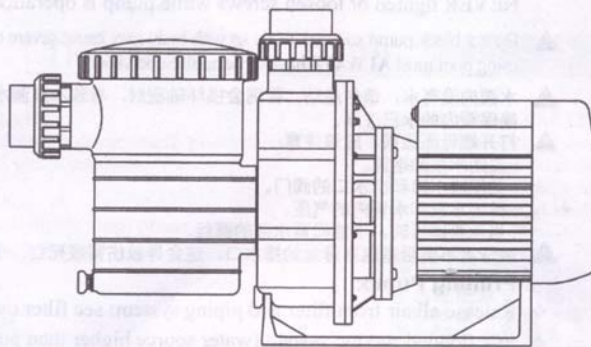


# AP Series Centrifugal Pump Installation & Operating Instructions

## AP 系列离心式水泵 安装及操作说明



### INSTALLATION 安装说明

Only qualified, licensed personnel should install pump and wiring.  
只有经过培训鉴定合格的电工人员才能对水泵进行安装和配线。

#### IMPORTANT ELECTRICAL

Electrical Contractors Please Note: All 220 volt 50 Hz AQUA pumps must be wired to the main power supply through an approved and correctly rated contactor.

#### 电源安装提示

施工单位请注意：所有的220V 50HZ水泵电源布线必须通过专业的电力安装单位认可。

#### Pump Mount Must:

- ❖ Be solid Level Rigid Vibration Free.
- ❖ Allow use of short, direct suction pipe. (To reduce friction losses & don't install the pump at more than 3M geometrical height from water level)
- ❖ Allow for gate valves in suction and discharge piping.
- ❖ Have adequate floor drainage to prevent flooding.
- ❖ Be protected from excess moisture.
- ❖ All adequate access for servicing pump and piping.

#### NOTICE:

Pump suction and discharge connections have moulded in thread stops, **DO NOT** try to screw pipe in beyond these stops.

#### 安装水泵注意事项：

- ❖ 必须在一块坚硬平坦的表面位置安装。
- ❖ 使用一个简短而直接管道系统（减少水流量的损失），水泵安装的位置不能高于水面3米。
- ❖ 在进水口和出水口各安装一个阀门。
- ❖ 机房位置的排水系统良好。
- ❖ 防止机房过于潮湿。
- ❖ 为便于检修水泵和管道，机房必须预留足够的空间。

注意：水泵的进水口及出水口与水管相连接的接头扭紧即可，不能扭太紧。

## OPERATION 操作简介



- ▲ NEVER run pump dry! Running pump dry may damage seals, causing leakage and flooding! Fill pump with water before starting motor.
- ▲ Before removing lid:  
STOP PUMP before proceeding.  
CLOSE GATE VALVES in suction and discharge pipes.  
RELEASE ALL PRESSURE from pump and piping system.  
NEVER tighten or loosen screws while pump is operation.
- ▲ Do not block pump suction! To do so with body may cause severe or fatal injury. Small children using pool must ALWAYS have close adult Supervision!
- ▲ 水泵内没有水, 请勿启动。否则会损坏轴密封, 导致水泵漏水或水浸。在启动电机前, 确保泵内的水已注满。
- ▲ 打开螺母面盖前, 应该注意:
  - 关闭水泵的电源。
  - 关闭进水口和出水口的阀门。
  - 排出水泵和水管内的气压。
  - 当水泵运行时, 不能松紧水泵的螺丝。
- ▲ 游泳者不要阻塞阻塞泳池的排水口, 这会导致伤害或死亡。小孩游泳时必须由成人监管。

### Priming Pump:

- ❖ Release all air from filter and piping system: see filter owner manual.
- ❖ In a flooded suction system (water source higher than pump), pump will prime itself when suction and discharge valves are opened.
- ❖ If pump is not in a flooded suction system, unscrew and remove trap cover; fill trap and pump with water.
- ❖ Clean and inspect Ring; re-install on trap cover.
- ❖ Replace trap cover on trap; turn clockwise to tighten cover.

### NOTICE: Tighten trap cover by hand only.

Pump should prime now. Priming time will depend on vertical length of suction lift and horizontal length of suction piping.

### 起动水泵:

- ❖ 排放所有来自过滤器和管道系统内的空气, 参阅过滤器的用户手册。
- ❖ 当泳池的水位高于水泵的位置时, 打开进水口和出水口的阀门, 启动水泵。
- ❖ 如果泳池的水位低于水泵的位置时, 打开面盖, 注满泵内的水后才再启动。
- ❖ 清洁和检查密封圈, 再放回面盖。
- ❖ 放上面盖后, 顺时针方向旋转拧紧面盖。

**注意:** 扭紧螺母面盖只能用手(或扳手)。必要时才用扳手。  
水泵的起动时间取决于垂直高度的提升力和吸水管的管径。

## Routine Maintenance 保养程序

The only routine maintenance needed is inspection/cleaning of trap basket. Debris or trash that collects in basket, will choke off water flow through the pump. Follow instructions below to clean trap:

1. Stop pump, close gate valve in suction and discharge, and release all pressure from system before proceeding.
2. Unscrew trap lid (turn counterclockwise).
3. Remove strainer basket and clean. Be sure all holes in basket are clear, flush basket with water and replace in trap with large opening at pipe connection port (between ribs provided). If basket is replaced backwards cover will not fit on trap body.
4. Clean and inspect lid Ring; reinstall on trap cover.
5. Clean Ring groove on trap body and Replace lid. To help keep lid from sticking, tighten hand tight only.
6. Prime pump (see priming instructions above)

常规的保养就是检查和清洁隔发器。垃圾或碎屑聚积于隔发器的滤水篮, 会堵塞流入水泵的水。清理步骤如下:

1. 关闭水泵的电源和进水口、出水前的阀门, 排出各系统内的气压。
2. 扭开面盖。
3. 取出隔发器的滤水篮清洗干净, 保证滤水篮的每个空隙都是清洁的, 再将滤水篮放进桶内并注满水, 这个桶在进水处有一个极大的开口, 如果滤水篮放置不当, 和桶身就不能吻合。
4. 清洁和检查透明盖的密封圈, 再装上桶盖。
5. 清洁密封圈的周边后装回原处。
6. 起动水泵(参阅水泵的起动程序)。



## SERVICE & REPAIR PARTS 维修和配件的更换

Refer all service to your local agent or dealer as his knowledge of your equipment makes him the vest qualified source of information. Order all repair parts through your dealer. Give the following information when ordering repair parts:

1. Unit nameplate data or serial number on label.
2. Description of part.

向当地代理商或经销商索取设备的技术资料，这些资料能证明授权资格的真实性。向代理商订购所需的维修配件，订购配件时需提供下面的资料：

1. 设备标示牌的数据或产品编号。
2. 部件名称。

## TROUBLE SHOOTING 故障分析

### MOTOR DOES NOT START

1. Disconnect switch or circuit breaker in off position
2. Fuses blown or thermal overload open
3. Locked motor shaft
4. Motor windings burned out
5. Defective starting switch inside singl phase motor
6. Disconnected or defective wiring
7. Low voltage

### 马达不能启动

1. 电源断开或断路。
2. 保险丝熔断或机件过热。
3. 轴承卡死。
4. 马达线圈烧坏。
5. 离心开关损坏或过流保护失效。
6. 电线连接不好或损坏。
7. 电压不足。

### PUMP DOES NOT REACH FULL SPEED

1. Low voltage
  2. Pump connected for wrong voltage
- 水泵未达到最佳状态
1. 电压不足。
  2. 电源与水泵电压不符。

### MOTOR OVERHEATS (protector trips)

1. Low voltage
  2. Motor windings connected for wrong voltage on dual voltage model
  3. Inadequate ventilation
- 马达过热
1. 电压不足。
  2. 工作电压与电机电压不符。
  3. 通风环境不佳。

### PUMP DELIVERS NO WATER

1. Pump is not primed
  2. Closed valve in suction or discharge line
  3. Leakage or air into suction system
  4. Impeller clogged
- 水泵不能抽水
1. 水泵没有启动。
  2. 进水或出水管阀门关闭。
  3. 管道系统有水或空气进入。
  4. 水叶损坏。

### LEAKAGE OF WATER AT SHAFT

1. Shaft seal requires replacement
- 漏水
1. 更换密封圈。

### LOW PUMP CAPACITY

1. Valve in suction or discharge line partly closed
  2. Suction or discharge line partly plugged
  3. Suction or discharge line too small
  4. Plugged basket in skimmer or hair and lint strainer
  5. Dirty filter
  6. Impeller clogged
- 水泵在低性能下运行
1. 进水或出水管的阀门未完全开启。
  2. 进水或出水管部分堵塞。
  3. 进水管或出水管太细。
  4. 头发或杂物淤积于滤水篮。
  5. 过滤器沉积物太多。
  6. 水叶被阻塞。

### HIGH PUMP PRESSURE

1. Discharge valve or inlet fittings closed too much
  2. Return lines too small
  3. Dirty filters
- 水泵压力过大
1. 进水管或出水管的阀门未完全开启。
  2. 回水管太细。
  3. 过滤器沉积物太多。

### NOISY PUMP AND MOTOR

1. Plugged basket in skimmer or hair in lint strainer
  2. Worn motor bearings
  3. Valve in suction line partly closed
  4. Suction line partly plugged
  5. Vacuum hose plugged or too small
  6. Pump not supported properly
- 水泵和马达噪音
1. 头发或杂物淤积于滤水篮。
  2. 电机轴承损坏。
  3. 进水管阀门未完全开启。
  4. 进水管部分堵塞。
  5. 吸污口堵塞或太细。
  6. 水泵工作不正常。

### AIR BUBBLES AT INLET FITTINGS

1. Leakage of air into suction line at connections or valve stem
  2. Cover gasket of hair and lint strainer needs cleaning
  3. Low water level in pool
- 空气进入管道
1. 空气通过接合部位或阀门进入进水管。
  2. 须清理滤水篮内的头发及杂物。
  3. 泳池的水位低。

**NOTE:** If the recommendations in the trouble shooting portion of this manual do not solve your particular problem(s), please contact your local dealer for service.

备注：如果说明书中的故障分析仍不能解决您的问题，请与当地经销商联系。

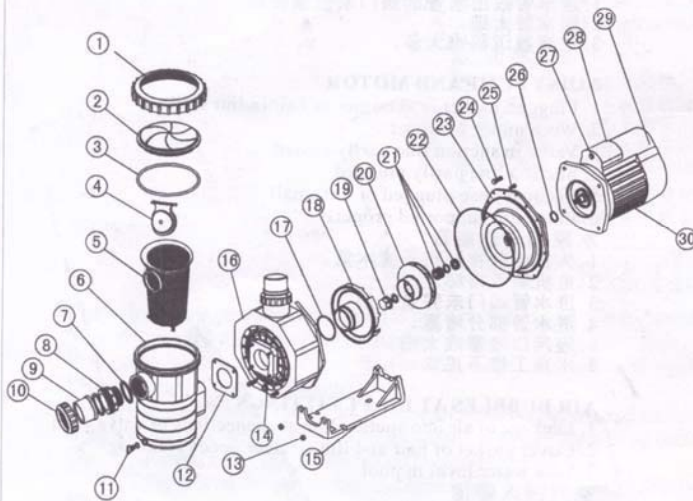
SUCTION PORT FROM POOL  
OR VACUUM FILTER  
进水口

DISCHARGE PORT TO  
FILTER OR POOL  
出水口

PUMP MAY BE BOLTED TO LEVER  
FOUNDATION OR MOUNTING BRACKET  
水泵固定底架

STAINING SCREWS  
OF PUMP BODY  
螺丝

## PARTS OF PUMP 水泵组件图



Key NO. 项目	Description 名称	Qty 数量	Part No 组件编号
1	Lid lock ring 锁紧环面盖	1	AP-01-02
2	Lid 透明盖	1	AP-01-03
3	O'ring 密封圈	1	AP-01W-01
4	Stop back valve 止回阀	1	AP-01-12
5	Basket 过滤篮	1	AP-01-04
6	Hair with lint pot 过滤桶	1	AP-01-05
7	O'ring bulkhead 密封圈	4	AP-01W-04
8	Bulkhead fitting 外牙头	2	AV-02-005
9	Adaptor bulkhead 管接头	2	AV-02-007
10	Nut bulkhead 管接螺母	2	AV-02-006
11	Drain plug with o'ring 排水螺丝、密封圈	1	AV-01-013 AT-01W-05
12	Gasket 密封垫	1	AP-01W-06
13	Nut 螺母	2	AP-02W-03-2
14	Screw 螺丝	4	AP-01W-08
15	1HP,1.5HP 2HP,3HP Base 底座	1	AP-01-06-2 AP-01-06-1
16	Pump body 清水盆	1	AP-01-07
17	O'ring 密封圈	1	AP-01W-10
18	Diffuser 分水轮	1	AP-01-08
19	Screw with o'ring 螺丝、密封圈	1	AP-01-10 AT-01W-05
20	Impeller 水叶	1	AP-01-09
21	Shaft seal 机械密封	1	AP-01W-13
22	O'ring 密封圈	1	AP-01W-14
23	Flange 法兰	1	AP-01-11
24	Screw 螺丝	4	AP-01W-16
25	Screw 螺丝	16	AP-01W-17
26	1HP,1.5HP 2HP,3HP O'ring 密封圈	1	AP-01W-18-1 AP-01W-18-2
27	Over load switch 过流保护器	1	AP-01W-19
28	Irdome 接线盒	1	AP-01-14
29	1HP,1.5HP 2HP,3HP Cover 尾罩	1	AP-01-13-2 AP-01-13-1
30	Motor 电机	1	AP-01W-31