

Enhancement Submersible Sewage Pump
WQ Type Submersible Sewage Pump
增强型潜水排污泵
WQ型潜水排污泵



◇由于产品技术不断进步，艾德森水务保留修改设计的权利，恕不另行通知。WQ1704
Due to constantly progressive technology, Aidesen Water has the right to amend the design, without prior notice. WQ1704

南京艾德森水务有限公司

地址：南京市六合区雄州工业园陈吕路 8 号

邮编：211500

电话：025-57507911

传真：025-57750693

网址：www.lanshengroup.cn



南京艾德森水务有限公司
Nanjing Aidesen Water Service Co., Ltd



南京艾德森水务有限公司坐落于茉莉花的故乡南京六合雄州工业园，区位优越、交通便捷，景色怡人。南京艾德森水务有限公司依托国家环保骨干企业、国家级高新技术企业蓝深集团的先进管理模式、先进技术及工艺装备以及不断创新的精神，为产品开发设计、生产制造、质量控制、快速服务提供了强有力的保障。

南京艾德森水务有限公司是专业致力于环保文化，技术开发，集科研、设计、生产、内外销售、服务于一身。专业从事各类水泵、环保设备污水处理设备生产与销售。公司本着以质量求生存，以诚信求发展，以服务创效益为理念，为人类环境、水资源一直不懈努力……

Nanjing Aidesen Water Service Co., Ltd locates in Liuhe Xiongzhou Industrial Park in Nanjing, the hometown of jasmine flower where has pleasant scene; with excellent location, its traffic is convenient and fast. Advanced management modes, technologies and technological equipment, and spirit of continuous innovation from LANSHEN Group, the key enterprises on environmental protection and new high-tech enterprise in national level, provide strong guarantee for Nanjing Aidesen Water Service Co., Ltd on product development and design, manufacturing, quality monitoring and quick service.

Nanjing Aidesen Water Service Co., Ltd. devotes itself to environmental protection and technological development; it combines scientific research, design, production, sales and services together, professional engaging in production and sales of various water pumps, environmental protection equipment for sewage treatment. Striving for survival on the basis of quality and realizing development on the basis of reputation, company adopts the idea of creating benefit based on services, and makes unremitting endeavor to protect human environment and water resources.

**Profile of
Aidesen pumps**

结构特点
Features of structure

增强型潜水排污泵的设计处处体现着高可靠性的要求。

Design of enhancement submersible sewage pumps is featured with high reliability in every respect.

电动机

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。

Motor

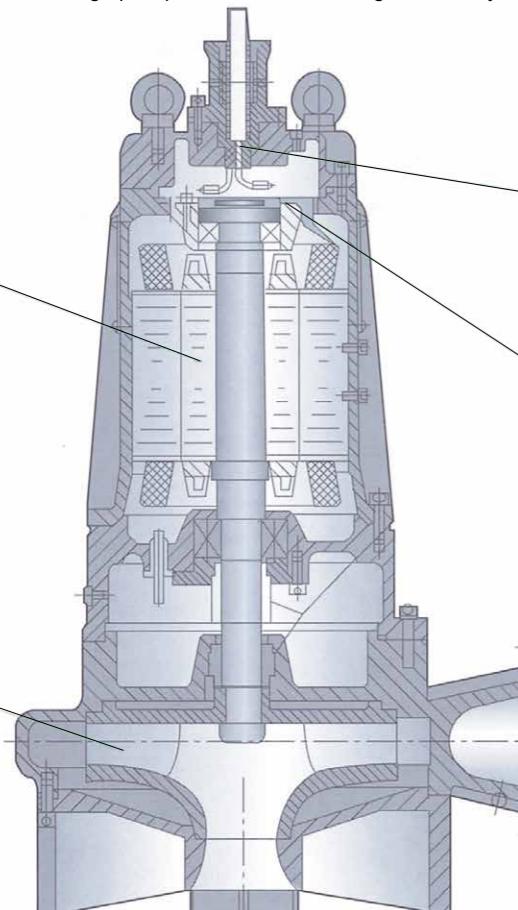
The unique insulation design ensures the motor can still run normally if little water is in it. The optimal design of motor guarantees the pump is able to start running when the hydraulic parts is submerged by some mud and sands.

水力部件

设计运用了先进的CFD流场诊断技术，具有高扬程、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。

Hydraulic part

Processed with advanced CFD flow field diagnose technology, it has many merits like high head, high efficiency, no block and anticorrosion, etc., reaches international leading level.



密封设计

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，更加安全可靠。

Sealing design

To meet the requirement of deep sub-mersion, we take many improvement measures for pump sealing. Unique sealing technique, which enables the product to be safer and more reliable.

保护措施

除常规电机保护外，还在接线盒腔、电机和油室内分别设置了泄露检测器，电机定子绕组内设置了定子超温保护装置。

Protection measures

Besides usual motor protection, the junction box chamber, motor and oil chamber are mounted with the leakage detector respectively, and two sets of stator ultra temperature protector are installed in the windings of motor stator.

产品适用范围
Product range of use

工厂、商业严重污染废水的排放

Be used for the drainage of serious polluted water in factory or commerce.

住宅区的污水排放

Be used for the drainage of sewage in residential area.

医院、宾馆的污水排放

Be used for the drainage of sewage in hospital and hotel.

勘探、矿山配套附机

Be used as support machine for exploration and mining.

自来水厂的给排水

Be used for the water supply and drainage in waterworks.

城市污水处理厂给排水系统

Be used for the water supply and drainage system in city sewage treatment factory.

人防系统排水

Be used for the drainage of water in civil air defense system.

市政工程、建筑工地

Be used for the municipal engineering and construction site.

农村沼气、农田灌溉

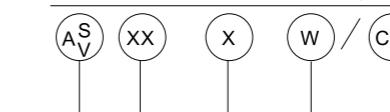
Be used for agricultural methane, agricultural irrigation.



产品型号说明
Product model description

AS、AV系列潜水排污泵

AS、AV series submersible sewage pump



Contra block device 抗堵塞撕裂机构

Single-phase motor 单向电机

Pole number of motor 电机的级数

Power P2*10 kW 功率 P 2 (加以圆整)

单叶片轮(AS) Single leaf impeller

旋流式叶轮(AV) Vortex impeller

增强型潜水排污泵

Design of enhancement submersible sewage pumps

艾德森水务推荐使用高效、可靠、高质量的增强型潜水排污泵。通过多年研发、制造和应用经验的积累。

Aidesenwater thoroughly recommends this high-efficiency, high-reliability and high-quality enhancement submersible sewage pump. For many years of accumulation of studying, manufacturing and application experience.

改进如下设计：

优化设计整体结构

应用新材料

改进电机

全新设计的水密电缆入口

计算机模拟技术最优化设计水力部件

Improve the following items:

Optimization design of integral structure

Use new material

Improved motor

Newly designed watertight cable inlet

Optimization design of hydraulic power components with the help of computer modeling technique

提升如下性能：

延伸整机使用寿命

增强耐用性

增强使用可靠性

增强抗阻塞、抗缠绕性

Upgrade the following performance:

Prolong the service life of the machine

Strengthen its durability

Reinforce its service reliability

Enhance its capability of anti block or intertwin

服务体系：

通过遍布全国的销售服务网络，蓝深集团可以保证在国内任何地区与用户保持密切联系，向用户提供及时完整的服务。

Service system:

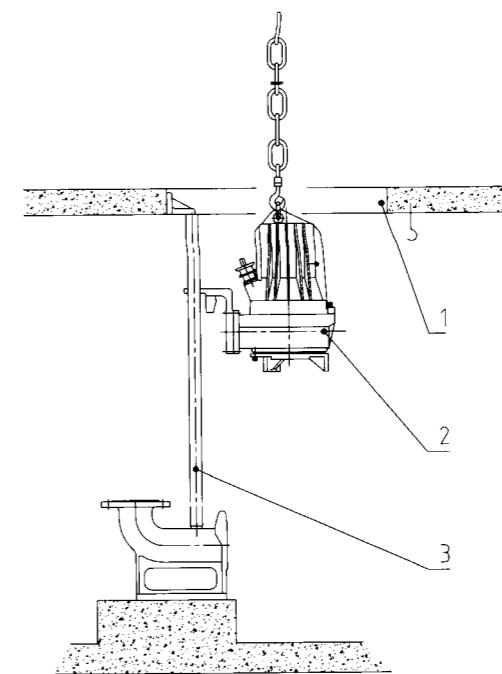
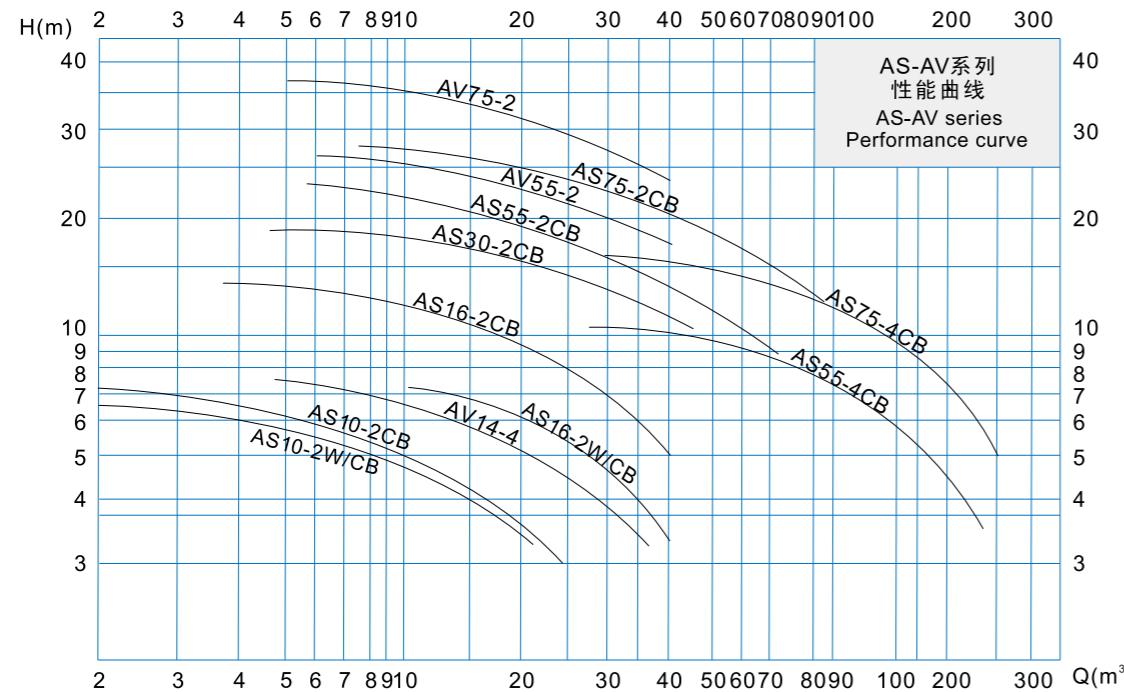
Through our sales network that spread all over the country, Lanshen Group is able to guarantee a close contact with users throughout the country and offer perfect service in time.

技术性能表

Technology performance data

序号 No.	规格型号 Type	流量 Capacity m³/h	扬程 Head H(m)	效率 Eff η(%)	功率 Power (Kw)	转速 Speed n(r/min)	电压 Voltage (v)	电流 Current (A)	口径 Dia.DN (Φmm)	通过颗粒 Through the particles (Φmm)	配用电控柜 Electric control cabinet for distribution	自耦装置型号 Mode of auto-co- upling system	重量 Weight (kg)
1	AS10-2CB	15	4.5	25.5	1.0	2850	380	2.9	80	30	QC系列	80GAK	30
2	AS16-2CB	29	7.6	46.5	1.6	2850	380	3.7	80	30		80GAK	33
3	AS30-2CB	42	11	45	2.9	2850	380	6.4	80	30		80GAK	40
4	AS55-2CB	65	12	55	5.5	2900	380	11.1	100	50		100GAK	165
5	AS55-4CB	100	7.5	59.8	5.5	1450	380	11.6	150	80		150GAK	180
6	AS75-2CB	85	13	57.9	7.5	2900	380	15.0	100	50		100GAK	185
7	AS75-4CB	145	10	62	7.5	1450	380	15.4	150	80		150GAK	200
8	AV14-4	22	5.8	36.5	1.4	1450	380	3.3	80	30		80GAK	33
9	AV55-2	30	20	52.4	5.5	2900	380	11.1	100	50		100GAK	150
10	AV75-2	30	25	52.4	7.5	2900	380	15.0	100	50		100GAK	150
11	AS10-2W-CB	15	4	30	0.8	2850	220	5.65	80	30		80GAK	30
12	AS16-2W/CB	22	6	29.5	1.2	2850	220	7.5	80	30		80GAK	33

性能曲线
Performance curve



1、池口Pool mouth 2、水泵Water pump 3、导轨Guide rail
(自动耦合装置吊装示意图)
Schematic diagram of hoisting of automatic coupling device

安装方法

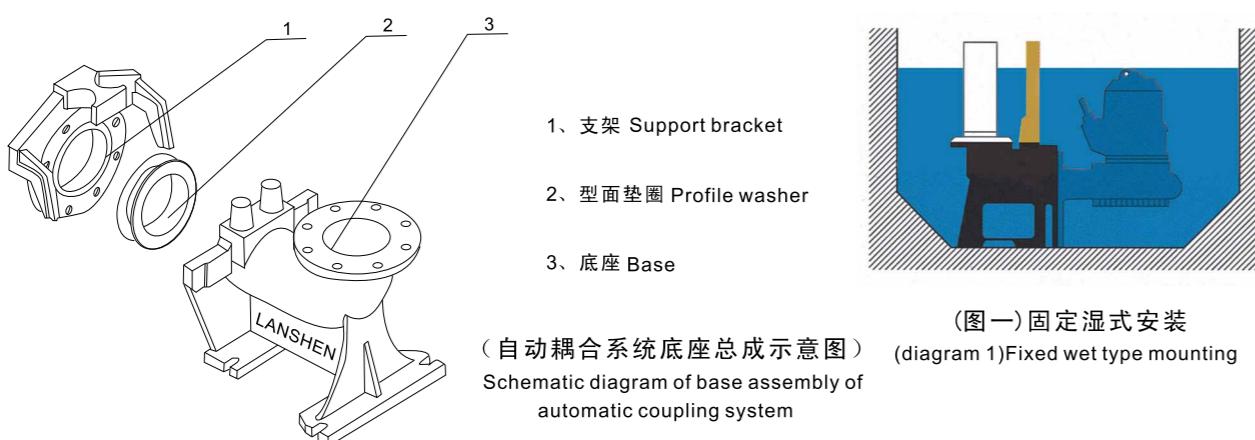
Mounting method

本公司生产的该系列潜水排污泵，机泵同轴结构紧凑，效率高，安装维护方便，运行经济，适应性强，其安装方式有固定湿式安装，移动式安装（可带支架固定式安装。）

The monoblock-designed submersible sewage pumps, are featured with characteristics of compact volume, high efficiency, convenient maintenance, economical operating and strong adaptability, the installation mode includes fixed wet mounting, Movable Movable mounting (or fixed type mounting with support bracket)

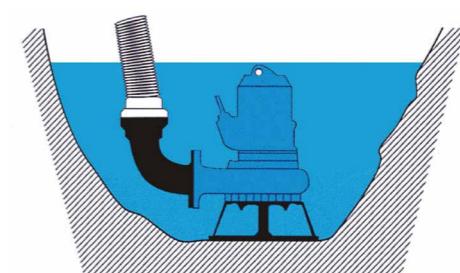
固定湿式安装 Fixed wet type mounting

采用自动耦合系统，水泵沿导轨下滑到底座，与其进水自动耦合并密封可靠（详见自动耦合装置安装说明书）（图一）。
Adopt automatic coupling device, the water pump can slide to base along the rail and couple with the water inlet automatically and seal reliably (refer to the installation specification of automatic coupling device for details) (diagram 1).



移动式安装 Movable mounting

它以支架支撑，支架不固定在基础上，接上出水软管即可工作，这种方式主要应用于维修，施工的临时排水(限4kw以下泵)。（图三）
It is supported by the support bracket, which is not fixed on the base. It begins to work once wired with delivery hose. This mode is usually applied to maintenance, temporary drainage during construction (only for pumps of 4kw below). (Diagram 3)



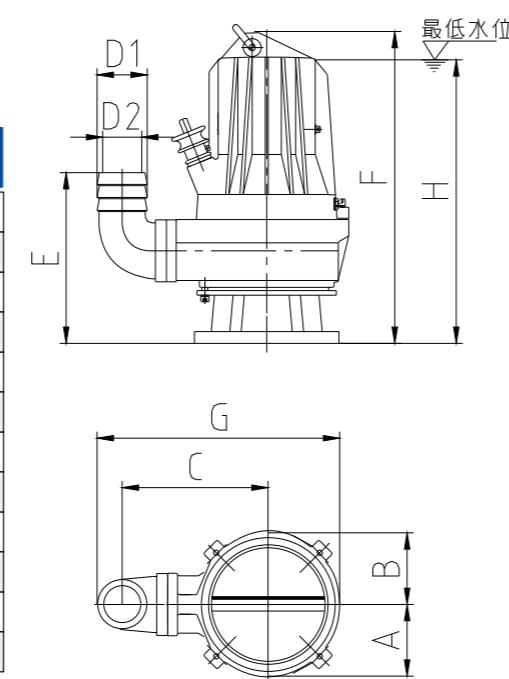
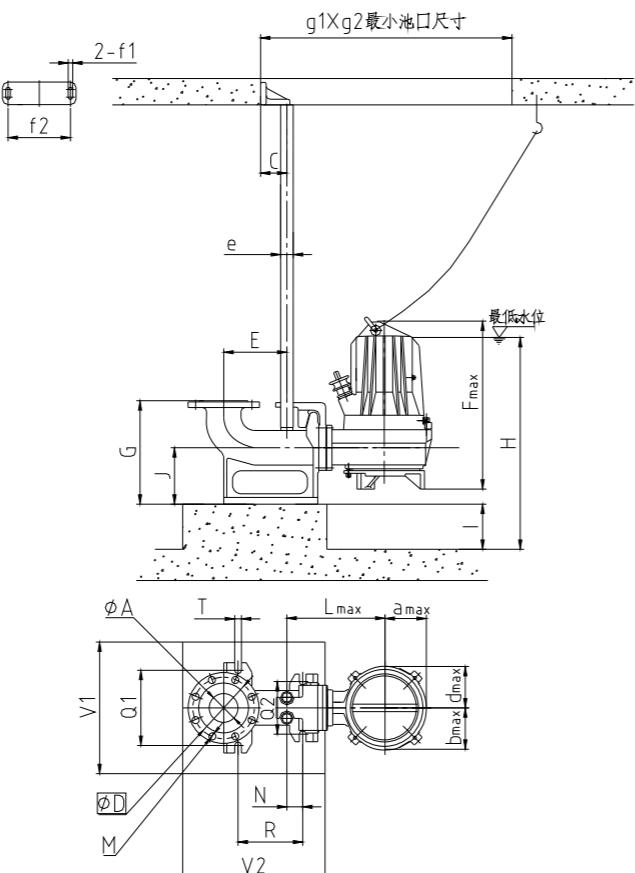
(图三) 移动式安装
(diagram 3)Movable mounting

AS、AV系列固定湿式安装系统表及图
AS、AV Series fixed wet type mounting mounting system and picture

自耦	80GAK	100GAK	150GAK
A	80	100	150
C	70	80	85
D	150	180	240
E	168	215	245
Fmax	580	1100	1470
G	275	385	435
H	650	1030	1150
J	150	205	235
Lmax	265	370	395
M	8-Φ18	8-Φ18	8-Φ22
N	42	47	57
Q1/Q2	200/140	220/190	250/200
g1/g2	600/500	900/700	950/750
R	172	237	270
T	4-18	4-18	4-20
amax	146	180	205
bmax	146	200	235
dmax	146	180	205
f1/f2	12/166	12/160	12/160
e	Φ33.5	Φ48	Φ48
V1/V2	450/550	450/550	550/650

外形尺寸
Outling size

型号规格 Spec.& Model	A	B	C	D1	D2	E	F	G	H
AS10-2CB	116	107	200	77	60	260	475	350	440
AS10-2W/CB	116	107	200	77	60	260	475	350	440
AS16-2CB	116	107	200	77	60	260	475	350	440
AS16-2W/CB	116	107	200	77	60	260	475	350	440
AS30-2CB	110	110	225	77	60	265	480	375	440
AV14-4	140	140	230	77	60	215	445	410	410
AS55-2CB	205	150	405	127	100	430	815	630	755
AS75-2CB	205	150	405	127	100	430	815	630	755
AS55-4CB	230	180	440	152	125	505	900	725	850
AS75-4CB	230	180	440	152	125	505	900	725	850
AV55-2	168	168	400	127	100	440	820	625	760
AV75-2	168	168	400	127	100	440	820	625	760



WQ型潜水排污泵
WQ Type Submersible Sewage Pump

产品简介
Product profile

WQ型潜水排污泵是我公司在吸收德国著名制泵公司先进技术的基础上研究开发的产品，其技术起点高，节能效果明显，配套性强、适用性广，被原国家机械委列为重点引进消化产品。

WQ type submersible sewage pumps are developed on the basis of absorbing advanced technology from famous pump manufacturing company in German, with advantages of high technological starting point, obvious energy saving capability, strong matching capability, wide applicability and so on, are listed as key introduced and digested products by former State Committee of Machinery Industry.



产品特点及用途
Product features and purposes

- 1、WQ型潜水排污泵采用大通道抗堵塞水利部件的设计，能有效通过直径125MM固定颗粒。
 - 2、电机采用水套式循环水冷却系统，能保证电泵在无水(干式)状态下可靠运行。
 - 3、独有的电机防凝露装置，能自动地对电机进行除湿，确保电机绝缘在高温环境下保证300M以上，使电机正常、可靠运行。
 - 4、采用自动耦合系统，安装简便，无需修建泵房，可减少大量工程费用，降低运行成本。
 - 5、自动保护系统具有多功能的运行显示，能对各种运行状态进行集中控制，并进行有效的保护。
 - 6、WQ型潜水排污泵广泛用于市政工程、工厂、商业、医院、宾馆、住宅区带固体颗粒及长纤维的污水、废水、雨水排放以及给水和农田灌溉。
- 1、WQ type submersible sewage pumps adopt large-channel anti-block hydraulic power parts, which allow solid particles of dia. 125MM to pass smoothly.
 - 2、The electrical motor adopts water jacket type circulated water cooling system to make sure that the electric pump can work reliably under dry condition.
 - 3、Unique condensation-proof device of motor, removes dampness from the motor automatically to keep its insulation at 300M above at high temperature, make sure that it can work normally and reliably.
 - 4、Automatic coupling system, simple installation, need not pump house, which cut down the construction cost and running cost sharply.
 - 5、The automatic protection system has multifunctional running display, which can make centralized control to every running state and protect it effectively.
 - 6、WQ type submersible sewage pumps can be applied to municipal engineering, factory, commerce, hospital, hotel, residential area and so on, used to drain sewage, waste water or rainwater that contain solid particles or long fibers, also can be used to supply water and irrigate agricultural land.

使用范围及使用条件
Range of use and service condition

Ph: 5~9。水温不超过40℃。(特殊使用介质如：高温、轻微腐蚀性介质、海水等可特殊定制)

Ph: 5~9. Water temperature≤40℃.

(Water Special working media such as: high temperature, slightly corrosive media, sea water and others can be customized.)

WQ系列潜水排污泵

WQ series submersible sewage pump

W	Q	45	30	7.5	
污水 Sewage					Power 功率
潜水 Submersible					Head 扬程
					Capacity 流量

结构说明图

Structure description diagram

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

如采用特有的“艾德森ADSK-1系列”水泵及水处理设备专用控制柜，可确保设备经久耐用、稳定可靠运行。
(详细见后页)

This series submersible sewage pump adopts advanced technology from foreign countries, has reasonable structure and superior performance. Operating mode of squirrel cage motor is S1, stator insulation class is F (155℃). With condensation -resistant device, and there is overload protection element for each phase.

The special "Aidesen ADSK-1 series" water pump and water treatment equipment special control cabinet are adopted to ensure durable equipment and stable and reliable operation. (refer to next pages for details)

防水压力密封的鼠笼式电机，运行方式为S1，绝缘等级F(适用于155℃)。

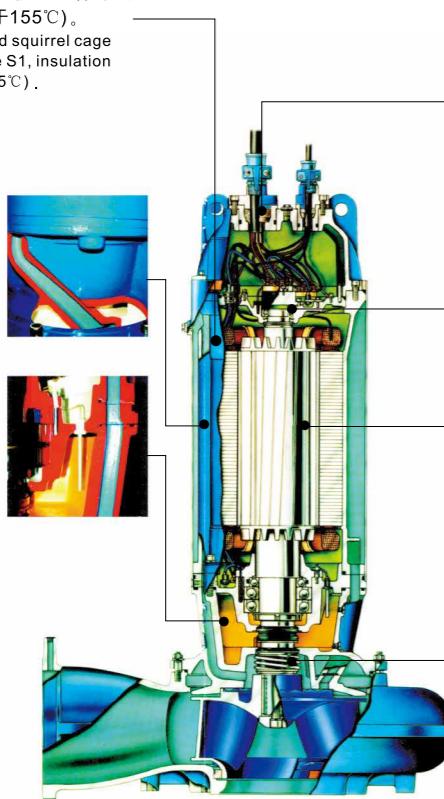
Waterproof pressure sealed squirrel cage motor, with operating mode S1, insulation class F (applicable for 155℃).

最佳电机开放式冷却系统。
冷却介质可以充满冷却套并自动循环，热量可以毫无困难的疏散。

Optimal motor open cooling system. Cooling medium is able to fill up the cooling jacket and cycle automatically, and the heat can be dispersed easily.

按照艾德森潜水泵标准，油腔中充满润滑油，在电机和水力部件之间的安全区装有DI传感器监控渗漏现象，并发出检修批示。

According to the standard of Aidesen submersible pump, oil pocket is full of lubricating oil, and there is a DI sensor mounted in the safety zone between motor and hydraulic power components used to monitor the leakage situation and send out overhaul instructions.



独立防水压力密封接线室。防水电缆进线有防拉紧，防缠绕保护及每根走线密封。

Independent waterproof pressure sealed wiring chamber. Each of the waterproof incoming cables is sealed off, and has functions of anti-tension and anti-intertwist.

电机转轴上下端嵌入终身润滑免维护的轴承内。90kW以上可根据需要增加单独的温度传感器。
The motor shaft lubrication and lifelong maintenance free embedded within the bearings. According to the need to increase 90kW above the temperature sensor alone.

与电机转子一起进行平衡检测的不锈钢转轴，轴端密封装置，使轴不受抽送介质腐蚀。轴悬伸设计的短，减少泵体振动、延长机械密封和轴承的使用寿命，运行噪音降低。

The stainless steel revolution axis that proceeds balance sense together with motor rotor, the axis end should be seal arranged to against corrosion of pumping medium. The axis overhang is designed short to reduce pump vibration and prolong mechanical sealing life as well as service life of bearing, and the noise also will be reduced.

电机和水力部件之间设有两道油润滑密封，介质端为碳化硅环，耐温、耐冲击、耐磨损能力出色，使用寿命长。这种密封结构已在艾德森使用了多年，已被证实比其它材料的结构更为优越。

There are two oil lubricating sealing ways between the motor and hydraulic part. It takes silicon carbide ring for the medium end, with advantages of temperature-proof, shockproof, strong wearproof, long service life. This hermetically sealed construction has been applied for many years in Aidesen Company and has been approved to be superior to other structures of other material.

叶轮设计

Impeller design

艾德森潜水排污泵在总体结构和水力模型设计上大胆创新，运用CFD流场分析技术、有限元分析法等先进设计理念和方法。叶轮进行动平衡检测而震动很少，确保运行平稳。叶轮单独加工以符合规定的工作点，以其最佳的流道和速度，最大效率输送流体。

Aidesen bravely innovates submersible sewage pump on the aspect of general structure and hydraulic model design, and employs CFD flow field analysis technology and finite element analysis. The impeller vibrates little during performing balance inspection, so that the pump can run stably. The impeller is processed separately to reach the specified working Points, so as to carry the liquid with the best flowing way and speed and max efficiency.



大通道叶轮 Large-channel impeller

用于输送含有大固体颗粒的废水

大通道叶轮，运行于蜗壳中，流道的形状及尺寸使泵不易堵塞，因此，用作泵送含有大固体颗粒的废水是理想的。

Be used for carrying the wastewater with large solid particle

Large-channel impeller runs in the volute casing. The shape and size of channel doesn't bring the jam, therefore, it is the ideal that the impeller is acted as pump to carry the waste water with large solid particle



旋涡式叶轮 Peripheral impeller

适用于含固粒的废水

旋涡式叶轮泵水过程由叶轮引发快速旋转的涡流，并使液体压力升高。

液体中大多数固体颗粒不会进入与叶轮相接触，大大减少了磨损，提高了水泵的寿命。

Be suitable for waster water with solid particle

The water process of peripheral impeller that is the impeller triggers the vortex flow in rapid rotating and makes hydraulic pressure rise.



多叶片叶轮 Multi-blade impeller

叶轮为多叶片式，高效输水、不会堵塞。

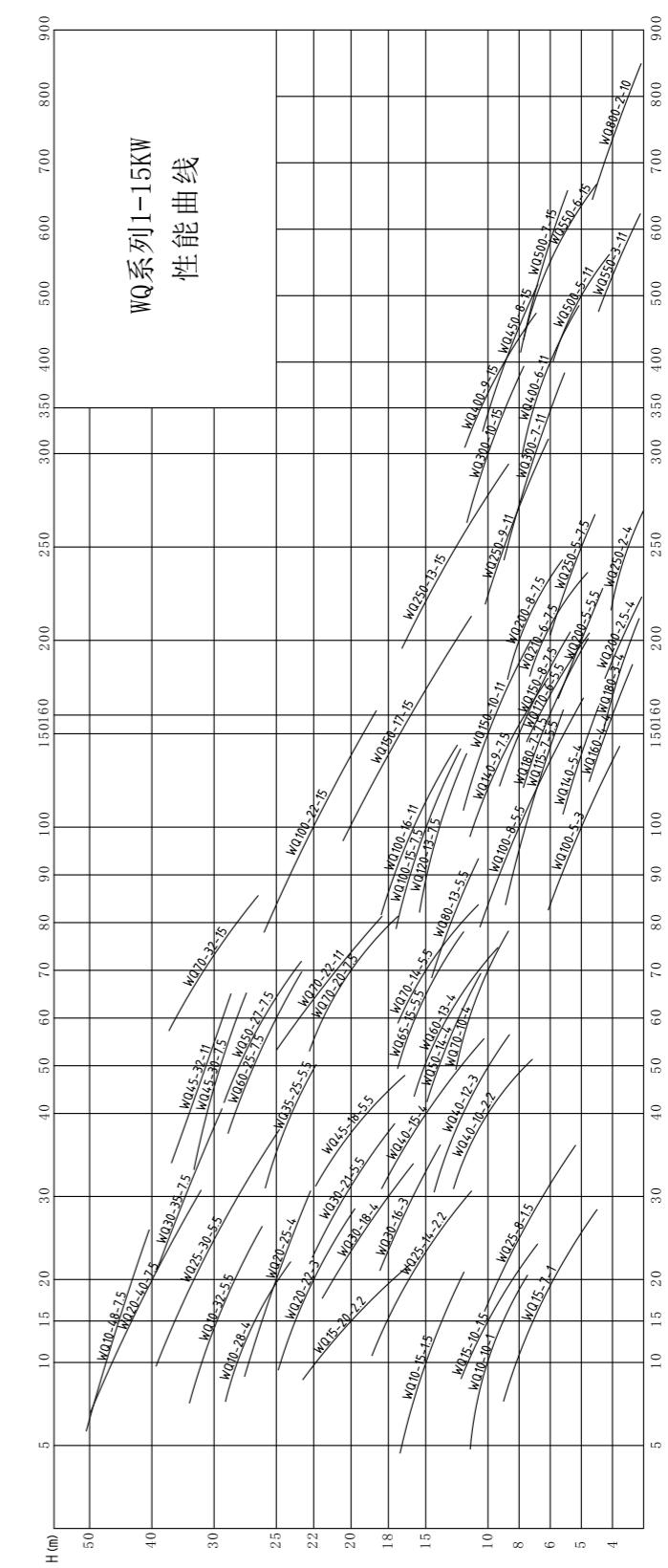
The impeller is designed into multi-blade type, can carry water effectively without blocking.

技术性能表
Technology performance data

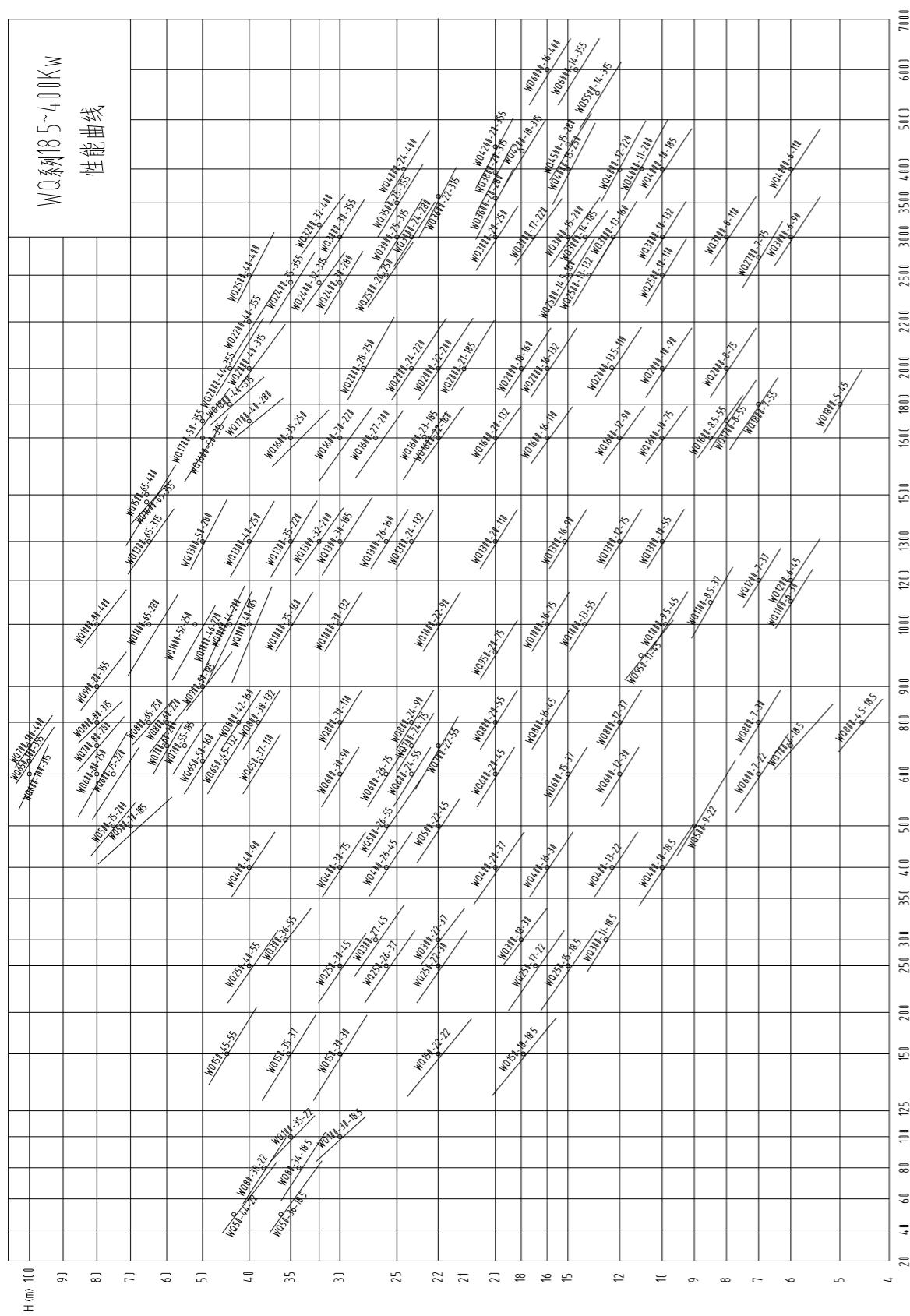
规格型号 Spec.&Model	流量 Capacity Q(m³/h)	扬程 Head H(m)	转速 Speed n(r/min)	泵效率 Eff n(%)	配套功率 Power P2(Kw)	出水口径 Dia Dm(Φ mm)	对应机座号 Corresponding frame No.	自耦装置型号 Mode of autoco -upling system	通过颗粒 Through the particles (Φ mm)	重量 Weight (kg)
WQ3000-24-280	3000	24	980	82	280	500	M355	500GAK	125	5200
WQ3600-20-280	3600	20	740	82	280	600	M355	600GAK	180	5200
WQ4500-15-280	4500	15	740	80	280	600	M355	600GAK	180	5200
WQ600-100-315	600	100	1470	70	315	300	M355	400GAK	60	6500
WQ800-80-315	800	80	1470	75	315	300	M355	400GAK	60	6500
WQ1300-65-315	1300	65	1470	81	315	400	M355	400GAK	125	6300
WQ1600-50-315	1600	50	1470	80	315	400	M355	400GAK	125	6500
WQ1800-44-315	1800	44	980	80	315	500	M355	500GAK	125	6300
WQ2000-40-315	2000	40	980	82	315	500	M355	500GAK	125	6300
WQ2400-32-315	2400	32	980	80	315	500	M355	500GAK	125	6300
WQ3000-25-315	3000	25	980	80	315	500	M355	500GAK	125	6300
WQ3600-22-315	3600	22	740	81	315	600	-----	600GAK	180	6500
WQ3800-20-315	3800	20	740	82	315	600	-----	600GAK	180	6500
WQ4200-18-315	4200	18	740	81	315	600	-----	600GAK	180	6500
WQ5500-14-315	5500	14	740	81	315	600	-----	600GAK	180	6500
WQ650-100-355	650	100	1470	70	355	300	M355	400GAK	60	6300
WQ900-80-355	900	80	1470	75	355	300	M355	400GAK	60	6300
WQ1400-65-355	1400	65	1470	81	355	400	M355	400GAK	125	6500
WQ1700-50-355	1700	50	1470	80	355	400	M355	400GAK	125	6500
WQ2000-44-355	2000	44	980	81	355	500	M355	500GAK	125	6500
WQ2200-40-355	2200	40	980	81	355	500	M355	500GAK	125	6500
WQ2400-35-355	2400	35	980	80	355	500	M355	500GAK	125	6500
WQ3000-30-355	3000	30	980	82	355	500	M355	500GAK	125	6500
WQ3500-25-355	3500	25	740	80	355	600	-----	600GAK	180	6500
WQ4200-20-355	4200	20	740	81	355	600	-----	600GAK	180	6500
WQ6000-14-355	6000	14	740	81	355	600	-----	600GAK	180	6500
WQ700-100-400	700	100	1470	70	400	300	-----	400GAK	60	6500
WQ1000-80-400	1000	80	1470	75	400	400	-----	400GAK	60	6500
WQ1500-65-400	1500	65	980	79	400	400	-----	400GAK	125	6500
WQ2000-50-400	2000	50	980	80	400	500	-----	500GAK	125	6500
WQ2500-40-400	2500	40	980	81	400	500	-----	500GAK	125	6500
WQ3200-32-400	3200	32	980	82	400	500	-----	500GAK	125	6500
WQ4000-24-400	4000	24	740	81	400	600	-----	600GAK	180	6500
WQ6000-16-400	6000	16	740	81	400	600	-----	600GAK	180	6500

根据客户需要，可做特殊设计

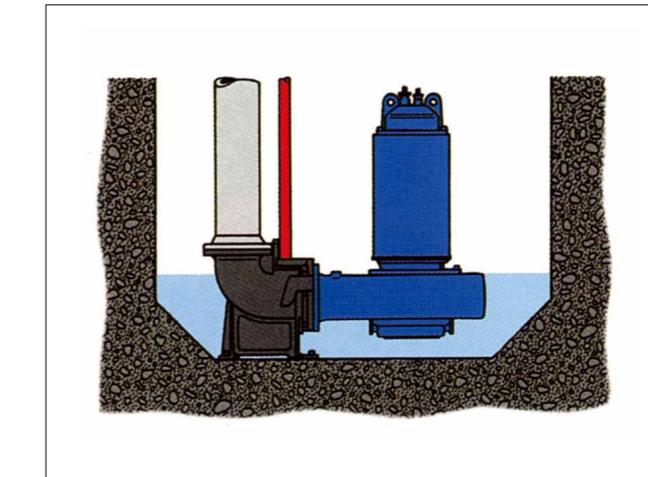
技术性能图
Technology performance diagram



技术性能图
Technology performance diagram

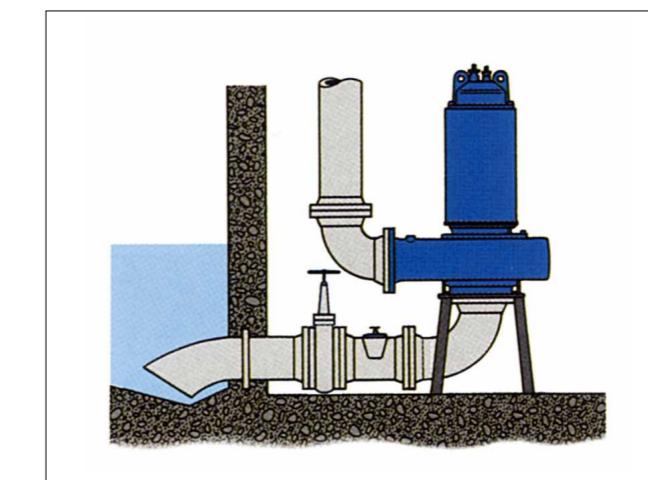


WQ型泵安装方式
WQ Type installation mode



固定湿式安装 Fixed wet type mounting

采用艾德森双导轨自动耦合装置，泵可沿双导轨自动滑到底座上的安装位置，并将出口联接密封好。
Adopt Aidesen dual rail automatic coupling device, the pump can slide to the mounting position on base along this dual rail and seal the outlet connection point automatically.



固定干式安装 Fixed dry type mounting

将泵底安装于一个支架上，可进行固定干式安装。适用于单独的收集池和水箱的泵站，可节省空间和安装费用，是对具有长轴泵的旧泵站进行改造的良好选择。

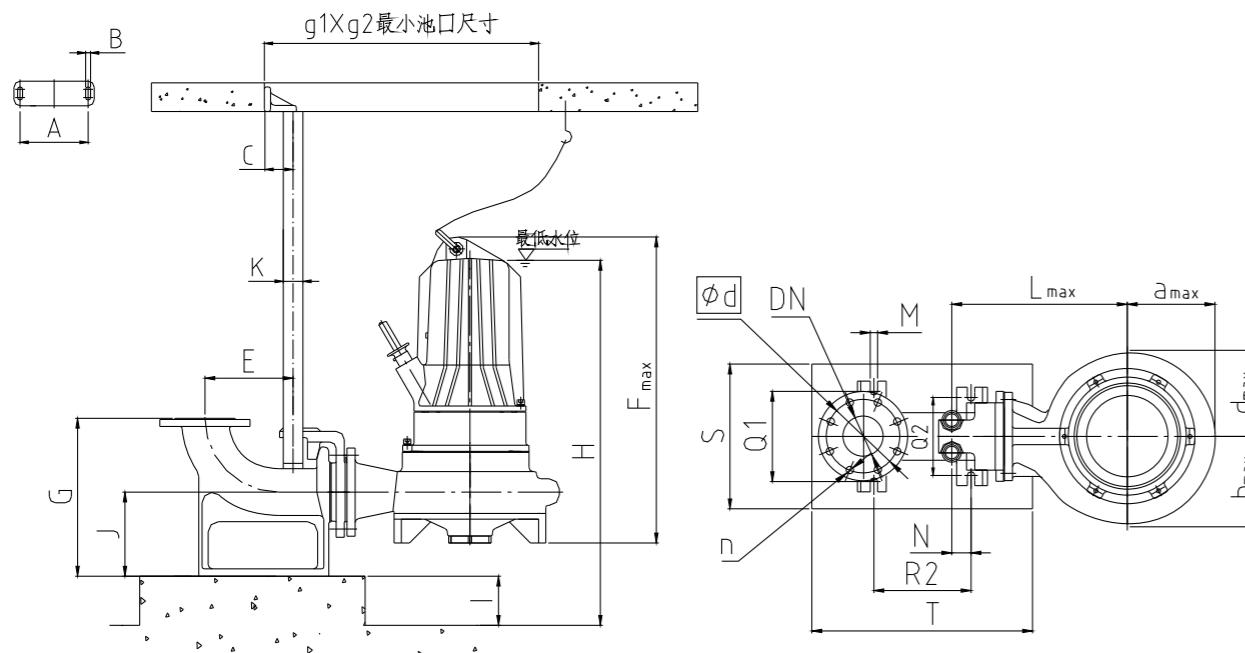
Install the pump base on a support bracket in fixed dry type, which is suitable for the pumping station that has individual collecting pool or water tank, saves space and mounting cost, really is the ideal selection for reconstructing old pumping stations that have major axis pumps.

WQ1~15KW自耦安装尺寸表

WQ1~15KW auto coupling installation dimensions table

自耦	50GAK	50GAK(A)	80GAK	80GAK(A)	100GAK	150GAK	200GAK	250GAK
最小池口尺寸	800x700	1100x800	900x700	1100x800	1150x900	1200x900	1300x950	1500x1150
DN	50	50	80	80	100	150	200	250
A	166	160	166	210	160	160	160	230
B	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-14
C	70	85	70	105	80	80	85	125
E	144	138	168	235	215	245	275	385
Fmax	600	1100	1100	1100	1500	1500	1500	1200
Lmax	216	364	360	267	479	498	565	680
amax	116	197	180	165	260	225	285	325
bmax	116	197	180	165	280	273	320	360
dmax	116	168	180	165	225	225	245	320
G	240	248	275	300	385	435	535	675
H	600	1000	1000	1000	1300	1400	1400	1400
I	120	120	120	120	120	120	120	230
J	150	150	150	150	205	235	305	352
K	Φ33.5	Φ48	Φ33.5	Φ60	Φ48	Φ48	Φ48	Φ60
M	4-18	4-18	4-18	4-16	4-18	4-20	4-20	4-26
N	20	19	42	26	47	57	42	85
Q1	140	220	200	300	220	250	370	500
Q2	140	180	140	220	190	200	330	500
R1	—	—	—	—	—	—	—	—
R2	102	136	172	255	237	270	330	470
S	450	450	450	450	450	650	680	800
T	550	550	550	550	550	850	900	1200
n	4-Φ18	4-Φ18	8-Φ18	8-Φ18	8-Φ18	8-Φ22	8-Φ22	12-Φ22
Φd	Φ125	Φ125	Φ160	Φ160	Φ180	Φ240	Φ295	Φ350

*为参考尺寸，定货时需根据原型确认 This dimension is only for reference, please confirm it when placing the order.

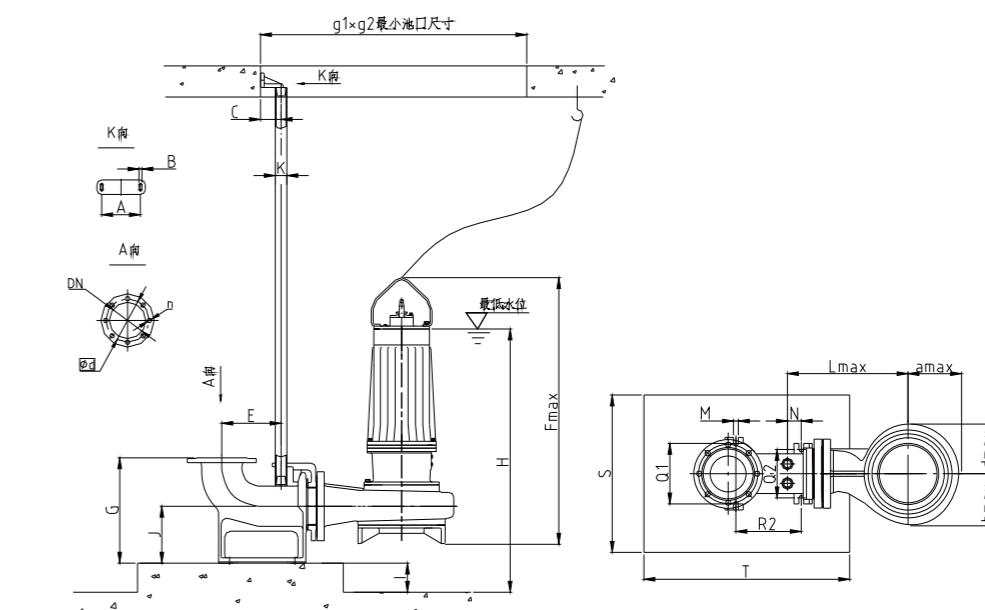


M180A(M160G)~M225A自耦安装尺寸表

M180A(M160G)~M225A auto coupling installation dimensions table

口径	DN100	DN150		DN200		DN250		DN300
机座号	M180A(M160G)	M180A(M160G)	M225A	M180A(M160G)	M225A	M180A(M160G)	M225A	M225A
自耦	100GAK	150GAK		200GAK		250GAK		300GAK
最小池口尺寸	1350x900	1350x900	1400x900	1300x950	1400x1000	1500x1150	1500x1150	1600x1200
DN	100	150	150	200	200	250	250	300
A	160	160	160	160	160	230	230	230
B	2-12	2-12	2-12	2-12	2-12	2-14	2-14	2-12
C	80	80	80	80	80	80	125	140
E	215	245	245	275	275	385	385	440
Fmax	1500	1500	1800	1500	2000	1500	2000	2000
Lmax	485	570	570	570	540	680	680	720
amax	260	245	305	270	310	310	310	375
bmax	280	245	305	300	330	360	360	425
dmax	250	245	305	250	310	310	310	315
G	385	435	435	535	535	675	675	720
H	1300	1300	1500	1400	1600	1000	1600	1700
I	120	230	230	180	230	230	230	250
J	205	235	235	305	305	352	352	386
K	Φ48	Φ48	Φ48	Φ48	Φ48	Φ60	Φ60	Φ60
M	4-18	4-20	4-20	4-20	4-20	4-26	4-26	6-28
N	47	57	57	42	42	85	85	75
Q1	220	250	250	370	370	500	500	500
Q2	190	200	200	330	330	500	500	500
R1	—	—	—	—	—	—	—	140
R2	237	270	270	330	330	470	470	450
S	450	650	650	680	680	800	800	880
T	550	850	850	900	900	1200	1200	1300
n	8-Φ18	8-Φ22	8-Φ22	8-Φ22	8-Φ22	12-Φ22	12-Φ22	12-Φ22
Φd	Φ180	Φ240	Φ240	Φ295	Φ295	Φ350	Φ350	Φ400

*为参考尺寸，定货时需根据原型确认 This dimension is only for reference, please confirm it when placing the order.

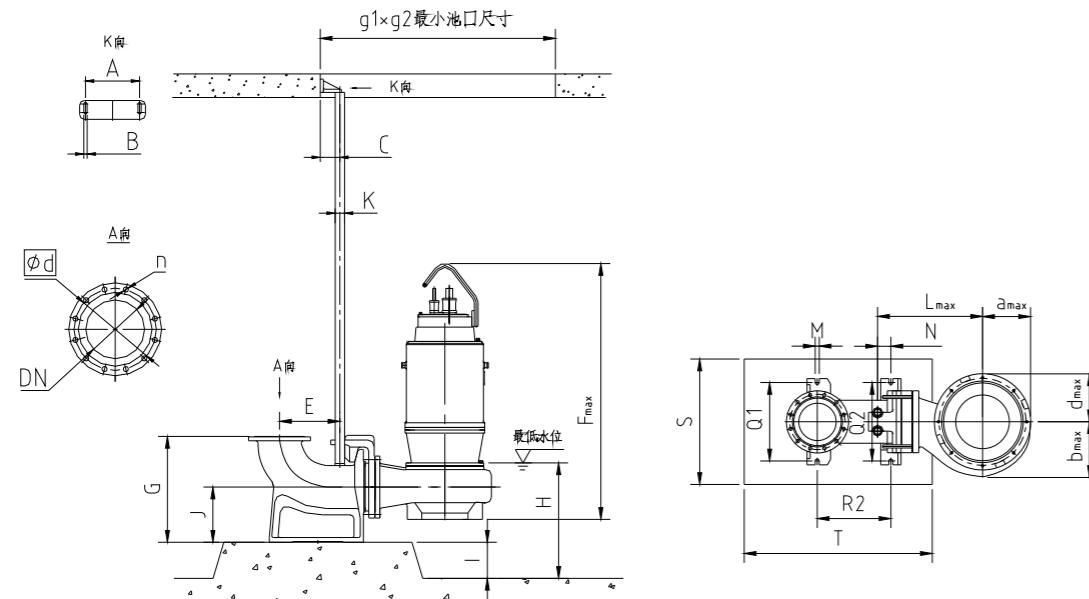


M250A(M250G)~M280A(M280G)自耦安装尺寸表

M250A(M250G)~M280A(M280G) auto coupling installation dimensions table

口径	DN250	DN300	DN400	
机座号	M280A(M280G)	M250A(M250G)	M280A	M280A(M280G)
自耦	250GAK	300GAK	400GAK	
最小池口尺寸	1700×1300		1600×1200	
DN	250	300	400	400
A	230	230	280	280
B	2-14	2-12	2-14	2-14
C	125	140	155	155
E	385	440	700	700
Fmax	2900	2300	2200	2400
Lmax	650	770	740	850
amax	370	375	480	450
bmax	450	425	540	560
dmax	310	375	385	355
G	675	720	855	855
H	1200	1100	1200	1200
I	230	250	400	400
J	352	386	455	455
K	Φ60	Φ60	Φ89	Φ89
M	4-26	6-28	6-28	6-28
N	85	75	67	67
Q1	500	500	640	640
Q2	500	500	640	640
R1	—	140	265	265
R2	470	450	550	550
S	800	880	900	900
T	1200	1300	1400	1400
n	12-Φ22	12-Φ22	16-Φ26	16-Φ26
Φd	Φ350	Φ400	Φ515	Φ515

*为参考尺寸，定货时需根据原型确认 This dimension is only for reference, please confirm it when placing the order.

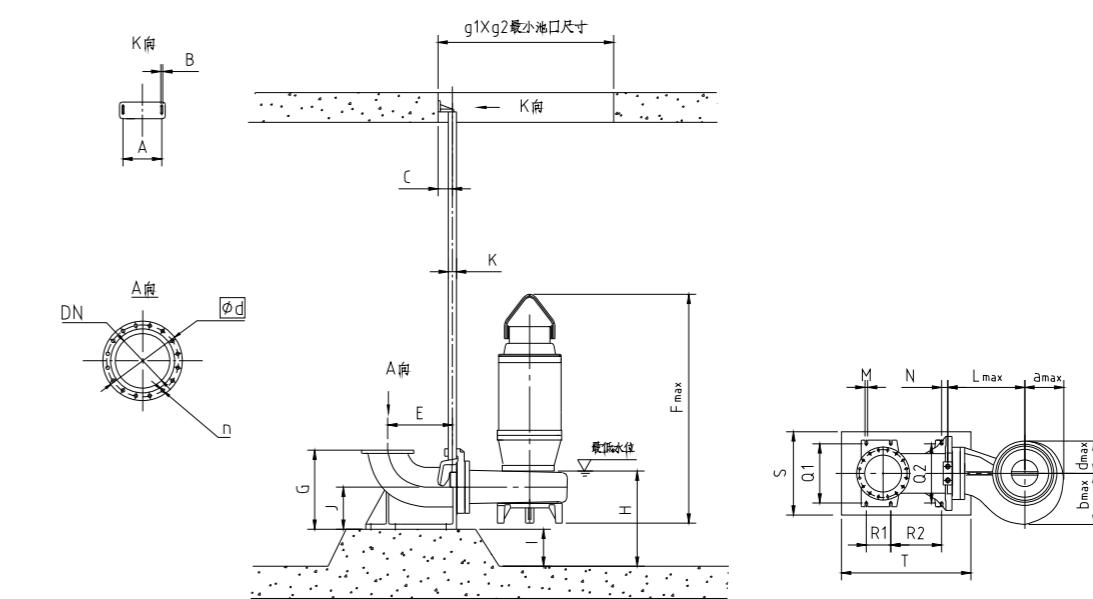


M315~M355自耦安装尺寸表

M315~M355 auto coupling installation dimensions table

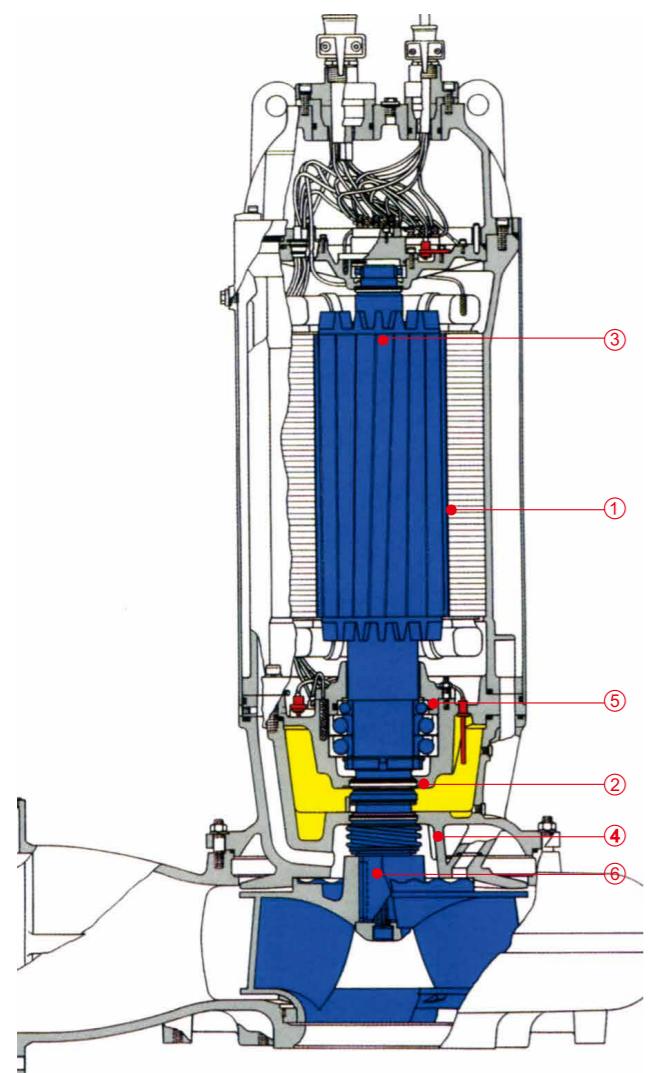
口径	DN250	DN300	DN400		DN500		DN600
机座号	M315	M315	M315	M355	M315	M355	M355
自耦	250GAK (A)	300GAK (A)	400GAK		500GAK		600GAK
最小池口尺寸	1700×1300	1600×1200	1900×1400	1900×1400	2250×1700	2250×1700	3500×2500
DN	250	300	400	400	500	500	
A	270	280	280	280	280	280	
B	2-14	2-14	2-14	2-14	2-14	2-14	
C	155	155	155	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	

*为参考尺寸，定货时需根据原型确认 This dimension is only for reference, please confirm it when placing the order.



见
我
公
司
详
图

监控保护系统
Monitoring and control system



带温度传感器的
TCS—系统
TCSsystem with
temperature sensor

① 定子 Stator
② 下轴承 Upper bearing
③ 上轴承 Lower bearing



多年的经验已经证实：

通过24小时自动监控系统可以得到
可靠的密封和温度监控

The successful experience of these years has approved that it is able to get reliable hermetical seal monitoring and temperature monitoring by 24h automatic monitoring system.

艾德森潜水泵设计用于持久运转，特别要求连续工作的场合，故装有耐久的监控系统。

The Aidesen submersible pumps are designed for long-term running, with durable monitoring system, especially suitable for occasions that require continuous service.

艾德森提供了最优的密封检测和温度控制安全系统，可以输出故障和磨损信息，避免了设备的严重损坏。

Aidesen provides optimum sealing system and temperature control safety system, which outputs fault and wear information, ovoid catastrophic failure of equipment.

TCS电机（温度控制）装置
TCS motor (temperature control) equipment

电机监测 Motor monitoring

电机的每一项均设有温度传感器。当电机过热时将发出警报信号并自动切断电源。
Each item of motor is equipped with temperature sensor. When the motor is overheated, it will send out a warning and cut off the power supply automatically.

轴承监测 Bearing monitoring

轴承设有温度传感器。当电机轴承过热时将发出警报信号并自动切断电源。
The bearing is equipped with temperature sensor. When the motor bearing is overheated, it will send out a warning and cut off the power supply automatically.

DI（密封监控）装置 DI(hermetical seal) device

密封监控装置可监测是否有水从轴封处浸入油室。另外，M132以上的电机在电机腔和接线室内设有单独的传感器。
Hermetical seal device monitors if there is water immerge in the oil chamber from axial seal point. Besides, the motor chamber and connection chamber of motors of M132 above are equipped with individual sensors.

当泄露发生时，DI传感器能够早期预警，及时检修可以避免机组受到大的破坏。

Once there is leakage, DI sensor will send out early-warning, and enable the operator to overhaul in time, this protects the machine against further breakage.

如果需要，艾德森可以提供安装在控制盘上的监控器件。传感器也可以提供连续的温度记录。

Aidesen Company can provide monitoring unit to equip the control panel at request. The sensor also can provide continuous temperature record.

为了水泵能可靠、安全运行
To make the water pump operate reliably and safely

我公司采用特有的“ADSK-1系列”水泵及水处理设备专用控制柜。该系列控制柜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。她凝结艾德森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和导电尘埃。

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 adopts the special "ADSK-1 series" water pump and water treatment equipment special control cabinet. Different from other ordinary electric control cabinets, it is a necessary selection for ensuring long-term, reliable and safe operation of auxiliary pumps and equipment. It is elaborately designed by integrating years of experience of Aidesen and adopting internationally advanced control technology. It has been widely used in many famous projects in the country. In addition to regular electric protection functions for short circuit, phase failure, phase loss and overloading, it is also provided with special protection functions: protection against oil chamber water leakage, motor chamber water leakage, junction box water leakage, motor stator winding overheating, bearing over-temperature, dry operation and others. Meanwhile, it is also provided with Lanshen's special technical patents: pump motor dew resistant automatic dehumidifying and controlling functions that can prevent creepage inside the motor and ensure motor insulation.

(I) Electric control cabinet

1. Usage

To automatically protect the water pump (protection against overloading, phase loss, short circuit, leakage, over-temperature, dehumidifying and etc.), realize unattended and automatic operation and signal output of the pump). Including two modes such as manual control and automatic control.

2. Application range

- a. Ambient temperature 5~40℃ (special working media can meet design requirements through technology guarantee).
- b. Relative humidity of air shall not exceed 90%.
- c. Locations without the danger of explosion and the media shall not contain any gas or conducting dust that may corrode metal and damage insulation.

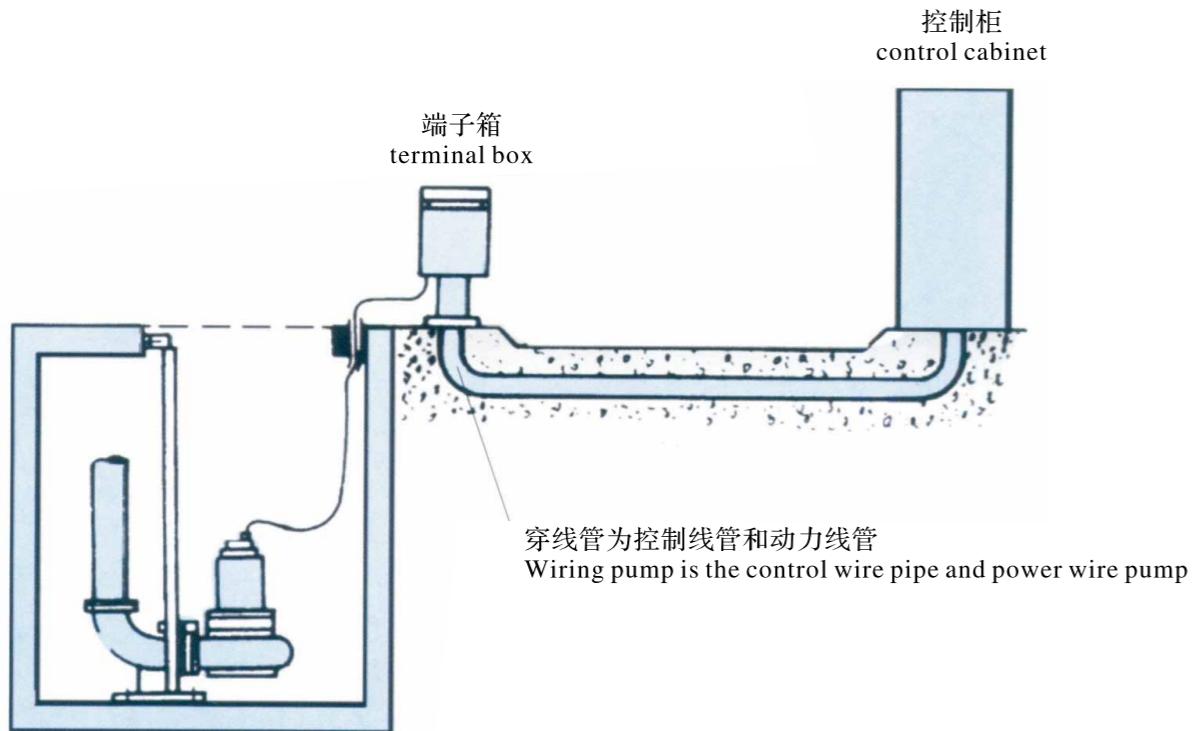
3. Terminal box

Each set of water pump system can be equipped with a middle terminal box for the middle connection of water pump and control cabinet. See the schematic diagram for details.

(II) Liquid level switch

The liquid level switch is flexible and convenient with reliable signals. It is used for water control in the pump station and can automatically control the water pump according to the changes of water level.

典型泵站示意图
Typical pump station diagram



说明
Notes

- 所有信号线可埋一根穿线管；
 - 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；
 - 动力线和信号线必须分别埋设管道，不可混穿；
 - 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 signal wires can use one embedded wire tube.
 2. The size of the pre-embedded tube for the power line depends on the diameter and quantity of cables supplied.
 3. Different tubes shall be embedded for power line and signal wires and cannot be mixed.
 4. DC signals can be used between the terminal box and control cabinet, so as to realize long distance transportation without attenuation.

常见故障排除
Failures causes and troubleshooting

故障现象 Failure	原因分析 Possible causes	排除方法 Troubleshooting
流量或扬程下降 Fall of flow or head	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、水泵流道堵塞 7、叶轮、密封环磨损 1、Pump rotates 2、The device head is not in conformity with rated head. 3、The pumping medium goes through the bypass. 4、The drainage pipe leaks. 5、The part of drainage pipe may be blocked by deposition. 6、The flowing passage of pump is blocked. 7、The impeller and sealing ring are worn.	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 6、水泵起吊清理，如果水泵放在滤网内，同样需要检查和清理 7、吊起水泵，按叶轮口环实际尺寸配密封环 1、Cut off main power of control cabinet, exchange any two phases power lines. 2、Calculate device head again to determine pump model. 3、Check the water delivery pipeline 4、Find the leakage location and maintain 5、Check the pipeline, clean or change it if necessary. 6、Hoist and clean pump, including the one is put in the filter net. 7、Hoist the pump, and provide it with sealing ring according to actual size of impeller ring.
无流量 No flow	1、气塞 2、检查出水阀门 3、泵反转 4、进口或叶轮堵塞 5、排水管道堵塞 1、Air is blocked 2、Check the discharge valve 3、Pump rotates CCW. 4、Inlet or impeller is jammed. 5、The drainage pipe is jammed.	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) 要据不同的安装方法，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 4、吊起水泵，清理进口或叶轮 5、清理排水管道 1、(1) Open and close the valve several times continuously. (2) Start/stop pump several times, every restart time is not less than 10min. (3) Check and determine whether exhaust unit is required with different installation methods. 2、(1) Open the closed valve (2) If it is installed inversely, please correct. 3、Cut off main power of control cabinet and exchange any two phases power lines. 4、Hoist pump and clean the inlet or impeller 5、Clean the drainage pipeline

常见故障排除

Failures causes and troubleshooting

故障现象 Failure	原因分析 Possible causes	排除方法 Troubleshooting
运行有杂音或振动 Noise or vibration in running	<p>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、叶轮口环与密封环磨擦 7、泵未在运行范围内运行</p> <p>1、The base of system is installed not firmly or the pump is mounted not steadily. 2、Bearing is worn. 3、The impeller is slack or falls off. 4、The impeller is wrapped by some foreign material or blocked. 5、The part of impeller is broken by foreign material or worn. 6、The ring of impeller rubs against sealing ring. 7、The pump runs not in the running range.</p>	<p>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 5、更换叶轮 6、检查叶轮，校正转子轴平行度 7、检查泵的运行参数</p> <p>1、Firm the base and fix the pump. 2、Change the bearing 3、Fasten the impeller 4、Clean the flow way 5、Change the impeller 6、Check the impeller and correct the parallel degree of rotor axle. 7、Check the running parameter of pump.</p>
水泵不能启动 Pump not able to start	<p>1、无电源 2、电器失灵 3、绕组、接头或电缆断路 4、水泵被堵塞 5、浮球故障 6、缺相 7、控制柜故障显示</p> <p>1、No power supply 2、The electric appliance fails in running. 3、The winding, joint or cable occur open circuit. 4、Pump is blocked. 5、The ball float has fault. 6、Phase failure 7、The control cabinet has fault</p>	<p>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、切断电源。将泵移出污水池，清除障碍物，复位前须试用 5、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 6、检查线路 7、排除故障</p> <p>1、Check whether the control cabinet is energized. 2、Change the fault electrical appliance. 3、Check with the multimeter, if the open circuit is proved, please check the winding, joint and cable. 4、Cut off power. Move the pump out from the sewage tank, clear away the obstacle and perform trial use of the pump before resetting. 5、Short the float switch to check whether the pump starts. If the pump can start, please examine the float switch. 6、Check the circuit 7、Clear away the fault.</p>

常见故障排除

Failures causes and troubleshooting

故障现象 Failure	原因分析 Possible causes	排除方法 Troubleshooting
水泵运转中非正常停机 Pump stopping abnormally in running	<p>1、电压低 2、电压过高 3、电源断开 4、控制柜故障 5、保护器动作 6、缺相 7、长期超额定电流使用 8、在机壳底座盖板区域堆积了泥浆或其它沉积物</p> <p>1、Low voltage 2、Over high voltage 3、Break the power 4、Control cabinet occurs fault 5、Protective device operates 6、Phase failure 7、Use at over rated current for a long time 8、Slurries or other depositions are banked on the cover plate of enclosure base</p>	<p>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 8、清理水泵和污水池，参见安装说明中的有关部分</p> <p>1、Check the voltage of control cabinet, if the voltage is too low, the inverter may put out of commission temporarily, so please adjust it 2、Install a transformer, adjust the voltage to specified range 3、Check the fuse or circuit breaker 4、Check the control cabinet for repair or change 5、Contact our after-sale service for maintenance 6、Check circuit 7、Use with the actual specified value of water pump 8、Clean the water pump and sewage tank, please refer to the relevant part in the installation manual</p>
水泵启停频繁或失灵 Pump frequently starting and stopping or out of control	<p>1、浮球开关上下距离过短 2、逆止阀故障，逆止阀不能止回，使液体倒流放入污水池 3、浮球开关失灵 4、浮球卡在工作开关的位置</p> <p>1、Over short upper and lower distance of float switch 2、The check valve is of fault, it can't return to enable the liquid to back flow to the sewage tank. 3、The float switch is out of control. 4、The ball float is blocked at the position of working switch.</p>	<p>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</p> <p>1、Readjust the upper and lower distance of float switch to extend the running time. 2、Check and maintain 3、Check the float switch, change it if necessary 4、Unfasten the float switch, change the position if necessary</p>



设备的任何调节需获得我公司的认可！
To adjust equipment shall be approved by us!