



惠州市博天环保科技有限公司

Huizhou Botian Environmental Technology Co., Ltd.

—— 工业水处理与环保综合解决方案 ——



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Company Profile

公司简介

秉承“专业、诚信、创新、服务”的经营理念

惠州市博天环保科技有限公司，是专注水处理及环保设备整体解决方案的科技型企业，核心聚焦非标定制化系统设计、组装与工程实施，为客户提供“方案规划-设备制造-安装调试-售后维护”全流程服务。业务覆盖 RO 反渗透、EDI 超纯水、UF 超滤、软化水、一体化净水、海水淡化、浓缩分离系统，及工业废水处理、废气治理设备，实现“纯水+废水+废气”一体化解决方案。

Huizhou Botian Environmental Technology Co., Ltd. is a technology-driven enterprise focusing on comprehensive water & environmental treatment solutions. It specializes in non-standard customized system design, assembly & project implementation, offering end-to-end services from solution planning, equipment manufacturing, installation & commissioning to after-sales support. Its portfolio covers Reverse Osmosis (RO) systems, Electrodeionization (EDI) systems, Ultrafiltration (UF) systems, water softeners, integrated purification systems, seawater desalination units, concentration & separation systems, as well as industrial wastewater & waste gas treatment equipment, delivering integrated “pure water + wastewater + waste gas” solutions.

博天环保客户已覆盖电子制造、食品饮料、电镀、化工、工业园区等行业，依托 10+ 年项目经验与专业技术团队，不仅保障水质达标、系统稳定运行，更以节能设计帮助客户降低 10%-15% 运行成本（基于过往 100+ 项目数据）。我们秉承“专业、诚信、创新、服务”的经营理念，坚持以客户需求为导向，致力于成为国内外值得信赖的环保综合解决方案供应商。

Botian Environmental serves industries including electronics manufacturing, food & beverage, electroplating, chemicals, and industrial parks. Backed by 10+ years of project experience and a professional technical team, it not only ensures water quality compliance and stable system operation, but also cuts clients’ operating costs by 10%-15% via energy-efficient designs (based on 100+ past projects). Adhering to the philosophy of “Professionalism, Integrity, Innovation, and Service”, adhere to the customer demand-oriented principle, it is dedicated to becoming a reliable global provider of comprehensive environmental protection solutions.



Product Overview

产品总览

愿我们的努力能换取您的满意

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Reverse Osmosis System

RO反渗透系统

RO反渗透系统可去除水中99%以上的溶解盐类、胶体、有机物和微生物，出水水质稳定可靠，广泛用于工业纯水制备。

RO systems remove more than 99% of dissolved salts, colloids, organics, and microorganisms, ensuring stable and reliable water quality.



Key Features

技术特点

- 高效脱盐率 (≥99%) / High salt rejection rate (≥99%)
- 自动冲洗功能 / Auto-flushing function
- 模块化设计 / Modular design
- 低能耗、运行稳定 / Low energy consumption and stable operation

Applications

应用行业

- 电子制造 / Electronics manufacturing
- 食品饮料 / Food & Beverage
- 电镀工厂 / Electroplating
- 化工生产 / Chemical industry
- 制药行业 / Pharmaceutical

参数 / Parameter	数值范围 / Value Range	说明 / Description
处理量 / Capacity	1–100 T/H	系统设计处理量范围 / System design capacity range
出水电导率 / Conductivity	≤10 μS/cm	满足一般工业纯水标准 (25°C下) / Meets general industrial pure water standard (at 25°C)
脱盐率 / Salt Rejection	≥99%	正常运行条件下 / Stable operation
回收率 / Recovery Rate	50%–75%	取决于原水水质 / Depends on feed water quality
膜寿命 / Membrane Life	2–3 years	正常运行条件下 / Normal operating conditions

Ultrafiltration System

UF超滤系统

UF超滤系统采用孔径0.01-0.1μm的膜过滤技术,可有效去除水中的悬浮物、胶体、细菌及部分有机物,同时保留水中矿物质成分。

Ultrafiltration (UF) systems use membranes with pore sizes of 0.01-0.1 μm to remove suspended solids, colloids, bacteria, and organics while retaining minerals.



Key Features

技术特点

- 膜孔径均一, 过滤精度高 / Uniform pores, high precision
- 无需药剂, 操作简便 / No chemicals required, easy operation
- 自动反冲洗, 维护方便 / Auto backwash, easy maintenance
- 水质优良, 保留矿物质 / Good water quality, retains minerals

Applications

应用行业

- 饮用水净化 / Drinking water
- 食品饮料 / Food & Beverage
- RO预处理 / RO pretreatment
- 制药行业 / Pharmaceutical

参数 / Parameter	数值范围 / Value Range	说明 / Description
孔径 / Pore Size	0.01-0.1 μm	膜过滤精度 / Membrane filtration precision
操作压力 / Operating Pressure	0.1-0.3 MPa	常规运行压力 / Normal operating pressure
流量 / Capacity	0.5-100 T/H	系统设计流量范围 / System design flow range
去除率 / Removal Efficiency	≥99%	针对细菌、悬浮物 / For bacteria and suspended solids
膜寿命 / Membrane Life	3-5 years	正常运行条件下 / Under normal operating conditions

Electrodeionization System

EDI超纯水系统

EDI超纯水系统结合离子交换和电渗析技术, 可实现连续除盐, 制备电阻率高达 $18\text{M}\Omega\cdot\text{cm}$ 的超纯水。
EDI systems combine ion exchange and electrodialysis, producing ultrapure water with resistivity up to $18\text{M}\Omega\cdot\text{cm}$.



Key Features

技术特点

- 连续产水 / Continuous water production
- 无需化学再生 / No chemical regeneration
- 出水水质高 ($18\text{M}\Omega\cdot\text{cm}$) / High-quality water ($18\text{M}\Omega\cdot\text{cm}$)
- 运行成本低, 维护简单 / Low operating cost, easy maintenance

Applications

应用行业

- 电子工业 / Electronics industry
- 制药行业 / Pharmaceutical
- 半导体 / Semiconductor
- 实验室 / Laboratory

参数 / Parameter	数值范围 / Value Range	说明 / Description
出水电阻率 / Resistivity	10–18 $\text{M}\Omega\cdot\text{cm}$	超纯水标准 (25°C 下) / Ultrapure water standard (at 25°C)
操作压力 / Operating Pressure	0.2–0.5 MPa	常规运行压力 / Normal operating pressure
回收率 / Recovery Rate	80%–90%	高水利用率 / High water utilization efficiency
能耗 / Energy Consumption	< 0.5 kWh/立方米	低能耗设计 / Low-energy design
膜堆寿命 / Module Life	3–5 years	正常运行条件下 / Under normal operating conditions

Water Softener

软化水设备

RO反渗透系统可去除水中99%以上的溶解盐类、胶体、有机物和微生物，出水水质稳定可靠，广泛用于工业纯水制备。

RO systems remove more than 99% of dissolved salts, colloids, organics, and microorganisms, ensuring stable and reliable water quality.



Key Features

技术特点

- 有效降低水硬度 / Effectively reduces hardness
- 操作简单，自动再生 / Easy operation, auto regeneration
- 防止结垢，延长设备寿命/Prevents scaling, extends equipment life
- 成本低，运行稳定 / Low cost, stable operation

Applications

应用行业

- 锅炉补水 / Boiler feed water
- 冷却循环水 / Cooling water
- 空调系统 / Air conditioning systems
- 工业用水 / Industrial water

参数 / Parameter	数值范围 / Value Range	说明 / Description
出水硬度 / Hardness	< 0.03 mmol/L	软化水标准 / Soft water standard
树脂类型 / Resin Type	Na ⁺ 型 SAC (001×7)	钠型强酸性阳离子交换树脂 / Sodium-type strong acid cation resin
再生剂 / Regenerant	NaCl	食盐常规再生 / Common salt regeneration
操作压力 / Operating Pressure	0.2–0.6 MPa	常规运行压力 / Normal operating pressure
树脂寿命 / Resin Life	3–5 years	标准再生条件下 / Under standard regeneration conditions

Integrated Purification System

一体化净水设备

一体化净水设备集混凝、沉淀、过滤、消毒于一体，适用于中小型水厂及农村集中供水。

Integrated purification systems combine coagulation, sedimentation, filtration, and disinfection, suitable for small water plants and rural water supply.



Key Features

技术特点

- 结构紧凑，占地小 / Compact structure, small footprint
- 自动化程度高 / High automation
- 运行管理方便 / Easy operation and management
- 适用水源广 / Wide source applicability

Applications

应用行业

- 农村集中供水 / Rural water supply
- 城镇给水 / Urban water supply
- 中小型水厂 / Small water plants
- 工业给水 / Industrial supply

参数 / Parameter	数值范围 / Value Range	说明 / Description
处理量 / Capacity	50-5000 立方米/d	中小型水厂设计处理量 / Design capacity for small and medium water plants
出水浊度 / Turbidity	< 1 NTU	净化水浊度标准 (25°C下) / Purified water turbidity standard (at 25°C)
自动化 / Automation	PLC 控制	PLC 全自动控制系统 / PLC automatic control system
消毒方式 / Disinfection Method	Cl ₂ /NaClO	标准消毒方式 / Standard disinfection methods
设备寿命 / Equipment Life	10-15 years	工业级材质耐用性 / Durability of industrial-grade materials

Seawater Desalination System

海水淡化设备

软化水设备通过阳离子交换树脂去除水中的钙镁离子, 降低硬度, 防止管道和设备结垢。

Water softeners use cation exchange resins to remove calcium and magnesium ions, reducing hardness and preventing scaling.

Key Features

技术特点

- 高脱盐率 (≥99.5%) / High salt rejection (≥99.5%)
- 适应高盐度水质 / Handles high salinity
- 节能设计 / Energy-saving design
- 模块化结构 / Modular structure

Applications

应用行业

- 海岛供水 / Island water supply
- 沿海城市 / Coastal cities
- 船舶用水 / Marine vessels
- 海水养殖 / Aquaculture

参数 / Parameter	数值范围 / Value Range	说明 / Description
进水 TDS/Feed TDS	20000–40000 mg/L	典型海水盐度 / Typical seawater salinity
产水 TDS/Product TDS	< 500 mg/L	符合饮用水标准 (如 GB 5749-2022) /Complies with drinking water standards (e.g., GB 5749-2022)
回收率 / Recovery Rate	30%–45%	反渗透工艺设计范围 / RO process design range
能耗 / Energy Consumption	3–6 kWh/立方米	反渗透工艺能耗 / RO process energy consumption
膜寿命 / Membrane Life	3–5 years	耐海水腐蚀条件下 / Under seawater corrosion-resistant conditions

Concentration & Separation System

浓缩与分离系统

浓缩与分离系统利用膜分离技术回收有价值物质或减少废水排放，常用于食品、制药、化工行业。

Concentration & separation systems use membrane technology to recover valuable materials or reduce wastewater discharge, commonly used in food, pharmaceutical, and chemical industries.



Key Features

技术特点

- 高效分离性能 / Efficient separation
- 可回收有价值物质 / Recovers valuable materials
- 减少废水排放 / Reduces wastewater discharge
- 运行稳定 / Stable operation

Applications

应用行业

- 食品加工 / Food processing
- 乳制品 / Dairy
- 制药行业 / Pharmaceutical
- 化工行业 / Chemical industry

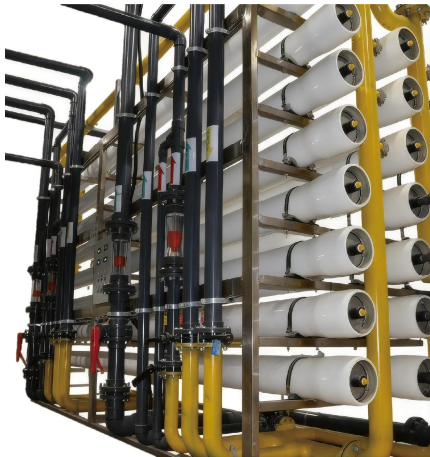
参数 / Parameter	数值范围 / Value Range	说明 / Description
分离精度 / Separation Accuracy	0.001–0.1 μm	膜分离精度 / Membrane separation precision
操作压力 / Operating Pressure	0.2–1.0 MPa	粘稠物料常规运行压力 / Normal operating pressure for viscous materials
回收率 / Recovery Rate	50%–80%	视物料特性而定 / Depends on material properties
能耗 / Energy Consumption	1–3 kWh/立方米	低能耗膜分离设计 / Low-energy membrane separation design
膜堆寿命 / Module Life	2–4 years	耐化学腐蚀条件下 / Under chemical corrosion-resistant conditions

Water Reuse System

中水回用系统

中水回用系统通过膜分离、活性炭吸附及消毒工艺，将工业废水或生活污水处理至可回用水质，广泛用于景观补水、冲洗、冷却循环等，符合《城市污水再生利用 城市杂用水水质》(GB/T 18920-2002) 标准。

Water reuse systems utilize membrane separation, activated carbon adsorption, and disinfection processes to treat wastewater for reuse applications such as landscaping, flushing, and cooling, meeting the GB/T 18920-2002 standard.



Key Features

技术特点

- 节能减排, 减少新水消耗 / Reduces fresh water consumption
- 出水稳定, 可回用率高 (70%–85%) / Stable effluent, high recovery rate (70%–85%)
- 工艺灵活, 可与现有废水处理系统衔接 / Flexible process integration
- 运行维护简便, 自动化程度高 / Easy operation, high automation

Applications

应用行业

- 工业园区回用水 / Industrial park reuse
- 市政杂用水 / Municipal reuse
- 冷却循环水 / Cooling water
- 景观补水 / Landscape water

参数 / Parameter	数值范围 / Value Range	说明 / Description
回用率 / Recovery Rate	50%–85%	取决于原水水质 / Depends on feed water quality
出水水质 / Effluent Quality	符合 GB/T 18920-2002	城市杂用水水质标准 / Urban miscellaneous water standard
操作压力 / Operating Pressure	0.2–0.6 MPa	常规运行压力 / Normal operating pressure
能耗 / Energy Consumption	0.5–1.5 kWh/立方米	低能耗设计 / Low-energy design
膜寿命 / Membrane Life	3–5 years	正常运行条件下 / Under normal operating conditions

Industrial Wastewater Treatment Systems

工业废水处理系统

工业废水处理系统通过物化、生化 and 膜处理等工艺去除有害污染物，确保达标排放或回用。

Industrial wastewater treatment systems use physical-chemical, biological, and membrane processes to remove pollutants, ensuring discharge or reuse compliance.



Key Features

技术特点

- 多工艺组合 / Multi-process combination
- 出水达标排放 / Effluent meets standards
- 可实现回用 / Enables water reuse
- 节能高效 / Energy-efficient

Applications

应用行业

- 电镀废水 / Electroplating wastewater
- 印染废水 / Textile dyeing wastewater
- 化工废水 / Chemical wastewater
- 食品废水 / Food industry wastewater

参数 / Parameter	数值范围 / Value Range	说明 / Description
处理水量 / Capacity	50–20000 立方米/d	工业园区设计处理量 / Design capacity for industrial parks
出水 COD/ COD Effluent	< 50 mg/L	符合《污水综合排放标准》(GB 8978-1996 一级) /Complies with Integrated Wastewater Discharge Standard (GB 8978-1996, Level 1)
出水氨氮 / Ammonia Nitrogen	< 10 mg/L	符合《污水综合排放标准》(GB 8978-1996 一级) /Complies with Integrated Wastewater Discharge Standard (GB 8978-1996, Level 1)
工艺组合 / Process Combination	物化 + 生化 + 膜	常用工业废水处理工艺链/ Common industrial wastewater treatment process chain
设备寿命 / Equipment Life	10–15 years	防腐结构设计 / Anti-corrosion structural design

Accessories & Consumables

水处理配件及耗材

我们不仅提供整套水处理系统, 还供应各种配件及耗材, 确保设备长期稳定运行。

We supply not only complete systems but also accessories and consumables to ensure long-term stable operation.

Main Products

主要产品



反渗透膜元件
RO Membranes



超滤/微滤膜组件
UF/MF Modules



离子交换树脂
Ion Exchange Resins



活性炭
Activated Carbon



石英砂滤料
Quartz Sand Media



精密滤芯
Cartridge Filters



加药装置
Dosing Systems



泵与阀门
Pumps & Valves

Industrial Waste Gas Treatment Equipment

工业废气治理设备

工业废气治理设备包括吸收、吸附、催化氧化等工艺，用于去除有机废气、酸碱废气及恶臭气体。
Industrial waste gas treatment equipment includes absorption, adsorption, and catalytic oxidation to remove VOCs, acid/alkaline gases, and odors.



Key Features

技术特点

- 多种工艺可选 / Multiple processes available
- 高效去除污染物 / Efficient pollutant removal
- 运行稳定 / Stable operation
- 环保达标 / Meets environmental standards



Applications

应用行业

- 化工厂 / Chemical plants
- 喷涂车间 / Painting workshops
- 制药行业 / Pharmaceutical
- 垃圾处理 / Waste treatment

参数 / Parameter	数值范围 / Value Range	说明 / Description
处理风量 / Air Volume	1000-200000 立方米/h	车间设计风量范围 / Design air volume range for workshops
去除效率 / Removal Efficiency	≤10 μS/ cm	设计工况下 (针对 VOCs、酸碱废气) / Under design operating conditions (for VOCs, acid/alkaline gases)
适用废气 / Applicable Gases	VOCs、酸碱气体	主要处理对象 / Main treatment targets
能耗 / Energy Consumption	Low-Medium (低-中等)	视工艺类型而定 / Depends on process type
设备寿命 / Equipment Life	10-15 years	防腐耐高温设计 /Anti-corrosion and high-temperature resistant design

HZBT

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工业纯水及环保设备产品清单

Industrial Pure Water and Environmental Protection Equipment Product List

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