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## Pumps

- Submersible Sewage Pump
- Submersible Dewatering Pump
- Submersible Slurry Pump

 LEO GROUP PUMP(ZHEJIANG) CO.,LTD. (Stock code: 002131)

2017 vi.0

No.1, 3rd Street, East Industry Center, Wenling, Zhejiang, China, 317500  
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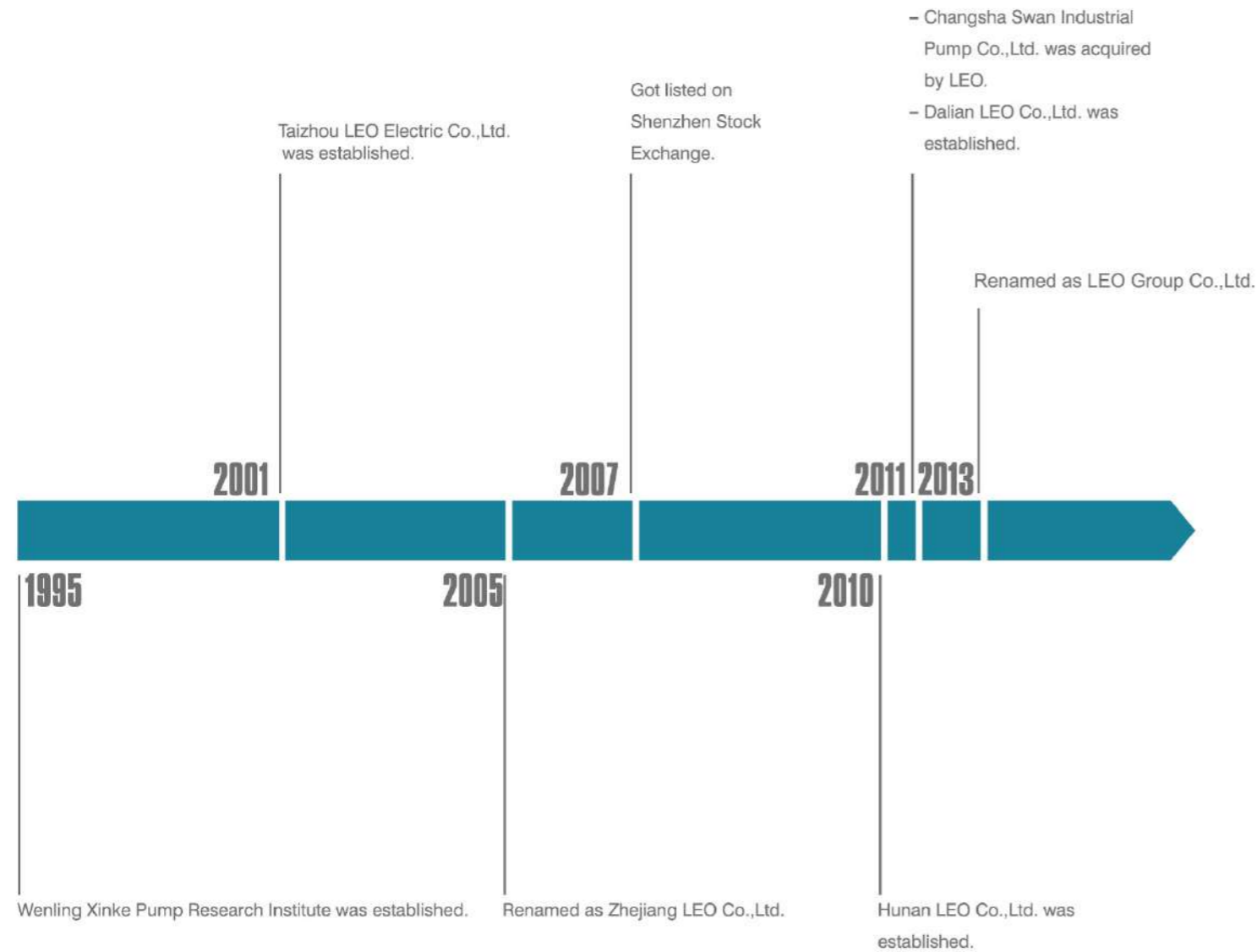
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LEO GROUP PUMP(ZHEJIANG) CO.,LTD.



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## HISTORY



## TO KNOW LEO

LEO Group ( got listed in Shenzhen Stock Exchange with stock code 002131) is a national high-tech enterprise engaged in R&D, design , manufacture, sales and service of all series pump. LEO is the first listed company in Chinese pump industry, one of the drafters of pump industry standard and the vice president of drainage and irrigation machinery branch of China Agricultural machinery industry association as well. It is mentionable that LEO has the only state-authorized technical center in this industry.

Our products have been sold to over 120 countries and regions, such as Europe, North America, Central &South America, Southeast Asia, Middle East, Africa, Oceania ,etc., which play a crucial role in water conservancy , water resources, electric power construction, petrochemical industry, mining, metallurgy, fire-fighting, HVAC(Heating, Ventilation and Air Conditioning), agricultural irrigation, civil water supply and drainage, etc.

LEO has currently two industrial groups respectively for industrial and civilian applications. With five manufacturing bases in Wenling of Zhejiang, Xiangtan of Hunan, Changsha of Hunan, Wuxi of Jiangsu and Dalian of Liaoning, LEO possesses a solid foundation to become a world-class pump and system solution provider rapidly.

With over 70 years' professional technology, LEO will continue her consistent creativity and development ability in each pump for human's health.



## NUMEROUS MEMBERS, ONE FAMILY

Based on market segment, LEO's pump business is divided into 5 fields, namely water conservancy & water resources, power station, petrochemical industry, mining & metallurgical industry and civilian applications. For each field there's a professional manufacturing base with relevant professional sales teams. Four subsidiary companies – Wuxi LEO Xi Pump, Changsha LEO Swan Pump, Dalian LEO Huaneng Pump and Hunan LEO Pump are all well-known industrial pump manufacturers in their own fields. With over 70 years' industrial pump manufacturing experience and extraordinary comprehensive strength, LEO becomes a leading company among all industrial pump manufacturers in China.



### Pump Manufacturing Base for Domestic and Commercial Applications (Wenling City, Zhejiang Province)

It is the core base for R&D, manufacturing, sales and service of domestic and commercial pumps for family water supply, pipeline boosting, garden and field irrigation, HVAC, etc.

The leading products include peripheral pump, jet pump, centrifugal pump, garden submersible pump, fountain pump, pool pump, domestic lifting station, gasoline engine pump, diesel engine pump, submersible pump, submersible borehole pump, submersible sewage pump, stainless steel vertical multistage pump, etc.

The product range covers 15 series with over 2,000 specifications, which are well sold in more than 120 countries and regions. The base has established steady cooperative relationships with world-class pump manufacturers, importers, dealers and hypermarkets.



### Pump Manufacturing Base for General Industrial Pumps (Xiangtan City, Hunan Province)

It is the most important base for industrial pumps.

The products are mainly used in mine, metallurgy, coal washing, FGD, municipal water, etc.

A world-class pump testing center with testing power up to 12,500 kW realizes high precision tests for real pumps which are used for power station, water conservancy and water resources, petrochemical industry, mining and metallurgical industry.



### Pump Manufacturing Base for Water Conservancy & Water Resources (Wuxi City, Jiangsu Province)

This base grew out of Wuxi Xi Pump Manufacturing Co., Ltd, a well-known manufacturer for water conservancy.

The base is specialized in production of large and medium-sized pumps for urban water supply and drainage, field irrigation, water conservancy projects and large water diversion projects. The main products cover 8 series with 995 specifications.

With great honor, the model 300HW-8 mixed-flow pump won the first national quality award of Chinese pump industry. As a main supplier, the base provides large pumps for South-to-North Water Diversion Project, a national key project.



### Pump Manufacturing Base for Petrochemical Industry (Dalian City, Liaoning Province)

The predecessor of this base is Dalian Huaneng Corrosion-Resistant Pump Works, who's a well-known pump manufacturer in petrochemical industry.

The base is specialized in production of petrochemical pumps for the upstream industry of oil and gas (including exploration, exploitation and storage) and downstream industry of petrochemicals (including crude oil refinery, heavy chemical industry, fine chemistry and coal chemical industry).

The base focuses on design and manufacture of 30 series (OH, BB, VS, etc.) of petrochemical pumps with over 3,000 specifications, which are in accordance with API and ISO standard. The production of large crude oil long distance pipeline pump (BB1 and BB2) and HTHP overloaded pump (BB3 and BB4) is available. LNG cryo-pump is already in development.

The base is Class A supplier of CNPC and qualified sub supplier of Shenhua Group.



Impeller

### Applications

- Drainage of wastewater from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Drainage of waste water containing fibrous additives from leather factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage form hotels, restaurants, schools and public buildings

### Features

- High efficient and anti-clogging Enclosed Channel impeller design
- Flexible installations with hoses, pipes or quick-coupling systems
- Flow switch included for single phase pump with motor power  $\leq 1.1$  kW

### Working Conditions

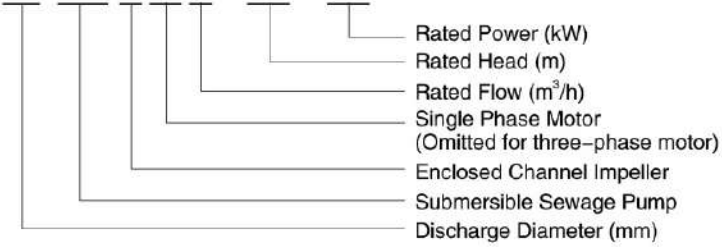
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

### Motor

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

### Identification Codes

**50 SW E m 8 - 16 - 1.1**

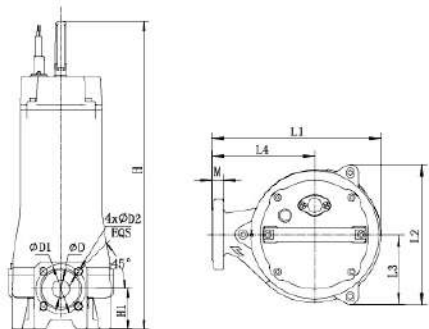


( Hose coupling as standard.  
Flange elbow is available on request. )

### Technical Data

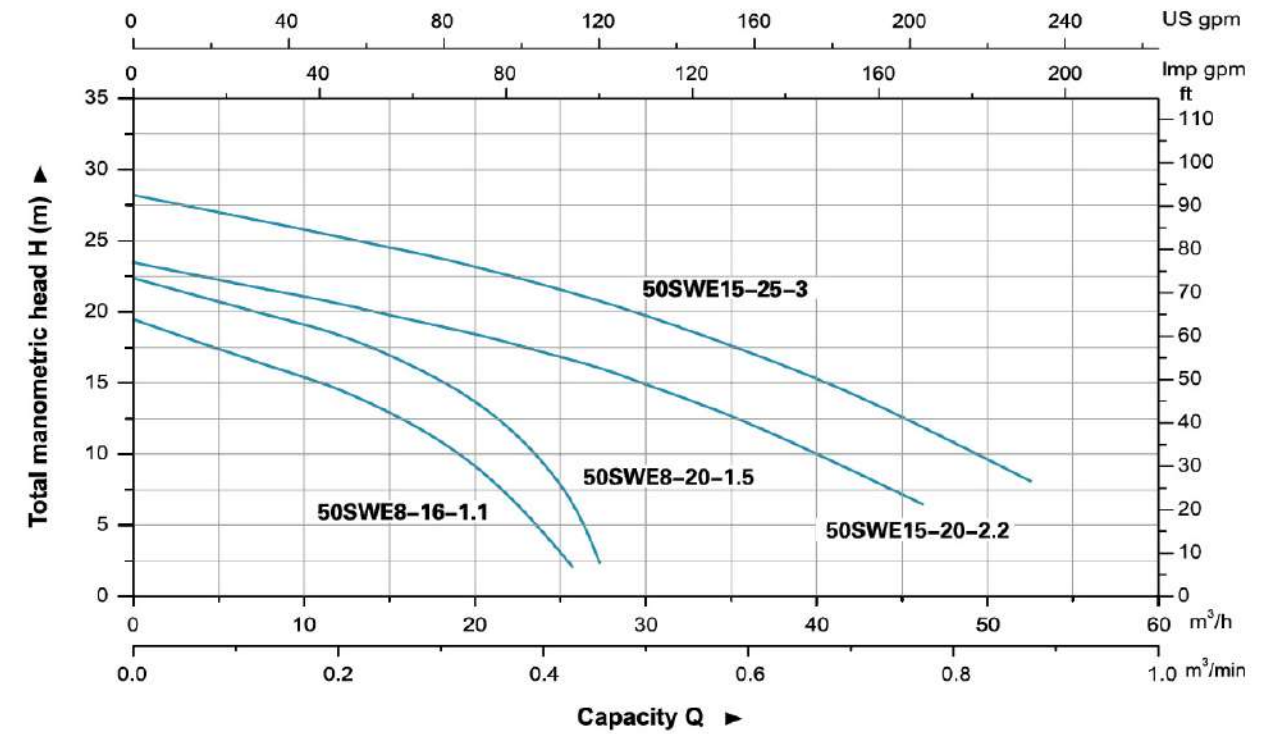
Model		Power		Discharge mm (inch)	Rated Flow (m <sup>3</sup> /h)	Rated Head (m)	Solid Passage (mm)
Single Phase	Three Phase	kW	HP				
50SWEm8-16-1.1	50SWE8-16-1.1	1.1	1.5	50 (2")	8	16	15
50SWEm8-20-1.5	50SWE8-20-1.5	1.5	2	50 (2")	8	20	15
50SWEm15-20-2.2	50SWE15-20-2.2	2.2	3	50 (2")	15	20	25
-	50SWE15-25-3	3	4	50 (2")	15	26	25

### Dimension



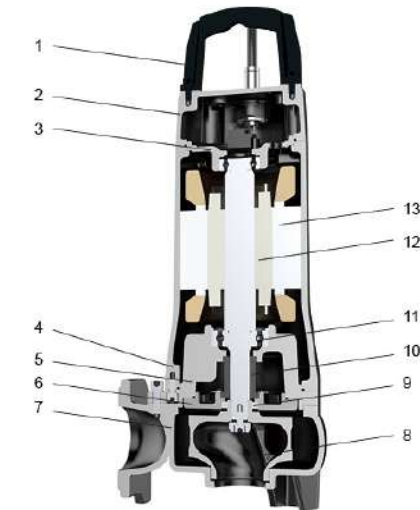
Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
50SWE8-16-1.1	223	191	96	135	559	88	50	110	14	16
50SWEm8-16-1.1					586					
50SWE8-20-1.5					627					
50SWEm8-20-1.5					627					
50SWE15-20-2.2	270	223	113	163	570	75	50	110	14	16
50SWEm15-20-2.2					611					
50SWE15-25-3					559					

### Hydraulic Performance Curves



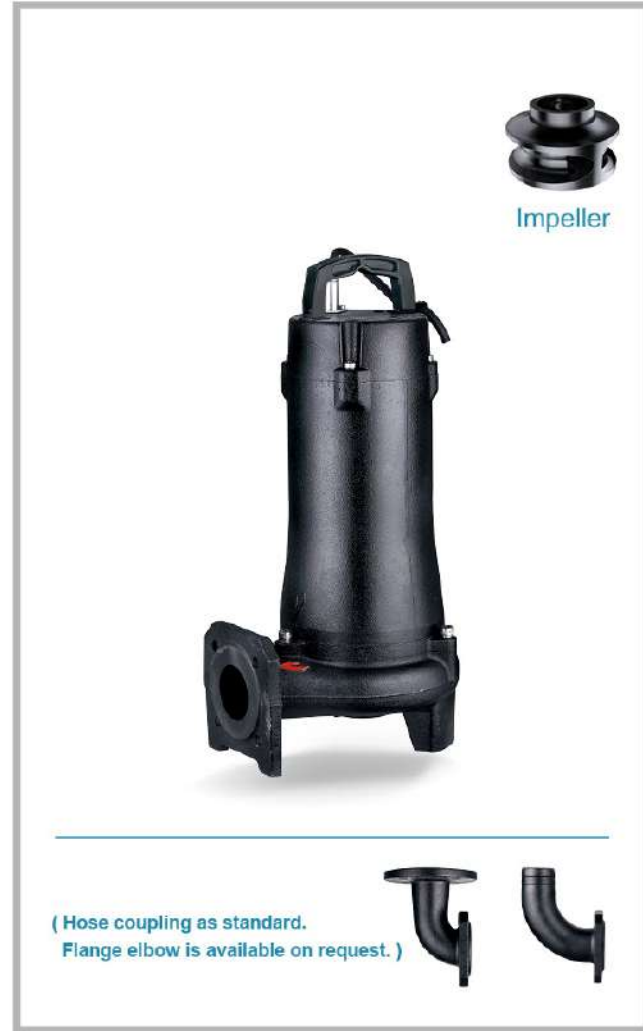
### Materials Table

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Oil seal	
10	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
11	Bearing	
12	Rotor	
13	Stator	



### Package Information

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20' TEU)
50SWE8-16-1.1	39.3	750	290	368	372
50SWEm8-16-1.1	42.5	750	290	368	372
50SWE8-20-1.5	50.5	848	358	311	294
50SWEm8-20-1.5	53	848	358	311	294
50SWE15-20-2.2	56	848	358	311	294
50SWEm15-20-2.2	57	848	358	311	294
50SWE15-25-3	62	848	358	311	294



Impeller

(Hose coupling as standard.  
Flange elbow is available on request.)

### Applications

- Drainage of wastewater from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Drainage of waste water containing fibrous additives from leather factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage form hotels, restaurants, schools and public buildings

### Features

- High efficient and anti-clogging Enclosed Channel impeller design
- Flexible installations with hoses, pipes or quick-coupling systems
- Flow switch included for single phase pump with motor power ≤ 1.1 kW

### Working Conditions

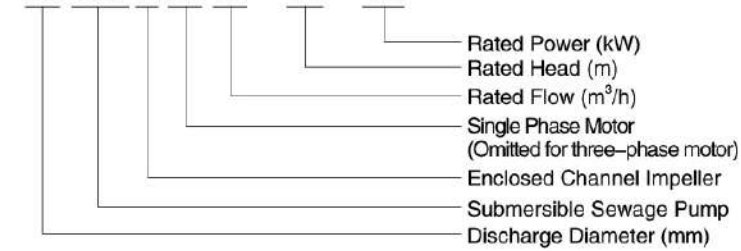
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

### Motor

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

### Identification Codes

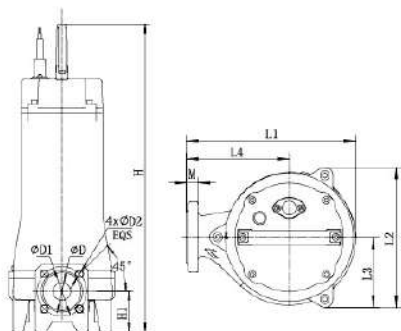
**65 SW E m 15 - 10 - 1.1**



### Technical Data

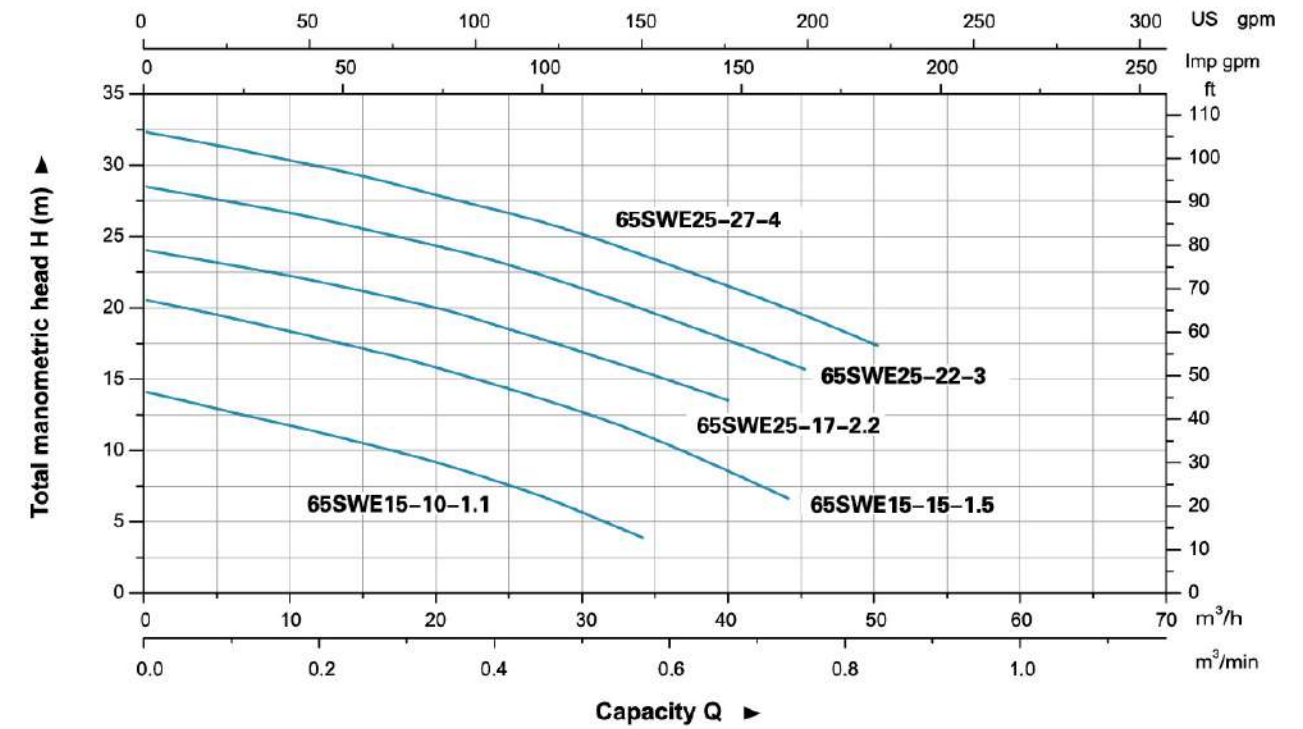
Model		Power		Discharge mm (inch)	Rated Flow (m <sup>3</sup> /h)	Rated Head (m)	Solid Passage (mm)
Single Phase	Three Phase	kW	HP				
65SWE15-10-1.1	65SWE15-10-1.1	1.1	1.5	65 (2.5")	15	10	25
65SWE15-15-1.5	65SWE15-15-1.5	1.5	2	65 (2.5")	15	15	25
-	65SWE25-17-2.2	2.2	3	65 (2.5")	25	17	25
-	65SWE25-22-3	3	4	65 (2.5")	25	22	25
-	65SWE25-27-4	4	5.5	65 (2.5")	25	28	25

### Dimension



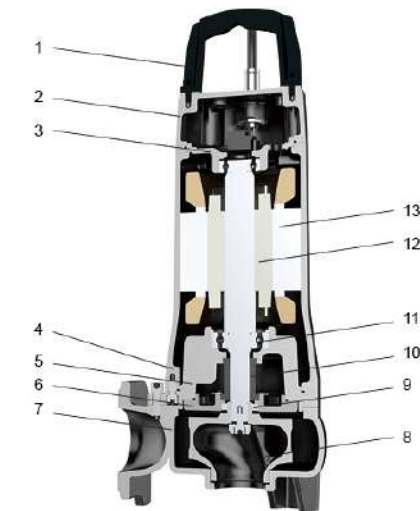
Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
65SWE15-10-1.1					557					
65SWE15-15-1.5					581					
65SWE15-15-1.5	291	226	117	178	622	85	65	130	14	16
65SWE25-17-2.2					581					
65SWE25-22-3					610					
65SWE25-27-4					610					

### Hydraulic Performance Curves



### Materials Table

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Oil seal	
10	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
11	Bearing	
12	Rotor	
13	Stator	



### Package Information

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20'TEU)
65SWE15-10-1.1	46	750	290	368	372
65SWE15-10-1.1	48	750	290	368	372
65SWE15-15-1.5	57	848	290	368	372
65SWE15-15-1.5	60	848	290	368	372
65SWE25-17-2.2	61	848	358	311	294
65SWE25-22-3	67	848	358	311	294
65SWE25-27-4	68	848	358	311	294



Impeller

( Hose coupling as standard.  
Flange elbow is available on request. )

**Applications**

- Drainage of wastewater from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Drainage of waste water containing fibrous additives from leather factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage form hotels, restaurants, schools and public buildings

**Features**

- High efficient and anti-clogging Enclosed Channel impeller design
- Flexible installations with hoses, pipes or quick-coupling systems

**Working Conditions**

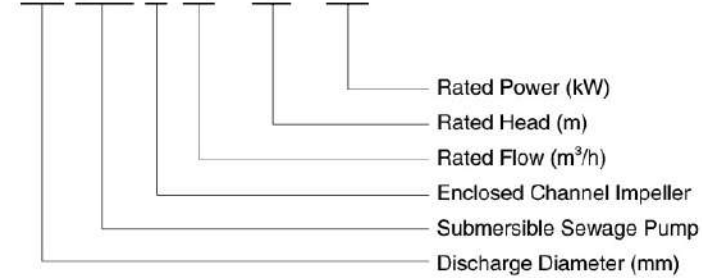
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

**Motor**

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

**Identification Codes**

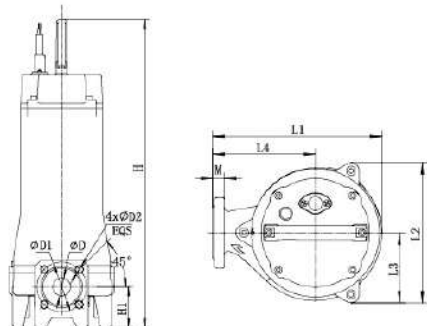
**80 SW E 40 - 9 - 2.2**



**Technical Data**

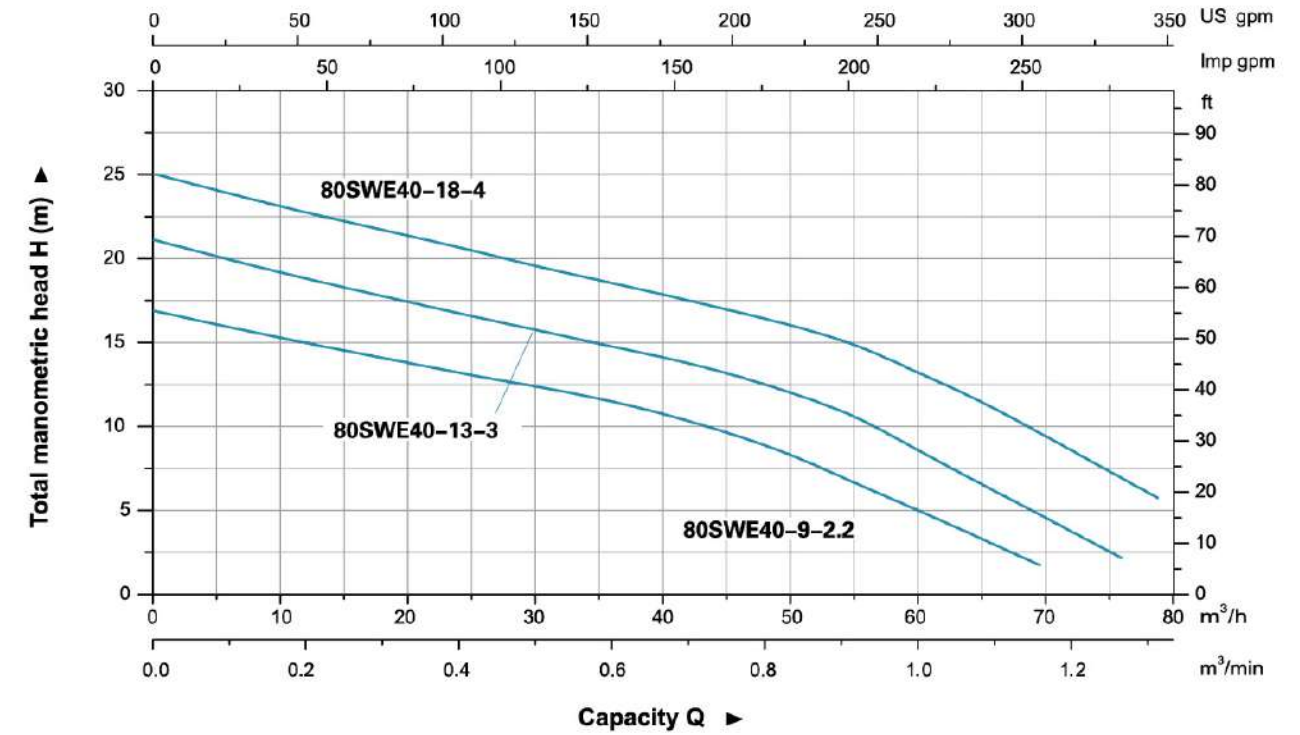
Model	Power		Discharge mm (inch)	Rated Flow (m³/h)	Rated Head (m)	Solid Passage (mm)
	kW	HP				
80SWE40-9-2.2	2.2	3	80 (3")	40	9	30
80SWE40-13-3	3	4	80 (3")	40	13	30
80SWE40-18-4	4	5.5	80 (3")	40	18	30

**Dimension**



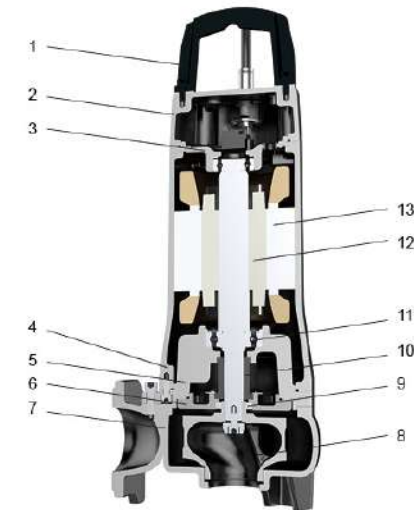
Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
80SWE40-9-2.2	266	224	113	160	594	86	80	150	18	18
80SWE40-13-3	266	224	113	160	620	86	80	150	18	18
80SWE40-18-4	266	224	113	160	620	86	80	150	18	18

**Hydraulic Performance Curves**



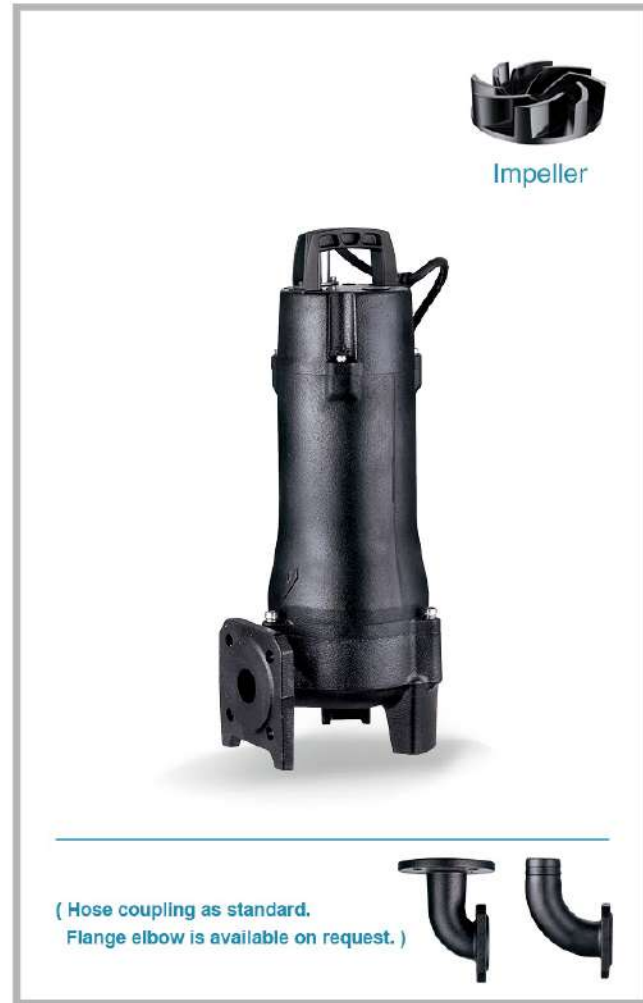
**Materials Table**

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Oil seal	
10	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
11	Bearing	
12	Rotor	
13	Stator	



**Package Information**

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20'TEU)
80SWE40-9-2.2	70	848	358	311	294
80SWE40-13-3	68.5	848	358	311	294
80SWE40-18-4	62	848	358	311	294



**Applications**

- Drainage of wastewater from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Drainage of waste water containing fibrous additives from leather factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage form hotels, restaurants, schools and public buildings

**Features**

- Semi-open Vortex Impeller design, suitable for transfer of liquid containing impurities and long fiber substance
- Flexible installations with hoses, pipes or quick-coupling systems
- Flow switch included for single phase pump with motor power ≤ 1.1 kW

**Working Conditions**

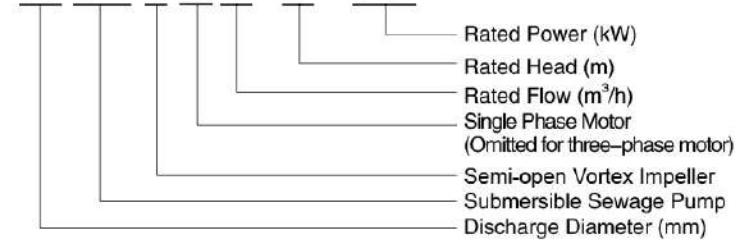
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

**Motor**

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

**Identification Codes**

**50 SW U m 9 - 6 - 0.37**

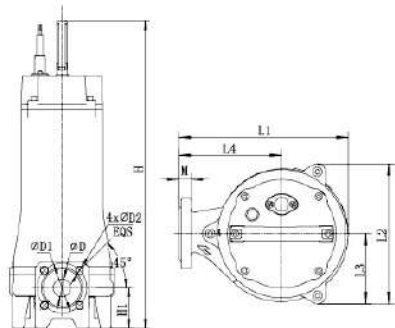


( Hose coupling as standard.  
Flange elbow is available on request. )

**Technical Data**

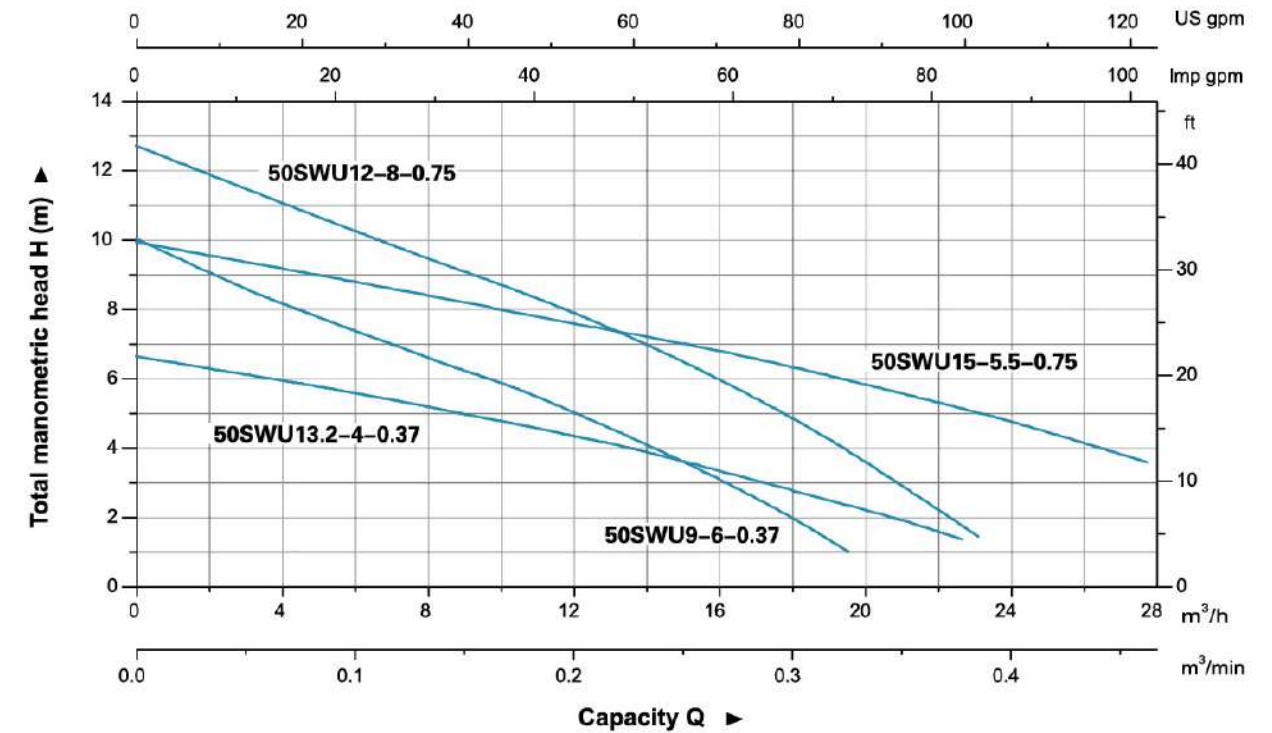
Model		Power		Discharge mm (inch)	Rated Flow (m³/h)	Rated Head (m)	Solid Passage (mm)
Single Phase	Three Phase	kW	HP				
50SWUm9-6-0.37	50SWU9-6-0.37	0.37	0.5	50 (2")	9	6	35
50SWUm13.2-4-0.37	50SWU13.2-4-0.37	0.37	0.5	50 (2")	13.2	4	50
50SWUm12-8-0.75	50SWU12-8-0.75	0.75	1	50 (2")	12	8	35
50SWUm15-5.5-0.75	50SWU15-5.5-0.75	0.75	1	50 (2")	15	5.5	50

**Dimension**



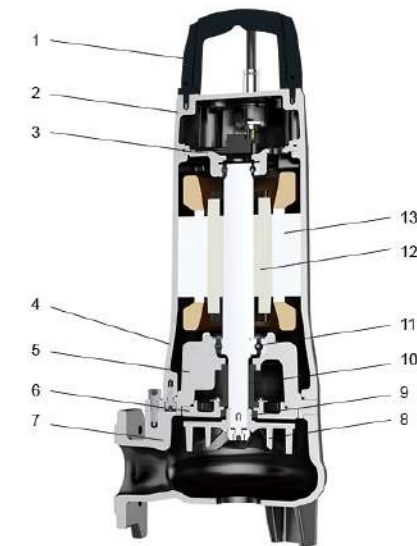
Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
50SWU9-6-0.37	203	178	89	121	560	75	50	110	14	16
50SWUm9-6-0.37										
50SWU13.2-4-0.37					575	80				
50SWUm13.2-4-0.37										
50SWU12-8-0.75					560	75				
50SWUm12-8-0.75										
50SWU15-5.5-0.75					575	80				
50SWUm15-5.5-0.75										

**Hydraulic Performance Curves**



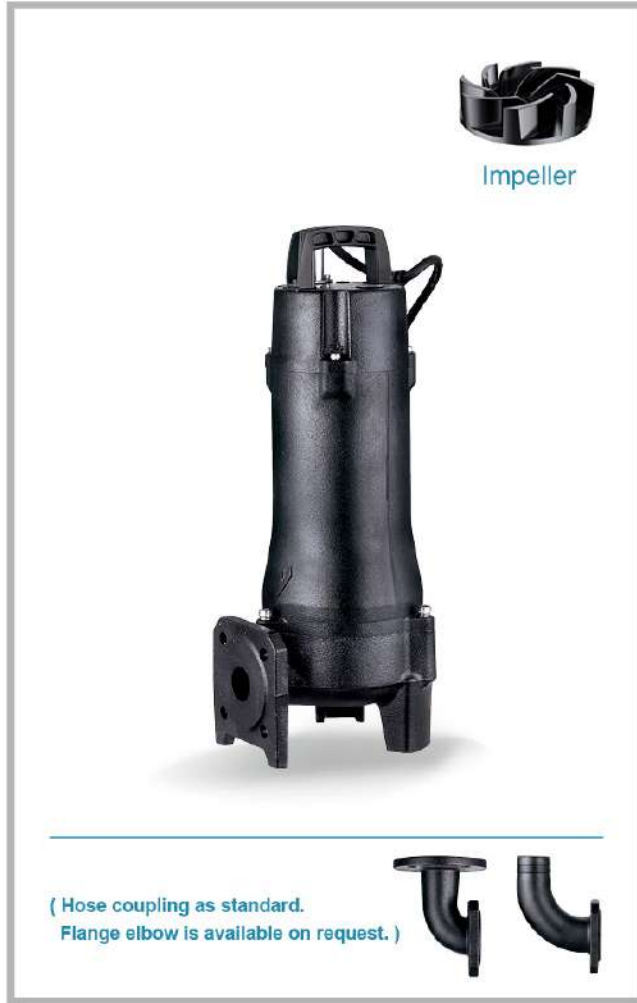
**Materials Table**

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Oil seal	
10	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
11	Bearing	
12	Rotor	
13	Stator	



**Package Information**

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20 TEU)
50SWU9-6-0.37	36	750	290	368	372
50SWUm9-6-0.37	37	750	290	368	372
50SWU13.2-4-0.37	36	750	290	368	372
50SWUm13.2-4-0.37	37	750	290	368	372
50SWU12-8-0.75	38	750	290	368	372
50SWUm12-8-0.75	39	750	290	368	372
50SWU15-5.5-0.75	38	750	290	368	372
50SWUm15-5.5-0.75	39	750	290	368	372



**Applications**

- Drainage of wastewater from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Drainage of waste water containing fibrous additives from leather factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage form hotels, restaurants, schools and public buildings

**Features**

- Semi-open Vortex Impeller design, suitable for transfer of liquid containing impurities and long fiber substance
- Flexible installations with hoses, pipes or quick-coupling systems

**Working Conditions**

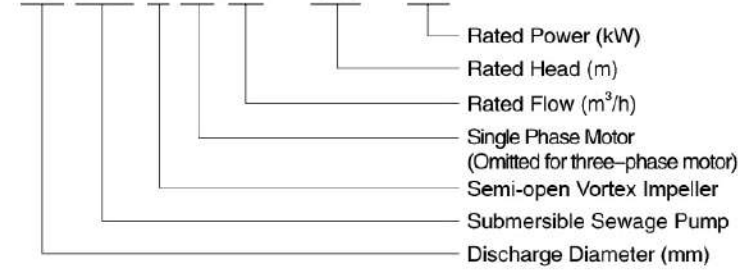
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

**Motor**

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

**Identification Codes**

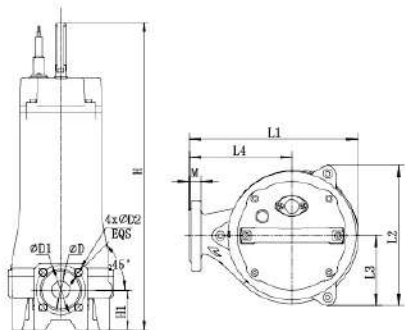
**65 SW U m 24 - 8.5 - 1.5**



( Hose coupling as standard.  
Flange elbow is available on request. )

**Technical Data**

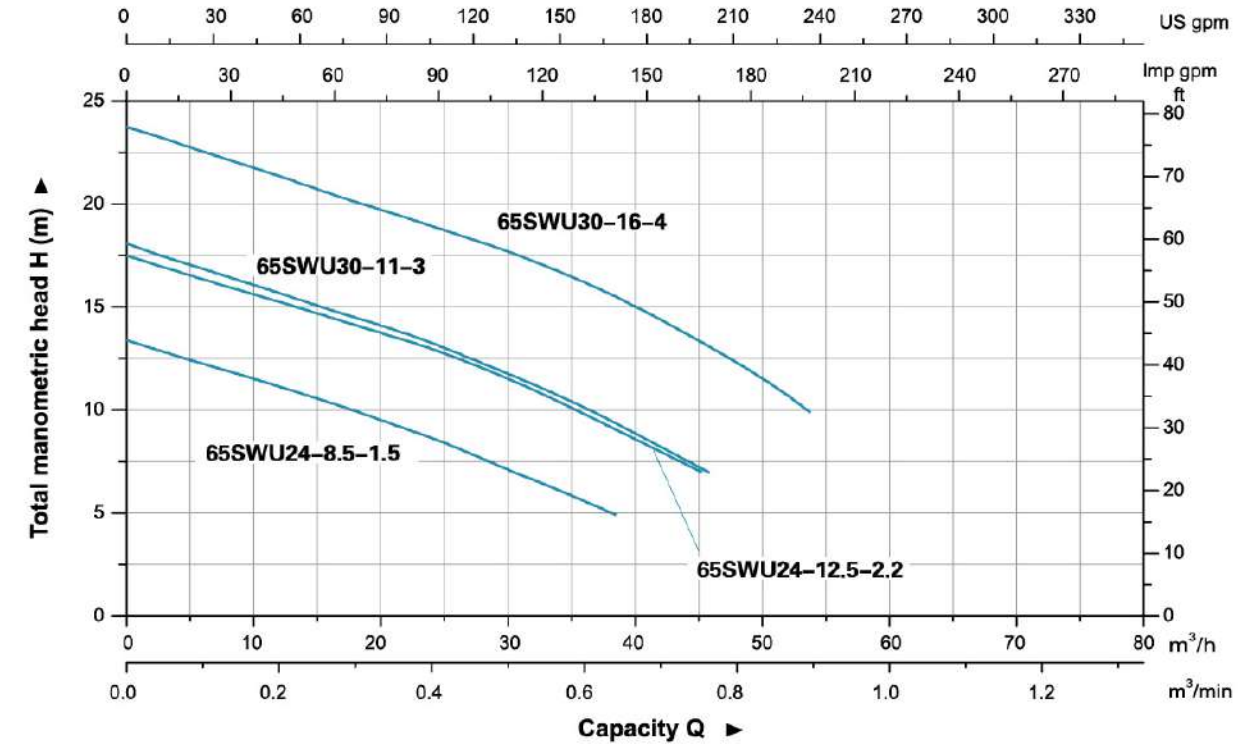
Model		Power		Discharge mm (inch)	Rated Flow (m³/h)	Rated Head (m)	Solid Passage (mm)
Single Phase	Three Phase	kW	HP				
65SWUm24-8.5-1.5	65SWU24-8.5-1.5	1.5	2	65 (2.5")	24	8.5	50
65SWUm24-12.5-2.2	65SWU24-12.5-2.2	2.2	3	65 (2.5")	24	12.5	50
-	65SWU30-11-3	3	4	65 (2.5")	30	11	55
-	65SWU30-16-4	4	5.5	65 (2.5")	30	16	55



**Dimension**

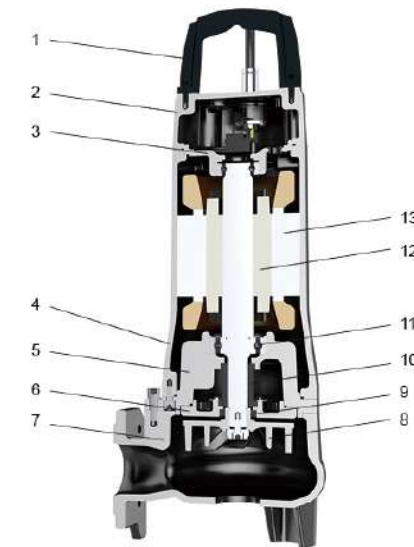
Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
65SWU24-8.5-1.5	268	219	111	161	626	93	65	130	14	16
65SWU24-8.5-1.5					667					
65SWU24-12.5-2.2					626					
65SWU24-12.5-2.2					667					
65SWU30-11-3	260	218	118	149	806	122	80	150	18	18
65SWU30-16-4										

**Hydraulic Performance Curves**



**Materials Table**

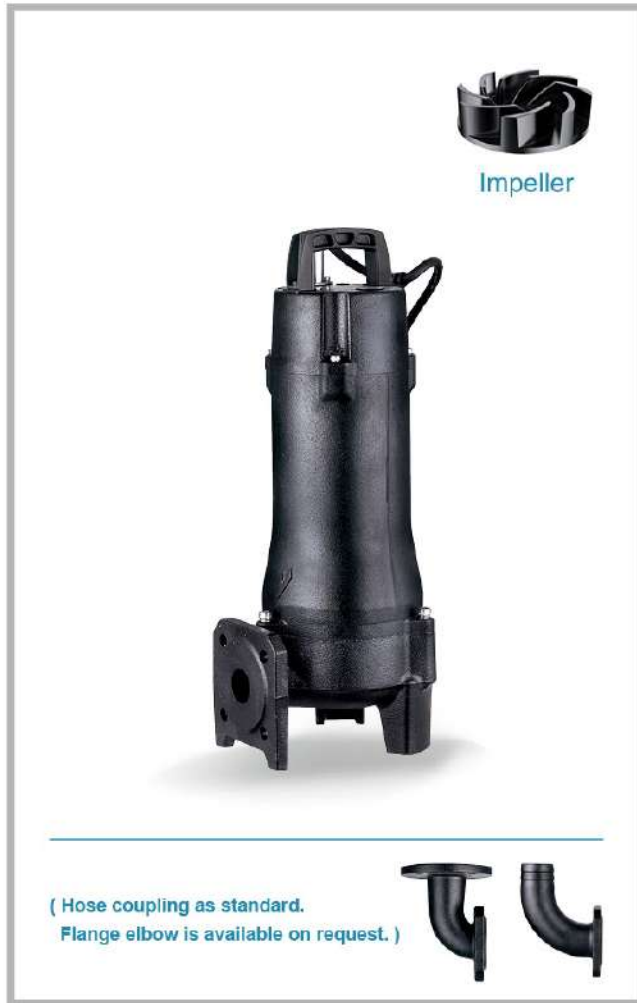
No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Oil seal	
10	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
11	Bearing	
12	Rotor	
13	Stator	



**Package Information**

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20'TEU)
65SWU24-8.5-1.5	58	848	358	311	294
65SWU24-8.5-1.5	60	848	358	311	294
65SWU24-12.5-2.2	60	848	358	311	294
65SWU24-12.5-2.2	62	918	338	306	294
65SWU30-11-3	68	848	358	311	294
65SWU30-16-4	69	918	338	306	294





Impeller

( Hose coupling as standard.  
Flange elbow is available on request. )



### Applications

- Drainage of wastewater from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Drainage of waste water containing fibrous additives from leather factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage form hotels, restaurants, schools and public buildings

### Features

- Semi-open Vortex Impeller design, suitable for transfer of liquid containing impurities and long fiber substance
- Flexible installations with hoses, pipes or quick-coupling systems

### Working Conditions

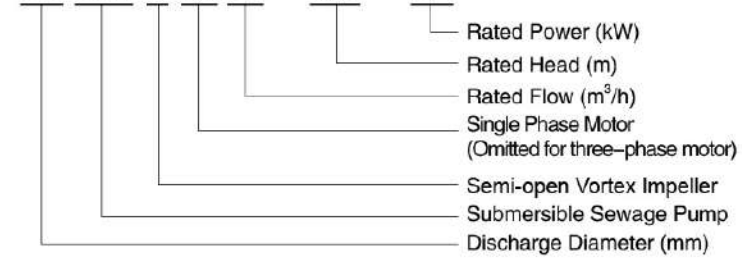
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

### Motor

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

### Identification Codes

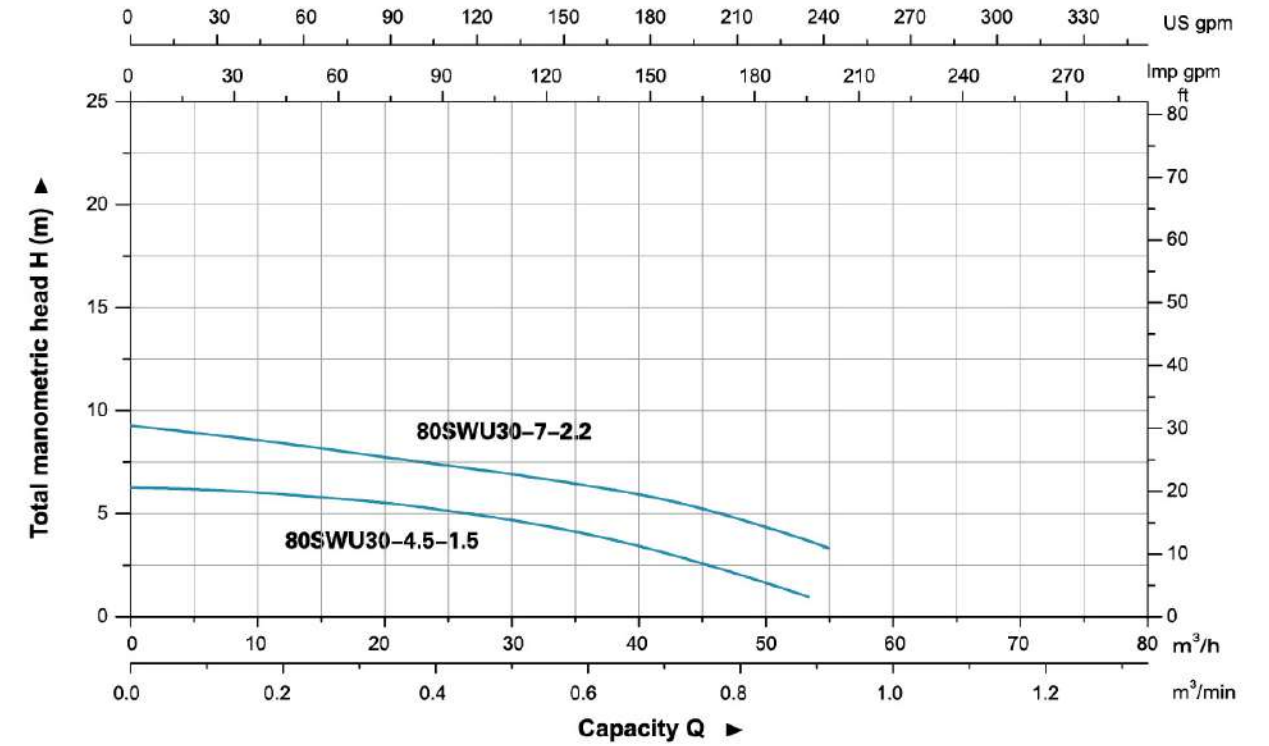
**80 SW U m 30 - 4.5 - 1.5**



### Technical Data

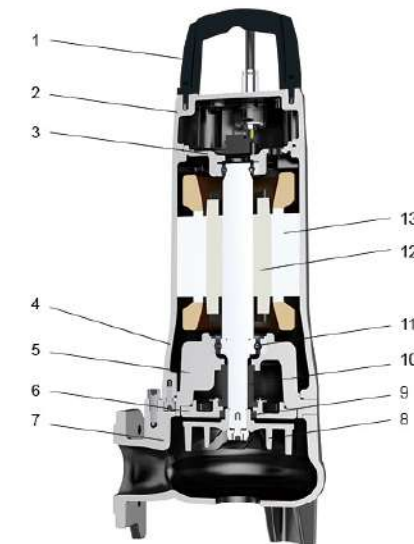
Model		Power		Discharge mm (inch)	Rated Flow (m <sup>3</sup> /h)	Rated Head (m)	Solid Passage (mm)
Single Phase	Three Phase	kW	HP				
80SWUm30-4.5-1.5	80SWU30-4.5-1.5	1.5	2	80 (3")	30	4.5	76
80SWUm30-7-2.2	80SWU30-7-2.2	2.2	3	80 (3")	30	7	76

### Hydraulic Performance Curves

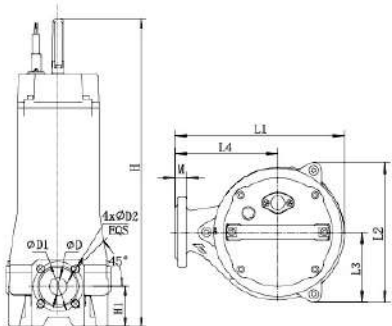


### Materials Table

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Oil seal	
10	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
11	Bearing	
12	Rotor	
13	Stator	



### Dimension



Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
80SWU30-4.5-1.5	260	218	118	149	665	122	80	150	18	18
80SWUm30-4.5-1.5					706					
80SWU30-7-2.2					665					
80SWUm30-7-2.2					706					

### Package Information

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20'TEU)
80SWU30-4.5-1.5	58	918	338	306	294
80SWUm30-4.5-1.5	61	918	338	306	294
80SWU30-7-2.2	62	918	338	306	294
80SWUm30-7-2.2	63	918	338	306	294



**Applications**

- Used In pressure sewage system
- Drainage of wastewater from individual residences, apartment buildings, recreational developments, hotels
- Transferring wastewater of commercial buildings, industrial plants, wastewater sampling, small hospitals
- Schools, federal, state and local parks, wastewater drainage
- To transfer various wastewater and sewage

**Features**

- The pump has a semi-open impeller design with a reliable grinding system.
- The large-diameter impeller generates a high pressure and the grinding system grinds solids into small pieces, which can be drained without clogging the pipes.
- The pumps can be connected to pipes directly or to an auto-coupling system.
- Flow switch included for single phase pump with motor power ≤ 1.1 kW

**Working Conditions**

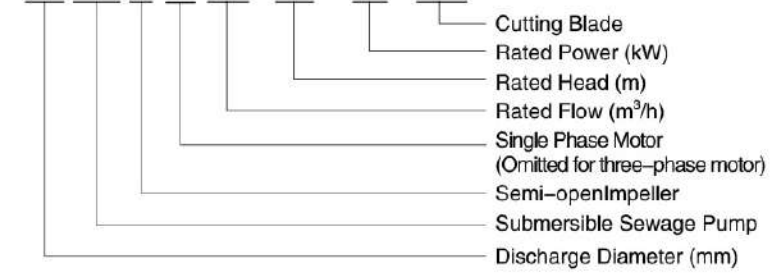
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

**Motor**

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

**Identification Codes**

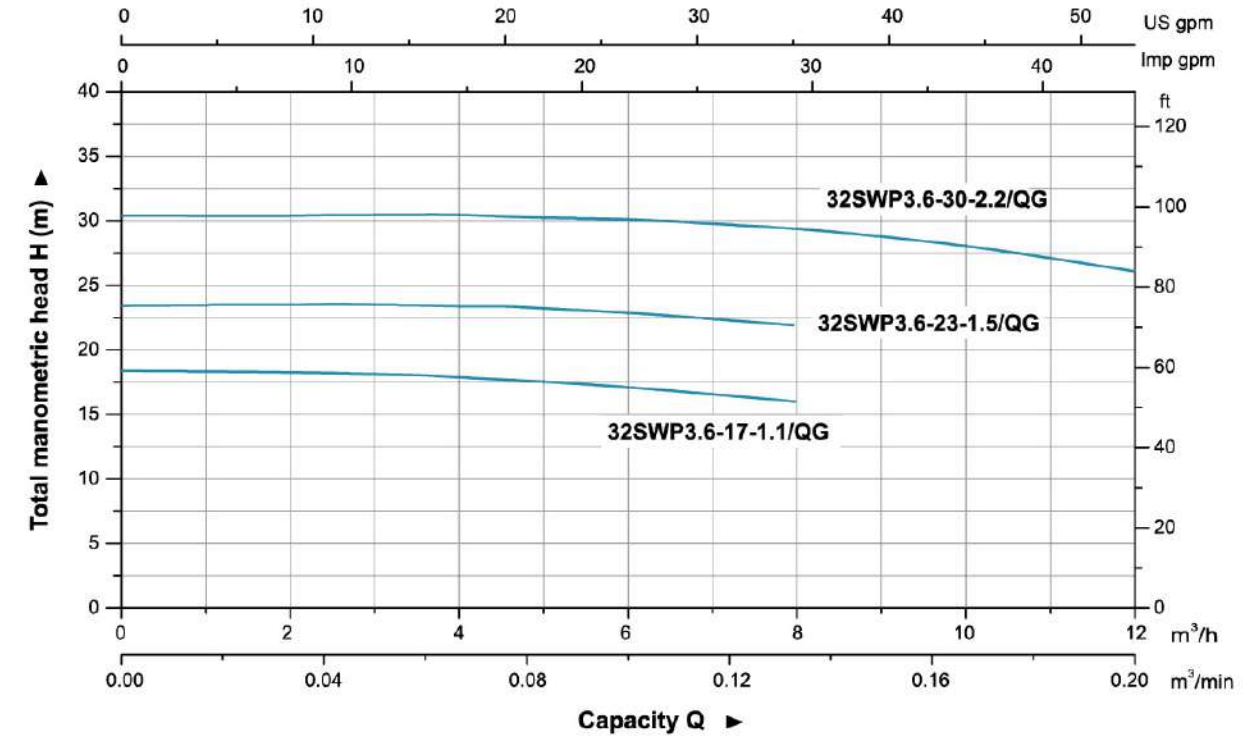
**32 SW P m 3.6 - 17 - 1.1 /QG**



**Technical Data**

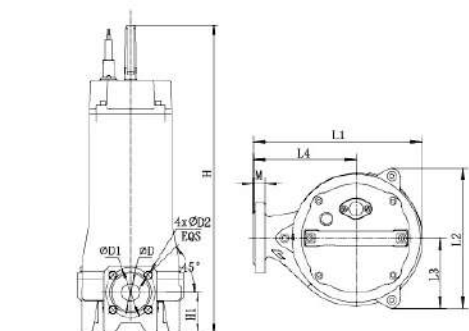
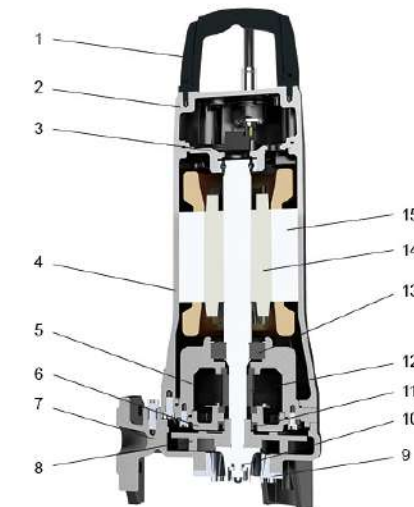
Model		Power		Discharge mm (inch)	Rated Flow (m³/h)	Rated Head (m)	Solid Passage (mm)
Single Phase	Three Phase	kW	HP				
32SWPm3.6-17-1.1/QG	32SWP3.6-17-1.1/QG	1.1	1.5	32 (1 1/4")	3.6	17	-
32SWPm3.6-23-1.5/QG	32SWP3.6-23-1.5/QG	1.5	2	32 (1 1/4")	3.6	23	-
32SWPm3.6-30-2.2/QG	32SWP3.6-30-2.2/QG	2.2	3	32 (1 1/4")	3.6	30	-

**Hydraulic Performance Curves**



**Materials Table**

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Cutting ring	AISI304
10	Radial cutter	AISI304
11	Oil seal	
12	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
13	Bearing	
14	Rotor	
15	Stator	



**Dimension**

Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
32SWP3.6-17-1.1/QG	231	192	96	140	535	73	32	90	14	16
32SWPm3.6-17-1.1/QG										
32SWP3.6-23-1.5/QG										
32SWPm3.6-23-1.5/QG										
32SWP3.6-30-2.2/QG										
32SWPm3.6-30-2.2/QG										

**Package Information**

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20 TEU)
32SWP3.6-17-1.1/QG	38	848	358	311	294
32SWPm3.6-17-1.1/QG	39	848	358	311	294
32SWP3.6-23-1.5/QG	48	848	358	311	294
32SWPm3.6-23-1.5/QG	50	848	358	311	294
32SWP3.6-30-2.2/QG	50.5	848	358	311	294
32SWPm3.6-30-2.2/QG	52	848	358	311	294



**Applications**

- Used In pressure sewage system
- Drainage of wastewater from individual residences, apartment buildings, recreational developments, hotels
- Transferring wastewater of commercial buildings, industrial plants, wastewater sampling, small hospitals
- Schools, federal, state and local parks, wastewater drainage
- To transfer various wastewater and sewage

**Features**

- The pump has a semi-open impeller design with a reliable grinding system.
- The large-diameter impeller generates a high pressure and the grinding system grinds solids into small pieces, which can be drained without clogging the pipes.
- The pumps can be connected to pipes directly or to an auto-coupling system.

**Working Conditions**

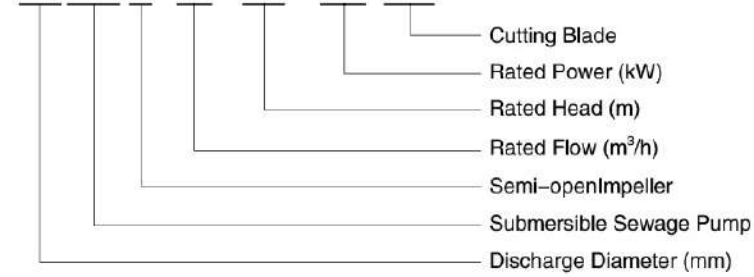
- Liquid temperature: 0 - 40 °C
- Max immersion depth: 5 m

**Motor**

- Frequency/Pole number: 50 Hz/2
- Insulation class: F
- Protection class: IPX8
- Bearing: Ball type
- Mechanical seal: Double-end mechanical seals

**Identification Codes**

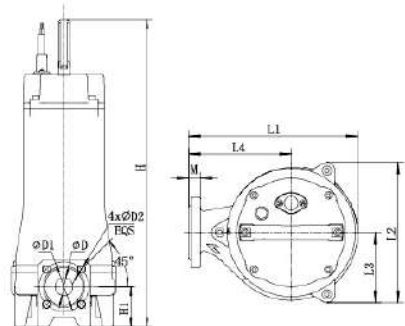
**50 SW P 12 - 19 - 2.2/QG**



**Technical Data**

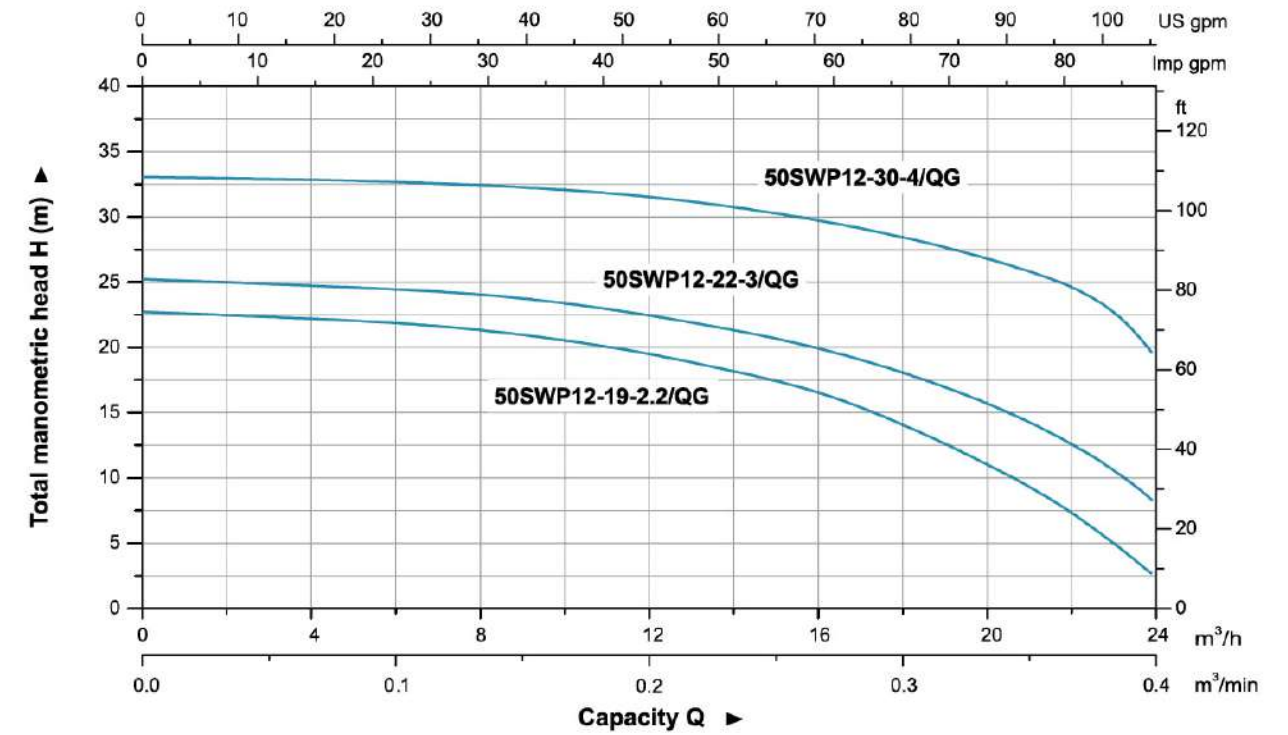
Model	Power		Discharge mm (inch)	Rated Flow (m³/h)	Rated Head (m)	Solid Passage (mm)
	kW	HP				
50SWP12-19-2.2/QG	2.2	3	50 (2")	12	19	-
50SWP12-22-3/QG	3	4	50 (2")	12	22	-
50SWP12-30-4/QG	4	5.5	50 (2")	12	30	-

**Dimension**



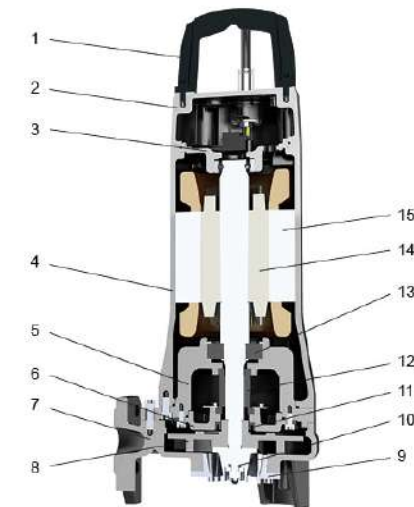
Model	L1	L2	L3	L4	H	H1	D	D1	D2	M
50SWP12-19-2.2/QG	243	212	106	145	559	73	40	100	14	16
50SWP12-22-3/QG	243	212	106	145	588	73	40	100	14	16
50SWP12-30-4/QG	243	212	106	145	588	73	40	100	14	16

**Hydraulic Performance Curves**



**Materials Table**

No.	Part	Material
1	Handle	ZG304
2	Upper cover	HT200
3	Upper bearing seat	HT200
4	Motor body	HT200
5	Oil chamber	HT200
6	Pump cover	HT200
7	Pump body	HT200
8	Impeller	HT200
9	Cutting ring	AISI304
10	Radial cutter	AISI304
11	Oil seal	
12	Mechanical seal	Upper:SiC/Carbon Lower:SiC/SiC
13	Bearing	
14	Rotor	
15	Stator	



**Package Information**

Model	GW (Kgs)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20'TEU)
50SWP12-19-2.2/QG	53	848	358	311	294
50SWP12-22-3/QG	60	848	358	311	294
50SWP12-30-4/QG	63	848	358	311	294

## Guide Rail System

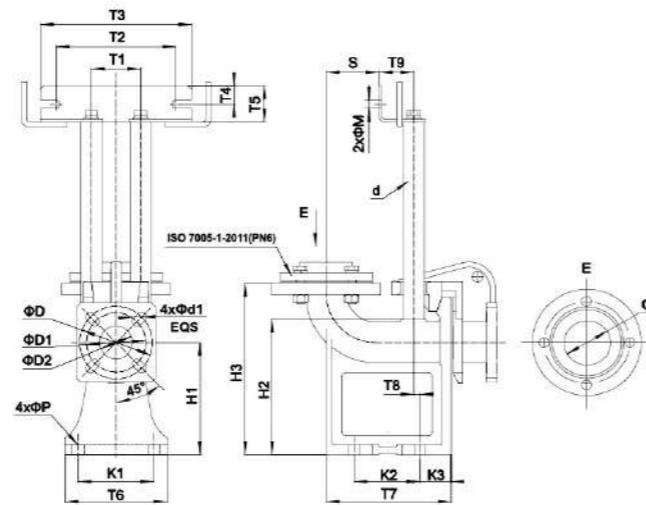
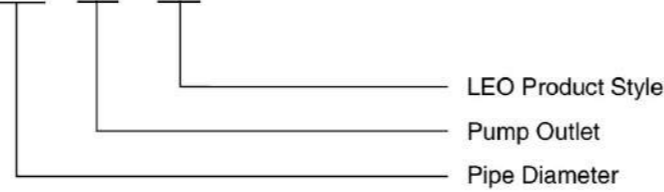
- Suitable for pumps with flange conforming ISO7005-92 standard.
- Automatic engagement with flanged elbow

## Includes

- Duck-foot bend
  - Guide hook
  - Flange connector
  - Upper guide support
  - Bolts and lock washers
- (Foundation bolts and guide pipes are not included)

## Identification Codes

**SW 50 - 50**



# WQ

## Submersible Sewage Pump

## Application

- Wastewater drainage in factories, construction sites and commercial facilities
- Drainage system in municipal sewage treatment plants
- Drainage station in residential quarters
- Municipal projects
- Methane pools and field irrigation in countryside

## Pump

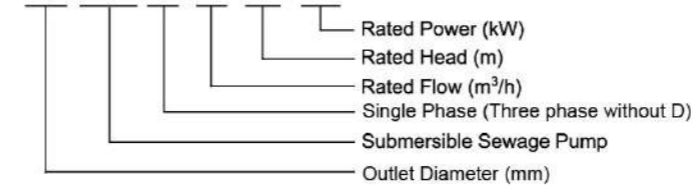
- Max. immersion depth: 5 m
- Max. liquid temperature: +40°C
- Liquid pH value: 6.5 – 8.5
- Max. liquid density: 1.3x10<sup>3</sup>kg/m<sup>3</sup>
- Water temperature: up to 35°C
- Max. Immersion depth: 10 m
- Allowed by the particle diameter: 20 - 80 mm

## Motor

- Copper winding
- Insulation class: B
- Protection class: IP68

## Identification Codes

**65 WQ D 15-10-1.1**



WQ(D) 0.75 - 7.5 kW

WQ 11 - 45 kW

( Hose coupling as standard. Flange elbow is available on request.

## Technical Data

Model	Voltage	Motor Power		Outlet in	Guide Rail Fitting	Max flow m <sup>3</sup> /h	Max head m	Speed r.p.m	Impeller passage mm	N.W kg	Packing dimension mm
	V	kW	HP								
50WQ10-10-0.75	380	0.75	1	2	50-50	28	13	2850	25	18	500*260*240
50WQD10-10-0.75	220	0.75	1	2	50-50	28	13	2850	25	19	500*260*240
50WQ8-16-1.1	380	1.1	1.5	2	50-50	25	19	2850	20	23.5	510*260*240
50WQD8-16-1.1	220	1.1	1.5	2	50-50	25	19	2850	20	24.5	520*260*240
65WQ15-10-1.1	380	1.1	1.5	2 1/2	50-65	28	15	2850	25	23.5	510*260*240
65WQD15-10-1.1	220	1.1	1.5	2 1/2	50-65	28	15	2850	25	24.5	520*260*240
50WQ8-20-1.5	380	1.5	2	2	50-50	25	22	2850	20	25	520*260*240
50WQD8-20-1.5	220	1.5	2	2	50-50	25	22	2850	20	26	520*260*240
65WQ15-15-1.5	380	1.5	2	2 1/2	50-65	35	20	2850	25	25	520*260*240
65WQD15-15-1.5	220	1.5	2	2 1/2	50-65	35	20	2850	25	26	520*260*240
50WQ15-20-2.2	380	2.2	3	2	50-50	38	23	2850	25	44	680*260*300
65WQ25-17-2.2	380	2.2	3	2 1/2	65-65	44	22	2850	25	42	680*260*300
80WQ40-9-2.2	380	2.2	3	3	65-80	65	16	2850	30	41	710*260*290
50WQ15-26-3	380	3	4	2	50-50	47	29	2850	25	49	710*260*290
65WQ25-22-3	380	3	4	2 1/2	65-65	55	26	2850	30	52	710*260*290
80WQ40-13-3	380	3	4	3	80-80	72	21	2850	30	51	740*240*290
100WQ60-9-3	380	3	4	4	80-100	88	19	2850	30	53	740*240*290
65WQ25-28-4	380	4	5.5	2 1/2	65-65	55	32	2850	25	61	770*260*230
80WQ40-18-4	380	4	5.5	3	80-80	80	24	2850	30	64	800*260*290
100WQ60-13-4	380	4	5.5	4	80-100	89	24	2850	30	65	800*260*290
50WQ15-40-5.5	380	5.5	7.5	2	50-50	50	43	2850	25	73	790*290*310
80WQ30-30-5.5	380	5.5	7.5	3	80-80	47	37	2850	30	73	810*290*320
100WQ65-15-5.5	380	5.5	7.5	4	100-100A	108	25	2850	30	79	820*300*350
50WQ20-45-7.5	380	7.5	10	2	50-50	59	48	2850	25	112	934*364*435

## Dimension

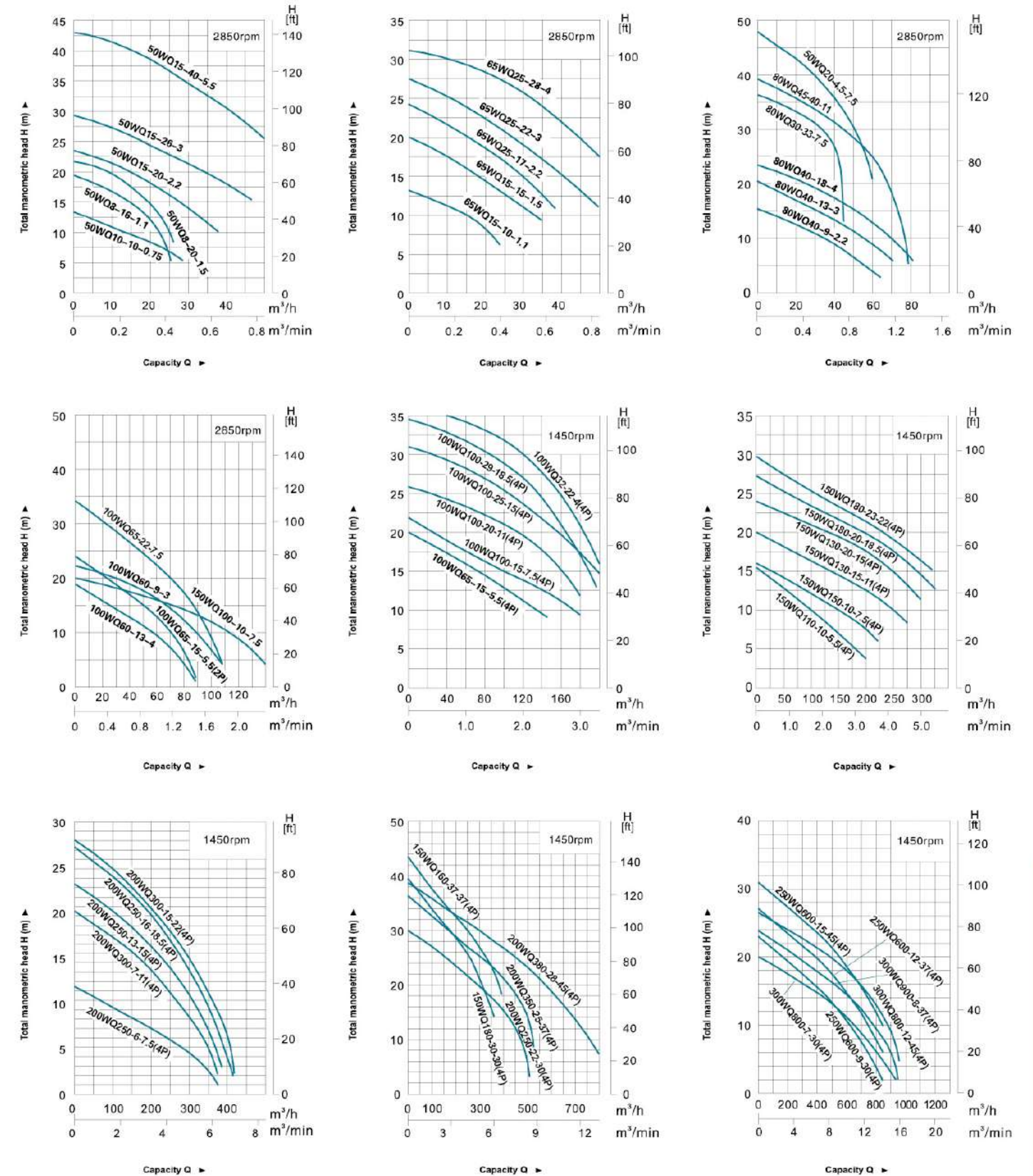
Model	D	D1	D2	T1	T2	T3	T4	T5	T6	T7	T8	T9	K1	K2	K3	H1	H2	H3	S	M	P	d	d1	G
SW50-50	50	110	90	75	182	230	28	55	165	190	12	52.5	115	100	45	170	205	260	80.5	12	18	25	14	G2
SW65-65	65	130	-	85	182	230	28	55	190	210	17	59	145	120	45	175	220	270	89	12	18	32	14	G2.5
SW80-80	80	150	-	85	182	230	28	55	220	242	27	59	175	160	41	190	246	290	115	12	18	32	18	G3

## Package Information: Carton ( Wooden Case Optional )

Model	Carton				Wooden Case			
	L (mm)	W (mm)	H (mm)	G.W (kg)	L (mm)	W (mm)	H (mm)	G.W (kg)
SW50-50	390	345	260	18.5	410	355	250	23
SW65-65	430	375	285	24	440	375	275	28
SW80-80	475	410	310	32.5	485	405	305	36

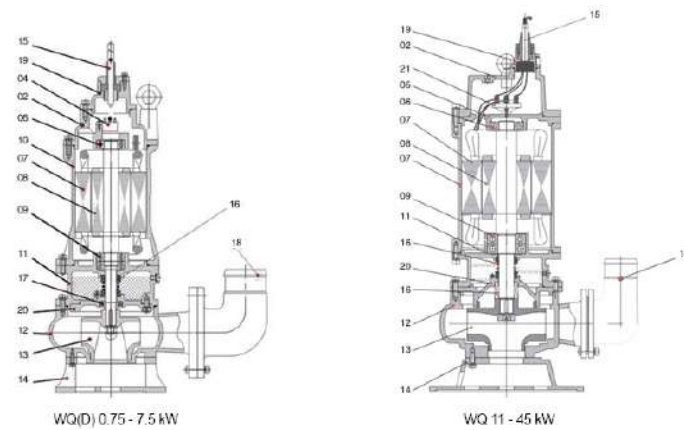
Model	Voltage	Motor Power		Outlet	Guide Rial Fitting	Max flow	Max head	Speed	Impeller passage	N.W	Packing dimension
	V	kW	HP	in		m <sup>3</sup> /h	m	r.p.m			
80WQ30-33-7.5	380	7.5	10	3	80-80	77	39	2850	30	112	934*364*435
100WQ65-22-7.5	380	7.5	10	4	100-100A	108	34	2850	35	115	964*364*425
150WQ100-10-7.5	380	7.5	10	6	150-150	140	20	2850	35	115	1010*370*410
100WQ65-15-5.5(4P)	380	5.5	7.5	4	100-100	145	21	1450	55	126	1030*450*530
150WQ110-10-5.5(4P)	380	5.5	7.5	6	150-150	200	16	1450	55	153	1030*450*530
100WQ100-15-7.5(4P)	380	7.5	10	4	100-100	170	21	1450	55	156	1030*450*530
150WQ150-10-7.5(4P)	380	7.5	10	6	150-150	220	16	1450	75	163	1050*500*600
200WQ250-6-7.5(4P)	380	11	15	8	200-200	372	12	1450	55	200	730*490*1115
100WQ100-20-11(4P)	380	11	15	4	100-100	180	26	1450	50	221	500*600*1050
150WQ130-15-11(4P)	380	11	15	6	150-150	270	20	1450	50	239	500*600*1180
200WQ300-7-11(4P)	380	11	15	8	200-200	360	18	1450	65	252	500*600*1180
100WQ100-25-15(4P)	380	15	20	4	100-100	190	32	1450	50	239	500*600*1180
150WQ130-20-15(4P)	380	15	20	6	150-150	300	23	1450	50	250	500*600*1180
200WQ250-13-15(4P)	380	15	20	8	200-200	380	22	1450	65	274	500*600*1180
100WQ100-29-18.5(4P)	380	11	15	4	100-100	200	35	1450	50	290	640*480*1270
150WQ180-20-18.5(4P)	380	18.5	25	6	150-150	300	26	1450	50	300	510*640*1210
200WQ250-16-18.5(4P)	380	18.5	25	8	200-200	400	25	1450	65	300	510*640*1210
100WQ100-32-22(4P)	380	22	30	4	100-100	210	40	1450	50	324	680*490*1360
150WQ180-23-22(4P)	380	22	30	6	150-150	330	28	1450	50	324	510*640*1250
200WQ300-15-22(4P)	380	22	30	8	200-200	450	28	1450	65	324	510*640*1250
150WQ180-30-30(4P)	380	30	40	6	150-150	350	38	1450	70	445	630*660*1360
200WQ250-22-30(4P)	380	30	40	8	200-200	500	34	1450	70	446	660*690*1360
250WQ600-9-30(4P)	380	30	40	10	250-250	600	28	1450	70	446	660*710*1360
300WQ800-7-30(4P)	380	30	40	12	300-300	1000	18	1450	80	486	700*750*1450
150WQ160-37-37(4P)	380	37	50	6	150-150	380	43	1450	70	490	630*660*1360
200WQ350-25-37(4P)	380	37	50	8	200-200	500	38	1450	70	492	660*690*1360
250WQ600-12-37(4P)	380	37	50	10	250-250	720	32	1450	70	495	660*710*1360
300WQ900-8-37(4P)	380	37	50	12	300-300	1200	22	1450	80	535	700*750*1450
200WQ380-28-45(4P)	380	45	60	8	200-200	800	38	1450	70	545	660*710*1450
250WQ600-15-45(4P)	380	45	60	10	250-250	600	43	1450	70	545	660*710*1500
300WQ800-12-45(4P)	380	45	60	12	300-300	1300	25	1450	80	575	700*750*1600

Hydraulic Performance Curves



Materials Table

Item No.	Part Name	Material
01	Handle	Steel
02	Upper cover	Cast iron
03	Capacitor	
04	Thermal protector	
05	Upper bearing seat	Cast iron
06	Bearing	
07	Stator	
08	Rotor	
09	Bearing	
10	Motor body	Cast iron
11	Bearing seat	Cast iron
12	Pump body	Cast iron
13	Impeller	Cast iron
14	Base	Cast iron
15	Cable	
16	Mechanical seal	Sic-Sic/Carbon-Ceramic(<7.5 kW) Sic-Sic/Sic-Sic(>7.5 kW)
17	Oil seal	
18	Hose coupling	Cast iron
19	Terminal box	Cast iron
20	Seal bracket	Cast iron
21	Wiring terminal	

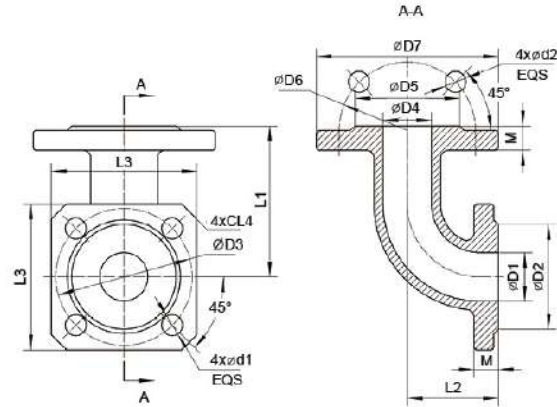




## Flange Elbow



### Dimension

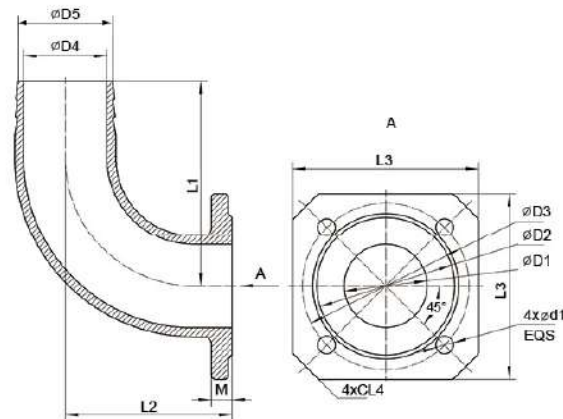


Model	D1	D2	D3	D4	D5	D6	D7	L1	L2	L3	L4	M	d1	d2
32-32 Flange Elbow	32	69	90	32	69	90	120	100	80	96	10	18	14	14
40-50 Flange Elbow	40	78	100	50	88	110	140	120	60	110	15	16	14	14
50-50 Flange Elbow	50	88	110	50	88	110	140	105	105	120	15	16	14	14
65-65 Flange Elbow	65	108	130	65	108	130	160	130	130	145	20	18	14	14
80-80 Flange Elbow	80	124	150	80	124	150	190	155	155	145	15	18	18	18

## Hose Coupling



### Dimension



Model	D1	D2	D3	D4	D5	L1	L2	L3	L4	M	d1
• 50-40 Hose Coupling	50	88	110	38	48	115	65	120	15	16	14
• 65-50 Hose Coupling	65	108	130	51	61	125	68	145	20	16	14
• 80-60 Hose Coupling	80	124	150	60	70	140	75	145	15	16	18
50-50 Hose Coupling	50	88	110	50	58	140	120	120	15	16	14
65-65 Hose Coupling	65	108	130	65	74	160	130	145	20	18	14
80-80 Hose Coupling	80	124	150	80	87	190	135	145	15	18	18

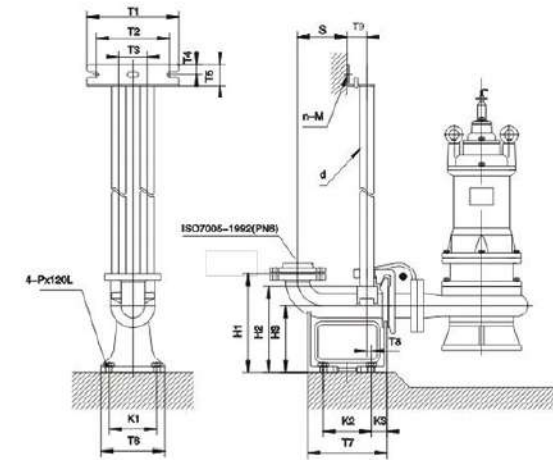
• Product standard

## Guide Rail System

- Suitable for pumps with flange conforming ISO7005-92 standard.
- Automatic engagement with flanged elbow

### Includes

- Duck-foot bend
  - Guide hook
  - Flange connector
  - Upper guide support
  - Bolts and lock washers
- (Foundation bolts and guide pipes are not included)



Model	T1	T2	T3	T4	T5	T6	T7	T8	T9	K1	K2	K3	S	H1	H2	H3	D	n-M	P	A
50-50	288	185	70	25	63	160	200	10	50	120	120	40	125	250	203	170	25	2-M10x40	M16	Φ110/4-Φ14
50-65	288	185	70	25	63	160	200	10	50	120	120	40	125	250	203	170	25	2-M10x40	M16	Φ110/4-Φ14
65-65	288	195	80	25	63	190	220	10	60	120	120	40	130	250	203	175	32	2-M10x40	M16	Φ130/4-Φ14
65-80	288	195	80	25	63	190	220	10	60	120	120	40	130	270	220	175	32	2-M10x40	M16	Φ130/4-Φ14
80-80	288	195	80	25	63	220	250	15	60	170	170	40	165	250	242	192	32	2-M10x40	M16	Φ150/4-Φ18
80-100	288	195	80	25	63	220	250	15	60	170	170	40	165	250	242	192	32	2-M10x40	M16	Φ150/4-Φ18
100-100	410	315	170	30	80	320	385	17	90	260	300	48	200	305	245	200	32	2-M12x50	M18	Φ170/4-Φ18
150-150	410	260	280	30	80	400	410	90	100	300	300	55	300	480	388	300	40	2-M12x60	M20	Φ225/8-Φ18
200-200	410	260	280	30	60	400	450	100	100	320	300	54	350	550	432	320	40	2-M12x60	M22	Φ280/8-Φ18
250-250	410	260	280	30	60	460	560	100	100	360	430	65	380	630	453	335	40	2-M12x60	M22	Φ335/12-Φ18

• 65-80: 65 pump outlet, 80 pipe diameter



## Application

- Civil engineering
- Mines, quarries, Coal ore & slurries
- Sewage treatment plants
- General pumping purposes

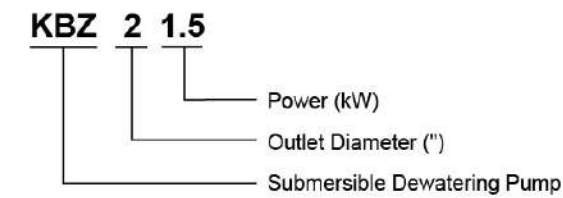
## Pump

- Max. liquid temperature: +40°C
- Flow: up to 60 m<sup>3</sup>/h
- Head: up to 57 m
- Power: 1.5 kW (2 HP) to 15kW (20 HP)
- Max. Immersion depth: 25 m
- Optional cable length

## Motor

- Copper winding
- Insulation class: B
- Protection class: IP68

## Identification Codes

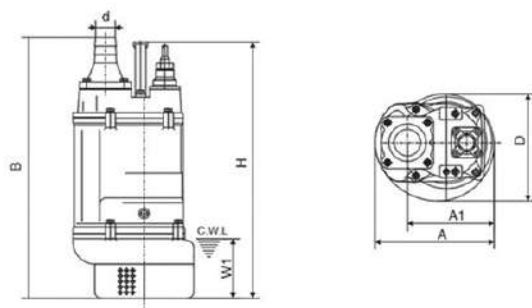


## Technical Data

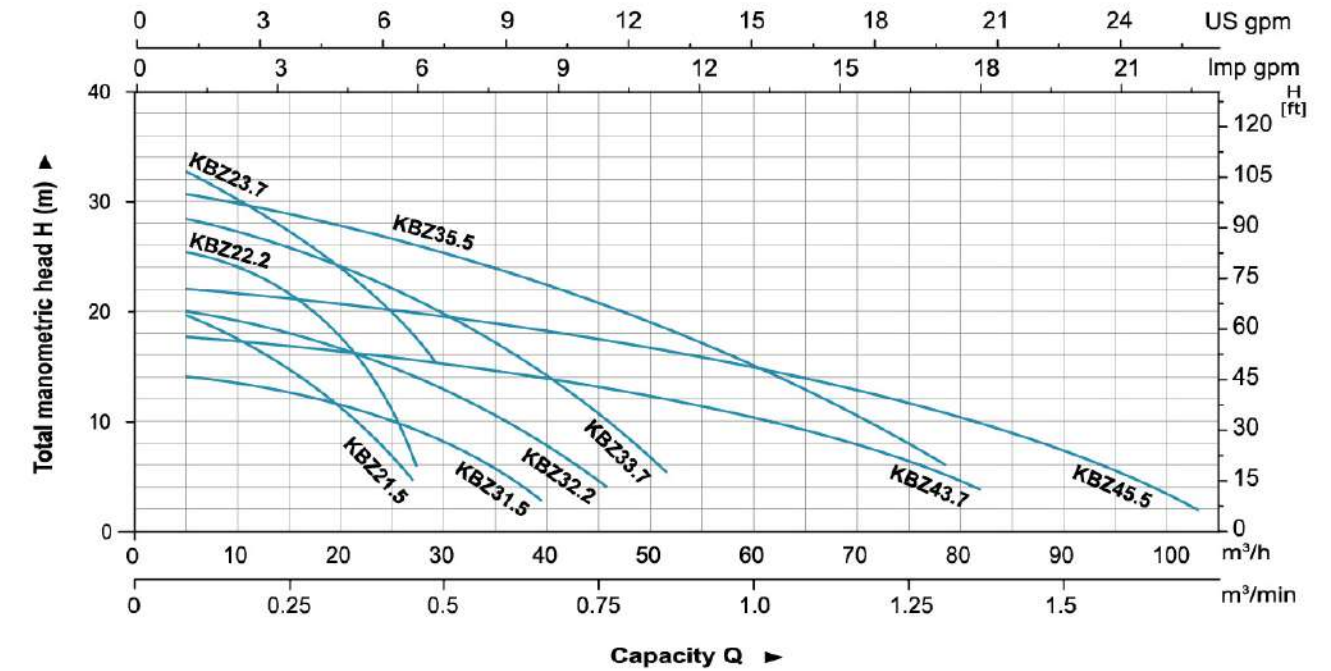
Model	Outlet mm	Power		Max head m	Max flow		Impeller passage mm
		kW	HP		m <sup>3</sup> /h	m <sup>3</sup> /min	
KBZ21.5	50	1.5	2	22	27	0.45	8.5
KBZ22.2	50	2.2	3	26	27	0.45	8.5
KBZ23.7	50	3.7	5	34	29	0.48	8.5
KBZ31.5	80	1.5	2	14.5	40	0.67	8.5
KBZ32.2	80	2.2	3	21	50	0.83	8.5
KBZ33.7	80	3.7	5	29	55	0.92	8.5
KBZ35.5	80	5.5	7.5	32	70	1.17	8.5
KBZ43.7	100	3.7	5	18	90	1.5	8.5
KBZ45.5	100	5.5	7.5	23	105	1.75	8.5

## Dimension

Model	d	A	A1	B	D	H	W1
KBZ21.5	50	235	173	517	216	486	120
KBZ31.5	80	235	173	517	216	486	120
KBZ22.2	50	235	173	517	216	486	120
KBZ32.2	80	235	173	517	216	486	120
KBZ23.7	50	283	208	628	252	638	150
KBZ33.7	80	283	208	628	252	638	150
KBZ43.7	100	283	208	642	252	638	150
KBZ35.5	80	306	218	671	259	598	150
KBZ45.5	100	306	218	686	259	598	150

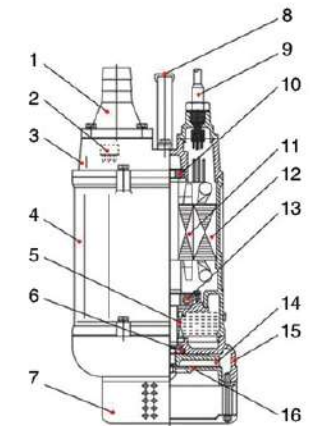


## Hydraulic Performance Curves



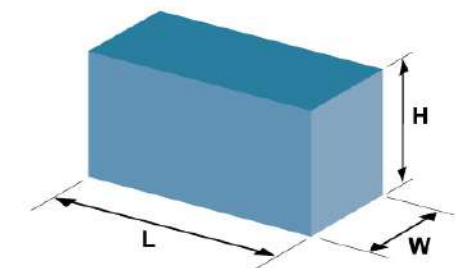
## Materials Table

No.	Part	Material	No.	Part	Material
1	Hose coupling	Cast iron	9	Cable	
2	Thermal protector		10	Bearing	
3	Upper cover	Cast iron	11	Rotor	
4	Motor cover	Cast iron	12	Stator	
5	Oil seal		13	Beangng	
6	Mechanical seal	Sic-Sic/Carbon-Sic (<math>\leq 2.2\text{ kW}</math> Sic-Sic/Sic-Sic (<math>\ge 3.7\text{ kW}</math>)	14	Impeller	High chrome alloy
7	Strainer	Steel	15	Pump body	Cast iron
8	Handle	Steel	16	Inlet plate	Ductile iron



## Package Information

Model	N.W (kg)	G.W (kg)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20 TEU)
KBZ21.5	34.5	37.5	586	270	270	648
KBZ22.2	36	39	586	270	270	648
KBZ23.7	60	65	686	325	300	406
KBZ31.5	34.5	37	586	270	270	648
KBZ32.2	36	39	586	270	270	648
KBZ33.7	60	65	686	325	300	406
KBZ35.5	77	84	725	355	370	288
KBZ43.7	61	66	686	325	300	406
KBZ45.5	78	85	725	355	370	288







### Application

- Civil engineering
- Mines, quarries, Coal ore & slurries
- Sewage treatment plants
- General pumping purposes

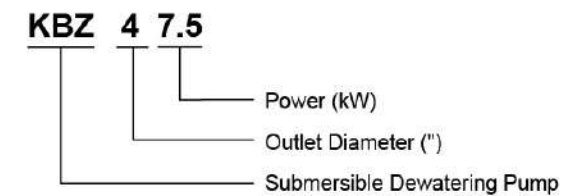
### Pump

- Max. liquid temperature: +40°C
- Flow: up to 60 m<sup>3</sup>/h
- Head: up to 57 m
- Power: 1.5 kW (2 HP) to 15kW (20 HP)
- Max. Immersion depth: 25 m
- Optional cable length

### Motor

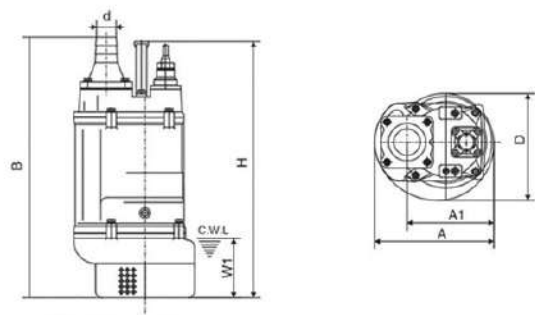
- Copper winding
- Insulation class: B
- Protection class: IP68

### Identification Codes



### Technical Data

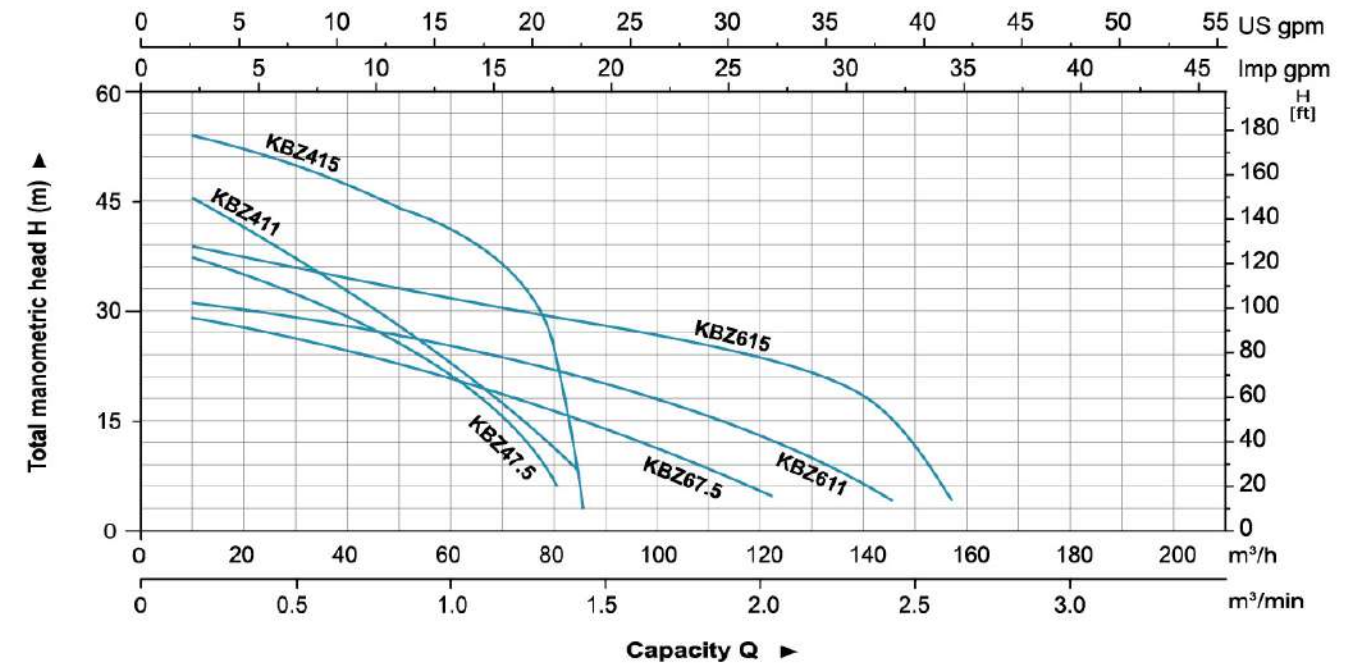
Model	Outlet mm	Power		Max head m	Max flow		Impeller passage mm
		kW	HP		m <sup>3</sup> /h	m <sup>3</sup> /min	
KBZ47.5	100	7.5	10	40	84	1.4	11.5
KBZ411	100	11	15	48.5	86.4	1.44	11.5
KBZ415	100	15	20	56	86.4	1.44	11.5
KBZ67.5	150	7.5	10	31	124.8	2.08	19.5
KBZ611	150	11	15	32	147	2.45	19.5
KBZ615	150	15	20	40	156	2.6	19.5



### Dimension

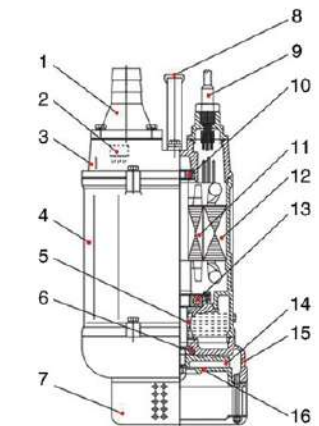
Model	d	A	A1	B	D	H	W1
KBZ47.5	100	330	240	764	314	676	190
KBZ411	100	373	255	807	350	695	190
KBZ67.5	150	330	240	790	314	676	190
KBZ611	150	373	255	807	350	695	190
KBZ415	100	373	255	842	350	755	190
KBZ415	100	373	255	842	350	755	190
KBZ615	150	373	255	842	350	755	190
KBZ615	150	373	255	842	350	755	190

### Hydraulic Performance Curves



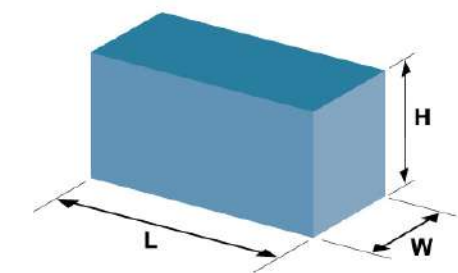
### Materials Table

No.	Part	Material	No.	Part	Material
1	Hose coupling	Cast iron	9	Cable	
2	Thermal protector		10	Bearing	
3	Upper cover	Cast iron	11	Rotor	
4	Motor cover	Cast iron	12	Stator	
5	Oil seal		13	Bearing	
6	Mechanical seal	Sic-Sic/Carbon-Sic (≤2.2 kW) Sic-Sic/Sic-Sic (≥3.7 kW)	14	Impeller	High chrome alloy
7	Strainer	Steel	15	Pump body	Cast iron
8	Handle	Steel	16	Inlet plate	Ductile iron



### Package Information

Model	N.W (kg)	G.W (kg)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20' TEU)
KBZ47.5	105	114	805	365	390	215
KBZ411	130	140	895	415	440	160
KBZ415	142	153	895	415	440	160
KBZ67.5	106	114	835	365	390	205
KBZ611	133	143	855	415	440	160
KBZ615	145	156	895	415	440	160





### Application

- Civil engineering
- Mines, quarries, Coal ore & slurries
- Sewage treatment plants
- General pumping purposes
- Pumping fluid: sludge, liquids containing mud and bentonite

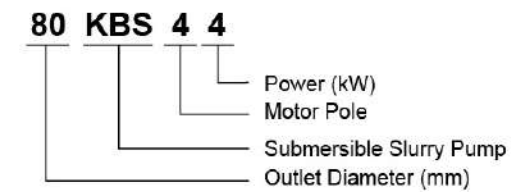
### Pump

- Max. liquid temperature: +40°C
- Flow: up to 60 m<sup>3</sup>/h
- Head: up to 57 m
- Power: 1.5 kW (2 HP) to 15 kW (20 HP)
- Max. Immersion depth: 25 m
- Optional cable length

### Motor

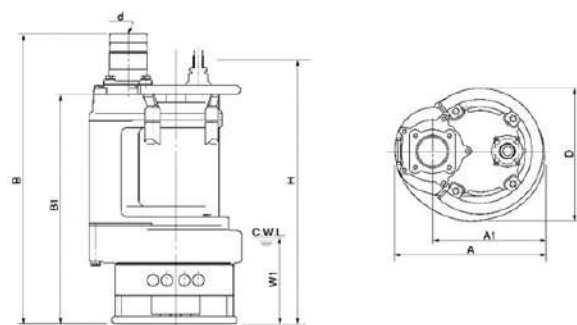
- Copper winding
- Insulation class: B
- Protection class: IP68

### Identification Codes



### Technical Data

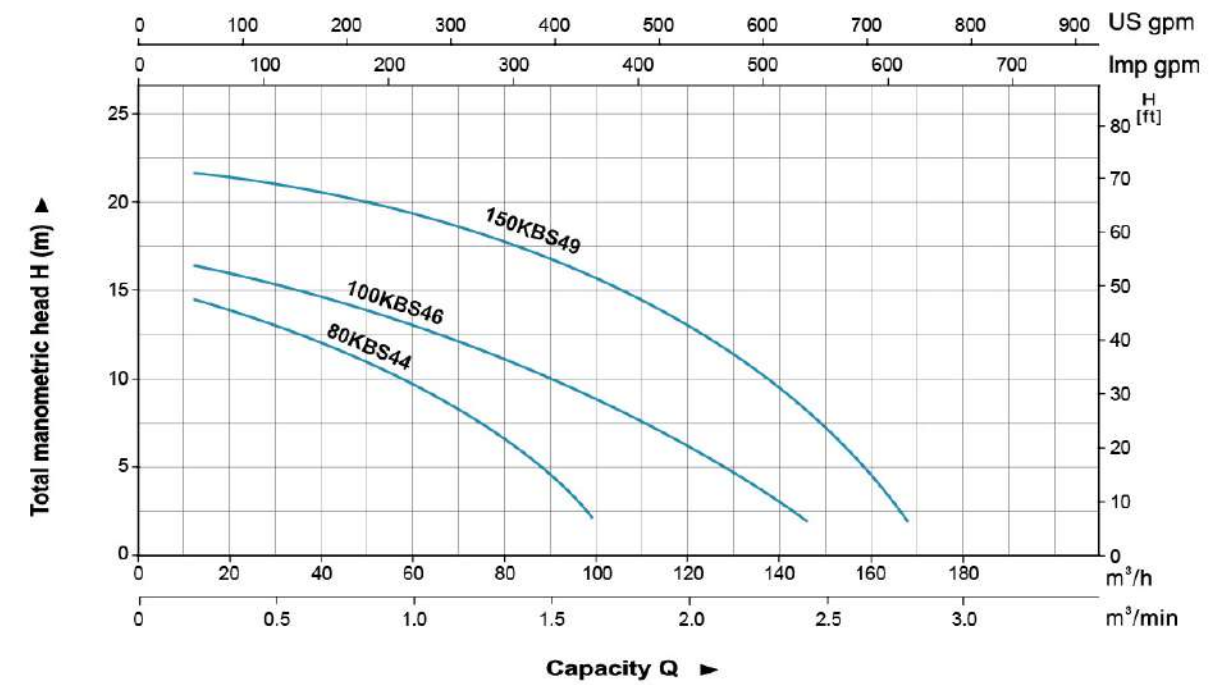
Model	Outlet mm	Power		Max head m	Max flow		Impeller passage mm
		kW	HP		m <sup>3</sup> /h	m <sup>3</sup> /min	
80KBS44	80	4	5.5	14.8	99	1.65	30
100KBS46	100	6	8	16.9	150	2.50	30
150KBS49	150	9	12	21.5	168	2.80	30



### Dimension

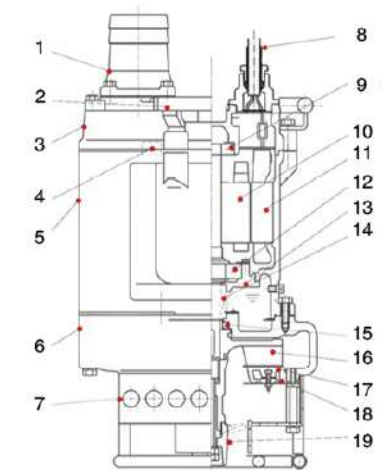
Model	d	A	A1	B	B1	D	H	W1
80KBS44	80	350	260	816	666	326	730	250
100KBS46	100	415	305	844	688	373	730	250
150KBS49	150	434	324	889	709	407	776	250

### Hydraulic Performance Curves



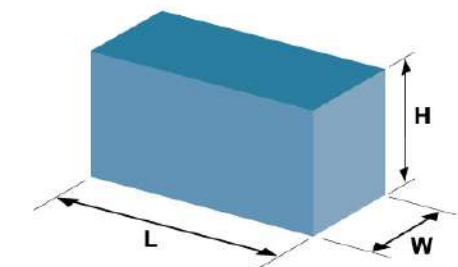
### Materials Table

No.	Part	Material	No.	Part	Material
1	Hose coupling	Cast iron	11	Stator	
2	Handle	Steel	12	Bearing	
3	Upper cover	Cast iron	13	Bearing house	Cast iron
4	Motor protector		14	Mechanical seal	Sic-Sic/Sic-Sic
5	Motor body	Cast iron	15	Oil seal	
6	Pump body	Cast iron	16	Impeller	High chrome alloy
7	Strainer	Steel	17	Inlet plate	High chrome alloy
8	Cable		18	Inlet base	Cast iron
9	Bearing		19	Agitator	High chrome alloy
10	Rotor				



### Package Information

Model	N.W (kg)	G.W (kg)	L (mm)	W (mm)	H (mm)	Quantity (PCS/20' TEU)
80KBS44	105	113	855	415	400	190
100KBS46	145	156	415	475	990	143
150KBS49	170	184	475	475	1050	118





## Control Box

- The device is specially designed for automatic water drainage in pump stations, elevator shafts, sewage pits, etc.

## Features

- Liquid level control
- Excellent anti-interference performance
- The primary pump and standby pumps can be set arbitrarily. In case the primary pump is failed or water output is less than input, the standby pump(s) start to run automatically
- Display of Power and Operating status
- Manual and automatic operation mode for selection
- Protection of earth leakage, overcurrent, overvoltage, overheating and phase loss
- Audible and visual alarm

## Operating Conditions

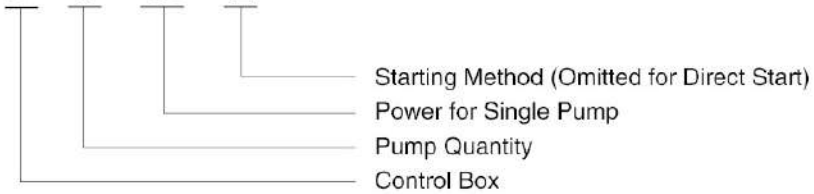
- Ambient temperature: 5 ~ 40°C
- Humidity: ≤90%
- Operating voltage: 380 V ± 10%
- Ambient environment: Freedom from corrosive gases and/or conductive dust.

## Instructions

- DOL (Direct On Line): High starting current. Applicable for pumps with power up to 15 kW.
- Autotransformer Starter: Small starting current. Applicable for pumps with power more than 15 kW.
- Soft Starter: Smooth starting current with small influence on the grid. Applicable for pumps with power more than 15 kW.

## Identification Codes

**LEO - D - 2 - 1.5 - Z**



	<b>Q</b>	<b>Z</b>	<b>R</b>
Starting Method	Direct on Line	Autotransformer Starter	Soft Starter
Controlled Quantity	<b>1</b>	<b>2</b>	<b>3</b>
Control Mode	For One Pump	For Three Pumps	For Four Pumps

## MEMO

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# Pump Range



● Peripheral Pump



● Self-Priming Peripheral Pump



● Jet Pump



● Jet Pump for Deep Wells



● Centrifugal Pump



● Multistage Centrifugal Pump



● Self-Priming Centrifugal Pump



● Stainless Steel Multistage Centrifugal Pump



● Stainless Steel Centrifugal Pump



● Submersible Pump



● Stainless Steel Submersible Pump



● Stainless Steel Submersible Sewage Pump



● Flexible Shaft Pump



● Domestic Lifting Station



● Pool Pump



● Garden Submersible Pump



● Garden Jet Pump



● Pressure Booster System



● Fountain Pump



● Standard Centrifugal Pump



● Submersible Borehole Pump



● Gasoline/Diesel Engine Pump



● Booster Pump/Circulation Pump

# Pump Range



● Submersible Sewage Pump



● Submersible Sewage Pump



● Submersible Dewatering Pump



● Submersible Slurry Pump



● Stainless Steel Vertical Multistage Pump



● Stainless Steel Horizontal Multistage Pump



● Semi-open Impeller Stainless Steel Centrifugal Pump



● Stainless Steel Standard Centrifugal Pump



● Pressure Booster System



● Vertical In-line Pump



● Bare Shaft End Suction Centrifugal Pump



● End Suction Centrifugal Pump