



**HS - 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.

HSZ : Provides automatic operation by utilizing a simple float switch.

HSD : Compact single phase pump fit for use in slurry dewatering in foundation works.

**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.



**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 - 3 "NPT (50 - 80 mm)
- 1/2 - 1HP. (0.40 - 0.75kW)
- 13.2 - 61.0 GPM. (0.05 - 0.23 m<sup>3</sup>/min)
- 13.1 Ft. - 62.0 Ft. (4.0 - 18.9 m)
- 104° F. (40° C.)
- Cast Iron , Ductile Cast Iron(HSD)
- Urethane Rubber , High Chrome Cast Iron(HSD)
- 403 Stainless Steel
- Aluminum alloy
- 304 Stainless Steel
- Silicon Carbide
- NBR (Nitrile Butadiene Rubber)
- Semi-vortex, solids handling
- 0.276 - 0.393" (7.0 - 10.0mm)
- Prelubricated, Double Shielded
- Air Filled, 3600 RPM, 60 Hz.
- 115 / 230V., 1 Phase
- Class E
- Submersible Power Cable
- 20 - 32' (6.2 - 10m)
- Manual , Automatic(HSZ)

**OPTIONS**

- Length as Required,
- TS-301 Float Switch

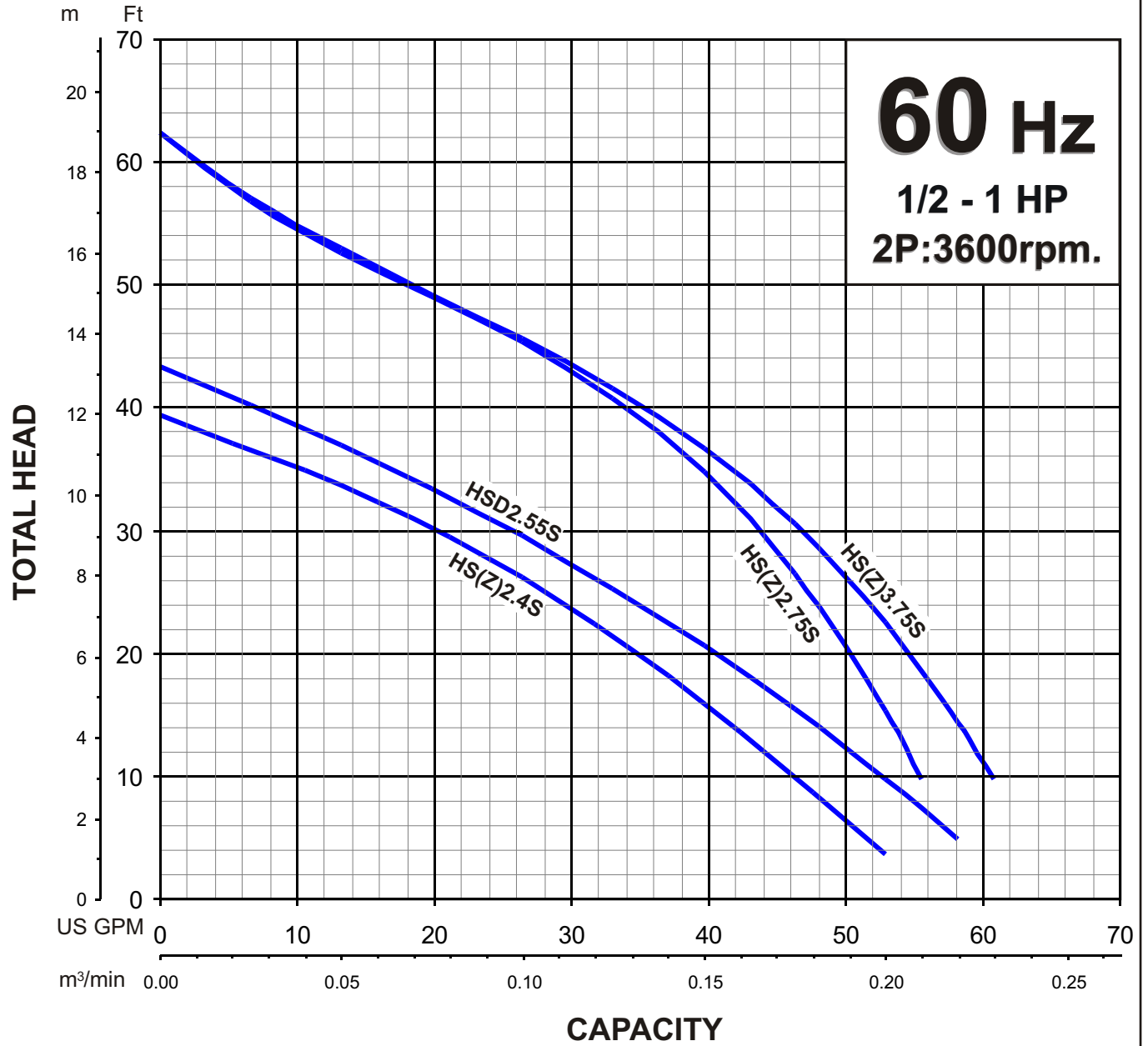


**TSURUMI PUMP**

**HS - SERIES**  
**SEMI-VORTEX - WASTEWATER & DEWATERING PUMP**

**PERFORMANCE**  
**RANGE**

**GROUP PERFORMANCE RANGE**

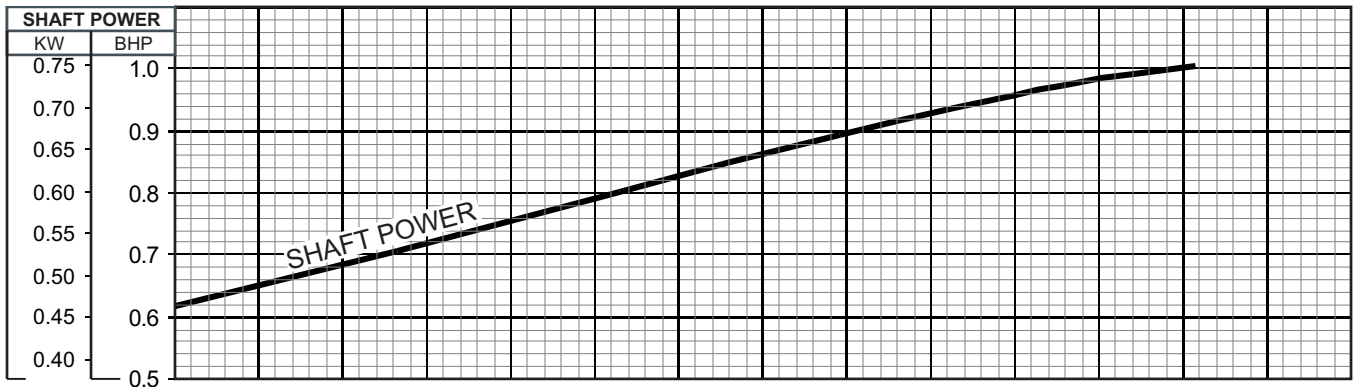
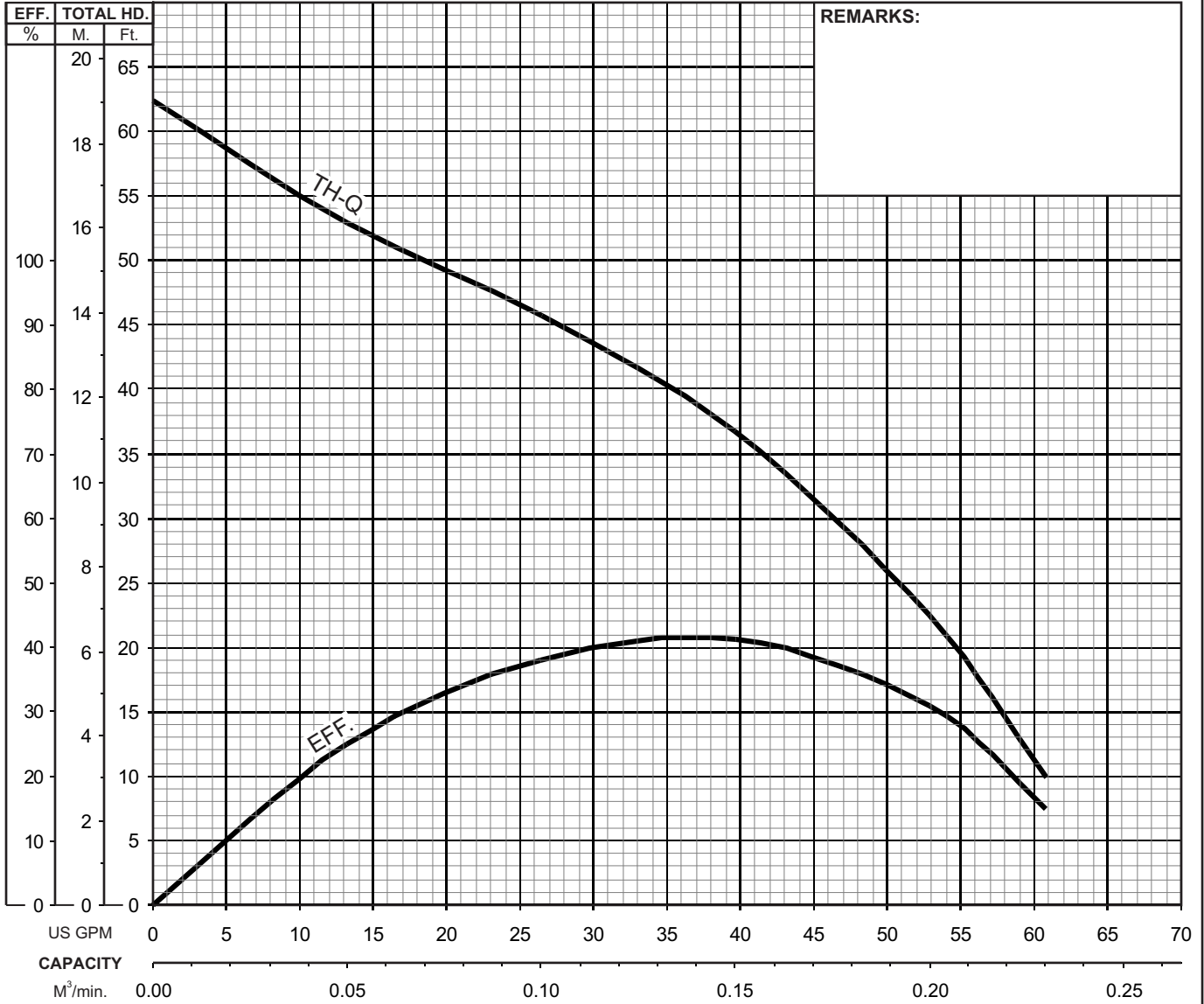




## HS - SERIES SEMI-VORTEX - WASTEWATER PUMP

## PERFORMANCE CURVE

MODEL		BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
HS(Z)3.75S-62		3" / 80mm	1	0.75	3411	0.28" / 7mm	Water	1.0	1.123 cSt.	60°F
PUMP TYPE		PHASE	VOLTAGE		AMPERAGE		HZ	STARTING METHOD		INS. CLASS
Semi-Vortex - Wastewater Pump		Single	110/115, 220/230		10.0 / 9.7 , 5.1 / 4.9		60	Capacitor Start		E
CURVE No.	DATE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS			
-	-	-	-	-	-	-	-			

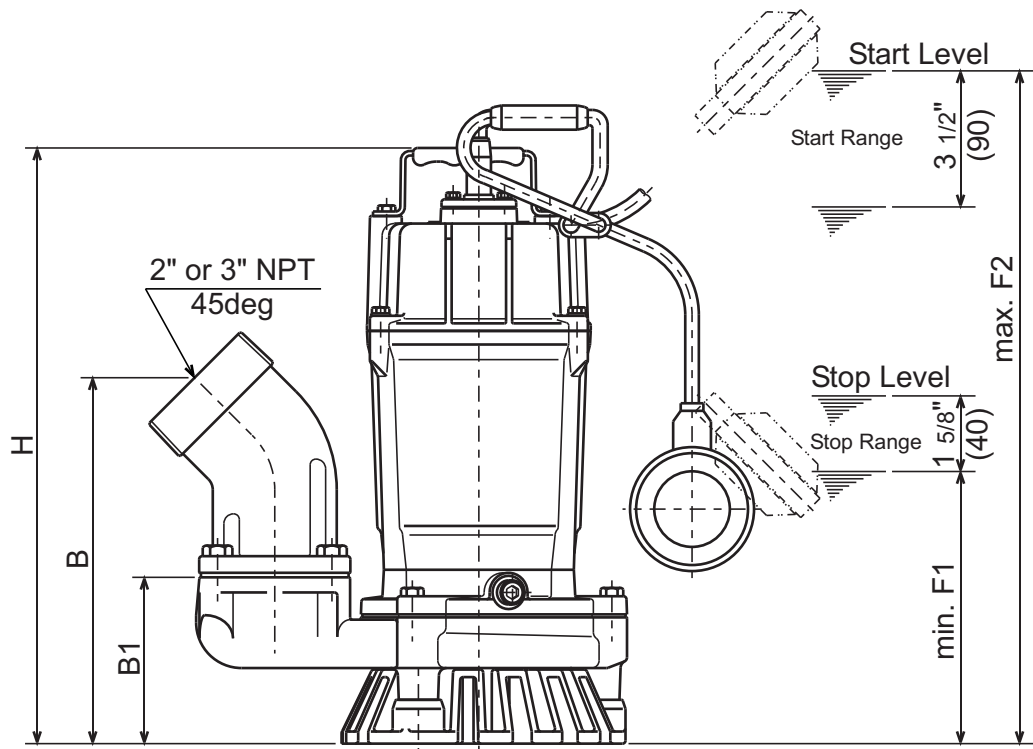
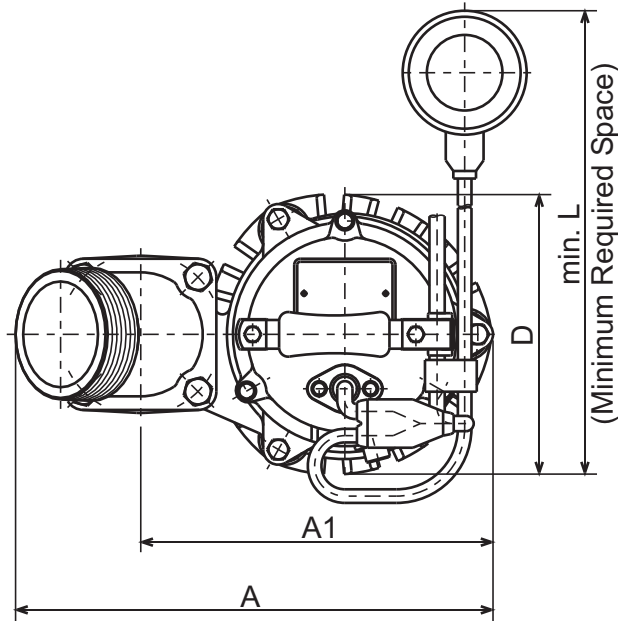




**HS - SERIES**  
SEMI-VORTEX - WASTEWATER PUMP (AUTO-TYPE)

**DIMENSIONS**

**HSZ2.75S-62**  
**HSZ3.75S-62**



**DIMENSIONS:USCS (Inch)**

Model	HP	NOM. SIZE	Pump & Motor						Space min. L	Stop min. F1	Start max. F2	Wt. (lbs.)
			A	A1	B	B1	D	H				
HSZ2.75S-62	1	2"	11 7/16	9 3/16	8 5/8	4 5/16	7 5/16	15 5/16	13 1/2	7 1/8	17 1/2	42
HSZ3.75S-62	1	3"	12 7/16	9 3/16	9 1/2	4 5/16	7 5/16	15 5/16	13 1/2	7 1/8	17 1/2	43

**DIMENSIONS:METRIC (mm)**

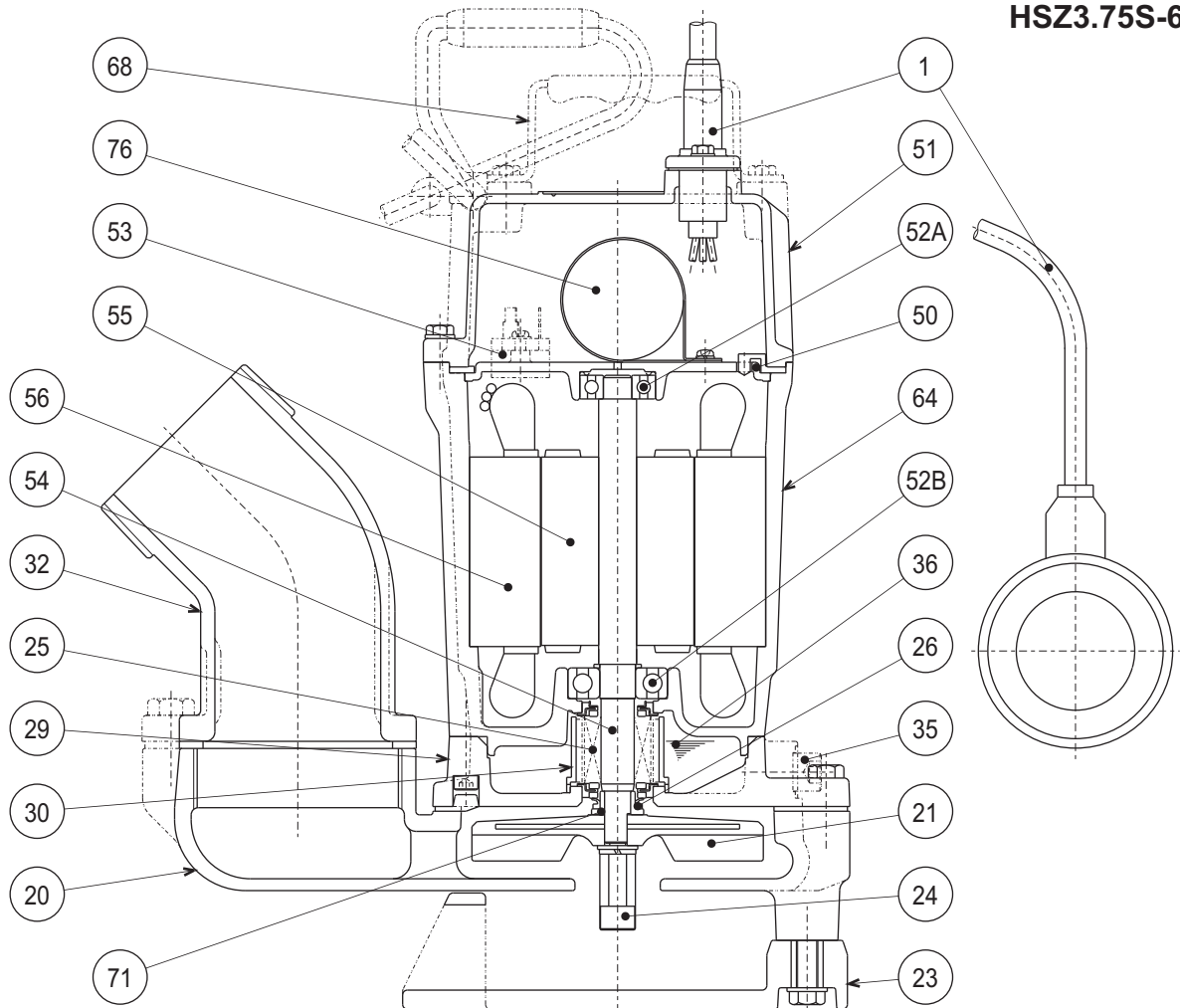
Model	kW	NOM. SIZE	Pump & Motor						Space min. L	Stop min. F1	Start max. F2	Wt. (kg)
			A	A1	B	B1	D	H				
HSZ2.75S-62	0.75	50	290	233	220	110	185	389	340	180	445	19.0
HSZ3.75S-62	0.75	80	317	233	242	110	185	389	340	180	445	19.6



**HS - SERIES**  
**SEMI-VORTEX - WASTEWATER PUMP (AUTO-TYPE)**

**SECTIONAL VIEW**

**HSZ2.75S-62**  
**HSZ3.75S-62**



ITEM#	DESCRIPTION	MAIN MATERIAL / NOTE	RELATED ASTM, AISI CODE	RELATED EN CODE	Q'TY
1	Power Cable w/ Float Set	PVC Sheath AWG14/3-32ft w/ PP Resin + Chloroprene Sheath Cable			1
20	Pump Casing	Ductile Cast Iron	A536 65-45-12	EN 1563 GJS-450-10	1
21	Impeller	Urethane Rubber			1
23	Suction Strainer	PVC			1
24	Agitator	Steel	A283 Grade D	EN 10025 S275	1
25	Mechanical Seal	Silicon Carbide / W-14VL			1
26	V-Ring	Nitrile Butadiene Rubber			1
29	Oil Casing	Ductile Cast Iron	A536 65-45-12	EN 1563 GJS-450-10	1
30	Oil Lifter	PBT Resin			1
32	Discharge Connection	Cast Iron / NPT 2" or 3"	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			1
50	Motor Bracket	Aluminum Alloy Die Casting	B85 383.0	EN 1706 AC-46100	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	#6302ZZC3			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
68	Handle	Steel (Hot Rolled) + NR Rubber	A1011	EN 10111	1
71	Shaft Sleeve	Stainless Steel	S 30400	1.4301	1
76	Capacitor				1