OUR VISION:

No Organic Wastewater Beyond Treatment.

OUR MISSION:

Becoming a leading BDDA technology enterprise, providing industrial wastewater solutions

HUNAN BOROMOND EPT CO.,LTD.

ADD: Hunan University Science and Technology Park, No.186 of Guyuan Road,Changsha,Hunan,China

Website:www.boromond.com

E-mail:enquiry@boromond.com

BOROMOND

BORON DOPED DIAMOND

ELECTRODES & EQUIPMENTS FOR ORGANIC WASTEWATER

CONTENTS

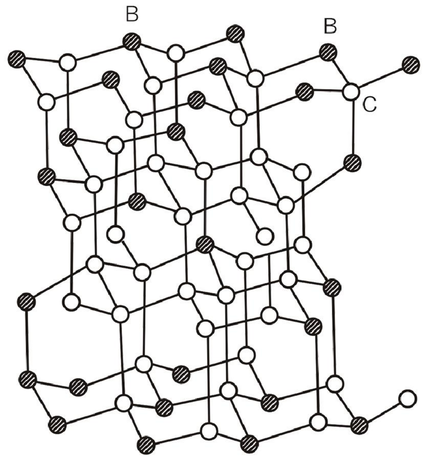
COMPANY PROFILE

Hunan Boromond EPT Co.,Ltd. is located in Changsha, Hunan Province.The company specializes in the research and development, production of Boron Doped Diamond (BDD) electrode materials.As well as engineering applications in the field of difficult industrial wastewater treatment.It is a technology-based innovative enterprise that is currently leading the breakthrough in large-scale and large-area BDD electrode manufacturing in China.

At the beginning of its establishment, the company has formed an interdisciplinary and composite technical team with professors and doctors as the backbone, based on the research and development of materials and modules, and the design and application of water treatment processes.There are more than 30 R&D personnel in the team now,Having more than 100 sets of chemical vapor deposition (CVD) coating equipment, coating testing equipment, and industrial wastewater treatment process equipment,Boromond can provide full-process R&D support on trial test, pilot test for engineering application for the treatment of inert wastewater.Among them, the core technology of the key material BDD electrode and module is completely independent and controllable by the company.

Boron-Doped Diamond (BDD) electrochemical oxidation technology has been widely adopted by universities, research laboratories, consulting firms, and manufacturing enterprises across multiple countries—including Germany, the Netherlands, the UK, Poland, France, Italy, Turkey, Singapore, Saudi Arabia (KSA), the UAE, Japan, South Korea, Canada, and the USA—for both scientific research and large-scale industrial applications. This advanced treatment solution is particularly effective for industries that generate high-concentration, recalcitrant, and often toxic or hazardous wastewater, such as metallurgy, papermaking, coking gas, metal pickling, chemical fertilizers, textile printing & dyeing, dyes, tanning, pesticides, pharmaceuticals, and power stations. Key sectors benefiting from BDD EO technology include Oil & Gas, Petrochemicals, Pharmaceuticals, Lithium Battery Manufacturing, Textiles, Landfill Leachate Treatment, and Pesticides, as it provides a reliable and efficient method for treating complex industrial effluents while meeting stringent environmental standards.

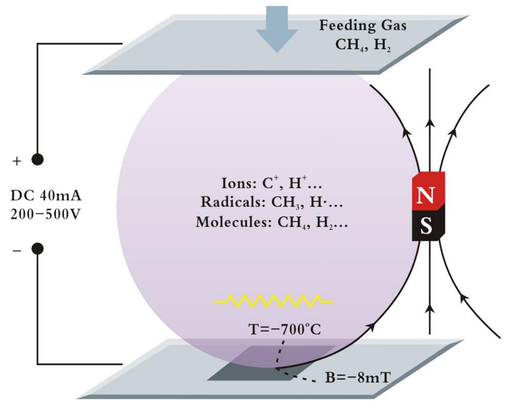
Boron-Doped Diamond Electrode Material



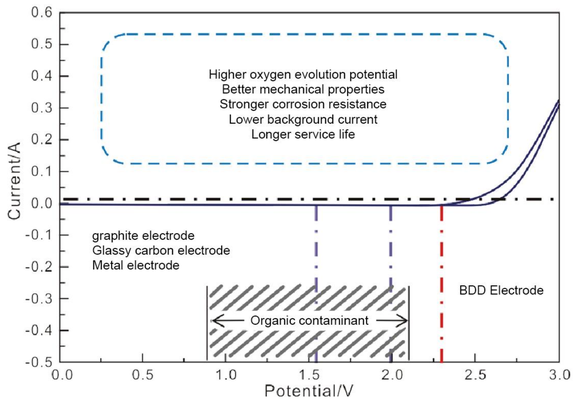
Schematic diagram of boron doped diamond atom model

Diamond has many advantages, such as high hardness,high thermal conductivity, high stability, corrosion resistance and good biocompatibility. Pure diamond does not conduct electricity, while Boron - Doped diamond (BDD) film varies with the amount of BoronIt has the properties of a semiconductor or even a cryogenic superconductor. Boron-doped diamond film has great advantages in the electrochemical field,including wide potential window, low background current,high electrochemical stability and other advantages, which is recognized as the most promising excellent electrochemical electrode materials.

Boromond EPT Co., Ltd. uses self-developed chemical vapor deposition (Chemical Vapor Deposition,CVD) coating the equipment, with boron, carbon gas as the main raw material, in the low pressure furnace body after high temperature dissociation, carbon atoms, boron atoms on the substrate surface deposition into a film, can achieve the mass production of BDD coating.



Schematic diagram of CVD deposition



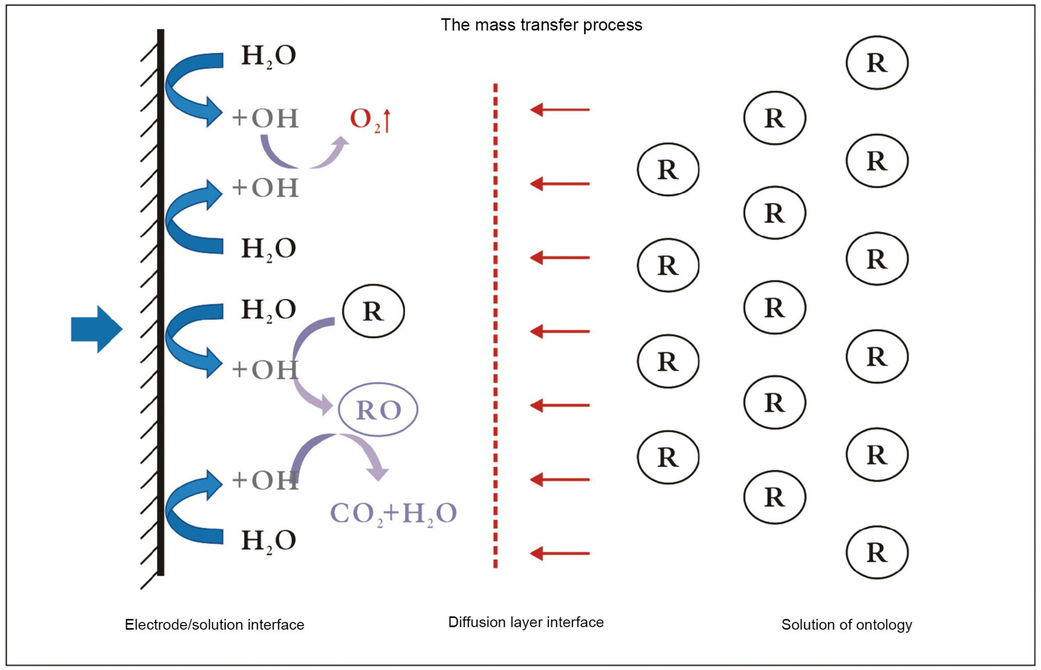
Schematic diagram of the BDD potential window

Electrochemical Oxidation Technique

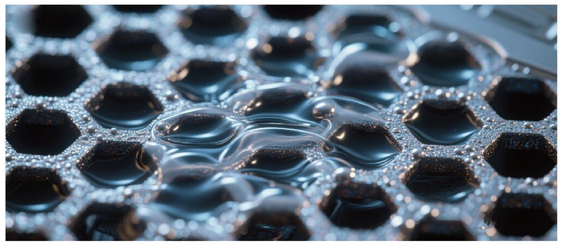
Electrochemical oxidation technology was first introduced in 1970. Due to its green and efficient technical characteristics, it has been widely concerned in the field of sewage treatment and disinfection. By coupling with flocculation, biochemistry, membrane treatment and other technologies, it has outstanding advantages and broad prospects in the field of deep purification and treatment of high-concentration refractory wastewater.

The electrochemical oxidation technology with BDD material as anode can degrade organic compounds including direct oxidation and indirect oxidation. Direct oxidation is the oxidation removal of organic matter by adsorption of organic pollutants on the anode surface in the form of electron transfer. According to the degree of oxidation, it can also be divided into electrochemical Conversion and electrochemical Combustion. Indirect oxidation is the oxidation removal of organic pollutants by producing active intermediates or high oxidizing metal oxides on the anode surface.

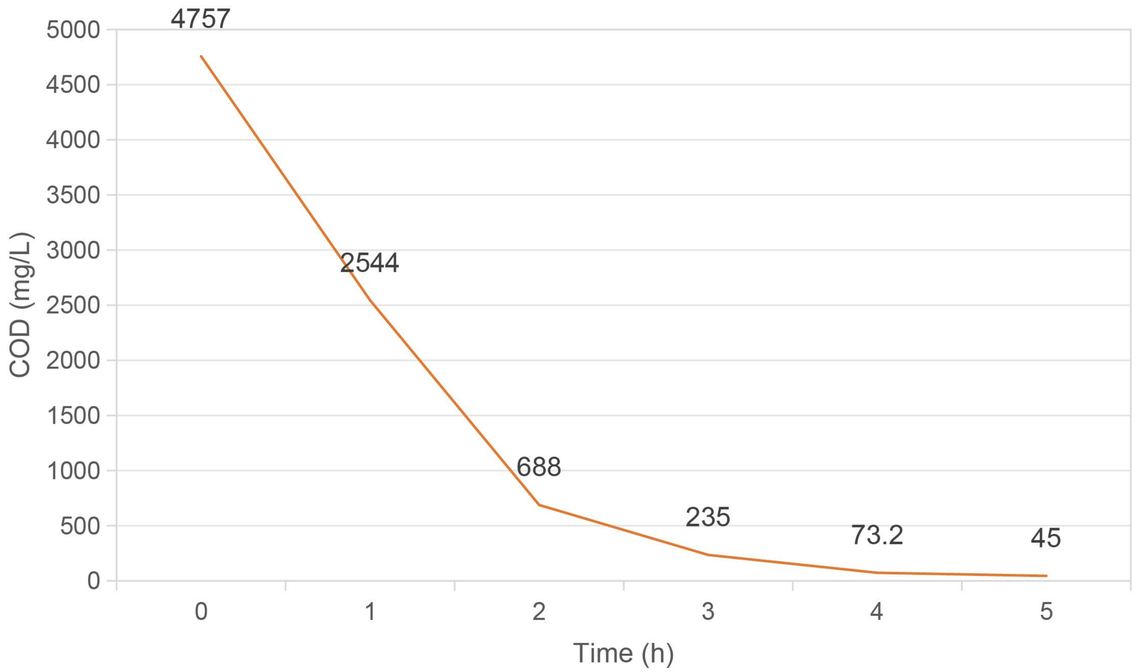
Hunan Boromond EPT Co., Ltd. uses the electrode module based on BDD electrode material as the core, the continuous degradation of organic pollutants can be realized under the condition of normal temperature and pressure without the need to add chemicals, only the power consumption, almost no material consumption, has a significant advantage of simplicity and efficiency.



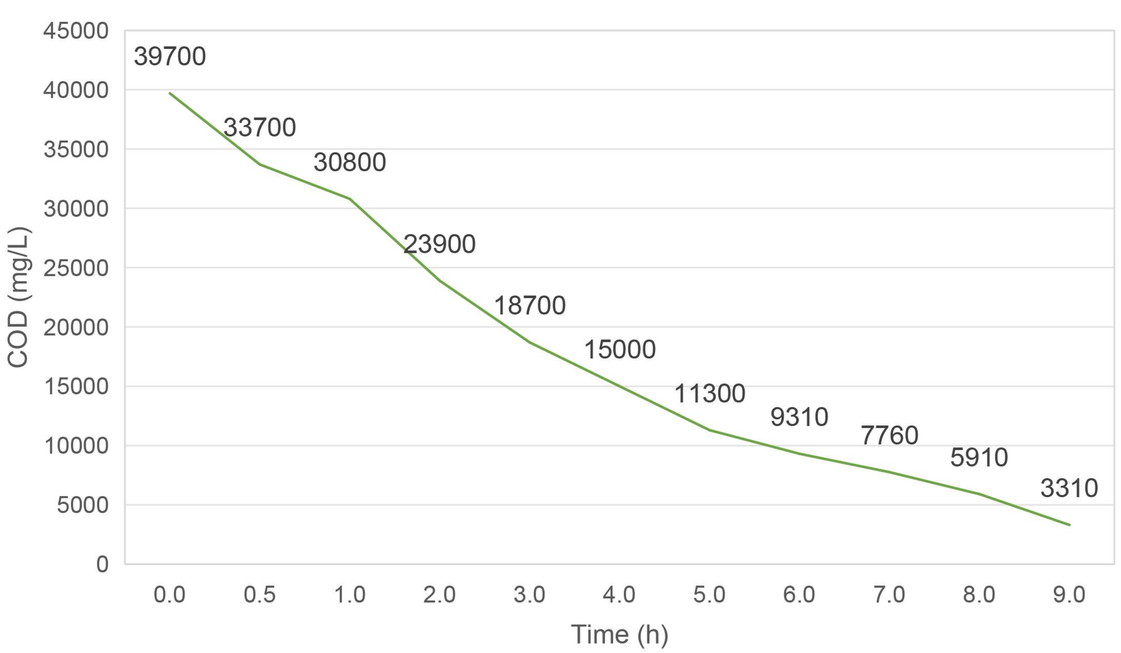
Schematic diagram of electrocatalytic oxidation technology



Case Data Analysis



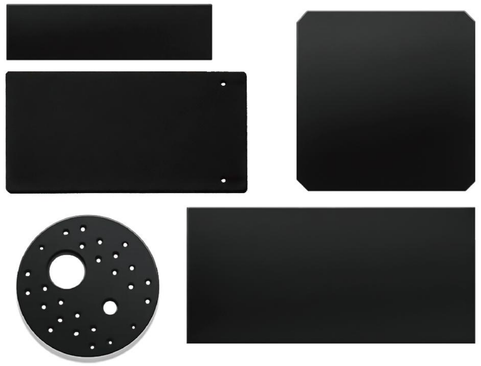
Coking wastewater Project



Oil &Gas wastewater Project

BDD Electrodes

Boromond has developed a large range of boron doped diamond (BDD) electrodes on Silicon substrates. In the facility, high quality diamond coatings are deposited on large-scale in HFCVD reactors. To ensure customer's satisfaction with the highest quality diamond coatings, Boromond has implemented a strong Quality Assurance policy to guarantee customer satisfaction.Electrode specifications are systemically controlled through Bormond's advanced metrology equipments.



- Strong acid and alkali corrosion resistance;
- Excellent adsorption resistance;
- No passivation layer;
- Stable in harsh electrolysis,high temperatures;
- Widest electrochemical window;
- High oxygen evolution potential;
- Excellent mechanical properties;
- Low hydrogen evolution potential;
- Low background current;

Specifications

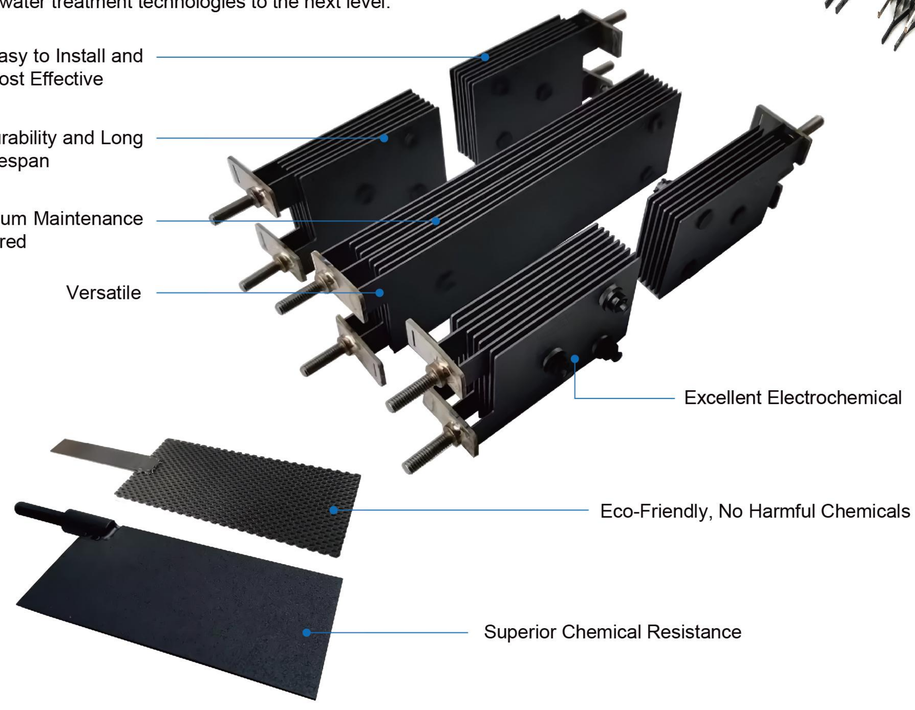
Substrate	Silicon/Nb	Operation Conditions	Anode/Cathode/Bipolar
Electrode Shape	Rectangle/Disk/Mesh/Foam/Custom	**BDD Resistivity**	10-1000mΩ·cm
BDD Coating Thickness	<10 um	**Oxygen Potential**	2.5-2.9V
Coating Side	Single side/ Double sides	**Current Density**	<100 mA/cm^2
Substrate Thickness	0.5-10 mm	**Hydrogen Potential**	≧-1.2 V
Electrode Dimensions	5*5mm~ 500*500mm	**PotentialWindow**	≦3.85 V
Grain Size	<2 um	**Stability**	stable in harsh media (strong acids,alkaline, alcohols,oils,complexing agents,aromatics), high temperatures,hetergeneous media,etc.
Boron Concentration	5000-6000 ppm		

Application Range

MMO Electrodes

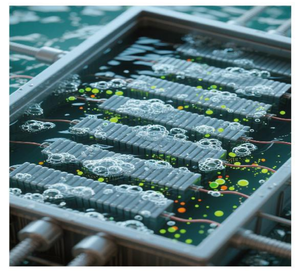
MMO electrode, people usually call it mixed metal oxide electrode, is a type of electrode material with great conductivity and resistance to corrosions, MMO electrode are usually made by coating substrate such as Titanium, and with various types of metal oxides such as IrO_2, PtO_2, or RuO_2.

Boromond is committed to bring the innovative and the latest premium quality MMO electrode products to the wastewater treatment industry and environment protection market. Together we bring the electrochemical wastewater treatment technologies to the next level.



Specifications

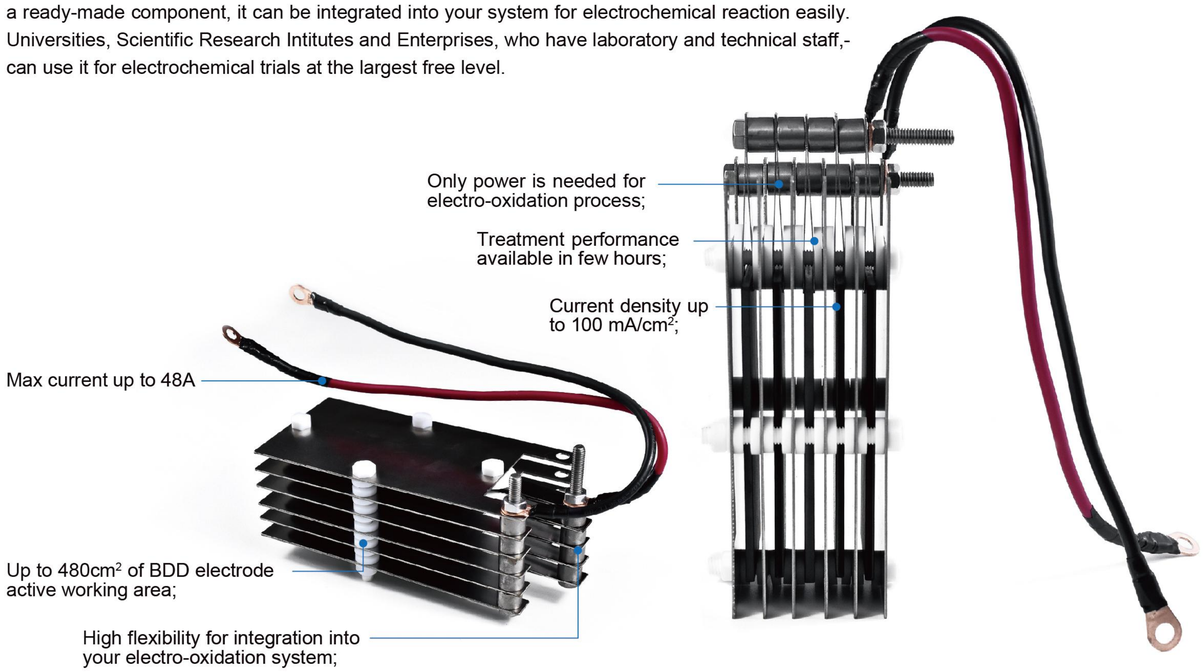
CoatingMaterial	Mixed Metal Oxide	OperationConditions	Anode/Cathode/Bipolar
MMO Coating Thickness	8-15 um	**Oxygen Potential**	< 1.45 V
Substrate	Titanium	**Current Density**	<35 mA/cm^2
Coating Side	Single side/ Double sides	**PH Value**	1-12
Substrate Thickness	1-10 mm	**Fluoride content**	<50 mg/L
Electrode Dimensions	Customizable as per drawing	**Regular Operation Temperature Range**	<60℃
Precious Metal Content	8-20 g/m^2		
Electrode Shape	Plate/Tube/Net/Rod/Machined Part		



BDD MODULE UNIT

MU510

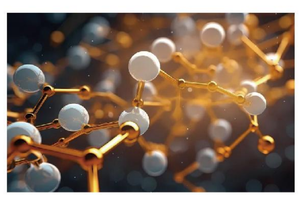
It is a compact and easy-to-use electrolyser,designed for water treatment trials and experiments. As a ready-made component, it can be integrated into your system for electrochemical reaction easily. Universities, Scientific Research Intitutes and Enterprises, who have laboratory and technical staff,-can use it for electrochemical trials at the largest free level.



Specifications

Name	Anode	Cathode	Active Area	Water Volume	Work Power	Input Voltage	Input Current	Accessory	Weight
MU510	BDD Electrode (Silicon Substrate)	Titanium Electrode	480cm²	2-5 Liter	500W	DC 20V/50Hz	DC48A Max	Cable	2 kg
	Dimension: 100*50*3mm	Dimension: 145*70*1mm							
	Quantity: 5 pcs	Quantity: 6 pcs							

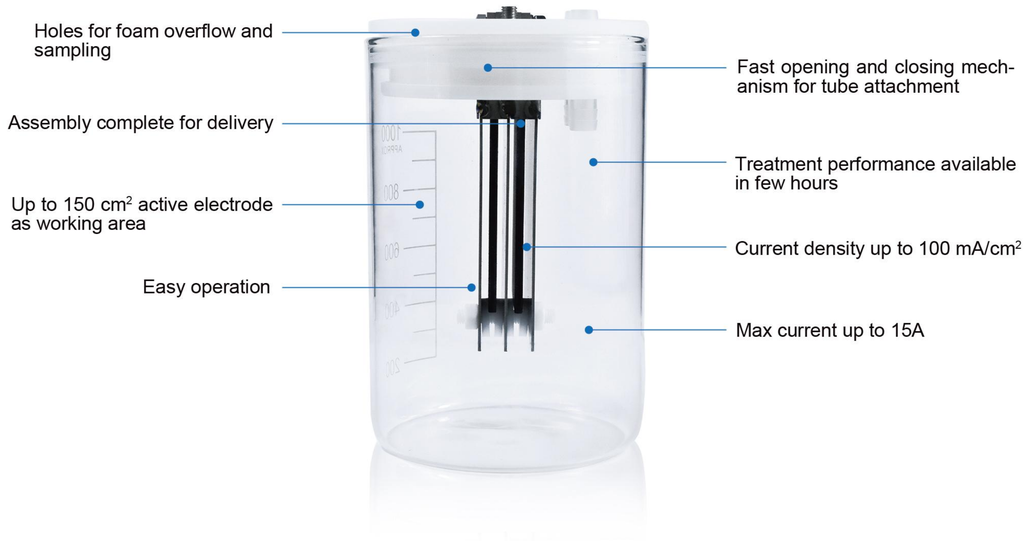
Notes: User needs to prepare related components for trial,including but not limited to power supply,magnetic stirrer,container of 5 liter or so.



BDD BEAKER

BK1.0

The key part of the beaker is the Boromond electrode. The use of Boron-Doped Diamond electrodes (BDD) provides a way towards state-of-the-art Advanced Oxidation Process in Water Treatment.
The processing capacity of a single beaker is 1L ,which can be used for small batch test and qualitative analysis of water degradation test in scientific research institutions,universities and environmental enterprises.The beaker kit is a flexible and modular tool for electrolysis tests on a small laboratory scale. It is designed to support you getting to know the waste water features and development of treatment process in your facility. It is versatile and easy to use. Each part is available separately.



Specifications

Name	Anode	Cathode	Active Area	Water Volume	Work Power	Input Voltage	Input Current	Accessory	Weight	Dimension
BK 1.0	BDD Electrode (Silicon Substrate)	Titanium Electrode	Max 150cm²	1 Liter	300W	DC 20V/50Hz	DC15A Max	Cable	Approx. 650 grams	φ108*168mm
	Dimension: 100*50*3mm	Dimension: 93*74*1mm								
	Quantity: 2 pcs	Quantity: 3 pcs								

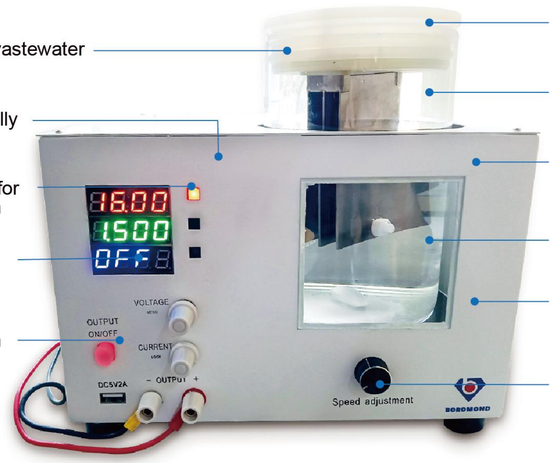
Notes: Power Supply & Magnetic Stirrer is to be prepared by user for the BDD Beaker operation.

BDD BEAKER

BK3.0

Boromond's BDD Electrochemical Testing Compact Device

A fast, portable, and efficient wastewater treatment solution! This plug-and-play device integrates a BDD module, beaker, DC power supply, and magnetic stirrer ready to use instantly. It quickly and degrades organic pollutants, reducing BOD and COD levels, making it ideal for wastewater treatment research and applications.



Specifications

Name	Anode	Cathode	Active Area	Water Volume	Work Power	Input Power	Output	Accessory	Weight
BK3.0	BDD Electrode (Silicon Substrate)	Titanium Electrode	150cm²	1Liter	170W	AC220V/50Hz	10A 15V	Cable	3kg
	Dimension: 100*50*3mm	Dimension: 93*74*1mm							
	Quantity: 2 pcs	Quantity: 3 pcs							

BDD BEAKER

BK5.0

Boromond proudly presents the BK5.0, designed for fast, portable, and efficient wastewater treatment. Crafted by a professional design company, it features an innovative, futuristic design and integrates a BDD module, beaker, DC power supply, magnetic stirrer, cable storage box, and waste liquid collection box. Simply plug it in for quick and degradation of organic pollutants, significantly reducing BOD and COD level, making it an ideal tool for wastewater treatment research and other applications.

Plug-and-Play Convenience: Fully assembled for instant use, saving time and effort.

Efficient Degradation, Fast Results:Up to 150 cm² BDD electrode and 60 mA/cm² current density enable rapid BOD and COD reduction within hours.

Compact and Portable: Sleek design for flexible, on-the-go wastewater treatment testing.

Simple Operation, Easy Control: Adjustable magnetic stirrer, foam overflow protection, and sampling holes for seamless experiments and data collection.

Safe, Reliable, and Durable: High-quality materials ensure stable performance and long service life.

Specifications

Name	Anode	Cathode	Active Area	Water Volume	Work Power	Input Power	Output	Dimension	Weight
BK 5.0	BDD Electrode (Silicon Substrate)	Titanium Electrode	150cm²	1 Liter	200 W	AC 220V/50Hz	10A 15V	280*270*220mm	Approx 3kg
	Dimension: 100*50*3mm	Dimension: 93*74*1mm							
	Quantity: 2 pcs	Quantity: 3 pcs							

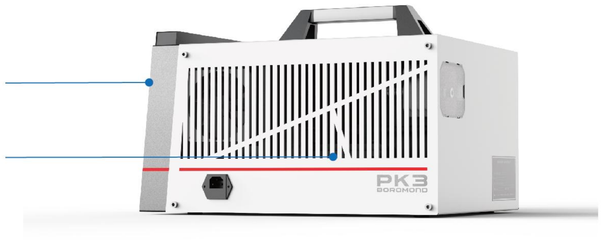
PORTABLE KIT

PK3.0

The portable kit is a Ready-To-Run device and you can run it by simply connecting it to a separate water container and plugging into power source. It has folding flow channel inside to increase the contact area among the BDD electrode plates and the liquids, leading to more efficient electrochemical reaction and degradation.
It is suitable for quantitative and qualitative, as well as the degradation trial of wastewater for research institutes. It can also be used by environment protection companies, wastewater disposal enterprises.
The ideal water volume per trial is 2 to 5 liters, and it is operational both indoors and outdoors as long as there's a power supply. This makes it a convenient device for researchers, scientists, engineers to conduct trials of water from remote facility sites.

It matches large range of water flow and carries out independent treatment of wastewater

It has complete function of wastewater treatment with screen display and data monitoring



Equipped with peristaltic pump and built-in power supply, ready for plug-in use

The integrated design makes it compact and portable, easy to use, also easy to replace any part

Specifications

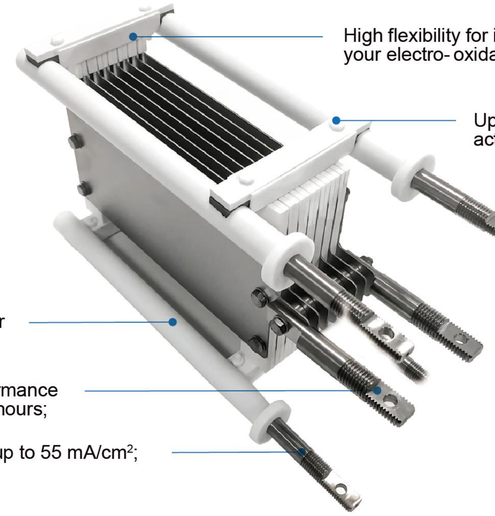
Name	Anode	Cathode	Kit Dimension	Sealed Active Area	Water Volume	Work Power	Input Power	DC Power Supply	Main Structure	Weight
PK 3.0	BDD Electrode (Nb Substrate)	Titanium Electrode	420*330*280 mm	540cm²	2-5 Liter	500W	110/220V 50/60Hz	DC 0-30A, 0~12V	BDD Module, Peristaltic Pump Power,Panel	12 Kg
	Dimension: 100*50*3mm	Dimension: 100*50*1mm								
	Quantity: 7 pcs	Quantity: 8 pcs								

Notes: User needs to prepare container of 5L max for water circulation before operation.

BDD MODULE UNIT

MU724

The Module Unit consists of 7 pcs of BDD electrodes and 8 pcs of Ti electrodes,which can be used as a unit for modular electrolyzers. With an activeworking area up to 4200 cm² per unit, It is the basis for the application of BDD EO technology for large scale wastewater treatment, and it is also the great innovation and breakthrough of Boromond in BDD EO technology,which fulfills the vision of providing customized services to customers from different industries like Petrol Oil,Pharmaceutical,Battery,Pesticide,Textile and so on.
It can be used for piloting tests directly,and it can be preinstalled in the PP modular sink for serial connection as integral equipment for projects.



High flexibility for integration into your electro- oxidation system;

Up to 4200cm² of BDD electrode active working area;

Only power is needed for electro-oxidation process;

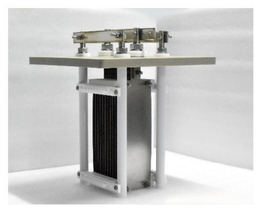
Treatment performance available in few hours;

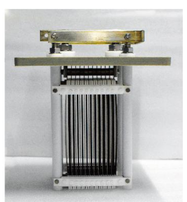
Current density up to 55 mA/cm²;

Specifications

Name	Anode	Cathode	Sealed Active Area	Distance between Anode and Cathode	Overall Dimension	Input Voltage	Input Current	Main Structure	Weight
MU724	BDD Electrode (Silicon Substrate)	Titanium Electrode	4200cm²	3mm	230*155*415mm	DC 0V~12V	DC 0A~400A	Conductive pole: Titanium;PPHShell; PTFE Plate	8.8Kg
	Dimension: 240*130*3mm	Dimension: 324*150*1.5mm							
	Quantity: 7 pcs	Quantity: 8 pcs							

Notes: User needs to prepare related components for trial,including but not limited to suitable water tank,power supply,pipes,water pumps,cooling system.

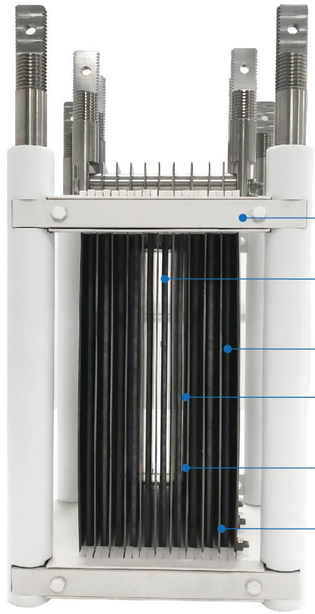




BDD MODULE UNIT

MU1032/MU1232

The MU1032 consists of 10 pcs of BDD electrodes and 11 pcs of Ti electrodes, it is the latest developed unit that can be connected without quantity restriction and can be customized according to on-site project that is more flexible in application.

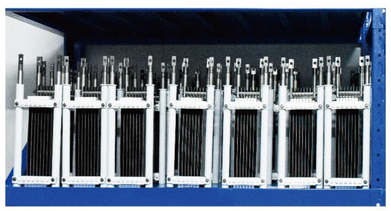


- High flexibility for integration into electro-oxidation system;
- Up to 11000 cm^2 of BDD electrode active working area;
- Current density up to 55 mA/cm^2;
- Only power is needed for electro-oxidation process;
- Treatment performance available in few hours;
- Suitable for Full-Scale Tailored System in Water Treatment Project;

Specifications

Name	Anode	Cathode	Overall Dimension	Sealed Active Area	Distance between Anode and Cathode	Input Voltage	Input Current	Accessory	Weight
MU1032	BDD Electrode (Silicon Substrate)	Titanium Electrode	490*420*550mm	11000cm^2	3 mm	DC 0V ~ 12V	DC 0A ~ 600A	Conductive pole: Titanium;PPH Shell; PTFE Plate	40 kg
	Dimension: 320*180*5mm	Dimension: 404*200*1.5mm							
	Quantity: 10 pcs	Quantity: 11 pcs							
MU1232	BDD Electrode (Silicon Substrate)	Titanium Electrode	490*420*550mm	13100cm^2	3 mm	DC 0V ~ 12V	DC 0A ~ 600A	Conductive pole: Titanium;PPH Shell; PTFE Plate	45 kg
	Dimension: 320*180*5mm	Dimension: 404*200*1.5mm							
	Quantity: 12pcs	Quantity: 13 pcs							

Notes: User needs to prepare related components for trial,including but not limited to suitable water tank,power supply,pipes,water pumps,cooling system.

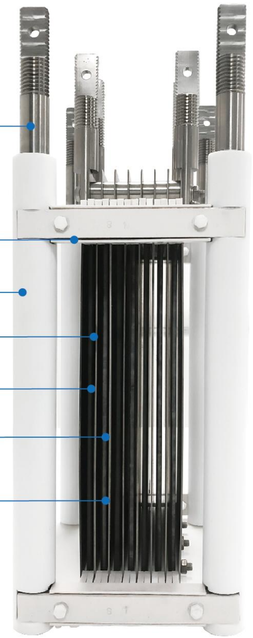


BDD MODULE UNIT

MU924

The MU924 consists of 9 pcs of BDD electrodes and 10 pcs of Ti electrodes,which is an upgraded version of MU724 with 2 more pcs of BDD electrodes and 3 more pcs of Ti electrodes. Identically, it can be used as a unit for modular electrolyzers but with a larger working area of up to 5300 cm^2 per unit. Just like MU724,This product MU924 can be preinstalled in PP modular sink,which can be connected to each other without quantity restriction.The limit lies only in how many square meters of BDD electrode is required by the project.

- High flexibility for integration into electro-oxidation system;
- Up to 5300 cm^2 of BDD electrode active working area;
- Current density up to 55 mA/cm^2;
- Only power is needed for electro-oxidation process;
- Treatment performance available in few hours;
- Suitable for facility pilot scale tests of wastewater treatment;
- Suitable for Preinstallation in Borom-ond PP Modular Sink;



Specifications

Name	Anode	Cathode	Overall Dimension	Sealed Active Area	Distance between Anode and Cathode	Input Voltage	Input Current	Accessory	Weight
MU924	BDD Electrode (Silicon Substrate)	Titanium Electrode	230*155*415mm	5300cm^2	3 mm	DC 0V ~ 12V	DC 0A ~ 400A	Conductive pole: Titanium;PPH Shell; PTFE Plate	10.2 kg
	Dimension: 240*130*3mm	Dimension: 324*150*1.5mm							
	Quantity: 9 pcs	Quantity: 10 pcs							

Notes: User needs to prepare related components for trial,including but not limited to suitable water tank,power supply,pipes,water pumps,cooling system.

BOROMOND

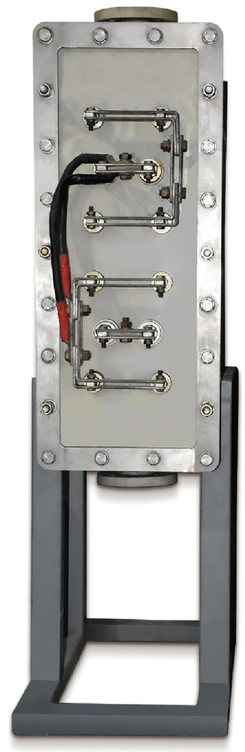
BDD MODULE ELECTROLYZER

ME21424

www.boromond.com

BDD MODULE ELECTROLYZER

■ ME21424/ME21824



This electrolyzer is equipped with two sets of module unit (MU724/924) and one set of PP modular sink with seal. It is the most popular electrolyzer for large scale wastewater treatment,because Limitless connections can be realized among multiple sets of the electrolysers ME21424/ME21824, according to the practical needs (eg.daily water flow) of the facility.

It can be used for pilot test alone,and when multiple sets of ME21424/ME21824 are connected, they form scalable equipment for projects.

- High flexibility for integration into electro-oxidation system;
- Current density up to 55 mA/cm^2;
- Only power is needed for electro-oxidation process;
- Treatment performance available in few hours;
- Suitable for pilot and project scale of use;

Specifications

Name	Anode	Cathode	Sealed Active Area	Distance between Anode and Cathode	Input Power	Current Density	Optional Accessory	Net Weight
ME21424	BDD Electrode (Silicon Substrate) Dimension: 240*130*3mm Quantity: 7pcs*2=14pcs	Titanium Electrode Dimension: 324*150*1.5mm Quantity: 8pcs*2=16pcs	8400cm^2	3 mm	DC 400A/20V	0-55 mA/cm^2	Bracket, Power Supply	65kg
ME21824	BDD Electrode (Silicon Substrate) Dimension: 240*130*3mm Quantity: 9pcs*2=18pcs	Titanium Electrode Dimension: 324*150*1.5mm Quantity: 10pcs*2=20pcs	10600cm^2	3 mm	DC 400A/20V	0-55 mA/cm^2	Bracket, Power Supply	68kg

Notes: User needs to prepare related components for trial,including but not limited to suitable water tank,power supply,pipes,water pumps,cooling system.

BDD MODULAR CASE

■ MC088

The MC088 is an integrated electrochemical water treatment unit featuring a high-performance BDD (Boron-Doped Diamond) cell (Model: ME21424), along with essential components including a DC rectifier, E-control system, piping, water pump, filtration system, and more—all housed in a durable metal enclosure.

With an active BDD anode working area of 0.84 m², the MC088 is ideal for pilot testing and full-scale project applications in various water treatment scenarios.

Designed for quick and hassle-free installation, this preassembled system only requires:

Connection to 3-phase AC power supply
Integration with water circulation tanks (inlet/outlet) for batch processing

The MC088 can also be seamlessly incorporated into existing water treatment systems to enhance performance and meet stricter emission standards.

Compact, lightweight, and portable, this unit is perfect for both permanent installations and rental applications, offering flexibility for diverse operational needs.

- Small area for the equipment,and it is movable;
- Can be easily transported by land or sea due to its modular construction;
- It is modular,fully automatic plug & play;
- Ensure stable effluent quality by adjustment of input voltage and current;
- Can be combined with other process technologies to meet strict compliance limits;
- Up to 8400 cm² of sealed BDD electrode active working area;
- Only electricity is needed for electro-oxidation process;
- Treatment performance available in few hours;
- Degradation in room temperature and pressure;
- Suitable for pilot and project scale of use;

Specifications

Name	Anode	Cathode	Sealed Active Area	Designed Circular Flow	Input Voltage	Power Output	Current Density	Main Structure	Overall Dimension	Net Weight
MC088	BDD Electrode (Silicon Substrate)	Titanium Electrode	8400cm²	10 m³/h	AC 380V/ 50Hz	DC 400A/20V	0-55 mA/cm²	BDD Electrolyzer	1350*1100*1550 mm	Approx 575 kg
	Dimension: 240*130*3mm	Dimension: 324*150*1.5mm						Pipe & Power Supply		
	Quantity: 14pcs	Quantity: 16pcs						Filtration & Water Pump		
								Temperature & Pressure Protector		

Notes: User needs to prepare related components for operation,including but not limited to suitable water tank,power supply,pipes, cooling system.

BDD MODULAR CASE

■ MC175

The MC175 is a high-capacity electrochemical water treatment unit equipped with two BDD cells (Model: ME21424), along with a complete set of integrated components—including a DC rectifier, E-control system, piping, water pump, and filtration system—all housed in a robust metal enclosure.

With a total active BDD anode working area of 1.68 m², the MC175 delivers enhanced performance for large-scale pilot testing and industrial water treatment applications, ensuring efficient and reliable operation.

Designed for quick deployment, this preassembled system requires minimal setup:

Connection to 3-phase AC power supply
Inlet/outlet integration with water circulation tanks for batch processing

The MC175 can also be retrofitted into existing treatment systems, providing an effective upgrade to meet evolving emission regulations and higher treatment demands.

Despite its increased capacity, the unit remains compact, lightweight, and portable, making it an excellent choice for both permanent installations and rental service applications.

- Can be easily transported by land or sea due to its modular construction
- It is modular,fully automatic plug & play
- Degradation in room temperature and pressure
- Small area for the equipment,and it is movable
- Suitable for pilot and project scale of use
- Up to 16800 cm² of sealed BDD electrode active working area
- Treatment performance available in few hours
- Only electricity is needed for electro-oxidation process
- Ensure stable effluent quality by adjustment of input voltage and current

Specifications

Name	Anode	Cathode	Sealed Active Area	Designed Circular Flow	Input Voltage	Power Output	Current Density	Main Structure	Overall Dimension	Net Weight
MC175	BDD Electrode (Silicon Substrate)	Titanium Electrode	16800cm²	20 m³/h	AC 380V/ 50Hz	DC 400A/40V	0-55 mA/cm²	BDD Electrolyzer	1250*1395*2000 mm	Approx 665 kg
	Dimension: 240*130*3mm	Dimension: 324*150*1.5mm						Pipe & Power Supply		
	Quantity: 28pcs	Quantity: 32pcs						Filtration & Water Pump		
								Temperature & Pressure Protector		

Notes: User needs to prepare related components for operation,including but not limited to suitable water tank,power supply,pipes,cooling system.

BDD MODULAR CASE

■ MC350

The MC350 is an industrial-grade electrochemical water treatment system featuring four high-performance BDD cells (Model: ME21424), combined with all essential components—including a DC rectifier, advanced E-control system, piping, water pump, and filtration system—housed in a heavy-duty metal enclosure.

With an expansive active BDD anode working area of 3.36 m², the MC350 is engineered not only for large-scale pilot testing but primarily for full-scale industrial water treatment applications, delivering superior efficiency and reliability.

This preassembled system is designed for rapid deployment:

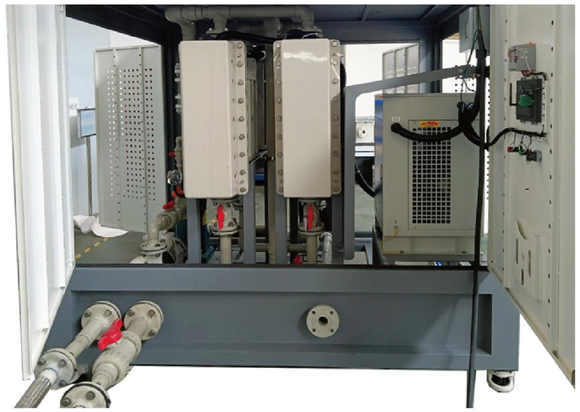
Connect to a 3-phase power supply
Integrate inlet/outlet piping with water circulation tanks for batch processing
Advanced Automated Operation
Quick and Simplified Installation
Seamless System Integration
Portable Yet Industrial-Strength

The integrated E-control system enables fully automated daily operation. Simply configure:
Batch Treatment Working time
DC Value (Ampere)
Direct Voltage

Once set, the system operates autonomously, ensuring consistent performance with minimal manual intervention.

The MC350 can be retrofitted into existing water treatment solution, providing a powerful upgrade to meet stringent emission standards and enhanced processing demands.

Despite its high capacity, the unit remains mobile and versatile, making it ideal for both permanent installations and rental service applications across diverse industrial settings.



- Up to 35000 cm^2 of sealed BDD electrode active working area
- Only electricity is needed for electro-oxidation process;
- Treatment performance available in few hours;
- Degradation in room temperature and pressure;
- Suitable for pilot and project scale of use;
- Small area for the equipment,and it is movable;
- Can be easily transported by land or sea due to its modular construction;
- It is modular,fully automatic plug & play;
- Ensure stable effluent quality by adjustment of input voltage and current;
- Can be combined with other process technologies to meet strict compliance limits;

Specifications

Name	Anode	Cathode	Sealed Active Area	Designed Circular Flow	Input Voltage	Power Output	Current Density	Main Structure	Overall Dimension	Net Weight
MC350	BDD Electrode (Silicon Substrate)	Titanium Electrode	33600cm^2	20 m^3/h	AC 380V/ 50Hz	DC 400A/80V	0-55 mA/cm^2	BDD Electrolyzer	2292*1764*2150 mm	1200kg
	Dimension: 240*130*3mm	Dimension: 354*150*1.5mm						Pipe & Power Supply		
	Quantity: 56pcs	Quantity: 64pcs						Filtration & Water Pump		
								Temperature & Pressure Protector		

Notes: User needs to prepare related components for operation,including but not limited to suitable water tank,power supply,pipes, cooling system.

BDD MODULAR CASE

■ MC700

As Boromond's flagship mobile water treatment solution, the MC700 integrates eight sets of BDD cells (Model: ME21424) and a complete treatment system (including rectifier, intelligent control system, water pump, and filtration unit) in a containerized design for global transportation and rapid deployment.

Key Advantages:
Extra Large: The working area of BDD anodes up to 6.72m² for industrial/municipal applications
Plug-and-Play Operation: Ready for use upon three-phase power connection and water tank connection
Smart Control: Preset working parameters for fully automatic operation

The mobile design allows the MC700 to serve both fixed-site requirements and function as emergency treatment or rental equipment, fully demonstrating Boromond's leading design and manufacturing capabilities in BDD EO technology.

We also offer customized designs and solutions tailored to your specific needs.

Specifications

Name	Anode	Cathode	Sealed Active Area	Designed Circular Flow	Input Voltage	Power Output	Current Density	Main Structure	Overall Dimension	Net Weight
MC700	BDD Electrode (Silicon Substrate)	Titanium Electrode	67200cm^2	40m^3/h	AC 380V/ 50Hz	DC 400A/80V	0-55 mA/cm^2	BDD Electrolyzer	5200*2000*2000 mm	4000kg
	Dimension: 240*130*3mm	Dimension: 324*150*1.5mm						Pipe & Power Supply		
	Quantity: 112pcs	Quantity: 128pcs						Filtration & Water Pump		
								Temperature & Pressure Protector		

Notes: User needs to prepare related components for operation,including but not limited to suitable water tank,power supply,pipes,cooling system.

ENGINEERING SOLUTION &SERVICES

Model:EQX

Boromond Modular Electrolyzers are available in limitless connection to form a huge powerful system for waste water treatment. Just imagine how efficient you want it to be, Boromond can customize it for you with accurate calculation and design. Feel free to contact us today for perfect customized treatment solution of your wastewater.

Contact us with below data for our efficient service:

1. The trial result by using our BDD trial kit product;
2. The daily water volume (m^3/d);
3. The daily operation time (hrs/d);
4. The initial level (ie. COD) and local discharge level;
5. Your current water treatment situation.

Features

- Electrons transfer as clean reagent, no need to add other-chemicals.
- Degradation in room temperature and pressure.
- Small area for the equipment,and it is movable.
- Ensure stable effluent quality by adjustment of input voltage-and current.
- No Sludge produced.Odor free.
- No requirement for storage of ozone.(as with other oxidation-process)
- The equipment is suitably designed for all climate zones and achieve maximum efficiency in each process step.
- Low voltage and DC power for easy operation.
- The equipment can be easily transported by land or sea due toits modular construction.
- Option to install in site-built tanks.
- The equipment is modular, fully automatic plug & play and canbe combined with other process technologies to meet strictcompliance limits.
- The modules can be added on to upgrade existing equipment tomeet new emission require ment.
- Rapid installation and setup of the system as the modules arepreinstalled,Simply connect the system to the electricitysup-ply,then connect the inlets and outlets.

Specifications

Core Part	BDD Electrode Working Area	Obtained from trial or pilot results
	BDD Modular Electrolyzer Quantity	Based on BDD electrode working area
Secondary Part	Power Supply	Customizable according to the quantity of BDD modular electrolyzer
	Electronic Control System	
	Water Inlet Assy	
	Circulation Tank Assy	
	Circulation & Filter System	
	Monitor & Protection	
	Cooling System	
	Exhaust Gas Treatment	
	Drainage System	