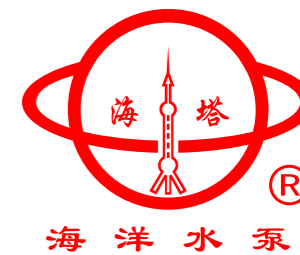
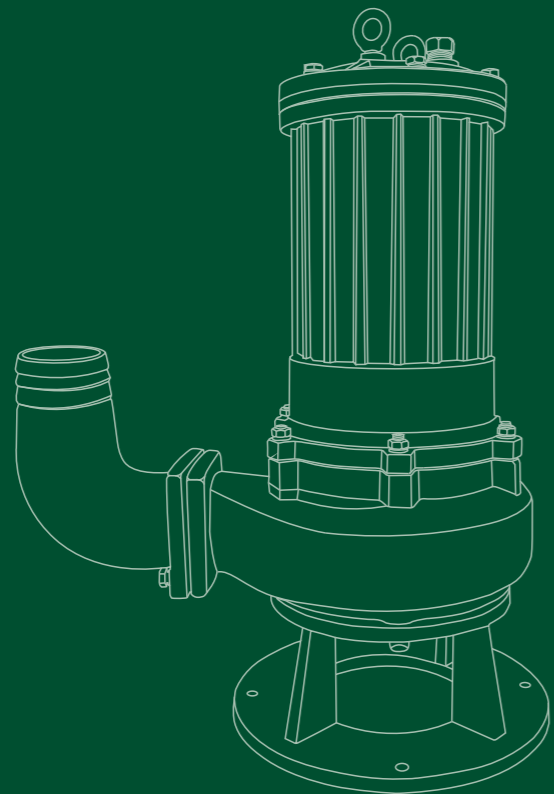
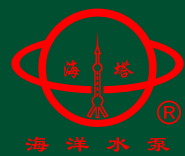


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AS、AV型
切割式潜水排污泵
Cutting submersible sewage pump



Shanghai Sea
Pump & Valve Mfg Co.,Ltd

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SEAPUMP

上海海洋泵阀制造有限公司
SHANGHAI SEA PUMP & VALVE MFG CO.,LTD



企业简介 + AOBUTS

上海海洋泵阀制造有限公司是专业从事水泵、生活消防设备及水泵智能控制开发、生产、销售为一体的股份制企业，本公司运用先进的软件开发、设计产品保证了向顾客提供更优质的产品。

“海洋水泵，泵的海洋”，海洋产品在全国各地设有分公司以及售后服务处，产品已应用于工矿企业、城市污水处理、城市供水、石油化工、农业灌溉等行业。本厂资金雄厚，生产设备先进，检测手段完善，并拥有一批高素质的专业人才队伍，同时ISO9001:2015国际质量管理体系的良好动作，为制造出优质、可靠的产品打下坚实基础。

本公司在“以人为本，科技兴业；以诚为用，质量立业；勇于开拓，锐意进取；追求卓越，走向未来”的方针指导下，不断开拓进取创新发展，在长期的实践中形成了一套完整的质量体系，并配备了一支安装调试维护的售后服务队伍。销售网点辐射全国各大城市，产品行销全国各省、市、自治区，并出口东南亚等国。并以一流的产品、一流的服务赢得了国内外广大用户的信赖和好评。本公司以“一切为了顾客的满意”为宗旨，继往开来，与时俱进。服务于人类建设美好家园。

Shanghai HAIYANG pump & valve Co., Ltd. Is a joint-stock enterprises which specializes in the manufacture of water pumps, fire fighting equipment and pumps intelligent controlling production, sales in one. our company uses advanced software to develop and design products to ensure that customers provide better quality products.

" HAIYANG water pumps, pump of the sea", the HAIYANG products throughout the country with more than 30 branch offices as well as after-sales service, products have been used in industrial and mining enterprises, urban sewage treatment, urban water supply, petrochemicals, agriculture and irrigation sectors. Factory with a strong financial background, advanced production equipment and means of improving the detection and has a number of high-quality professional talent, while ISO9001: 2000 international quality management system of good moves, in order to create high-quality, reliable products to lay a solid foundation.

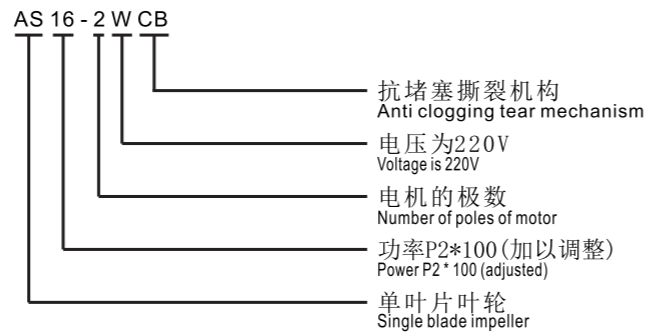
In this "people-oriented, Industrial Science and Technology; to use for Prudential, the quality of establishing themselves; to open up the courage to strive for progress; the pursuit of excellence, into the future" under the guidance of continuous innovation and development to forge ahead in long-term practice of the formation of a complete set of The quality system and is equipped with an installation of the maintenance of after-sales service team. Radiation sales outlets in major cities nationwide, product marketing provinces, municipalities and autonomous regions, and exports in countries such as South-East Asia. And first-class products, first-class service to win customers at home and abroad trust and praise. The Company take "everything for the customer satisfied" as the purpose, advance with the times, in the service of humanity home.

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型号意义 Type designation



概述

AS型系列潜水排污泵适用于输送含有坚硬固体、纤维物的液体，以及特别脏、粘和滑的液体。所有AS泵均装有经调整好的撕裂机构，能将污水中长发纤维、袋、带、草、布等撕裂后排出。因此，在污水中工作不会堵塞，运行极其可靠。

产品特点

1. 采用先进技术，排污能力强，无堵塞，能有效通过直径 $\phi 30 \sim \phi 80$ 毫米的固体颗粒。
2. 撕裂机构能将纤维状物质撕裂，切断，然后顺利排放，无需在泵上加滤网。
3. 设计合理，配套电机功率小，节能效果显著。
4. 采用最新材料的机械密封，可以使泵安全连续运行在8000小时以上。
5. 结构紧凑，移动方便，安装简单，可减少工程造价，无须建泵房。
6. 能够在全扬程范围内使用，而保证电机不会过载。
7. 浮球开关可以根据所需的水位变化，自动控制泵的启动与停止，不需专人看管。
8. 双导轨自动安装系统，它给安装，维修带来了极大的方便，人可不必为此而进出污水坑。
9. 配备全自动保护控制箱对产品的漏电、漏水以及过载等进行了有效保护，提高了产品的安全性和可靠性。

产品适用范围

1. 工厂、商业严重污染废水的排放。
2. 城市污水处理厂排水系统。
3. 住宅区的污水排水站。
4. 人防系统排水站。
5. 医院、宾馆的污水排放。
6. 市政工程建筑工地。
7. 勘探、矿山配套附机。
8. 农村沼气池、农田灌溉。

Summary

AS series submersible sewage pump is suitable for conveying liquids containing hard solids, fibers, and especially dirty, sticky and slippery liquids. All AS pumps are equipped with an adjusted tear mechanism, which can tear the long fibers, bags, belts, grass, cloth, etc. in the sewage and then discharge them. Therefore, the operation in sewage will not be blocked, and the operation is extremely reliable.

Product features

1. It adopts advanced technology, has strong sewage discharge capacity, no blockage, and can effectively pass through the diameter $\phi 30 \sim \phi 80$ mm solid particles.
2. The tearing mechanism can tear and cut the fibrous materials, and then discharge them smoothly without adding a filter screen on the pump.
3. The design is reasonable, the supporting motor power is small, and the energy-saving effect is remarkable.
4. The mechanical seal made of the latest materials can make the pump operate safely and continuously for more than 8000 hours.
5. Compact structure, convenient movement and simple installation can reduce the project cost without building a pump house.
6. It can be used within the full lift range to ensure that the motor will not overload.
7. The float switch can automatically control the start and stop of the pump according to the required water level change, without the need for special personnel to watch.
8. Double guide rail automatic installation system, which brings great convenience to installation and maintenance, and people do not need to enter and exit the sump for this purpose.
9. Fully automatic protection control box is equipped to effectively protect the electric leakage, water leakage and overload of the product, improving the safety and reliability of the product.

Scope of application

1. Discharge of seriously polluted wastewater from factories and businesses.
2. Drainage system of urban sewage treatment plant.
3. Sewage drainage station in residential area.
4. Drainage station of civil air defense system.
5. Sewage discharge of hospitals and hotels.
6. Municipal engineering construction site.
7. Auxiliary machines for exploration and mining.
8. Rural biogas digesters and farmland irrigation.



工作条件

连续使用时约40℃。间歇使用（最长不超过5分钟）为80℃。

主要零件材料为铸铁，所以不能应用于抽吸高度腐蚀性液体。

Working conditions

About 40 °C for continuous use. Intermittent use (no more than 5 pointsClock) is 80 °C.

The main part material is cast iron, so it cannot be used for high suctionHighly corrosive liquid.

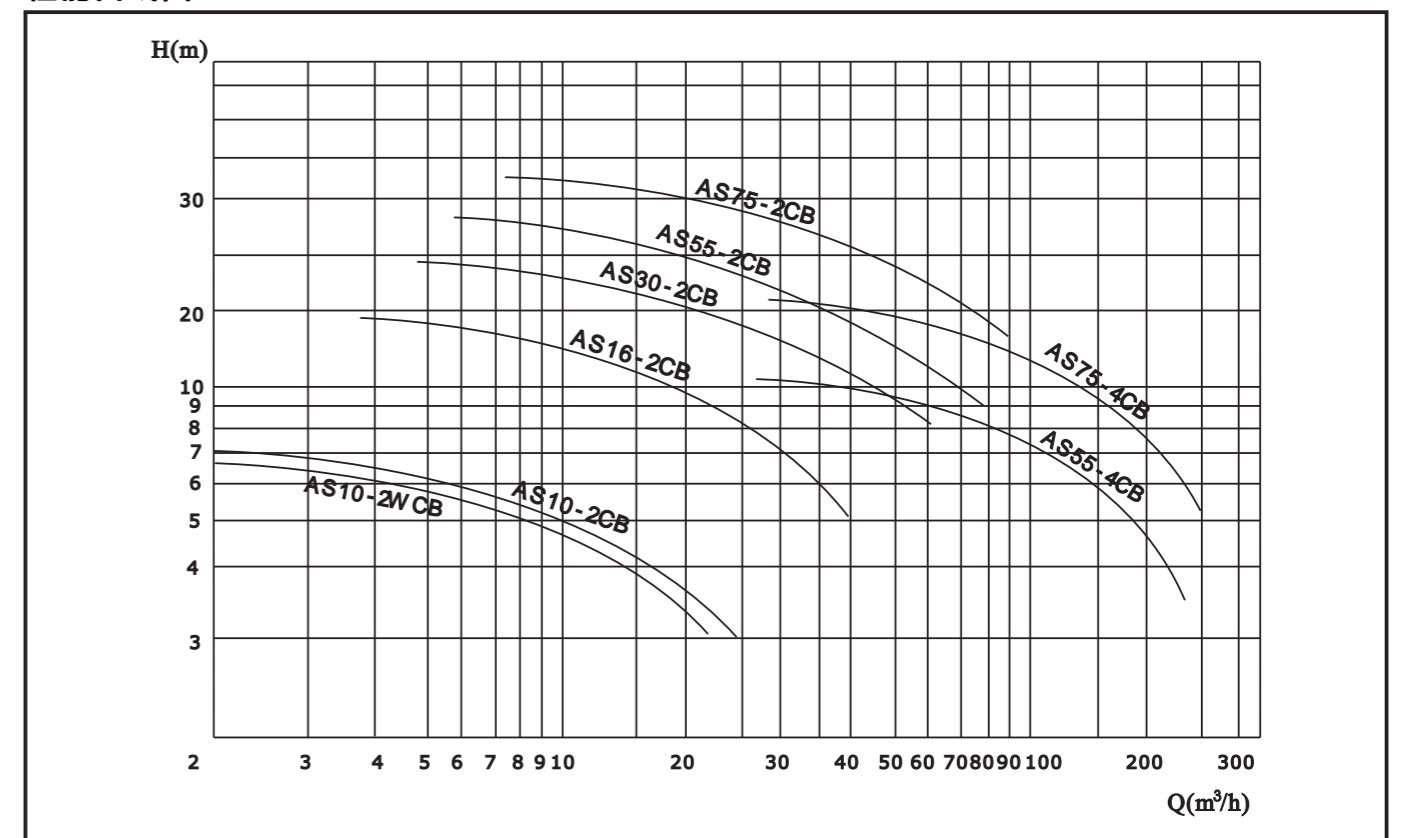
技术参数表

Technical Parameters

序号 Serial NO.	型号 Model number	流量 Flow m ³ /h	扬程 Head m	电机功率 Motor power kW	转速 Speed r/min	额定电压 Rated voltage V	额定电流 Rated current A	配用胶管内径 Inner diameter of rubber hose mm	重量 weight kg
1	AS10-2WCB	15	4	1.1	2850	220	5.65	76	30
2	AS10-2CB	15	4.5	1.1	2850	380	2.9	76	30
3	AS16-2CB	29	7.6	1.5	2850	380	3.5	76	33
4	AS30-2CB	42	11	3	2850	380	6.4	76	40
5	AS55-2CB	45	13	5.5	2900	380	11.1	127	165
6	AS55-4CB	100	7.5	5.5	1450	380	11.6	152	180
7	AS75-2CB	60	18	7.5	2900	380	15	127	185
8	AS75-4CB	145	10	7.5	1450	380	15.4	152	200
9	AV14-4	22	5.8	1.5	1450	380	3.5	76	33
10	AV55-2	30	20	5.5	2900	380	11.1	100	165
11	AV75-2	30	25	7.5	2900	380	15	100	185

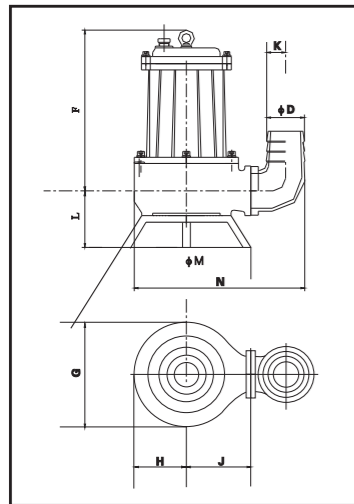
性能曲线图

Performance Curve





外形尺寸



Performance parameter table

型号 Model number	D	F	G	H	J	K	L	M	N
AS10-2WCB	76	280	220	110	130	70	100	210	373
AS10-2CB	76	280	220	110	130	70	100	210	373
AS16-2CB	76	280	220	110	130	70	100	210	373
AS30-2CB	76	335	220	110	155	70	100	260	398
AS55-2CB	127	630	350	175	240	160	310	430	688
AS55-4CB	127	630	350	175	240	160	310	430	688
AS75-2CB	152	655	400	205	248	190	335	430	740
AS75-4CB	152	655	400	205	248	190	335	430	740

电气控制系统

与潜水排污泵配套使用的电气控制箱,在控制箱内采用了集成电路,增加了控制、保护功能,对于排污泵在外壳漏电、油腔内漏水状态下,进行闭锁。在故障排除前,始终不能启动。同时能够使排污泵在过载、缺相、短路等故障发生时,自动切断电源,从而保证水泵电机不烧坏。该控制箱动作灵敏,避免了由于热敏元件质量差异,影响保证控制的效果。

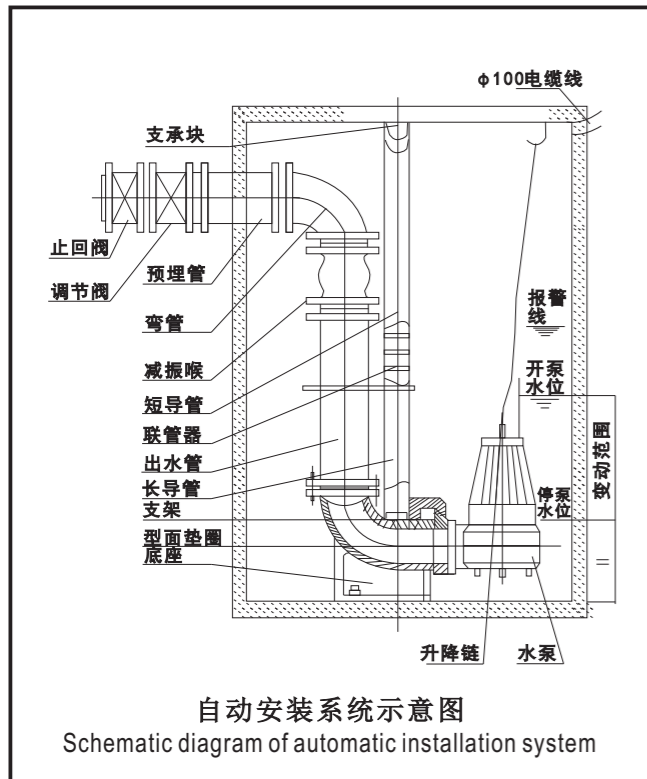
控制箱可以通过浮球开关所需要的水位变化范围对排污泵自动控制。

electric control system

The electric control box used with the submersible sewage pump adopts integrated circuit in the control box, which adds control and protection functions, and locks the sewage pump when the casing leaks and the oil cavity leaks. It cannot be started until the fault is eliminated. At the same time, it can automatically cut off the power supply in case of overload, phase loss, short circuit and other faults of the sewage pump, so as to ensure that the pump motor is not burned out.

The control box acts sensitively to avoid the influence on the control effect due to the quality difference of thermal sensors. The control box can automatically control the sewage pump through the water level change range required by the float switch.

自动安装系统



Automatic installation system

自动安装系统是为AS系列潜水排污泵固定安装所提供的主要装置,包括双导轨单泵和双导轨双泵导向自动耦合机构,它将给AS系列排污泵的安装与维修带来巨大的方便,此外,可根据用户的需要提供浮球开关,能有效地保证排污泵根据需求的水位变化启动与停止,不需专人看管,它与潜水排污泵相配合,实现了潜水排污泵的安装、维修和控制较高的自动程度,提高了产品的安全性和可靠性,主要用于污染严重的排水坑,以及固定安装的排水站。

The automatic installation system is the main device provided for the fixed installation of AS series submersible sewage pump, including double guide rail single pump and double guide rail double pump automatic coupling mechanism, which will bring great convenience to the installation and maintenance of AS series sewage pump. In addition, float switch can be provided according to the needs of users, which can effectively ensure that the sewage pump can be started and stopped according to the required water level changes without the need for special personnel to watch. It works with the submersible sewage pump, It realizes a high degree of automation in the installation, maintenance and control of submersible sewage pump, improves the safety and reliability of the product, and is mainly used for the drainage pit with serious pollution and the drainage station with fixed installation.



自耦底座螺栓预埋尺寸表

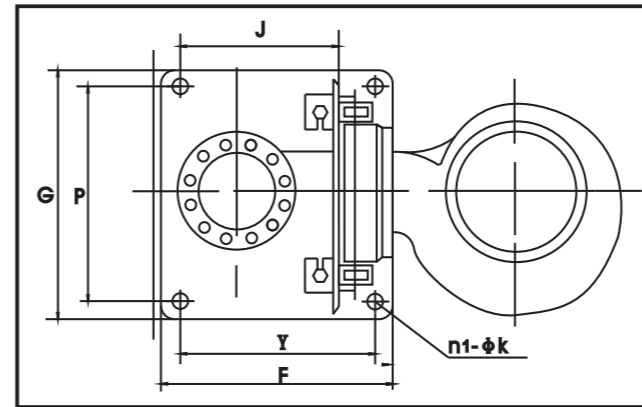


Table of Embedded Dimensions of Bolts for Auto Coupling Base

型号 Model	f	g	y	p	j	n1-φk
50GAK	310	260	210	230	175	4-φ16
80GAK	340	290	260	255	210	4-φ18
100GAK	410	340	310	305	250	4-φ20
150GAK	410	400	300	360	265	4-φ20

运输与使用注意项

1、决不允许用泵的电缆线起吊或悬挂水泵,在搬运或悬挂水泵时,可用带钩的链条钩在把手上或上盖的吊环上;

2、在移动使用时,出水软管可用前面表格规定的标准软管接头,接在水泵的出水弯管上,固定使用时,可根据自耦装置的法兰标准设置管路;

3、水泵不能放在污水的出口处,当水泵座放在泥地上或浮沙上时,水泵由于震动,产生下陷,这时建议用户将水泵悬置起来或放在一个较大的底板上;

4、如果泵仍在继续运转,在0℃以下的气温时,可以继续使用,但如果停止不用时,则应将泵吊起清洗保管;

5、出水管内径应符合规定的要求,但在输送距离较远时,也可适当减小内径但易引起堵塞,降低输送效率,不经济;

6、在污水中使用的泵,经过长时间运转之后,在机壳的周围可能堆积泥浆等杂物,降低了传热的速度,使泵的内部温度上升,缩短电机的使用寿命,或造成无缘无故的跳闸,因此每运转一定时段之后(比如降至最低水位)应用软管对泵进行冲洗,保持其清洁;

7、泵密封使用10#-30#机械油进行润滑冷却,由于密封磨损,润滑油会漏出,而输送介质也可能经过密封进入电机,这时请赶快将泵送至本厂修理部门或委托维修点更换密封,以免将水泵电机烧坏;

8、未切断电源时,不得移动水泵,不得在泵工作时接触四周的水源,以防泵万一漏电,而又无地面漏电断路器装置时,造成触电事故;

9、潜水电泵安装以后,不宜长期浸泡在水中不用,从而增加电机受潮的机会,同时建议每周至少运转4小时以检查其功能及适应性,否则,应提起放在干燥处备用。

Precautions for transportation and use

- Never use the pump cable to lift or suspend the water pump. When handling or suspending the water pump, use the chain with hook to hook on the handle or the lifting ring of the upper cover;
- When in mobile use, the outlet hose can be connected to the outlet elbow of the water pump with the standard hose connector specified in the preceding table. When in fixed use, the pipeline can be set according to the flange standard of the auto coupling device;
- The pump cannot be placed at the outlet of sewage. When the pump seat is placed on the mud or floating sand, the pump will sink due to vibration. At this time, it is recommended that the user suspend the pump or place it on a larger base plate;
- If the pump is still running, it can continue to be used when the temperature is below 0℃, but if it is not in use, the pump should be lifted for cleaning and storage;
- The inner diameter of the outlet pipe shall meet the specified requirements, but when the transmission distance is far, the inner diameter can also be appropriately reduced, but it is easy to cause blockage, reducing the transmission efficiency, which is not economical;
- The pump used in sewage may accumulate mud and other sundries around the casing after a long time of operation, which reduces the speed of heat transfer, increases the internal temperature of the pump, shortens the service life of the motor, or Trip for no reason, so after a certain period of operation (such as lowering to the lowest water level), the pump should be flushed with a hose to keep it clean;
- The pump seal uses 10 # - 30 # mechanical oil for lubrication and cooling. As the seal is worn, the lubricating oil will leak out, and the trace medium may also be sealed into the motor. At this time, please send the pump to our factory for repair. The department or the entrusted maintenance point shall replace the seal to avoid burning the water pump motor;
- When the power supply is not cut off, the water pump shall not be moved, and the water source around the pump shall not be contacted when the pump is working, to prevent electric shock in case of leakage of the pump without ground leakage cut-off device;
- After the submersible pump is installed, it is not suitable to soak it in water for a long time, so as to increase the chance of the motor being affected with damp. It is also recommended to run it for at least 4 hours every week to check its function and adaptability, otherwise, it should be lifted and put Reserve in a dry place.



维修保养说明

AS系列撕裂式潜水排污泵产品可靠，性能优良。每台在出厂前，都认真地进行了最终检验。永久润滑的滚珠轴承使水泵具有最大的耐用性。然而，为了保证水泵的使用寿命，建议进行定期的检查和保养。

1、底座盖板的调整

在有磨损的介质中长期使用之后，叶轮和底座盖板之间的间隙可能增大。拆掉电源，松开固定螺丝，旋转盖板，便可以将间隙调整到原来的状态(0.3~0.5mm)。

2、清洗：

为防止撕裂式潜水排污泵在不用时，内部积有杂质，可用泵抽清洁的水来清洗水泵。水泵长期不用，应置于干燥处，并注意防冻。

3、注油与换油

AS系列撕裂式潜水排污泵的油室在出厂包装前，已注入适量的润滑油。该油应每年进行更换。

换油应按下列方法进行：

把泵放置好，使得油室螺塞(位于出水口内侧)朝下，拧松螺塞，放出润滑油，然后用洗涤油清洗油室，再注入适量的油(约70~80%)，换一个新的O型圈，将螺塞旋紧。

如果油中发现有水(奶状乳化液)，按规定冲洗油室并重新装油，装紧带新的O形圈的螺塞。三个星期后必须重新检查一次，如果油又变成乳状液，机械密封件应进行检查。必要时应更换(于我厂维修部接洽)。如果自己更换密封孔，须做气密试验。(空气压力0.5公斤/厘米²)

润滑油：10[#]机械油

4. 运转故障

万一运转发生故障，不能确定原因，并且按后面提出的排除故障方法仍不能解决时，请不要采取临时凑的办法，也不要私自乱拆乱修，而应与我厂维修部门联系。

这一点尤其适用于由于控制部分中过流断路而引起的反复跳闸现象。

Maintenance instructions

As series tear type submersible sewage pump has reliable products and excellent performance. Before leaving the factory, each set should carefully enterThe final inspection was carried out. Permanently lubricated ball bearings give the pump maximum durability. However, in order to ensure the service life of the pump, it is recommended to conduct regular inspection and maintenance.

1. Adjustment of base cover plate

After long-term use in the medium with wear, the clearance between the impeller and the base cover plate may increase. Remove the power supply, loosen the fixing screws, and rotate the cover plate to adjust the gap to the original state (0.3~0.5mm).

2. Cleaning:

To prevent impurities from accumulating inside the tear submersible sewage pump when it is not in use, pump clean water to clean the pump. If the water pump is not used for a long time, it should be placed in a dry place and pay attention to antifreeze.

3. Oil filling and changing

An appropriate amount of lubricating oil has been injected into the oil chamber of As series tear type submersible sewage pump before delivery packaging. The oil should be replaced annually.

The oil shall be changed according to the following methods: Place the pump so that the oil chamber plug (located at the inner side of the water outlet) is facing downward. Unscrew the plug to drain the lubricating oil, then clean the oil chamber with washing oil, inject an appropriate amount of oil (about 70~80%), replace it with a new O-ring, and tighten the plug.

If water (milky emulsion) is found in the oil, flush the oil chamber as required and reinstall the oil, and tighten the plug with a new O-ring. It must be checked again after three weeks. If the oil turns into emulsion again, the mechanical seal shall be checked. Replace it if necessary (contact our maintenance department). If you replace the sealing hole yourself, you must conduct a gas tight test. (Air pressure 0.5 kg/cm²)

Lubricating oil: 10 [#] machine oil

4. Operation faultIn case of operation failure, the cause cannot be determined, and the troubleshooting method proposed later cannot be solved, please do not take temporary measures, nor dismantle and repair without permission, but contact our maintenance department. This is especially applicable to the repeated tripping phenomenon caused by over-current open circuit in the control part.

安全注意事项

正确安装使用是该撕裂式潜水排污泵长久、正常运转的基本保证，特别提醒用户万万不可大意。

1. 电源线必须与配套电控或匹配热继电器保护相连接，不得直接与总电源相接。

2. 无论使用自动耦合安装系统还是配用胶管，提泵链索和电源线自由垂落10~20厘米，超长将被泵吸进切断。

3. 积水池底泥浆过稠或硬石过多时，应将水泵上提至该物质30厘米以上。

4. 排水管应按说明选用，不得变径缩小。

5. 单台泵安装在水无可能回流情况下，尽可能不装止回阀或闸阀。

6. 双台泵并接时，不得将闸阀及止回阀安置在主管处，以致泥沙反冲至备用泵上端造成止回阀不能启动，如有可能应在横管处设干井，安装置放止回阀及闸阀。

7. 接通电源后，点动开关如正转运行，可将水泵缓缓送入水池，反转应立即将三相电源中的任意两项倒换。

8. 在运行中发现水泵震动，少量减少喷射无力，应立即检查水泵是否反转并调整，水泵反转运行时间过长必毁。

9. 长期使用过程中，无论自动、手动、不得频繁启动，一般每小时不超过六次为宜。

10. 维修、更换水泵前，必须切断电源。



Safety precautions

Correct installation and use is the basic guarantee for the long-term and normal operation of the tear type submersible sewage pump, and it specially reminds the user not to be careless.

1. The power line must be connected to the supporting electric control or matching thermal relay protection, and shall not be directly connected to the main power supply.

2. Whether the automatic coupling installation system is used or the rubber hose is used, the pump lifting chain cable and power line will freely drop by 10-20 cm, and the extra length will be sucked in and cut off by the pump.

3. If the mud at the bottom of the sump is too thick or there are too many hard stones, the water pump should be lifted to more than 30cm of the material.

4. The drain pipe shall be selected according to the instructions and shall not be reduced.

5. When a single pump is installed without possible backflow of water, check valve or gate valve shall not be installed as far as possible.

6. When two pumps are connected in parallel, the gate valve and check valve shall not be placed at the main pipe, so that the sediment recoils to the upper end of the standby pump and the check valve cannot be started. If possible, a dry well shall be set at the horizontal pipe to install the check valve and gate valve.

7. After the power is turned on, if the inching switch operates in the forward direction, the water pump can be slowly sent to the pool, and the reverse direction should immediately switch any two of the three-phase power supplies.

8. If it is found that the water pump vibrates during operation and the injection is weak in a small amount, immediately check whether the water pump reverses and adjust. If the water pump reverses for too long, it will be destroyed.

9. In the process of long-term use, no matter automatic or manual, it is not allowed to start frequently. Generally, it is appropriate not to exceed six times per hour.

10. The power must be cut off before the water pump is repaired or replaced.



故障排除方法

1、泵的流量或扬程下降

原因

- (1) 泵反转 (仅对三相而言)
- (2) 输送扬程太高。
- (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的氧化及堵死。
- (6) 泵局部堵塞。
- (7) 叶轮 / 底座盖板磨损。

排除方法

- (1) 关掉控制箱的总电源，调换任何二相电源线。
- (2) 检查：
 - a、选择的泵型号是否正确。
 - b、出水管尺寸是否正确。
- (3) 检查阀门是否被关死，然后满负载测试泵
- (4) 用自动导管和联结轴降下泵，找出泄漏，并行修正。
- (5) 检查管线，清理并更换新的。
- (6) 吊起泵清理，如果泵放在滤网内，同样也需检查和清理。
- (7) 吊起泵，调整底座盖板或者更换新的。

2、泵运转后无流量

原因

- (1) 气塞。
- (2) 检查出水排放阀门。
- (3) 泵反转。

排除方法

- (1) a、接二连三地打开和关闭阀门几次
- b、启动/停止泵几次，每次重新启动之间间隔为2/3分钟。
- c、根据不同的安装方法，检查是否需装一个空气释放阀。
- (2) a、如果阀门处于关闭状态应打开。
- b、如果装反了，应重新倒过来。
- (3) 参见1. (1)

3、泵启动和停止太频繁

原因

- (1) 浮球开关距离太短。
- (2) 逆止阀故障，逆止阀不能回止，使污水倒流回污水池。

排除方法

- (1) 重新调节浮球，延长运行时间
- (2) 检查并维修

4、泵停止失灵

原因

- (1) 浮球开关“停止”功能失灵
- (2) 浮球上浮子卡在“工作”的位置

排除方法

- (1) 检查。如需要应予更换。
- (2) 松开，如需要的话，可改变位置。

Troubleshooting

1. The flow or head of the pump decreases

Reason

- (1) Pump reverse rotation (for three-phase only)
- (2) The conveying head is too high.
- (3) The pumped medium is bypassed.
- (4) The outlet pipe leaks.
- (5) The outlet pipe may be partially oxidized and blocked by deposition.
- (6) The pump is partially blocked.
- (7) The impeller/base cover plate is worn.

Exclusion method

- (1) Turn off the main power supply of the control box and replace any two-phase power line.
- (2) Check:
 - a. Whether the selected pump model is correct.
 - b. Whether the size of water outlet pipe is correct.
- (3) Check whether the valve is closed, and then test the pump with full load
- (4) Lower the pump with automatic guide pipe and coupling shaft, find out the leakage and correct it in parallel.
- (5) Check the pipeline, clean and replace it.
- (6) Lift the pump for cleaning. If the pump is placed in the filter screen, it should also be checked and cleaned.
- (7) Lift the pump, adjust the base cover plate or replace it with a new one.

2. No flow after pump operation

Reason

- (1) Air plug.
- (2) Check the water outlet discharge valve.
- (3) The pump reverses

Exclusion method

- (1) a. Open and close the valve several times in succession
- b. Start/stop the pump several times, and the clearance between each restart is 2/3 minutes.
- c. Check whether an air release valve is required according to different installation methods.
- (2) a. Open the valve if it is closed.
- b. If it is reversed, it should be reversed again.
- (3) See 1. (1)

3. Pump starts and stops too frequently

Reason

- (1) Float switch distance is too short.
- (2) The check valve fails, and the check valve cannot check back, causing backflow of dirty liquidReturn sewage pool.

Exclusion method

- (1) Readjust the float to extend the running time
- (2) Check and repair

4. Stop failure

Reason

- (1) Float switch "stop" function failure
- (2) The float on the float is stuck in the "working" position

Exclusion method

- (1) Check. Replace if necessary.
- (2) Release and change position if necessary.

故障排除方法

5、泵启动后，断路器/过载器跳开

原因

- (1) 电压低
- (2) 电压过高。
- (3) a、电机接线不对或接头混淆(单相)。
- b、电容器上的接线混淆，而泵以电容器的充放电而起动和停止。
- (4) 电容器参数不对。
- (5) 控制盒或电容器故障。
- (6) 在蜗壳底盖板区域堆积泥浆或其它沉积物

排除方法

- (1) a、检查控制盒电压，如电压过低，暂时不能使用。
- b、电缆线过长，引起压降过大，应尽量缩短电缆，并适当选择粗些的电缆。
- (2) 装变压器，将电压调到规定的范围。
- (3) 检查在控制盒中的电缆彩色编号和接头标号检查接线。
- (4) 确保使用性能参数正确的电容器。
- (5) a、仔细检查布线、电容器等。禁止用超过推荐数值的原件来更换断路器。
- b、检查断路器是否能开启电容器。
- (6) 清理泵和水池，参见安装说明中的有关部分。

6、泵不能启动，熔丝熔断或断路器跳开

原因

- (1) 电容器故障或者继电器失灵
- (2) 浮球故障
- (3) 绕组、接头或电缆断路
- (4) 泵被堵塞

排除方法

- (1) 送厂部修理
- (2) 检查使用旁路开关是否能启动泵。如是，应该检查浮球开关。
- (3) 欧姆表检查，如果证明断路，检查绕组接头及电缆。
- (4) 切断电源，将泵移出污水池，清除障碍物复位前试用一下。

7、泵不能启动，但熔丝没断或过载保护器不跳开

原因

- (1) 没电
- (2) 绕组、接头或接线盒断路

排除方法

- (1) a、检查控制盒是否有电
- b、看看电容器是否有电压，仔细检查控制盒。
- (2) 检查电缆，电机的接头和绕组



Troubleshooting

5. After the pump starts, the circuit breaker/overload device trips

Reason

- (1) Low voltage
- (2) The voltage is too high.
- (3) a. The motor wiring is incorrect or the connector is confused (single-phase).
- b. The wiring on the capacitor is confused, and the pump starts and stops by charging and discharging the capacitor.
- (4) The capacitor parameters are incorrect.
- (5) Control box or capacitor fault.
- (6) Mud or other deposits are accumulated in the bottom cover plate area of the spiral case

Exclusion method

- (1) a. Check the voltage of the control box. If the voltage is too low, it cannot be used temporarily.
- b. If the cable is too long, resulting in excessive voltage drop, the cable should be shortened as far as possible, and the thicker cable should be selected appropriately.
- (2) Install a transformer and adjust the voltage to the specified range.
- (3) Check the cable color number and connector label in the control box and check the wiring.
- (4) Ensure that capacitors with correct performance parameters are used.
- (5) a. Carefully check the wiring, capacitors, etc. It is prohibited to replace the circuit breaker with an original that exceeds the recommended value.
- b. Check whether the breaker can open the capacitor.
- (6) Clean the pump and water tank, see the relevant part in the installation instructions.

6. Unable to start, fuse blown or circuit breaker tripped

Reason

- (1) Capacitor failure or relay failure
- (2) Float failure
- (3) Open circuit of winding, connector or cable
- (4) Pump blocked

Exclusion method

- (1) Send to the factory for repair
- (2) Check whether the pump can be started by using the bypass switch. If yes, the float switch should be checked.
- (3) Check the ohmmeter. If it is proved that there is an open circuit, check the winding terminals and cables.
- (4) Cut off the power supply, move the pump out of the sewage pool, and try it before removing obstacles and resetting.

7. Cannot be started, but the fuse don't break or the overload protector does not trip

Reason

- (1) No electricity
- (2) Open circuit in winding, connector or junction box

Exclusion method

- (1) a. Check whether the control box is poweredb. Check whether the capacitor has voltage and carefully check the control box.
- (2) Check the cable, motor connector and winding