

**Built For Work.**



**CONTRACTOR PUMPS & GENERATORS**

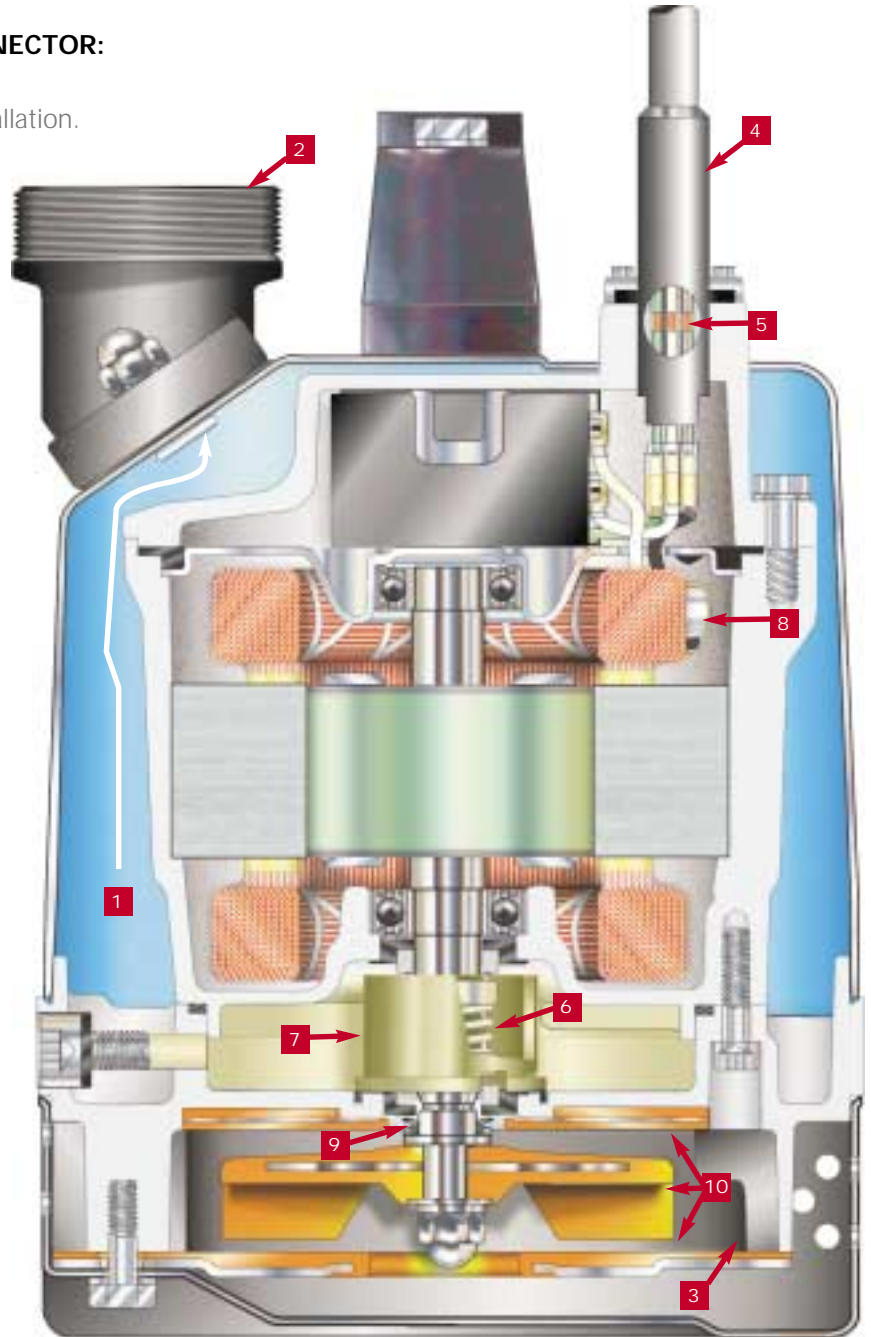
# **TSURUMI PUMP** Electric Submersible Pumps

## LB 480/A Features

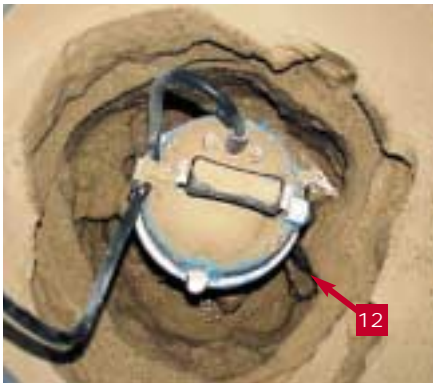
- 1 TOP DISCHARGE, FLOW THRU DESIGN**
- 2 MULTI-DIRECTIONAL DISCHARGE CONNECTOR:**  
Can be configured for horizontal or vertical discharge. Providing for a more stable installation.
- 3 RUBBER CASING WITH LARGE ROUNDED CUT-WATERS:** Resists wear and degradation of performance due to abrasive particles.

## Long-life by design

- 4 CABLE BOOT:** Prevents kinking at cable entrance by extending bending radius.
- 5 ANTI-WICKING BLOCK:** Prevents water incursion due to capillary wicking, should the power cable be damaged or the end submerged.
- 6 DOUBLE INSIDE MECHANICAL SEAL WITH SILICON CARBIDE FACES:**  
Provides the longest operational life of any seal available.
- 7 OIL LIFTER:** Provides lubrication of the seal faces down to 1/3 of normal oil level and extends seal life by ten times—uses no additional power.



Featured Model LB480



**8 MINIATURE THERMAL MOTOR PROTECTOR:** Protects against, overheating & run-dry.

**9 "V" RING SEAL PROTECTOR:** Protects mechanical seal from abrasive particles.

**10 URETHANE, SEMI-VORTEX IMPELLER & WEAR PLATES:** Resists wear by abrasive particles and does not depend on close tolerances to maintain pump performance.



**Tsurumi Impeller**  
polished, not worn by  
abrasive material.



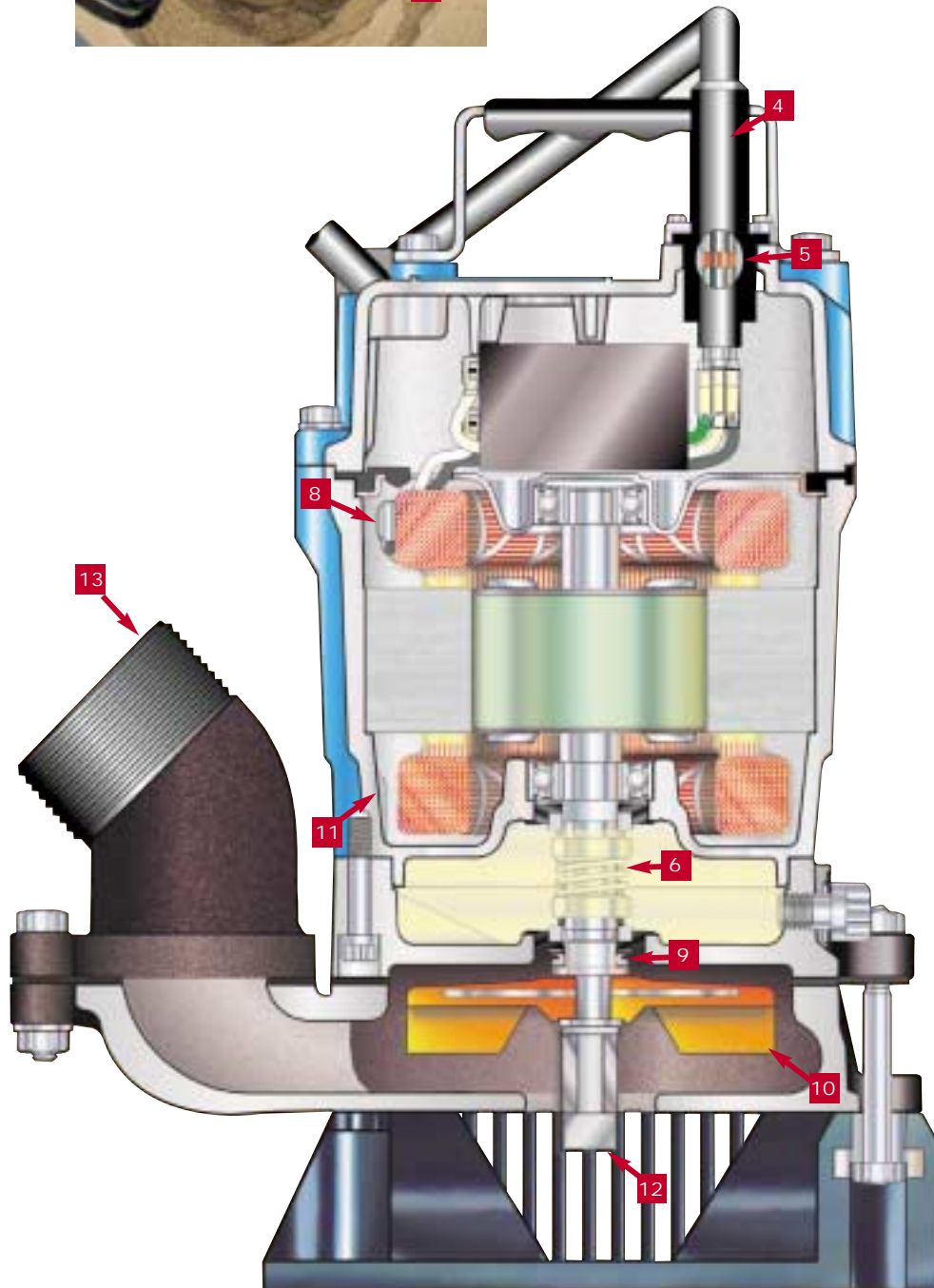
**Competitor Impeller**  
is effectively worn out.

**11 COPPER WINDINGS WITH CLASS E INSULATION:** Operates at lower temperatures, extending insulation and bearing life.

## HS Features

**12 AGITATOR:** Suspends sand and mud, allowing for sediment removal from sumps or basins.

**13 45° ANGLED DISCHARGE CONNECTOR:** Provides for a more stable installation for either vertical or horizontal discharge hose.

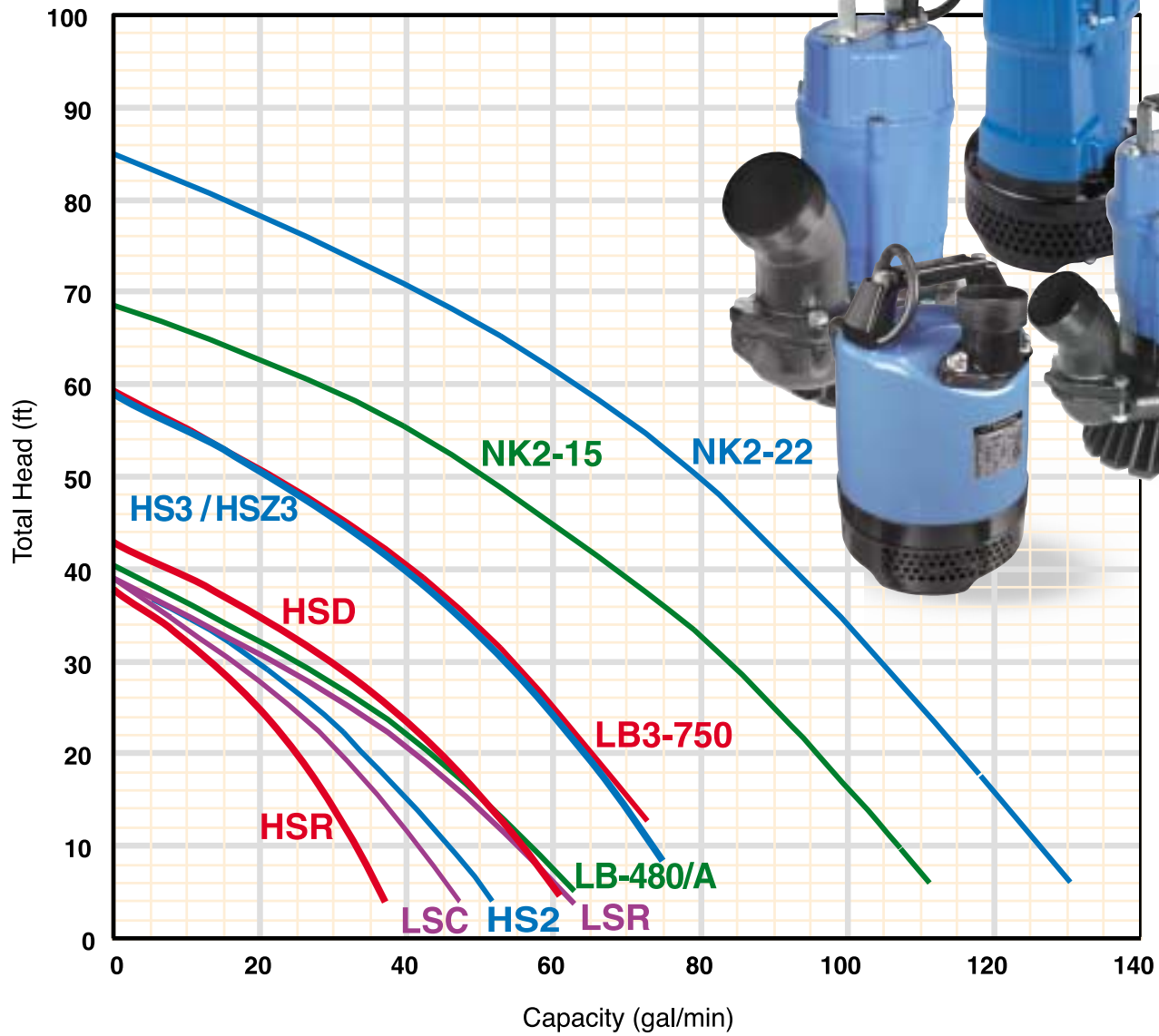


Model HS2.4S-62

(Not all features available on every Tsurumi submersible pump).

# Electric Submersible Pumps

## PERFORMANCE CURVES



Powerful pumps built with durable materials in an easy handling design.

Top discharge provides maximum motor cooling efficiency allowing continuous duty operation at low water levels and extended dry-run capability.



**LB-480 Features**

- Urethane, Semi Vortex Impeller and Wear Plates for maximum durability and maintaining pump performance.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.



**New:** Multi-directional discharge connector

**Optional Accessories**

- TS-301 Float Switch for automatic operation.

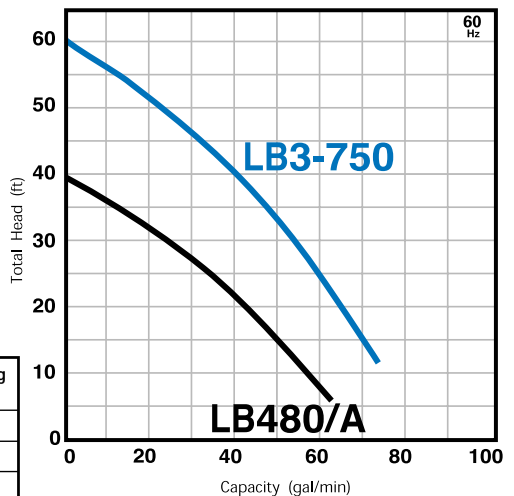


**LB3-750 Features**

- Designed to fit an 8" pipe.
- Up to 60' shut off head.
- Available in 220V single-phase for lower amperage draw and longer cable extensions.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)

**Optional Accessories**

- Float Switch for automatic operation TS-302 for 110V, TS-303 for 220V.
- 3-inch NTP Coupling available



Certified by Intertek Testing Services to UL and CSA standards for submersible construction pumps.

Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
LB-480	2	28	32	7 3/8	11 3/16	2
LB-480A	2	30	32	8 3/4	11 3/16	4 1/2
LB3-750	2	43	50	7 5/16	16 1/4	3 1/8

# Electric Submersible Pumps

## LB GENERAL DEWATERING PUMPS

**Model LB-480A Automatic Submersible Pump** handles like the non-automatic version in every aspect of construction site usage requiring a tough and durable pump.

### LB-480A Features

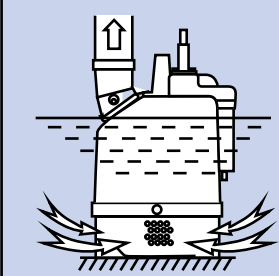
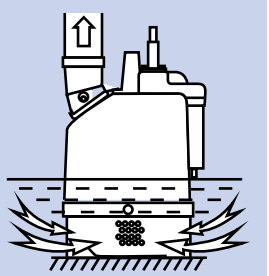
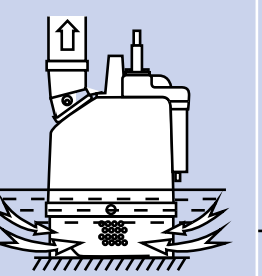
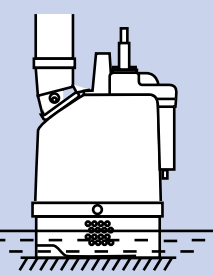
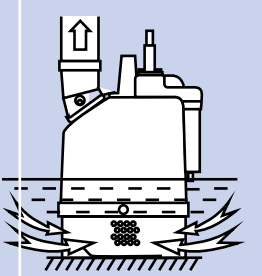
- No control panel or float switches required.
- Handles like the non-automatic pump - no special installation procedures.
- Requires very small space to operate - only 8 3/4" diameter.
- Urethane, Semi Vortex Impeller and Wear Plates for maximum durability and maintaining pump performance.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.
- Environmentally friendly, reducing electric consumption and seepage noise.



### Technical Features of EL-1 Relay Unit

- Sensitive electrodes detect water to start pump operation even when foreign materials are present.
- Internal timer eliminates chattering operation in rough water to extend motor life.
- Relay sensor completely molded in resin and covered by rubber case for protection against rough handling.
- Jobsite tested for more than 30,000 on-off cycles without failure or damage.

Certified by Intertek Testing Services to UL and CSA standards for submersible construction pumps.

Electrodes submerged in water closing circuit for electric current. The pump starts to operate.	Water level has fallen. Electrodes in air opening circuit for electric current. Timer starts and pump continues to operate.	Timer continues pump operation for approximately one minute. If water again contacts, the electrodes timer is cancelled and pump continues operating.	Timer stops after approximately one minute.	Water level rises to contact electrodes and the pump restarts.
Pump begins operating. Water level falls.	Pump continues operating. Water level falls.	Pump continues operating. Water level falls.	Pump stops. Water level rises.	Pump begins operating. Water level falls.
				

## NEW: HS TRASH PUMPS



**New! 3-inch discharge**

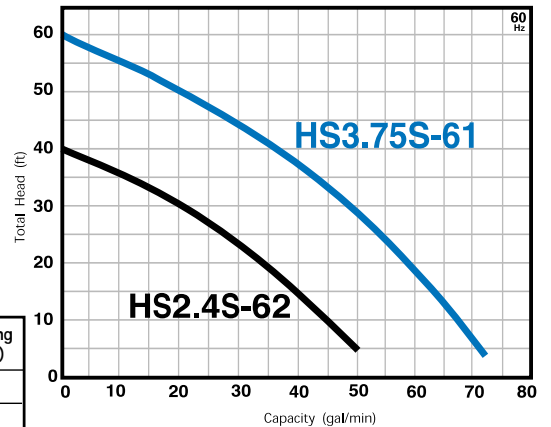
**Durable trash pumps in two sizes**—a 1HP 3-inch discharge and a 1/2HP 2-inch discharge. Both designed to pump sand, solids and debris with minimal wear and clogging.

### HS Features

- Built-in shaft mounted agitator suspends solids.
- Urethane Semi Vortex Impeller for maximum durability and pump performance.
- Double Inside Mechanical Seal With SiC faces provides longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.

### Optional Accessories

- Vertical Discharge Coupling.
- 2-inch NPT coupling available for HS3.75S-61.



Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
HS2.4S-62	2	25	20	10	13	3 1/2
HS3.75S-61	3	42	32	12 1/2	15 1/4	3 1/2

## NEW: HSZ AUTOMATIC TRASH PUMP



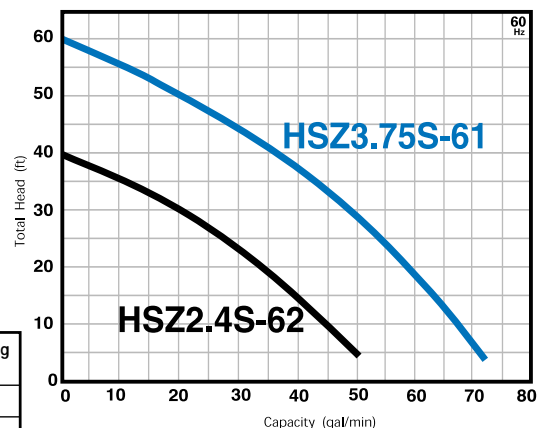
**Automatic trash pumps in two sizes**, designed to pump sand, solids and debris with minimal wear and clogging.

### HSZ Features

- Built-in shaft mounted agitator suspends solids.
- Urethane Semi Vortex Impeller for maximum durability and pump performance.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.

### Optional Accessories

- Vertical Discharge Coupling.
- 2-inch NPT coupling available for HSZ3.75S-61.

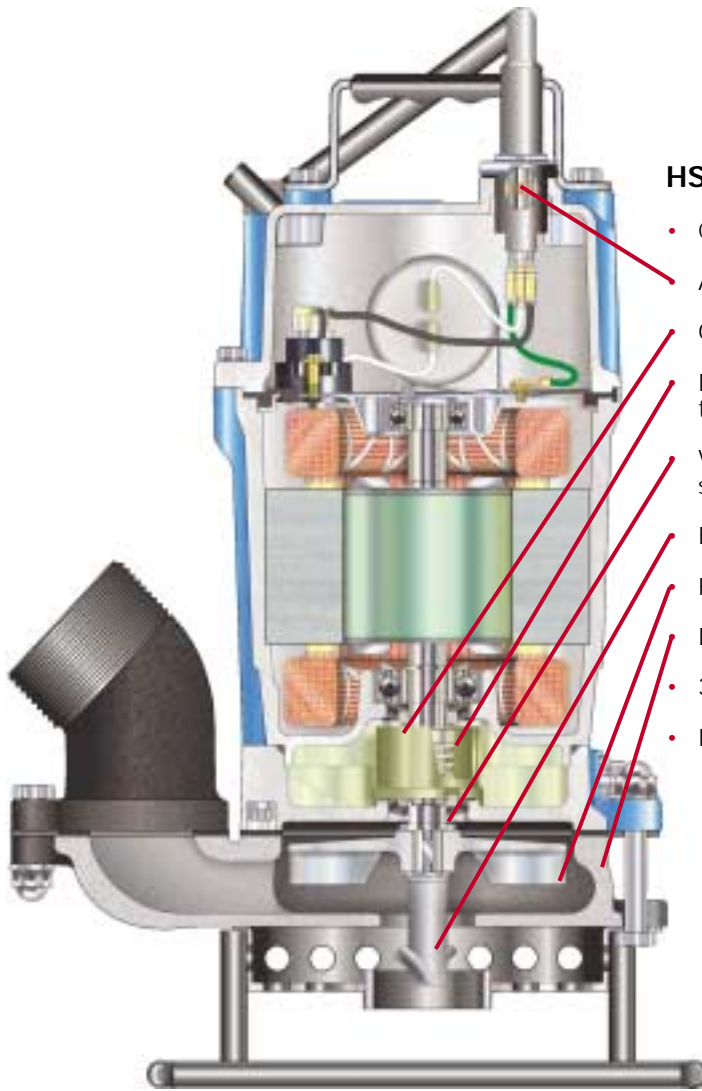


Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
HSZ2.4S-62	2	25	20	10	13	3 1/2
HSZ3.75S-61	3	42	32	12 1/2	15 1/4	3 1/2

# Electric Submersible Pumps

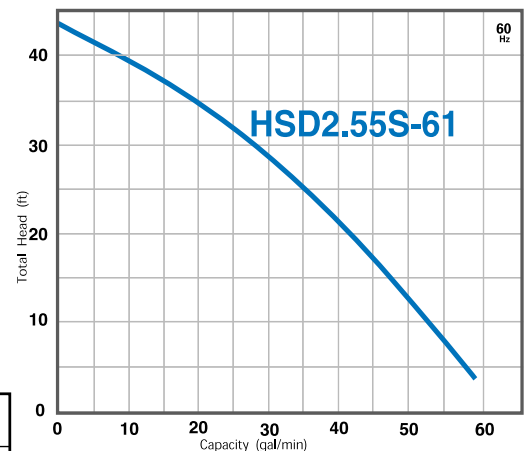
## NEW: HSD SERIES SAND PUMP

**New Super HSD Durable Sand Pump**  
Pump sand, solids and debris with minimal wear and clogging.



### HSD Series Features

- Complete special 2 years warranty including wear.
- Anti-wicking block prevents water incursion.
- Oil Lifter extends seal life by ten times.
- Double Inside Mechanical Seal with silicon carbide faces provides the longest operational life of any seal available.
- V-Ring Seal Protector protects mechanical seal from abrasive particles.
- Built-in larger shaft mounted agitator suspends solids.
- High Chromium Iron impeller.
- Ductile Iron Casing.
- 3/4 HP motor; stronger than HS2.4S-62.
- Easy pump end disassembly by removing only 3 nuts.



Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
HSD2.55S-61	2	33	16	6 3/8	15 3/8	4 1/8

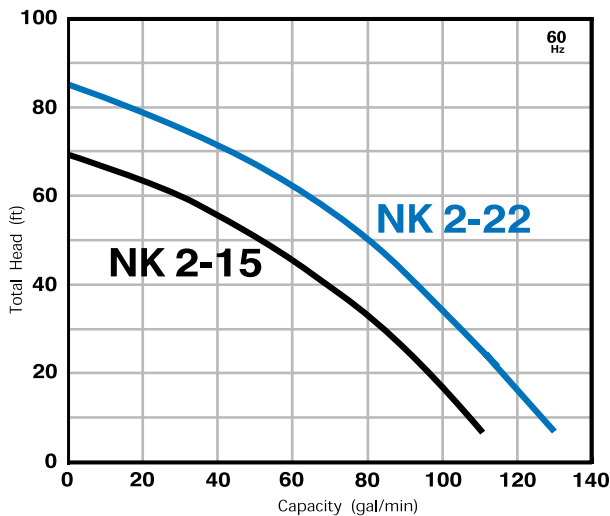
**Heavy duty, high head pumps** capable of handling abrasive materials with minimal wear.

**NK2-15/22 Features**

- Terminal board for voltage reconnect (NK2-15 only).
- Semi Vortex Impeller and Synthetic Rubber Wear Plates for maximum durability and maintaining pump performance.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.

**Optional Accessories**

- TS-303 Float Switch for automatic operation (220V only).
- Sand kit to suspend solids and prevent clogging.
- 2-inch NPT coupling available.



Certified by Intertek Testing Services to UL and CSA standards for submersible construction pumps.

Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
NK2-15 & NK2-22	3	81	32	9 7/16	24 1/2	3 1/4

# Electric Submersible Pumps

## LSR GROUND LEVEL DRAINAGE PUMP

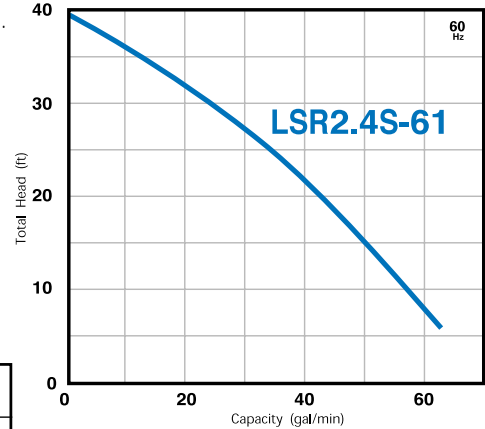
Pump holds suction for drainage to 0.2 inch water level.

### LSR2.4S-61 Features

- Urethane, Semi Vortex Impeller and Wear Plates for maximum durability and maintaining pump performance.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.

### Optional Accessory

- TS-301 Float Switch for automatic operation. (Use of float switch will not permit low level pumping).



Certified by Intertek Testing Services to UL and CSA standards for submersible construction pumps.

Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
LSR2.4S-61	2	29	32	8 1/4	11 15/16	0.2

## LSC FLOOR-LEVEL RESIDUE PUMP

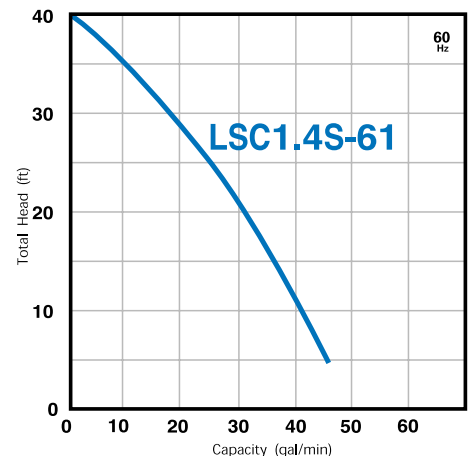
Original residue dewatering pump; able to pump down to the floor.

Even the smallest puddle can be pumped dry.

Complete drainage of flat surfaces where a sump is not available.

### LSC1.4S-61 Features

- Prime pump through discharge outlet for start up at any water level.
- Internal check valve holds prime and prohibits back flow through pump when stopped.
- Urethane, Semi Vortex Impeller and Wear Plates for maximum durability and maintaining pump performance.
- Double Inside Mechanical Seal With SiC faces provides the longest operational life.
- Oil Lifter provides lubrication of the seal faces. (Patent Pending)
- V-Ring Seal Protector protects mechanical seal from abrasive particles.



Certified by Intertek Testing Services to UL and CSA standards for submersible construction pumps.

Model	Discharge Bore (inch)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
				Diameter	Height	
LSC1.4S-61	3/4	34	32	7 11/16	12 7/16	0.04

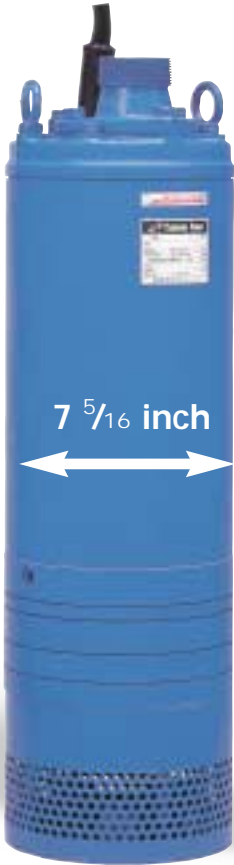
# Fits in an 8 inch pipe!

Tsurumi introduces an ultra-slim pump with very high head and still fits inside an 8 inch pipe. (10 inch pipe for LH25.5W-60, 7.5 HP)

Ideal for deep-well pre-dewatering.

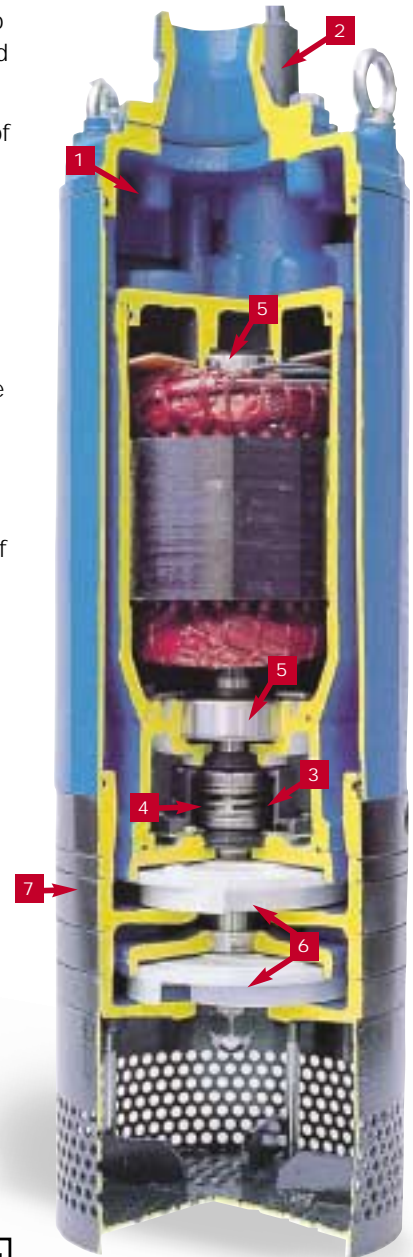
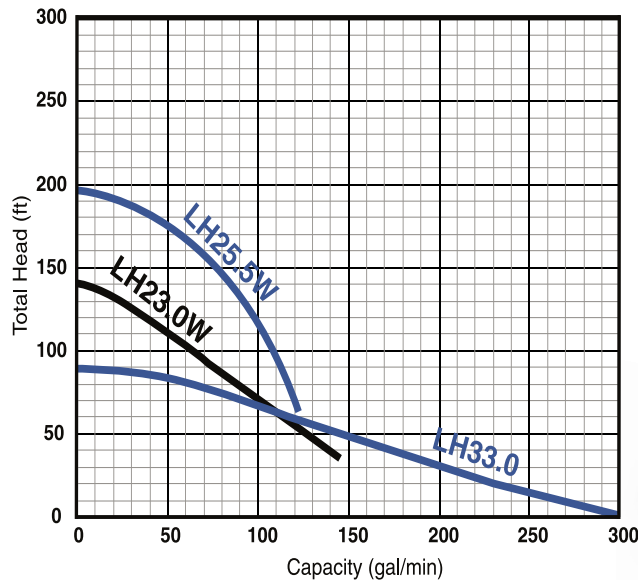
## LH/LHW Slimline Features

- 1 Circle Thermal Motor Protector:** Protects against, overheating over amperage & run-dry.
- 2 Anti-Wicking Block:** Prevents water incursion due to capillary wicking, should the power cable be damaged or the end submerged.
- 3 Oil Lifter:** Lubrication of the seal faces down to 1/3 of normal oil level and extends seal life by ten times—uses no additional power.
- 4 Double Inside Mechanical Seal with Silicon Carbide Faces:** Provides the longest operational life of any seal available.
- 5 Ball Bearings:** Permanently Lubricated, Double Shielded, Single Row, Deep Groove, High Temperature C3 Ball Bearings, Rated B-10=60,000 Hrs.
- 6 High Chrome Iron Semi-Open Impeller:** Resists wear by abrasive particles.
- 7 Ductile Iron Casing:** Resists wear and degradation of performance due to abrasive particles.



**New: Slimline design of 4 hp pumps. Fits in an 8 inch pipe!**

(10 inch pipe for LH25.5W-60, 7.5 HP)



Model	Discharge Bore (inch)	Motor Output (HP)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
					Diameter	Height	
LH23.0W-60	2	4	101		7 5/16	24 13/16	7 7/8
LH33.0-60	3	4	90	50	7 5/16	25 3/8	5 7/8
LH25.5W-60	2	7.5	176		9 5/8	29 1/2	6 3/4

\* Single Phase is Available with Control Panel.

# Electric Submersible Pumps

## KTZ THREE-PHASE DEWATERING PUMPS

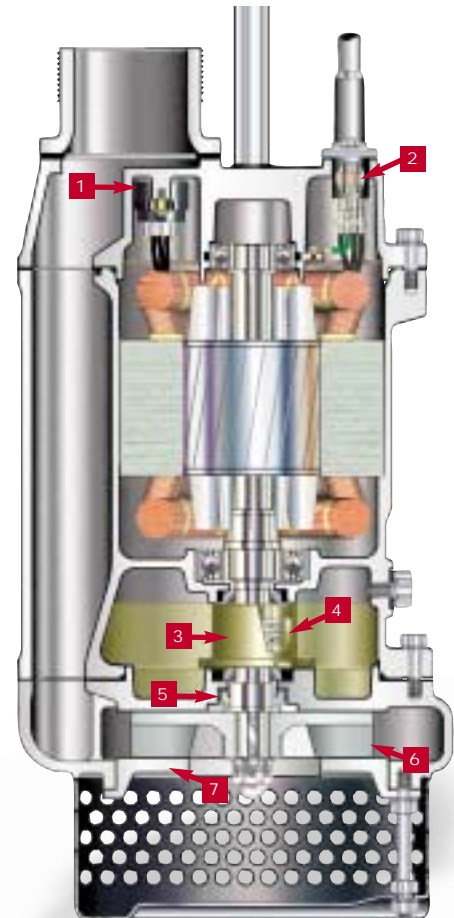
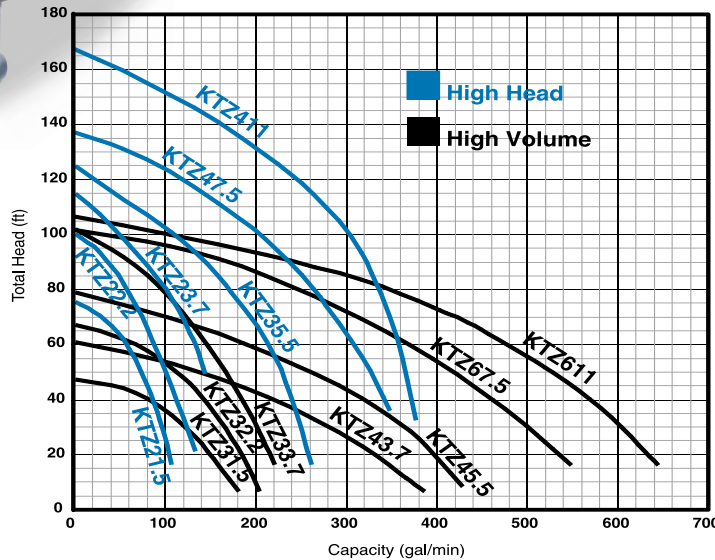
Designed to withstand the most demanding conditions found in the construction, aggregate and mining markets.

Easily converts between high head and high volume performance with a simple change of impeller and wear plate. Wide range of sizes for any job.



### KTZ Series Features

- 1 Circle Thermal Motor Protector:** Protects against, overheating over amperage & run-dry.
- 2 Anti-Wicking Block:** Prevents water incursion due to capillary wicking, should the power cable be damaged or the end submerged.
- 3 Oil Lifter:** Lubrication of the seal faces down to 1/3 of normal oil level and extends seal life by ten times—uses no additional power.
- 4 Double Inside Mechanical Seal with Silicon Carbide Faces:** Provides the longest operational life of any seal available.
- 5 Lip Seal Protector:** Protects mechanical seal from abrasive particles.
- 6 High Chrome Iron Semi-Open Impeller:** Resists wear by abrasive particles.
- 7 Field Adjustable/Replaceable, Ductile Iron Wear Plate:** Resists wear by abrasive particles, and is easily adjusted to maintain pump performance.



Certified by Intertek Testing Services to UL and CSA standards for submersible construction pumps.

Model	Discharge Bore (inch)	Motor Output (HP)	Ship Weight (lb.)	Cable Length (ft.)	Dimensions (inch)		Continuous Running Water Level (inch)
					Diameter	Height	
KTZ 21.5-60	2	2	64	50	9 1/4	21 9/16	4 3/4
KTZ 22.2-60	2	3	70		9 1/4	22 3/8	4 3/4
KTZ 23.7-60	2	5	121		11 1/8	24 5/8	5 7/8
KTZ 31.5-60	3	2	64		9 1/4	21 9/16	4 3/4
KTZ 32.2-60	3	3	70		9 1/4	22 3/8	4 3/4
KTZ 33.7-60	3	5	121		11 1/8	24 5/8	5 7/8
KTZ 35.5-60	3	7.5	145		12 1/16	25 11/16	5 7/8
KTZ 43.7-60	4	5	121		11 1/8	24 5/8	5 7/8
KTZ 45.5-60	4	7.5	145		12 1/16	25 11/16	5 7/8
KTZ 47.5-60	4	10	205		13	26	7 1/2
KTZ 411-60	4	15	286		14 11/16	28 11/16	7 1/2
KTZ 67.5-60	4/6	10	205		13	26	7 1/2
KTZ 611-60	4/6	15	286		14 11/16	28 11/16	7 1/2

\* Single Phase is Available with Control Panel.

# ELECTRIC SUBMERSIBLE SPECIFICATIONS



		<b>LB-480-62</b>	<b>LB-480A-62</b>	<b>LB3-750</b>	<b>HS2.4S-62 HS3.75S-61</b>		<b>HSZ2.4S-62 HSZ3.75S-61</b>		<b>HSD2.55S-61</b>	
		<b>Wear Resistant</b>	<b>Automatic Operation</b>	<b>High Head</b>	<b>Sand/Solids Trash Pump</b>		<b>Automatic Trash Pump</b>		<b>Durable Sand Pump</b>	
<b>FLUID</b>	Max. Capacity (GPM)	62.4	62.4	73	53	74	53	74	53	
	Max. Head (ft)	39.5	39.5	60	39	59	39	59	39	
	Solids Dia. (inch)	1/4	1/4	1/4	3/8	1/4	3/8	1/4	3/8	
<b>PUMP</b>	Impeller Type	Semi-Vortex	Semi-Vortex	Semi-Open	Semi-Vortex		Semi-Vortex		Semi-Vortex	
	Impeller Material	Urethane Rubber	Urethane Rubber	Ductile Iron Casting	Urethane Rubber		Urethane Rubber		Urethane Rubber	
	Casing Material	Ethylene Propylene Rubber	Ethylene Propylene Rubber	Grey Iron Casting	Grey Iron Casting		Grey Iron Casting		Grey Iron Casting	
	Wear Plate Material	Urethane Rubber	Urethane Rubber	Stainless Steel	[Integral part of casing]		[Integral part of casing]		[Integral part of casing]	
	Shaft Seal - Type / Material	Double inside mechanical seal with Silicon Carbide on Silicon Carbide faces on lower seals and Carbon on Ceramic faces on upper seals.								
Seal Lubricant - Type	SAE 10W/20W or Turbine Oil (ISO VG32)									
<b>MOTOR</b>	Seal Lubricant - Amount, Ounces	6.1	6.1	7.1	5.4		5.4		5.4	
	Seal Protection	V-Ring & Oil Lifter	V-Ring & Oil Lifter	Lip Seal	V-Ring & Oil Lifter		V-Ring & Oil Lifter			
	Discharge Connection	2" NPT Coupling	2" NPT Coupling	2" NPT Coupling	2" NPT Coupling	3" NPT Coupling	2" NPT Coupling	3" NPT Coupling	2" NPT Coupling	
	Motor Output (hp)	2/3 hp	2/3 hp	1 hp	1/2 hp	1 hp	1/2 hp	1 hp	1/2 hp	
	Phase	Single Phase	Single Phase	Single Phase	Single Phase		Single Phase		Single Phase	
	Voltage	110 V	110 V	110V or 220V	110 V	110 V or 220 V	110 V	110 V or 220 V	110 V	
	Amperage - Rated Current	6.1	6.1	11.5 - 110V 6.5 - 220V	5.4	10 / 4.8	5.4	10 / 4.8	7.6	
	Amperage - Starting Current	12.5	12.5	43.0 - 110V 25.5 - 220V	12.5	37 / 19	12.5	37 / 19	19.5	
	Type	Continuous duty, Air filled, 3600 RPM, 60 Hz								
	Bearings	Double shielded, Permanently lubricated, High-temp C3 with B-10 life of 60,000 hours								
<b>DIMENSION</b>	Insulation Class	E	E	E	B		B		B	
	Motor Protector (Built-in)	Miniature Protector	Miniature Protector	Circle Thermal Protector	Miniature Protector		Miniature Protector		Miniature Protector	
	Plug Configuration (Nema)	5-15P	5-15P	5-15P (110V) No Plug (220V)	5-15P		5-15P		5-15P	
	Cable - # of Conductors x AWG	3C x 16 AWG	3C x 16 AWG	3C x 14 AWG	3C x 16 AWG		3C x 16 AWG		3C x 16 AWG	
	Std. Cable Length	32 feet	32 feet	50 feet	20 feet	32 feet	20 feet	32 feet	20 feet	
	Max. Cable Length	62 feet	62 feet	53 ft. -110V 187 ft. -220V	70 feet		70 feet		70 feet	
	Min. Generator Capacity (Watts)	1300	1300	3300	1300		1300		1300	
	Optional Float Switch	TS-301	n/a	TS-302 [110V] TS-303 [220V]	TS-301		TS-301		TS-301	
	Max. Diameter (inch)	7 3/8	8 3/4	7 5/16	10 1/16	12 7/16	10 1/16	12 7/16	10 1/16	
	Max. Height (inch)	11 3/16	11 3/16	16 1/4	12 15/16	15 1/4	12 15/16	15 1/4	12 15/16	
Continuous Running Water Level (in.)	2	4 1/2	3 1/8	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2		
Pump Weight (lbs.)	21	22	35	25	42	25	42	25		
Shipping Weight (lbs.)	28	30	43	30	47	30	47	30		

# Electric Submersible Pumps



		<b>LSR2.4S-61</b>	<b>LSC1.4S-61</b>	<b>NK Series</b>		<b>LH/LHW Series</b>		
				<b>NK2-15</b> 110/220V	<b>NK2-22</b> 220V	<b>LH23.0W-60</b>	<b>LH33.0-60</b>	<b>LH25.5W-60</b>
		<b>Ground Level</b>	<b>Floor Level</b>	<b>Wear Resistant High Head</b>		<b>Slim Design High Head Pump High Pressure up to 328 ft</b>		
<b>FLUID</b>	Max. Capacity (GPM)	62.4	45	111	130	145	290	122
	Max. Head (ft)	39.5	39.5	69	85	140	73	197
	Solids Dia. (inch)	1/4	1/4	1/3	1/3	1/4	1/4	1/4
	Impeller Type	Semi-Vortex	Semi-Vortex	Semi-Vortex	Semi-Vortex	Closed	Closed	Closed
	Impeller Material	Urethane Rubber	Ductile Iron Casting	Ductile Iron Casting	Ductile Iron Casting	Hi-Chrome Cast Iron	Hi-Chrome Cast Iron	Hi-Chrome Cast Iron
	Casing Material	Ethylene Propylene Rubber	Ethylene Propylene Rubber	Ethylene Propylene Rubber	Ethylene Propylene Rubber	Ductile Cast Iron	Ductile Cast Iron	Ductile Cast Iron
	Wear Plate Material	Urethane Rubber	Urethane Rubber	[Integral part of casing]	[Integral part of casing]	[Integral part of casing]	[Integral part of casing]	[Integral part of casing]
	Shaft Seal - Type / Material	Silicon Carbide on Silicon Carbide faces on upper and lower seals.		Silicon Carbide on Silicon Carbide faces on upper and lower seals.		Dual Inside Silicon Carbide Mechanical Seal Seal Endurance up to 142 psi		
	Seal Lubricant - Type	SAE 10W/20W or Turbine Oil (ISO VG32)		SAE 10W/20W or Turbine Oil (ISO VG32)		SAE 10W/20W or Turbine Oil (ISO VG32)		
	Seal Lubricant - Amount, Ounces	6.1	6.1	9.1	9.1	13.8	13.8	24.3
<b>PUMP</b>	Seal Protection	V-Ring & Oil Lifter	V-Ring & Oil Lifter	V-Ring and Oil Lifter	V-Ring and Oil Lifter	Oil Lifter	Oil Lifter	Oil Lifter
	Discharge Connection	2" NPT Coupling	3/4" NPS Coupling	3" NPT Coupling	3" NPT Coupling	2" NPT Coupling	3" NPT Coupling	2" NPT Coupling
	Motor Output (hp)	2/3 hp	2/3 hp	2 hp	3 hp	4 hp	4 hp	7.5 hp
	Phase	Single Phase	Single Phase	Single Phase	Single Phase	Three Phase	Three Phase	Three Phase
	Voltage	110 V	110V	110V and 220V	220V	230 / 460 / 575	230 / 460 / 575	208/230/460/575
	Amperage - Rated Current	6.1	6.1	23.0 - 110V 11.5 - 220V	13.0	11.0 / 6.0 / 4.7	11.0 / 6.0 / 4.7	22.0 / 19.2 / 9.6 / 7.7
	Amperage - Starting Current	12.5	12.5	136 - 110V 68.0 - 220V	70.0	77 / 48.6 / 35.3	77 / 48.6 / 35.3	126 / 138 / 57 / 47
	Type	Continuous duty, Air filled, 3600 RPM, 60 Hz		Continuous duty, Air filled, 3600 RPM, 60 Hz		Continuous duty, Air filled, 3600 RPM, 60 Hz		
	Bearings	Double shielded, Permanently lubricated		Double shielded, Permanently lubricated		Double shielded, Permanently lubricated		
	<b>MOTOR</b>	Insulation Class	E	E	B	B	F	F
Motor Protector (Built-in)		Miniature Protector	Miniature Protector	Circle Thermal Protector	Circle Thermal Protector	Circle Thermal Protector	Circle Thermal Protector	Circle Thermal Protector
Plug Configuration (Nema)		5-15P	5-15P	No Plug	No Plug	No Plug	No Plug	No Plug
Cable - AWG / # of Conductors		3C x 16 AWG	3C x 16 AWG	# 12/3	# 14/3	# 14/4	# 14/4	# 12/4
Std. Cable Length		32 feet	32 feet	32 feet	32 feet	65 feet	65 feet	50 feet
Max. Cable Length		62 feet	62 feet	46 ft. - 110V 185 ft. - 220V	94 feet	220 ft. - 230V 813 ft. - 460V 302 ft. - 575V	220 ft. - 230V 813 ft. - 460V 302 ft. - 575V	110 ft. - 208V 540 ft. - 440V 560 ft. - 575V
Min. Generator Capacity (Watts)		1300	1300	6000	8000	13,000	13,000	30,000
Optional Float Switch		TS-301	TS-301	TS-303 [220V operation only]		Ask Factory		
Max. Diameter (inch)		8 1/4	7 11/16	9 7/16	9 7/16	7 5/16	7 5/16	9 5/8
<b>DIMENSION</b>		Max. Height (inch)	11 15/16	12 7/16	24 1/2	24 1/2	24 13/16	25 3/8
	Continuous Running Water Level (in.)	0.20	0.04	3 1/4	3 1/4	7 7/8	5 7/8	6 3/4
	Pump Weight (lbs.)	23	26	63.5	64	101	93	176
	Shipping Weight (lbs.)	29	34	81	81	121	113	196

\* LH/LH-W Series: Control Panel is available both three phase and single phase operation.

# ELECTRIC SUBMERSIBLE SPECIFICATIONS



**KTZ Series**

	KTZ 21.5-61	KTZ 22.2-61	KTZ 23.7-62	KTZ 31.5-61	KTZ 32.2-61	KTZ 33.7-62	KTZ 35.5-61	KTZ 43.7-61	KTZ 45.5-61	KTZ 47.5-61	KTZ 411-61	KTZ 67.5-61	KTZ 611-61				
	<b>Wear Resistant</b>																
<b>FLUID</b>	Max. Capacity (GPM)	106	132	143	180	203	219	260	386	428	349	377	549	645			
	Max. Head (ft)	75	100	115	47	67	102	125	61	79	137	167	102	107			
	Solids Dia. (inch)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	4/5	4/5			
<b>PUMP</b>	Impeller Type	Semi-Open															
	Impeller Material	High Chrome															
	Casing Material	Cast Iron															
	Wear Plate Material	Ductile Cast Iron															
	Shaft Seal - Type / Material	Silicon Carbide, High Pressure Mechanical Seal, Seal Pressure Endurance of 142 psi for 5 hp and bigger, 71 psi for 2 and 3 hp models. (Additional protection provided with Seal Pressure Relief Ports on 10 and 15 hp models)															
	Seal Lubricant - Type	SAE 10W/20W or Turbine Oil (ISO VG32)															
	Seal Lubricant - Amount, Ounces	25.0		32.5		25.0		32.5		37.2		32.5		37.2		25.7	
	Seal Protection	Lip Seal and Oil Lifter															
	Discharge Connection	2" NPT Coupling			3" NPT Coupling					4" NPT Coupling							
	<b>MOTOR</b>	Motor Output (hp)	2	3	5	2	3	5	7.5	5	7.5	10	15	10	15		
Phase		Three Phase															
Voltage		230/460/575															
Amperage - Rated Current		6.0/3.0/2.3	9.0/4.6/3.5	13.0/6.5/5.3	6.0/3.0/2.3	9.0/4.6/3.5	13.0/6.5/5.3	19.0/9.5/7.3	13.0/6.5/5.3	19.0/9.5/7.3	25.0/12.5/9.7	36.0/18.0/14.3	25.0/12.5/9.7	36.0/18.0/14.3			
Amperage - Starting Current		44/22/16	76/38/28	120/60/43	44/22/16	76/38/28	120/60/43	170/85/62	120/60/43	170/85/62	236/118/85	310/155/120	236/118/85	310/155/120			
Type		Continuous duty, Air filled, 3600 RPM, 60 Hz															
Bearings		Double shielded, Permanently lubricated															
Insulation Class		E	E	E	E	E	E	E	E	E	E	B	B	B	B		
Plug Configuration (Nema)		No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug	No Plug		
Cable - AWG / # of Conductors		# 16/4	# 16/4	# 14/4	# 16/4	# 16/4	# 14/4	# 12/4	# 14/4	# 12/4	# 10/4	# 8/4	# 10/4	# 8/4			
Std. Cable Length	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet	50 feet				
Max. Cable Length	130 ft. - 208V 610 ft. - 440V 670 ft. - 575V	90 ft. - 208V 400 ft. - 440V 440 ft. - 575V	90 ft. - 208V 450 ft. - 440V 460 ft. - 575V	130 ft. - 208V 610 ft. - 440V 670 ft. - 575V	90 ft. - 208V 400 ft. - 440V 440 ft. - 575V	90 ft. - 208V 450 ft. - 440V 460 ft. - 575V	110 ft. - 208V 540 ft. - 440V 590 ft. - 575V	90 ft. - 208V 450 ft. - 440V 460 ft. - 575V	110 ft. - 208V 540 ft. - 440V 590 ft. - 575V	130 ft. - 208V 650 ft. - 440V 690 ft. - 575V	130 ft. - 208V 650 ft. - 440V 690 ft. - 575V	130 ft. - 208V 650 ft. - 440V 690 ft. - 575V	130 ft. - 208V 650 ft. - 440V 690 ft. - 575V				
Min. Generator Capacity (Watts)	8000	12000	18000	8000	12000	18000	27000	18000	27000	36000	53000	36000	53000				
<b>DIMENSION</b>	Max. Diameter (inch)	9 1/4	9 1/4	11 1/8	9 1/4	9 1/4	11 1/8	12 1/16	11 1/8	12 1/16	13	14 11/16	13	14 11/16			
	Max. Height (inch)	21 9/16	22 3/8	24 5/8	21 9/16	22 3/8	24 5/8	25 11/16	24 5/8	25 11/16	26	28 11/16	26	28 11/16			
	Continuous Running Water Level (in.)	4 3/4	4 3/4	5 7/8	4 3/4	4 3/4	5 7/8	5 7/8	5 7/8	5 7/8	7 1/2	7 1/2	7 1/2	7 1/2			
	Pump Weight (lbs.)	64	70	121	64	70	121	145	121	145	205	286	205	286			
	Shipping Weight (lbs.)	66	75	123	66	75	123	156	123	156	211	290	215	297			

\* Control Panel is available both three phase and single phase operation

# **TSURUMI PUMP** Engine Powered Pumps

TSURUMI Engine Powered Pumps are constructed for maximum durability in a compact, easy handling design. Utilizing superior features and materials, Tsurumi provides an affordable, high value pump line designed to withstand your tough dewatering applications.

Heavy-duty Honda, Robin Subaru gas engine, or Yanmar diesel engine **delivers high power** from a compact, reliable design.

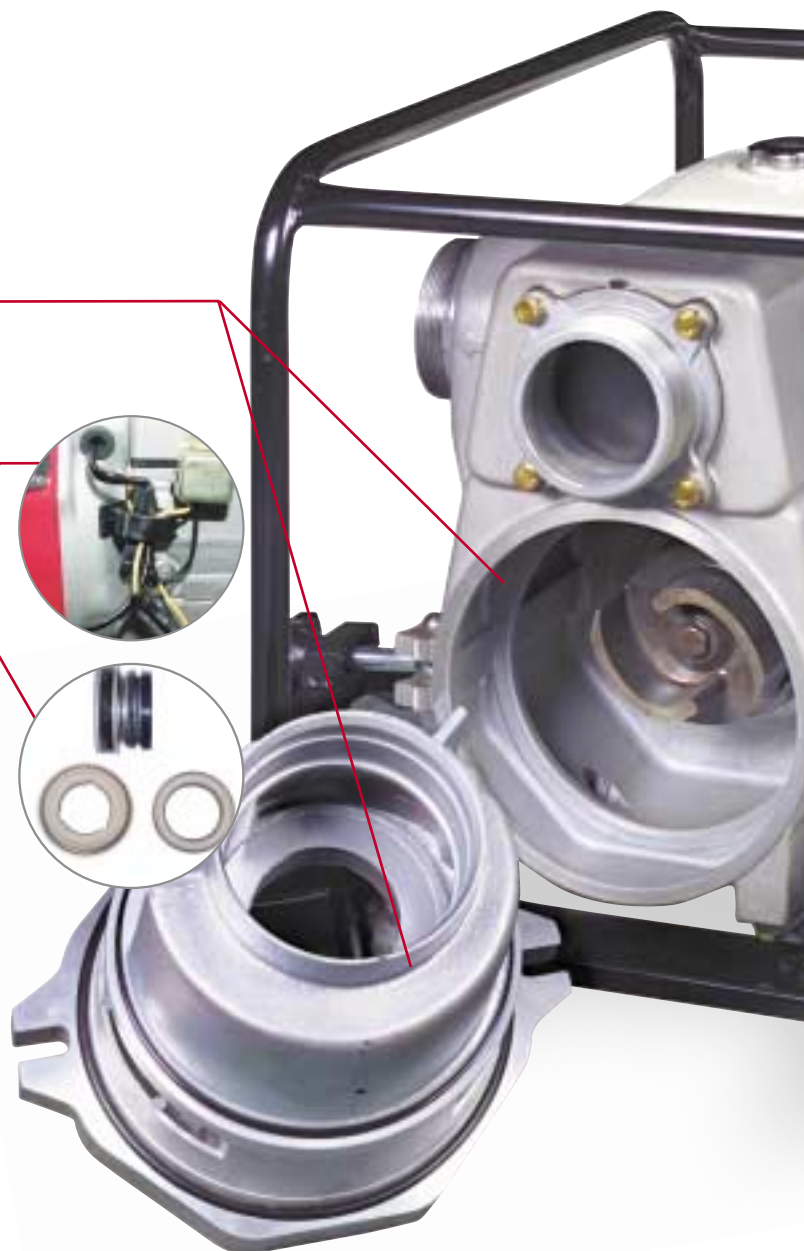
High chrome impeller, cast iron volute casing with stainless steel wear plate provides **increased durability and decreased maintenance** (Trash pumps only).

Oil Alert System **automatically shuts the engine down** if the oil level falls below the safe operating level (Not Yanmar Diesel Engine).

Silicon Carbide mechanical seal **provides the longest life in this class**. Silicon Carbide's high uniform hardness and high density makes it an extremely abrasion resistant material.

Rubber Vibration Isolators **insure safe and stable operation**, reduce vibration of structural parts and support the pump casing to reduce hose or pipe strain.

Durable Rolled-Steel frame provides for a safe, stable platform, **protects pump/engine during operation** and transport, and allows for easy handling.





## **NEW:** RX Models Powered by the New Robin Subaru EX Engine

### Advanced Technology

- Unique chain drive Overhead Cam (OHC) design
- Adapted from race proven Subaru auto engines
- Higher power and torque than competitors

### Easier to Start

- 30-40% lower pulling force to start than competitive models

### Quieter

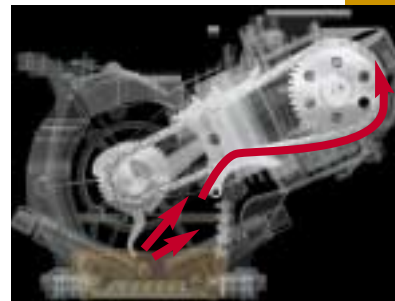
- 2dBA noise reduction than competitors

### Maximum Durability

- Patented cooling and lubrication system for long life
- Hardened steel timing chain
- Cast iron cylinder liner
- Dual ball-bearing crank shaft support



Cooling fins on cylinder



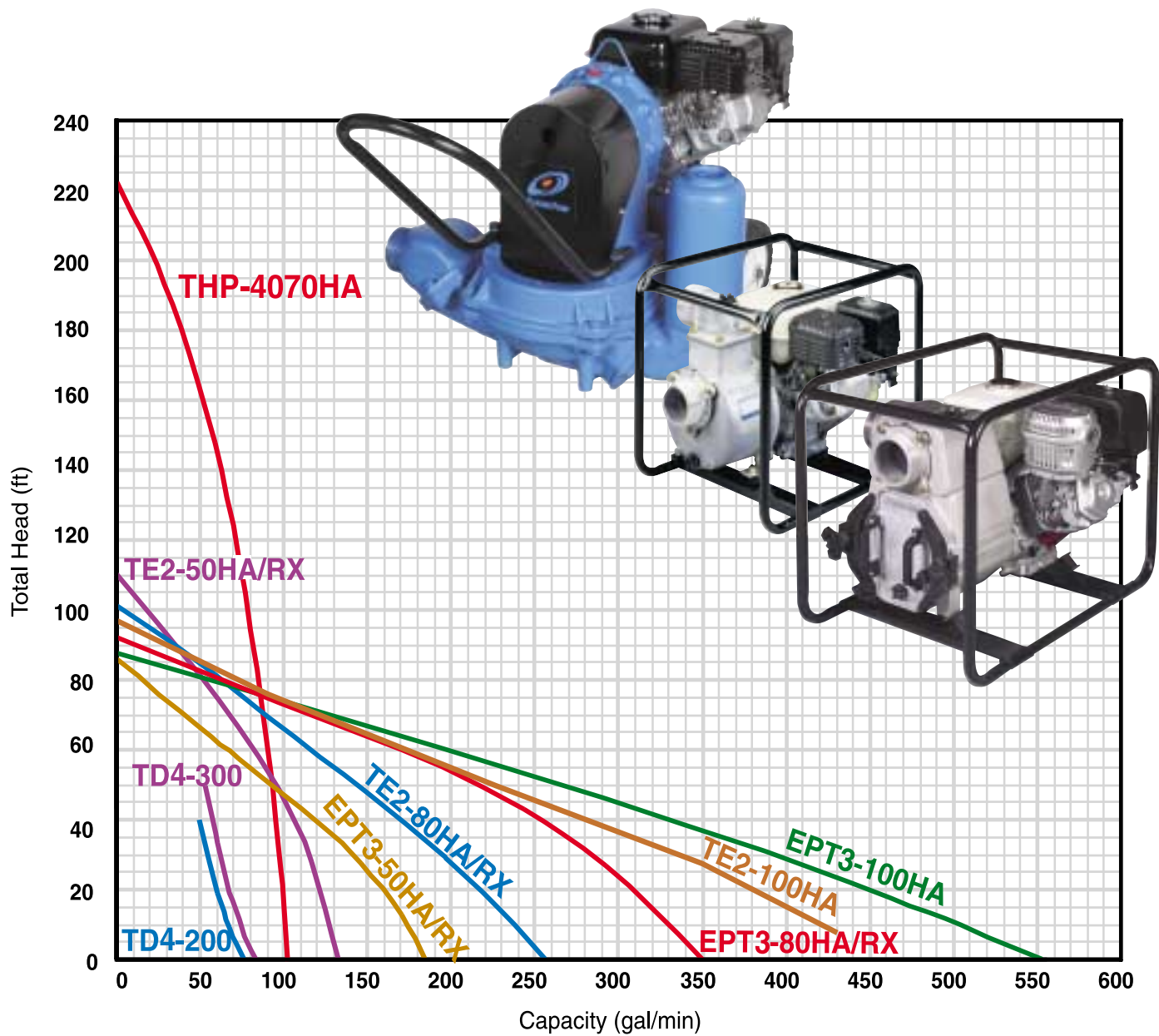
Lubrication system



Combustion chamber

# Engine Powered Pumps

## PERFORMANCE CURVES



## Powerful, Lightweight Pumps

Powered by either heavy-duty Honda gas engines, the silently powerful EX Robin engine, or a Yanmar diesel engine.

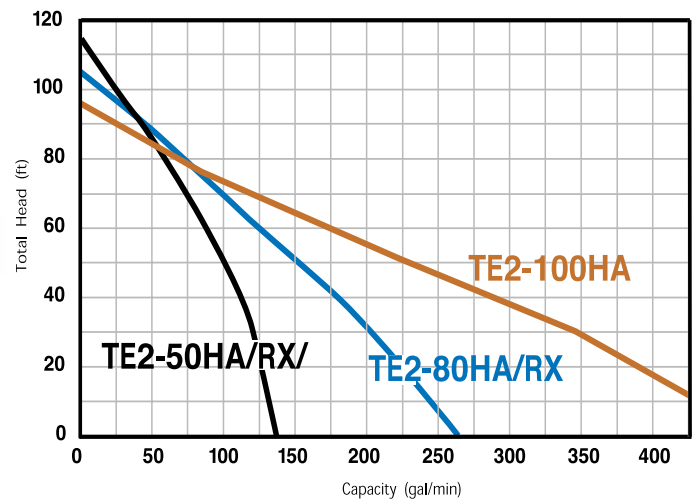
### TE2-HA Gas Engine Centrifugal Pumps *Powered by Honda*

- Heavy-duty Honda gas engine with oil sensor and Silicon Carbide mechanical seal provides the longest life in this class.
- Cast Iron impeller and volute casing.
- Durable Rolled-Steel frame provides pump/engine with maximum protection, perfect ease of handling or transport, and safe operation.
- Both 2" and 3" models are light enough for UPS shipment.



### TE2-RX Gas Engine Centrifugal Pumps *Powered by Robin Subaru*

- Two inch economical high performance centrifugal engine pump.
- Extremely silent. EX Robin Engine is two dBA quieter than competitive models.
- Easy and reliable starting. 30-40% less pulling force than competitive models.
- Low emission level and high capacity Air Cleaner.
- Heavy Duty Chain Drive OHC System.



Model	Suction Size (in.)	Discharge Size (in.)	Engine	Max. Output (hp/rpm)	Shipping Dimensions (L x W x H in.)	Shipping Weight (lb.)
TE2-50HA	2 NPT male	2	HONDA GX-120	4.0 / 3600	18 1/2 x 14 5/8 x 17 1/8	55
TE2-80HA	3 NPT male	3	HONDA GX-160	5.5 / 3600	20 1/2 x 16 1/2 x 18 7/8	64
TE2-100HA	4 NPT male	4	HONDA GX-240	8.0 / 3600	25 x 18 x 23 1/2	109
TE2-50RX	2 NPT male	2	Robin Subaru EX13	4.5 / 4000	18 1/2 x 14 5/8 x 17 1/8	55
TE2-80RX	3 NPT male	3	Robin Subaru EX17	6.0 / 4000	20 1/2 x 16 1/2 x 18 7/8	64

# Engine Powered Pumps

**NEW:** EPT3 GAS ENGINE TRASH PUMPS

## Powerful Trash Handling Pumps of Highest Quality



- 1 New:** The cleaning door can be disassembled easily without taking out suction hose.
- 2 New:** design with larger pump casing.
- 3** Heavy-duty Honda gas engine.
- 4** Mounted to cage frame on Rubber Vibration Cushions.
- 5** Durable rolled-steel frame.
- 6** High Chrome impeller, cast Iron volute casing, stainless steel wear plate, and galvanized Steel hose couplings.

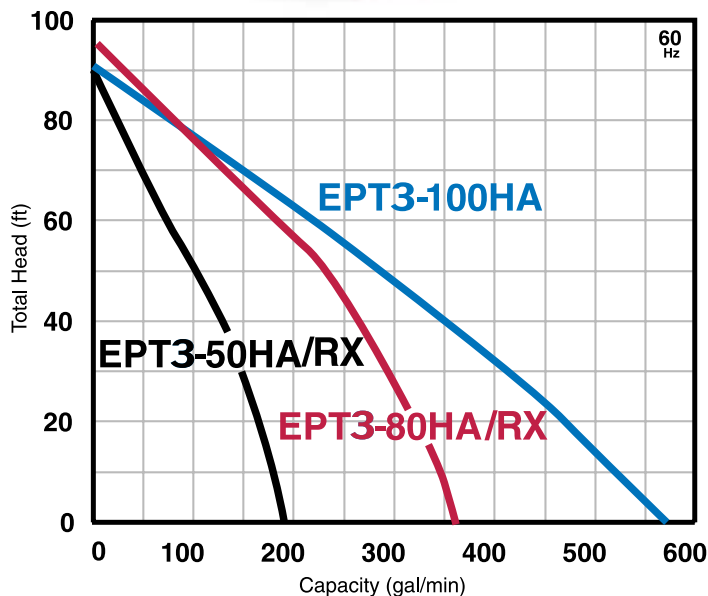
### EPT3-HA Gas Engine Trash Pumps *Powered by Honda*

- Heavy-duty Honda gas engine with oil sensor delivers high power from a compact, reliable design. Silicon Carbide mechanical seal provides the longest life in this class.
- High Chrome impeller, Cast Iron volute casing plus Stainless Steel wear plate promise increased durability and decreased maintenance.
- Pump/engine set mounted to cage frame on Rubber Vibration Cushions to buffer stress and wear.
- Durable Rolled-Steel frame provides pump/engine with maximum protection, perfect ease of handling or transport and safe operation.
- Galvanized Steel hose couplings promise longer thread life.
- Carrying Handle/Wheel Kit and Lifting Bail for easy transportation available with all trash pumps as an optional accessory.



### EPT3-RX Gas Engine Trash Pumps *Powered by Robin Subaru*

- Extremely Silent. EX Robin Engine is two dBA quieter than competitive models.
- Low emission level for cleaner environment.
- High capacity Air Cleaner.
- Heavy Duty Chain Drive OHC System.
- Easy and reliable starting. 30-40% less pulling force than competitive models.
- High Chrome impeller, Cast Iron volute casing plus Stainless Steel wear plate promises increased durability and decreased maintenance.
- Pump/engine set mounted to cage frame on Rubber Vibration Cushions to buffer stress and wear.
- Durable Rolled-Steel frame provides pump/engine with maximum protection, perfect ease of handling or transport, and safe operation.
- Galvanized Steel hose couplings promise longer thread life.



Model	Suction Size (in.)	Discharge Size (in.)	Engine	Max. Output (hp/rpm)	Shipping Dimensions (L x W x H in.)	Shipping Weight (lb.)
EPT3-50HA	2 NPT male	2	HONDA GX-160	5.5 / 3600	23 1/4 x 18 1/4 x 17 3/8	82
EPT3-80HA	3 NPT male	3	HONDA GX-240	8.0 / 3600	27 1/2 x 20 1/8 x 25 5/8	136
EPT3-100HA	4 NPT male	4	HONDA GX-340	11.0 / 3600	30 1/8 x 20 1/8 x 26	160
EPT3-50RX	2 NPT male	2	ROBIN SUBARU EX17	6.0 / 4000	23 1/4 x 18 1/4 x 17 3/8	82
EPT3-80RX	3 NPT male	3	ROBIN SUBARU EX27	7.0 / 4000	27 1/2 x 20 1/8 x 25 5/8	136

# Engine Powered Pumps

## THP HIGH PRESSURE PUMP

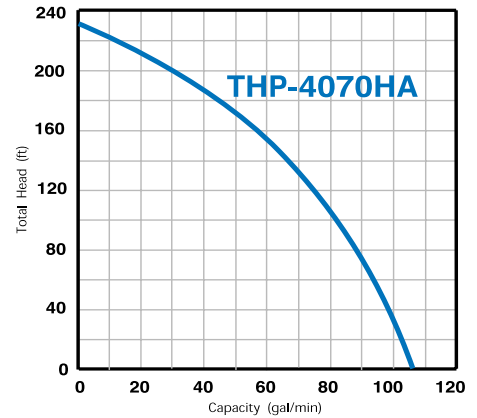
### High Pressure and High Performance

A pump for sprinkling, irrigation and fire-fighting.



#### THP-4070-HA Features

- Heavy-duty Honda gas engine with oil sensor and Silicon Carbide mechanical seal provides the longest life in this class.
- Maximum pressure of 100 PSI for high pressure applications.
- Versatile 3-way discharge allows pump to run up to three discharge lines simultaneously. Two 1" couplings and one 1 1/2" coupling.
- High head, closed impeller and cast iron volute casing deliver high performance and long wear life.

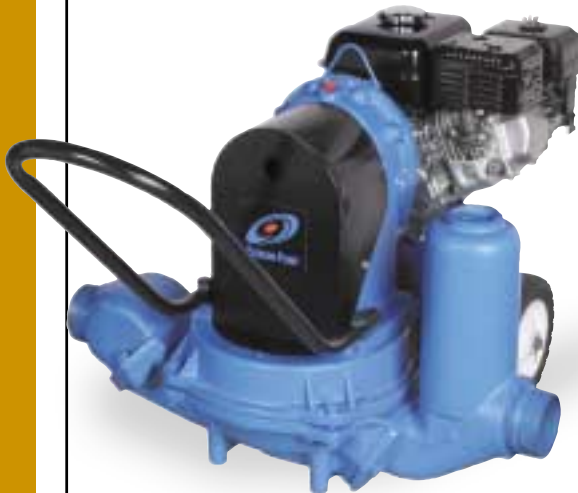


Model	Suction Size (in.)	Discharge Size (in.)	Engine	Max. Output (hp/rpm)	Shipping Dimensions (L x W x H in.)	Shipping Weight (lb.)
THP-4070HA	1.5 NPT Male	1 x 2 & 1.5 x 1	Honda GX-160KISX	5.5 / 3600	21 x 16 x 18	62

## NEW: TD4 DIAPHRAGM PUMPS

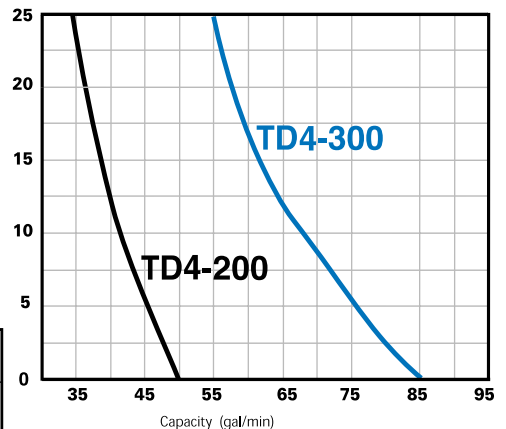
### Powerful Sand, Mud and Sludge Handling Pumps

Capable of continuous dry operation for seepage dewatering. Handles sand, mud and sludge.



#### TD4 Series Features

- Heavy-duty Honda gasoline engine with oil sensor delivers high power from a compact, reliable design.
- Durable TPE diaphragm and check valves for extended wear life.
- Balanced wheel and handle assembly provide easy handling.



Model	Suction Size (in.)	Discharge Size (in.)	Engine	Max. Output (hp/rpm)	Shipping Dimensions (L x W x H in.)	Shipping Weight (lb.)
TD4-200	2 NPT male	2	Honda GX-120	4.0 / 3600	32 x 29 x 25	141
TD4-300	3 NPT male	3	Honda GX-120	4.0 / 3600	32 x 29 x 25	145

## Trailer Mounted Trash Pumps for Tough Jobs

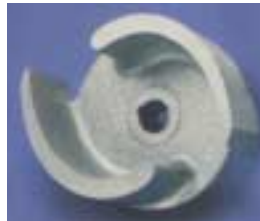
Dewatering to sewage, clean water to 3-inch solids—our trash pumps do it all.

### EPT2-100DD and EPT2-150DD Features

- Heavy-duty Deutz diesel engine with electric start and 40 U.S. gallon fuel tank provides a minimum of 24 hours run time per tank.
- Pass 3" solids (EPT2-150DD) or 2" solids (EPT2-100DD) with non-clog, wear resistant ductile iron impeller on 304 stainless steel shaft sleeve.
- Oil and abrasion resistant, rubber-lined front and rear wear plates.
- Long-life grease lubricated tungsten carbide mechanical seals (optional oil lubricated seals available).
- Heavy-duty DOT road trailer with 15" 6-ply tires and 2" ball hitch (optional pintle hitch available).



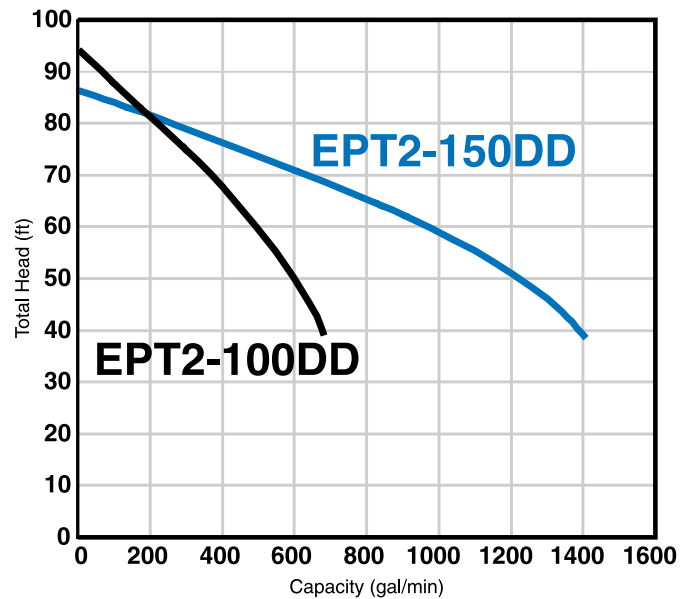
Two-vane impeller with rear equalizing vanes, non-clogging, semi-open, ductile iron with 316 stainless steel shaft sleeves.



Wear plate: Easily replaced cast iron, with abrasion resistant oil proof rubber facing.



Mechanical seal: TC/TC with Buna-N Elastomers, grease or oil lubricated allowing for dry run and operation on high vacuum even with abrasive liquids.



Model	Suction Size (in.)	Discharge Size (in.)	Engine	Max. Output (hp/rpm)	Shipping Dimensions (L x W x H in.)	Shipping Weight (lb.)
EPT2-100DD	4 NPT male	4	Deutz F2L1011	24.5 / 2800	100 x 63 1/2 x 59	1800
EPT2-150DD	6 NPT male	6	Deutz F3L1011	36 / 2800	100 x 63 1/2 x 59	2100

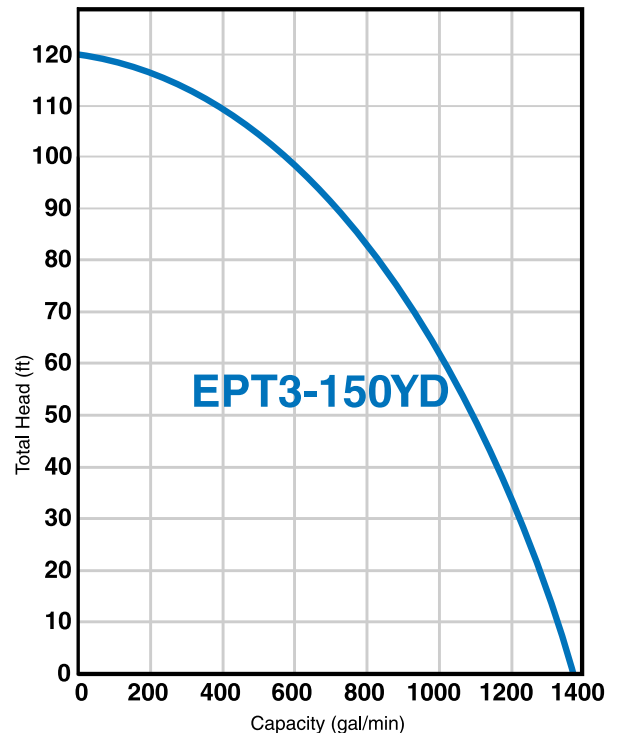
# Engine Powered Pumps

## EPT HEAVY DUTY TRAILER MOUNTED

### Powerful New 6 Inch Self-Priming Trash Pump

#### NEW: EPT3-150YD Features

- Powered by a heavy-duty water cooled Yanmar diesel engine - Model 3TNV88 featuring low emissions, noise, vibration, and lower fuel consumption.
- Capable of passing 3" solids and is designed for rugged applications in rental, construction, civil engineering, industrial, wastewater and agricultural applications.
- Constructed with a class 30 cast iron casing, two vane ductile iron impeller and replaceable ductile iron volute.
- Heavy-duty DOT road trailer with 15" 6-ply tires and 2" ball hitch (optional pintle hitch available).



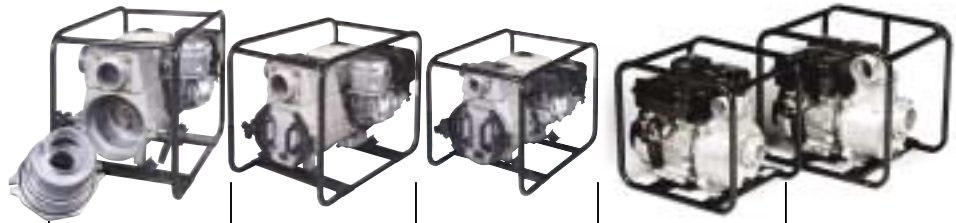
Model	Suction Size (in.)	Discharge Size (in.)	Engine	Max. Output (hp/rpm)	Shipping Dimensions (L x W x H in.)	Shipping Weight (lb.)
EPT3-150YD	6 NPT male	6	YANMAR 3TNV88	30 / 3000	111 x 60 x 69	1750

## ENGINE POWERED SPECIFICATIONS



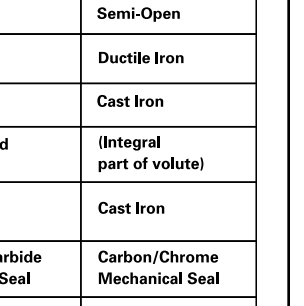
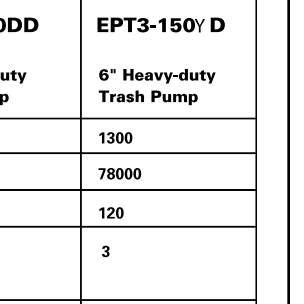
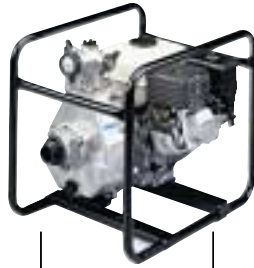
		<b>TE2-50HA</b>	<b>TE2-80HA</b>	<b>TE2-100HA</b>	<b>TE2-50RX</b>	<b>TE2-80RX</b>	
		<b>2" Dewatering Pump</b>	<b>3" Dewatering Pump</b>	<b>4" Dewatering Pump</b>	<b>2" Dewatering Pump</b>	<b>3" Dewatering Pump</b>	
<b>FLUID</b>	Max. Capacity (GPM)	137	264	476	137	264	
	Max. Capacity (GPH)	8220	15840	28531	8220	15840	
	Max. Head (ft)	115	105	92	115	105	
	Max. Solids Diameter (inch)	3/8	3/8	3/8	3/8	3/8	
<b>PUMP</b>	Impeller Type	Semi-Open	Semi-Open	Semi-Open	Semi-Open	Semi-Open	
	Impeller (Diaphragm) Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	
	Volute Casing Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	
	Wear Plate Material	[Integral part of volute]	[Integral part of volute]	[Integral part of volute]	[Integral part of volute]	[Integral part of volute]	
	Pump Casing Material	Die Cast Aluminum	Die Cast Aluminum	Die Cast Aluminum	Die Cast Aluminum	Die Cast Aluminum	
	Shaft Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	
	Seal Lubricant	Water	Water	Water	Water	Water	
	Discharge Connection	2" NPT Coupling	3" NPT Coupling	4" NPT Coupling	2" NPT Coupling	3" NPT Coupling	
	Suction Connection	2" NPT Coupling	3" NPT Coupling	4" NPT Coupling	2" NPT Coupling	3" NPT Coupling	
	<b>ENGINE</b>	Brand	HONDA	HONDA	HONDA	Robin Subaru	Robin Subaru
Model		GX-120	GX-160	GX-240	EX13	EX17	
Type		Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	
Output (hp)		4.0	5.5	8.0	4.5	6.0	
RPM		3600	3600	3600	4000	4000	
Fuel		Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	
Fuel Tank Capacity (US Gal.)		0.66	0.95	1.59	0.95	0.95	
Continuous Run Time Per Tank (Hr.)		3.0	3.3	3.2	3.28	2.71	
Starting Method		Recoil Starter	Recoil Starter	Recoil Starter	Recoil Starter	Recoil Starter	
<b>DIMENSION</b>		Shipping Dimensions	Length	18 1/2	20 1/2	25	18 1/2
	Width		14 5/8	16 1/2	18	14 5/8	16 1/2
	Height		17 1/8	18 7/8	23 1/2	17 1/8	18 7/8
	Shipping Wgt. (lbs)		55	64	109	55	64

# Engine Powered Pumps



		<b>EPT3-50HA</b> 2" Trash Pump	<b>EPT3-80HA</b> 3" Trash Pump	<b>EPT3-100HA</b> 4" Trash Pump	<b>EPT3-50RX</b> 2" Trash Pump	<b>EPT3-80RX</b> 3" Trash Pump	
<b>FLUID</b>	Max. Capacity (GPM)	190	360	570	190	360	
	Max. Capacity (GPH)	11400	21600	34200	11400	21600	
	Max. Head (ft)	90	96	91	90	96	
	Max. Solids Diameter (inch)	1	1 1/2	1 1/2	1	1 1/2	
<b>PUMP</b>	Impeller Type	Semi-Open	Semi-Open	Semi-Open	Semi-Open	Semi-Open	
	Impeller (Diaphragm) Material	High Chrome Iron Casting	High Chrome Iron Casting	High Chrome Iron Casting	High Chrome Iron Casting	High Chrome Iron Casting	
	Volute Casing Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	
	Wear Plate Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	
	Pump Casing Material	Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum	
	Shaft Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	Silicon Carbide Mechanical Seal	
	Seal Lubricant	Water	Water	Water	Water	Water	
	Discharge Connection	2" NPT Coupling	3" NPT Coupling	4" NPT Coupling	2" NPT Coupling	3" NPT Coupling	
	Suction Connection	2" NPT Coupling	3" NPT Coupling	4" NPT Coupling	2" NPT Coupling	3" NPT Coupling	
<b>ENGINE</b>	Brand	HONDA	HONDA	HONDA	Robin Subaru	Robin Subaru	
	Model	GX-160	GX-240	GX-340	EX17	EX27	
	Type	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder w/ Oil Sensor	Air Cooled, 4-Cycle Single Cylinder w/ Oil Sensor	
	Output (hp)	5.5	8.0	11.0	6.0	7.0	
	RPM	3600	3600	3600	4000	4000	
	Fuel	Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	
	Fuel Tank Capacity (US Gal.)	0.95	1.6	1.7	0.95	0.95	
	Continuous Run Time Per Tank (Hr.)	3.3	3.2	2.6	3.28	2.71	
	Starting Method	Recoil Starter	Recoil Starter	Recoil Starter	Recoil Starter	Recoil Starter	
<b>DIMENSION</b>	Shipping Dimensions	Length	23 1/4	27 1/2	30 1/8	23 1/4	27 1/2
		Width	18 1/4	20 1/8	20 1/8	18 1/4	20 1/8
		Height	17 3/8	25 5/8	26	17 3/8	25 5/8
	Shipping Weight (lbs.)	82	136	160	82	136	

## ENGINE POWERED SPECIFICATIONS



		<b>THP-4070HA</b>	<b>TD4-200</b>	<b>TD4-300</b>	<b>EPT2-100DD</b>	<b>EPT2-150DD</b>	<b>EPT3-150Y D</b>	
		<b>High Pressure Pump</b>	<b>2" Diaphragm Pump</b>	<b>3" Diaphragm Pump</b>	<b>4" Heavy-duty Trash Pump</b>	<b>6" Heavy-duty Trash Pump</b>	<b>6" Heavy-duty Trash Pump</b>	
<b>FLUID</b>	Max. Capacity (GPM)	106	50	85	666	1400	1300	
	Max. Capacity (GPH)	6360	3000	5100	40000	84000	78000	
	Max. Head (ft)	231	25	25	94	86	120	
	Max. Solids Diameter (inch)	n/a	1 1/4	1 3/4	2	3	3	
<b>PUMP</b>	Impeller Type	Closed	Diaphragm	Diaphragm	Semi-Open	Semi-Open	Semi-Open	
	Impeller (Diaphragm) Material	Aluminum	TPE	TPE	Ductile Iron	Ductile Iron	Ductile Iron	
	Volute Casing Material	Cast Iron	n/a	n/a	Cast Iron	Cast Iron	Cast Iron	
	Wear Plate Material	[Integral part of volute]	n/a	n/a	Rubber Lined Cast Iron	Rubber Lined Cast Iron	(Integral part of volute)	
	Pump Casing Material	Die Cast Aluminum	Die Cast Aluminum	Die Cast Aluminum	Cast Iron	Cast Iron	Cast Iron	
	Shaft Seal	Silicon Carbide Mechanical Seal	n/a	n/a	Tungsten Carbide Mechanical Seal	Tungsten Carbide Mechanical Seal	Carbon/Chrome Mechanical Seal	
	Seal Lubricant	Water	n/a	n/a	Grease (Oil optional)	Grease (Oil optional)	Grease	
	Discharge Connection	(1) 1 - 1/2" & (2) 1" Coupling	2" NPT Coupling	3" NPT Coupling	4" NPT Coupling	6" NPT Coupling	6" NPT Coupling	
	Suction Connection	1 - 1/2" NPT Coupling	2" NPT Coupling	3" NPT Coupling	4" NPT Coupling	6" NPT Coupling	6" NPT Coupling	
<b>ENGINE</b>	Brand	HONDA	HONDA	HONDA	DEUTZ	DEUTZ	YANMAR	
	Model	GX-160KISX	GX-120HX	GX-120HX	F2L1011	F3L1011	3TNV88	
	Type	Air Cooled, 4-Cycle Single Cylinder, with Oil Sensor	Air Cooled, 4-Cycle Single Cylinder with Oil Sensor	Air Cooled, 4 Cycle Single Cylinder with Oil Sensor	Air/Oil Cooled, 4-Cycle, Two Cylinder with Temperature/Oil Sensor	Air/Oil Cooled, 4-Cycle, Three Cylinder with Temperature/Oil Sensor	Air/Oil Cooled, 4-Cycle, Three Cylinder with Temperature/Oil Sensor	
	Output (hp)	5.5	4.0	4.0	24.5	36	30	
	RPM	3600	3600	3600	2800	2800	3000	
	Fuel	Unleaded Gasoline	Unleaded Gasoline	Unleaded Gasoline	Diesel	Diesel	Diesel	
	Fuel Tank Capacity (US Gal.)	0.95	0.66	0.66	40	40	40	
	Continuous Run Time Per Tank (Hr.)	3.3	3.0	3.0	24	24	24	
	Starting Method	Recoil Starter	Recoil Starter	Recoil Starter	Electric, 12V	Electric, 12V	Electric, 12V	
<b>DIMENSION</b>	Shipping Dimensions	Length	21	39 7/8	39 7/8	100	100	111
		Width	16	24 3/4	29 1/4	63 1/2	63 1/2	60
		Height	18	22 1/2	23 11/16	59	59	69
	Shipping Weight (lbs.)	62	141	145	1800	2100	1750	

# **TSURUMI PUMP** Portable Generators

TSURUMI TPG-series generators are designed to withstand the severe conditions of construction jobsites or industrial applications, especially where extra durability and dependable, stable power are required. Ideal to supply the power to Tsurumi's single-phase submersible pumps and all your electrical power tools such as drills, saws, lighting and heaters.

Automatic Idle Control reduces fuel consumption, noise, and engine wear. (Not available on TPG-2900HDX).

Powered by Honda OHV engine for efficient fuel and oil consumption with oil alert system to shut off motor if oil falls below safe operating level.

Large Air Filter for superior emission control.

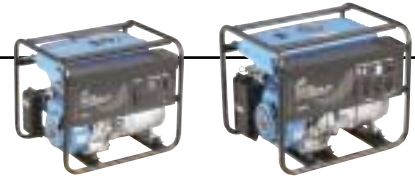
Rubber Vibration Pads isolate generator/engine set for maximum protection and noise reduction.

Auto Idle Control Switch on Control Panel.



High Capacity Fuel Tank with Fuel Gauge for **extended run time**.

Large, Silent Muffler with USDA qualified spark arrestor to **greatly reduce noise**.



	<b>TPG-2900HDX</b>	<b>TPG-4300HDX</b>
Max. / Rated Output	2900/2200 watt	4300/3300 watt
Max. / Rated Current (120V, 240V)	22.5/18.3 amp	31.7/27.5, 15.8/13.8 amp
Voltage	120 (60 HZ, 1 $\phi$ )	120/240 (60 HZ, 1 $\phi$ )
AC Outlet Receptacles	1-NEMA 5-20R Duplex (20A, 120V, W/GFCI)	2-NEMA 5-20R Duplex (20A, 120V, W/GFCI) 1-NEMA L5-30R (30A, 120V, Twist Lock) 1-NEMA L14-20R (20A, 120/240V, Twist Lock)
Engine Models	HONDA GX160K1VED2	HONDA GX240K1VED2
Max. HP	5.5 (3600 RPM)	8.0 (3600 RPM)
Displacement	163 cc (10 inch <sup>3</sup> )	242 cc (15 inch <sup>3</sup> )
Fuel Tank Capacity	2.9 gal.	4.5 gal.
Running Time (Rated load, 1/2 Load)	14.6 hrs, 22 hrs	8.5 hrs, 14.2 hrs
Starting System	Recoil	Recoil
Noise level (Rated Load)	64 dB	68 dB
Shipping Size (L x W x H) (inch)	23 1/4 x 18 x 20 1/4	25 3/4 x 20 3/4 x 22 1/2
Shipping Weight (lbs.)	115	170



	<b>TPG-6000HDX</b>	<b>TPG-7000HDXE</b>
Max. / Rated Output	6000/4700 watt	7000/5500 watt
Max. / Rated Current (120V, 240V)	45.8/39.2, 22.9/19.6 amp	54.2/45.8, 27.1/22.9 amp
Voltage	120/240 (60 HZ, 1 $\phi$ )	120/240 (60 HZ, 1 $\phi$ )
AC Outlet Receptacles	2-NEMA 5-20R Duplex (20A, 120V, W/GFCI) 1-NEMA L5-30R (30A, 120V, Twist Lock) 1-NEMA L14-20R (20A, 120/240V, Twist Lock)	
Engine Models	HONDA GX340K1ED6	HONDA GX390K1EDD2
Max. HP	11.0 (3600 RPM)	13.0 (3600 RPM)
Displacement	337 cc (21 inch <sup>3</sup> )	389 cc (24 inch <sup>3</sup> )
Fuel Tank Capacity	4.5 gal.	4.5 gal.
Running Time (Rated load, 1/2 Load)	5.7 hrs, 8.5 hrs	5.3 hrs, 8.1 hrs
Starting System	Recoil	Recoil, Electric
Noise level (Rated Load)	72 dB	78 dB
Shipping Size (L x W x H) (inch)	26 1/4 x 21 3/4 x 22 1/2	26 1/4 x 21 3/4 x 22 1/2
Shipping Weight (lbs.)	188	205

# TSURUMI PUMP Parts and Accessories



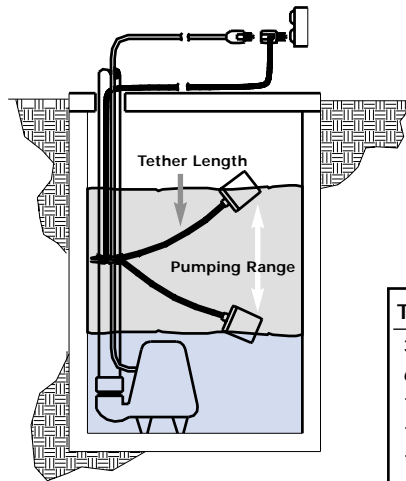
## Automatic Float Switch

TSURUMI's TS-series piggy-back float switches allow fast and easy installation of Tsurumi submersible pumps for automated operation. Simply tighten the float mounting strap to the discharge pipe, or other suitable support, and set the float tether length for the desired pumping range. (See chart below). Next, plug the pump into the float's piggy-back receptacle and plug into electrical outlet. All switches are UL Recognized and CSA Certified.



## Hoses and Connectors

A range of hose and connectors are available.



Tether Length	Pumping Range
3.5 inches	7 inches
6 inches	10 inches
10 inches	16 inches
14 inches	22 inches
18 inches	28 inches
22 inches	33 inches
24 inches	36 inches

Pump Float Switches	Maximum Pump Running Current	Maximum Pump Starting Current	Required Nema Plug Configuration	For Pump Model
TS-301	13 amps / 120 VAC, 60Hz	85 amps / 120VAC, 60Hz	5-15P	HS2.4S-62 (110V) LB-480-62 (110V)
TS-302	15 amps / 120 VAC, 60Hz	85 amps / 120VAC, 60Hz	5-15P	LB3-750 (110V)
TS-303	15 amps / 250 VAC, 60Hz	85 amps / 250VAC, 60Hz	6-15P *	LB3-750 (220V) NK2-15 (220V) NK2-22 (220V)

**Note:** Due to weight of cable, pumping range above horizontal is NOT equal to pumping range below horizontal. As tether length increases, so does the variance of the pumping range. Pumping ranges are based on testing in non-turbulent conditions. Actual conditions may vary. Use these values as a guide.



## Sand Kit

The Sand Kit can be added to the NK Series to suspend sand and prevent sand lock.



## Residue Kit

Available for the HS2.4S-62, the Residue Kit allows pumping of residual water down to 0.4 inches.



## Control Panels



### MANUAL CONTROL PANEL INCLUDES:

- Manual Simplex Operation.
- Nema 4X, Lockable Fiberglass Enclosure.
- IEC Contactor.
- Hand/Off Selector Switch.
- UL Listed.
- Cable Grips In Control Panel.

### AUTOMATIC CONTROL PANEL INCLUDES:

- Automatic or Manual Simplex Operation.
- Nema 4X, Lockable Fiberglass Enclosure.
- IEC Rated Magnetic Contactor.
- Hand/Off Auto Selector Switch.
- UL Listed.
- Includes (3) 20 Ft. Mechanical Float Switches.
- Cable Grips In Control Panel.

**Inverter Panels are available for LHW and KTZ series Single Phase operation.**

**Update:** TPG SERIES Generators for heavy duty construction use

See page 28 for information on the TPG Series.



New Control Panel



Breaker Switch

**New:** TPG2 SERIES Generators with DC Outlet and Volt Meter

SPECIFICATION

	TPG2-5500HSP	TPG2-6800HSP
Max. / Rated Output	5500 / 4800 watt	6800 / 6000 watt
Max. / Rated Current	43.3/38.3, 21.7/19.2 amp	56.7/50.0, 28.3/25.0 amp
Voltage	120/240V 60Hz	120/240V 60Hz
AC Outlet Receptacles	1-NEMA 5-20R Duplex (20A, 120V) 1-NEMA L5-30R (30A, 120V, Twist Lock) 1-NEMA L14-20R (20A, 120/240V, Twist Lock)	
Engine Models	Honda GX340K1EDS2	Honda GX390K1EDS2
Max. HP	11.0 (3600 rpm)	13.0 (3600 rpm)
Displacement	337 cc (21 inch <sup>3</sup> )	389 cc (24 inch <sup>3</sup> )
Fuel Tank Capacity	4.5 gal.	4.5 gal.
Running Time	5.8 hrs	5.2 hrs
Starting System	Recoil & Electric	Recoil & Electric
Noise level	74 dB	76 dB
Shipping Size (LxWxH)	26.2 x 20.1 x 19.9	27.0 x 20.1 x 19.9
Shipping Weight	183 lbs	192 lbs



For Sales, Service, and Specifications,  
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