



海一泵阀
HaiYi Pump & valve

CQ 型

磁力驱动泵

CQ Magnetic Drive Pump



海一泵阀有限公司
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产品概述

CQ型磁力驱动泵(简称磁力泵)是将永磁联轴器的的工作原理应用于离心泵的新产品,设计合理、工艺先进、具有全密封、无泄漏、耐腐蚀的特点,其性能达到国外同类产品的先进水平。

磁力泵以静密封取代动密封,使泵的过流部件处于完全密封状态,彻底解决了其它泵机械密封无法避免的跑、冒、滴之弊病。磁力泵选用耐腐蚀、高强度的工程塑料、刚玉陶瓷,不锈钢等作为制造材料,因此它具有良好的抗腐蚀性能,并可以使被输送介质免受污染。

主要特点及用途

磁力泵结构紧凑、外形美观、体积小、噪音低、运行可靠、使用维修方便。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、易爆液体的抽送,选用此泵则更为理想。

Outline

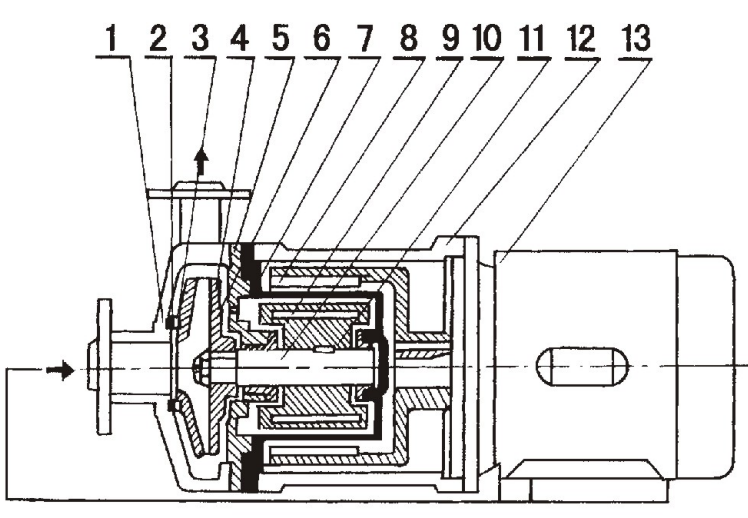
CQ magnetic drive pump is a new product to apply the working principle of permanent magnetism coupling in to the centrifugal pump, featuring a reasonable design, advanced process, full seal, without leak, corrosion resistance. The performance have reach the advanced level with aboard.

The magnetic pump adopts the static seal instead of the dynamic seal so the flowing parts be sealed fully, which solve the unavoidable shorting coming of leakage ect. Of the mechanical seal of other pumps. It is choose engineering pleatic , corundum ceramic and stainless steel with corrosion resistance and high tension, so has a strong resistance to corrosion and can free transport medium from being polluted.

Peatures Of Product And Purpose

The pump featuring a compact structure, streamline apperance, small volume, low noise, stable running, easy for maintence. It is widely used in chemical industry, pharmacy, ptrroleum, electroplating, food, develop films of movies, scientific institutions and defense industry for pump rare, acid and oil liquids, metal, poisonous and volatile liquid as well as water circulation and filter liquid. Especially for leakiness, flammability, explosive liquid.

磁力泵结构示意图 Structural Drawing Of Magnetic Derive Pump



1	泵壳 Pump casing	2	静环 Stationary seal ring	3	动环 Move ring	4	叶轮 Impeller	5	密封圈 Seal-ring	6	隔板 Clapboard	7	隔离套 Distance sleeve
8	外磁钢总成 Out alnico	9	内磁钢总成 Inside alnico	10	泵轴 Shaft	11	轴套 Muff	12	联接架 Link-fight	13	电机 Motor		

磁力泵材质种类 Pump sort of material

(1) 工程塑料泵(增强聚丙烯)型号有 :

Engineering pleatic pump type(Engarnced polypropylene):

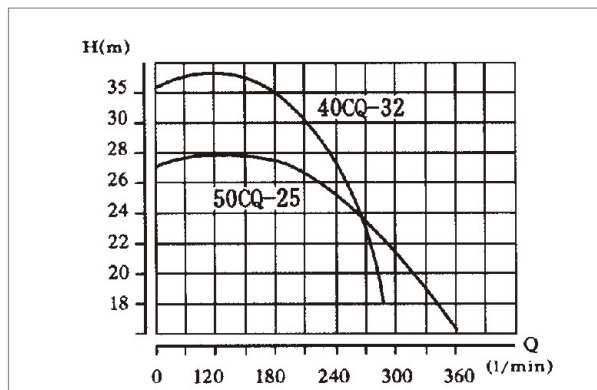
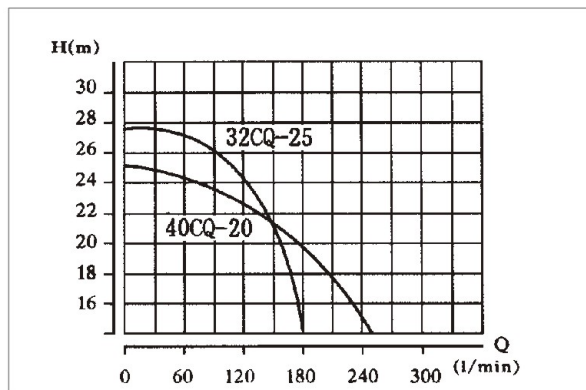
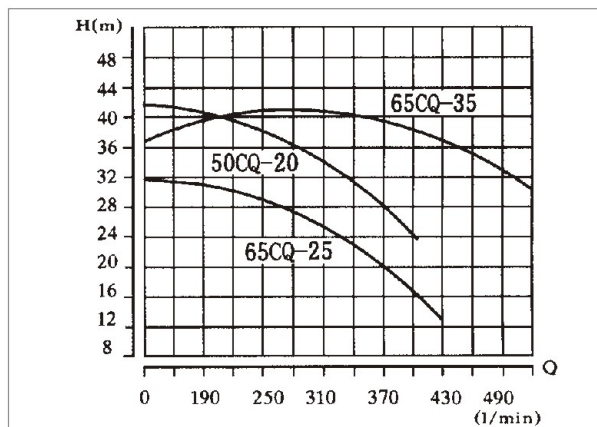
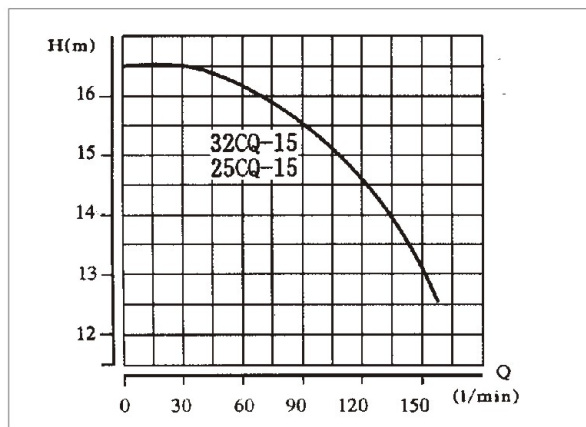
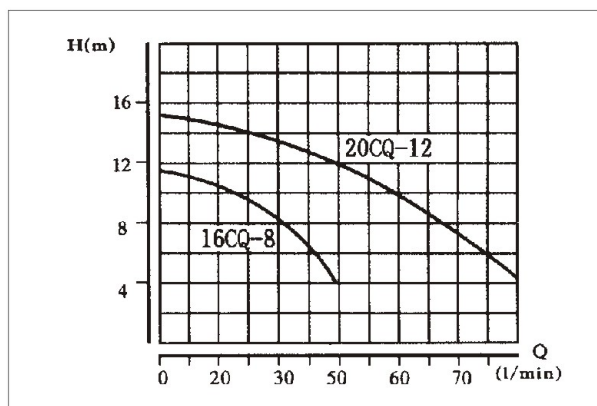
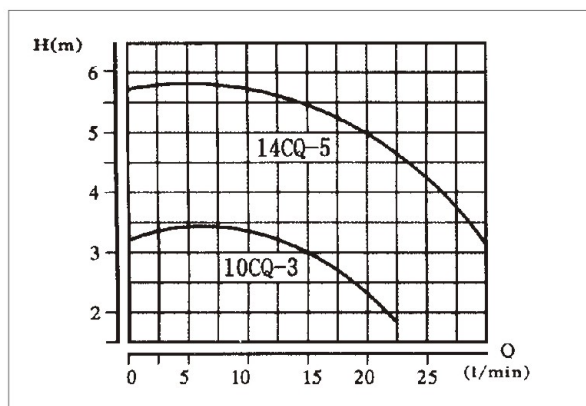
08CQ-2、10CQ-3、14CQ-5、16CQ-8、20CQ-12、32CQ-15、32CQ-25、40CQ-20、50CQ-25、50CQ-32、

(2) 不锈钢泵(1Cr18Ni9Ti)型号有 :

Stainless steel type(1Cr18Ni9Ti):

16CQ-8、20CQ-12、32CQ-15、32CQ-25、40CQ-20、40CQ-32、50CQ-25、50CQ-40、50CQ-50、65CQ-25、65CQ-35、80CQ-35、80CQ-50。

磁力泵特性曲线 Performance Curve Of Magnetic Derive Pump



型号与意义 Model Meaning

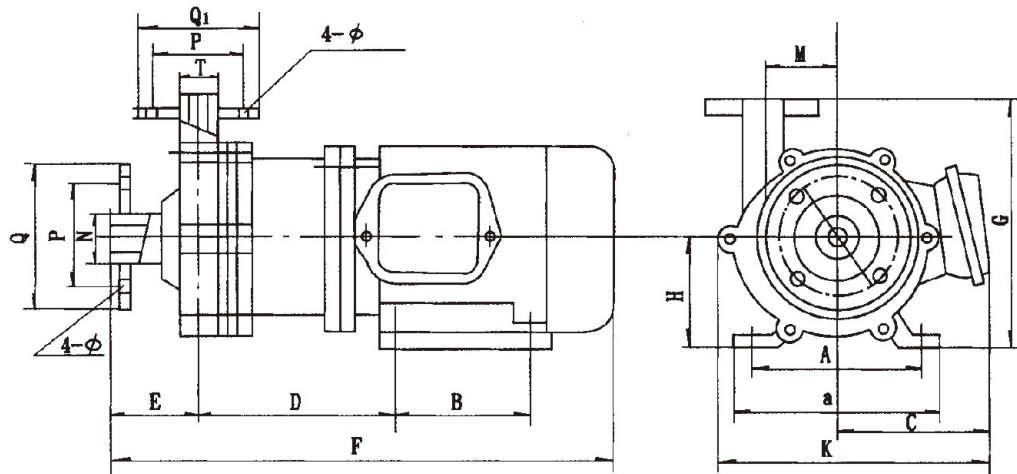
例如 For example : (50CQ-25)



磁力泵型号及性能表 Performance Table Of Magnetic Derive Pump

型号 Type	口径 Diameter		扬程 Head (m)	流量 Capacity (L/S)	吸程 Suction (m)	电机功率 Power (kw)	转速 Rotary speed (r/min)	电源电压 Voltage (V)
	进口 Inlet (mm)	出口 Outlet (mm)						
8CQ-2	8	6	2	15	2	0.025	2800	220
10CQ-3	10	10	3	19	2.5	0.025	2800	220
14CQ-5	14	10	5	20	3	0.12	2800	220/380
16CQ-8	16	12	8	30	3	0.18	2800	220/380
20CQ-12	20	12	12	50	4	0.37	2800	220/380
25CQ-15	25	20	15	110	4	1.10	2800	380
32CQ-15	32	25	15	110	4	1.10	2800	380
32CQ-25	32	25	25	110	4	1.10	2800	380
40CQ-20	40	32	20	180	7.5	2.2	2800	380
40CQ-32	40	32	32	200	8	4	2800	380
50CQ-25	50	40	25	240	8.3	4	2800	380
50CQ-40	50	40	40	220	7	4	2800	380
50CQ-50	50	32	50	130	8	5.5	2800	380
65CQ-25	65	50	25	280	7	5.5	2800	380
65CQ-35	65	50	35	450	6	7.5	2800	380
80CQ-35	80	65	35	850	7	11	2800	380
80CQ-50	80	65	50	850	7	15	2800	380

磁力驱动泵安装尺寸表 Erection Dimensions Of Magnetic Drive Pump



型号 Type	A	B	C	D	E	F	G	H	J	a	K	M	N	机座螺孔 Base screw	P	P1	Q	Q1	ϕ	$\phi 1$	
08CQ-2	63	48	45	55	38	200	105	45	15	84	80	24	16	$\phi 6$							
10CQ-3	63	48	45	55	38	200	105	45	15	84	80	24	16	$\phi 6$							
14CQ-5	90	71	95	107	53	270	120	56	16	130	130	37	18	$\phi 7$							
16CQ-8	90	70	80	125	55	320	160	65	18	115	140	40	22	$\phi 11$							
20CQ-12	100	80	105	130	59.5	340	160	73	18	130	160	65	26	$\phi 12$							
25CQ-15	125	100	140	189.5	67.5	460	205	90		160	240	71.5		$\phi 12$	75	65	100	90	12	10	
32CQ-15	125	100	140	189.5	67.5	460	205	90		160	240	71.5		$\phi 12$	90	75	120	100	12	10	
32CQ-25	125	100	140	189.5	67.5	460	230	90		160	260	85		$\phi 12$	90	75	120	100	12	10	
40CQ-20	140	120	155	235	75	545	220	100		180	290	78.5		$\phi 12$	100	90	130	120	14	14	
40CQ-32	190	140	190	271	80	620	260	112		245	336	91		$\phi 12$	100	90	130	120	14	14	
50CQ-25	190	140	190	271	80	620	260	112		245	336	91		$\phi 12$	110	100	140	130	14	14	
50CQ-40	190	140	190	271	80	620	260	112		245	336	91		$\phi 12$	110	100	140	130	14	14	
65CQ-25	216	140	200	305	90	695	300	132		280	350	91		$\phi 12$	130	110	160	140	14	14	
65CQ-35	216	140	200	360	76	720	292	120		280	350	90		$\phi 12$	130	110	160	140	14	14	
80CQ-35	254	210				890		160						$\phi 12$					14	14	
80CQ-50	254	210				890		160						$\phi 12$					14	14	

管子连接
Pipe connect

法兰连接
Flange connect

磁力泵的安装和使用

(一)磁力泵应水平安装，不宜竖立，塑料泵体不得承受管路重量，对于特殊要求垂直安装の場合，电机务必朝上。

(二)当抽吸液面高于泵轴心线时，起动前打开吸入管道阀门即可，若抽吸液面低于泵轴心线时，管道需配备底阀。

(三)泵使用前应进行检查，电机风叶转动要灵活，无卡住及异常声口向，各紧固件要紧固。

(四)检查电机旋转方向是否与磁力泵转向标记一致。

(五)电机启动后，缓慢打开排出阀，待泵进入正常工作状态后，再将排出阀调到所需开度。

(六)泵停止工作前，应先关闭排出阀门，然后关闭吸入管阀门。

磁力泵的使用注意事项

(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时空载运转。

(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°C ，电机温升不得超过 75°C 。

(四)被输送的介质及其温度应在泵材允许范围内(详见附表)。工程塑料泵的使用温度 $<60^{\circ}\text{C}$ ，金属泵的使用温度 $<100^{\circ}\text{C}$ ，输送吸入压力不大于 0.2MPa ，最大工作压力 1.6MPa 、密度不大于 $1600\text{kg}/\text{m}^3$ ，粒度不大于 $30\times 10^{-6}\text{m}$ 的不含硬颗粒和纤维的液体。

(五)对于输送液为易沉；定结晶的介质，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 $0.5\sim 1\text{mm}$ ，叶轮轴向窜动 $1.5\sim 2\text{mm}$ 时，应更换轴承不口轴向动环。

Erection And Using Of The Pump

1. The pump must horizontal intalled, do not let the pump subjected the pipeline weight. For the special occasion that need vertical intall the motor must be above.

2. When the liquid level is higher than pump axis, open suction pipe valve before starting. on the other hand opposite, it need equip with foot valve.

3. It must to check fan blade of motoris flexibly move without block-up and no abnormal noise, all fastener is good before staring.

4. Check whether the motor moving direction is the same with that sign on the pump.

5. After started, slowly open the discharge valve, open the outlet valve compelety when running normal.

6. Close outlet valve then close inlet valve before stopped.

Attention

1. Idling of the machine is forbidden so as electric cut off when start again.

2. If contain soild partical the inlet must have a filter. For example, if contain magnetic matter it must add a magnetic filter.

3. During running, the ambient temperature should not exceed 40°C , motor temperature should not be over 75°C .

4. The transport medium and temperature must in the scope of pump(see details in table). The temperature of engineering pleatic $<60^{\circ}\text{C}$, metal $<100^{\circ}\text{C}$, the pressure at suction $\leq 0.2\text{Mpa}$, Max. working pressure $\leq 1.6\text{Mpa}$, density $\leq 1600\text{kg}/\text{m}^2$, the liquid not contain hard medium and fibre and the diameter of particle $\leq 30\times 10^{-6}\text{m}$.

5. After transport the liquid that contain easy desposit crystal, must clean it at first and let the water out of the pump.

6. When running 500 hours, should dismantle and check bearing and ring that on the surface, if the interval between bearing and bearing sleeve is large than $0.5\sim 1\text{mm}$, axis of impeller than $1.5\sim 2\text{mm}$, should change bearing and ring at once.

磁力泵的故障形式与排除方法如表所列 Failures Causes And Troubleshooting

故障形式 Failure	产生原因 Possible cause	排除方法 Troubleshooting
泵不出水 No water out of pump	1. 水泵反转 2. 进水管漏气 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 1.pump reversedly moves 2.Air leads from suction pipeline 3.Not enough water filled into the pump 4.Too high voltage,coupling skid 5.too high suction	改变电机接线 杜绝漏气 增加蓄水量 调正电压 降低泵安装位置 1.Change motor connection 2.Tighten the leaking place 3.Refill water 4.Adjust the voltage normal 5.Lower pump install height
流量不足 Lower flow	1. 吸入管径太小 2. 叶轮流道阻塞 3. 扬程过高 4. 转速太低 1.Suction pipeline is too small 2.Impeller interval channel brocked 3.Too high head 4.Lower speed	调换进水管 清洗叶轮 开大出水阀 恢复额定转速 1.Change it 2.Clean impeller 3.Open the discharge valve bigger 4.Adjust it to normail
扬程过低 Lower head	1. 流量过大 2. 转速太低 1.too big flow lower speed	关小出水阀 恢复额定转速 1.Close by a lttle discharge valve 2.Adjust it to normail
噪音太大 Too noise	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 1.Bearing worn out so much 2.Bearing sleeve worn out so much 3.magnetic anlico ring against distance sleeve	更换泵轴 更换轴套 拆除泵头重新组装 1.Change it 2.Change 3.Dismantle the pump and assemble it again
漏液 Liquid leaks	O型密封圈损坏 O-ring seal damaged	更换O型密封圈 Change it



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