

# GW/LW 50Hz

Non-clogging sewage pumps



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ZHEJIANG NANBENG FLUID MACHINERY CO., LTD.

# **Company Profile**



Zhejiang Nanbeng Fluid Machinery Co.,Ltd. is a leading pump manufacturer committed to the Chinese people's water safety to make our own contribution.The team who founded the company is the first generation research and development of stainless steel centrifugal pump in China, has accumulated more than 30 years of technology research and development experience, core members presided over and participated in the development of national standard of the "light, small multistage centrifugal pump", national science and technology support plans for the 11th, 12th and 13th five-years plan, "national torch project", "national key new product project" and other projects of research and development, design and production.R&D centre equipped with industry-leading CFD fluid 3D simulation design software, domestic top stamping equipment and automatic production line to ensure high performance and high stability of products, our comprehensive R & D and production strength achieve domestic advanced level.

The construction area of the company is 82,000 square meters, design output value is one billion per year. We can offer you a wide range of stainless steel stamping and welding centrifugal pump, pipeline circulation pump, end suction centrifugal pump, sewage submersible pump, high pressure pump, fire pump and water supply and drainage complete sets of products for many applications as highest performance in booster sets and pressurization, building services, water treatment, industry, irrigation and industrial process, fire-fighting sets, pumping of underground water, drainage and sewage, utilities and desalination. Now we are looking for more partners around the world, we sincerely looking forward to your joining at Huzhou China. Global water challenges as well as opportunities, require excellence in pumping technologies and close cooperation between pump designers and manufacturers. Let's cooperate and make our contribution to the water security for more people all over the world.

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#### **Overview**

GW non-clogging sewage pump is a new generation of pump based on the introduction of foreign advanced technology, combined with the characteristics of the use of domestic pumps. The hydraulic model is equivalent to WQ sewage pump. The hydraulic model is the same as WQ type sewage pump. In the discharge of solid particles and long fiber garbage, it has a unique effect.

This series pump adopts unique impeller structure and new mechanical seal, which can effectively convey media containing solids and long fibers. Compared with the traditional impeller, the impeller of this pump adopts the form of single or double flow channel, with good over-flow, with a reasonable worm chamber, making the pump has a high efficiency. The impeller is balanced, so that the pump is vibration-free in operation.

The hydraulic performance of the pump is advanced and mature, and the performance index of the product has been tested to meet the relevant standards. The product has been put on the market with its unique efficacy, reliable performance and stable quality, which is welcomed and praised by the majority of users.

#### **Product Features**

1. The pump is a vertical single-suction single-stage centrifugal sewage pump, the centerline of import and export is on the same level, and the flange of import and export is the same. Therefore, it is very convenient to install and dismantle, covering a small area, and can be installed in any position of the pipeline like a valve.

2 • Pump and motor are directly connected coaxially, which is an electromechanical integration product with compact structure and stable performance.

3. Adopt large flow channel anti-clogging hydraulic parts design, greatly improve the dirt through the capacity, can effectively pass the pump diameter of 5 times the diameter of the pump and the diameter of the pump diameter of about 50% of the solid particles.

4. Rational design, reasonable supporting motor, high efficiency, energy-saving effect is remarkable.

5. The mechanical seal adopts hard wear-resistant tungsten carbide, which is durable and wear-resistant, and can make the pump run safely and continuously for more than 8000 hours.

6. Advanced hydraulic performance, high efficiency of the whole machine, low running noise.

7. With the addition of the protective cover at the end of the motor blade, the whole machine can be placed outdoors, without the need for a machine room, which can save a lot of infrastructure costs.

8. Use within the range of head, to ensure that the motor is not overloaded.

#### Application

- 1. Discharge of heavily polluted wastewater from factory.
- 2. Drainage system of urban sewage treatment plant.
- 3. Wastewater drainage stations in residential areas.
- 4. The drainage station of human defense system
- 5. Sewage discharge of hospitals and hotels
- 6. Municipal projects, construction sites.
- 7. Exploration, mining supporting attachments
- 8. Rural biogas ponds farmland irrigation.
- 9. Water supply device of water supply plant.

#### **Working Conditions**

 $1 \cdot$  The medium temperature should not exceed 60°C, the weight should be  $1.0 \sim 1.3 \text{kg/dm}^3$ , and the PH value should be within 5~9.

2. The pump and the motor are integral bodies, so it is required that the working environment temperature of the pump shall not exceed 40°C, the altitude shall not exceed 1000m, relative humidity not more than 95%.

3. Under normal circumstances, the pump must be used within the range of head, to ensure that the motor is not overloaded, If it is necessary to use in the full range, it should be indicated separately when ordering, so that the manufacturer can manufacture.

4. The pump motor current shall not exceed the rated current of the motor during operation.

#### **Model definition**



#### **Structure Description**

GW series non-clogging single-stage pipeline sewage pump is the import and export on the same level, and the import and export flange specifications are the same. Vertical structure, small footprint, motor and pump coaxial, with installation chassis, easy to install and stable, impeller using single (double flow suitable), it has good passing performance.



#### **GW** pump spectrum



# **GW Performance Table**

No	Model	Diameter	Rated flow	Head	Power	RPM	η	Head range
	modol	mm	(m <sup>3</sup> /h)	(m)	(kw)	(r/min)	(%)	(m)
1	25GW8-22-1.1	25	8	22	1.1	2900	38.5	15-22
2	32GW12-15-1.1	32	12	15	1.1	2900	40	12-15
3	40GW15-15-1.5	40	15	15	1.5	2900	45.1	12-15
4	40GW15-30-2.2	40	15	30	2.2	2900	48	28-30
5	50GW20-7-0.75	50	20	7	0.75	2900	54	4-7
6	50GW10-10-0.75	50	10	10	0.75	2900	56	6-10
7	50GW20-15-1.5	50	20	15	1.5	2900	55	12-15
8	50GW15-25-2.2	50	15	25	2.2	2900	56	22-25
9	50GW18-30-3	50	18	30	3	2900	58	26-30
10	50GW25-32-5.5	50	25	32	5.5	2900	53	28-32
11	50GW20-40-735	50	20	40	7.5	2900	55	37-40
12	65GW25-15-2.2	65	25	15	2.2	2900	52	8-15
13	65GW37-13-3	65	37	13	3	2900	55	9-13
14	65GW25-30-4	65	25	30	4	2900	58	26-30
15	65GW30-40-7.5	65	30	40	7.5	2900	56	36-40
16	65GW35-50-11	65	35	50	11	2900	60	45-50
17	65GW35-60-15	65	35	60	15	2900	63	55-60
18	80GW40-7-2.2	80	40	7	2.2	2900	52	4-7
19	80GW43-13-3	80	43	13	3	2900	50	7-13
20	80GW40-15-4	80	40	15	4	2900	57	8-15
21	80GW65-25-7.5	80	65	25	7.5	2900	56	22-25
22	100GW80-10-4	100	80	100	4	2900	62	4-10
23	100GW110-10-5.5	100	110	10	5.5	2900	66	5-10
24	100GW100-15-7.5	100	100	15	7.5	2900	67	7-15
25	100GW85-20-7.5	100	85	20	7.5	2900	68	13-20
26	100GW100-25-11	100	100	25	11	2900	65	18-25
27	100GW100-30-15	100	100	30	15	2900	66	22-30
28	100GW-100-35-18.5	100	100	35	18.5	2900	65	30-35
29	125GW130-15-11	125	130	15	11	1450	62	12-15
30	125GW130-20-15	125	130	20	15	1450	63	16-20
31	150GW145-9-7.5	150	145	9	7.5	1450	63	6-9
32	150GW180-15-15	150	180	15	15	1450	65	10-15
33	150GW180-20-18.5	150	180	20	18.5	1450	75	10-20
34	150GW180-25-22	150	180	25	22	1450	76	19-25
35	150GW130-30-22	150	130	30	22	1450	75	25-30
36	150GW180-30-30	150	180	30	30	1450	73	25-30
37	150GW200-30-37	150	200	30	37	1450	70	25-30

# GW Non-Clogging Sewage Pumps

## **GW Performance Table**

No.	Model	Diameter mm	Rated flow (m <sup>3</sup> /h)	Head (m)	Power (kw)	RPM (r/min)	η (%)	Head range (m)
38	200GW300-7-11	200	300	7	11	1450	73	4-7
39	200GW250-11-15	200	250	11	15	1450	74	7-11
40	200GW400-10-22	200	400	10	22	1450	76	6-10
41	200GW400-13-30	200	400	13	30	1450	73	9-13
42	200GW250-15-18.5	200	250	15	18.5	1450	72	11-15
43	200GW300-15-22	200	300	15	22	1450	73	12-15
44	200GW250-22-30	200	250	22	30	1450	71	18-22
45	200GW350-25-37	200	350	25	37	1450	75	20-25
46	200GW400-30-55	200	400	30	55	1450	70	26-30
47	250GW600-9-30	250	600	9	30	970	74	5-9
48	250GW600-12-37	250	600	12	37	1450	78	8-12
49	250GW600-15-45	250	600	15	45	1450	75	7-15
50	250GW600-20-55	250	600	20	55	1450	73	15-20
51	250GW600-25-75	250	600	25	75	1450	73	20-25
52	300GW800-12-45	300	800	12	45	1450	76	8-12
53	300GW500-15-45	300	500	15	45	1450	70	11-15
54	300GW800-15-55	300	800	15	55	970	73	10-15
55	300GW600-20-55	300	600	20	55	1450	75	16-20
56	300GW800-20-75	300	800	20	75	1450	78	16-20
57	300GW950-20-90	300	950	20	90	970	80	16-20
58	300GW1000-25-110	300	1000	25	110	970	82	22-25
59	350GW1100-10-55	350	1100	10	55	970	84.5	7-10
60	350GW1500-15-90	350	1500	15	90	970	82.5	12-15
61	350GW1200-18-90	350	1200	18	90	970	83.1	15-18
62	350GW1100-28-132	350	1100	28	132	720	83.2	25-28
63	350GW1000-36-160	350	1000	36	160	720	78.5	30-36
64	400GW1500-10-75	400	1500	10	75	970	82.1	6-10
65	400GW2000-15-132	400	2000	15	132	720	85.5	10-15
66	400GW1700-22-160	400	1700	22	160	720	82.1	16-22
67	400GW1500-26-160	400	1500	26	160	720	83.5	22-26
68	400GW1700-30-200	400	1700	30	200	720	83.5	25-30
69	400GW-1800-32-250	400	1800	32	250	720	82.1	26-32
70	500GW2500-10-110	500	2500	10	110	720	82	6-10
71	500GW2600-15-160	500	2600	15	160	720	83	10-15
72	500GW2400-22-220	500	2400	22	220	720	84	17-22
73	500GW2600-24-250	500	2600	24	250	720	82	20-24

# **GW Installation Dimension Table**

No.	Model	А	В	$B_1$	$n_1 - \Phi a_1$	$D_1$	D	$n_2 - \Phi a_2$	L	Н
1	25GW8-22-1.1	110	120	105	$4 - \Phi 12$	60	100	$4 - \Phi 14$	270	430
2	32GW12-15-1.1	110	120	105	$4 - \Phi 12$	90	120	$4 - \Phi 14$	270	430
3	40GW15-15-1.5	120	130	105	4-Φ12	100	130	$4 - \Phi 14$	310	470
4	40GW15-30-2.2	120	130	105	4-Φ12	100	130	4-Φ14	310	490
5	50GW20-7-0.75	130	150	125	4-Φ13	110	140	4-Φ14	330	500
6	50GW10-10-0.75	130	150	125	4-Φ13	110	140	$4 - \Phi 14$	330	500
7	50GW20-15-1.5	130	150	125	$4 - \Phi 13$	110	140	$4 - \Phi 14$	310	490
8	50GW15-25-2.2	130	150	125	$4 - \Phi 13$	110	140	$4 - \Phi 14$	310	510
9	50GW18-30-3	130	150	125	4-Φ13	110	140	4-Φ14	330	560
10	50GW25-32-5.5	140	170	145	4-Φ14	110	140	4-Φ14	350	620
11	50GW20-40-7.5	140	170	145	4-Φ14	110	140	4-Φ14	350	660
12	65GW25-15-2.2	140	160	135	4-Φ13	130	160	4-Φ14	310	500
13	65GW37-13-3	140	160	135	4-Φ13	130	160	4-Φ14	310	560
14	65GW25-30-4	140	160	135	$4 - \Phi 13$	130	160	$4 - \Phi 14$	330	600
15	65GW30-40-7.5	140	170	145	4-Φ14	130	160	$4 - \Phi 14$	350	660
16	65GW35-50-11	150	200	160	4-Φ18	130	160	4-Φ14	370	750
17	65GW35-60-15	150	200	160	4-Φ18	130	160	4-Φ14	370	800
18	80GW40-7-2.2	180	200	170	4-Φ14	150	190	$4 - \Phi 18$	420	650
19	80GW43-13-3	160	200	170	$4 - \Phi 14$	150	190	$4 - \Phi 18$	360	610
20	80GW40-15-4	160	200	170	$4 - \Phi 14$	150	190	$4 - \Phi 18$	360	620
21	80GW65-25-7.5	180	200	170	$4 - \Phi 14$	150	190	$4 - \Phi 18$	420	710
22	100GW80-10-4	210	250	220	$4 - \Phi 18$	170	210	$4 - \Phi 18$	540	700
23	100GW110-10-5.5	225	250	220	4-Φ18	170	210	$4 - \Phi 18$	540	750
24	100GW100-15-7.5	225	250	220	4-Φ18	170	210	$4 - \Phi 18$	540	760
25	100GW85-20-7.5	225	250	220	$4 - \Phi 18$	170	210	$4 - \Phi 18$	540	760
26	100GW100-25-11	240	280	240	$4 - \Phi 18$	170	210	$4 - \Phi 18$	630	890
27	100GW100-30-15	260	300	240	4-Φ18	170	210	$4 - \Phi 18$	660	910
28	100GW100-35-18.5	260	300	240	4-Φ18	170	210	4-Φ18	660	910
29	125GW130-15-11	250	280	240	4-Φ18	200	240	8-Φ18	650	870
30	125GW130-20-15	250	280	240	4-Φ18	200	265	8-Φ18	650	920
31	150GW145-9-7.5	250	280	240	$4 - \Phi 18$	225	265	8-Φ18	650	800
32	150GW180-15-15	250	320	260	$4 - \Phi 22$	225	265	8-Φ18	690	950
33	150GW180-20-18.5	250	320	260	$4 - \Phi 22$	225	265	8-Φ18	690	950
34	150GW180-25-22	250	320	260	4-Φ22	225	265	8-Φ18	690	970
35	150GW130-30-22	260	340	290	4-Φ22	225	265	8-Φ18	690	970
36	150GW130-30-30	260	340	290	4-Φ22	240	280	8-Φ18	690	1020
37	150GW200-30-37	260	340	290	$4 - \Phi 22$	240	280	8-Φ18	690	1040
38	200GW300-7-11	290	350	300	$4-\Phi_{22}$	295	335	8-Φ18	800	900
39	200GW250-11-15	290	350	300	$4-\Phi 22$	295	335	8-Ф18	800	960
40	200GW400-10-22	290	350	300	$4-\Phi 22$	295	335	8-Φ18	800	1000
41	200GW400-13-30	290	350	300	$4-\Phi 22$	295	335	8-Ф18	800	1080
42	200GW250-15-18.5	290	350	300	$4-\Phi 22$	295	335	8-Ф18	800	960
43	200GW300-15-22	290	350	300	$4-\Phi 22$	295	335	8-Φ18	800	1000
44	200GW250-22-30	290	350	300	$4-\Phi 22$	295	335	8-Ф18	800	1080
45	200GW-350-25-37	290	350	300	$4-\Phi 22$	295	335	8-Ф18	800	1100
46	200GW400-30-55	300	360	310	$4-\Phi 22$	295	335	8-Φ18	810	1150

#### **GW Installation Dimension Table**

No.	Model	А	В	$B_1$	$n_1 - \Phi a_1$	$D_1$	D	$n_2 - \Phi a_2$	L	Н
47	250GW600-9-30	350	380	320	4-Φ23	350	390	8-Φ18	900	1100
48	250GW600-12-37	350	380	320	4-Φ23	350	390	8-Φ18	900	1150
49	250GW600-15-45	350	380	320	4-Φ23	350	390	8-Φ18	900	1200
50	250GW600-20-55	350	380	320	4-Φ23	350	390	8-Φ18	900	1300
51	250GW600-25-75	350	450	320	4-Φ23	350	390	8-Φ18	900	1400
52	300GW800-12-45	350	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1200
53	300GW500-15-45	390	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1200
54	300GW800-15-55	390	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1300
55	300GW600-20-55	390	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1300
56	300GW800-20-75	390	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1380
57	300GW950-20-90	390	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1430
58	300GW1000-25-110	390	450	410	4-Φ23	395	440	12- <b>Φ</b> 23	1100	1500
59	350GW1100-10-55	450	480	430	4-Φ23	460	500	12- <b>Φ</b> 23	1250	1450
60	350GW1500-15-90	450	480	430	4-Φ23	460	500	12- <b>Φ</b> 23	1250	1500
61	350GW1200-18-90	450	480	430	4-Φ23	460	500	12- <b>Φ</b> 23	1250	1520
62	350GW1100-28-132	450	480	430	4-Φ23	460	500	12- <b>Φ</b> 23	1250	1700
63	350GW1000-36-160	450	480	430	4-Φ23	460	500	12- <b>Φ</b> 23	1250	1780
64	400GW1500-10-75	500	520	470	4-Φ33	560	560	16- <b>Φ</b> 26	1380	1600
65	400GW2000-15-132	500	520	470	4-Φ33	560	560	16- <b>Φ</b> 26	1380	1800
66	400GW1700-22-160	500	520	470	4-Φ33	560	560	16- <b>Φ</b> 26	1380	1880
67	400GW1500-26-160	500	520	470	4-Φ33	560	560	16- <b>Φ</b> 26	1380	1880
68	400GW1700-30-200	500	520	470	4-Φ33	560	560	16- <b>Φ</b> 26	1380	2000
69	400GW1800-32-250	500	520	470	4-Φ33	560	560	16- <b>Φ</b> 26	1380	2100
70	500GW2500-10-110	600	700	620	4-Φ33	670	670	20- <b>Φ</b> 26	1600	2150
71	500GW2600-15-160	600	700	620	4-Φ33	670	670	20- <b>Φ</b> 26	1600	2150
72	500GW2400-22-220	600	700	620	4-Φ33	670	670	20- <b>Φ</b> 26	1600	2300
73	500GW2600-24-250	600	700	620	4-Φ33	670	670	20- <b>Φ</b> 26	1600	2300

Dimensions of inlet and outlet flanges

#### **Installation instructions**

1. Pump and pipeline should have their own supporting parts, and the weight of pipeline should not act on the pump.

2. The discharge line should be installed outside the gate valve if a check valve is installed.

3. For the convenience of maintenance and safety of use, install a regulating valve in each of the import and export pipeline of the pump and a pressure gauge near the pump outlet to ensure the operation of the pump in the rated head and flow range, to ensure the normal operation of the pump and improve the pump's service life.

4. Tighten the ground bolts when installing the pump to avoid the impact of vibration on the pump performance when starting.

5. When conveying high temperature liquid, in order not to make the pump bear the thermal deformation of the pipeline, the foot bolt of the pump seat should not be fixed. When the pipeline system in the thermal expansion and contraction, so that the pump can move with the pipeline.

6. The pump import and export connection flange is designed according to GB4216-84 standard, and the pipeline flange should be matched with the same specification.

7. After the pump is installed, move the pump shaft, the impeller should have no friction sound or stuck phenomenon, otherwise the pump should be disassembled for inspection and maintenance.

8. Check the fastening of the pump and motor and any damage before installation.

#### Maintenance

1. The electric pump should be managed and used by a person, and the insulation resistance should be checked regularly to see if it is normal.

2 N The sealing ring between the impeller and the pump body has a sealing function, such as sealing ring damage will directly affect the performance of the pump, must be replaced in a timely manner.

It must be replaced in time.

3. When the pump is not used for a long time, the liquid in the pump cavity should be drained to prevent thermal expansion and cold shrinkage damage to the internal parts of the pump.

# GW Non-Clogging Sewage Pumps

#### **Usage and precautions**

1. Before using the pump, carefully check whether the fasteners are loose or missing, and whether the pump has deformed or damaged during transportation, storage, and installation.

2. After the pump is started, the rotation direction should be clockwise when viewed from the inlet, if the electric pump runs in reverse, just swap the position of any two phase wires in the cable.

3. The electric pump should not operate for a long time under low head conditions (the head should not be less than 60% of the rated head). It is best to control it within the recommended head range to prevent the water pump from being burned due to overload.

4. The pump should not operate under cavitation conditions in order to ensure a longer service life. It is strictly prohibited to run the water pump dry, otherwise, the mechanical seal may be damaged.

5. If the pump parts are made of cast iron, during outdoor installation in winter, pay attention to prevent them from being broken, and keep them warm when the temperature is particularly low.

Failure	Reason Analysis	Checking Method
Insufficient flow or no water output	<ol> <li>Impeller rotation error</li> <li>Whether the valve is open and intact</li> <li>Pipe impeller is blocked</li> <li>The head is too high</li> <li>Density of pumping medium is high</li> <li>The seal ring is damaged</li> </ol>	<ol> <li>Adjust the direction of impeller rotation</li> <li>Check, repair and exclude</li> <li>Cleaning debris</li> <li>Change the pump or reduce the head</li> <li>Flush with water to reduce the concentration</li> <li>Replacement</li> </ol>
Unstable Running	<ol> <li>Impeller unbalance</li> <li>Bearing damage</li> </ol>	<ol> <li>Send to the manufacturer for exchange or correction</li> <li>Replacement</li> </ol>
Pump won't start	<ol> <li>Lack of phase</li> <li>Impeller stuck</li> <li>Stator winding burned out</li> </ol>	<ol> <li>Check the electrical appliances and circuits for repair</li> <li>Exclude debris</li> <li>Repair and replace windings</li> </ol>
Excessive current	<ol> <li>Low working voltage</li> <li>Pipe and impeller are blocked</li> <li>High density or viscosity of pumped liquid</li> <li>The use of head is too low</li> </ol>	<ol> <li>Adjust the working voltage</li> <li>Clean up the pipeline, impeller blockage</li> <li>Change the density or viscosity</li> <li>Reduce the flow, increase the head</li> </ol>
Insufficient pressure	<ol> <li>Damaged or leaking mechanical seal</li> <li>Cable broken</li> <li>Seal ring worn or damaged</li> </ol>	1, Replacement 2, Replacement 3, Replacement

#### **Overview**

LW non-clogging vertical sewage pump is a new generation of pump based on the introduction of advanced technology at home and abroad, combined with the characteristics of domestic pump use. It has the characteristics of remarkable energy-saving effect, anti-winding and non-clogging. In the discharge of solid particles and long fiber garbage, it has a unique effect.

This series pump adopts unique impeller structure and new mechanical seal, which can effectively convey media containing solids and long fibers.Compared with the traditional impeller, the impeller of this pump adopts the form of single or double flow channel.It is similar to an elbow with the same cross-sectional size, which has very good over-flow, with a reasonable worm chamber, which makes the pump have a high efficiency, and the impeller is balanced, so that the pump is vibration-free in operation.

The hydraulic performance of the pump is advanced and mature, and the performance indexes of the product have reached the relevant standards. The product has been put on the market with its unique efficacy, reliable performance and stable quality, which is welcomed and praised by the majority of users.

#### **Product characteristics**

1. The use of large flow channel anti-clogging hydraulic components design, greatly improve the dirt through the capacity, can effectively pass the pump diameter it can effectively pass 5 times of fiber material and solid particles with diameter of about 50% of pump diameter.

2. Rational design, reasonable supporting motor, high efficiency, energy-saving effect is remarkable.

3. The mechanical seal adopts single end seal and the material is hard tungsten carbide, which is durable, wear-resistant and corrosion-resistant. It can make the pump run continuously for more than 8000 hours safely.

- 4. The LW(I)-type pump is directly connected with the motor, which is an electromechanical integration product with compact structure and stable performance.
- 5. Advanced hydraulic performance, high efficiency, low noise operation.

6. With the addition of protective cover at the end of the motor blade, the whole machine works directly outside, no need for machine room, which can save a lot of infrastructure costs.

7. The pump and the motor are the whole structure, so there is no need for correction when installing.

#### **Application**

- 1. Discharge of seriously polluted wastewater from factory.
- 2. Drainage system of urban sewage treatment plant.
- 3. Wastewater drainage stations in residential areas.
- 4. Drainage station of human defense system.
- 5. Sewage discharge of hospitals and hotels.
- 6. Municipal projects, construction sites.
- 7. Exploration, mining supporting attachments.
- 8、 Rural biogas ponds farmland irrigation.
- 9. Water supply device of water supply plant.

#### **Model Definition**



## **Structure Description**

LW non-clogging vertical sewage pump is a single-suction worm shell pump, which is equipped with non-clogging anti-winding type single (double) large flow channel impeller, with good passing capacity.

This series of pump has two structural forms, one is the direct coaxial connection between motor and pump; the other is the coupling connection, and the motor adopts the standard vertical motor. The structure diagram of the standard vertical motor is as follows, each structure form has two types of base connection, one is the inlet horizon-tal suction, with a corner function, according to the use of requirements, import and export placement angle can be  $0 \circ 90 \circ 180 \circ 270 \circ$  to facilitate pipeline connection; the second is the inlet axial suction, convenient for vertical installation.

#### LW (I) Structure

#### LW (II) Structure





# **Working Conditions**

1. The medium temperature should not exceed 60°C, the weight should be  $1.0 \sim 1.3$ kg/dm3, and the PH value should be within 5~9.

2. The pump and motor are integral structure, so it is required that the working environment temperature of the pump shall not exceed 40°C, and the relative humidity shall not exceed 95%.

3. In general, the pump must work within the range of head, to ensure that the motor is not overloaded, if you need to use in the full range of head, should be separately indicated when ordering, so that the manufacturer manufacturing.

4. The pump motor current must not exceed the rated current of the motor during operation.

# LW Spectral spectrum



No.	Model	Diameter mm	Rated flow (m <sup>3</sup> /h)	Head (m)	Power (kw)	RPM (r/min)	η (%)	Head range (m)
1	25LW8-22-1.1	25	8	22	1.1	2900	38.5	18-22
2	32LW12-15-1.1	32	12	15	1.1	2900	40	12-15
3	40LW15-15-1.5	40	15	15	1.5	2900	45.1	12-15
4	40LW15-30-2.2	40	15	30	2.2	2900	48	26-30
5	50LW20-7-0.75	50	20	7	0.75	2900	54	4-7
6	50LLW10-10-0.75	50	10	10	0.75	2900	56	6-10
7	50LW20-15-1.5	50	20	15	1.5	2900	55	12-15
8	50LW15-25-2.2	50	15	25	2.2	2900	56	22-25
9	50LW18-30-3	50	18	30	3	2900	58	27-30
10	50LW25-23-5.5	50	25	32	5.5	2900	53	28-32
11	50LW20-40-7.5	50	20	40	7.5	2900	55	37-40
12	65LW25-15-2.2	65	25	15	2.2	2900	52	12-15
13	65LW37-13-3	65	37	13	3	2900	55	9-13
14	65LW37-13-4	65	25	30	4	2900	58	26-30
15	65LW30-40-7.5	65	30	40	7.5	2900	56	37-40
16	65LW35-50-11	65	35	50	11	2900	60	45-50
17	65LW35-60-15	65	35	60	15	2900	63	55-60
18	80LW40-7-2.2	80	40	7	2.2	1450	52	4-7
19	80LW43-13-3	80	43	13	3	2900	50	10-13
20	80LW40-15-4	80	40	15	4	2900	57	12-15
21	80LW65-25-7.5	80	65	25	7.5	2900	56	20-25
22	100LW80-10-4	100	80	10	4	1450	62	7-10
23	100LW110-10-5.5	100	110	10	5.5	1450	66	7-10
24	100L100-15-7.5	100	100	15	7.5	1450	67	12-15
25	100LW85-20-7.5	100	85	20	7.5	1450	68	17-20
26	100LW100-25-11	100	100	25	11	1450	65	22-25
27	100LW100-30-15	100	100	30	15	1450	66	26-30
28	100LW100-35-18.5	100	100	35	18.5	1450	65	32-35
29	125LW130-15-11	125	130	15	11	1450	62	12-15
30	125LW130-20-15	125	130	20	15	1450	63	17-20
31	150LW145-9-7.5	150	145	9	7.5	1450	63	6-9
32	150LW180-15-15	150	180	15	15	1450	65	10-13
33	150LW180-20-18.5	150	180	20	18.5	1450	75	17-20
34	150LW180-25-22	150	180	25	22	1450	76	22-25
35	150LW130-30-22	150	130	30	22	1450	75	27-30

LW Performance Table

# LW Non-Clogging Vertical Sewage Pump

# LW Performance Table

No.	Model	Diameter mm	Rated flow (m <sup>3</sup> /h)	Head (m)	Power (kw)	RPM (r/min)	η (%)	Head range (m)
36	150LW180-30-30	150	180	30	30	1450	73	27-30
37	150LW200-30-37	150	200	30	37	1450	70	27-30
38	200LW300-7-11	200	300	7	11	970	73	4-7
39	200LW250-11-15	200	250	11	15	970	74	7-11
40	200LW400-10-22	200	400	10	22	1450	76	6-10
41	200LW400-13-30	200	400	13	30	1450	73	10-13
42	200LW250-15-18.5	200	250	15	18.5	1450	72	12-15
43	200LW300-15-22	200	300	15	22	1450	73	12-15
44	200LW250-22-30	200	250	22	30	1450	71	20-22
45	200LW350-25-37	200	350	25	37	1450	75	22-25
46	200LW400-30-55	200	400	30	55	1450	70	27-30
47	250LW600-9-30	250	600	9	30	970	74	5-9
48	250LW600-12-37	250	600	12	37	1450	78	8-12
49	250LW600-15-45	250	600	15	45	1450	75	7-15
50	250LW600-20-55	250	600	20	55	1450	73	17-20
51	250LW600-25-75	250	600	25	75	1450	73	22-25
52	300LW800-12-45	300	800	12	45	970	76	8-12
53	300LW500-15-45	300	500	15	45	970	70	11-15
54	300LW800-15-55	300	800	15	55	970	73	12-15
55	300LW600-20-55	300	600	20	55	970	75	17-20
56	300LW800-20-75	300	800	20	75	970	78	17-20
57	300LW950-20-90	300	950	20	90	970	80	17-20
58	300LW1000-25-110	300	1000	25	110	970	82	22-25
59	350LW1100-10-55	350	1100	10	55	970	84.5	6-10
60	350LW1500-15-90	350	1500	15	90	970	82.5	9-15
61	350LW1200-18-90	350	1200	18	90	970	83.1	15-18
62	350LW1100-28-132	350	1100	28	132	720	83.2	25-28
63	350LW1000-36-160	350	1000	36	160	720	78.5	32-36
64	400LW1500-10-75	400	1500	10	75	970	82.1	6-10
65	400LW2000-15-132	400	2000	15	132	720	85.5	12-15
66	400LW1700-22-160	400	1700	22	160	720	82.1	20-22
67	400LW1500-26-160	400	1500	26	160	720	83.5	22-26
68	400LW1700-30-200	400	1700	30	200	720	83.5	27-30
69	400LW1800-32-250	400	1800	32	250	720	82.1	30-32
70	500LW2500-10-110	500	2500	10	110	720	82	6-10
71	500LW2600-15-160	500	2600	15	160	720	83	10-15
72	500LW2400-22-220	500	2400	22	220	720	84	20-22
73	500LW2600-24-250	500	2600	24	250	720	82	21-24

# LW (Imported axial inhalation type) Installation Dimension Table

No.	Model	L <sub>1</sub>	L <sub>2</sub>	H <sub>1</sub>	H <sub>2</sub>	D	D <sub>1</sub>	n-Φa	B×B	$B_1 \times B_1$	$n_1 - \Phi a_1$	Н
1	25LW8-22-1.1	160	130	110	170	120	90	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	600
2	32LW12-15-1.1	160	130	110	170	120	90	4-Φ14	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	600
3	40LW15-15-1.5	160	150	110	180	130	100	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	620
4	40LW15-30-2.2	160	150	110	180	130	100	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	630
5	50LW20-7-0.7	160	150	110	185	140	110	$4 - \Phi 14$	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	660
6	550LW10-10-0.7	160	150	110	185	140	110	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	660
7	550LW20-15-1.5	160	140	110	180	140	110	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	630
8	50LW15-25-2.2	160	140	110	180	140	110	$4 - \Phi 14$	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	650
9	50LW18-30-3	160	150	110	185	140	110	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	720
10	50LW25-32-5.5	160	180	110	215	140	110	$4 - \Phi 14$	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	850
11	50LW20-40-7.5	160	180	110	215	140	110	$4 - \Phi 14$	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	900
12	65LW25-15-2.2	175	150	120	195	160	130	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	700
13	65LW37-13-3	175	150	120	195	160	130	$4 - \Phi 14$	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	760
14	65LW25-30-4	175	160	120	195	160	130	$4 - \Phi 14$	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	822
15	65LW30-40-7.5	175	180	120	275	160	130	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	860
16	65LW35-50-11	175	180	120	235	160	130	4-Φ14	$305 \times 305$	$265 \times 265$	4-Φ14	950
17	65LW35-60-15	175	180	120	235	160	130	4-Φ14	$305 \times 305$	$265 \times 265$	$4 - \Phi 14$	1000
18	80LW40-7-2.2	200	200	150	225	190	160	4-Φ18	390×390	$340 \times 340$	4-Φ18	845
19	80LW43-13-3	200	170	150	225	190	160	4-Φ18	390×390	$340 \times 340$	$4 - \Phi 18$	920
20	80LW40-15-4	200	170	150	225	190	160	$4 - \Phi 18$	390×390	$340 \times 340$	$4 - \Phi 18$	950
21	80LW65-25-7.5	200	200	150	225	190	160	4-Φ18	390×390	340×340	4-Φ18	900
22	100Lw80-10-4	220	255	200	225	190	170	4-Φ18	390×390	340×340	4-Φ18	920
23	100LW110-10-5.5	220	255	200	235	210	170	4-Φ18	390×390	340×340	$4 - \Phi 18$	950
24	100LW100-15-7.5	220	255	200	235	210	170	4-Φ18	$390 \times 390$	$340 \times 340$	4-Φ18	980
25	100LW85-20-7.5	220	255	200	235	210	170	4-Φ18	$390 \times 390$	340×340	4-Φ18	980
26	100LW100-25-11	220	285	200	260	210	170	$4 - \Phi 18$	$390 \times 390$	$340 \times 340$	$4 - \Phi 18$	1020
27	100LW100-30-15	220	320	200	275	210	170	4-Φ18	$390 \times 390$	$340 \times 340$	4-Φ18	1100
28	100LW100-35-18.5	220	320	200	275	210	170	$4 - \Phi 18$	$390 \times 390$	$340 \times 340$	4-Φ18	1150
29	125LW130-15-11	270	300	200	305	240	200	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1000
30	125LW130-20-15	270	300	200	305	265	200	8-Φ18	$350 \times 350$	$480 \times 480$	4-Φ23	1050
31	150LW145-9-7.5	270	300	200	305	265	225	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1000
32	150LWI80-15-15	270	300	200	305	265	225	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1450
33	150LW180-20-18.5	270	300	200	305	265	225	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1500
34	150LWI80-25-22	270	300	200	305	265	225	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1520
35	150LW130-30-22	270	340	200	330	265	225	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1520
36	150LW180-30-30	270	340	200	330	280	240	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1600
37	150LW200-30-37	270	340	200	330	280	240	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1630
38	200LW300-7-11	300	360	230	380	335	295	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1300
39	200LW250-11-15	300	360	230	380	335	295	8-Φ18	$350 \times 350$	480×480	$4 - \Phi 23$	1360
40	200LW 400-10-22	300	360	230	380	335	295	8-Φ18	$350 \times 350$	480×480	$4 - \Phi 23$	1450
41	200LW 400-13-30	300	360	230	380	335	295	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1550
42	200LW250-15-18.5	300	360	230	380	335	295	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1360
43	200LW300-15-22	300	360	230	380	335	295	8-Φ18	$350 \times 350$	480×480	$4 - \Phi 23$	1450
44	200LW250-22-30	300	360	230	380	335	295	8-Φ18	$350 \times 350$	$480 \times 480$	$4 - \Phi 23$	1550
45	200LW350-25-37	300	360	230	380	335	295	8-Φ18	$350 \times 350$	480×480	$4 - \Phi 23$	1650
46	1200LW400-30-55	1300	1380	230	1380	335	295	$18 - \Phi 18$	$1350 \times 350$	$ 480 \times 480 $	$ 4 - \Phi 23 $	1700

# LW (Imported axial inhalation type) Installation Dimension Table

No.	Model	$L_1$	$L_2$	$H_1$	$H_2$	D	$D_1$	n-Φa	B×B	$B_1 \times B_1$	$n_1 - \Phi a_1$	Н
47	250LW600-9-30	330	400	245	480	390	350	12- <b>Φ</b> 23	600×600	$500 \times 500$	$4 - \Phi 23$	1500
48	250LW600-12-37	330	400	245	480	390	350	12- <b>Φ</b> 23	600×600	$500 \times 500$	$4 - \Phi 23$	1580
49	250LW600-15-45	330	400	245	480	390	350	$12 - \Phi 23$	600×600	$500 \times 500$	$4 - \Phi 23$	1630
50	250LW600-20-55	330	400	245	480	390	350	$12 - \Phi 23$	$600 \times 600$	$500 \times 500$	$4 - \Phi 23$	1700
51	250LW600-25-75	330	400	245	480	390	350	$12 - \Phi 23$	720×720	$500 \times 500$	$4 - \Phi 23$	1800
52	300LW800-12-45	450	500	300	520	440	395	$12 - \Phi 23$	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	1650
53	300LW500-15-45	450	500	300	520	440	395	$12 - \Phi 23$	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	1650
54	300LW800-15-55	450	500	300	520	440	395	$12 - \Phi 23$	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	1750
55	300LW600-20-55	450	500	300	520	440	395	$12 - \Phi 23$	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	1750
56	300LW800-20-75	450	500	300	520	440	395	12- <b>Φ</b> 23	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	1850
57	300LW950-20-90	450	500	300	520	440	395	$12 - \Phi 23$	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	1920
58	300LW1000-25-110	450	500	300	520	440	395	$12 - \Phi 23$	$720 \times 720$	$620 \times 620$	$4 - \Phi 23$	2000
59	350LW1100-10-55	500	350	350	600	440	395	$12 - \Phi 23$	$820 \times 820$	$700 \times 700$	$4 - \Phi 26$	1900
60	350LW1500-15-90	500	350	350	600	500	460	12- <b>Φ</b> 23	820×820	$700 \times 700$	$4 - \Phi 26$	1950
61	350LWI200-18-90	500	350	350	600	500	460	12- <b>Φ</b> 23	820×820	$700 \times 700$	$4 - \Phi 26$	2000
62	350LW1100-28-132	500	350	350	600	500	460	12- <b>Φ</b> 23	820×820	$700 \times 700$	$4 - \Phi 26$	2200
63	350LW1000-36-160	500	350	350	600	500	460	$12 - \Phi 23$	820×820	$700 \times 700$	$4 - \Phi 26$	2300
64	400LW1500-10-75	700	420	420	680	560	515	$16 - \Phi 26$	$970 \times 970$	$875 \times 875$	$4 - \Phi 26$	2200
65	400LW2000-15-132	700	420	420	680	560	515	$16 - \Phi 26$	$970 \times 970$	$875 \times 875$	$4 - \Phi 26$	2400
66	400LW1700-22-160	700	420	420	680	560	515	$16 - \Phi 26$	$970 \times 970$	$875 \times 875$	$4 - \Phi 26$	2500
67	400LW1500-26-160	700	420	420	680	560	515	$16 - \Phi 26$	$970 \times 970$	$875 \times 875$	$4 - \Phi 26$	2500
68	400LW1700-30-200	700	420	420	680	560	515	$16 - \Phi 26$	$970 \times 970$	$875 \times 875$	$4 - \Phi 26$	2700
69	400LW1800-32-250	700	420	420	680	560	515	$16 - \Phi 26$	$970 \times 970$	$875 \times 875$	$4 - \Phi 26$	2800
70	500LW2500-10-110	750	420	420	800	670	620	$20 - \Phi 26$	$1210 \times 1210$	$1080 \times 1080$	$4 - \Phi 26$	2900
71	500LW2600-15-160	750	420	420	800	670	620	20-Ф26	$1210 \times 1210$	$1080 \times 1080$	$4 - \Phi 26$	2900
72	500LW2400-22-220	750	420	420	800	670	620	20- <b>Φ</b> 26	$1210 \times 1210$	$1080 \times 1080$	$4 - \Phi 26$	3100
73	500LW2600-24-250	750	420	420	800	670	620	$20 - \Phi 26$	$1210 \times 1210$	$1080 \times 1080$	$4 - \Phi 26$	3100

Note: The above "H" is the size of LW(I) pump, if you need "H" size of LW(II) pump, please ask us for it separately.



LW (Imported	axial inhalation	ype) Installation	<b>Dimension</b>	Table
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No.	Model	$D_2$	D <sub>1</sub>	D	n-Фa	Н	H <sub>1</sub>	L
1	100LW80-10-4	100	170	210	$4 - \Phi 18$	750	280	255
2	100LW110-10-5.5	100	170	210	$4 - \Phi 18$	770	285	255
3	100LW100-15-7.5	100	170	210	$4 - \Phi 18$	800	285	255
4	100LW85-20-7.5	100	170	210	$4 - \Phi 18$	800	285	255
5	100LW100-25-11	100	170	210	$4 - \Phi 18$	840	285	285
6	100LW100-30-15	100	170	210	$4 - \Phi 18$	970	295	320
7	100LW100-35-4.5	100	170	210	$4 - \Phi 18$	970	295	320
8	125LW130-15-11	125	200	240	8-Φ18	900	375	300
9	125LW130-20-15	125	200	240	8-Φ18	950	375	300
10	150LW145-9-7.5	150	225	265	8-Φ18	870	375	300
11	150LW180-15-15	150	225	265	8-Φ18	1350	385	300
12	150LW180-20-18.5	150	225	265	8-Φ18	1400	385	300
13	150LW180-25-22	150	225	265	8-Φ18	1420	385	340
14	150LW130-30-22	150	225	265	8-Φ18	1500	415	340
15	150LW150-30-30	150	240	280	<u>8-Φ18</u>	1530	415	340
16	150LW200-30-37	150	240	280	<u>8-Φ18</u>	1600	415	340
17	200LW300-7-11	200	295	335	<u>8-Φ18</u>	1150	400	360
18	200LW250-11-15	200	295	335	8-Φ18	1220	400	360
19	210LW400-10-22	200	295	335	<u>8-Φ18</u>	1300	400	360
20	200LW400-13-30	200	295	335	<u>8-Φ18</u>	1400	400	360
21	200LW250-15-18 5	200	295	335	<u>8-Φ18</u>	1300	400	360
22	200LW300-15-22	200	295	335	<u>8-Φ18</u>	1300	400	360
23	200LW250-22-30	200	295	335	8-018	1400	400	360
20	200LW350-25-37	200	295	335	8-018	1450	400	360
25	200LW400-30-55	200	205	335	8-018	1550	415	380
20	250LW600-9-30	250	350	390	19-0-23	1380	135	400
20	250LW600-12-37	250	350	390	$12 \oplus 23$ 19- $\oplus 23$	1380	435	400
28	250LW600-15-45	250	350	390	$12 \oplus 23$ 12- $\oplus 23$	1410	435	400
20	250LW600-20-55	250	350	390	$12 \oplus 23$ 19- $\oplus 23$	1500	435	400
30	250LW600-25-75	250	350	390	12 + 20 12-023	1600	435	400
31	300LW800-12-45	300	395	440	12 + 20 12-023	1430	480	400
32	300LW500-15-45	300	395	440	$12 - \Phi 23$	1450	480	500
33	300Lw800-15-55	300	395	440	12 ¢ 20	1550	480	500
34	300LW600-20-55	300	395	440	12 - 0.23	1550	480	500
35	300LW800-20-75	300	305	440	12 <del>23</del>	1650	480	500
36	300LW950-20-90	300	395	440	12 - 0.23	1720	480	500
37	300LW1000-25-110	300	395	440	12 - 023	1800	480	500
38	350LW1 100-10-55	350	460	500	12-023	1700	520	520
39	350LW1500-15-90	350	460	500	$12 - \Phi 23$	1750	520	520
40	350LW1 200-18-90	350	460	500	$12 - \Phi 23$	1800	520	520
41	350LW1 100-28-132	350	460	500	$12 - \Phi 23$	2000	520	520
42	350LW1 100-36-160	350	460	500	12- <b>D</b> 23	2100	520	520
42	400LW1500-10-75	400	515	569	16- ± 25	2000	550	640
44	400LW2000-15-132	400	515	569	$16 - \Phi 26$	2200	550	640
45	400LW1700-22-160	400	515	569	$16 - \Phi 26$	2300	550	640
46	400LW1500-26-160	400	515	569	$16 - \Phi 26$	2300	550	640
47	400LW1700-30-200	400	515	569	16-0.26	2500	550	640
48	400LW1800-32-250	400	515	569	16-0.26	2600	550	640
49	500LW2500-10-110	500	620	670	20-026	2600	600	700
50	500LW2600-15-160	500	620	670	20-026	2600	600	700
51	500LW2400-22-220	500	620	670	20-026	2800	600	750
52	500LW2600-24-250	500	620	670	20-026	2800	600	750
	550D#2000 DI 200		. 020	010	*0	2000		

d	е	f	g	k	$n_1 - \Phi a_1$
570	510	510	420	250	4-Φ23
570	510	510	420	250	$4 - \Phi 23$
570	510	510	420	250	$4 - \Phi 23$
570	510	510	420	250	$4 - \Phi 23$
570	510	510	420	250	$4 - \Phi 23$
570	510	510	420	250	$4 - \Phi 23$
570	510	510	420	250	$4 - \Phi 23$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4-\Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4-\Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	$4 - \Phi 27$
640	565	640	565	360	4 - 0.27
640	565	640	565	260	$4 - \Phi 27$
640	565	640	565	260	$4 - \Phi 27$
640	565	640	505	260	$4 \Phi 21$ 4- $\Phi 97$
C 40	505	640	505	200	4 Φ21 4 Φ27
040 C40	202	640 C40	505	360	$4-\Phi_{21}$
040	202	640	500	360	$4-\Phi_{21}$
080	580	680	580	360	4-033
080	500	080	500	360	$4-\Psi_{33}$
680	580	680	580	360	$4-\Phi_{33}$
680	580	680	580	360	4-Φ33
680	580	680	580	360	4-Φ33
760	680	760	680	380	4-Ф40
760	680	760	680	380	4-Ф40
760	680	760	680	380	$4 - \Phi 40$
760	680	760	680	380	4-Ф40
760	680	760	680	380	4-Ф40
760	680	760	680	380	4-Ф40
760	680	760	680	380	$4 - \Phi 40$
950	850	950	850	400	$4 - \Phi 40$
950	850	950	850	400	$4 - \Phi 40$
950	850	950	850	400	$4 - \Phi 40$
950	850	950	850	400	4-Φ40
950	850	950	850	400	4-Φ40
875	745	970	870	400	$4 - \Phi 40$
875	745	970	870	400	$4 - \Phi 40$
875	745	970	870	400	$4 - \Phi 40$
875	745	970	870	400	$4 - \Phi 40$
875	745	970	870	400	$4 - \Phi 40$
875	745	970	870	400	$4 - \Phi 40$
1160	1030	1210	1080	600	$6 - \Phi 40$
1160	1030	1210	1080	600	6-Φ40
1160	1030	1210	1080	600	$6 - \Phi 40$
1160	1030	1210	1080	600	$6 - \Phi 40$







Note: The above "H" is the size of LW(I) pump, if you need "H" size of LW(II) pump, please ask us for it separately.

#### **Installation Instructions**

1. The pump and the pipeline should have their own support parts, and the weight of the pipeline should not be applied to the pump.

2. For the convenience of maintenance and safety of use, install a regulating valve in each of the pump's import and export pipeline and a pressure gauge near the pump outlet to ensure that the pump operates within the rated head and flow rate to ensure the normal operation of the pump and improve the service life of the pump.

3. When installing the pump must tighten the foot bolt, so as to avoid the impact of vibration on the pump performance when starting.

4. The fastening of the pump and motor should be checked before installation and there is no damage.

5. In order not to make the pump bear the thermal deformation of the pipeline when conveying high temperature liquid, the foot bolt of the pump seat should not be fixed, so that the pump can move together with the pipeline when the pipeline system is in thermal expansion and contraction.

#### Maintenance

1. The pump should be managed and used by a person, and regularly check whether the insulation resistance is normal.

2. The sealing ring between impeller and pump body has sealing function, if the sealing ring is damaged, it will directly affect the performance of the pump. It must be replaced in time.

3. When the pump is not used for a long time, the liquid in the pump cavity should be drained to prevent the internal parts of the pump from being damaged by thermal expansion and cold shrinkage.

#### **Usage and precaution**

1. Before using the pump, check carefully whether the fasteners are loose or fall off, and whether the pump is deformed or damaged during transportation, storage and installation.

2. After the pump is started, the rotation direction is counterclockwise from the water inlet. If the electric pump reverses, simply adjust the wiring position of any two-phase line in the cable.

3. Do not run the electric pump in a low head state for a long time (in general, the head should not be lower than 60% of the rated head). It is best to control within the recommended range of head to prevent the pump from burning out the motor due to overload.

4. The pump should not run under cavitation condition to improve the service life of the pump, and it is strictly forbidden to run the pump without liquid, otherwise it is easy to burn the mechanical seal.

5. If the parts of the pump are made of cast iron, in the winter when it is installed in the open air, attention should be paid to prevent the breakage of the positive stop, and when the temperature is particularly low, it should be insulated.

# LW Non-Clogging Vertical Sewage Pump

Failure	Reason Analysis	Checking Method		
Insufficient flow or no water output	<ol> <li>Impeller rotation error</li> <li>Whether the valve is open and intact</li> <li>Pipe impeller is blocked</li> <li>The head is too high</li> <li>Density of pumping medium is high</li> <li>The seal ring is damaged</li> </ol>	<ol> <li>Adjust the direction of impeller rotation</li> <li>Check, repair and exclude</li> <li>Cleaning debris</li> <li>Change the pump or reduce the head</li> <li>Flush with water to reduce the concentration</li> <li>Replacement</li> </ol>		
Unstable Running	<ol> <li>Impeller unbalance</li> <li>Bearing damage</li> </ol>	<ol> <li>Send to the manufacturer for exchange or correction</li> <li>Replacement</li> </ol>		
Pump won't start	<ol> <li>Lack of phase</li> <li>Impeller stuck</li> <li>Stator winding burned out</li> </ol>	<ol> <li>Check the electrical appliances and circuits for repair</li> <li>Exclude debris</li> <li>Repair and replace windings</li> </ol>		
Excessive current	<ol> <li>Low working voltage</li> <li>Pipe and impeller are blocked</li> <li>High density or viscosity of pumped liquid</li> <li>The use of head is too low</li> </ol>	<ol> <li>Adjust the working voltage</li> <li>Clean up the pipeline, impeller blockage</li> <li>Change the density or viscosity</li> <li>Reduce the flow, increase the head</li> </ol>		
Insufficient pressure	<ol> <li>Damaged or leaking mechanical seal</li> <li>Cable broken</li> </ol>	1、Replacement 2、Replacement		