



特种泵、设备专业制造商

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# 产品手册

## Product manual



中国·加拿大 中外合资企业

宁波领智机械科技有限公司

NINGBO LEADIN MACHINE TECHNOLOGY CO.,LTD

## 公司简介 Company profile

宁波领智机械科技有限公司，位于浙江省宁波市国家高新区，由一批具有数十年流体机械研发经验的海外教授和海归博士创建。公司集设计研发、生产制造、多向销售与技术服务为一体，致力于流程工业高浓工艺的推广和高浓浆输送与处理设备的研发。产品均为国内独创，并申请了国内发明及实用新型专利，处于国际领先水平。公司凭着与客户建立长期合作及互惠互利原则，开发了世界首创的可输送含大颗粒硬材料及纤维高浓浆料的星蜗转子泵、摆线尖齿泵、碾磨浓浆泵及高浓浆料碾磨、均匀化破碎、造粒处理的旋齿胶体磨。

Ningbo Leadin machinery technology co., ltd., headquartered in Ningbo national hi-tech zone in Zhejiang province, is founded by a group of overseas professors and PhD. who have decades of experience in research and development of fluid machinery. The company integrates design, research and development, manufacturing, multi-directional sales and technical services, and is dedicated to the promotion of high-consistency process in the process industry and the research and development of high-consistency slurry conveying and processing equipment. The products are all original creations in China and have applied for invention and utility model patents. Products are at the leading level in the world. Based on the principle of establishing long-term cooperation and mutual benefit with customers, the company has developed the world's first star worm rotor pump, cycloid sharp tooth pump, grinding thick paste pump and high thick paste grinding, homogenizing and crushing, granulating and processing spiral tooth colloid mill, which can transport high thick paste containing large granular hard materials and fibers.

公司引进了最先进的检测装置，自主研发了适用本公司产品的装配流水线，并配套拥有高精度的零件检测设备，如：三坐标测量机等，确保产品的质量。

The company's production department has introduced the most advanced testing equipment, independently developed the assembly line suitable for the company's products, and equipped with high-precision parts testing equipment, such as a three-coordinate measuring machine, to ensure the quality of the products.

产品广泛应用于新材料、锂电新能源、煤化工、石油化工、食品制药、环保等领域，为流程工业提高处理浓度，推广高浓工艺，实现节能减排提供关键设备。同时公司有能力为各行业在高温、高粘度、高浓度多相流输送中的技术难题提供解决方案与成套设备。公司着力于为客户量身定制不同工况、不同选材、不同介质的物料输送、破碎（包括按客户需求的颗粒大小破碎）、碾磨、分离方案与设备，以客户的需求为突破点，开发生产，创收市场。

The products are widely used in new materials, lithium electricity, new energy, coal chemical industry, petrochemical industry, food and pharmacy, environmental protection and other fields, providing key equipment for process industry to increase treatment concentration, promote high

concentration process, and realize energy conservation and emission reduction. At the same time, the company has the ability to provide solutions and complete sets of equipment for the technical problems of various industries in high temperature, high viscosity and high concentration multi-phase flow transportation. The company devotes itself to tailor-made materials delivery, crushing ( including particle size crushing according to customer's requirements ), grinding and separation schemes and equipment for customers with different working conditions, different material selection and different medium, and develops production and income-generating markets based on customer's needs as breakthrough points.

**企业理念：**精心造产品、诚心待客户、用心创事业

Enterprise philosophy: carefully make products, treat customers sincerely, and create career diligently

**经营理念：**客户的满意是领智人最高的追求

Business philosophy: customer satisfaction is the highest pursuit of leadinemployee.

**质量理念：**精益求精、出类拔萃，打造高品质产品和高质量服务

Quality concept: keep improving, excel and create high-quality products and high-quality services

**价值观念：**追求价值是我们工作的起点、创造价值是我们人生的动力、实现价值是我们永恒的追求！

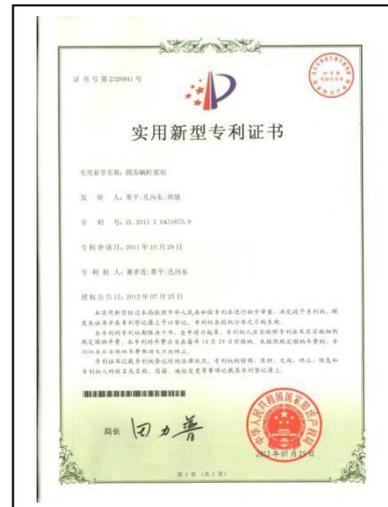
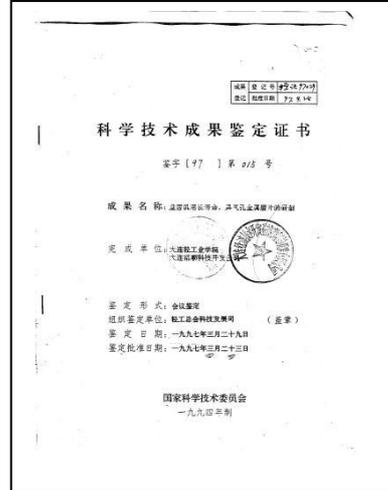
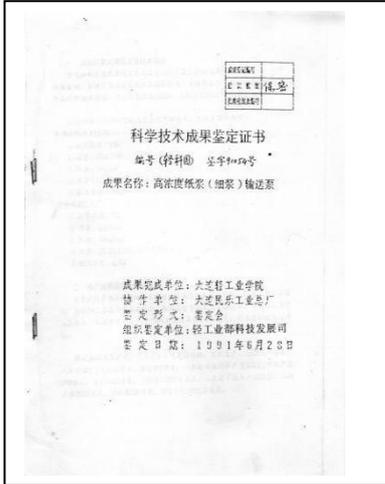
Value concept: pursuing value is the starting point of our work, creating value is the motive force of our life, and realizing value is our eternal pursuit!



## 公司成果 Company Achievements

国家七五科技攻关项目：  
National 75 science and technology  
高浓浆输送泵高浓盘磨  
High consistency pulp pump

国家轻工业部项目：  
National Light Industry Ministry Project:  
High consistency plate mill



## 产品一 凸轮转子泵

### Product 1 .cam rotor pump

#### 凸轮转子泵产品简介

Cam rotor pump introduction

凸轮转子泵是领智机械经过工程师的不断努力，结合国际国内容积泵在流体输送中的实际应用，改进结构的旋转式容积泵，产品的专业制造技术和制造精度达到国际先进水平。

Cam rotor pump is a rotary positive displacement pump with improved structure through the continuous efforts of engineers and the practical application of positive displacement pumps in fluid transportation both at home and abroad. the professional manufacturing technology and precision of the product reach the international advanced level.

该产品运动过程是：电机输出轴带动泵头主动轴转动，在齿轮箱内的主动轴和从动轴配置相互咬合齿轮，从而实现主动轴与从动轴的同步反向旋转，进而转子也是同步反向旋转。转子在泵腔体内旋转产生介质容积的不断变化，从而构成了较高的真空度和排放压力，实现介质的传输工作。

The product movement process is: the motor output shaft to drive the pump head drive shaft rotation, the gear box of driving shaft and driven shaft configuration, interlocking gear, so as to realize the synchronization of reverse rotation of driving shaft and driven shaft, and rotor synchronous reverse rotation. The rotor rotates in the pump cavity to produce constant changes in the volume of the medium, thus forming a high vacuum degree and discharge pressure, realizing the transmission of the medium.

按制造标准分为医药级、耐腐蚀型、污泥型三大系列；按结构分为高压高粘度、高压低粘度两大类；按产品的应用领域分为普通型、食品级、化工级、油田型、特种型五大系列。

According to the manufacturing standard, it is divided into three series: pharmaceutical grade, corrosion resistant type and sludge type. According to the structure, it is divided into high pressure, high viscosity, high pressure and low viscosity. According to the product application field, it is divided into five series: general type, food grade, chemical grade, oil field type and special type.

其泵体主要采用特种不锈钢材料制作，具有较高的耐磨性和耐腐蚀性。此泵广泛应用于卫生级领域，特别适合医药和腐蚀性高粘度介质的输送。医药级泵全部采用 316L 不锈钢材料制造，完全符合美国 FDA，欧洲 EHEDG 和国标 GMP 等标准；腐蚀型泵采用耐腐

不锈钢及高分子复合材料制造，污泥型泵不仅在结构上进行了重大改变，而且采用特殊耐磨材料，提高了泵的耐磨性和泵对污水污泥的输送性能。产品的核心部件和密封装置，根据不同介质的不同特性，采用不同的材质和不同的密封形式制造，以满足各种介质和生产工艺流程需要，提高了该产品的专业输送性能。

The pump body is mainly made of special stainless steel material, which has high wear resistance and corrosion resistance. This pump is widely used in the field of sanitary grade and is especially suitable for the transportation of medicines and corrosive high viscosity media. All medical grade pumps are made of 316 l stainless steel and fully conform to FDA, EHEDG in Europe, GMP and other standards. The corrosion type pump is made of corrosion-resistant stainless steel and polymer composite materials. the sludge type pump not only has undergone major structural changes, but also uses special wear-resistant materials to improve the wear resistance of the pump and the delivery performance of the pump to sewage sludge. The core components and sealing devices of the product are made of different materials and sealing forms according to different characteristics of different media, so as to meet the needs of various media and production process flow and improve the professional conveying performance of the product.

领智机械的转子有 10 种，每种转子可在同一泵上互换使用,可根据不同介质的特性采用不同的形状，增加了泵对实际物料输送的针对性。

There are 10 kinds of rotors of Leadin machinery, each of which can be used interchangeably on the same pump. Different shapes can be adopted according to the characteristics of different media, which increases the pertinence of the pump to the actual material transportation.

## 凸轮转子泵 – 应用领域

### Cam rotor pump – application field

**日用化工** AES、LAS、AOS、K12、甘油、山梨醇、脂肪醇、硫酸脂、洁面膏、洗面奶、洗发精、洗洁精、洗手液、沐浴露、化妆品、护肤霜、牙膏、肥皂、洗衣粉料浆等。

Daily chemical AES, LAS, AOS, K12, glycerin, sorbitol, fatty alcohol, acid, fat, cleansing cream, facial cleanser, shampoo, detergent, liquid soap, shower gel, cosmetics, creams, toothpaste, soap, washing powder slurry, etc.

**精细化工** 染料、颜料、各种中间体，各种浆料、化工助剂、印染助剂、皮革助剂、

硅油、粘胶剂、皮鞋油、悬浮液、白乳胶、各种胶体料等。

Fine chemical dyes, pigments, intermediates of all kinds, all kinds of pulp, chemical additives, printing and dyeing auxiliaries, leather auxiliaries, silicone oil, oil glue, leather shoes, suspension, white latex, all kinds of colloid material, etc.

**石油化工** 稠油、重油、原油、油泥、沥青、油脂、润滑油、各种催化剂、多元醇、乙炔酸脂、各种高粘度物料及含固量较高的料浆等。

Heavy oil, heavy oil, crude oil, sludge, asphalt, grease, lubricating oil, various catalysts, polyols, ethylidene, all kinds of high viscosity materials and slurry with high solid content.

**食品** 巧克力、炼乳、酸奶、蜂蜜、果酱、冰淇淋、食用油、牛奶、糖浆、肉浆、果冻、调味品、酒精、芝麻酱、花生酱、大豆蛋白等。

Food products chocolate, condensed milk, yogurt, honey, jam, ice cream, edible oil, milk, syrup, meat pulp, jelly, condiments, alcohol, sesame paste, peanut butter, soy protein, etc.

**涂料** 各种油漆、涂料、油墨、绝缘漆、树脂、助剂、有机溶剂等。医药 各种药膏、浸膏、药乳液、药丸糊、糖浆、保健品、药剂等。环保污水、污泥、悬浮液、粪肥、肥料溶液等。

Paints, coatings, inks, insulating paints, resins, additives, organic solvents, etc. Medicine various kinds of ointment, extract, lotion, pill paste, syrup, health care products, medicine. Environmental protection sewage, sludge, suspension, manure, fertilizer solutions, etc.

**造纸** 纸浆、胶粘剂、助剂等。

Paper pulp, adhesive, additives, etc.

## 凸轮转子泵 – 产品优点

Cam rotor pump – product advantages

1、转子与转子之间保持一定的间隙、无摩擦系数，使用寿命长。

There is a certain gap between rotor and rotor, no friction coefficient and long service life.

2、高效节能，输送平稳，故障率低，密封可靠，噪音低。

High efficiency, energy saving, smooth transportation, low failure rate, reliable seal, low noise

3、装拆简单，维护、清洗方便，易损件少。

Simple installation and disassembly, convenient maintenance and cleaning, less vulnerable parts.

4、能够保持连续性运转的可靠性和无泄露时间。

Can maintain continuous operation reliability and no leakage time.

5、采用特殊材料后，可输送污泥、污水等含有固体颗粒的介质。

Special materials can be used to transport sludge, sewage and other media containing solid particles.

6、可输送介质粘度为 $\leq 100$ 万 cp，以及含有固体量为 60%的浆料。

The viscosity of the transportable medium is less than or equal to 1 million CPS, and the slurry contains 60% of the solid amount.

7、可输送汽、液、固三相流混合物料。

It can transport mixed materials of steam, liquid and solid three-phase flow.

8、本泵采用特殊不锈钢，可以输送腐蚀性较强的流体。

This pump USES special stainless steel, can transport corrosive fluid.

9、配置变频器后，可以随意调节流量，并可作一般计量泵使用

With a frequency converter, the flow can be adjusted at will and can be used as a general metering pump.

10、可根据用户需要，在泵外壳增加保温装置和卫生级安全阀

According to the needs of the user, the heat insulation device and hygienic safety valve can be added to the pump housing.

11、具有较强的自吸力。

It has strong self-absorption.

12、输送介质成份不会变。

The composition of the transport medium will not change.

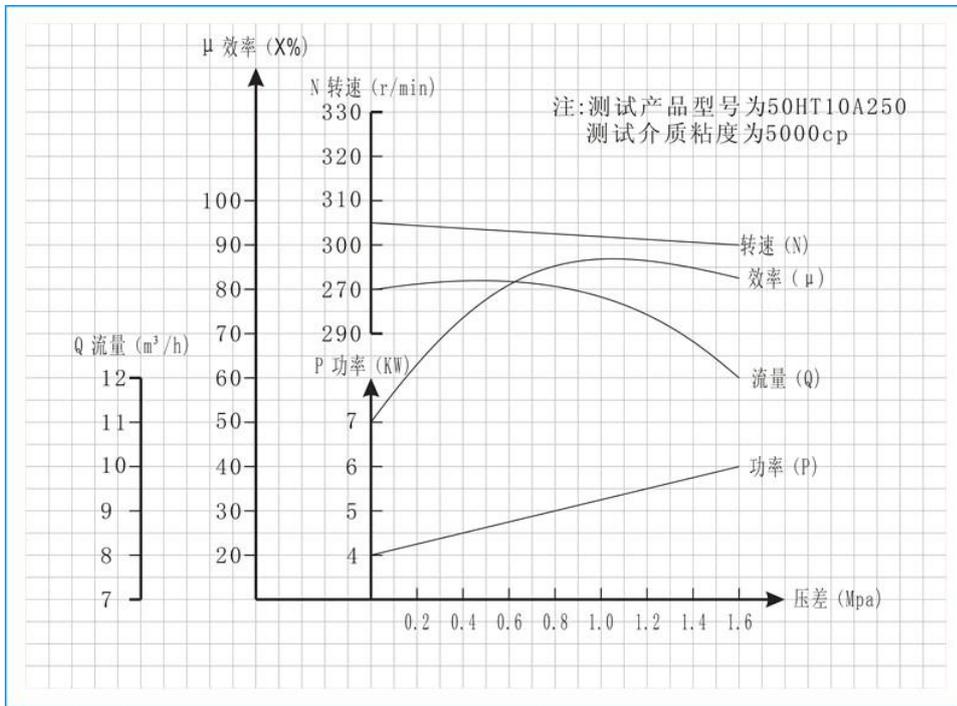
13、根据用户连接要求，可选配法兰式、螺口式、快速接口式移动式

According to the requirements of user connection, flange type, screw type and

quick interface type can be selected.

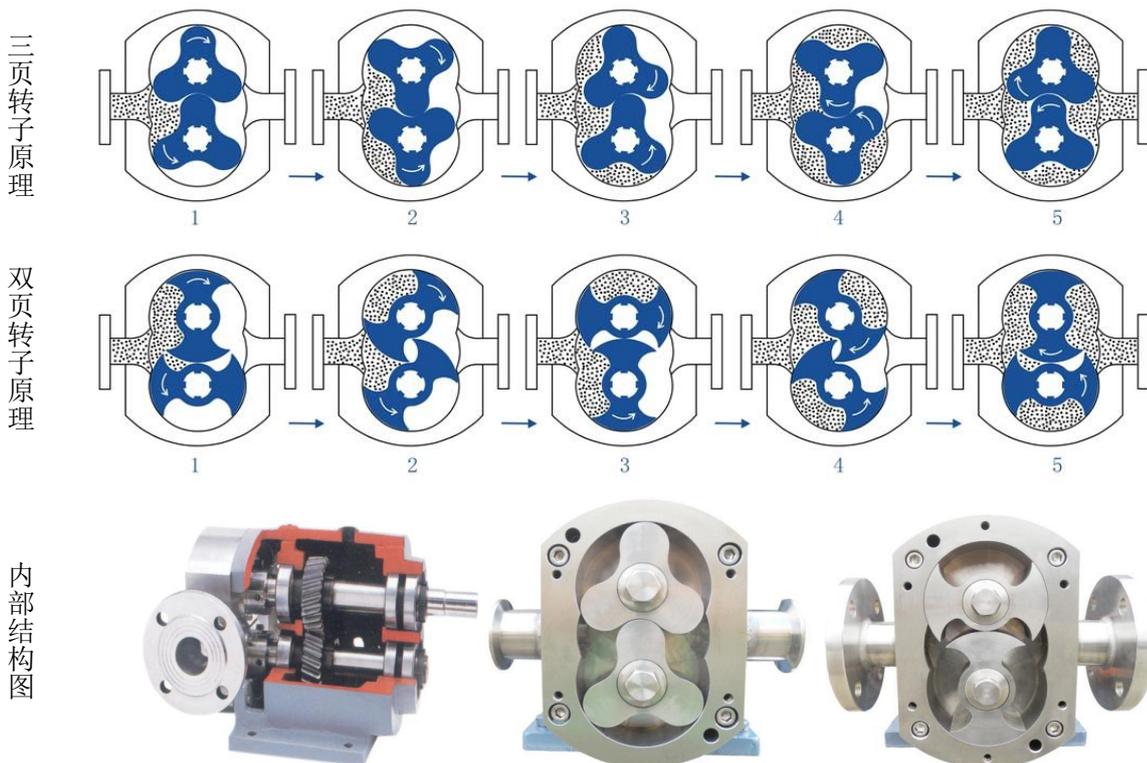
### 凸轮转子泵 -- 性能曲线图

Cam rotor pump – performance curve



### 凸轮转子泵 -- 原理图及内部结构图

Cam rotor pump - schematic diagram and internal structure diagram



## 凸轮转子泵 -- 转子、机封种类图

Cam rotor pump – rotor, machine seal type diagram



转子部分种类 ( Type of rotor )

机封部分种类 ( Type of machine seal )

## 凸轮转子泵 -- 技术参数

Cam rotor pump – technical parameters

| 型号<br>( Type ) | 升/转<br>(L/r) | 转速<br>(R/min) | 流量<br>flow<br>(m3/h) | 压力<br>pressure<br>(Mpa) | 功率<br>power<br>( Kw ) | 吸入 inlet<br>pressure<br>( Mpa ) | 粘度范围<br>viscosity<br>( CP ) | 进出口<br>径 DN<br>( mm ) |
|----------------|--------------|---------------|----------------------|-------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|
| LTZ6-05-15     | 0.06         | 20~600        | 0.5                  | 0.1~0.6                 | 0.12~0.75             | -0.02~-0.08                     | 1~1000000                   | Φ 15                  |
| LTZ6-1-25      | 0.15         | 20~600        | 1                    | 0.1~0.6                 | 0.25~1.1              | -0.02~-0.08                     | 1~1000000                   | Φ 25                  |
| LTZ6-2-25      | 0.15         | 20~600        | 2                    | 0.1~0.6                 | 0.25~1.5              | -0.02~-0.08                     | 1~1000000                   | Φ 25                  |
| LTZ6-5-40      | 0.32         | 20~550        | 5                    | 0.1~0.6                 | 0.37~2.2              | -0.02~-0.08                     | 1~1000000                   | Φ 40                  |
| LTZ6-10-50     | 0.65         | 20~550        | 10                   | 0.1~0.6                 | 2.2~4                 | -0.02~-0.08                     | 1~1000000                   | Φ 50                  |
| LTZ6-15-65     | 1.1          | 20~550        | 15                   | 0.1~0.6                 | 3~5.5                 | -0.02~-0.08                     | 1~1000000                   | Φ 65                  |
| LTZ6-20-65     | 1.74         | 20~550        | 20                   | 0.1~0.6                 | 4~7.5                 | -0.02~-0.08                     | 1~1000000                   | Φ 65                  |
| LTZ6-30-80     | 2.5          | 20~550        | 30                   | 0.1~0.6                 | 5.5~11                | -0.02~-0.08                     | 1~1000000                   | Φ 80                  |
| LTZ6-40-100    | 3.65         | 20~550        | 40                   | 0.1~0.6                 | 7.5~15                | -0.02~-0.08                     | 1~1000000                   | Φ 100                 |
| LTZ6-50-125    | 4.6          | 20~550        | 50                   | 0.1~0.6                 | 7.5~18.5              | -0.02~-0.08                     | 1~1000000                   | Φ 125                 |
| LTZ6-60-125    | 5.19         | 20~550        | 60                   | 0.1~0.6                 | 11~22                 | -0.02~-0.08                     | 1~1000000                   | Φ 125                 |
| LTZ6-80-125    | 7.0          | 20~550        | 80                   | 0.1~0.6                 | 11~30                 | -0.02~-0.08                     | 1~1000000                   | Φ 125                 |
| LTZ6-120-150   | 11.4         | 20~420        | 120                  | 0.1~0.6                 | 15~75                 | -0.02~-0.08                     | 1~1000000                   | Φ 150                 |
| LTZ6-150-150   | 12.5         | 20~420        | 150                  | 0.1~0.6                 | 18.5~75               | -0.02~-0.08                     | 1~1000000                   | Φ 150                 |
| LTZ6-200-200   | 16.7         | 20~420        | 200                  | 0.1~0.6                 | 22~90                 | -0.02~-0.08                     | 1~1000000                   | Φ 200                 |
| LTZ6-250-200   | 23.2         | 20~420        | 250                  | 0.1~0.6                 | 22~110                | -0.02~-0.08                     | 1~1000000                   | Φ 200                 |
| LTZ6-300-250   | 27.8         | 20~420        | 300                  | 0.1~0.6                 | 30~132                | -0.02~-0.08                     | 1~1000000                   | Φ 250                 |

| 型号<br>( Type )    | 升/转<br>(L/r) | 转速<br>(R/min) | 流量<br>flow<br>(m3/h) | 压力<br>pressure<br>( Mpa ) | 功率<br>power<br>( Kw ) | 吸入 inlet<br>pressure<br>( Mpa ) | 粘度范围<br>viscosity<br>( CP ) | 进出口<br>口径<br>DN<br>( mm ) |
|-------------------|--------------|---------------|----------------------|---------------------------|-----------------------|---------------------------------|-----------------------------|---------------------------|
| LTZ12-10-50       | 0.65         | 50~600        | 10                   | 0.7~1.2                   | 4~7.5                 | -0.12~--<br>0.08                | 1~1000000                   | Φ 50                      |
| LTZ12-15-65       | 1.1          | 50~600        | 15                   | 0.7~1.2                   | 5.5~11                | -0.12~--<br>0.08                | 1~1000000                   | Φ 65                      |
| LTZ12-20-65       | 1.74         | 50~600        | 20                   | 0.7~1.2                   | 7.5~15                | -0.12~--<br>0.08                | 1~1000000                   | Φ 65                      |
| LTZ12-30-80       | 2.5          | 50~600        | 30                   | 0.7~1.2                   | 11~22                 | -0.12~--<br>0.08                | 1~1000000                   | Φ 80                      |
| LTZ12-40-100      | 3.65         | 50~600        | 40                   | 0.7~1.2                   | 15~30                 | -0.12~--<br>0.08                | 1~1000000                   | Φ 100                     |
| LTZ12-50-125      | 5.9          | 50~600        | 60                   | 0.7~1.2                   | 22~45                 | -0.12~--<br>0.08                | 1~1000000                   | Φ 125                     |
| LTZ12-60-125      | 7.0          | 50~600        | 80                   | 0.7~1.2                   | 30~55                 | -0.12~--<br>0.08                | 1~1000000                   | Φ 125                     |
| LTZ12-80-125      | 11.4         | 50~600        | 120                  | 0.7~1.2                   | 45~90                 | -0.12~--<br>0.08                | 1~1000000                   | Φ 150                     |
| LTZ12-120-<br>150 | 12.5         | 50~600        | 150                  | 0.7~1.2                   | 75~160                | -0.12~--<br>0.08                | 1~1000000                   | Φ 150                     |
| LTZ12-150-<br>150 | 16.7         | 50~600        | 200                  | 0.7~1.2                   | 90~185                | -0.12~--<br>0.08                | 1~1000000                   | Φ 200                     |
| LTZ12-200-<br>200 | 23.2         | 50~600        | 250                  | 0.7~1.2                   | 110~220               | -0.12~--<br>0.08                | 1~1000000                   | Φ 200                     |
| LTZ12-250-<br>200 | 27.8         | 50~600        | 300                  | 0.7~1.2                   | 132~150               | -0.12~--<br>0.08                | 1~1000000                   | Φ 250                     |

( 以上两张表格泵压力和电机功率参数不同 )

The above two forms are different in pump pressure and motor power parameters.

## 整机参考图

Machine reference



普通型  
ordinary



化工防爆型

Chemical explosion-proof type



变频器调速  
Frequency converter



快速接口型  
Quick access type



手推式  
Hand push



法兰 SEW 减速电机型  
Flange SEW reducer

## 产品二 碾磨浓浆泵（专利产品）

### Product 2. Grinding thick slurry pump (patented product)

碾磨浓浆泵是由宁波领智机械科技有限公司集数十年特种工业泵开发经验研制的，针对含固体大颗粒高温强腐蚀化工介质输送开发的最新产品，采用独创的技术结构和先进的制造工艺，产品处于世界领先水平。

Grinding thick slurry pump is developed by Ningbo LeadinMachineryTechnology co., LTD, several ten years development experience in the development of special industrial pump, employed in high-temperature corrosive chemical media containing solid large particles flow of new product development, the original technology structure and advanced manufacturing technology, the product is a world leading level.

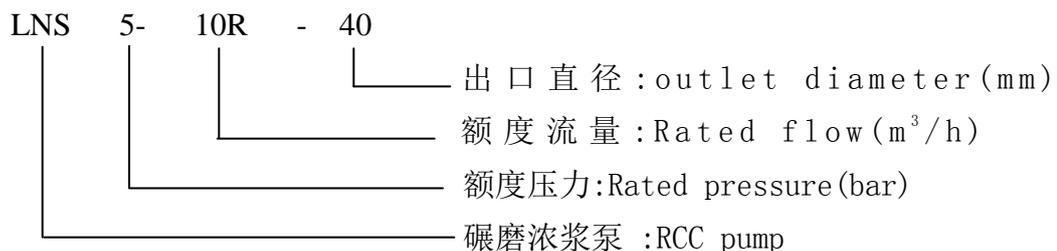
针对浆料输送的特点，公司团队进行了大量研究与实践。首先，针对固体颗粒大小不等，且颗粒较硬的特点，开发了特殊开式叶轮，特殊泵体流道，并带有碾磨破碎功能的碾磨浓浆泵。并且对各个参数进行了大量优化设计与试验，确定了叶轮、泵腔和碾磨片的技术参数，保证了良好的输送效果。

In view of the characteristics of slurry transportation, the company team has conducted a lot of research and practice. First of all, a special open impeller, a special pump body flow channel and a RCC pump with the function of grinding and crushing were developed for the characteristics of different sizes of solid particles and hard particles. In addition, a large number of optimization designs and tests have been carried out for each parameter, and the technical parameters of the impeller, pump cavity and grinding disc have been determined to ensure a good conveying effect.

该产品广泛应用于矿山、石油化工、精细化工、日用化工、制药、食品、环保、造纸、涂料、冶金等行业。

This product is widely used in mining, petrochemical, fine chemical, daily chemical, pharmaceutical, food, environmental protection, papermaking, coating, metallurgy and other industries.

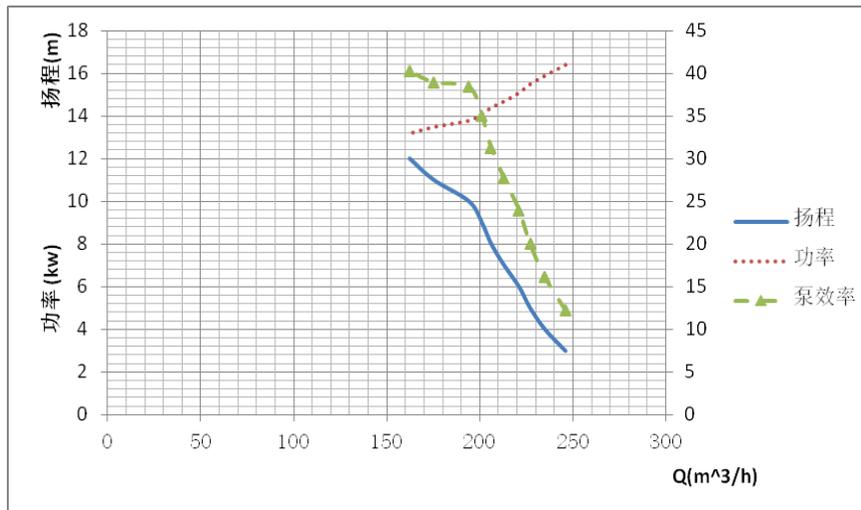
#### 型号意义：Model significance



**性能特点:** Performance characteristics

- 1、流量: rated flow 5~200t/h
- 2、扬程: head 40m
- 3、输送浆料含固量: The transport slurry contains solid content 50%
- 4、适用温度: Suitable temperature 0°C ~ 180°C
- 5、可选配带水冷却传动箱 Optional with water-cooled drive box
- 6、根据用户连接要求, 可选配法兰式、螺口式、快速接口式。  
According to the user's connection requirements, flange type, screw type and quick interface type can be selected.

**性能曲线:** Performance curve



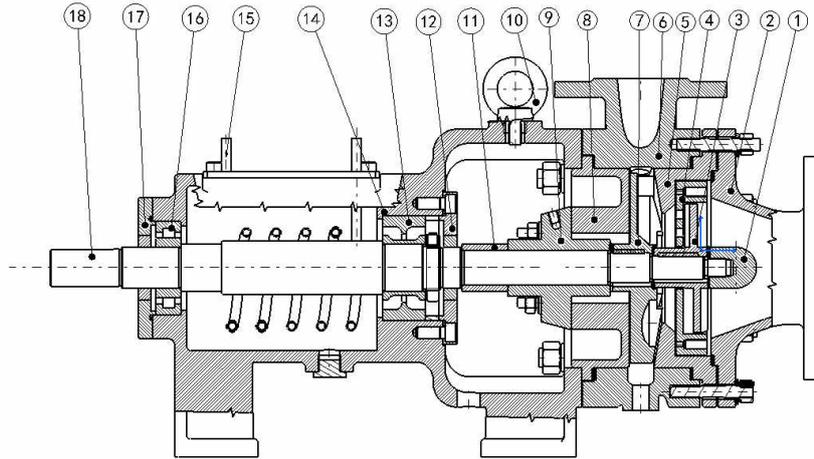
**性能参数表:** Performance parameter list

| 型号<br>type   | 流量<br>m³/h | 工作压力        |               | 转速<br>r/min | 功率<br>KW | 浆料最大含固量 % | 固体最大颗粒<br>mm | 进出口径<br>mm |
|--------------|------------|-------------|---------------|-------------|----------|-----------|--------------|------------|
|              |            | 额定压力<br>MPa | 可选压力范围<br>MPa |             |          |           |              |            |
| LNS5-5-25    | 5          | 0.5         | 0.2~0.6       | 2900        | 1.5      | 50        | 10           | 25         |
| LNS5-10-30   | 10         | 0.5         | 0.2~0.6       | 2900        | 3        | 50        | 10           | 30         |
| LNS5-15-30   | 15         | 0.5         | 0.2~0.6       | 2900        | 7.5      | 50        | 10           | 30         |
| LNS5-20-40   | 20         | 0.5         | 0.2~0.6       | 2900        | 11       | 50        | 10           | 40         |
| LNS5-30-50   | 30         | 0.5         | 0.2~0.6       | 2900        | 15       | 50        | 20           | 50         |
| LNS5-40-50   | 40         | 0.5         | 0.2~0.6       | 2900        | 22       | 50        | 20           | 50         |
| LNS5-50-65   | 50         | 0.5         | 0.2~0.6       | 2900        | 30       | 50        | 20           | 65         |
| LNS5-60-80   | 60         | 0.5         | 0.2~0.6       | 2900        | 45       | 50        | 20           | 80         |
| LNS5-80-80   | 80         | 0.5         | 0.2~0.6       | 2900        | 45       | 50        | 30           | 80         |
| LNS5-100-100 | 100        | 0.5         | 0.2~0.6       | 1450        | 55       | 50        | 30           | 100        |
| LNS5-120-100 | 120        | 0.5         | 0.2~0.6       | 1450        | 55       | 50        | 30           | 100        |
| LNS5-150-120 | 150        | 0.5         | 0.2~0.6       | 1450        | 75       | 50        | 30           | 125        |
| LNS5-200-150 | 200        | 0.5         | 0.2~0.6       | 1450        | 75       | 50        | 30           | 150        |

(流量、扬程和进出口直径可按用户要求定制, 电机功率为 50%含固量时的参考值:

The flow, head and inlet and outlet diameters can be customized according to the user's requirements. The motor power is the reference value when the solid amount is 50% )

结构图：chart



|         |        |         |         |         |        |
|---------|--------|---------|---------|---------|--------|
| 1、磨片螺母  | 2、出料口  | 3、磨片    | 4、筛网    | 5、前泵盖   | 6、泵体   |
| 7、叶轮    | 8、泵后盖  | 9、机械密封  | 10、吊环   | 11、密封隔套 | 12、前端盖 |
| 13、前端轴承 | 14、传动箱 | 15、冷却水管 | 16、后端轴承 | 17、后端盖  | 18、轴   |

|                     |                     |                       |                    |                    |                    |
|---------------------|---------------------|-----------------------|--------------------|--------------------|--------------------|
| 1、Abrasive disc nut | 2、Outlet            | 3、grinding disc       | 4、Screen mesh      | 5、front pump cover | 6、Pump body        |
| 7、impeller          | 8、back pump cover   | 9、Mechanical seal     | 10、suspension loop | 11、sealing spacer  | 12、front box cover |
| 13、front bearing    | 14、transmission box | 15、cooling water pipe | 16、back bearing    | 17、back box cover  | 18、shaft           |

产品图片：Product pictures





### 应用案例： The application case

客户公司使用：（1）结晶浆料输送，丙酮加 PPS（硬度 HB90），含 30%固相，颗粒最大 5mm，温度 180℃，已连续运行两年。Client companies use: (1) crystal slurry transportation, acetone and PPS (hardness HB90), containing 30% solid phase, particle maximum 5 mm, temperature 180 °C, has been running for two years.

（2）结晶浆料输送，丙酮加 PPS（硬度 HB90），含 50%固相，颗粒最大 15mm，温度 180℃，已连续运行两年。the crystal slurry transportation, acetone and PPS (hardness HB90), containing 50% solid phase, particle maximum of 15 mm, temperature 180 °C, has been running for two years.

### 产品三 摆线尖齿泵（专利产品）

#### Product 3. Cycloidal Sharp tooth pump(patented product)

摆线尖齿泵是本公司独创并拥有专利的多用途双向容积泵，采用专利技术的转子结构、特种表面处理技术和先进的制造技术，产品处于世界领先水平。

Cycloidal Sharp tooth pump is unique and patented multi-purpose two-way displacement pump invented by our company with the patent technology of rotor structure, special surface treatment technology and advanced manufacturing technology. The product is a world leading level.

该产品采用两个同步运转的转子，转子由齿轮箱内一对同步齿轮进行传动，转子在主、副轴的带动下，进行同步反方向旋转，使泵的容积产生变化，从而构成了较高的真空度和排放压力。

It adopts two synchronous motion of the rotor, the rotor by a pair of synchronous gears in the gear transmission, in the main and auxiliary shaft drive, the rotor synchronous rotating in the opposite direction, pump volume changes, thus constitutes the higher vacuum degree and discharge pressure.

转子为我公司专利技术的特殊摆线尖齿转子，该齿型克服了现有凸轮转子泵，单螺杆泵，双螺杆泵普遍存在的对物料的碾压作用，转子对物料只有刮削推料效果，没有碾压与破损效果。避免了颗粒浆料挤压和卡死对转子和定子的破坏和损伤，减少了转子的磨损失效，整泵没有易损件（如螺杆泵的橡胶定子），工作寿命得到延长。维修方便，可在线更换转子。特别适合卫生级介质和腐蚀性高粘度介质，尤其是含大颗粒和纤维固体多相介质的输送。

The rotor is a special cycloidal sharp tooth rotor with patented technology of our company. this tooth type overcomes the rolling effect of the existing cam rotor pump, single screw pump and double screw pump on materials. The rotor has only scraping and pushing effects on materials, and has no rolling and breakage effects. The damage to the rotor and the stator caused by the extrusion and blocking of the particle slurry are avoided, the abrasion and failure of the rotor are reduced, the whole pump does not have wearing parts ( such as the rubber stator of the screw pump ), and the service life is prolonged. Maintenance is convenient and the rotor can be replaced online. It is especially suitable for transportation of sanitary grade media and corrosive high viscosity media, especially multiphase media containing large particles and fiber solids.

拥有本公司专利的泵体结构具有泄压槽，实现了密封的低压运行，保证了密封在高压、高粘度工况下的长寿命工作。

The pump body structure patented by the company has pressure relief grooves, which realizes the low pressure operation of the seal and ensures the long service life of the seal under the working conditions of high pressure and high viscosity.

针对物料含高硬度固体颗粒介质的输送，开发了组合嵌套式耐磨衬套泵腔结构，不仅提高了泵腔的耐磨性，而且便于更换与维修调整

Aiming at the transportation of materials containing solid particles with high hardness, a combined nested wear-resistant bushing pump cavity structure is developed, which not only improves the wear resistance of the pump cavity, but also facilitates replacement, maintenance and adjustment.

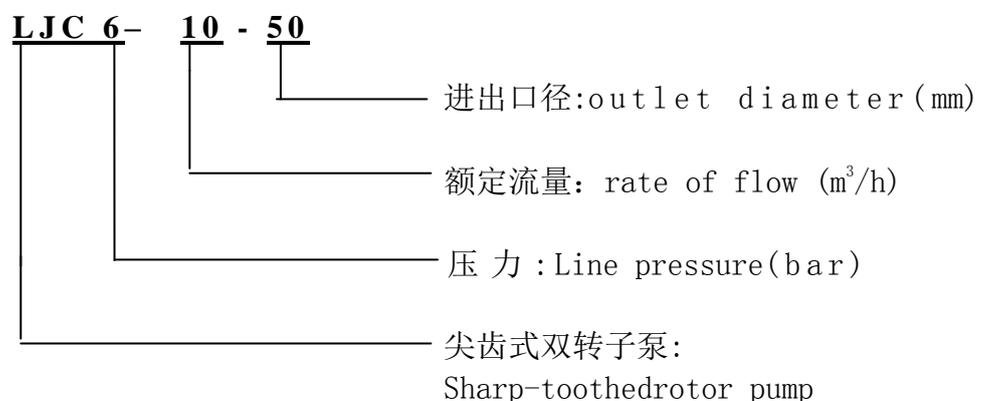
转子材料采用不锈钢材料，并根据不同的输送介质，进行低温氮化、陶瓷涂层和高分子耐磨材料涂层处理。

The rotor material is made of stainless steel and is treated with low temperature nitridation, ceramic coating and high molecular wear resistant material coating according to different conveying media.

该产品的制造标准分卫生级和耐腐蚀型两大系列；在结构上分高压高粘度含大颗粒固体介质、和高压高粘度含纤维固体两大类制造。产品的核心部件和密封装置根据不同介质的不同特性，采用不同的材质和不同的密封形式制造，提高了该产品的专业输送性能。

The manufacturing standards of this product are divided into two major series: sanitary grade and corrosion resistant type. Structurally, it can be manufactured into two categories: high pressure and high viscosity solid medium containing large particles and high pressure and high viscosity solid containing fibers. The core components and sealing devices of the product are made of different materials and sealing forms according to different characteristics of different media, thus improving the professional conveying performance of the product.

### 型号意义：Model significance



**性能特点:** Scope of performance

- 1、转子与转子之间保持一定间隙，无机械摩擦，使用寿命长。  
There is a certain gap between rotor and rotor, no mechanical friction, long service life.
- 2、装拆简单，维护、清洗方便，易损件少。  
Simple installation and disassembly, convenient maintenance and cleaning, less vulnerable parts.
- 3、高效节能，输送平稳，故障率低，密封可靠，噪音低。  
High efficiency, energy saving, smooth transportation, low failure rate, reliable seal, low noise.
- 4、可输送含有固体颗粒和纤维的介质。  
Transport media containing solid particles and fibers.
- 5、可输送介质粘度 $\leq 500000\text{cp}$ ，以及含固量70%的浆料。  
The viscosity of the transportable medium is less than or equal to  $500000\text{cp}$ , and the slurry containing 70% solids.
- 6、可输送气、液、固三相混合物料。  
It can transport gas, liquid and solid mixed materials.
- 7、配置变频器后，可以随意调节流量，并可作一般计量泵使用。  
With a frequency converter, the flow can be adjusted at will and can be used as a general metering pump.
- 8、可根据用户需要，在泵外壳增加保温装置。  
According to the needs of the user, the heat insulation device can be added to the pump housing.
- 9、适用温度： $-50^{\circ}\text{C} \sim 250^{\circ}\text{C}$ 。  
Applicable temperature:  $-50^{\circ}\text{C} \sim 250^{\circ}\text{C}$ .
- 10、根据用户连接要求，可选配法兰式、螺口式、快速接口式。  
According to the requirements of user connection, flange type, screw type and quick interface type can be selected.

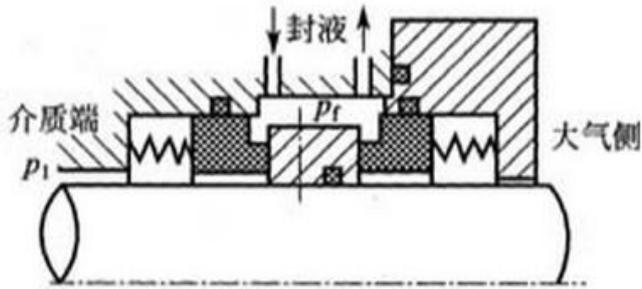
**密封形式: Seal form**

**A、机械密封**

**Mechanical seal**

材料: 硬质合金、陶瓷、氮化硅、  
碳纤维、石墨、碳化硅

Materials: hard alloy, ceramics, silicon nitride,  
Carbon fiber, graphite, silicon carbide

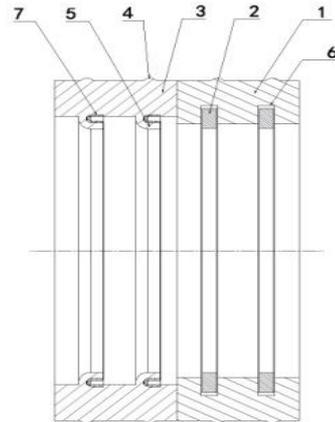


**B、泛塞封与迷宫组合密封**

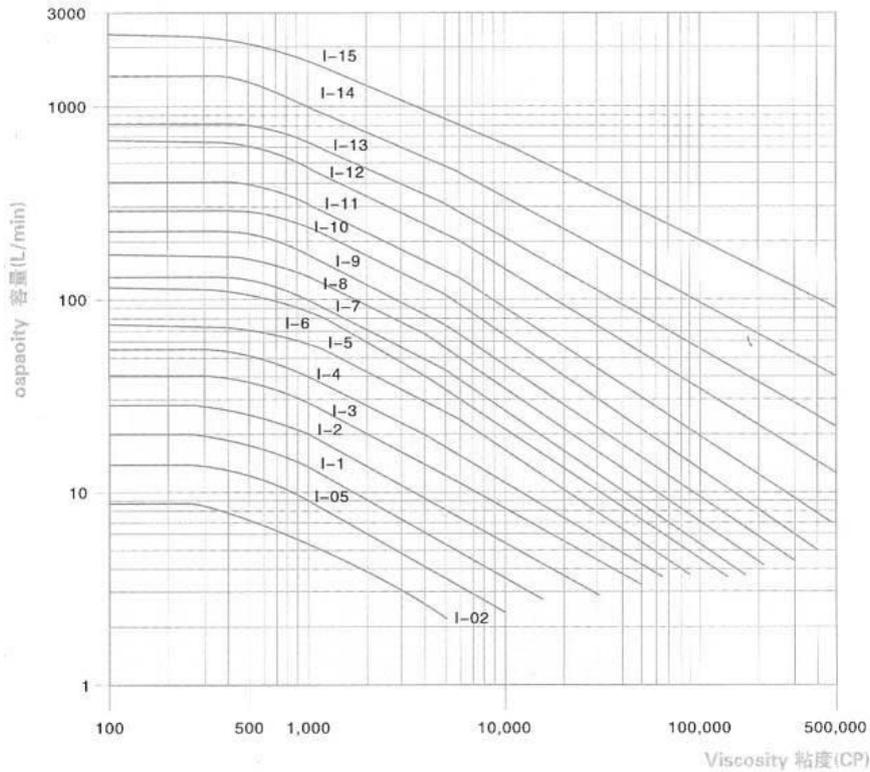
**A combination of plug seal and labyrinth seal**

材料: 聚四氟乙烯纤维、  
含石墨芯碳纤维

Materials: ptfе fiber,  
Carbon fiber with graphite core



**性能曲线: Performance curve**



**性能参数表：Performance parameter list**

| 型号<br>type          | 流量<br>Rated flow<br>m <sup>3</sup> /h | 工作压力<br>Pressure of work      |  | 转速<br>rotate speed<br>r/min | 功率<br>motor power<br>KW | 浆料最大含固量<br>Maximum solid content of slurry % | 固相最大颗粒<br>Solid maximum particle<br>mm | 进出口径<br>Diameter of inlet and outlet |
|---------------------|---------------------------------------|-------------------------------|--|-----------------------------|-------------------------|--|--|--------------------------------------|
|                     |                                       | 额定压力<br>rated pressure<br>MPa | 可选压力范围<br>Optional pressure range<br>MPa |                             |                         |  |  |                                      |
| <b>LJC5-2-25</b>    | 2                                     | 0.5                           | 0.2~1.6                                  | 500                         | 1.5                     | 60   | 10                                     | 25                                   |
| <b>LJC5-5-40</b>    | 5                                     | 0.5                           | 0.2~1.6                                  | 500                         | 3                       | 60   | 10                                     | 40                                   |
| <b>LJC5-10-50</b>   | 10                                    | 0.5                           | 0.2~1.6                                  | 350                         | 7.5                     | 60   | 10                                     | 50                                   |
| <b>LJC5-15-65</b>   | 15                                    | 0.5                           | 0.2~1.6                                  | 500                         | 11                      | 60   | 10                                     | 65                                   |
| <b>LJC5-20-65</b>   | 20                                    | 0.5                           | 0.2~1.6                                  | 500                         | 15                      | 60   | 10                                     | 65                                   |
| <b>LJC5-30-80</b>   | 30                                    | 0.5                           | 0.2~1.6                                  | 350                         | 22                      | 60   | 10                                     | 80                                   |
| <b>LJC5-40-80</b>   | 40                                    | 0.5                           | 0.2~1.6                                  | 500                         | 30                      | 60   | 10                                     | 80                                   |
| <b>LJC5-50-100</b>  | 50                                    | 0.5                           | 0.2~1.6                                  | 350                         | 45                      | 60   | 10                                     | 100                                  |
| <b>LJC5-60-100</b>  | 60                                    | 0.5                           | 0.2~1.6                                  | 350                         | 55                      | 60   | 10                                     | 100                                  |
| <b>LJC5-80-125</b>  | 80                                    | 0.5                           | 0.2~1.6                                  | 350                         | 75                      | 60   | 20                                     | 125                                  |
| <b>LJC5-100-125</b> | 100                                   | 0.5                           | 0.2~1.6                                  | 350                         | 90                      | 60   | 20                                     | 125                                  |
| <b>LJC5-120-150</b> | 120                                   | 0.5                           | 0.2~1.6                                  | 350                         | 110                     | 60   | 20                                     | 150                                  |
| <b>LJC5-150-150</b> | 150                                   | 0.5                           | 0.2~1.6                                  | 300                         | 132                     | 60   | 20                                     | 155                                  |
| <b>LJC5-200-200</b> | 200                                   | 0.5                           | 0.2~1.6                                  | 300                         | 160                     | 60   | 20                                     | 200                                  |

注：（流量、扬程和进出口直径可按用户要求定制，电机功率为 50%含固量时的参考值）

Note : (the flow, head and inlet and outlet diameters can be customized according to the user's requirements, and the reference value when the motor power is 50% of the solid amount)

**产品图片：Product pictures**





性能测试

The performance test

**应用领域:** Application field

**石油化工:** 稠油、重油、原油、油泥、沥青、油脂、润滑油、各种催化剂、多元醇、乙氰酸酯、水煤浆、PPS、各种高粘度物料及含固量较高的料浆等。

Petrochemical: heavy oil, heavy oil, crude oil, sludge, asphalt, oil, lubricating oil, all kinds of catalysts, polyol, b cyanate ester, coal-water slurry, PPS, all kinds of high viscosity and high solid content slurry material, etc.

**环保:** 污水、污泥、药剂、悬浮液、粪肥、肥料溶液等。

Environmental protection: sewage, sludge, pharmaceutical, suspension, manure, fertilizer solution, etc.

**造纸:** 聚丙烯酰胺 (PAM)、碳酸钙、消泡剂、淀粉糊、羧基丁苯、丙苯胶乳、纸浆、松香、松香胶、填料、干强剂、湿强剂、施胶剂、助留助滤剂、涂布、水处理化学品等。

Paper: polyacrylamide (PAM), calcium carbonate, defoaming agent, starch paste, carboxyl butyl benzene, propyl benzene latex, pulp, rosin, rosin size, packing, dry strength agent, wet strength agent, sizing agent, retention and filtration aid, coating, water treatment chemicals, etc.

**日用化工:** AES、LAS、AOS、K12、MES、磺酸、甘油、山梨醇、硫酸脂、洁面膏、洗面奶、洗发精、洗洁精、洗手液、沐浴露、化妆品、护肤霜、牙膏、肥皂、洗衣粉料浆等。

Daily chemical, AES, LAS, AOS, K12, MES, sulfonic acid, glycerin, sorbitol, sulfuric acid, fat, cleansing cream, facial cleanser, shampoo, detergent, hand sanitizer, shampoo, cosmetics, creams, toothpaste, soap, washing powder slurry, etc.

**精细化工：**染料、颜料、各种中间体，各种浆料、化工助剂、印染助剂、皮革助剂、硅胶、硅脂、硅油、粘胶剂、皮鞋油、悬浮液、白乳胶、各种胶体料等。

Fine chemicals, dyes, pigments, intermediates of all kinds, all kinds of pulp, chemical additives, dyeing and printing auxiliaries, leather auxiliaries, silicone, silicone oil, silicone oil, adhesive, leather shoes, suspension, white latex, all kinds of colloid material, etc.

**食品：**巧克力、炼乳、酸奶、蜂蜜、果酱、冰淇淋、浓缩果汁、食用油、牛奶、糖浆、肉浆、果冻、果胶、调味品、蔗糖、酒精、芝麻酱、花生酱、板栗酱、大豆蛋白、番茄汁、酶制剂、玉米浆等。

Foods: chocolate, condensed milk, yogurt, honey, jam, ice cream, concentrated juice, edible oil, meat paste, jelly, milk, syrup, pectin, spices, sugar, alcohol, sesame paste, peanut butter, chestnut sauce, soybean protein, tomato juice, enzymes, corn starch, etc.

**涂料：**各种油漆、涂料、油墨、绝缘漆、树脂、助剂、有机溶剂等。

Paint: paint, paint, ink, insulating paint, resin, additives, organic solvents, etc.

**医药：**各种药膏、浸膏、药乳液、药丸糊、糖浆、保健品、农药中间体、药剂等。

Medicine: all kinds of ointment, extract, lotion, pill paste, syrup, health care products, pesticide intermediates, agents, etc.

**化纤：**粘胶浆粥、PVA、腈纶浆料、维纶浆料、腈纶浆料、聚脂切片、涤纶、丙纶、人造纤维、功能性纤维等。

Chemical fiber: viscose porridge, PVA, amilon paste, polyacrylon paste, polylipid slice, polyester, polypropylene fiber, artificial fiber, functional fiber, etc.

**应用案例：** Application cases:

客户公司使用：结晶浆料输送，丙酮加 PPS，含 40%固相，颗粒最大 10mm，温度 180℃，原应用各种离心泵、转子泵、隔膜泵连续运行均不超过 1 个月，采用本公司尖齿转子泵连续运行两年。

Client companies use: crystal slurry transportation, acetone and PPS, containing 40% solid phase, particle maximum 10 mm, temperature 180 °C, the original application of centrifugal pump, rotor pump, diaphragm pump run no more than a month, also use the company pointed tooth rotor pump runs continuously for two years.

客户公司使用：用于活性炭浆料输送，固相 30%，扬程 60 米，采用本公司尖齿转子泵已连续运行一年。

Client company use: used for transporting activated carbon slurry, solid phase 30 %, lift 60 meters, using our sharp-toothed rotor pump has been running continuously for one year.

客户公司使用：新能源电池钴酸锂原料浆，固相 30%，扬程 50 米，原应用氟塑料泵或陶瓷泵，寿命在 20~40 天。采用本公司尖齿转子泵可保证 6 个月的连续运行。

Used by the client company: new energy battery lithium cobalt cobalt oxide raw material slurry, solid phase 30%, 50 meters head, original application of fluoroplastic pump or ceramic pump, life in 20~40 days. The use of the company's sharp-tooth rotor pump can ensure a continuous operation for 6 months.

## 产品四 星蜗转子泵（专利产品）

### Product 4 . star-worm rotor pump (patented product)

星蜗转子泵利用环面包络蜗杆副，实现了活塞运动的螺杆化，将活塞演化为环面星齿，活塞缸演化为环面蜗杆螺旋槽，星轮和蜗杆各自回转运动，引起容积变化的星轮沿螺旋槽的切向运动。因此星蜗转子泵集成了活塞式流体机械的容积变化特性、回转式流体机械的连续高速特性和无阀的优点，解决了现有容积泵各自的缺点，为高浓度浆料的无阀连续高效输送提供了结构的先进性和技术的可行性。

The star worm rotor pump makes use of the ring bread and worm pair to realize the screwing of the piston movement. the piston evolves into a ring-shaped star tooth, and the piston cylinder evolves into a ring-shaped worm spiral groove. the star wheel and worm rotate respectively, causing the star wheel with variable volume to move along the tangential direction of the spiral groove. Therefore, the star worm rotor pump integrates the volume change characteristics of piston fluid machinery, the continuous high-speed characteristics of rotary fluid machinery and the advantages of valveless, solves the respective shortcomings of the existing replacement pumps, and provides structural advancement and technical feasibility for valveless continuous and efficient delivery of high-concentration slurry.

星蜗转子泵的另一个结构优势是：该泵的轴封均处于低压区，解决了颗粒浆料的压力密封难题。

Another structural advantage of worm rotor pump is that the shaft seal of this pump is in the low pressure zone, which completely solves the pressure seal problem of particle size.

#### **星蜗转子泵的技术特点：** Technical features of star worm rotor pump

1. 可输送含固体颗粒和纤维物体等现有转子泵输送困难的高浓浆料。

It can transport high concentration slurry containing solid particles, fiber objects and other existing rotor pumps with difficulty in conveying.

2. 转子工作寿命长，没有易损件，可长时间免维护运行，且维护维修方便。

The rotor has a long working life and no wear and tear parts. It can operate without maintenance for a long time and is easy to maintain and maintain.

3. 无高压密封，密封容易，密封运转寿命长。

No high pressure seal, easy seal, long seal life.

4. 输送过程不对固体颗粒产生破坏。

The transport process does not destroy solid particles.

**技术参数:** Technical parameters

流量: rate of flow 2~200 t/h

出口压力: Outlet pressure 1~2MPa

物料浓度: medium concentration

固体 60% ( 体积比 ) Solid 60% (volume ratio)

物料粘度: medium viscosity 2,000,000cp

固相颗粒: Solid phase particles

最大直径 10mm Maximum diameter 10mm

**市场应用:** Market application

1. 材料工业的矿浆、结晶介质浓浆输送泵

Material industry pulp, crystalline medium thick pulp transport pump

2. 石油化工行业的稠油泵、渣油泵、渣浆泵、泥浆泵等

Heavy oil pumps, slag pumps, slurry pumps and mud pumps in petrochemical industries

3. 煤化工中的高浓高压煤浆泵、加药泵

High concentration and high pressure coal slurry pump and charge pump in coal chemical industry

4. 环保行业的淤泥输送泵、污水处理泵、餐厨垃圾泵等。

Sludge transport pumps, sewage treatment pumps, food and kitchen waste pumps in the environmental protection industry.

5. 食品制药行业的糖浆泵、渣浆泵、淀粉原料（浸泡玉米、薯类等）与废渣原料与产品输送泵等。

Syrup pump, slurry pump, starch raw material (soaking corn, potato, etc.) and waste residue raw material and product delivery pump in food and pharmaceutical industry.

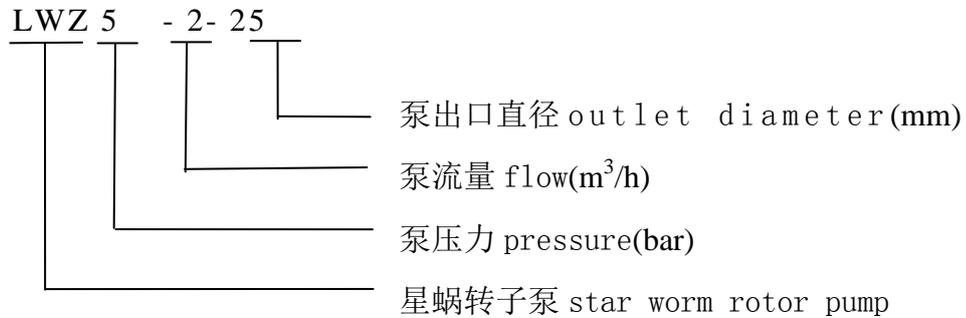
6. 冷冻食品加工、存储、运输中的碎冰输送泵

Ice transport pump for frozen food processing, storage and transportation

7. 各个行业中需要输送含颗粒、含纤维高浓浆料的场合。

It is necessary to transport high concentration pulp containing granule and fiber in various industries.

**型号意义：** Model significance



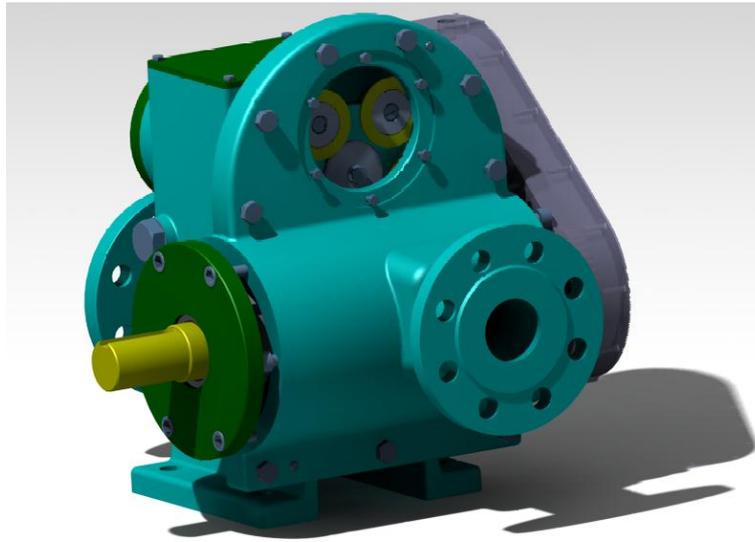
**性能参数表：** Performance parameter list

| 型号<br>type   | 流量<br>m <sup>3</sup> /h | 工作压力        |                   | 转速<br>r/min | 功率<br>KW | 浆料最<br>大含固<br>量<br>% | 固体最大<br>颗粒<br>mm | 进出口径<br>mm |
|--------------|-------------------------|-------------|-------------------|-------------|----------|----------------------|------------------|------------|
|              |                         | 额定压力<br>MPa | 可选压力<br>范围<br>MPa |             |          |                      |                  |            |
| LWZ5-2-25    | 2                       | 0.5         | 0.2~1.6           | 500         | 1.5      | 70                   | 10               | 25         |
| LWZ5-5-40    | 5                       | 0.5         | 0.2~1.6           | 500         | 3        | 70                   | 10               | 40         |
| LWZ5-10-50   | 10                      | 0.5         | 0.2~1.6           | 350         | 7.5      | 70                   | 10               | 50         |
| LWZ5-15-65   | 15                      | 0.5         | 0.2~1.6           | 500         | 11       | 70                   | 10               | 65         |
| LWZ5-20-65   | 20                      | 0.5         | 0.2~1.6           | 500         | 15       | 70                   | 10               | 65         |
| LWZ5-30-80   | 30                      | 0.5         | 0.2~1.6           | 350         | 22       | 70                   | 10               | 80         |
| LWZ5-40-80   | 40                      | 0.5         | 0.2~1.6           | 500         | 30       | 70                   | 10               | 80         |
| LWZ5-50-100  | 50                      | 0.5         | 0.2~1.6           | 350         | 45       | 70                   | 10               | 100        |
| LWZ5-60-100  | 60                      | 0.5         | 0.2~1.6           | 350         | 55       | 70                   | 10               | 100        |
| LWZ5-80-125  | 80                      | 0.5         | 0.2~1.6           | 350         | 75       | 70                   | 20               | 125        |
| LWZ5-100-125 | 100                     | 0.5         | 0.2~1.6           | 350         | 90       | 70                   | 20               | 125        |
| LWZ5-120-150 | 120                     | 0.5         | 0.2~1.6           | 350         | 110      | 70                   | 20               | 150        |
| LWZ5-150-150 | 150                     | 0.5         | 0.2~1.6           | 300         | 132      | 70                   | 20               | 155        |
| LWZ5-200-200 | 200                     | 0.5         | 0.2~1.6           | 300         | 160      | 70                   | 20               | 200        |

注：（流量、扬程和进出口直径可按用户要求定制，电机功率为 50%含固量时的参考值）

Note :(the flow, head and inlet and outlet diameters can be customized according to the user's requirements, and the reference value when the motor power is 50% of the solid amount)

产品图片：Product pictures



三维模型:3D model



产品实物：Physical products

应用案例：The application case

客户公司使用：用于高浓结晶淀粉糖的输送，用于废料渣的输送，浓度高达 85%以上。

Used by the client company: it is used for the transportation of high concentration crystalline starch sugar, and for the transportation of waste residue, the concentration is up to 85%.

造纸厂：用于 30%高浓纸浆的输送。

Paper mill: used for conveying 30% high – density pulp.

## 产品五 旋齿胶体磨 ( 专利产品 )

### Product 5 Rotary colloid mill (patented product)

旋齿胶体磨是由本公司集数十年流体机械开发生产经验研制的，针对特殊含固体颗粒高温强腐蚀化工高浓浆料破碎、碾磨、造粒开发的最新产品，采用独创的技术结构和先进的制造工艺，产品处于世界领先水平。

The rotary tooth colloid mill is developed by the company with decades of experience in the development and production of fluid machinery. Aiming at the latest products developed by crushing, grinding and granulating special high-temperature and strongly corrosive chemical high-concentration slurry containing solid particles, the company adopts the original technical structure and advanced manufacturing technology, and the products are at the leading level in the world.

针对固体颗粒大小不等，且颗粒较硬的特点，采用特殊三角齿流体动力优化螺旋槽转子与三角尺槽阵列磨片，配特殊设计的扩散型阵列筛网。具有良好的固体颗粒破碎造粒效果、并保证颗粒均匀，团整性好，克服了普通胶体磨效率低、颗粒扁平化、易堵塞、故障率高等问题。

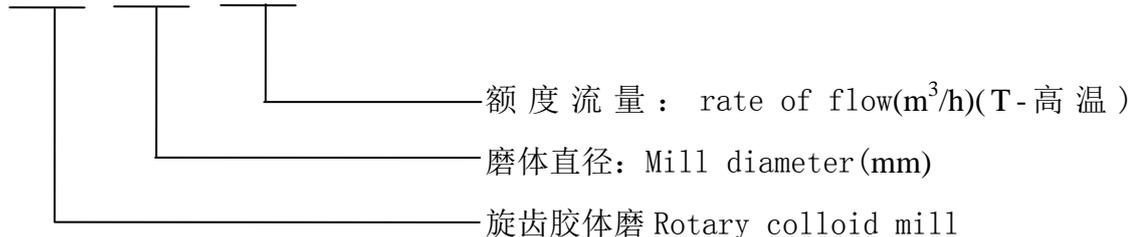
Pointing at the characteristics of solid particles with different sizes and hard particles, special triangular tooth hydrodynamic optimization spiral groove rotor and triangular ruler groove array grinding plate are adopted, and a specially designed diffusion array screen is matched. Has good effect of crushing and granulating solid particles, ensures the uniformity of particles, has good aggregation property, and overcomes the problems of low efficiency, flat particles, easy blockage, high failure rate and the like of a common colloid mill.

该产品可应用于特种材料、石油化工、精细化工、日用化工、制药、食品、环保、造纸、涂料、冶金等行业需要生产均匀粉料颗粒料的工况。

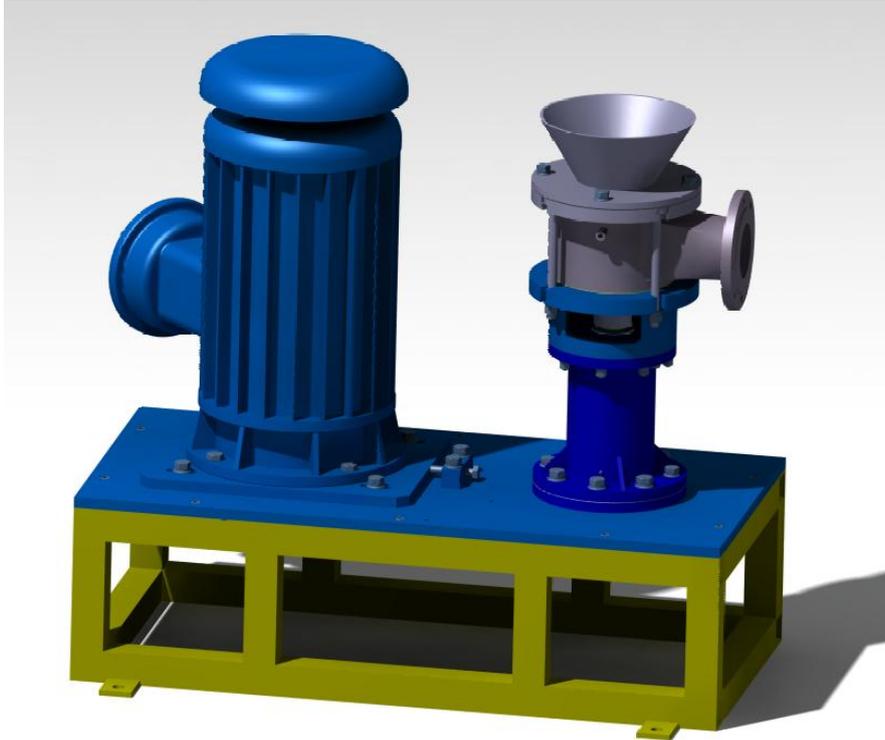
The product can be applied to special materials, petrochemical industry, fine chemical industry, daily chemical, pharmaceutical, food, environmental protection, the papermaking, coating, metallurgy and other industries need to uniform the operation condition of the powder grain production.

#### 型号意义：Model significance

LCJM -300 - 60T



产品图片：Product pictures



三维模型:3D model



产品实物：Physical products

**产品技术参数： Product technical parameters**

1. LCJM-170-6 旋齿胶体磨技术参数：

LCJM-170-6 Technical parameters of rotary colloid mill

| 项目<br>project                             | 参数描述<br>Parameters to describe   |
|---|--|
| 1、输入介质<br>Input medium                    | 化工原料<br>Chemical raw materials   |
| 2、介质浓度<br>Medium concentration            | 15%固相，固体颗粒小于 5mm<br>15% solid phase, solid particles less than 5mm                             |
| 3、介质比重<br>The proportion of medium        | 1100Kg/m <sup>3</sup>  |
| 4、介质温度<br>Medium temperature              | < 80℃  |
| 5、流量<br>flow                              | 6m <sup>3</sup> /h   |
| 6、出口压力<br>Outlet pressure                 | 0.05MPa ( 扬程 5 米 )<br>( Head 5 meters )  |
| 7、入口压力<br>Inlet pressure                  | 0.4MPa   |
| 8、进出口直径<br>Inlet and outlet diameter      | 进口 50mm/出口 100mm<br>Inlet 50mm/ outlet 100mm   |
| 9、功率<br>power                             | 37KW 380V-50HZ P3  |
| 10、转速<br>speed                            | 2900r / min ( 配变频调速电机 )<br>2900r / min ( With variable frequency speed motor )                 |
| 11、材质<br>The material                     | 磨体、磨轮、筛网：316 不锈钢；轴:2Cr13: Grinding body, grinding wheel and sieve mesh: 316 stainless steel;   |
| 12、底座材料<br>The base material              | 结构钢板<br>Structural steel plate   |
| 13、安装方式<br>installation                   | 固定式<br>stationary  |
| 14、密封形式<br>Seal form                      | 集装式双端面机械密封<br>Assembly type double end face mechanical seal                                    |
| 15、传动方式<br>The transmission way           | 带传动<br>Tape drive  |
| 16、配置要求<br>Configuration requirements     | 变频防爆电机<br>Variable frequency explosion-proof motor   |
| 17、防爆等级<br>Explosion-proof grade          | D11 BT4  |
| 18、防护等级<br>Protection grade               | IP55   |
| 19、能效等级<br>The level of energy efficiency | 二级能效<br>The secondary energy efficiency  |
| 20、冷却方式<br>Cooling way                    | 机械密封：介质冷却；磨体：水冷却<br>Mechanical seal: medium cooling; Abrasive: water is cold but water is cold |

## 2. LCJM-30-60 高温型旋齿胶体磨技术参数

## Technical parameters of high temperature rotary colloid mill

| 项目 project                            | 参数描述 Parameters to describe   |
|---------------------------------------|---|
| 1、输入介质<br>Input medium                | 化工原料<br>Chemical raw materials  |
| 2、介质浓度<br>Medium concentration        | 35%固相 (含氯化钠), 固体颗粒小于 5mm<br>15% solid phase, solid particles less than 5mm                            |
| 3、介质比重<br>The proportion of medium    | 1100Kg/m <sup>3</sup>   |
| 4、介质温度<br>Medium temperature          | < 180°C   |
| 5、流量<br>flow                          | 60m <sup>3</sup> /h   |
| 6、出口压力<br>Outlet pressure             | 0.05MPa (扬程 5 米)<br>0.05MPa ( Head 5 meters )   |
| 7、入口压力<br>Inlet pressure              | 0.3MPa  |
| 8、进出口直径<br>Inlet and outlet diameter  | 进口 150mm/出口 200mm<br>Import 150mm/ export 200mm   |
| 9、功率<br>power                         | 160KW 380V-50HZ P3  |
| 10、转速<br>speed                        | 2900r / min (配变频调速电机 With variable frequency speed motor)   |
| 11、材质<br>The material                 | 磨体、磨轮、筛网: 316 不锈钢; 轴: 2Cr13;<br>Grinding body, grinding wheel and sieve mesh: 316                     |
| 12、底座材料<br>The base material          | 结构钢板<br>Structural steel plate  |
| 13、安装方式<br>installation               | 固定式<br>stationary   |
| 14、密封形式<br>Seal form                  | 集装式双端面机械密封<br>Assembly type double end face mechanical seal   |
| 15、传动方式<br>The transmission way       | 带传动<br>Tape drive   |
| 16、配置要求<br>Configuration requirements | 变频防爆电机<br>Variable frequency explosion-proof motor  |
| 17、防爆等级<br>Explosion-proof gradee     | D11 BT4   |
| 18、防护等级<br>Protection grade           | IP55  |
| 19、能效等级<br>The level of energy        | 二级能效<br>The secondary energy efficiency   |
| 20、冷却方式<br>Cooling way                | 机械密封: 介质冷却; 轴承腔: 水冷却<br>Mechanical seal: medium cooling; Abrasive: water is cold<br>but water is cold |

注: (流量、扬程和进出口直径可按用户要求定制, 电机功率为 50%含固量时的参考值)

Note :(the flow, head and inlet and outlet diameters can be customized according to the user's requirements, and the reference value when the motor power is 50% of the solid amount)

**应用案例：** Application cases

客户公司使用：采购本公司 LCJM -180 - 6 胶体磨，处理丙酮加 PPS 结晶颗粒的浆料，颗粒 1~20mm 直径不等，全部均匀破碎成 1mm 直径颗粒（颗粒合格率 99.7%），温度 180° C，每小时处理量 6 吨；采购 LCJM -300 - 60T 高温胶体磨，每小时处理量 60 吨，处理物料颗粒 5~20mm 直径不等，浆料浓度 40%，造粒直径 5mm，已正常投产使用。

Client companies use: purchasing LCJM - 180-6 colloid mill, the company deal with acetone and PPS crystal grain size, particle 1 ~ 20 mm diameter range, all even broken into 1 mm diameter particles (particle qualified rate 99.7%), the temperature of 180 ° C, the capacity of 6 tons per hour; LCJM -300-60T high temperature colloidal mill, 60 tons per hour, 5-20mm diameter of material granules, 40% slurry concentration, 5mm granulation diameter, have been put into operation normally.

本公司现已开发每小时 6 吨和 60 吨两个型号产品并成功投入使用，其他流量产品本公司可以根据客户需要定制。

Our company has developed 6 tons and 60 tons of products per hour and successfully put them into use. We can customize other flow products according to customers' needs.

## 产品六 均质乳化泵、混合泵系列

### Product 6 .homogeneous emulsion pump, mixed pump series

LHM 混合精细均质泵由 3-5 层转子和定子组成，每层转子和定子的齿盘由粗到细，使原始粗细不一的颗粒物料能顺利进入泵腔内进行逐层破碎、分散、精细、均质、乳化。是一种集破碎、分散、均质、乳化、输送为一体的高性能超细均质泵，也是化工流程工艺中主要的混合均质设备。

LHM fine homogeneous mixing pump is composed of 3 to 5 layers of rotor and stator, each layer of the teeth of the stator and rotor plate from coarse to fine, make the original thickness of varying particle material can go smoothly step by step into the pump chamber is broken and scattered, fine and homogeneous, emulsification. It is a kind of high performance super fine homogeneous pump integrating crushing, dispersing, homogenizing, emulsifying and conveying.



LHM1 均质乳化泵是的泵腔内装有一组双层定子和双层转子，转子传动轴采用高强度 316 材料，密封装置为水冷却双端面机械密封。泵轴由轴承箱支撑，通过联轴器与电机相连。该产品的工作原理是将物料从进口吸入，进行全面均质乳化后从出口排出。

LHM1 homogeneous emulsion pump is equipped with a set of double-layer stator and double-layer rotor in the pump chamber. The rotor transmission shaft is made of high strength 316 materials, and the sealing device is a water-cooled double-end mechanical seal. The pump shaft is supported by a bearing box and connected to the motor by a coupling. The working principle of this product is to inhale the material from the import, carry on the comprehensive homogenization emulsifying and then discharge from the export.

该产品适用于中小批量生产的循环工艺流程，以及短距离输送和均质乳化工作，如果与立式高剪切均质乳化机配合使用，其均质乳化效果更佳。

The cycle of the product is suitable for medium and small batch production process, as well as the short distance transmission and homogeneous emulsification, if used with high vertical shear homogeneous emulsification machine, its homogeneous emulsification effect is better.



LHM1 均质乳化泵

LHM3 混合质泵是在 LHM1 型的基础上延伸开发。其工作腔内由三级转子、定子 12 层组成，物料通过转子、定子进行逐级分散、精细、乳化，提高生产效率，是一种集混合、分散、破碎、溶解、精细、解聚、均化、乳化、输送为一体的高效性超细均质泵，使原有的传统工艺进一步简化，生产效率大幅提升，产品质量明显提高，是一种代替球磨机、胶体磨的理想产品。

LHM3 hybrid pump is developed on the basis of LHM1 type. The working chamber is composed of 12 layer 3 rotor, stator, material dispersion, fine, step by step through the rotor, stator emulsification, improve the efficiency of production, is a collection of mixing, dispersion, crushing, dissolved, fine, depolymerization, homogenizing and emulsifying, transportation as one of the efficiency of ultrafine homogeneous pump, make the original traditional process further simplify, improved production efficiency and product quality improved obviously, is a kind of ideal products instead of ball mill, the colloid mill.



LHM3 混合质泵

## 性能检测装置 Performance testing device



宁波领智公司为了提供适合贵公司的产品，请准确、清楚的填写以下内容并 E-mail 回我公司，以便我们更好的为你提供选择。

### 工矿产品选型指南

公司名称：\_\_\_\_\_ 联系人：\_\_\_\_\_。

公司地址：\_\_\_\_\_ 手机：\_\_\_\_\_。

输送介质：\_\_\_\_\_ 介质比重：\_\_\_\_\_ Ph 值：\_\_\_\_\_。

介质特性： 腐蚀性  有毒  卫生性

介质粘度：\_\_\_\_\_ CP 介质浓度：\_\_\_\_\_ % 介质温度：\_\_\_\_\_ °C

流量：额定\_\_\_\_\_ m<sup>3</sup>/h 变量\_\_\_\_\_ m<sup>3</sup>/h

出口压力：额定\_\_\_\_\_ MPa 最大\_\_\_\_\_ MPa

入口压力：额定\_\_\_\_\_ MPa 最大\_\_\_\_\_ MPa

额定压差：\_\_\_\_\_ MPa 真空度\_\_\_\_\_ MPa

密封要求：普通机械密封  集装式机械密封  填料密封

减速形式：齿轮减速  皮带轮减速  机械无级变速  变频调速

电机防爆等级：\_\_\_\_\_ 防护等级：\_\_\_\_\_ 能效：\_\_\_\_\_ 接口要求：\_\_\_\_\_。

泵进出口方向：进口：\_\_\_\_\_ 出口：\_\_\_\_\_。

泵进出口直径：进口：\_\_\_\_\_ 出口：\_\_\_\_\_。

连接方式：法兰式  螺口式  卡箍式

安装方式：固定式  移动式

操作状态：连续  间断

泵体材质：不锈钢 304  316  316L  普钢 20Cr  40Cr  其他：\_\_\_\_\_。

转子（叶轮）材质：不锈钢 304  316  316L  2205  普钢 20Cr

40Cr  其他材质：\_\_\_\_\_。

外观颜色：白 色  蓝 色  黄 色  其他颜色：\_\_\_\_\_。

其他特殊要求：\_\_\_\_\_；

\_\_\_\_\_。

订购数量：\_\_\_\_\_ 要求交货期\_\_\_\_\_。

技术咨询：13388535770；销售咨询：18888716103

E-mail: LZJX.wz@foxmail.com

# 宁波领智机械科技有限公司

NINGBO LEADIN MACHINE TECHNOLOGY CO.,LTD

## 特种泵、设备专业制造商

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销售热线：0574-56205211

技术咨询：13388535770

销售工程师：18857453977

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