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CQB-F 氟塑料磁力泵

CQB-F Fluoroplastic Magnetic Pump



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使用该产品前，请仔细阅读说明书！

Please read the instructions carefully before using this product!

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■ 概述

CQB-F型氟塑料磁力泵是根据JB/T7742-95标准设计的新产品。这种材料是目前世界上最好的耐腐蚀材料。适用范围广、耐腐蚀性强、机械强度高、不老化、不分解毒素等。

■ 产品用途

CQB-F系列磁力泵广泛应用干石油、化工、冶金、制药、电镀、环保等行业，可输送强酸、强碱、强氮化性、易燃、易爆、剧毒要重液体。

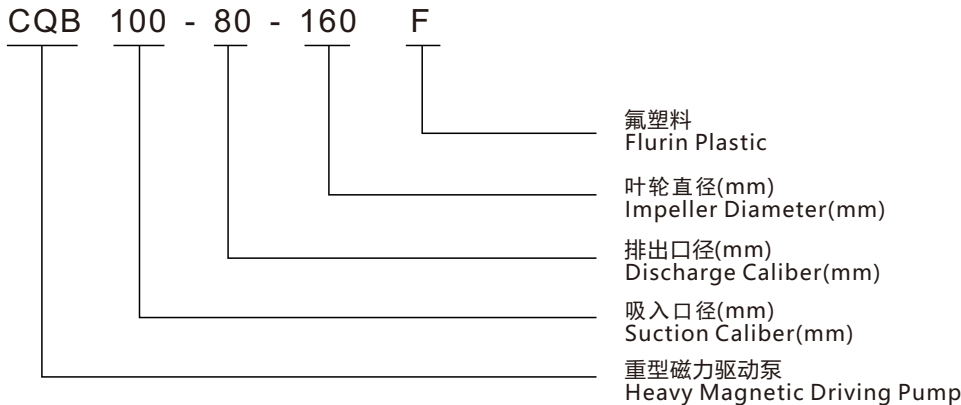
■ 参数范围

流量：1.8~100m³/h
扬程：8~32m
功率：0.12-18.5KW

■ 特点

- 1、氟塑料磁力泵的设计具有结构紧凑、体积小、噪音低、工作可靠等优点。
- 2、隔离套采用特殊材料制成，具有高强度的机械性能，消除了普通磁力泵存在的磁涡流现象。
- 3、氟塑料磁力泵可输送任何浓度（强度）酸、碱、氧化剂等腐蚀性介质而不损坏。
- 4、防漏设计取消了轴封，采用磁力联轴器间接传动，彻底消除了滴漏的烦恼，永不污染使用现场。

■ 型号意义 Model Meaning



■ Summary

CQB-F PTFE Lined Magnetic Drive Pump is a new product made of polyvinylidene fluoride and designed according to JB/T7742-95 standard. This material is currently the world's best corrosion-resistant material. Wide range, strong corrosion resistance, high mechanical strength, no aging, no toxin decomposition etc.

■ Application

CQB-F series magnetic pumps are widely used in petroleum, chemical, metallurgy, pharmacy, electric ferry, environmental protection and other industries, and can transport strong acid, strong alkali, strong atmosphere, flammable, explosive, highly toxic and heavy liquids.

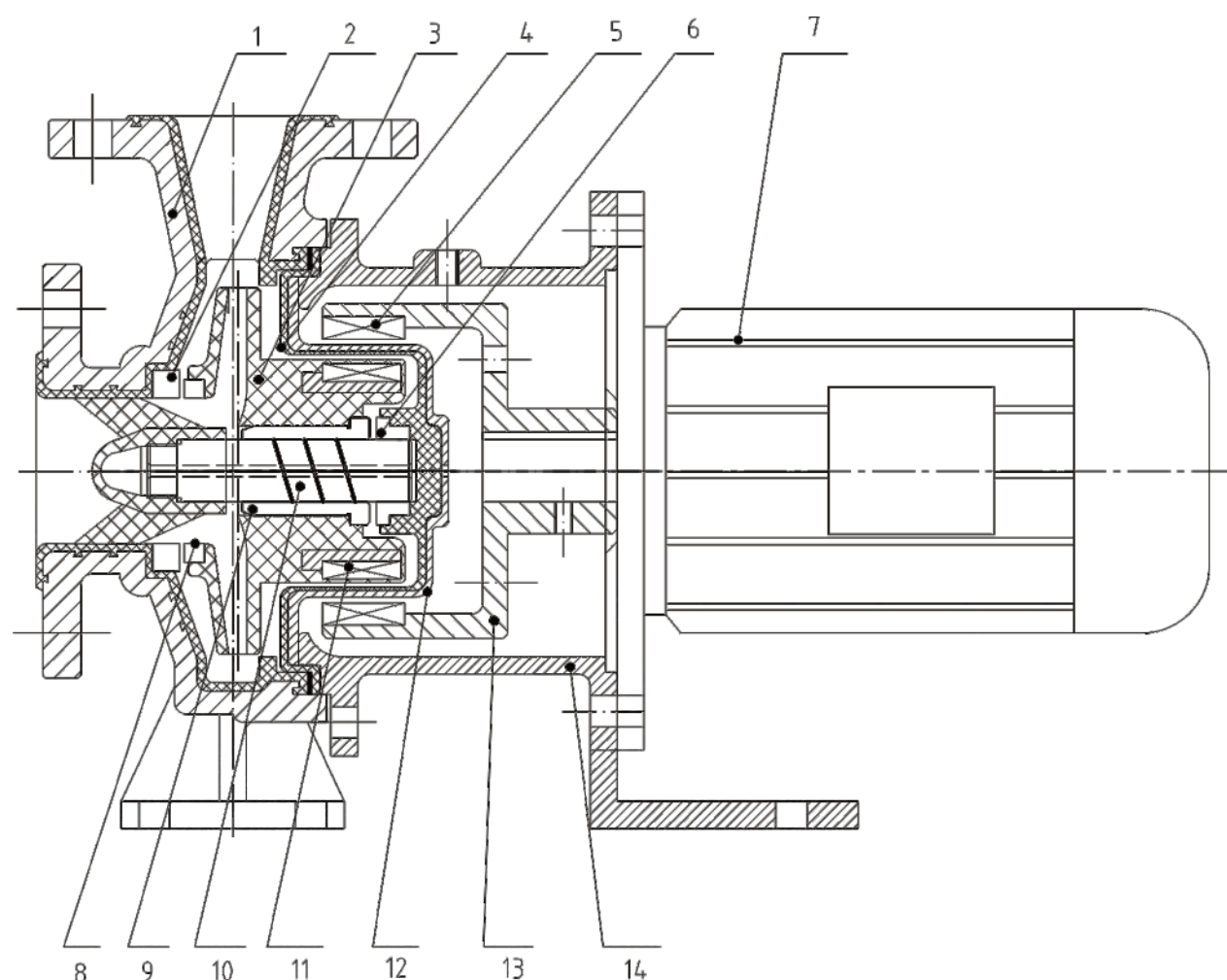
■ Parameters

Flow: 1.8~100m³/h
Head: 8~32m
Power: 0.12~18.5KW

■ Feature

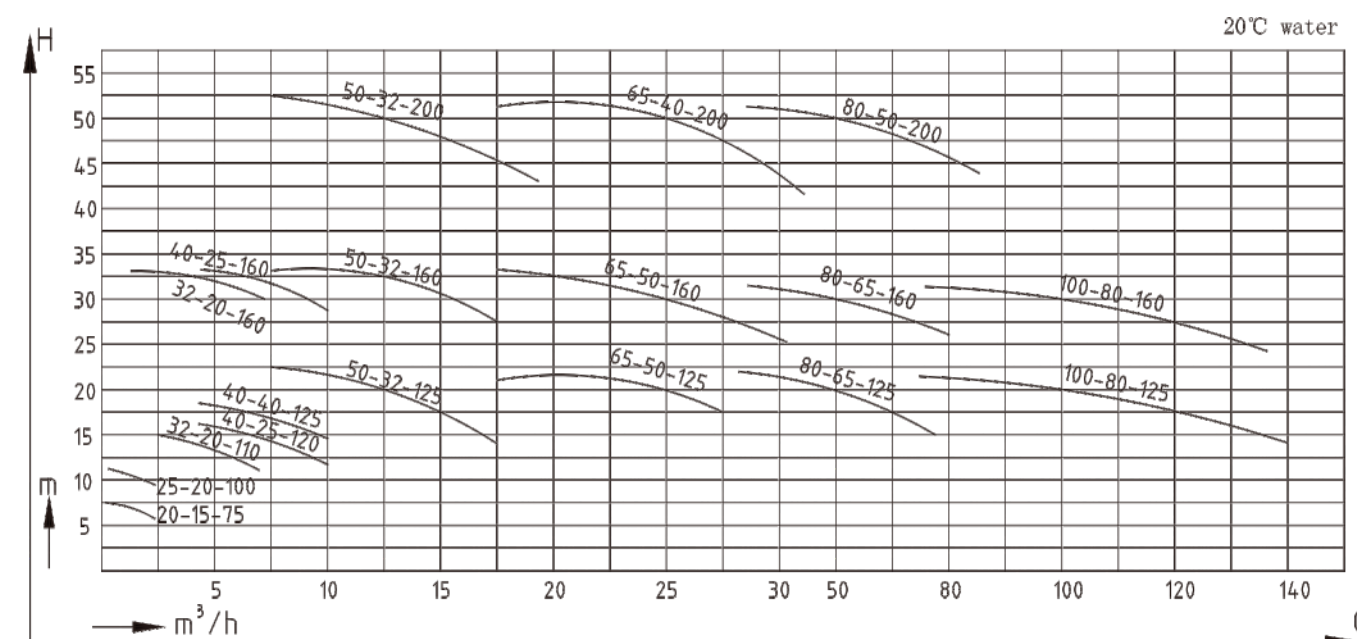
- 1.compact structure, small volume, low noise, reliable operation, etc.
2. The isolation sleeve is made of special materials, with high-strength mechanical properties, eliminating the magnetic eddy current phenomenon existing in ordinary magnetic pumps.
3. the fluoroplastic magnetic pump can transport any concentration (strength) of acid, alkali, oxidant and other corrosive media without damage.
- 4.The leak-proof design cancels the shaft seal, and uses the magnetic coupling for indirect drive, which completely eliminates the trouble of dripping and never pollutes the use site.

■ 结构图 Structure



序号NO.	名称 Name	序号NO.	名称 Name
1	泵体 Pump Shell	8	叶轮耐磨环 Impeller Mouth ring
2	静环 Static ring	9	轴套 Shaft Sleeve
3	叶轮 Impeller	10	主轴 Spindle
4	隔离套 Isolation sleeve	11	内磁钢 Inner magnetic steel
5	外磁钢 Outer Magnet	12	Reinforcing sleeve
6	静环 Static ring	13	外磁钢总成 External magnetic coupling
7	电机 Motor	14	联接架 link span

■ 性能曲线图 Performance Curve

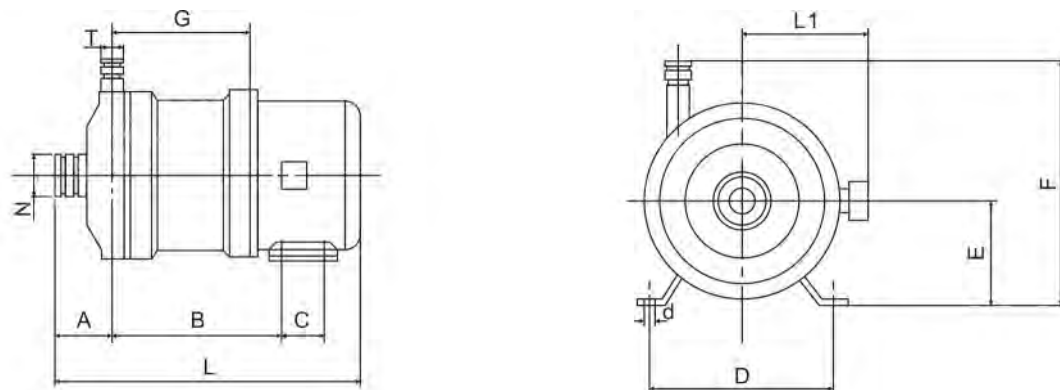


■ 性能参数表 Performance table

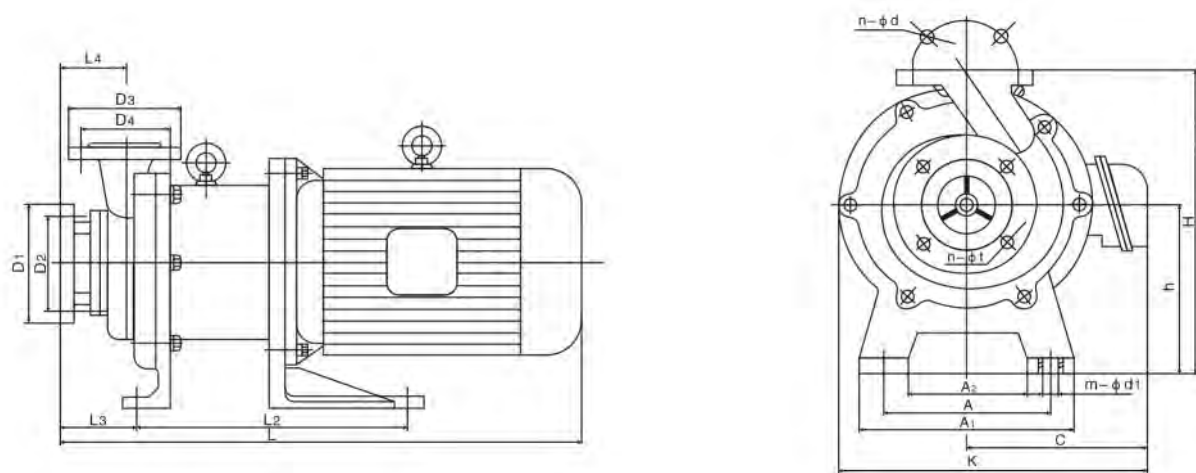
型号 Type	进口 Inlet (mm)	出口 Outlet (mm)	流量 Flow (m³/h)	扬程 Head (m)	汽蚀余量 Positive suction head (NPSH)r(m)	功率 Power (KW)	转速 Rotating speed	效率 Efficiency	电压 Voltage (V)
CQB15-10-85F	15	10	1.8	8	6.0	0.12	2800	33	220/380
CQB20-15-105F	20	15	3	12	6.0	0.37	2800	33	220/380
CQB32-25-125F	32	25	3.2	20	5.0	0.75	2900	35	380
CQB32-25-145F	32	25	3.2	25	6.0	0.75	2900	45	380
CQB40-32-115F	40	32	6.3	15	5.0	0.75	2900	42	380
CQB40-32-145F	40	32	6.3	25	3.5	1.5	2900	50	380
CQB40-32-160F	40	32	6.3	32	3.5	2.2	2900	46	380
CQB50-40-125F	50	40	12.5	20	4.0	2.2	2900	58	380
CQB50-40-160F	50	40	12.5	32	4.0	3	2900	56	380
CQB65-50-125F	65	50	25	20	4.0	3	2900	66	380
CQB65-50-160F	65	50	25	32	4.0	5.5	2900	64	380
CQB80-65-125F	80	65	50	20	4.0	7.5	2900	72	380
CQB80-65-160F	80	65	50	32	4.0	11	2900	70	380

注：表中型号从CQB20-15-105F至CQB100-80-160F均可配防爆电机。
Note: In this table, type from CQB20-15-105F to CQB100-80-160F can install fireproof machinery.

■ 外形和安装尺寸 External and installation size



型号Type	A	B	C	D	E	F	d	G	L1	L	N	T
CQB15-10-80F	56.5	93.5	80	100	63	144	7	87.5	75	304	22	18
CQB20-15-105F	54.15	125.5	90	112	71	165	7	111.5	85	340	26	18



型号Type	D1	D2	N-φ1	D3	D4	n-φd	L4	L3	L2	L1	L	A	A1	A2	h	H	m-φd1	K	C
CQB32-25-125F	140	100	4-φ17.5	115	85	4-φ17.5	69	80	200	150	500	140	180	100	140	270	4-φ13.5	238.5	135
CQB32-25-145F	150	110	4-φ17.5	140	100	4-φ17.5	73	86	200	153	406	160	200	120	150	290	4-φ13.5	204	85
CQB40-32-115F	450	110	4-φ17.5	140	100	4-φ17.5	73	86	200	153	506	160	200	120	150	290	4-φ13.5	264	145
CQB40-32-145F	165	125	4-φ17.5	150	110	4-φ17.5	83	80	250	165	528	190	240	140	165	325	4-φ13.5	279	175
CQB40-32-160F	165	125	4-φ17.5	150	110	4-φ17.5	83	80	250	165	583	190	240	140	165	325	4-φ13.5	309	175
CQB50-40-125F	185	145	4-φ17.5	165	125	4-φ17.5	81	83	258	183	600	194	250	138	200	380	4-φ17.5	319	175
CQB50-40-160F	185	145	4-φ17.5	165	125	4-φ17.5	81	83	258	183	600	194	250	138	200	380	4-φ17.5	319	175
CQB65-50-125F	200	160	8-φ17.5	185	145	8-φ17.5	101	102	342	259	740	230	300	160	250	450	8-φ25	364	195
CQB65-50-160F	200	160	8-φ17.5	185	145	8-φ17.5	101	102	342	259	900	230	300	160	250	450	8-φ25	417	250
CQB80-65-125F	220	180	8-φ17.5	200	160	8-φ17.5	116	124	348	275	951	280	360	200	250	470	8-φ25	458	250
CQB80-65-160F	220	180	8-φ17.5	200	160	8-φ17.5	116	124	348	275	951	280	360	200	250	470	8-φ25	458	250

■ 故障原因及排除方法 Failures causes and troubleshooting

故障 Failure	原因 Causes	消除方法 Troubleshooting
泵不出水	1、水泵反转 2、进水管道漏气 3、泵腔蓄水太少 4、电压太高，启动时联轴器打滑 5、吸程太高 6、没有灌水或泵内灌水不足 7、叶轮受阻不转 8、底阀堵塞或锈死	1、改变电机接线 2、杜绝漏气 3、增加蓄水量 4、调整电压 5、降低泵安装位置 6、放净空气、灌满水 7、清洗叶轮、泵壳、隔离套 8、清除堵塞物和修理底阀
流量不足	1、吸入管径太小 2、叶轮流道堵塞 3、扬程过高 4、转速太低 5、叶轮磨损或腐蚀严重 6、安装的总扬程太高或吸水扬程超过规定 7、吸入管路有空气漏进 8、密封环严重磨损	1、调换进水管 2、清洗叶轮 3、开大出水阀 4、恢复额定转速 5、更换叶轮 6、降低扬程、降低泵的安装位置 7、杜绝漏气 8、更换密封环
扬程过低	1、流量过大 2、转速太低	1.关小出水阀 2.恢复额定转速
噪音太大	1、轴严重磨损 2、轴套严重磨损 3、驱动磁钢杯与隔离套接触 4、转动部分和固定部分有摩擦 5、吸水扬程超过规定或底阀阻塞 6、泵没有固定好	1.更换泵轴 2.更换轴套 3.调整间隙或更换部件 4.检修、更换零件 降低水泵位置或消除堵塞物 5.重新固定好
噪音太大	1、螺钉松动 2、O型密封圈损坏 3、泵壳或隔离套破裂或腐蚀穿孔	1.拧紧螺钉 2.更换O型密封圈 3.更换泵壳或隔离套

■ 故障原因及排除方法 Failures causes and troubleshooting

故障 Failure	原因 Causes	消除方法 Troubleshooting
No Water from the pump	1.Reversion of water pump 2.Air leakage of water inlet channel 3.Too little water store in the pump chamber 4.Too high voltage causing the skid of coupling during activation 5.Too high suction head 6.No watering or insufficient watering in the pump 7.The impeller is blocked and doesn't rotate. 8.The bottom valve is clogged or rust buildup.	1.Change the wire splice of the engine 2.Stop the air leakage 3.Increase the water storage 4.Adjust the voltage 5.Reduce the installation position of the pump 6.Empty the air and watering to the full 7.Wash the impeller, pump casing and distance sleeve 8.Remove the stuffing and repair the bottom valve
Insufficient flow	1.The suction pipe caliber is too small 2.The impeller flow channel is stuffed 3.Too high head 4.Too low speed of rotation 5.Serious abrasion or corrosion of the impeller 6.The total head installed is too high or the water suction head exceeds the regulation. 7.There is air coming into the suction pipeline. 8.Serious abrasion of seal ring	1.Exchange the water inlet pipe 2.Wash the impeller 3.Release the discharge valve to a larger extent 4.Restore the rated rotation speed 5.Change the impeller 6.Reduce the head and debase the installation position of the pump 7.Stop the air leakage 8.Change the seal ring
Extra low head	1.Over flow 2.Too low rotation speed	1.Turn down the discharge valve 2.Restore the rated rotation speed
Too loud noise	1.Serious abrasion of shafts 2.Serous abrasion of shaft sleeve 3.Contact between driven magnetic steel cup and distance sleeve 4.Friction between rotating part and fixed part 5.The water suction head exceeds the regulation or the bottom valve is stuffed. 6.The pump is not fixed well.	1.Change the pump shafts 2.Change the shaft sleeve 3.Adjust the clearance or change components 4.Service and change parts 5.Debase the position of the pump or remove the stuffing 6.Fix it properly again
Leakage	1.The bolt is loose. 2.O-ring is damaged. 3.The pump casing or distance sleeve is broken or corroded to be perforated.	1.Screw down the bolt tightly 2.Change the O-ring 3.Change the pump casing or distance sleeve

■ 使用过程注意事项(重要)

(一) 因磁力泵轴承的冷却和润滑是靠被输送的介质，所以绝对禁止空运转，同时避免在工作中途停电后再启动时所造成的空转运转。

(二) 被输送介质中，若含有固体颗粒，泵入口要加过滤网；如含有铁磁质微粒，需加磁性过滤器。

(三) 泵在使用中环境温度应小于40℃，电机温度升不得超过75℃。

(四) 被输送的介质及其温度应在泵材允许范围内(详见磁力泵耐腐蚀性能表)。工程塑料泵的使用温度<60℃，吸入压力不大于0.1MPa,最大工作压力为0.6MPa; 金属泵的使用温度<80℃,风冷式高温泵的使用温度<180℃,水循环式高温泵使用温度<280℃,输送吸入压力不大于0.2MPa,最大工作压力1.6MPa、密度不大于1600kg/m3,粒度不大于30x10⁻⁶m2/S的不含硬颗粒和纤维的液体(若超过该范围，订货时必须说明，方可正常使用)。

(五) 对于输送液为易沉淀结晶的介质，使用后应及时清洗，排净泵内积液。

(六) 磁力泵运行500小时后,应拆检轴承和端面动环的磨损情况，若轴承和轴套的间隙大于0.5~1mm,叶轮轴向窜动1.5~2mm时，应更换轴承和轴向动环。

注意：

1、磁力泵在维修拆装过程中，内、外磁钢部件辐射出来的磁场将对如:心脏起搏器、信用卡、计算机磁盘、手表、精密仪器、仪表等产生磁场干扰，甚至产生危害性的影响。

a) 上述物件应远离磁性器件，保持1米以上的距离。

b) 装配好的整机磁力泵，不存在上述问题，因结构上有磁回路屏，可放心使用。

2、装配内磁转子对准外磁转子轴向到位时.由于磁吸力(尤其是钕铁硼或稀土钴强磁),用户应采取适当的缓冲措施，以免卡、夹手指，防止工伤事故。

■ Notes for use(Important)

1. Because the cooling and lubrication of the bearing of the magnetic pump rely on the conveyed medium, the idle running should be prohibited absolutely. It is also necessary to avoid the idle running caused by the reactivation after the power failure during operation.

2. If the convey medium contains solid grains, the pump inlet should be provided with an additional strainer; in ease of ferromagnetic substance particles, a magnetic filter should be added.

3. The ambient temperature for the pump during operation should be lower than 40℃; and the temperature rise of the engine should not exceed 75℃.

4. The conveyed medium and its temperature should be within the allowable range of pump materials (See the table for corrosion-proof performance of magnetic pump). For engineering plastic pump, the working temperature is <60℃ with suction pressure not higher than 0.1MPa and 0.6MPa maximum working pressure; for metal pump, the working temperature is <80℃; for air-cooled high temperature pump, the working temperature is <180℃; and for water circulating high temperature pump, the working temperature is <280℃ , transporting the liquid containing no hard grains and fibers with suction pressure not higher than 0.2MPa, 1.6MPa maximum working pressure, density not larger than 1600kg/m3 and granularity not larger than 30x10⁻⁶m2/S (In case of exceeding this range, description should be given in the order for normal operation.)

5. If the transportation liquid is medium easily generating crystal sediment, it is necessary to wash promptly after use to clean away the deposited liquid in the pump.

6. After the magnetic pump operates for 500 hours, it is necessary to disassemble and check the abrasion condition of the bearing and the rotating seal ring on the end surface. If the clearance between the bearing and the bearing bush is larger than 0.5~1 mm and the axial float of the impeller is within 1.5~2mm, it is necessary to change the bearing and the axial rotating seal ring.

Note:

(1) During disassembling and installing the magnetic pump for service, the magnetic field radiated by the internal and external magnetic steel components will cause magnetic field interference and even have a hazardous effect on such articles as heart pacemakers, credit cards, computer disks, watches, precision instruments and meters.

a) The above articles should be kept far away from the magnetic parts with a distance longer than 1 m.

b) The complete magnetic pump assembled has not the above problems. As there is a magnetic loop screen on the structure, it can be used at ease.

(2) When the internal magnetic rotor of the installation aims at the external magnetic rotor with a right axial direction, due to the magnetic attraction (esp. Nd-Fe-B or rare earth-cobalt strong magnetic) the user should take proper buffer measures in case the fingers may be trapped or clamped so as to avoid industrial accidents.