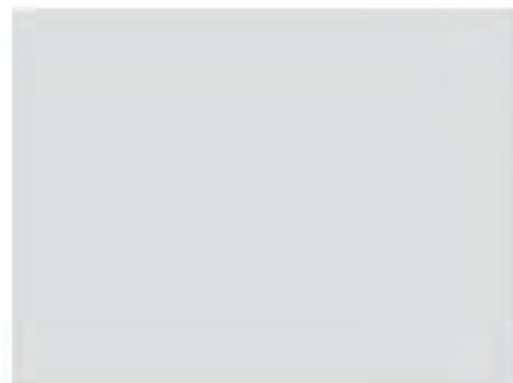


eWater | pursuing the best practice of industry

探求行业最佳**实践**
提供**专业**解决方案
专注产品每个细节
致力降低系统能耗



中山伊沃特水产设备科技有限公司

Tel: 0760- 8987 8869

Fax: 0760-8987 8769

E-mail: info@zsewater.com

Http://www.zsewater.com



RAS

创新
实务

eWater

高密度工厂化养殖
循环水处理系统

Recirculating Aquaculture System



中山伊沃特水产设备科技有限公司

Zhongshan eWater Aquaculture Equipment Technology Limited

ABOUT US

公司简介 COMPANY PROFILE

中山伊沃特水产设备科技有限公司是一家专业从事水产养殖设备的设计、生产与销售的高新科技水处理公司。致力于水产养殖设备及陆基工厂化循环水养殖系统的开发与制造。公司提供从单一设备到循环水养殖系统的解决方案。包括机械过滤设备（微滤机、蛋白质分离器和砂缸）、生化过滤设备、增氧设备、消毒设备（臭氧消毒和紫外线消毒）、恒温设备与水质检测设备。

养鱼先养水，决定鱼产量和品质的关键因素就是水质。我国水产养殖业正面临原水质量持续恶化的趋势及世界范围养殖成本的激烈竞争等诸多挑战，多数传统养殖企业面对产业升级的思考与选择。公司基于对水产养殖实际需求的研究，及与国内外水产研究机构与专家的合作开发出针对性强、高效率与高性能的设备和系统。

公司拥有工厂化水产养殖水处理系统开发及设备单元技术发展专家和高级工程技术人员，以及行业经验丰富的设备安装调试技术团队。在产品和方案的设计阶段充分考虑实际使用过程的维护、性能与能耗的优化。注重生产过程的质量控制和出厂前产品性能的验证。承诺产品的质量和技术服务覆盖产品的整个生命周期，致力于与客户建立长期的伙伴关系。

ZhongShan eWater Aquaculture Equipment Technology Limited is a professional company engaged in design, production and sales of Recirculating Aquaculture System as well as aquaculture equipment. eWater is focused on the development and manufacturing of industrial recirculating aquaculture system solutions, and the design and production of aquaculture equipments including drum filters, protein skimmers, biological filters, aeration equipments, disinfection equipments (ozone disinfection equipment and UV sterilizer), heat pumps and water quality monitor equipments.

eWater is based on the company value of "creating value for customers through practical innovations". We work with top-level aquaculture research institutes and experts to develop best solutions for our customers in aquaculture industry. Our Engineering team is committed to develop best practices for single equipment and RAS based on customers' needs. We continue to be reliable and honest in what we do and how we act. Our mission is to improve sustainability and profitability for customers, and be a valuable partner for customers' long-term business.

ENTERPRISE HONOR 企业荣誉

本企业拥有多项水产养殖类实用新型专利和产品CE国际认证：

- ZL 2015 2 0701312.5 一种适合高密度水产养殖的零排放循环水系统
- ZL 2015 2 0700819.9 一种水产养殖尾水处理的循环水系统
- ZL 2015 2 0914409.4 一种用于水产品养殖的循环供氧系统
- ZL 2015 2 0916911.9 一种用于水产养殖循环供氧系统
- ZL 2015 2 0698606.7 一种基于水产养殖的淡水循环使用装置
- ZL 2014 2 0763564.6 一种节能环保的水产养殖用的水车



FISHFARMING OF THE FUTURE

eWater RELENTLESSLY PURSUING INNOVATIVE SOLUTIONS FOR
LOWER ENERGY CONSUMPTION & HIGHER PRODUCTIVITY

水产养殖整体方案提供者
Providing Total Solutions for RAS

项目规划 Project Planning

- 协助分析项目技术及财务层面的可行性
- 提供养殖规模及预算方面的建议
- 提供长期的(多阶段的)投入/产出分析

生产与交付 Production & Delivery

- 按合同安排生产及标准件的采购
- 安排物流, 准时交付

技术支持与服务 Technical Support & Service

- 售前、售后的技术咨询
- 持续的循环水处理系统及养殖方面的技术服务
- 系统维护保养方面的技术支持

技术方案的开发 Solution Development & Technical design

- 整体养殖方案的开发
- 循环水处理系统的技术设计

安装与调试 Installation & Set-up

- 提供技术指导或现场为客户安装
- 调试系统, 完成验收



01

水产养殖原水处理
In-take Water Treatment System

02

水产养殖孵化
Water Treatment System for Hatchery

03

低碳高效流水式养殖
Low-carbon Efficient Flow Through System

04

养殖废水再利用
Used Water for Recysling

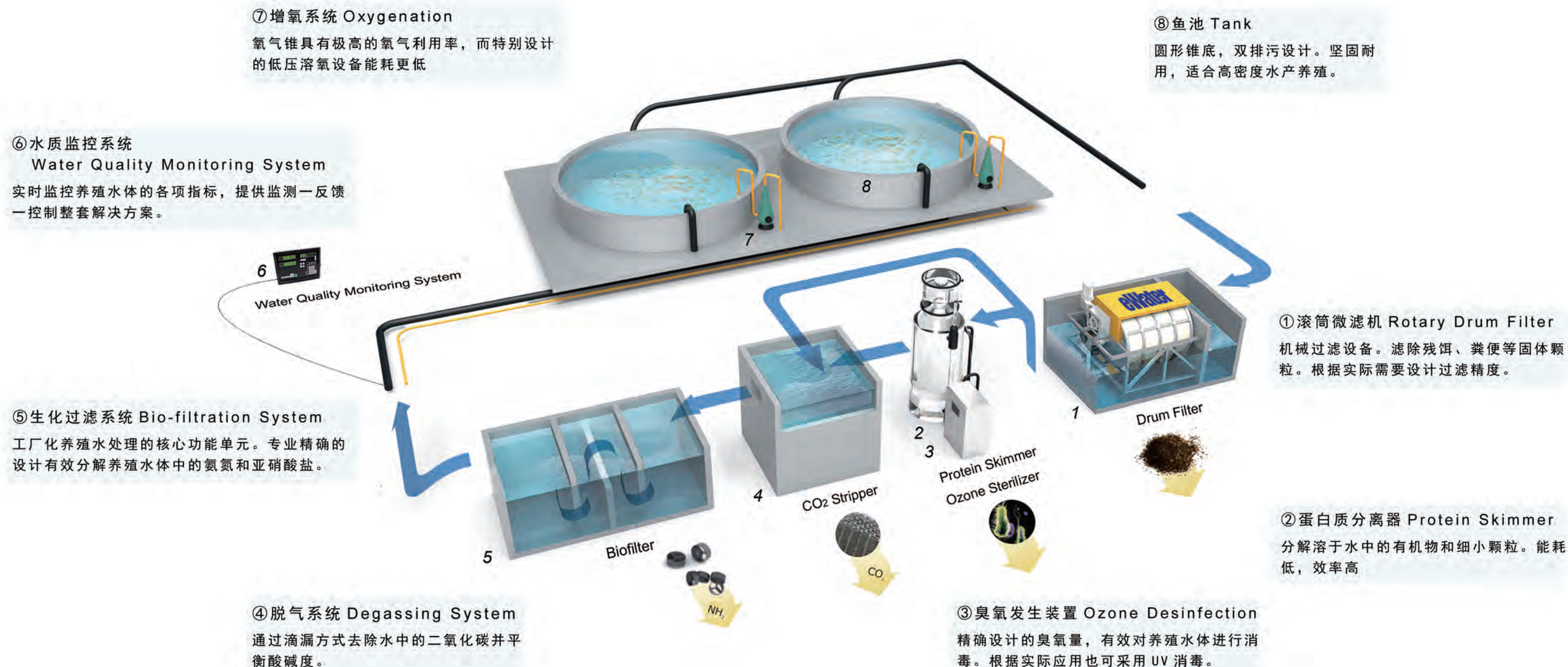
05

工厂化循环水养殖
Recirculating Aquaculture System

06

室外养殖产业升级
Outdoor-to-Indoor Upgrading System





高产出 Higher Productivity

- 更高的养殖密度
- 更短的养殖周期
- 更高的养殖成活率

低风险 Lower Risk

- 有效抵抗自然风险及鱼类病害
- 养殖过程稳定可控，保证食品优质健康

环境 Environment Friendly

- 水产养殖业的蓝色革命 (Blue Revolution)
- 水重复利用，可做到零排放
- 不受固有自然资源的约束

成本 Cost Advantages

- 饵料利用率更高
- 占地面积小

滚筒微滤机是循环水处理系统的关键设备之一，有效滤除鱼池的粪便与残饵颗粒，及补水的固体颗粒物。新设计的系列化产品满足工厂化水产养殖机械过滤的所有要求，整体固体颗粒去除率42%-75%，高于行业平均水平。

The rotary drum filter can effectively remove organic compounds from outlet water coming from fish tanks as well as cleaning the inlet water entering the farm. Able to remove 42%-75% of the total particles from aquaculture water volume. New designed rotary drum filters with complete series, and cover all needs for mechanical filtration in aquaculture production;

Warranty

3年

超长质量保证

Maintenance

15分钟

快速维护设计



特点&优势:

Features & Advantages

- 采用进口滤网，容易清洁，使用寿命长；
- 过滤精度：20-150微米；
- 专业设计的反冲洗系统；
- 设备保修2-3年，使用寿命10年以上。
- Equipping with imported screens for easily rinsing and durable performance.
- Filtration precision: 20-150 um.
- Specialized design of the rinsing system .
- Warranty 2-3 years, with more than 10 years using life.

规格型号:

Specifications :

型号	流量(m³/H)	功率(kw)	尺寸 (mm)	材质	类型
Model#	Capacity	Power	Dimension	Material	Type
ED-PP-10	10	0.75	860*700*630	PP	箱体式
ED-PP-30	30	0.75	1060*900*830	PP	
ED-PVC-60	60	1.1	1320*1100*970	PVC	
ED-PVC-100	100	1.55	1720*1200*1070	PVC	
ED-PVC-150	150	1.55	2200*1350*1180	PVC	开放式
ED-304-200	200	1.75	2260*1350*1580	304/316L	
ED-304-300	300	3.3	2610*1750*1770	304/316L	
ED-304-400	400	4.5	3310*1750*1770	304/316L	
ED-304-500	500	4.5	3660*1750*1760	304/316L	

- 所有型号产品流量是基于每小时通过150目滤网下通过流量为基准。
- The Capacity is base on 150 mesh screen through flow in 1 hour as standard.
- 客户可根据海水/淡水不同的使用场合选择相应产品，同时可按要求定制其它流量或尺寸规格。
- More specifications can be customized upon customers' situation.



蛋白质分离器（或泡沫分离器）是去除溶解在水里面的细小颗粒及有机物，从而改善水质的机械装置。eWater蛋白质分离器是针对工厂化水产养殖与水族馆的维生系统专门设计和制造的。采用美国MAZZEI射流器技术，产生大量的细微气泡（气泡量超过行业平均的60%）。通过专业的曝气设计，减少气泡的涡流。增加气泡和水的接触时间从而确保最优的分离效率。

Protein skimmer (or foam Fractionator) is a valuable mechanical device for improving water quality by removing fine organic matters and dissolved organics efficiently.
eWater Protein Skimmer is specially for professional aquaculture, fish farms and large public aquariums. Equipped with Mazzei Venturi injector, eWater protein skimmer offer up to 60% increase in air intake over the industry average. And the specially designed bubble diffusion system ensures tiny and rich bubbles run less turbulence, and increase the reaction cycle-time in the contact chamber.

卓越的表现

Protein

61%

蛋白质去除率

Nitrite/Nitrate

59%

(亚)硝酸盐去除率

Non-ion Ammonia

50%

非离子氮去除率

Organic Nitrogen

72%

有机氮去除率

特点&优势:

Features & Advantages

- 高效，进气量比同行业产品平均水平高30%；
- 耐用，低能耗，易于维护；
- 提高水中溶氧，特别适用于高密度水产养殖；
- 三重防护设计，防止水流倒灌入进气口；
- High efficiency, 30% more air-intake than industry average
- Durable, easily maintain, and designed low-energy consumption
- Improving dissolved oxygen level, supporting high-density fish farming
- Multiple. protection for air intake to prevent back flow of the water

规格型号:

Specifications :

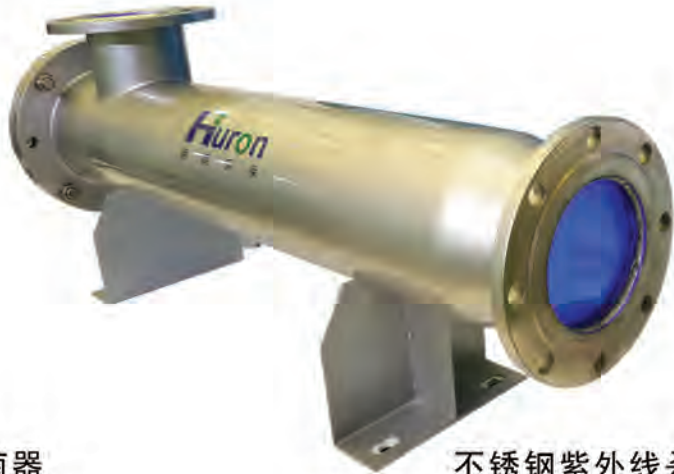
型号	流量(T/H)	功率(w)	尺寸 (mm)	进出水口径 (mm)
Model#	Capacity	Power	Dimension	Material
EPS-10-FC	10	550	Φ400*1900	63/75
EPS-30-FC	30	900	Φ600*2500	90/110
EPS-60-FC	60	1100	Φ950*2920	110/160
EPS-100-FC	100	1850	Φ1200*3020	160/200
EPS-150-FC	150	3700	Φ1450*3580	200/250
EPS-200-FC	200	4400	Φ1450*3800	200/250

- 淡水系列蛋白质分离器内部结构与海水系列有所不同，但产品外部尺寸基本一致
- The structure of fresh water protein skimmer is difference, but the external dimensions of the two products are basically the same.



在水产、水族养殖领域，通常会遇到两个问题：水中水藻的繁殖和鱼类疾病。通过紫外线的强力辐射作用破坏水中细菌、病毒、水生藻类的细胞组织而将其杀灭，防止养殖鱼类疫情产生或景观水出现浑浊。其原理是利用C波段发出的253.7NM光波对水中各种细菌病毒的瞬间照射，穿透微生物的细胞膜和细胞核，破坏核酸的分子键，使其失去复制能力或失去活性而死亡。

In aquaculture and aquarium, there usually encounter two problems: aquatic algae breeding and fish diseases. Through the strong radiation of ultraviolet radiation damage to water bacteria, viruses, aquatic algae cell tissue and kill it to prevent the diseases, or provent the water become turbidity. The principle is the use of C-band 253.7nm light waves emi ted to various bacteria in the water,make it lose the ability to copy or lose activity and die.



PVC 紫外线杀菌器

PVC UV Sterilizer

特点&优势:

Features & Advantages

- 高效消毒（杀菌率>99.99%），零污染，无残留
- 购买成本更低
- 进口耐用灯管，寿命大于12000小时
- 安装及操作简单、维护方便

- High sterilizing rate (>99.99%). Zero pollution, no residues
- Low cost for purchasing.
- Quality lamp with long life (> 12000 hours).
- Easily use for installation, operation, and maintenance.

型号	流量(m³/H)	功率(w)	材质	进出水口径(mm)
Model#	Capacity	Power	Material	Material
EUVS-PVC-15	15	225	PVC	DN65
EUVS-PVC-35	35	450	PVC	DN100
EUVS-PVC-50	50	675	PVC	DN125
EUVS-PVC-60	60	825	PVC	DN150
EUVS-PVC-80	80	975	PVC	DN150
EUVS-PVC -100	100	1125	PVC	DN150

■ 两种材质均可根据客户要求定制其它流量或尺寸规格。

■ Both Material, for more specifications can be customized upon customers' situation.

不锈钢紫外线杀菌器

Stainless Steel UV Sterilizer

特点&优势:

Features & Advantages

- 内部反光率更高，杀灭效果更好
- 产品坚固耐用，可靠性更高
- 进口耐用灯管，寿命大于12000小时
- 安装及操作简单、维护方便

- Higher internal reflectivity and bactericidal effect.
- Strong and sturdy,more reliable.
- Quality lamp with long life (> 12000 hours).
- Easily use for installation, operation, and maintenance.

型号	流量(m³/H)	功率(w)	材质	进出水口径(mm)
Model#	Capacity	Power	Material	Material
EUVS-316L-15	15	225	316L	DN65
EUVS-316L-35	35	450	316L	DN100
EUVS-316L-50	50	675	316L	DN125
EUVS-316L-60	60	825	316L	DN150
EUVS-316L-80	80	975	316L	DN150
EUVS-316L-100	100	1125	316L	DN150

生化过滤是循环水养殖中的核心单元。在循环水体养殖过程中，残饵及鱼粪在一系列的生物的作用下，会转化成溶解于水的氨或亚硝酸盐类，过量的氮化物堆积将导致水生生物的中毒。因此，必须利用生物过滤器通过一定的载体，培育生化细菌，对水中的氨氮等物质进行分解。移动床生物膜反应器工艺（MBBR）依靠曝气池内的曝气和水流的提升作用使载体处于流化状态，进而形成悬浮生长的活性污泥和附着生长的生物膜，与以往的固定填料不同的是，悬浮填料能与污水频繁多次接触因而被称为“移动的生物膜”。eWater开发了比重接近于水，轻微搅拌下易于随水自由运动的生物填料，它具有有效比表面积大，适合微生物吸附生长的特点。

Biochemical filtration is the core unit of RAS. In the process of RAS, undering a series of biological effects,the bait and waste will transfer into ammonia or nitrite, amount of nitrides will lead to aquatic poisoning. Therefore, it is necessary to use biological filters through a certain carrier, cultivate biochemical bacteria, to make ammonia and other substances in the water decomposition. The moving bed biofilm reactor process (MBBR) relies on the aeration and water flow in the aeration tank to fluidize the medias, resulting in suspended growth of activated sludge and attached biofilms, The suspension filler can be repeatedly contacted with the sewage and is therefore known as the "moving biofilm." The eWater has developed a biological filler with a specific gravity close to water and slightly agitated with ease of movement with water, which has a large effective surface area, Suitable for microbial adsorption and growth on its surface.



特点&优势:

Features & Advantages

- 结构紧凑，设备所占用空间较小；
- 耐用，易于维护，无需周期性冲洗；
- 高比表面积，适合微生物吸附生长；
- 系统表现稳定高效，低能耗；
- 系统结构可根据客户现场实践情况进行设计；
- Compact units with small size
- Durable, easily maintained, and no need of periodic backwashing
- High specific surface area, suitable for animalcule growth.
- High performance,Enhanced process stability.
- Can be customized upon customers' situation.



沙缸 Sand Filter

特点&优势:

Features & Advantages

- 100%按NSF50标准进行质量测试
- 一体化专业设计(可选), 简易安装, 选件精确
- 沙缸表面经防晒处理, 无腐蚀增强玻纤缸体具有超强强度和耐用性
- 保质期一年, 使用寿命可达5-10年
- 100% factory test according to NSF50 standard.
- Patented process creates a one-piece(optional), quick assembly and precise alignment of components.
- UV resistance surface allows the filter to work under direct sunlight.
- non-corrosive FRP reinforced tank of unequaled strength and durability in even demanding of applications.
- 1 year warranty, 5-10 years life-time.



低压溶氧器 Oxygenator

特点&优势:

Features & Advantages

- 设备投入成本低
- 增氧效果显著, 运行成本低
- 安装及操作简单、维护方便
- 能够有效替代氧气锥等高能耗增氧设备
- low cost of equipment investment
- Oxygen effect is significant, low operating costs
- Easily use for installation, operation, and maintenance.
- One of a very good alternative for speece cone.



臭氧杀菌器 Ozone Generator

特点&优势:

Features & Advantages

- 内置制氧系统(可选), 臭氧浓度高, 可满足客户高浓度的要求
- 采用过流、过压多重预警保护装置, 保证设备连续安全运行
- 不锈钢外壳, 进口分子筛等关键零件, 能耗效率高, 使用寿命更长
- 配合我司蛋白质分离器使用, 可达到最高效率的臭氧杀菌表现
- Installed with oxygen generation system (optional), the ozone concentration is high and stable.
- Over-current, Over-voltage protection device, ensure the safe operation of the equipment.
- Stainless steel shell, imported molecular sieve and other key parts, energy efficiency, longer service life
- To combine with eWater's protein skimmer can reach the highest efficiency of ozone sterilization.

热泵 Heat Pump

特点&优势:

Features & Advantages

- 高效节能, 比采用锅炉, 电加热, 冰块恒温等方式每年可节省70%以上的费用
- 采用国际名牌涡旋压缩机, 配合专利技术的高效换热器
- 一体式设计, 机组运行稳定可靠, 使用寿命长达10年以上
- 控制方便, 无需专人操作, 省时省心
- High efficiency of energy saving, reduce 70% cost than boiler, electric heating, or ice temperature keeping
- Made up of famous brand compressor, cooperate with patent technology of high efficiency heat exchanger.
- Unibody design, stability and reliability of the operation unit, the service life is over 10 years.
- Easy to control, unattended operation.



多用途水质监控系统 Water Quality Monitoring System

特点&优势:

Features & Advantages

- 在线实时监测、采样和控制, 监测参数实时处理和集中显示
- 多达8个感应器接口, 可监测溶解氧、温度、盐度、pH、氧化还原电位5个指标, 同时监控一个或多个水体
- 设有16个执行机构, 启闭各种设备, 对溶解氧、pH、温度、臭氧、盐度、水位、照明、水泵(海水潮汐, 旋水流向)、投喂等实施自动控制
- On line real-time monitoring, sampling and control, data is processing & concentrated real-time.
- With eight sensor interface, you can monitor at the same time
- Setting with 16 actuators, can control separately equipment, the dissolved oxygen, pH, temperature, ozone, salinity, water level, lighting, water pump (sea tides, spin currents to), feeding, etc.



eWater oxygen cone

氧气锥 Speece Cone

特点&优势:

Features & Advantages

- 高效耐用, 极高的氧气利用率
- 系列化的产品满足不同的需求
- 针对高密度水产养殖专门设计
- High performance and durable. With high oxygen utilization rate (>90%).
- Serialized products for various customer needs (20 ~ 110 m3/hour).
- Specialized design for high density farming (>50kg/m³).



水泵 Pump

特点&优势:

Features & Advantages

- 优化水泵设计工作点, 流量大、高效率
- 过流部件采用高强度工程塑料, 配以优质耐磨机械密封
- 电机采用耐高温轴承, 运行寿命长可靠耐用
- F级绝缘; IPX5防护等级; 多种材质可选, 可应对淡水、海水等环境
- Best working point, large flow, high efficiency.
- The current components use high strength engineering plastics and high quality seal.
- Motor is used with high-temperature resistance bearing, which ensure long and reliable operation.
- Insulation class F, Protection IPX5; Various materials are available.

生化过滤 Biofilter Media

特点&优势:

Features & Advantages

- 高性能、多品类的生化填料
- 高比表面积
- 完整的产品系列满足客户的不同需求
- High performance and various types of bio-filter media.
- High surface area size (1360 m2/m3).
- Serialized products for different customers' needs.





鱼池 Fish Tank

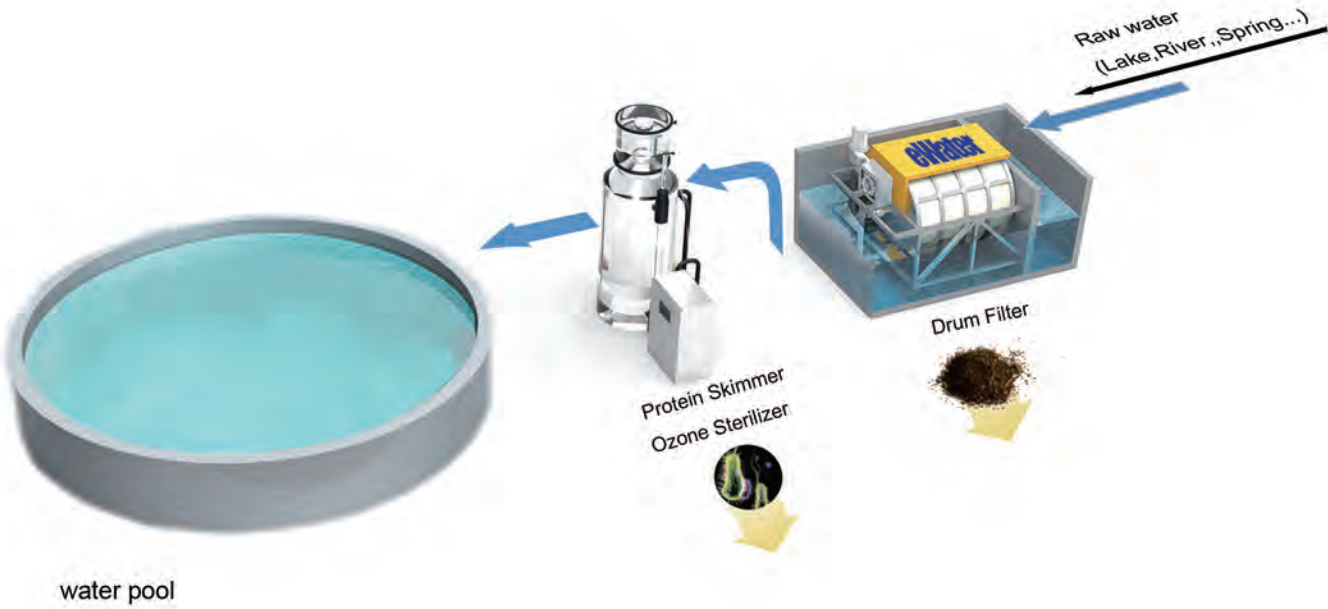
特点&优势:
Features & Advantages

- 圆形、锥底、及双排污设计, 可根据客户实际需求定制
- PVC材质鱼池, 抗拉、耐用, 运输方便, 适用于暂养、治疗等场合
- PP材质鱼池, 耐用、抗冲击力强, 大型尺寸需现场安装
- FRP拼装鱼池, 超强耐用, 水体容积最大, 可拆卸安装。
- Circular, cone bottom and double drainage design.
- PVC material: tensile, durable, easy to transport, apply to temporarily raise, treatment, etc
- PP material: durable, strong resistance to impact, on-site installation
- FRP material: super durable, with largest water volume, removable installation.

部分鱼池规格
Tank Specifications

型号 Model#	直径 (m) Diameter	高度 (m) Height	容积 (m³) Volume	材质 Material
ET-PP-120	1.2	1.2	1.1	PP
ET-PP-170	1.7	1.4	2.7	PP
ET-PP-220	2.2	1.4	4.6	PP
ET-PP-300	3.0	1.5	9.2	PP
ET-PP-400	4.0	1.5	16.3	PP
ET-PVC-220	2.2	1.2	3.8	PVC
ET-PVC-300	3.0	1.2	7.1	PVC
ET-PVC-400	4.0	1.2	12.4	PVC
ET-FRP-400	4.0	1.4	15.1	FRP
ET-FRP-540	5.4	1.4	28.6	FRP
ET-FRP-800	8.0	1.4	60.3	FRP

■ 可根据客户要求定制其它材质或尺寸规格。
■ More specifications or materials can be customized upon customers' situation.



eWater原水处理系统以微滤机、蛋白质分离器、和臭氧消毒系统为核心。适于用处理天然海水、湖水、河水、或井水, 以达到养殖用水水质标准。该系统杀菌力强, 无污染, 安全性好及带自动化控制。是水产养殖和育苗生产中理想的原水处理方式。也适用于养殖废水处理再利用, 达到节水减排的目的。该系统是针对国内以传统养殖模式为主的实际情况而开发, 可应用于以下水产品种的水质处理, 提升养殖成活率及产量:

鱼菜共生系统 Aquaponic

特点&优势:
Features & Advantages

- 天然有机: 天然具备有机食品的生产属性。
- 高质量出品: 整个生长周期洁净无污染。
- 区别于传统土壤栽培的休耕轮作, 无连作障碍。
- 根系漂浮在水中, 天然隔绝杂草生长。
- 系统独立运作, 稳定可靠。
- Natural organic: natural production of organic food properties.
- High quality growing: the entire growth cycle clean and pollution-free.
- Be different from the traditional soil cultivation of fallow crop rotation, no continuous cropping obstacles
- Roots floating in the water, natural isolation weed growth
- The system operates independently, stable and reliable.





◀ 南美白对虾养殖项目（福建）
高位池改造成室内循环水养殖
养殖周期为 2 个月，
密度 8 公斤 / 立方



◀ 澳洲肺鱼养殖项目（澳大利亚）
应用循环水处理系统
84 立方养殖水体
养殖周期 12 个月
密度 70 公斤 / 立方水

▶ 鲟龙鱼养殖项目（马来西亚）
项目应用循环水处理系统
300 立方养殖水体养殖，周期 12 个月
密度 50-60 公斤 / 立方



▶ 鳊鱼及宝石鲈养殖项目（中山）
应用循环水处理系统
100000 立方养殖水体
养殖周期 4 个月
密度 60 公斤 / 立方



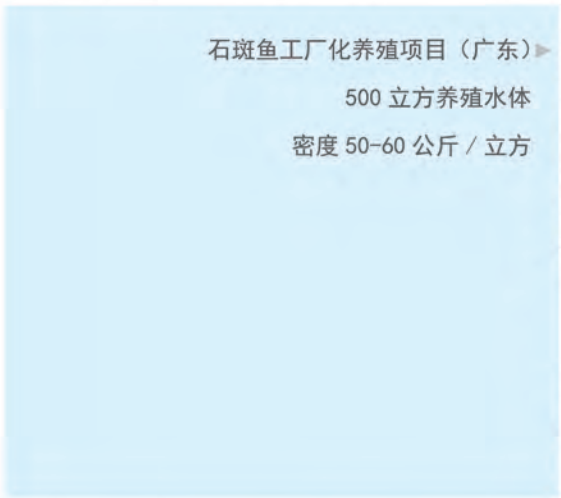
◀ 红鲟孵化项目（山东）
应用循环水处理孵化系统，
60 立方养殖水体养殖周期 3-4 个月，
密度 5-8 公斤 / 平方



▶ 增殖放流项目（广东）
循环水处理养殖废水
20 亩养殖水体



俄罗斯鲟鱼工厂化养殖项目（河北）
600 立方养殖水体
密度 60 公斤 / 立方



石斑鱼工厂化养殖项目（广东）
500 立方养殖水体
密度 50-60 公斤 / 立方



集装箱改造工厂化循环水养殖项目（广东）
海水石斑和淡水宝石斑双系统
共 40 立方养殖水体
密度 60-70 公斤 / 立方

我们已有成功经验的工厂化养殖鱼类

Fish Species of eWater RAS Successful Applications

Vannamei
南美白对虾养殖



01

King Grouper
龙胆石斑养殖



02

Mandarin fish
桂花鱼养殖



03

04



Jade perch
宝石鲈养殖

05



Sturgeon
鲟龙鱼养殖

06



Turbot
大鳞鲆养殖

Tilapia
罗非鱼养殖



07

Hippocampi
海马养殖



08

Eel
鳗鲡养殖



09

10



Barramundi
澳洲肺鱼养殖

11



Pelteobagrus fulvidraco
黄颡鱼养殖

12



Bass
鲈鱼养殖

Cod
鳕鱼养殖



13

Penaeus monodon
斑节对虾养殖



14

Catfish
鲶鱼养殖



15

16



Salmon
三文鱼养殖

17



Trout
鳟鱼养殖

18



Lobster
龙虾养殖

Letalurus Punetaus
斑点叉尾鮰



19

Carp
鲤鱼养殖



20

Hucho taimen
哲罗鱼养殖



21

22



Basa
巴沙鱼养殖

23



Sole
半滑舌鲈养殖

24



Tiger Grouper
老虎斑养殖

Penaeus Japonicus
日本对虾养殖



25

Seabass
海鲈养殖



26

Dorade
鲷鱼养殖



27

28



Others
咸淡水鱼类养殖

29



Aquarium
观赏鱼规模养殖

30



Hatchy
鱼苗孵化标粗