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Century-old Business from One Promise
百年之业 始于一诺

佰诺泵阀
BAINUO
上海佰诺泵阀有限公司
SHANGHAI BAINUO PUMPS AND VALVES CO.,LTD.

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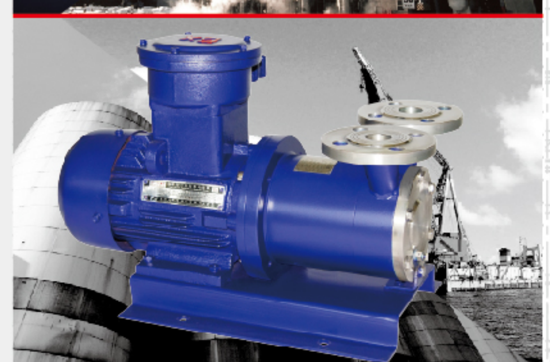
BAINUO
PUMPS AND VALVES CO.,LTD.

产品说明书
PRODUCT DESCRIPTION

BNBNIMC-L型磁力管道离心泵
BNBNCWB型磁力旋涡泵

国家高新技术企业



佰诺
BAINUO
Century-old Business from One Promise
百年之业 始于一诺

佰诺® BAINUO

专业制泵30年

致力于打造中国磁力泵第1品牌

30-YEARS HISTORY PROFESSIONA BRAND

BNCWB型磁力旋涡泵

BNIMC-L型磁力管道离心泵

企业简介 COMPANY PROFILE

上海佰诺泵阀有限公司坐落于上海金山工业区，原上海永久工业泵厂，创办于1992年，总投资1.68亿元，占地面积3万多平方米，是一家集工业泵设计、研发、生产、销售、服务为一体的制造企业。人才为企业第一生产力，目前已拥有各类技术人员近30人，其中资深工程师18人，教授级高级工程师5人，员工总数更是达到了近280人。公司产品涉及石油、化工、制药、锂电池，电子铝箔、环保、食品、供暖、水利、航天工程、城市给排水、高楼建筑、电镀、冶金、新材料、核工业工程、新能源等领域以及其它工业配套等行业。

佰诺主要生产磁力泵、屏蔽泵、化工泵，自吸泵，隔膜泵，排污泵，离心泵等工业泵，产品具有安全、高效、环保、节能的特性，2010年首次打造可连续空载的磁力泵更是取得历史性突破，填补了行业内空白，使磁力泵无液空载运行成为可能，佰诺坚持以“磁力驱动流体，绿色捍卫化工”的发展战略，形成了以自主知识产权为核心的技术体系，拥有发明专利和实用型专利共计80项，国家高新技术企业，全力打造中国磁力泵第一品牌。

公司先后引进了美国.德国.日本.发达国家的最先进的CFD计算流体力学设计软件系统以及CAM.CAE. FMS等软件辅助生产管理，掌握世界先进水平的流体机械设计理论与产品工艺制造技术，并通过了ISO9001-2000产品质量体系认证，CE欧盟认证，持有全国工业产品生产许可证，服务与技术相结合，先后为上海石化、扬子石化、大连石化、独山子石化、大庆石化、大连石化、等行业提供安全节能的流体输送方案。

佰诺以“务实、敬业、创新、高效”的创业精神和“诚信、互惠双赢、共存”的经营理念，为各石油化工行业提供安全绿色优良产品，把蓝天留给你我，让绿色围绕中国。

Situated in Shanghai Jinshan Industrial Zone, Shanghai Bainuo Pump & Valve Co., Ltd. is invested by Shanghai Yongjiu Industrial Pumps Factory. Covering a land of over 30,000sqm and involving an investment of RMB168,000,000 Yuan,BAINUO is an enterprise dedicated to the design, research, development, production, marketing and service of pumps and valves. Used in the areas of heating, central air-conditioning, fire control, space engineering, urban water supply and drainage, high-rise buildings, petrochemical, pharmaceutical, electronics, aluminium foil, environmental protection, foodstuff, electroplating, metallurgy, nuclear industry and other industrial service, our products mainly include pipeline canned motor pumps, magnetic drive pumps, diaphragm pumps, piping centrifugal pumps, chemical pumps, self-priming pumps, sewage pumps, multistage pumps, corrosion-resisting pumps, fire pumps, non-negative pressure water supply equipment and valves etc. Well sold all over the country and to Southeast Asia, they have been greatly recognized by the mass customers.

Supported by sophisticated CFD (computational fluid dynamics) design software system, CAM, CAE andFMS software aided production control, a team of scientific and technical personnel in the research and development ofhydraulic model, world advanced fluid machinery design philosophy and product manufacturing technology, as well as ISO9001-2000 product quality system, we have been awarded a plenty of certificates and patents by the authoritative organizations of Ministry of Chemical Industry, Ministry of Environmental Protection, Ministry of Health, Ministry of Construction and Shanghai Fire Fighting Bureau etc. Besides, we have been granted National License for the Manufacture of Industrial Products. Our products have been provenqualified by National Quality Supervision and Inspection Center for Industrial Pumps.

Adhering to the enterprising spirit of 'practicalism, dedication, innovation and efficiency' and the operation philosophy of 'honesty, mutual benefit and coexistence', we strive for beautiful tomorrow. Only by sincere cooperation canwe achieve great success. Quality products and perfect service is the unremitting pursuit of BAINUO.

佰诺泵阀 BAINUO

BNCWB磁力旋涡泵

BNCWB Magnetic Peripheral Pump

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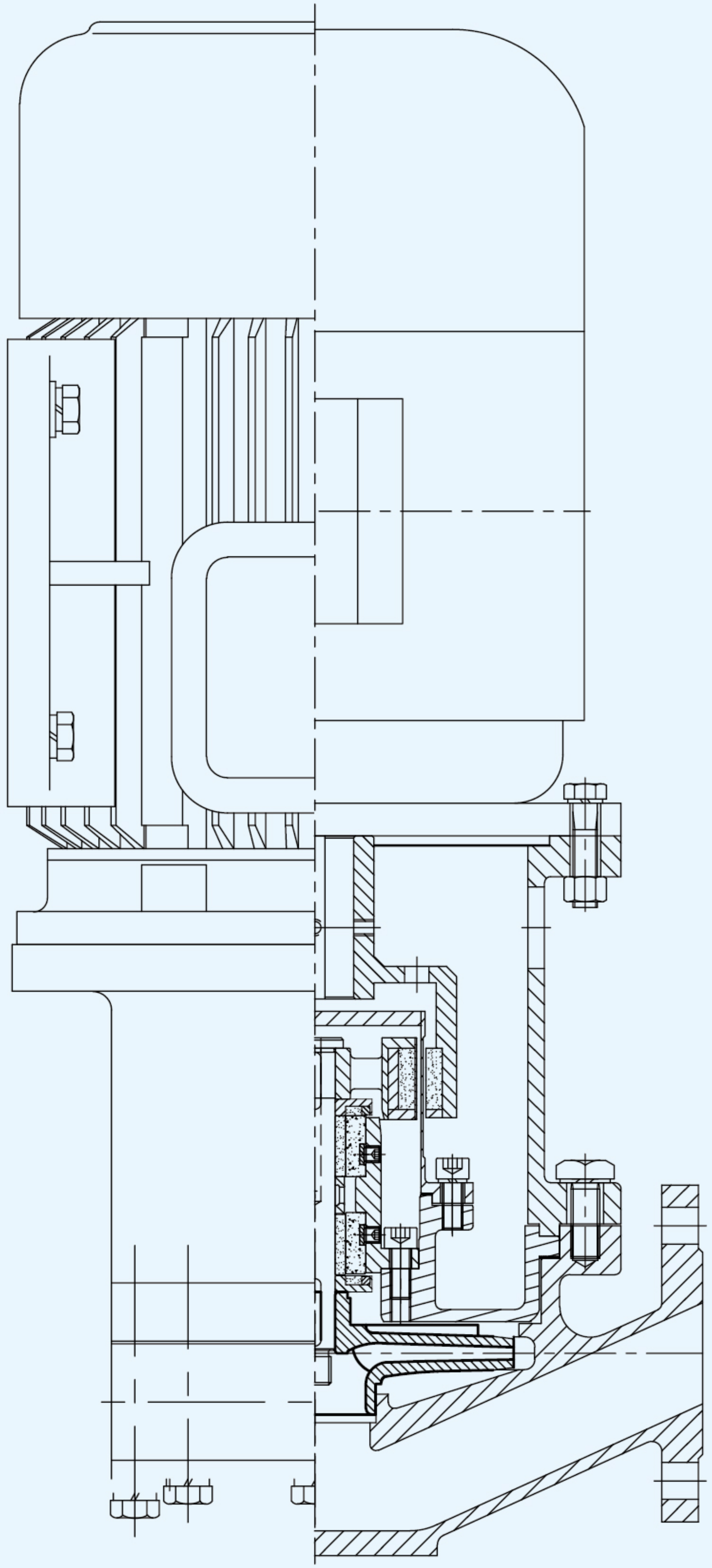

BNIMC–L型磁力管道离心泵

BNIMC-L Magnetic Pipe Centrifugal Pump

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部分业绩展示/*Performance display*

生产车间 /*Production workshop*

荣誉资质 /*Honors qualification*

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◎产品概述 PRODUCT OVERVIEW

BNCWB型磁力旋涡泵利用磁力耦合器传递动力，完全密封无泄漏当电动机带动磁力耦合器的外磁钢旋转时，磁力线穿过间隙和隔离套，作用于内磁钢上，使泵转子与电动机同步旋转，无接触地传递扭矩。由于液体被封闭在隔离套内，从而彻底解决了物料的泄漏，减少了污染，节约了能源，净化了环境。

BNCWB magnetic peripheral pump transfers energy by magnetic coupling, whose tightness is rather good and there is no leak. When the external magnetic steel turns by the motor, the magnetic line goes through the clearance and the distance sleeve, which will give force to the internal magnetic steel, then the pump rotor and the motor can rotate synchronously and the torque can be transferred without touching. The liquid is sealed up in the distance sleeve, which will stop the materials from leaking and the pollution can be well controlled. This helps to save the energy and purify the

◎应用领域 APPLICATION FIELDS

BNCWB磁力旋涡泵适用于石油、化工、医药等工业流程中输送高扬程、小流量的酸、碱和其他有腐蚀性液体。也可作为计量泵、石油、化工、制药、锂电池，电子铝箔、环保、食品、供暖、水利、航天工程、城市给排水、电镀、冶金、新材料、核工业工程、新能源等领域以及其它工业配套等行业。

BNCWB magnetic peripheral pump is applicable for petrochemical industry, chemical industry and medical industry etc, which will be mainly used to transfer acid, alkali and corrosive liquid with high head and small flow rate. It can also be used by other fields, like dosage pump, petrochemical industry, chemical industry, pharmacy industry, lithium battery, electronic aluminium foil, environment protection, food, heating, hydraulic engineering, aerospace engineering, urban water supply and water drain, electroplate, metallurgy, new material, nuclear engineering, new energy and other supporting fields.

◎性能范围（额定点）PERFORMANCE RANGE (RATED POINT)

口径：20-65mm

Caliber: 20-65mm

流量：0.77-14.4m³/h

Flow rate: 0.77-14.4m³/h

扬程：20-120m

Head: 20-120m

温度：-20℃-+120℃（可根据需求定做特种泵-100℃+350℃）

Temperature: -20℃-+120℃ (special pumps can be customized according to the actual demands at the temperature of -100℃+350℃)

压力：0-1.6MPa（可根据需求定做高压特种泵）

Pressure: 0-1.6MPa (special pump with high pressure can be customized according to actual demands)

转向：电动机方向顺时针

Rotation direction: motor rotates clockwise

此为常规参数范围，超出范围可致电我公司，以便正确选型。

This is the scope of general parameters. If you need parameter exceeding this scope, please contact with us for correct selection.

◎型号说明 TYPE SPECIFICATION

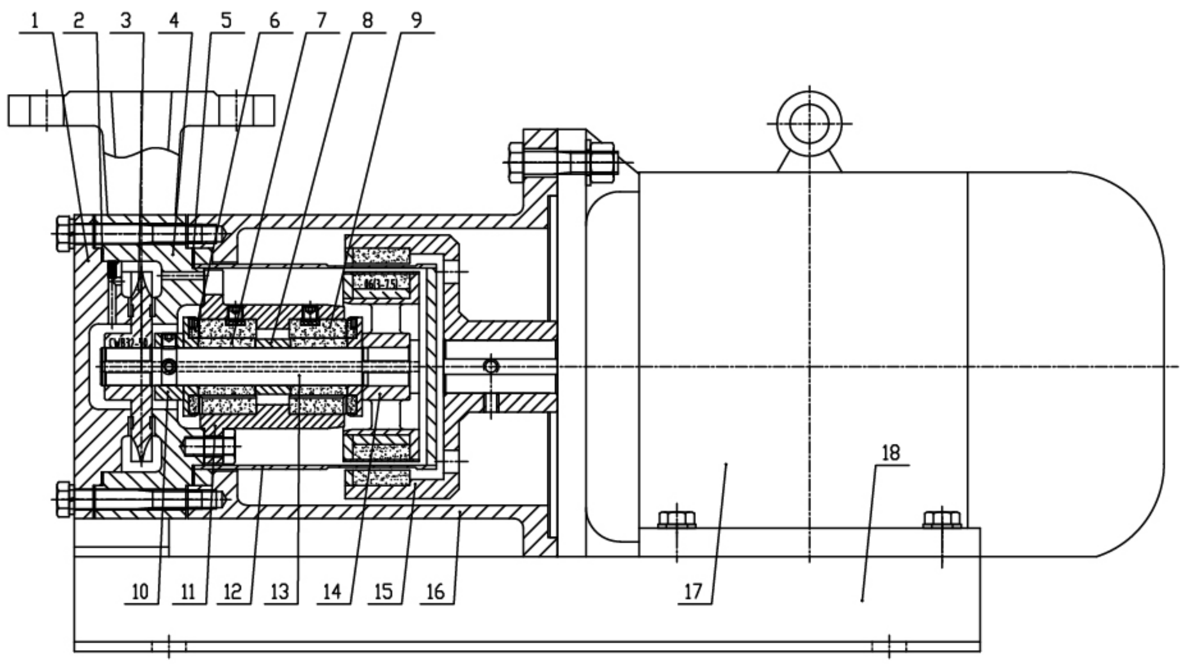
BNCWB 32 50 - P B

- B — 防爆型 explosion proof
- P — 不锈钢 stainless stee
- 50 — 扬程 Head
- 32 — 进出口径 Inlet and outlet caliber
- BNCWB — 佰诺磁力旋涡泵 Bainuo Magnetic peripheral pump

◎结构特点 STRUCTURAL FEATURES:

- 选用高性能、高耐温的永磁材料，确保足够的磁力矩。
  Permanent magnet material with high performance and resistant to high temperature shall be used, which can ensure the magnetic moment.
- 低涡流的隔离套设计、泵的效率更高。
  Distance sleeve with low eddy current can make the pump more efficient.
- 零部件模块化设计，互换性好。
  Component modules can make an easy exchange.
- 滑动轴承选用高硬度、高耐磨的特优材质无压烧结碳化硅，独特的双轴承对中定位结构，配以先进的液体动力润滑结构，保证泵运转的可靠性和轴承的使用寿命。
  The sliding bearing is made by superior SSIC of high hardness and high resistance to abrasion; the unique structure -- duplex bearing positioning and hydrodynamic lubrication, can ensure the reliable operation of the pump and service life of the bearing.
- 独特的轴向力自由浮动平衡、无叶轮锁紧螺母和内转子锁紧螺母，避免叶轮受轴向窜动影响，装配更加方便简洁。
  The unique free floating equilibrium of axial forces, the nut is not locked by impellers but by inner rotor, which will protect the impeller from being adversely affected by the axial movement. And the assembly will be easier and more convenient.
- 特殊的高低压循环方式，保证泵内循环拥有足够的压力和流量，充分带走隔离套上产生的涡流热和润滑滑动轴承。
  The special high-low pressure recycle can ensure that the pump recycle have enough pressure flow rate; otherwise, the eddy current heat on the distance sleeve and the sliding bearing can be taken away.
- 工况需要时可增加冷却或加热、保温、便拆等装置
  If necessary, cooling, heating, insulation and unweave devices can be added.

◎结构图 STRUCTURE CHART



建议介质温度不超过200℃（电机绝缘等级B级）

It is suggested that the media temperature should be not more than 200℃ (motor insulation grade: Grade B)

1	2	3	4	5	6
泵盖 Pump cover	泵盖密封垫 Sealing gasket on the pump cover	叶轮 Impeller	泵体 Pump body	隔离套密封垫 Sealing gasket on the distance sleeve	推力盘 Thrust plate
7	**8**	**9**	**10**	**11**	**12**
轴套 Axle sleeve	档套 Grade sleeve	轴承套 Bearing sleeve	挡圈 Check ring	轴承座 Bearing block	隔离套 Distance sleeve
13	**14**	**15**	**16**	**17**	**18**
泵轴 Pump shaft	内磁总成 Inner magnetic assembly	外磁总成 Outer magnetic assembly	联接架 Hitch	电动机 Motor	底盘 Chassis

◎性能参数表 PROPERTY PARAMETER TABLE

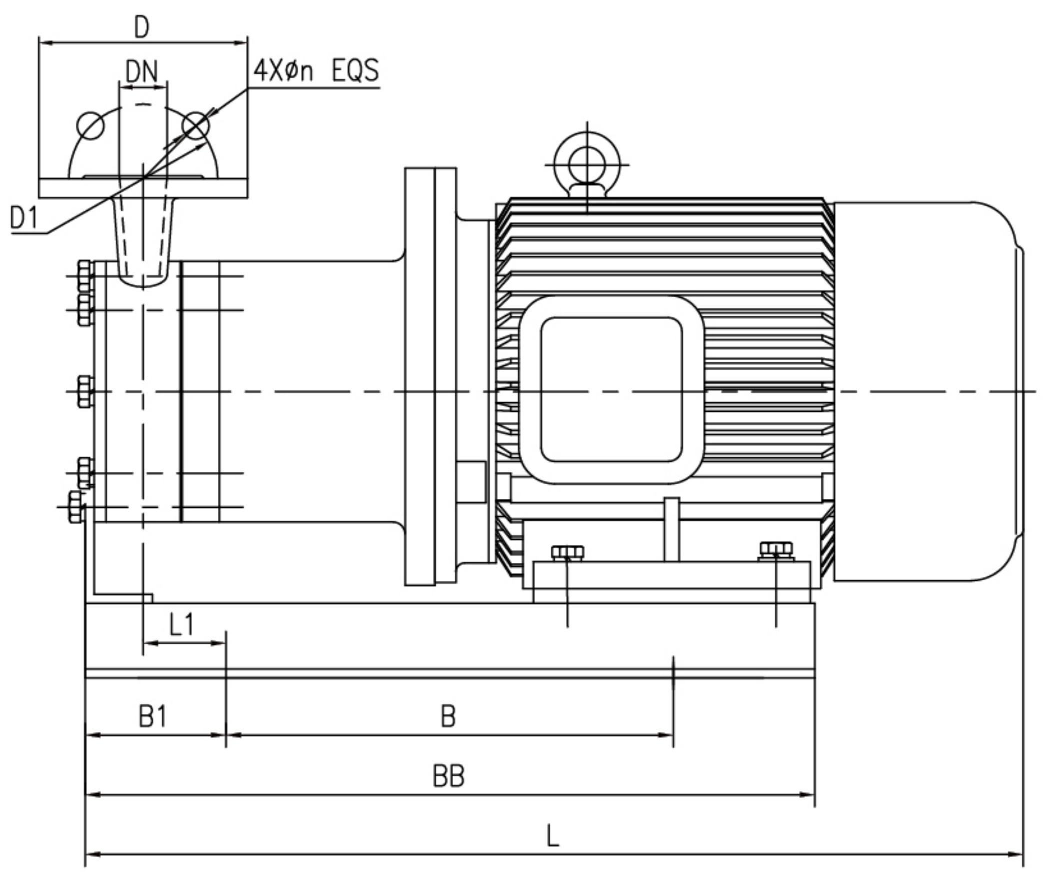
注：泵型电机功率按介质比重r=1.00给定

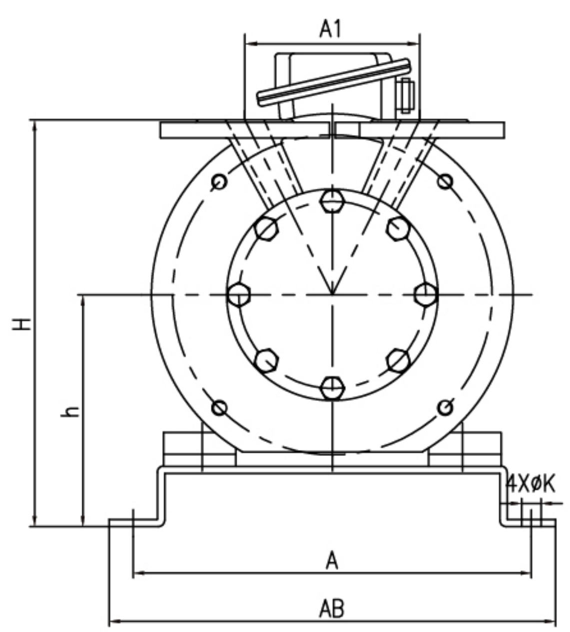
泵型号 Type	流量Q Capacity		扬程H Head	转速n Speed	效率η Efficiency	轴功率 Shaft Power	叶轮直径 Impeller diameter	电机功率 Power
	m^3/h	L/min	m	r/min	%	kW	mm	kW
BNCWB20-20	0.72	12	20	2900	22	0.18	65	1.1
BNCWB20-40	0.72	12	40	2900	18	0.44	90	1.1
BNCWB20-65	0.72	12	65	2900	15	0.85	105	2.2
BNCWB20-100	0.72	12	100	2900	12	1.7	120	4
BNCWB25-25	1.44	24	25	2900	26	0.38	75	1.5
BNCWB25-40	1.44	24	40	2900	24	0.65	90	2.2
BNCWB25-75	1.44	24	75	2900	20	1.47	110	4
BNCWB25-120	1.44	24	120	2900	16	2.94	140	7.5
BNCWB32-30	2.88	48	30	2900	28	0.84	90	2.2
BNCWB32-50	2.88	48	50	2900	26	1.51	100	3
BNCWB32-75	2.88	48	75	2900	22	2.67	120	5.5
BNCWB32-120	2.88	48	120	2900	18	5.23	140	11
BNCWB40-40	5.4	90	40	2900	30	1.96	100	5.5
BNCWB40-90	5.4	90	90	2900	26	5.09	130	11
BNCWB40-120	5.4	90	120	2900	20	8.82	150	18.5
BNCWB50-45	9	150	45	2900	30	3.68	110	7.5
BNCWB65-50	14.4	240	50	2900	35	5.60	120	15

Note: The motor powers of the above pump types are given according to the specific weight of the medium (r=1.00).

BNCWB Magnetic Peripheral Pump
BNCWB磁力旋涡泵
佰诺泵阀 BAINUO

◎ 安装尺寸图（仅介质密度1时所配电机）
INSTALLATION SIZE CHART (motor is required when media density is 1)





◎ 安装尺寸表 INSTALLATION DIMENSION

泵型号 Pump type	A	B	B1	A1	L1	h	H	K	AB	BB	L	进出口法兰 Inlet and outlet flanges			
												DN	D	D1	n
BNCWB20-20	240	250	80	110	54.5	130	250	16	280	410	450	Φ20	Φ105	Φ75	14
BNCWB20-40	240	250	80		54.5	140	265	16	280	410	495				
BNCWB20-65	240	300	80		54.5	140	278	16	280	440	520				
BNCWB20-100	300	350	80		44.5	162	312	16	350	500	560				
BNCWB25-25	240	250	80	120	54.5	130	255	16	280	410	495	Φ25	Φ115	Φ85	14
BNCWB25-40	240	300	80		54.5	140	278	16	280	450	530				
BNCWB25-75	300	350	80		40	162	312	16	350	500	625				
BNCWB25-120	340	400	80		38.5	182	362	16	380	550	680				
BNCWB32-30	240	300	80	145	50	140	285	16	280	440	520	Φ32	Φ140	Φ100	18
BNCWB32-50	300	350	80		44.5	162	312	16	350	500	575				
BNCWB32-75	340	400	80		44.5	182	332	16	380	550	635				
BNCWB32-120	340	400	80		38.5	182	362	16	380	550	680				
BNCWB40-40	340	400	80	155	40.5	182	332	16	380	550	660	Φ40	Φ150	Φ110	18
BNCWB40-90	380	500	100		60	210	390	16	420	700	830				
BNCWB40-120	380	500	100		60	210	420	16	420	700	840				
BNCWB50-45	340	400	80	170	40.5	162	362	16	380	550	650	Φ50	Φ165	Φ125	18
BNCWB65-50	380	500	100	190	40.5	182	382	16	420	700	820	Φ65	Φ185	Φ145	18

◎产品概述 PRODUCT OVERVIEW

BNIMC-L型磁力管道离心泵是本单位在十多年设计制造卧式磁力泵经验基础上开发的一种新型管道泵，它既具有ISG型管道离心泵的特点、又具有磁力化工泵的优点，是最新一代的无泄漏磁力管道离心泵。

BNIMC-L magnetic pipe centrifugal pump is a kind of new pipe pump developed from the experienced obtained from designing and manufacturing horizontal magnetic pump. It integrates the advantages of ISG pipe centrifugal pump and magnetic chemical pump. It is the newest generation magnetic pipe centrifugal pump without any leak.

◎应用领域 APPLICATION FIELDS

BNIMC-L单级单吸管道式磁力离心泵，可广泛应用于化工、制药、石油、电镀、食品、电影照相洗印、科研机构、国防工业等单位抽送酸、碱液、油类、稀有贵重液、毒液、挥发性液体，以及循环水设备配套、过滤机配套。特别是易漏、易燃、易爆液体物抽送。

BNIMC-L single-stage and single-suction pipe magnetic centrifugal pump can be widely used for different fields like chemical industry, pharmacy industry, petrochemical industry, electroplate industry, food, film and photo finishing, research institutes and organizations engaging in national defense work, like transferring acid liquid, alkali liquid, oil, rare and precious liquid, toxic liquid and volatile liquid; besides, it is also used as the supporting device for circulating water equipment and filters. Most importantly, it is quite applicable for transferring inflammable liquid and explosive liquid, as well as liquid easy to be leaked.

◎性能范围 PERFORMANCE SCOPE

口径：32-100mm
Caliber: 32-100mm
流量：3.2-100m³/h
Flow rate: 3.2-100m³/h
扬程：20-80m
Head: 20-80m
温度：-20℃-+120℃（可根据需求定做+120-+350）
Temperature: -20℃-+120℃ (according to demands, +120-+350 can be customized)
压力：0-1.6MPa
Pressure: 0-1.6MPa
转向：电动机方向顺时针
Rotation direction: motor rotates clockwise

BNIMC-L Magnetic Pipe Centrifugal Pump
BNIMC–L型磁力管道离心泵

◎型号说明 TYPE SPECIFICATION

BNIMC-L 50 160 - P B

- B — 防爆型 Explosion proof
- P — 不锈钢 stainless stee
- 160 — 叶轮名义直径(mm) nominal diameter of impellers (mm)
- 50 — 进出口径 Inlet and outlet caliber
- BNIMC-L — 佰诺磁力管道离心泵 Bainuo Magnetic Pipe Centrifugal Pump

◎产品特点 PRODUCT FEATURES

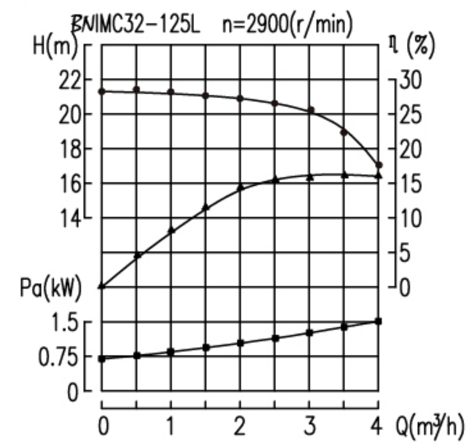
1、进行无泄漏运转，可输送易燃、易爆、剧毒及腐蚀介质；
Able to run leak-free and able to transfer inflammable, explosive, acute toxic and corrosive medias;
2、材质优良，泵体、叶轮、隔离套等过流部件均采用优质不锈钢制造；
Made by superior materials, whose pump body, impeller, distance sleeve and other flow passage components are made by stainless steel of high quality;
3、轴套采用高硬度、高耐磨的硬质合金WC，滑动轴承采用无压烧结碳化硅，并设置有润滑油槽，有效保证泵的使用寿命、正常使用超25000小时；
The axle sleeve is made by hard alloy WC which has good hardness and high wear resistance; the sliding bearing is made by SSIC and there is a lubrication oil slot, which can highly ensure the pump’ s service life. Normally, the pump can be used for more than 25,000 hours;
4、立式安装、结构紧凑、占地面积小；
Vertical installation and compact structure, only takes up a little space;
5、振动小，噪音低，运行平稳。
Small vibration and low noise, which can run stably.
6、泵的绝大多数零部件可与BNIMC系列磁力泵互换，泵的性能与BNIMC系列相同；
Most the pump components are able to be exchanged with BNIMC series magnetic pump, the pump performance is the same as that of BNIMC series;
7、BNIMC-L型立式磁力泵可直接安装在管道的任何部位，对管道中的介质进行加压，可直接替换原来的ISG泵，安装尺寸与ISG泵完全相同，方便用户更换
BNIMC-L vertical magnetic pump can be directly installed onto the pipe (any part is OK), which will give pressure to the media in the pipe; it is able to directly take the place of ISG pump, the installation size is totally the same as that of ISG pump. So it is easy and convenient for the user to change it.

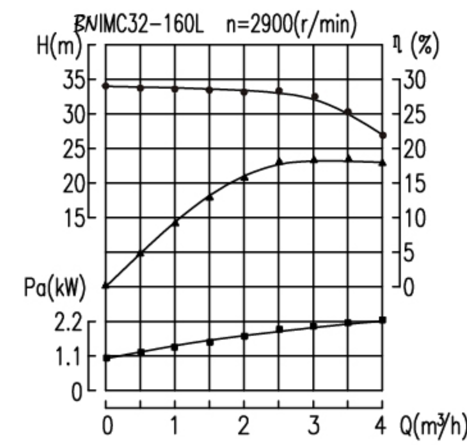
BNIMC-L Magnetic Pipe Centrifugal Pump
BNIMC–L型磁力管道离心泵

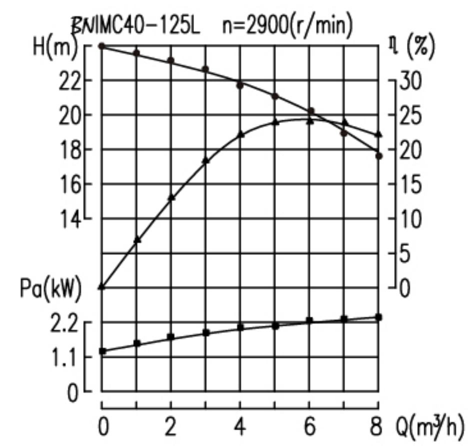
◎BNIMC-L系列磁力管道离心泵性能参数 BNIMC-L series magnetic pump centrifugal pump parameters

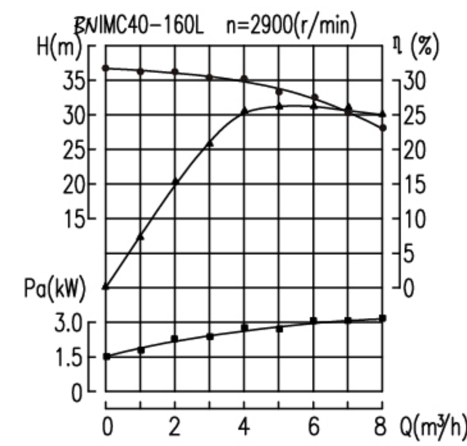
型号 Type	流量Q	扬程	汽蚀余量	转速	轴功率	效率	电机功率 Power(kW)		
	Capacity	Head	NPSHr	Speed	Power	Efficiency	介质密度 Medium density(g/cm³)		
	m³/h	m	m	r/min	kW	%	<1	<1.35	<1.84
	2	20.6			0.8	14			
BNIMC32-125L	3.2	20	2.5	2900	1.09	16	1.5	2.2	3
	4	18			1.23	16			
	2	33			1.12	14			
BNIMC32-160L	3.2	32	2.5	2900	1.55	18	2.2	3	4
	4	30			1.82	18			
	3.8	22			1.01	22			
BNIMC40-125L	6.3	20	2	2900	1.43	24	2.2	3	4
	7.6	18.6			1.75	22			
	3.8	34.5			1.43	25			
BNIMC40-160L	6.3	32	2	2900	2.11	36	3	4	5.5
	7.6	28			2.32	25			
	3.8	52.5			2.27	24			
BNIMC40-200L	6.3	50	2	2900	3.43	25	5.5	7.5	11
	7.6	48			4.14	24			
	7.5	22	2		1.41	32			
BNIMC50-125L	12.5	20	2	2900	2	34	3	4	5.5
	15	18.5	2.5		2.44	31			
	7.5	34.3	2		1.95	36			
BNIMC50-160L	12.5	32	2	2900	2.79	39	4	5.5	7.5
	15	29.6	2.5		3.27	37			
	7.5	51.8	2		4.81	22			
BNIMC50-200L	12.5	50	2	2900	5.49	31	7.5	11	15
	15	48	2.5		5.95	33			
	7.5	82	2		10.47	16			
BNIMC50-250L	12.5	80	2	2900	10.9	25	15	18.5	22
	15	78.5	2.5		11.46	28			
	15	21.3	2		2.42	36			
BNIMC65-125L	25	20	2	2900	3.03	45	4	5.5	7.5
	30	18.5	2.5		3.29	46			
	15	34.2	2		4.37	32			
BNIMC65-160L	25	32	2	2900	4.84	45	7.5	11	15
	30	30	2.5		5.22	47			
	15	53.2	2		7.25	30			
BNIMC65-200L	25	50	2	2900	9.73	35	15	18.5	22
	30	47.6	2.5		11.12	35			
	15	81.2	2		13.28	25			
BNIMC65-250L	25	80	2	2900	14.73	37	18.5	22	30
	30	78.4	2.5		15.63	41			
	30	23.2	3		3.95	48			
BNIMC80-125L	50	20	3	2900	4.95	55	7.5	11	15
	60	17.6	4		5.43	53			
	30	36	2		6.54	45			
BNIMC80-160L	50	32	2.3	2900	7.93	55	11	15	18.5
	60	28.4	3.3		8.76	53			
	30	55.2	2		11.28	40			
BNIMC80-200L	50	50	2.5	2900	13.63	50	18.5	22	30
	60	45.2	3.2		15.08	49			
	60	23.7	3		7.31	53			
BNIMC100-125L	100	20	4.5	2900	8.93	61	11	15	18.5
	120	16.3	5.5		9.35	57			
	60	37	3.8		12.6	47			
BNIMC100-160L	100	32	4.3	2900	14.3	61	18.5	22	30
	120	28	5		15.26	60			
	60	56	3.4		17.95	51			
BNIMC100-200L	100	50	3.9	2900	22.71	60	30	37	45
	120	44	5.2		24.39	59			

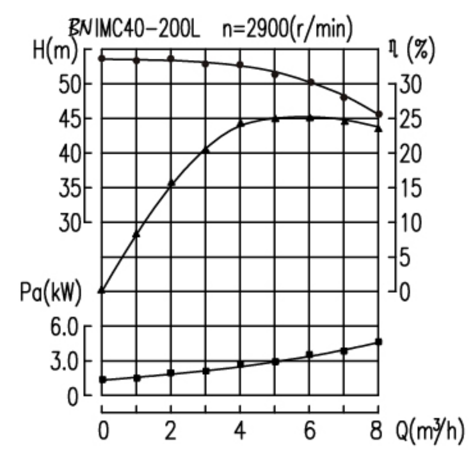
◎性能曲线图 Performance curve

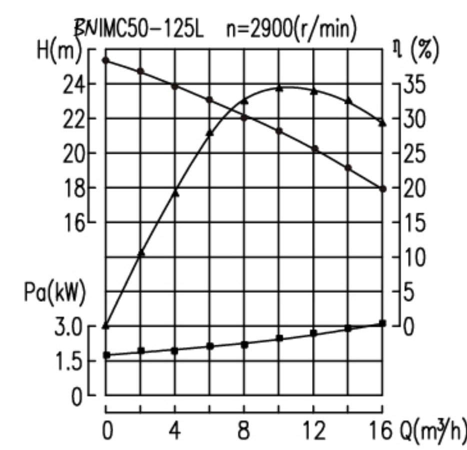




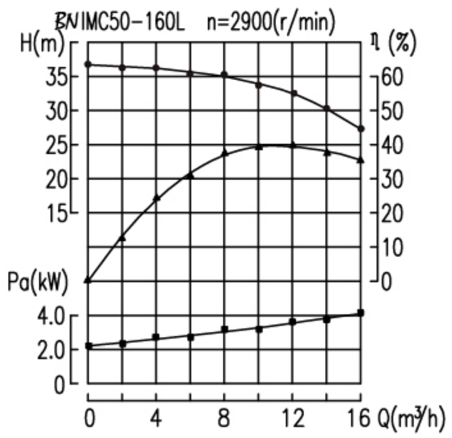


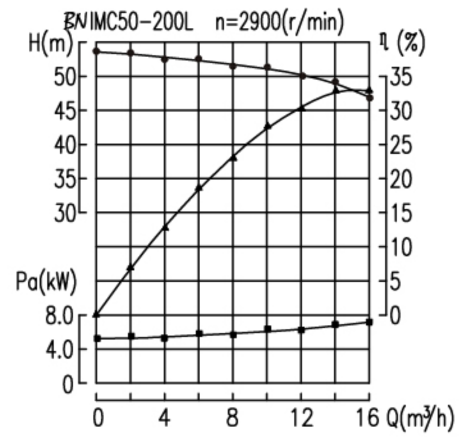


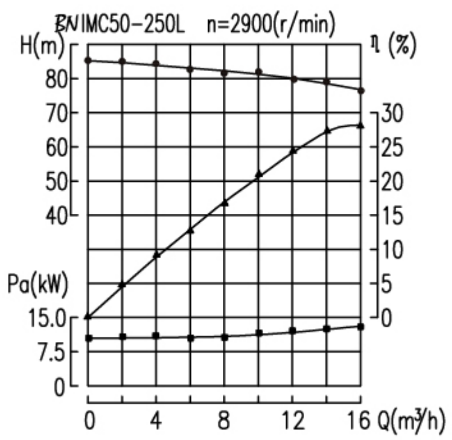


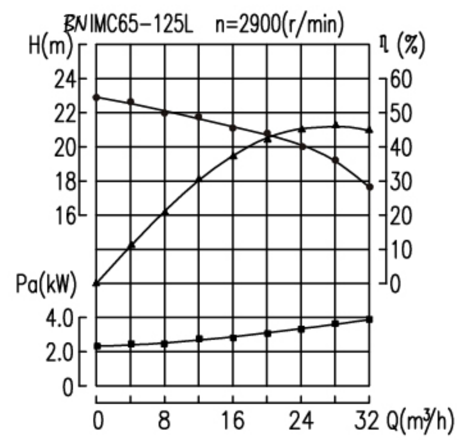


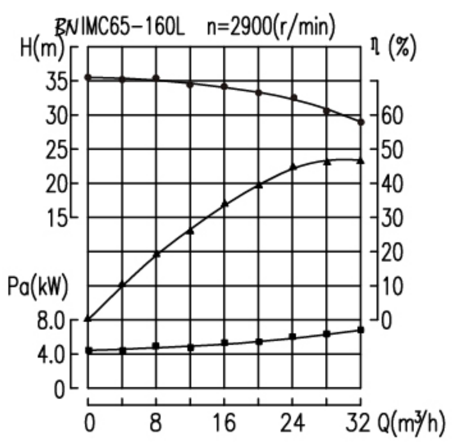
◎性能曲线图 Performance curve

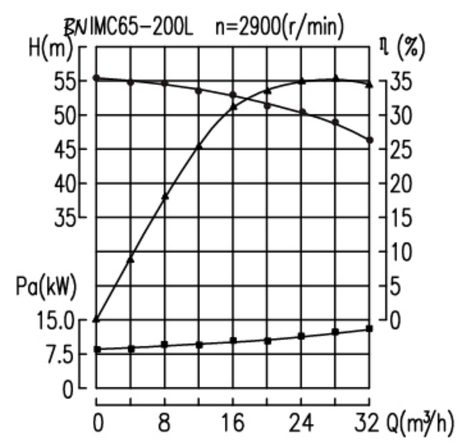






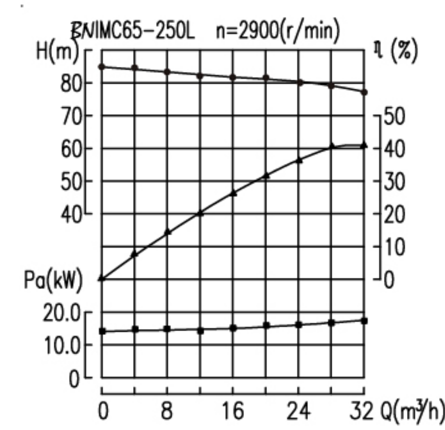


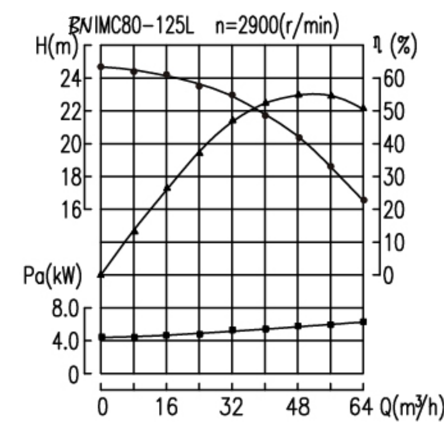


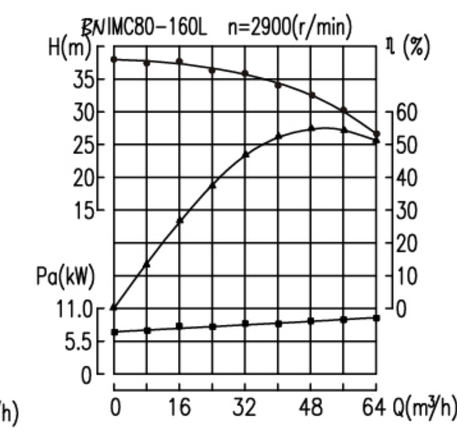


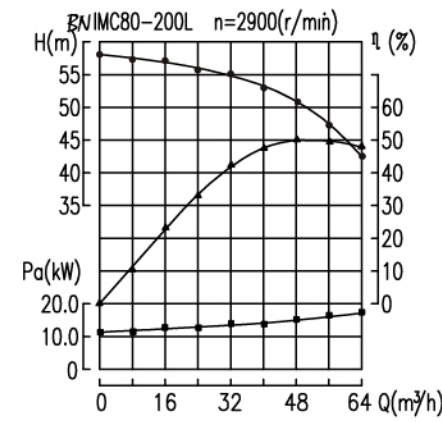
BNIMC-L Magnetic Pipe Centrifugal Pump
BNIMC–L型磁力管道离心泵

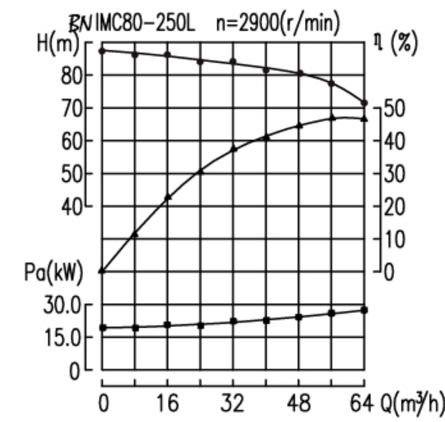
◎性能曲线图 Performance curve

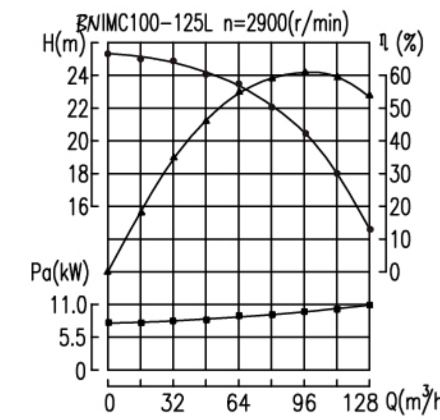


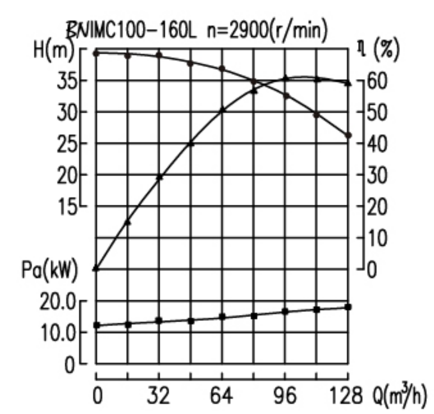


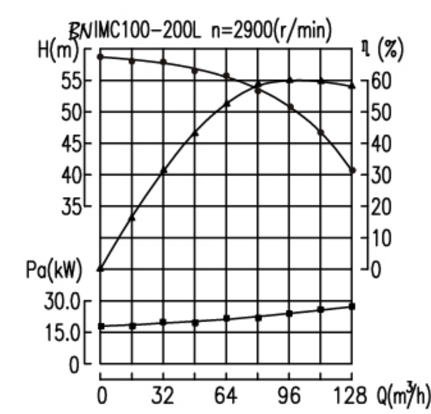


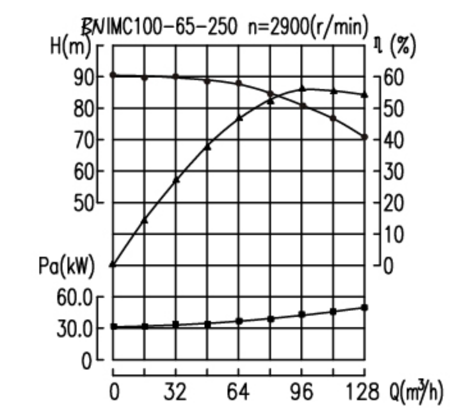






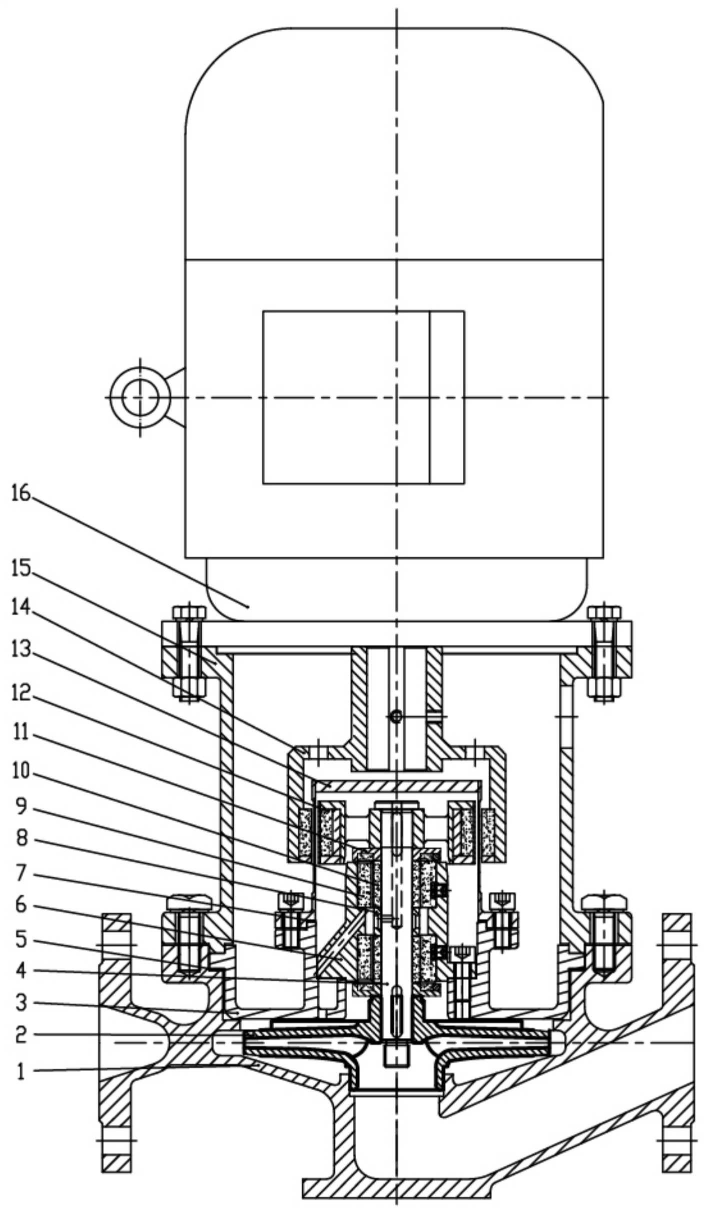






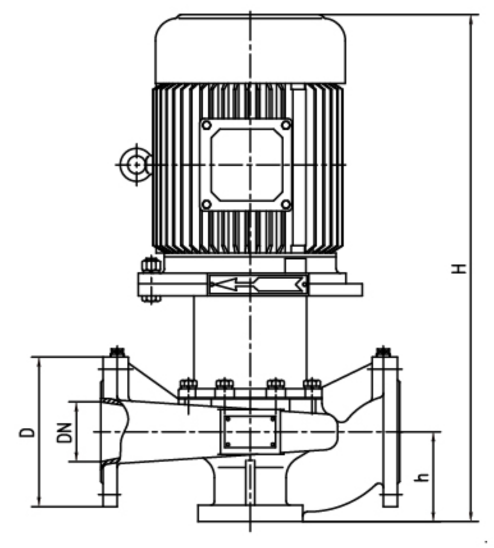
BNIMC-L Magnetic Pipe Centrifugal Pump
BNIMC–L型磁力管道离心泵

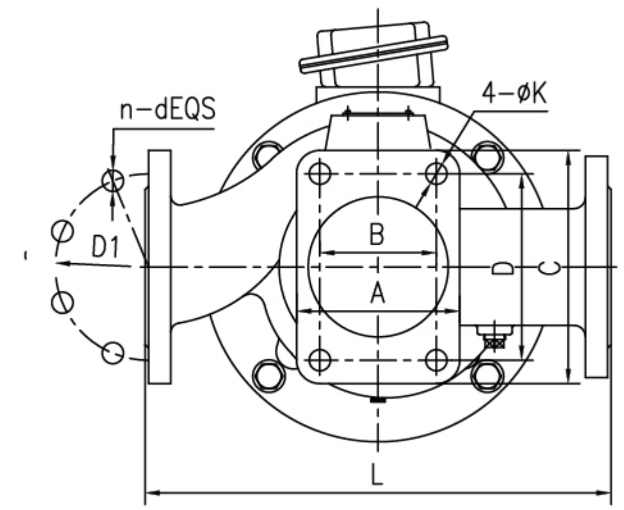
◎结构图 STRUCTURE CHART



1	2	3	4	5	6	7	8
泵体 Pump body	叶轮 Impeller	泵盖 Pump cover	泵轴 Pump spindle	泵盖密封垫 Sealing gasket on pump	轴承座 Bearing block	隔离套密封垫 Sealing gasket on distance sleeve	档套 Grade sleeve
9	**10**	**11**	**12**	**13**	**14**	**15**	**16**
轴承套 Bearing sleeve	轴套 Axle sleeve	推力盘 Thrust plate	内磁总成 Inner magnetic assembly	隔离套 Distance sleeve	外磁总成 Outer magnetic assembly	联接架 Connector	电动机 Motor

◎安装尺寸图 INSTALLATION SIZE CHART

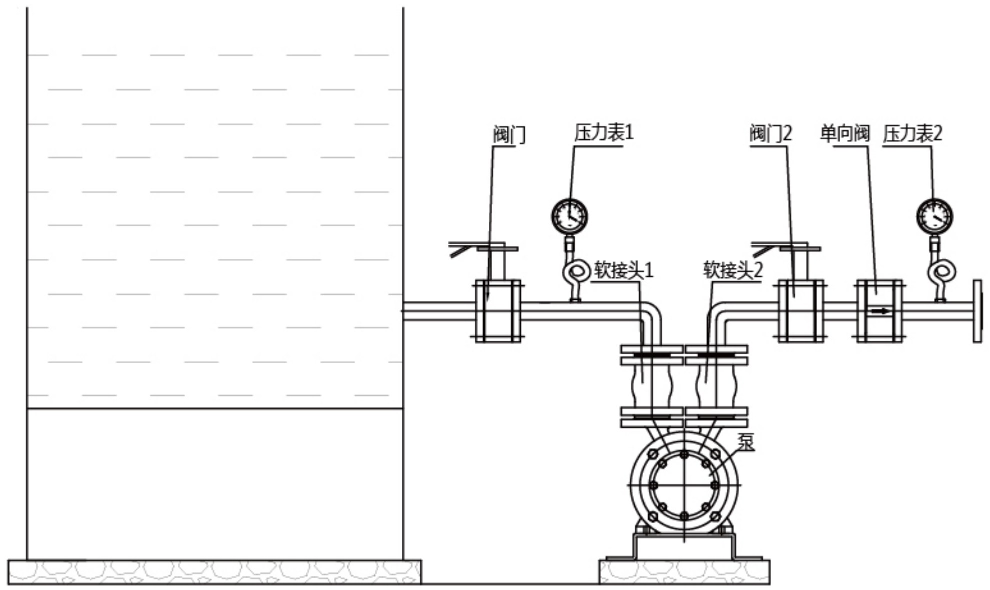


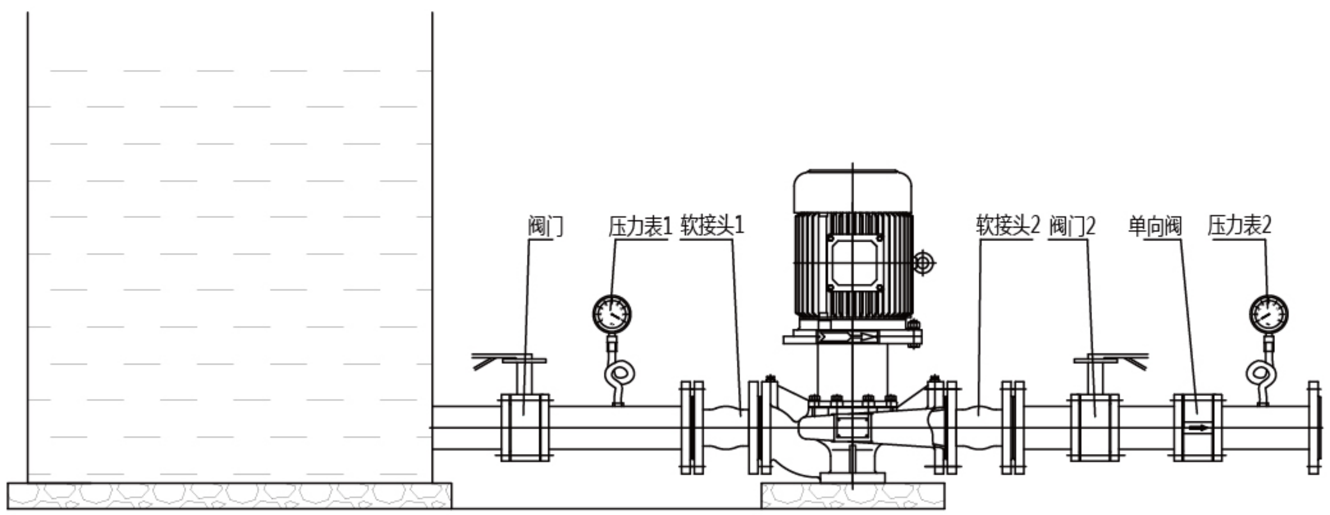


泵型号 Type	AxC	BxD	h	H	K	L	进出口法兰 Inlet and outlet flange			
							DN	D	D1	n-d
BNIMC32-125L	90x130	60x100	72	430	14	260	Φ32	Φ140	Φ100	4-Φ18
BNIMC32-160L	90x130	60x100	65	490	14	300				
BNIMC40-125L	100x150	70x115	85	530	14	280	Φ40	Φ150	Φ110	4-Φ18
BNIMC40-160L	100x150	70x115	90	580	14	320				
BNIMC40-200L	120x170	80x135	95	660	14	340				
BNIMC50-125L	100x150	70x115	95	560	14	300	Φ50	Φ165	Φ125	4-Φ18
BNIMC50-160L	120x170	80x135	100	620	14	320				
BNIMC50-200L	120x170	80x135	100	680	14	360				
BNIMC50-250L	140x200	100x160	105	730	18	440				
BNIMC65-125L	140x200	100x160	100	650	18	340	Φ65	Φ185	Φ145	4-Φ18
BNIMC65-160L	140x200	100x160	100	680	18	360				
BNIMC65-200L	140x200	100x160	105	820	18	380				
BNIMC65-250L	160x220	120x180	110	860	18	480				
BNIMC80-125L	140x200	100x160	120	790	18	400	Φ80	Φ200	Φ160	8-Φ18
BNIMC80-160L	140x200	100x160	125	820	18	400				
BNIMC80-200L	140x200	100x160	125	850	18	430				
BNIMC100-125L	160x220	120x180	140	830	18	440	Φ100	Φ220	Φ180	8-Φ18
BNIMC100-160L	160x220	120x180	160	920	18	500				
BNIMC100-200L	160x220	120x180	140	980	18	480				

BNIMC-L Magnetic Pipe Centrifugal Pump
BNIMC–L型磁力管道离心泵
佰诺泵阀 BAINUO

◎安装示意图 INSTALLATION





高位槽正压状态：泵安装在储槽的底部，储槽内介质处于正压状态，泵进口处阀门打开时，储槽的液体能自流道泵腔中。
The head tank is under positive pressure: the pump shall be installed at the bottom of the tank, the media in the tank shall be under positive pressure; when the valve at the inlet and outlet is open, the liquid in the tank will go to the pump naturally.

◎安装与调试 INSTALLATION AND DEBUGGING

泵安装的好坏对泵的运行和寿命有重要影响，所以安装和校正必须仔细进行！
The installation quality will greatly influence the pump operation and service life, so do take good care of the installation and calibration!

◎安装和校正 INSTALLATION AND CALIBRATION

- 清除底座上的油腻和污垢，把底座放在地基上。
  The oily food and fouls on the seat and put the seat on the foundation.
- 用水平仪检查底座的水平度，允许用楔铁找平。
  Check the seat’ s levelness by a level gauge, a wedge can be used to do the levelness.
- 用水泥浇灌底座和底脚螺栓眼。
  Pour cement to the seat and anchor bolt hole.
- 水泥干固后，应检查底座和底脚螺栓的孔眼是否松动，合适后拧紧地脚螺栓，重新检查水平度。
  After the cement is dry, check that whether the holes on the seat and the holes on the anchor bolt are loosened or not; if yes, tighten the anchor bolt and re-check the levelness.
- 清理底座的支持平面，水泵脚及电机脚的平面，并把水泵和电机安装到底座上去。
  Clean the support plane of the seat, as well as the plan of the water pump leg and motor leg; install the water pump and the motor onto the seat.

◎安装说明 INSTALLATION INSTRUCTIONS

- 泵的安装高度、管路的长度、直径、流速应符合计算，力求减少不必要的损失。
  The installation height, pipe length, diameter and flow speed of the pump shall comply with the calculation so that unnecessary loss can be reduced as much as possible.
- 长距离输送是应取较大的管径；泵的管路应自有支架，不允许管路的重量加在泵上，避免把泵压坏。
  If long-distance transfer is to be done, a pipe with a relatively big diameter shall be used; the pump pipe shall have supports and it is not allowed to get the pipe weight on the pump, otherwise, the pump will be damaged.
- 排出管路应装逆止阀，并应装在闸阀前面。
  The drain pipe shall be equipped with a check valve, which must be in front of the brake valve.

◎使用与操作 USE AND OPERATIONS

启动 Start up

- 泵使用前应进行检查，盘动电机风叶要灵活，无卡阻及异常声响；电机旋转方向应与泵转向一致。
  Before using the pump, it is mandatory to do an inspection; when running the fan blades, do make sure that there is no block and abnormal noise; the rotation direction of the pump shall be the same as the pump.
- 关闭出口管路上的闸阀。
  Close the brake valve on the outlet pipe.
- 向泵内注液，或用真空泵引液体排空泵内的气体。
  When filling the pump, a vacuum pump can be used to drain out the liquid and the air in the pump.
- 接通电源，当泵达到正常转速后，在逐渐打开吐出口管路上的闸阀，并调节到所需要的工况（在吐出管上的闸阀关闭的情况下，泵连续工作的时间不能超过2分钟）。
  Power on the pump and when the pump reaches its normal rotation speed, open the brake valve on the outlet pipe slowly, get the working conditions that we need (if the brake valve on the drain pump is closed, the pump can not run for more than 2 minutes).

BNIMC-L Magnetic Pipe Centrifugal Pump
BNIMC–L型磁力管道离心泵

运转 RUN

在开车及运转的过程中，必须注意观察各仪表读数，泵的震动和杂音等是否正常，如果发现异常情况应及时处理。
During the start-up and operation, keep a close eye on the readings on the instruments and check that whether the pump vibration and noise are under good conditions; if there is an abnormal, dispose it immediately.

停止 SHUT DOWN

- 正常停车关闭出口阀，然后立即停止电动机，随后再关闭进口阀。禁止在出口阀门未关闭的情况下停车，以免出口管路液体倒流使叶轮反转，损坏零件。
  If the pump is to be shut down normally, close the outlet valve and stop the motor immediately; then close the inlet valve. It is forbidden to shut down the pump when the outlet valve is not closed; otherwise, the impeller will run reversely because of the liquid in the outlet pipe and components will be damaged.
- 紧急停车立即停止电动机，然后再关闭出口阀和进口阀
  If an emergent shut-down is required, stop the motor immediately, then close the inlet valve and outlet valve.
- 如环境温度低于液体凝固点时，要放净泵内液体，以防冻裂。
  If environment temperature is lower than the liquid freezing liquid, totally drain out the liquid in the pump; otherwise, the whole pump will be frozen and damage.
- 长期停机不用时，除将泵内的腐蚀性液体放净外，还要用清水冲洗干净
  If a long-term shutdown is required, corrosive liquid in the pump must be drained out totally and then wash the pump by clean water.

◎维护与保养 MAINTENANCE

定期维护保养。正常情况下，运行3000小时后，应做一次解体检查，并更换不宜再用的易损件。
Regular maintenance is required. Under normal conditions, the pump shall be provided with a decomposition inspection after running for 3,000 hours; those vulnerable parts which can not be used any more shall be

◎注意事项 TIPS

1．防止颗粒进入 Prevent particles from getting into the pump

(1)不允许有铁磁杂质、颗粒进入磁力传动器和轴承摩擦副。
It is not allowed to have ferromagnetic impurities and particles get into the magnetic driver and shaft-bearing friction pair system.

(2)输送易结晶或沉淀的介质后要及时冲洗(停泵后向泵腔内灌注清水，运转1min后排放干净)，以保障滑动轴承的使用寿命。
If media which is easy to crystallize or sediment is transferred, the pump shall be timely cleaned and washed (after the pump is stopped, fill clean water into the pump and run the pump for one minute, then drain out the water), by which the sliding bearing service life can be ensured.

(3)输送含有固体颗粒的介质时，应在泵入口处加过滤器。注意吸入端过滤器的前后压力差，压力差增加时，表示过滤器上有异物堵塞，要停止泵运行，以便清洗过滤器。
When particles with solid is to be transferred, a filter shall be added at the pump inlet. The pressure difference of the filter shall be cared about; when the pressure difference increases, it means that the filter is blocked, then stop the pump to clean the filter.

2．防止退磁 Prevent demagnetizing

(1)磁力矩不可设计得过小。
The magnetic moment shall not be too small.

(2)应在规定温度条件下运行，严禁介质温度超标。可在磁力泵隔离套外表面装设铂电阻温度传感器检测环隙区域的温升，以便温度超限时报警或停机。
The pump shall run under a proper temperature, it is forbidden to get the media beyond the set temperature. A PT RTD can be equipped outside the magnetic pump distance sleeve, which can be used to detect the temperature rise; when the temperature is too high, an alarm will be given out or the pump will be shut down.

3．防止干摩擦 Dry friction

(1)严禁空转。
(1)The pump is forbidden to have an idling.

(2)严禁介质抽空。
(2)It is forbidden to fully drain out the media.

(3)在出口阀关闭的情况下，泵连续运转时间不得超过2min，以防磁力传动器过热而失效。
(3)When the outlet valve is closed, continuous running of the pump shall be not more than 2 minutes; otherwise, the magnetic driver will be too hot and get invalid.

4.排出量、排出压力是否符合规定值；
4.Check that whether the drain quantity and drain pressure comply with the set value;

5.有无异常声音及振动，若发生异常声音或振动，一般情况说明有气蚀或轴承过度磨损。
5.Whether there is an abnormal or vibration; if there is an abnormal noise or vibration, it means that there is an erosion or the bearing is abraded too severely.

6.泵是否发生气蚀：打开泵的出口阀门，当流量达到一定量，突然发出响声和振动，这时继续开大阀门，如果流量仍不增加，说明有气蚀。有气蚀时要进行排气操作。注意：磁力泵在气蚀状态下绝对不能运转，如果在这种状态下继续运转，则会引起轴承早期磨损。
6.Whether the pump suffers erosion: open the outlet valve of the pump, when the flow rate is reached a certain value and there is a sound and vibration suddenly, keep opening the valve; if the flow rate is still not increased, it means that there is an erosion. If so, air in the pump shall be drained. Note: magnetic pump is forbidden to run if there is an erosion; otherwise, the bearing will suffer an early-stage abrasion.

7.电动机的电流值是否超过额定电流。
7.Current of the motor is higher than the rated current or not.

8.泵各部位的温度有无异常过热的状况。
8.Whether the pump parts are too heat.

◎常见问题解析 COMMON PROBLEMS

1、磁力泵因气蚀而导致的问题：泵产生气蚀的原因主要有泵入口管阻大、输送介质气相较多、灌泵不充分、泵入口能头不够等原因。气蚀对泵的危害最大，发生气蚀时泵剧烈振动，平衡严重破坏，将导致泵轴承、转子或叶轮损坏。这是磁力泵故障发生的常见原因。

Problems suffered by magnetic pump by erosion: the main reason is that the pump inlet pipe suffers great resistance force, the media transferred by the pump has too much air, the pump filling is not done sufficiently; energy head at the pump inlet is not enough etc. Erosion is the factor harming the pump the most severely. Once there is an erosion, the pump will vibrate a lot, the balance is damaged severely, meanwhile, the pump bearing, rotor or impeller will be damaged. This is the common reason why magnetic pump is in failure.

2．无介质或输送介质流量小：使转子主轴与稳定轴承干摩，烧碎轴承。磁力泵是由输送介质给滑动轴承提供润滑和冷却的，在没有开入口阀或出口阀的情况下，滑动轴承因无输送介质润滑和冷却而导致高温从而损坏。

No media or the media flow is small: rotor spindle shaft will rub with the stabilized bearing, then the bearing will be burnt. Magnetic pump transfers the media to the sliding bearing, which will lubricate and cool the sliding bearing. If there is no inlet valve and outlet valve, sliding bearing will be damaged because of the high temperature.

3．隔离套损坏：磁力泵的磁力联轴器是由泵所输送介质冷却的，如果介质中有硬质颗粒，很容易造成隔离套划伤或划穿，有时如果维护方法不当也有可能造成隔离套的损坏。

Distance sleeve is damaged: magnetic coupling of the magnetic pump is cooled down by the media transferred by the pump; if there are hard particles in the media, distance sleeve is easy to be damaged; sometimes, if the maintenance is not right done, distance sleeve will also be damaged.

4.泵轴折断：泵轴折断的主要原因是，因为泵空运转，轴承干磨而将轴扭断。拆开泵检查时可看到轴承已磨损严重预防泵折断的主要办法是避免泵的空运转。

Pump shaft is broken: major reason is that when the pump idles, the shaft will suffer a dry friction and the shaft will be broken. Dismantle the pump to do the inspection and it will find that the shaft has been severely abraded; in order not to get the pump broken, do not get the pump under idling.

5. 轴承损坏：泵断水或泵内有杂质，就会造成轴承的损坏。内外磁转子间的同轴度要求若得不到保证，也会直接影响轴承的寿命。

Shaft is damaged: water to the pump is cut off or the pump has impurities, the shaft will be damaged. If coaxiality of the inner and outer magnetic rotor is not satisfied, service life of shaft will be directly affected adversely.

6. 扬程不足。造成这种故障的原因有:输送介质内有空气，叶轮损坏，转速不够，输送液体的比重过大，流量过大。

Head is not enough. Main reason is that there is air in the media, impeller is damage and rotation speed is not sufficient enough; specific gravity of the transfer liquid is too big and the flow rate is too big.

7.流量不足。造成流量不足的主要原因有:叶轮损坏，转速不够，扬程过高，管内有杂物堵塞等。

Flow rate is not enough. Main reason of the insufficiency is that impeller is damaged, rotation speed is not enough, head is too high and the pipe is blocked by the impurities.

◎滑动轴承、轴套、止推轴承的更换 CHANGE SLIDING BEARING, AXLE SLEEVE AND THRUST BEARING

磁力泵的轴承系统是泵安全可靠运转的关键部位，也是易损部位。BNIMC 系列磁力泵一般采用滑动轴承，特殊情况下采用滚动轴承，滑动轴承的配置是根据泵送介质的特性进行选配，由于碳化硅材质耐腐蚀性非常优良，加上其具有自润滑性，摩擦系数小，一般选用碳化硅材质的滑动轴承与硬质合金碳化钨轴套相配，组成一对摩擦副，止推轴承也采用硬质合金碳化钨材质。轴承系统各零件的使用寿命，在正常运行中，取决于输送介质的性质，如果输送清洁液体，且液体又具有良好的润滑性，轴承的使用寿命可长达数年。如果输送介质既含有杂质，又缺乏润滑性，且呈涩性，轴承的使用寿命可能短至数月，若装配不当，则有可能在几分钟之内全部损坏。因此轴承系统各零部件的更换、装配应严格按下列要求进行。

Bearing system of the magnetic pump is a key part to ensure the reliable operation, which is easy to be damaged. BNIMC series magnetic pump uses sliding bearing. If there is a special situation, configuration of sliding bearing shall be consistent with the media features; it is known that silicone carbide has a superior resistance to corrosion and it is lubricating, with a small friction coefficient; normally, sliding bearing made by silicone carbide is matched with axle sleeve made by hard alloy tungsten carbide, by which a friction pair is formed, thrust bearing is also made by hard alloy tungsten carbide. For the service life of bearing system components, under normal operation, the service life is determined by the property of transfer media; if clean liquid is transferred and the liquid has a good lubrication, the bearing can be used for several years. If the transfer media has impurities and the lubrication is not good, service life of bearing will be shorted, perhaps, it can only be used for several months; if the assembly is not properly done, the bearing might be damaged within several minutes. So it is important to follow the requirements listed here below when changing and assembling bearing system components.

（一）更换条件 Change conditions

滑动轴承与轴（或套）间的径向间隙，常温泵的设计值为 0.08mm~0.12mm（单边0.04mm~0.06mm）。当径向间隙磨损至>0.6mm（单边>0.3mm）时应予更换；高温泵设计值为（冷却时）为 0.16mm~0.18mm（单边 0.08mm~0.09mm），当径向间隙磨损至>0.8mm（单边0.4mm）时，应予更换。无论是前（叶轮端）滑动轴承还是后（转子端）滑动轴承的端面，只要磨损量超过1mm 而导致轴向总间隙超过1.5mm 者，应予更换。

For the radial clearance between the sliding bearing and the shaft (or sleeve), design value of room temperature pump is 0.08mm~0.12mm (unilateral: 0.04mm~0.06mm). If it abrades and the radial clearance is >0.6mm (unilateral is >0.3mm), change it; design value of the high temperature pump (after being cooled down) is 0.16mm~0.18mm (unilateral is 0.08mm~0.09mm), if it abrades and the radial clearance is >0.8mm (unilateral is 0.4mm), change it. For both the frontier sliding bearing and the rare sliding bearing, once the abrasion is more than 1mm and radial clearance is higher than 1.5mm, change it.

如果发现轴套和止推轴承有裂痕及破碎现象，需同时更换。若滑动轴承、轴套磨损后间隙达到更换值时，则应成套更换。

If the bearing sleeve and thrust bearing are broken or cracked, they must be changed synchronously. If there is an abrasion, which requires to change the sliding bearing and the bearing sleeve, the whole set must be changed.

（二）更换滑动轴承、轴套和止推轴承应注意的事项 TIPS FOR CHANGING SLIDING BEARING,

1．滑动轴承的更换 Change slide bearing

（1）拧下滑动轴承座在泵盖上的固定螺栓，取出滑动轴承座，拧下滑动轴承的紧定螺钉，将滑动轴承座放入机油中加热或用烤箱加热，小心推出滑动轴承，严禁采用机械敲击办法拆卸滑动轴承，防止轴承座受压变形。

Screw off the fixed bolts on the pump cover of the sliding bearing seat, take out the sliding bearing seat; screw off the set screws on the sliding bearing, put the sliding bearing sit into the lubrication oil or heat it in the oven; push out the sliding bearing; it is forbidden to knock the sliding bearing when dismantling it; do not get the seat deformed.

（2）检查新轴承的规格无误后，趁热将滑动轴承装入热膨胀后的滑动轴承座。
After checking the new bearing and confirming that there is no mistake, put the sliding bearing into the seat suffering thermal expansion when it is still hot.
（3）滑动轴承座冷却后，滑动轴承随即紧固在轴承座内。然后按轴承座上顶丝孔的位置，配滑动轴承上的切削平面固定。
After the sliding bearing seat is cooled down, sliding bearing will be fixed in the seat. Follow the jackscrew hole on the bearing seat to well fix it.
（4）滑动轴承的更换必须成对更换。
Sliding bearing shall be changed in pairs.
（5）若滑动轴承配件系总成（即滑动轴承已装入轴承座）更换时，只需取下旧轴承座，换上新轴承座即可。
If sliding bearing assembly (that is the sliding bearing has been installed into the seat) needs to be changed, take out the old bearing seat and change a new one.
（6）安装时严禁敲打。
Do not knock when installing

2．轴套的更换　Change bearing sleeve

（1）将泵轴拆下后，小心拆下需更换的轴套，注意不要损坏泵轴。
After the pump spindle is dismantled, dismantle the bearing sleeve to be changed. Do not damage the pump spindle.
（2）每次更换轴套必须成对更换。以保证更换后滑动轴承与轴套之间的径向间隙。
The bearing sleeve shall be changed in pairs. Guarantee the radial clearance between the sliding bearing and the bearing sleeve.
（3）如果泵轴总成上已配装好轴套，更换时，将泵轴总成（轴套已装配好）整体换上即可。
If the pump spindle assembly has got the bearing sleeve equipped, change the whole pump spindle

3．止推轴承的更换　Change the thrust bearing

止推轴承的配件，一般都带有止推轴承座，可直接更换，每次更换，也必须成对更换，以保证轴向间隙。
For accessories of thrust bearing, there is a seat for it, which can be changed directly and in pairs. Only in this way can the axial clearance be ensured.

滑动轴承、轴套或止推轴承更换完毕，并将泵头组装完成后，用手拨动叶轮，转动轻盈、无擦碰，即为正常。
After the sliding bearing, bearing sleeve or thrust bearing are changed, assemble the pump head, then use hands to turn the impellers; if the impellers can run easily and there is no friction, it means that it is in good conditions.

泵机组组装完成后，打开电动机风扇罩，用手转动电机风扇，转动轻盈，无擦碰，视为正常。重新装好电动机风扇护罩。
After the pump is assembled, open the motor fan cover and turn the motor fan by hands; if the impellers can run easily and there is no friction, it means that it is in good conditions. Then reassemble the motor fan cover.

泵在重新起动前，应将介质灌满泵腔，并排除泵内残留空气后才能起动。磁力泵严禁空转，切记。否则，不但轴承会干磨损坏，而且会导致密封隔离套内涡流热骤升而损坏。
Before restarting the pump, the pump shall be fully filled with media and the air in the pump shall be emptied. Otherwise, the pump is not allowed to be restarted. It is forbidden to get the pump idle. Otherwise, the bearing will be damaged. Besides, sealing distance sleeve will be damaged because of the hot eddy current. (bearing sleeve has been equipped).

◎故障原因及排除方法　DEFAULT REASONS AND TROUBLESHOOTING

故障形式 Default	产生原因 Reason	排除方法 Troubleshooting
泵不出水 No water from the pump	1、旋转方向不对，泵反转 1.The rotation direction is not right, the pump runs reversely. 2、进水管或所接仪表漏气 2.The inlet water or the instrument has a leak 3、泵腔气体未排尽 3.Air in the pump is not fully drained out. 4、转速不够 4.Rotation speed is not enough 5、吸程过高 5.Suction head is too high 6、阀门没有开 6.Valve is not opened	改变电机接线 Change motor wiring 杜绝漏气 No leak is allowed 排尽泵内气体 Drain out the air in the pump 调整电压，恢复额定转速 Adjust the voltage, recover the rated rotation speed 调整泵安装位置，减少吸入高度 Adjust the pump location to lower the height of the suction 校正或更改底阀 Calibrate or change the bottom valve
流量不足 Flow rate is not enough	1、叶轮管径太小或淤塞 1.Impeller pipe diameter is too small or the impeller pipe is blocked 2、叶轮留到阻塞 2.Impeller is blocked 3、扬程过高 3.Head is too high 4、转速不够 4. Rotation speed is not enough 5、密封环磨损过多 5.Sealing ring is abraded severely	更换或清洗吸入管 Change or clean the suction pipe 清洗叶轮 Clean the impeller 开大出口阀 Open the outlet valve more 恢复额定转速 Recover rated ration speed 更换密封环 Change sealing ring
扬程过低 Head is too low	1、流量过大 1.Flow rate is too big 2、转速过低 2.Rotation speed is too small	关小出水阀 Turn down the outlet valve 恢复额定转速 Recover the rated ration speed
噪声太大 Too much noise	1、轴严重磨损 1.The shaft is severely abraded 2、轴承严重磨损 2.Bearing is severely abraded 3、外磁钢或内磁钢包套与隔离套接触 3.Outer magnetic steel or inner magnetic steel sleeve contacts with distance sleeve 4、密封环与叶轮研磨 4.Sealing ring abrades with the impeller	更换泵轴 Change the pump spindle 更换轴承 Change the bearing 超出泵头重新组装 Beyond the pump head, redo the assembly 更换轴或轴承、止推环、密封环 Change the shaft or bearing, thrust ring and sealing ring
漏液 Leak	1、密封圈损坏 1.Sealing ring is damaged 2、装配时承压部件紧固件未把紧 2.When assembly, the pressure-containing parts are not tightened enough	更换密封圈 Change the sealing ring 把紧承压部件紧固件 Tighten the pressure-containing parts
震动严重 Severely vibrate	安装不对正或与基础没把握 The installation is not well done or the foundation is not well managed	重新检查对正、与基础把合紧 Do the inspection and well manage the foundation

◎ 不锈钢1Cr18Ni9Ti耐腐蚀数据表 STAINLESS STEEL 1CR18NI9TI ABRASION-RESISTANCE DATA

介质	浓度（%）	温度（℃） Temperature				介质	浓度	温度（℃） Temperature			
Media	Concentration	25	50	80	100	Media	Concentration	25	50	80	100
硫酸 Sulfuric acid	5	√	×	×	×	醋酸 Acetic acid	<20	√	√	√	√
	10~80	×	×	×	×		30~60	○	○	○	○
	90	√	×	×	×		70~100	√	√	√	×
	100	√	○	×	×	丁酸 Butyric acid	<20	√	√	√	√
硝酸 Nitric acid	30	√	√	√	√		30~50	√	√	√	○
	40~60	√	√	√	√		60~100	√	√	√	×
	70	√	√	√	○	脂肪酸 Fatty acid	任意 Any	√	√	√	√
	80	√	√	○	○	丙酮酸 Pyruvic acid	任意 Any	√	√	√	√
	90	√	○	○	×	草酸 Oxalic acid	5	√	√	√	
	100	√	×	×	×		10	√	×		
盐酸 Hydrochloric acid	任意 Any	×	×	×	×		20~90	√			×
磷酸 Phosphoric acid	<5	√	√	√	√	苯甲酸 Benzoic acid	任意 Any	√	√	√	√
	10	√	×	×	×	氢氧化钠 Sodium hydroxide	<50	√	○	○	×
氢氟酸 Hydrofluoric acid	任意 Any	×	×	×	×		70~80	√	√	√	×
氢溴酸 Hydrobromic acid	<100	×	×	×	×		100	√	√	√	√
	100	√	√	√	√	氢氧化钾 Potassium hydroxide	<50	√	√	√	√
氢碘酸 Hydroiodic acid	<50	×	×	×	×		50	√	√	√	×
	100	√	×	×	×		60~70	√	√	√	○
氢氰酸 Hydrocyanic acid	10	√					80	√			×
	90	×	×	×	×	氢氧化铵 Ammonium hydroxide	任意 Any	√	√	√	√
	100	√	√	√	√	氢氧化钙 Calcium hydroxide	<28	√	√	√	√
亚硫酸 Sulfurous acid	10	√	√	√	√	氢氧化镁 Magnesium hydroxide	任意 Any	√	√	√	√
	20~90	√				氢氧化钡 Barium hydroxide	任意 Any	√	√	√	√
	100	√	×			氢氧化铝 Aluminum hydroxide	任意 Any	√	√	√	√

◎ 不锈钢1Cr18Ni9Ti耐腐蚀数据表 STAINLESS STEEL 1CR18NI9TI ABRASION-RESISTANCE DATA

过硫酸 Peroxosulfuric acid	任意 Any	√	√	√	√	氯化钠 Sodium chloride					
亚硝酸 nitrous acid	5	√				氨水 Ammonium hydroxide	任意 Any	√	√	√	√
	10	×				甲醇 Methyl alcohol	任意 Any	√	√	√	√
	100	√				乙醇 Ethyl alcohol	任意 Any	√	√	√	√
碳酸 carbonic acid	任意 Any	√	√	√	√	甲醛 Formaldehyde	任意 Any	√	√	√	√
铬酸 Chromic acid	<10	√	○	○		乙醛 Acetaldehyde	任意 Any	√	√	√	√
	20~30	√	×	×	×	丙酮 Acetone	10~100	√	√	√	√
氯酸 Chloric acid	任意 Any	×	×	×	×	甲烷 Methane	任意 Any	√	√	√	√
溴酸 Bromic acid	任意 Any	×	×	×	×	甲苯 Methylbenzene	任意 Any	√	√	√	√
砷酸 Arsenic acid	<30	√	√	√	√	二甲苯 Xylene	任意 Any	√	√	√	√
	100	√	√		×	乙苯 Ethylbenzene	任意 Any	√	√	√	√
硼酸 Boric acid	≤50	√	√	√	√	甲酰胺 Formamide	任意 Any	√	√	√	√
	70~80	×				甲酚 Cresol	任意 Any	√	√	√	√
	100	√	√			尿素 Urea	<50	√	√	√	√
钼酸 Molybdic acid	10	√				喹啉 Quinoline	任意 Any	√	√	√	√
	100	√				硝基甲苯 Nitrotoluene	任意 Any	√	√	√	√
氟硅酸 Fluosilicic acid	<20	√	√	×	×	油漆 Paint	任意 Any	√	√	√	√
王水 Aqua regia	任意 Any	×	×	×	×	醋 vinegar	任意 Any	√	√	√	√
甲酸 Formic acid	<5	√	√	√	√	酵母 Yeast	任意 Any	√	√		

√表示良好（轻腐蚀或无）；○表示可用（有腐蚀）；×不适用（严重破坏或变形）

√ means good (corroded slightly or no corrosion); ○ means usable (corrosion is suffered); × means not applicable (damaged or deformed severely)