

**2-5-17 : SCREENS****1. ELECTRIC MOTOR**

CODE NO	DESCRIPTION	QTY
03-01-00921	SPEED=450 RPM, POWER=3.3 KW, 380 V.	2
03-01-00922	SPEED=750 RPM, POWER=4.4 KW, 380 V.	2
03-01-00923	SPEED=750 RPM, POWER=4.4 KW, 380 V.	2
03-01-00924	SPEED=750 RPM, POWER=4.4 KW, 380 V.	2
03-01-00925	SPEED=750 RPM, POWER=4.4 KW, 380 V.	1
03-01-00926	SPEED=750 RPM, POWER=4.4 KW, 380 V.	1
03-01-00927	SPEED=750 RPM, POWER=4.4 KW, 380 V.	1
03-01-00928	SPEED=450 RPM, POWER=3.3 KW, 380 V.	2

**2. GRILL MESH**

CODE NO	DESCRIPTION	QTY
03-01-00929	1800 MM	2
03-01-00930	2000X1800 MM	2
03-01-00931	2000X1800 MM	2
03-01-00932	2000X1800 MM	2
03-01-00933	1800X1000	1
03-01-00934	1800X1000	1
03-01-00935	1800X1000	1
03-01-00936	1800	2

**3. SCREEN**

CODE NO	DESCRIPTION	QTY
03-01-00937	9X1700 MM	2
03-01-00938	7X1800	2
03-01-00939	7X1800	2
03-01-00940	7X1800	2
03-01-00941	7X1800	1
03-01-00942	7X1800	1
03-01-00943	7X1800	1
03-01-00944	9X1700	2

**4. SCREEN CHAIN**

CODE NO	DESCRIPTION	QTY
03-01-00945	200MM /CHAINX3600MM	2
03-01-00946	150MM /CHAINX1600MM	2
03-01-00947	150MM /CHAINX1600MM	2
03-01-00948	150MM /CHAINX1600MM	2
03-01-00949	150MM /CHAINX1600MM	1
03-01-00950	150MM /CHAINX1600MM	1
03-01-00951	150MM /CHAINX1600MM	1
03-01-00952	200MM /CHAINX3600MM	2

CODE NO	DESCRIPTION	QTY
03-01-00953	COMPLETE SCREEN WITH FOLLOWING DETAILS	14

MANUFACTURER : AMG BROSTA  
 SCREEN WIDTH : 960MM  
 CHANNEL WIDTH :150MM  
 CHAIN DIMENSION: ( OUTER: 600MM) , ( INNER: 53MM)  
 CHAIN LENGTH: 11250 MM , (50 MM EACH CHAIN RING)  
 COUNTER WEIGHT DIMENSION:  
 ( 140MMTHICKNESS, 300MM HIGH, )  
 DISTANCE BETWEEN EXTERNAL AND INTERNAL ROPS : 1390 MM ( EXTERNAL ) , (1060MM INTERNAL )  
 GEAR BOX: TYPE XWG82-10 , 50HZ, 5.9 AMP  
 WITH SPARE PARTS FOR TWO YEARS OPERATION

**2-5-18 : VALVES AND PENSTOKS A95**

SEWAGE PUMPING STATION, SUCTION AND DISCHARGE VALVES

1. ELECTRICAL VALVES

CODE NO	DESCRIPTION	QTY
03-01-00954	400 MM DIAMETER WITH GEAR BOX, AND SPARE GEAR BOX	20
03-01-00955	500 MM DIAMETER WITH GEAR BOX, AND SPARE GEAR BOX	10
03-01-00956	700 MM DIAMETER WITH GEAR BOX, AND SPARE GEAR BOX	10
03-01-00957	500 MM DIAMETER,630 RPM,	2
03-01-00958	500 MM DIAMETER , 450 RPM,	1
03-01-00959	1000 MM DIAMETER,840 RPM,4.4 KW	3
03-01-00960	1000 MM DIAMETER, 730 RPM,50 KW	2

2. MECHANICAL VALVES

CODE NO	DESCRIPTION	QTY
03-01-00961	8 INCH DIAMETER	56
03-01-00962	12 INCH DIAMETER	32
03-01-00963	14 INCH DIAMETER	8
03-01-00964	4 INCH DIAMETER	6
03-01-00965	6 INCH DIAMETER	12
03-01-00966	150MM DIAMETER	42
03-01-00967	750MM DIAMETER	6
03-01-00968	250MM DIAMETER	24
03-01-00969	200MM DIAMETER	20
03-01-00970	300MM DIAMETER	36
03-01-00971	400MM DIAMETER	14
03-01-00972	500MM DIAMETER	26
03-01-00973	350MM DIAMETER	28
03-01-00974	600 MM DIAMETER	16
03-01-00975	270MM DIAMETER	16

3. NON RETAINING VALVE

CODE NO	DESCRIPTION	QTY
03-01-00976	8 INCH DIAMETER	56
03-01-00977	12 INCH DIAMETER	32

03-01-00978	14 INCH DIAMETER	8
03-01-00979	4 INCH DIAMETER	6
03-01-00980	6 INCH DIAMETER	12
03-01-00981	100MM =	6
03-01-00982	900 MM =	11
03-01-00983	800 MM =	7
03-01-00984	700 MM =	10
03-01-00985	600 MM =	8
03-01-00986	500 MM =	13
03-01-00987	400 MM =	4
03-01-00988	350 MM =	16
03-01-00989	250 MM =	8
03-01-00990	200 MM =	7

#### 4. PENSTOCKS

CODE NO	DESCRIPTION	QTY
03-01-00991	225 MM DIAMETER	
03-01-00992	500 MM =	
03-01-00993	400 MM =	
03-01-00994	315 MM =	
03-01-00995	400 MM DIAMETER WITH ELECTRIC MOTOR ( 2800 RPM,400V.,0.18 KW)	6
03-01-00996	1800 MM DIAMETER, 1450 RPM,3.7KW	1
03-01-00997	600 MM DIAMETER,1320 RPM, 0.4 KW	3
03-01-00998	300 MM DIAMETER	12
03-01-00999	200 MM =	8
03-01-01000	400 MM =	4
03-01-01001	150 MM =	1
03-01-01002	175 MM =	1
03-01-01003	125 MM =	1
03-01-01004	100MM =	1
03-01-01005	600 MM =	1
03-01-01006	750 MM =	1
03-01-01007	350 MM =	3

#### 5. ELECTRICAL PRESSURE VALVE GATE ( PENSTOKS)

CODE NO	DESCRIPTION	QTY
03-01-01008	ELECTRIC MOTOR: AUMA , TYPE MD 71-2180 3~ 230V-400V, 1.1 KW, 50HZ, 2800 MIN, /Y 5,9/34A COSQ 0.86 , IP=67 , WITH SPARE PARTS	8
03-01-01009	GEAR BOX: AUMA TYPE SA 12E , PROTECTION IP 67, MIN-MAX 30-120, 1/M=12.5, LUBRICATION EP, WITH SPARE PARTS	8
03-01-01010	ELECTRIC MOTOR: AUMA , TYPE MD56-2160 3~ 230V-400V, 0.37 KW, 50HZ, 2800 MIN, /Y 2.4/1, 35 A COSQ 0.73 , IP=67 , WITH SPARE PARTS	2
03-01-01011	GEAR BOX: AUMA TYPE SA 12E , PROTECTION IP 67, MIN-MAX 30-120, , SPEED=1/M=32, LUBRICATION EP, WITH SPARE PARTS	2

#### SECTION 2-5-19: SEWER LINES SAFTY AND CLEANING MATERIALS AND EQUIPMENT

CODE NO	DESCRIPTION	QTY
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03-01-01012	MUNICIPAL TRAILER WINCH MOUNTED ON CHASSIS	18
03-01-01013	CONE DEVIL	80
03-01-01014	SAND CONE	80
03-01-01015	TWIST DEVIL	80
03-01-01016	SCALE BREAKER	80
03-01-01017	DRAG LINE BRUSH	180
03-01-01018	HIGH PRESSURE CLEANING MACHINE WITH SPARE PARTS	6
03-01-01019	BRUSHES FOR CLEANING SEWERS	360
03-01-01020	STEELKANE ROPES	
03-01-01021	HIGH PRESSURE FLEXIBLE HOSE : 1- INCH DIAMETER, 80 M LONG OPERATING PRESS: 200 BAR, TECH. DESCRIPTION: SEWER JETTING AND HEAVY DUTY, HIGH PRESSURE WATER CLEANING INNER TUBE: SBR,BLACK SMOOTH REINFORCEMENT: SYNTHETIC TEXTILE , BRAIDS COVER: SBR/NR, BLACK, SMOOTH TEMPERATURE RANGE: - 30 C - + 80 C INTERNAL DIA: 25.00MM WALL THICKNESS: 7.15 MM EXTERNAL DIAM: 39.30 MM WORKING PRESSURE : 200 BAR BENDING RADIUS: 110 MM WEIGHT: 0.88 KG/M LENGTH: 80 M	5000M
03-01-01022	HIGH PRESSURE FLEXIBLE HOSE : ¾- INCH DIAMETER, 80 M LONG OPERATING PRES: 200BAR	2000M
03-01-01023	CLEANING EQUIPMENT'S FOR CLEANING SCREENS : PROTECTION MASK SAFETY BELT	50 SET
03-01-01024	SAFETY ROPES	2000M
03-01-01025	SAFETY BELTS	100
03-01-01026	WATER LEAKAGE DETECTOR	18
03-01-01027	METAL DETECTOR RANG UP TO 4M POWER SUPPLY : 9VOLT BATTERY DC. MAGNETIC FIELD, LIGHT WEIGHT, EQUIPPED WITH HEAD PHONE	18
03-01-01028	SEWAGE CLEANING ROADS , 1-1.5 LONG CLEANING NOZZLES FOR JETTING VEHICLES BULLET NOSED NOZZLE WITH REARWARD FACING, ANGLED JETS TO GIVE SELF PROPULSION FOR GENERAL CLEANING PURPOSE	150000
03-01-01029	¾ INCH B.S.P THREAD	30
03-01-01030	1 INCH B.S.P THREAD AS THE FIRST TYPE FOR BLOCKAGE CLEARANCE BUT HAVING AN ADDITIONAL FORWARD FACING JET:	30

03-01-01031	¾ INCH B.S.P. THREAD	20
03-01-01032	1 INCH B.S.P. THREAD	20
	ROTTING TOOLS	
03-01-01033	STANDARD CROCK SCREW 4 INCH	60
03-01-01034	DOUBLE CORKSCREW 3 INCH	30
03-01-01035	DOUBLE CORKSCREW 5 INCH	30
03-01-01036	FISHING TOOLS	40
03-01-01037	BREATHING SYSTEM INCLUDES : CYLINDERS WITH CAPACITY SUITABLE FOR TWO TWO WORKING HOURS , FACE MASK WITH FILTER SUITABLE TO BE USED WITH CHLORINE GAS WITH ACCESSORIES	20 SET

### SECTION 3 : MACHINERY AND EQUIPMENT

#### SECTION 3-1: WHEEL LOADER

CODE NO	DESCRIPTION	QTY
03-01-01038	ENGINE : DIESEL, DIRECT INJECTION , 4 CYLINDER, IN LINE , WATER COOLED , FOUR STROKE ,	112

BUCKET CAPACITY : 0.8m3  
POWER: 80-100 HP  
OPERATING WEIGHT : 5-6 TON  
TIRE SIZE: 16/70-20  
HYDRAULIC OPERATING: MANUAL  
HYDRAULIC OPERATION , NOT BY  
ELECTRIC OR AIR SYSTEM  
PRODUCTION SHOULD BE UNDER ISO 9001  
CERTIFICATION FOR QUALITY  
WITH 20% SPARE PARTS FOR 2  
OPERATING YEARS

#### SECTION 3-2: WHEEL LOADER

CODE NO	DESCRIPTION	QTY
03-01-01039	ENGINE : DIESEL, DIRECT INJECTION , 4 CYLINDER, IN LINE , WATER COOLED , FOUR STROKE ,	78

BUCKET CAPACITY : 2.4m3  
POWER:180-200 HP  
OPERATING WEIGHT :12-13 TON  
CLIMBING ABILITY: NOT LESS THAN 25  
TIRE SIZE: 20.5-25  
HYDRAULIC OPERATING: MANUAL  
HYDRAULIC OPERATION , NOT BY  
ELECTRIC OR AIR SYSTEM  
PRODUCTION SHOULD BE UNDER ISO 9001  
CERTIFICATION FOR QUALITY  
WITH 20% SPARE PARTS FOR 2  
OPERATING YEARS

#### SECTION 3-3: WHEEL EXCAVATOR

CODE NO	DESCRIPTION	QTY
03-01-01040	ENGINE: DIESEL, DIRECT INJECTION , 4 CYLINDER, IN LINE , WATER COOLED , FOUR STROKE ,	50

BUCKET CAPACITY : 0.6 m3 AND 1M3  
 OPERATING WEIGHT 20-22 TON  
 GRADEABILITY : 30-35  
 DRIVE SYSTEM: HYDRAULIC DRIVE  
 TRANSMISSION: FORWARD, REVERES, 2  
 SPEED GEAR  
 MAX. DIGGING DEPTH: 6-8 M  
 PRODUCTION SHOULD BE UNDER ISO 9001  
 CERTIFICATION FOR QUALITY  
 WITH 20% SPARE PARTS FOR 2  
 OPERATING YEARS , AND JACK HAMMER

**SECTION 3-4: CESSPOOL EMPTIER**

CODE NO	DESCRIPTION	QTY
03-01-01041	ENGINE: DIESEL, DIRECT INJECTION , 6 CYLINDER, IN LINE , WATER COOLED ,INTER COOLING FOUR STROKE ,TROPICAL, TURBOCHARGE , POWER NOT LESS THAN 240 HP  CHASSIS: (4X2) CLUTCH: DRY SINGLE PLATE, PRESS TYPE , 422 MM 17 GEAR BOX: 8+1 MANUAL GVW: NOT LESS THAN 19 TON PAY LOAD: 12 TON CESSPOOL EMPTIER TANK: SHAPE: CYLINDRICAL , CAPACITY: 10000L, THICKNESS: 6MM VACUUM SYSTEM: TYPE: ROTARYSLIDING VANE WITH CARDEN SHAFT DRIVEN FROM P.T.O , CAPACITY: NOT LESS THAN 750M3LH , VACUUM EFFICIENCY : 90% PROVIDED WITH: HIGH PRESSURE PUMP NOT LESS THAN 140L/S, FLEXIBLE HOUSE WITH GUN 20 M.L, ADDITIONAL TANK OF 500 L. CAPACITY FOR FRESH WATER STORAGE, COMPLETE WATCHING SYSTEM, HOSE BOXES ON EACH SIDE OF TANK,  TIRE SIZE: 1200X20 OR 1100X20 PRODUCTION SHOULD BE UNDER ISO 9001 CERTIFICATION FOR QUALITY WITH 20% SPARE PARTS FOR 2 OPERATING YEARS	40

**SECTION 3-5: FIELD VEHICLE , DOUBLE CAP , PICK-UP**

CODE NO	DESCRIPTION	QTY
03-01-01042	ENGINE :PETROL, 4 CYLINDER, IN LINE , WATER COOLED , WITH CARBORATOTER , POWER: NOT LESS THAN 100-130 HP FOUR STROKE  CLUTCH: DRY SINGLE PLATE GEAR BOX:5 SPEED MANUAL	150

TIRE SIZE: 650X14 ( 2FRONT + TWO  
 REAR+1SPARE)  
 DRIVEN TYPE: REAR-WHEEL DRIVE , 4X2  
 SEATS:5  
 STEERING : POWER STEERING , LEFT  
 POSITION OF STEERING WHEEL , RACK  
 AND PINION  
 DOUBLE CAP , PICK UP WITH FOUR DOORS

WITH AIR CONDITIONING , FIRE  
 DISTINGUISH , RADIO CASSETTE  
 WITH 20% SPARE PARTS FOR 2  
 OPERATING YEARS

**SECTION 3-6: FIELD VEHICLE , LAND CRUISER**

CODE NO	DESCRIPTION	QTY
03-01-01043	ENGINE :PETROL, 6 CYLINDER, IN LINE , WATER COOLED , WITH CARBORATOTER , POWER: NOT LESS THAN 200 HP FOUR STROKE , 4 WHEEL DRIVE	32

CLUTCH: DRY SINGLE PLATE  
 GEAR BOX: MANUAL  
 TYRE SIZE: 750X16 ( 2FRONT + TWO  
 REAR+1SPARE)  
 SEATS:9 , 4X4  
 STEERING : POWER STEERING( RACK AND  
 PINION ) , LEFT POSITION OF STEERING  
 WHEEL  
 DOUBLE CAP , PICK UP WITH FOUR DOORS

WITH AIR CONDITIONING , FIRE  
 DISTINGUISH , RADIO CASSETTE  
 WITH 20% SPARE PARTS FOR 2  
 OPERATING YEARS

**SECTION 3-7: GARBAGE CONTAINER LIFTING TRUCK**

CODE NO	DESCRIPTION	QTY
03-01-01044	CHASSIS CAB : 4 X 2 ENGINE : 6 CYLINDER , 4 STROKE. TURBOCHARGER POWER : NOT LESS THAN 200 HP. CLUTCH : SINGLE PLATE GEAR BOX : 8 SPEED G. V. W : NOT LESS THAN 19 TON PAYLOAD : NOT LESS THAN 11 TON TYRE SIZE : 1200 X 20 DISK TYPE CAPACITY : 16 m HYDRAULIC PUMP : DRIVEN BY POWER TAKE - OFF VIA CARDEN	40

**SECTION 3-8: PORTABLE WATER PUMPS DIESEL OPERATED**

CODE NO	DESCRIPTION	QTY
	DIESEL ENGINE WITH HORIZONTAL CENTRIFUGAL PUMP SELF PRIMING WITH VACUUM MOBILE SUCTION HEAD NOT LESS THAN 8 M DELIVERY HEAD NOT LESS THAN 30 M	

FUEL TANK CAPACITY IS 10 H/WORK  
 ALL ACCESSORIES FOR CONNECTION  
 WITH HOSE 20 M LONG  
 AIR COOLED MAX SOLIDS SIZE 50 MM  
 MECHANICAL SHAFT SEAL  
 CAPACITY NOT LESS THAN 600 M3/HR  
 IMPELLER : SINGLE STAGE AND SUCTION ,  
 MIXED FLOW OF MINIMUM NUMBER OF  
 VANES CAST IRON  
 PUMP SHALL BE DESIGNED TO PUMP  
 SEWAGE CONTAINING SOLIDS AND  
 STRANGE MATERIALS WITH A NIMISM OF  
 CLOGGING

03-01-01045	PUMP SIZE SUCTION X DISCHARGE 100X100 MM	30
03-01-01046	PUMP SIZE SUCTION X DISCHARGE 150X150 MM	30
03-01-01047	PUMP SIZE SUCTION X DISCHARGE 200X200 MM	30
03-01-01048	PUMP SIZE SUCTION X DISCHARGE 250X250 MM	30
03-01-01049	PUMP SIZE SUCTION X DISCHARGE 300X300 MM	30

SECTION 3-9: DRINKING WATER TANKERS

CODE NO	DESCRIPTION	QTY
03-01-01050	CHASSIS CAB : 6 X 4 ENGINE : 4- STROKE , 6 CYLINDER IN LINE TURBOCHARGER POWER : NOT LESS THAN 280 HP. CLUTCH : SINGLE PLATE GEAR BOX : 9 SPEED G. V. W : NOT LESS THAN 30 TON PAYLOAD : NOT LESS THAN 20 TON TYRE SIZE : 1200 X 20 DISK TYPE TANK CAPACITY : NOT LESS THAN 16000 L	90

SECTION 3-10 : CCTV Survey step van :

CODE NO	DESCRIPTION	QTY
03-01-01051	CCTV Survey step van : the step van be designed for ease and accessibility throughout . The interior is divided in to three rooms : driver area operator control room with a passage door and an equipment room which is onltillal with brackets for efficient storage of system accessories. ALL TV control components should be modular in design and are mounted for quick and easy operator inspection . The equipment components are: rotation pan and tilt head camera for inspection 150 10 600 mm	4



pipeline and additional lighting for up to 900 mm  
 dia . Pipeline  
 150 to 450 mm skid set  
 camera maintenance kit.  
 mainline tractor transport unit with camera  
 eradle , tractor extension kit , tractor  
 storage rack , (6) standard knobby tires .  
 hand held auxiliary controller portable control  
 unit  
 8 inch monitor with VCR , microphone and  
 footage display .  
 compact portable reel with wheels with 300 m  
 single conductor Cable can  
 by placed directly over manhole and / or vehicle  
 mounted .  
 downhole rollers, single manhole setup including  
 top manhole roller , double roller  
 manhole hooks, extension pole , grab hook  
 bumper roller lowering rope.  
 hand held title generator  
 cables including test cable, cable kit, truck install  
 and AC power cord.  
 4 NO. Knobby balloon tires  
 Manuals & videos including tractor  
 manual, mainline  
 Operations manual and video, pig tail & light  
 bulb  
 replacement video.  
 high resolution in mini mainline camera and 45m  
 push cable with tractor  
 adopter tube for inspection of 75 to 300mm  
 pipeline

03-01-01052	multi gas detector -4 gases suitable for sewer and confined space.	20
03-01-01053	flow gages to measure flows in wastewater collection systems. The equipment shall be capable of collecting depth and velocity measurements at pre-set intervals such as 1.0,2.0 2.5,5.0 and 10 min/ulce ieporl and analyses flow data in form of hourly ,daily,weekly,monthly roords and hydrograph.it shall be able to perform remote equipment diagnosties to confirm sensor accuracy and select user- defined reporting format	50
03-01-01054	Rainfall gauges: the equipment shall be capable of collecting,report and analyze rainfall data and present the inform	10

03-01-01055 COMPLETE SYSTEM FOR WIRELESS  
COMMUNICATION WITH (60)KM RANGE ,  
WITH 2 COMPLETE BASE STATION ,  
PORTABLE RADIOS AND ACCESSORIES  
,MOBILE RADIOS AND ACCESSORIES , ,  
FIXED RADIO STATION WITH  
ACCESSORIES, WITH SPARE PARTS FOR  
TWO OPERATING YEARS AND TRAINING

1