

KEDUN科顿

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卫生级不锈钢泵系列
Sanitary stainless steel pump series

KEDUN科顿



企业简介 Company Profile

浙江科顿机械有限公司是一家专业从事食品饮料、生物制药机械、制造型企业。本公司集技术研发、工程设计、设备制造、工程安装、培训服务为一体。

科顿公司具有最先进的日本LGMAZAK的CNC数控车床及加工中心，专业生产高品质卫生泵、卫生级过滤设备、不锈钢容器以及流体设备。主要产品包括卫生级离心泵，CIP回程泵，转子泵；袋式过滤器，微孔膜过滤器。

科顿公司拥有一支专业化的技术和销售团队，先进的加工设备和高效的施工团队。先后与国外同行合作，引进并消化和吸收国外先进的设计和制造技术。结合自身优势不断创新，制造出与国外同等一流的产品。

Zhejiang Kedun Machinery Co., Ltd. is one enterprise that specialized in the food and beverage, pharmaceutical, machinery, manufacture. The company set technology research and development, engineering design, equipment manufacturing, engineering installation, training services as a whole.

KEDUN company has the most advanced Japanese LGMAZAK CNC lathes and machining centers, specializing in the production of high quality sanitary pump, sanitary filter plant, stainless steel container and fluid equipment. The main products include sanitary centrifugal pump, CIP return pump, rotor pump; bag filter, microporous membrane filter.

KEDUN company has a professional technical and sales team, advanced processing equipment and efficient construction team. Successively to cooperate with foreign companies, bring in and digest and absorb foreign advanced design and manufacturing technology. Combined with their own advantages continuous innovation, manufacture equal to foreign first-class products.

装备与检测 Equipment And Detect



科顿坚信优质的产品除了有优质的管理、优秀的员工、优良的工作环境、卓越的设计理念，更须拥有先进、精良的机械加工专用设备。

Kedun strongly believes that high quality products are manufactured not only through excellent management, prominent employees, good working environment and supreme design conception, but also through advanced and fine special equipment for mechanical machining.

产品展示

Products Display



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离心泵(KDP 系列)

Centrifugal Pumps (KDP Series)



应用

- 该离心泵是不锈钢制造，带有不锈钢电机外罩。
- 卫生和低成本效益的设计，使它非常适用于乳制品，饮料、食品加工，制药和精细化工工业中。

工作原理

- 叶轮安置在泵壳里面，它和泵轴一起在联合中旋转，叶轮叶片动能和压能的形式将能量传达给流体。
- 该泵即使通过简单的反向旋转，也是不可行的。从电机后面也可以看出泵的旋转方向，正确的旋转方向，是顺时针的。

设计特点

- 不锈钢电机外围由冷成型板做成；开式叶轮或闭式叶轮由不锈钢熔模铸造。
- 可调节不锈钢脚；根据3A卫生标准认证；IEC或NEMA B35电机，IP55，F等级绝缘，50HZ,60HZ。

Design Features

- Casing manufactured with cold-formed plate. Open impeller and close impeller manufactured with stainless steel investment casting.
- Adjustable stainless steel legs. Pump designed according to 3A sanitary standards. IEC NEMA B34 motors, IP 55, F-class insulation, 50HZ, 60HZ.

Applications

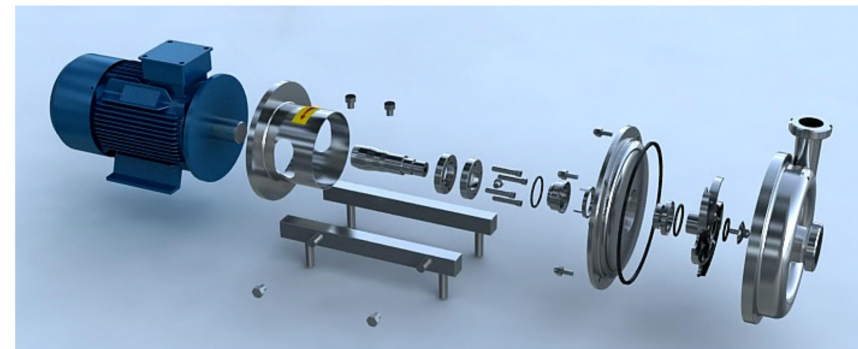
- The centrifugal pump is manufactured in stainless steel and with a hrouded motor.
- Its sanitary and cost-efficient design makes it perfect for the dairies, beverages, food-processing, pharmaceutical and fine chemicals industries.

Operating Principles

- Housed inside the casing, the impeller rotates in conjunction with the pump shaft. With this arrangement, the impeller blades convey energy to the fluid in the form of kinetic energy and pressure energy.
- This pump is not reversible by simple reversal of the direction of rotation. The direction of rotation is clockwise when the pump is viewed from the rear side of the motor.

技术参数 Main Parameter

最大流量 Max. flow	130 m ³ /h
最高扬程 Max. head	70H(m)
最高温度 Max. temperature	120°C / 248° F
最高转速 Max. rev	3600 min-1
卫生认证 Certificate	3A-02-10/NO.1597, 密封FDA.177.2600



选项

- 机械密封圈：C/SiC，TC/TC；
- 垫圈：FPM(VITON)和NBR；
- 进出口连接：卡箍、螺纹、法兰，DIN,SMS,RJT,IDF；
- 电机2900，1450,3600Min/1,50HZ,60HZ；
- 单端面机械密封(标准)；
- 水冲洗双端面机械密封(选项)。

材质

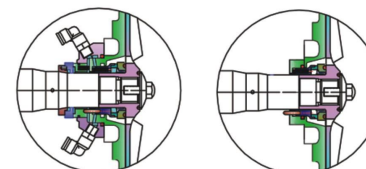
- 与物料接触部位：AISI 316L/304；
- 垫圈(标准)：EPDM (FDA)；
- 机械密封圈(标准)：C/SiC/EPDM；
- 内表面处理：Ra ≤0.8；
- 外表面处理：喷砂处理或抛光处理。

Options

- Mechanical seal in: C/St.S and SiC/SiC.
- Gaskets in: FPM (Viton)and PTFE.
- Connections: Clamp,thread,flange,DIN,SMS,RJT,IDF.
- Motor 2900, 1450,3600 rev./min., 50HZ,60HZ.
- Single mechanical seal(standard).
- Flushed couble mechanical seal(Options).

Materials

- Parts in contact with pumped media: AISI 316L/AIS304.
- Gaskets (standard): EPDM (FDA).
- Mechanical seal (standard): C/SiC/EPDM.
- Inside surface finishing: Ra ≤0.8 um.
- Outside surface finishing: Sandblast or Mirror Polish.



水冲洗双端面机械密封
Flushed double mechanical seal

单端面机械密封
Single mechanical seal

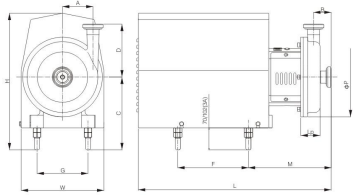
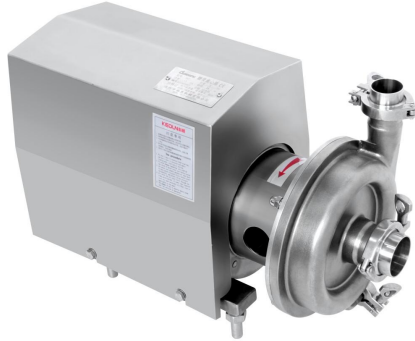
电机采用IEC EN IE2高效等级(相当于中国二级能效)，PTC热敏电阻。
Motor the IEC EN IE2 (Equivalent to China two energy efficiency), PTC thermistor

宽电压电压 Wide Input Range Motor

功率 (kW) Power	电压备注 Voltage	功率 (kW) Power	电压备注 Voltage
0.55	210V-230V/50HZ 360V-400V/50HZ 420V-460V/60HZ	4	360V-400V/50HZ 630V-690V/50HZ 420V-460V/60HZ
0.75		5.5	
1.1		7.5	
1.5		11	
2.2		15	
3		18.5	
		30	

其他电压和频率电机请与格东联系。
Please contact DGEDONG for any other voltage or frequency of motor.

离心泵(KDP 系列) Centrifugal Pumps (KDP Series)

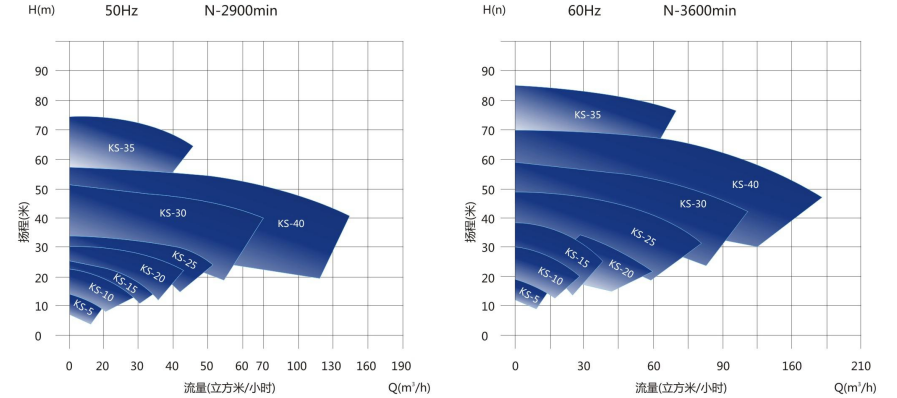


开式离心泵安装尺寸 Centrifugal Pump Open Impeller Series

型号 Modes	泵头规格 Pump dimension						外形安装尺寸 Assembly dimension												3A 标准
	功率(w) Power	进口 d1/DN	出口 d2/DN	ΦP	Lp	机械密封 Mechanical seal	A	B	C	D	M	F	G	H	L	W	C	H	
KDP-5	0.75	1.5' /32	1.5' /32	189	50	Φ32	63	56.5	200	136	169	203	125	370	452	210	232	402	
	0.75	1.5' /32	1.5' /32	189	50	Φ32					173	203	125	370	452	210	232	402	
	1.1	1.5' /32	1.5' /32	189	50	Φ32					175	203	125	370	452	210	232	402	
KDP-10	1.5	1.5' /40	1.5' /40	189	50	Φ32	190		190		161	240	140	360	492	210	222	392	
	2.2	1.5' /40	1.5' /40	189	50	Φ32					162	240	140	360	492	210	222	392	
	1.5	2' /50	1.5' /40	250	61	Φ32					187	240	140	360	525	210	222	392	
KDP-15	2.2	2' /50	1.5' /40	250	61	Φ32	95.6	44	190	155	187	240	140	360	525	210	222	392	
	3	2' /50	1.5' /40	250	61	Φ32					171	300	160	430	593	260	262	462	
	3	2' /50	2' /50	250	74.5	Φ32					171	300	160	430	592	260	262	462	
KDP-20	4	2' /50	2' /50	250	74.5	Φ32	90.2	45	222	155	179	300	190	430	598	260	254	462	
	5.5	2.5' /65	2' /50	250	74.5	Φ32					197	330	216	460	653	310	274	462	
	3	2' /50	1.5' /40	268	57	Φ32					173	300	216	430	500	260	262	462	
KDP-25	4	2' /50	1.5' /40	268	57	Φ32	108	60	242	158	181	300	216	430	590	260	254	462	
	5.5	2.5' /65	2' /50	268	57	Φ32					196	330	254	460	651	310	274	492	
	7.5	2.5' /65	2' /50	268	57	Φ32					199	330	254	460	651	310	274	492	
KDP-30	7.5	2.5' /65	1.5' /40	350	86.5	Φ36	131	76	242	229	216	330	254	460	721	310	274	492	
	11	2.5' /65	1.5' /40	350	86.5	Φ36					234	450	254	575	871	375	322	607	
	15	2.5' /65	2' /50	350	86.5	Φ36					240	450	254	575	871	375	322	607	
KDP-35	11	2.5' /65	2.5' /65	303	90	Φ36	105	83.5	290	214	235	450	254	575	866	375	322	607	
	15	3' /80	2.5' /65	303	90	Φ36					236	450	254	575	866	375	322	607	
	18.5	3' /80	2.5' /65	303	90	Φ36					234	450	254	575	921	375	322	607	
KDP-40	22	3' /80	2.5' /65	303	90	Φ36			310		234	515	279	625	946	400	342	657	

注意：详细选型详见选型表；以下表格里的尺寸为参考值，实际尺寸以实物为准。
Attention: Please refer to selection table for details of next page, The size in the following form is the reference value, the actual size is according to practicality.

离心泵型号说明 Model Instruction Of Centrifugal Pump



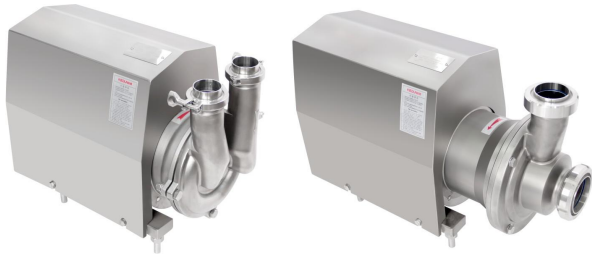
SCP系列型号 SCP Series Pump And Motor Configuration

	型号 Modes	流量 Flow	扬程 Lift	功率 Power	进口/出口 Inlet / Outlet	电机品牌 Motor Option
1	KDP-1-5-14	1.5 T	14 M	0.55KW	38/32	ABB电机 ABB Motor 西门子电机 SIEMENS Motor
2		3 T	16 M	0.75KW	38/38	
3	KDP-5-16	5 T	16 M	1.1KW	38/38	
4		3 T	24 M	1.5KW	51/38	
5	KDP-3-30	3 T	30 M	2.2KW	51/38	
6		5 T	24 M	1.5KW	51/38	
7	KDP-5-30	5 T	32 M	2.2KW	51/38	
8		10 T	24 M	2.2KW	51/38	
9	KDP-10-36	10 T	36 M	3KW	51/38	
10		15 T	24 M	3KW	51/51	
11	KDP-20-24	20 T	24 M	4KW	51/51	
12		20 T	36 M	5.5KW	51/51	
13	KDP-25-35	25 T	35 M	5.5KW	51/51	
14		30 T	24 M	5.5KW	63/51	
15	KDP-30-36	30 T	36 M	7.5KW	63/51	
16		40 T	24 M	7.5KW	63/51	
17	KDP-20-60	20 T	60 M	11KW	63/51	
18		30 T	50 M	11KW	63/63	
19	KDP-40-35	40 T	35 M	11KW	63/63	
20		40 T	50 M	15KW	76/63	
21	KDP-60-30	60 T	30 M	15KW	76/63	
22		30 T	60 M	15KW	76/51	
23	KDP-50-50	50 T	50 M	18.5KM	76/63	
24		80 T	50 M	22KM	89/76	



自吸泵(KD-CIP 泵)

Self-Priming Pump (KD-CIP Pump)



应用

- 该泵为卫生设计侧槽，自吸的泵，适用于食品加工，制药和化学工业中。
- 它专门设计于用来抽吸含有空气或气体的物料，它也可以被用于带优先抽吸及过滤设备的负吸入中。
- 它可用于酒，油，糖浆，挥发物，如酒精，丙酮和其他溶剂，或是温度临近沸点的其他物料。但是，该泵的主要用途是用于CIP的回收。

Applications

- The pump is a sanitary side channel self priming pump, it's suitable for food processing, pharmacy and chemical industry.
- It is specially designed for pumping materials containing air or gas, and it can also be used for negative suction with prior priming as well as with filtration equipment.
- It can be used with wine, oil, syrups, volatile products such as alcohol, acetone and other solvents, or with products at temperatures close to boiling point. However, the main use of this pump is for CIP return.

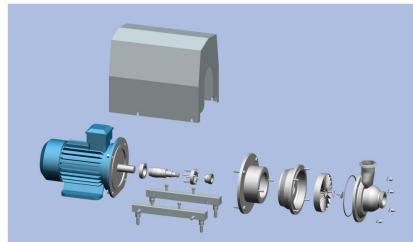
选项

- 机械密封圈SiC
- 垫圈FPM(Viton) and PTFE
- 进出口连接：卡箍、螺纹、法兰，DIN，SMS，3A，RJT

Options

- Mechanical seal in SiC
- Gaskets in FPM(Viton) and PTFE
- Inlet & outlet connections: Clamp, Thread, Flange, DIN, SMS, 3A, RJT

电机参数：安装型号B35, 频率50HZ/60HZ。
Motor type: B35, Motor frequency 50HZ/60HZ.



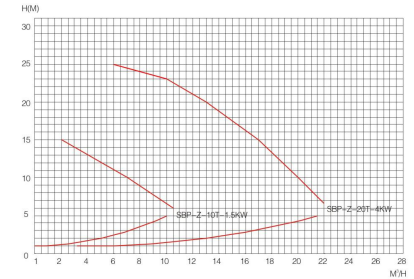
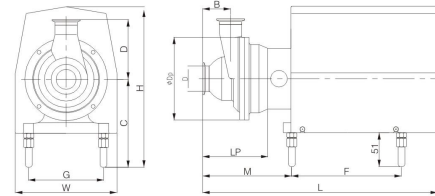
电机功率(KW) Motor Power(KW)

功率 (kW) Power	电压备注 Voltage	功率 (kW) Power	电压备注 Voltage
2.2	210V~230V/50HZ 360V~400V/50HZ 420V~460V/60HZ	5.5	360V~400V/50HZ 630V~690V/50HZ 420V~460V/60HZ
3		7.5	
4		11	

技术参数 Main Parameter

最大流量Max. flow	30m ³ /h 132 GPM
最高扬程Max. head	36 H(M)
最大压力Max. pressure	3.6Bar/52Psi
最高温度Max. operating temp	120°C/ 248° F
最高转速Max. Rev.	1750 min
最大吸程Max. suction height	6m / 17 ft

安装尺寸图 Assembly Dimension



系列 CIP	泵头规格 Pump dimension							外形安装尺寸 Assembly dimension										3A 标准	
	功率(kw) Power	进口 d'/DN	出口 d''/DN	ΦDP	Lp	机械密封 Mechanical seal	B	C	D	M	F	G	H	L	W	C	H		
CIP-B07	2.2	2"/50	2"/50	192	160	Φ32	71	230	142	233	300	160	430	652	260	262	462		
CIP-B10	3	2"/50	2"/50	192	160	Φ32	71	230	142	233	300	160	430	652	260	262	462		
CIP-B20	4	2.5"/65	2"/50	248	200	Φ32	83.5	210	185	254	300	190	422	642	260	242	454		
CIP-B25	5.5	2.5"/65	2.5"/65	248	200	Φ32	83.5	242	185	262	330	216	460	772	310	274	492		
CIP-B30	7.5	3"/80	2.5"/65	248	200	Φ32	83.5	242	185	282	330	216	460	772	310	274	492		

注意：详细选型详见选型表；以下表格里的尺寸为参考值，实际尺寸以实物为准。
Attention: Please refer to selection table for details of next page, The size in the following form is the reference value, the actual size is subjected to actual object.

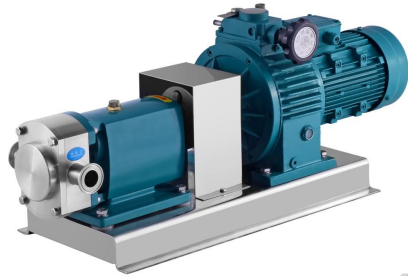


自吸泵选型表 Pump Selection Table

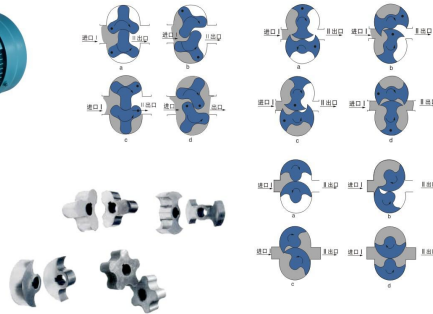
型号 Model	流量(吨) Flow(m ³ /h)	吸程 Absorption process(m)	扬程 Discharge head(m)	功率 Power(kw)	进/出口 Inlet & Outlet
CIP-KD07	7	6	24	2.2kw	2"/2
CIP-KD10	10	6	24	3kw	2"/2
CIP-KD20	20	6	24	4kw	2.5"/2.5"
CIP-KD25	25	8	24	5.5kw	3"/2.5"
CIP-KD30	30	8	24	7.5kw	3"/2.5"

卫生级凸轮泵(转子泵)

Hygienic Lobe Pump (Rotor Pump)



工作示意图 Work Schematic Drawing

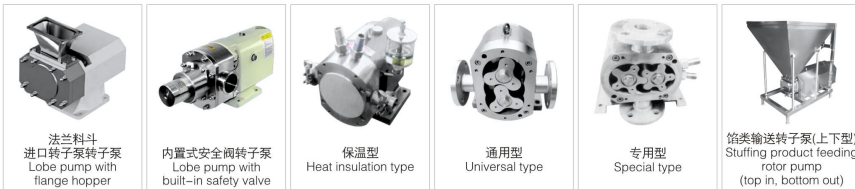


转子泵结构图 Rotor Pump Configuration



- 1.螺帽 2.泵盖 3.密封圈 4.拼帽 5.密封圈 6.转子 7.泵腔 8.机械密封(静环) 9.机械密封(动环) 10.密封圈 11.轴套 12.轴承盖
- 13.密封圈垫 14.橡胶油封 15.轴承座 16.密封圈垫 17.轴承
- 18.上主轴 19.下主轴 20.斜齿轮 21.止退垫圈 22.拼帽 23.螺杆
- 24.泵主体 25.轴承 26.橡胶油封 27.密封垫圈 28.轴承盖 29.销子

- 1.Screw cap 2.Pump cover 3.Seal ring 4.Cap 5.Seal ring
- 6.Rotor 7.Pump cavity 8.Mechanical seal (stationary ring)
- 9.Mechanical seal(moving ring) 10.Seal ring 11.Bearing sleeve
- 12.Bearing cover 13.Seal gasket 14.Rubber oil seal 15.Bearing seat
- 16.Seal gasket 17.Bearing 18.Upper shaft 19.Lower shaft
- 20.Helicalgear 21.Stop washer 22.Cap 23.Screw
- 24.Pump body 25.Bearing 26.Rubber oil seal 27.Seal gasket
- 28.Bearing cover 29.Pin



法兰料斗
进口转子泵
Lobe pump with
flange hopper

内置式安全阀转子泵
Lobe pump with
built-in safety valve

保温型
Heat insulation type

通用型
Universal type

专用型
Special type

馅料输送转子泵(上下型)
Stuffing product feeding
rotor pump
(top in, bottom out)

应用范围

- 食品工业: 酸牛奶、鲜奶油、冰淇淋、乳酪块、乳清、啤酒、麦芽汁、酵母、汽水、水果冻、果汁、饮料、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、调味佐料、面包糕点、肉糜、碎肉、肉油、食用油、糖果、糖浆、稀奶油馅、巧克力等。
- 日用化工: 面霜洗液、发型凝胶、染发剂、香油精、牙膏、洗涤剂、洗发精、鞋油、化妆品、香精、肥皂、油脂等。
- 制药工业: 各型丸糊、乳化剂、糖浆、营养液、中药、膏状药剂、生物制品、鱼花粉、蜂蜜浆、疫苗。
- 化工工业: 脂肪、溶剂、树脂、聚合物、油漆、颜料、染料、涂料、润滑油、润滑脂、石油剂、乳化沥青、胶粘剂、塑料、炸药、玻璃钢、皮革等。
- 建筑工业: 各种涂料。包括内外墙涂料、防腐料、陶瓷涂料、油漆涂料、陶瓷粘料等。
- 其它工业: 塑料工业、纺织工业、造纸工业、煤炭浮剂、纳米材料、生物化工等行业。

Applications

- Food Industry: Yogurt, Fresh Butter, Ice Cream, Cheese, Whey, Beer, Wort, Yeast, Soft Drink, Fruit Jelly, Fruit Drink, Ketchup, Fruit Puree, Vegetable Mash, Pudding, Fruit Jam, Jelly, Flavor, Fruit Stuffing, Sweet, Yeast, Seasoning, Bread, Meat Gruel, Comminuted Meat, Meat Oil, Edible Oil, Candy, Syrup, Thin Cream Dressing, Chocolate, Etc.
- Daily Chemicals: Cleansing Facial Milk, Hair Gel, Hair Dyes, Essence Oil, Toothpaste, Detergent, Shampoo, Shoe Polish, Cosmetics, Perf-umery Compound, Soap, Balsam, Etc.
- Pharmacy: Various Pill, Paste, Emulsifier, Syrup, Nutrition Liquid, Chinese Traditional Patent Medicine, Medicine Grease, Biological Products, Fish Meal, Pollen, Royal Jelly, Vaccine.
- Chemical Industry: Fat, Dissolvent, Resin, Polymer, Paint, Pigment, Dyes, Coating Material, Lubricant, Lubricating Grease, Oil Agent, Emulsified Asphalt, Adhesive, Plastic, Explosives, Glass Fiber Reinforced Plastics, Leather, Etc.
- Construction Industry: Various Coating, Including Indoor/outdoor Wall Coating, Corrosion And Water Proof Coating, Ceramic Coating, Paint Coating, Ceramic Glazing, Etc.
- Other Industries: Plastic Industry, Textile Industry, Papermaking Industry, Coal Flotation Agent, Nanometer Material, Biochemical Industry, Etc.

工作原理

转子泵又称腔体泵, 三叶泵等。依靠两同方向反向转动的转子(齿数为2-4)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成几个小空间, 并按a→b→c→d的次序运转。运转至位置a时, 只有I室中充满介质; 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。如此循环往复, 介质(物料)即被源源不断地输送出。

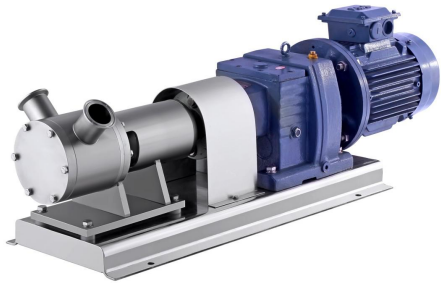
Operation Principle

Rotor pump is also named rotary lobe pump, three-lobe pump, etc. When the 2 simultaneous reverse rotating rotors(with 2-4 gears)revolve, it produces suction force at the inlet(vacuum), which intakes the material delivered. The 2 rotors divide the rotor housing into many smaller parts and revolve in the sequence of a→b→c→d. When it revolves to position a, only housing I is filled with medium, when it goes to position b, housing B encloses medium, and finally it goes to position d, then housing A, B and II are interlinked and the medium is transported to the outlet. As this process is repeated, medium (material) is transported continuously.

技术参数 Main Parameter

型号 Model	每百转排量(L) Flow per 100 Rotation	建议调整范围(RPM) Suggested roation speed	V对应流量(L-H) Capacity	电机功率(KW) Power
KDL-3	3	200-500	300-800	0.55
KDL-6	6	200-500	650-1600	0.75
KDL-8	8	200-500	850-2160	1.5
KDL-12	12	200-500	1300-3200	2.2
KDL-20	20	200-500	2100-5400	3
KDL-30	30	200-400	3200-6400	4
KDL-36	36	200-400	3800-7600	4
KDL-52	52	200-400	5600-11000	5.5
KDL-66	66	200-400	7100-14000	7.5
KDL-78	78	200-400	9000-18000	7.5
KDL-100	100	200-400	10000-22000	11
KDL-135	135	200-400	15000-30000	15
KDL-160	160	200-400	17000-34000	18.5
KDL-200	200	200-400	21600-43000	22

正弦泵 Sine Pump



截面图 Sectional diagram



材质: 304 316L
连接形式: 平接 活接 法兰
机械密封形式: 干磨式机械密封
静密封: 硅橡胶 氟橡胶 聚四氟乙烯/三元乙丙橡胶
减速机: 齿轮减速机
无极调速器

Material: 304 316L
Connection type: butt joint, union, flange
Mechanical seal type: dry grinding type mechanical seal
Static seal: silicone rubber, fluorine rubber, PTFE/EPDM
Speed reducer: gear reducer
Stepless speed adjuster

技术优势

- 正弦泵—效率卓越，是高粘度，超低剪切输送的最佳选择；
- 超低剪切输送，与转子泵相比，即使含有大量固体物质和易碎物质，任可安全无破坏性输送；
- 高粘度性能达到流动能力的极限，可达4,000,000cps；
- 无脉冲，平稳输送，精确调节流动容积，无干扰震动，装料机可均匀供应稳定产品量；

Technology Advantage

- Sine pump—excellent efficiency, high viscosity Best selection of super low shear feeding.
- Super low shear feeding. Compared with rotor pump although with a great deal of solid particle and fragile product A safe and no damage feeding can be provided.
- High viscosity performance reaches the limit of flowing capability Can reach 4,000,000cps.
- No pulse, stable feeding. Flow cubage adjustment precisely, without interference and shock Filling machine can supply a stable product dose evenly.

功能原理

- 任何精品或功能良好的产品均具有简约的构造——又包括少数组件……正弦泵亦不例外；
- 叶轮的正弦波造型意味着每次转动均可形成一个腔室(每次经过衬套空间时可发生4次)。通过该运动，可“推动”或“排放”流动产品。控制刮板将泵腔分为吸入腔室和排出腔室，保证进出口的压差。同时，控制刮板也发挥着另一项重要作用，即通过产品对泵轴承进行强制润滑；
- 正弦泵：不使用转子、行星齿轮、活塞等装置，而是采用了特殊制造的叶片，叶片形状如两条正弦波曲线。同时与一个活动刮板和一个固定衬套共同动作。构成一种特殊形式的容积泵。这样可实现流体的超低剪切。无脉冲输送。即使在10bar的背压条件下(输送水)，压力计上亦不显示任何移动。

Function Principle

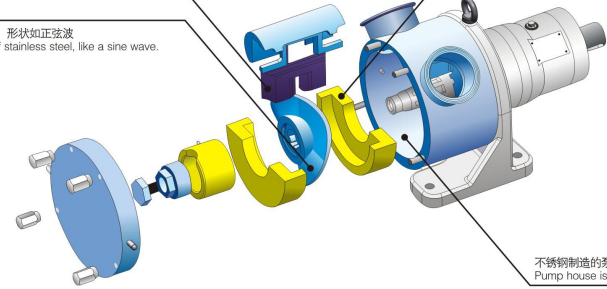
- Any exquisite product or good functional product has a simple configuration——including few components…… Sine pump is not an exception.
- The sine wave shape of impeller means a cavity can be formed at every rotation (4 cavities can be formed every passing the lining space). This operation can "push" or "release" flowing products. The pump cavity is divided into suction chamber and extraction chamber by control panel to ensure pressure tolerances at exit and entrance. Meanwhile, control panel plays another important role to lubricate the pump bearing by product in compulsion.
- Sine pump: Special two sine-curve-like vane is taken, instead of rotor, epicyclic gear or piston, and it runs with a movable panel and a fixed line, forming a special volume pump and realizing liquid super low shear, without pulse feeding, although in condition of 10bar back pressure (water feeding), there won't be any movement on pressure gauge.

结构展示图 Structural diagram

不同材料制造的控制刮板，用以分隔吸入和排出出口，保证出口压力。
Control panel is made of different materials to divide suction mouth and extraction mouth, ensuring the exit pressure.

根据不同的输送介质，使用不同材料制造的衬套，如聚酰胺(Polyamide, Peek或不锈钢)。
According to different feeding mediums, lines are made of different material such as polyamide, peek or stainless steel.

叶片由不锈钢制成，形状如正弦波。
Impeller is made of stainless steel, like a sine wave.



不锈钢制造的泵壳
Pump house is mae of stainless steel

加热或冷却

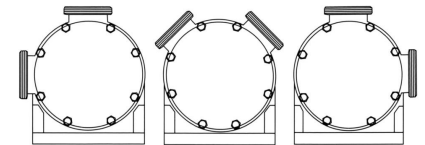
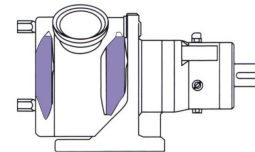
许多产品(如制糖业)都需要进行加热或冷却。可提供泵壳夹套选项，可安全简便地连接到任何热水供应系统。

Heating Or Cooling

Many products (such as those in the sugar making industry) need to be heated or cooled. We can provide the pump case jacket option to safely and conveniently connect it to any hot water supply system.

提供多种接口形式: 卡箍、螺纹、法兰，下图为可选的进出口连接方向。

Various connection types can be provided: ferrule, thread and flange. The following diagram shows the optional inlet and outlet connection directions.



正弦泵技术参数 Sine Pump Technical Parameters

型号 Model	每转排量 Displacement per revolution(L)	进出口径 Inlet and outlet diameter		调速范围 Speed adjustment range(r/min)	对应流量 Corresponding flow (L/h)	电机功率 Motor power	
		inch	mm			Kw	HP
SBP-S1'	0.06	1	25	50-1000	180-3600	1.5	2
SBP-S2'	0.11	2	51	50-1000	330-6600	2.2	3
SBP-S2.5'	0.28	2.5	63	50-600	840-10080	3	4
SBP-S3'	0.45	3	76	50-600	1350-16200	4	5
SBP-S3.5'	0.75	3.5	89	50-600	2250-27000	5.5	7
SBP-S4'	1.05	4	102	50-600	3150-37800	7.5	10
SBP-S6'	2.5	6	152	50-600	7500-90000	15	20



HSP-I 型管线式高剪切均质乳化泵

HSP-I Pipeline High Shear Dispersing Emulsifier



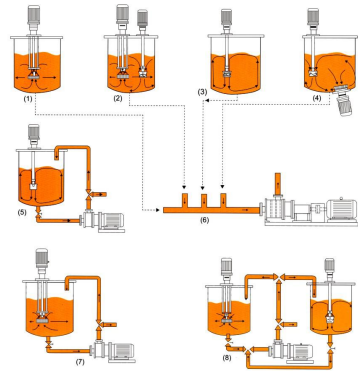
移动式型乳化泵
Movable type emulsion pump



固定式型乳化泵
Fixed emulsion pump

工作原理

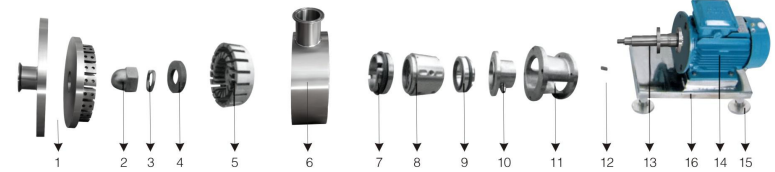
管线高剪切分散乳化机是用于连续生产或循环处理精细物料的高性能设备，在狭窄空间的腔体内，装有1—3组对偶配合的多层定、转子。转子在马达的驱动下高速旋转产生强劲的轴向吸力将物料吸入腔体。在最短的时间内对物料进行分散、剪切、乳化处理，粒径分布范围也显著变窄。由此可制得精细的长期稳定的产品。



Operation Principle

Pipeline high shear dispersing emulsifier is a high performance equipment used for continuous production or circulated treatment of fine material. In the small chamber, there are 1-3 sets of paired and clutched stators and rotor. Driven by motor, the rotor revolve quickly and produces a strong axial suction force which intakes the material to the chamber. The machine disperses, shears and emulsifies the material in shortest time, and the diameter range of the particles gets smaller so that fine and stable products are produced.

管线式高剪切分散乳化机结构示意图 Pipeline High Shear Dispersing Emulsifier



- 1.定子 2.螺帽 3.弹垫 4.平垫 5.转子 6.泵腔 7.机械密封(静环)
8.机械密封(动环) 9.机械密封(静环) 10.密封冷却座 11.泵机座
12.销子 13.泵轴 14.电机 15.支脚 16.机架
- 1.Stator 2.Screw cap 3.Flexible gasket 4.Flat gasket 5.Rotor
6.Pump cavity 7.Mechanical seal (stationary ring) 8.Mechanical seal (moving ring)
9.Mechanical seal (stationary ring) 10.Seal cool seat 11.Pump seat 12.Pin 13.Pump shaft 14.Motor 15.Support 16.Frame

混合溶解: Mixing dissolving	可溶性的固体或液体与液体以分子或胶质状态交溶在一起，结晶粉体、盐、糖、乙酰硫酸盐、研磨剂、水解胶体、CMC、触变剂、橡胶、天然和合成树脂 Soluble solid or liquid blends together with liquid in the state of the molecule or the gase, Crystallization powder, salt, sugar, ether sulphate, abrasive, hydrolysing colloid, CMC thixotropy, rubber natural and synthetic resin
分散悬浮: Dispersed suspension	不相溶固体与液体形成更小粒度混合液或悬浮液，催化剂、消光剂、颜色、石墨、油漆涂料、氧化铝、复合肥料、油墨、填充剂、除草剂、杀菌剂 Unsoluble solid or liquid forms finer particle blended solution or suspended solution Catalyst, flattening agent, pigment, graphite, paint coating, alumina, compound fertilizer, printing ink packing agent weedkiller, bactericide
乳化: Emulsification	不相溶液体与液体一起不分离，奶油、冰淇淋、动物油、植物油、蛋白质、硅油、轻油、矿物油、石蜡和蜡乳液、松香 Unsoluble liquid together with liquid does not separate Cream, ice cream, animal oil, vegetable oil, protein, silicon oil, light oil, mineral oil, paraffin wax cream, rosin
均质: Homogeneity	使乳化和悬浮粒径更小、分布更均匀，奶油、调味品、果汁、果酱、调料、奶酪、脂肪乳、牙膏、打印墨水、瓷漆 Make emulsification and suspended grain size finer with more even distribution Cream, flavouring, fruitjuice, jam, condiment, cheese, fatmilk, toothpaste, typing ink, enamel paint
浆化: Thick liquid	细胞组织、有机组织、动物和植物组织 Cell's tissue, organic tissue, the animal and plant tissues
化学反应: Chemical reaction	纳米材料、加速充气、加速合成 Nanomaterial material, inflating with higher speed, synthesis with higher speed
萃取: Extraction	涡流萃取 The vortex extraction
解聚: Depolymerization	纳米粉体、团聚粉体 Nanomaterial powder, dough powder

技术参数 Technical Parameters

型号 Model	电机功率(KW) Power	转速(RPM) Rotation speed	流量范围(m ³ -h) Capacity
HSP 1-90	1.5	2900	0-1.5
HSP 1-100	2.2	2900	0-3
HSP 1-120	4	2900	0-4
HSP 1-140	5.5	2900	0-5
HSP 1-165	7.5	2900	0-8
HSP 1-180	11	2900	0-12
HSP 1-185	15	2900	0-18
HSP 1-200	22	2900	0-25
HSP 1-210	30	2900	0-35
HSP 1-230	45	2900	0-50
HSP 1-245	55	2900	0-75
HSP 1-260	75	2900	0-90
HSP 1-275	90	2900	0-110
HSP 1-280	132	2900	0-130

注：表中流量范围是指介质为“水”时测定的数据，表中所列型号的出口压力≤0.2Mpa。

如采用循环工艺，建议与间歇式高剪切分散乳化机配合使用。如有高温、高压易燃、易爆、腐蚀性等工况，必须明确提供相关准确的参数，以便正确选型定制。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，泵入的压力≤0.2Mpa。

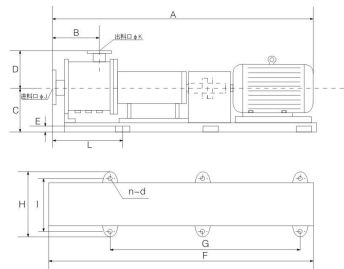
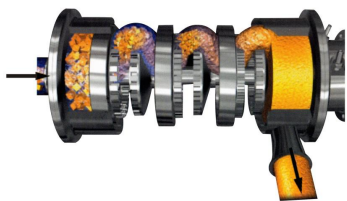
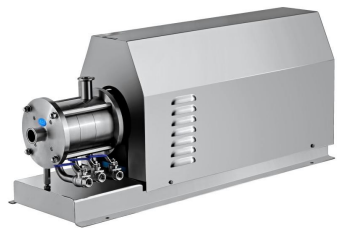
本表数据如有更改，恕不另行通知，正确参数以提供的实物为准。
Note: the flow in the table refers to the data tested taking water as the medium. outlet pressure of the listed type ≤0.2Mpa.

If circulated procedure is adopted, intermittent high shear emulsifier is recommended if there is high temperature, high pressure, flammable, explosive or corrosive condition, correct data should be provided by customers in order to customize the right product type.

For mediums that flow slowly, pumps of matched flow rate should be equipped in the inlet.
The data in the table is subject to change without notice. See the actual products for their data.

HSP-3 型管线式高剪切均质乳化泵

HSP-3 Pipeline High Shear Dispersing Emulsifier



粗齿 Coarse teeth 撞击、破碎、剪切、溶解、粗分散 Beat, shatter, shear, dissolve, rough disperse

中齿 Middle teeth 分散、细化、加速溶解、乳化 Disperse, refine, solutize, emulsify

细齿 Fine teeth 超细分散、加强乳化、均质、浆化 Superfine disperse, emulsify, homogenize, pulpify

Operation Principle

Three sets of stators and rotors are equipped in working cavity. Driving shaft in working cavity is an arm, electrical motor and the shaft in bearing cabinet can be connected by spring coupling to improve the operation quality of driving shaft. Seal form can be selected in different conditions. It is fit for middle-large scale on-line continuous production or circulated treatment production process.

工作原理

工作腔内装有三组定、转子，工作腔内传动轴采用悬臂式，弹性联轴器将电机与轴承箱内的主轴联接，提高传动轴的运行质量，密封形式根据不同的工况来选择。适用于中、大批量在线连续生产或循环处理生产工艺。

技术参数 Technical Parameters

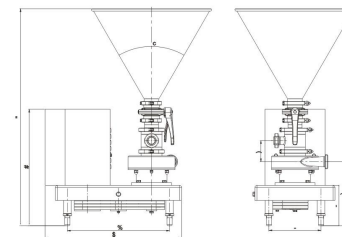
型号 Model	功率(KW) Power	转速(RPM) Rotation speed	A	B	C	D	E	F	G	H	I	J DN	K DN	L	流量范围 (m ³ -h) Capacity	n-d
HSP-60	4	2900	950	200	180	100	8	900	700	380	320	38	32	150	0-1.5	4-Φ16
HSP-100	5.5	2900	1070	230	232	155	10	1000	800	450	390	50	40	150	0-3	4-Φ20
HSP-120	7.5	2900	1315	245	260	170	12	1250	1050	505	445	65	50	150	0-4	4-Φ20
HSP-140	11	2900	1370	260	260	185	12	1300	1100	505	445	65	50	150	0-5	4-Φ20
HSP-165	18.5	2900	1430	300	280	220	15	1350	1150	590	480	65	50	155	0-8	4-Φ20
HSP-180	22	2900	1870	300	300	242	15	1800	1600	590	520	100	80	160	0-12	4-Φ20
HSP-185	30	2900	1980	300	350	280	15	1900	1700	710	630	125	100	165	0-18	4-Φ24
HSP-200	45	2900	2100	305	380	300	15	2000	1800	785	705	125	100	165	0-25	4-Φ24

注：表中流量范围是指介质为“水”时测定的数据，表中所列型号的出口压力≤0.2Mpa。如有高温、高压、易燃、易爆、腐蚀性等工况，必须明确提供相关的参数，以便正确选型定制。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，泵入的压力≤0.2Mpa。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。

Notes: Flow listed on the table refers to the data measured when the medium is water, the exit pressure ≤ 0.2Mpa of the model listed in the table. In conditioned high temperature, high pressure, flammability, explosion and erosion, relevant parameters must be provided clearly for selecting customization precisely. For poor liquid medium, a pump which has a matching flow is suggested to feed at the inlet, input pressure ≤ 0.2Mpa. If the data in the table is modified, no further notification will be given, and the right parameters as per the provided sample.

混合泵

Mixing Pump



应用 Applications

- 该混合器是用于将固体混合到液体中。
- 在食品加工工业中，该混合器为奶粉的配制，糖浆的制作，盐水的调制等提供了在线处理完美的解决办法。
- 在制药，化妆品和化学制品行业中，它也可以用于预备固体和液体的混合。
- The Mixers are used to mix solids in liquids.
- In the food-processing industry, they provide a perfect solution for reconstituting powdered milk, making syrups, preparing brines, etc.
- They can also be a solution for preparing solid-liquid mixtures in the pharmaceutical, cosmetics and chemical industries.

物料混合泵(物料混合器) 选型表 Mixing Pump(Blender) Selection table

型号 Model	流量(吨) Flow rate(T)	功率(kw) Power	固体进口 Solid Inlet size	液体进口 Liquid Inlet size	出口 Outlet	加料斗容量 Hopper volume	固体吸入量 Solid suction volume	连接方式 Connection way
HIB-10	10	3.0	DN65-3"	DN40-1.5"	DN50-2"	45 升	2000kg/h	卡箍螺纹 Clamp, Thread
HIB-20	20	4.0	DN65-3"	DN40-1.5"	DN50-2"	45 升	3000kg/h	卡箍螺纹 Clamp, Thread
HIB-30	30	5.5	DN80-35"	DN50-2"	DN65-2.5"	45 升	4200kg/h	卡箍螺纹 Clamp, Thread
HIB-40	40	7.5	DN80-35"	DN50-2"	DN65-2.5"	45 升	5500kg/h	卡箍螺纹 Clamp, Thread
HIB-50	50	11.0	DN100-4"	2.5"	DN80-3"	65 升	7000kg/h	卡箍螺纹 Clamp, Thread

注意：详细选型详见选型表；以下表格里的尺寸为参考值，实际尺寸以实物为准。 Attention: Please refer to selection table for details of next page. The size in the following form is the reference value, the actual size is according to practicality.

型号 Model	A	B	C	D	H	H1	L	L1
HIB-10	1083	582	682	630	320	105	400	20
HIB-20	1083	582	682	630	320	105	400	202
HIB-30	1135	650	793	770	360	121	420	220
HIB-40	1135	650	793	770	360	121	420	220
HIB-50	1183	835	932	870	400	125	470	220



HSM 歇式/高剪切分散乳化机

HSM Intermittent/Bottom-Mounted High Shear Dispersing Homogenizer



工作原理

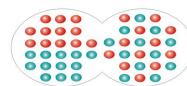
高剪切分散乳化机就是高效、快速、均匀地将一个相或多个相分布到另一个连续相中。而在通常情况下各个相是互相不溶的。由于转子高速旋转所产生的高切线速度和高频机械效应带来的强劲动能，使物料在定、转子狭窄的间隙中受到强烈的机械及液力剪切、离心挤压、液层摩擦、撞击撕裂和湍流等综合作用。从而使不相溶的固相、液相、气相在相应成熟工艺和适量添加剂的共同作用下，瞬间均匀精细地分散乳化，经过高频的循环往复，最终得到稳定的高品质产品。

Operation Principle

High shear dispersing emulsifier effectively, quickly and evenly disperse a phase or phases to another consecutive phase. usually, these phases are dissolvable to each other. The rotor revolves quickly and strong force is produced through high tangent speed and high frequency mechanical effect, therefore, the material in the narrow slot among stator and rotor receives strong forces from mechanical and liquid shearing, centrifugal force, pressing, liquid fraction, clashing, tearing and rush water. The dissolvable solid, liquid and gas material is then instantly dispersed and emulsified evenly and finely with better production procedures and appropriate additives and finally products with stable high quality are made.

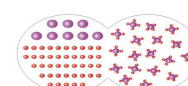
技术参数 Technical Parameters

型号 Model	电机功率(KW) Power	转速(RPM) Rotation speed	处理量(L) Handling capacity
TRH90	1.5	2900	5-50
TRH100	2.2		50-100
TRH120	4		100-300
TRH140	7.5		200-800
TRH160	11		300-1000
TRH180	18.5	1470	500-1500
TRH200	22		800-2000
TRH220	30		1000-3000
TRH240	37		1500-5000
TRH270	55		2000-8000
TRH290	75		3000-10000



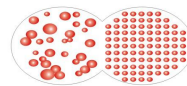
混合 Mixing

糖浆、香波、洗涤剂、果汁浓缩液、酸奶、甜点、混合奶制品、油墨、瓷釉。



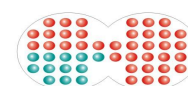
乳化 Emulsifying

药乳液、药膏、雪花膏、面膜、面霜、乳化香精、油水乳化、乳化沥青、树脂乳化、化纤、黏胶、蜡乳、水性聚氨酯乳化、农药。



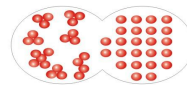
均质 Homogenizing

药乳液、药膏、雪花膏、面膜、面霜、组织匀浆、奶制品均质、果汁、打印墨水、果酱。



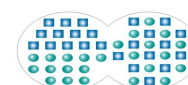
反应 Reacting

高效萃取、加氢反应、皂化反应、磺化反应、TDI、MDI、微球反应等。



分散 Dispersing

悬浮液、药丸包衣、药物解聚、涂料分散、唇膏、蔬菜浓汤、芥末混合物、催化剂、消光剂、金属、颜料、改性沥青、纳米材料的制备和解聚。



固液混合 Powder/liquid mixing

气相硅、二氧化硅、白炭黑、钛白粉、膨润土、滑石粉、CMC、黄胶原、糖奶粉。

技术参数 Technical Parameters

型号 Model	D	D1	H1	D2	D3	H	G
HSM-90	90	167	550	195	220	960	4 x 12.5
HSM-100	100	167	650	195	220	1100	4 x 12.5
HSM-120	120	195	750	225	255	1250	6 x 12.5
HSM-140	142	220	850	225	285	1450	8 x 12.5
HSM-160	167	225	850	290	325	1620	8 x 12.5
HSM-180	180	275	1200	310	350	1980	8 x 12.5
HSM-200	200	275	1200	310	350	2000	8 x 12.5
HSM-220	220	300	1300	340	380	2200	10 x 14.5
HSM-240	240	320	1400	360	415	2300	12 x 14.5
HSM-270	270	350	1600	400	450	2600	12 x 16.5
HSM-290	290	370	1600	430	500	2650	12 x 16.5



KDM 2型高效乳化均质配料机

KDM 2 High Efficient Online Mixer System



工作原理

KDM 2高效在线混料机系统是最新一代固体和液体、液体和液体快速高效混合系统设备。系统具有动力强劲的液环真空动力系统，保证系统工作高效，安全可靠；而且还巧妙的设计了一套精确而紧密咬合的转子-定子系统，使得高效在线混料机具备多种独特而相互统一的功能。在独特而紧凑的结构系统内，两套系统协同配合，共同作用，使非均质的物料在很小的空间里得到快速、彻底的均质和混合，得到细密均匀而且可稳定产品的生产结果。

Operation Principle

KDM 2 efficient online mixer system is the latest generation of solid and liquid, liquid and the liquid fast, efficient hybrid systems equipment. The system has powerful Central vacuum of power system to ensure operation of the system efficient, safe and reliable, but also the clever design of a set of precise and bite Rotorwill close subsystems, making efficient online mixer with a variety of unique and mutual reunification of the Function. In the unique and compact structure of the system, two systems synergy, working together, so that non-homogeneous materials in a small space rapidly and thoroughly mixed and heterogeneous, and may even be a meticulous verification of stability to repeat Production results.

技术参数 Technical Parameters

型号 Model	处理量(流量) Flow rate (T/H)	定转子槽宽 Stator slot width	乳化泵功率 (kw) Power of in-line mixer	乳化泵自吸泵转速 Rotation speed of inline mixer and self-priming pump(r/min)	备注 Remarks
KDM-120	0.1-3	4	4	2900/1450	此系统中输送泵根据物料的性质选用不同类型的泵 The feeding pump will be used different type according to medium's property
KDM-140	0.3-5	6	5.5/7.5	2900/1450	
KDM-165	0.3-8	6	7.5/11	2900/1450	
KDM-180	1-10	6	11/15	2900/1450	
KDM-185	1-12	8	15/18.5	2900/1450	
KDM-200	1-20	8	18.5/22	2900/1450	
KDM-210	1-20	10	22	2900/1450	
KDM-230	2-30	10	30	2900/1450	
KDM-250	2-40	10	37	2900/1450	

功能特性

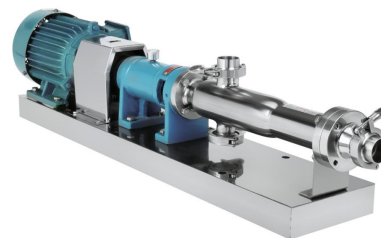
- 具备混合、搅拌、分散、均质、乳化、匀浆等多种功能，通用性强；
- 生产稳定均一，可无限重复验证。尤其在乳品、饮料、食品和药品生产工艺中显得重要；
- 无粉团、无颗粒、无团块凝集物形成；
- 高效率：与传统的工艺相比，可缩短约80%的工作时间，极大的提高生产效率，降低生产成本；
- 既广泛适用连续自动生产线，也适用于不同的批次生产应用场合；
- 特别适用于高黏度，难溶解的物料(黏度可达90,000mPas)；
- 设备无死角，可完全在线CIP/SIP，符合卫生要求和标准；
- 模块化结构：不需现场安装调试而直接使用，大大降低安装成本；
- 结构紧凑：占用空间小，易于与其他系统整合，节约投资。

Features

- Have mixed, stirring, decentralized, heterogeneous, emulsion, homogenized, and other functions, high universality;
- Production stability uniform, can be infinitely repeated verification. Particularly in dairy products, beverages, food and pharmaceutical production process more important.
- No powder Mission, grain-free, no clumps of a lectin.
- High efficiency: Compared with the traditional process can be shortened by about 80 percent of the time, greatly improving production efficiency, reduce production costs
- Extensive application for automated production lines, but also to different batch production applications.
- Particularly applicable to high-viscosity, difficult to dissolve the material (viscosity up to 90,000 mPas);
- Hassle Free equipment can be fully online CIP/SIP, meet the health requirements and standards.
- Modular structure: the scene without the direct use of debugging, significantly reducing installation costs.
- Compact: small space, easy integration with other systems, saving investment.

卫生级单螺杆泵

Sanitary Single-screw Pump



单螺杆泵输送各种粘度的液体，特别是粘稠难输送的介质。G单螺杆泵输送各种浓度的液体及经过分离脱水的干物料。G单螺杆泵输送含有固体颗粒、纤维、悬浮物的液体。G单螺杆泵输送液体、气体、固体的混合物。G单螺杆泵输送不能受搅动、剪切、掠夺的敏感性液体。G单螺杆泵输送腐蚀性液体。

Single screw pump conveying various viscosity of liquid, especially thick hard to transport medium. G single screw pump conveying liquid and after separation, dehydration of various concentration of dry material. G single screw pump conveying liquid containing solid particles, fibers, suspended solids. G single screw pump conveying liquid, the mixture of gas and solid. G single screw pump conveying cannot be stirred, shear, robbing the sensitivity of the liquid. G single screw pump for handling corrosive liquid.

G型螺杆泵 G Type Screw Pump

型号 Model	流量(m ³ /h) Traffic	转速(r/min) Speed	功率(kw) Power	进出口直径(mm) Import and export diameter
G15-1	1	960	0.55	25
G20-1	1.5	960	0.75	32
G25-1	2	960	1.1	32
G30-1	3	960	1.5	40
G35-1	5	960	2.2	50
G40-1	7	960	3	50

胶体磨系列

Colloid Mill

工作原理 Operation Principle

胶体磨工作原理是剪切、研磨及高速搅拌作用。磨碎依靠两个齿形面的相对运动，基中一个高速旋转，另一个静止，使能、通过齿面之间的物料受到极大的剪切力及摩擦力，同时又在高频震动、高速旋涡等复杂力的作用下使物料有效的分散、乳化、粉碎、均质。

A colloid mill reduces the particle size of a solid by applying shearing, grinding and high speed mixing. Grinding is accomplished by the relative motion of two tooth profile inclines (one rotating at a high speed, the other being still). Materials between the tooth profile inclines are effectively dispersed, pulverized and homogenized under high levels of shearing, friction, high-frequency vibration and other forces.



应用行业

- 食品饮料行业：牛乳、豆乳、花生乳、浓缩乳、奶油、混合乳酪、各种果肉、天然饮料、食品添加剂、各种调味品等。
- 化工行业：油漆涂料、各种乳化剂、燃油重油、感光乳胶、橡胶浆、树脂浆、增稠剂、膨润土、香精、硅材料、碳黑、氧化镁、二氧化钛等。
- 化妆品、制药行业等。

Working principle

- Food and beverage industry: cow milk, soy milk, peanut milk, condensed milk, cream, mixed cheese, various fruit pulps, natural beverages, food additives and various condiments etc.
- Chemical industry: paints and coatings, various emulsifiers, fuel, heavy oil, emulsion, rubber latex, resin latex, thickener, bentonite, essence, silicon material, carbon black, magn-esium oxide and titanium dioxide etc.
- Cosmetics industry and pharmaceutical industry etc.

