

LQ3A型不锈钢转子泵 LQ3A stainless steel rotor pump

要达到完美的效果，选泵时请客户确定下列几点：

- 1、输送介质或液体的名称；
- 2、介质粘度及温度；
- 3、输送的扬程、压力及流量；
- 4、介质内含粒子的数量及大小；
- 5、接口的选择(卡箍、螺纹、法兰)。

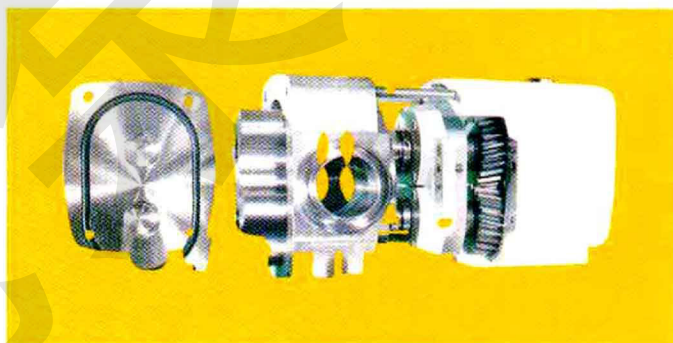
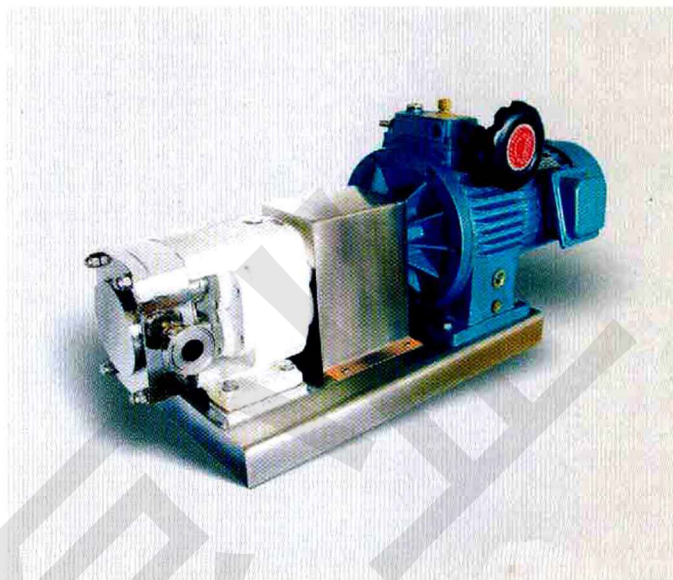
To achieve perfect effect, customer should make certain of the following points upon selecting a pump.

1. Medium to be delivered or name of liquid;
2. Viscosity and temperature of medium;
3. Head, pressure and flow rate to be delivered;
4. Quantity and sizes of particles contained in medium;
5. Type of connection (forked, screwed or flanged).

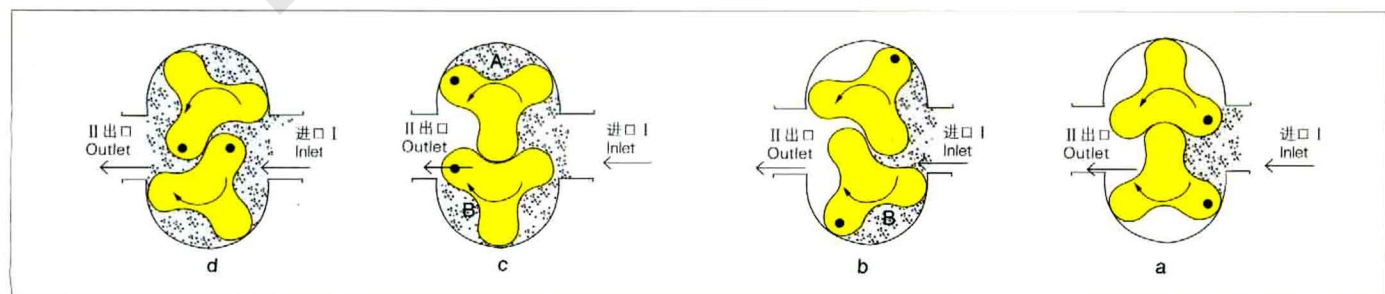
工作原理 Working Principle

LQ3A型不锈钢转子泵依靠两同步反转动的转子在旋转过程中于进口处产生吸力(真空度)，从而吸入所要输送的物料。两转子将转子室分隔几个小空间，并按ABCD的次序运转：运转至位置A时，只有I室中充满介质；到位置B时，B室中封闭了部分介质；到位置C时，A室中也封闭了部分介质；到位置D时，A、B室与II室相通，介质即被输送至出口口。

LQ3A stainless steel rotor pump is to suck the material to be delivered by the suction force (vacuum pressure) at the inlet produced by the rotation of the two synchronous reversed rotors. The rotor chamber is divided into several small rooms by the two rotors, and running in a sequence of ABCD. When it runs to the position of A, only I will be filled up with medium; when to B, some medium will be closed in B; when to C, some medium will be closed in A, when to D, A and B will be connected through to II, and medium will be handled to the discharge nozzle.



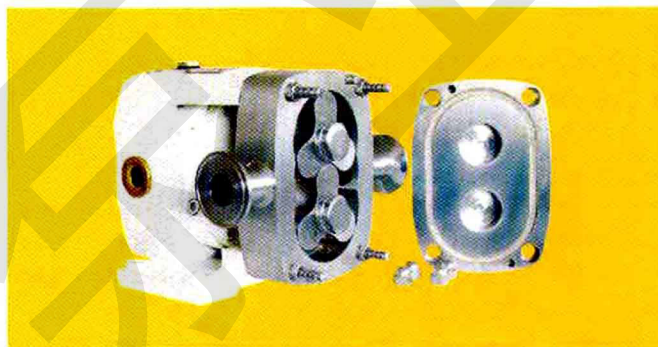
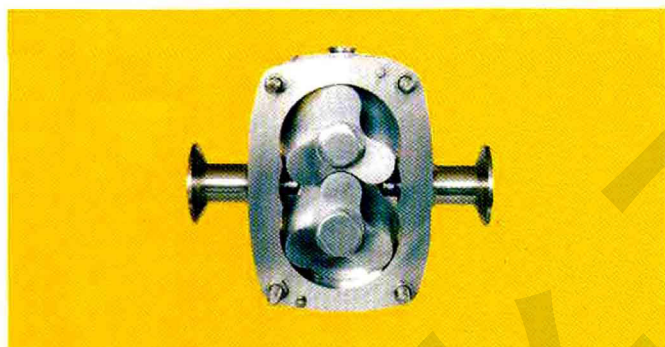
工作原理示意图 Diagram of Working Principle



适用范围 Applicability

乳品 酸牛奶、鲜奶油、冰淇淋、乳酪块及乳清。
饮料 啤酒、麦芽汁、酵母、汽水、水果浓缩液、果汁饮料。
食品 番茄酱、水果泥、蔬菜糊、布丁、果酱、果冻、调味剂、水果馅、甜味料、酵母泥、沙拉调味料、面包糕点、肉糜、碎肉、网油及食用油。
糖果 糖浆、稀奶油馅、巧克力。
化妆品 面膏及洗液、发型凝胶、染发剂、香精油。
药品 药丸糊、浸膏、乳化液、膏剂。
化工类 脂肪、溶剂、树脂及聚合物、染料。

Dairy: yoghurt, fresh butter, ice cream, cream blocks and whey.
Drinks: beer, wort, yeast, soda water, concentrated fruit solution and fruit juice.
Food: tomato paste, fruit paste, vegetable mash, pudding, preserve, jelly, seasonings, fruit stuffing, sweetener, yeast paste, saladflavoring, bread, cake, meat mash, chopped meat, caul fat and edible oil.
Candy: syrup, thin cream stuffing, chocolate.
Cosmetics: face cream, lotion, hair gel, hair dye and essential oil.
Medicine: pill paste, extractum, emulsion and ointment.
Chemical: fat, solvent, resin, polymer and dyestuff.

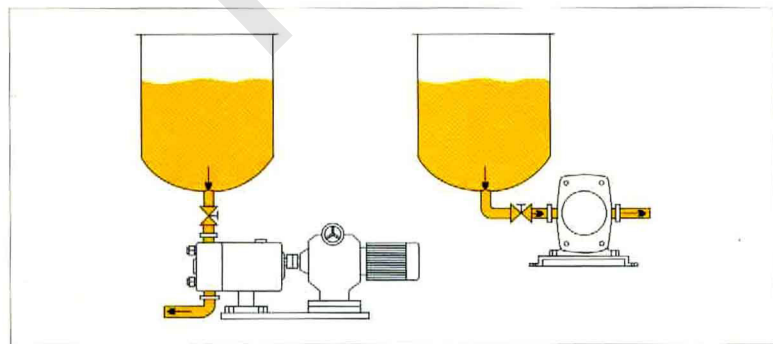


特点 Features

凡与介质(物料)接触部位,均采用不锈钢制造(材质SUS304、AISI316、316L)完全符合卫生标准。
 适合输送高粘度、浓度及任何含颗粒的介质(物料)。
 适用温度-30℃至+180℃。
 压力高,适用长距离与高阻力定量输送。
 转速低,一般在200rpm至600rpm之间,经其输送的物料保持原有品质不变,不起任何理化反应。
 转子与转子之间绝无接触,长期使用亦无磨损,运转平稳,故噪音低。
 装拆简单容易,方便清洗,保持卫生清洁。

Parts in contact with medium (material) are all made of stainless steel (SUS304, AISI316 or 316L) to fully conform to sanitary standard.
 Suitable for handling medium (material) of high viscosity and density, or containing particles.
 Suitable temperature -30℃~+180℃.
 High pressure to adapt to long distance and high resistance fixed quantity delivery.
 Low rotating speed, usually between 200rpm and 600rpm. The material handled will remain unchanged in quality without any physical or chemical reaction.
 Absolutely no contact between rotors to feature no abrasion, smooth operation and low noise.
 Simple assembly and disassembly, and easy washing to keep clean.

转子泵安装示意图 Installation Diagram of Rotor Pump



传动的选择 Selection of Drive

- 1、电机+定整比减速器：这种传动的方式简单，转子的转速恒定，也就是决定了流量的不可调性。
- 2、电机+机械摩擦式无级变速器：这种变速器的变速靠手动调节来实现，其特点是安全可靠，扭矩大，流量无级可调。缺点是非自动调节，较麻烦，调速在运转过程中进行，不得在停机状态下调速，其使用维护参照制造商的使用说明书。
- 3、变频电机+变频器：这种方式可实现转速的自动调节，亦即实现了流量的无级调整。其优点是自动化程度高，低速扭矩较大。缺点是变频器的价格较高。其使用维护参照制造商的使用说明书。

1. Motor + definite proportion reducer: easy type of drive, constant rotating speed of rotor, so that flow rate cannot be adjustable.
2. Motor + infinite variable speed mechanism with mechanical friction: manual adjustment of speed to feature good security, large torque and infinitely adjustable flow rate. However, the defect is that adjustment is non-automatic, which can be very troublesome, and speed adjustment is done in the process of operation, and cannot be done in stop. For operation and maintenance please refer to manufacturer's operation manual.
3. Frequency conversion motor + frequency converter: this type can effect automatic adjustment of rotating speed, and the infinite adjustment of flow rate. Its advantages include high degree of automation, low speed and large torque. The defect is that the frequency converter can be very expensive. For operation and maintenance please refer to manufacturer's operation manual.

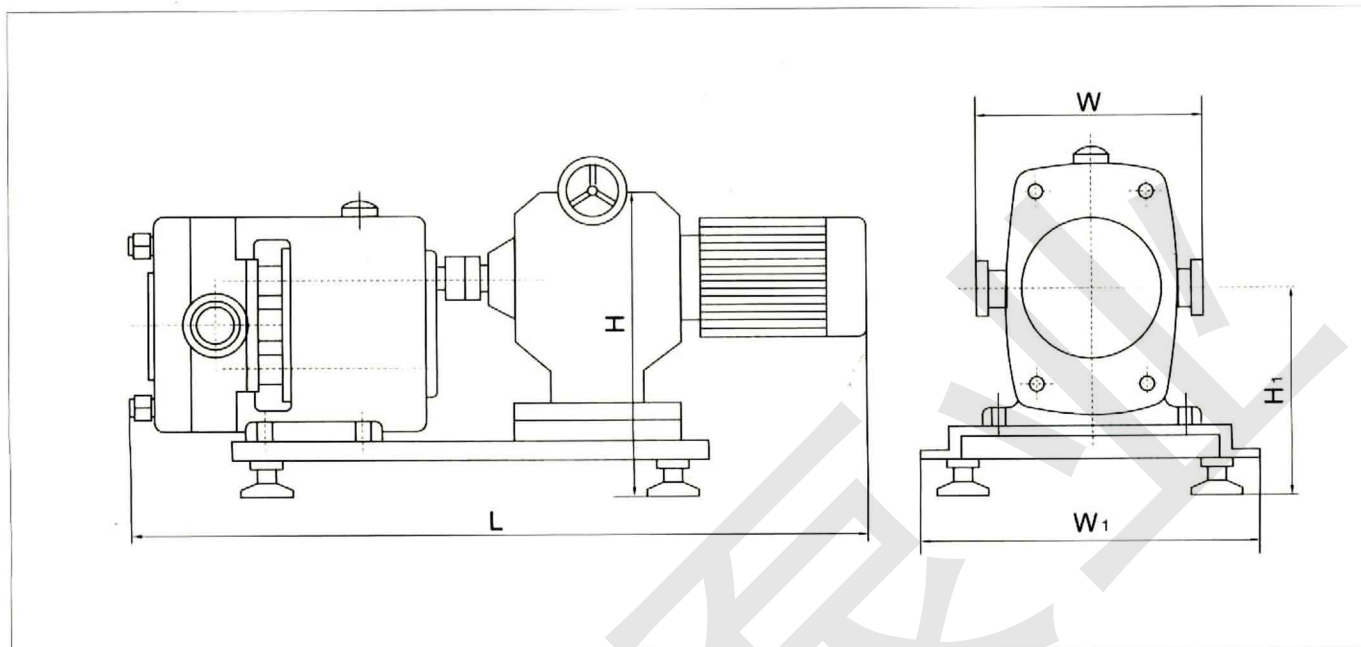


LQ3A不锈钢转子泵技术参数 LQ3A stainless steel rotor pump Technical Parameters

| 产品型号 Product Model | 每100r排量 Discharge Capacity per 100r L | 建议调整速范围 Suggested Range of Speed Adjustment rpm | 对应流量 Concurrent Flow Rate L/H | 电机功率 Motor Power kW | 备注 Remark |
|-----------------------|---|---|-------------------------------------|---------------------------|--------------|
| LQ3A-3 | 3 | 200~500 | 300~800 | 0.55 | |
| LQ3A-6 | 6 | 200~500 | 650~1600 | 0.75 | |
| LQ3A-8 | 8 | 200~500 | 850~2160 | 1.5 | |
| LQ3A-12 | 12 | 200~500 | 1300~3200 | 2.2 | |
| LQ3A-20 | 20 | 200~500 | 2100~5400 | 3 | |
| LQ3A-30 | 30 | 200~400 | 3200~6400 | 4 | |
| LQ3A-36 | 36 | 200~400 | 3800~7600 | 5.5 | |
| LQ3A-52 | 52 | 200~400 | 5600~11000 | 5.5 | |
| LQ3A-66 | 66 | 200~400 | 7100~14000 | 7.5 | |
| LQ3A-78 | 78 | 200~400 | 9000~18000 | 7.5 | |
| LQ3A-100 | 100 | 200~400 | 11000~22000 | 11 | |
| LQ3A-135 | 135 | 200~400 | 15000~30000 | 15 | |
| LQ3A-160 | 160 | 200~400 | 17000~34000 | 18.5 | |
| LQ3A-200 | 200 | 200~400 | 21600~43000 | 22 | |

注：表中流量范围是指介质为“水”时测定的数据。
调速采用无级变速机或变频器变速，其调速范围200~900rpm。
输送高粘度浓液时，电机功率须加大。
对流动性较差的介质，建议在入口处用流量相匹配的泵输送。
本表数据如有更改，恕不另行通知，正确参数以提供的实物为准。

Note: The range of flow rate in the table is the measurement data of water.
Speed adjusted by infinite variable speed mechanism or frequency converter, range of adjustment 200~900rpm.
To deliver concentrated liquid of high viscosity, the power of motor shall be increased.
To deliver medium of low fluidity, it is suggested to use a pump of matched flow rate at the inlet.
Any amendments of the data in this table are subject to no prior notice. The proper parameters are based upon real object supplied.

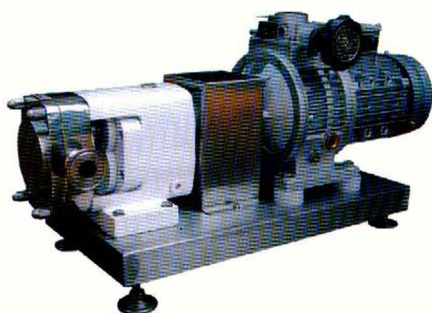


主要参数和外形尺寸 Main Parameters and Overall Dimensions

| 产品型号 Product Model | 电机功率 Motor Power kW | 接口尺寸 Connection Dimensions | L | H | H ₁ | W | W ₁ | 接口形式 Type of Connection |
|-----------------------|---------------------------|----------------------------------|------|-----|----------------|-----|----------------|--|
| LQ3A-3 | 0.55 | φ 25 × 1.5 | 710 | 290 | 150 | 150 | 300 | 卡箍 Forked 螺纹 Screwed 法兰 Flanged |
| LQ3A-6 | 0.75 | φ 25 × 1.5 | 850 | 425 | 170 | 180 | 330 | |
| LQ3A-8 | 1.5 | φ 32 × 1.5 | 850 | 425 | 170 | 180 | 330 | |
| LQ3A-12 | 2.2 | φ 38 × 1.5 | 980 | 490 | 187 | 220 | 390 | |
| LQ3A-20 | 3 | φ 50.8 × 1.5 | 1000 | 490 | 187 | 220 | 390 | |
| LQ3A-30 | 4 | φ 42 × 1.5 | 1100 | 490 | 238 | 270 | 390 | |
| LQ3A-36 | 5.5 | φ 50.8 × 1.5 | 1250 | 610 | 238 | 270 | 480 | |
| LQ3A-52 | 5.5 | φ 63.5 × 1.5 | 1300 | 610 | 238 | 270 | 480 | |
| LQ3A-66 | 7.5 | φ 76 × 2 | 1320 | 620 | 248 | 270 | 480 | |
| LQ3A-78 | 7.5 | φ 63.5 × 2 | 1180 | 480 | 292 | 330 | 480 | |
| LQ3A-100 | 11 | φ 76 × 2 | 1200 | 480 | 292 | 330 | 480 | |
| LQ3A-135 | 15 | φ 102 × 2 | 2220 | 480 | 292 | 330 | 480 | |
| LQ3A-160 | 18.5 | φ 102 × 3 | 1500 | 495 | 320 | 420 | 560 | |
| LQ3A-200 | 22 | φ 125 × 3 | 1600 | 495 | 320 | 420 | 560 | |



Whole pump reference 整机参考图



Drive selection 传动的选择

- 电机+定整比减速器：这种传动的方式简单，转子的转速恒定，也就是决定了流量的不可调性。
- 电机+机械磨擦式无级变速器：这种变速器的变速靠手动调节来实现，其特点是安全可靠，扭矩大，流量无级可调。缺点是非自动调节，较麻烦，调速在运转过程中进行，不得在停机状态下调速，其使用维护参照制造商的使用说明书。
- 变频电机+变频器：这种方式可实现转速的自动调节，亦即实现了流量的无级调整。其优点是自动化程度高，低速扭矩较大。缺点是变频器的价格较高。其使用维护参照制造商的使用说明书。
- **Motor & fixed rate speed reducer:** this drive is simple and easy, the turning speed of the rotors are fixed and the flow can not be adjusted.
- **Motor & mechanical friction stepless transmission:** the speed changing are realized manually in this type with the characteristics of safe, reliable, big torque, the flow can be adjusted steplessly.
- **Frequency conversion motor and frequency converter:** automatic adjustment of speed is available for flow stepless adjustment. Its advantages include highly automatic, big torque ad low speed. The shortcoming is high price for frequency converter. Consumer's manual should be referred to for operating and maintain.

