

助/力/企/业/绿/色/发/展  
一企一策 节能减排

SDS干法脱硫

钙基干法脱硫

CFB半干法脱硫

PNCR脱硝

## 公司介绍

COMPANY INTRODUCTION

**Company** background and history

**Company** advantages and characteristics

## 产品概述

PRODUCT OVERVIEW

**Product** description and introduction

**Product** manufacturing process demonstration

## 产品特性和优势

CHARACTERISTICS AND ADVANTAGES

**Product** features and process characteristics

**Compared** with wet electricity and its advantages

## 应用案例

APPLICATION CASE

**Typical** application scenario display

**Service** and Support

**Company** Qualification Introduction

## COMPANY INTRODUCTION 公司介绍

### Company background and history

Jiangxi Bolaida Environmental Technology Co., Ltd. is a company specializing in industrial waste gas treatment under Zhong 'an Tiancheng (Hubei) Environmental Technology Co., LTD. It was established in May 2018 and is a national high-tech enterprise. The core members of the team have over 20 years of experience in environmental engineering governance in the chemical industry. They are dedicated to the research and development of flue gas treatment engineering technology and equipment manufacturing in the industrial field, and provide customized solutions for a wide range of customers. The company undertakes one-stop services including process consultation, scheme design, engineering construction, after-sales training, and upgrading and renovation of existing projects for waste gas treatment in new projects across various industries.

Main business scope: 1. Desulfurization, denitrification and dust removal, ultra-low emission treatment for industrial kilns, boilers, glass, non-ferrous smelting, coking, steel, cement and other industries; 2. De-whitening and acid mist removal in inorganic chemical industries such as hazardous waste incineration, titanium dioxide, spray drying, sulfuric acid, synthetic ammonia, and fertilizers; 3. Treatment of malodorous organic waste gas in industries such as fine chemicals, medical and pesticide chemicals, biological fermentation, sewage and sludge treatment, and three-waste incineration.....

The company adheres to the development philosophy of technological innovation, service priority and quality first, and is committed to: "Improving air quality, restoring fresh air to the earth and ensuring healthy breathing for humanity!" Strive unremittingly for the great cause.

### Company advantages and characteristics



#### Technical strength:

21 years of experience  
One joint laboratory



#### Investment and operation:

One investment  
It operates 360 days a year



#### Engineering Case:

Over 30 industries  
Over 500 engineering cases



#### Project effect:

Meet the standard in one attempt  
Ten years of worry-free environmental protection



**20**

Serve the  
country

**3000+**

Customer  
inquiry

**100%**

Compliance  
guarantee

**>100**

Annual number  
of sets

## Product Overview 产品概述

### Product description and introduction

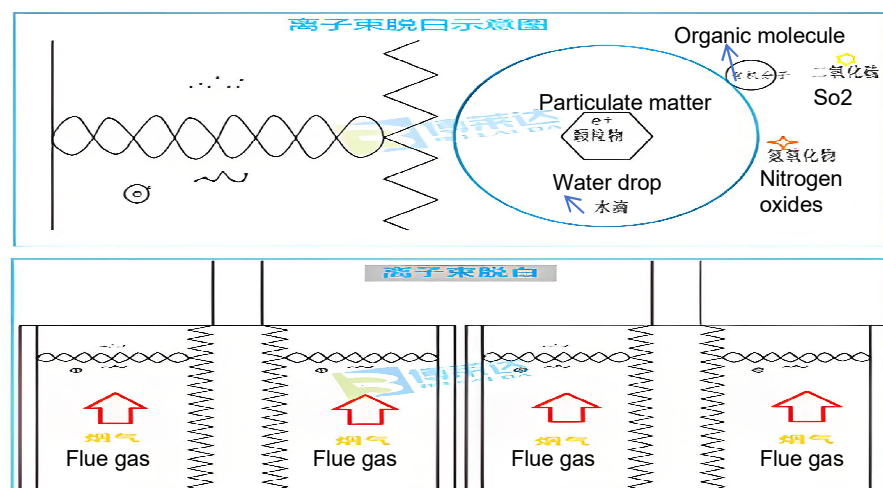
#### Low-power ion beam technology:

Low-power consumption ion beam flue gas de-whitening equipment is A kind of cigarette innovatively developed by Jiangxi Bolaida. The air de-whitening equipment is integrated and multi-functional

Its performance is currently widely applied in the phosphorus chemical industry Titanium dioxide, new energy, new materials, lithium batteries Glass, chemical fertilizer, graphite, carbon Non-ferrous metal smelting, rare earth roasting, hazardous waste incineration Solid waste incineration and other fields.



### Product schematic diagram



## Working principle

### The core functions of low-power ion beam technology

Low-power ion beam flue gas de-whitening is a new type of flue gas de-whitening technology independently developed by Bolaida Environment. The core device is integrated and multi-functional: 1 It can remove particles and droplets larger than  $0.04\mu\text{m}$ , and the dust emission concentration can be controlled below  $5\text{mg}/\text{m}^3$ . It not only removes white and acid mists, but also has the functions of desulfurization and denitrification. 2. At the same time, it can purify other harmful gases. Under the action of the device, dioxins, heavy metals, various odor components and other large-molecule organic substances in the flue gas can undergo molecular bond cracking, directional harmless molecular combination and multi-phase removal.

98%

De-whitening  
efficiency

60%

Acid mist  
removal rate

99%

Dust removal  
efficiency

65%

Deodorization  
efficiency

## Product Overview 产品概述

### Working principle

#### The working principle of dust removal and whitening elimination

The flue gas is first cooled and condensed to reduce the temperature of the flue gas after the spray tower to below 45°C, so as to lower the water content in the flue gas and at the same time meet the environmental temperature requirements for condensation and aggregation in the electric field. The cooled flue gas enters the ion beam demisting device. Through the high-voltage module power supply device, the entire tube bundle space is filled with an electromagnetic field. When the ambient temperature is reached, the charged droplets condense to form large droplets. At the same time, aerosols and particles form condensation nuclei to condense the surrounding water mist and tiny aerosols and particles, forming large water droplets and particles. On the other hand, in the dust removal and de-whitening space, the positive electrode emits a high-speed ion beam to penetrate the air. When particles and droplets pass through the web woven by the electron flow composed of high-speed ion beams, the droplets and particles are intercepted by the impact of the electron beam web. In addition, the droplets carry an electric charge. In the plasma field, positive and negative charges collide with each other, causing the droplet particles to continuously expand. When the gravitational force exceeds the buoyancy, they fall down.

Through the action of the above-mentioned multiple functional electric fields, the water mist, aerosols, particulate matter and tiny substances in the flue gas form large water droplets and particles, which are settled along with the captured water, thereby reducing the haze condensation nuclei and the moisture content of the water mist in the flue gas, achieving an invisible effect at the chimney outlet.

#### Deodorization working principle

First, when the exhaust gas enters the equipment through the flow equalizing plate, it is stably and frequently discharged by the equipment at high voltage, instantly generating a 7KV-70KV high voltage arc that breaks through the exhaust gas. At this stage, long-chain and multi-chain waste gas molecules have relatively weak bond energy and less binding force. It is very easy for the chemical bonds to be broken through, thus transforming into small-molecule compounds. This is the first stage of purification.

Secondly, the water molecules and oxygen molecules that enter the equipment along with the exhaust gas are broken down by high voltage, generating strong oxidizing groups such as hydroxyl and ozone molecules. These strong oxidizing groups come into full contact with the waste gas molecules for oxidation, accelerating the reaction process. The entire reaction is clean and thorough, with a high energy utilization rate and extremely high purification efficiency. Meanwhile, the particulate matter is also intercepted by the network composed of ion beams.

The functional section of the ion beam can stimulate the energy of pollutants, promote the molecular bond breaking and recombination of long-chain and multi-chain pollutant molecules, and degrade difficult-to-treat pollutants into more easily treatable low-carbon pollutants.



## Product features and advantages产品特性和参数

### Product features

It has a good whitening effect, is multi-functional, safe and reliable  
Easy to maintain, energy-saving design, intelligent control system

### Compared with wet electricity technology:

Project	Low-power ion beam	Wet electrostatic demisting
	Titanium 2 alloy	stainless steel
Manufacturing material	10 years	3-5years
Service life	3m	12m
Effective electric field radians	7K-7W volts	8Wvolts
Working voltage	5kw/h	320kw/h
Comparison of installed power	<8mg/m <sup>3</sup>	< 10mg/m <sup>3</sup>
Particulate matter emission value	About 100 days	About 30 days
Interval rinse time	No need	Need
Is it necessary to shut down the furnace for maintenance	There is no white smoke at 0°C in winter	When the temperature is lowThere is still visible white smoke
Flue gas de-whitening effect	20%-30% efficiency	None
Desulfurization and denitrification effect	Arc	Electric field
Principle		



### Product advantages

#### Good whitening effect:

✓ It can efficiently and quickly remove 99% of particulate matter, tar, aerosols, acid mists and free water in flue gas.

#### Versatility:

✓ Under the condition of ammonia presence, it has been measured that 80% of SO<sub>2</sub> and 40% of NO<sub>x</sub> can be removed, and acid and alkali mists can be removed simultaneously.

#### Energy-saving design, intelligent control system

✓ The working frequency is adjustable. Compared with electromagnetic de-whitening methods such as wet electricity, for the same air volume, it saves 1/10 of the electricity consumption. Online and offline, real-time monitoring via mobile APP, more convenient operation.

#### Safe and reliable, easy to maintain

✓ The core components of the ion beam are made of specific materials and are matched with the application scenarios, with a lifespan of over 20 years. Digital design and integrated processing usually enable the production and installation of a kiln to be completed within 60 days.



### **Typical application scenarios of low-power ion beam technology**

It is widely applied in industries such as boilers, kilns, drying systems, incinerators, smelters, textiles, chemicals, and food processing

**Desulfurization flue gas:** phosphate chemicals, titanium dioxide, lithium battery production, glass, fertilizers.

**Industrial furnaces:** coke ovens, smelters, incinerators, baking furnaces, calcining furnaces, oxygen-enriched furnaces.

**Key processes:** Dual-flow control of boilers, spray tower emissions, waste incineration, and drying exhaust gas.



### **Service and Support**

**Customized design:** Tailor-made solutions based on the composition of flue gas and operating conditions.

**One-stop service:** Covering preliminary investigation, scheme design, equipment production, installation/commissioning, after-sales training, etc.

**Ten years of experience in de-whitening,** and tailored energy conservation and emission reduction strategies for each enterprise.





# Company qualification 公司资质



# Company qualification 公司资质



江西博莱达环境科技有限公司  
Jiangxi Bolaida Environmental Technology Co., LTD

**THANK YOU**

Contact us: 13879859268 / 18163130333

Postal box: wosdhai@163.com

Web site: <https://www.jxbld.cn>

Company: 江西博莱达环境科技有限公司

Site: 江西省南昌市南昌经开区桂苑大道创业大厦B座305室

Site: Room 305, Block B, Chuangye Building, Guiyuan Avenue,  
Nanchang Economic Development Zone, Nanchang City, Jiangxi  
Province (江西省南昌市南昌经开区桂苑大道创业大厦B座305室)

