0286	BALL BEARING 6320	10
03-01-0287	BALL BEARING 6309	10
03-01-0288	GAS GET	4
	PUMP TYPE 10LR16A	
03-01-0289	O-RING FOR SLEEV SHAFT	20
03-01-0290	V-RING	20
03-01-0291	LANTERN RING	10
03-01-0292	LOCK NUT	20
03-01-0293	SHAFT NUT	20
03-01-0294	GLAND RING	10
03-01-0295	GLAND	10
03-01-0296	STUFFING BOX HOUSING	20
03-01-0297	CASING WEAR RING	10
03-01-0298	BEARING HOUSING	10
03-01-0299	BALL BEARING 6317	20
03-01-0300	BALL BEARING 6320	20
03-01-0301	BALL BEARING 6311	20
03-01-0302	GAS GET	4

CODE	DESCRIPTION	QTY
03-01-0303	MOTOR 132 KW WIDTH FOR SHAFT 85mm , DIMINSTION 49 x 54 cm	6
03-01-0304	BALL BEARING 6318	20
03-01-0305	CLORINE SYSTEM LOK	4
03-01-0306	MOTOR 37 KW WIDTH FOR SHAFT 60mm , DIMINSTION 46 FOR BALM LONG 41cm FOR BALM WIDTH	10

SECTION 1-1-8: SPARE PART FOR RAW WATER STATION

CODE	DESCRIPTION	QTY
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03-01-0307	COMPLETE RAW WATER PUMPS,TYPE : VERTICAL PUMPS, Q=1m ³ /Sec , 3600 m ³ /h , H = 63m WITH MOTOR POWER = 840 KW , 1000rpm , 11KV .	14
03-01-0308	PRESSURE CONTROL VALVE (LIEZIER) 700mm .	8
03-01-0309	CHECK VALVE (GUICHON) .	8
03-01-0310	COMPLETE COOLING PUMPS WITH MOTOR ,Q = 60m ³ /h H = 20m WITH MOTOR = 5.5 KW , 400V .	6
03-01-0311	TEM P4005 A/B RPS3	4
03-01-0312	P5005 A/B RPS4 WITH COMPLET SPARE PART FORT BOTH AS FOLLOWS	4
03-01-0313	SHAFT	40
03-01-0314	IMPLLER	40
03-01-0315	SHAFT SLEEVE	80
03-01-0316	ROTATING	80
03-01-0317	MECHANICAL SEAL SLEEVE	80
03-01-0318	STATIONARY RING	40
03-01-0319	SET OF COVPLING PADS	200
03-01-0320	SET OF BEARING	40
	SPARE PART FOR RAW WATER PUMPING STATION , MAIN PUMPS :	
03-01-0321	INTERMEDIATE SHAFT	20
03-01-0322	TOP SHAFT	50
03-01-0323	SHAFT SLEEVE	100
03-01-0324	BAAVING BUSH	250
03-01-0325	IMPELLER BEARING SLEEVE	100
03-01-0326	ADJUSTING NUT	50
03-01-0327	WASHERS (2PER SET)	40SET
03-01-0328	WASHERS FOR BEARING NUT	40
03-01-0329	COMPLETE MUFF COUPLING WITH SCREWS	200SET
03-01-0330	IMPELLER (1ST - 2ND)	100
03-01-0331	1ST STAGE PUMP BOWEL WITH RING & SCREW	40
03-01-0332	2ND STAGE PUMP BOWEL WITH RING & SCREW	40
03-01-0333	SET OF RADIAL AND THRUST BEARING	200SET
03-01-0334	IMPELLER SHAFT	50
03-01-0335	THRUST BEARING CARRIER (COMPLETE WITH BEARING & WASHERS AND ACCESSORY)	20
03-01-0336	BEARING COVER	20
03-01-0337	IMPELLER BEARING SLEEVE	200
03-01-0338	SHAFT TUNNEL T0 BE (UPPER)	50
03-01-0339	GREASE REGULATOR	20
03-01-0340	THRWER	100
03-01-0341	GLAND FLANGE	50
03-01-0342	FOLLOWER , SPLIT	100
03-01-0343	SHAFT TUNNEL T0 BE (MIDDLE)	100
03-01-0344	SHAFT TUNNEL T0 BE (LOWER)	50
03-01-0345	BEARING NUT	50
03-01-0346	SCREW FOR ADJUSTING MLT	100
03-01-0347	SEPARATION WASHER	100
03-01-0348	FILTER 'ISIS H' (DN 50)	10
03-01-0349	AXIAL AND RADIAL BEARING FOR MOTOR VF 180 - 27 TYPE RNCB500 2PER SET	40 SET
03-01-0350	AXIAL AND RADIAL BEARING FOR MOTOR VF 460 - 31 TYPE RNCB560 2PER SET	20 SET
03-01-0351	SPACER RING FOR COUPLING PUMP SIDE	20
03-01-0352	LOCATING COLLAR FOR BEARING	20
03-01-0353	BEARING ADAPTER SLEEVE	20
03-01-0354	BEARING SLEEVE	250

CODE	DESCRIPTION	QTY
	SPARE FOR WINFLUX COPLING INCLUDE ;	
03-01-0355	SPNING FOR COUPLING (GRID)	50
03-01-0356	SEAD RING	50
03-01-0357	HALF COVER	50
03-01-0358	GASKET	50
03-01-0359	CAP SCREW AND NUTS (COMPLETE FOR EACH)	50
03-01-0360	GLAND PACKING	1000 m

03-01-0361	SCREW AND MALE FEMALE UNIONS	100
03-01-0362	VALVE	200
03-01-0363	UNION ELBOW 1/2"	200
03-01-0364	UNION FITTING 1 1/2"	200
03-01-0365	UNION FITTING 1/2"	400
03-01-0366	REDUCED NIPPLE FOR BEARING	50
03-01-0367	INTERMEDIATE BEARING	100
03-01-0368	TOP BEARING	100
03-01-0369	COUPLING RING SPLIT	100
03-01-0370	INTER STAGE SLEEVE	50
03-01-0371	IMPELLER NUT WITH SCREW	100
03-01-0372	STUD	1000
03-01-0373	NUT	1000
03-01-0374	SCREW	5000
03-01-0375	LUBRICATING PIPE FOR IMPELLER	50
03-01-0376	REDUCED NIPPLE FOR IMPELLER	50
03-01-0377	BELL MOUTH WITH RING & SCREW	50
03-01-0378	CASING WEAR RING	50
03-01-0379	CONNECTING PIECE	10
	START RAW WATER PUMPS ;	
03-01-0380	INTERMEDIATE SHAFT	20
03-01-0381	TOP SHAFT	40
03-01-0382	IMPELLER SHAFT	40
03-01-0383	1ST STAGE IMPELLER	40
03-01-0384	2ND STAGE IMPELLER	40
03-01-0385	ADJUSTING NUT	10
03-01-0386	INTERMEDIATE BEARING SLEEVE	100
03-01-0387	IMPELLER BEARING SLEEVE	100
03-01-0388	SET OF RADIAL & THRUST BEARINGS (2 PER SET)	40SET
03-01-0389	THRUST BEARING COVER (COMPLETE WITH BEARING & WASHERS AND ACCESSORY	20
03-01-0390	BEARING COVER	20
03-01-0391	BEARING BUSH	100
03-01-0392	COMPLETE MUFF COUPLING WITH SCREWS (2 PER SET)	100SET
03-01-0393	SHAFT SLEEVE	100
03-01-0394	WASHERS (2 PER SET)	40
03-01-0395	WASHERS FOR BEARING NUT	40
03-01-0396	1ST STAGE PUMP BOWEL WITH RING & SCREW	20
03-01-0397	2ND STAGE PUMP BOWEL WITH RING & SCREW	20
03-01-0398	SHAFT TUNNEL TO BE (UPPER)	20
03-01-0399	SHAFT TUNNEL TO BE (MIDDLE)	20
03-01-0400	SHAFT TUNNEL TO BE (LOWER)	20
03-01-0401	GREASE REGULATOR	10
03-01-0402	THROWER	10
03-01-0403	GLAND FLANGE	10
03-01-0404	FOLLOWER , SPLIT	20
03-01-0405	BEARING NUT	20
CODE	DESCRIPTION	QTY
03-01-0406	SCREW FOR ADJUSTING NUT	50
03-01-0407	SEPARATION WASHER	50
03-01-0408	SPACER RING FOR COUPLING PUMP SIDE	20
03-01-0409	LOCATING COLLAR FOR BEARING	20
03-01-0410	BEARING ADAPTER SLEEVE	20
03-01-0411	BEARING SLEEVE	150

CODE	DESCRIPTION	QTY
	SPARE FOR WINFLEX COUPLING INCLUDE ;	
03-01-0412	SPRING FOR COUPLING (GRID)	20
03-01-0413	SEAL RING	20
03-01-0414	HALF COVER	20
03-01-0415	GASKET	20
03-01-0416	CAP SCREW AND NUTS (COMPLETE) FOR EACH COVER	20
03-01-0417	GLAND PACKING	1000m
03-01-0418	SCREW AND MDLE FEMALE UNIONS	100

03-01-0419	REDUCED NIPPLE FOR BEARING	20
03-01-0420	INTERMEDIATE BEARING	20
03-01-0421	TOP BEARING	50
03-01-0422	COUPLING RING SPLIT	50
03-01-0423	IMPELLER NUT WITH SCREW	50
03-01-0424	STUD FOR BELMOUTH	1000
03-01-0425	NUT	1000
03-01-0426	STUD FOR BOWEL WITH NUT SCREW	2000
03-01-0427	LUBRICATING PIPE FOR IMPRLLER	20
03-01-0428	REDUCED NIPPLE FOR IMPELLER	20
03-01-0429	BELL MOUTH WITH RING & SCREW	20
03-01-0430	CASING WEAR RING	20
03-01-0431	CONNECTING PIECE	10
	BOOSTER PUMPS SPARES ;	
03-01-0432	IMPELLER SHAFT	20
03-01-0433	INTERMEDIATE SHAFT	20
03-01-0434	TOP SHAFT	20
03-01-0435	IMPELLER	40
03-01-0436	CASING WEAR RING	20
03-01-0437	INTER STAGE SLEEVE OF IMPELLER	40
03-01-0438	INTERMEDIATE SOCKET	40
03-01-0439	INTER STAGE SLEEVE	40
03-01-0440	IMPELLER BEARING	40
03-01-0441	INTERMEDIATE BEARING SLEEVE	40
03-01-0442	BEARING BUSH	40
03-01-0443	NON RETURN VALVE	8
03-01-0444	SET OF COUPLING PADS	100SET
	PROBE RESISTANCE FOR MOTOR :	
03-01-0445	PLATINE 100 OHMS AT 0 ⁰ C , ACCORDING WITH RESSTANCE - TEMPERATURE VARIATION LAW DEFINITED BY THE DIN 43760 NORM ; THERE NOMINAL VALUE BEING 100 OHMS AT 0 ⁰ C AND 138.5 OHMS AT 100 ⁰ C .	50

CODE	DESCRIPTION	QTY
03-01-0446	COMPLETE COOLING TOWER FOR RAW WATER PUMPING STATION WITH ALL EQUIPMENT INSIDE	5

SECTION 1-2: COMPACT UNIT

CONTAINERIZED PREMOUNTED WATER TREATMENT PLANT

03-01-0447 NOS : 10

PLANT CAPACITY 200 m³/hr

ELECTRIC POWER 400 V+ 10% , 50 Hz , 3-PHASE A.C.

RAW WATER PUMPS

03-01-0448 NUMBER : 2

CAPACITY : 260 m³/hr

HEAD : 20m

HORIZONTAL , CENTRIFUGAL END - SACTION TYPE WITH SPEED
1450 rpm , GLAND TYPE

NPS Hr : 2.6 m

FILTER LOADING PUMP

NUMBER : 2

CAPACITY : 200 m³/hr

HEAD : 50m

HORIZONTEL , CENTRFUGAL END SUCTION TYPE WITH SPEED
1450 R.P.M , GLAND TYPE

FLOCCULATION

RETENTION PERIOD NOT LESS THAN 14.5 MINUTES

SEDIMENTATION

HYDRAUTIC SURFACE LOAD : 1.0 m³/m²/h

THICKNESS OF THE TANK PLATE : 6 mm

FILTRATION

FILTRATION VELOCITY NOT MORE THAN : 9.0 m/hr

DRINKING WATER OUTLET PRESSURE : 50 - 60 METER

THICKNESS OF THE FILTER PLATE : 10 mm

THICKNESS OF THE DISHED END OF

FILTERS TO BE : 12 mm
 TESTING PRESSURE : 10 bar

GENERAL

1- THE PREFABRICATED PLANT IS DESIGNED TO PRODUCE
 POTABLE WATER FROM RIVER , LAKE ,

THE PLANT IS DESIGNED FOR EXTREMELY EASY ASSEMBLY AND
 DISASSEMBLY IN REMOTE AREAS , I.E. ALL PROCESS
 EQUIPMENTS ARE SKID MOUNTED IN CONTAINER UNITS
 INCLUDING TANKS , PUMPS , FILTERS , HYDROPHORES ,
 ELECTRICAL PANED AND DOSING EQUIPEMENT ARE MOUNTED
 IN A CONTAINERIZED CONTROL BUILDING THAT IS OPERATIVE
 AFTER COUNETION OF ELECTRICITY AND WATER .
 2- THE DRINKING WATER MEETS THE REQUIREMENTS OF THE ((
 INTERNATIONAL STANDARDS FOR DRINKING WATER)
 (WORLD HEALTH ORGANISATION) .

SECTION 1-3: SUPPLY AND ERECTION OF COMPLETE PASSENGER LIFT , ALL

CODE	DESCRIPTION	QTY
03-01-0449	CAPACITY : 20 PERSON , 1500 KG (EACH) MAIN VOLTAGE : 3PH , 400V , 50Hz NO. OF FLOORS : 1 BASEMENT + 1 GROUND + 7 FLOORS SACH LIFT INCLUDES FOLLOWING EQUIPMENT : 1. COMPLETE DRIVING MACHINE ELECTRIC MOTOR AND ALL MACHINE ROOM ACCESSORIES 2. COMPLETE CONTROL PANEL AND COMPLETE WIRING 3. PUSH BUTTON AND INDICATORS (FLOOR + CAR) COMPLETE PASSENGER CAR AND COUNTER WEIGHT AND STEEL WIRES , GUIDE RAILS AND SAFETY SWITCH AND INDICATIONS 4. CAR AND FLOOR DOOR 5. COMPLETE LIFT FURNITURE OF HIGH STANDARD QUALITY SUCH AS INTER PHONE , EXHAUST FANS , MIRRORS EMERGENCY POWER SUPPLY 6. ALL MECHANICAL AND ELECTRICAL PROTECTION NEEDED NOTE : SHAFT , CONTROL ROOM AND SITE DIMENSIONS (CAR , FLOOR DIMEN) CAN BE TAKEN IN DETAILS ON SITE	1

SECTION 1-4 : BALL BEARING

CODE	DESCRIPTION	QTY
03-01-0450	1213 SN	10
03-01-0451	1216 SN	6
03-01-0452	6322	20
03-01-0453	7322	40
03-01-0454	6315	32
03-01-0455	7319	10
03-01-0456	7318	22
03-01-0457	6303	16
03-01-0458	6307	26
03-01-0459	6208	26
03-01-0460	6205	10
03-01-0461	6209	36
03-01-0462	1216	6
03-01-0463	6318	6
03-01-0464	1209	4
03-01-0465	1213	8
03-01-0466	22216	16
03-01-0467	RHP6206ZZ	30
03-01-0468	RHP6208ZZ	30
03-01-0469	RHP6308ZZ	20
03-01-0470	SKF6238	20
03-01-0471	SKF6244	20
03-01-0472	SKF6230	20
03-01-0473	SKF6313C3	6

03-01-0474	SKF23218	10
03-01-0475	SKF6318	10
03-01-0476	SKF 6315	8
03-01-0477	SKF7318B	17
03-01-0478	6328	30
03-01-0479	6324	30
03-01-0480	7307	20
03-01-0481	6306	20
03-01-0482	6308	20
03-01-0483	6310	20
03-01-0484	7330	15
03-01-0485	NU326	15
03-01-0486	NU232	15
03-01-0487	6330	15
03-01-0488	7322	30

SECTION 1-5:SUBMERSIBLE PUMP

CODE	DESCRIPTION	QTY
03-01-0489	SUBMERSIBLE PUMP 1" SINGLE PHASE FOR TREATED WATER WITH STARTER	25
03-01-0490	SUBMERSIBLE PUMP 1" SINGLE PHASE FOR RAW WATER WITH STARTER	10
03-01-0491	SUBMERSIBLE PUMP 2" SINGLE PHASE FOR TREATED WATER WITH STARTER	25
03-01-0492	SUBMERSIBLE PUMP 2" SINGLE PHASE FOR RAW WATER WITH STARTER	10
03-01-0493	SUBMERSIBLE PUMP 2" FOR TREATED WATER WITH STARTER THREE PHASE	80
03-01-0494	SUBMERSIBLE PUMP 2" FOR RAW WATER WITH STARTER THREE PHASE	20
03-01-0495	SUBMERSIBLE PUMP 3" FOR TREATED WATER WITH STARTER THREE PHASE	60
03-01-0496	SUBMERSIBLE PUMP 3" FOR RAW WATER WITH STARTER THREE PHASE	50
03-01-0497	SUBMERSIBLE PUMP 4" FOR TREATED WATER WITH STARTER THREE PHASE	50
03-01-0498	SUBMERSIBLE PUMP 4" FOR RAW WATER WITH STARTER THREE PHASE	30
	COMPLETE SPARE PARTS FOR ALL SUBMERSIBLE PUMPS	

SUBMERSIBLE CLEAR WATER PUMP (MOBILE INSTALLATION)

A) SPECIFICATION:

1. SUPPLY OF SUBMERSIBLE PUMP FOR CLEAR WATER WITH VALVE OF THE LIQUID4-10
2. IMPELLER TO BE MADE OF STAINLESS STEEL OR EQUIVALENT
3. SHAFT TO BE MADE OF STAINLESS STEEL
4. THE TEMPERATURE OF PUMPED WATER 60 DEGREE
5. MOTOR SPECIFICATIONS:
CLASS OF INSULATION F/H
VOLTAGE : 380 V , 50HZ, 3Q
VOLTAGE FLUCTUTION: IS IN I 5%
CABLE LENGTH : 30 M
6. PROTCTION FUNNTION:
HEAT PROTETOR
LEAKAGE PROTCTOR
OIL-WATER PROB IN CABLE JUMNCTION CHAMBER
OIL-WATER PROB IN OIL CHAMBER
TEMPERATURE -PROTECTOR IN SHAFT

B)PUMP STARTERS

THE STARTER SHOULD BE WITH FOLLOWING PROTCTIONS
PHASE /SEQUNCE RELAY , OVER TEMP, OVR LOAD ,
MAIN CIRCUIT BREAKER.
ALL NESSESSARY SWITCHES ON/OFF/AUTO & SINGAL
LAMPS (ON ,OFF,TRIP, DRY, HUMID_
FLOOR STANDING CUBICAL FOR THE PUMP STARTER IP 55

FLOAT SWITCHES FOR AUTOMATIC OPERATION & DRY PROTECTION

ACCESSORIES:

DISCHARGE ELBOW WITH FLANGE
 FLANGE SLEEVE
 DISCHARGE HOSE WITH HOSE CLIPS(L HEAD)
 SKIRT BASE
 CHAIN WITH SHACKLE
 CONTROL PANELS & CONTROL SYSTEM
 CABLE TYPE STARTIN : STAR /DELTA
 WET TRANSPORTABLE
 STRIANER

03-01-0499	3 INGH DIAMETER DN: 80MM H: 25M Q: 40 M3/H	100
03-01-0500	2 INGH DIAMETER DN: 50MM H: 15 M Q: 30 M3/H	100
03-01-0501	4 INGH DIAMETER DSN : 100MM H: 25M Q :60 M3/H WITH 20% SPARE PARTS WITH WIERS FOR MOTOR MAINTENANCE	100

SECTION 1-6: DICTILE IRON FITTING SUITABLE FOR DUCTILE IRON PIPES

CODE	DESCRIPTION	QTY ml
03-01-0502	Ductile iron pipes with normal diameter 1600mm	5000
03-01-0503	Ductile iron pipes with normal diameter 1400mm	5000
03-01-0504	Ductile iron pipes with normal diameter 1200mm	5000
03-01-0505	Ductile iron pipes with normal diameter 1000mm	5000
03-01-0506	Ductile iron pipes with normal diameter 900mm	5000
03-01-0507	Ductile iron pipes with normal diameter 800mm	5000
03-01-0508	Ductile iron pipes with normal diameter 700mm	5000
03-01-0509	Ductile iron pipes with normal diameter 600mm	5000
03-01-0510	Ductile iron pipes with normal diameter 500mm	5000
03-01-0511	Ductile iron pipes with normal diameter 400mm	5000
03-01-0512	Ductile iron pipes with normal diameter 300mm	5000

CODE	DESCRIPTION	QTY No.
03-01-0513	Flange Socket 1600 mm	5
03-01-0514	Flange Spigot 1600mm	5
03-01-0515	Collar Ductile 1600mm	5
03-01-0516	Double socket bend 45°, 90°, 1600 for each	2
03-01-0517	All flange bend 45°, 90°, 1600 for each	10
03-01-0518	All flange equal tee 1600x1600 mm	4
03-01-0519	All socket equal tee 1600x1600	4
03-01-0520	Socket-flange tee 1600x1600	4
03-01-0521	Socket-flange tee 1600x1400	2
03-01-0522	Socket-flange tee 1600x1200	2
03-01-0523	Socket-flange tee 1000x1000	2
03-01-0524	Socket-flange tee 1600x900	2
03-01-0525	Socket-flange tee 1600x800	2
03-01-0526	Socket-flange tee 1600x700	2
03-01-0527	Socket-flange tee 1600x600	2
03-01-0528	Double flange taper 1600x1400	1
03-01-0529	Double flange taper 1600x1200	1
03-01-0530	Ditto flange taper 1600x1000	1
03-01-0531	Flange - socket 1400	5
03-01-0532	Flane - spigate 1400	5
03-01-0533	Ductile collar 1400	5
03-01-0534	Double socket bend 45, 90, 1400 for each	2
03-01-0535	All flange bend 45, 90, 1400 for each	2
03-01-0536	All flange equal tee 1400x1400	1
03-01-0537	All socket equal tee 1400x1400	2

CODE	DESCRIPTION	QTY No.
03-01-0538	Socket-flange tee 1400x1400	2
03-01-0539	Socket-flange tee 1400x1200	2
03-01-0540	Socket-flange tee 1400x1000	2
03-01-0541	Socket-flange tee 1400x900	2
03-01-0542	Socket-flange tee 1400x800	2
03-01-0543	Double-flange taper 1400x1200	2
03-01-0544	Double-flange taper 1400x1200	2
03-01-0545	Flange socket 1200	10
03-01-0546	Flange spigate 1200	10
03-01-0547	Ductile collar 1200	10
03-01-0548	Double socket bend (45,90) 1200 for each	2
03-01-0549	Double flange bend (45,90) 1200 for each	2
03-01-0550	All flange equal tee 1200x1200	2
03-01-0551	All socket equal tee 1200x1200	2
03-01-0552	Socket-flange tee 1200x1200	2
03-01-0553	Socket-flange tee 1200x1000	2
03-01-0554	Socket-flange tee 1200x800	2
03-01-0555	Socket-flange tee 1200x600	2
03-01-0556	Double flange taper 1200x1000	2
03-01-0557	Double flange taper 1200x800	2
03-01-0558	Double flange taper 1200x600	2
03-01-0559	Flange socket 1000	5
03-01-0560	Flange spigate 1000	5
03-01-0561	Ductile collar 1000	5
03-01-0562	Double socket bend (45,90) 1000 for each	2
03-01-0563	All flange bend (45,90) 1000 for each	2
03-01-0564	All flange equal tee 1000x1000	10
03-01-0565	All socket equal tee 1000x1000	1
03-01-0566	Socket-flange tee 1000x1000	2
03-01-0567	Socket-flange tee 1000x800	2
03-01-0568	Socket-flange tee 1000x600	2
03-01-0569	Double flange taper 1000x800	2
03-01-0570	Double flange taper 1000x600	2
03-01-0571	Flange socket 900	10
03-01-0572	Flange spigate 900	10
03-01-0573	Ductile collar 900	10
03-01-0574	Double socket bend (45,90) 900 for each	2
03-01-0575	Double flange bend (45,90) 900 for each	2
03-01-0576	All flange equal tee 900x900	1
03-01-0577	Socket-flange tee 900x900	1
03-01-0578	Socket-flange tee 900x800	2
03-01-0579	Socket-flange tee 900x700	2

CODE	DESCRIPTION	QTY No.
03-01-0580	Socket-flange tee 900x600	2
03-01-0581	Double flange taper 900x1000	2
03-01-0582	Double flange taper 900x700	2
03-01-0583	Double flange taper 900x600	2
03-01-0584	Flange socket 800	10
03-01-0585	Flange spigate 800	10
03-01-0586	Ductile collar 800	10
03-01-0587	Double socket bend (45,90,22.1) 800 for each	2
03-01-0588	All flange bend (45,90) 800 for each	2
03-01-0589	All flange equal tee 800x700	2
03-01-0590	All socket equal tee 800x700	2
03-01-0591	Socket-flange tee 800x700	2
03-01-0592	Socket-flange tee 800x600	3
03-01-0593	Socket-flange tee 800x500	3
03-01-0594	Socket-flange tee 800x400	5
03-01-0595	Socket-flange tee 800x300	5
03-01-0596	Double flange taper 800x700	3
03-01-0597	Double flange taper 800x600	3
03-01-0598	Double flange taper 800x500	5
03-01-0599	Double flange taper 800x400	5

03-01-0600	Double flange tapper 800x300	5
03-01-0601	Flange socket 700	25
03-01-0602	Flange spigote 700	25
03-01-0603	Ductile collar 700	50
03-01-0604	Double socket bend (90,45) 700 for each	10
03-01-0605	All flange bend (90,45) 700 for each	10
03-01-0606	All socket equal tee 700x700	2
03-01-0607	Socket flange equal tee 700x700	3
03-01-0608	Socket flange equal tee 700x600	3
03-01-0609	Socket flange equal tee 700x500	3
03-01-0610	Socket flange equal tee 700x400	5
03-01-0611	Socket flange equal tee 700x300	5
03-01-0612	Double flange equal tapper 700x600	3
03-01-0613	Double flange equal tapper 700x500	3
03-01-0614	Double flange equal tapper 700x400	5
03-01-0615	Double flange equal tapper 700x300	5
03-01-0616	Flange socket 600	5
03-01-0617	Flange spigate 600	5
03-01-0618	Ductile collar 600	5
03-01-0619	Double socket bend (90,45) 600 for each	5
03-01-0620	All flange bend (90,45) 600 for each	5
03-01-0621	All flange equal tee 600x600	2

CODE	DESCRIPTION	QTY No.
03-01-0622	All socket equal tee 600x600	2
03-01-0623	Socket flange tee 600x600	2
03-01-0624	Socket flange tee 600x600	2
03-01-0625	Socket flange tee 600x500	10
03-01-0626	Socket flange tee 600x400	10
03-01-0627	Socket flange tee 600x300	10
03-01-0628	Double flange tapper 600x500	10
03-01-0629	Double flange tapper 600x400	10
03-01-0630	Double flange tapper 600x300	10
03-01-0631	Flange socket 500	10
03-01-0632	Flange spigate 500	50
03-01-0633	Ductile collar 500	2
03-01-0634	Double socket bend (90,45) 500 for each	2
03-01-0635	All flange bend (90,45) 500 for each	2
03-01-0636	All socket equal tee 500x500	2
03-01-0637	All flange equal tee 500x500	2
03-01-0638	Socket flange tee 500x500	2
03-01-0639	Socket flange tee 500x400	5
03-01-0640	Socket flange tee 500x300	5
03-01-0641	Double flange tapper 500x400	5
03-01-0642	Double flange tapper 500x300	5
03-01-0643	Flange socket 400	20
03-01-0644	Flange spigate 400	20
03-01-0645	Double socket bend (90,45) 400 for each	5
03-01-0646	All flange bend (90,45,22.5,11,25) 400 for each	5
03-01-0647	All socket equal tee 400x400	5
03-01-0648	All flange equal tee 400x400	5
03-01-0649	Socket flange tee 400x400	10
03-01-0650	Socket flange tee 400x300	10
03-01-0651	Double flange tapper 400x300	10
03-01-0652	Double flange tapper 400x250	15
03-01-0653	Flange socket 300	150
03-01-0654	Flange spigate 300	150
03-01-0655	Ductile collar 300	10
03-01-0656	Double socket bend (90,45) 300 for each	50
03-01-0657	All flange bend (90,45) 300 for each	50
03-01-0658	All flange equal tee 300x300	10
03-01-0659	All socket equal tee 300x300	10
03-01-0660	Socket flange tee 300x300	20
03-01-0661	Socket flange tee 300x250	25
03-01-0662	Socket flange tee 300x200	25
03-01-0663	Socket flange tee 300x150	25

CODE	DESCRIPTION	QTY No.
03-01-0664	Double flange taper 300x250	50
03-01-0665	Double flange taper 300x200	50
03-01-0666	Double flange taper 300x150	50
03-01-0667	Repair clamp for ductile pipes of diameter 400mm	50
03-01-0668	Repair clamp for asbestos class A pipes of diameter 400mm	250
03-01-0669	Repair clamp for asbestos class B pipes of diameter 400mm	250
03-01-0670	Repair clamp for asbestos class A pipes of diameter 500mm	250
03-01-0671	Repair clamp for asbestos class B pipes of diameter 500mm	200
03-01-0672	Repair clamp for asbestos class C pipes of diameter 500mm	200
03-01-0673	Repair clamp for ductile pipes of diameter 600mm	10
03-01-0674	Repair clamp for asbestos class A pipes of diameter 600mm	20
03-01-0675	Repair clamp for asbestos class B pipes of diameter 600mm	20
03-01-0676	Repair clamp for asbestos class C pipes of diameter 600mm	20

CODE	DESCRIPTION	QTY
	Supply of spigot-socket ductile iron pipes according to ISO 253 STANDARD, TYPE k9 with the following specifications: 1- pipes of push-fit joints. 2- Length of pipe should be 6 meters 3- pipes should have spun - cement mortar inside lining and outside bitumen coating. SCOPE OF SUPPLY SPUN DUCTILE IRON SPIGOT-SOCKET	
03-01-0677	1- 100mm diameter pipe with rubber joint	400000LM
03-01-0678	2- 150mm diameter pipe with rubber joint	200000LM
03-01-0679	3- 200mm diameter pipe with rubber joint	100000LM
	SUPPLY OF DUCTILE IRON FITTINGS Fittings should be suitable for ductile iron pipes according to ISO 253 STANDARD with the following specifications: 1- Flanges should be of type NP16 2- All sockets/joints should be mechanical 3- Fittings should have inside cement lining & outside bitumen coating. 4- The scope of supply include all necessary rubber joint, gaskets, washers, bolts, nuts & washers. SCOPE OF SUPPLY	
03-01-0680	1- Flange socket 200 mm	1000NO
03-01-0681	2- Flange socket 150 mm	2000NO
03-01-0682	3- Flange socket 100 mm	4000NO
03-01-0683	4- Flange spigot 200 mm	1000NO
03-01-0684	5- Flange spigot 150 mm	2000NO
03-01-0685	6- Flange spigot 100 mm	4000NO
03-01-0686	7- All socket tee 200mm	600NO
03-01-0687	8- All socket tee 200x150, 150x100, (each)	200NO
03-01-0688	9- Double socket tee with flange branch 100x100	2000NO
03-01-0689	10- Double flange reduce 200x150mm, 150x100, (each)	1000NO
03-01-0690	11- Double flange reduce 150x100mm	400NO
03-01-0691	12- All socket tee 100x100	4000NO
03-01-0692	13- All socket tee 150x150	2000NO
03-01-0693	14- Collar 100 mm	4000NO
03-01-0694	15- Collar 150 mm	2000NO
03-01-0695	16- Collar 200 mm	1000NO
03-01-0696	17- Double socket bend 45, 90 deg. (each), 100mm	4000NO
03-01-0697	18- Double socket bend 45, 90 deg. (each), 150mm	2000NO
03-01-0698	19- Double socket bend 45, 90 deg. (each), 200mm	1000NO
03-01-0699	17- Double socket bend 22 1/2, 1 1/4 (each) 100mm	2000NO
03-01-0700	18- Double socket bend 22 1/2, 1 1/4 (each) 150mm	600NO
03-01-0701	19- Double socket bend 22 1/2, 1 1/4 (each) 200mm	200NO
	General specifications 1- Thickness of pipe according to formula $t = 5.8 \sqrt{0.003 \times DN}$ 2- Internal pressure proof test = 50 bars 3- Thickness of fitting according to formula $t = 7 + 0.014 \sqrt{k \times DN}$ For Tees, k=14	

- 6- $\epsilon = 16 + 0.012 \times DN$ for other fittings $k = 12$
4- Leakage tightness test for fitting = 25 bars
5- Thickness of lining = 2.5 mm

SECTION 1-7 : CAST IRON FITTINGS FOR UPVC PIPES

CODE	DESCRIPTION	QTY	(NO.)
	Supply of fittings for UPVC pipes according to DIN 8061 & 8062 (class 10 bars) with the following specifications: 1- Fittings should be manufactured from cast iron with epoxy paint internally and externally 2- Flanges should be of type NP16 3- The scope of supply including all necessary rubber joint, washers, bolts, nuts, gaskets. Scope of supply		
03-01-0702	1- All socket tee 110mm x 110 mm	4000	
03-01-0703	2- All socket tee 160mm x 110 mm	2000	
03-01-0704	3- All socket tee 160mm x 160 mm	1000	
03-01-0705	4- All socket tee 225mm x 160 mm	600	
03-01-0706	5- All socket tee 225mm x 225 mm	400	
03-01-0707	6- Double socket bend 90° 110mm	2000	
03-01-0708	7- Double socket bend 90° 160mm	1200	
03-01-0709	8- Double socket bend 90° 225mm	400	
03-01-0710	9- Double socket bend 45° 110mm, 160mm (each)	600	
03-01-0711	10- Double socket bend 45° 225mm	200	
03-01-0712	11- Flange spigot & flange socket 110 mm each	800	
03-01-0713	12- Flange spigot & flange socket 160 mm each	600	
03-01-0714	13- Flange spigot & flange socket 225 mm each	600	
	Supply of valves Specifications: 1- Valve should be of rubber disc seal type. 2- Flange should be PN16 type 3- Testing pressure should be 18 bars against seal and 25 bar against body. 4- Coating should be of epoxy paint internally & externally 5- All coating should be of feed stuff quality. Scope of supply		
03-01-0715	1- Double spigot valve 110mm	2000	
03-01-0716	2- Double spigot valve 160mm	1000	
03-01-0717	3- Double spigot valve 225mm	400	

SECTION 1-8 : SADDLES WITH FURREL

CODE	DESCRIPTION	QTY	
03-01-0718	1-COMPLET SET OF 110MM SADDLE WITH 12MMX12MM FERRULE.	SET	60000
03-01-0719	2- = = = = = 25MMX25MM =	SET	70000
03-01-0720	3- = = = = = 18MMX18MM =	SET	5000
03-01-0721	4- = = 160MM = = 12MMX12MM =	SET	10000
03-01-0722	5- = = = = = 18MMX18MM =	SET	3000
03-01-0723	6- = = = = = 25MMX25MM =	SET	5000
03-01-0724	7- = = 225MM = = 12MMX12MM =	SET	10000
03-01-0725	8- = = = = = 25MMX25MM =	SET	2000

SECTION 1-9 : STAINLESS STEEL CLAMPS

CODE	DESCRIPTION	QTY	
03-01-0726	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(115-125)	NO.	7000
03-01-0727	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(112-121)	NO.	3000
03-01-0728	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(166-178)	NO.	2000
03-01-0729	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(178-190)	NO.	5000
03-01-0730	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(215-227)	NO.	1000
03-01-0731	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(233-246)	NO.	3000
03-01-0732	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(271-293)	NO.	1000
03-01-0733	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(346-368)	NO.	800
03-01-0734	STAINLESS STEEL REPAIR CLAMP TYPE RS-1, RANGE MM(369-392)	NO.	400

SUBMERSIBLE CLEAR WATER PUMP (MOBILE INSTALLATION)

A) SPECIFICATION:

1. SUPPLY OF SUBMERSIBLE PUMP FOR CLEAR WATER WITH VALVE OF THE LIQUID4-10

2. IMPELLER TO BE MADE OF STAINLESS STEEL OR EQUIVALENT
3. SHAFT TO BE MADE OF STAINLESS STEEL
4. THE TEMPERATURE OF PUMPED WATER 60 DEGREE
5. MOTOR SPECIFICATIONS:
CLASS OF INSULATION F/H
VOLTAGE : 380 V , 50HZ, 3Q
VOLTAGE FLUCTUTION: IS IN I 5%
CABLE LENGTH : 30 M
6. PROTCTION FUNNTION:
HEAT PROTETOR
LEAKAGE PROTCTOR
OIL-WATER PROB IN CABLE JUMNCTION CHAMBER
OIL-WATER PROB IN OIL CHAMBER
TEMPERATURE -PROTECTOR IN SHAFT

B)PUMP STARTERS

THE STARTER HAS THE FOLLOWING PROTCTIONS
PHASE /SEQUENCE RELAY , OVER TEMP, OVR LOAD ,
MAIN CIRCUIT BREAKER.
ALL NESSESSARY SWITCHES ON/OFF/AUTO & SINGAL
LAMPS (ON ,OFF,TRIP, DRY, HUMID_
FLOOR STANDING CUBICAL FOR THE PUMP STARTER IP 55
FLOAT SWITCHES FOR AUTOMATIC OPERATION & DRY PROTECTION

ACCESSORIES:

DISCHAGRE ELBOW WITH FLANGE
FLANGE SLEEVE
DISCHARGE HOSE WITH HOSE CLIPS(L HEAD)
SKIRT BASE
CHAIN WITH SHACKLE
CONTROL PANELS & CONTROL SYSTEM
CABLE TYPE STARTIN : STAR /DELTA
WET TRANSPORTABLE
STRIANER

03-01-0735	3 INGH DIAMETER DN: 80MM H: 25M Q: 40 M3/H	200
03-01-0736	2 INGH DIAMETER DN: 50MM H: 15 M Q: 30 M3/H	200
03-01-0737	4 INGH DIAMETER DSN : 100MM H: 25M Q :60 M3/H WITH 20% SPARE PARTS	200

SECTION 4: WATER TREATMENT PLANTS REQUIREMENT

CODE NO.	DESCRIPTION	QTY
03-01-0738	DUCTILE IRON PIPES (1400-2000)mm DIAMETER WITH FITTINGS	33400 M.L
03-01-0739	BUTERFLY VALVES (1400-2000)mm DIAMETER , ELECTRICALLY AND MANUALLY OPERATED	31
03-01-0740	VERTICAL RAW WATER PUMP SET WITH CONTROL PANELS AND VALVES	6
03-01-0741	ELECTRIC DISTRIBUTION BOARD FOR RAW WATER PUMPS	1
03-01-0742	TRANSFORMRS FOR RAW WATER PUMPING STATION	3
03-01-0743	SPLIT CASE VERTICAL PUMPS FOR TREATED WATER WITH CONTROL PANELS AND VALVES	8

03-01-0744	ELECTRIC DISTRIBUTION BOARD FOR TREATED WATER PUMPS	1
03-01-0745	TRANSFORMERS FOR TREATED WATER PUMPING STATION	3
03-01-0746	MAIN SUB STATION FOR THE HEAD WORK	1
03-01-0747	GANTRY AND BRIDGE CRANES	6