



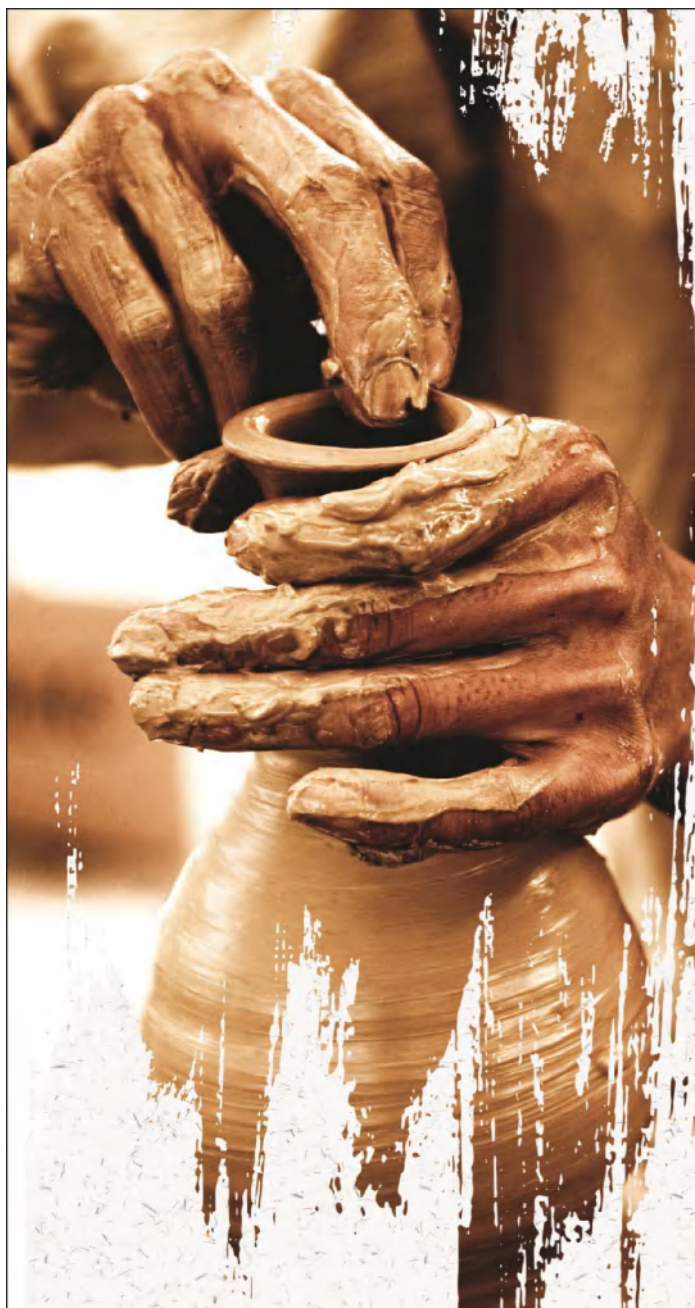
OXYGENERATOR OZONE GENERATOR



SHANDONG ZHIWEI ENVIRONMENTAL PROTECTION TECHNOLOGY CO., LTD.

SHANDONG, CHINA

<https://www.cn-ozone.com>



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EXCELLENCE IN PRODUCTION PROCESS

PROFESSIONAL OXYGEN GENERATOR, OZONE GENERATOR
MANUFACTURERS

LARGE OZONE GENERATOR RESEARCH AND DEVELOPMENT
TECHNOLOGY DEPARTMENT KEY SUPPORT ENTERPRISES



CATALOGUE

COMPANY PROFILE	1
ENTERPRISE QUALIFICATION	2
PRODUCTION CAPACITY	3
TECHNICAL STRENGTH	4
OZONE SYSTEM.....	5
SUPPORTING SYSTEM	6
OZONATED WATER TREATMENT PROCESS	8
OZONE CATALYTIC OXIDATION SYSTEM	9
OZONE LOW TEMPERATURE DENITRATION PROCESS.....	11
TECHNICAL SPECIFICATIONS	12
COMPANY PERFORMANCE	13
CUSTOMER CASE	15



→ 公司简介 CORPORATE PROFILE

Founded in 2001, Shandong Zhiwei Environmental Protection Technology Co., Ltd. is headquartered at 3F, unit 2, building 7, Shangang Xintiandi Plaza, high tech Development Zone, Jinan City; The production base is located in the leading area of Qihe Economic Development Zone for the transformation of new and old kinetic energy. The company is a high-tech enterprise invested and held by the State owned Assets Supervision and Administration Commission of Shandong Province; Engaged in ozone application technology and ozone equipment manufacturing, providing users with ozone engineering design, equipment installation, commissioning, maintenance and other professional services. The company has 85 employees, including 10 technical R&D personnel, 18 sales colleagues, 46 personnel for production and after-sales service, and 8 management and financial personnel. At present, the company has an annual output of 3000KG ozone system, serving the industries of petroleum, chemical industry, smelting, electric power, waterworks, sewage treatment plants, etc.

In 2009, the Company was reviewed by Jinan Science and Technology Bureau and recognized as "Jinan Ozone Application Engineering Technology Research Center", and in 2009, it was recognized as a "high-tech enterprise" by Shandong Provincial Department of Science and Technology, Shandong Provincial Department of Finance, Shandong Provincial State Administration of Taxation, and Shandong Local Taxation Bureau.

The 30kg/h large ozone generator independently developed by the company has won the honor of "Shandong New Product and New Technology Innovation Product". The company has passed the ISO9001-2000 quality management system certification. The ozone products developed by the company are now widely used in municipal water supply, municipal sewage treatment and reuse, industrial wastewater treatment, waste gas purification, bleaching and decolorization, swimming pool water treatment, fine chemicals, space disinfection and other fields. In 2010, our company won the research and development support fund for the Adjustable Large Ozone Generator project of the Ministry of Science and Technology of the People's Republic of China, which will provide reliable technical support for the major scientific and technological projects of "National Water Pollution Control and Treatment".

Driven by the development strategy of "ozone generator as the leader" to develop high-tech products in many ways, the company, with its strong strength and after years of hard work, has developed a high-frequency and high-power patented ozone power supply that has an international leading level and meets the domestic application environment and industry needs. In 2016, the first 10KV high-voltage input 120kg/h ozone generator in China was successfully launched, and on this basis, it has been widely used. With the operating performance of domestic ozone equipment of various specifications, the products have broad markets in China, Europe, America, Southeast Asia, the Middle East and other regions, and have been recognized by many customers at home and abroad.

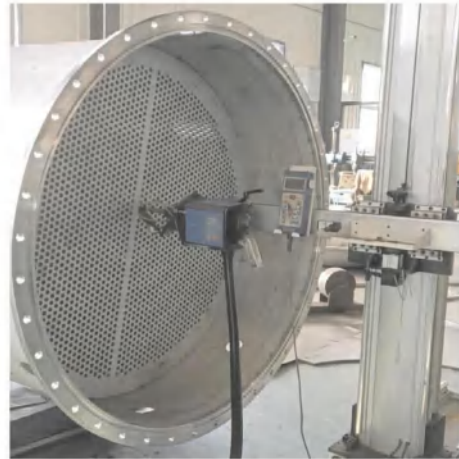
With the efforts of our technicians, our company has made certain achievements. Recently, we have reached school enterprise cooperation and strategic alliance for ultra clean emissions with many domestic colleges and universities and national coal combustion control laboratories, which will provide a strong technical guarantee for the research and promotion of ozone technology.



➔ 生产能力 PRODUCTIVE POWER

THE COMPANY'S PRODUCTION BASE IS LOCATED IN WEISU ROAD, QICHENG AVENUE, QIHE, WITH A PLANT AREA OF 25,000 SQUARE METERS. THERE ARE 6 STANDARDIZED FACTORIES AND 2 OFFICE BUILDINGS UNDER CONSTRUCTION. THE COMPANY FOCUSES ON THE MANUFACTURING OF OXYGEN AND OZONE SYSTEM EQUIPMENT FOR MORE THAN 20 YEARS, AND IS COMMITTED TO BECOMING A PROFESSIONAL SUPPLIER OF OXYGEN AND OZONE SYSTEM. IT HAS THE TECHNOLOGY AND PRODUCTION WORKSHOP TO MANUFACTURE A COMPLETE SET OF OXYGEN AND OZONE SYSTEM EQUIPMENT, AND THE KEY CORE COMPONENTS OF OXYGEN AND OZONE SYSTEM HAVE BEEN DESIGNED AND PRODUCED INDEPENDENTLY. THE PRODUCTION WORKSHOP IS EQUIPPED WITH ULTRASONIC INSPECTION MACHINE, SPECTRUM ANALYZER, FOUR-ROLLER PLATE COILING MACHINE, EDGE PLANER, AUTOMATIC ARC WELDING, AUTOMATIC TUBE AND PLATE WELDING, HIGH-SPEED NUMERICAL CONTROL DRILLING MACHINE, SAND BLASTING AND OTHER EQUIPMENT AND FACILITIES.

THROUGH THE CONSTRUCTION OF MANUFACTURING INFORMATIZATION, THE COMPANY PROMOTES THE REFORM OF PRODUCTION BUSINESS PROCESS, IMPROVES PRODUCTION EFFICIENCY BY INFORMATIZATION AND EQUIPMENT, REALIZES INTELLIGENT OFFICE AND INTELLIGENT PRODUCTION, AND IS COMMITTED TO CREATING A NEW MODERN PRODUCTION BASE WITH FIRST-CLASS TECHNOLOGY AND EFFICIENT OPERATION.

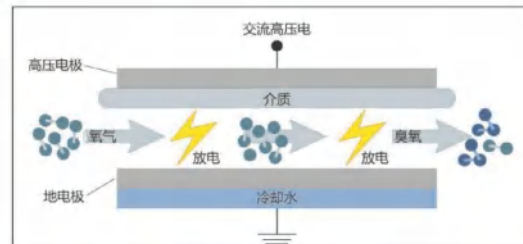


→ 技术实力

TECHNOLOGICAL STRENGTH

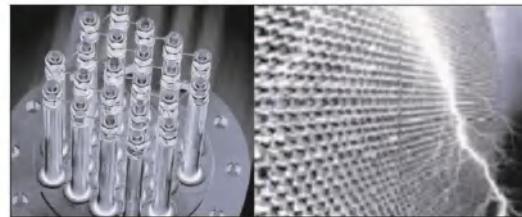
OZONE GENERATOR -- CORE EQUIPMENT (1)

When the oxygen-containing gas passes through the discharge gap between the two electrodes, part of the oxygen molecule (O_2) is converted to ozone (O_3), thus achieving ozone preparation (see right figure). when the high voltage electrode is attached with high voltage, the discharge gap between the electrodes discharges, oxygen molecules are decomposed into free oxygen atoms (O), and some free oxygen atoms recombine with undecomposed oxygen molecules to form ozone (O_3), that is, $O+O_2=O_3$.



HONEYCOMB DISCHARGE TUBE (2)

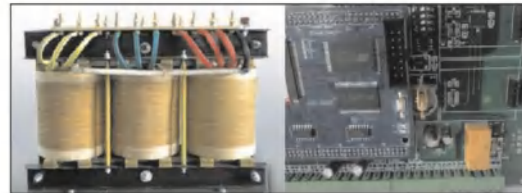
Special glass, non-glass dielectric discharge tube, good performance; The discharge tube is arranged in honeycomb shape inside the tank body, and the structure is compact. Double gap discharge, uniform gap, improve discharge efficiency; Matching high and low voltage electrodes are made to precise standards.



IGBT HIGH FREQUENCY TRANSFORMER(3)

Imported IGBT power module, 3000-5000Hz high frequency operation, so that the discharge ionization density under the same section is larger, the unique DSP closed-loop system, and DC feedback signal communication, according to the user set the upper and lower limits of automatic adjustment, to achieve the maximum purpose of energy saving.

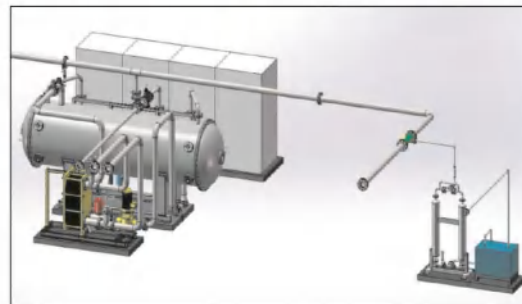
The silicon steel sheet with ultra-low loss and high silicon content is used as the core of the transformer to improve the concentration of ozone and reduce the loss of the transformer. Super insulated high voltage transformer, vacuum dip paint and epoxy resin potting process, ensure the safe operation of the transformer.



INTENSIVE TUBULAR SHELL STRUCTURE(4)

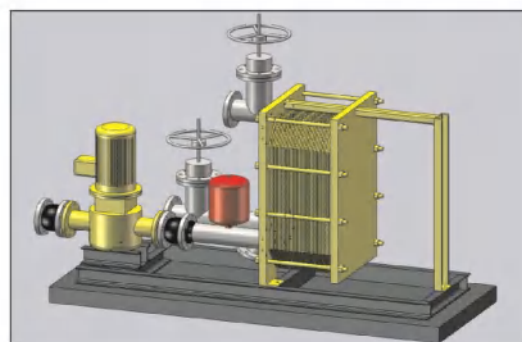
Large ozonation generator is composed of multiple discharge units through series and parallel structure. Form a tubular compact heat exchanger.

Body instruments, valves and pipelines are assembled in the factory and shipped as a whole. The accessories and pipes are preassembled at the factory to reduce the installation workload and improve the installation quality.



COOLING WATER SYSTEM(5)

Large ozone generators mostly adopt internal circulating water cooling mode, through plate heat exchanger and external circulating cooling water heat exchange. The inner circulation method can ensure the quality of cooling water entering the oxygen generator, which is not easy to scale, reduce the heat exchange efficiency or corrode the discharge tube, leading to leakage failure. When the cooling water temperature exceeds the system design temperature or water is insufficient, the system will automatically send out an alarm signal.



➔ 臭氧系统组成

COMPOSITION OF OZONE SYSTEM



THE AIR SOURCE SYSTEM SUPPLIES AIR



POWER SUPPLY UNIT



THE COOLING SYSTEM

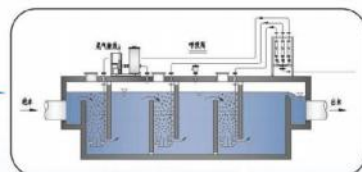


OZONE GENERATOR



TAIL GAS TREATMENT

WATER TO BE TREATED



OZONE CONTACT CELL

TREATED EFFLUENT WATER

➔ 配套系统

SUPPORTING SYSTEM

OXYGEN GENERATION SYSTEM

Vpsa Oxygen Production Equipment Includes: Roots Blower, Wet Roots Vacuum Pump, Adsorber, Oxygen Buffer Tank, Switching Valve, Instrument Control System, Gas Control System, Instrument Air System And So On Nine Parts.

After Removing The Mechanical Impurities Through The Filter, The Raw Air Is Pressurized By The Roots Blower And Enters The Air Cooler To Cool To 30 ~ 40°C, And Enters From The Lower Part Of The Adsorber. In Order To Reduce Noise, Roots Blower Inlet And Outlet Are Equipped With Silencers.

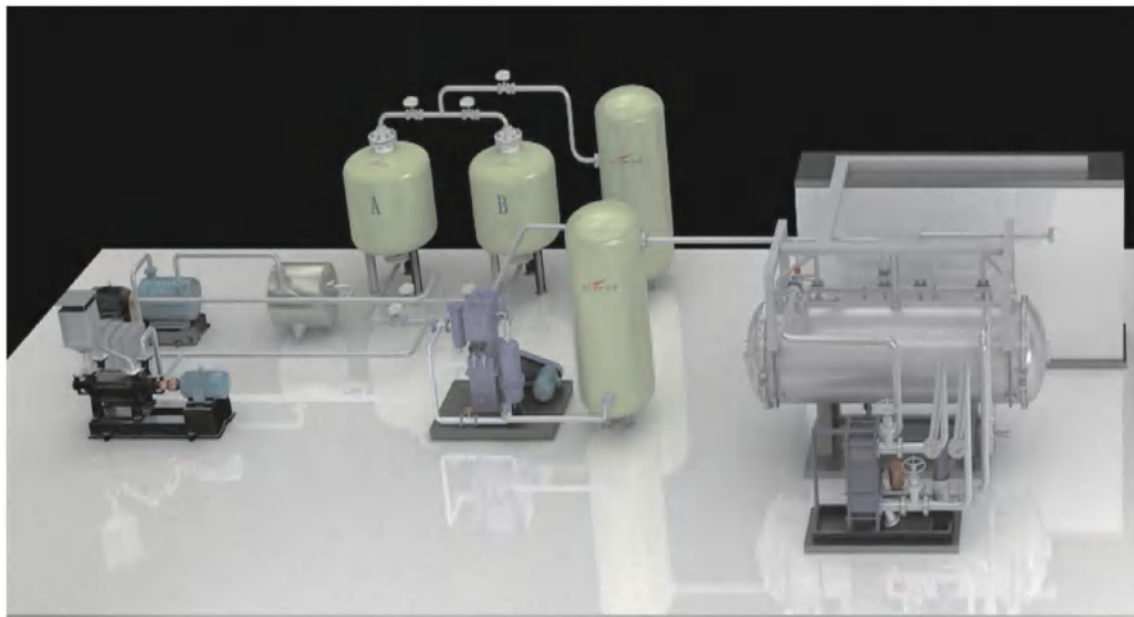
There Are Two Kinds Of Adsorbents Inside The Adsorbent. The Bottom Layer Of The Bed Is Loaded With 13x Molecular Sieve, Used For Adsorption Of Water, Carbon Dioxide And Hydrocarbons In The Air And Other Impurities. The Bed Is Loaded With Li Molecular Sieve, Used For The Separation Of Oxygen And Nitrogen In The Air.

After The Air Into The Adsorber, After 13x Molecular Sieve Bed, Water In The Air, Carbon Dioxide And Other Impurities Are Adsorbed By Molecular Sieve. When Clean Air Enters The Li Molecular Sieve Bed, Nitrogen In The Air Is Adsorbed. A Large Amount Of Unadsorbed Oxygen And a Small Amount Of Nitrogen Flow From The Outlet End Of The Adsorber With The Air Flow, That Is, The Product Gas. When The Oxygen Purity Of Product Gas Began To Decrease, It Indicated That The Nitrogen Adsorption Capacity Of Li Molecular Sieve Reached Saturation. At This Point, The Air Supply To The Adsorber Is Stopped. Then The Adsorber Depressurizes, And The Air Flow Flows From The Lower Part Of The Adsorber. With The Decrease Of Bed Pressure, The Nitrogen Adsorbed By Li Molecular Sieve Is Desorbed, And The Desorption Is Extracted By Roots Vacuum Pump And Discharged Into The Atmosphere. When The Adsorber Reaches a Certain Vacuum Degree, The Molecular Sieve Restores The Adsorption Capacity.

In Order To Continuously Obtain Oxygen Products, There Must Be At Least One More Adsorber; At The Same Time, One Adsorber Adsorbs Oxygen Production, And The Other Adsorbers Are Used Alternately By Charging Pressure Or Vacuum Desorption And Regeneration. The Working Condition Conversion Between Adsorbers Is Realized By Pneumatic Switching Valve.

According To The Set Time Program, Plc Output Signal, Control The Solenoid Valve Action, Solenoid Valve And Instrument Air Source Connection, Solenoid Valve Action, Instrument Air Into The Pneumatic Switching Valve Cylinder, Make The Pneumatic Switching Valve Open Or Close.

The Product Gas From The Upper Part Of The Adsorber First Enters The Oxygen Buffer Tank And Then Enters The Suction Port Of The Oxygen Compressor. The Oxygen Buffer Tank Acts To Balance The Gas Pressure Of The Product.



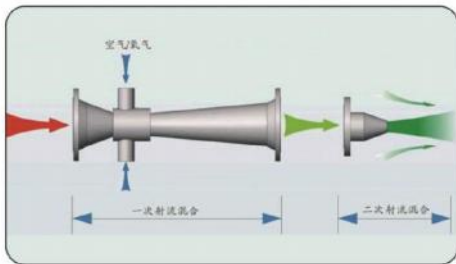


曝气系统

Aeration system

用陶瓷/钛金属烧结而成，保证使用寿命和气液混合效率

It is made of ceramic / titanium, which ensures the service life and gas-liquid mixing efficiency



射流投加系统

Jet feeding system

采用文丘里原理，水利器利用高速水流形成负压将臭氧气体吸入并混合，有效提高臭氧的混合效率。

The Venturi principle is adopted, and the negative pressure formed by high-speed water flow is used to absorb and mix the ozone gas, so as to effectively improve the mixing efficiency of ozone.

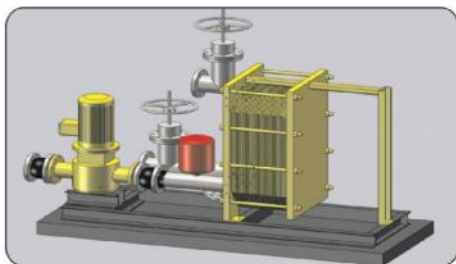


尾气分解系统

Tail gas decomposition system

采用加热-催化分解的方式，保证臭氧尾气排放达标。

The way of heating and catalytic decomposition is adopted to ensure the emission of ozone tail gas up to the standard.



闭路循环冷却水系统

Closed circuit circulating cooling water system

包括板式换热器、循环水泵、膨胀罐、压力开关等

Including plate heat exchanger, circulating water pump, expansion tank, pressure switch, etc



氮气添加系统

Nitrogen addition system

以纯氧为气源时，适当添加氮气，可提高臭氧发生器的运行效率及放电体的使用寿命

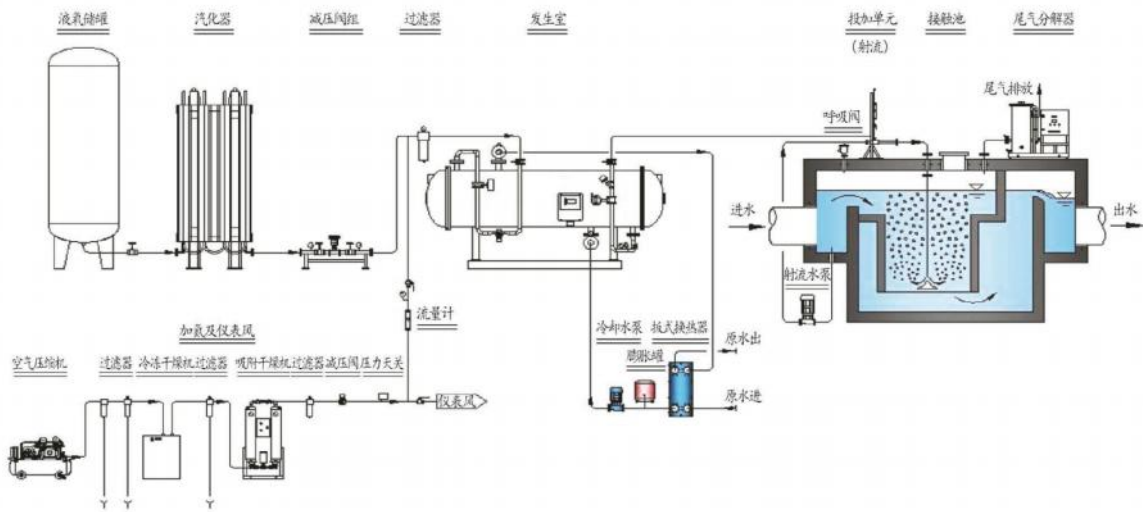
When pure oxygen is used as the gas source, adding nitrogen properly can improve the operation efficiency of the ozone generator and the service life of the discharge body

➔ 臭氧水处理工艺流程

OZONE WATER TREATMENT PROCESS

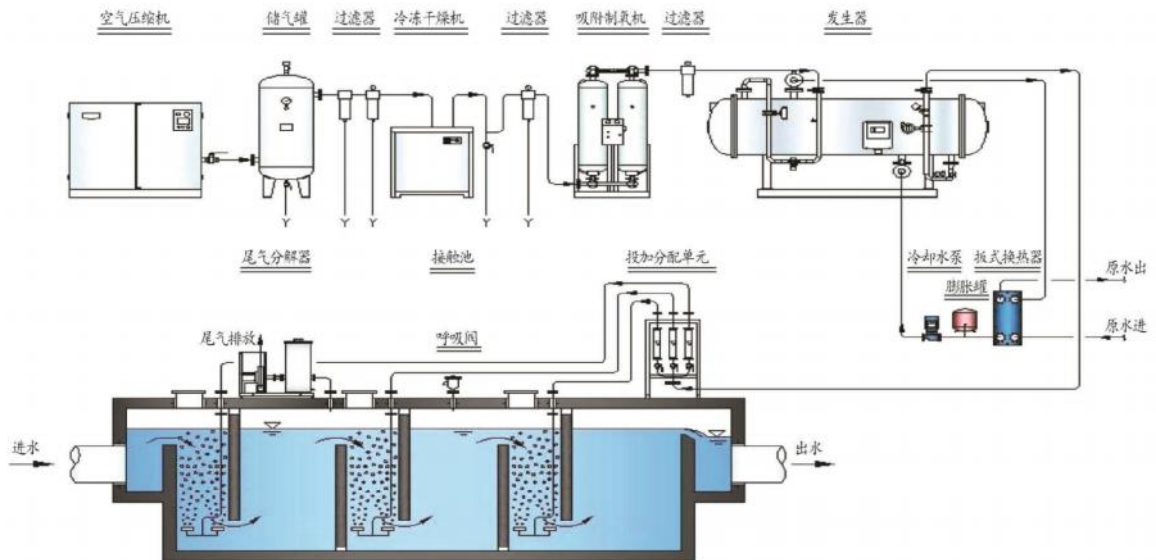
OXYGEN SOURCE (LIQUID OXYGEN) SYSTEM AND JET FEEDING PROCESS

LIQUID OXYGEN (CARBURETOR) – NITROGEN SUPPLEMENT – OZONE GENERATOR (COOLING WATER SYSTEM) – JET INJECTION – EXHAUST GAS DESTROYER



OXYGEN SOURCE (OXYGEN GENERATOR) SYSTEM AND AERATION FEEDING PROCESS

OXYGEN GENERATOR – OZONE GENERATOR (COOLING WATER SYSTEM) – AERATION FEED – EXHAUST GAS DESTROYER



➔ 臭氧催化氧化系统

OZONE CATALYTIC OXIDATION SYSTEM

HETEROGENEOUS OZONE CATALYTIC OXIDATION SYSTEM

Heterogeneous ozone catalytic oxidation is an important branch of advanced oxidation water treatment technology. It is mainly realized through direct reaction and indirect reaction, which oxidizes macromolecules and difficult to biodegrade organic matter into low-toxic or non-toxic small molecules, and improves the treatment effect of subsequent biochemical methods.

Ozone standard REDOX potential is high (2.07V), which is widely used in the oxidation treatment of organic matter. However, the reaction between ozone and organic matter is selective, resulting in low efficiency of ozone oxidation alone. In order to overcome the defect of selective reaction between ozone and organic matter, a new ozone catalyst has been developed, which can increase the production of hydroxyl radical by up to 300% and greatly enhance the oxidation ability of ozone. Hydroxyl radical has a higher REDOX potential (2.80V), and the reaction with organic matter is not selective, and the reaction speed is fast, which can better remove organic matter in wastewater.

The surface and internal holes of the catalyst can adsorb and enrich ozone in water, increasing the local concentration of ozone, increasing the conversion efficiency of hydroxyl radical produced by ozone through catalysis, greatly improving the concentration of hydroxyl radical, making the reaction effect remarkable, the reaction speed is faster, and the organic matter degradation is more thorough and sufficient.



Polyphase catalyst is based on aluminum base, silicon aluminum base, iron base as the support, a variety of proprietary active components sintered, is about 3-5mm diameter spherical porous particles, packing density between 0.65-0.75g/cm³, it has good hydrophilic and hydraulic properties, the surface of the catalyst and water molecules are fully in contact. At the same time, interlaced air passages and waterways are formed between catalyst particles to ensure better mass transfer effect.

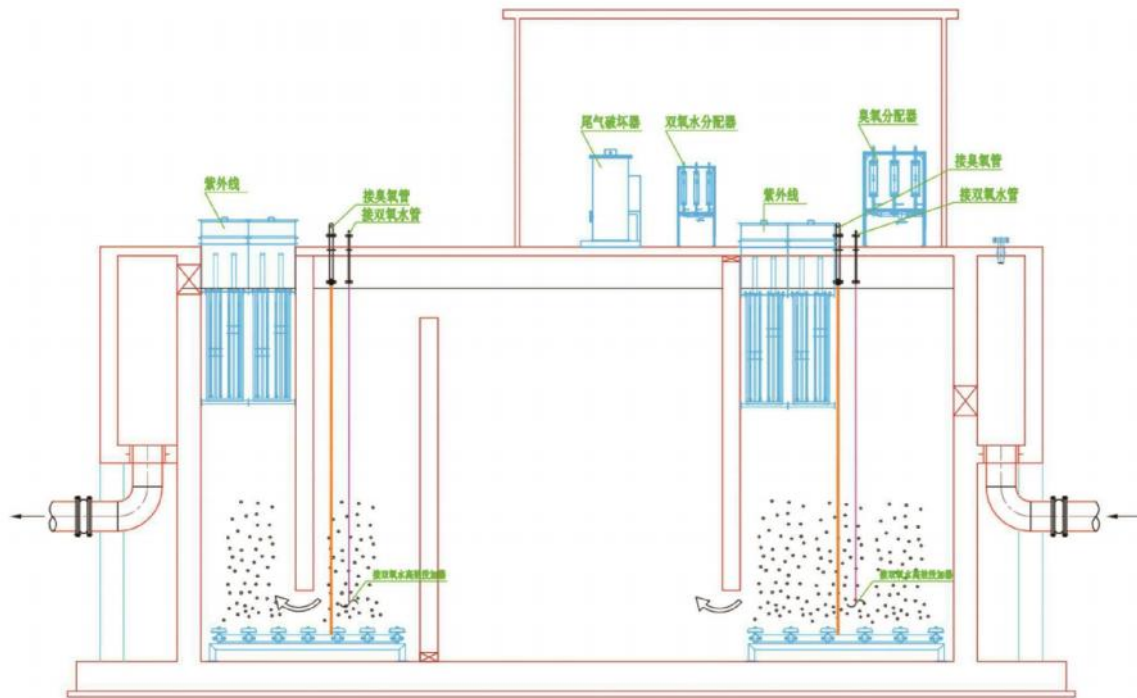
TECHNICAL ADVANTAGES OF HETEROGENEOUS CATALYSTS

- (1) The heterogeneous catalyst has a strong ability to capture and enrich ozone molecules.
- (2) The capture and enrichment of ozone in water by the surface and holes of heterogeneous catalysts increased the local concentration of ozone, catalyzed the generation of ozone and greatly increased the concentration of hydroxyl radicals. The hydroxyl radical oxidation has the characteristics of non-selectivity and high efficiency, which improves the degradation efficiency of organic pollutants.
- (3) Through the catalytic effect of polyphase catalyst on ozone, oxidation decomposition reaction occurs.
- (4) No additive, no sludge, no secondary pollution.
- (5) the ratio of ozone dosage to COD removal is 1 : 2;
- (6) To realize equipment, labeling and serialization;
- (7) Based on automatic control technology, the operation process is optimized;
- (8) The new catalyst has good wear resistance, high strength and large specific surface area (7000cm²/g).



ADVANCED CATALYTIC OXIDATION SYSTEM FOR HOMOGENEOUS OZONE

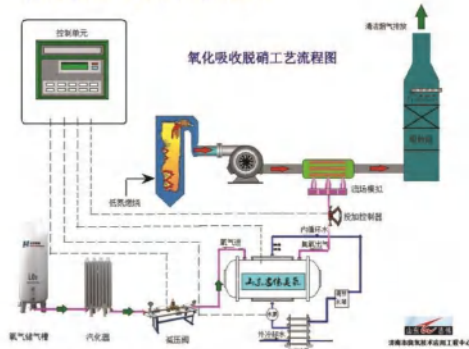
Homogeneous advanced catalytic oxidation technology is the advanced oxidation group produced by ozone and hydrogen peroxide. The hydroxyl radical ($\cdot\text{Oh}$) with higher oxidation potential is produced by UV irradiation, which on the one hand improves the utilization efficiency of ozone (more than 95%), on the other hand improves the oxidation ability of ozone, and improves the treatment effect of ozone.



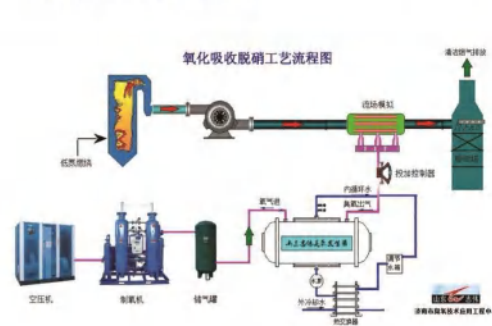
➔ 臭氧低温脱硝工艺流程

PROCESS FLOW OF OZONE LOW TEMPERATURE DENITRATION

1. LIQUID OXYGEN + OZONE DENITRIFICATION PROCESS FLOW CHART



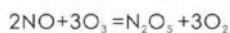
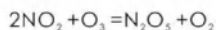
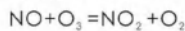
2. OXYGEN GENERATOR + OZONE DENITRIFICATION PROCESS FLOW CHART



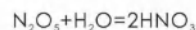
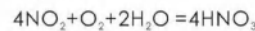
3. MECHANISM OF OXIDATION AND DENITRIFICATION IN LOW TEMPERATURE FLUE GAS

Low temperature flue gas oxidation denitrification is mainly the use of strong oxidation of ozone, low temperature flue gas insoluble low state of nitrogen oxides (mainly NO), oxidation to soluble high state of nitrogen oxides (mainly NO₂, NOg), and then in the washing tower will absorb nitrogen oxides, to achieve the purpose of denitrification.

OXIDIZATION



ASSIMILATE



O₃ oxidizes NO step by step. When O₃ is not excessive, the oxidation product of NO is mainly NO₂. In the case of O₃ excess, the oxidation product of NO is mainly a mixture of NO₂ and N₂O₅.

RESPONSE EQUATION	RELATIVE REACTION RATE
$\text{NO} + \text{O}_3 \rightarrow \text{NO}_2 + \text{O}_2$	62780
$2\text{NO}_2 + \text{O}_3 \rightarrow \text{N}_2\text{O}_5 + \text{O}_2$	135
$\text{SO}_2 + \text{O}_3 \rightarrow \text{SO}_3 + \text{O}_2$	8
$\text{CO} + \text{O}_3 \rightarrow \text{CO}_2 + \text{O}_2$	1

Compared with nitrogen oxide NO, the reaction speed of ozone to SO₂ is only 0.0127%, so there is NO conversion of SO₂ in theory.

4. ABSORPTION OF LOW TEMPERATURE FLUE GAS OXIDATION AND DENITRIFICATION

- ① The use of ozone with strong oxidation properties to convert NO into high water soluble nitrogen oxides (NO₂, N₂O₅, etc.) is the premise of ozone denitrification;
- ② The NO₂ removal efficiency of traditional lime/limestone slurry is low, only 20%-40%;
- ③ Jinan ozone application engineering technology research and development of special denitrification denitrification agent, can ensure the denitrification efficiency of more than 70%;
- ④ The denitrification agent has great effect on the removal of sulfur dioxide, and the original desulfurization system can meet the requirements of the new standard without transformation;
- ⑤ Special denitrification agent cost is low, in general, the oxidation denitrification system can ensure that under the premise of reaching the new standard, the cost of tons of ore is below 12 yuan;

5. OZONE INJECTION SYSTEM ----- MULTI-POINT REVERSE VORTEX INJECTION SYSTEM

- ① the company's independent invention patent reverse multi-point cyclone jet denitrification device, break through the international monopoly;
 - ② CFD flow field simulation was used to ensure that the mixture of flue gas and ozone was uniform;
 - ③ The company's patented flow field simulation technology is in the leading level in China, with a large number of SCR injection system, ozone mixed unit flow field simulation performance;
 - ④ Through the export CEMS online monitoring system, the NOX content is monitored and the ozone dosage is feedback controlled to realize the closed-loop automatic regulation and system energy saving;
 - ⑤ According to user requirements, non-stop furnace installation and feeding system can be realized;
- The multi-point reverse vortex jet system is adopted to strengthen the reaction effect, increase the reaction time and improve the reaction rate.

➔ 技术参数

TECHNICAL PARAMETER

TABLE OF OZONE GENERATOR PARAMETERS											
YIELD (kg)		1	3	5	7	10	12.5	15	20	25	30
POWER (kw)		7	21	35	49	70	88	105	140	175	210
GAS	FLOW (Nm ³ /h)	8.000	24.000	40.000	56.000	80.000	100.000	120.000	160.000	200.000	240.000
	PIPED (DN)	15	20	25	32	40	40	40	50	50	65
RECYCLED WATER	FLOW(m ³ /h)	2.000	6.000	10.000	14.000	20.000	25.000	30.000	40.000	50.000	60.000
	PIPED (DN)	20	32	40	50	65	65	65	80	80	100
RECYCLED WATER	FLOW(m ³ /h)	3.000	9.000	15.000	21.000	30.000	37.500	45.000	60.000	75.000	90.000
	PIPED (DN)	25	40	50	65	80	80	80	100	100	125
MAIN ENGINE	L (mm)	2500	2500	2600	2600	4200	4200	4200	4200	4200	4300
	W (mm)	1000	1000	1000	1200	1200	1200	1200	1600	1600	1800
	H (mm)	1500	1500	1700	2000	1800	1800	1800	2300	2300	2300
	OPERATING WEIGHT (T)	0.5	1.0	1.2	1.8	2.3	2.3	3.1	4.6	4.9	5.8
COOLING SYSTEM	L (mm)	/	/	/	2200	2200	2200	2200	2200	2200	2200
	W (mm)	/	/	/	650	650	650	650	650	650	650
	H (mm)	/	/	/	1200	1200	1200	1200	1200	1200	1200
	OPERATING WEIGHT (T)	/	/	/	0.7	0.7	0.7	0.7	0.8	0.8	0.8
EQUIPMENT CABINET	W (mm)	1400	800	1600	1600	1400	1400	1400	2600	2600	2600
	D (mm)	1200	600	1400	1400	1200	1200	1200	1400	1400	1400
	H (mm)	2400	1800	2300	2300	2400	2400	2400	2600	2600	2600
	OPERATING WEIGHT (T)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7	1.7	1.7

TABLE OF OZONE GENERATOR PARAMETERS											
YIELD (kg)		35	40	50	60	70	80	90	100	120	150
POWER (kw)		245	280	350	420	490	560	630	700	840	1050
GAS	FLOW (Nm ³ /h)	280.000	320.000	400.000	480.000	560.000	640.000	720.000	800.000	960.000	1200.00
	PIPED (DN)	65	65	80	80	100	100	100	100	100	125
RECYCLED WATER	FLOW(m ³ /h)	70.000	80.000	100.000	120.000	140.000	160	180	200.000	240.000	300
	PIPED (DN)	100	125	125	125	150	150	150	200	200	250
RECYCLED WATER	FLOW(m ³ /h)	105.000	120.000	150.000	180.000	210.000	240.000	270.000	300.000	360.000	450
	PIPED (DN)	125	125	150	150	200	200	200	250	250	300
MAIN ENGINE	L (mm)	4300	4300	4500	4500	4600	4600	4600	4600	4600	4600
	W (mm)	1800	2000	2000	2000	2300	2300	2400	2400	2400	2500
	H (mm)	2300	2500	3000	3200	3400	3400	3400	3400	3400	3500
	OPERATING WEIGHT (T)	6.7	7.6	9.0	10.6	12.2	13.8	15.4	17.0	19.0	22
COOLING SYSTEM	L (mm)	2200	2200	2400	2400	2400	2400	2400	2400	2400	2400
	W (mm)	650	650	1700	1700	1700	1700	1700	1700	1700	1700
	H (mm)	1200	1200	2300	2300	2300	2300	2300	2300	2300	2300
	OPERATING WEIGHT (T)	0.8	1.7	1.7	2.0	2.0	2.2	2.2	2.2	2.4	3.0
EQUIPMENT CABINET	W (mm)	2600	4600	4600	4600	4600	6600	6600	6600	8800	10800
	D (mm)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
	H (mm)	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600
	OPERATING WEIGHT (T)	1.7	3.1	3.1	3.1	3.1	4.6	4.6	4.6	6.0	8

→ 公司业绩

CORPORATE PERFORMANCE

S/N	Industry	Project name	Spec	Qty
1	De-NOx	Tangshan Yanshan Iron and Steel Co. LTD	CF-G-3-150KG	2
2			CF-G-3-120KG	10
3			CF-G-3-100KG	4
4		Changshu Longteng Iron and steel	CF-G-3-150KG	2
5			CF-G-3-120KG	3
6		Fujian Sansteel Minguang shares	CF-G-3-120KG	3
7			CF-G-3-85KG	3
8		Xinjiang Baosteel Bayi Iron and Steel	CF-G-3-110KG	1
9			CF-G-3-100KG	4
10			CF-G-3-90KG	2
11		Chiping program of Beikong Water Group	CF-G-3-40KG	2
12			CF-G-3-25KG	2
13			CF-G-3-10KG	2
14		Shandong Huacheng Urban Construction Design Engineering Co. LTD	CF-G-3-25KG	2
15			CF-G-3-15KG	2
16		Jiangsu Xinxinxing Renewable Resources Co. LTD	CF-G-3-25KG	2
17			CF-G-3-70KG	1
18	Sewage treatment	Aksu Textile Industrial City sewage treatment plant	CF-G-3-45KG	2
19		Fujian Shanghang Second sewage treatment plant	CF-G-3-30KG	3
20		Foshan Nanhai Xinlong Sewage Treatment plant	CF-G-3-25KG	3
21		Kenli Petrochemical sewage treatment plant	CF-G-3-25KG	1
22		Xinjiang Tianye Group chemical wastewater	CF-G-3-20KG	2
23		Shihezi Chemical Sewage Treatment plant	CF-G-3-15KG	2
24		Shandong Binzhou Binbei sewage treatment plant	CF-G-3-15KG	2
25		Henan Pucheng municipal sewage	CF-G-3-10KG	2
26		Ningbo Zhonghua Paper wastewater treatment	CF-G-3-50KG	3
27		Dongguang County equipment Industrial Park sewage treatment plant	CF-G-3-8KG	3
28		Feicheng Chemical Industry Park Industrial sewage treatment plant	CF-G-3-25KG	2
29		Dongyang Hengdian Sewage Treatment Plant Phase III project	CF-G-3-25KG	2
30	Chemical engineering	Shandong Shangshun chemical wastewater decolorization project	CF-G-3-35KG	2
31		Hubei Chishun Chemical Co., LTD	CF-G-3-15KG	2
32		Shaanxi Xianyang Chemical Industry Co. LTD	CF-G-3-75KG	2
33		Sinochem Modern Chemical (Xi 'an) Co. LTD	CF-G-3-10KG	1
34		Fujian Longfu Chemical Co. LTD	CF-G-3-6KG	1
35		Haohua Aerospace Chemical Co., LTD	CF-G-3-10KG	1
36		Ningyang Chemical Industry Park	CF-G-3-21KG	5
37		Huanghua City Cignora Lixing Fine chemical industry	CF-G-3-10KG	1
38		Henan Junhua Chemical Industry Co. LTD	CF-G-3-40KG	2
39		Shandong Rongxin Chemical Co., LTD	CF-G-3-40KG	1

→ 公司业绩

CORPORATE PERFORMANCE

S/N	Industry	Project name	Spec	Qty
40	Papermaking	Ningbo Asia Pulp & Paper Co., LTD	CF-G-3-55KG	2
41		Golden East Paper Co., LTD	CF-G-3-105KG	4
42	Pyroelectricity	Shaanxi Dongling Group	CF-G-3-85KG	2
43		Jiangsu Yuanyi Energy Co., LTD	CF-G-3-50KG	2
44		Shandong Yuanyi Energy Co., LTD	CF-G-3-50KG	2
45		Guangxi East Asia Ningming Biological Co. LTD	CF-G-3-50KG	1
46		Daze Coal Mine in Shaanxi Province	CF-G-3-40KG	3
47		Harbin Limin Water Works	CF-G-3-6KG	2
48		Shanghe County, Shandong Qingyuan water plant	CF-G-3-3KG	2
49		Foshan Nanhai Changhai Power Generation Co. LTD	CF-G-3-40KG	2
50		Shandong Hengke New material	CF-G-3-40KG	1
51		Nanhai Changhai Power Generation Co. LTD	CF-G-3-35KG	2
52		Huadian Shijiazhuang Thermoelectric Co. LTD	CF-G-3-60KG	2
53		Hangzhou Qingyuan Thermoelectric Co. LTD	CF-G-3-35KG	2
54		Fei County Shangyuan Thermoelectric Co. LTD	CF-G-3-35KG	2
55		Evergreen Group full city thermal power	CF-G-3-35KG	2
56	Shunde Jinfeng Thermal Power	CF-G-3-30KG	2	
57	Huantai Tangshan thermal power	CF-G-3-30KG	2	
58	Xiamen Xinyang thermal power	CF-G-3-10KG	1	
59	Weifang Changle Yuan Feng heat	CF-G-3-12KG	1	
60	Sinopec Linpan Heating Company	CF-G-3-20KG	1	
61	Mining industry	Shandong Jinhong Titanium White Co. LTD	CF-G-3-25KG	1
62		China Salt Jilantai Alkali Industry Group	CF-G-3-25KG	1
63		Black Dragon Ditch Mining Group	CF-G-3-25KG	1
64		Yankuang Yangcun Coal Mine	CF-G-3-15KG	1
65	Bluestar (Chengdu) New Material Co. LTD	CF-G-3-17.5KG	1	
66	Kiln	Shenhua Activated Carbon Co	CF-G-3-15KG	1
67	Oxygen plant	Henan Xinmi kiln	CF-G-3-15KG	2
68		Qiluantu Pharmaceutical	CF-G-3-15KG	1
69	Tap water treatment	Ozonation catalytic oxidation of landfill leachate in Zigong City	CF-G-3-10KG	1
70		Water pretreatment project of Hainan Yongzhuang Water Plant	CF-G-3-10KG	2
71		Linyi County Luoyuan Water Supply Co., LTD	CF-G-3-6KG	1
72	Environmental protection company	Tianmen Yunchuang Environmental Protection Equipment Co. LTD	CF-G-3-10KG	1
73		Zhongxia Xujie Construction Technology Co. LTD	CF-G-3-7KG	2
74		Hubei Lusheng Environmental Protection Engineering Co. LTD	CF-G-3-65KG	2
75		Shandong Mingjing Environmental Protection Technology Co. LTD	CF-G-3-70KG	1
76		Harbin Institute of Technology Boshi Environmental Engineering Co. LTD	CF-G-3-7.5KG	1
77		Beijing Grant Membrane Separation Equipment Co. LTD	CF-G-3-7KG	2
78		Zhongrui Engineering Design Institute Co. LTD	CF-G-3-30KG	1
79		Shandong Guoda Gold Co. LTD	CF-G-3-10KG	2
80		Leo Group Zhejiang Pump Industry Co. LTD	CF-G-3-20KG	2

➔ 客户案例 CUSTOMER CASE



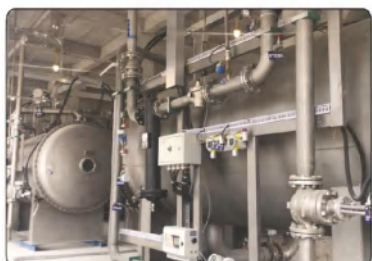
Shandong Sunshine
Electric Power



Dongguang County sewage
treatment plant



Haohua Aerospace
Chemical Co., LTD



Changshu Longteng
Special Steel



Shanghang County second
sewage treatment plant



Shaanxi Dongling Group



Foshan Nanhai Xinlong Sewage
Treatment plant



Aksu Textile Industrial City
sewage treatment plant



Xinjiang Tianye Group chemical
wastewater



Kenli Petrochemical sewage
treatment plant



Shandong Binzhou Binbei
sewage treatment plant



Fujian Rongxin Sewage
Treatment Plant



**HEBEI TANGSHAN YANSHAN
IRON AND STEEL**



**FEICHENG CHEMICAL INDUSTRY
PARK SEWAGE TREATMENT PLANT**



**HEBEI TANGSHAN YANSHAN
IRON AND STEEL**



**CHIPING SEWAGE TREATMENT PLANT,
BEIKONG WATER GROUP**



**FEIXIAN SHANGYUAN THERMAL
POWER PLANT**



**NINGBO ZHONGHUA PAPER
WASTEWATER TREATMENT**



NINGBO ASIA PULP & PAPER CO., LTD



GOLDEN EAST PAPER CO., LTD



**SHAANXI XIANYANG CHEMICAL
INDUSTRY CO. LTD**



FUJIAN SANSTEEL MINGUANG CO., LTD



XINJIANG BAYI IRON AND STEEL



**CHINA SALT JILANTAI ALKALI
INDUSTRY GROUP**

PRAGMATIC INNOVATE INTEGRITY WIN—WIN



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