

EMAUX IN-GROUND FILTRATION COMBO

意万仕地埋式过滤一体化系统使用手册



www.emauxgroup.com

- **Suggested Being Installed in:** private fish pools, KOI ponds, water scenes of garden and aquariums etc.
安装建议: 私家鱼池, 锦鲤池, 园林水景, 水族馆等场所。
- **Durable hull and pre-installed pipe system which facilitate the installation.**
耐用的外壳, 预装管道系统, 安装方便
- **The top cover is made with ultraviolet-resistant material.**
顶盖抗紫外线材质
- **Maximum working pressure: 36PSI/2.5bar.**
最大工作压力36PSI/2.5bar
- **Maximum operation temperature: 43°C (109°F).**
最高操作温度: 43°C (109°F)
- **Specifications of biological filter material: ϕ 6.8X8.**
生物滤料规格: ϕ 6.8X8
- **To produce and introduce new technology from Australia and the enclosure is made from glass fibre enhanced plastic is durable and resistant to corrosion, rust, low temperature and UV.**
引进澳洲的技术生产, 设备的箱体采用玻璃纤维增强塑料制成, 坚固耐用, 具有防腐、防锈、抗低温、抗紫外线等特点。
- **Suitable for fish pools of different shapes and sizes. Selection of system components can be customized to your specific requirements.**
适合任何形状、不同尺寸的渔池, 系统内设备可根据不同的需求选择。
- **Timer-controlled automation eliminates the need(s) for manual power-on/off and professional staff for maintenance; when backwash is called for you just need to turn the 6-position multiport valve to clean up the sand filter, which makes it more convenient and environmental friendly than other filtration devices using filter pockets.**
采用定时间自动控制, 运行时无需人工开机、关机, 也无需专业人员管理。反冲洗时只需旋转六位多向阀便可完成清洗工作, 比其他的滤袋式过滤设备更方便、更环保。
- **The enclosure is water-tight and can drain water automatically.**
箱体内密封防水及自动排水功能。
- **Eliminate the need(s) for building equipment rooms and installation, which saves much labour and time.**
免除传统水泥结构机房及安装人工时间。
- **Simple installation can be completed within hours.**
简易安装能在数小时内完成安装工作。
- **The system consists of a subsystem for filtration, massage and lighting.**
箱内配备: 过滤系统、消毒系统、自动排水系统。
- **Equipped with Ultraviolet Germicidal Lamp, the most effective and widely used means for sanitization.**
箱体系统内装有最佳杀菌的杀菌灯设备。

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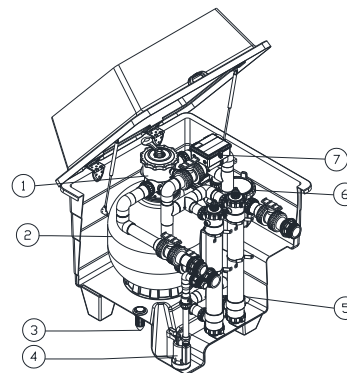
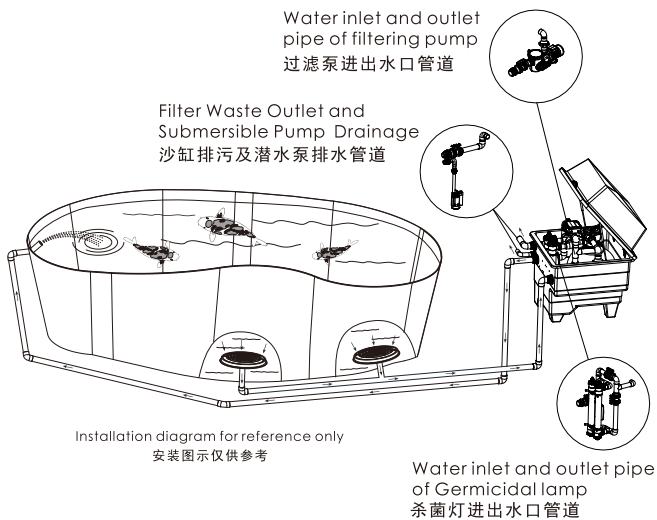
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Installation of In-ground filtration Combo 地理式過濾一體化系統注意事項及安裝

Suitable for model: EMC-30 / EMC-40 / EMC-50

适用于型号: EMC-30 / EMC-40 / EMC-50



Code	Description	Description
项目	中文描述	英文描述
1	六功能生物缸头	Valve
2	生物沙缸	Bio-tank
3	底部安全阀	Hydrostatic Valve
4	潜水泵	Submersible Pump
5	杀菌灯	Ultraviolet Germicidal Lamp
6	过滤泵	Circulation Pump
7	控制箱	Control Box

Installation of In-ground filtration Combo

地理式過濾一體化系統注意事項及安裝

A. SAFETY

A. 安全

ATTENTION: Read the instruction carefully

In order to ensure your safety, that of other people and the optimum functioning of the equipment, the installation of this product should be carried out by a qualified electrician/pumper. Read through this manual before installation. Carry out the installation in accordance to the local safety regulation for the swimming pools equipment and electrical appliances. Failure to do so may result in injury, death or property damage. This manual should keep this manual for future use. Although the cover is design to carry the weight of an adult, it doesn't allow children or adults to walk or jump on the cover, nor carry out activities which pose risk of equipment damage.

为了确保您及其他人的安全，以及系统的最佳运作，本产品必须有授权相应工作资格的电工或水管工人安装。安装前先阅读此使用手册。根据当地对渔池设备和电器的安全条例来进行安装，否则可能会导致受伤，死亡或者财产损失。使用手册应该长期保留。产品盖子的设计足够可以承受一个普通成人的重量，但不容许成人或儿童在盖子上步行或跳跃，或进行一切会构成设备损坏的危险行为。

1) Filter outlet and submersible pump outlet have to discharged separately to sewer and cannot be connected together to drainage.

缸头排污口与潜水泵出水口分别直接排至下水道，不能并接在一起排至排污渠。

2) Ensure UV-C light sterilizer were well installed correctly, then open the water valve 3 minutes to check there is no water leakage around it before power on.

所有装置都安装好后，并确保安装无误，先打开阀门通水3分钟后确定紫外线杀菌器无渗漏现象，才可以打开电源进行正常工作。

3) It is suitable for private fish pools, KOI ponds, water scenes of garden and aquariums etc.

本产品适用于私家鱼池，锦鲤池，园林水景，水族馆等场所。

4) It is recommend that the electricity is cut off for non-use.

不使用期间，建议把电源切断。

5) Cleaning :Always clean with a dampened cloth and neutral soap solution. Do not use detergent containing solvents or acids.

清洗：只可用湿布及中性肥皂水清洁，不能使用含有溶剂或酸性的清洁剂。

B. INSTALLATION

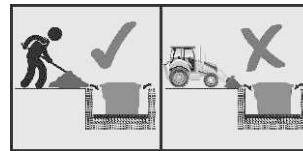
B. 安装

For safety concern, it is suggested to install the in-ground filtration combo at a distance of no less than 2.5m from the edge of the swimming pool. And do not adjust the equipment setting when the pool is being used.

基于安全考虑，建议在距离鱼池边不小于2.5米的地方安装地理式过滤一体化系统。

- 1) Carefully mark for the layout of the filtration combo
- 2) Carry out the escalation according to the measurement indicated. Flatten the bottom and create a gravel base.
- 3) Set the filtration combo in place.
- 4) Prepare the ground for the installation of the pipes.
- 5) Connect the pipes and the electrical wire a illustrated below.
- 6) Backfilling the hole around the filtration combo with sand and cement. MANWORK ONLY, BULLDOZER PROHIBITED.

- 1) 准确地把地理式过滤一体化系统的布局刻划出来。
- 2) 根据建议的尺寸进行开挖，以砾石作为地基并弄平底部。
- 3) 把系统安装到位
- 4) 准备地面的管道安装
- 5) 连接管道和电线如以下所示
- 6) 用沙及水泥回填系统周边的间隙（只能用手工回填，不能用机械）

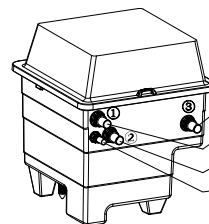
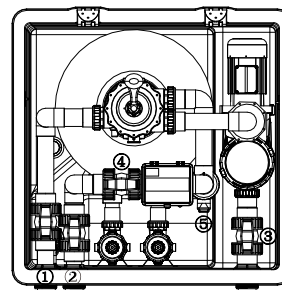


Installation of In-ground filtration Combo 地理式過濾一體化系統注意事項及安裝

OPERATION 工作状态		VALVE POSITION 阀门手柄指示位置	CHECK VALVE POSITION 检查阀门位置
① FILTERN FILTER FILTRATION FILTRACION 正常过滤	Normal operation of UV-C disinfection system work 紫外线消毒系统 正常工作		
	UV-C disinfection system closed 紫外线消毒系统 关闭		
② RÜCKSPÜLEN BACKWASH LAVAGE LAVADO 反冲洗			
③ NACHSPÜLEN RINSE RINJAGUE ENJUAGUE 底管清洗			
④ ENTLEEREN WASTE EGOUT DESAGÜE 无过滤排水			
⑤ ZIRKULIEREN RECIRCULATE CIRCULATION CIRCULACION 无过滤循环	Normal operation of UV-C disinfection system work 紫外线消毒系统 正常工作		
	UV-C disinfection system closed 紫外线消毒系统 关闭		
⑥ GESCHLOSSEN CLOSED FERME CERRADO 关闭			

Note: Ultraviolet disinfection lamp should be switched off when doing back-flushing, bottom-tube flushing, no filtering drainage and gear closing to the valves, and turn off the electricity, so as to avoid damages to the tube of germicidal lamp.

注意:在进行反冲洗,底管冲洗,无过滤排水,关闭档,通过紫外线消毒系统的管道必须关闭并关电,以避免杀菌灯灯管损坏。



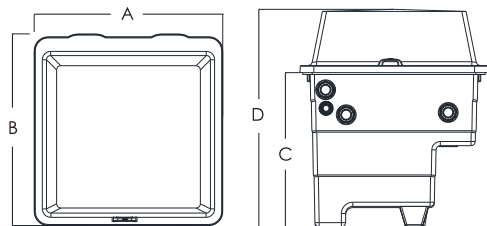
Filter Pump Inlet 过滤泵进水口

Filter Waste Outlet 沙缸排污口

Filter Drainage 沙缸排水口

Submersible Pump Drainage 潜水泵排污口

Installation of In-ground filtration Combo 地理式過濾一體化系統注意事項及安裝



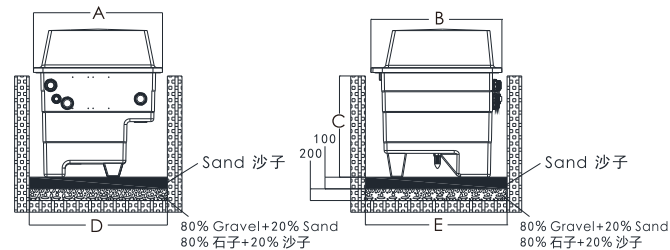
型号 Model No.	A (mm)	B (mm)	C (mm)	D (mm)
EMC-30	1330	1325	1110	1560
EMC-40/EMC-50	1538	1530	1170	1600

C. MAINTENANCE

C. 维护

Open the cover of the in-ground filtration combo, the cover is support by 2 hydraulic hinges.

打开一体化系统的盖，盖是由2个液压杆所支撑。



型号 Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
EMC-30	1330	1325	1060	1750	1750
EMC-40/EMC-50	1538	1530	1120	1980	1980

ATTENTION

注意

Ensure the equipments inside is turned off before adjusting any valves.
在调整设备里面的任何设定前，必须先关闭阀门。

Control Box Operation

控制箱的操作

Control Box Manual 控制箱使用手册

⚠ Warning:

This electrical control box must be installed by a licensed or certified electrician or a qualified serviceman in accordance to the requirements of your government standard or local authorities. Improper installation will create electric hazards which could result in serious injury, death as well as damage to the property.

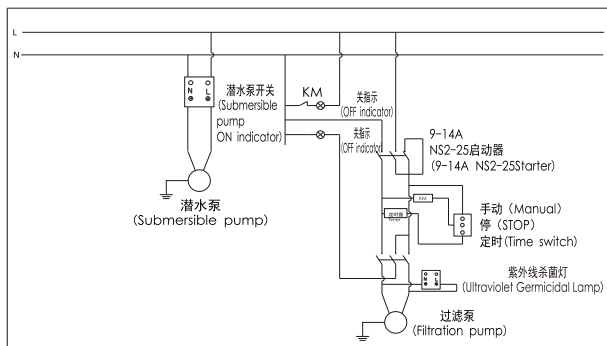
Before any servicing or maintenance work, make sure the electricity from the power supply had been switched off.

⚠ 警告:

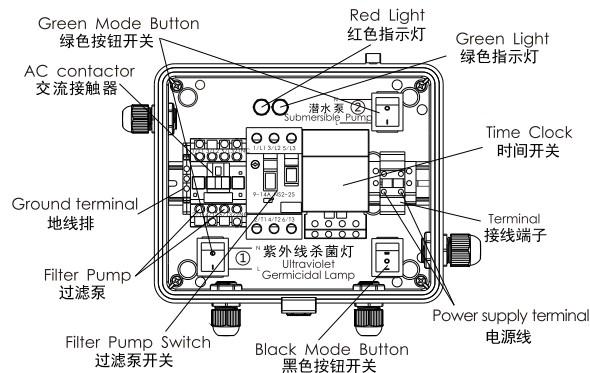
本电子控制箱必须由合格的电工或合格的维护人员安装,并按照合乎当地官方许可的法规安装,不适当的安装,会引起触电导致电子控制箱使用者或安装人员严重伤害及财物损失,甚至死亡。

保养维修电子控制箱之前必须把连接电箱的电源切断!

Control Box Wiring Diagram 控制箱接线图



Control Box Wiring 控制箱简易接线图



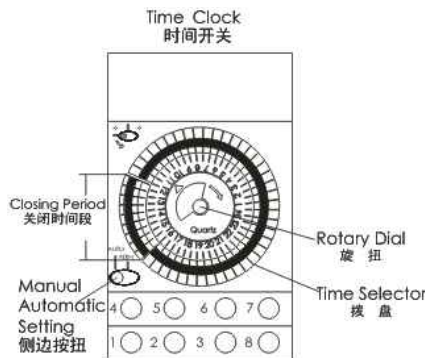
Operation instruction 操作说明

Connecting the power supply, the AC motor starter switch to control the the massage pump on and off.

- 1) Connecting the power supply, the water light's starting and closing setting is controlled by the 1st green button switch.
- 2) Submersible pump switch should have been in the open state always, when there have some water level in the EMD box inside, the submersible pump will automatically start to work until the water level drops to a certain height.

Control Box Operation

控制箱的操作



- 3) Salt Chlorinator and filter pump are connecting, the main purpose is to protect the salt Chlorinator, the green button switch for controlling salt Chlorinator is suggesting to be in the opening position.
- 4) Filter pump system with three mode, automatic / stop / manual can be selected by black button switch.
- 5) Automatic mode: A. Ensure the Black button setting is on "automatic" for the MODE BUTTON B. Turn on the switch on the filter pump. C. On the timer, select the "Automatic setting, turn the Rotary Dial to the current time, depress the Time Selector tabs to set the turn-on, the triangle arrow to the time is switch time which you setting for close and work. D. Connecting the power supply, filter pump will be closed at this period time when dial selector is pull out, while it will be work in other period time.

- 6) Stop Mode: Ensure the setting is on "stop" for the MODE BUTTON, filter pump will be in the closed state.
- 7) Manual mode: Ensure the setting is on "Manual" for the MODE BUTTON, The filter pump's starting and closing setting is controlled by the switch on the pump.

⚠ WARNING

Filter pump, Submersible pump and Salt chlorinator which controlled by control box, that the maximum input power of filter pump must not exceed 2.5KW, the maximum input power of submersible pump must not exceed 0.2KW.

接通电源后，通过交流电动机起动器开关来控制按摩泵的开启与关闭。

- 1) 接通电源后，紫外线杀菌灯可通过1号绿色按钮开关来控制开启与关闭。
 - 2) 2号潜水泵开关要一直处在开启状态。当地埋机内有一定积水时，潜水泵会自动开启，将水位降到合理的高度。
 - 3) 过滤泵有三种控制模式，自动 / 停止 / 手动。可通过黑色按钮开关来选择。
- 5) 自动模式：
- A. 黑色按钮开关切换到自动。
 - B. 过滤泵开关打开。
 - C. 将时间开关侧边按钮拨到 "AUTO" 档。将过滤泵关闭时间所对应的拨盘往外拔，再转动中间的旋钮调节时间开关的时间与现在时间相对应，三角形箭头所指时间为时间开关的时间。
 - D. 此时通电后过滤泵将在拨盘往外拔的时间段关闭，其他时间开启。
- 6) 停止模式：黑色按钮开关切换到停止，过滤泵一直处在关闭状态。
- 7) 手动模式：黑色按钮开关切换到手动，过滤泵的开启与关闭通过过滤泵开关控制。

⚠ 警告：

电箱中过滤泵最大输入功率不超过2.5KW, 潜水泵最大输入功率不超过0.2KW

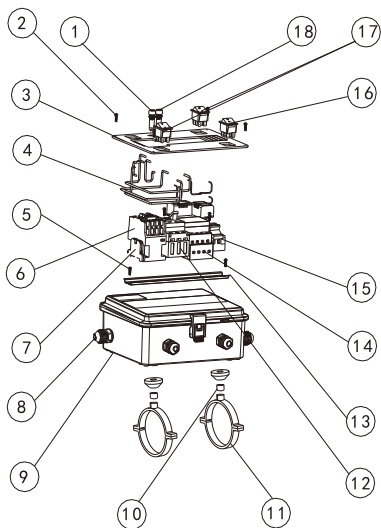
Control Box Operation

控制箱的操作



Control Box Part List

控制箱零部件清单



项目	部件编号	中文	产品资料/说明	数量
Item No.	Part No.	Chinese	Product Description	QTY
1	04014060	红色指示灯	Rad light	1
2	03011169	M4*10 螺丝	M4*10 Screws	4
3	01321014	控制箱隔板	Control box panel	1
4	89390102	电缆线	Cable	1
5	03011007	M4*12 螺丝	M4*12 Screws	2
	03012004	垫片	Cable	2
6	04014063	交流接触器	AC contactor	1
7	04014102	地线接线排	Earth conection	1
8	04014013	电缆索头	M8 PG 11 cable grand	2
	04014085	电缆索头	AVC NPT 1/2" cable grand	2
9	89480101	控制箱箱体	Control box body	1
10	107045106	GB20X30 PVC管	GB20X30 PVC tube	1
11	108000985	2.5" 管码	2.5" tube code	1
12	04014064	交流电机启动器(9-14)	AC motor starter(9-14A)	1
13	04014019	轨道	Track	1
14	04014029	时控开关	Timer selector	1
15	04014104	接线端子固定片	Wiring terminal fixed plate	2
	04014105	接线端子贴片	Wiring terminal patch	1
	04014084	接线端子	Wiring terminal	2
16	04014027	黑色按钮开关	Black mode button	1
17	04014054	绿色按钮开关(带灯)	Green mode button	2
18	04014061	绿色指示灯	Green light	1

Bio-tank Operation

生物缸的操作



FUNCTION 功能简介

The Bio-Tank uses special Bio-Ring to remove dirt particles from pool water. (Special of the bigger particle) The Bio-Ring is loaded into the filter tank and functions as a permanent dirt removing media. The special structure of Bio-Ring will easy for bacteria grow up, bacteria can decompose the dirt and remind feed can produce toxic (ammonium) into the water, over rate of ammonium will kill the animals. The bacteria can decompose the ammonium. Advantageous to maintain the pool ecological balance in good level.

When the control valve is in the FILTER position, the pool water which contains suspended dirt particles, is pumped through your piping system and is automatically directed by the patented filter control valve to the top of the filter tank. As the pool water is pumped through the filter, dirt particles are trapped by the sand bed, and filtered out. The cleaned Pool water is returned from the bottom of the filter tank, through the control valve and back to the pool through the piping system. This entire sequence is continuous and automatic. It provides for total recirculation of pool water through your filter and piping System.

After a period of time, the accumulated dirt in the tank causes a resistance to flow, and the flow diminishes. This means it is the time to clean your tank. Turn the control valve in the BACKWASH position, the water flow is automatically reversed through the tank by the main tube, the water go the tank by the end of the main tube, the design diffuser will create a anti clock wise water flow inside the tank, flushing the previously trapped dirt and debris will be centralize at the bottom of the tank, than the one-way valve open, the dirt will roll up and though the valve and out the waste line. Once the tank is back-washed of dirt, set control valve to RINSE position and run pump for about 1/2 to 1 minute, and then set the control valve in the FILTER position, to resume normal filtering.

NOTE: Turn pump off before changing valve position.

生物缸功能是过滤池水中的污物，使干净水重新回到鱼池内，缸内所便使用的是特制的生物滤料，生物滤料不单有过滤隔阻污物的作用。同时独特的外型构造能帮助微生物生长，池内生物所排出的粪便及残余的饲料会在水中产生毒素，过量的毒素会令池内生物死亡，微生物能够分解这些毒素，这有利于维持池水的生态平衡。

而过滤过程是：在过滤（FILTER）位置，鱼池水便透过水泵引入缸头进水口，流入生物缸内，水中污垢物经过生物滤料的过滤及滤料床阻隔沉淀进缸的底部，过滤后的池水经过缸主管，并经缸头控制阀回流往水池中。

经过一段时间后累积的污物，会影响水的流量。此时便需要进行清洗生物缸。把缸头控制器上的手柄推向（BACKWASH）倒冲洗，水流便由分水器进入过滤主管，经缸底的分流器甩出，水流逆时针旋转从底部往上升，污物便集中于缸的中心，此时止回阀门打开，经排污管和分水篮把滤料内的污物排出。之后把控制器推向（RINSE）清洗管内之污物从生物缸排出。大约半分钟或1分钟后，把手柄推向（FILTER）正常过滤。

注意：每次切换阀门位置时要先关掉水泵运作。

INSTALLATION 安装说明

Only simple tools (screwdriver and wrenches), plus pipe sealant for plastic adapters, are required to install and service the filter.

- 1) The Bio-tank should be install/placed on a level concrete slab, very firm ground, or equivalent. Position the filter so that the piping connections, control valve are convenient and accessible for operation and service.
- 2) Loading the Bio-ring media. Bio-ring media is loaded through the top opening of the tank.
 - a) Loosen flange clamp and remove filter control valve (if previously installed).
 - b) We recommend filling tank approximately 1/2 way with water to provide a cushion effect when the Bio-ring is poured in. This helps protect the under-drain laterals from excessive shock.
- 3) Assemble filter control valve to filter tank.
 - a) Insert filter control valve (with Gasket in place) into the tank neck, fill-in half tank of water, taking care that the center pipe slips into the hole in the bottom of the valve.
 - b) place the nuts on the screws (which build on the tank neck) surround the neck and tighten just enough so that the valve may be rotated on tank for final positioning.
 - c) Carefully screw pressure gauge (with O-ring) into tapped hole in valve body. Do not over-tighten.

Bio-tank Operation

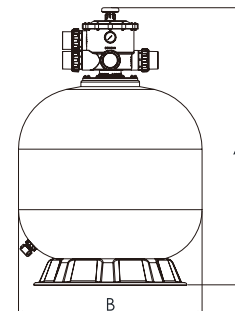
生物缸的操作



- d) Connect pump to control valve opening marked PUMP. After connections are made. Tapping around flange to confirm the match-up the position. Use a wrench to tighten nuts surround tank neck.
- 4) Make return to pool pipe connection to control valve opening marked RETURN and complete other necessary plumbing connections, suction lines to pump, waste, etc.
- 5) Make electrical connections to pump per pump instructions.
- 6) To prevent water leakage, be sure all pipe connections are tight.
安装或售后生物缸配备工具（螺丝刀、活动扳手等），接驳喉管，便能为生物缸进行安装或修理
- 1) 生物缸必需要放置在平坦和坚硬的地面上，要有足够的位置给予进行管道系统和缸头的安装，操作及修理。
 - 2) 填充生物缸，生物滤料是从生物缸顶部注入。
 - a) 松开缸颈夹上的螺丝，然后取出缸头（如缸已一直在操作中）。
 - b) 预先注入半缸水，再注入滤料，这可产生一些缓冲作用。亦可保护缸底的过滤管免受过度的冲击而损坏，也便于装缸头。
 - 3) 装配生物缸头
 - a) 生物缸头插入缸颈位（附有胶垫圈），生物缸需装半缸水，小心分流器、止回阀及分水篮。
 - b) 置好缸头，锁螺母连垫片，同时把它适当地扭紧，以便更好的接驳管道操作。
 - c) 小心拧上压力表（附有密封圈），但不要拧太紧。
 - d) 把由水泵来水喉管接驳到（pump）位水套内，接驳好喉管后并确定位置，把螺母扭紧。
 - 4) 把回水至水池的喉管接驳到缸头的Return水套口，同时检查缸头上的其他水套管道安装是否完成。
 - 5) 接驳水泵电源，并开启水泵。
 - 6) 开启水泵前，请确认所有喉管接驳妥当，以防止有漏水情况。

DIMENSION TABLE 尺寸表

Model 型号	Pool Volume 水池容量	Height (A) 高	Diameter (B) 直径	Valve Port Size 多向阀管径	Pump Power 水泵匹数	Sterilizer Power 杀菌灯配池功率	Flow Rate 流量	Bio-ring 生物滤料重
LF700-6W	30m ³	1126mm	723mm	2.5"	1hp	3-7W/ m ³	14 m ³ /h	30kg
LF800-6W	40m ³	1234mm	800mm	2.5"	2hp	3-7W/ m ³	18 m ³ /h	45kg
LF900-6W	50m ³	1334mm	900mm	2.5"	3hp	3-7W/ m ³	21 m ³ /h	60kg



Bio-tank Operation

生物缸的操作



INSTALL/START-UP OF FILTER 调试说明

- 1) Be sure correct amount of Bio-ring media is in tank and that all connections have been made and are secure.
- 2) Depress control valve handle and rotate to BACKWASH position. (To prevent damage to control valve seal, always depress handle before turning.)
- 3) Prime and start pump according to pump instructions (be sure all suction and return lines are open), allowing the filter tank to fill with water. Once water is flowing out of the waste line, run the pump for at least 1 minute. The initial back-washing of the filter is recommended to remove any impurities or fine sand particles in the sand media.
- 4) Turn pump off and set valve to RINSE position. Start pump and operate until water in sight glass is clear, about 1/2 to 1 minute. Turn pump off and set valve to FILTER position and restart pump. The filter is now operating in the normal filter mode, filtering dirt particles from the pool water.
- 5) Adjust pool suction and return valves to achieve desired flow. Check system and filter for water leaks and tighten connections, bolts, nuts, as required.
- 6) Note the initial pressure gauge reading when the filter is clean. (It will vary from pool to pool depending upon the pump and general piping system.) As the filter removes dirt and impurities from the pool water, the accumulation in the filter will cause the pressure to rise and flow to diminish. When the pressure gauge reading is 0.8 bar, higher than the initial "clean" pressure you noted, it is time to backwash the filter (see BACKWASH under filter and control valve functions).

NOTE: During initial clean-up of the pool water it may be necessary to backwash frequently due to the unusually heavy initial dirt load in the water.

- 1) 确定缸内的生物滤料份量正确, 并确认所有管道系统连接妥当。
- 2) 将阀门控制手柄压下再切换到 (Backwash) 反冲洗位置, 为了防止阀门控制密封装置不受损坏, 用阀门控制前一定要先压下手柄才转动。
- 3) 按照程序启动水泵 (确定所有进水和出水管管道是开启) 给生物缸注水。在首次启动系统, 水泵最少也运行一分钟, 另外建议先使用反冲洗功能, 除去系统内的污物。
- 4) 关闭水泵并同时缸头切换 (RINSE) 底管冲洗的位置。开启水泵, 直至水镜位清澈, 大约30-60秒, 关闭水泵。把缸头切换回 (Filter) 过滤位置。系统回到正常过滤模式。
- 5) 调节过滤系统的水流量。然后检查各接合位置有否漏水, 螺栓或螺母等是否妥当。
- 6) 在生物缸清洁时记录下压力表读数。(读数的变化将会受鱼池水泵和水管系统影响)。如生物缸在过滤池水时把污物留下, 而累积污物会造成缸内压力上升和水流阻力。当压力表读数是比清洁时高出0.8巴, 便要为生物缸进行 (Backwash) 反冲洗。(参考反冲洗功能简介)。

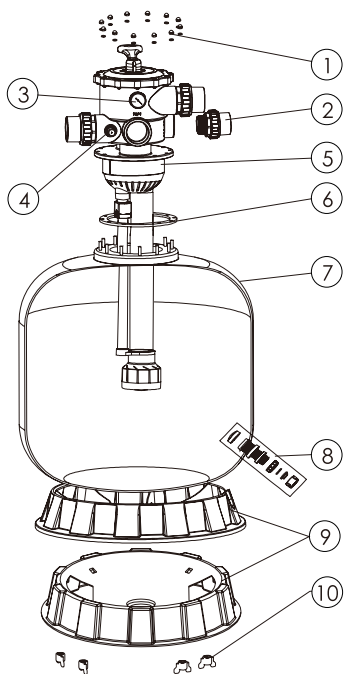
注意: 在过滤系统启动初期, 将要多次使用反冲洗功能, 因为初期的池水一定有污垢, 流入生物缸便会积聚较多污垢和微粒。

Bio-tank Operation

生物缸的操作



REPLACEMENT PARTS OF FILTER 生物缸组件图



项目	部件编号	中文	產品資料/說明	数量
Key NO.	Part NO.	Chinese	Product Description	Qty
1	89010601	03013003 M8球形螺母*12个; 03012003 M8垫片*12个;	03013003 M8 Nut*12Pc; + 03012003 M8 Washer*12Pc;	1
2	89280116	2.5"过滤活接(进出水口+排污口)	2.5" Union Set (with O-Ring)	3
3	06011030	底出油压表连胶圈(60psi)	Oil Pressure Gauge 60psi (With O-ring)	1
	89280120	压力表牙套连胶圈	Connector for Pressure Gauge/Stopper	1
4	89280104	清水镜连胶垫	Sight Window (with O-Ring)	1
5	88280353	2.5寸顶出生物缸头(LF-700用)	2.5" Control Valve	1
	88280354	2.5寸顶出生物缸头(LF-800用)	2.5" Control Valve	1
	88280355	2.5寸顶出生物缸头(LF-900用)	2.5" Control Valve	1
6	02011126	颈环密封垫	Filter Neck Gasket	1
7	89010612	V700 缸身	V700 Filter Tank	1
	89010603	V800 缸身	V800 Filter Tank	1
	89010604	V900 缸身	V900 Filter Tank	1
8	89010107	沙缸底排水	Water Drain Set	1
9	01111062	V700 沙缸底座	V700 Filter Base	1
	01112038	V800/V900沙缸底座	V800/V900 Filter Base	1
10	01181052	底座固定螺母	Butterfly nuts	4

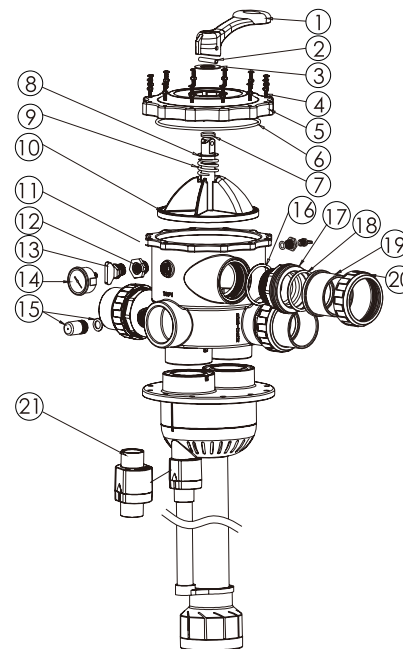
Bio-tank Operation

生物缸的操作



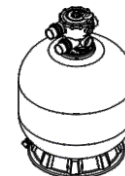
REPLACEMENT PARTS OF MULTIPOINT VALVE 多向阀组件图

项目	部件编号	中文	產品資料/說明	数量
Key NO.	Part NO.	Chinese	Product Description	Qty
1	01013003	大手柄	Handle	1
2	03018008	手柄固定销	Lock Pin	1
3	01181027	大介子	Washer	1
4	89281204	M6×33T头机丝连螺母	M6*33 T Screw with Nut	12
5	01021129	2.5"缸头标准面盖 (黑色)	2.5" Top Mount Valve Standard Lid (Black)	1
6	02010228	面盖胶圈	O-Ring for Valve Lid	1
7	02011022	分水器胶圈	O-Ring for Valve Rotor	2
8	01181002	小介子	Washer	1
9	03014014	弹簧	Spring	1
10	89280806	2.5"分水器连止水胶圈	2.5" Valve Rotor With Spider Gasket	1
11	89281701	2.5"顶出生物缸头身连分流器 (黑色)	Control Valve Main Body 2.5" (Black)	1
12	89280120	压力表牙套连胶圈	Adapter (With Gasket)	1
13	89021303	扭制连胶圈 (黑色)	Drain Plug (with O-ring - Black)	2
14	06011030	底出油压力表连胶圈 (60psi)	Oil Pressure Gauge, 60psi (with O-ring)	1
15	89280104	清水镜连胶圈	Sight Window (With O-ring)	1
16	02020053	外牙头胶圈	O-Ring	3
17	01013143	2.5"外牙头 (黑色)	2.5" Union housing (Black)	3
18	02010043	管接头胶圈	O-Ring	3
19	01171158	2.5"管接头 (黑色)	2.5" Union tube (black)	3
20	01013147	2.5"螺母 (黑色)	2.5" Union lock (black)	3
21	08020028	1寸公制止回阀	One-Way Valve	1



Bio-tank Operation

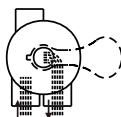
生物缸的操作



FUNCTIONS OF VALVE POSITIONS 阀门功能

Valve Position 阀门位置	Function 功能
FILTER	Normal Filtration 正常过滤
BACKWASH	Cleaning Filter by reversing the flow 反冲洗 (排走过滤器内的污物)
RINSE	Used after backwash to flush dirt from valve 当反冲洗后, 剩余在管内之污物排出
WASTE	By-passes filter, used for vacuuming to waste or lowering water level 排水
RECIRCULATE	By-passes filter for circulating water to pool 不经过滤器循环直接回流水
CLOSED	Shuts off all flow to filter or pool 关闭过滤系统, 水泵勿开

FILTER 正常过滤
WASTE 排水口



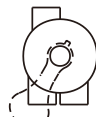
IN FLOW 进水口 OUT FLOW 出水口

WASTE 不经过滤直接排水
WASTE 排水口



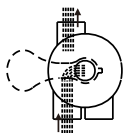
IN FLOW 进水口 OUT FLOW 出水口

CLOSED 关闭过滤功能
WASTE 排水口



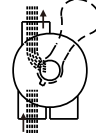
IN FLOW 进水口 OUT FLOW 出水口

BACKWASH 倒冲洗
WASTE 排水口



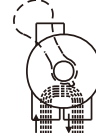
IN FLOW 进水口 OUT FLOW 出水口

RINSE 倒冲洗后冲洗管道
WASTE 排水口



IN FLOW 进水口 OUT FLOW 出水口

WASTE 排水口
RECIRCULATE 不经过滤器循环



IN FLOW 进水口 OUT FLOW 出水口

GENERAL

- 1) Pipe tap boss provided for influent pressure gauge. (optional)
- 2) Servicing valve (Stop pump, close gate valve in suction & discharge before proceeding)
- a) Set handle in filter position. b) Remove cover screws. c) Lift cover and key assembly out.

综合简介

- 1) 缸头预设压力表牙套, 可安装压力表监测系统运作。(压力表为配件)
- 2) 进行维修 (*任何维修工作前, 请先关闭水泵及管道阀制)。
- a) 设定至过滤位置。 b) 松开面盖上的螺丝。 c) 把面盖连分水器一同取出。

TO ASSEMBLE

- 1) Place valve key so that wedge opening is at TOP part (handle in Filter position).
- 2) Position cover O'Ring. Flat edge of coverscrew lug should align with flat edge of body screw lug.
- 3) Secure assembly to body with cover screws. Tighten cover screws evenly and alternately. Do not over-tighten.

装配简介

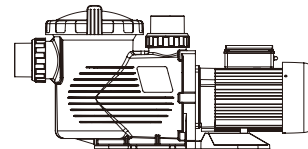
- 1) 先将阀门转到Top水套口(过滤位置)。
- 2) 把面盖密封圈放于面盖正确位置内。并把面盖及缸头上之边缘对齐。
- 3) 对齐面盖及缸头边缘后, 把螺丝先用手动收紧, 再用螺丝刀对角的收紧螺丝,** 不要一次性完全上紧螺丝, 要分开3-4周渐渐收紧, 也不要过度收紧。

WARNING 警告

- ⚠ Bio-Tank circulation systems operate under hazardous pressure during start up, normal operation, and after pump shut off. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover, and/or filter housing and clamp due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool circulation system, all system and pump controls must be in off position and filter manual air relief valve must be in open position.
- ⚠ Do not change filter control valve position while system pump is running.
- ⚠ For protect and keep the tank in good condition operate, regular clean-up water pump strainer and pool skimmer baskets
- ⚠ 生物缸在循环运作时会产生一定压力(启动, 工作中, 水泵停止时), 如没有跟着操作指引下使用可能会导致缸体破裂及部件损坏, 可能会引致操作人员受伤或死亡及对周边环境破坏/失。所以在进行任何维修工作前, 要停止所有水池的水泵运作并同时开启泄压阀门。
- ⚠ 每次转换缸头模式时都要停止水泵运作, 切勿在水泵运行时转换缸头运作模式。
- ⚠ 为保持系统良好运作, 请定期清理水泵格栅及池面格栅。

EPH Pump Operation

EPH水泵的操作



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:EMAUX 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：意万仕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 pump suction inlet height to be as close to water level as possible.
- ❖ Allow use of short, direct suction pipe (To reduce friction losses.)
- ❖ 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。**

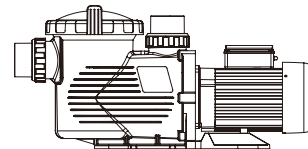
OPERATION 操作简介

- ⚠ **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. 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。
- ⚠ 使用者不要阻塞渔池的排水口，这会导致伤害或死亡。小孩观看时必须由成人监管。



EPH Pump Operation

EPH水泵的操作



Priming Pump 启动水泵

- ❖ 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.

- ❖ 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。
- ❖ 当渔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。
- ❖ 如果渔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次启动。
- ❖ 清洁和检查密封圈，再放回面盖。
- ❖ 放上面盖后，顺时针方向用扳手工具旋转拧紧面盖。

注意: 扭紧螺母面盖只能用手(或扳手)。必要时才用扳手。水泵的启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过滤篮。垃圾或碎屑聚积于过滤篮，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出水口的阀门，排出各系统内的气压。
- 2) 扭开面盖
- 3) 取出过滤篮清洗干净，保证过滤篮的每个空隙都是清洁的，再将过滤篮正确放在桶内并注满水。
- 4) 清洁和检查透明盖的密封圈，再装上桶盖。
- 5) 清洁密封圈周围后装回原处
- 6) 启动水泵（参阅水泵的启动程序）

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 best qualified source of information. Order all repair parts through your dealer. Give the following information when ordering repair parts:

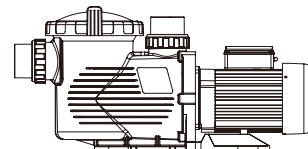
1. Unit nameplate data or serial number on label.
2. Description of part.

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。

EPH Pump Operation

EPH水泵的操作



TROUBLE SHOOTING

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 single 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. 过流保护或热保护。
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. 管道系统无水或空气进入。
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。

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产品的问题，请与当地经销商联系。

EPH Pump Operation

EPH水泵的操作

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

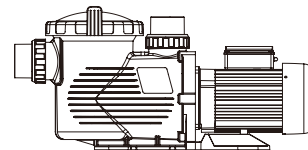
1. 进水管或出水管的阀门未完全开启。
2. 回水管太细。
3. 过滤器沉积物太多。

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

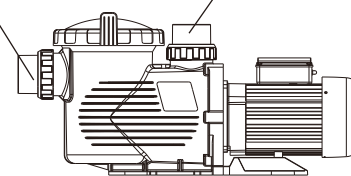
1. Leakage of air into suction line at connections or valve stem.
2. Cover gasket of hair and lint strainer needs cleaning.
3. Low water level in pool.

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. 渔池的水位低。

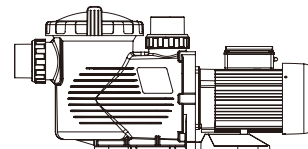
2. 5" SUCTION PORT FROM
POOL OR VACUUM FILTER
2. 5" 进水管口

2. 5" DISCHARGE PORT TO
FILTER OR POOL
2. 5" 出水口



EPH Pump Operation

EPH水泵的操作

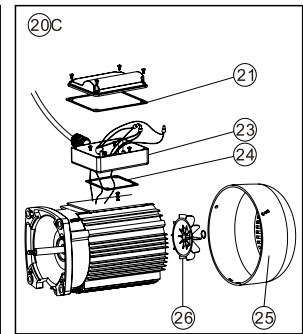
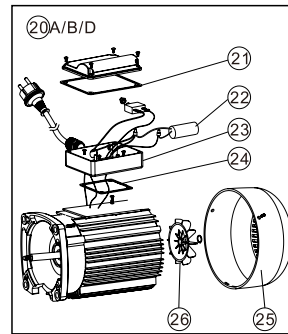
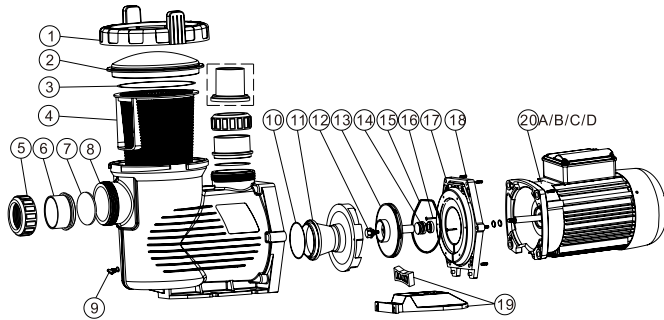
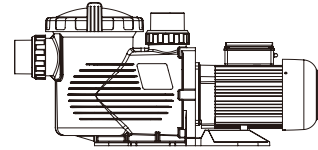


PUMP PARTS FOR EPH EPH水泵组件图

项目	部件编号	中文	產品資料/說明	数量	项目	部件编号	中文	產品資料/說明	数量
Key No.	Part No.	Chinese	Product Description	Qty	Key No.	Part No.	Chinese	Product Description	Qty
1	01020016	透明盖螺母	Nut for lid	1	17	01020017	法兰	Flange	1
2	01041049	透明盖	Transparent Lid	1	18	89020720	M8*35外六角螺丝连垫片	M8*35 Screw with Washer for motor	6
3	02010042	透明盖胶圈	O-Ring for lid	1	19	01110026	底座	Base for EPH200;EPH300;EPH400	1
4	01110024	过滤篮	Basket	1	02010211	底座支撑垫	Arch Cushion for Base		1
5	01013147	2.5"螺母	2.5" Union Nut	2	04020117	电机 EPH100(220V/50Hz)	Motor EPH100(220V/50Hz)		1
6	01171158	2.5"管接头	2.5"Union Adaptor	2	04020102	电机 EPH200(220V/50/60Hz)	Motor EPH200(220V/50/60Hz)		1
7	02010043	胶圈	O-Ring	2	04020103	电机 EPH300(220V/50/60Hz)	Motor EPH300(220V/50/60Hz)		1
8	01020015	泵体	Pump body	1	20	02011075	密封垫	Arch Cushion for Cable Box	1
9	89021307	扭制连胶圈	Drain Plug With O-ring	2	04016014	EPH100水泵电容(220V/50Hz)	Capacitor for EPH100,EPH150 Pump(220V/50Hz)		1
10	02010213	胶圈	O-Ring	1	21	04016015	EPH200水泵电容(220V/50/60Hz)	Capacitor for EPH200 Pump(220V/50/60Hz)	1
11	01110025	分水轮	Diffuser	1	22	04016016	EPH300水泵电容(220V/50/60Hz)	Capacitor for EPH300,EPH400 Pump(220V/50/60Hz)	1
12	89020719	水叶螺丝连胶圈(英制)	Screw for impeller with O-ring	1	23	89021505	接线盒(含螺丝,垫片)	Cable Box for EPH Pump	1
13	01311047	水叶 EPH100(220V/50Hz)	Impeller EPH100(220V/50Hz)	1	24	02011109	密封垫	Arch Cushion for Cable Box	1
	01311050	水叶 EPH200(220V/50Hz)	Impeller EPH200(220V/50Hz)	1	25	01321031	EPH100电机尾罩	Fan Cover for EPH100,EPH150 Pump	1
	01311048	水叶 EPH300(220V/50Hz)	Impeller EPH300(220V/50Hz)	1		01031001	EPH200,EPH300电机尾罩	Fan Cover for EPH200,EPH300,EPH400 Pump	1
14	04015065	3/4"机械密封	3/4" Mechanical seal	1	26	01031007	EPH100电机风叶	Cooling fan for EPH100,EPH150 Pump	1
15	02010212	法兰密封圈	O-Ring for flange	1		01031006	EPH200,EPH300电机风叶	Cooling fan for EPH200,EPH300,EPH400 Pump	1
16	03011201	M3.5×35圆头自攻螺丝	M3.5×35 Screw	2					

EPH Pump Operation

EPH水泵的操作



Ultraviolet Germicidal Lamp

紫外线杀菌器的操作



- ⚠ Please read carefully through these instructions for use before installing this device.
- ⚠ 此说明书适用于FOS系列过水式紫外线杀菌器，请在安装此设备之前仔细阅读本使用手册。
- ⚠ Warning: This device produces harmful radiation. Direct contact could impair the eyes and skin. Only check the operation of the UV-C lamp through the transparent components of the unit.
- ⚠ 警告：此产品会发出紫外线（UVC），紫外线辐射对皮肤和眼睛有害，不论是直射或反射，都可引起严重的皮肤灼伤和眼睛损伤。
- ⚠ The installation of this device must be done by qualified fitter or technician and complied with the relevant regulations from the government. Improper installation will harm the user or causing death. Always remove the plug from the socket before carrying out any maintenance or repair work on the unit. Please read carefully the below instructions before using this device.
- ⚠ 此装置必须由合格的电工或合格的维护人员安装，并按照符合当地官方许可的法规安装。不适当的安装，会引起触电导致使用者或安装人员财物损失，严重伤害甚至死亡。保养维修此产品之前必须把连接的电源切断。没依从做到上述指示，可能导致严重伤害甚至死亡。请您在使用前仔细阅读及遵照下列说明书所有的指示。

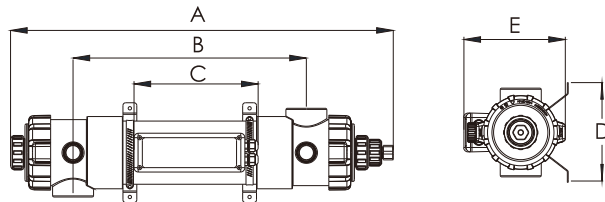
SPECIFICATION 产品型号参数

产品编号 Product No	产品型号 Model No	流量 Flow rate (m ³ /h)	容量 Fish Pond Volume (m ³)	输入电压 Input Voltage (V)	功率 Input Power (W)	接管尺寸 Connection
88046319	FOS-UV-8T	14.4	8	220-230	30	1.5"/2"
88046320	FOS-UV-14T	14.4	14	220-230	55	1.5"/2"

FEATURES 产品特点

- 1) Durable UV-C lamp with Long Life span, for more than 9,000 hours.
 - 2) High quality Quartz tube provides more than 99% transmittance rate.
 - 3) High quality UV-C lamp that achieve 98% sterilization rate.
 - 4) Save 80% of Chlorine and other chemicals.
 - 5) Maintain bacteria-free and purified water with effective sterilization.
 - 6) Easy operation, less maintenance and more carefree use of your fish pond.
- 1) 国际品牌紫外线灯管，寿命长达9,000小时。
 - 2) 采用石英管与水隔离，石英管透光率99%以上。
 - 3) 紫外线杀菌能力可达到98%以上。
 - 4) 可以减少使用的氯和其他化学物质多达80%。
 - 5) 消毒的高效和安全，保证新鲜、干净清澈的水。
 - 6) 操作简单，容易更换，可长期使用。

PRODUCT DIMENSION 产品尺寸参数



型号 Model No	产品尺寸 (mm) Product Dimension				
	A	B	C	D	E
FOS-UV-8T/15T	1144	881	300	180	228

Ultraviolet Germicidal Lamp

紫外线杀菌器的操作



SAFETY 安全说明

- 1) This device produces harmful radiation. Direct contact could impair the eyes and skin. Only check the operation of the UV-C lamp through the transparent components of the unit.
 - 2) Always comply with the electricity company's regulations with regard to any permanent connection to the mains. If there is any doubt regarding the connection, consult a recognized fitter or the electricity company. Always work with a residual current-operated circuit-breaker.
 - 3) The device must be switched off if water treatment agents or medication are used.
 - 4) Always remove the plug from the socket before carrying out any maintenance or repair work on the unit. Never insert / pull the plug from the socket when you are standing in water or if your hands are wet.
 - 5) Never submerge this device in water.
 - 6) Keep children away from this device and from the cable.
 - 7) The cable of the device cannot be replaced. The complete electrical unit must be replaced if there is any damage to the power cable.
 - 8) Once the device has been switched off, the lamp will remain hot for around 10 minutes.
 - 9) Do not use the device if any of the components are damaged (especially the quartz tube).
 - 10) Remove the device if there is a risk of freezing during the winter months.
 - 11) This product can only be used according to the guidelines described in these instructions for use.
- 1) 该装置产生有害的辐射，直接接触可能危及眼睛和皮肤。只通过表面的透明部件检查操作的紫外线灯的设备。
 - 2) 始终遵守电力公司规定的有关任何主要固定电源的连接。如有任何有关连接的疑问，请先确认设备安装与电路连接。始终采用剩余电流动作断路器工作。
 - 3) 如使用水处理药剂或药物时，设备必须切断电源。
 - 4) 实施单位在任何维护或修理工作之前把插头从插座上移除。严禁站在水中或用湿手插上插头及从插座上拔下插头。
 - 5) 不可以将此设备淹没在水中。
 - 6) 让孩子远离这个设备和电缆设施。
 - 7) 该设备的电路控制部分不可取代；如有任何损坏，必须将电路控制部分完替换。
 - 8) 一旦该设备已被关闭，该灯将保持余热约10分钟。请不要碰触灯管，以防烧伤。
 - 9) 此设备不能使用任何有损伤部件（特别是石英玻璃），如有损伤部件，请立即更换。
 - 10) 在寒冷又冻结的冬季，请拆除此设备，以防冻裂。
 - 11) 本产品只可以根据说明书中的描述进行使用。

Ultraviolet Germicidal Lamp

紫外线杀菌器的操作



OPERATION 操作与使用

- 1) This device produces harmful radiation; direct contact could impair the eyes and skin. Keep children away from this device and from the cable.
 - 2) After the installation, activate the pump and check the water flow for 5 mins to ensure there is no leakage before operating the device.
 - 3) Insert the plug of the UV-C device into a wall socket with a safety ground. Check whether the lamp is operating via transparent outlet of the unit. (the light is "On" when the device is in normal operation)
 - 4) Always switch off water supply then switch off the power supply when the operation stops, to avoid unsterilized water contaminating the pool water.
 - 5) When the device is in use, check the system if there is any leakage, fasten the loosen screw cap and lock nut. If the lamp is not working, shut the power supply, unscrew the screw cap and pull the lamp out from the top of the device, carefully remove the lamp from the lamp holder and replace it with a new lamp. No need to dismantle the whole device.
- 1) 该装置会产生有害的辐射，如果直接接触太长时间可能会危及眼睛和皮肤。但我们所设计的过水式紫外线杀菌器产品装置可以在一定范围内避免，因此我们建议在安装时尽量安装在较隐蔽的地方，以免孩子对产品好奇会盯着装置内部观看而造成不良后果。
 - 2) 所有装置都安装好后，并确保安装无误，先打开阀门通水5分钟后确定无渗漏现象，才可以打开电源进行正常工作。
 - 3) 接通电源后，通过装置上透明螺母，可以看到装置内部是否正常工作（灯亮说明该装置正常工作）。
 - 4) 停止工作时需先切断水流，然后关闭电源，以免未杀菌的水流出杀菌器污染下道工序的产品水。
 - 5) 正常工作一段时间，检查装置时，如果有渗漏现象，则找出渗漏口，一般这个问题都会出现在管接螺母没有拧紧，可以适当拧紧；如果检查到灯管不亮，则先断开电源，而后从该装置顶部拆卸第一、二个螺母，及可以拿出坏的灯管更换新灯管，不用拆卸整个装置。

MAINTENENCE 保养与维护

- 1) Always switch off the power supply and water supply during maintenance.
 - 2) Always switch off the power supply and water supply when replacing the UV-C lamp and Quartz tube.
 - 3) After the maintenance/dismantle, it is recommended to clean the device. If there are algae on the quartz tube, clean it with a soft cloth.
 - 4) When replacing the quartz tube or sealing ring, unscrew the screw cap and carefully remove the lamp from the lamp holder then replace the quartz tube.
 - 5) The UV-C lamp must be replaced after 9,000 operating hours.
- 1) 当正常工作中设备出现故障时，应先切断电源与水源排除故障后再继续投入使用。
 - 2) 更换灯管和石英套管时应切断电源与水源。
 - 3) 维修或拆卸设备时关闭设备期间，必须清洗一次此设备。如发现石英套管表面有污垢时，用柠檬酸稀释水清洗。
 - 4) 更换石英套管或密封圈时，先取出紫外线灯管，将士两端螺帽卸下，取出密封圈后再取出石英套管。
 - 5) 紫外线灯管使用过9,000小时时必须更换。

REMINDER 注意事项

1. Never frequently switch on/off the device in short period of time, or it will reduce the life span of the lamp.
 2. Check the lamp only via the transparent outlet in order to protect the eyes.
1. 严禁频繁启动紫外线杀菌器，特别是在短时间内，以确保紫外线灯管寿命。
 2. 检查灯管时，应注意保护眼睛不伤害。

Ultraviolet Germicidal Lamp

紫外线杀菌器的操作



PARTS LIST 零部件清单

项目	部件编号	中文描述	英文描述	数量
Item	Part No.	Description Chinese	Description English	Qty
1	01014144	顶盖螺母	Screw Top	1
2	02021075	硅胶圆形胶塞	Plug	1
3	01014143	顶盖	UV-C Lid	2
4	02080008	橡胶O形胶圈	O-Ring for Lid	2
5	01020019	螺母	Ring Lock for UV-C	2
6	89042005	排气螺丝套件	Air Release Valve	2
7	01170057	管接头	Union	2
8	89280103	2.0寸进出水口	2.0" Union With O-Ring	2
9	89042006	固定套件	Fixed suite	2
10	01050224	镇流器面盖 (30/55W)	Ballast Cover (30/55W)	1
11	03011361	圆头平底自攻螺丝	Round head self-tapping screw	6
12	04014137	镇流器 (30W)	Ballast (30W)	1
	04014128	镇流器 (55W)	Ballast (55W)	1
13	01050223	镇流器外壳 (30/55W)	Ballast shell (30/55W)	1
14	04014136	电缆接头	Cable connector	2
15	04013206	电缆线	Cable	1
16	01321008	接线盒螺母	Screw for Connection Box	1
17	02011081	丁腈胶圆形胶塞	Round Plastic Plug	1

项目	部件编号	中文描述	英文描述	数量
Item	Part No.	Description Chinese	Description English	Qty
18	01021137	灯管外接螺母	Screw for UV-C Lamp	1
19	02021115	硅胶圆形胶垫	Silicone round gasket	1
20	89042003	紫外线杀菌灯套件 (30W)	UV-C Lamp (30W)	1
	89042004	紫外线杀菌灯套件 (55W)	UV-C Lamp (55W)	1
21	04014053	石英管 (30W/55W)	Quartz Tube (for 30W and 55W)	1
22	04013158	电缆线 (杀菌灯专用)	Cable	1

