KTD

A cast iron made, heavy-duty slurry pump employing the KTZ-series as the base

NEW Tsurumi Agitator Pump **KTD Series** is a cast iron made, heavy-duty slurry pump employing the KTZ Series as the base. An agitator is provided to assist smooth suction of the pumping fluid. The side-flow, top-discharge design keeps the motor cooling even if the pump is operated continuously with its motor exposed in air, and it makes the pump easier to place in a confined space.

KTD Series is suitable for transferring or draining bentonite slurry used for slurry drilling, draining slurry mixed water in civil engineering works or foundation works.

Standard Specifications

MODEL	MOTOR SPECIFICATIONS						PUMP SPECIFICATIONS			DIMENSIONS			
	Motor Output (HP)	Rated Current (A)				RPM	Discharge Size (in.)	Maximum Capacity (GPM)	Maximum Head (ft.)	Dimension (in.)		Continuous Running Water Level (in.)	Pump Weight (lbs.)
		208V	230V	460V	575V					Diameter	Height		
KTD22.0	2.7	8.7*	8.2	4.1	3.3	3410	2	111	66	9 1/4	23 3/16	5 1/2	86
KTD33.0	4	12.0*	11.4	5.9	4.5	3410	3	209	75	11 11/16	25 3/4	6 1/4	145

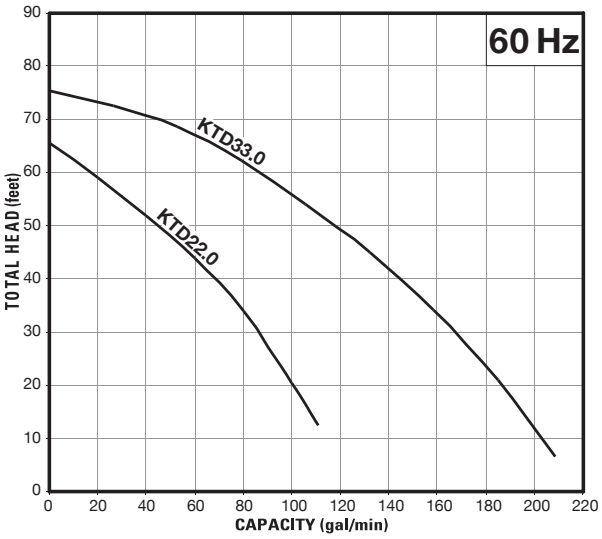
* : 208 & 230V same motor

Major Components & Specifications

Discharge Bore inches			2 / 3
Pumping Fluid	Type of Fluid		Sludge, Slurry, Fluid containing Mud
	Fluid Temperature		32 ~ 104°F
Pump	Structure	Impeller	Semi-open
		Shaft Seal	Double Mechanical Seal with Oil Lifter
		Bearing	Double-shielded Ball Bearing
	Materials	Impeller	High-chromium Cast Iron
		Shaft Seal	Silicon Carbide
		Casing	Gray Cast Iron
		Agitator	Ductile Cast Iron
Motor	Type, Pole		Dry Type Submersible Induction Motor, 2-pole
	Insulation		Class F
	Phase		Three-phase
	Starting Method		Direct on Line
	Protection Device (Built-in)		Circle Thermal Protector
	Lubricant		Turbine Oil (ISO VG32)
	Materials	Frame	Gray Cast Iron
		Shaft	420 Stainless Steel
		Cable	PVC (KTD22.0) Chloroprene Rubber (KTD33.0)
Discharge Connection			NPT Coupling

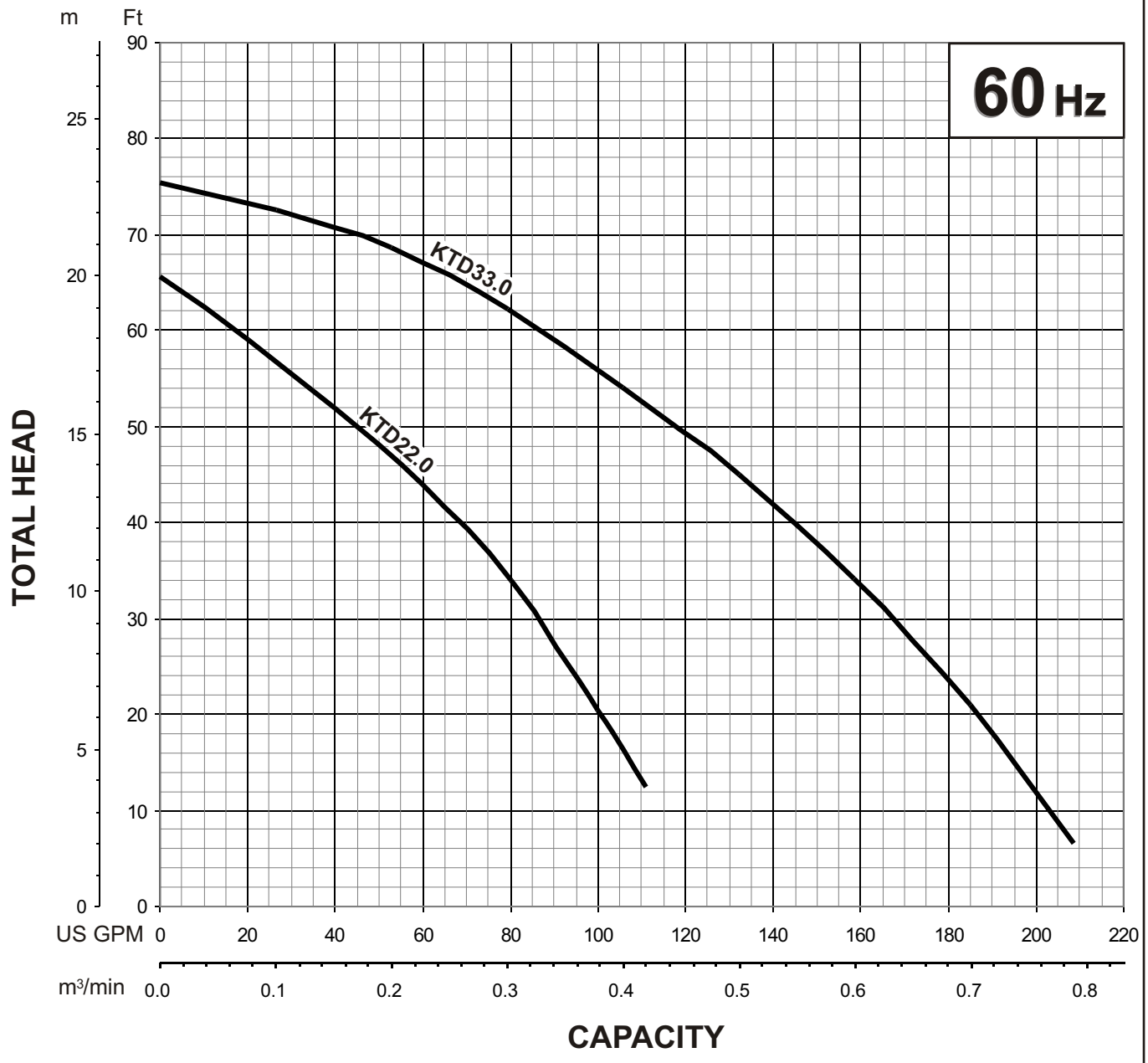
* We reserve the right to change the specifications and designs for improvement without prior notice.

Performance Curves



TSURUMI PUMP	KTD - SERIES SUBMERSIBLE AGITATOR PUMPS	PERFORMANCE RANGE

GROUP PERFORMANCE RANGE



TSURUMI PUMP

KTD - SERIES
SUBMERSIBLE AGITATOR PUMPS

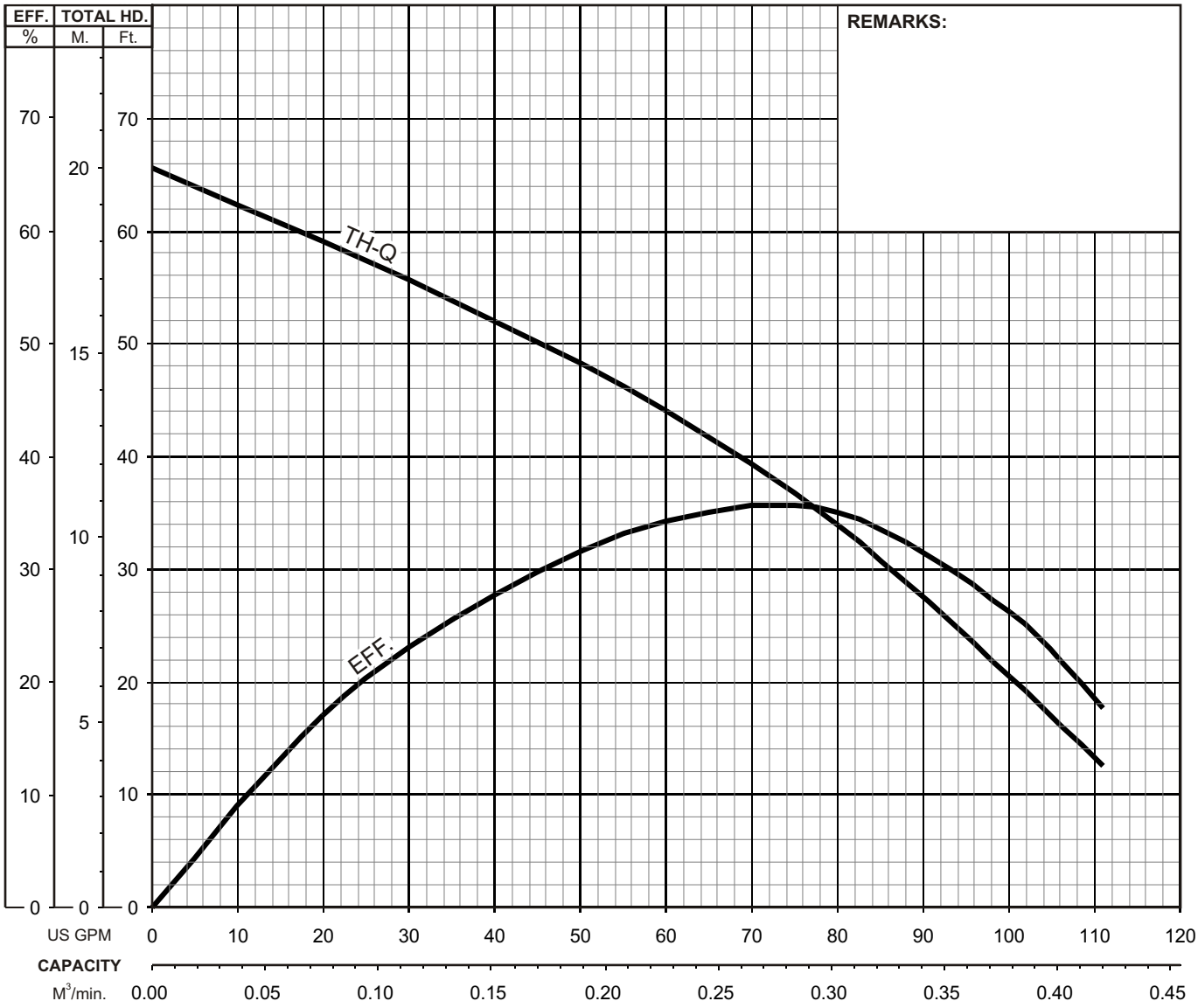
PERFORMANCE CURVE

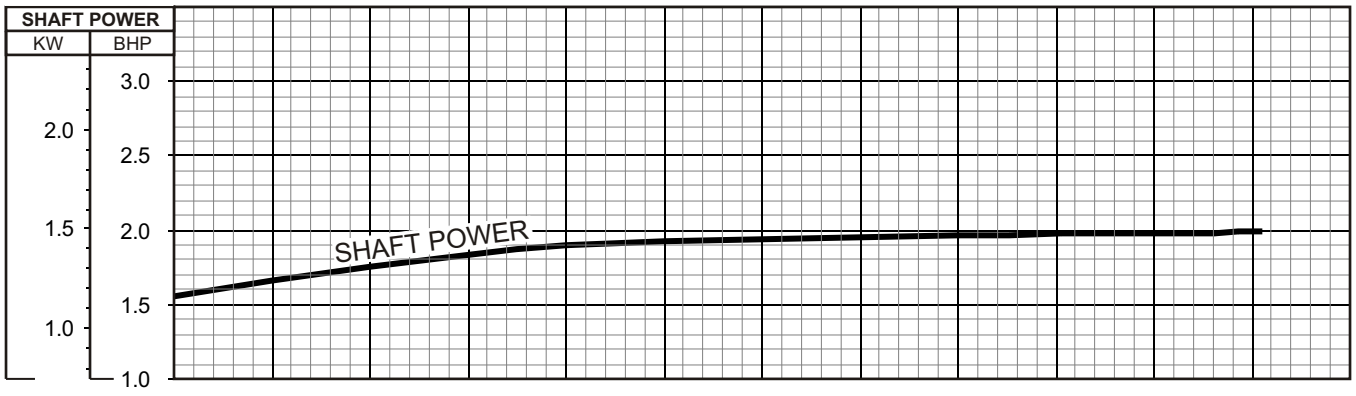
MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
KTD22.0-61	2"/50mm	2.7	2.0	3410	0.394"/10mm	Water	1.0	1.123 cSt.	60°F

PUMP TYPE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS
Agitator Pump	3	208-230/460/575	8.7-8.2 / 4.1 / 3.3	60	Direct On Line	F

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

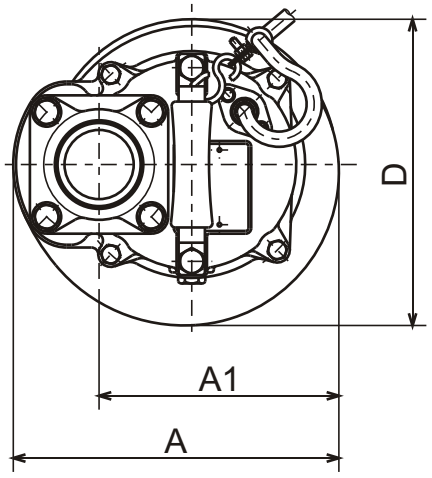
REMARKS:

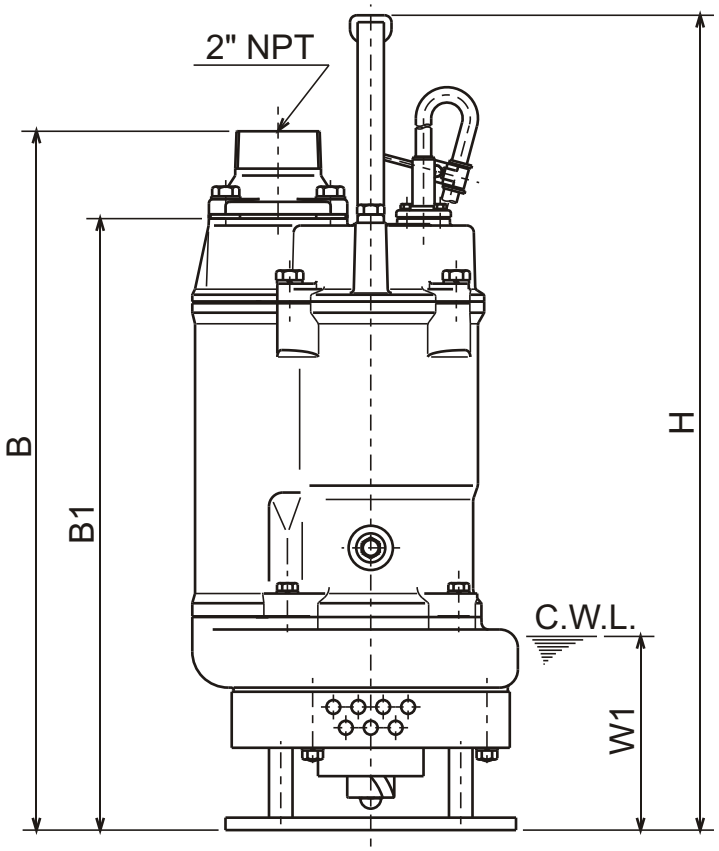




TSURUMI PUMP | KTD - SERIES SUBMERSIBLE AGITATOR PUMPS | DIMENSIONS

KTD22.0-61





C.W.L. : Continuous running Water Level

DIMENSIONS:USCS (Inch)

Model	HP	NOM. SIZE	Pump & Motor						C.W.L.	*Wt.
			A	A1	B	B1	D	H	W1	(lbs.)
KTD22.0-61	2.7	2"	9 1/4	6 13/16	19 7/8	17 3/8	8 11/16	23 3/16	5 1/2	86

*Excluding Cable

DIMENSIONS:METRIC (mm)

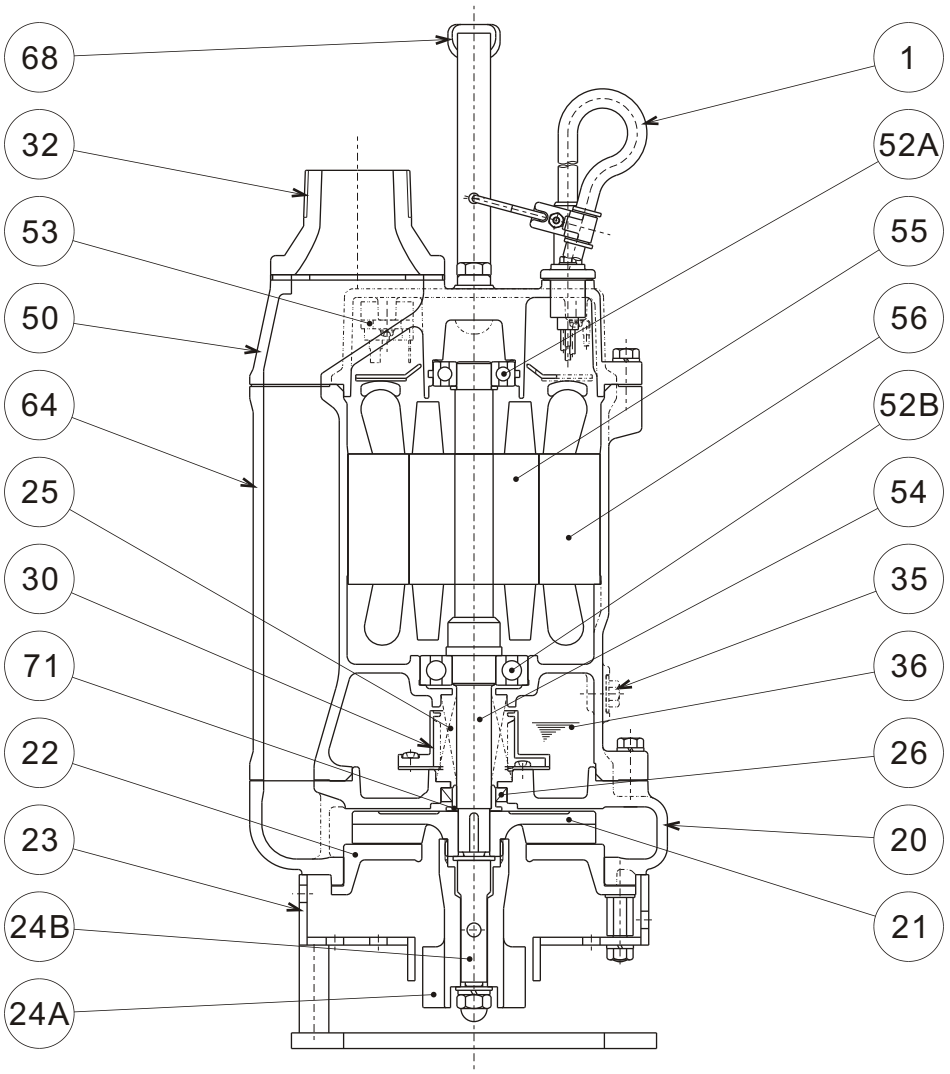
Model	kW	NOM. SIZE	Pump & Motor						C.W.L.	*Wt.
			A	A1	B	B1	D	H	W1	(kg)
KTD22.0-61	2.0	50	235	173	505	442	221	589	140	39

TSURUMI PUMP

KTD - SERIES
SUBMERSIBLE AGITATOR PUMPS

SECTIONAL VIEW

KTD22.0-61



ITEM#	DESCRIPTION	MAIN MATERIAL / NOTE	RELATED ASTM, AISI CODE	RELATED EN CODE	Q'TY
1	Power Cable	PVC Sheath AWG16/4-50ft			1
20	Pump Casing	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
21	Impeller	High Chrome Cast Iron	A532 Class III Type A	DIN 1695 G-X260Cr27	1
22	Suction Cover	Ductile Cast Iron	A536 80-55-06	EN 1563 GJS-500-7	1
23	Strainer Stand	Steel + Carbon Steel Pipe	A283 Grade D + A53 Type F	EN 10025 S275 + DIN 1615 St33	1
24A	Agitator	Ductile Cast Iron (Hardened)	A536 100-70-03	EN 1563 GJS-700-2	1
24B	Clutch	Carbon Steel	AISI 1035	EN 10083-2 C35 (1.0501)	1
25	Mechanical Seal	Silicon Carbide / H-20T			1
26	Oil Seal	Nitrile Butadiene Rubber / TC-25388			1
30	Oil Lifter	PBT Resin			1
32	Discharge Connection	Cast Iron / NPT 2"	A48M Class30B	EN 1561 GJL-200	1
35	Oil Plug	Stainless Steel	S 30400	1.4301	1
36	Lubricant	Turbine Oil ISO VG32 or SAE10W-20			
50	Motor Head Cover	Cast Iron	A48M Class25B	EN 1561 GJL-150	1
52A	Upper Bearing	#6204ZZC3			1
52B	Lower Bearing	#6305ZZC3			1
53	Motor Protector				1
54	Shaft	Stainless Steel	S 42000	1.4028	1
55	Rotor				1
56	Stator				1
64	Motor Housing	Cast Iron	A48M Class25B	EN 1561 GJL-150	1
68	Handle	Steel (Cold Rolled) + NBR Rubber	A109/A1008	EN 10130	1
71	Shaft Sleeve	Stainless Steel	S 30400	1.4301	1

TSURUMI PUMP | KTD - SERIES SUBMERSIBLE AGITATOR PUMPS | SAMPLE SPECIFICATIONS

1. SCOPE OF SUPPLY -

Furnish and install TSURUMI Model _____ 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, 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 gray cast iron, ASTM A48 CLASS 35. Motor frame shall be gray cast iron, ASTM A48 CLASS 30. Agitator and Field adjustable/replaceable, wear plate shall be ductile cast iron. Impellers shall be of the multi-vane semi -open design and shall be high chrome cast iron. Impellers shall be equipped with back pump out vanes, slip fit to the shaft and key driven. 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 ____" NPT discharge connector.

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 42.6 PSI (98.4 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 _____H P., _____kW., _____V., 60 Hz. 3 Phase Motor(s) shall be rated at _____ 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 B or E (up to 7.5 Hp) insulated with built in thermal and over amperage protection for each winding. Motor shaft shall be 420 stainless steel, fitted with a replaceable 403 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. Motors shall be suitable for across the line start or variable speed applications, utilizing a properly sized variable frequency drive.

5. POWER CABLE AND CABLE ENTRANCE -

Units up to 3 HP shall be supplied with a cable entrance that incorporates built in strain relief, a one piece, three way mechanical compression seal and a fatigue reducing cable boot. The pump power cable shall be suitable for submersible pump applications. The power cable on units 5 Hp and above shall be field replaceable utilizing standard submersible pump cable. The cable entrance shall incorporate built in strain relief and a combination three way mechanical compression sealing with a fatigue reducing boot. The cable entrance assembly shall contain a anti-wicking block to eliminate water incursion into the motor due to capillary wicking should the power cable be accidentally damaged.