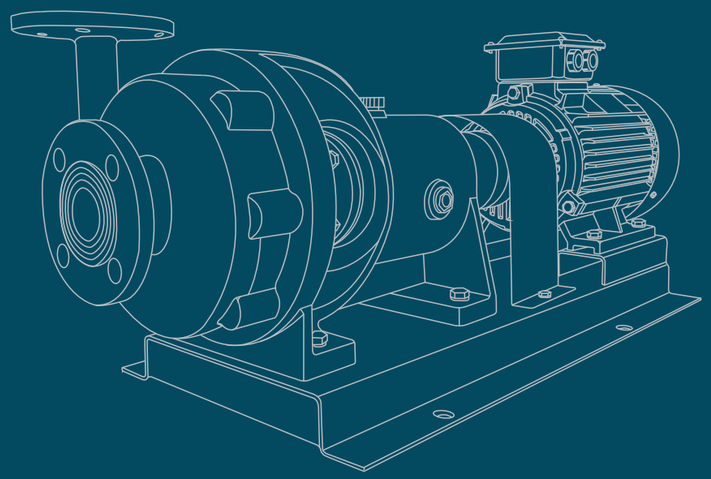
由于我们在不断努力改进产品，我们保留样本数据更改的权利，敬请谅解。



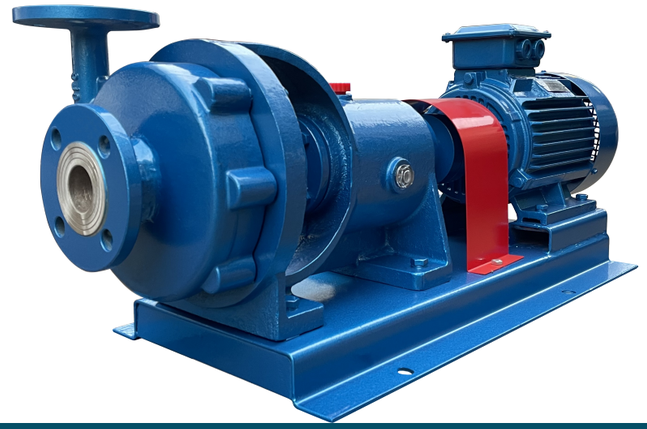
Shanghai Sea
Pump & Valve Mfg Co.,ltd

上海海洋泵阀制造有限公司

地址：上海市金山区山阳镇山富东路365号
电话：(0086)-021-63546554　63803848
传真：(0086)-021-33550508
网址：www.sea-pump.com
邮箱：seapump@foxmail.com

Address:365 Shanfu East Road,Jinshan District, Shanghai
TEL:(0086)-021-63546554　63803848
FAX:(0086)-021-33550508
WEB:www.sea-pump.com
E-mali:seapump@foxmail.com

海洋水泵



FB、AFB型
不锈钢耐腐蚀泵
Stainless steel corrosion pump

SEAPUMP

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

www.sea-pump.com

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.

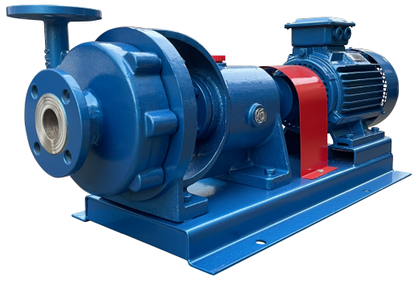
.

" 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.

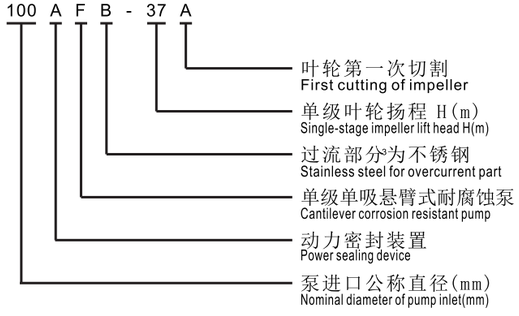
In this "people-oriented, Industrial Science and Technology; to use for Prudential, the quality of establishing themselves; to open up the courage to strive for progress; the pursuit of excellence, into the future" under the guidance of continuous innovation and development to forge ahead in long-term 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 countriessuch 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.

目 录
Contents

AFB、FB型不锈钢耐腐蚀泵
AFB, FB stainless steel corrosion resistant pump



型号意义 Type designation



概述

AFB、FB型泵是单级单吸悬臂式耐腐蚀离心泵，其采用先进水力模型，具有结构紧凑、外形美观、高效节能、性能稳定、密封性能好、使用可靠、检修方便等优点。

AFB、FB型耐腐蚀泵适用输送不含固体颗粒的有机或无机化工介质、石油产品及腐蚀性液体.广泛用于石油、化工、冶金、轻工、印染、制药、食品、酿造、环保、废水处理等工业部门,也可供工矿企业及城市供水、排水之用。

Summary

AFB and FB pumps are single-stage single suction cantilever corrosion resistant centrifugal pumps, which adopt advanced hydraulic model and have the advantages of compact structure, beautiful appearance, high efficiency and energy saving, stable performance, good sealing performance, reliable use, convenient maintenance, etc.

AFB and FB corrosion resistant pumps are suitable for conveying organic or inorganic chemical media, petroleum products and corrosive liquids without solid particles It is widely used in petroleum, chemical industry, metallurgy, light industry, printing and dyeing, pharmacy, food, brewing, environmental protection, wastewater treatment and other industrial sectors, as well as industrial and mining enterprises and urban water supply and drainage.

结构说明

泵的旋转方向：自吸入口向电机端看为顺时针方向旋转。

泵与电机是通过弹性联轴器安装在同一个底座上。

泵的轴封装置采用叶轮减压和单或双端面机械密封结构,密封腔充填润滑油,并配有油杯。

Structure description

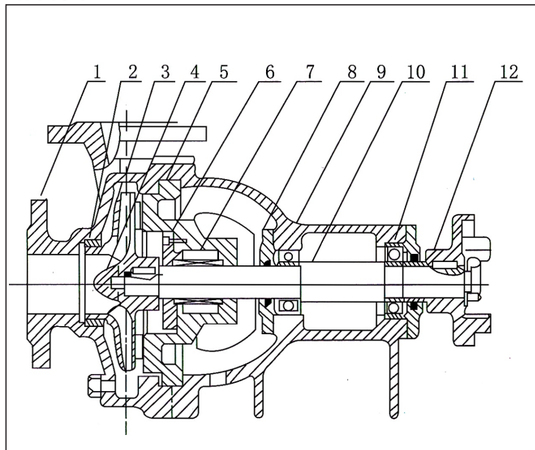
Rotation direction of the pump: clockwise when viewed from the suction inlet to the motor end.

The pump and motor are installed on the same base through elastic coupling.

The shaft seal device of the pump adopts the structure of impeller decompression and single or double end mechanical seal. The seal chamber is filled with lubricating oil and equipped with an oil cup.

结构图

Structural drawing

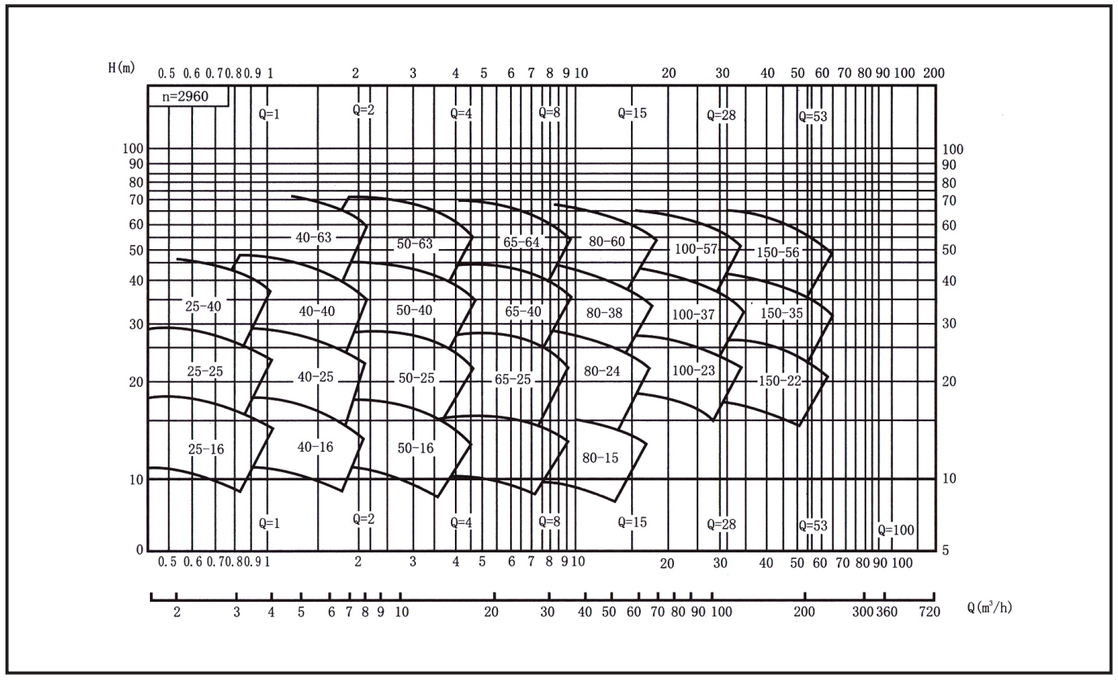


序号 Serial No	名称 Name	序号 Serial No	名称 Name
1	泵壳 Pump casing	7	机械密封 Mechanical seal
2	密封环 Sealing ring	8	轴承盖 Bearing cover
3	叶轮 impeller	9	轴承体 Bearing body
4	叶轮螺母 Impeller nut	10	泵轴 Pump shaft
5	泵盖 Pump cover	11	轴承 Bearing
6	密封盖 Sealing cover	12	联轴节 Coupling

AFB、FB型不锈钢耐腐蚀泵
AFB, FB stainless steel corrosion resistant pump
海洋泵阀
SEA PUMP & VALVE

性能曲线图

Performance Curve



性能参数表

Performance parameter table

序号 Serial NO.	型号 Model number	流量 Flow		扬程 Head	效率 Efficiency	转速 Speed	轴功率 Shaft power	电机功率 Motor power	必需汽蚀余量 Required cavitation allowance
		m³/h	L/s	m	η(%)	r/min	kW	kW	(NPSH)r(m)
1	25FB-16	3.6	1	16	33	2900	0.48	1.1	4.0
2	25FB-16A	3.27	0.91	12.5	34	2900	0.34	0.75	4.0
3	25FB-25	3.6	1	25	30	2900	0.82	1.5	4.0
4	25FB-25A	3.27	0.91	20	31	2900	0.57	1.1	4.0
5	25FB-40	3.6	1	40	23	2900	1.71	3	4.0
6	25FB-40A	3.27	0.91	33.5	24	2900	1.21	2.2	4.0
7	40FB-16	7.2	2	16	44	2900	0.71	1.5	4.0
8	40FB-16A	6.55	1.82	12	46.7	2900	0.5	1.1	4.0
9	40FB-20	7.2	2	20	42	2900	0.93	1.5	4.0
10	40FB-25	7.2	2	25	39	2900	1.26	2.2	4.0
11	40FB-25A	6.55	1.82	20.5	40	2900	0.94	1.5	4.0
12	40FB-40	7.2	2	40	32	2900	2.45	3	4.0
13	40FB-40A	6.55	1.82	32	33.5	2900	1.73	2.2	4.0
14	40FB-63	7.2	2	63	27	2900	5.42	7.5	4.0
15	40FB-63A	6.72	1.87	56	29	2900	3.75	5.5	4.0
16	50FB-16	14.4	4	16	56	2900	1.09	2.2	3.5
17	50FB-16A	13.1	3.64	12	57	2900	0.81	1.5	3.5
18	50FB-25	14.4	4	25	52	2900	1.83	4	3.5
19	50FB-25A	13.1	3.64	20	51.5	2900	1.42	3	3.5

性能参数表

Performance parameter table

序号 Serial NO.	型号 Model number	流量 Flow		扬程 Head	效率 Efficiency	转速 Speed	轴功率 Shaft power	电机功率 Motor power	必需汽蚀余量 Required cavitation allowance
		m³/h	L/s	m	η (%)	r/min	kW	kW	(NPSH)r(m)
1	50FB-40	14.4	4	40	46	2900	3.32	5.5	3.5
2	50FB-40A	13.1	3.64	32.5	45	2900	2.62	5.5	3.5
3	50FB-63	14.4	4	63	39	2900	6.16	11	3.5
4	50FB-63A	13.1	3.64	54.5	38	2900	5.24	7.5	3.5
5	65FB-25	28.8	8	25	62	2900	3.16	5.5	3.5
6	65FB-25A	26.2	7.28	20	62	2900	2.36	4	3.5
7	65FB-30	28.8	8	30	60.5	2900	3.89	7.5	3.5
8	65FB-30A	26.2	7.28	25	61	2900	2.79	5.5	3.5
9	65FB-40	28.8	8	40	57.5	2900	5.46	11.5	3.5
10	65FB-40A	26.2	7.28	32	58	2900	4	7.5	3.5
11	65FB-64	28.8	8	64	52.5	2900	9.57	15	3.5
12	65FB-64A	26.2	7.28	55	51.5	2900	7.82	7.5	3.5
13	80FB-15	54.4	15	15	69	2900	3.2	5.5	3.0
14	80FB-15A	49.1	13.65	11.5	69	2900	2.62	4	3.0
15	80FB-24	54.4	15	24	68	2900	5.19	7.5	3.0
16	80FB-24A	49.1	13.65	19	68	2900	3.94	7.5	3.0
17	80FB-38	54.4	15	38	66.5	2900	8.41	15	3.0
18	80FB-38A	49.1	13.65	30.5	66.5	2900	6.34	11	3.0
19	80FB-60	54.4	15	60	62.8	2900	14.06	22	3.0
20	80FB-60A	49.1	13.65	52	62.5	2900	11.56	18.5	3.0
21	100FB-23	100.8	28	23	73	2900	8.65	15	3.0
22	100FB-23A	91.8	25.5	17.5	73	2900	6.51	11	3.0
23	100FB-37	100.8	28	37	73	2900	13.9	22	3.0
24	100FB-37A	91.8	25.5	29	70.5	2900	11	18.5	3.0
25	100FB-57	100.8	28	57	70.5	2900	22.2	37	3.0
26	100FB-57A	91.8	26.2	52	70.5	2900	18.77	37	3.0
27	150FB-22	190.8	53	22	77	2900	14.86	22	2.5
28	150FB-22A	173.5	48.2	17.5	78	2900	10.6	18.5	2.5
29	150FB-35	190.8	53	35	76	2900	23.94	37	2.5
30	150FB-35A	173.5	48.2	28	76	2900	17.42	30	2.5
31	150FB-56	190.8	53	56	76	2900	38.3	55	2.5
32	150FB-56A	173.5	48.2	50	76	2900	32.1	37	2.5

AFB、FB型不锈钢耐腐蚀泵
AFB, FB stainless steel corrosion resistant pump
海洋泵阀
SEA PUMP & VALVE

泵的选择

1、为适应节能需要，要求泵的性能参数力求符合实际工况，从而可采取以下两种方法改变泵的性能曲线。

(1)改变泵的转速:本型号泵口径大于25mm的均可降速使用，降速后的扬程下限可达到3米，降速原则为2900转/分降为1480转/分，1480转/分降为980转/分，降速后的性能关系式为:

$Q_1=Q\cdot\frac{n_1}{n_2}$，$H_1=H\cdot(\frac{n_1}{n_2})^2$，$N_1=N\cdot(\frac{n_1}{n_2})^3$

(带“1”的为降速后的值能值)

(2)车削叶轮外径，在转速不变的情况下，可车削叶轮外径改变泵的性能，车削后的泵性能可按下式计算:

$Q'=Q\cdot\frac{D'_2}{D_2}$，$H'=H\cdot(\frac{D'_2}{D_2})^2$，$N'=N\cdot(\frac{D'_2}{D_2})^3$

2、基本平面应用水平仪校正，等基础水泥凝固后,将泵装于基础上,并用水平仪检查泵和电机轴的水平情况。如不水平,应用垫铁调整直至水平为止。

3、在电机，泵和底座分别安装的情况下，应严格检查泵轴和电机的同心度。检查方法:用刀口平尺在泵和电机联轴器外圆上下左右检查，用塞尺测量其不均匀缝隙不超过0.1毫米。两联轴器接触后保持2毫米间隙，一周内不均匀允差0.3毫米，否则就不能同心，会产生振动，使轴承发热，基至损坏泵件。

4、泵的吸入管路和压出路应有自己的支架、管路重量不得由泵来承受。

5、泵安装位置高于液面(注意在泵的吸程允许范围外)时，应在吸入管路末端装底阀，底阀喉口面积应大于吸入管截面积的50%、在泵处与倒灌工作(即泵安装位置低于液面)时可以不装底阀，但应在吸入管路上安装控制阀门和过滤装置，以防止杂物吸入泵内，造成叶轮件和泵件损坏。

6、泵安装前一定要彻底清除管内杂物，如焊渣等，以免泵起动时被吸入造成事故。

Summary

1. In order to meet the needs of energy conservation,the performance parameters of the pump are required to conform to the actual working conditions, so the following two methods can be adopted to change the pump performance curve.

(1) Change the speed of the pump: the pump with a diameter greater than 25 mm can be used at a reduced speed. The lower limit of the head after speed reduction can reach 3 meters. The principle of speed reduction is 2900 rpm to 1480 rpm, and 1480 rpm to 980 rpmRPM, the performance relationship after speed reduction is:

$Q_1=Q\cdot\frac{n_1}{n_2}$，$H_1=H\cdot(\frac{n_1}{n_2})^2$，$N_1=N\cdot(\frac{n_1}{n_2})^3$

(The value with "1" is the energy value after speed reduction)

(2) Turning the outer diameter of the impeller can change the performance of the pump when the speed remains unchanged. The pump performance after turning can be calculated according to the following formula:

$Q'=Q\cdot\frac{D'_2}{D_2}$，$H'=H\cdot(\frac{D'_2}{D_2})^2$，$N'=N\cdot(\frac{D'_2}{D_2})^3$

2. The basic plane shall be calibrated with a level. After the foundation cement has solidified, the pump shall be installed on the foundation and the level of the pump and motor shaft shall be checked. If it is not horizontal, the sizing block shall be used to adjust until it is horizontal.

3. When the motor, pump and base are installed separately, the concentricity of pump shaft and motor shall be strictly checked. Inspection method: Use a knife edge ruler to inspect the pump and motor coupling on the upper, lower, left and right sides, and use a feeler gauge to measure The uneven gap shall not exceed 0.1mm. After the two couplings are in contact, maintain a clearance of 2mm, with an uneven tolerance of 0.3mm within a week. Otherwise, they cannot be concentric, which will generate vibration, heat the bearing, and damage the pump.

4. The suction pipeline and pressure outlet of the pump shall have their own supports, and the weight of the pipeline shall not be borne by the pump.

5. When the pump installation position is higher than the liquid level (note that it is outside the allowable range of the pump suction head), a bottom valve should be installed at the end of the suction pipe. The throat area of the bottom valve should be greater than 50% of the sectional area of the suction pipe. When the pump is installed and the pump is inverted (that is, the pump installation position is lower than the liquid level), the bottom valve can not be installed, but the control valve and filter device should be installed on the suction pipe to prevent debris from being sucked into the pump, causing damage to the impeller and pump parts.

6. Before the pump is installed, the sundries in the pipe, such as welding slag, must be completely removed to avoid accidents caused by inhalation when the pump is started.

泵的启动、停止和运转

启动

1. 准备必要的扳手与工具。
2. 检查轴承体油标油位是否正常。
3. 检查泵的旋转方 向是否正确，严禁反转，转向错可使叶轮螺母松脱，使腐蚀介质进入轴颈产生腐蚀，导致泵无法工作，也可能使叶轮螺母甩出造成不幸事故。确保安全生产。
4. 在泵安装位置低于 液面（倒灌情况）时，泵在起动前，要打开管路的闸阀，使液体充满泵内。如果安装位置高于液面（真空情况）时，泵在启动前要灌泵和排气，使泵内和吸入管路内充满 液体，排净泵内空气。
5. 启动电机后，缓缓打开 排出口闸阀，使泵工作正常后，再将阀门开至需要的程度。

停止：

1. 关闭压力管路闸阀。
2. 停止电机。
3. 关闭吸人管路闸阀。
4. 在环境温度低于液体凝固点时，要放尽泵内存液。
5. 如果泵处于长期停止使用时，应将泵内腐蚀性介质放净，并用清水冲洗干净，清理后，要妥善保管。

运转：

1. 应经常检查泵和电机的温升情况，主要是轴承温升情况，要求轴承温度不超过73℃。
2. 运转过程中，如发现噪声和其它不正常声音时应立即停止检查，排除故障后方可运行。
3. 注意密封装置加油杯，应保持储油，并及时补充、保证润滑。

机械密封使用

使用要求：

机械密封使用在清洁的无悬浮颗粒的介质中。因此对新管路系统要特别注意清洗管路。

安装与拆卸：

1、安装机械密封前，要检查所有元件是否损坏。如有损坏的，应进行修复 或更换。

2、严格检查动环与静环的摩擦端面，不许有任何细微的碰撞划伤，装配前时，动环、静环端面要涂一层清洁的机油。

3、装配中要 注意消除偏差，正确调整弹簧的压缩量，使其不得太松太紧。紧固螺钉时，要均匀把紧，避免发生偏斜，使密封失效。

4、拆卸时要注意泵的 拆卸顺序。

故障处理：

1、泵开始运转就发生密封泄漏。

a、在机械密封装配时，弹簧压缩量调得太松。

b、机械密封动、静环端面受到损坏。

c、机械密封静环装配偏斜。

2、泵开始运转正常，以后突然发生严重泄漏。

a、机械密封动环或静环端面严重磨坏。

b、机械密封固定螺丝松动，使弹簧失去作用或者引起动环的歪斜。

c、机械密封室内有杂质，卡住了动环，使其无法移动，或者杂质支撑、静环端之间，使机械密封失去作用。

Start, stop and operation of pump

Start:

1. Prepare necessary wrenches and tools.
2. Check whether the oil level of bearing oil pointer is normal.
3. Check whether the rotation direction of the pump is correct. Reverse rotation is strictly prohibited. Wrong rotation can loosen the impeller nut, which may lead to corrosion when the corrosive medium enters the journal, leading to the pump being unable to work, or the impeller nut being thrown out, causing an unfortunate accident. Ensure safe production.
4. When the installation position of the pump is lower than the liquid level (reverse filling), before starting the pump, open the gate valve of the pipeline to fill the pump with liquid. If the installation position is higher than the liquid level (vacuum condition), the pump shall be filled and vented before starting, so that the pump and suction pipeline are filled with liquid and the air in the pump is exhausted.
5. After starting the motor, slowly open the gate valve at the discharge port to make the pump work normally, and then open the valve to the required level.

stop it:

1. Close the gate valve of the pressure pipeline.
2. Stop the motor.
3. Close the gate valve of suction pipeline.
4. When the ambient temperature is lower than the freezing point of the liquid, drain the liquid in the pump.
5. If the pump is out of service for a long time, the corrosive medium in the pump shall be discharged and washed with clean water. After cleaning, it shall be properly kept.

work:

1. The temperature rise of pump and motor shall be checked frequently, mainly the bearing temperature rise, and the bearing temperature shall not exceed 73 ℃.
2. In the process of operation, if noise and other abnormal sounds are found, the inspection shall be stopped immediately, and the operation can only be started after troubleshooting.
3. Pay attention to the oil filling cup of the sealing device, keep the oil storage, replenish and ensure lubrication in time.

Use of mechanical seal

Use requirements:

Mechanical seals are used in clean media free of suspended particles. Therefore, pay special attention to cleaning the pipeline for the new pipeline system.

Installation and removal:

1. Before installing the mechanical seal, check all components for damage. If damaged, repair or replace it.
2. The friction end faces of the moving ring and the stationary ring shall be strictly checked, without any slight collision or scratch. Before assembly, the end faces of the moving ring and the stationary ring shall be coated with a layer of clean engine oil.
3. During assembly, attention shall be paid to eliminating the deviation, and the compression amount of the spring shall be adjusted correctly to prevent it from being too loose or tight. Tighten the screws evenly to avoid deflection and seal failure.
4. Pay attention to the disassembly sequence of the pump during disassembly.

Troubleshooting:

1. Seal leakage occurs when the pump starts to run.
   a. When the mechanical seal is assembled, the spring compression is too loose.
   b. The end faces of the dynamic and static rings of the mechanical seal are damaged.
   c. Mechanical seal stationary ring assembly is skewed.
2. The pump started to operate normally, and then serious leakage occurred suddenly.
   a. The end face of the dynamic ring or static ring of the mechanical seal is seriously worn.
   b. The fixing screw of the mechanical seal is loose, which makes the spring lose its function or causes the deflection of the moving ring.
   c. There are impurities in the mechanical seal chamber, which block the moving ring and make it unable to move, or impurities support between the stationary ring ends, making the mechanical seal ineffective..

AFB、FB型不锈钢耐腐蚀泵
AFB, FB stainless steel corrosion resistant pump
海洋泵阀
SEA PUMP & VALVE

故障和解决方法 Faults and solutions

故障 failure	原因 Cause	解决方法 resolvent
打不出液体 No liquid can be pumped out	1. 泵没有灌液体 2. 吸入管、排出管、叶轮被杂物阻塞 3. 吸入管有空气 4. 吸上高度太高 5. 排出管过细、管路损失过大 6. 要求扬程大于泵扬程 7. 输送热的或易挥发性介质 8. 转向反 1. The pump is not filled with liquid 2. The suction pipe, discharge pipe and impeller are blocked by debris 3. There is air in the suction pipe 4. The suction height is too high 5. The discharge pipe is too thin and the pipeline loss is too large 6. The required lift is greater than the pump lift 7. Transport hot or volatile media 8. Reverse steering	1. 重灌液体 2. 清除杂物 3. 修理管路 4. 降低泵安装高度 5. 换与泵口同口径管 6. 更换新泵 7. 降低吸入高度、最好倒灌 8. 改变转向 1. Recharge liquid 2. Remove sundries 3. Repair the pipeline 4. Lower the pump installation height 5. Replace the pipe with the same diameter as the pump port 6. Replace with a new pump 7. Lower the suction height and preferably pour back 8. Change the steering
流量不够 Insufficient flow	1. 底阀太小 2. 吸入管路浸入液体深度不够有空气带入浆内 3. 吸入管路过小或有杂物阻塞 4. 叶轮腐蚀严重 1. The bottom valve is too small 2. The suction pipe is not deep enough in liquid, and air is brought into the slurry 3. The suction pipe is too small or blocked by sundries 4. Impeller severely corroded	1. 另配置新底阀 2. 增加浸入深度 3. 换粗管、清除杂物 4. 换新叶轮 1. New foot valve 2. Increase immersion depth 3. Replace the thick pipe and remove the sundries 4. Replace the impeller
扬程不够 Insufficient lift	1. 叶轮腐蚀严重 2. 泵性能不符合要求 1. Impeller severely corroded 2. The pump performance does not meet the requirements	1. 换新叶轮 2. 换新泵 1. Replace the impeller 2. Replace the pump
泵振动严重 Severe pump vibration	1. 泵与电机轴不同心 2. 泵轴弯曲 1. The pump and motor shafts are not concentric 2. The pump shaft is bent	1. 将电机与泵轴线重新调整对准 2. 卸下校直或换新轴 1. Readjust and align the motor and pump axis 2. Remove and straighten or replace the shaft
泵轴承过热 Overheating of pump bearing	1. 润滑油(脂)没有或不足 2. 电机和泵轴不同心 3. 轴承损坏 1. No or insufficient lubricating oil (grease) 2. Motor and pump shaft are not concentric 3. The bearing is damaged	1. 加油 2. 调整轴心 3. 更换新轴承 1. Refueling 2. Adjust the shaft center 3. Replace with a new bearing
轴封漏 Shaft seal leakage	1. 进口压力高 1. High inlet pressure	1. 降低进口压力或关小进口阀门 1. Reduce the inlet pressure or close the inlet valve
电机过热 Motor overheating	1. 配置电机功率不够 1. Replace with a new motor with larger power	1. 更换较大功率新电机 1. The configured motor power is insufficient

不锈钢1Cr18Ni9Ti耐腐蚀性能表　Corrosion Resistance of Stainless Steel 1Cr18Ni9Ti

介质名称 Media Name	分子式 Molecular formula	浓度(重量%) Concentration (weight%)	温度(℃) Temperature (℃)	耐腐蚀等级 Corrosion resistance grade
硝酸 nitric acid	HNO_3	5	20	1
		5	沸 boiling	1
		20	20	1
		20	沸 boiling	1
		40	20	1
		40	沸 boiling	1
		60	20	1
		60	沸 boiling	1-2
		90	20	1
		90	沸 boiling	2
		99	20	3
		99	沸 boiling	4
醋酸 acetic acid	CH_3COOH	5	20	1
		5	沸 boiling	2
		50	20	1
		50	沸 boiling	3
		80	沸 boiling	2-3
		100	20	1
		100	70	1
氢氧化钾 Potassium hydroxide	KOH	25	沸 boiling	1
		68	120	1
氢氧化钠 sodium hydroxide	NaOH	10	90	1
		20	沸 boiling	1
		40	90	1
硫酸 sulphuric acid	H_2SO_4	5	20	2
		40	20	4
		40	60	5
		80	20	2
		80	60	4-5
		98	60	1-2
		98	100	4
磷酸 phosphoric acid	H_3PO_4	10	20	1
		10	沸 boiling	1
		40	50	1
		40	10	2
		90	20	1
		90	80	2
盐酸 hydrochloric acid	HCl	2	20	2
		10	20	2
		10	40	5
		30	40	5
氯化铵 ammonium chloride	NH_4Cl	10	20	1
		10	沸 boiling	2
硝酸铵 ammonium nitrate	NH_4NO_3	10	20	1
		75	90	1
氯化铜 Cupric chloride	$CuCl_2$	5	20	2
		8	沸 boiling	5
氯化钠 sodium chloride	NaCl	5	20	1
		5	沸 boiling	1
		20	20	1
		50	沸 boiling	1

耐腐蚀性能等级　Corrosion resistance grade

等级 Grade	一级 Grade I	二级 Grade II	三级 Grade III	四级 Grade IV	五级 Grade V
腐蚀速度(克/平方米/时) Corrosion rate ($g/m^2/h$)	<0.1	0.1-1.0	1.0-3.0	3.0-10	>10

订货需知

1.根据输送介质或混合物的名称，浓度，泵进口压力，使用温度对材料的腐蚀程度，《参阅材质耐腐蚀性能表和使用范围》合理使用泵的材质，密封形式和泵的结构。

2.根据输送介质的比重来确定电动机的容量。

3.在用户选用泵性能恰当，遵守说明中的规定的保管及使用规则的情况下，产品因制造质量不良而发生的损坏不能正常工作时本单位免费为用户修理或更换零件，（易损件除外）。

4.用户如需特殊材质，请来函注明材质牌号，本单位酌情安排生产。

5.用户在使用过程中，发现产品质量问题，请及时反应问题，以便我们更快的处理。

Order information

1. The material, sealing form and structure of the pump shall be reasonably used according to the name and concentration of the transmission medium or mixture, the pump inlet pressure, the degree of corrosion of the material caused by the use temperature, and the Material Corrosion Resistance Table and Scope of Use.
2. Determine the motor capacity according to the specific gravity of the transmission medium.
3. Under the condition that the user selects the pump with proper performance and follows the storage and use rules specified in the instructions, the unit will repair or replace parts for the user free of charge when the product is damaged due to poor manufacturing quality and cannot work normally (except for wearing parts).
4. If the user needs special materials, please write a letter indicating the material brand, and our unit will arrange production at its discretion.5. If users find product quality problems during use, please respond to them in time so that we can deal with them more quickly.

随机附件　Attached accessories

名称 Name	数量 quantity
AFB、FB不锈钢耐腐蚀离心泵 AFB, FB stainless steel corrosion resistant centrifugal pump	1
电动机 Motor	1
底座 base	1
联轴器 coupling	1
使用说明书 an instruction manual	1
产品合格证 Product certificate	1