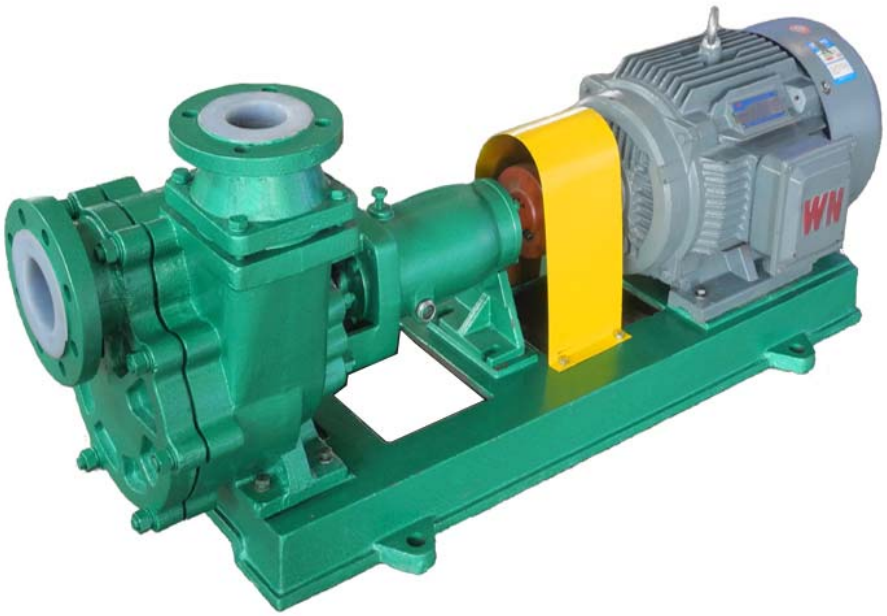
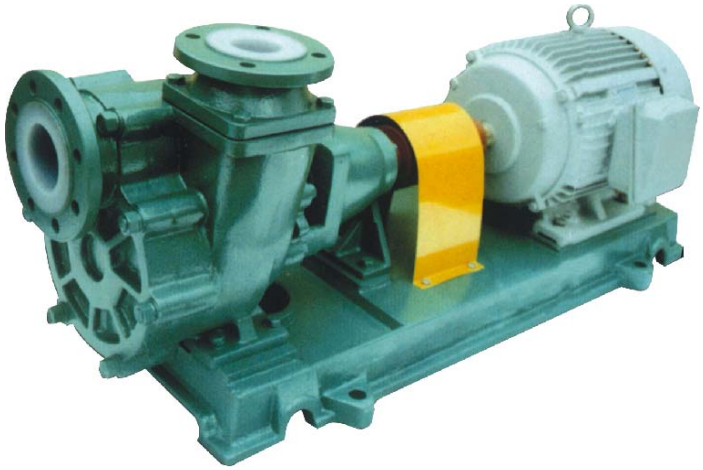
FZB 型氟塑料自吸泵



使用说明书

FZB 型氟塑料离心泵

FZB model Fluorine plastic Centrifugal pumps



概述(Product summarize)

FZB 系列氟塑料自吸式离心泵，过流部件均采用氟塑料制成，轴封采用先进的外装式波纹管机械密封，方便可调。是新一代耐强腐蚀的自吸泵。其自吸高度在 3-4 米（介质为清水时），免去了普通离心泵须倒灌安装、灌引水、装底阀等不便因素。广泛用于酸洗工艺、制酸制碱、化工、农药、造纸、电子等行业。

适用温度：-20℃~100℃

FZB series fluoroplastic self-priming centrifugal pump, flow components are made by fluorine plastic seal, adopts advanced externally mounted bellows mechanical seal, easy adjustable. A new generation of strong corrosion resistance self-priming pumps. Its high in a 3-4 meters (medium for water), common centrifugal pump, water pollution shall be installed, bottom valve inconvenience. Widely used in pickling process, acid and alkali manufacturing, chemical, pesticide, papermaking, electronic industries.

Operating temperature: -20℃~100℃

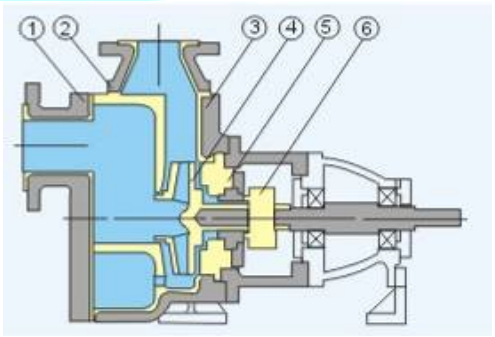
型号意义(Model sense)

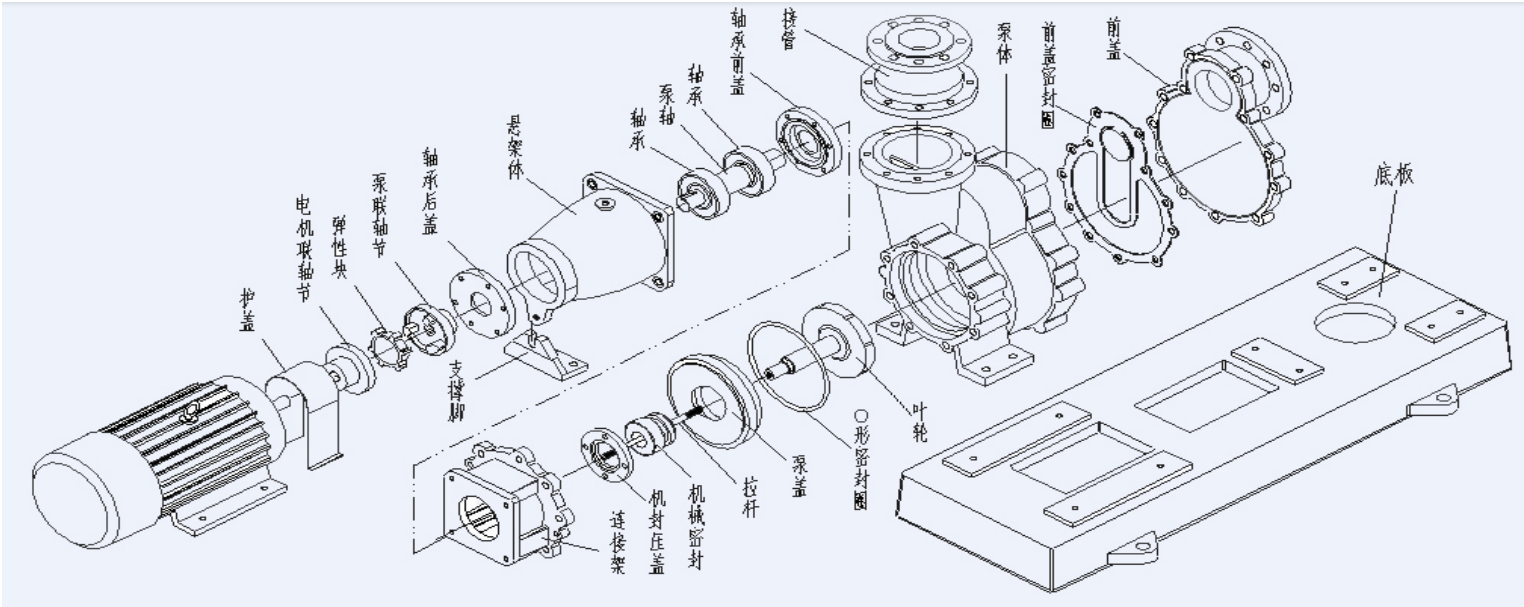
65 F Z B -32

- 泵扬程是 32M
  pump head 32 M
- 单级单吸式离心泵
  Single-stage single-suction centrifugal pump
- 具有自吸功能
  Self-priming
- 泵过流部件用氟塑料制造
  Lining fluorine plastic
- 泵进口直径是 65mm
  Inlet diameter is 65 mm

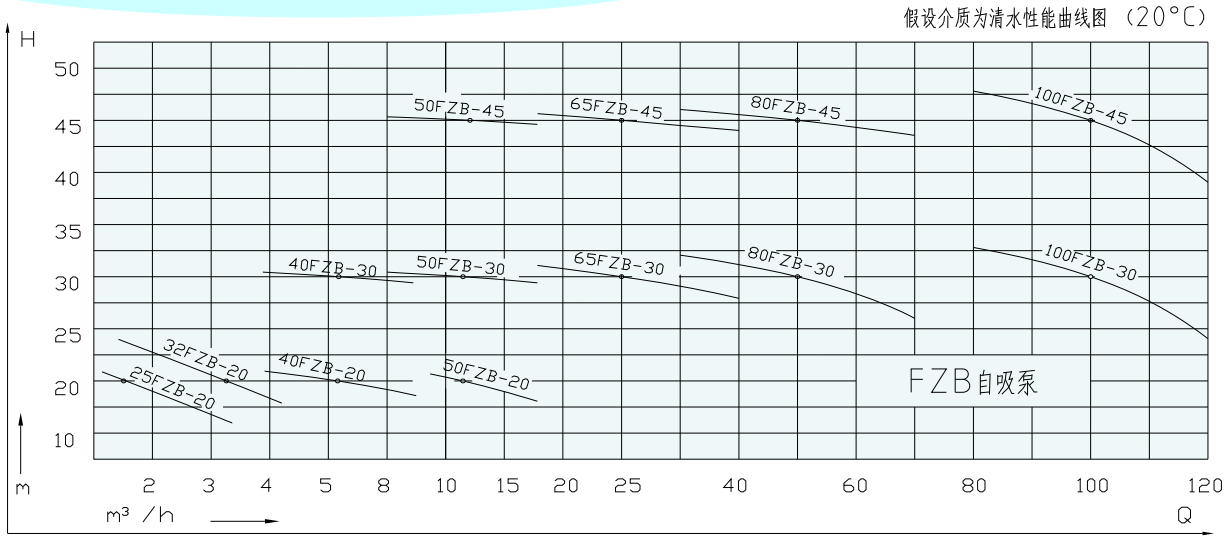
结构示意图(Structure and material)

1 前盖 Stainless steel cover
2 联接法兰 Link flange
3 泵体 pump body
4 叶轮 Impeller
5 泵盖 Pump cover
6 机械密封 Mechanical seal ring





n=2900r/min 性能曲线图(Curve of capacity)



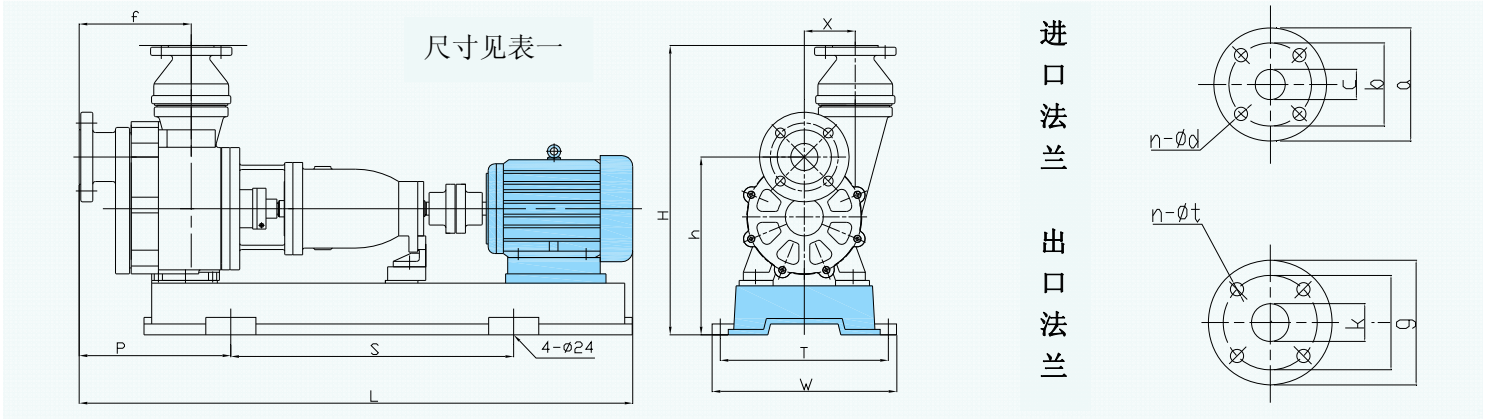
泵的型号与性能参数(Model and technical data)

* 表格中流量扬程加粗字体为基本型

序号	型号 Model	转速(Rev) =2900r/min 介质密度(Medium density)=1000kg/m³									
		流量 Flow (m³/h)	扬程 Pump head (m)	效率 η (%)	进口 Inlet (mm)	出口 Outlet (mm)	汽蚀余量 Npsh (m)	电机功率 Power (kw)	自吸高度 self-priming High (m)	自吸时间 self-priming time (s)	整机重量 Weight (kg)
1	25FZB-20	1	23	20	Φ25	Φ25	3.0	1.5	1.5	150	65
		1.6	**20**								
		2	19								
2	32FZB-20	1.6	23	30	Φ32	Φ25	3.0	2.2	1.5	150	70
		3.2	**20**								
		4.5	18								
3	40FZB-20	5	22	42	Φ40	Φ32	3.0	2.2	3	150	70
		6.3	**20**								
		7	18								
4	40FZB-30	5	32	48	Φ40	Φ50	3.0	4	3	150	70
		6.3	**30**								
		7	28								
5	50FZB-20	10	22	42	Φ50	Φ40	3.0	2.2/3	3	150	70
		12.5	**20**								
		15	18								
6	50FZB-30	10	33	48	Φ50	Φ50	3.5	4	3	180	160
		12.5	**30**								
		15	25								
7	50FZB-45	10	47	35	Φ50	Φ32	3.5	7.5	3	200	210
		12.5	**45**								
		15	40								
8	65FZB-30	15	32	55	Φ65	Φ50	4.0	7.5	3	180	210
		25	**30**								
		30	25								
9	65FZB-45	15	47	42	Φ65	Φ40	4.0	11	3	200	300
		25	**45**								
		30	40								
10	80FZB-30	35	33	58	Φ80	Φ65	4.5	11	3	180	284
		50	**30**								
		60	25								
11	80FZB-45	35	47	53	Φ80	Φ65	4.5	15	3	200	330
		50	**45**								
		60	40								
12	100FZB-30	60	35	48	Φ100	Φ80	6.0	18.5	3	250	300
		100	**30**								
		110	28								
13	100FZB-45	60	47	55	Φ100	Φ80	6.0	30	3	250	500
		100	**45**								
		110	40								

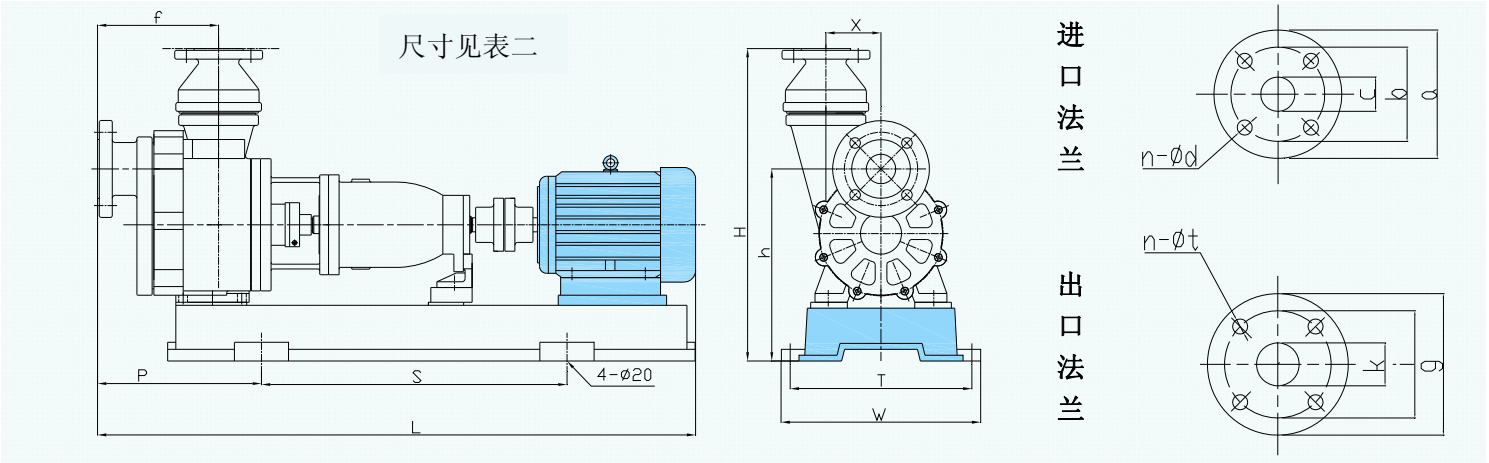
安装尺寸(Install size)

法兰尺寸(Flange size)



表一:

序号	型号 Model	外型安装尺寸 Outside and installing size									进口法兰尺寸 Inlet flange size				出口法兰尺寸 Exit flange size			
		L	S	P	f	W	T	H	h	X	c	a	b	n-φd	k	g	i	n-φt
1	40FZB-30	1150	590	255	207	390	350	535	330	94	40	150	110	4-Φ18	32	140	100	4-Φ18
2	50FZB-30	1000	600	325	200	380	330	510	340	90	50	165	125	4-Φ18	50	165	125	4-Φ18
3	50FZB-45	1200	650	335	260	440	385	620	400	112	50	165	125	4-Φ18	32	140	100	4-Φ18
4	65FZB-30	1200	650	335	260	440	385	530	400	98	65	185	145	4-Φ18	50	165	125	4-Φ18
5	65FZB-45	1400	735	375	225	490	440	645	425	114	65	185	145	4-Φ18	40	150	110	4-Φ18
6	80FZB-30	1360	735	368	215	490	440	550	370	110	80	200	160	8-Φ18	65	185	145	4-Φ18
7	80FZB-45	1360	735	368	215	490	440	550	370	120	80	200	160	8-Φ18	65	185	145	4-Φ18
8	100FZB-30	1555	840	448	285	540	490	683	440	130	100	220	180	8-Φ18	80	200	160	8-Φ18
9	100FZB-45	1671	945	460	285	610	535	723	480	130	100	220	180	8-Φ18	80	200	160	8-Φ18



表二:

序号	型号 Model	外型安装尺寸 Outside and installing size									进口法兰尺寸 Inlet flange size				出口法兰尺寸 Exit flange size			
		L	S	P	f	W	T	H	h	X	c	a	b	n-φd	k	g	i	n-φt
1	25FZB-20	820	455	240	114	325 280	285 250	405	240	68	25	120	85	4-Φ13	25	120	85	4-Φ13
2	32FZB-20	820	455	240	114	325 280	285 250	405	240	68	32	140	100	4-Φ13	25	120	85	4-Φ13
3	40FZB-20	970	590	255	207	390	350	535	330	94	40	150	110	4-Φ18	32	140	100	4-Φ18
4	50FZB-20	970	590	255	207	390	350	535	330	94	50	165	125	4-Φ18	40	150	110	4-Φ18

磁力泵、离心泵、自吸泵使用注意事项

使用及维护

安装及注意事项:

1、按基础尺寸做好混凝土基础，同时予埋地脚螺栓。
2、在安装前应对泵和电机进行检查，各部分应完好无损，泵内应无杂物。
3、将机组在基础上，在底板和基础之间放成对楔垫，通过高速垫，找正泵的水平。
4、泵的吸入，吐出管路应有支架，不能用泵来支承管路。进出口管路口径应与泵进出口口径相统一。
5、FZB 系列自吸泵安装时应先接进口管，加满液体后再接出口管，校正转向。泵的进口管道必须与泵匹配，且总长不能超过 5 米。
6、安装完毕，最后用手转动联轴器，检查有无擦碰现象。
7、磁力泵严禁抽取含有颗料的介质。
8、为防止杂物进入泵内，在进口处应设有过滤器，过滤面积应大于管路截面积的 3-4 倍。
9、扬程高的泵在出口管路上还应该安装逆止阀，以防突然停机的水锤破坏。
10、 必须保证泵的安装高度符合泵的汽蚀余量，并考虑管路损失及介质温度。
11、 介质温度过高时应对机封采取冷却措施，以防机封变形,静环开裂。

启动和运行:

1、开车前应将泵内灌满须输送的液体（如泵是在吸上的情况），关闭出口闸阀，接好电源。
2、接通电源，检查泵的转向是否正确。
3、机组试运转 3-6 分钟，如无异常现象可投入运行。
4、停机时，应先将出口的闸阀关闭，然后再切断电源。

维修和保养:

1、定期检查泵和电机，更换易损零件。
2、长期停机不用时，应清洗泵内流道并切断电源
3、严禁空运转。

故障及排除:

故　　障	原　　因	解　决　方　法
打不出液体	1. 吸入管内有空气 2. 吸入管漏气 3. 泵内灌注液体不足 4. 吸入管路有杂物堵塞 5. 泵反转 6. 吸上高度太高	1. 重新灌注液体或排空气体 2. 检查吸入管路 3. 重新灌注液体 4. 清除堵塞杂物 5. 调整转向 6. 降低安装高度
流量不足	1. 叶轮损坏 2. 转速不够 3. 管路内有杂物堵塞	1. 更换叶轮 2. 检查电机和供电线路 3. 清除堵塞杂物
功率过大	1. 输送介质比重过大 2. 泵轴线与电机轴线误差过大 3. 有机械摩擦	1. 降低粘度或增加灌注压力 2. 重新调整 3. 检查何处摩擦，进行检修
扬程不足	1. 输送介质内有空气 2. 叶轮损坏 3. 转速不够 4. 输送介质比重过大	1. 重新灌注液体或排空气体 2. 更换叶轮 3. 检查电机和供电线路 4. 降低粘度或增加灌注压力
泵组振动	1. 泵轴线与电机轴线误差过大 2. 吸上高度大，产生气蚀 3. 有机械摩擦	1. 重新调整 2. 降低安装高度 3. 检查何处磨损，进行检修
轴端渗漏及密封渗漏	1. 轴端卡环间隙过大，卡环松 2. 吸上高度太高，产生气蚀 3. 机械密封动、静环磨损，弹簧压力小 4. 机械密封动、静环吻合不好	1. 调整卡环螺钉 2. 降低安装高度 3. 更换磨损材料，调整弹簧 4. 调整动、静环

Magnetic pump , centrifugal pump ,self-priming pump series

Use and maintenance

Installation and Notes

1. The basis of size in accordance with concrete foundation ,to be buried at the same time a low-angle bolt
2. Response in the pre-installation inspection of pumps and motors ,all parts should be intact ,there should be no debris in pump
3. Put the machine sets on the basic ,between the floor and put into the foundation pad by adjusting the wedge pad ,find the level of pump ,after transfer ,bolt tightening angle
4. Pump suction ,the soil should line ,frame ,can not be used to support pump
5. FZB series Self-priming pump should be installed first then import tube ,then fill liquid and then export control ,calibration shift .import pipeline pump must be matched with the pump ,and the to tall length of not more than 5meters.
6. After installation ,the best hand-rotation coupling ,collision check for rubbing phenomenon ,uniform rotation is easily installed on the end
7. Pump with magnetic particles collected is strictly prohibited media
8. In order to prevent debris entering the pump ,should be located in the entrance filter ,filter area should be greater than the pipe cross-sectional area of 3-4times
9. High lift pump o the road in the export tube should also be installed on the check valve to prevent the sudden shutdown of the water hammer damage
10. Must ensure a high degree of compliance with the installation of pump NPSH pump and piping losses and consider the medium temperature
11. Medium temperature is too high to take the time to deal with drive letters cooling measures to prevent machine ring static deformation crack closure

Up and running:

1. lf you drive ,pump should be filled with liquid to be delivered(for example ,in the suction pump is on the case),the closure of export valve ,then a good power supply
2. Connected to power to check the correctness of steering pump
3. Commissioning Unit3-6minutes,in the absence of anomalies can be put into operation
4. When downtime ,export of the valve should be closed first ,and then cut off the power

Repairs and maintenance

1. Pumps and motors for regular inspection and replacement of wearing parts
2. Do not have long-term shutdown ,the pump should be cleaned and cut off the power flow
3. Air operation is prohibited

Trouble and Remedy

Trouble	Reasons	Solutions
Play no liquid	1. Air in inhalation tube 2. Inhalation tube leakage 3. Insufficient liquid infusion pump 4. There is debris blocking pipeline inhalation 5. Pump reversal 6. Suction height too high	1. Re-perfusion emptying of liquid or gas 2. Inhalation pipeline inspection 3. Re-perfusion liquid 4. Removal of debris blocking 5. Adjust the steering 6. Reduce the installation height
Insufficient flow	1. Impeller damaged 2. Speed is not sufficient 3. There is debris blocking pipeline	1. Replacement impeller 2. Check the motor and power supply lines 3. Removal of debris blocking
Power is too large	1. Excessive proportion of transmission media 2. Axis with the axis of pump motor error is too large 3. Mechanical friction	1. Reduce the viscosity or increase the perfusion pressure 2. Readjust 3. Check where the friction ,for maintenance
Less than head	1. There are air in transmission medium 2. Impeller damaged 3. Speed not enough 4. Excessive proportion of transmission media	1. Re-perfusion emptying of liquid or gas 2. Replacement impeller 3. Check the motor and power supply lines 4. Reduce the viscosity or increase the perfusion pressure
Pump vibration	1. Axis with the axis of pump motor error is too large 2. Suction height too high ,resulting in cavitation 3. Mechanical friction	1. Readjust 2. Reduce the installation height 3. Check where the friction ,for maintenance
Shaft end leakage and seal leakage	1. Shaft end clasp gap is too large ,loose clasp 2. Suction height too high ,resulting in cavitation 3. Mechanical seal dynamic and static wear ring ,the spring pressure on small 4. Mechanical seal dynamic and static with a bad ring	1. Adjustment screw clasp 2. Reduce the installation height 3. Replacement of worn materials ,adjusting the spring 4. Adjustment of static and dynamic ring

泵选型指南

在设计装置设备时，要确定泵的用途和性能并选择泵型，步骤如下：

一 、 泵选型原则

1、使所选泵的型式和性能符合装置流量、扬程、压力、温度、汽蚀流量、吸程等工艺参数的要求。

2、必须满足介质特性的要求：

对输送易燃、易爆有毒或贵重介质的泵，要求轴封可靠或采用无泄漏泵，如磁力驱动泵、屏蔽泵等。

对输送腐蚀性介质的泵，要求对流部件采用耐腐蚀性材料，如 IHF 氟塑料离心泵，CQB 氟塑料磁力泵、FZB 氟塑料自吸离心泵、FSB 氟塑料离心泵、ZCQ 氟塑料自吸磁力泵、FMB 氟塑料耐腐耐磨泵等。

对输送腐蚀性含固体颗粒介质的泵，要求对流部件采用耐磨、耐腐材料，必要时轴封用采用清洁液体冲洗。可选用 UHB-ZK 耐腐蚀耐磨砂浆泵

3、机械方面可靠性高、噪声低、振动小。

4、经济上要综合考虑到设备费、运转费、维修费和管理费的总成本最低。

5、离心泵具有转速高、体积小、重量轻、效率高、流量大、结构简单、输液无脉动、性能平稳、容易操作和维修方便等特点。

因此除以下情况外，应尽可能选用离心泵：

A.，易燃、易爆有毒或贵重介质、强腐蚀介质选用磁力泵

B.扬程要求很高，流量很小且无合适小流量高扬程离心泵可选用时，可选用往复泵，如汽蚀要求不高时也可选用旋涡泵

C.扬程很低，流量很大时，可选用轴流泵和混流泵

D.介质粘度较大（大于 650~1000mm2/s）时，可考虑选用转子泵或往复泵（齿轮泵、螺杆泵）

E.介质含气量 75%，流量较小且粘度小于 37.4mm2/s 时，可选用旋涡泵

F.对启动频繁或灌泵不便的场合，应选用具有自吸性能的泵，如自吸式离心泵、自吸式磁力泵、气动（电动）隔膜泵

二、泵的选型依据

泵选型依据，应根据工艺流程，给排水要求，从五个方面加以考虑，既液体输送流量、装置扬程、液体性质、管路布置以及操作运转条件等。

1、流量是选泵的重要性能数据之一，它直接关系到整个装置的的生产能力和输送能力。 如设计院工艺设计中能算出泵正常、最小、最大三种流量。选择泵时，以最大流量为依据，兼顾正常流量，在没有最大流量时，通常可取正常流量的 1.1 倍作为最大流量。

2、装置系统所需的扬程是选泵的又一重要性能数据，一般要用放大 5%—10%余量后扬程来选型。

3、液体性质，包括液体介质名称，物理性质，化学性质和其它性质，物理性质有温度 c 密度 d，粘度 u，介质中固体颗粒直径和气体的含量等，这涉及到系统的扬程，有效气蚀余量计算和合适泵的类型：化学性质，主要指液体介质的化学腐蚀性和毒性，是选用泵材料和选用那一种轴封型式的重要依据。

4、装置系统的管路布置条件指的是送液高度送液距离送液走向，吸入侧最低液面，排出侧最高液面等一些数据和管道规格及其长度、材料、管件规格、数量等，以便进行系统扬程计算和汽蚀余量的校核。

5、操作条件的内容很多，如液体的操作 T 饱和蒸汽力 P、吸入侧压力 PS（绝对）、排出侧容器压力 PZ、海拔高度、环境温度、操作是间隙的还是连续的、泵的位置是固定的还是可移的。

三、列出基本数据：

1、介质的特性：介质名称、比重、粘度、腐蚀性、毒性等。

2、介质中所含因体的颗粒直径、含量多少。

3、介质温度：（℃）

4、所需要的流量

一般工业用泵在工艺流程中可以忽略管道系统中的泄漏量，但必须考虑工艺变化时对流量的影响。

5、压力：吸水池压力，排水池压力，管道系统中的压力降（扬程损失）。

6、管道系统数据（管径、长度、管道附件种类及数目，吸水池至压水池的几何标高等）。

如果需要的话还应作出装置特性曲线。

在设计布置管道时，应注意如下事项：

合理选择管道直径，管道直径大，在相同流量下、液流速度小，阻力损失小，但价格高，管道直径小，会导致阻力损失急剧增大，使所选泵的扬程增加，配带功率增加，成本和运行费用都增加。因此应从技术和经济的角度综合考虑。

B、排出管及其管接头应考虑所能承受的最大压力。

C、管道布置应尽可能布置成直管，尽量减小管道中的附件和尽量缩小管道长度，必须转弯的时候，弯头的弯曲半径应该是管道直径的 3～5 倍，角度尽可能大于 90℃。

D、泵的排出侧必须装设阀门（球阀或截止阀等）和逆止阀。阀门用来调节泵的工况点，逆止阀在液体倒流时可防止泵反转，并使泵避免水锤的打击。（当液体倒流时，会产生巨大的反向压力，使泵损坏）

四、确定流量扬程、流量

a、如果生产工艺中已给出最小、正常、最大流量，应按最大流量考虑。

b、如果生产工艺中只给出正常流量，应考虑留有一定的余量。

对于比转速 Ns>100 的大流量低扬程泵，流量余量取 5%，对比转速 Ns<50 的小流量高扬和泵，流量余量取 10%，50≤Ns≤100 的泵，流量余量也取 5%，对质量低劣和运行条件恶劣的泵，流量余量应取 10%。

c、如果基本数据只给重量流量，应换算成体积流量。

Pump Selection manual

By designing equipment, the structure and performance of pump should be determined then choose pump type as following steps.

1)Pump sizing principle

1, The selected pump type and performance should match with the requirements of plant flow, lift, pressure, temperature, flow cavitations, suction etc.

2, It should compliance with requirements of media properties:

On the transport of flammable, explosive or toxic media expensive pumps, required a reliable seal with no leakage or pump, such as magnetic drive pumps, shielding pumps.

Corrosive medium on the transmission pump, required convective parts are corrosion resistance material, such as IHF fluorine plastic centrifugal pumps, CQB fluorine plastic magnetic pumps, FZB fluorine plastic self-priming centrifugal pumps, FSB Fluorine Plastic centrifugal pump, ZCQ fluorine plastic self-priming pump, FMB fluorine plastic corrosion resistant pumps.

On the transport of solid particles containing corrosive medium pump, requested by convection component wear, corrosion-resistant materials, if necessary, seal with the use of clean liquid flush. Optional UHB-ZK corrosion resistant mortar pump

3, mechanical reliability, low noise, little vibration.

4, the economic costs to be taken into account to the equipment, running costs, maintenance costs and management fees are the lowest total cost.

5, centrifugal pump with high speed, small size, light weight, high efficiency, traffic flow, simple structure, no pulse infusion, steady performance, easy operation and convenient maintenance.

Therefore, except as follows, as far as possible use centrifugal pumps:

A., flammable, explosive toxic or valuable medium, strong corrosive medium selected magnetic pump

B. head demanding, and without proper flow of small low flow high head pump can be used may make use of reciprocating pumps, such as cavitation can also be used when less demanding vortex pump

C. head low and high traffic may make use of axial and mixed flow pumps

D. medium viscosity (greater than 650 ~ 1000mm2 / s), consider the use rotor pump or a reciprocating pump (gear pump, screw pump)

E. medium containing 75% air content, flow and viscosity of less than 37.4mm2 / s may make use of vortex pump

F. irrigation pumps on the start frequency or inconvenient forum should be used with self-priming pump, such as self-priming centrifugal pumps, self-priming magnetic pumps

2) pump selection basis

Pump selection basis, should be based on process, water supply and drainage requirements, from five to consider the flow of both liquid delivery, installation head, the liquid nature of the operation of piping arrangements and operating conditions.

1, the pump flow was elected one of the important performance data, it is directly related to the device's capacity and transmission capacity. Such as process design institute to calculate the pump normally, minimum, maximum three kinds of traffic. Select pumps to maximum flow as the basis, taking into account the normal flow, in the absence of maximum flow, it is usually desirable to 1.1 times the normal traffic flow as the largest.

2, the device needed to lift the system is another important selection of pump performance data, the general use 5% -10% margin enlarged head to after the selection.

3, fluid properties, including the name of the liquid medium, physical properties, chemical properties and other physical properties of a temperature c density d, the viscosity u, the medium diameter of solid particles and gas content, which involves the system's head, the effective cavitation margin calculation and the right pump type: chemical properties, mainly refers to the liquid medium corrosive and toxic chemical is used pump materials and type of use is an important basis for a kind of seal.

4, the device arrangement of conditions for piping system that is highly fluid delivery fluid delivery fluid from the get go, the lowest suction side surface, the maximum liquid discharge side of the pipeline and some data and specifications of its length, material, pipe size, number of etc., for system head calculations and check NPSH.

5, the contents of many operating conditions, such as the liquid saturated steam power operation T P, the suction side pressure PS (absolute), discharge side of the container pressure PZ, altitude, ambient temperature, operation is the gap or continuous, pump position fixed or may shift.

3), lists the basic data:

1, media properties: media names, specific gravity, viscosity, corrosiveness, toxicity.

2, medium diameter of particles contained in the specimens, the number of levels.

3, medium temperature: (℃)

4, the required flow

General industrial pumps can be ignored in the process piping system leakage, but the process must be considered when changes in flow.

5, pressure: suction tank pressure, water pressure tank, piping system pressure drop (head loss).

6 pipeline system data (diameter, length, type and number of pipeline accessories, suction pressure of the pool the pool to the geometric level, etc.).

If necessary, make a device should also be characteristic curve.

In the design layout of pipes, should pay attention to the following matters:

Reasonable choice of pipe diameter, pipe diameter, and at the same flow rate, flow speed is small, the resistance loss is small, but the price is high, small diameter pipe will result in the loss resistance increases rapidly, so that the selected pump lift increases with the power distribution increase in cost and operating costs have increased. Therefore, technical and economic point of view should be taken into account.

B, discharge pipes and pipe joints should be considered the maximum pressure can bear.

C, piping should be arranged as straight as possible to minimize pipe attachment and minimize the pipe length, must turn when the elbow of the bend radius should be the pipe diameter of 3 to 5 times greater than the angle as much as possible 90 ℃.

D, pump discharge side to be fitted with valves (ball valve or stop valve, etc.) and check valve. Valve used to adjust the pump operating point, check valve prevents the pump when the liquid back inversion, and enable the pump to prevent water hammer. (When the liquid back, it will have an enormous negative pressure, the pump damage)

Fourth, determine the flow head and flow

a, if the production process has been given the minimum, normal, maximum flow, maximum flow should be considered.

b, is given only if the normal production process flow, you should consider to leave a margin.

For the specific speed Ns> 100 of the large flow of low lift pumps, flow margin to take 5%, compared to speed Ns <50 Praise and a small flow pumps, flow margin to take 10%, 50 ≤ Ns ≤ 100 pump, flow margin also take 5% of the poor quality and poor pump operating conditions, flow margin of 10% should be taken.

c, if the basic data for only the weight of traffic, should be converted into volume flow.

泵选型简明表

序号	系列产品型及名称	结构特点	配用轴密封	输送介质特点	主要适用行业及工序点例举
1	IHF 氟塑料离心泵	HT200+F46 过流部位衬塑 F46	WB2 机封	各类腐蚀性料液介质（固含量≤5%）	适用于汽车酸洗、制酸、制碱、喷漆工艺，有色金属，冶炼中的电解液输送、离子膜项目中的氯水输送、废水处理、电镀、农药等行业 适用温度：-20℃~120℃
2	CQB 氟塑料磁力泵	HT200+F46 ①磁偶力矩矩转动 ②过流部位衬塑 F46	滑动轴承	清液腐蚀性介质	适应于化工、医药、铝箔、制酸、涂装，有色金属等行业及易燃易爆、易挥发，有毒有机溶剂和贵重液体的输送（运动粘度≤$100*10^{-6}m^2/s$）不含铁杂质或硬固体颗粒的液体的输送） 适用温度：-20℃~100℃
3	ZCQ 自吸式氟塑料磁力泵	HT200+F46 ①磁偶力矩矩转动 ②过流部位衬塑 F46	滑动轴承	各类腐蚀性介质清液	适用于医药、食品、制碱、印染、涂装等行业及易燃易爆易挥发有毒有机溶剂和贵重液体的输送（抽桶或卸储罐用） 适用温度：-20℃~100℃
4	FSB 氟塑料自吸离心泵	HT200+F46 过流部位衬塑 F46	WB2 机封	清液类腐蚀性介质可输送浓硫酸溶剂等	各行业的清液类腐蚀介质输送 适用温度：-20℃~120℃
5	FZB 氟塑料自吸离心泵	HT200+F46 过流部位衬塑 F46	WB2 机封	可吸送浓硫酸溶剂及各类腐蚀性清液介质，（吸送挥发性强、吸送粘度大除外）	含少量固体和杂质的污水、废酸，废碱各类地坑池、事故池料液的提升吸送，但只限于吸送清液或含固量在 3%以内的介质（抽桶或卸储罐用） 适用温度：-20℃~120℃
6	FMB 氟塑料耐腐耐磨泵	HT200+F46 过流部位衬塑 F46	NKF 内装式密封	各类腐蚀性料液介质（固含量≤3%）	适用于选矿、化工、冶炼环保等行业。 适用温度：-20℃~120℃
7	UHB-ZK 型砂浆泵	HT200+UHMWPE 过流部位衬超高分子量聚乙烯	K 型动力密封	90℃温度以内的酸碱类料浆或清液均能输送	化工，冶炼，环保等行业的各种工艺流程泵也可用作压滤泵 适用温度：-20℃~80℃

Pump Selection concise form

serial	sample model name	Construct characteristic	Use spindle seal	send material characteristic	Applies way and working procedure case
1	IHF fluorine plastic pump	HT200+F46 Over-current machine parts lined F46	WB2 mechanical seal	All kinds of corrosive material to liquid medium (Solid content ≤ 5%)	Applies to cars, pickling, acid, alkali, painting techniques, non-ferrous metals, smelting of electrolyte transport, ion-exchange membrane chlorine transport projects, waste water treatment, electroplating, pesticide, etc. Suitable temperature: -20 ℃ ~ 120 ℃
2	CQB fluorine plastic magnetic pump	HT200+F46 ① rotating magnetic dipole moment ②over-current position lined F46	bearing	clear liquid medium	Suitable for corrosive chemicals, pharmaceuticals, aluminum foil, acid, paint, non-ferrous metals industry and the explosive, volatile, toxic organic solvents and precious liquid, (Kinematic viscosity ≤ 100 * 10^{-6}m ² / s) does not contain iron impurities or hard liquid, solid particles) For Temperature: -20 ℃ ~ 100 ℃
3	ZCQ fluorine plastic self-priming magnetic pump	HT200+F46 ①rotating magnetic dipole moment ②over-current position lined F46	bearing	clear liquid medium	Medicine, food, soda, printing and dyeing, painting, etc., and flammable volatile toxic organic solvents and precious liquid,(Smoke or use discharge tanks.) For Temperature: -20 ℃ ~ 100 ℃
4	FSB Fluorine Plastic self-priming centrifugal pump	HT200+F46 Over-current position lined F46	WB2 mechanical seal	type clear liquid corrosive media	Can be concentrated sulfuric acid solvent and other transportation industries clear liquid corrosion medium class delivery Suitable temperature: -20 ℃ ~ 120 ℃
5	FZB fluorine plastic self-priming centrifugal pump	HT200+F46 Over-current position lined F46	WB2 suction machine	suction machine to send letters to all kinds of corrosive sulfuric acid solution and clear liquid medium, (sending volatile smoke, smoke, except to send viscosity)	With a small amount of solids and impurities in the sewage, waste acid, waste various types of pit base pool, pool accident absorption enhancement material to liquid delivery, but only to send clear liquid smoke or solid content less than 3% of the medium, (Smoke or use discharge tanks.) Suitable temperature: -20 ℃ ~ 120 ℃
6	FMB fluorine plastic corrosion resistant pump	HT200+F46 Over-current position lined interior seal F46	NKF	various corrosive material to liquid medium (solid content ≤ 3%)	Applied to mineral processing, chemical industry, metallurgy and environmental protection industries. Suitable temperature: -20 ℃ ~ 120 ℃
7	UHB-ZK sand pump	HT200+UHMWPE Over-current position high molecular weight polyethylene	K dynamic sealing	temperature of 90 ℃ or less acid and alkaline slurry or supernatant	Can handle chemical, metallurgy, environmental protection industries of various processes can be used as filter press pump Suitable temperature: -20 ℃ ~ 80 ℃

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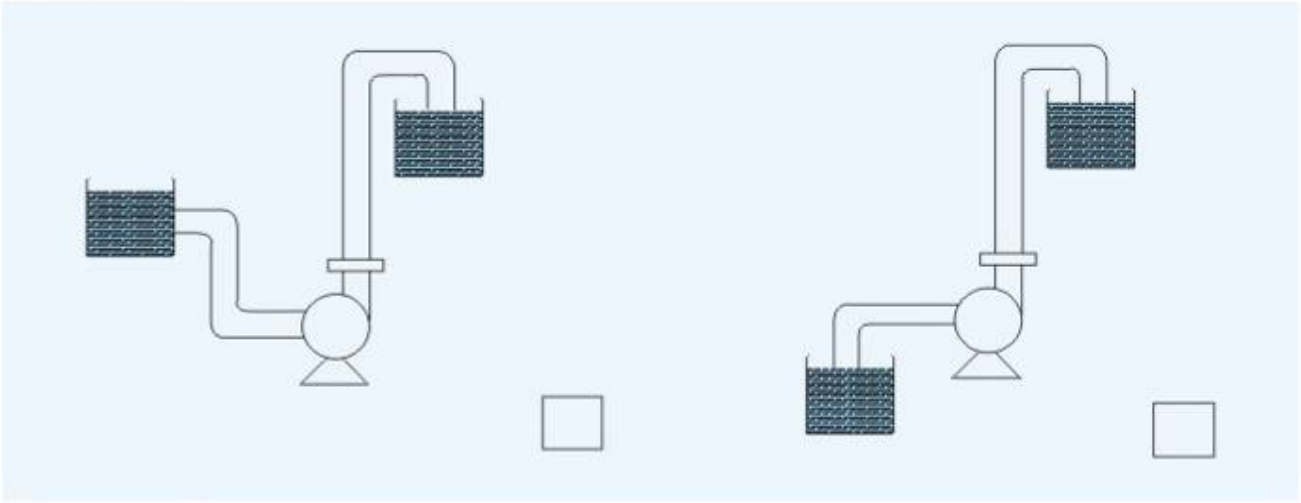
Please fax the below copy file to our company if you have any interesting to our products.Many thanks for your cooperation!

公司名称: Company				电话: telephone	
地址: Address					
联系人: linkman		部门: section		职位: position	
E-mail:				传真: Fax	
泵(阀)型号 Model					
数量 number					
流量 m^3/h Flow					
扬程 m Head					
介质名称 Medium name					
介质密度 kg/m^3 Medium density					
介质温度 Medium temperature					
介质粘度 mpas Medium viscosity					
进口压力 Mpa Inlet pressure					
吸上高度 m Self-priming					
介质固含量 Medium					
颗粒直径大小 solid diameter size					
马达形式 Motor type	普通电机 Common motors				
	防爆电机 prevent motors				



氟塑料泵阀耐腐蚀性能参数表

Fluorine plastics pump corrosion resistance parameter table

介质 Media	浓度≤% Concentration	温度 Temperature		介质 Media	浓度≤% Concentration	温度 Temperature	
		≤25℃	≤95℃			≤25℃	≤95℃
硫酸 H_2SO_4	90	√	√	氢氧化钾 KOH	50	✓	✓
硝酸 HNO_3	30	√	√	氢氧化铵 NH_3OH		✓	✓
盐酸 HCl		√	√	氢氧化钡 $Ba(OH)_2$	50	✓	✓
磷酸 H_3PO_4		√	√	氢氧化镁 $Mg(OH)_2$		✓	✓
氢氟酸*HF		√	√	氢氧化铝 $AL(OH)_2$		✓	✓
氢溴酸 HBr		√	√	氢氧化锂 LiOH		✓	✓
氢碘酸 HI		√	√	氧水 CL_2-H_2O		✓	✓
氢氰酸		√	√	溴水 Br_2		✓	✓
亚硫酸 H_2SO_3		√	√	碘溶液 I_2		✓	✓
亚硝酸 HNO_2		√	√	氨(无水)NH_3		✓	✓
次氯酸*HClO		√	√	甲醇 CH_3OH		✓	✓
高氯酸*$HClO_4$		√	√	乙醇 CH_3CH_2OH		✓	✓
铬酸 H_2CrO_4	80	√	√	丁醇		✓	✓
王水*		√	√	甲醛 HCHO		✓	✓
醋酸 CH_3COOH		√	√	乙醛 CH_3CHO		✓	✓
甲酸 HCOOH		√	√	二氯乙醚 C_4H_8CLO		✓	✓
丁酸 $C_4H_8O_2$		√	√	苯胺 C_6H_7N		✓	✓
戊酸 C_5H1OO_2		√	√	一氯甲烷 CH_3CL		✓	✓
油酸 $C_{18}H_{34}O_2$		√	√	二氯甲烷 CH_2CL_2		✓	✓
苯甲酸 C_6H_5COOH		√	√	三氯甲烷 $C_2H_4CL_2$		✓	✓
氢氧化钠 NaOH	50	√	√	四氯甲烷 $C_2H_4CL_4$		✓	✓

✓表示耐腐蚀性好;
×表示有腐蚀现象;
*表示部分零件要选择材料;
未注符号表示任意浓度均可
根据介质的浓度、温度选择不同材料的密封件

✓ Resistances the good corrosion
× That the corrosive
* Indicates parts of materials to choose
There is no marked concentration of arbitrary symbols that can be