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WQ Series Operating Instructions **NON-CLOGGING SUBMERSIBLE SEWAGE PUMPS**

WQ型系列无堵塞潜水排污泵 使用说明

潜
污
泵

中美合资 Sino-US
浙江丰球克瑞泵业有限公司
Fengqiu Crane (Zhejiang) Pump Co., Ltd.

地址:浙江省诸暨经济开发区环城西路188号
Address:No.188, West Huancheng Road, Zhuji, Zhejiang
邮编(P. C.):311800
电话(Tel):0575-87123078
传真(Fax):0575-87123038
E-mail:sales@cranefengqiu.com
<http://www.cranefengqiu.com>

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**为防止触电，电泵请接漏电保护器，黄绿相间的双色接地线必须可靠接地**

To prevent electrical shock, the wire yellow and green strips must be securely grounded.

01

**为防止触电，维修或清理电泵前，请拔下插头(切断电源)**

To prevent electrical shock, always disconnect the pump from the power source before servicing or cleaning up.

02

**禁止使用泵的电缆起吊水泵**

Do not lift pump by pulling the pump power cable.

03

**为保证用户正确使用电泵，使用前请仔细阅读使用说明书**

To properly operate the pump, read the user manual carefully before use.

04

**电泵使用电压：单相泵为200~240伏；三相泵为340~410伏**

Pump voltage: Single-phase 200 ~ 240 volts; Three phase 340 ~ 410 volts.

05

**应严格在规定扬程范围内使用，否则会缩短电泵的使用寿命**

Pump must be used under the specified head range. Otherwise the pump life will be shortened.

06

产品特点**FEATURES**

- 过流部件设计独特，高效区宽广，具有全扬程(无过载)特性。泵能在较大流量范围内高效、安全运行。
- 通过能力强。叶轮的大通道防堵塞设计使泵能有效地输送含有直径6~125毫米的固体颗粒、杂质、长纤维等的液体。
- 配有漏水、漏电、漏油、过载、欠压、缺相等多项报警保护系统和液位控制系统，并对各种运行状态进行集中控制和有效的保护。
- 自动安装系统设计合理，强度好，安装灵活简便，无需建造泵房以减少工程造价。
- 采用进口优质轴承和耐高温油脂，使易损件寿命提高到一万小时以上。
- Unique hydraulic design provides excellent hydraulic abilities, non-loading characteristics, allowing the pump to run with high efficiency and safely in higher capacity.
- Excellent hydraulic abilities. The big channel and non-clogging impeller can transfer liquid containing solid particles, long fibers, impurities between 6-125mm diameter.
- The pump is equipped with fully automatic alarm protection system and liquid level control system to protect the pump against water, oil or electricity leakage, overloading, overheating and lack of phase, etc. In addition, the pump is controlled and protected in various status and we ensure it is operating properly.
- The automatic installation system is well designed with high strength and easy to instal. No pumping station is required.
- High quality bearings and high-temperature grease are used in the pumps which allow the components to run over 10,000 hours without repairing.

产品适用范围**APPLICATION FIELDS**

主要用于市政及工业污水处理工程、工矿企业、医院、宾馆、饭店、建筑等行业各种污水污泥的排放，用于输送含固体颗粒及各种纤维的城市生活污水、废水和雨水，也可用于农田灌溉。

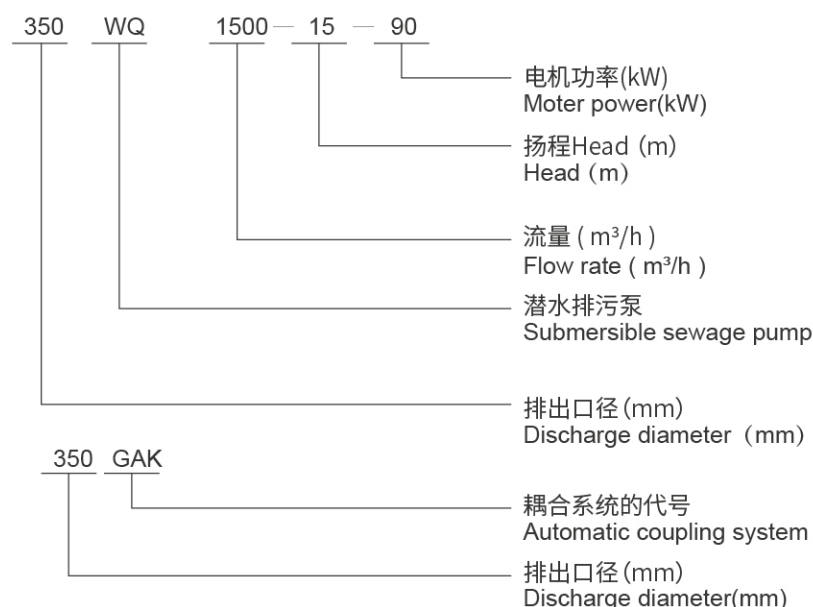
It is mainly used for removing various sewage sludges in municipal and industrial sewage treatment projects, industrial and mining enterprises, hospitals, hotels, restaurants, construction and other industries. It is used for transporting urban sewage, wastewater and rainwater containing solid particles and various fibers. It is also used for farmland irrigation.

使用条件**OPERATING CONDITIONS**

- 介质温度不超过 40℃，介质密度 $<1.2\text{kg/dm}^3$ ，固相物容积比 $<2\%$ 。
- 液体的 PH 值为 4 ~ 10。
- 电机部分不得露出液面运行。
- Medium temperature not exceed 40℃, medium density not exceed 1.2kg/dm^3 , solid contents less than 2%.
- Liquid PH value is between 4 and 10.
- Pump motor can not operate above liquid level.

型号说明

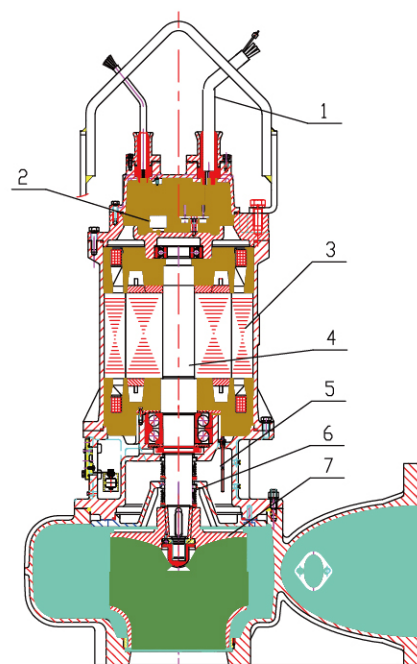
MODEL DESIGNATION



1. Unique water-resistant power cable design prevents leaking caused by outer jacket damage.
2. The water leaking probe inside the motor sends out alarm signal in case of motor water leakage and the control system offers pump an automatic protection.
3. The motor winding insulation is Class F, with thermal protector in each phase.
4. The motor shaft is made of stainless steel. The rotor has been dynamically balanced which allows the pump to run smoothly.
5. The pump is equipped with dual seal monitoring systems. Leaking from either seal will trigger the warning signal. The probe in the wiring chamber will send warning signal if leaking happens and thus protects the pump system.
6. Mechanical seals: Carbon vs. SiC motor side, Tungsten Carbide vs SiC pump side. These seals are high-temperature compatible, anti-impacting, anti-wearing and have long service life. Thus the pump can run long time safely.
7. Channel impeller design provides large solids passage, anti-clogging, and high efficiency, etc.

结构简介

STRUCTURE



1. 独特的水密电缆设计，有效地防止由于电缆破裂而造成的泄漏。
2. 接线腔内的漏水检测探头可以对接线腔内的泄漏发出报警信号，控制系统对泵实施保护。
3. 电机定子采用F级绝缘，每相均装有过热过载保护元件。
4. 电动机转轴采用不锈钢材质，转子进行动平衡检测，使泵运转更平稳。
5. 设置二道密封监视，任一密封泄漏便可报警。接线腔内的漏水检测探头可以对接线腔内的泄漏发出报警信号，控制系统对泵实施保护。
6. 机封材质：（电机端）石墨 / 碳化硅，（叶轮端）碳化钨 / 碳化硅，耐高温、耐冲击、耐磨损能力出色，使用寿命长。保证了泵的长期安全可靠运行。
7. 流道式叶轮设计不仅使泵具有通过能力强、抗堵塞、效率高等特点，更使泵具有全扬程特性，使泵的流量调节和选型更方便。



双流道叶轮
Double channel impeller



双叶片叶轮
Double vane type impeller



混流式叶轮
Mixed flow impeller



单流道叶轮
Single channel impeller



旋流式叶轮
Vortex impeller



多叶片叶轮
Multiple blade impeller

技术参数

TECHNICAL SPECIFICATION

序 号 No.	型 号 Model	口 径 Discharge (mm)	流 量 Flow rate (m³/h)	扬 程 Head (m)	功 率 Power (kW)	转 速 Speed (r/min)	效 率 Efficiency (%)	电 压 Voltage (V)	电 流 Current (A)	通过粒径 Solid Handling (mm)	自耦装置 型 号 A.C.S model	重 量 Weight (kg)
1	50WQ10-10-0.75	50	10	10	0.75	2850	45	220	1.7	25	65GAK	30
2	50WQ7-15-1.1	50	7	15	1.1	2860	42	380	2.5	20	65GAK	25
3	50WQ15-7-1.1	50	15	7			48			25	65GAK	25
4	50WQ10-15-1.5	50	10	15	1.5		51		4.6	25	65GAK	30
5	50WQ20-10-1.5	50	20	10			51			25	65GAK	35
6	50WQ9-22-2.2	50	9	22	2.2	2860	44	4.8	25	25	65GAK	45
7	50WQ15-15-2.2	50	15	15			52			25	65GAK	45
8	50WQ25-10-2.2	50	25	10			51			30	65GAK	45
9	65WQ35-7-2.2	65	35	7			54			30	65GAK	50
10	50WQ15-22-3	50	15	22	3	1460	51	6.4	25	25	65GAK	45
11	50WQ25-15-3	50	25	15			51			30	65GAK	45
12	65WQ35-10-3	65	35	10			54			30	65GAK	50
13	100WQ70-7-3	100	70	7			56			35	100GAK	80
14	100WQ90-6-3	100	90	6	4	2860	56	380	8.6	35	100GAK	80
15	100WQ100-3.5-3	100	100	3.5			54			35	100GAK	80
16	50WQ15-30-4	50	15	30			46			25	65GAK	70
17	50WQ20-22-4	50	20	22	50	25	65GAK			70		
18	65WQ50-10-4	65	50	10				56	35		65GAK	75
19	100WQ100-7-4	100	100	7	5.5	1460	65	9.2	35	100GAK	80	
20	50WQ25-30-5.5	50	25	30		2860	49		11	15	65GAK	80
21	50WQ30-22-5.5	50	30	22			53			15	65GAK	80
22	80WQ45-15-5.5	80	45	15		1460	56		12.2	30	100GAK	140
23	100WQ70-12-5.5	100	70	12	58		35	100GAK		140		
24	100WQ100-10-5.5	100	100	10	61		35	100GAK		140		
25	150WQ140-7-5.5	150	140	7	72		85	150GAK		170		
26	200WQ250-4-5.5	200	250	4	7.5	980	70	13	75	200GAK	230	
27	50WQ12.5-50-7.5	50	12.5	50		2860	49		15	15	65GAK	85
28	50WQ20-40-7.5	50	20	40			50			15	65GAK	85
29	50WQ25-45-7.5	50	25	45			55			15	65GAK	85
30	50WQ30-32-7.5	50	30	32	52		15	65GAK		85		
31	80WQ45-22-7.5	80	45	22	7.5	1460	65	16.6	30	100GAK	150	
32	80WQ70-15-7.5	80	70	15			73		35	100GAK	150	
33	80WQ100-14-7.5	80	100	14			73		35	100GAK	150	
34	150WQ145-10-7.5	150	145	10			74		85	150GAK	195	
35	150WQ210-7-7.5	150	210	7	980	74	17	75	150GAK	195		
36	200WQ400-4-7.5	200	400	4		75		75	200GAK	250		

技术参数

TECHNICAL SPECIFICATION

序 号 No.	型 号 Model	口 径 Discharge (mm)	流 量 Flow rate (m³/h)	扬 程 Head (m)	功 率 Power (kW)	转 速 Speed (r/min)	效 率 Efficiency (%)	电 压 Voltage (V)	电 流 Current (A)	通过粒径 Solid Handling (mm)	自耦装置 型 号 A.C.S model	重 量 Weight (kg)		
37	80WQ45-32-11	80	45	32	11	1460	56	380	24	30	100GAK	250		
38	100WQ70-22-11	100	70	22			55			35	100GAK	250		
39	100WQ130-15-11	100	130	15			60			45	100GAK	250		
40	150WQ200-10-11	150	200	10			65			50	150GAK	280		
41	200WQ300-7-11	200	300	7			66			50	200GAK	350		
42	250WQ520-3.5-11	250	520	3.5	15	980	70		26	100	250GAK	380		
43	100WQ80-30-15	100	80	30			60		35	100GAK	270			
44	100WQ100-22-15	100	100	22			65		40	100GAK	270			
45	150WQ150-15-15	150	150	15			73		50	150GAK	300			
46	150WQ200-12-15	150	200	12			75		50	150GAK	300			
47	200WQ400-7-15	200	400	7	18.5	980	66	32	50	200GAK	380			
48	250WQ700-4-15	250	700	4			70		100	250GAK	420			
49	100WQ50-50-18.5	100	50	50			65		30	100GAK	330			
50	100WQ70-40-18.5	100	70	40			58		35	100GAK	350			
51	100WQ100-28-18.5	100	100	28			62		40	100GAK	350			
52	200WQ250-15-18.5	200	250	15	22	1460	72	38	75	200GAK	420			
53	200WQ300-12-18.5	200	300	12			73		75	200GAK	420			
54	200WQ500-7-18.5	200	500	7			70		85	200GAK	420			
55	250WQ700-5-18.5	250	700	5			72		85	250GAK	580			
56	350WQ1000-3.5-18.5	350	1000	3.5			65		150	350GAK	660			
57	100WQ100-34-22	100	100	34	22	1460	60	45	35	100GAK	380			
58	150WQ130-30-22	150	130	30			60		40	150GAK	400			
59	150WQ150-22-22	150	150	22			71		50	150GAK	400			
60	200WQ250-17-22	200	250	17			72		50	200GAK	430			
61	200WQ300-14-22	200	300	14			74		75	200GAK	430			
62	200WQ400-10-22	200	400	10	30	980	74	47	85	200GAK	430			
63	250WQ700-6-22	250	700	6			73		85	250GAK	600			
64	350WQ1000-4.5-22	350	1000	4.5			75		150	350GAK	680			
65	150WQ100-40-30	150	100	40			37		1460	65	59	40	150GAK	600
66	150WQ150-36-30	150	150	36						65		40	150GAK	600
67	200WQ250-22-30	200	250	22	73	85		200GAK		700				
68	200WQ360-16-30	200	360	16	79	85		200GAK		700				
69	250WQ500-13-30	250	500	13	37	980		80		61		125	250GAK	800
70	300WQ800-8-30	300	800	8			78	125	300GAK		900			
71	350WQ1100-6-30	350	1100	6			62	125	350GAK		1000			
72	150WQ90-50-37	150	90	50			62	125	150GAK		680			

技术参数

TECHNICAL SPECIFICATION

序 号 No.	型 号 Model	口 径 Discharge (mm)	流 量 Flow rate (m³/h)	扬 程 Head (m)	功 率 Power (kW)	转 速 Speed (r/min)	效 率 Efficiency (%)	电 压 Voltage (V)	电 流 Current (A)	通过粒径 Solid Handling (mm)	自耦装置 型 号 A.C.S model	重 量 Weight (kg)	
73	150WQ150-40-37	150	150	40	37	1460	67	380	70	45	150GAK	680	
74	200WQ300-22-37	200	300	22		980	75		72	85	200GAK	750	
75	200WQ400-18-37	200	400	18			80			85	200GAK	750	
76	250WQ700-12-37	250	700	12			75			125	250GAK	820	
77	300WQ850-10-37	300	850	10			76			125	300GAK	870	
78	350WQ1100-8-37	350	1100	8			78			125	350GAK	920	
79	200WQ250-35-45	200	250	35	45		1460			71	85	50	200GAK
80	200WQ400-24-45	200	400	24		75	85		200GAK	850			
81	250WQ600-16-45	250	600	16		980	75		88	125	250GAK	890	
82	300WQ900-12-45	300	900	12			78			125	300GAK	940	
83	350WQ1100-10-45	350	1100	10			81			125	350GAK	980	
84	200WQ250-40-55	200	250	40			1460			70	102	50	200GAK
85	200WQ400-30-55	200	400	30	70					50		200GAK	880
86	250WQ600-20-55	250	600	20	55					75		104	125
87	300WQ900-15-55	300	900	15		77			125	300GAK			960
88	350WQ1100-12-55	350	1100	12		74			125	350GAK			1000
89	200WQ350-40-75	200	350	40		75			70	141			55
90	250WQ600-26-75	250	600	26			76		125		250GAK		1600
91	250WQ900-20-75	250	900	20			76		125		250GAK		1800
92	350WQ1100-16-75	350	1100	16	75		125		250GAK		1800		
93	350WQ1500-11-75	350	1500	11	75		125		350GAK		1800		
94	200WQ400-40-90	200	400	40	90		70		168		55	200GAK	1700
95	250WQ600-35-90	250	600	35		75	125			250GAK	1750		
96	250WQ800-26-90	250	800	26		80	125			250GAK	1750		
97	250WQ950-22-90	250	950	22		80	125			300GAK	1750		
98	350WQ1200-18-90	350	1200	18		80	125			350GAK	1860		
99	350WQ1500-15-90	350	1500	15		81	125			350GAK	1860		
100	250WQ600-40-110	250	600	40	110	980	72		204	125	250GAK	1900	
101	250WQ800-36-110	250	800	36			79			125	250GAK	1900	
102	250WQ950-27-110	350	950	27			75			125	250GAK	1900	
103	350WQ1200-20-110	350	1200	20			75			125	350GAK	2000	
104	350WQ1600-17-110	350	1600	17			78			125	350GAK	2000	
105	350WQ2000-13-110	350	2000	13			81			125	350GAK	2000	
106	250WQ650-45-132	250	650	45	132	980	75		260	70	250GAK	2100	
107	250WQ900-36-132	250	900	36			79			70	250GAK	2100	
108	350WQ1000-28-132	350	1000	28			79			125	350GAK	2200	

技术参数

TECHNICAL SPECIFICATION

序 号 No.	型 号 Model	口 径 Discharge (mm)	流 量 Flow rate (m³/h)	扬 程 Head (m)	功 率 Power (kW)	转 速 Speed (r/min)	效 率 Efficiency (%)	电 压 Voltage (V)	电 流 Current (A)	通过粒径 Solid Handling (mm)	自耦装置 型 号 A.C.S model	重 量 Weight (kg)
109	350WQ1300-25-132	350	1300	25	132	980	79	380	260	125	350GAK	2200
110	350WQ1600-20-132	350	1600	20			82			125	350GAK	2200
111	350WQ2000-16-132	350	2000	16			80			125	350GAK	2200
112	500WQ2600-12-132	500	2600	12			83			275	500GAK	2400
113	250WQ650-48-160	250	650	48	160	980	74		300	70	250GAK	2300
114	350WQ1000-37-160	350	1000	37			77			125	350GAK	2500
115	350WQ1200-32-160	350	1200	32			77			125	350GAK	2500
116	400WQ1600-26-160	400	1600	26			80			125	400GAK	2650
117	400WQ2000-20-160	400	2000	20	185	740	80		320	125	400GAK	2650
118	500WQ2600-16-160	500	2600	16			85			125	500GAK	2650
119	600WQ3000-14-160	600	3000	14			86			125	600GAK	2850
120	600WQ3800-11-160	600	3800	11			86			125	600GAK	2850
121	350WQ1200-36-185	350	1200	36	200	980	82		340	125	350GAK	2800
122	400WQ1800-25-185	400	1800	25			82			125	400GAK	2950
123	500WQ2600-18-185	500	2600	18			83			125	500GAK	3050
124	600WQ4000-11-185	600	4000	11			87			125	600GAK	3150
125	350WQ1200-40-200	350	1200	40	220	980	75		370	125	350GAK	3050
126	400WQ1700-32-200	400	1700	32			82			125	400GAK	3150
127	500WQ2600-20-200	500	2600	20			83			125	500GAK	3200
128	500WQ3000-17-200	500	3000	17			86			125	500GAK	3200
129	350WQ1400-40-220	350	1400	40	250	740	80		400	125	350GAK	3350
130	400WQ2000-26-220	400	2000	26			83			125	400GAK	3500
131	400WQ2400-22-220	400	2400	22			85			125	400GAK	3500
132	500WQ3000-20-220	500	3000	20			80			125	500GAK	3850
133	400WQ1900-32-250	400	1900	32	280	980	82		460	125	400GAK	3900
134	500WQ2600-25-250	500	2600	25			85			125	500GAK	3900
135	500WQ3000-23-250	500	3000	23			80			125	500GAK	4100
136	600WQ3800-17-250	600	3800	17			87			125	600GAK	4400
137	400WQ1900-40-280	400	1900	40	315	740	80		520	125	400GAK	4200
138	500WQ3000-25-280	500	3000	25			82			125	500GAK	4500
139	600WQ4000-16-280	600	4000	16			81			125	600GAK	4750
140	500WQ3000-28-315	500	3000	28			82			125	500GAK	5000
141	600WQ4000-20-315	600	4000	20	355		84		560	125	600GAK	5300
142	600WQ6000-15-355	600	6000	15			85			125	600GAK	5700

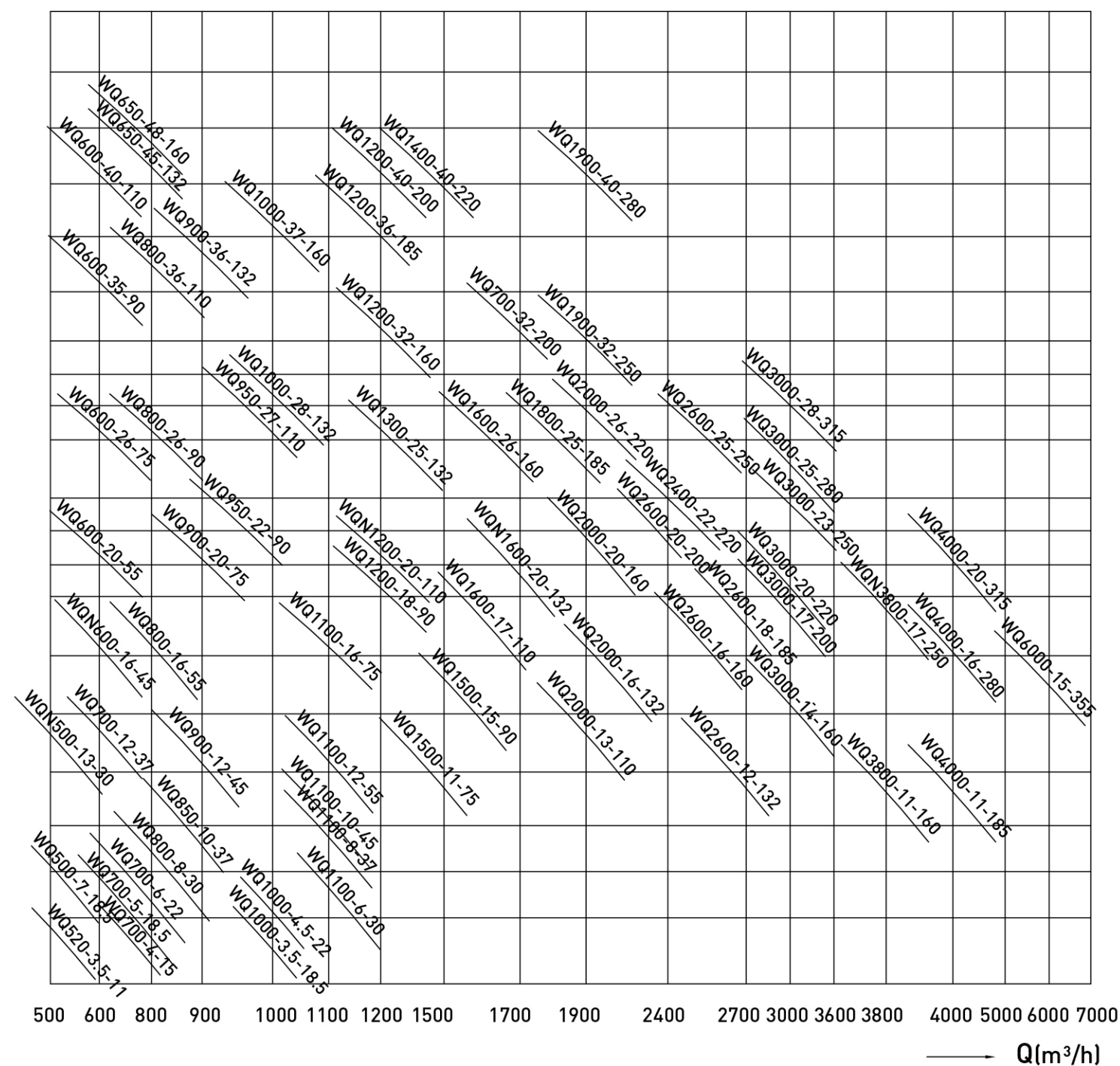
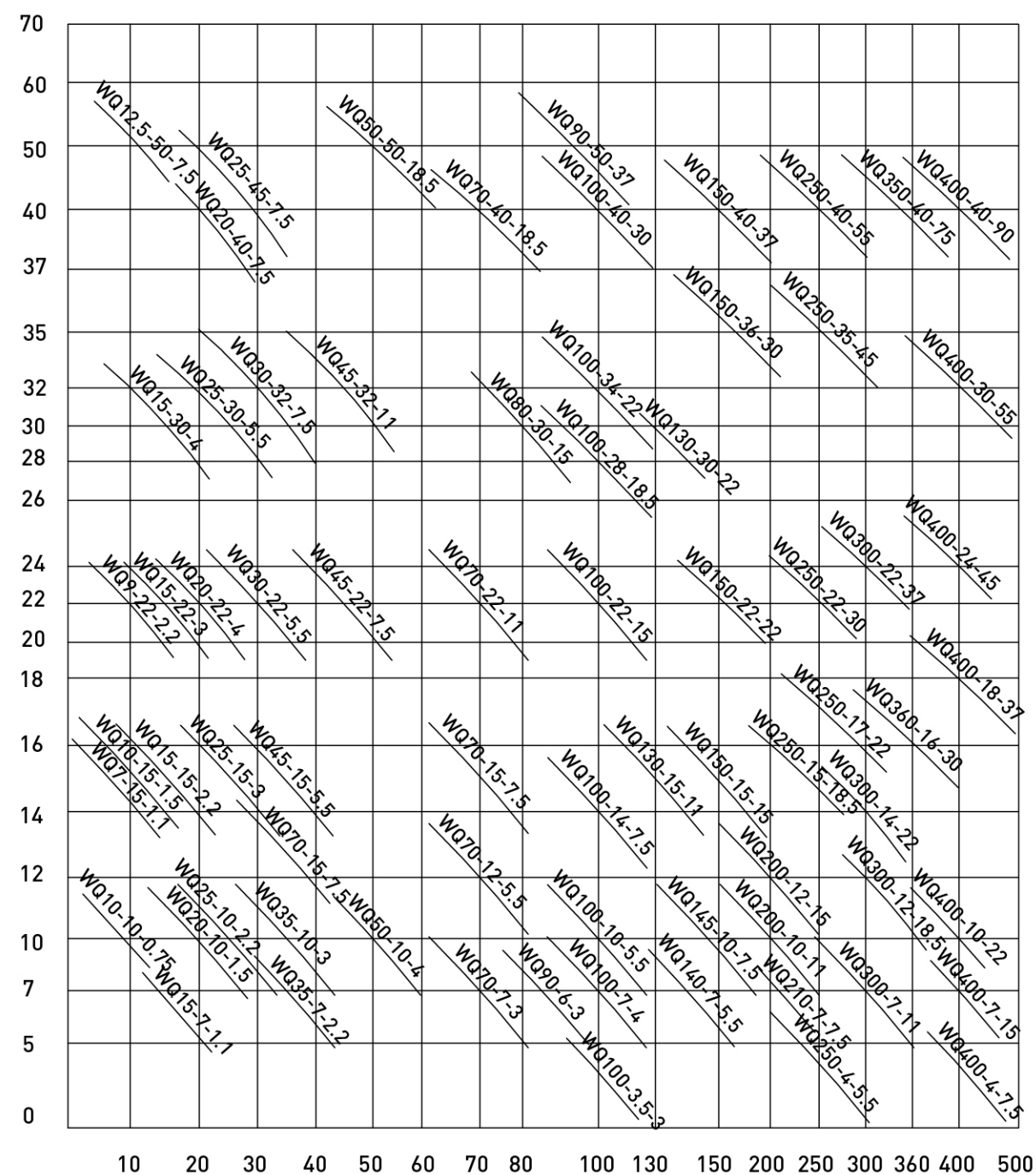
说明: 1. 以上所列为代表性规格 2. 其它规格可按用户要求设计

NOTE: 1. The above listed are standard data. 2. Other models can be designed per customer's request.

WQ 型潜水排污泵型谱图

TYPE SPECTRUM DIAGRAM OF WQ SUBMERSIBLE SEWAGE PUMPS

H(m)

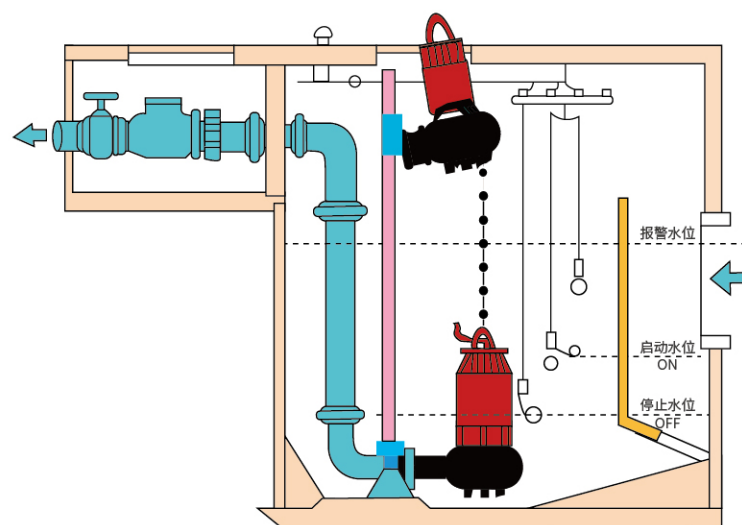


→ Q(m³/h)

安装方式

INSTALLATION

根据安装原理决定泵的安装方式：湿式安装（泵潜入液体中）或移动式安装。
The pump can be installed in the liquid (submerged in the liquid) or removable.

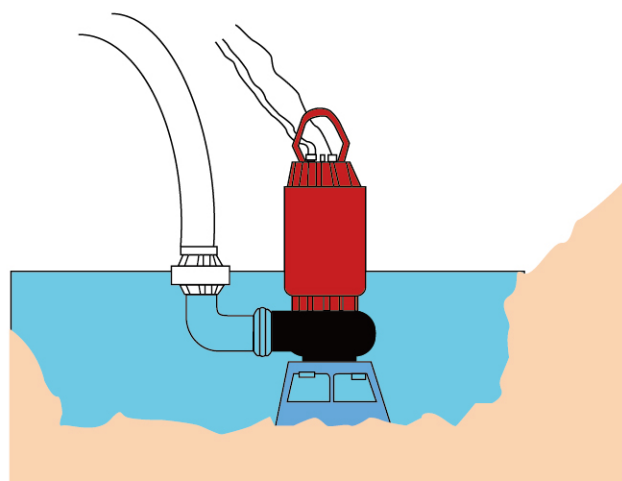


1. 固定湿式安装

水泵在集水坑中沿导杆下滑到底座出水口位置，通过泵的自重，自动耦合密封，维修时无需维修人员进出污水池。

1. Wet fixed installation

The pump is slid down to the base along the guide rail in the sump and couples with discharge pipe automatically by weight. No person is required to get into the mud pit for maintenance.



2. 移动式安装

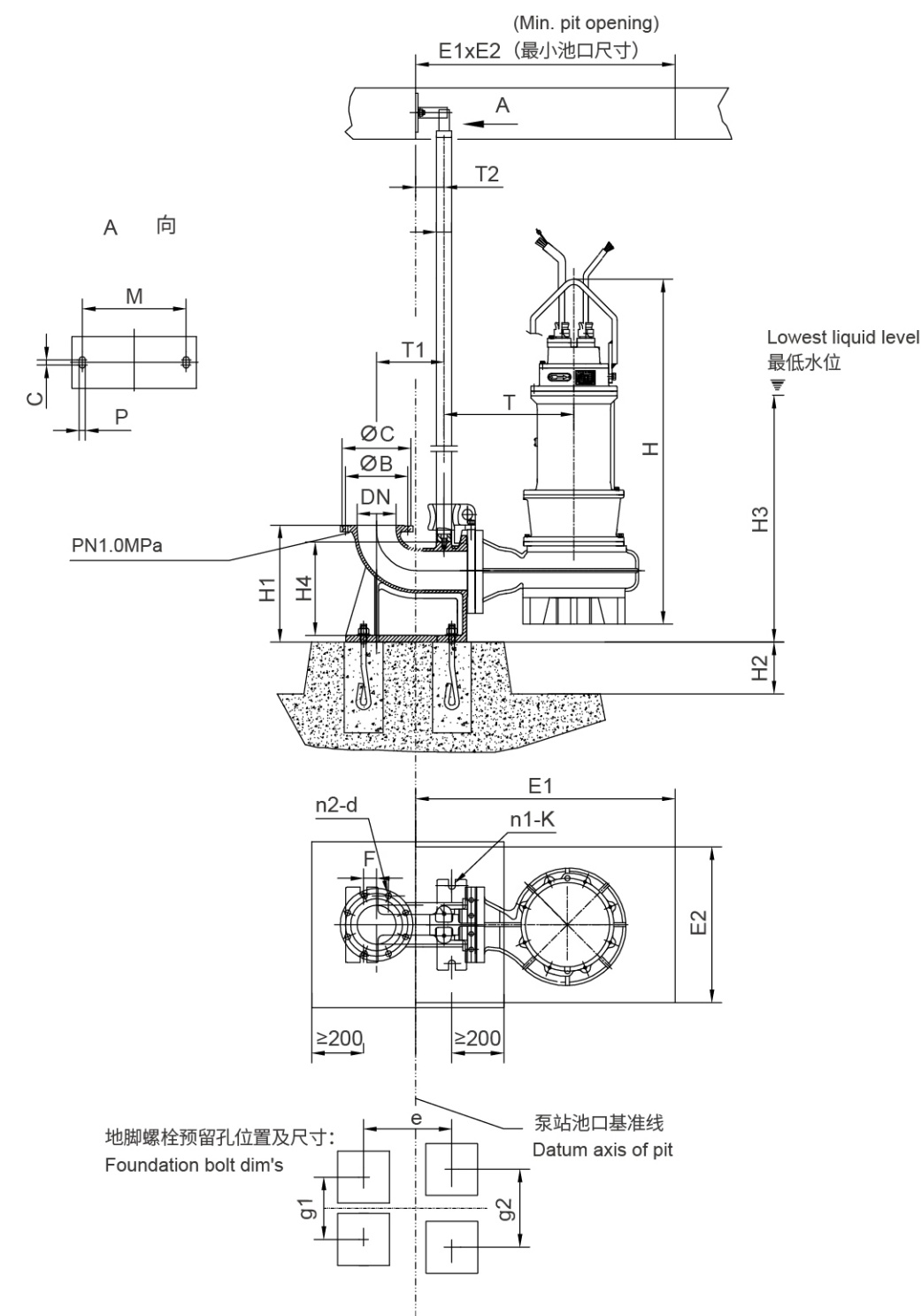
本公司 11kW 以下的泵可采用这种安装方式，将泵放至需要的工作场所，接上出水管即可。

2. Movable installation

Pumps under 11 KW can be installed in this method. Simply put the pump in the desired worksite and connect it with discharge pipe.

湿式自动安装

Wet automatic installation



固定湿式自动安装尺寸表

DIMENSION TABLE FOR WET FIXED AUTOMATIC INSTALLATION

序号 No.	泵型号 Model	DN	φB	φC	H	H1	H2	H3	H4	T	T1	T2	P	M	F	g1	g2	e	n2-d	n1-k	E1X E2
1	50WQ7-15-1.1	65	145	180	394	250	50	350	198	248	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
2	50WQ10-15-1.5	65	145	180	551	250	100	500	198	260	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
3	50WQ20-10-1.5	65	145	180	551	250	100	500	198	260	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
4	50WQ9-22-2.2	65	145	180	551	250	100	500	198	260	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
5	50WQ15-15-2.2	65	145	180	551	250	100	500	198	260	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
6	50WQ25-10-2.2	65	145	180	551	250	100	500	198	260	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
7	65WQ35-7-2.2	65	145	180	570	250	50	500	198	290	180	110	12	195	50	180	180	260	4-φ18	4-φ20	700 X 600
8	50WQ15-22-3	65	145	180	800	250	100	500	198	280	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
9	50WQ25-15-3	65	145	180	800	250	100	500	198	280	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
10	65WQ35-10-3	65	145	180	800	250	100	500	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
11	100WQ70-7-3	100	180	229	670	395	100	550	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	700 X 600
12	100WQ90-6-3	100	180	229	670	395	100	550	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	700 X 600
13	100WQ100-3.5-3	100	180	229	800	395	100	550	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	700 X 600
14	50WQ15-30-4	65	145	180	800	250	100	500	198	280	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
15	50WQ20-22-4	65	145	180	800	250	100	500	198	280	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
16	65WQ50-10-4	65	145	180	800	250	100	500	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
17	100WQ100-7-4	100	180	229	670	395	100	550	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	700 X 600
18	50WQ25-30-5.5	65	145	180	870	250	100	600	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
19	50WQ30-22-5.5	65	145	180	870	250	100	600	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
20	80WQ45-15-5.5	100	180	229	1050	395	200	800	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	800 X 600
21	100WQ70-12-5.5	100	180	229	1050	395	200	800	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	800 X 600
22	100WQ100-10-5.5	100	180	229	1050	395	200	800	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	800 X 600
23	150WQ140-7-5.5	150	240	280	1080	450	100	800	385	440	260	110	12	200	50	240	300	340	8-φ23	4-φ27	900 X 700
24	200WQ250-4-5.5	200	295	335	1080	615	100	900	500	570	268	110	12	195	50	240	300	340	8-φ23	4-φ27	1100 X 750
25	50WQ12.5-50-7.5	65	145	180	870	250	100	600	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
26	50WQ20-40-7.5	65	145	180	870	250	100	600	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
27	50WQ25-45-7.5	65	145	180	870	250	100	600	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
28	50WQ30-32-7.5	65	145	180	870	250	100	600	198	300	180	110	12	195	40	180	180	260	4-φ18	4-φ20	700 X 600
29	80WQ45-22-7.5	100	180	229	1050	395	200	800	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	800 X 600
30	80WQ70-15-7.5	100	180	229	1050	395	200	800	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	800 X 600
31	80WQ100-14-7.5	100	180	229	1050	395	200	800	305	380	260	110	12	200	50	240	240	340	8-φ18	4-φ20	800 X 600
32	150WQ145-10-7.5	150	240	280	1080	450	100	800	385	440	260	110	12	200	50	240	300	340	8-φ23	4-φ27	900 X 700
33	150WQ210-7-7.5	150	240	280	1080	450	100	800	385	440	260	110	12	200	50	240	300	340	8-φ23	4-φ27	900 X 700
34	200WQ400-4-7.5	200	295	335	1080	615	100	900	500	570	268	110	12	280	50	240	300	340	8-φ23	4-φ27	1100 X 750
35	80WQ45-32-11	100	180	229	1200	395	200	850	305	440	260	110	12	200	50	240	240	340	8-φ18	4-φ20	850 X 600
36	100WQ70-22-11	100	180	229	1200	395	200	850	305	440	260	110	12	200	50	240	240	340	8-φ18	4-φ20	850 X 600
37	100WQ130-15-11	100	180	229	1100	395	200	900	305	450	260	110	12	200	50	240	240	340	8-φ18	4-φ20	850 X 600
38	150WQ200-10-11	150	240	280	1230	450	100	900	385	440	260	110	12	200	50	240	300	340	8-φ23	4-φ27	900 X 700
39	200WQ300-7-11	200	295	335	1230	615	100	900	500	538	268	120	14	280	152	520	520	480	8-φ23	4-φ35	1100 X 750

固定湿式自动安装尺寸表

DIMENSION TABLE FOR WET FIXED AUTOMATIC INSTALLATION

序号 No.	泵型号 Model	DN	øB	øC	H	H1	H2	H3	H4	T	T1	T2	P	M	F	g1	g2	e	n2-d	n1-k	E1 X E2
40	250WQ520-3.5-11	250	350	390	1350	720	250	1000	545	597	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1250 X 900
41	100WQ80-30-15	100	180	229	1200	395	200	900	305	440	260	110	12	200	50	240	240	340	8 - ø18	4 - ø20	850 X 600
42	100WQ100-22-15	100	180	229	1100	395	200	900	305	450	260	110	12	200	50	240	240	340	8 - ø18	4 - ø20	850 X 600
43	150WQ150-15-15	150	240	280	1230	450	100	900	385	440	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	900 X 700
44	150WQ200-12-15	150	240	280	1230	450	100	900	385	440	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	900 X 700
45	200WQ400-7-15	200	295	335	1230	615	100	900	500	538	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X 750
46	250WQ700-4-15	250	350	390	1350	720	250	1000	545	597	423	140	14	280	185	700	700	650	12- ø23	4 - ø40	1250 X900
47	100WQ50-50-18.5	100	180	229	1231	395	200	900	305	460	260	110	12	200	50	240	240	340	8 - ø18	4 - ø20	1000 X 680
48	100WQ70-40-18.5	100	180	229	1231	395	200	900	305	460	260	110	12	200	50	240	240	340	8 - ø18	4 - ø20	1000 X 680
49	100WQ100-28-18.5	100	180	229	1231	395	200	900	305	460	260	110	12	200	50	240	240	340	8 - ø18	4 - ø20	1000 X 600
50	200WQ250-15-18.5	200	295	335	1300	615	150	950	500	532	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X 800
51	200WQ300-12-18.5	200	295	335	1300	615	150	1000	500	532	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X 800
52	200WQ500-7-18.5	200	295	335	1300	615	150	1000	500	532	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X 800
53	250WQ700-5-18.5	250	350	390	1520	720	300	1100	545	682	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1500 X 1000
54	350WQ1000-3.5-18.5	350	460	500	1520	750	300	1100	585	747	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1500 X 1000
55	100WQ100-34-22	100	180	229	1230	395	200	900	305	460	260	110	12	200	50	240	240	340	8 - ø18	4 - ø20	1000 X 680
56	150WQ130-30-22	150	240	280	1262	450	150	950	385	430	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	1000 X 600
57	150WQ150-22-22	150	240	280	1329	450	150	950	385	500	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	1000 X 700
58	200WQ250-17-22	200	295	335	1329	615	150	950	500	512	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X 800
59	200WQ300-14-22	200	295	335	1300	615	150	1000	500	532	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X800
60	200WQ400-10-22	200	295	335	1300	615	150	1000	500	532	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1100 X800
61	250WQ700-6-22	250	350	390	1520	720	200	1100	545	682	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1450 X 1000
62	350WQ1000-4.5-22	350	460	500	1520	750	300	1100	585	747	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1500 X 1000
63	150WQ100-40-30	150	240	280	1520	450	150	1000	385	530	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	1200 X 800
64	150WQ150-36-30	150	240	280	1540	450	150	1000	385	560	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	1200 X 800
65	200WQ250-22-30	200	295	335	1655	615	200	1100	500	655	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850
66	200WQ360-16-30	200	295	335	1655	615	200	1100	500	655	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850
67	250WQ500-13-30	250	350	390	1689	720	300	1100	545	702	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1400 X 900
68	300WQ800-8-30	300	400	445	1624	720	300	1100	545	682	423	140	14	280	0	780	780	770	12 - ø23	4 - ø40	1450 X 1200
69	350WQ1100-6-30	350	460	500	1729	750	200	1200	585	837	431	140	14	280	300	780	780	770	12 - ø23	4 - ø40	1650 X 1200
70	150WQ90-50-37	150	240	280	1520	450	150	1000	385	530	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	1200 X 800
71	150WQ150-40-37	150	240	280	1520	450	150	1000	385	530	260	110	12	200	50	240	300	340	8 - ø23	4 - ø27	1200 X 800
72	200WQ300-22-37	200	295	335	1655	615	200	1100	500	655	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850
73	200WQ400-18-37	200	295	335	1655	615	200	1100	500	655	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850
74	250WQ700-12-37	250	350	390	1689	720	300	1100	545	702	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1400 X 1000
75	300WQ850-10-37	300	400	445	1624	720	300	1100	545	682	423	140	14	280	0	590	590	490	12 - ø23	4 - ø40	1450 X 1200
76	350WQ1100-8-37	350	460	500	1729	750	200	1200	585	837	431	140	14	280	300	780	780	770	16 - ø23	4 - ø40	1650 X 1200
77	200WQ250-35-45	200	295	335	1562	615	200	1100	500	610	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X850
78	200WQ400-24-45	200	295	335	1700	615	200	1150	500	655	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850

固定湿式自动安装尺寸表

DIMENSION TABLE FOR WET FIXED AUTOMATIC INSTALLATION

序号 No	泵型号 Model	DN	øB	øC	H	H1	H2	H3	H4	T	T1	T2	P	M	F	g1	g2	e	n2-d	n1-k	E1 X E2
79	250WQ600-16-45	250	350	390	1738	720	300	1200	545	702	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1400 X 1000
80	300WQ900-12-45	300	400	445	1671	720	300	1150	545	702	423	140	14	280	0	590	590	490	12 - ø23	4 - ø40	1450 X 1200
81	350WQ1100-10-45	350	460	500	1729	750	200	1200	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1200
82	200WQ250-40-55	200	295	335	1562	615	200	1100	500	610	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850
83	200WQ400-30-55	200	295	335	1700	615	200	1100	500	610	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1250 X 850
84	250WQ600-20-55	250	350	390	1738	720	300	1200	545	702	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1400 X 1000
85	300WQ900-15-55	300	400	445	1671	720	300	1150	545	702	423	140	14	280	0	590	590	490	12 - ø23	4 - ø40	1450 X 1200
86	350WQ1100-12-55	350	460	500	1729	750	300	1200	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1200
87	200WQ350-40-75	200	295	335	2194	615	200	680	500	770	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1650 X 1200
88	250WQ600-26-75	250	350	390	2250	720	300	680	545	742	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1500 X 1100
89	250WQ900-20-75	250	350	390	2250	720	300	680	545	742	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1500 X 1100
90	350WQ1100-16-75	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
91	350WQ1500-11-75	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
92	200WQ400-40-90	200	295	335	2194	615	200	680	500	770	268	120	14	280	152	520	520	480	8 - ø23	4 - ø35	1650 X 1200
93	250WQ600-35-90	250	350	390	2250	720	300	680	545	742	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1500 X 1100
94	250WQ800-26-90	250	350	390	2250	720	300	680	545	742	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1500 X 1100
95	250WQ950-22-90	250	350	390	2250	720	300	680	545	742	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1500 X 1100
96	350WQ1200-18-90	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
97	350WQ1500-15-90	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
98	250WQ600-40-110	250	350	390	2190	720	300	680	545	780	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1550 X 1200
99	250WQ800-36-110	250	350	390	2190	720	300	680	545	780	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1550 X 1200
100	250WQ950-27-110	250	350	390	2190	720	300	680	545	780	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1550 X 1200
101	350WQ1200-20-110	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
102	350WQ1600-17-110	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
103	350WQ2000-13-110	350	460	500	2250	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1300
104	250WQ650-45-132	250	350	390	2301	720	300	1600	545	780	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1550 X 1200
105	250WQ900-36-132	250	350	390	2301	720	300	1600	545	780	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1550 X 1200
106	350WQ1010-00-28-132	350	460	500	2270	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1350
107	350WQ1300-25-132	350	460	500	2270	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1350
108	350WQ1600-20-132	350	460	500	2270	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1350
109	350WQ2000-16-132	350	460	500	2270	750	400	700	585	837	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1350
110	500WQ2600-12-132	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
111	250WQ650-48-160	250	350	390	2301	720	300	700	545	780	423	140	14	280	185	700	700	650	12 - ø23	4 - ø40	1550 X 1200
112	350WQ1000-37-160	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1800 X 1400
113	350WQ1200-32-160	350	460	500	2270	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1650 X 1350
114	400WQ1600-26-160	400	515	565	2600	800	400	800	655	1080	431	140	14	280	95	780	780	800	16 - ø26	4 - ø40	2000 X 1500
115	400WQ2000-20-160	400	515	565	2600	800	400	800	655	1130	431	140	14	280	95	780	780	800	16 - ø26	4 - ø40	2100 X 1800
116	500WQ2600-16-160	500	620	670	2600	970	400	800	775	1130	550	140	14	280	95	780	780	900	20 - ø26	6 - ø40	2100 X 1800
117	600WQ3000-14-160	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2300 X 1900

固定湿式自动安装尺寸表

DIMENSION TABLE FOR WET FIXED AUTOMATIC INSTALLATION

序号 No	泵型号 Model	DN	øB	C	H	H1	H2	H3	H4	T	T1	T2	P	M	F	g1	g2	e	n2-d	n1-k	E1 X E2
117	600WQ3800-11-160	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2300 X 1900
118	350WQ1200-36-185	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1800 X 1400
119	400WQ1800-25-185	400	515	565	2600	800	400	800	655	1130	550	140	14	280	95	780	780	800	16 - ø26	6 - ø40	2100 X 1800
120	500WQ2600-18-185	500	620	670	2350	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
121	600WQ4000-11-185	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2300 X 1900
122	350WQ1200-40-200	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	16 - ø23	4 - ø40	1800 X 1400
123	400WQ1700-32-200	400	515	565	2315	800	400	800	655	1130	550	140	14	280	95	780	780	800	16 - ø26	6 - ø40	2100 X 1800
124	500WQ2600-20-200	500	620	670	2350	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
125	500WQ3000-17-200	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
126	350WQ1400-40-220	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	12 - ø23	4 - ø40	2000 X 1500
127	400WQ2000-26-220	400	515	565	2600	800	400	800	655	1130	550	140	14	280	95	780	780	800	16 - ø26	6 - ø40	2100 X 1800
128	400WQ2400-22-220	400	515	565	2600	800	400	800	655	1130	550	140	14	280	95	780	780	800	16 - ø26	6 - ø40	2100 X 1800
129	500WQ3000-20-220	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
130	400WQ1900-32-250	400	515	565	2600	800	400	800	655	1080	550	140	14	280	95	780	780	800	16 - ø26	6 - ø40	2000 X 1500
131	500WQ2600-25-250	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300X1900
132	500WQ3000-23-250	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
133	600WQ3800-17-250	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2300 X 1900
134	400WQ1900-40-280	400	515	565	2600	800	400	900	655	1080	550	140	14	280	95	780	780	800	16 - ø26	6 - ø40	2350X 1900
135	500WQ3000-25-280	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2300 X 1900
136	600WQ4000-16-280	600	725	780	2930	1150	400	900	908	1300	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2350X 1900
137	500WQ3000-28-315	500	620	670	2790	970	400	900	775	1230	650	140	14	280	105	780	780	900	20 - ø26	6 - ø40	2350X 1900
138	600WQ4000-20-315	600	725	780	2930	1150	400	900	908	1300	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2350 X 1900
139	600WQ6000-15-355	600	725	780	3000	1150	400	900	908	1300	700	140	14	280	130	880	880	1000	20 - ø30	6 - ø40	2350X 1900

安装与使用时提请用户检查

BEFORE OPERATION, READ THE FOLLOWING INSTRUCTIONS CAREFULLY

- 泵在运输、存放、安装过程中有无变形或损坏、紧固件是否松动或脱落。
 - 油室内是否有油。
 - 叶轮转动是否灵活。
 - 电源装置是否安全、可靠、正常。电压、频率应符合规定（电压为 $380\pm 5\%$ 、频率为 $50\text{Hz}\pm 1\%$ ）。
 - 电缆线有无破损、折断，电缆线的入口密封是否完好，发现有可能漏电或泄漏的地方及时妥善处理。
 - 严禁把泵的电缆线当作吊线使用，以防发生意外。
 - 用 500V 兆欧表定期测量电泵电动机相间和相对地间绝缘电阻，其值不许小于 $2\text{M}\Omega$ ，否则应拆机检修，同时检查电泵接地是否牢固可靠。
 - 电泵不宜在易燃、易爆的环境中使用，也不宜抽送强腐蚀性以及可燃性的液体。
 - 电泵正常工作时的旋转方向从进水口看为逆时针转动，如果电泵反转，须将电缆线中的任二根线对调一下接线位置即可。
 - 为了确保电泵的使用寿命，使其更好地为你服务，建议在正常工作条件下电泵运行一年后对电泵进行一次检修，更换油室内变压器油、机械密封件、易损件，补充或更换轴承润滑脂（封闭轴承在使用寿命内不必更换润滑脂）。
 - 叶轮和泵体之间的密封环具有密封功能，为了确保电泵抽水效率，当密封环磨损，间隙的最大值超过 2mm 时应予以更换。
 - 电泵长时间放置不用时宜将电泵从水中取出，以减少电机定子绕组受潮的机会，延长电泵的使用寿命。当气温较低时，也应将泵提出，防止冰冻。
 - 电泵在移动或安装时应轻起轻放。
 - 在含沙量大的水中运行时，泵的磨损会大大增加。
-
- Check whether the pump was crushed, damaged, or the fasteners are loosening or dropped off due to shipping & handling or in storage.
 - Check the oil level in the oil chamber.
 - Check whether the impeller can rotate easily.
 - Check whether the power supply is safe, reliable and works normally. The voltage and frequency should meet the requirement ($380\text{ V} \pm 5\%$, Frequency $50\text{ Hz} \pm 1\%$).
 - Check cable, connector box and cable inlet seal. Make corrections immediately when electricity leakage is found.
 - Do not lift pump with cable to avoid accident.
 - Check motor insulation to ground with 500 V mega meter. The resistance must be more than or equal to $2\text{M}\Omega$. If not, tear down the pump and check whether the pump is securely grounded.
 - The pump is not supposed to work in flammable or explosive environment, nor should it be used to pump erosive or flammable liquids.
 - Check pump rotating direction. It should run counter-clockwise if viewed from inlet side. Exchange any two wires inside the cable if the pump runs in reverse direction.
 - After using for one year, it is recommended that pump be examined and repaired, and the oil in oil chamber, mechanical seal, bearing lubricant and other vulnerable parts be replaced so that the pumping system can work properly when needed. It is not necessary to replace grease in the bearing if the bearing is still within its service life.
 - The seal ring between the impeller and casing performs sealing function. To keep the pump's efficiency, the seal ring should be replaced when the gap between the impeller and the ring is over 2.0 mm because of worn out.
 - Lift out the pump from liquid if the pump won't be used for long time to avoid moisture getting inside the motor housing and thus extend the pump life. When temperature is too low, lift pump out of liquid to avoid pump from being frozen.
 - Handle pump carefully during moving and installation.
 - Pump can be worn out quickly if running in liquid with too much sand slurries.

可能发生的故障和排除方法

TROUBLE SHOOTING

仔细核对下列记录，可能找到排除故障的方法，因而节省您的时间和费用。
Read following records for solutions when troubleshooting pumps. It will save your time.

故障现象 FAULT SYMPTOM	产生原因 POSSIBLE CAUSES	解决办法 SOLUTION
不出水或水量不足 No pumping or low flow	泵倒转 pump run invert.	调整转向 Adjust rotating direction.
	管道、叶轮被堵 Pipe or impeller may be jammed.	清除堵塞物 Remove debris.
	电机不转或转速太低 Motor does not run or runs too slow.	检查电器设备及电压电流 Check power voltage and current.
	水位太低或阀门没打开 Water level is too low, or valve is closed.	调整检查水位开关和阀门 Adjust water level and check valve.
	密封环磨损 Seal ring may be worn out.	更换密封环 Replace seal ring.
泵运行不稳定 Unstable operation	液体密度较大或粘度较高 High density or high viscosity of liquid.	改变抽送的液体 Change liquid.
	转子或叶轮不平衡 Rotor or impeller not balanced.	送制造厂校正或调换 Return pump to service center for adjustment or replacement.
绝缘电阻低 或机组发热 Low insulation resistance or pump system overload.	轴承磨损 Bearing worn out.	更换轴承 Replace bearing.
	电缆线破损或电源接线端渗漏 Power cable damaged or leaking from the cord connection.	更换并拧紧压紧螺母 Replace and tighten the jam nut.
	电源电压低或电源引线过细 Power voltage too low or power cord size too small.	调整工作电压和引线 Adjust power voltage or replace power cord.
	机械密封损坏 Mechanical seal worn out.	更换机械密封 Replace mechanical seal.
	各“O”型密封圈失效 “O” seal ring damaged.	更换“O”型圈 Replace “O” seal ring.
	在大流量、低扬程区域使用 Pump runs in high flow and low head range.	调整至额定工作点 Adjust the pump working point to its rated.

关于控制柜和端子箱

CONTROL CABINET AND TERMINAL BOX

详见本公司的控制柜使用说明书

See the manual for the control box.

控制柜

1. JK2 系列潜水泵专用控制柜适用于交流 50Hz、电压 380V、功率从 1.1~315kW 三相鼠笼型感应电动机。控制柜具有多种启动方式，对水泵电机具有过载、缺相、短路、定子超温等多种保护，并配备接线盒漏水、油室漏水、下漏水等多种水泵专用保护功能及相应故障指示。能实现泵的无人看管、自动运行和信号输出。控制柜具有手动和自动两种控制方式。

2. 使用环境

控制柜在下列环境中能可靠工作：

- 1) 最高环境温度不超过 +40°C，最低不低于 -5°C
- 2) 空气月平均最大湿度不大于 90%（平均气温为 25°C）
- 3) 无爆炸危险的场合，且介质中无足以腐蚀金属和破坏绝缘的气体 and 导电尘埃。
- 4) 海拔高度不超过 2000 米

3. 种类

控制柜有一控一、一控二、一控三、一控四共四种类型，请在订货时注明。

4. 产品型号意义

J K 2 - □ / □ / □

控制电机数量
Controlled number

被控电机功率
Motor Power (kW)

启动方式
starting mode

设计序号
Design code

控制设备
control cabinet

交流电动机
Alternating moter

Control box

1. JK2 series submersible control box is specially for 50 Hz, 380 V, power from 1.1 - 315 kW, 3-phase squirrel cage induction motors. Many start types with this control box are available to offer multiple protections such as overload, phase loss, shortage, stator overheated etc. The box is also equipped with leaked water collection, indicator of water leaking in oil and other under water protections for pumps. It is possible to realize unmanned operation to the pump, automatic run and signal output. Both manual and automatic control methods are available to the control box. It gives the motor with overload, phase loss and shortage protections. Protections and indication of motor overheating, leaking in pump oil chamber and leaking from damaged cable are added as a special package to these pumps. The unmanned, automatic running and signal output can thus be realized. Both manual and automatic controls are available.

2. Operating conditions

- (1) Ambient temperature: - 5°C to 40°C.
- (2) Average humidity not more than 90% (average temperature: 25°C)
- (3) Pumps to be used under non-explosive environment, and no corrosion to metal and no air and conduct substances that are harmful to insulation.
- (4) Altitude is no more than 2,000 meters.

3. Types for selection.

Four types as follows:

- (1) 1 cabinet controls 1 pump
- (2) 1 cabinet controls 2 pumps
- (3) 1 cabinet controls 3 pumps
- (4) 1 cabinet controls 4 pumps

4. Model designation

无字母：直接启动
J：自耦降压启动
R：软启动
B：变频启动

No letters: direct starting
R: soft start
J: auto-induction voltage-reduced starting
B: varying frequency starting

端子箱

每台水泵都配有一只中间端子箱，用于水泵与控制柜的中间连接，详见示意图。

1. 信号线和动力线必须分别埋设管道、不可两线混穿。
2. 动力线按提供的电缆线直径、数量自行确定预埋管的大小。
3. 端子箱与控制柜之间采用直流电流信号，可长距离输送，无衰减。

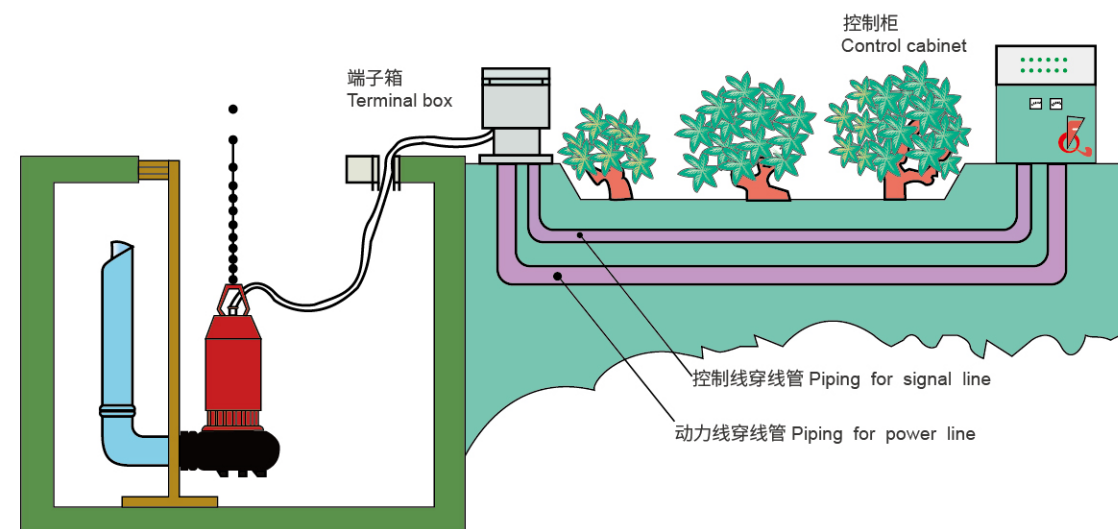
Terminal box

Each pump is equipped with a terminal box to connect control cabinet and pump. For more details, see the diagram.

- 1) The pipes for signal wires and power cable must be buried separately and not mixed up.
- 2) The pipe size for power cable should be decided based on the cable diameter and quantities by the customer.
- 3) DC signals are transmitted between the terminal box and control cabinet, and are suitable for long- distance transmission without attenuation.

泵房布置简图

Pumping station diagram



潜水泵综合保护器

SUBMERSIBLE PUMP PROTECTOR

潜水泵综合保护器是本公司水泵专用配套保护器，主要由主控板和液晶显示屏两部分组成，适用于本公司 11kW 以上水泵。保护器具有以下保护功能：线盒漏水、油室漏水、机腔漏油、定子超温、轴承超温、水泵过载、缺冷却液（内循环冷却泵）、泵内除湿、水泵震动异常等；同时还具有水泵运行时间累计功能、绕组温度和轴承温度实时显示功能。具体的控制信号因水泵而异。水泵保护器设有 RS485 通讯接口，可实现与监控系统上位机的通讯。

This submersible pump protector is unique for our pumps. It consists a main control panel and a liquid display monitor, and is suitable for pumps 11 KW and over made by our company. This protector has following protecting functions: Water leaking in wiring box, water leaking in oil chamber, oil leaking in motor housing, stator overheated, bearing over heated, pump overloaded, coolant level dropping (for internal cooling pumps), dehumidifying inside pump, abnormal vibration of pump etc. It also has the function of totalizing operation time and gives real time display of winding and bearing temperatures. The control signals vary depending on pump models. The protector is equipped with RS485 I/O port which allows communication with the monitoring system of the pump.

丰球克瑞水泵云平台

CLOUD PLATFORM OF FENGQIU & CRANE

- 丰球克瑞水泵云平台是一套集水泵数据系统采集挖掘上云、数据云挖掘存储处理、数据云服务，兼具运维中心以及
- 客户端的综合云平台技术服务体系。平台可远程监测在线电机绕组温度、轴承震动、能耗等相关数据，通过GIS技术可在地图定位水泵所在位置。通过对水泵实时数据的收集、储存、故障分析进行统计，对需要维护、保养的水泵进行在线提醒帮助服务。帮助找出水泵发生的报警和故障原因，从而给出改善办法。
- Cloud platform of Fengqiu & Crane is a integrated cloud platform technology service system about collecting and transferring pump data system to cloud and data cloud mining save process and data cloud service. Operation & maintain centre and client-side as well.
- Platform can supervise online motor temperature, bearing vibration, energy consumption and locate the pump's position on the map by GIS technology. Count the pump operation time, to supply the service of reminding and helping online to pumps need maintenance. Help to find out and fix pump problem by collecting and saving real-time data, fault analysis.

