

WQS-Type Submersible Sewage Pump
QXG Type Diving to The Water Pump

WQS 型潜水排污泵
QXG 型潜水给水泵



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产品简介

Introduction

WQS系列深水型高扬程潜水排污泵是在长江三峡用潜水排污泵的研制基础上拓展形成的新产品。在研制过程中，充分运用了先进的CFD和流场诊断技术并进行了大量的试验研究，在水力部件设计和结构设计上突破了常规潜水排污泵的传统设计方法。该产品的研制成功，填补了高扬程深潜排污泵的空白，处于国际先进水平，也使我国泵行业的水力设计提高了一个新的水平。

WQS series of deep, high-lift submersible sewage pump is used in the Yangtze River Three Gorges Development submersible sewage pump based on the expansion of the formation of new products. In the development process, full use of advanced CFD and flow field diagnostics and make a lot of experimental research, design and structure of the components in the hydraulic design of a conventional submersible sewage pump break through the traditional design methods. The success of the product to fill a high head sewage pump deep dive blank, at advanced international level, also the hydraulic pump industry in China designed to enhance a new level.

用途和型号

Use and model

深水型高扬程潜水排污泵具有高扬程、深潜没、耐磨蚀、高可靠性、无堵塞、自动安装、自动控制、并且可全扬程工作等优点，在高扬程，潜没深度大，水位变幅大，排送含有一定磨蚀作用的固体颗粒的介质方面，具有独特功能。

Deep type high lift submersible sewage pump with high head-dive did not, wear resistant, high reliability, no congestion, automatic installation, automatic control, and can lift all the advantages of working in the high head, large subduction depth, water level changes large amplitude, the carriage with some abrasive media aspects of solid particles with unique features.

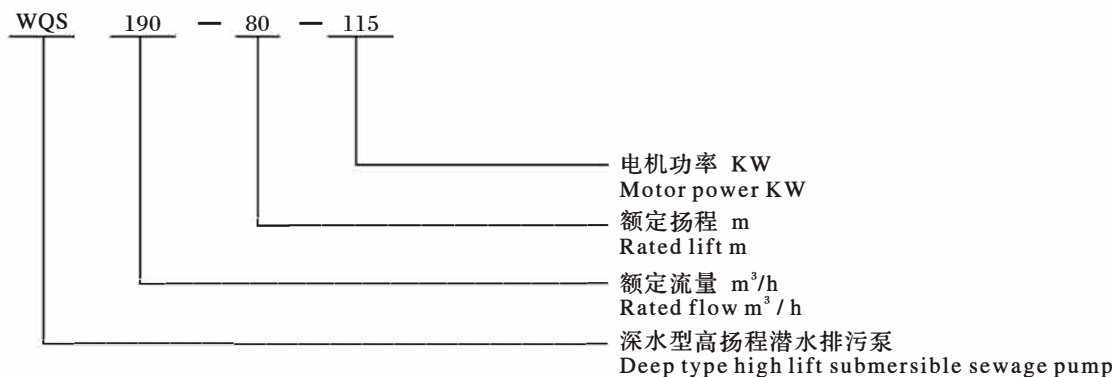
使用条件:

Conditions of Use:

- | | |
|--------------------------|--|
| 1. 最高介质温度+40℃； | 1. The maximum media temperature of +40 ℃; |
| 2. PH值5~9； | 2. PH value of 5 to 9; |
| 3. 可通过最大固体颗粒直径Φ25~Φ50mm； | 3. Can be the largest solid particle diameter Φ25 ~ Φ50mm; |
| 4. 最大潜水深度100m。 | 4.'s Largest dive depth of 100m. |

深水型高扬程潜水排污泵型号说明举例如下：

Deep type high lift submersible sewage pump model shows some examples:



该系列泵流量范围为50~500m³/h，扬程范围40~110m，功率115KW以内。额定电压为380V，频率50Hz。
The series of pump flow rate range of 50 ~ 500m³ / h, head range of 40 ~ 110m, power less than 115KW. Rated voltage of 380V, frequency 50Hz.

特别推荐使用场合:

Preferred Use:

1. 对于取水水位变动较大，也就是扬程变幅较大的场合，该型泵具备全扬程安全使用特性，在大、小流量区均不过载。
 2. 用于深度淹没场合，该型泵能够承受100m水压安全使用。
 3. 用于小流量、高扬程排污场合，特适合于对污水的远距离输送。
 4. 适用于泥沙含量较高的场合，该泵兼具渣浆泵的特性。
 5. 具备高可靠特性，特别适合于重大、重点工程。
1. For larger changes in water level, that is, the larger amplitude head on, the pump head with all the safe use of features in the large and small flow areas are set, however.
 2. For the depth of flood situations, the pump can withstand water pressure safe use of 100m.
 3. For small flow and high head sewage occasions, especially for long-distance transport of sewage.
 4. Applicable to the higher silt content in the occasion, the pump characteristics of both the slurry.
 5. With high reliability features, especially for a major, major projects.

安装方法和安装系统

Installation method and installation system

深水型高扬程潜水排污泵机泵同轴，结构紧凑。采用固定湿式安装方式。安装系统使用自动耦合装置。该系统制造安装精度高，可在100米高度内方便安装和提升电泵，无需安装或维修人员进入水坑，快捷方便，安全！该系统使用特制的底座，固定在水池的底部，与出水管连接好，在池顶安装好配套的支承块，用导轨使两者相连，水泵与一特定支架连接好，沿导轨下滑到达底座出口位置，通过泵自重，自动耦合密封。

Deep type high lift pump submersible sewage pump coaxial, compact structure. Fixed wet installation. Installation system uses automatic coupling device. Manufacture and installation of high accuracy of the system can be easily installed within 100 meters high and upgrade pump, no installation or maintenance staff to enter pools, fast and convenient and safe! The system uses a special base, fixed to the bottom of the pool, connected with the outlet pipe, installed in the tank top bearing block matching, so that the two connected with rail, water pump connected with a specific bracket, along the rail down position to reach the export base through the pump weight, automatic coupling seals.

结构特点
Structural characteristics

深水型高扬程潜水排污泵的设计处处体现着高可靠性的要求。
Deep type high lift submersible sewage pump design everywhere embodies high reliability requirements.

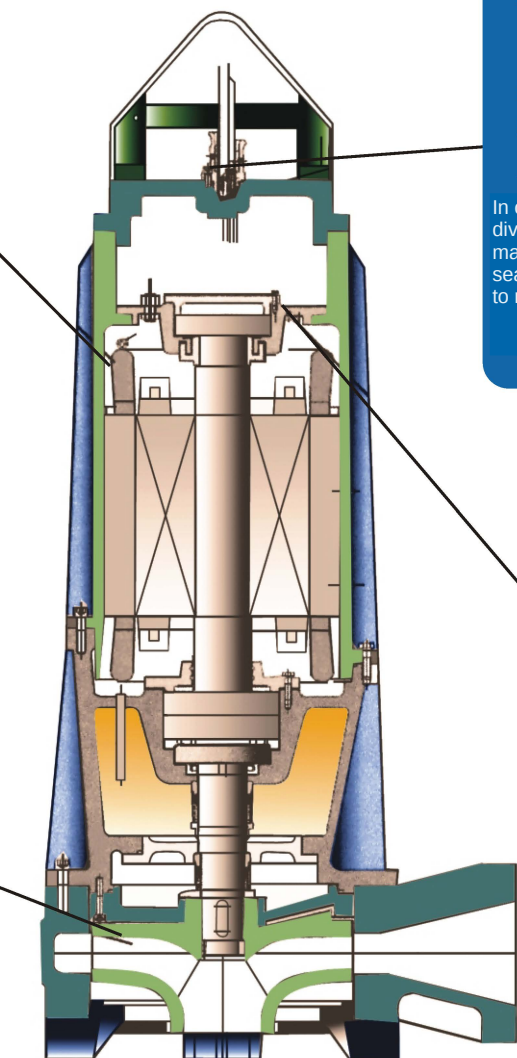
电动机 (Electric motor)

特殊的绝缘设计确保电机在少量进水的环境下依然能正常使用。

电机的优化设计保证了水泵能够在水力部件被泥沙部分淹没的环境下开机启动。

Special insulation design of the motor in a small amount of water in the environment can still be used normally.

Optimized motor design ensures hydraulic pump parts can be submerged sediment part of the boot environment.



密封设计 (Seal Design)

为了满足深度潜水的要求，在水泵密封上采用了多项改进措施，独有的密封技术，使得水泵能够潜入100m水下运行。

In order to meet the requirements of deep diving, a number of improvements have been made on the water pump seal. The unique sealing technology enables the pump to dive to run 100m underwater.

水力部件 (Hydraulic Parts)

设计运用了先进的CFD和流场诊断技术，具有高扬程、全扬程、高效、无堵塞、耐磨损等优点，处于国际先进水平。

该项成果已申请发明专利。

Design using advanced CFD and flow field diagnostics, high lift, full head, efficient, non-blocking, abrasion, etc, at the international advanced level.

The results have been applied for patents.

**保护措施
Protection measures**

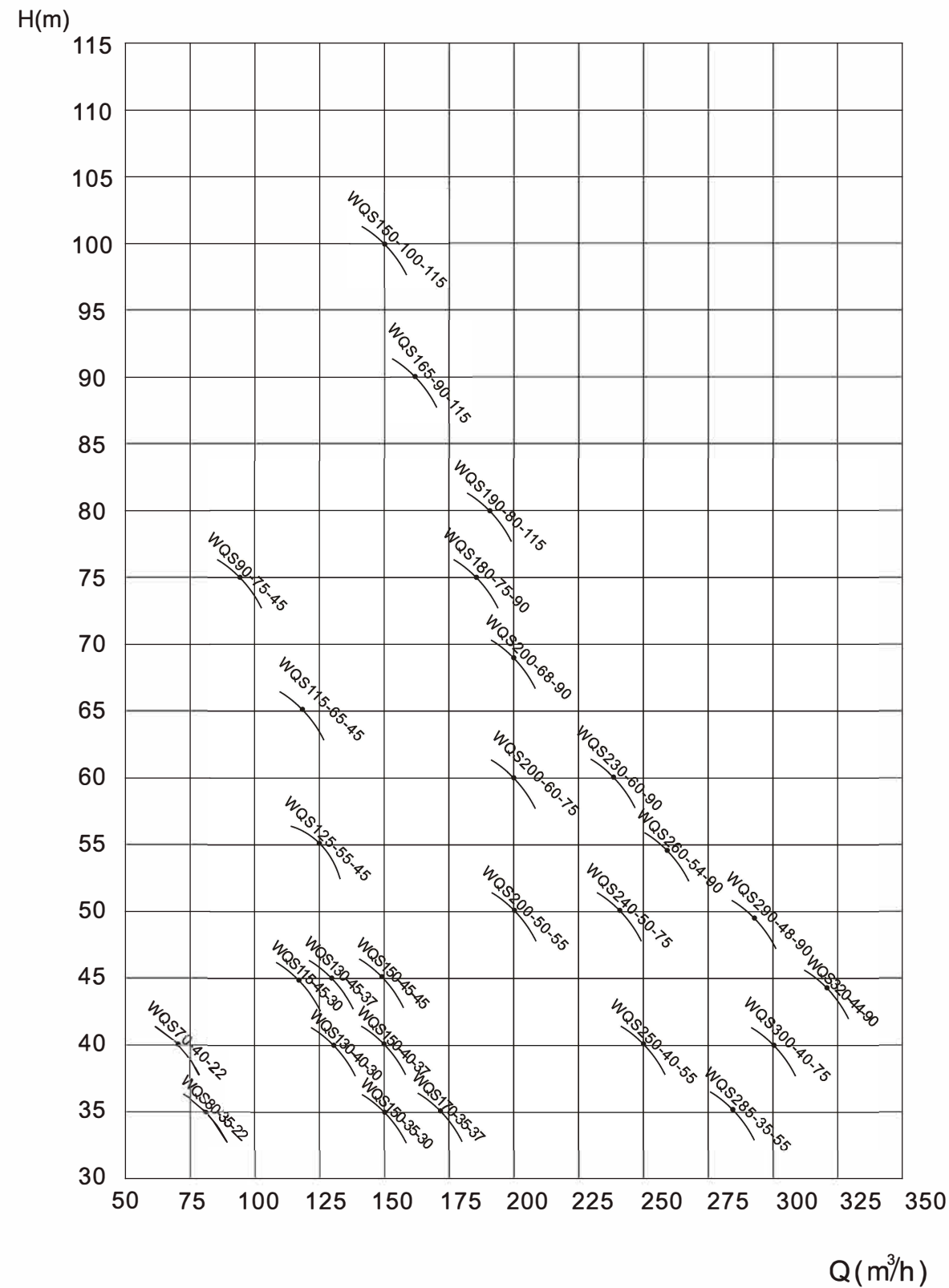
除常规电机保护外，还在接线盒腔、电机腔和油室内分别设置了泄露检测器，电机定子绕组内设置了一用一备两组定子超温保护装置，电机内设置了独有专利的电机除湿装置可确保电机绝缘稳定不下降。

In addition to conventional motor protection, also junction box cavity, motor oil interior cavity and a leak detector were set, stator winding group set up a group with a preparation of stator over-temperature protection device, the motor set up a unique patented motor dehumidification equipment to ensure stable electrical insulation does not decline.

WQS系列深水型高扬程潜水排污泵性能参数表
WQS series of deep, high-lift submersible sewage pump performance parameters of Table

规格型号 Specification	流量m³/h Flow m3/h	扬程 m Lift m	转速 r/min Speed r/min	泵效率 % Pump efficiency%	配套功率 KW Auxiliary power KW	出水口径 Φmm Water-caliber Φmm	对应机座号 Corresponding Frame	自动耦合型号 Automatic coupling model	通过颗粒 Φmm By particle Φmm	重量 kg Weight kg
WQS70-40-22	70	40	1470	60.5	22	100	M160S	100GAK	30	1200
WQS80-35-22	80	35	1470	61.5	22	100	M160S	100GAK	30	1200
WQS115-40-30	115	40	1470	61.5	30	100	M180S	100GAK	30	1500
WQS130-40-30	130	40	1470	62.5	30	100	M180S	100GAK	30	1500
WQS150-35-30	150	35	1470	63.5	30	100	M180S	100GAK	30	1500
WQS130-45-37	130	45	1470	60.5	37	100	M180S	100GAK	30	1500
WQS150-40-37	150	40	1470	62.5	37	100	M180S	100GAK	30	1500
WQS170-35-37	170	35	1470	61	37	100	M180S	100GAK	30	1500
WQS90-75-45	90	75	1470	58.5	45	100	M225S	100GAK	30	2100
WQS115-65-45	115	65	1470	59	45	100	M225S	100GAK	30	2100
WQS125-55-45	125	55	1470	60	45	100	M225S	100GAK	30	2100
WQS150-45-45	150	45	1470	60.5	45	100	M225S	100GAK	30	2100
WQS200-50-55	200	50	1470	63.5	55	100	M250S	100GAK	30	2500
WQS250-40-55	250	40	1470	65	55	200	M250S	200GAK	50	2500
WQS285-35-55	285	35	1470	64	55	200	M250S	200GAK	50	2500
WQS200-60-75	200	60	1470	64.5	75	200	M280S	200GAK	50	3000
WQS240-50-75	240	50	1470	66	75	200	M280S	200GAK	50	3000
WQS300-40-75	300	40	1470	65	75	200	M280S	200GAK	50	3000
WQS260-54-90	260	54	1470	67	90	200	M280S	200GAK	50	3000
WQS290-48-90	290	48	1470	65	90	200	M280S	200GAK	50	3000
WQS320-44-90	320	44	1470	64.5	90	200	M280S	200GAK	50	3000
WQS180-75-90	180	75	1470	62	90	100	M280S	100GAK	50	3000
WQS200-68-90	200	68	1470	63.5	90	100	M280S	100GAK	50	3000
WQS230-60-90	230	60	1470	61.5	90	100	M280S	100GAK	50	3000
WQS150-100-115	150	100	1470	57.5	115	100	M280S	100GAK	50	3000
WQS165-90-115	165	90	1470	58.5	115	100	M280S	100GAK	50	3000
WQS190-80-115	190	80	1470	60.5	115	100	M280S	100GAK	50	3000

WQS series of deep, high-lift submersible sewage pump spectrum

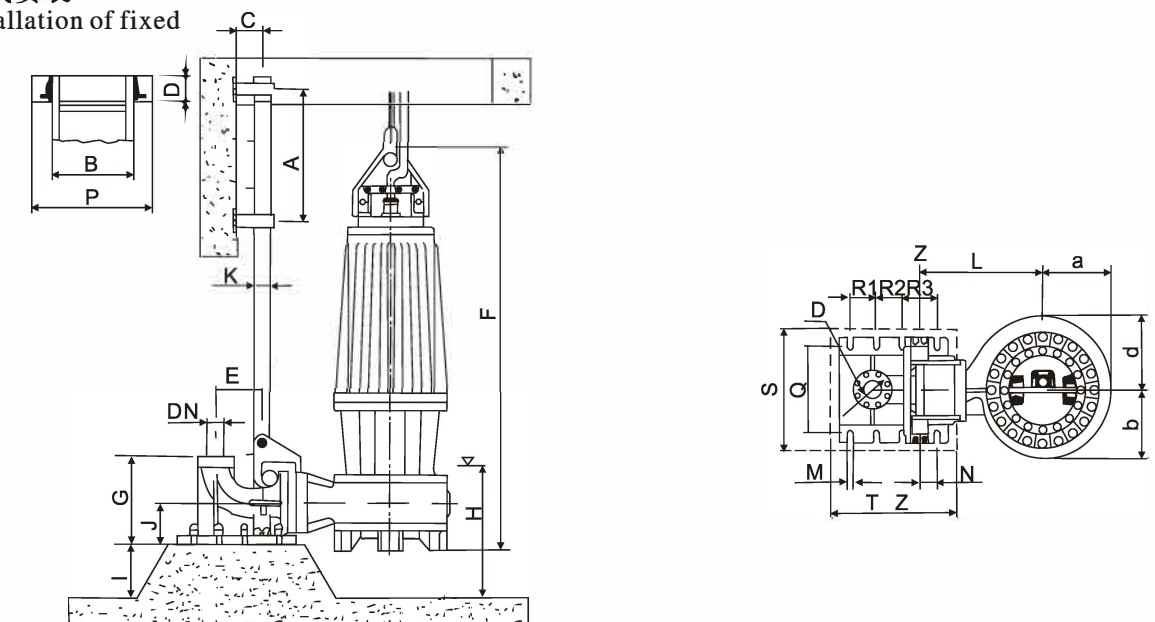


WQS series of deep, high-lift submersible sewage pump outline and mounting dimension

口径 Caliber 机座号 Frame	DN100					DN200				
	M160	M180	M225	M250	M280	M160	M180	M225	M250	M280
最小池口尺寸 The first xiaochikou size	1600×900	1650×1000	1750×1100	1750×1100	1750×1100	1650×950	1675×1000	1700×1000	1750×1000	1850×1000
DN	100	100	100	100	100	200	200	200	200	200
A	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
B	490	490	490	490	490	490	490	490	490	490
C	150	150	150	150	150	150	150	150	150	150
D	140	140	140	140	140	140	140	140	140	140
E	272	272	272	272	272	272	272	272	272	272
F	1523	1750	1880	2250	2450	1750	1910	2010	2250	2450
G	490	490	490	490	490	510	510	510	510	510
H	1510	1515	1645	2305	2325	1575	1615	1775	2010	2345
I	400	400	400	400	400	400	400	400	400	400
J	230	230	230	230	230	250	250	250	250	250
K	100	100	100	400	100	100	100	100	100	100
L	635	695	716	725	716	715	735	745	750	757
M	34	34	34	34	34	34	34	34	34	34
N	100	100	100	100	100	100	100	100	100	100
P	700	700	700	700	700	700	700	700	700	700
Q	480	480	480	480	480	480	480	480	480	480
R1/R2/R3	150/150/200	150/150/200	150/150/200	150/150/200	150/150/200	150/150/200	150/150/200	150/150/200	150/150/200	150/150/200
S	800	800	800	800	800	800	800	800	800	800
T	900	900	900	900	900	900	900	900	900	900
a	298	385	403	410	403	300	400	410	415	339
b	285	375	385	395	385	290	385	395	410	330
d	308	400	420	425	420	310	405	410	415	351
n	8-M16	8-M16	8-M16	8-M16	8-M16	12-M20	12-M20	12-M20	12-M20	12-M20

固定湿式安装

Wet installation of fixed



QXG型潜水给水泵特点和主要用途

QXG diving to pump-type characteristics and main uses

我公司所产的QXG型潜水给水泵，其流量范围为50~3000m³/h，扬程范围为5.5~65米，功率范围为7.5~250KW，可输送物理化学性质类似于水的液体，适用于城市、工厂、矿山、电站的给排水和农田排涝灌溉等。如果在水泵进水前部加上适当的格栅，还可于市政工程、工厂、商业、医院、宾馆、住宅区等带有固体颗粒及长纤维的污水、废水、雨水排放等场合使用。该系列泵具有以下特点：

1. 机泵一体、结构紧凑；
2. 电机效率高，运行经济，节能；
3. 设计合理、安全可靠，使用寿命长；
4. 安装维护方便；
5. 适应范围广、适应性强；
6. 电器保护、经久耐用。

My company produced QXG type diving to pump, the flow rate range of 50 ~ 3000m³ / h, lift the range of 5.5 to 65 meters, the power range of 7.5 ~ 250KW, can deliver similar physical and chemical properties of liquid water for the city , factories, mines, power stations, drainage and irrigation of farmland drainage. If the water pump with the appropriate front grille, but also in public works, factories, commercial, hospitals, hotels, residential and other solid particles and long fibers with sewage, wastewater, stormwater drainage and other occasions. This series pump has the following characteristics:

1. Pump compact structure;
2. Motor efficiency is high, running the economy, energy saving;
3. Designed, secure and reliable, long life;
4. Convenient installation and maintenance;
5. Adapt to a wide range of adaptability;
6. Electrical protection and durability.

※ 特有的“蓝深LSK-1系列”水泵及水处理设备专用控制柜，确保设备经久耐用。（详细见后页）

Unique "LANSHEN LSK-1 Series" pumps and water treatment equipment dedicated control cabinet, to ensure that equipment durable. (Details see below page)

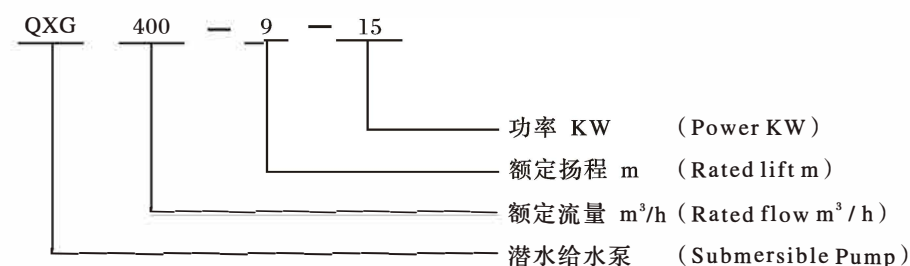
使用范围和使用条件

Use the scope and terms of use

1. 最大潜水深度10m;
2. 介质水温不超过+40℃;
3. PH值4~10;
4. 一般常温清水; 污水、废水（前部加格栅）。
- 1.'s Largest dive depth of 10m;
2. Medium temperature of not more than +40℃;
3. PH value 4 ~ 10;
4. The general room temperature water; sewage and waste water (plus the front grille).

型号意义说明

Model significance Help



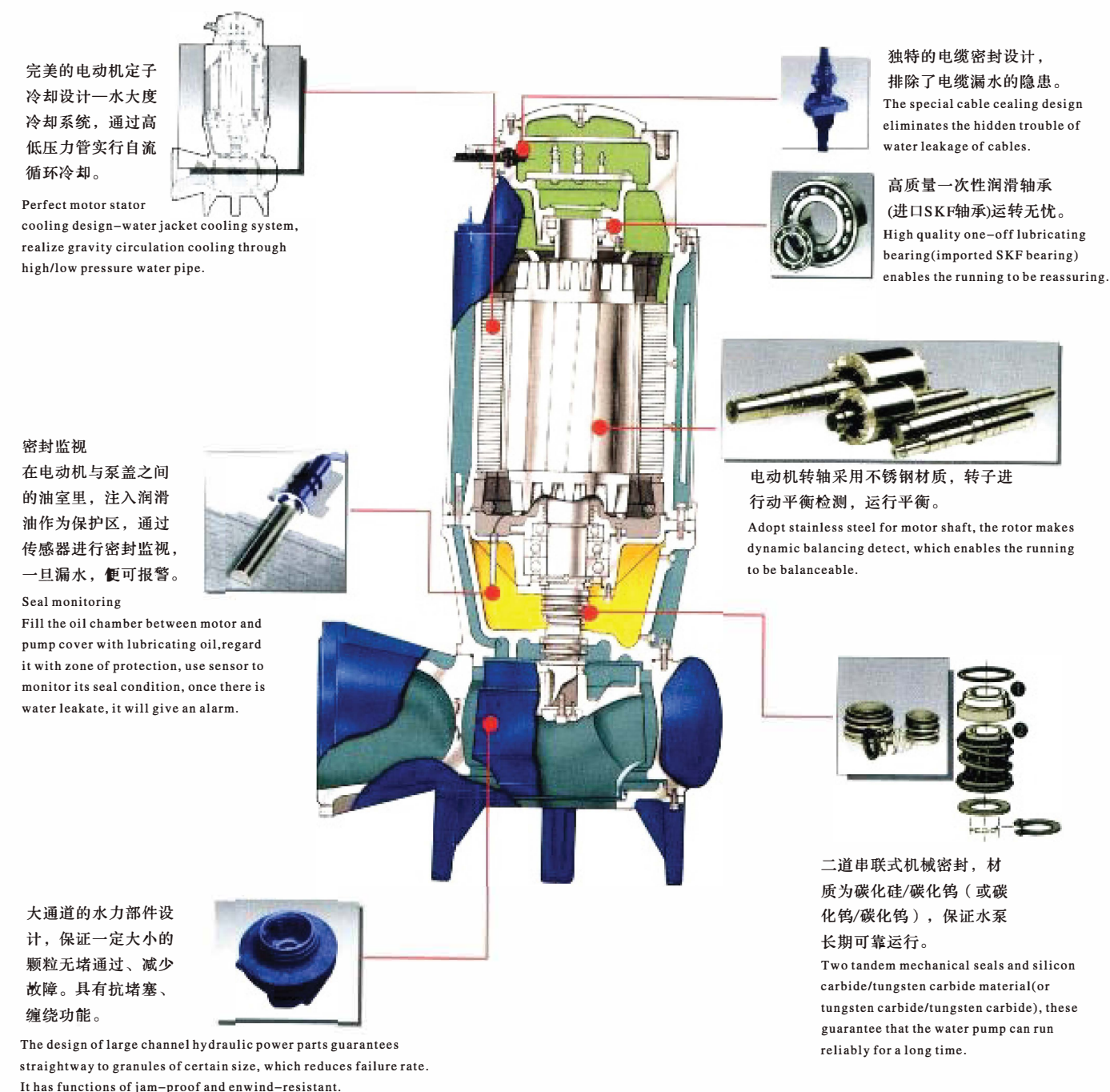
具体含义为：额定流量为400 m³/h，额定扬程为9m，额定功率为15kW，输送介质可为一般常温清水，污水、废水（前部加格栅）。
Specific meaning is: The rated flow 400 m³ / h, nominal head to 9m, the rated power of 15kW, transport medium for normal room temperature water, sewage, waste water (plus the front grille).

QXG型潜水给水泵结构示意图

QXG Schematic type diving to the water pump

该系列潜水给水泵，引进和吸收国外先进技术，结构合理，性能优越。鼠笼式电动机运行方式S1，定子绝缘等级F级（155℃），并具有防凝露装置，每相装有过载保护元件。

The series of diving to the water pump, introducing and absorbing foreign advanced technology, reasonable structure, superior performance. Squirrel-cage motor operating mode S1, the stator insulation class F (155 ℃), and has anti-condensation device, equipped with overload protection device for each phase.



安装方式

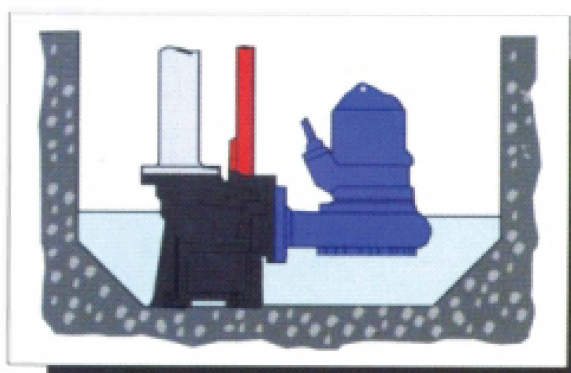
Installation

本公司生产的潜水给水泵，其机泵同轴结构紧凑，使用效率高，运转安全，维护方便。其安装方式有以下2种方式：

The company's diving to the water pump, the pump coaxial compact, high efficiency, operational safety and easy maintenance.

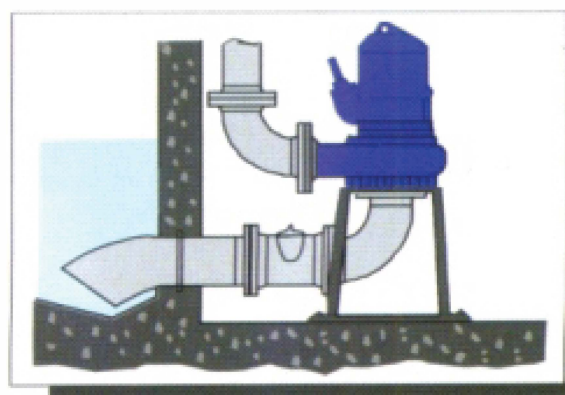
The installation has the following 2 ways:

1. 固定湿式安装。采用德国ABS公司专利—自动耦合系统，泵沿导杆下滑到达底座与出水口自动连接并密封可靠。
1. Stationary wet installation. ABS by German patent – Automatic coupling system, the pump down along the guide rod outlet to reach base and automatically connect and seal reliability.



2. 固定干式安装。在泵房基础上固定好支撑底座装上水泵，连接好进水管与出水管，即可运行。此种方式对有单独泵房的结构来说，尤其节约空间（限30KW以上水泵）。

2. Fixed dry installation. In the pumping station on the basis of a good support base mounted on a fixed pump, connect the water inlet and outlet pipe, you can run. This way the structure of a separate pump, particularly for saving space (limited to 30KW or more pumps).

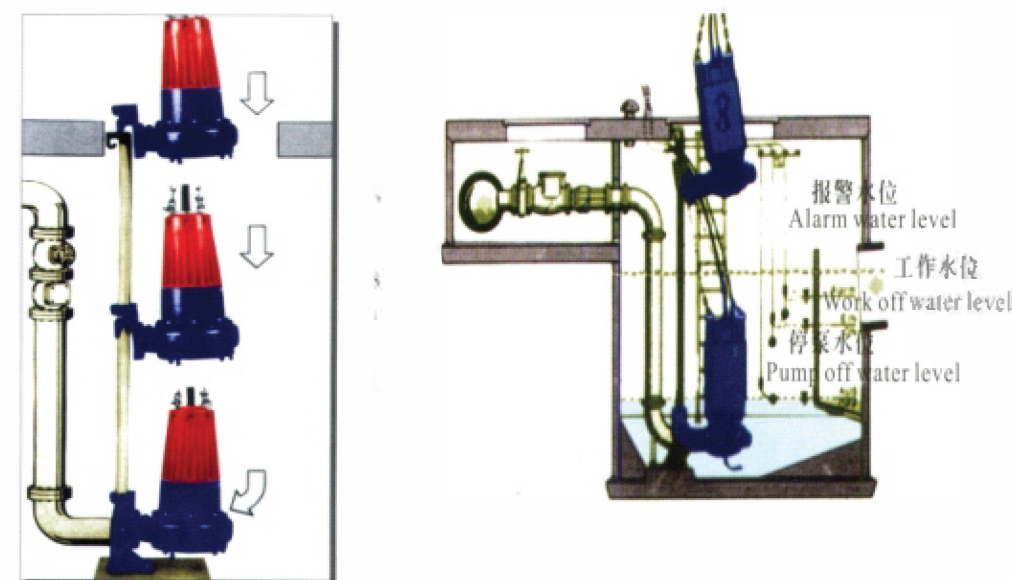


安装系统简介

Introduction Installation

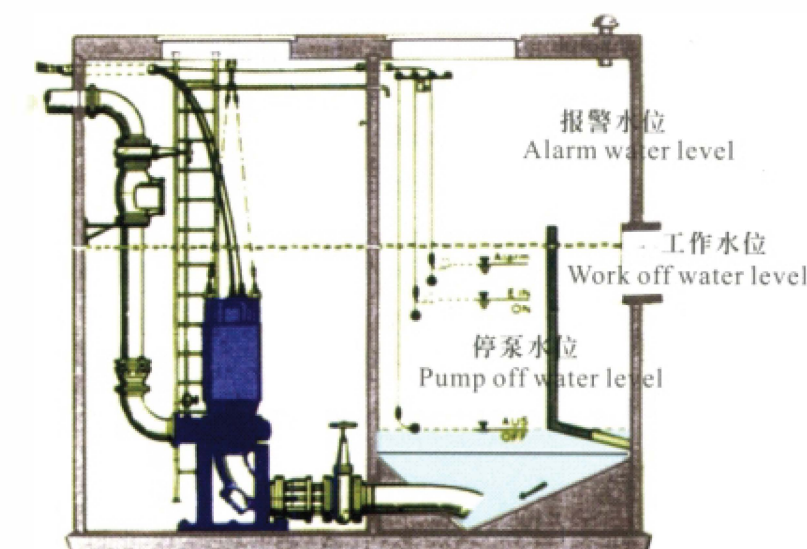
固定湿式安装系统：使用特殊底座，固定在水池的底部，与出水管连接好，在池顶安装好配套的支撑块，用导杆使二者连接，待水泵与一特殊支架连接好后，将水泵沿导杆下滑，到达底座出口位置，通过泵自重，自动耦合密封。优点：维修时可随时起吊水泵而无需维修人员进入水泵坑中，达到快速、方便和安全，既保护环境，又节约费用。

Wet fixed installation system: the use of special base, fixed at the bottom of the pool, connected with the outlet pipe, installed in the pool supporting the top support block, with the guide rod to connect the two until the water pump connected with a special bracket after to pump down along the guide rod to reach the base of the export position of self-respect through the pump, automatic coupling seals. Advantages: maintenance, lifting pumps at any time without maintenance personnel into the pump pit, for quick, convenient and safe, both to protect the environment, but also cost savings.



固定干式安装系统：泵装置于水池的另一侧，与进水管一起固定在底座上，由于采用水套式冷却系统，可确保水泵在满负荷情况下运行。优点：水流对集水坑的连续冲击而不损坏水泵，且可承受意外的泛滥。

Fixed dry installation system: pump on the other side of the pool, together with the inlet pipe fixed to the base, cover with water as cooling systems, to ensure pump is running at full load conditions. Advantages: Continuous flow impact on the sump pump without damage and can withstand flooding accident.





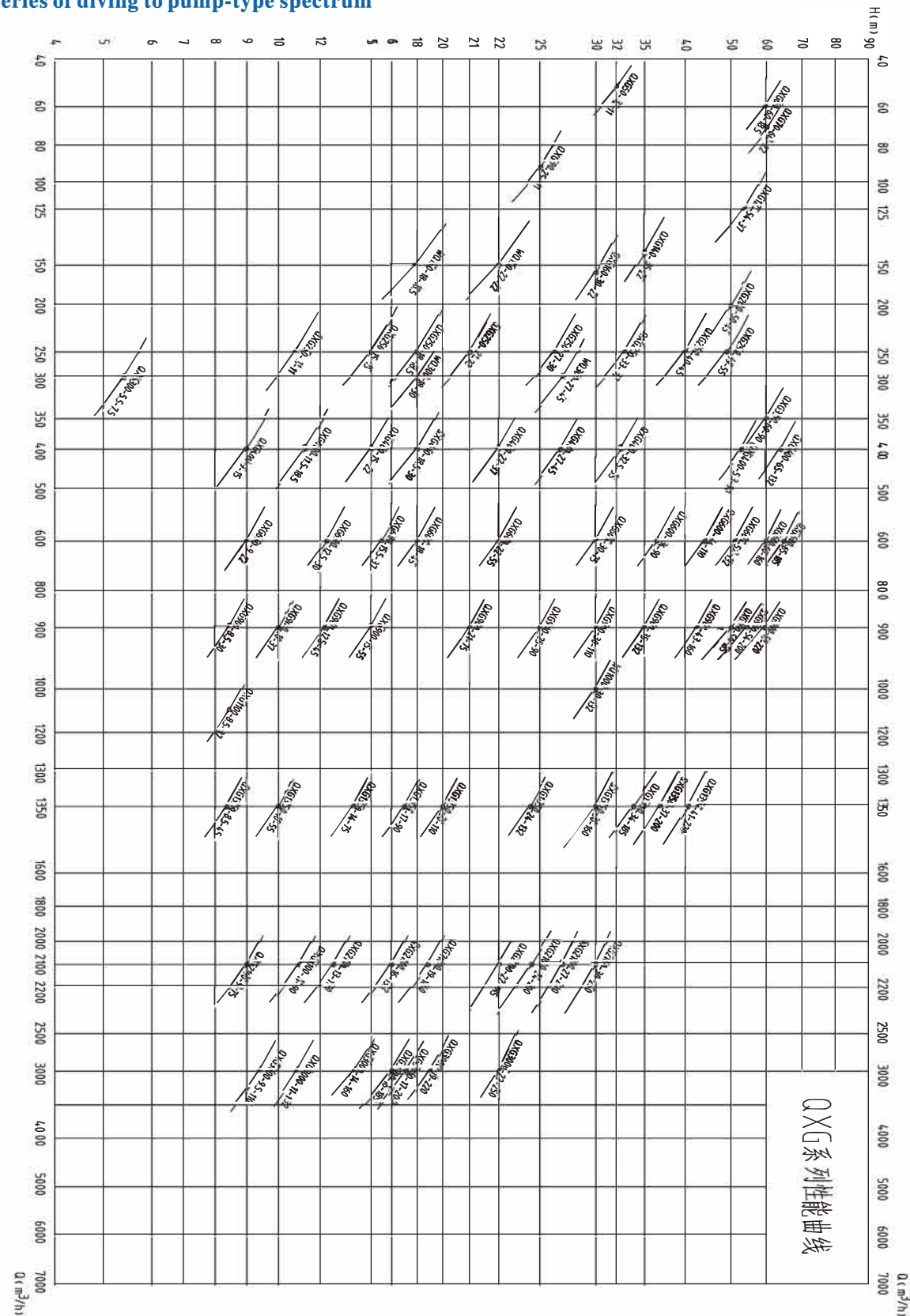
QXG系列潜水给水泵性能参数表
QXG series submersible pump performance parameters to the table

规格型号 Specification	流量m³/h Flow m3/h	扬程 m Lift m	转速 r/min Speed r / min	泵效率 % Pump efficiency%	配套功率 KW Auxiliary power KW	出水口径 Φmm Water-caliber Φmm	对应机座号 Corresponding Frame	自动耦合型号 Automatic coupling model	重量 kg Weight kg
QXG300-5.5-7.5	300	5.5	980	70	7.50	150	M160	150GAK	280
QXG50-32-11	50	32	1470	75	11	100	M160	100GAK	280
QXG90-25-11	90	25	1470	78	11	100	M160	100GAK	280
QXG250-11-11	250	11	980	80.5	11	150	M160	150GAK	280
QXG250-15-15	150	15	1470	80.5	15	150	M160	150GAK	280
QXG400-9-15	400	9	1470	80	15	200	M160	200GAK	280
QXG60-60-18.5	60	60	2900	74.5	18.5	100	M160	100GAK	280
QXG250-18-18.5	250	18	1470	80	18.5	150	M180	150GAK	450
QXG400-11.5-18.5	400	11.5	1470	80.5	18.5	200	M180	200GAK	450
QXG70-60-22	700	60	2900	75	22	100	M180	100GAK	500
QXG140-35-22	140	35	1470	80	22	150	M180	150GAK	500
QXG160-30-22	160	30	1470	80	22	150	M180	150GAK	500
QXG250-21-22	250	21	1470	79.5	22	150	M180	150GAK	500
QXG400-15-22	400	15	1470	80	22	200	M180	200GAK	500
QXG600-9-22	600	9	1470	82	22	250	M180	250GAK	600
QXG250-27-30	250	27	980	76	30	150	M225	150GAK	800
QXG400-18.5-30	400	18.5	980	80.5	30	200	M225	200GAK	800
QXG600-12.5-30	600	12.5	980	82	30	250	M225	250GAK	800
QXG900-8.5-30	900	8.5	980	83	30	300	M225	300GAK	800
QXG125-54-37	125	54	1470	71	37	150	M225	150GAK	800
QXG250-33-37	250	33	1470	75	37	150	M225	150GAK	800
QXG400-22-37	400	22	1470	80	37	200	M225	200GAK	800
QXG600-15.5-37	600	15.5	1470	80	37	250	M225	250GAK	800
QXG900-10-37	900	10	980	82	37	300	M225	300GAK	800
QXG1100-8.5-37	1100	8.5	980	82	37	300	M225	300GAK	800
QXG200-50-45	200	50	1470	79	45	150	M225	150GAK	1000
QXG250-40-45	250	40	1470	76	45	200	M225	200GAK	1000
QXG400-27-45	400	27	1470	79	45	200	M225	200GAK	1000
QXG600-18-45	600	18	1470	80	45	250	M225	250GAK	1000
QXG900-12.5-45	900	12.5	1470	82	45	300	M225	300GAK	1000
QXG1350-8.5-45	1350	8.5	740	83	45	400	M280	400GAK	1500
QXG250-49-55	250	49	1470	73	55	200	M250	200GAK	1200
QXG400-32.5-55	400	32.5	1470	78	55	200	M250	200GAK	1200
QXG600-22-55	600	22	1470	80	55	250	M250	250GAK	1200
QXG900-15-55	900	15	1470	82	55	300	M250	300GAK	1300
QXG1350-10-55	1350	10	980	83	55	400	M280	400GAK	1600
QXG400-44-75	400	44	1470	77.5	75	200	M280	200GAK	1500
QXG600-30-75	600	30	1470	80	75	250	M280	250GAK	1500

规格型号 Specification	流量m³/h Flow m3/h	扬程 m Lift m	转速 r/min Speed r / min	泵效率 % Pump efficiency%	配套功率 KW Auxiliary power KW	出水口径 Φmm Water-caliber Φmm	对应机座号 Corresponding Frame	自动耦合型号 Automatic coupling model	重量 kg Weight kg
QXG900-21-75	900	21	1470	82	75	300	M280	300GAK	1500
QXG1350-14-75	1350	14	980	83	75	400	M315	400GAK	2300
QXG2100-9-75	2100	9	740	84	75	500	M315	500GAK	2500
QXG350-60-90	350	60	1470	80	90	200	M280	200GAK	1500
QXG400-53-90	400	53	1470	77	90	200	M280	200GAK	1500
QXG600-36-90	600	36	1470	79	90	250	M280	250GAK	1500
QXG900-25-90	900	25	1470	82	90	300	M280	300GAK	1500
QXG1350-17-90	1350	17	980	83	90	400	M315	400GAK	2300
QXG2100-11-90	2100	11	980	84	90	400	M315	400GAK	2300
QXG600-44-110	600	44	1470	79	110	250	M315	250GAK	2100
QXG900-30-110	900	30	1470	82	110	250	M315	250GAK	2100
QXG1350-20-110	1350	20	980	83	110	400	M315	400GAK	2300
QXG2100-13-110	2100	13	980	84	110	400	M315	400GAK	2300
QXG3000-9.5-110	3000	9.5	740	85	110	500	M315	500GAK	2500
QXG400-65-132	400	65	1470	75	132	250	M315	250GAK	2100
QXG600-52-132	600	52	1470	78.5	132	250	M315	250GAK	2100
QXG900-35-132	900	35	1470	81	132	300	M315	300GAK	2100
QXG1350-24-132	1350	24	980	83	132	400	M315	400GAK	2300
QXG2100-16-132	2100	16	980	84	132	400	M315	400GAK	2300
QXG3000-11-132	3000	11	740	85	132	500	M315	500GAK	2500
QXG600-60-160	600	60	1470	80.5	160	250	M315	250GAK	2100
QXG900-43-160	900	43	1470	80.5	160	300	M315	300GAK	2200
QXG1350-30-160	1350	30	1470	83	160	400	M315	400GAK	2300
QXG2100-19-160	2100	19	980	84	160	500	M315	500GAK	2500
QXG3000-14-160	3000	14	740	85	160	500	M355	500GAK	3800
QXG600-65-185	600	65	1470	80	185	250	M355	250GAK	3500
QXG900-50-185	900	50	980	80	185	300	M355	300GAK	3750
QXG1350-34-185	1350	34	980	82.5	185	400	M355	400GAK	3950
QXG2100-22-185	2100	22	980	84	185	500	M355	500GAK	3950
QXG3000-16-185	3000	16	980	85	185	500	M355	500GAK	3950
QXG900-54-200	900	54	980	82	200	300	M355	300GAK	3950
QXG1350-37-200	1350	37	980	82	200	400	M355	400GAK	3950
QXG2100-24-200	2100	24	980	84	200	500	M355	500GAK	3950
QXG3000-17-200	3000	17	980	85	200	500	M355	500GAK	3950
QXG900-59-220	900	59	980	82	220	300	M355	300GAK	4100
QXG1350-41-220	1350	41	980	82	220	400	M355	400GAK	4100
QXG2100-27-220	2100	27	980	84	220	500	M355	500GAK	4100
QXG3000-19-220	3000	19	980	85	220	500	M355	500GAK	4100
QXG2100-30-250	2100	30	980	83.5	250	500	M355	500GAK	4250
QXG3000-22-250	3000	22	980	85	250	500	M355	500GAK	4250

QXG系列潜水给水泵型谱

QXG series of diving to pump-type spectrum



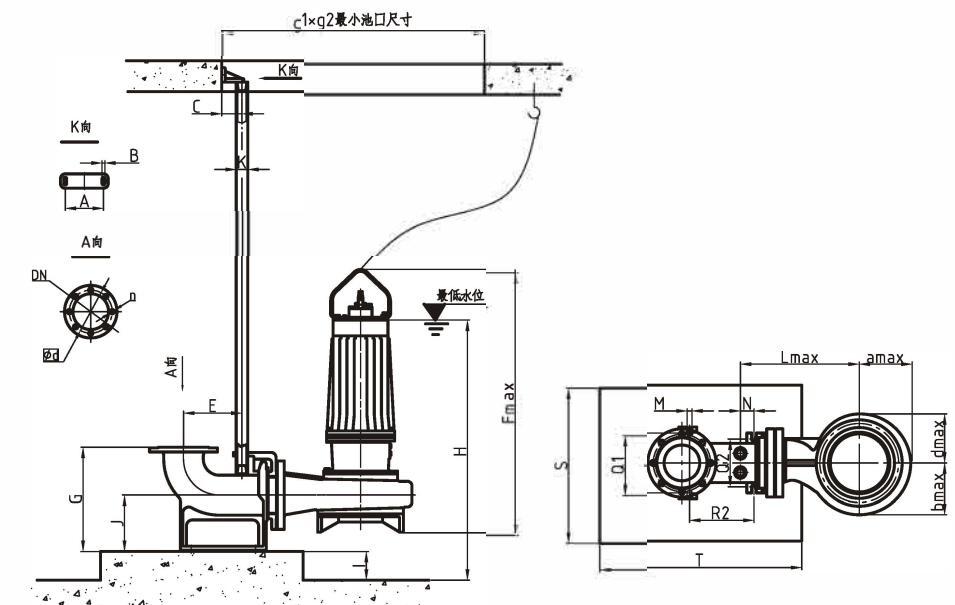
M160~M225自耦安装尺寸表 (无冷却水套)

M160~M225 auto install size table (No cooling water jacket)

机座号 Frame	DN100		DN150			DN200			DN250		DN300
	M160	M180	M160	M180	M225	M160	M180	M225	M180	M225	M225
自耦 (Auto)	100GAK		150GAK			200GAK			250GAK		
最小池口尺寸 The just xiaochikou size	1150×900	1350×900	1200×900	1350×900	1400×900	1300×950	1300×950	1400×1000	1500×1150	1500×1150	1600×1200
DN	100	100	150	150	150	200	200	200	250	250	300
A	160	160	160	160	160	160	160	160	230	230	230
B	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-14	2-14	2-12
C	80	80	80	80	80	80	80	80	80	125	140
E	215	215	245	245	245	275	275	275	385	385	440
Fmax	1470	1500	1470	1500	1800	1500	1500	2000	1500	2000	2000
Lmax	479	485	498	570	570	570	570	540	680	680	720
amax	260	260	225	245	305	270	270	310	310	310	375
bmax	280	280	273	245	305	300	300	330	360	360	425
dmax	225	250	225	245	305	250	250	310	310	310	315
G	385	385	435	435	435	535	535	535	675	675	720
H	1280	1270	1400	1300	1470	1300	1350	1550	1000	1550	1640
I	120	120	120	230	230	180	180	230	230	230	250
J	205	205	235	235	235	305	305	305	352	352	386
K	Φ48	Φ48	Φ48	Φ48	Φ48	Φ48	Φ48	Φ48	Φ60	Φ60	Φ60
M	4-18	4-18	4-20	4-20	4-20	4-20	4-20	4-20	4-26	4-26	6-28
N	47	47	57	57	57	42	42	42	85	85	75
Q1	220	220	250	250	250	370	370	370	500	500	500
Q2	190	190	200	200	200	330	330	330	500	500	500
R1	—	—	—	—	—	—	—	—	—	—	140
R2	237	237	270	270	270	330	330	330	470	470	450
S	450	450	650	650	650	680	680	680	800	800	880
T	550	550	850	850	850	900	900	900	1200	1200	1300
n	8-Φ18	8-Φ18	8-Φ22	8-Φ22	8-Φ22	8-Φ22	8-Φ22	8-Φ22	12-Φ22	12-Φ22	12-Φ22
Φd	Φ180	Φ180	Φ240	Φ240	Φ240	Φ295	Φ295	Φ295	Φ350	Φ350	Φ400

M160~M225(无水套)安装系统图

M160 ~ M225 (Absolute units) Installed on the system map



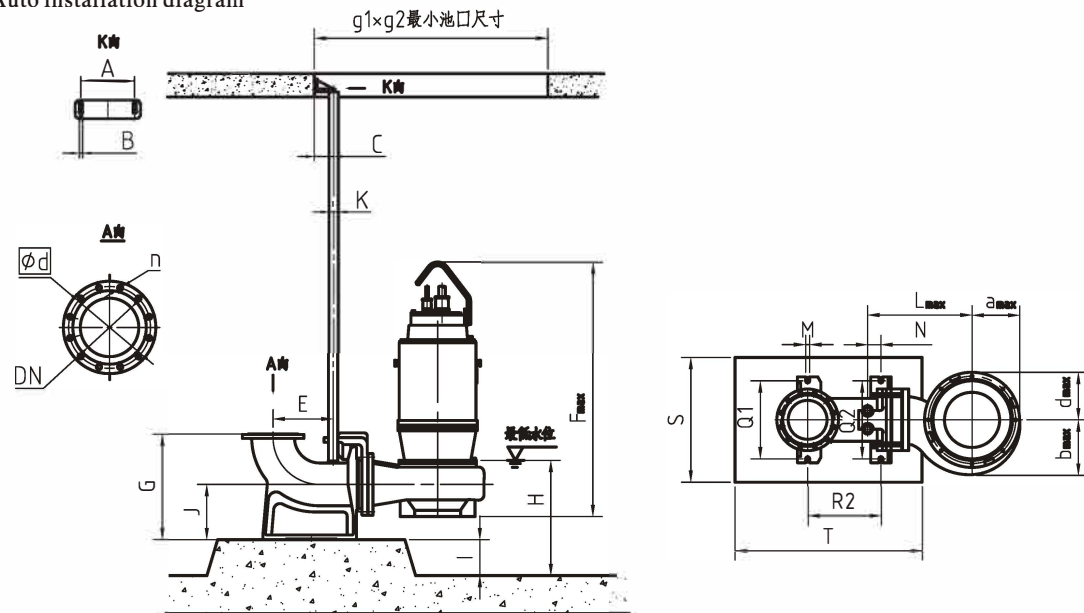
M225~M280自耦安装尺寸表

M225~M280 auto install size table

机座号 Frame	口径 Caliber	DN150	DN200				DN250			DN300			DN400
		M225	M225	M250	M280	M225	M250	M280	M225	M250	M280	M280	
自耦 (Auto)		150GAK	200GAK		200GAK(A)	250GAK			300GAK			400GAK	
最小池口尺寸 The most xiaochikou size		1400×900	1400×1000	1500×1000	1500×1000	1500×1150	1500×1150	1500×1150	1600×1200	1500×1200	1600×1200	1900×1400	
DN		150	200	200	200	250	250	250	300	300	300	400	
A		160	160	160	230	230	230	230	230	230	230	280	
B		2-12	2-12	2-12	2-14	2-14	2-14	2-14	2-12	2-12	2-12	2-14	
C		80	80	80	140	125	125	125	140	140	140	155	
E		245	275	275	343	385	385	385	440	440	440	700	
Fmax		1800	2000	2250	2100	2000	2000	2000	2000	2100	2250	2200	
Lmax		570	540	610	560	680	680	680	720	720	720	740	
amax		305	310	280	340	310	310	320	375	375	375	450	
bmax		305	330	280	355	360	360	360	425	425	425	510	
dmax		305	310	280	330	310	310	320	315	315	375	355	
G		435	535	535	535	675	675	675	720	720	720	855	
H		690	100	1000	950	1000	1000	1000	1050	1050	1050	1150	
I		230	230	230	230	230	230	230	250	250	250	400	
J		235	305	305	305	352	352	352	386	386	386	455	
K		Φ48	Φ48	Φ48	Φ60	Φ60	Φ60	Φ60	Φ60	Φ60	Φ60	Φ89	
M		420	4-20	4-20	4-20	4-26	4-26	4-26	6-28	6-28	6-28	6-28	
N		57	42	42	16	85	85	85	75	75	75	67	
Q1		250	370	370	410	500	500	500	500	500	500	640	
Q2		200	330	330	410	500	500	500	500	500	500	640	
R1		—	—	—	—	—	—	—	140	140	140	265	
R2		270	330	330	420	470	470	470	450	450	450	550	
S		650	680	680	680	800	800	800	880	880	880	900	
T		850	900	900	00	1200	1200	1200	1300	1300	1300	1400	
n		8-Φ22	8-Φ22	8-Φ22	8-Φ22	12-Φ22	12-Φ22	12-Φ22	12-Φ22	12-Φ22	12-Φ22	16-Φ26	
Φd		Φ240	Φ240	Φ295	Φ295	Φ350	Φ350	Φ350	Φ400	Φ400	Φ400	Φ515	

M225~M280自耦安装尺寸图

M225 ~ M280 Auto installation diagram



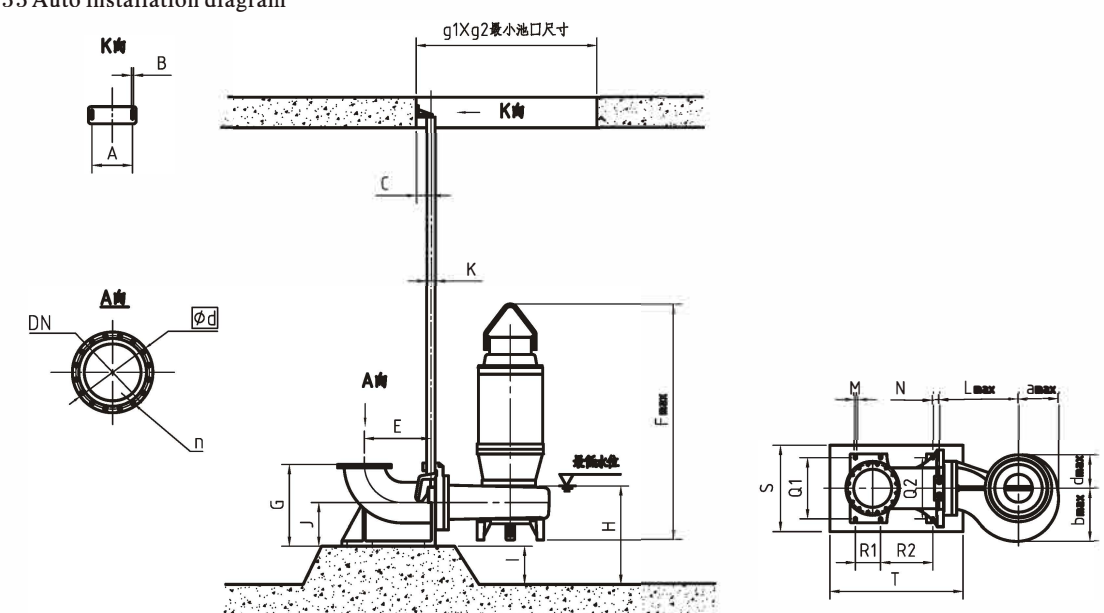
M315~M355自耦安装尺寸表

M315~M355 auto install size table

机座号 Frame	口径 Caliber	DN250	DN300	DN400		DN500	
		M315	M315	M315	M355	M315	M355
自耦 (Auto)		250GAK(A)	300GAK(A)	400GAK		500GAK	
最小池口尺寸 The most xiaochikou size		1700×1300	1600×1200	1900×1400	1900×1400	2250×1700	2250×1700
DN		250	300	400	400	500	500
A		270	280	280	280	280	280
B		2-14	2-14	2-14	2-14	2-14	2-14
C		155	155	155	155	155	155
E		400	552	700	700	739	739
Fmax		2900	3000	3100	3200	3100	3200
Lmax		650	700	850	1035	955	916
amax		370	400	450	640	650	555
bmax		450	430	560	705	690	630
dmax		310	340	355	525	650	480
G		680	720	855	855	920	920
H		1200	1100	1200	1200	1300	1300
I		400	250	400	450	450	500
J		357	388	455	455	455	455
K		Φ76	Φ89	Φ89	Φ89	Φ89	Φ89
M		4-26	6-28	6-28	6-28	6-28	6-28
N		22	58	67	67	94	94
Q1		500	500	640	640	640	640
Q2		500	500	640	640	640	640
R1		—	180	265	265	265	265
R2		470	420	550	550	550	550
S		800	880	900	900	1000	1000
T		1200	1300	1400	1400	1400	1400
n		12-Φ22	12-Φ22	16-Φ26	16-Φ26	20-Φ26	20-Φ26
Φd		Φ350	Φ400	Φ515	Φ515	Φ620	Φ620

M315~M355自耦安装尺寸图

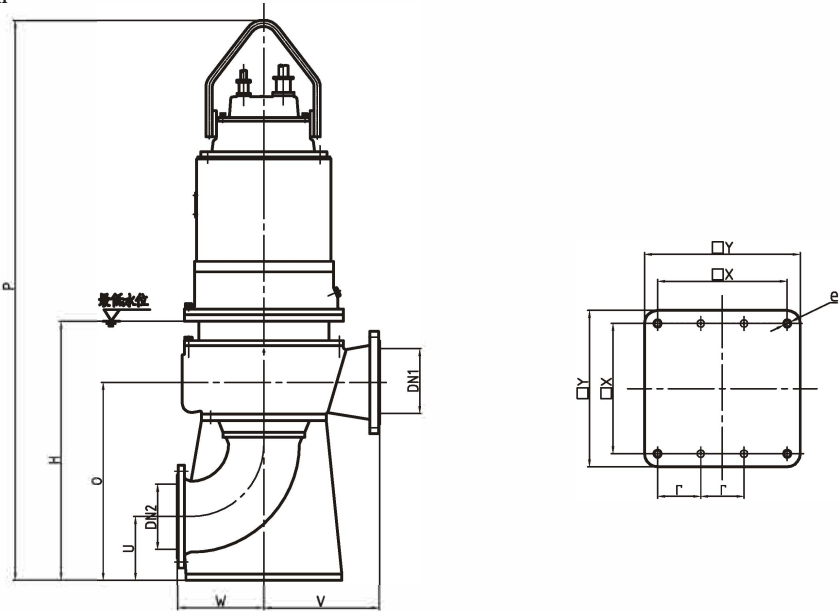
M315 ~ M355 Auto installation diagram



固定干式安装尺寸表
Installation of fixed dry size table

口径 Caliber 机座号 Frame	DN150	DN200				DN250				DN300				DN400			DN500	
	M225	M225	M250	M280	M225	M250	M280	M315	M225	M250	M280	M315	M280	M315	M355	M315	M355	
最小池口尺寸 The most xiaochikou size	1350×1000	1350×1050	1400×1000	1450×1000	1500×1150	1500×1150	1600×1200	1700×1300	1600×1200	1600×1200	1600×1200	1700×1300	1900×1400	1900×1400	2250×1700	2150×1700	2250×1700	
O*	390	686	741	760	762	762	800	853	880	880	880	835	950	1050	1100	1100	1100	
H*	806	818	847	860	904	904	1000	1037	1150	1150	1150	998	1100	1225	1350	1350	1350	
P*	2175	2185	2435	2505	2270	2390	2500	3220	2670	2670	2895	3180	2900	3410	3680	3590	3680	
U*	230	230	245	245	245	245	275	295	295	295	295	295	320	350	450	450	450	
V*	418	374	450	460	445	445	490	523	481	481	525	570	650	700	870	800	750	
W*	303	303	333	333	333	333	350	360	468	468	458	520	478	600	650	650	650	
X*	400	400	500	500	500	500	630	680	680	680	680	680	680	900	1200	1200	1200	
Y*	500	500	600	600	600	600	700	800	800	800	800	800	800	1000	1400	1400	1400	
r*	0	0	0	0	0	0	0	0	0	0	0	0	240	300	400	400	400	
e*	4-Φ26	4-Φ26	4-Φ28	4-Φ28	4-Φ28	4-Φ28	4-Φ32	4-Φ32	4-Φ32	4-Φ32	4-Φ32	4-Φ32	8-Φ32	8-Φ32	8-Φ34	8-Φ34	8-Φ34	
DN1	150	200	200	200	250	250	250	250	300	300	300	300	400	400	400	500	500	
DN2	150	200	200	200	250	250	250	250	300	300	300	300	400	400	400	500	500	

固定干式系统安装图
Fixed dry system installation diagram



为了水泵能可靠、安全运行
In order to pump reliable and safe operation

我公司采用特有的“蓝深LSK-1系列”水泵及水处理设备专用控制柜。该系列控制柜绝不同于普通电器控制柜，她是确保配套泵及设备长久可靠安全运行的必备选择。她凝结蓝深多年的经验及国外先进的控制技术，精心设计而成。她已广泛应用于众多知名国家工程。她不但具有常规的电保护功能：短路、缺相、断相、过载，还特别具有专用泵保护功能：油室漏水、电机腔漏水、接线盒漏水、电机定子绕组过热、轴承超温、干运转系列保护。同时还具备蓝深特有的技术专利：泵电机防凝露自动除湿控制功能，防止电机内部爬电现象，确保电机的绝缘度。

(一) 电控柜

- 1. 用途
对水泵进行自动保护（过载缺相、短路、渗漏、超温、除湿等保护），实行泵的无人看管，自动运行及信号输出）。有手动和自动控制两种方式。
- 2. 适应范围
 - a. 环境温度5~40℃（特殊使用介质可通过技术保障达到设计要求）；
 - b. 空气相对湿度不超过90%；
 - c. 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。
- 3. 端子箱
每套水泵系统可配套中间端子箱一只，用于水泵与控制柜的中间连接，详见示意图。

(二) 液位开关

液位开关用于泵站的水控制，灵活方便，信号可靠，能根据水位的变化对水泵进行自动控制。

Our company uses unique " LUMSUN LSK-1 Series" pumps and water treatment equipment dedicated control cabinet. The series definitely different from the normal electrical control cabinet control cabinet, she is supporting pumps and equipment to ensure reliable and safe operation of the necessary long-term options. Her years of experience setting of deep blue and the advanced control technology, carefully designed. She has been widely applied to many well-known national engineering. She not only has conventional electrical protection: short circuit, phase, phase failure, overload, specially with the special pump protection: the oil chamber leakage, electrical cavity leakage, junction box leakage, the stator windings overheating, bearing over-temperature, dry running series of protection. LANSHEN also has the unique patent: pump motor anti-condensation Automatic dehumidification control, to prevent internal electrical creepage phenomenon, to ensure the degree of electrical insulation.

(一) Control cabinet

- 1. Use
Automatic protection of the water pump (Phase overload, short circuit, leakage, over-temperature and dehumidification protection), the implementation of the pump unattended, automatic operation and signal output). There are two ways of manual and automatic control.
- 2. Scope of application
 - a. Ambient temperature 5 ~ 40 ℃ (special use of media through technical support to meet the design requirements);
 - b. Relative humidity less than 90%;
 - c. Occasion no danger of explosion, and the media not sufficient to corrode metal and damage insulation of gas and electric dust.

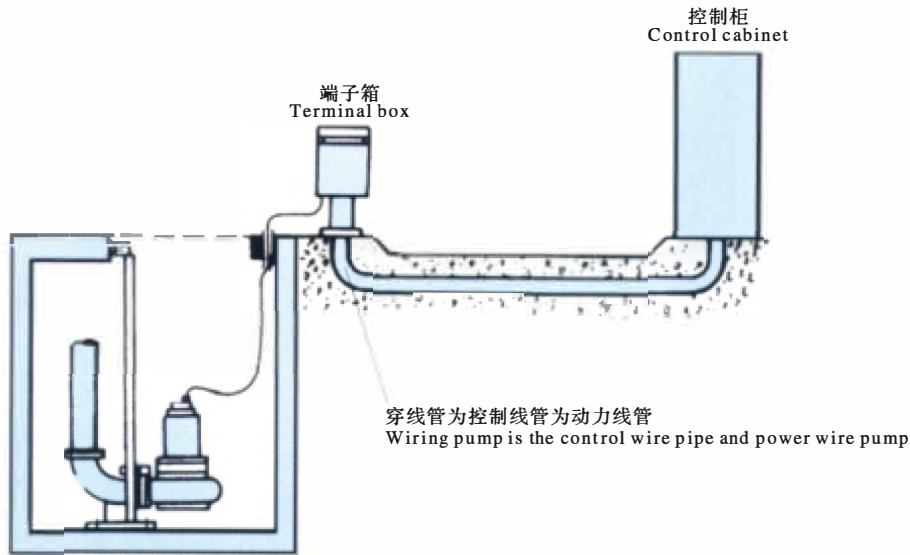
3. Terminal Box

Each pump system supporting the middle of a terminal box for the pump and the control cabinet in the middle of connection, see diagram.

(二) Level Switches

The water level switch for pump control, flexible, reliable signal, according to changes in water level automatic control of pumps.

典型泵站示意图
Typical pump station diagram



说明
Explain

1. 所有信号线可埋一根穿线管；
2. 动力线按提供的电缆线直径、数量自行确定预埋管子的大小；
3. 动力线和信号线必须分别埋设管道，不可混穿；
4. 端子箱与控制柜之间可采用直流电流信号，实现长距离输送，而无衰减。

1. All the signal lines can be buried in a threading pipe;
2. Power line cable provided by the diameter, the number of embedded tubes to determine the size of their own;
3. Power lines and signal lines must be buried pipelines were not mixed to wear;

4. Terminal box and control cabinet can be used between the DC current signal, to achieve long-distance transportation, without attenuation.

常见故障排除
Common Troubleshooting

故障现象 Failure phenomenon	原因分析 (Analysis)	排除方法 (Troubleshooting)
流量或扬程下降 Flow or head down	1、泵反转 2、装置扬程与额定扬程不符 3、抽吸的介质走旁路 4、出水管泄漏 5、出水管局部可能被沉积物堵死 6、叶轮，密封环磨损 1. Pump reversal 2. The device does not match head and rated head 3. Take the bypass pumping of the medium 4. Outlet pipe leakage 5. The local outlet pipe may be blocked by sediments 6. Impeller, seal ring wear	1、关掉控制柜的总电源，调换任何二相电源线 2、重新计算装置扬程以确定水泵型号 3、检查输水管路 4、找出泄漏，进行修正 5、检查管路，清理或更换新的（用作排污时，确定前端格栅是否损坏） 6、吊起水泵，按叶轮口环实际尺寸配密封环 1. Turn off the control cabinet of the total power supply, swap any two-phase power line 2. Re-computing device to determine the pump type head 3. Inspection of the supply pipeline 4. Find the leak, an amendment 5. Inspection pipes, clean or replace the new (used for sewage, the front grille to determine whether the damage) 6. Lift pump, according to the actual size of the impeller exit with Seal Ring
无流量 No flow	1、气塞 2、检查出水阀门 3、泵反转 1. Gas plug 2. Check the water valve 3. Pump reversal	1、（1）连续的打开和关闭阀门几次 （2）启动/停止泵几次，每次重新启动间隔时间不少于10分钟 （3）根据不同的安装方法，检查是否需要安装一个排气阀 2、（1）如果阀门处于关闭状态应打开 （2）如果装反，应倒过来安装 3、关掉控制柜的总电源，调换任何二相电源线 1. (1) Continuous opening and closing the valve several times (2) Start / stop pump several times, each time to restart the interval of not less than 10 minutes (3) Depending on the installation method, check whether need to install an exhaust valve 2. (1) If the valve is closed should be open (2) If installed against, should be installed upside down 3. Turn off the control cabinet of the total power supply, swap any two-phase power line
运行有杂音或振动 Running noise or vibration	1、安装系统基础强度不够或水泵安装不平 2、轴承磨损 3、叶轮松动或脱落 4、叶轮有杂物缠绕或堵塞 5、叶轮部分被杂物打碎或磨损 6、叶轮口环与密封环摩擦 1. The installation system, install water pumps based on inadequate or uneven intensity 2. Bearing wear 3. Impeller loose or fall off 4. Impeller twisted or blocked with debris 5. Impeller broken or worn parts of the culvert 6. Impeller and seal ring friction between Sandy Bay	1、将基础加固，并将水泵固定 2、更换轴承 3、紧固叶轮 4、清理流道（用作排污时，确定前端格栅是否损坏） 5、更换叶轮（用作排污时，确定前端格栅是否损坏） 6、检查叶轮，校正转子轴平行度 1. Will be the basis of reinforcement, and a fixed pump 2. Replacement 3. Fastening impellers 4. Clean-up flow (when used as sewage, to determine whether the damage to the front grille) 5. Replacement of the impeller (for sewage, the front grille to determine whether the damage) 6. Check the impeller, the rotor axis parallel to the degree of correction
水泵不能启动 Pump can not start	1、无电源 2、电器失灵 3、绕组、接头或电缆断路 4、浮球故障 5、缺相 1. No power 2. Electrical failure 3. Winding, circuit connector or cable 4. Float fault 5. Phase	1、检查控制柜是否有电源 2、更换故障电器 3、用万用表检查，如果证明是断路，检查绕组、接线头和电缆 4、浮球开关短接，看水泵是否能启动。如能启动应检查浮球开关 5、检查线路 1. Check whether the power control cabinet 2. Replacement of defective electrical appliances 3. With a multimeter to check if that is the open circuit, check the winding, wiring and cable head 4. Float switch shorted to see whether the pumps started. Start should check if float switch 5. Check the line
水泵运转中非正常停机 Pump down the normal functioning of Central Africa	1、电压低 2、电压过高 3、短路 4、控制柜故障 5、保护器动作 6、缺相 7、长期超额额定电流使用 1. Low voltage 2. Voltage too high 3. Short-circuit 4. Controller Fault 5. Protector action 6. Phase 7. Long-term over-use of constant current	1、检查控制柜的电压，如电压过低暂时不能使用，请调整 2、装变压器，将电压调到规定的范围 3、检查熔丝或断路器 4、检查控制柜，进行修理或更换 5、请本公司售后服务部进行维修 6、检查线路 7、按水泵的实际规定值使用 1. Check the voltage control cabinet, such as the voltage is too low for the time being can not be used, adjust 2. Mounted transformer, the voltage transferred to the extent provided 3. Check the fuse or circuit breaker 4. Check the control cabinet, repair or replacement 5. Invited the company's service department for maintenance 6. Check the line 7. According to the specified value using the actual pump
水泵启停频繁或失灵 Pump start and stop frequently or failure	1、浮球开关上下距离过短 2、逆止阀故障，逆止阀不能止回，使液体倒流入水池 3、浮球开关失灵 4、浮球卡在工作开关的位置 1. Float switch up and down short distance 2. Check valve failure, check valve can not only back, so that the liquid has flowed into the pool 3. Float switch failure 4. Float switch stuck in the work place	1、重调上下浮球开关的距离，延长运行时间 2、检查并维修 3、检查浮球开关，如需要应给予更换 4、松开浮球开关，如需要可改变位置 1. Re-adjust the distance between the upper and lower float switch, to extend the running time 2. Inspection and maintenance 3. Check the float switch, if necessary, should be given to replacement 4. Release the float switch, such as the need to change the location

⚠ 设备的任何调节需获得我公司的许可！ ⚠ Any adjustments required to obtain the equipment my company Yunke!