



启航创智
QIHANGINNOVATION

启航创智（青岛）海工装备科技有限公司

QIHANG INNOVATION (QINGDAO)
MARINE ENGINEERING EQUIPMENT CO., LTD

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LEADING THE DEVELOPMENT
OF MARINE HIGH-TECH INDUSTRY

引领海洋高科技产业发展



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QIHANG
INNOVATION



专注致远 联合共赢
助力梦想 扬帆启航



Focus future
Benefit together

Set sail
Realize dream

CONTENTS

目录 >

Qihang Innovation 启航创智

Products 产品系列

Professional System 专业体系

公司简介 About Us	01/02	网箱系统 Fish Cage	05/06	生产体系 Production Line	29/30
企业文化 Corporate Culture	01/02	重力式HDPE网箱 HDPE Fish Cage	07/08	检测 Testing Center	31/32
发展历程 Development Course	03/04	塑胶渔排网箱 HDPE Fish Pen	09/10	战略伙伴 Strategic Partner	33/34
		休闲网箱 Leisure Cage	11/12	资质荣誉 Enterprise	35/36
		浮码头及水上浮桥设施 Floating Dock & Pier	13/14	专家顾问 Expert Consultant	37/38
		水上休闲平台 Floating Leisure Platfom	15/16	营销网络 Marketing Network	39/40
		垃圾拦截装置 Floating Garbage Interceptor Facilities	17/18	工程案例 Project	41/42
		浮式防波堤 HDPE Floating Breakwater Facilities	19/20	海洋牧场智能化装备设施 Marine ranch intelligent equipment facilities	43/44
		浮式海参、鲍鱼网箱 Floating Sea Cucumber&Abalone Cage	21/22		
		海上光伏 Marine Photovoltaic	23/24		
		循环水养殖系统 RAS	25/26		
		网箱产品配件及配套设施 Cage fittings& Automatic Farming Equipment	27/28		



Qihang Innovation

启航创智

ABOUT US 关于我们



启航创智（青岛）海工装备科技有限公司是由自然人与社会优势企业联合发起投资设立，从事海洋高科技产业的经济实体，公司充分利用自身的科技优势、人才优势和卓越的策划管理能力、技术创新能力，面向海洋——这一广阔的空间领域，着重于海洋资源的深度综合开发和海洋科技成果的产业化。公司主要从事深远海重力式网箱和大型抗风浪深水网箱、智慧网箱、水上休闲平台、海洋防波堤、海上光伏、水面垃圾拦截装置及网具的研制、设计、销售；淡、海水陆基养殖，网箱养殖等技术和海产品加工技术的研究并提供相应的技术转让、咨询，海水养殖药物的研究及销售，水产饲料的销售等经营活动。

启航创智（青岛）海工装备科技有限公司与中国水产科学研究院黄海水产研究所、中国海洋大学建立了密切的合作关系，共同致力于海洋高科技产业的发展。公司是国家高新技术企业、科技型中小企业、专精特新企业、国家“863”计划深海抗风浪网箱子课题承担单位之一、十三五“深远海智能化网箱整装装备产业链协同创新示范项目”协作单位、中国水产科学研究院黄海水产研究所深水网箱设施制造基地、山东省深水网箱制造示范企业、山东省行业标准主起草单位、山东省海洋牧场智能工程技术协同中心、青岛市智慧渔业装备专家工作站、中国老教授协会海洋经济技术分会启航创智（青岛）海工装备科技有限公司副会长单位，公司通过了ISO9001质量管理体系认证，ISO14001环境管理体系认证，ISO45001职业健康与安全管理体系认证，履约能力评价服务认证及售后服务认证。公司面向市场，严谨求实，诚信守诺，遵循“追求出色品质，提供优良服务”的质量方针，不断开拓市场，围绕发展海洋经济产业，致力于环境保护和可持续养殖模式的健康发展。

启航创智（青岛）海工装备科技有限公司将同您一道，为推动我国海水养殖业的发展、提高海水养殖的综合效益、着重海洋领域的深度开发利用而共同努力、共同发展。

Qihang Innovation (Qingdao) Marine Engineering Equipment Co., Ltd is the economic entity which is engaged in the marine high-tech industry. The company takes full advantage of its high technology, talent advantage and outstanding management, creative ability and emphasizes on the deeply comprehensive development of ocean resources and industrialization of the latest marine technology achievements. Our company is mainly engaged in development, manufacture and sale of the offshore HDPE fish cage and deep sea anti-stormy fish cage, manufacture and sale of various fish net, wisdom cage, leisure platform in water, garbage interceptor facilities in water, break water facilities, designing of RAS, fish farm overall design, study and sale of advanced equipment of related fish cage, and research of the other aquaculture technology and seafood processing technique, and provides its turn, consulted with. Meanwhile, we also carry out the sale and research of aquaculture medicine and feed.

Qihang Innovation (Qingdao) Marine Engineering Equipment Co., Ltd has built up a close cooperative relationship with Yellow Sea Fisheries Research Institute and Ocean University of China, and concentrated on the development of the marine high-tech industry together. Also the company is National High-tech Enterprise, high-tech small and medium-sized enterprise, specialized and special new enterprise, Our company take part in the National "863" Plans for Deep-sea Anti Windstorm Offshore Fish Cage Project, also In National 13th Five-Year the Intelligent Fishing Cage Farm Collaborative Innovation Demonstration Project, Chinese Academy of Fishery Sciences Yellow Sea Fisheries Research Institute HDPE Fishing Cage Manufacturing Base, a demonstration enterprises of Shandong province in the regarding of aquaculture equipment, the Leading Drafting Unit for Industry Standards in Shandong Province, the intelligent engineering Collaborative Center of Marine pasture in Shandong, Qingdao smart fishery equipment Expert workstation, China Senior Professors Association Marine Economy and Technology Branch Qihang Innovation (Qingdao) Marine Engineering Equipment Co., Ltd Vice president unit. The company has passed the ISO9001 quality management system certificate, ISO14001 environmental management system certificate, ISO45001 occupational health and safety management system certificate, Performance capability evaluation service certification & After-sales service certification. The company is facing the market, rigorous and realistic, good faith and keeping promise, Follow the quality policy of "pursuing excellent quality and providing quality service" the company will continue to expand the market and focus on the development of the Marine economy and high-tech industries, and focus on the healthy development of environmental protection and sustainable aquaculture farming

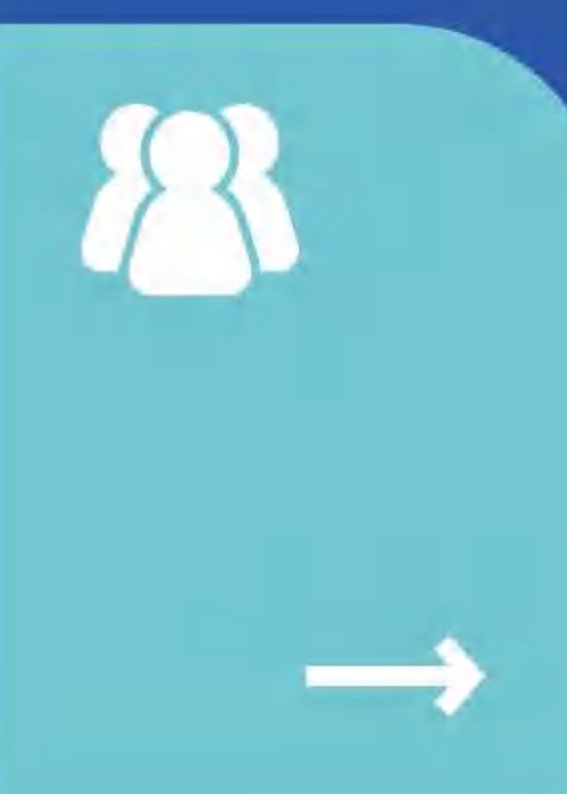
Qihang Innovation (Qingdao) Marine Engineering Equipment Co., Ltd will work together with you to promote the development of China's mariculture industry, improve the comprehensive benefits of mariculture, and focus on the deep development and utilization of the Marine field.

Corporate Culture 企业文化



Corporate Vision 企业愿景

做国内最专业的海工装备供应商
托起“中国智造”新高度



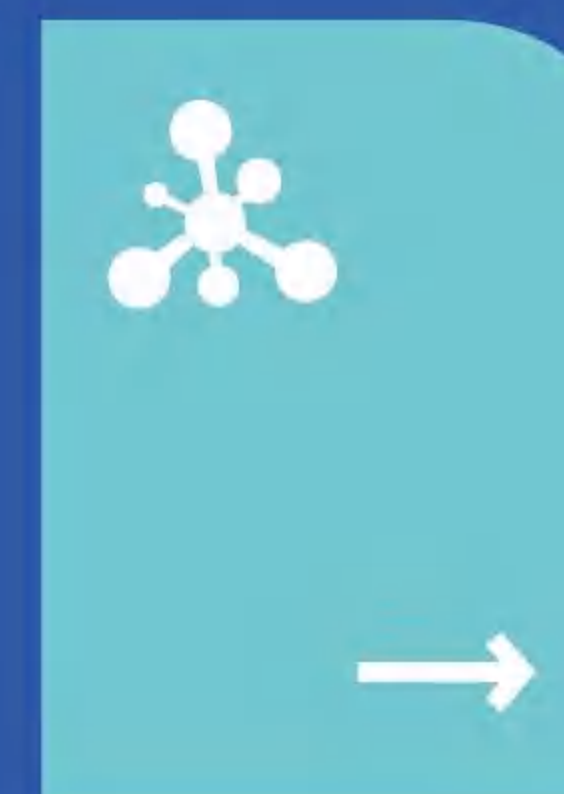
Cultural Concept 文化理念

启迪人生 航达彼岸
坚持以人为本，为客户、员工
创造体现自身价值到达成功彼岸



Core Values 核心价值

诚信 百德诚为先，万事信为本
合作 小成靠自身，大成靠团队
责任 敢为人先，勇于承担
感恩 饮水思源，知恩图报



Enterprise Spirit 企业精神

知行合一，奋斗不止。

CHRONICLE OF EVENTS 大事记

2006

公司注册成立
Incorporation of company

2007

公司成为“中国水产科学研究院黄海水产研究所深水网箱制造基地”
Awarded "Chinese Academy of Fishery Sciences Yellow Sea Fisheries Research Institute HDPE Fishing Cage Manufacturing Base"

2008

公司研制开发出海参鲍鱼网箱，并申请专利
Developed sea cucumber & abalone cage and Applied for the patent

2009

公司出口北非--突尼斯，首次走出国门，打开海外市场
The first time exported to Tunisia

2010

公司顺利完成联合国援助朝鲜网箱项目
Successfully completed the U.N aid to North Korea cage project

2012

公司出口智利，打开南美市场
Exported to Chile and opened the South American market

2013

公司注册“启航”，正式变更名称
Registered "QIHANG" and officially changed name

2014

公司产品进入伊朗和伊拉克市场，打开中东市场
Exported Iran and Iraq and opened the Middle East market

2015

公司产品进入马绍尔，打开太平洋岛国市场
Exported Marshall & opened the Pacific Island market

朝鲜最高领导人金正恩视察我司在朝鲜项目并给予高度赞誉
President Kim Jong-un inspected fishing cage project and gave high praise

2016

公司产品进入芬兰，打开欧洲市场
Exported Finland & entered the European market

2017

公司被认定为“高新技术企业”和“科技型中小企业”
Identified as "high-tech enterprise" & "high-tech small and medium-sized enterprise"

公司研制开发出海洋休闲平台系列产品
Developed a series of Marine leisure platform products

公司成功申报十三五“深远海智能化网箱整装装备产业链协同创新示范项目”
Successfully applied "Intelligent Fishing Cage Farm Collaborative Innovation Demonstration Project"

2018

公司被认定为“专精特新”企业
Identified as "specialized and special new enterprise"

公司产品被评为“中国国际海洋牧场大会最优品质奖”
Awarded "Best Quality Award of International Marine Ranching"

公司产品进入哥斯达黎加，打开中美洲市场
Exported to Costa Rica & opened the Central American market

2019

公司通过山东省行业标准——组合式HDPE平台建造及检验技术规范的立项，并主导起草组合式HDPE平台建造及检验技术规范。
Passed Shandong Province industry standard - construction and inspection technical specifications for combined HDPE platform

公司被认定为山东省海洋牧场智能工程技术协同中心
Identified as the intelligent engineering Collaborative Center of Marine pasture in Shandong

公司进军澳大利亚最大的金目鲈养殖鱼场，打开大洋洲市场
Exported Australia's largest Barramundi fish farm

公司成功申请“一种HDPE水上半潜式防波堤”发明专利并获得授权。
Authorized patent of "HDPE Floating Breakwater Facility"

2020

公司中标联合国妇女组织援非鱼场项目
Exported Australia's largest Barramundi fish farm

多哥总统视察我司在多哥项目，并表示赞誉
President of Togo visited our project and expressed his praise

2021

公司承建江苏连云港交通控股集团有限公司海陵湖大水面综合养殖体项目
Constructed Lianyungang Communications Holding Group Co., LTD. Hailing Lake integrated aquaculture project

公司与浙江大学刘鹰教授团队合作完成池塘膜袋池循环水生态自净养殖系统项目
Cooperated with Professor Liu Ying's team from Zhejiang University to complete the ecological self-purification aquaculture system

胶州工厂生产线投入生产
Jiaozhou plant put into production

2022

“中国海洋大学研究生联合培养基地”挂牌
Awarded "Ocean University of China Graduate Joint Training Base"

“青岛市智慧渔业装备专家工作站”挂牌
Awarded "Qingdao Smart fishery Equipment Expert Workstation"

公司完成大连鑫玉龙海洋生物种业科技股份有限公司中国第一座海上长城——浮式防波堤项目
Completed Dalian Xinyulong Co., LTD., China's first Great Wall at sea - floating breakwater project

2023

公司创立“启航”十周年
The tenth anniversary of the founding of the company

公司成功申请“新型消波减浪堤”一系列专利
Applied for a series of patents for "HDPE floating breakwater facility"

2024

广西分公司成立
Branch company in GUANGXI established

公司承建大连红沿河核电站垃圾拦截设施
Constructed Dalian Hongyanhe nuclear power plant waste interception facilities

公司产品出口至90+个国家
Exported to more than 90 countries

公司承建大洋世家援助基里巴斯项目
Undertook the OCEAN FAMILY Assistance Kiribati project

与大连海洋大学正式达成校企合作
Cooperation with Dalian Ocean University

90+
COUNTRIES AND
REGIONS
截至2024年公司已出口
90多个国家和地区



Product System

产品系统

FISH CAGE 网箱系统

The advantages of HDPE cage 网箱系统的优点

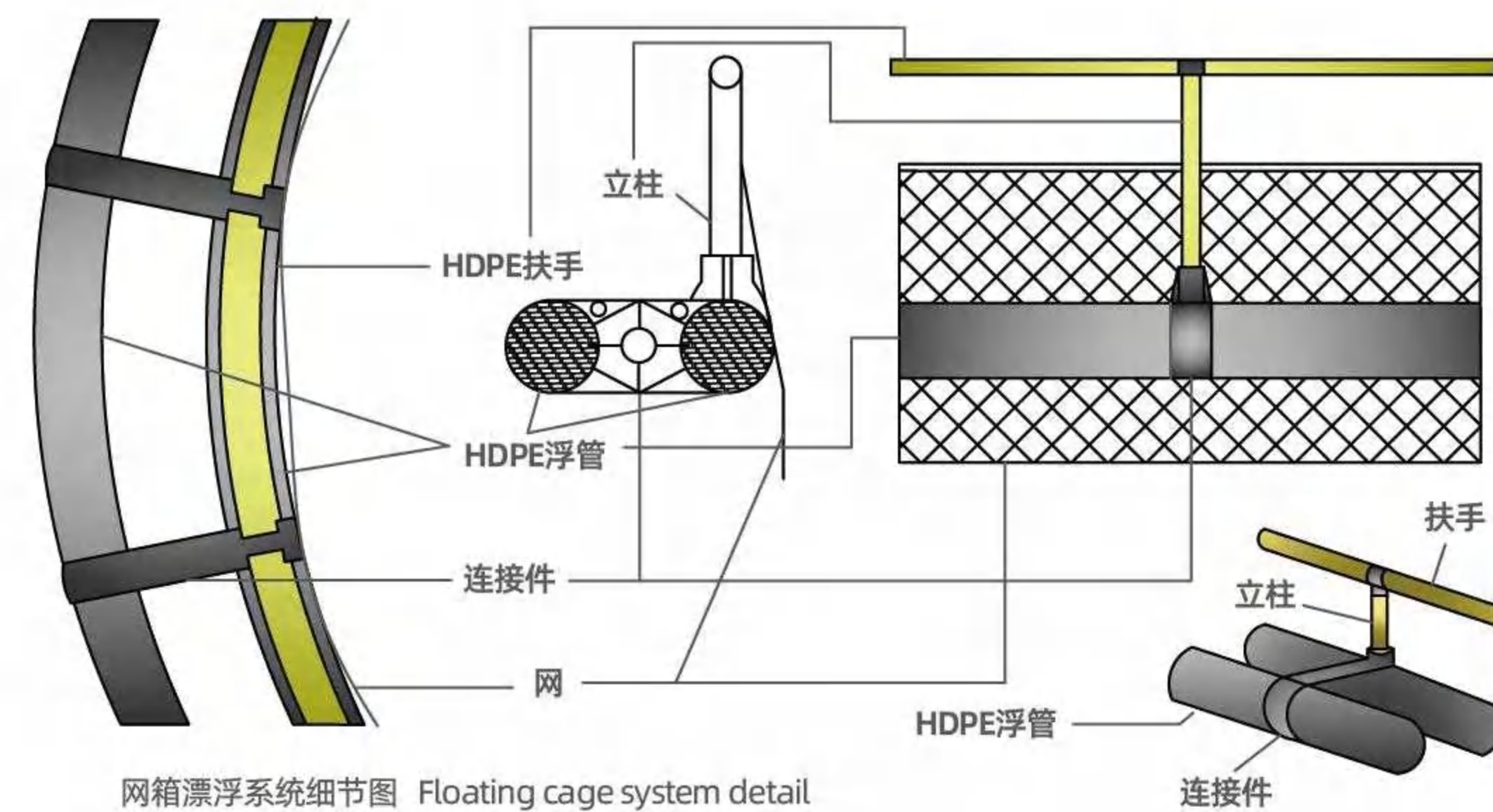
-  **强度高**
High intensity
-  **耐腐蚀抗老化**
Corrosion resistant
-  **柔性好**
Excellent flexibility
-  **抗风浪能力强**
Strongly resistant to the storm
-  **使用年限长**
Long service life
-  **有效养殖水体大，效率高，综合成本低**
Sufficient aquaculture water volume with high efficiency and low comprehensive cost
-  **污染小，水质优，鱼类死亡率低，鱼产品品质优效益好，回报高**
Less pollution and high-grade aquaculture water resulted in the perfect quality of the fish products, the desirable benefits and high returns.

Frame System 框架系统

框架系统由高强度深水网箱用HDPE管材构成，采用国外进口专用聚乙烯原材料制造。这种管材具有良好的强度和韧性。

通过我公司设计框架连接方式，使框架具有抗击台风巨浪的能力，同时框架材料进行了抗紫外线老化、抗海水腐蚀的高科技处理工艺，使用寿命在15年以上。

Cage Frame system is made from HDPE tubular product and cage fitting, using foreign imported special- cage purpose polyethylene raw material. This kind of tubular product has good strength and tenacity. Using unique structure design by our company, the frame will have the ability to resist stormy waves Meantime all frame materials go through the ultraviolet rays aging resist and seawater corrosive resist process, and the service life is over 15 years.



Nets 网衣系统

网衣采用国际上先进编织工艺，经抗紫外线工艺处理的尼龙、涤纶、聚乙烯、超高分子量网片缝制而成，网衣强度高、安全性好、使用寿命长，同时根据客户需要，可以对网衣进行防附着处理，保证了网衣正常条件下有效防附着时间延长半年以上、降低了人工换网的频率。另外，公司设计的水下成型系统能有效的减少网衣浮移，有效养殖水体达90%以上。

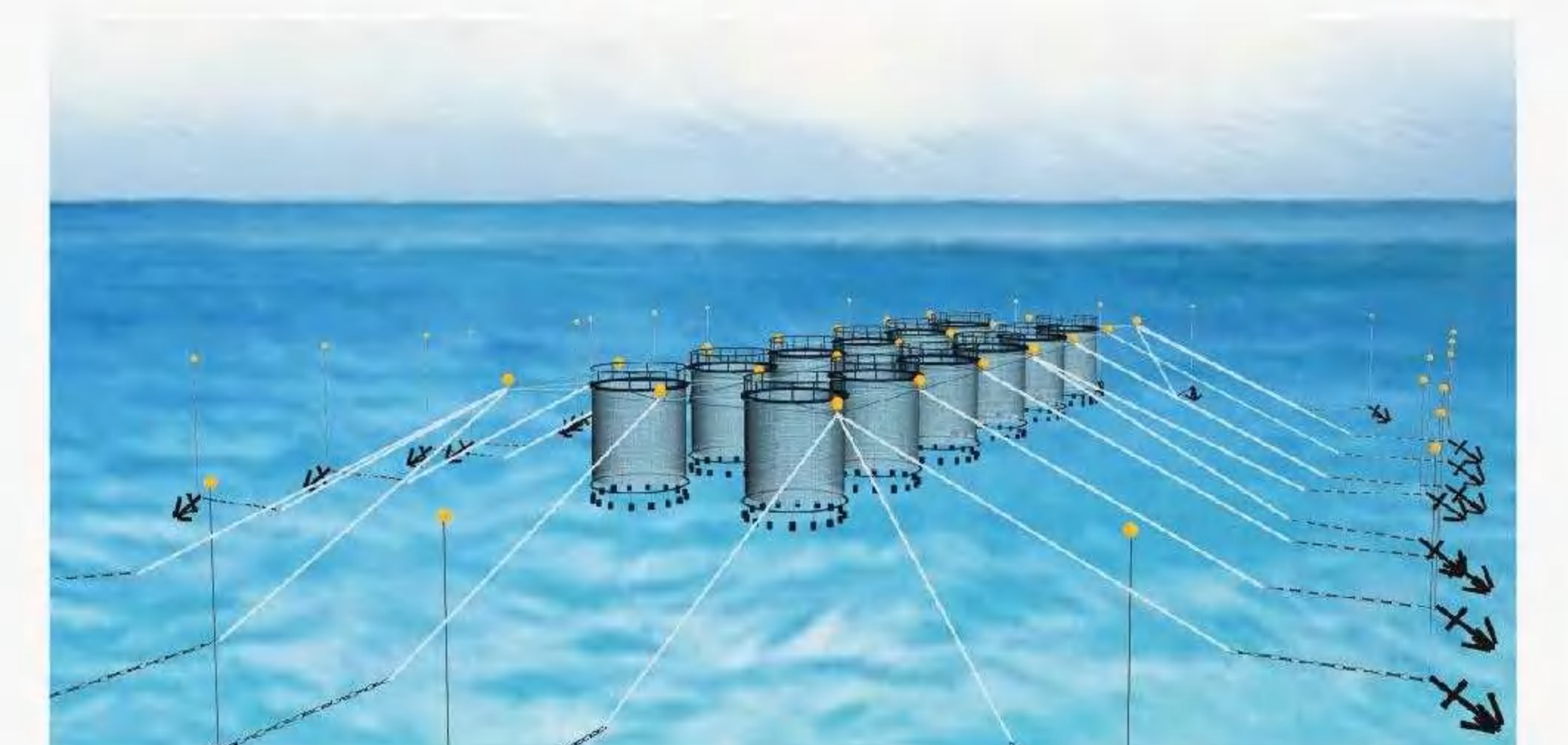
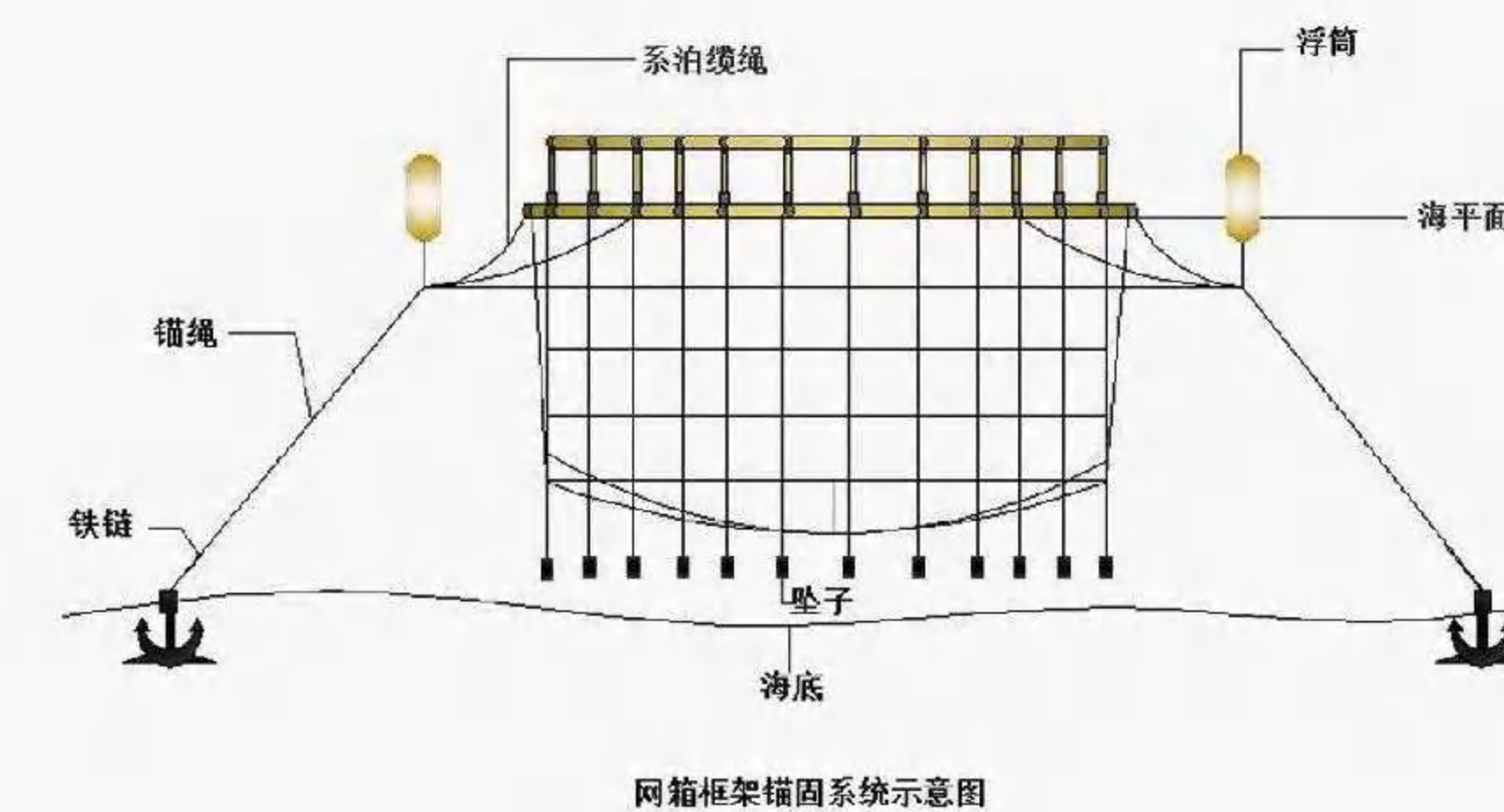


Net system uses the Nylon,or Polyester, or PE , or UHMW-PE netting produced by the internationally advanced knitting . The Net system has high intensity, good safety,long service life. Meanwhile,according to the customer request, net can be treated with Anti-fouling technology ,ensuring under normal conditions, the validity of new Anti-fouling can extend more than six months,reducing the frequency of exchanging net.In addition the company design the sinker tube underwater system effectively reduce the net deformation.Performance parameters Effective culture for more than 90%.

Mooring System 固泊系统

针对不同的水域地质，采用锚固、桩固、混凝土预制块等方式固定网箱、采用先进的张力缓冲结构。利用主副缆绳把网箱受的力均匀分散到各点上。保障网箱在恶劣的环境下最大限度地减少风浪对网箱的冲击，为网箱的安全提供了充足的保证。

Depending on the water sediment, in order to moor the cage we use anchor,or wood,or concrete blocks etc.Using designed rope structure of tension to disperse the strength to various point of cage. And this lead to minimize impact of storm waves on the cage. The cage provide sufficient guarantee of security.

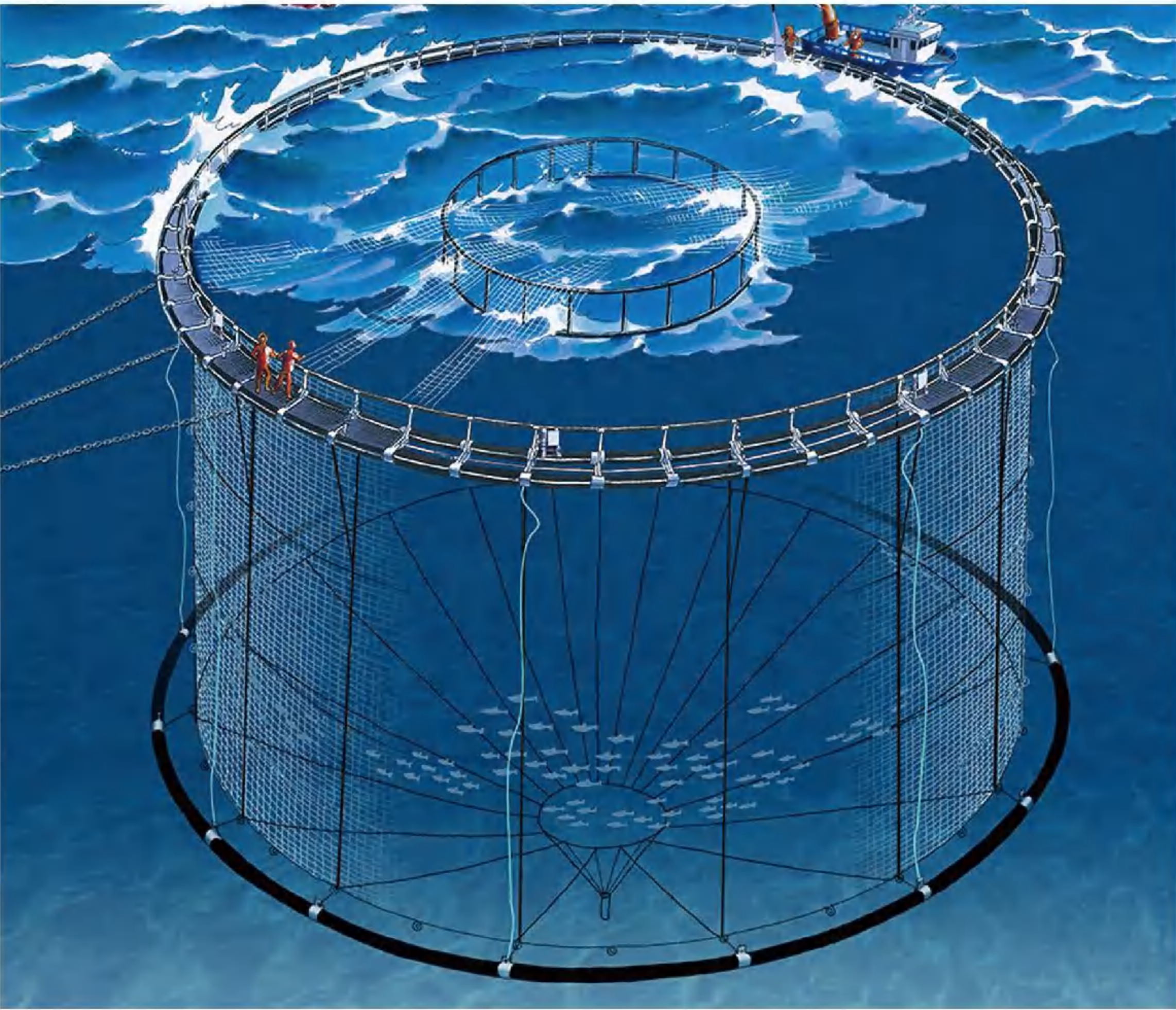


HDPE FISH CAGE

重力式HDPE网箱

适合放置在半开放海域或受季节性合风影响较小的海域进行养殖。根据客户需求网箱周长从20米-200米，网深5米-30米，有效养殖水体最大可达90000m³，这种产品综合成本低，抗风浪能力强，易于管理维护。方形网箱，可根据客户需求，规格有5米x5米、6米x6米、8米x8米，10米x10米等几种规格。

it is suitable for breeding in semi-open sea areas or sea areas less affected by seasonal typhoons. According to customer requirements, the cage bearing ranges from 20 meters to 200 meters, the net depth is 5 meters to 30 meters, and the maximum effective aquaculture water body can reach 90000m³. This product has low comprehensive cost, strong resistance to wind and waves, and is easy to manage and maintain. Square net cage according customer requirements 5m x 5m,6m x 6m,8m x 8m,10m x 10 meters and other specifications.



圆形示意图 Circular cage



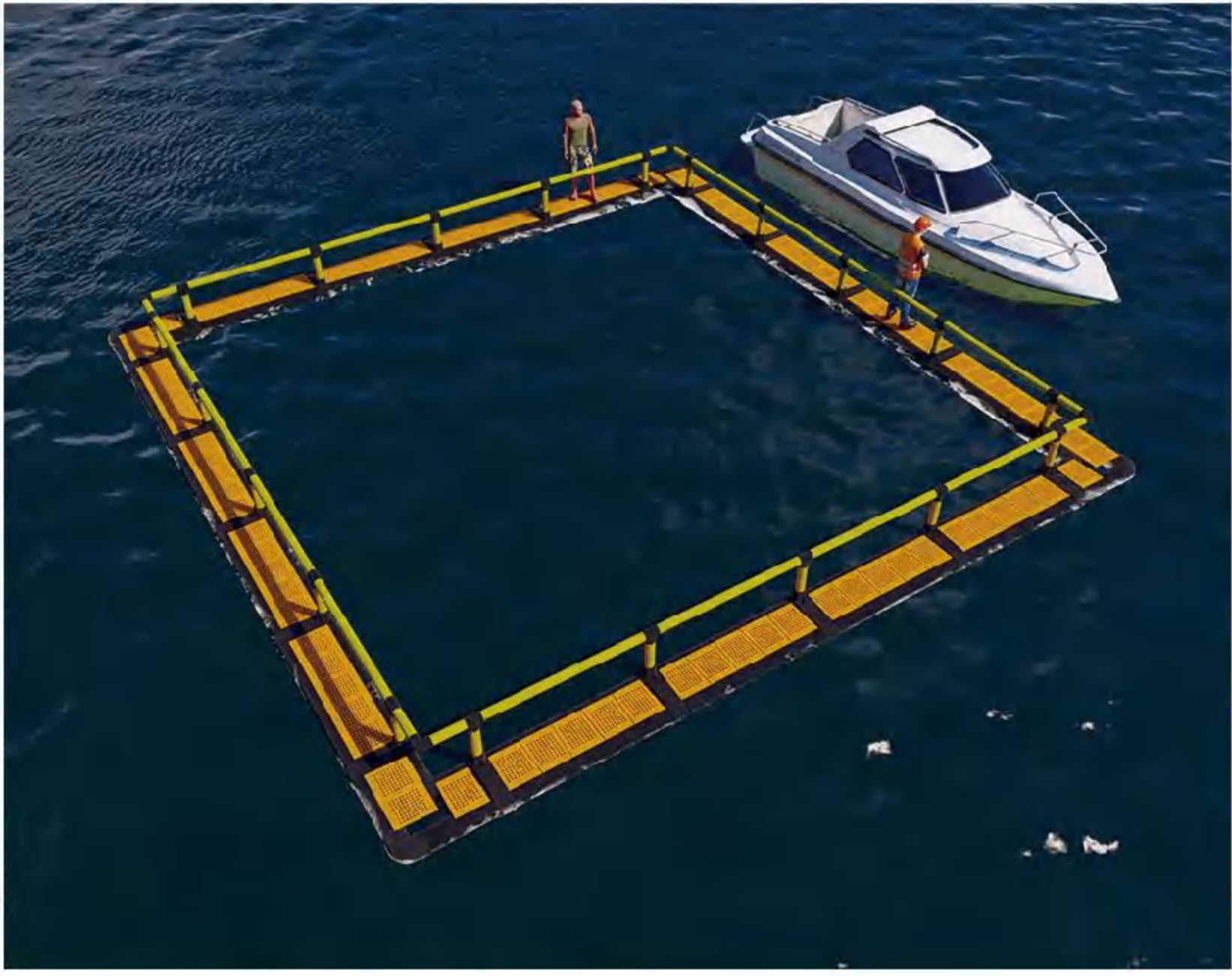
坦桑尼亚 Tanzania fish cage display



青岛国信 Single circular cage



泰国 Thailand assemblage square cage



方形示意图 Single square cage

The performance parameters

性能参数

Lv.12

抗风能力
The wind resistance

最大12级
32.7-36.9m/s

6m

抗浪能力
The wave resistance

最大海面波高6米
Max 6 meters

1.5m/s

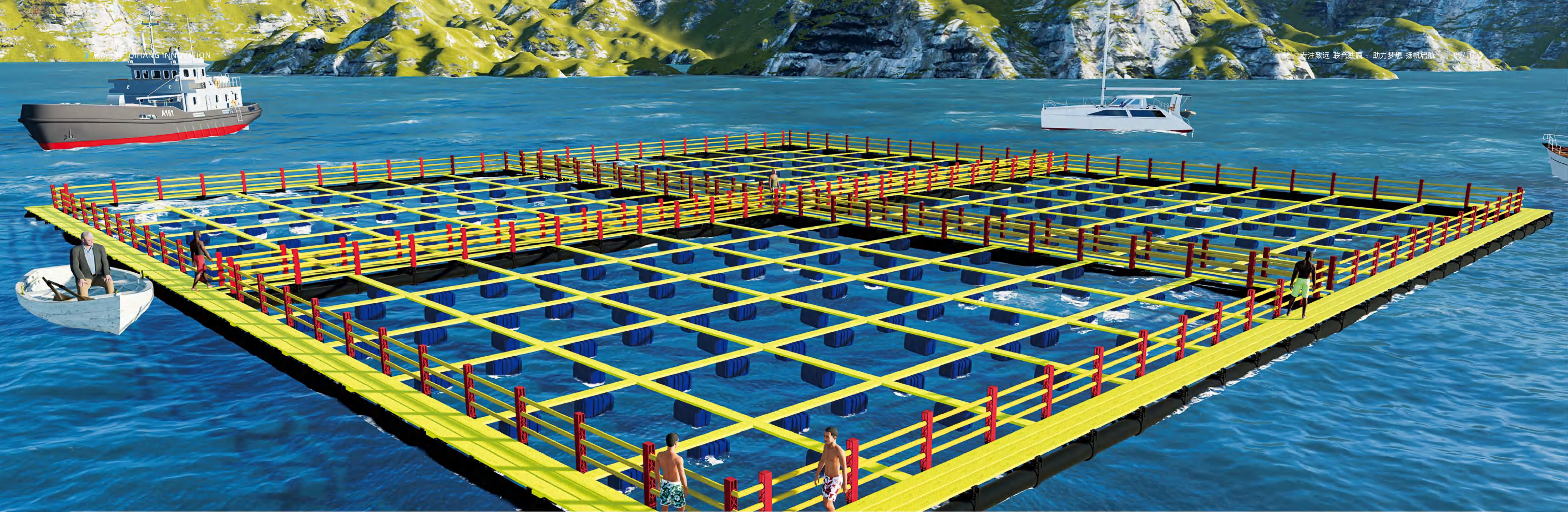
抗流能力
The flow resistance

最大流速1.5米/秒
Max 1.5m/sec

规格型号 Specifications and size

周长 Perimeter	20m-25m	25m-40m	40m-60m	60m-90m	90m-120m	120m-160m	150m-200m	180m-300m
浮力管 Floating pipe specification	Φ160mm	Φ200mm	Φ250mm	Φ315mm	Φ400mm	Φ450mm	Φ500mm	Φ560mm
连接件 Bracket specification	L160型	L200型	L250型	L315型	L400型	L450型	L500型	L560型
扶手管 Handrail pipe specification	Φ75mm	Φ90mm	Φ110mm	Φ110mm	Φ125mm	Φ140mm	Φ160mm	Φ160mm
张网架 Sinker pipe specification	Φ110mm	Φ110mm	Φ125mm	Φ160mm	Φ200mm Φ250mm	Φ250mm Φ315mm	Φ315mm Φ355mm	Φ355mm Φ400mm

可根据用户需求定制 Size can be Customized



HDPE FISH PEN

塑胶渔排网箱



借鉴我国沿海传统渔排养殖模式，公司研制开发了更具抗风浪性的HDPE渔排式方形网箱，在保证其性能的基础上增加了稳定、耐用、环保的特点。根据客户需求，规格有5米×5米、6米×6米、8米×8米、10米×10米等几种规格。

Based on the traditional fish and breeding mode in China's coastal areas, the company developed HDPE fishing cage with more anti-storm and anti-wave , which has the characteristics of stability, durability and environmental protection on the basis of ensuring its performance. Depending on customer requirements. According to customer requirements,the specifications for 5mx5m、6mx6m、8mx8m、10mx10m.

The performance parameters

性能参数

Lv.10

抗风能力
The wind resistance

最大10级
24.5-28.4m/s

3m

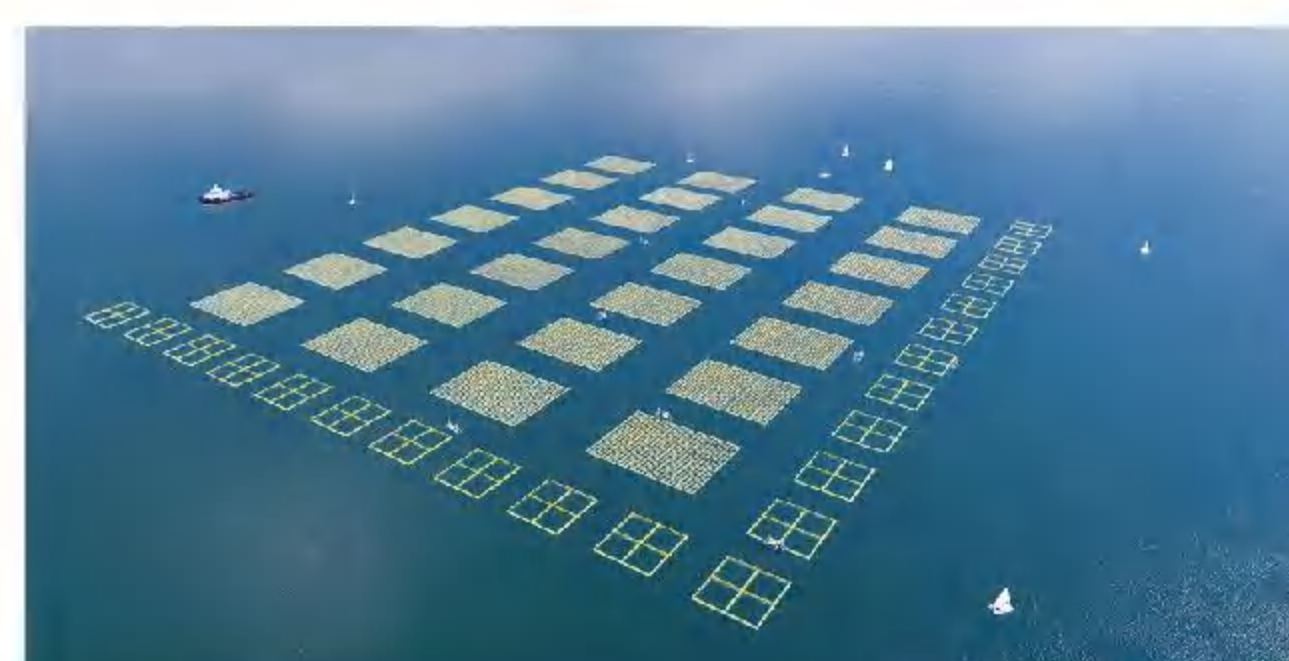
抗浪能力
The wave resistance

最大海面波高3米
Max 3 meters

1.0m/s

抗流能力
The flow resistance

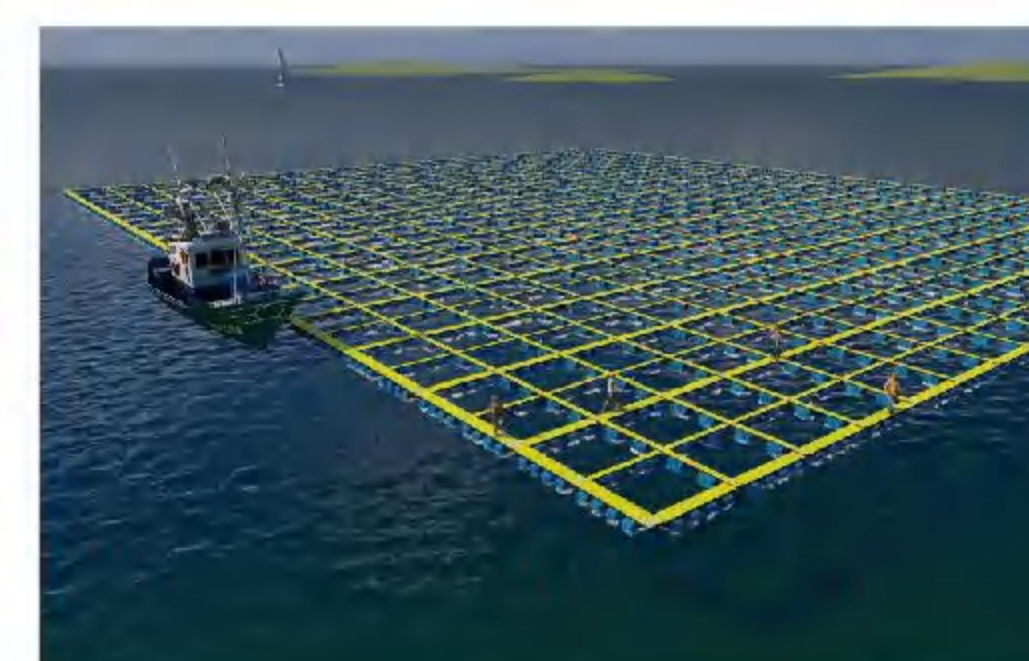
最大流速1.0米/秒
Max 1.0m/sec



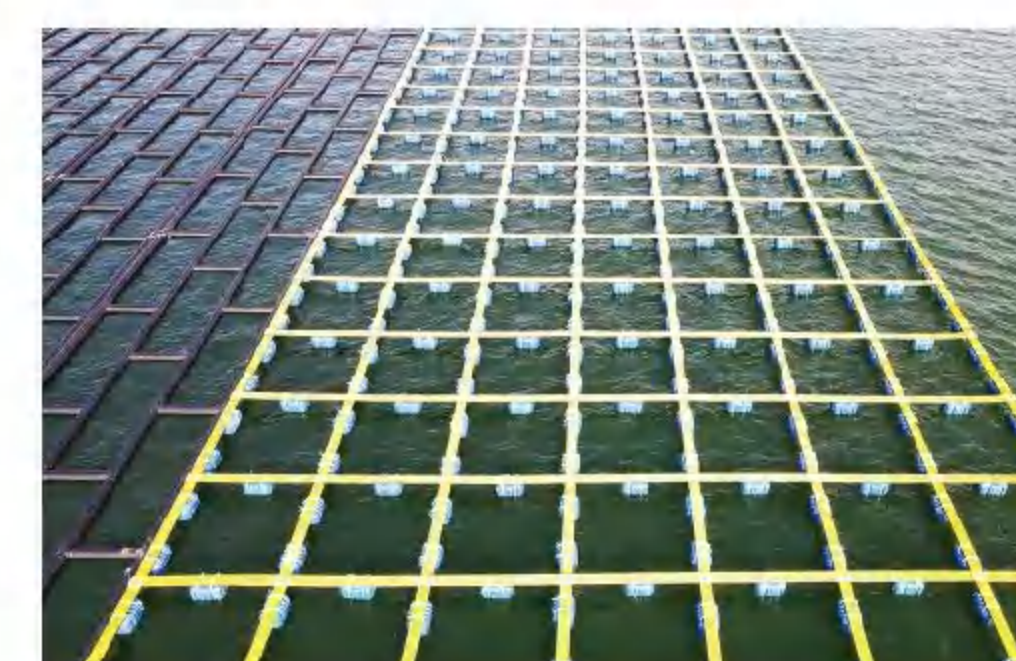
大连黑岛 Heidao Dalian



宁德霞浦 Xiapu Ningde



宁德福鼎 Fuding Ningde



大连瓦房店 Wafangdian Dalian



尼日利亚 Nigeria



巴基斯坦 Pakistan



江西 Jiangxi

LEISURE CAGE

休闲网箱

休闲网箱适合放置在各类旅游区、度假区的水域。利用休闲网箱养殖各种名贵鱼类、观赏鱼和经济鱼类，游人可网箱上赏鱼，垂钓休闲。

Leisure cage is placed in tourism resort waters and can be used to feed a variety of valuable recreational fish, ornamental fish and commercial fish. Visitors can go fishing on the cage.

The performance parameters

性能参数

抗风能力
The wind resistance

Lv.10

最大10级
24.5-28.4m/s

抗浪能力
The wave resistance

3m

最大海面波高3米
Max 3 meters

抗流能力
The flow resistance

**1.0
m/s**

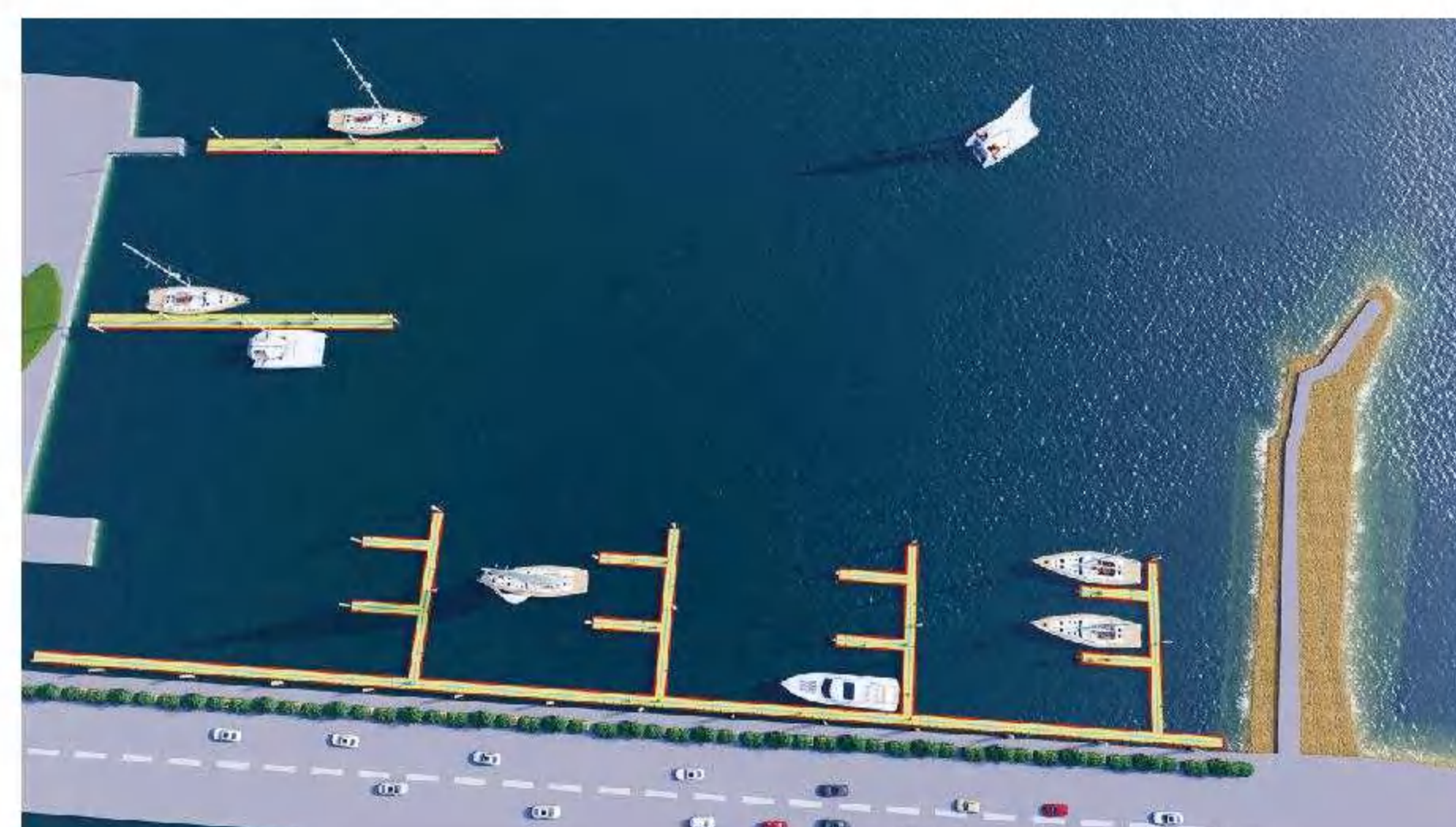
最大流速1.0米/秒
Max 1.0m/sec



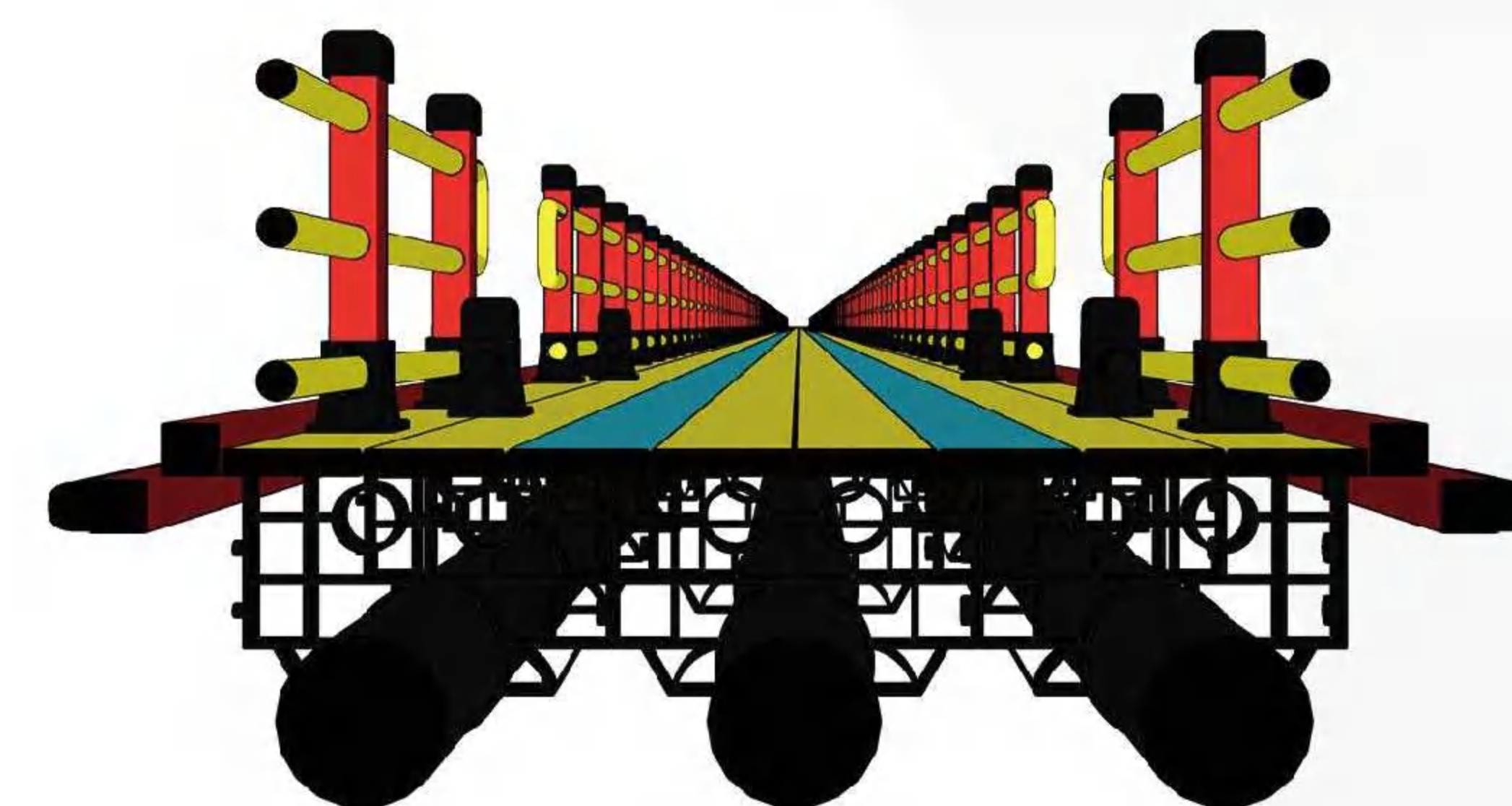
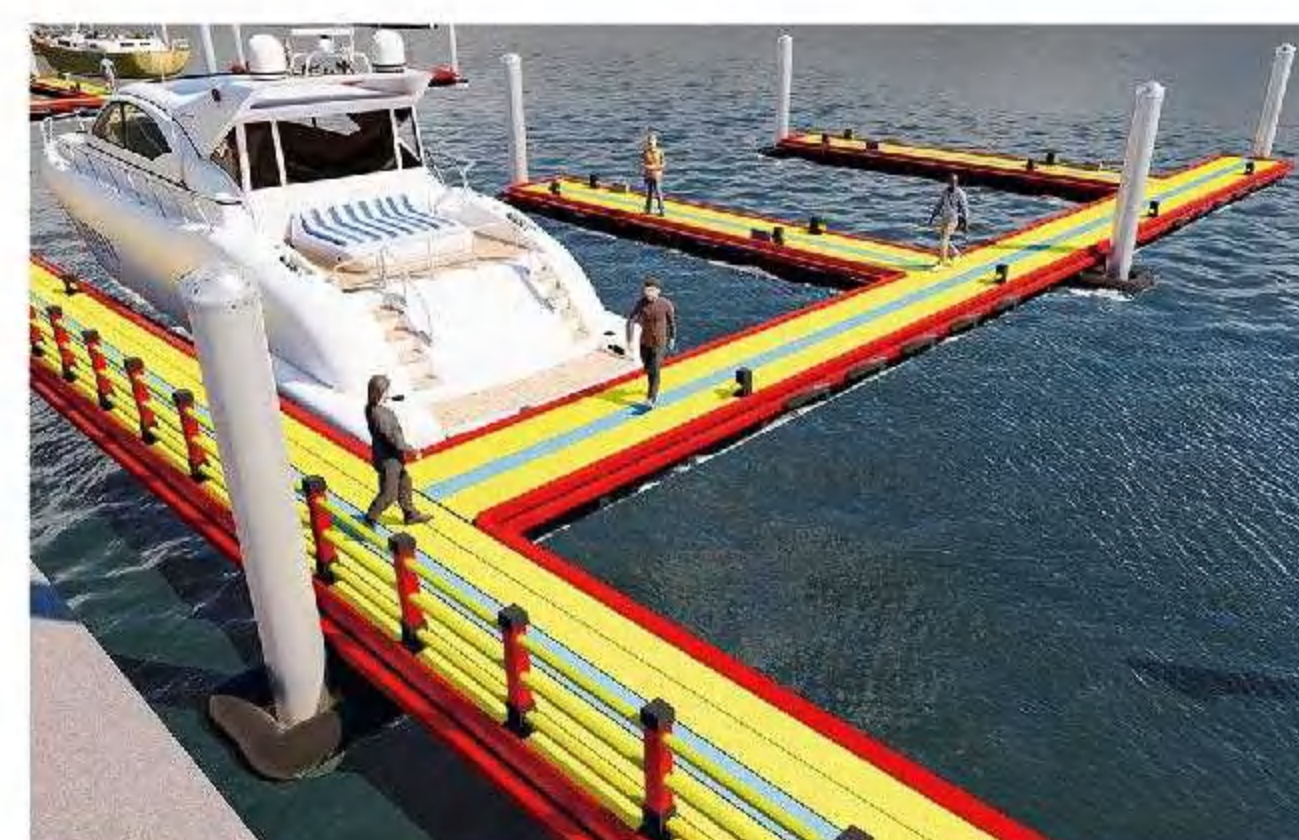
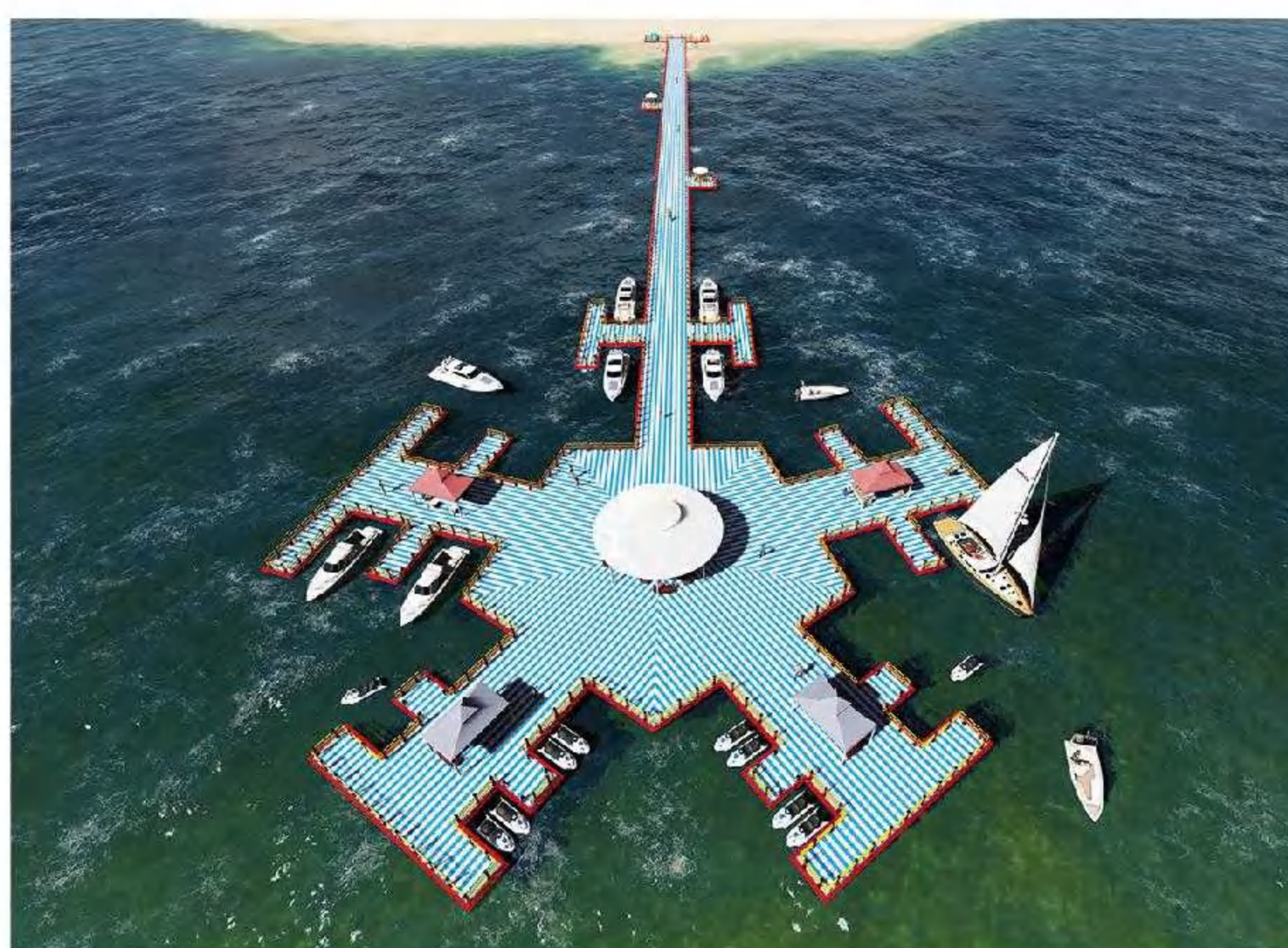
FLOATING DOCK & PIER

浮码头及水上浮桥设施

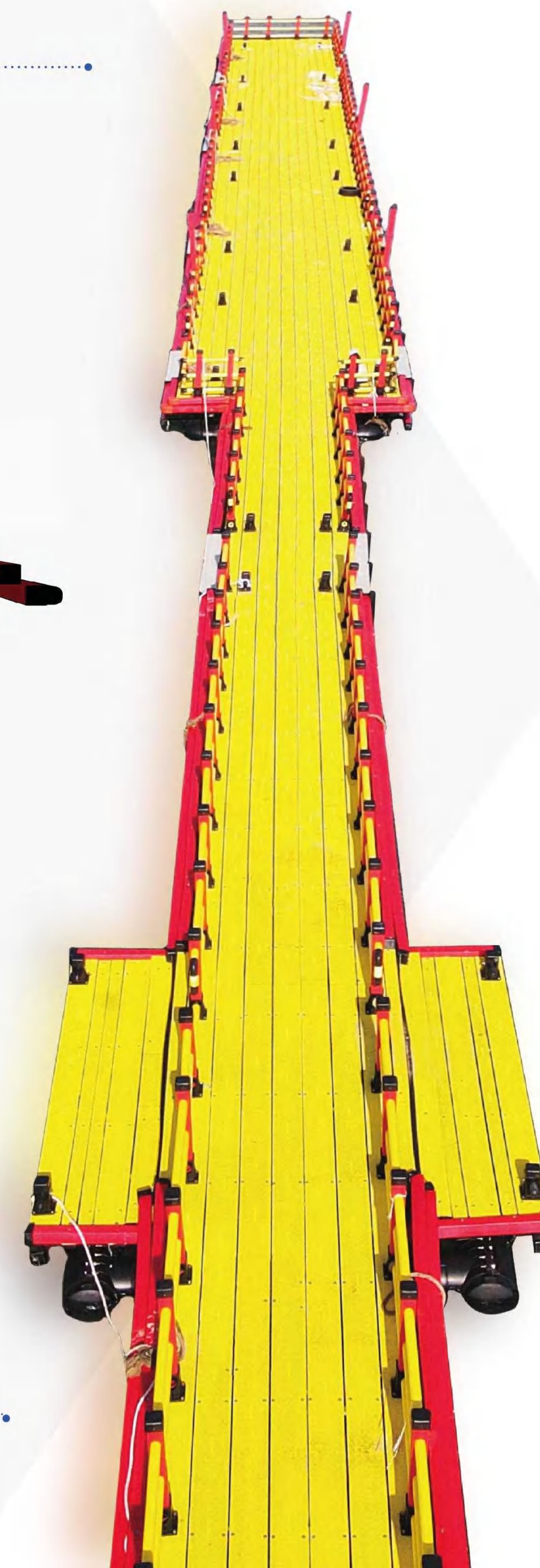
塑胶浮码头及水上浮桥是公司开发的新产品。设施具有抗紫外线、抗老化、抗碰撞、耐海水腐蚀、耐酸碱、材质环保无毒无任何污染、材料可回收等特点。设施美观、组装简易快速、造型多样化等优点。我公司设计的浮码头及浮桥设施由高密度聚乙烯材料制成，具有足够的硬度及韧性、便于各种船只固泊停靠、能经受自然环境变化和海浪侵袭，具备抗风浪效果。我们可以根据客户实际需求进行规划、设计和施工，为客户定制各种船艇停靠浮码头、水上浮桥等不同用途的水上建设工程。



Plastic floating dock and pier are new products developed by the company. The facility has the characteristics of anti-ultraviolet, anti-aging, anti-collision, anti-seawater corrosion, anti-acid and alkali resistance, environmental protection, non-toxic and no pollution, and recyclable materials. The facilities are beautiful, simple and rapid assembly, modeling and have other advantages. The floating dock and pontoon facilities designed by our company are made of high-density polyethylene material, which has sufficient hardness and toughness, is convenient for all kinds of ships to anchor, and can withstand the natural environment change and wave attack, and has the effect of anti-wave. We can plan, design and construct according to the actual needs of customers, and customize various floating docks, floating Bridges and other water construction projects for different uses.



剖面结构图
Sectional structure diagram



FLOATING LEISURE PLATFORM 水上休闲平台

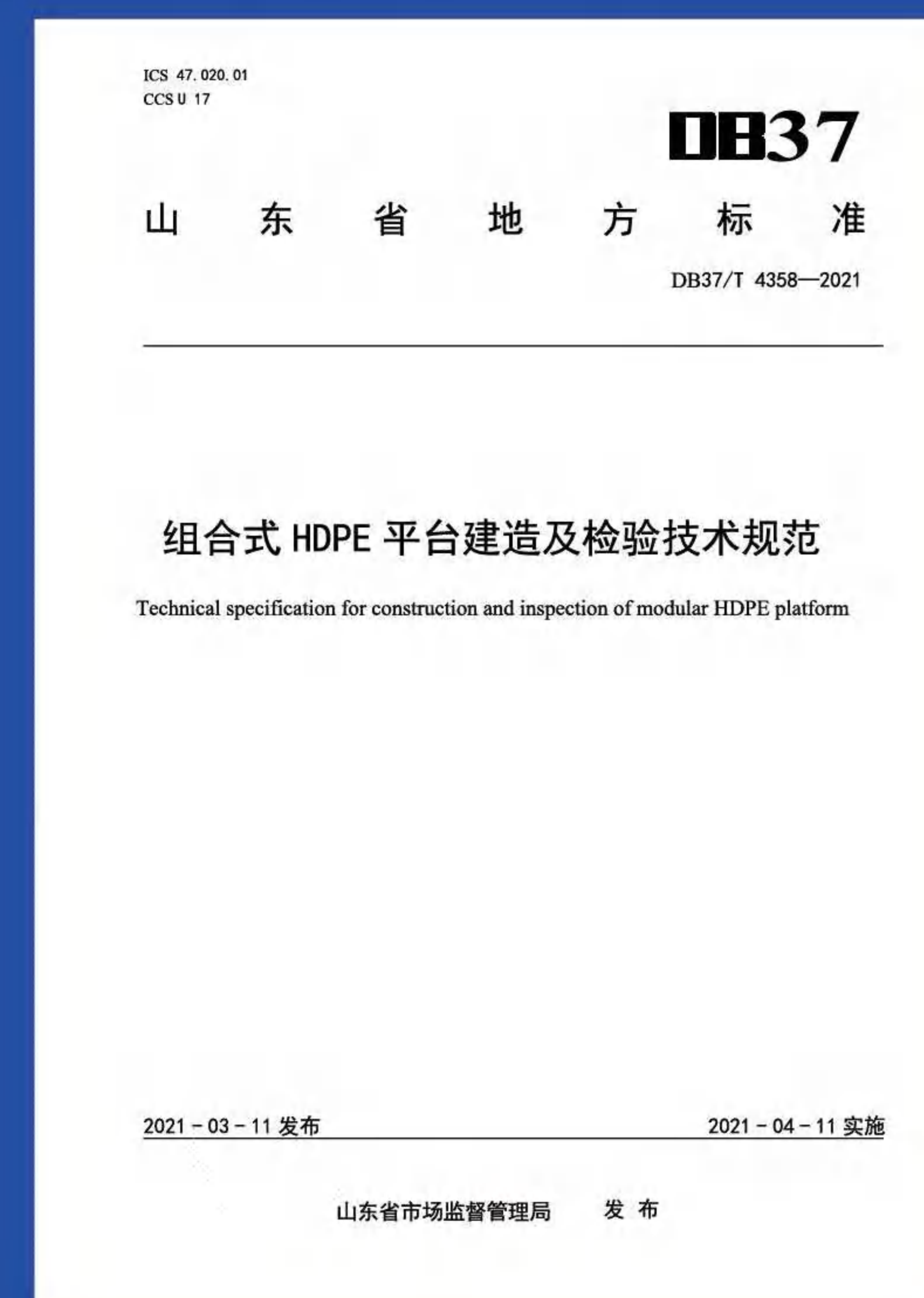
休闲旅游是旅游发展过程中的中高级阶段，而我国沿海地区优美的生态环境和独特的海岛旅游资源丰厚，为开发多样化的休闲度假旅游产品提供了得天独厚的条件。

公司开发的水上休闲平台按照水上浮岛理念设计，通过“游、娱、食、宿、赏、钓、放、赛”等多种形式，打造集“休闲观光、竞技垂钓、海洋采摘、食宿赏娱”功能于一体的水上休闲旅游体验平台。水上休闲平台依托海洋牧场，将滨海岸线资源、海上资源、岛屿资源有机结合起来，推进海洋旅游从近岸向海上转移、从观海向亲海延伸。公司具有超前理念的设计并运用先进的技术，根据客户的需求和海陆两边合理的规划，提供良好的设计，专业的施工团队为客户打造专属的水上平台。

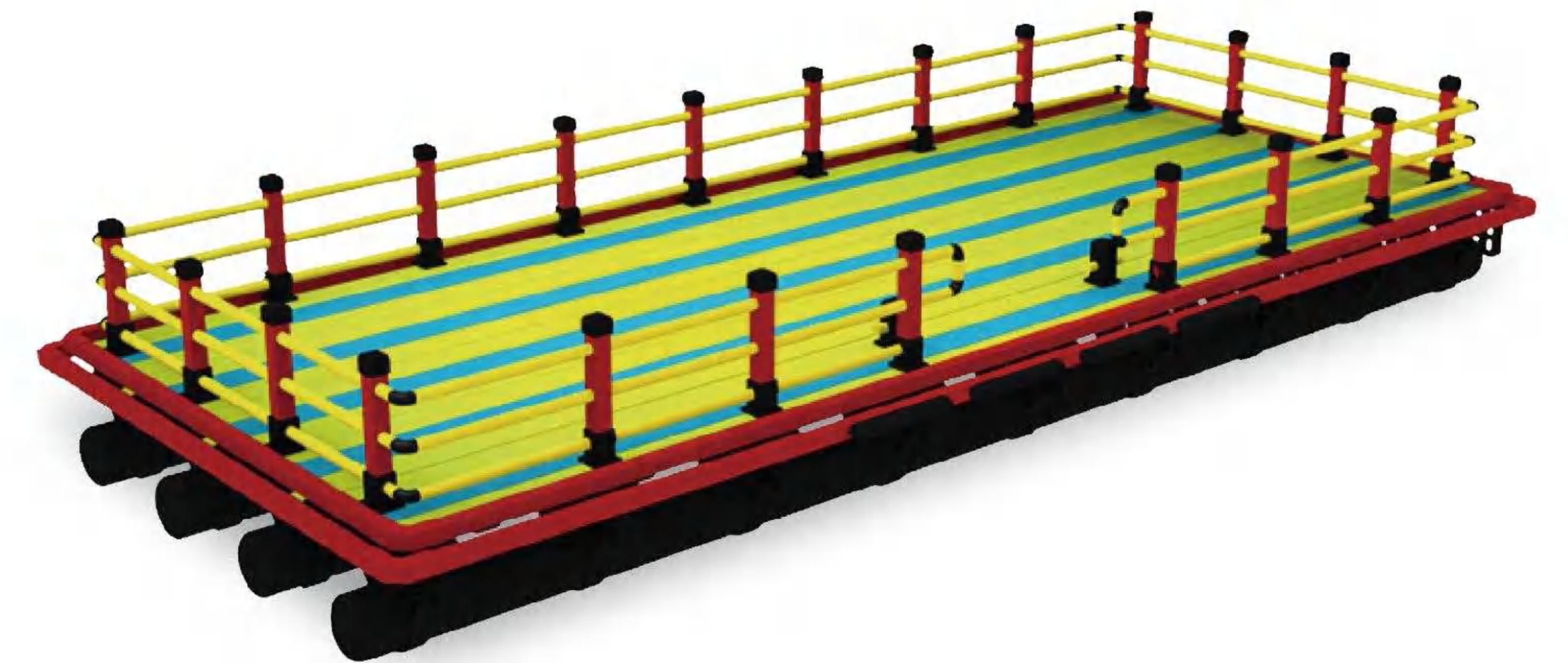
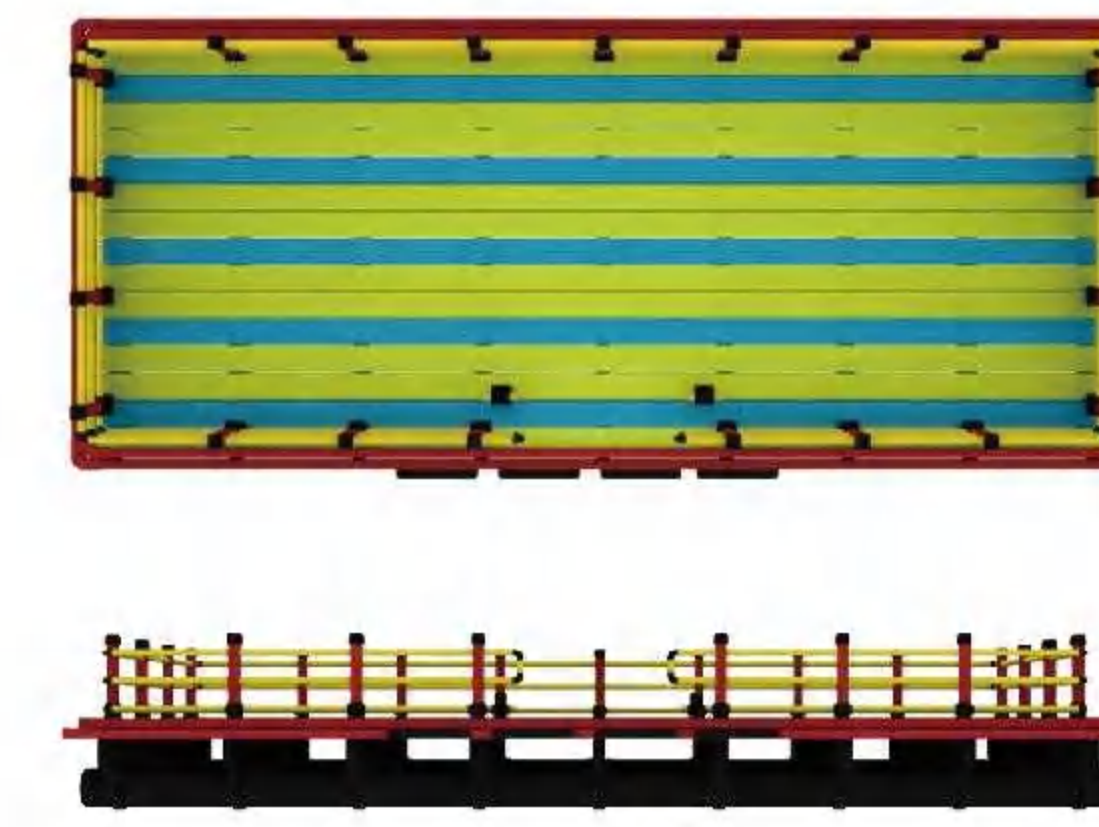


Combined HDPE platform construction and inspection technical specifications"Leisure tourism is the advanced stage in the process of tourism development, and beautiful ecological environment in coastal regions and unique island tourist resources are rich, for the development of a variety of leisure tourism product has provided the advantageous condition. Marine leisure platform used for the development of the company in accordance with the maritime floating island concept design, through the "tour, entertainment, food, accommodation, viewing, fishing, breeding, game" a variety of forms, such as building sets "leisure sightseeing, sport fishing and Marine harvest, accommodation to watch entertainment" function in the integration of leisure tourism experience platform at sea. Marine leisure platform based on the ranch, coastal shoreline resources. Marine resources, islands of the organic combination of resources, promote the Marine tourism from near shore off to sea, from the view of the sea to the far sea. Company has advanced the idea of design and use of advanced technology, according to the customer's requirements, and on both sides of the land and sea and reasonable planning, provide the good design, professional construction team for the customer to build their own platform.

我司主导并起草国内首个HDPE平台地方标准
Our company led and drafted the first domestic HDPE platform local standard



Floating platform 水上浮动平台



抗风能力
The wind resistance

Lv.11

最大11级
28.5-32.6m/s

抗浪能力
The wave resistance

3m

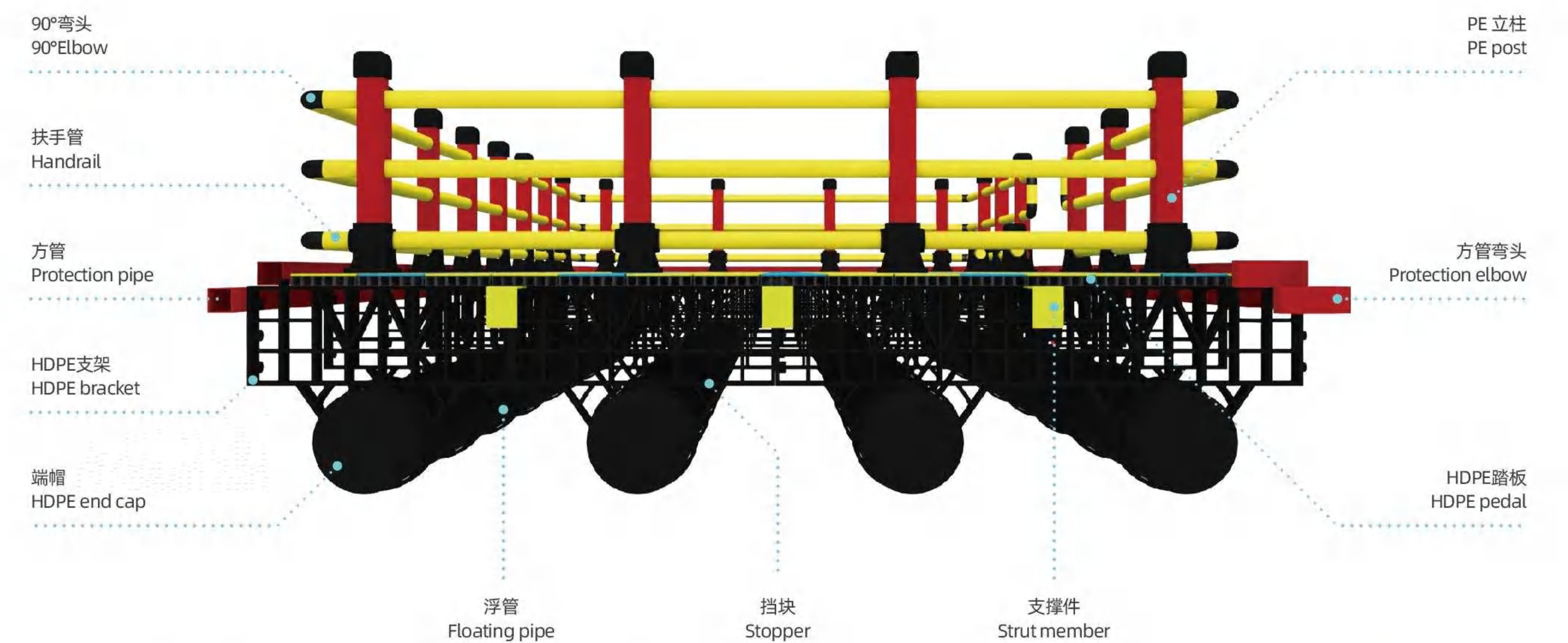
最大海面波高3米
Max 3 meters

抗流能力
The flow resistance

1.5 m/s

最大流速1.5米/秒
Max 1.5m/sec

主要部件 Key components



平台连接件
HDPE bracket

400A 500A 600A 800A



HDPE 管材
HDPE pipe

400A 500A 600A 800A



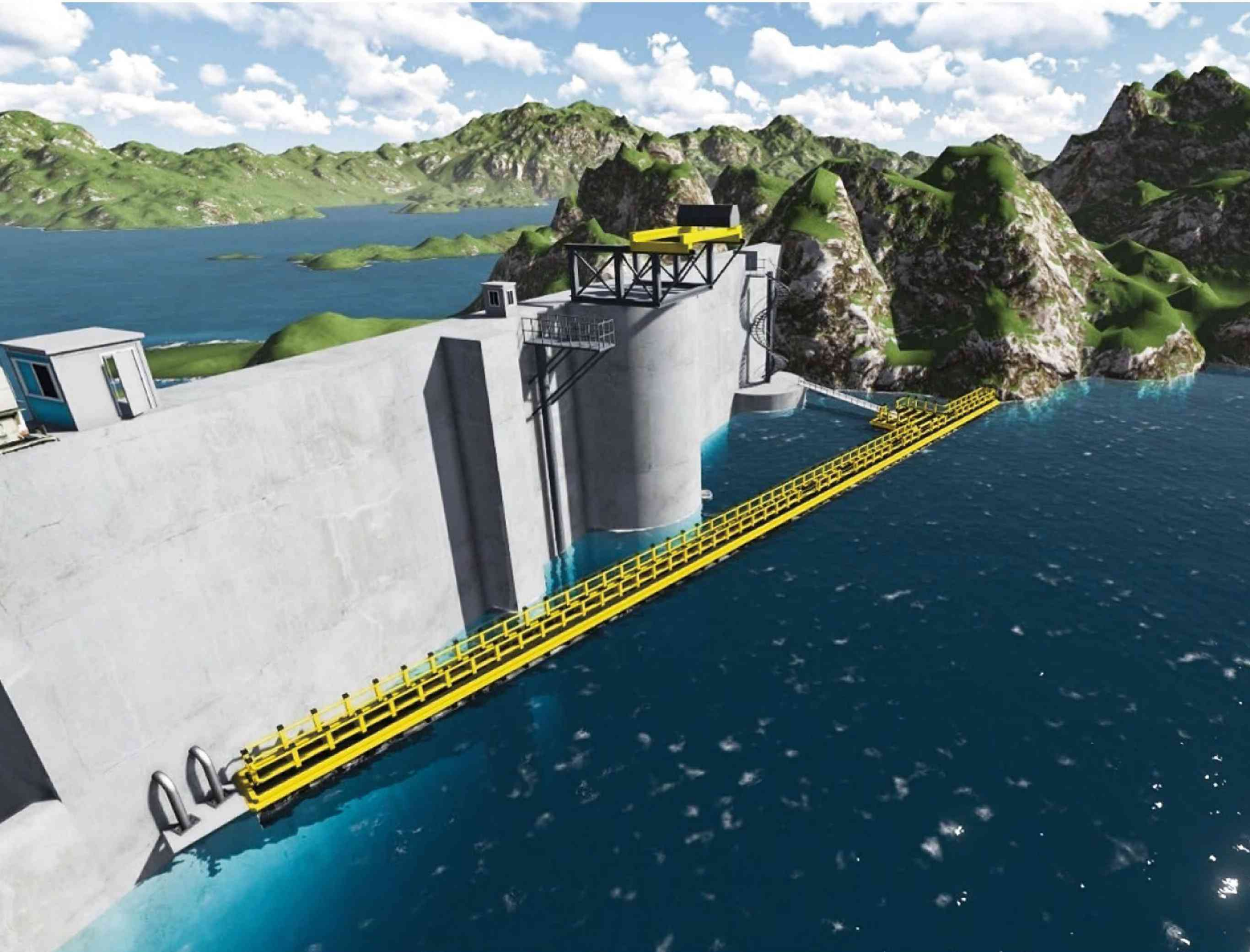
HDPE 端帽
HDPE end cap

400A 500A 600A 800A



HDPE 踏板
HDPE pedal

320X60 150X60 400X75



FLOATING GARBAGE INTERCEPTOR FACILITIES

垃圾拦截装置

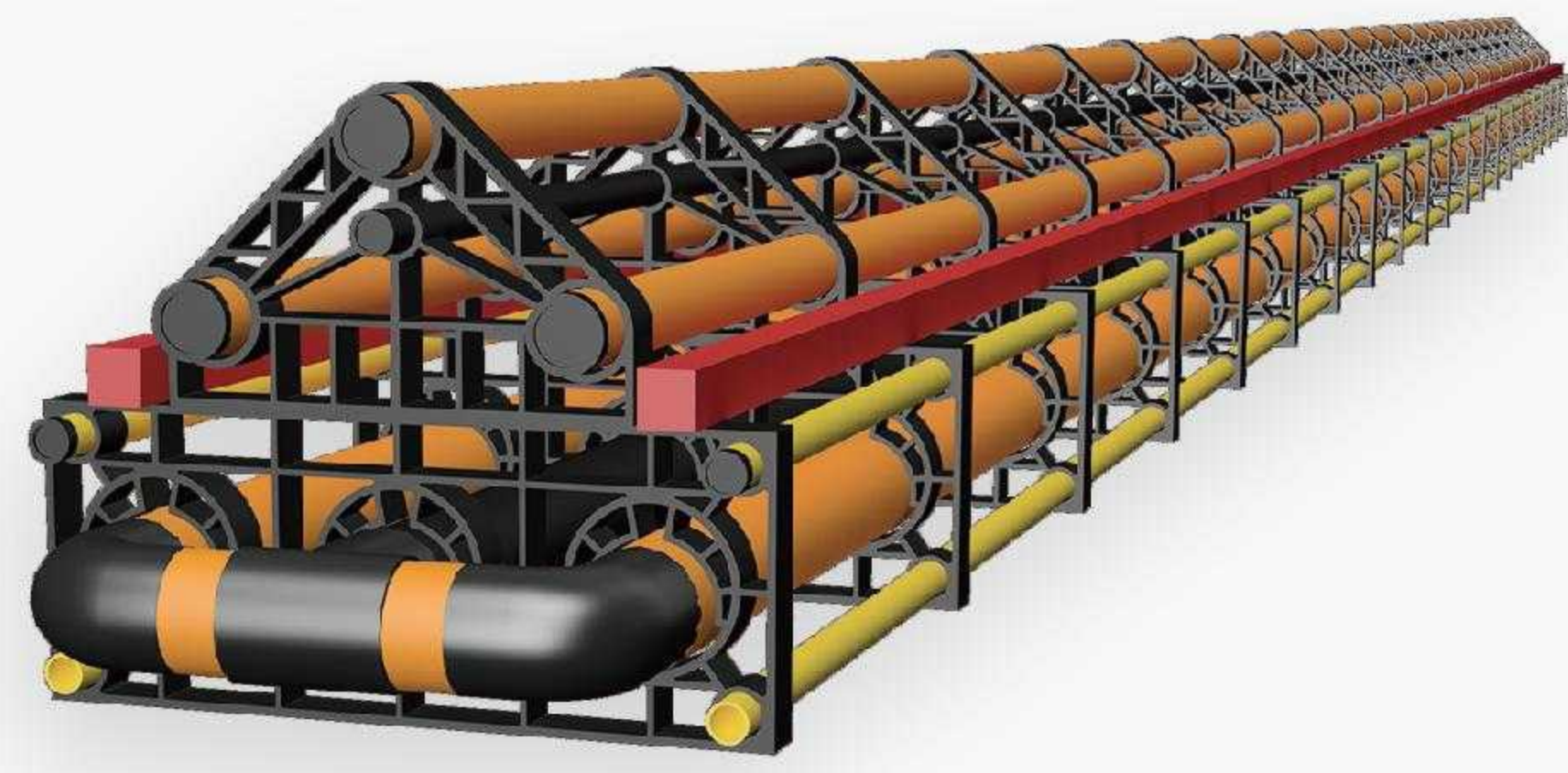
公司通过专有技术将漂浮式拦截装置固定在水库、河流、海洋等各类水域水面上，外形类似于人工海岸线，对水域表层垃圾进行初步拦截、收集，再进行集中处理。同时，可在拦截装置上增设额外浮力系统、快速对接系统、收集汇流系统等，因地制宜，独有设计。

The company fixed the HDPE floating interceptor on the water surface of reservoirs, rivers, oceans and other waters through proprietary technology, similar to the artificial coastline, the water surface garbage for preliminary interception, collection, and then centralized treatment. At the same time, additional buoyancy system, rapid connected system, collection and confluence system can be added to the interception device, which is uniquely designed according to local conditions.

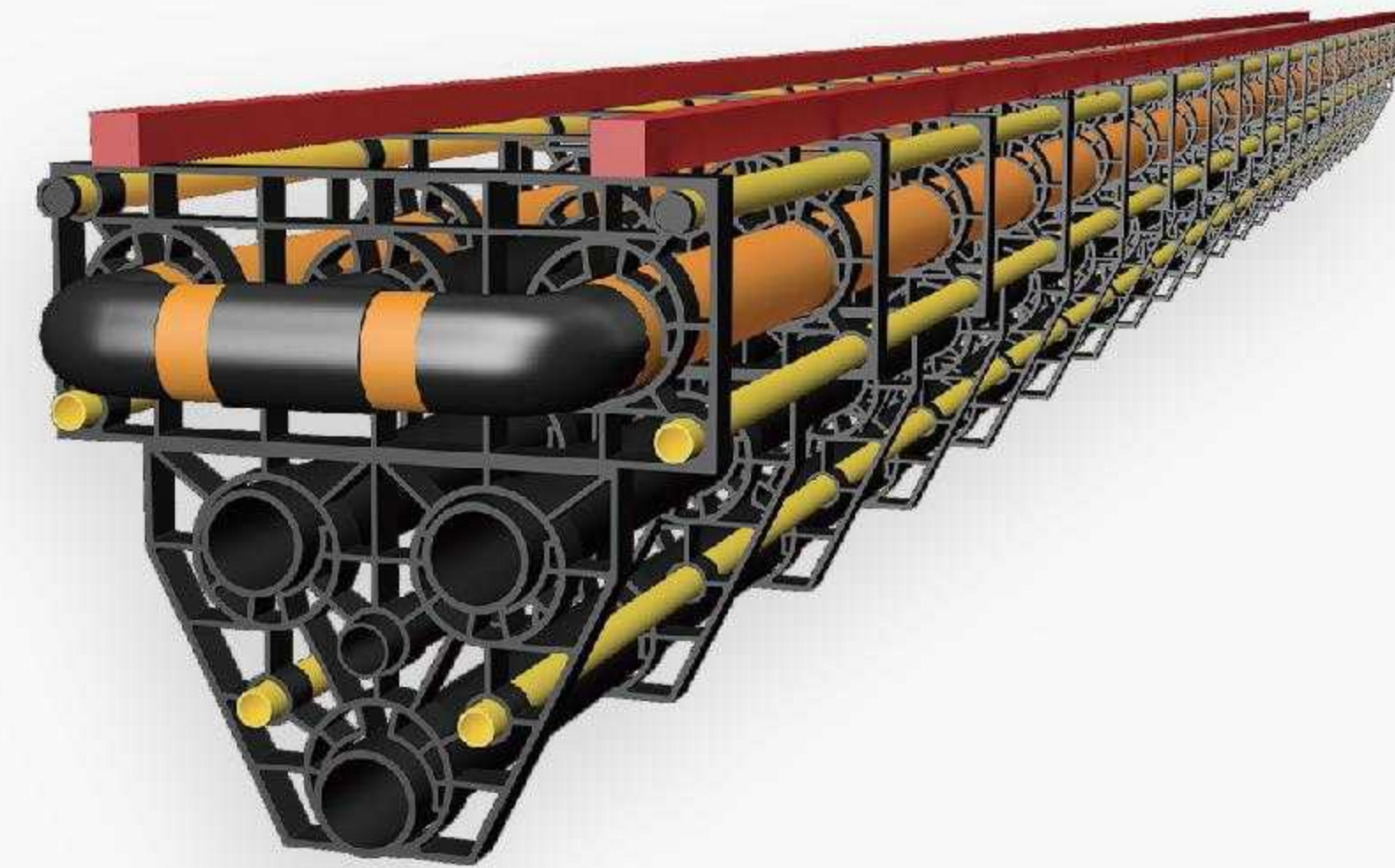


HDPE FLOATING BREAKWATER FACILITY

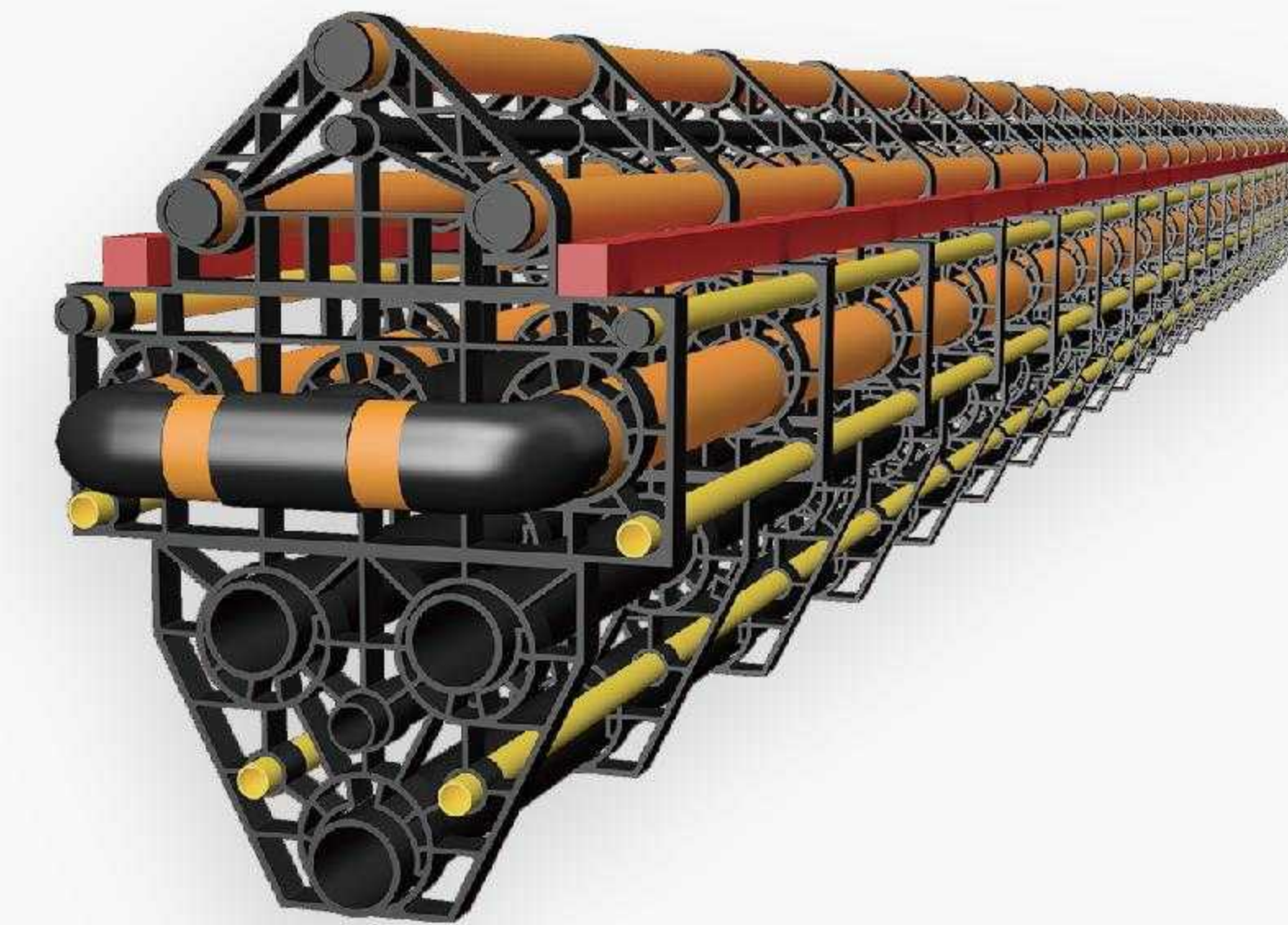
浮式防波堤



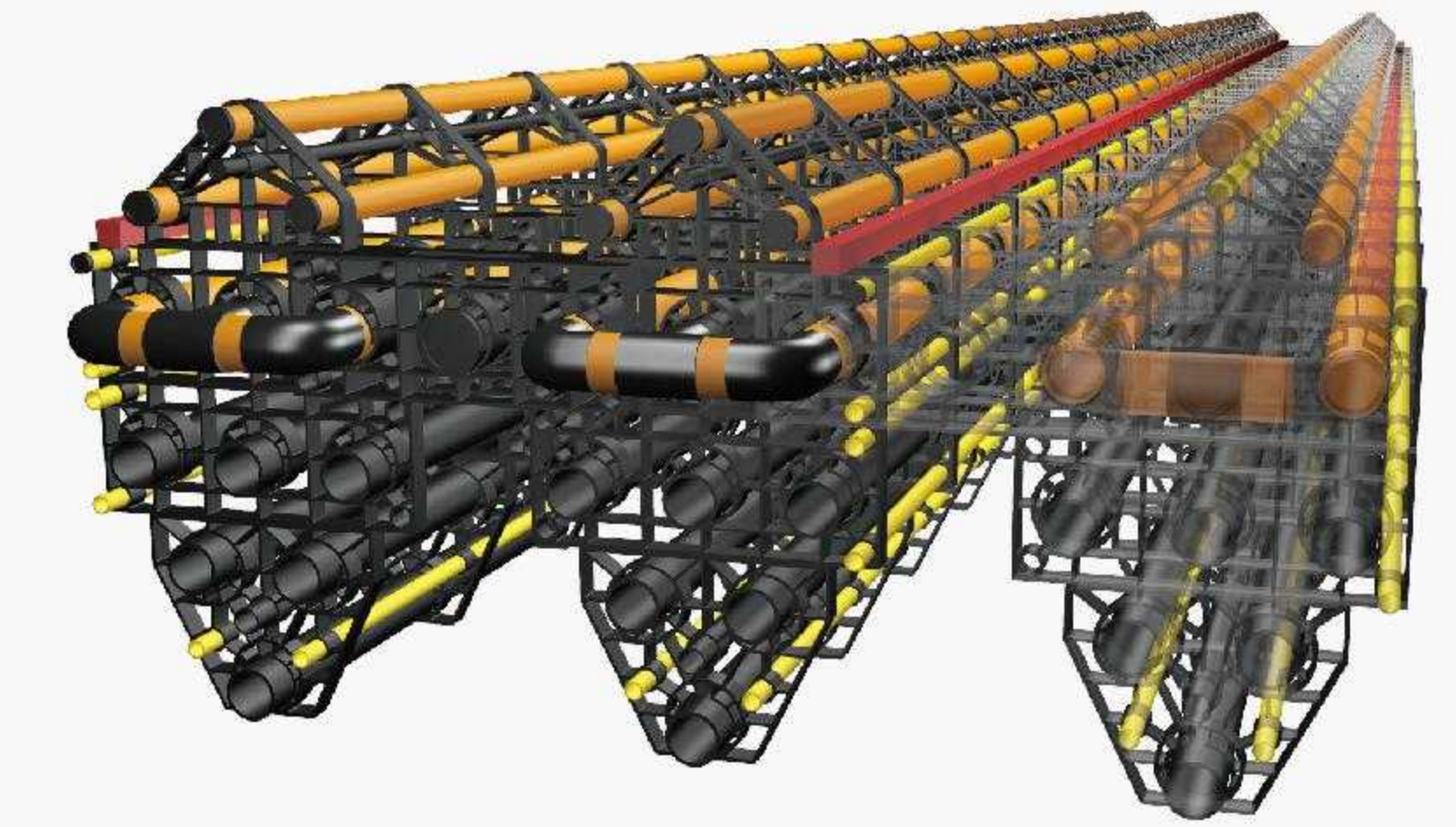
A 适用于表层浪、碎浪海域
Suitable for surface waves and broken waves



B 适用于有减流需求海域
Suitable for sea area with reduced flow demand



C 适用于轻微风浪、涌浪、混合浪海域
Suitable for small waves, swell waves, mixed waves sea area



D 适用于较为恶劣风浪、涌浪、混合浪海域，同时适用于对减浪、减流有较高需求的海域，例如游艇码头、水上乐园等，可根据海域条件设计双排、多排及多排组合等。

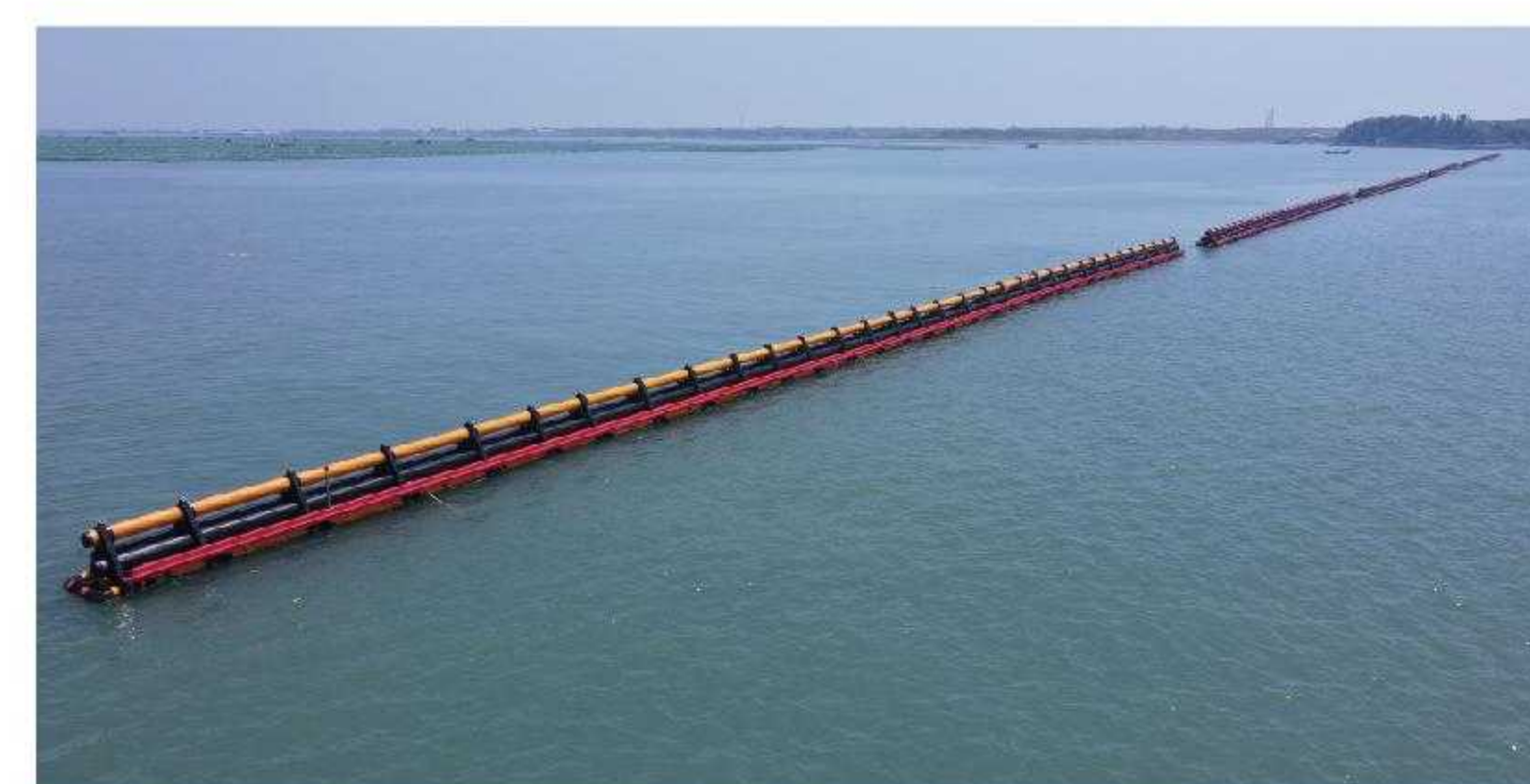
Suitable for severe waves, swell and mixed wave waters, and also suitable for sea areas with high demand for wave and flow reduction, such as yacht wharf, water park, etc. Double rows, multi-rows and multi-rows combination can be designed according to sea conditions.

Four typical designs for different sea areas
针对不同海域公司有以上4种典型设计

公司研发的浮式防波堤系列运用了模块化设计理念，可根据不同海域的水文条件，因地制宜设计组合。

The HDPE floating breakwater facility series developed by the company uses the modular design concept, which can be designed according to the hydrological conditions of different sea areas.

- 取得国内首家浮式防波堤发明专利
The first HDPE floating breakwater invention patent in China
- 承建国内首家浮式防波堤落地项目
China's first HDPE floating breakwater facility project finished
- 客户反馈实际应用挡浪减流效果显著
Customer feedback the actual breakwater effect is remarkable



The performance parameters

性能参数

Lv. 11

抗风能力
The wind resistance

最大11级
28.5-32.6m/s

5m

抗浪能力
The wave resistance

最大海面波高5米
Max 5 meters

1.5m/s

抗流能力
The flow resistance

最大流速1.5米/秒
Max 1.5m/sec

70%

减波率
Wave reduction rate

最大减波率70%
Max 70%



FLOATING SEA CUCUMBER & ABALONE CAGE

浮式海参、鲍鱼网箱

借鉴我国沿海传统渔排养殖模式，公司研制开发了更具抗风浪性能且适合海参、鲍鱼养殖的HDPE型渔排式网箱。

Drawing lessons from the traditional fishing pot cultivation mode along the coast of our country, the company developed the HDPE cage, which is of stronger ability to resist wind and wave and suits the cultivation of sea cucumber and abalone.



优势 Advantages

1

渔排式网箱骨架及踏板均采用HDPE材料。利用这种材料良好的柔性与刚性的结合，再加上公司合理的力学、结构学设计，使渔排网箱整体更加牢固、安全性更高，抗风浪性能更好。

Both cage frame and walkway adopt HDPE material. The desirable combination of the flexibility and rigidity of this material and the reasonable mechanical and structural design of the company make the whole cage firmer, safer, and stronger in the ability to resist wind and wave.

2

公司设计开发的海参、鲍鱼附着基能给海参、鲍鱼提供良好安全的栖息环境、从而促进海参、鲍鱼的健康生长。

The sea cucumber and abalone attaching bases designed and developed by the company can provide good and safe habitat for sea cucumbers and abalones, thus promoting the healthy growth of sea cucumbers and abalones.

3

网箱大小设计更加人性化、操作简单，使用方便。

The net cage is designed to be more humanized in size, easy to operate and convenient for use.

4

响应国家节能减排号召，渔排式网箱材料采用环保型HDPE材料，使用寿命长，无污染均可回收再利用。

In response to the state call of energy conservation and emission reduction, cage uses environment-friendly HDPE material, which has long service life, is less pollution and can be recycled and reused.

MARINE PHOTOVOLTAIC

海上光伏



海上光伏发电利用光伏技术建立起发电站，具有发电量大、土地占用少、易与其它产业相结合等特点。海洋光伏相较陆上光伏，具有天然的环境优势：水面开阔没有遮挡物，日照较长且利用充分；水的蒸发冷却可降低光伏组件工作温度，从而提高组件工作效率，发电效率较陆地光伏高5%-10%。

海上光伏电站的建设，有利于发展清洁能源，促进可持续发展。可以和海上风电站形成“风光互补”，实现风光储同场，也可以“渔光互补”开展海上养殖，充分利用海域资源，同时不污染水环境，具有良好的经济和社会效益。

相较于内陆水面已有的多种浮桶漂浮系统，我公司研发的HDPE光伏支架能够提供更高的稳定性和更强的抗风浪能力。光伏系统包含光伏板及附属设施、HDPE浮力管、光伏支架和运维踏板等。光伏板支撑部分呈5-20°倾斜角，能够接受到更充足的光照时间。

Marine photovoltaic power generation uses photovoltaic technology to build power stations with high power generation, less land occupation, easy to combine with other industries and other characteristics. Compared with land-based photovoltaics, Marine photovoltaics have natural environmental advantages: open water surface without shelter, longer sunshine and full utilization; Evaporative cooling of water can reduce the working temperature of photovoltaic modules, thus improving the working efficiency of photovoltaic modules. The power generation efficiency is 5%-10% higher than that of land-based photovoltaic modules.

The construction of marine photovoltaic power stations is conducive to the development of clean energy and sustainable development. It can form "wind-solar complementarity" with marine wind power stations to realize the same wind-landscape storage field. It can also carry out Marine aquaculture "farm-solar complementarity" to make full use of Marine resources without polluting the water environment, which has good economic and social benefits.

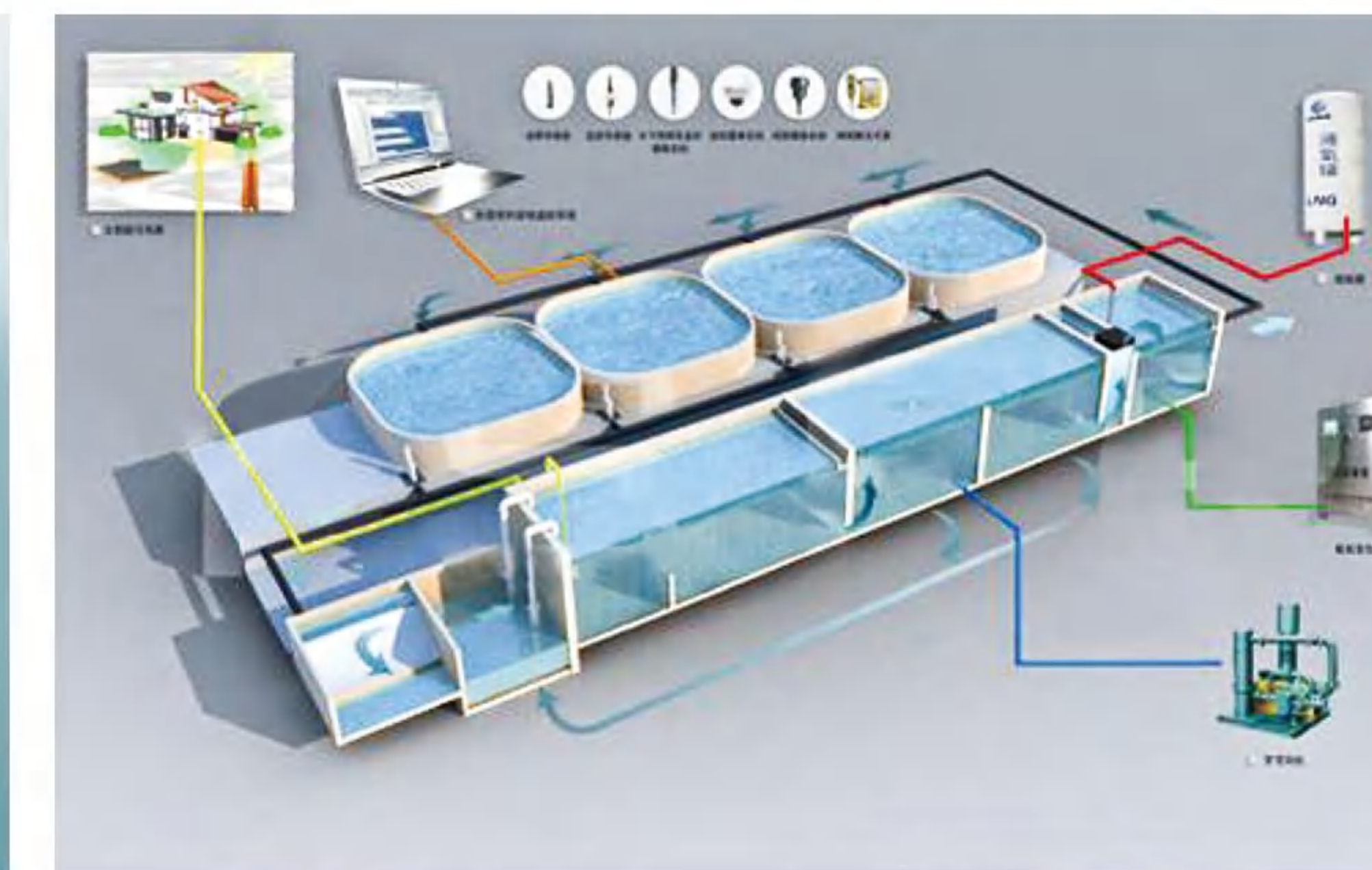
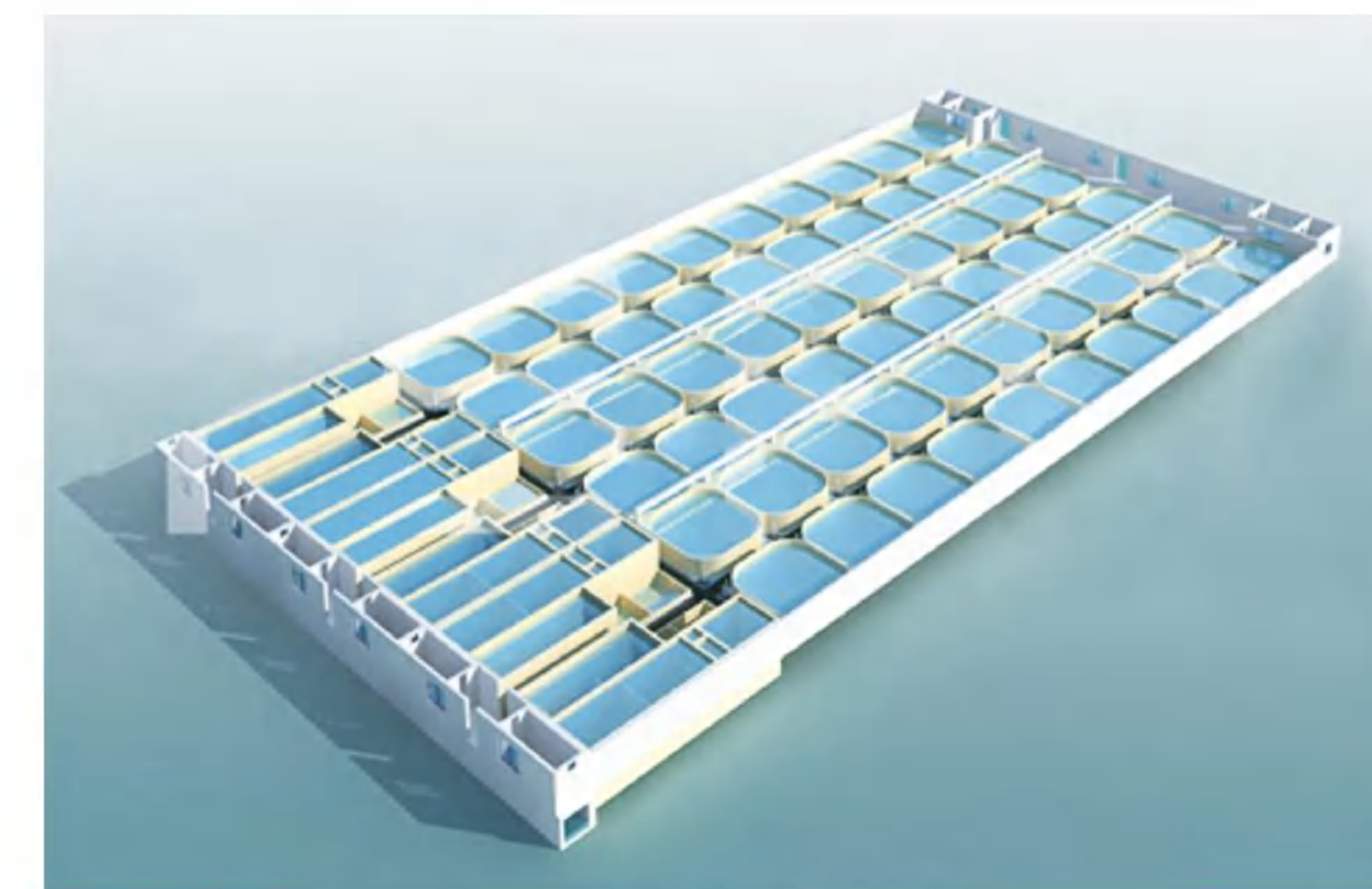
Our HDPE photovoltaic bracket provides higher stability and greater resistance to wind and waves than the many types flotation systems available on fresh water.

The photovoltaic system includes photovoltaic panels and ancillary facilities, HDPE floating pipes, HDPE bracket and maintenance pedals. The support part of the HDPE bracket presents a tilt Angle of 5°-20°, which can receive more adequate light time.

“风光同场”一体化项目，单个浮体单元装机容量250千瓦，由环形抗风浪浮体、耐海洋环境的高强薄膜、光伏系统等组成。

The integrated project of "wind-solar complementarity" has an installed capacity of 250 kW for a single floating cage which is composed of annular wave-resistant floating cage, high-strength film resistant to Marine environment, photovoltaic system, etc.





循环水养殖系统(RAS)是一种在全人工控制条件下的水产养殖生产，是养殖生产的工业化，其基本上不受自然条件限制，可以根据需要在任何地点建场，可以实现养殖水温可控、养殖水质保证，生产过程机械化、生产管理程序化的水产养殖生产系统。

是渔业生产中工业技术应用水平最高的生产方式，具有节地、节水、节能增效的特点。是未来水产养殖业实现跨越式可持续发展的必由之路。

我们公司从事水产行业多年，并长期与中国水产科学研究院黄海水产研究所合作，可承接各种循环水养殖系统的设计与建造，同时可提供各种循环水养殖设备及技术服务。

Recirculating aquaculture system(RAS) is a full manual control under the condition of aquaculture production, and industrialized aquaculture production,it is basically not restricted by natural conditions, car be available in any place according to customer requirement, and can achieve the water temperature controlled and aquaculture water quality assurance, production process of the program's aquaculture production mechanization production management system. RAS is in the highest level of industrial technology application of aquacluture mode, And it has the characteristics of the section to save land, water, and energy efficiency, and it is the only way for the future aquaculture industry to achieve sustainable development by leaps and bounds.

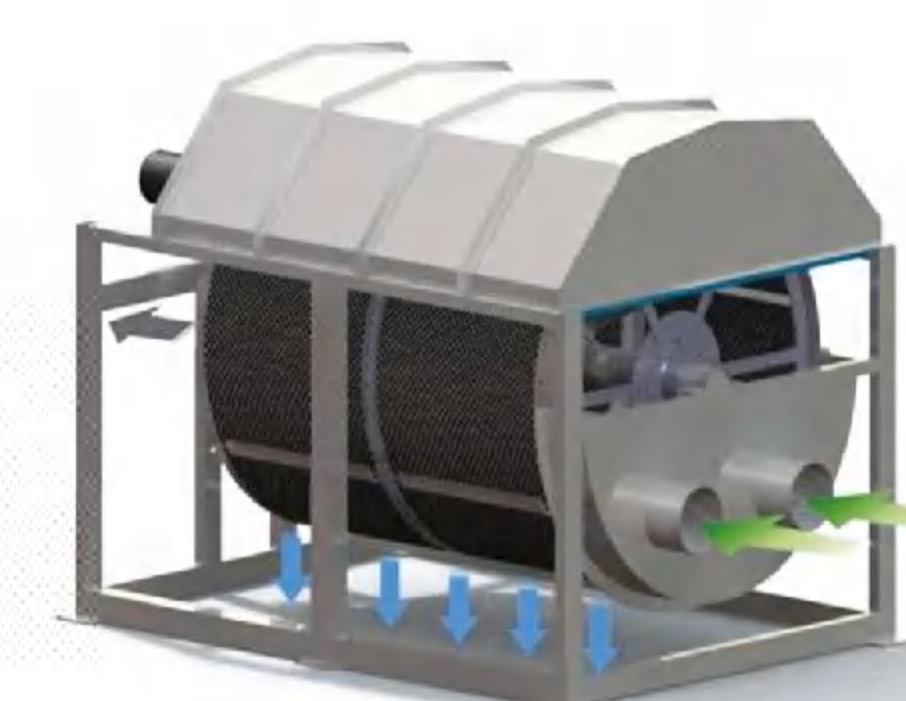
Our company has been in aguaculture for many years and has built a long-term cooperation with Yellow Sea Fisheries Research institute (YSFRI),Chinese Academy of Fishery Sciences (CAFS).Now we can design and install RAS ,at the same time we can provide all products about RAS and after-sales service.



承压式沙滤
Pressure sand filter tank



UV杀菌器
UV sterilizer



微滤机
Microfilter



臭氧机
Ozonizer



蛋白质分离器
Protein separator



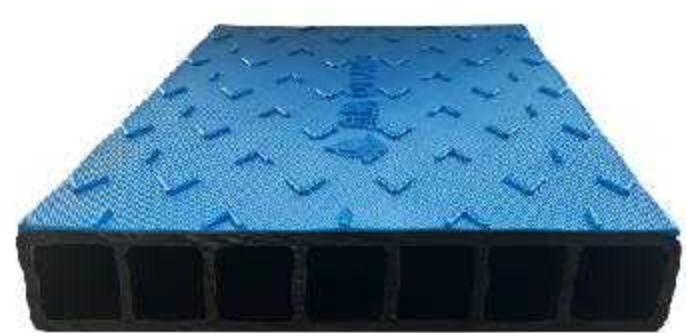
RECIRCULATING AQUACUAURN SYSTEM

循环水养殖系统(RAS)

CAGE FITTINGS & AUTOMATIC FARMING EQUIPMENT

网箱产品配件及配套养殖设备

框架组成部件



塑胶踏板
HDPE Pedal 150mm/320mm/400mm



塑胶踏板
PP Pedal



塑胶踏板
PE Walkway



L30-1 连接件
L30-1 Rotation Bracket



L315-1 连接件
L315-1 Rotation Bracket



T20-2 连接件
T20-2 Rotation Bracket



H20 连接件
H20 Bracket



L30 连接件
L30 Injection Bracket



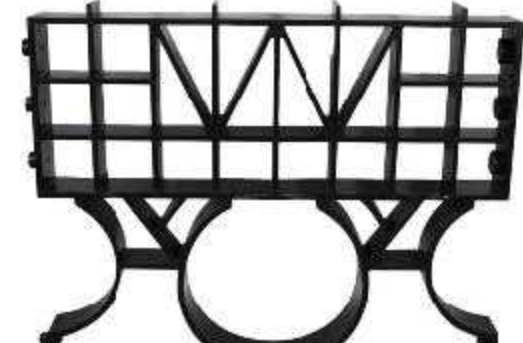
H30-1 连接件
H30-1 Injection Bracket



L160-560系列连接件
L160-560 Injection Bracket



L400-1 连接件
L400-1 Leisure Cage Bracket



平台支架
Platform Bracket



框架局部结构图
Cage Structure Diagram



立柱
HDPE Post

锚泊系统部件



铁锚①
Delta



铁锚②
Big Grip Anchor



铁锚③
Hall Anchor



铁锚④
Plough Anchor



PE浮球
PE Buoy



EVA 浮球
EVA Buoy



浮筒
PE Pontoon



PE浮筒
PE Drum

辅助设备



气力投喂系统
Blowing feeding system



活鱼智能驳运系统
Live fish intelligent transfer system



双罐真空吸鱼泵
Double tank vacuum fish pump



水下监视装置
Viewing apparatus underwater



鱼苗计数器
Fish counter



洗网机
Net washing machine



巡检机器人
Inspection robot



锚链
Anchor chain



方位标
Navigation mark buoy



土工膜
Geomembrane (Pond Liner)



PP/PE/PA 绳
PP/PE/PA Rope



太阳能灯
Solar lamp



Professional System

专业体系

PRODUCTION LINE 生产

▼ 网箱框架 CAGE FRAME FACTORY ▼

国际先进水平
低温高速整套挤出管材生产线

BATTENFELD
巴顿菲尔德

KRAUSSMAFFEI
克劳斯玛菲



公司引进具有国际先进水平的巴顿菲尔德(BATTENFELD)和克劳斯玛菲(KRAUSSMAFFEI)低温高速整套挤出管材生产线，可生产各种规格的PE燃气/给水管材、网箱专用管、PP-R冷/热水管材、PE-RT地暖管材产品。产品均采用优质原料，严格按照国家标准生产，确保了管材高品质。

公司拥有先进的注塑、吹塑设备，可以生产多品种、多规格的电熔、热熔对接、热熔承插及注塑、焊制管件及网箱专用管件，产品质量稳定、性能安全可靠。

The company introduces BATTENFELD and KRAUSSMAFFEL low temperature high speed whole extrusion tubing production lines, which are of internationally advanced level. It may produce PE gas/water feeding tubing, PP-R cold/hot water tubing, PE-RT floor heating tubing products of various specifications. All the products adopt quality raw materials and are produced strictly according to state standards, ensuring the high quality of tubing.

The company owns advanced injection molding and blow molding equipments, precise NC wiring machines and may produce electric smelting, hot melting butt joint hot melting socket and welding pipe fittings and cage fittings of various varieties and various specifications. The products are stable in quality and safe and reliable in performance.



▼ 网具 NET FACTORY ▼

公司具有多台性能良好的无结网及有结网生产机器，同时配备了HS-11AW型捻线机、高温定型机等先进设备技术力量雄厚，产品适用范围广。精心选用高密度聚乙烯、锦纶、涤纶、丙纶及超高分子量材料，专业生产各种用途的无结及有结网片。

The company has many sets of good performance of production line which can produce knotted and knotless netting, at the same time equipped with HS-11AW twisting machine, heat setting machine for shape of net and other advanced equipment. The engineer is strong technical and the product has wide application scope. The company carefully choose high density polyethylene, polyamide, polyester, polypropylene and Ultra high molecular weight polyethylene materials, specializing in the production of a variety of purposes knotted and knotless netting.



TESTING CENTER

检测

公司设有专业检测中心，拥有高素质的人才队伍，配备了先进的检测设备，可以实现从原料入库到成品出厂的全程质量检测和控制在

其中德国IPT静液压实验设备能够完成20℃、80℃和95℃静液压强度、耐气体组分、耐慢速裂纹增长和压缩复原等项目试验;电子万能试验机采用微机控制，可进行拉伸、压缩、弯曲等多种力学性能试验。熔体流动速率仪、差示扫描量热仪、炭黑含量测定仪、光学显微镜、微量水分测定仪等仪器分别可对原材料和管材管件产品进行熔体质量流动速率、氧化诱导期(热稳定性)、炭黑含量、炭黑分散和水分含量的测定。

检测中心还配有高精度分析天平、密度测量仪、电热恒温干燥箱、简支梁冲击试验机等先进的检测设备和仪器，充分保证了原材料性能的检测与产品质量控制，确保公司生产的各类管材、管件系列产品能够完全按照国家标准及行业标准进行检测。

The testing center is one of National testing center and have high quality talent team. it is equipped with advanced detection equipments and may realize the whole-course quality detection and control from raw materials entering warehouse to finished-products leaving factory. Among them, Germany IPT hydrostatic experimental facilities may complete the hydrostatic strength, gas resistant component,slow crack growth resistant and compression recovery tests under 20°C,80°C and 95°C.Electronic universal testing machines adopts computer control and may perform stretching,contracting,bending and many other mechanical property tests. Melt flow rate meter,differential scanning calorimeter,carbon black content tester,optical microscope, trace moisture tester and other instruments measure melt mass flow rate,oxidation induction time (heat stability),content of carbon black, dispersity of carbon black and moisture content respectively.

The testing center are also equipped with high-precision analytical balance, density measuring apparatus,electrothermal constant temperature drying oven, simply supported beam impact testing machine and other advanced detecting equipments and instruments, They sufficiently ensure the detection of raw material performance and product quality control and guarantee that the various tubular product and pipe fitting serial products may be detected according to state standard and industry standard completely .



落锤冲击试验机
Drop hammer impact testing machine



静液压试验水箱
Hydrostatic test tank



炭黑分散测试仪
Carbon black dispersion tester



熔体流动速率仪
Melt flow rate meter



万能试验机
Universal testing machine



静液压试验机
Hydrostatic testing machine



测试中心
Testing center



差示扫描量热仪
Differential scanning calorimeter



压缩复原试验机
Compression and recovery testing machine

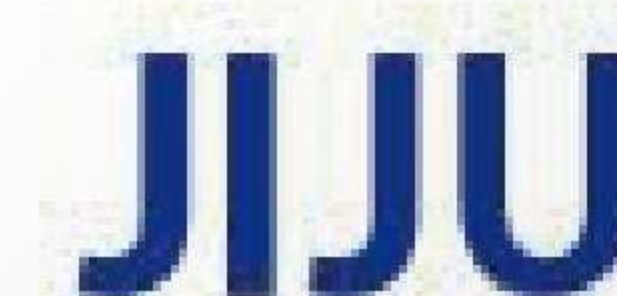
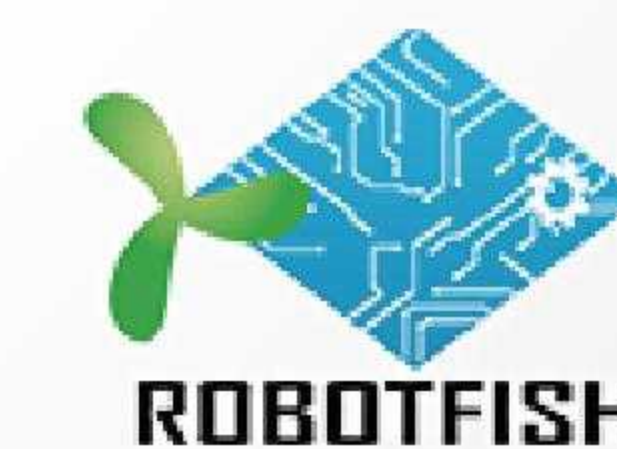


标准实验室
Standard laboratory



STRATEGIC PARTNER

战略伙伴



HONOR & QUALIFICATION

荣誉资质

高新技术企业
High-tech enterprise certificate



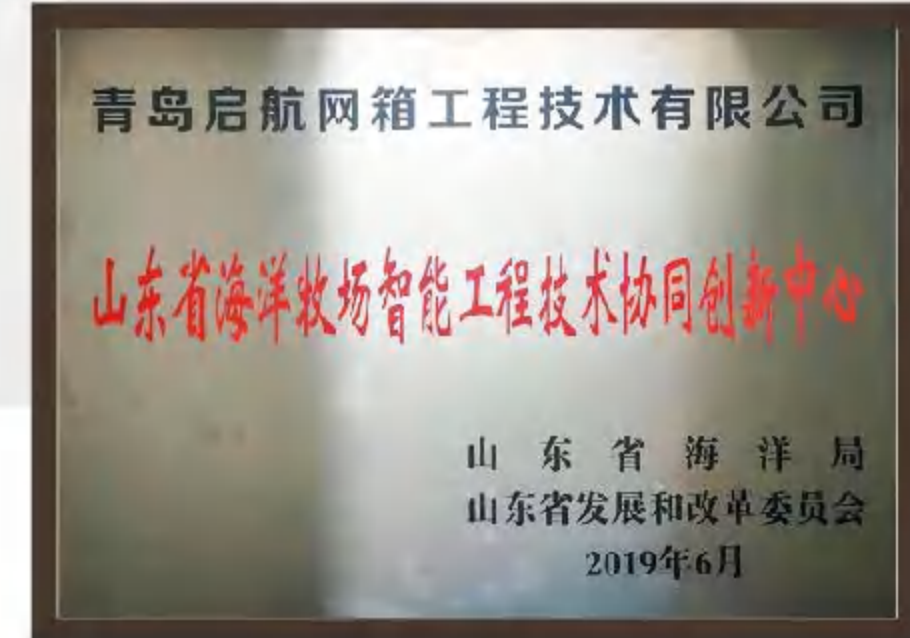
中国水产科学研究院
chinese academy of fishery
science



国家级科技型中小企业
National science and technology
small and medium-sized enterprises



海洋牧场智能工程
Marine ranch intelligent
engineering



老教授协会副会长单位
Vice President of the old Professors
Association



中国海洋大学水产学院
College of Fisheries, Ocean
University of China



“专精特新”企业
"specialized and special new"
enterprise



深水网箱制造示范企业
Deep water cage manufacturing
demonstration enterprise



专家工作站
Expert workstation



中国国际海洋牧场大会-最优品质奖
China International Marine Ranching Fair
Best Quality Award



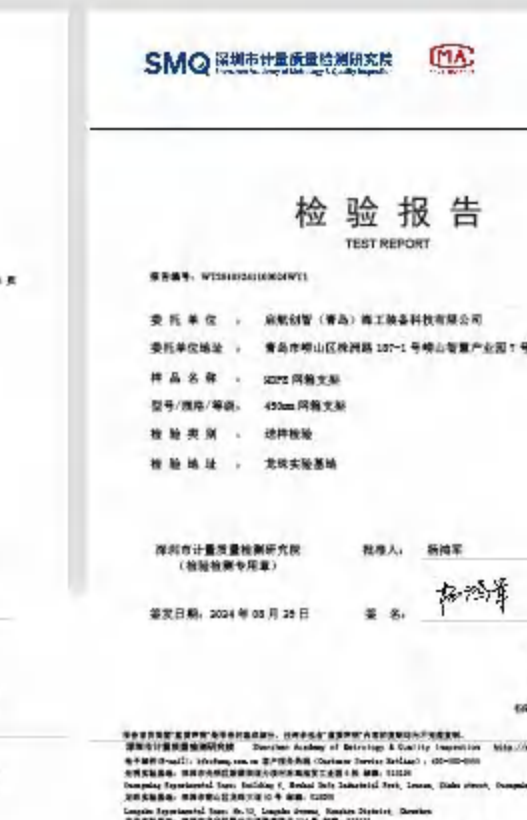
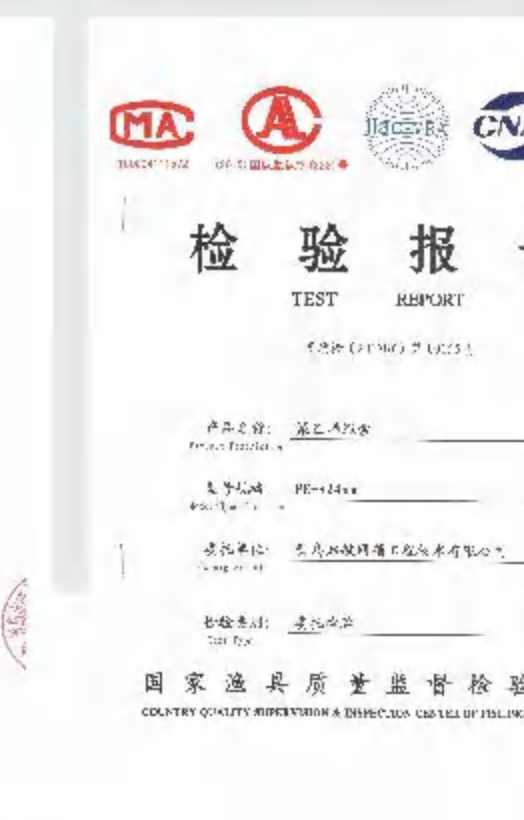
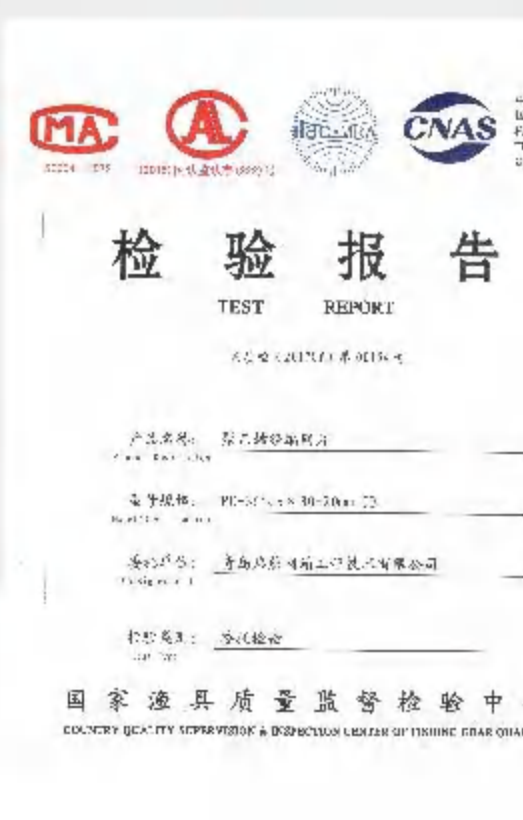
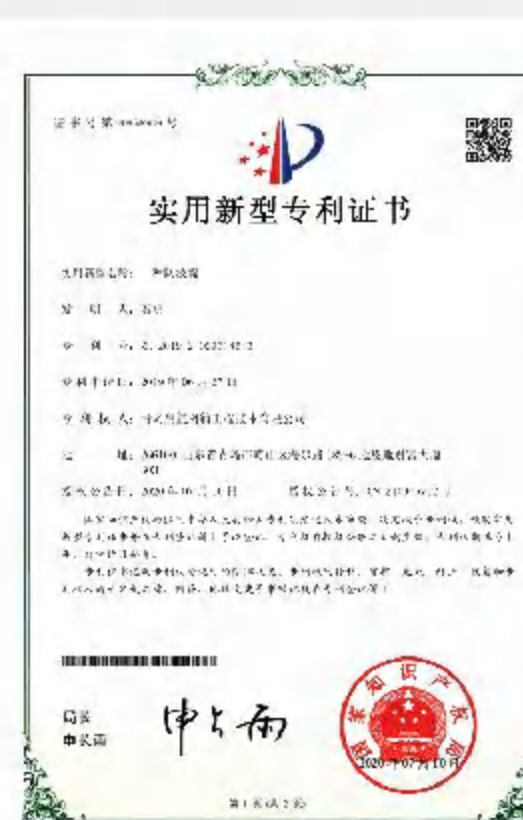
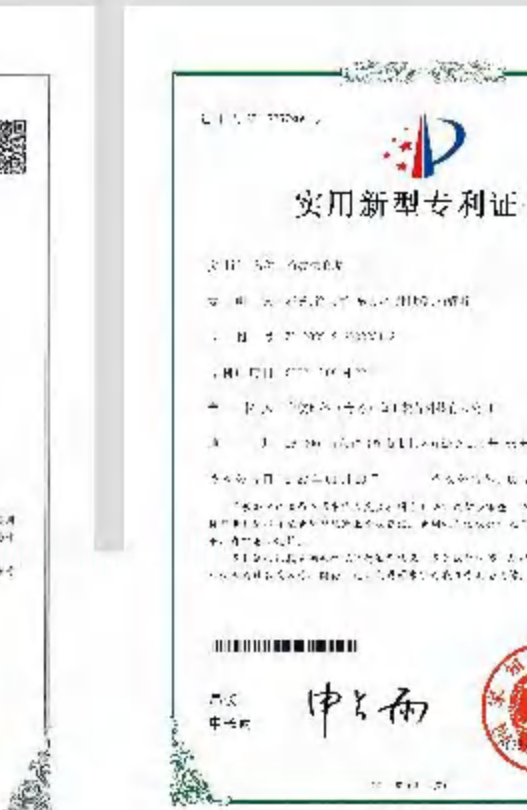
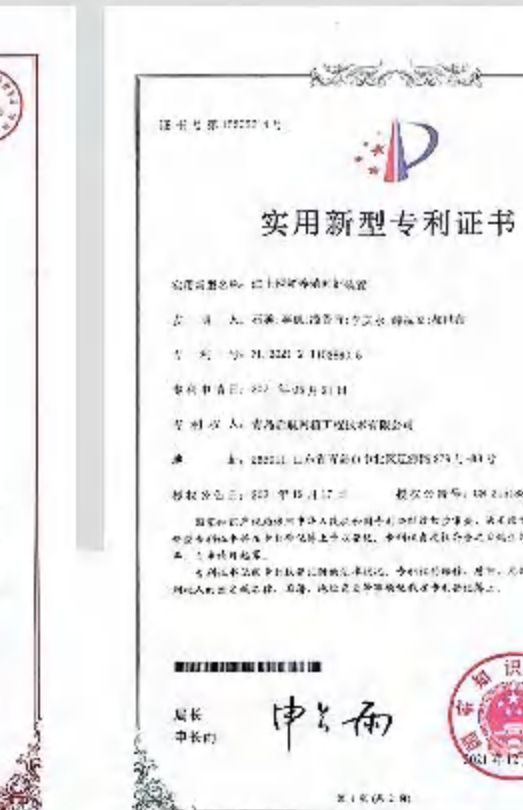
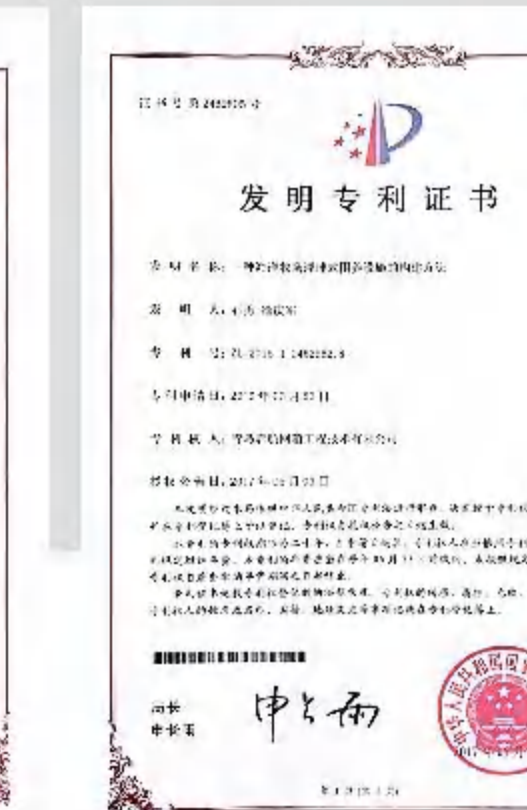
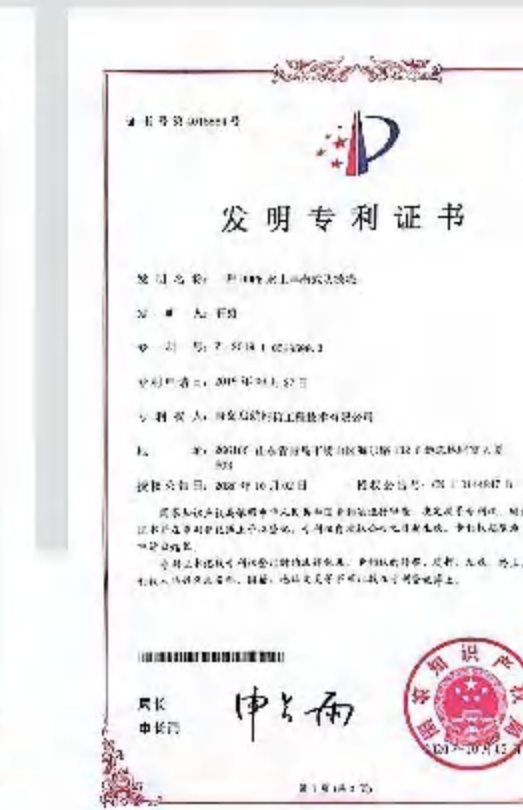
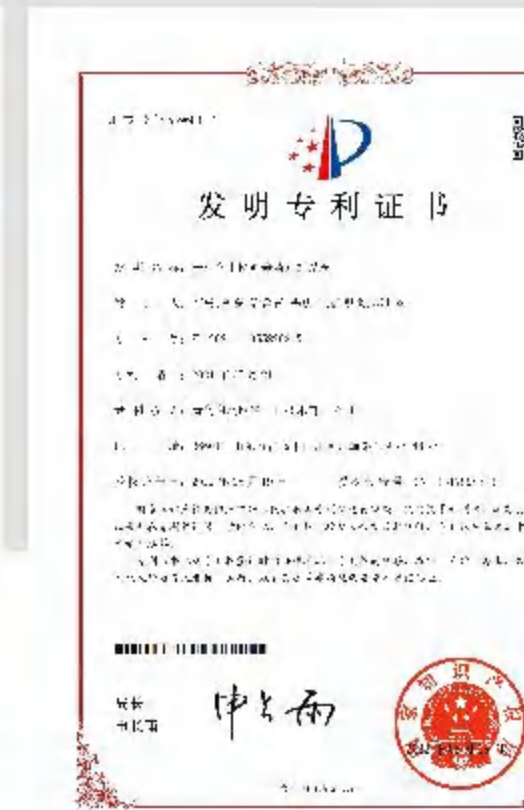
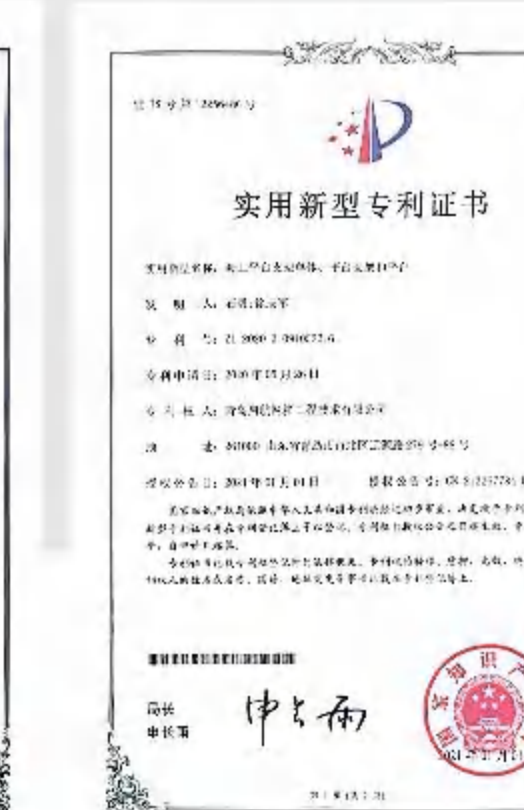
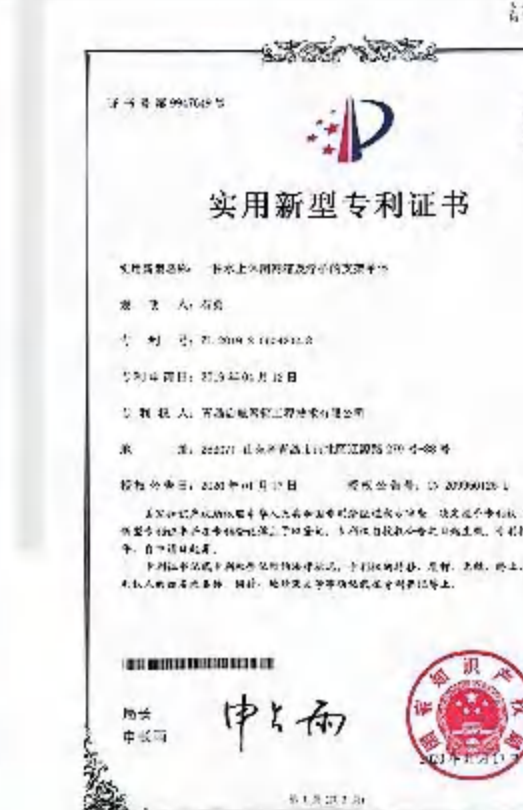
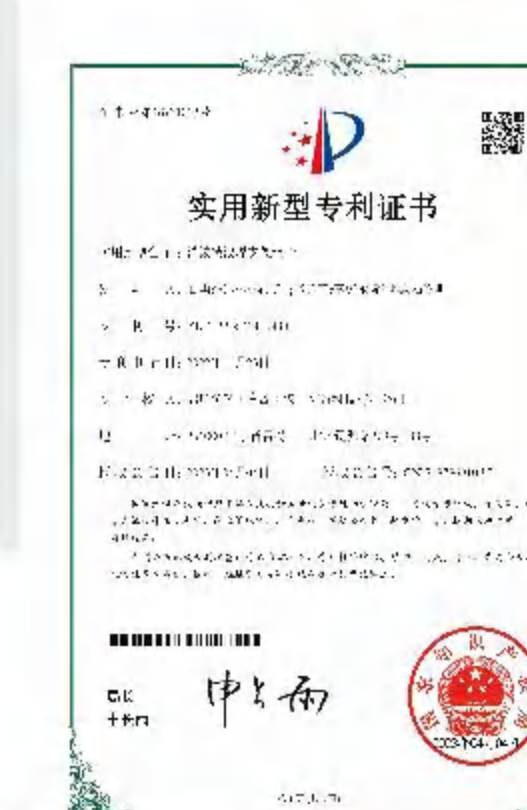
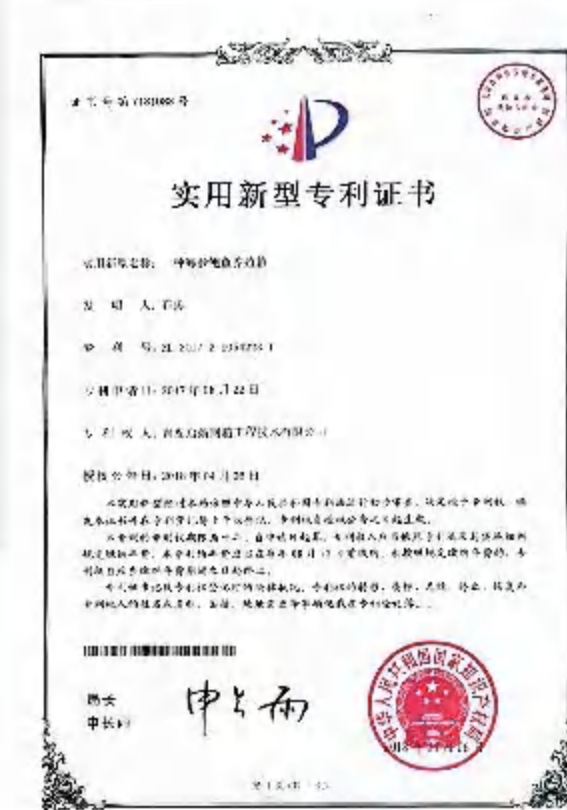
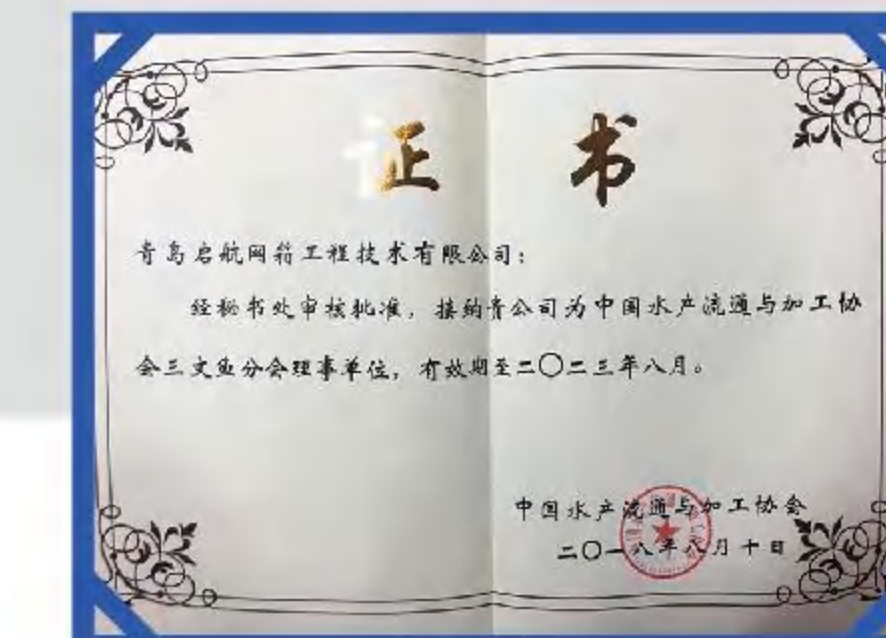
中国制造之美入围奖
Made in China Beauty Award



中国制造之美环境友好奖
Made in China Environmental
Friendly Award



三文鱼分会理事单位
Salmon Chapter governing unit



EXPERT CONSULTANT

专家顾问



关长涛
GUAN
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研究员

Director of Division of Fish Culture and Engineering, Yellow Sea Fisheries Research Institute

现任中国水产科学研究院黄海水产研究所鱼类养殖与设施渔业研究室主任，国家海水鱼产业技术体系首席科学家。兼任中国水产学会鱼类工业化养殖专业委员会常务副主任委员、海洋牧场专业委员会副主任委员，山东水产学会副理事长，农业农村部渔业专家咨询委员会委员等。为中国海洋大学、上海海洋大学、大连海洋大学、浙江海洋大学等高校联合培养硕士研究生导师，中国水产科学研究院黄海水产研究所博士后工作站合作导师。

研究方向为设施渔业，主要从事海洋设施养殖和海洋牧场工程技术研究。先后主持现代农业产业技术体系、国家重点研发计划、国家863计划、国家科技支撑计划、公益性行业（农业）科研专项、山东省科技攻关等项目30余项。

发表学术论文120余篇，主编、参编专著15部，获国家发明专利等知识产权40余项，获省部级科技奖励15项。



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博士，教授，博士生导师
中国海洋大学水产学院副院长

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1987年毕业于大连理工大学船舶内燃机专业，1999.5-2000.5日本东京水产大学访问研究员。目前主要从事设施渔业、循环水养殖工程技术等方面的教学与科研工作。现任山东海洋渔业船舶协会副理事长，中国水产学会工业化鱼类养殖研究会副会长；工业化水产养殖与装备产业技术创新战略联盟副理事长。近年来，主持和参加了国家科技支撑计划、国家“863”项目、农业部公益性行业科研专项等多项课题。先后在Aquaculture、Aquacultural Engineering、Ecological Indicators、《中国水产科学》、《环境工程学报》、《中国海洋大学学报》等国内外水产养殖学、养殖工程、环境工程等主流学术期刊发表文章80余篇，并作为主要完成人之一，获得国家海洋创新一等奖、大渔奖等科技奖项。



黄六一
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1993年毕业于青岛海洋大学（现中国海洋大学）渔业工程专业、先后获得中国海洋大学捕捞学硕士、增殖养殖工程博士学位。主要社会兼职有全国水产标准化技术委员会渔具及渔具材料分技术委员会委员，山东省渔具标准委员会副主任委员，第二届农业农村部捕捞渔具专家委员会委员、山东省现代化海洋牧场建设专家咨询委员会专家、中国水产学会捕捞分会委员、青岛市安全生产专家组专家。

主持或参与了包括国家自然科学基金、国家重点研发计划项目、国家863项目、国家科技支撑、公益性行业专项、山东省重大专项等课题40余项；在国内外本学科领域重要学术刊物发表学术论文100余篇，其中SCI/EI文章30余篇，获得专利及软件注册权30多项；参编专著4部；获省市级奖励5项。



石建高
SHI JIANGAO

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石建高，研究员，博士后合作导师。任农业农村部绳索网具产品质检中心常务副主任、全国水产标准化技术委员会渔具及渔具材料分技术秘书长、中国渔船渔机渔具行业协会副秘书长、渔网具专家委员会委员、中国水科院渔业装备与工程学科委员、先进技术纺织品创新联盟专家委员会委员、威海市网箱工程技术研究中心副主任等。

主要从事深水网箱、深远海网箱、深远海养殖围栏、渔具及渔具材料等研究，并长期工作在渔业生产和科技推广第一线，得到了行业的充分认可。主持国家工信部重大课题等各类项目100余项，发表SCI等各类论文100余篇，授权发明专利100余项，主编《深远海网箱养殖技术》《绳网技术学》等专著10余部，制修订深水网箱系列标准等各类标准70余项，作国内外大会特邀报告20余次，项目成果获中国专利奖、上海市科技进步一等奖、辽宁省科技进步一等奖、海洋科学技术一等奖、中国水科院科技进步一等奖、山东省科技进步奖、浙江省科技进步奖等省部级科技奖励20余次。

营销网络

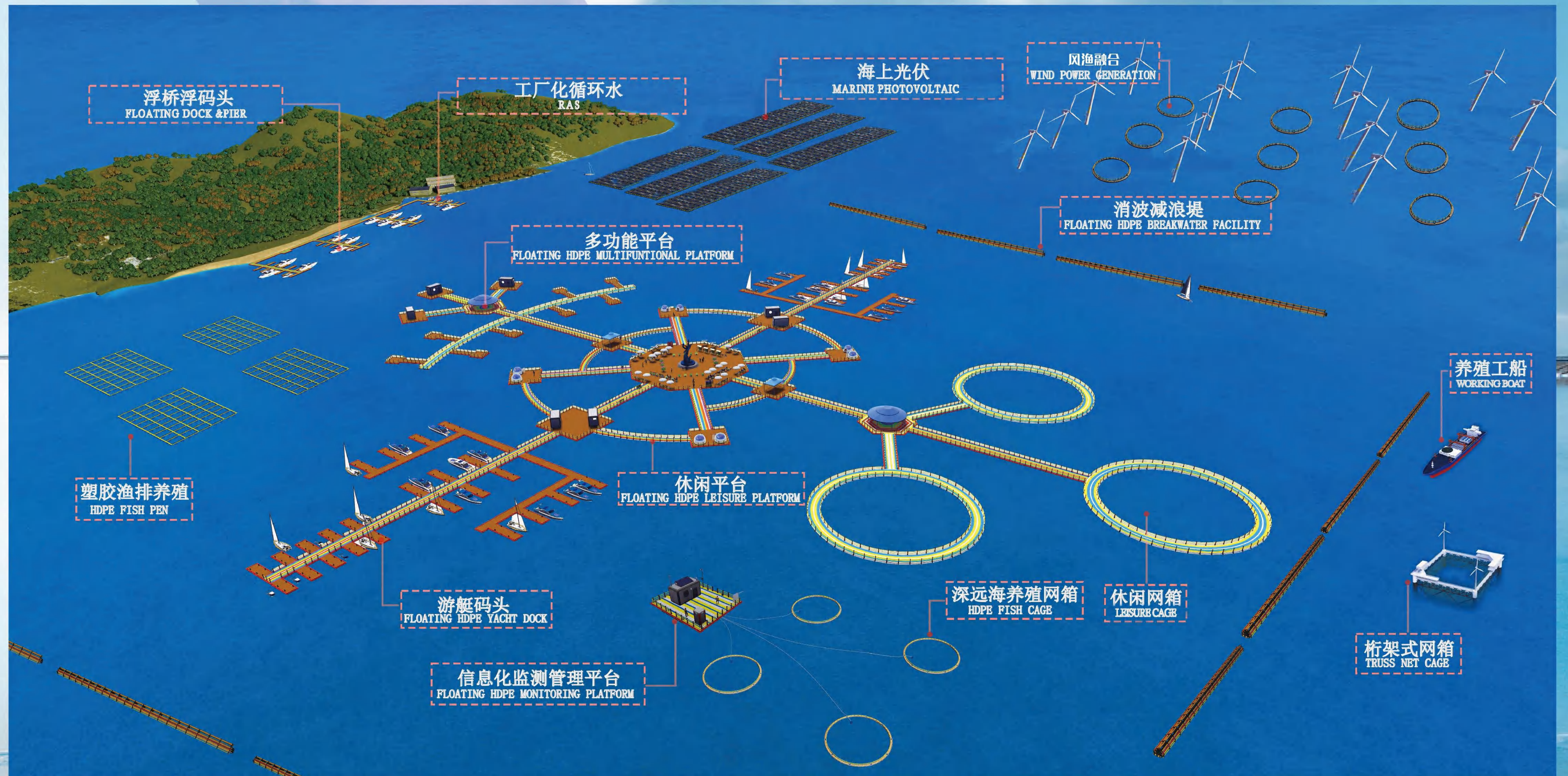


FOREIGN PROJECT 国外项目



DOMESTIC PROJECT 国内项目





MODERN MARINE RANCH FACILITIES AND EQUIPMENT

现代化海洋牧场设施装备

海洋牧场是对传统海洋渔业模式的创新与提升，同时也是实现海洋生态环境保护与可持续利用的重要探索。我司自主研发并生产的海洋牧场智能化装备，融合了“网箱养殖”、“渔光互补”、“渔风互补”和“深水锚泊”等多项核心技术，旨在为您提供全面的海洋牧场机械化、信息化与智能化解决方案，助力现代化海洋牧场的高效运营与可持续发展。

Marine ranching is an innovation and improvement of the traditional Marine fishery model, and it is also an important exploration of Marine ecological environment protection and sustainable utilization. Our company independently developed and produced a number of core technologies such as "fishery and photovoltaic complementary", "fishery and wind electricity complementary technology" and "deep-water anchoring system", aiming to provide you with a full range of intelligent equipment for Marine pastures, integrating the mechanization, information and intelligent solutions in "fishing cage aquaculture" to help the efficient operation and sustainable development of modern Marine pastures.