



LSR - SERIES
LOW LEVEL - DEWATERING PUMP

SPECIFICATIONS

FEATURES

1. Semi-vortex, urethane rubber impeller with ethylene propylene rubber casing increases wear resistance when pumpage contains abrasive particles.
2. Double inside mechanical seals with silicon carbide faces, (both top and bottom) running in an oil filled chamber and further protected by a lip seal running against a replaceable 430 stainless steel shaft sleeve provides for the most durable seal design available.
3. Highly efficient, continuous duty, air filled, copper wound motor with class E insulation minimizes the cost of operation.
4. Built in thermal & amperage sensing protector prevents motor failure due to

overloading or accidental run -dry conditions.

5. Double shielded, permanently lubricated, high temperature C3 ball bearings rated for a B-10 life of 60,000 hours extend operational life.
6. Top discharge, flow-thru design enables operation at low water levels (3/16") for extended periods.

APPLICATIONS

1. Residential, commercial, industrial wastewater and construction site drainage.
2. Effluent transfer.
3. Decorative waterfalls and fountains.
4. Raw water supply from rivers or lakes.



SPECIFICATIONS

- Discharge Size
- Horsepower Range
- Performance Range Capacity Head
- Maximum water temperature
- Materials of Construction
 - Casing
 - Impeller
 - Shaft
 - Motor Frame
 - Fasteners
- Mechanical Seal
 - Elastomers
- Impeller Type
- Solids Handling Capability
- Bearings
- Motor Nomenclature
 - Type, Speed, Hz.
 - Voltage, Phase
 - Insulation
- Accessories
- Operational Mode

STANDARD

- 2" NPT (50 mm)
- 2/3 HP. (.48 Kw)
- 15.9 ~ 62.4 GPM. (0.06 ~ 0.24 m³/min)
- 13.1 ~ 39.5 Ft. (4.00 ~ 12.04 m)
- 104° F. (40° C.)
- Ethylene Propylene Rubber
- Urethane Rubber
- 403 Stainless Steel
- Aluminum alloy
- 304 Stainless Steel
- Silicon Carbide
- NBR (Nitril Butadiene Rubber)
- Semi-vortex, solids handling
- 0.0236" (6mm)
- Prelubricated, Double Shielded
- Air Filled, 3600 RPM, 60 Hz.
- 115 / 230V., 1 Phase
- Class E
- Submersible Power Cable 32' (10.0 m)
- Manual

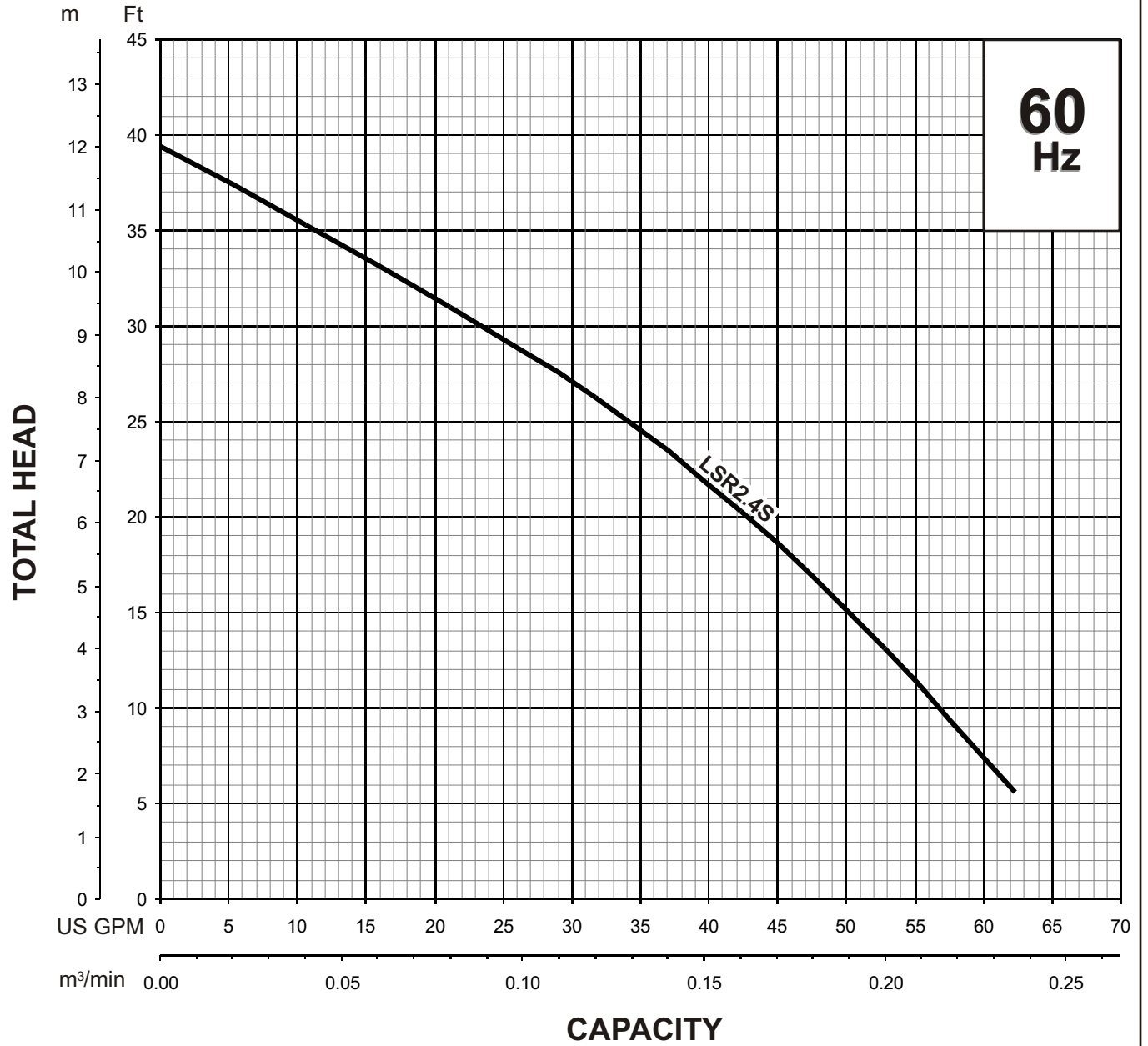
Length as Required,
TS-301 Float Switch



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PERFORMANCE
RANGE

GROUP PERFORMANCE RANGE

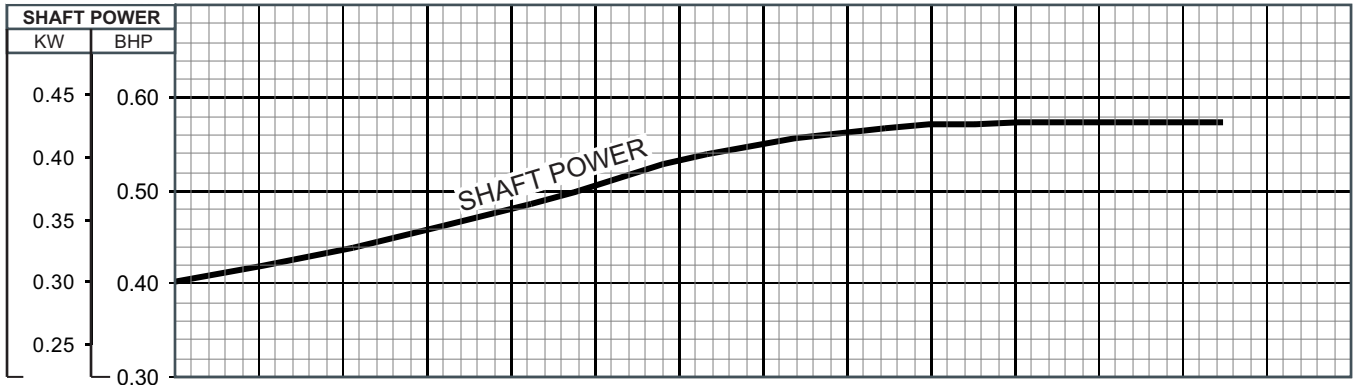
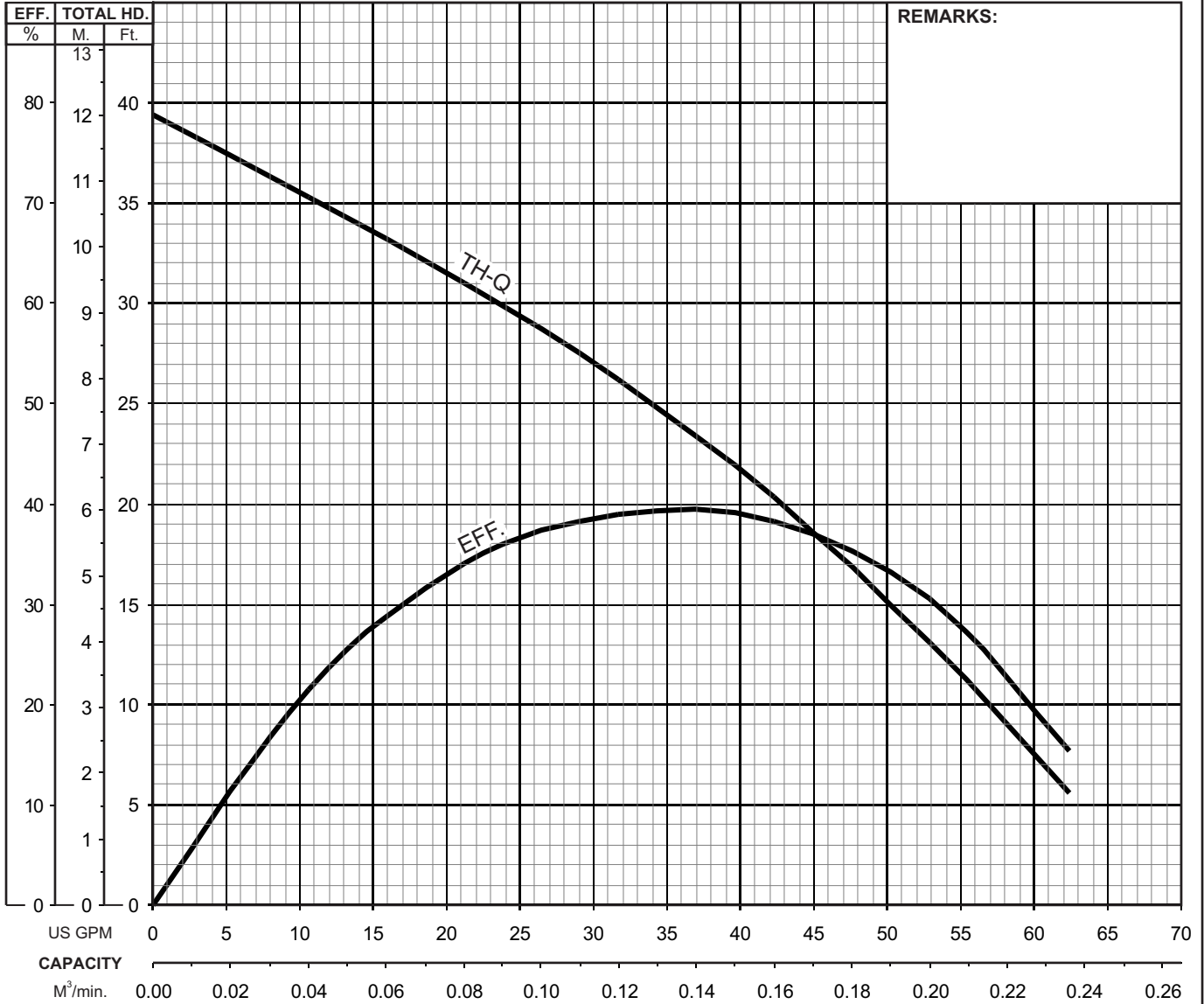




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PERFORMANCE CURVE

MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
LSR2.4S-61	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			
Low Level - 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		
-	-	-	-	-	-	-	-		

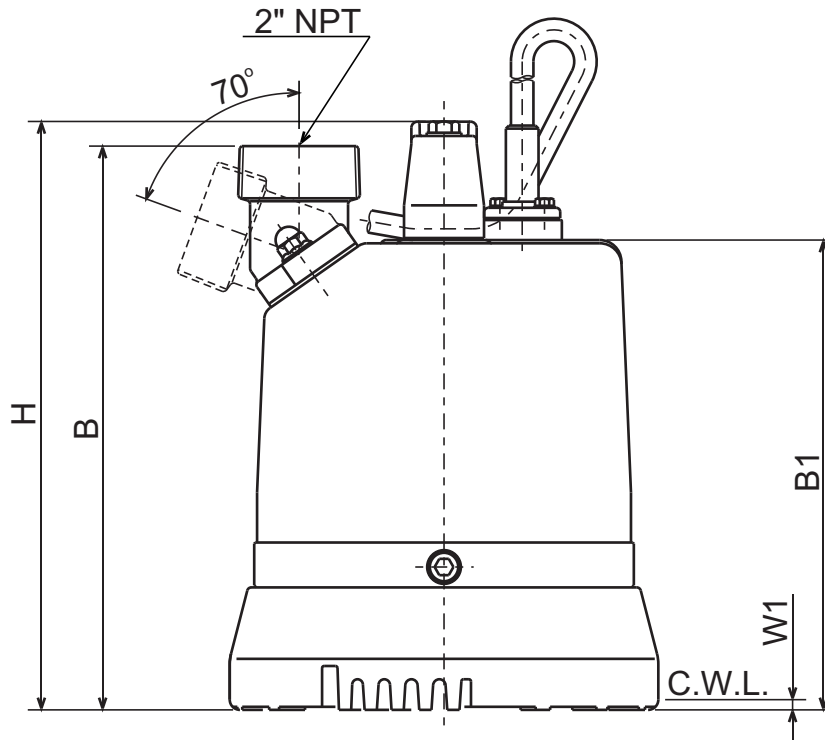
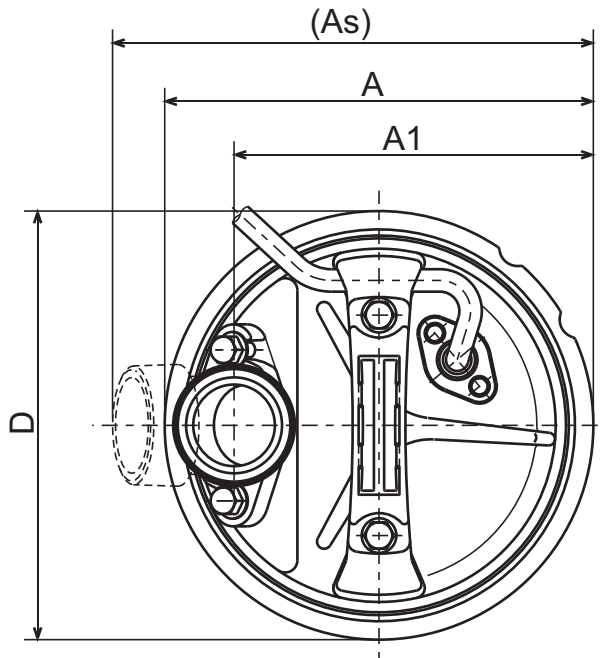




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DIMENSIONS

LSR2.4S-61



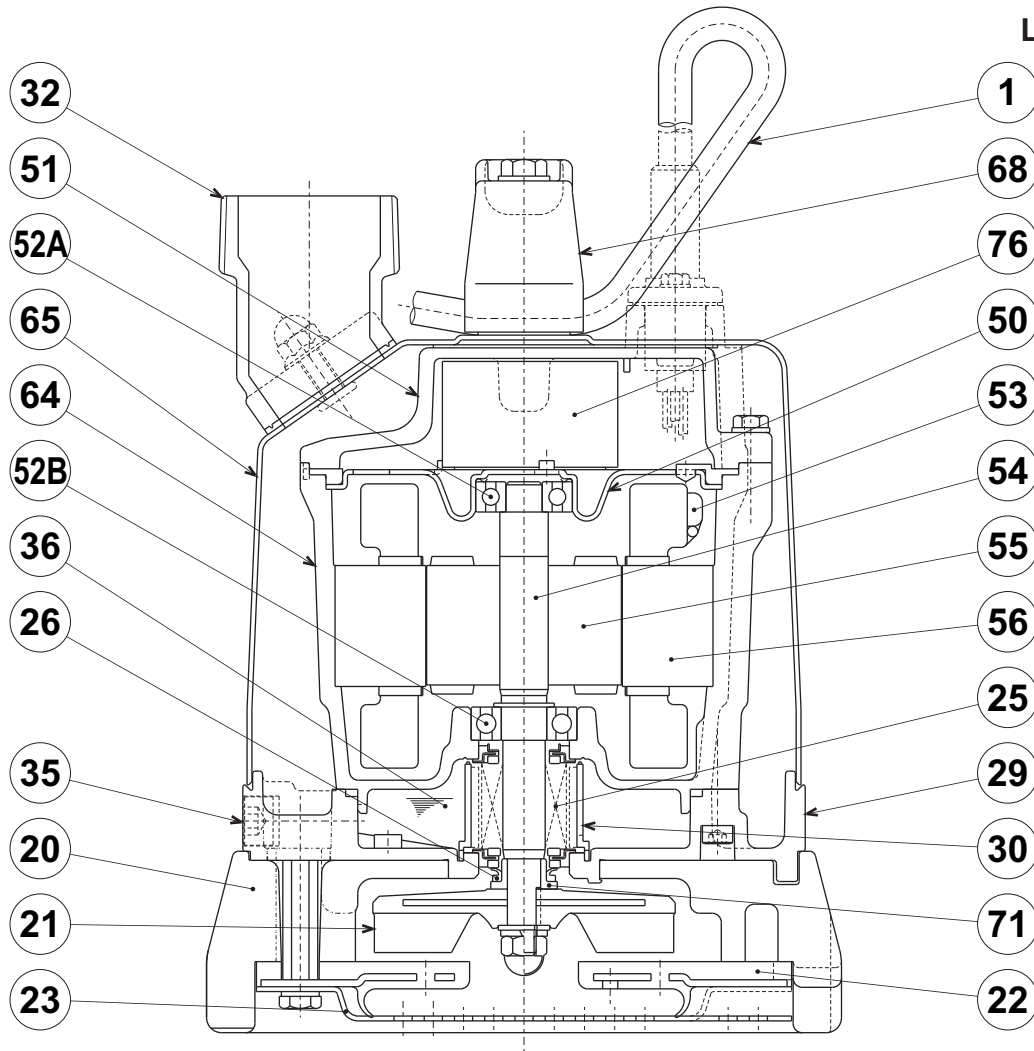
C.W.L. : Continuous running Water Level

DIMENSIONS:USCS (Inch)

Model	HP	NOM. SIZE	Pump & Motor							C.W.L. W1	Wt. (lbs.)
			A	As	A1	B	B1	D	H		
LSR2.4S-61	2/3	2"	8 1/4	9 1/4	6 15/16	10 7/8	9 1/16	8 1/4	11 3/8	0.20	23

DIMENSIONS:METRIC (mm)

Model	kW	NOM. SIZE	Pump & Motor							C.W.L. W1	Wt. (kg)
			A	As	A1	B	B1	D	H		
LSR2.4S-61	0.48	50	210	236	176	276	230	210	288	5	10.5

**TSURUMI PUMP**
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SECTIONAL VIEW**LSR2.4S-61**

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	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
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			1
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

Surface Level Switch - LSR

Automate Utility / Floor Pumps

DESCRIPTION OF OPERATION



The Surface Level Switch with Lift Bracket is used to automate a utility/floor sucking pump. Set the Surface Level Switch on the floor and plug the power cord from the pump into the piggyback plug on the switch. Plug the piggyback plug into a standard 120 VAC wall outlet (the unit will also work on GFI outlets).

When water touches the "On Probe", the pump will turn on. A 10-second delay timer keeps the pump running when water is no longer touching the "Off Probes". The time delay feature also prevents rapid pump cycling if the water has ripple or wave action. The switch is filled with epoxy so it can be completely submerged in water and operate properly.

The switch is designed to turn on at 1.5" liquid level and turn off at 0.5". The Surface Level Switch uses an isolated patented circuit that detects water with no shock hazard at the probes. This product is for use with the Tsurumi LSR2.4S pump.

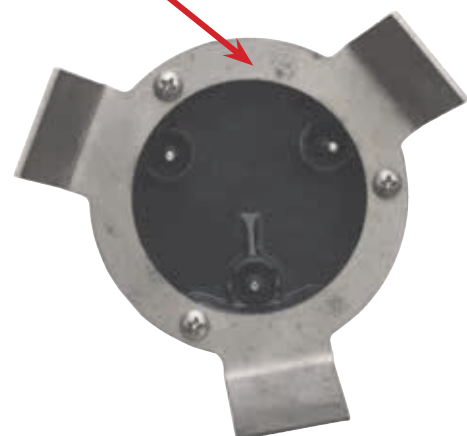
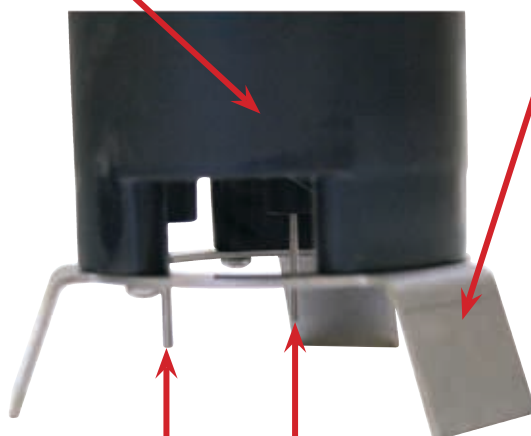
The Surface Level Switch connected to utility pumps is the ideal solution for problem areas such as shallow water accumulations due to flooding, ground water intrusion or broken water pipes.

FEATURES

Epoxy Filled Electronics - Completely Waterproof

Wide Base for Stability

Stainless Steel Lift Bracket



Stainless Steel Water Detection Probes



SPECIFICATIONS

Surface Level Switch with Lift Bracket

Housing Material
ABS Plastic

Lift Bracket
Stainless Steel

Probe Material
Stainless Steel

On Level
1.5"

Voltage on Probe
12 VDC from Internal Class 2 Isolated Transformer

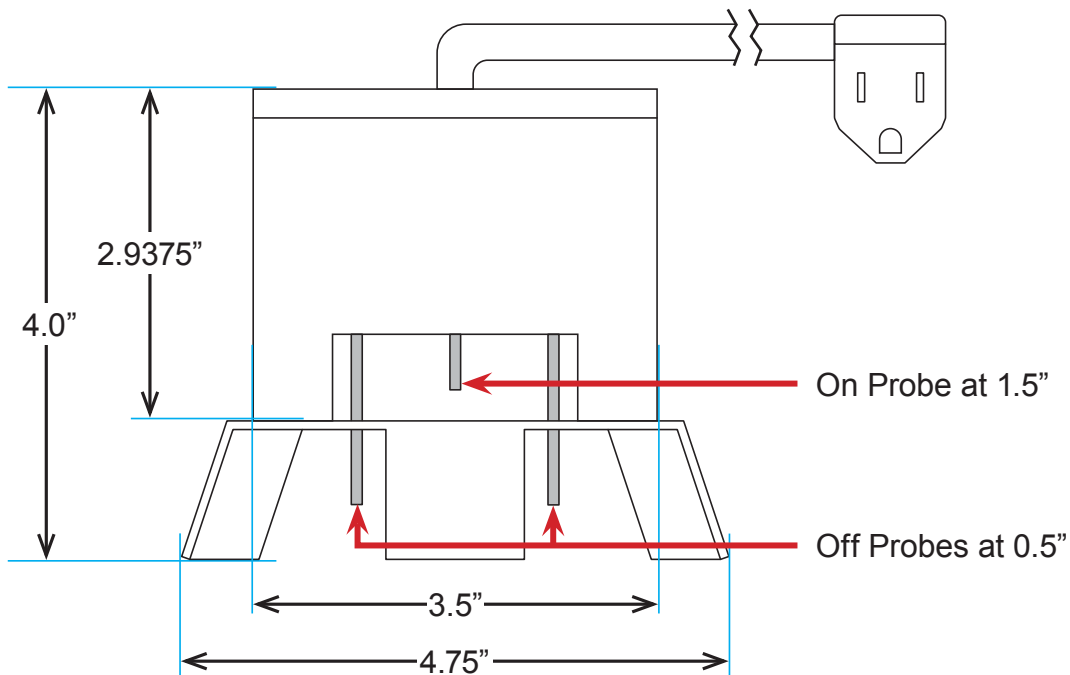
Off Level
0.5"

Electrical
120 VAC, 15 Amps

Cord Material
SJE00W - 14 AWG

Piggyback Plug
NEMA 5-15 PR

MECHANICAL DRAWING



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
SLS-LSR32	Surface Level Switch, 32' Cord, 120 VAC Piggyback Plug, Lift Bracket
SLS-LSR50	Surface Level Switch, 50' Cord, 120 VAC Piggyback Plug, Lift Bracket



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SAMPLE
SPECIFICATIONS

1. SCOPE OF SUPPLY -

Furnish and install TSURUMI Model LSR2.4S-61 Submersible Pump(s).
Each unit shall be capable of delivering _____ GPM (_____ m³/min) at _____ Feet (_____ m) TDH. The pump(s) shall be designed to pump waste water, down to 3/16", 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 discharge, 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. Mechanical seals shall be 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 / 230V., 60 Hz. 1 Phase and shall be NEMA MG-1, Design Type B equivalent. Motor(s) shall be rated at 5.9 / 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 and 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.