TSURUMI PUMP

HS2- SERIES
SEMI-VORTEX - WASTEWATER PUMP - WITH AGITATOR

SPECIFICATIONS

FEATURES

1. Semi-vortex Urethane Rubber impeller with agitator suspends solids and allows for pumping of sand and stringy material.

2. Highly efficient, continuous duty air filled, copper wound motor with class E, 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 B-10 life of 60,000 hours provide for extended operational life.

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.

ACCREDITED BY THE DUTCH COUNCIL FOR CERTIFICATION REG No 24 ISO 9001

SPECIFICATIONS

Discharge Size	2" Npt (50 mm)
Horsepower Range	1/2 Hp. (.4 Kw)
Performance Range Capacity	15 ~ 50 Gpm. (.056 ~ .19 m^3/min)
Head	5 Ft. ~ 34 Ft. (1.5 ~ 10.3 m)
Maximum water temperature	104^0 F. (40^0 C.)
Materials of Construction	
Casing	Ductile Cast Iron
Impeller	Urethane Rubber
Shaft	403 Stainless Steel
Motor Frame	Aluminum alloy
Fasteners	304 Stainless Steel
Mechanical Seal	
Upper Seal	Silicon Carbide/Silicon Carbide
Lower Seal	Silicon Carbide/Silicon Carbide
Elastomers	NBR (Nitril Buna Rubber)
Impeller Type	Semi-vortex, solids handling.
Solids Handling Capability	1" x 3/8"
Bearings	Prelubricated, Double Shielded
Motor Nomenclature	
Type, Speed, Hz.	Air Filled, 3600 Rpm, 60 Hz.
Voltage, Phase	115 V., 1 Phase
Insulation	Class E
Accessories	Submersible Power Cable 16' (4.87 m)
Operational Mode	Manual

STANDARD

OPTIONS

Length as Required, (75' Max)

TS-301 Float Switch

TSURUMI PUMP

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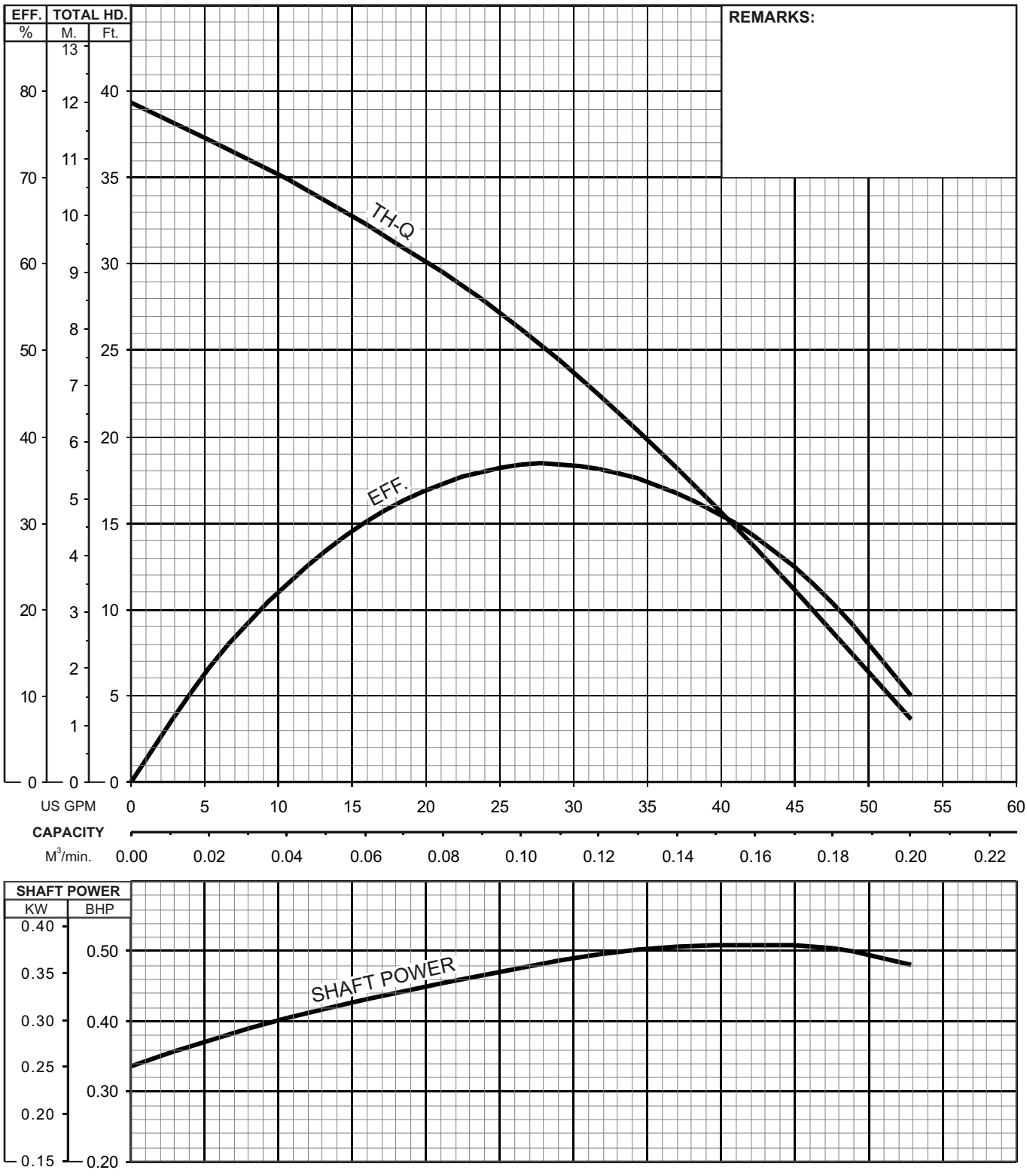
PERFORMANCE CURVE

MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
HS2.4S-62	2"/50mm	0.54	0.40	3320	0.375"/9.5mm	Water	1.0	1.81 CST	60°F

PUMP TYPE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS
Semi-Vortex - Wastewater Pump	Single	110/115/220/230	5.4 / 5.2 / 2.7 / 2.6	60	Capacitor Start	E

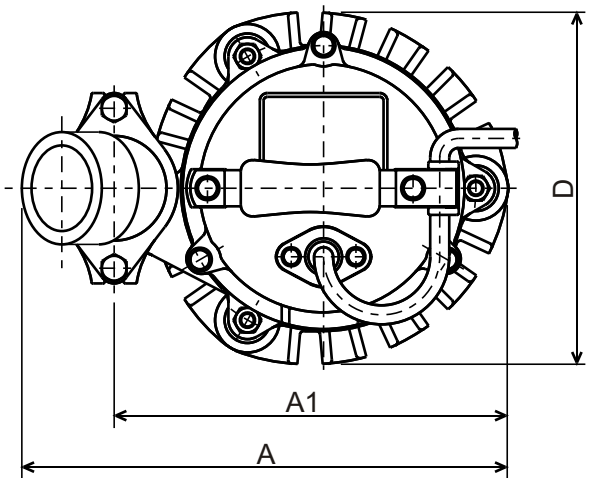
CURVE No.	DATE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS
-	-	-	-	-	-	-	-

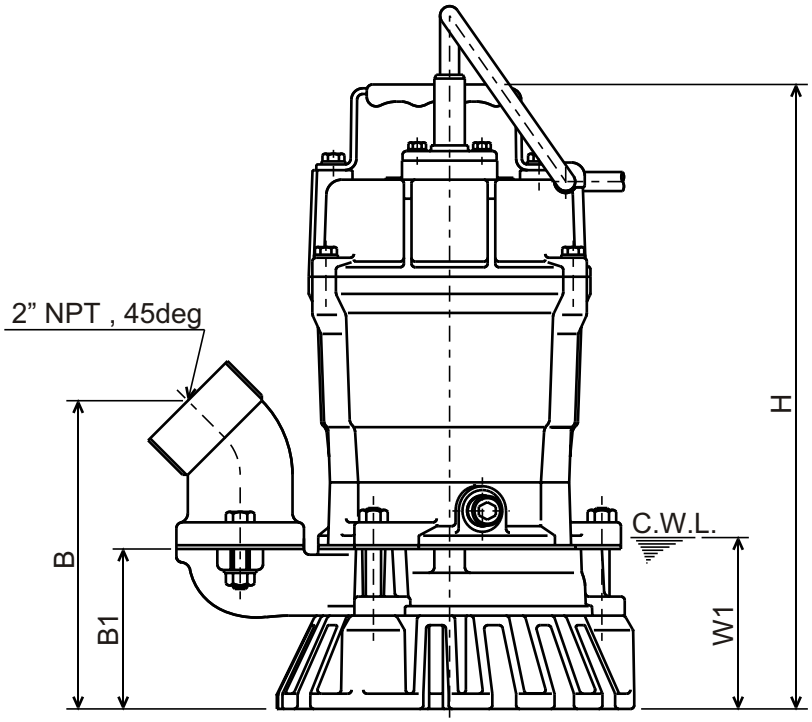
REMARKS:



TSURUMI PUMP | HS - SERIES SEMI-VORTEX - WASTEWATER PUMP | DIMENSIONS

HS2.4S-62





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.)
HS2.4S-62	1/2	2"	10 1/16	8 1/8	6 3/8	3 5/16	7 5/16	12 15/16	3 1/2	25

DIMENSIONS:METRIC (mm)

Model	kW	NOM. SIZE	Pump & Motor						C.W.L.	Wt.
			A	A1	B	B1	D	H	W1	(kg)
HS2.4S-62	0.40	50	255	207	162	84	185	328	90	11.3

TSURUMI PUMP	HS - SERIES SEMI-VORTEX - WASTEWATER PUMP	SAMPLE SPECIFICATIONS

1. SCOPE OF SUPPLY -

Furnish and install TSURUMI Model HS2.4S-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, or effluent containing debris and solids 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.

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 aluminum alloy die casting. Impeller shall be urethane rubber and shall incorporate an agitating device in order to disperse debris and suspend particles. A fused polymer coating shall protect Internal and external surfaces coming into contact with the pumpage. All exposed fasteners shall be stainless steel. All units shall be furnished with a 2" NPT discharge connection. Impellers shall be of the multi-vane, semi-vortex, solids handling design and shall be slip fit to the shaft and positively driven. The suction strainer shall be manufactured from ABS high impact resin and shall incorporate flow-reversing vanes.

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 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 1/2 Hp., 0.40 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 5.4 or 2.7 full load amps. Motor(s) shall have a 1.15 service factor and shall be rated for 20 starts per hour. Motor(s)shall be air filled, copper wound, class E insulated with built in thermal protection in the winding. Motor shaft shall be 403 stainless steel 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. The bearings shall be single row, double shielded, C3, deep groove type ball bearings. Motors shall be suitable variable speed applications, utilizing a properly sized variable frequency drive.

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.