TSURUMI PUMP

LB - SERIES
SEMI-VORTEX - DEWATERING PUMP

SPECIFICATIONS

FEATURES

1. Semi-vortex urethane rubber or high chrome cast iron impeller suspends solids and allows for pumping of sand and stringy Material.
2. Highly efficient, continuous duty Air-filled, copper wound motor with class E,B insulation minimizes the cost of operation.
3. Built in thermal protection prevents motor failure due to overloading, accidental run-dry and single phasing in three phase units.
4. Double inside mechanical seals with silicon carbide faces running in an oil filled chamber provide for one the most durable seal designs available.
5. Double shielded, permanently lubricated, high temperature C3 ball bearings rated for a provide for extended operational life.
6. Model LB-480A & LB-800A Automatic Submersible pump performs like the non-automatic version in every aspect of construction site usage requiring a tough and durable pump
7. Slim design allows pumps to fit Into 8” pipes. (Manual type only)

APPLICATIONS

1. Residential, commercial, industrial wastewater and site drainage.
2. Decorative waterfalls and fountains.
3. Raw water supply from lakes or rivers.
4. Sediment removal from small sumps or basins.

Intertek

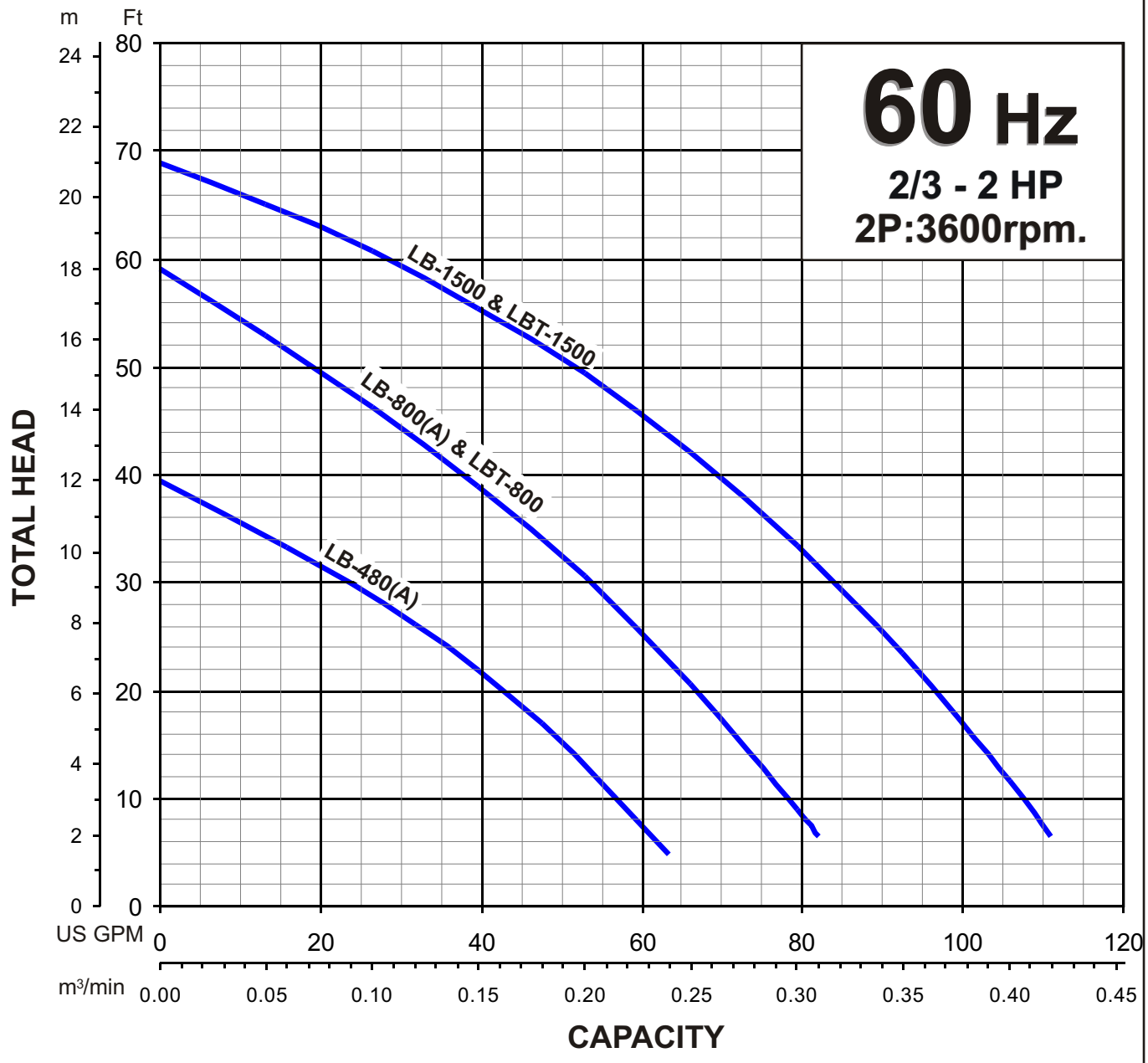
OIL LIFTER EQUIPPED

SPECIFICATIONS

Discharge Size	2 - 3 "NPT (50 - 80 mm)
Horsepower Range	1/2 - 2HP. (0.40 - 1.5kW)
Performance Range Capacity	15.9 - 111.0 GPM. (0.06 - 0.42 m^3/min)
Head	13.1 Ft. - 68.9 Ft. (4.0 - 18.9 m)
Maximum water temperature	104^0 F. (40^0 C.)
Materials of Construction	
Casing	Butadiene Rubber + Natural Rubber + Steel [LB(T)-1500]
Impeller	Urethane Rubber , High Chrome Cast Iron [LB(T)-1500]
Shaft	403 Stainless Steel
Motor Frame	Aluminum alloy
Fasteners	304 Stainless Steel
Mechanical Seal	Silicon Carbide
Elastomers	NBR (Nitrile Butadiene Rubber)
Impeller Type	Semi-vortex, solids handling.
Solids Handling Capability	0.236” (6.0mm)
Bearings	Prelubricated, Double Shielded
Motor Nomenclature	
Type, Speed, Hz.	Air Filled, 3600 RPM, 60 Hz.
Voltage, Phase	115 / 230V., 1 Phase 230 / 460 / 575V., 3 Phase
Insulation	Class E, B
Accessories	Submersible Power Cable 32 - 50' (10 - 15m)
	Length as Required,
Operational Mode	Manual , Automatic(LB-480A / 800A)
	TS-301 Float Switch

TSURUMI PUMP	LB - SERIES SEMI-VORTEX - DEWATERING PUMP	PERFORMANCE RANGE

GROUP PERFORMANCE RANGE



TSURUMI PUMP

LB - SERIES
SEMI-VORTEX - DEWATERING PUMP

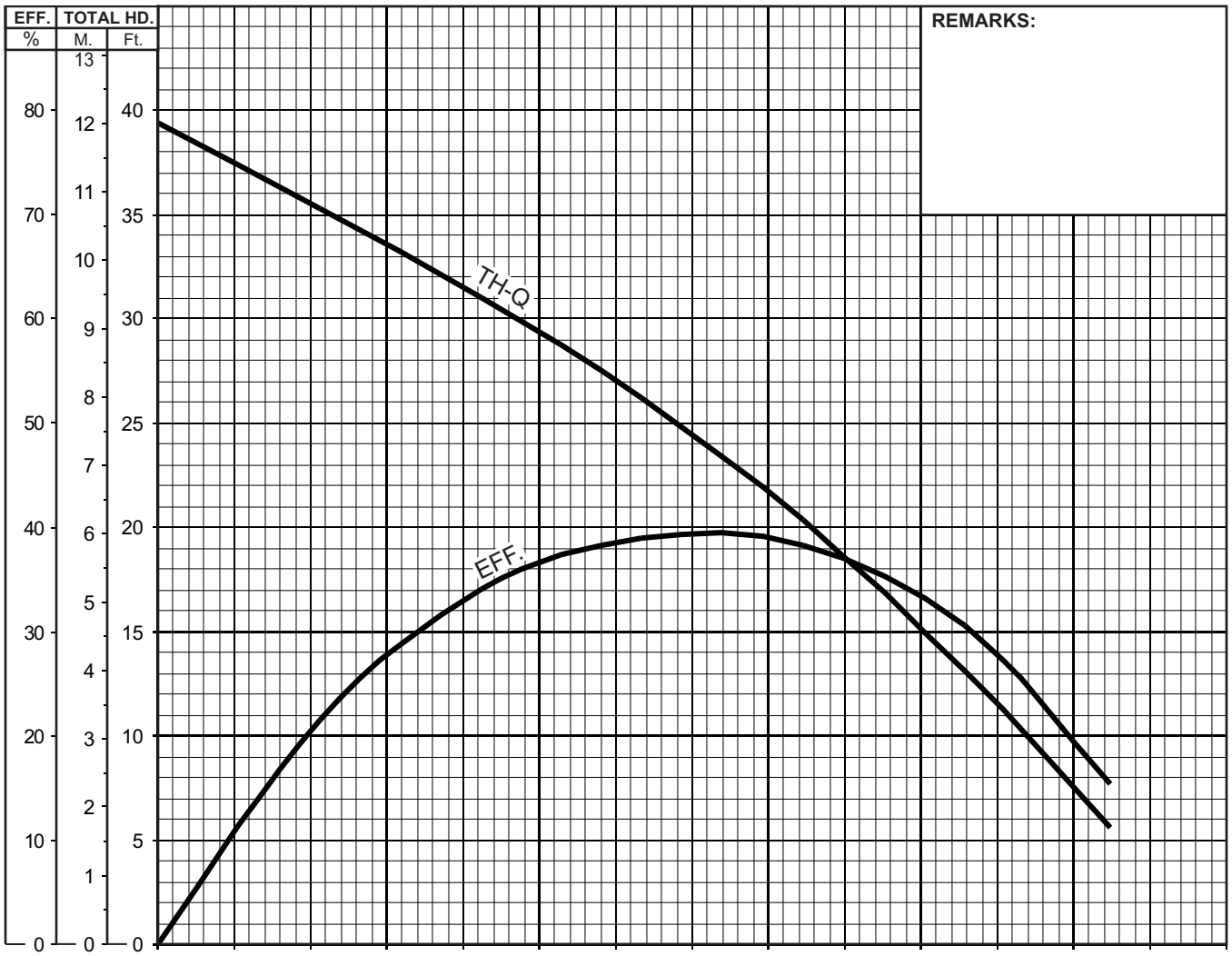
PERFORMANCE CURVE

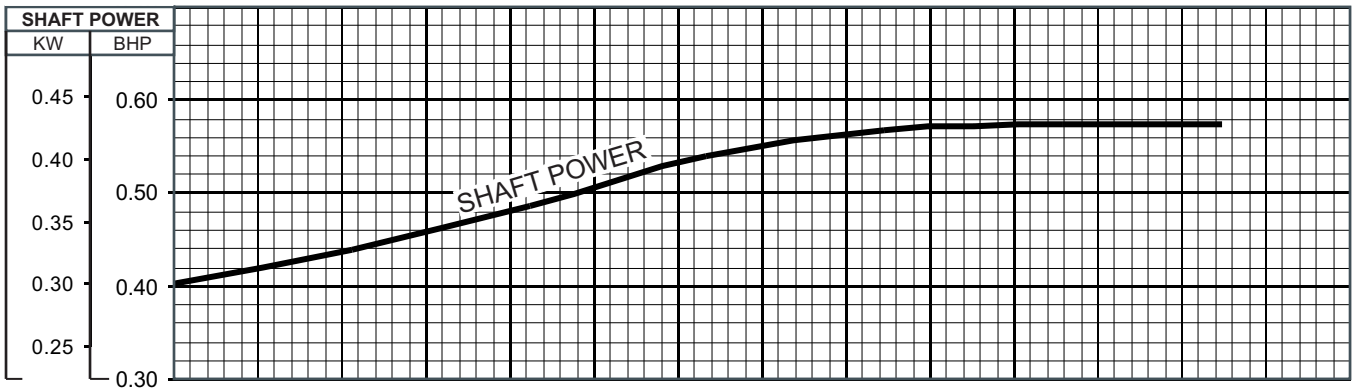
MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
LB(Z)-480(A)-62	2"/50mm	0.64	0.48	3255	0.236"/6mm	Water	1.0	1.123 cSt.	60°F

PUMP TYPE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS
Semi-Vortex - Dewatering Pump	Single	110/115/120, 230	6.1 / 5.9 / 5.7 , 3.0	60	Capacitor Start	E

CURVE No.	DATE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS
-	-	-	-	-	-	-	-

REMARKS:



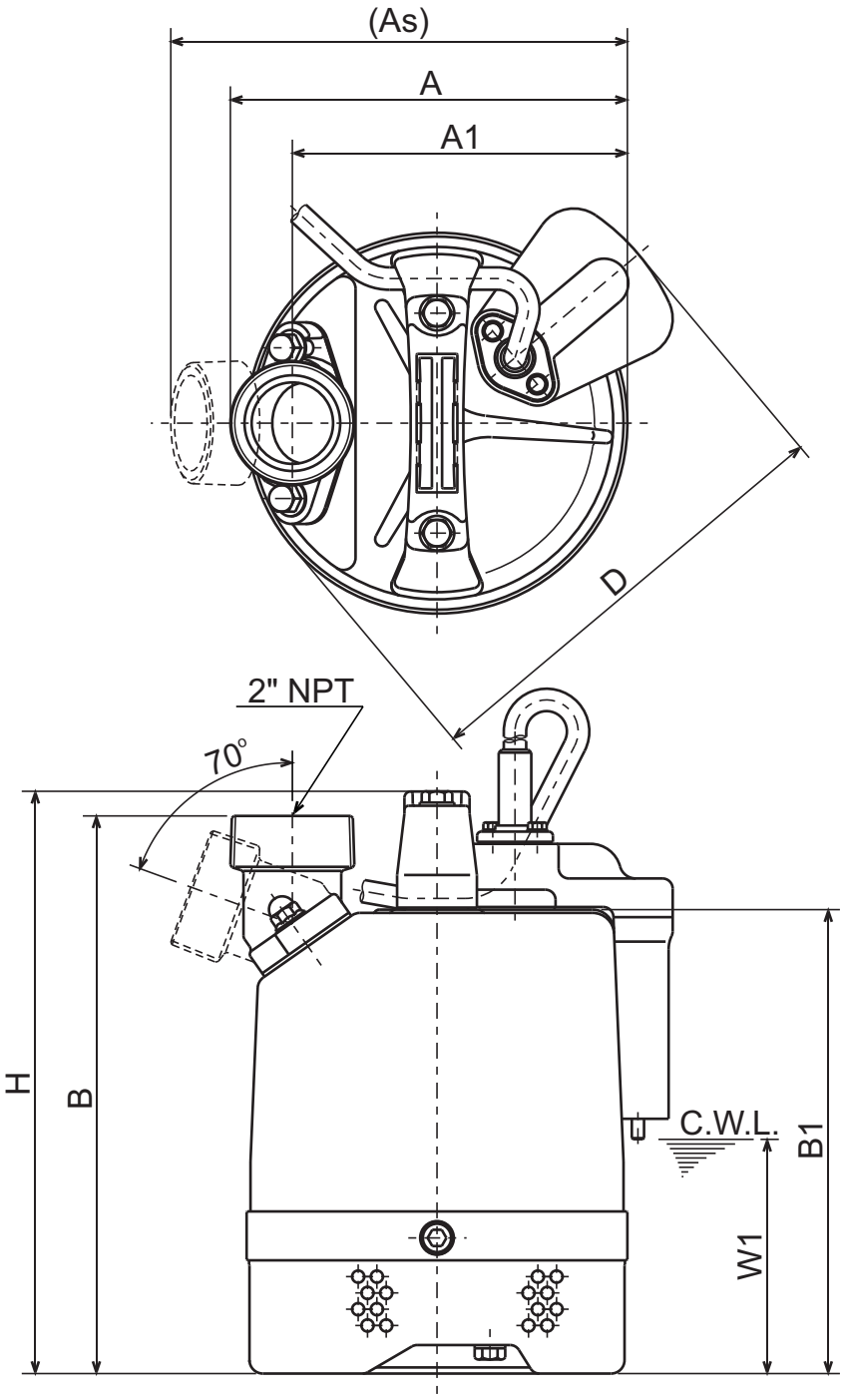


TSURUMI PUMP

LB - SERIES
SEMI-VORTEX - DEWATERING PUMP (AUTO-TYPE)

DIMENSIONS

LB-480A-62



C.W.L. : Continuous running Water Level

DIMENSIONS:USCS (Inch)

Model	HP	NOM.	Pump & Motor							C.W.L.	Wt.
		SIZE	A	As	A1	B	B1	D	H	W1	(lbs.)
LB-480A-62	2/3	2"	7 11/16	8 13/16	6 1/2	10 3/4	8 15/16	8 3/4	11 1/4	4 1/2	22

DIMENSIONS:METRIC (mm)

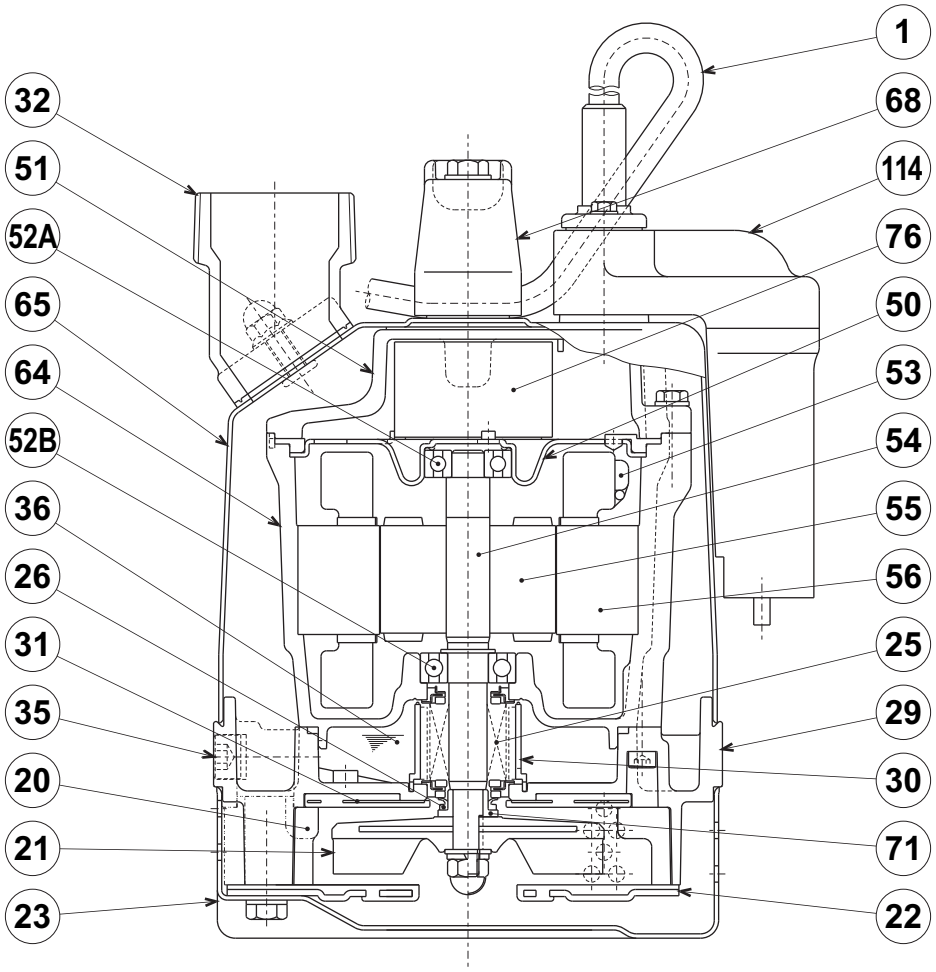
Model	kW	NOM.	Pump & Motor							C.W.L.	Wt.
		SIZE	A	As	A1	B	B1	D	H	W1	(kg)
LB-480A-62	0.48	50	195	224	165	274	228	223	286	115	10.0

TSURUMI PUMP

LB - SERIES
SEMI-VORTEX - DEWATERING PUMP (AUTO-TYPE)

SECTIONAL VIEW

LB-480A-62



ITEM#	DESCRIPTION	MAIN MATERIAL / NOTE	RELATED ASTM, AISI CODE	RELATED EN CODE	Q'TY
1	Power Cable	PVC Sheath AWG16/3-32ft			1
20	Pump Casing	Ethylene Propylene Rubber			1
21	Impeller	Urethane Rubber			1
22	Suction Cover	Urethane Rubber + Steel (Cold Rolled)	(A109/A1008)	(EN 10130)	1
23	Suction Strainer	Steel (Cold Rolled)	A109/A1008	EN 10130	1
25	Mechanical Seal	Silicon Carbide / W-14VL			1
26	V-Ring	Nitrile Butadiene Rubber			1
29	Oil Casing	Aluminum Alloy Die Casting	B85 383.0	EN 1706 AC-46100	1
30	Oil Lifter	PBT Resin			1
31	Wearing Plate	Urethane Rubber			1
32	Discharge Connection	Aluminum Alloy Die Casting / NPT 2"	B85 383.0	EN 1706 AC-46100	1
35	Oil Plug	Stainless Steel	S 30400	1.4301	1
36	Lubricant	Turbine Oil ISO VG32 or SAE10W-20			
50	Motor Bracket	Steel (Electro-Galvanized)	A591	EN 10152	1
51	Motor Head Cover	Aluminum Alloy Die Casting	B85 383.0	EN 1706 AC-46100	1
52A	Upper Bearing	#6201ZZC3			1
52B	Lower Bearing	#6202ZZC3			1
53	Motor Protector				1
54	Shaft	Stainless Steel	S 40300	1.4000	1
55	Rotor				1
56	Stator				1
64	Motor Housing	Aluminum Alloy Die Casting	B85 383.0	EN 1706 AC-46100	1
65	Outer Cover	Steel (Cold Rolled)	A109/A1008	EN 10130	1
68	Handle	ABS Resin			1
71	Shaft Sleeve	Stainless Steel	S 30400	1.4301	1
76	Capacitor				1
114	Relay Unit	Styrene Butadien Rubber			1

TSURUMI PUMP	LB-480-62 SEMI-VORTEX - DEWATERING PUMP	SAMPLE SPECIFICATIONS

1. SCOPE OF SUPPLY -

Furnish and install TSURUMI Model LB-480-62 Submersible Pump(s). Each unit shall be capable of delivering _____GPM (_____m^3/min) at _____Feet (_____m) TDH. The pump(s) shall be designed to pump wastewater, without damage during operation. The pump(s) shall be designed so that the shaft power required (BHP)/(kW) shall not exceed the motor rated output throughout the entire operating range of the pump performance curve. Pump(s) shall be of the top flow through design.

2. MATERIALS OF CONSTRUCTION -

Construction of major parts of the pumping unit(s) shall be as follows: Pump casing shall be synthetic rubber. Motor frame shall be aluminum alloy die casting. Internal and external surfaces coming into contact with the pumpage shall be protected by a fused polymer coating. All exposed fasteners shall be stainless steel. All units shall be furnished with 2" NPT discharge connector. Impellers shall be of the multi-vane, urethane rubber, semi-vortex solids handling design and shall be slip fit to the shaft. The motor shaft shall be machined to provide a positive drive of the impeller.

3. MECHANICAL SEAL -

All units shall be furnished with a dual inside mechanical shaft seal located completely out of the pumpage, running in a separate oil filled chamber and further protected by an exclusionary oil seal located between the bottom seal faces and the fluid being pumped. The oil chamber shall be fitted with a device that shall provide positive lubrication of the top mechanical seal, (down to one third of the standard oil level). The device shall not consume any additional electrical power. Mechanical seals shall rated to preclude the incursion of water up to 13.9 PSI. (32 Ft.) submergence. Units shall have silicon carbide mechanical seal faces. Mechanical seal hardware shall be stainless steel.

4. MOTOR-

The pump motor(s) shall be 2/3 Hp., 0.48 kW., 115 or 230 V., 60 Hz. 1 Phase and shall be NEMA MG-1, Design Type B equivalent. Motor(s) shall be rated at 6.1 or 3.0 full load amps. Motor(s) shall have a 1.15 service factor and shall be rated for 10 starts per hour. Motor(s) shall be air filled, copper wound, class E insulated with built in thermal protection. Motor shaft shall be 403 stainless steel, fitted with a replaceable, stainless steel shaft sleeve and shall be supported by two permanently lubricated, high temperature ball bearings, with a B-10 life rating at best efficiency point of 60,000 hours. Bearings on all units shall be single row, double shielded, C3, deep groove type ball bearing.

5. POWER CABLE AND CABLE ENTRANCE -

The pump power cable shall be suitable for submersible pump applications. The cable entrance shall incorporate built in strain relief, a one piece, three way mechanical compression seal with a fatigue reducing cable boot. The cable entrance assembly shall contain an anti-wicking block to eliminate water incursion into the motor due to capillary wicking should the power cable be accidentally damaged.