

凸轮转子泵



辰禹（重庆）流体设备有限公司

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ROTARY LOBE PUMP

凸轮式双转子泵

凸轮式双转子泵是公司针对各行业中3000多种流体进行探索而设计的，尤其适用于高粘度、高含固量、腐蚀性强的流体高效输送。十多年来，凸轮式双转子泵已发展至第四代产品，更进一步延长了泵的使用寿命。第四代泵在各领域的广泛应用得益于创新的结构设计和对客户应用经验的不断累积。

rotary lobe pumps are designed based on the exploration of more than 3,000 fluids in various industries. They are particularly, effectively pumping for high viscosity, high solids and corrosive fluids. For more than a decade, rotary lobe pumps have been developed to the 4th generation, which further extends the service life of the pump. The extensive application of 4th generation pumps in various fields benefits from innovative structural design and large experience accumulation.

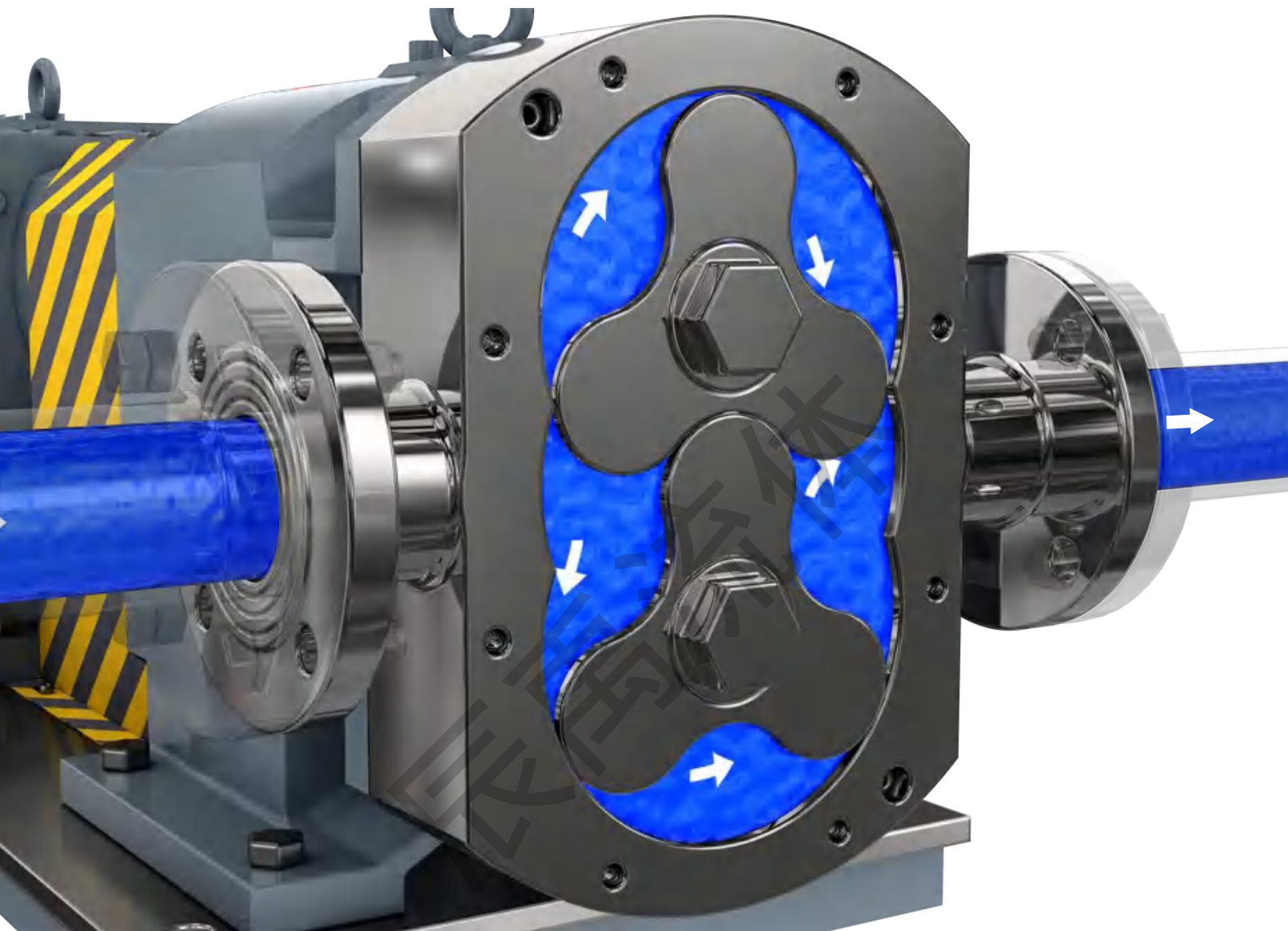


WORKING PRINCIPLE

工作原理

凸轮式双转子泵采用两个同步运转的转子，由箱体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，有效地输送介质。转子与转子，转子与泵体之间保持一定间隙，无摩擦系数，使用寿命长，对输送的介质不破坏其成分，不起任何理化反应。

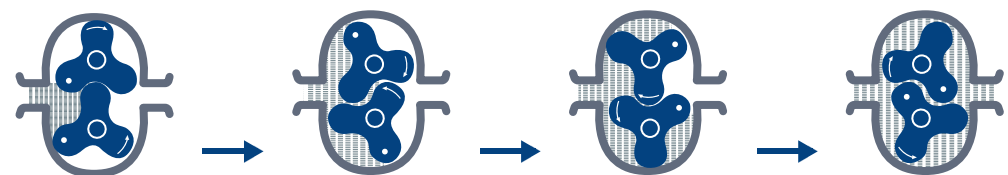
lobe pumps basically consist of two lobe rotors, which rotate synchronously driven by a pair of synchronous gears in the gearbox. The rotors are driven by the main shaft and sub-shaft to rotate in a synchronous reverse direction, which changes the pump capacity, builds up high vacuum and discharge pressure, thus an efficient pumping is formed. Gap is kept between the rotors and between the pump casing, no friction, long life, no damage, no physical and chemical reaction to the pumped products.



两叶转子工作原理图
Bi-wing rotors diagram



三叶转子工作原理图
Tri-lobe rotors diagram



BARE SHAFT PUMP

泵头结构



左右进出
HORIZONTAL PORT



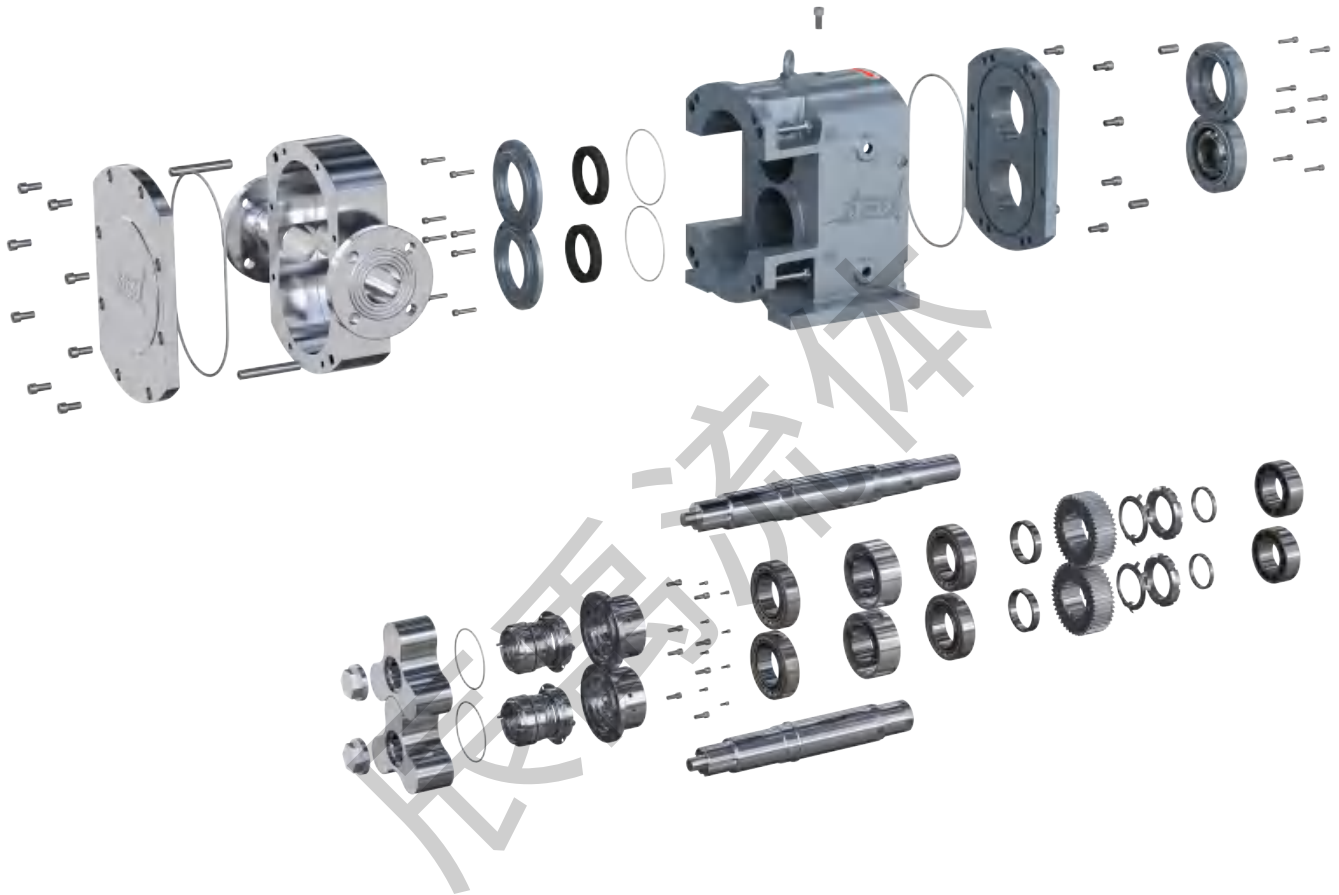
上下进出
VERTICAL PORT

产品特点

- 转子与转子，转子与泵体之间保持一定间隙、无摩擦系数，使用寿命长。
- 所有核心部件采用进口加工中心加工，精度高。
- 装拆简单，维护、清洗方便，易损件少。
- 节能降耗，故障率低，密封可靠，噪音低。
- 配置变频器后，可随意调节流量，并可作一般计量泵使用。
- 根据用户连接要求，可选配法兰式、螺口式、卡箍式等。
- 可输送介质粘度高达150万cp，含固量达70%的浆料。
- 可输送汽、液、固等三相混合物料。

BREAKDOWN DRAWING

泵头分解图

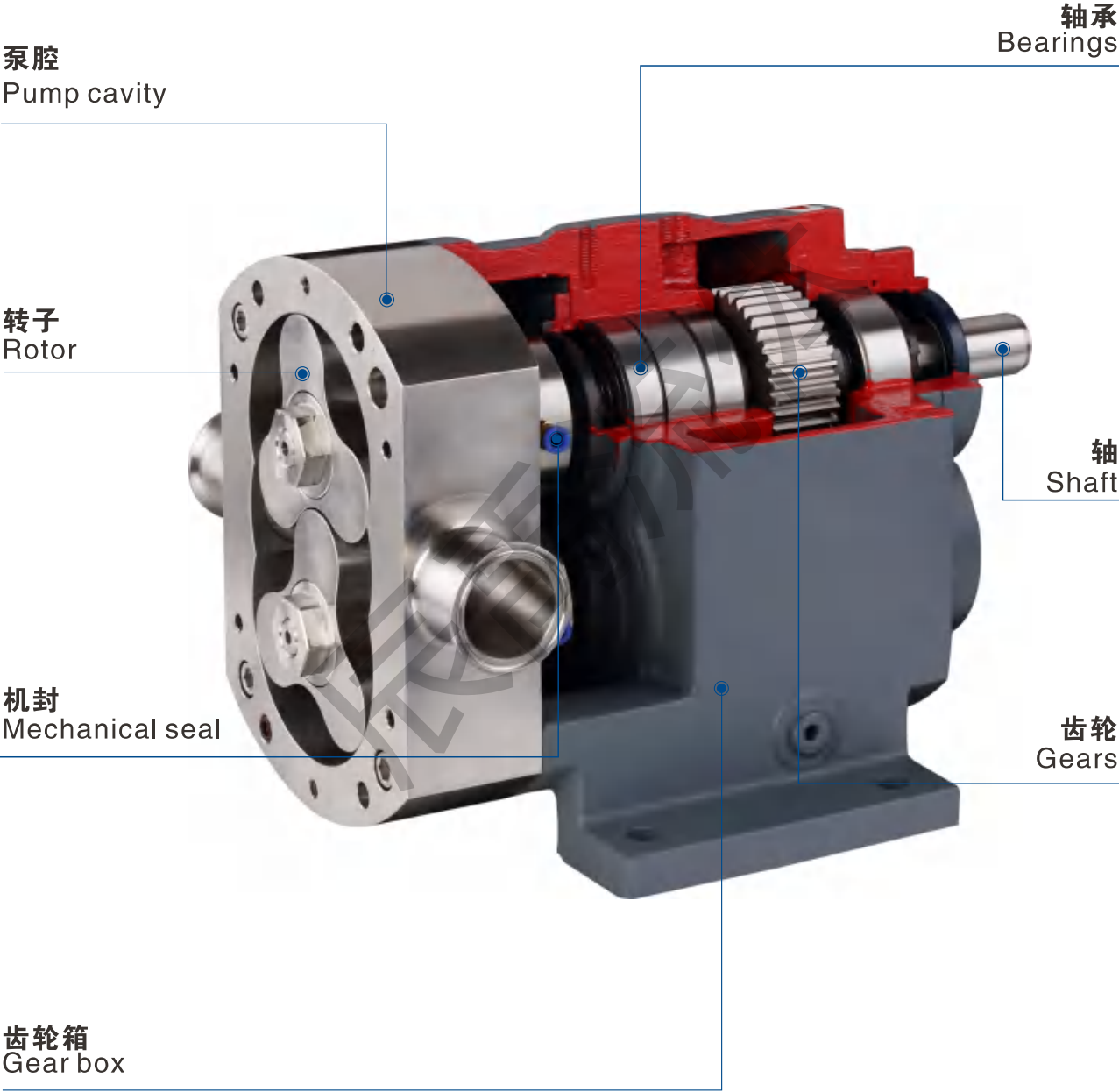


PUMP FEATURES

- Gap is kept between the rotor and the rotor, the rotor and the pump body. No friction, long service life.
- All main parts are processed by CNC, which have high precision.
- Simple assembly and disassembly, easy maintenance and cleaning, and few wearing parts.
- Energy saving, low failure rate, reliable sealing and low noise.
- Pump flow can be adjusted at will with VFD controlled, and it can be used as a metering pump.
- Pump connection types can be flange, screw, clamp type, etc.
- The transportable medium viscosity is upto 1.5 million cp, and the slurry with a solid content upto 70%.
- It can transport three-phase mixture materials such as vapor, liquid and solid.

STRUCTURE FEATURES

结构优势



转子: 高精度进口加工中心加工的凸轮转子误差极小, 独特的凸轮式转子将泵的进出口完美地密封隔离, 泵的真空度高达-0.095MPA。转子材质和类型可根据输送物料的特性来选择。

Rotor: The error of the rotors processed by CNC is extremely small. The unique rotor type perfectly seals the inlet and outlet of the pump. The vacuum degree of the pump is up to -0.095MPA. The rotor material and type can be selected according to the characteristics of the pumped product.

轴: 传动轴由进口加工中心加工, 具有精密度高, 抗弯强度高, 耐磨性强等特点。

Shaft: The transmission shaft is processed by CNC machining center, which has the characteristics of high precision, high bending strength and strong wear resistance.

泵腔: 泵腔被一个可以快速开启的泵盖密封, 实现了泵的快速维护。泵体采用进口加工中心加工, 严格按照美国3A标准加工泵体, 满足CIP和SIP的要求。

Pump cavity: The pump cavity is sealed by a pump cover that can be opened quickly, enabling quick maintenance of the pump. The pump body is processed by CNC machining center, and the pump body is processed in strict accordance with the US 3A standard to meet the requirements of CIP and SIP.

齿轮: 高精度高标准同步齿轮啮合性好, 传动平稳、噪声小, 拥有卓越的承载能力。

Gears: High-precision, high-standard synchronous gears have good meshing, smooth transmission, low noise, and excellent bearing capacity.

机封: 根据物料的不同特性, 针对性采用机封形式和材质, 确保零泄露, 无污染, 更环保。

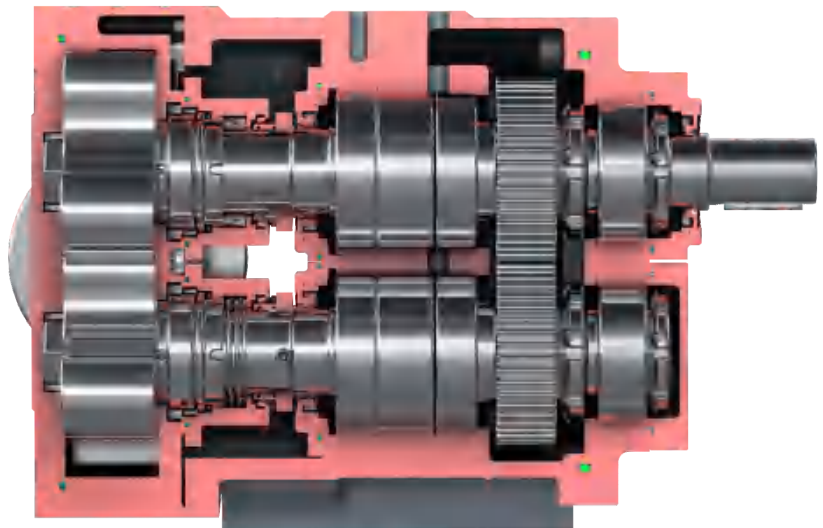
Mechanical seal: The seal material and type are selected according to the characteristics of the pumped product, to ensure zero leakage, no pollution, and more environmental protection.

轴承: 六个分开式排列布局的轴承增加了泵运转的同轴度, 增强了轴的承载力并且使机泵运行更加平稳, 从而增加轴和机封的使用寿命。

Bearings: Six bearings arranged in a separate arrangement increase the concentricity of the pump operation, enhance the bearing capacity of the shaft and make the pump running more stable, thereby increasing the service life of the shaft and the mechanical seal.

齿轮箱: 齿轮箱采用进口加工中心加工精度高, 同心度高, 通用性强。

Gear box: The gear box is processed by CNC, with high precision, high concentricity and strong versatility.



SEAL TYPE

密封形式



单端面平衡机封：

平衡式结构设计，具有自调节功能，使用寿命长；为通用型机封。典型的输送介质有番茄酱，花生酱，乳液，洗发露，糖浆，优酸乳等。

Single-face Balanced Mechanical Seal:

Advanced balanced structure design, with self-adjusting function and long service life. Normal type to use. Typical pumped medium: tomato sauce, peanut butter, lotion, shampoo, syrup, yogurt etc.



双端面水冷却机封：

通常在输送恶劣的介质条件下使用，如高粘度，高含固量，有害或有毒液体。典型的介质有巧克力，砂浆，危险化学品，PVC黏胶，感光乳剂，树脂等。

Double-face Water-cooled Machine Seal:

Generally used with hostile media conditions i.e. high viscosity, high solid, hazardous or toxic fluids. Typical pumped medium: Abrasive Slurries, Chocolate, Hazardous Chemicals, PVC Paste, Photographic Emulsion, Resin.



波纹管机封：

具有较大的弹性、强度和刚度，可适用于高温液体。

Metal Bellows Mechanical Seal:

It has large elasticity, strength and rigidity, which is suitable for liquids with high temperature.

ROTOR TYPE

转子形式



单叶转子

Single-wing Rotors

为解决输送含有大颗粒固体物料配置专用，其独特的形状和曲线使其在输送含有大颗粒物料时比其他形式的泵更具优势，并能够在输送过程中有效地避免颗粒的破损

Used to transfer liquid medium with large particles. Its unique shape and curve make it more advantageous when pumping liquid containing large particles, and avoid the damage of particles.



两叶（蝶形）转子

Bi-wing (Butterfly) Rotors

适用于输送含有中小颗粒的物料和高粘稠物料，对中小颗粒物料的破坏率相对较低，磨损耗量少，使用寿命长。

Used to transfer liquid medium with small and middle particles or high viscous liquid product. The rotor has low damage to the particles, the small wearing and the long service life.



三叶转子

Tri-lobe Rotors

应用最广泛的转子形式，适用于各行业中各种物料的输送。

The most widely used rotor type, suitable for pumping various viscous liquid product.



多叶转子

Multi-impeller Rotors

当转子叶片超过三叶后，其容积量因转子叶片的增加而减少，转子叶片越多，容积量则越少，多叶转子在输送物料时稳定性相对有所提高。

When rotor impeller exceeds three, pump capacity will be reduced due to the increase of the rotor impellers. The more rotor impellers, the less capacity, but higher stability. The pump with this rotor type can be used as a dosing pump.

COMPLETE STRUCTURE

整机结构



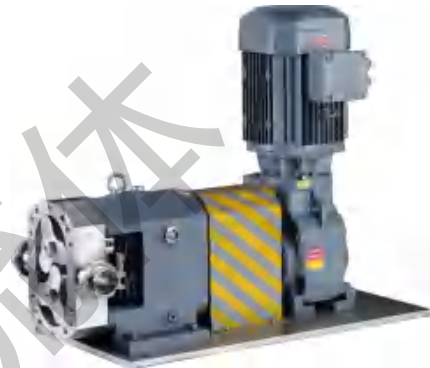
通用型 ▲
Normal type



V-型进口型 ▲
V-feeding inlet type



安全阀型 ▲
Safety valve built-in type



立式安装型 ▲
Vertical installed type



移动式变频控制型 ▲
VFD controlled mobile



皮带轮传动型 ▲
Pump with pulley driving



卫生级 ▲
Sanitary type

TECHNICAL PARAMETERS

技术参数

型号 Model	排量 Displacement (L/r)	转速 RPM (r/min)	流量 Flow (m ³ /h)	出口压力 Dis. Pre. (Mpa)	功率 Power (kW)	真空度 Vacuum (Mpa)	进出口径 Port size (mm)	最高粘度 Max viscosity (cp)
25BV12-05	0.06	10-1000	0-0.5	0-1.2	0.37-1.1	-0.080	25	1,500,000
40BV12-2	0.15	10-1000	0-2	0-1.2	0.75-2.2	-0.080	40	
50BV12-5	0.32	10-800	0-5	0-1.2	1.5-4	-0.085	50	
65BV12-10	0.65	10-600	0-10	0-1.2	2.2-7.5	-0.085	65	
80BV12-20	1.74	10-500	0-20	0-1.2	4-15	-0.095	80	
90BV12-30	2.60	10-500	0-30	0-1.2	5.5-22	-0.095	100	
100BV12-40	3.65	10-500	0-40	0-1.2	7.5-30	-0.095	100	
125BV12-50	4.60	10-500	0-50	0-1.2	7.5-37	-0.095	125	
140BV12-70	6.10	10-500	0-70	0-1.2	11-45	-0.095	150	
150BV12-80	7.63	10-500	0-80	0-1.2	11-55	-0.095	150	
200BV12-120	11.56	10-400	0-120	0-1.2	15-75	-0.095	200	
250BV12-150	14.22	10-400	0-150	0-1.2	18.5-90	-0.095	250	
300BV12-200	20.8	10-300	0-200	0-1.2	22-110	-0.095	300	
350BV12-300	32.6	10-250	0-300	0-1.2	45-160	-0.095	350	
400BV12-400	50.4	10-250	0-400	0-1.2	55-200	-0.095	400	

注：泵的进出口口径可根据物料的粘度特性定制。
本表数据仅供选型参考，如有更改，恕不另行通知，正确参数已提供的实物为准。

Note: the pump port size can be changed according to the medium's viscosity.
The data in this table is only for model selection, which is subject to change without prior notice. The correct parameters shall adhere to the actual pump.

APPLICATIONS: REFINED CHEMICALS

精细化工领域

随着环境意识逐渐的增长，在化工行业中，客户对专用泵装置的要求越来越高。邦威致力于用创新的技术来提高泵的性能，密封的可靠性，从而助客户提高生产效率，保证安全性。邦威凸轮式双转子泵尤其适用于输送高粘稠度，高含固量，腐蚀性强等化工品。

典型的介质输送：

树脂、粘胶剂、聚氨酯、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、皮鞋油、悬浮液、白乳胶等。

With the gradual increase of environmental awareness, in the chemical industry, customers have higher and higher requirements for special pump devices. Bonve is committed to using the latest and innovative technology to improve the pump performance and the seal reliability, thereby helping customers improve production efficiency and ensure safety. Bonve rotary lobe pump is especially suitable for transferring chemical products with high viscosity, high solid and strong corrosion.

Typical mediums transferred:

Resin, adhesive, polyurethane, dye, pigment, various intermediates, various slurries, chemical additives, printing and dyeing additives, leather additives, silicone oil, leather shoe polish, suspension, white latex, etc.



PAPER INDUSTRY

造纸行业

泵虽然只占造纸设备投资中的很小一部分，但对设备的整体运行却起着很关键的作用。在任何情况下，泵运行的可靠性和低维护成本成了最基本的要求。邦威泵在造纸工业中被广泛使用并被认可，得益于模块化的设计理念，优质材质的选择，可靠的密封，输送无剪切，无脉动，易损件少，低维修。

邦威针对造纸中各种介质（物料）进行分析研究，研发了三大系列造纸专用泵：造纸涂料专用泵、造纸施胶剂专用泵和造纸化学品专用泵。

造纸涂料典型介质：碳酸钙(含固量高达70%)、涂料(预涂，中涂，面涂，背涂)等。

造纸施胶剂典型介质：表面施胶剂、蒸煮淀粉、喷淋淀粉等。

造纸化学品典型介质：聚丙烯酰胺（PAM）、消泡剂、松香胶、填料、干强剂、湿强剂、助留剂、染料、AKD、柔软剂等。

Although the pump only accounts for a small part of the investment in papermaking equipment, it plays a key role in the overall operating period of the equipment. In any case, the reliability of pump operation and low maintenance costs have become the most basic requirements. Bonve pumps are widely used and recognized in the paper industry, thanks to the modular design, qualified material used, reliable sealing, no shearing, no pulsation, less wearing parts, and low maintenance.

Bonve conducts analysis and research on various media (materials) in papermaking and has developed three series of special pumps for papermaking: paper coatings pumps, paper sizing agents pumps and paper chemicals pumps.

Typical media for paper coatings: calcium carbonate (up to 70% solid content), coatings (pre-coating, intermediate coating, top coating, back coating)

Typical media of paper sizing agent: surface sizing agent, cooking starch, spray starch, etc.

Typical media of papermaking chemicals: polyacrylamide (PAM), defoamer, rosin gum, filler, dry strength agent, wet strength agent, retention aid, dye, AKD, softener, etc.



FOOD INDUSTRY

食品行业



在食品行业已涉足十多年，积累了丰富的经验和成功的案例。根据不同的工况制定具有针对性，可靠的输送方案，为客户解决输送难题。

凸轮转子泵广泛应用于食品行业，主要因为具备以下特点：

- ✓ 卫生度高：与物料接触材质为不锈钢304，316或316L等。
- ✓ 光洁度高：表面粗糙度为 $0.8\ \mu\text{m}$ 以下，符合CE,3A,EHEDG, FDA标准。
- ✓ 满足CIP和SIP要求。
- ✓ 拆装简单，维护方便，易损件少。
- ✓ 低转速，低剪切，不破坏，保持介质品质不变。

典型的介质输送：

巧克力，浓缩牛奶，酸奶，蜂蜜，糖浆，蔗糖，番茄酱，浓缩汁，果酱，冰淇淋，牛奶，酵母浆，肉浆，果冻，调味品，大豆蛋白等。

has been involved in the food industry for more than ten years, and has accumulated a lot of experience and successful cases. offered targeted and reliable pump solutions for your application, aim to solve the pumping problem you meet.

rotary lobe pumps are widely used in the food industry, mainly because of the following characteristics:

- ✓ High sanitation: The wetted parts are manufactured in stainless steel 316 or 316L.
- ✓ High smoothness: surface roughness is below $0.8\ \mu\text{m}$, confirming to 3A, EHEDG, FDA standard.
- ✓ Meet CIP and SIP requirements.
- ✓ Simple disassembly and assembly, easy maintenance and few wearing parts.
- ✓ Low speed, low shear, no damage to the pumped products.

Typical mediums transferred:

Chocolate, concentrated milk, yogurt, honey, syrup, sucrose, ketchup, tomato paste, concentrated juice, jam, ice cream, milk, yeast syrup, meat slurry, jelly, condiments, soy protein etc.

DAILY CHEMICAL

日用化工

凸轮式双转子泵广泛应用于日用化工行业，由于低转速运行，泵特别适用于在输送过程中容易起泡沫，高粘度，高浓度和磨损性强的介质，经其输送的介质保持品质不变，不起任何理化反应。泵转子与转子之间，转子与泵体之间保持一定的间隙，无摩擦系数，使用寿命长。泵结构紧凑，维护方便，几乎无易损件，运行成本低。

典型的介质输送：

AES, LAS, AOS, K12, SLES, 磺酸, 甘油, 脂肪醇, 沐浴洗发水, 护肤霜, 洗发水, 洗涤液, 牙膏, 肥皂, 洗手液, 洗衣粉浆料等。

rotary lobe pump is widely used in the daily chemical industry, due to the low speed operation, the pump is particularly suitable for the medium that is easy to foam, high viscosity, high concentration and strong abrasion. The pumped product quality does not change and cannot afford any physical and chemical reactions. There is a certain gap between the pump rotor and the rotor, and between the rotor and the pump body, without friction, and long service life. The pump has a compact structure, easy maintenance, almost no wearing parts, and low operating costs.

Typical mediums transferred:

AES, LAS, AOS, K12, glycerin, fatty alcohol, bath shampoo, skin cream, shampoo, detergent, toothpaste, liquid soap, washing powder slurry, etc.



OTHER SECTORS

其他领域

医药 Medicine

药膏、糖浆、保健品、酶、血液、疫苗等。

Ointments, syrup, health products, enzymes, blood, vaccines, etc.

化纤 Fiber chemicals

粘胶浆粥、PVA、各种浆料等。

Viscose paste, PVA, various of pulp, etc

环保 Environmental protection

污水、污泥、药剂、悬浮液、肥料溶液等。

Sewage, sludge, chemicals, suspensions, fertilizers solutions, etc.

涂料 Coatings

各种油漆、涂料、油墨、绝缘漆、助剂等

Various paints, coatings, inks, insulating paints, additives, organic solvents, etc.

农药 Pesticides

农药中间体、多聚磷酸、水杨酸等。

Pesticide intermediates, polyphosphoric acid, salicylic acid, etc.

石油化工 Petrochemicals

稠油、重油、原油、油泥、沥青、油脂、润滑油等。

Heavy oil, crude oil, oil sludge, asphalt, grease, lubricating oil, etc.



凸轮式双转子泵·选型指南

凸轮式双转子泵是一种多用途的双向容积泵，基本适用于各种流体的输送工作。询价时尽可能提供下表的相关内容，以便我们为您提供理想的选型方案。

客户信息			
公司名称:		联系人:	
公司地址:		手机:	
电 话:		传真:	
物料信息			
行业: _____		介质名称: _____	
介质特性: 腐蚀性 [<input type="checkbox"/>] 有毒 [<input type="checkbox"/>] 卫生型 [<input type="checkbox"/>]			
介质粘度: _____cp	介质密度: _____ kg/m ³	介质温度: _____ °C	PH: _____
工作参数			
流 量: 最大 _____ m ³ /h; 工作 _____ m ³ /h ; 最小 _____ m ³ /h			
出口压力: 最大 _____ Mpa ; 工作 _____ Mpa ; 最小 _____ Mpa			
入口压力: 最大 _____ Mpa ; 工作 _____ Mpa ; 最小 _____ Mpa			
真空度: _____ Mpa			
结构要求			
是否保温: 是 [<input type="checkbox"/>] 否 [<input type="checkbox"/>]			
密封要求: 机械密封 [<input type="checkbox"/>] 填料密封 [<input type="checkbox"/>] 其它 [<input type="checkbox"/>]			
传动方式: 齿轮减速 [<input type="checkbox"/>] 皮带轮减速 [<input type="checkbox"/>] 机械无级变速 [<input type="checkbox"/>] 变频器变速 [<input type="checkbox"/>]			
电机电压: _____V 频率: _____Hz 防爆等级: _____ 防护等级: _____ 能效等级: _____			
进出口方向: 左进右出 [<input type="checkbox"/>] 右进左出 [<input type="checkbox"/>] 上进下出 [<input type="checkbox"/>] 下进上出 [<input type="checkbox"/>] 其它 [<input type="checkbox"/>]			
进料口径: _____mm	出料口径: _____mm		
连接方式: 法兰式 [<input type="checkbox"/>] 螺口式 [<input type="checkbox"/>] 卡箍式 [<input type="checkbox"/>] 其它 [<input type="checkbox"/>]			
安装方式: 固定式 [<input type="checkbox"/>] 移动式 [<input type="checkbox"/>]			
操作状态: 连续 [<input type="checkbox"/>] 间断 [<input type="checkbox"/>]			
过流材质: SS304 [<input type="checkbox"/>] SS316 [<input type="checkbox"/>] SS316L [<input type="checkbox"/>] 其它 _____			
现有工艺设备及存在的问题:			
订购数量: _____			

HOMOGENIZER MIXING PUMP

混合均质乳化泵

混合均质乳化泵是一种集混合、分散、破碎、溶解、精细、解聚、均质、乳化为一体的高效型产品。使用该系列产品后，原来的传统生产工艺进一步简化，生产效率大幅度提高，产品质量明显改善。该系列产品广泛应用于食品、日用化工、精细化工、生物制药、石油化工、造纸、环保、油漆涂料等行业。

homogenizer mixing pump is an efficient type machine with mixing, dispersion, breaking, dissolution, refinery, homogenization and emulsifying. The homogenizer can greatly simplify the traditional production and upgrade the production efficiency and product quality.

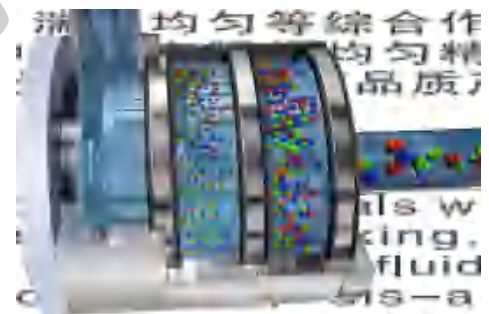
Bonve homogenizers are widely used in petrochemical, refinery chemistry, consumer chemicals, biology pharmaceuticals, foods processing, paper-making, environmental protection, paint and so on.

WORKING PRINCIPLE

工作原理

混合均质乳化泵主要工作部件由定子、转子组成。定子随转子高速运转的离心力和液力作用下，将物料进行强烈剪切、离心挤压、撞击破碎、液层磨擦、湍流均匀等综合作用，从而使不相溶的固相、液相、气相等多种介质在瞬间均匀精细、分散乳化。经过往复循环，使原来的产品达到稳定的高品质产品。

homogenizer's main parts are stators and rotors. At centrifugal and fluid forces created by high running of the rotors, the stators exercise on the materials with strong power shearing, centrifugal pressing, breaking, fluid friction, turbulent. The processed materials (solid, fluid and gas phase) are quickly refined, homogenized, dis-aggregated and emulsified. The repeat of this process can result in stable and high-quality products.



APPLICATIONS

应用领域

精细化工： 颜料、染料、塑料助剂、纺织助剂、胶黏剂、树脂乳化、硅油乳化、热熔胶、密封剂、表面活性剂、皮革助剂、蜡乳、杀菌剂、絮凝剂。

石油化工： 润滑剂、重油乳化、柴油乳化、改性沥青、催化剂、蜡乳化等。

生物医药： 注射剂、抗生素、药乳膏、糖衣、微胶囊乳化、细胞组织破碎等。

涂料油墨： 印刷油墨、乳胶漆、建筑涂料、涂料助剂、碳黑分散等。

农 药： 杀虫剂、除草剂、药乳油、化肥、农药助剂等。

纳米材料： 纳米材料的分散、解聚、反应、萃取等。

食品工业： 果汁、果酱、冰淇淋、乳制品、添加剂、茶饮料、巧克力、香精等。

日化产品： 液体洗涤剂、面霜、唇膏、洗面奶、日用香精、护肤品等。

造 纸： 纸浆、胶黏剂、松香分散剂、助剂、树脂乳化等。

Fine chemicals: Pigments, dyes, plastic additives, textile additives, adhesives, resin emulsification, silicone oil emulsification, hot melt adhesives, sealants, surfactant, leather additives, wax emulsions, fungicides, flocculants etc.

Petrochemical industry: Lubricant, heavy oil emulsification, diesel emulsification, modified asphalt, catalyst, wax emulsification etc.

Biology & Pharmaceuticals: Injections, antibiotics, creams, sugar coatings, microcapsule emulsification, cell tissue disruption etc.

Paint & inks: Printing inks, latex paints, architectural coatings, coating additives, carbon black dispersion etc.

Farm chemicals: Insecticides, herbicides, medicated emulsifiable concentrates, fertilizers, pesticide auxiliaries etc.

Food industry: Fruit juice, jam, ice cream, dairy products, additives, tea drinks, chocolate, flavor etc.

Nanomaterials: Dispersion, depolymerization, reaction, and extraction of nanomaterials etc.

Daily chemicals: Liquid detergent, cream, lipstick, facial cleanser, emulsified silicone oil, daily fragrance, skin care etc.

Paper making chemicals: Pulp, adhesive, rosin dispersant, additives, resin emulsification etc.

FHM1 HOMOGENIZER MIXING PUMP

FHM1 混合均质乳化泵

FHM1系列混合均质乳化泵的泵腔内装有一组定子和转子。转子传动轴采用高强度不锈钢材料，密封装置为双端面水冷却机械密封。泵轴由轴承箱支撑，通过联轴器与电机相联。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由出口排出。

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。

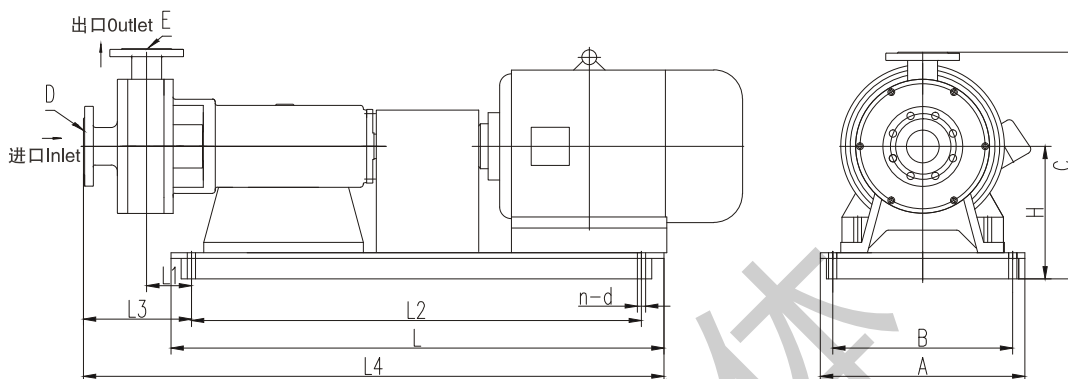
The pump cavity of FHM1 series homogenizer mixing pump is equipped with a set of double-layer stator and double-layer rotor. The rotor transmission shaft is made of high strength 316 material, and the sealing device is a water cooled double face mechanical seal. The pump shaft is supported by a bearing box and is connected to the motor through a coupling. The working principle of the pump is to suck the material from the inlet, and then discharge it from the outlet after homogenizing and emulsifying.

FHM1 series pump are suitable for small and medium batch production cycle processes, as well as short distance transportation and homogeneous emulsification.



INSTALLATION DIMENSIONS AND PARAMETERS

安装图和参数



型号 Model	功率 Power	转速 RPM	流量 Flow	出口压力 Dis. Pre.	口径 Caliber		L	L1	L2	L3	L4	A	B	C	H	n-d
	kW	r/min	m ³ /h	MPa	D mm	E mm										
FHM1/100	2.2	2900	1	0.05	32	25	300	169	220	255	530	285	250	250	150	4-Φ14
FHM1/120	3	2900	3	0.10	40	32	850	198	700	318	1093	430	379	379	200	4-Φ20
FHM1/140	5.5	2900	5	0.10	40	32	850	198	700	318	1140	430	379	379	200	4-Φ20
FHM1/165	7.5	2900	10	0.15	50	40	950	213	850	348	1248	450	390	463	265	4-Φ20
FHM1/185	11	2900	15	0.15	65	50	950	218	850	358	1258	450	390	478	265	4-Φ20
FHM1/200	15	2900	20	0.15	80	65	1200	115	1100	269	1425	500	440	555	325	4-Φ24
FHM1/220	18.5	2900	30	0.15	80	65	1200	115	1100	269	1425	500	440	555	325	4-Φ24
FHM1/240	22	2900	50	0.20	100	80	1350	108	1250	270	1570	550	470	601	354	4-Φ24
FHM1/260	37	2900	60	0.20	125	100	1350	215	1250	385	1685	700	620	669	394	4-Φ28
FHM1/300	45	2900	80	0.25	125	100	1500	327	1250	532	1880	700	620	768	438	4-Φ28

注：表中流量是指“水”为介质时测得的数据；对流动性较差的介质，建议在进口处安装一台流量相匹配的转子泵。以上安装尺寸仅供参考，尺寸单位为mm。

Note: The flow in the table refers to the data taking water as medium. For liquid with poor liquidity, lobe pump is advised to be installed before the homogenizer mixing pump. Dimensions are only for reference, unit is mm.

FHM3 HOMOGENIZER MIXING PUMP

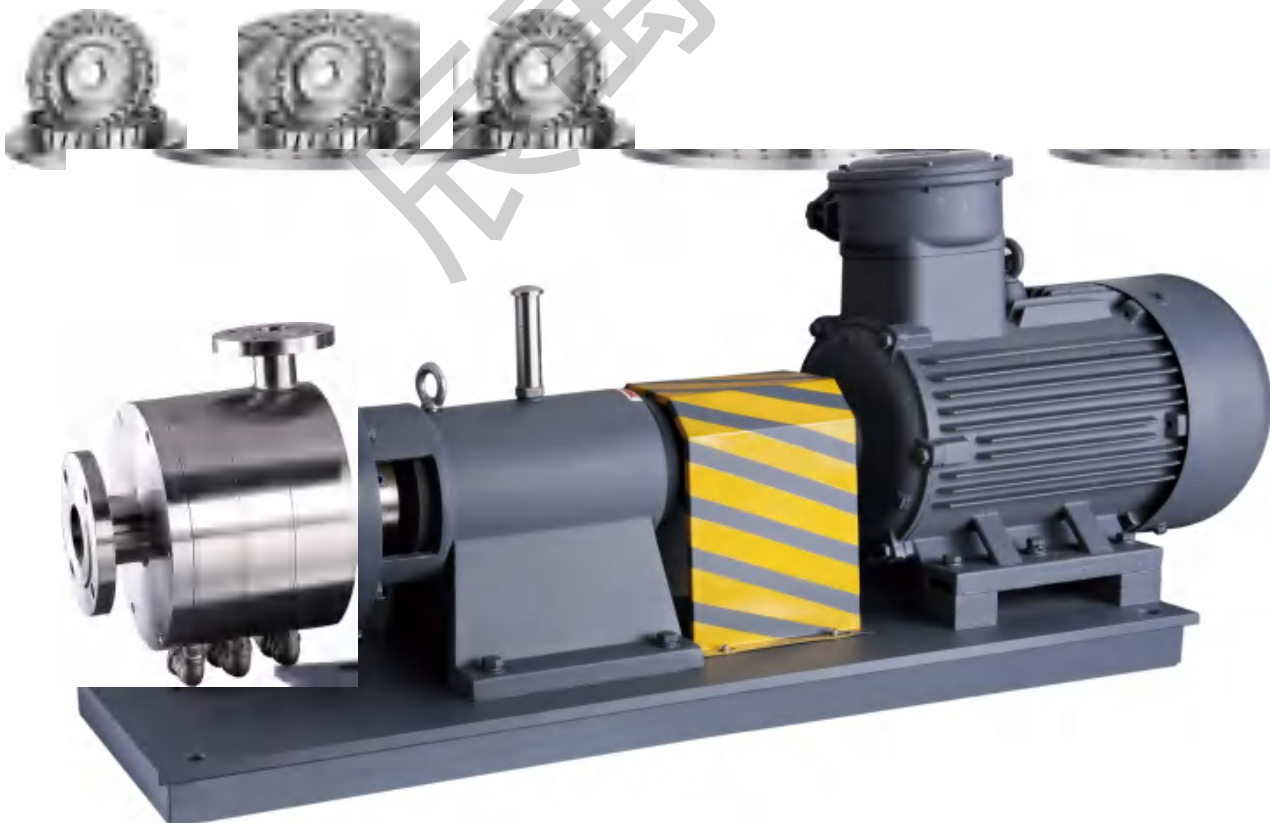
FHM3 混合均质乳化泵

FHM3混合均质乳化泵是在FHM1型的基础上延伸开发，其工作腔体内由三组转子、定子组成，物料通过转子、定子进行逐级分散、精细、乳化，是一种集混合、分散、破碎、溶解、精细、解聚、均质、乳化、输送为一体的高效型超细均质泵。该产品的密封装置采用双端面水冷却机械密封，根据用户需要，可配置加热保温或冷却装置。

FHM3均质乳化泵适用于大、中批量连续性在线生产或循环处理生产工艺。使用该系列产品后，使原有的传统生产工艺进一步简化，生产效率大幅度提高，产品质量明显改善。

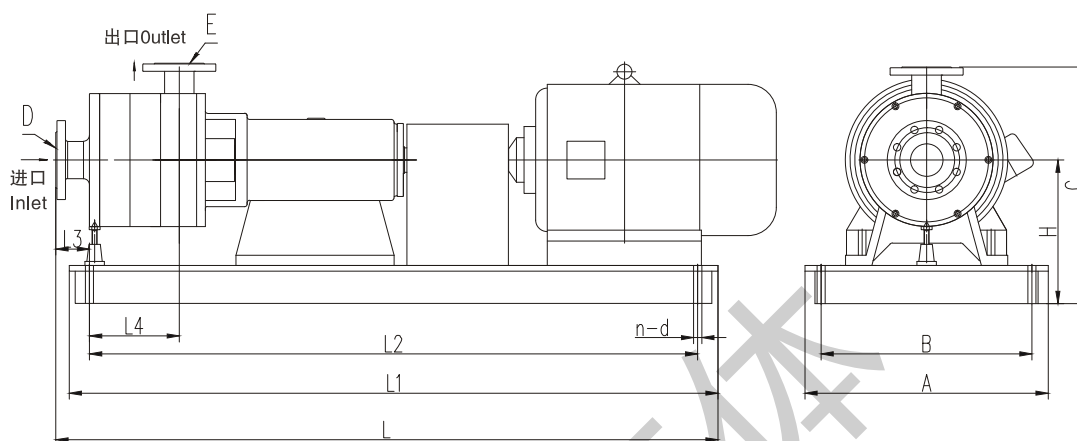
FHM3 homogenizer mixing pump is an extension of the FHM1 type. The working chamber is composed of a total of 12 layers of three-stage rotor and stator. Proceed products are dispersed, refined and emulsified by the rotor and stator in stages. FHM3 series is an high efficiency ultra-fine homogeneous pump with mixing, dispersion, breaking, dissolution, refinery, homogenization, emulsifying and transporting. The sealing of FHM3 series can be either double face or single face according to the properties of the processed materials. It also can have heating insulation or cooling device if required by the users.

FHM3 series is suitable for large and medium batch continuous online production or cyclic processing production process. It can greatly simplify the traditional production and upgrade the production efficiency and product quality.



INSTALLATION DIMENSIONS AND PARAMETERS

安装图和参数



型号 Model	功率 Power	转速 RPM	流量 Flow	出口压力 Dis. Pre.	口径 Caliber		L	L1	L2	L3	A	B	C	H	n-d
	kW	r/min	m ³ /h	MPa	D mm	E mm									
FHM3/100	7.5	2900	3	0.15	32	25	1050	1000	900	90	250	280	300	150	4-Φ14
FHM3/140	11	2900	5	0.20	40	32	1200	1150	1020	100	280	350	396	195	4-Φ20
FHM3/165	18.5	2900	10	0.30	50	40	1400	1350	1250	100	450	380	465	265	4-Φ20
FHM3/185	30	2900	20	0.30	65	50	1550	1500	1400	100	500	440	478	265	4-Φ20
FHM3/200	45	2900	30	0.30	80	65	1640	1600	1500	85	600	520	595	355	4-Φ24
FHM3/220	55	2900	40	0.30	80	65	1640	1600	1500	85	600	520	615	355	4-Φ24
FHM3/240	90	2900	60	0.30	100	80	1800	1750	1600	120	600	520	685	366	4-Φ26
FHM3/260	132	2900	100	0.30	125	100	2160	2150	2050	60	700	620	600	410	4-Φ26
FHM3/300	160	1400	120	0.30	125	100	2200	2000	1850	60	580	500	700	320	4-Φ26

注：表中流量是指“水”为介质时测得的数据；对流动性较差的介质，建议在进口处安装一台流量相匹配的转子泵。以上安装尺寸仅供参考，尺寸单位为mm。

Note: The flow in the table refers to the data taking water as medium. For liquid with poor liquidity, lobe pump is advised to be installed before the homogenizer mixing pump. Dimensions are only for reference, unit is mm.

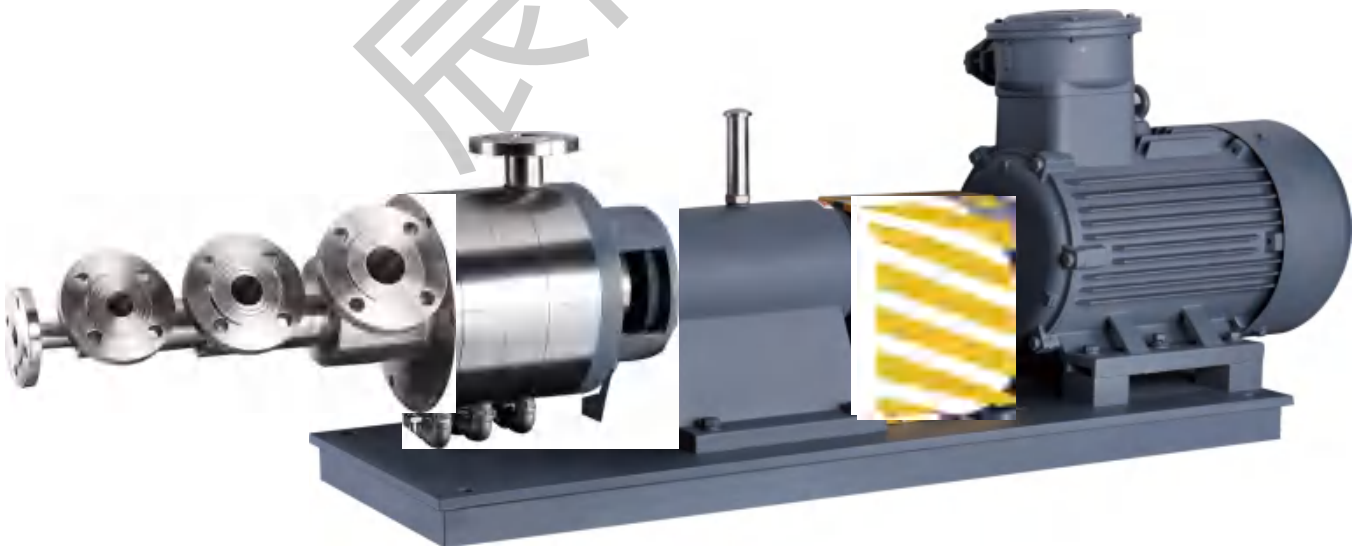
FHC HOMOGENIZER MIXING PUMP

FHC 均质混合泵

FHC均质混合泵由多管混合头与混合泵组成，混合泵由2-5层的转子和定子组成，每层转子和定子的齿轮盘由粗到细，使原始各组不同成份的物料按比例要求在瞬间混合均质。该产品广泛应用于生产工艺流程中需要多种物料进行混合均质以及化工流程工艺中的中和混合。使用该混合设备后，使原有的传统生产工艺进一步简化，生产效率大幅度提高，混合后的产品质量明显改善。

The FHC homogenizer mixing pump is composed of a multi-tube mixing head and a mixing pump. The mixing pump is composed of 2 to 5 layers of rotors and stators, and the teeth of each layer of rotors and stators are from coarse to fine, so that the original groups of material with different components Proportions are processed in an instant homogeneous mixing.

FHC pump is widely used in the production process, which requires multiple materials to be mixed and homogenized, and neutralized in the chemical process. After using FHC pump, the original traditional production process is further simplified, the production efficiency is greatly improved, and the quality of the mixed product is significantly improved.



TECHNICAL PARAMETERS

技术参数



型号 Model	处理量 Capacity	系统压力 Pressure	功率 Power	转速 RPM
	m ³ /H	Mpa	kW	R/min
FHC10-185	1-3	0.1-1.6	2.2-4	260-1400
FHC20-185	3-6	0.1-1.6	3-5.5	260-1400
FHC10-200	5-10	0.1-1.6	3-7.5	260-1400
FHC20-200	10-15	0.1-1.6	4-11	260-1400
FHC15-260	15-20	0.1-1.6	5.5-15	260-1400
FHC25-260	20-30	0.1-1.6	7.5-18.5	260-1400
FHC15-300	40-50	0.1-1.6	11-30	260-1400
FHC30-300	50-80	0.1-1.6	15-45	260-1400
FHC15-360	80-120	0.1-1.6	22-55	260-1400
FHC30-360	120-160	0.1-1.6	30-75	260-1400
FHC15-400	160-220	0.1-1.6	55-90	260-1400
FHC30-400	220-250	0.1-1.6	75-110	260-1400
FHC15-460	260-320	0.1-1.6	90-132	260-1400
FHC30-460	320-350	0.1-1.6	110-160	260-1400

注：表中流量是指“水”为介质时测得的数据；对流动性较差的介质，建议在进口处安装一台流量相匹配的转子泵。

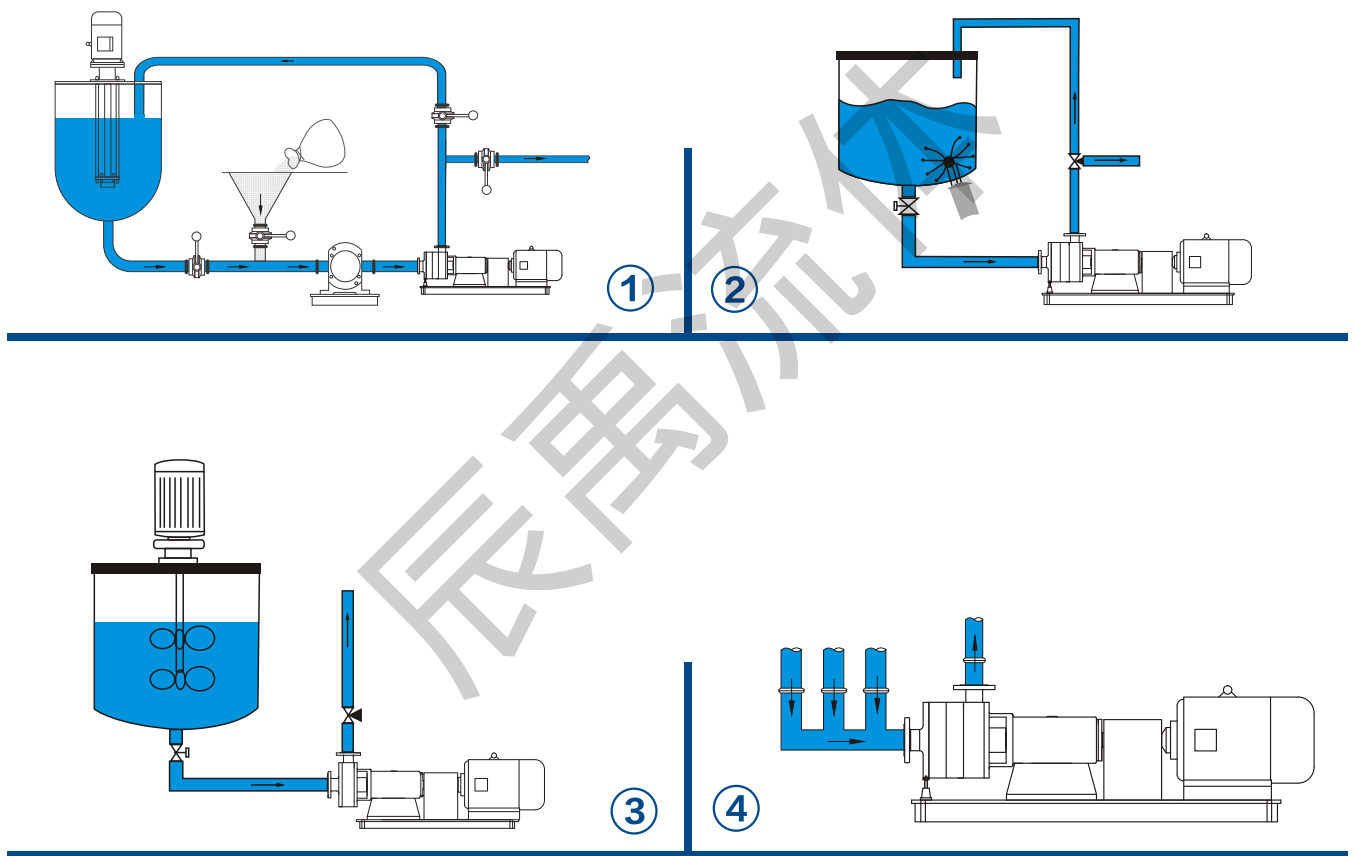
Note: The flow in the table refers to the data taking water as medium. For liquid with poor liquidity, lobe pump is advised to be installed before the homogenizer mixing pump.

APPLICATIONS PROCESS

应用工艺

对于各种流程工艺，由不同的设备来匹配，并进行优化组合，使系统达到最佳工作效果。常见的工艺流程图如下：

For various processes, different equipment is used to match and optimize the combination, so that the system achieves the best working effect. The common process flow diagram is as follows:



- ① FHM3系列混合均质乳化泵与转子泵的组合，处理高粘度物料的均质乳化。
FHM3 homogenizing mixer works with lobe pump, to handle high viscous mixture.
- ② 罐底式高剪切分散乳化机与FHM1混合均质乳化泵组合。
Bottom type high shear mixer working with FHM1 homogenizing mixer.
- ③ 低速搅拌器与FHM3混合均质乳化泵组合。
Low speed agitator working with FHM3 homogenizing mixer.
- ④ 多管式FHC混合均质乳化泵连续性生产工艺流程。
Multi-pipe FHC homogenizing mixer continuous production process.

混合均质乳化泵·选型指南

混合均质乳化泵是一种集混合、分散、破碎、溶解、精细、解聚、均质、乳化为一体的高效型产品，询价时尽可能提供下表的相关内容，以便我们为您提供理想的选型方案。

客户信息			
公司名称:		联系人:	
公司地址:		手机:	
电 话:		传真:	
物料信息			
行业: _____	介质名称: _____		
介质特性: 腐蚀性 [<input type="checkbox"/>] 有毒 [<input type="checkbox"/>] 卫生型 [<input type="checkbox"/>]			
应用用途: 混合 [<input type="checkbox"/>] 分散 [<input type="checkbox"/>] 悬浮 [<input type="checkbox"/>] 破碎 [<input type="checkbox"/>] 溶解 [<input type="checkbox"/>] 精细 [<input type="checkbox"/>] 解聚 [<input type="checkbox"/>] 均质 [<input type="checkbox"/>] 乳化 [<input type="checkbox"/>]			
物料配比及参数: 液相 a _____ % 固相 a _____ % 粘度 _____ cp 液相 b _____ % 固相 b _____ % 粘度 _____ cp			
工作参数			
工作方式: 间歇式 _____ 连续 _____			
工作温度: 正常 _____ °C 最高 _____ °C 最低 _____ °C			
进料粒度: _____ (mm, μm) 细化要求: _____ (mm, μm)			
处理量: _____ m ³ /H 容器尺寸: 直径 _____ mm 高度 _____ mm			
输送要求: 总长 _____ m 高度 _____ m 系统压力 _____ Mpa			
结构要求			
是否保温: 是 [<input type="checkbox"/>] 否 [<input type="checkbox"/>]			
密封要求: 机械密封 [<input type="checkbox"/>] 其它 [<input type="checkbox"/>]			
传动方式: 普通电机 [<input type="checkbox"/>] 变频电机 [<input type="checkbox"/>] 防爆电机 [<input type="checkbox"/>]			
电机电压: _____ V 频率: _____ Hz 防爆等级: _____ 防护等级: _____ 能效等级: _____			
进料口径: _____ mm 出料口径: _____ mm			
连接方式: 法兰式 [<input type="checkbox"/>] 螺口式 [<input type="checkbox"/>] 卡箍式 [<input type="checkbox"/>] 其它 [<input type="checkbox"/>]			
安装方式: 固定式 [<input type="checkbox"/>] 移动式 [<input type="checkbox"/>]			
过流材质: SS304 [<input type="checkbox"/>] SS316 [<input type="checkbox"/>] SS316L [<input type="checkbox"/>] 其它 _____			
现有工艺设备及存在的问题:			
订购数量: _____			

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