

Air

Pollution Control

Solutions for multiple pollutants



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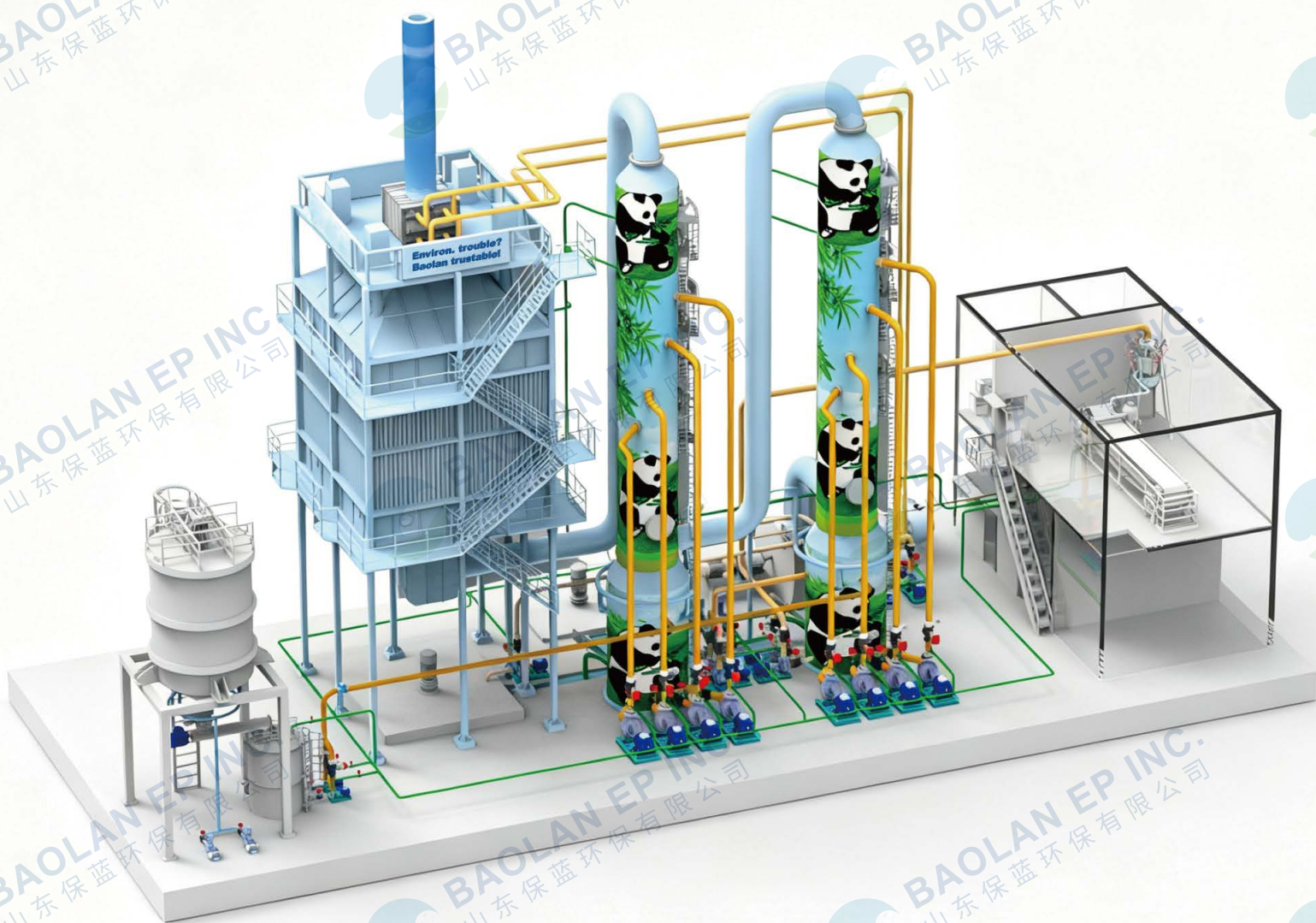
Solutions for multiple pollutants



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Intelligent manufacturing as the core, environmental protection as the shield

Company Overview

BAOLAN EP INC. as a core subsidiary of Baolan Group, is a technology-based high-tech enterprise dedicated lifelong to the R&D, design, manufacturing, and integrated installation & commissioning of environmental equipment.

Baolan with a registered capital of 100 million yuan, a factory and office area of 60,000m², more than 280 employees, over 300 patented technologies, and more than 3,000 engineering projects.

Relying on professional capabilities and industry contributions, Baolan has successively won multiple authoritative qualifications and honors:

EP design qualification, EP engineering general contracting qualification

CE certification, EAC certification

The first carbon-neutral engineering research center in Zibo City

First set of equipment, Gazelle enterprise

Specialized, refined, distinctive, and innovative enterprise, technology little giant enterprise

First prize for scientific and technological progress

With a global cooperation network, Baolan has established deep business cooperation with well-known Chinese Top 500 and Global Top 500 enterprises such as Stanley, Wahaha, PetroChina, Sinopec, Sinochem China, Yankuang Group, Baowu Group, Putailai Group, Yuntu Holdings, Taiwan Xingtai Industry, Nike Footwear, Adidas, Honda Motor, Japan Daikyo, Korea Dongwon, US CABOT Oil & Gas, Germany Refractivechnik, Qatar Laffan Resin, Malaysia Texcycle, Singapore ECO, Green Group, Indonesia MMP, APP, Russia Sibur, Rosatom, Brazil Unimetal Industry, Iran Anelco, etc., covering multiple industries and countries.

60000m²

Production Base

3000+

Project cases

10000+

Serve Customers

Baolan's business mainly focuses on two major business areas:

1. Energy-saving and environmentally friendly intelligent manufacturing equipment

Baolan independently develops and applies on a large scale fluidized suspension technology and multiphase flow reaction technology, with the core advantages of "energy saving and consumption reduction, quality improvement and efficiency enhancement, and process reengineering," widely used in metal minerals, non-metal minerals, new materials, and other industries. Through efficient heat and mass exchange and precise reaction control, it significantly improves resource conversion efficiency and product quality, building an inherently clean, intelligent, and efficient green manufacturing process to achieve energy saving and carbon reduction, supporting the national dual-carbon strategy goals.

2. Terminal environmental protection equipment

Constructing an environmental protection equipment system covering waste gas, waste residue, waste heat, and other sectors, products include:

Flue gas dust removal, desulfurization and denitrification, carbon capture and utilization (CCUS), VOCs organic waste gas treatment, elimination of white smoke and black smoke

Industrial waste heat recovery, solid waste resource equipment, etc.

Fully meeting the diversified needs of enterprises in end-point compliance, ultra-clean emissions, and resource closed-loop.

Baolan adheres to the development philosophy of "Intelligent Manufacturing as the Core, Environmental Protection as the Shield," continuously promoting technological innovation and system integration, providing measurable, implementable, and replicable green solutions for governments, parks, and various industrial enterprises, jointly building ecological civilization and achieving a win-win sustainable future.

Flue Gas Treatment solutions

Environmental Protection Equipment

Waste Gas Categories

Inorganic Waste Gas

Exhaust Gas Components and Solutions

1 Particulate Matters (PM)

- Electrostatic Precipitator(ESP)
- Wet Electrostatic Precipitator(WESP)
- Baghouse
- Cyclone Dust Collector
- Wet Scrubber

2 SO₂/Acid Gas

- Dry-DeSO_x ·Semi-dry DeSO_x
- Wet-DeSO_x

3 NO_x

- SNCR ·SCR ·COA ·O₃-DeNO_x

4 NH₃

- Wet Scrubber

5 Acid mist

- WESP ·Scrubber

1 Adsorption Systems

- AC Adsorption ·Zeolite Adsorption

2 Oxidizers

- TO ·RTO ·CO ·RCO

3 Tar

- Electrostatic Tar Precipitator(ETP)

4 Wet Scrubber

5 Adsorption-Desorption+Oxidizers

- Fixed-bed AC Adsorption-Desorption
- Fixed-bed Zeolite Adsorption-Desorption
- Zeolite Rotor Adsorption-Desorption

6 Resin Adsorption & Desorption +Condensation Recycling

Volatile Organic Compounds (VOCs)

CO (carbon monoxide) HAPS

Oxidizers

- TO (Thermal Oxidizer)
- RTO (Regenerative Thermal Oxidizer)
- CO (Catalytic Oxidizers)
- RCO (Regenerative Catalytic Oxidizer)

White & Black Smoke Abatement

Smoke Abatement Equipment

Waste Heat Recovery

Waste Heat Boiler

Flue Gas Heat Exchanger

Usually equipped with flue gas treatment system



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ESP

Particulate Matters

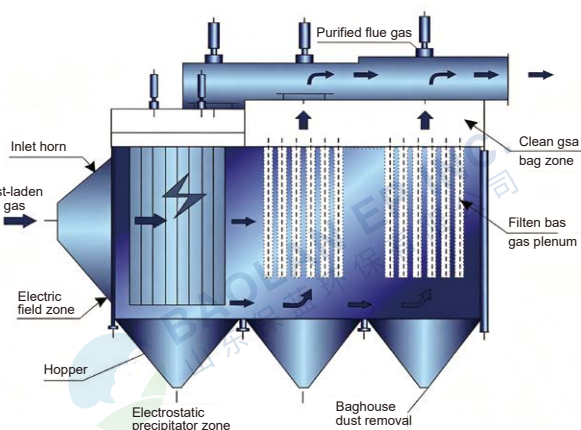
Overview

Electrostatic Precipitator (ESP) is a high-efficiency industrial air pollutant control device widely used for flue gas dedusting and particulate removal. Different from fabric filtration equipment, it adopts electrostatic adsorption technology to separate fine dust and suspended particles from industrial exhaust gas, serving as a core environmental protection facility for industrial clean production.

The main components of an ESP include discharge electrodes, collecting plates, high-voltage power supply system, ash hoppers, rapping devices and an automatic control system. During operation, the high-voltage

electric field ionizes the passing dust-laden flue gas, making the dust particles charged. The charged particles are driven by electric force to adhere to the grounded metal collecting plates. After accumulating a certain thickness of dust layer, the mechanical rapping system regularly shakes the plates to peel off the dust, which falls into the bottom ash hopper for centralized collection and discharge, while the purified clean gas is discharged into the atmosphere.

Electrostatic precipitators feature outstanding advantages such as ultra-low resistance loss, large air volume processing capacity and stable long-term operation. It can efficiently capture fine particulate matter including PM2.5, with a dust removal efficiency up to 99% and above. The equipment is well adaptable to high-temperature, high-humidity and high-dust-concentration flue gas working conditions, and supports continuous 24-hour industrial operation with low energy consumption and minimal wear of core components.



Project References



Start-up:2019
Industry:Cement
Volume:300000Nm³/h



Start-up:2021
Industry:Cement
Volume:200000Nm³/h



Start-up:2021
Industry:Paper-making
Volume:500000Nm³/h



Start-up:2023
Industry:Non-ferrous Smelting
Volume:80000Nm³/h



Start-up:2024
Industry:Iron and steel
Volume:180000Nm³/h



Start-up:2026
Industry:Pulp & Paper
Volume:300000Nm³/h

WESP

Particulate Matters

Overview

WESP, short for Wet Electrostatic Precipitator, is an advanced flue gas deep purification equipment widely applied in industrial ultra-low emission systems. Different from dry electrostatic precipitators, WESP adopts a water-film washing cleaning method and is specially designed for treating high-humidity flue gas containing fine dust, PM2.5, acid mist, tar, aerosol and heavy metal pollutants.

The working principle of WESP consists of three core procedures. Firstly, high-voltage corona discharge ionizes the flue gas, enabling fine pollutants to be charged rapidly. Secondly, the charged particles migrate to the anode collecting plates or tube walls under Coulomb force and are captured on the electrode surface. Finally, continuous or intermittent spraying water forms a uniform flowing water film to wash all captured pollutants into the wastewater collection tank. This water-washing mode eliminates mechanical rapping and thoroughly prevents secondary dust re-entrainment, achieving stable and efficient purification performance.

WESP is mainly divided into horizontal plate type and vertical tubular type. The horizontal plate-type WESP features simple structure and convenient maintenance, which is commonly used for large thermal power units. The vertical tubular WESP has higher purification efficiency, smaller floor area and better adaptability, and has become the mainstream type for steel, coking, chemical industry, waste incineration and other industrial scenarios.



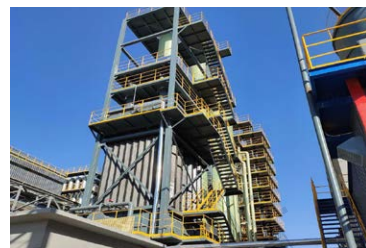
Project References



Start-up:2020
Industry:New energy
Volume:60000Nm³/h



Start-up:2021
Industry:Steel
Volume:150000Nm³/h



Start-up:2021
Industry:Nonferrous metals
Volume:100000Nm³/h



Start-up:2022
Industry:Nonferrous metals
Volume:180000Nm³/h



Start-up:2022
Industry:Nonferrous metals
Volume:20000Nm³/h



Start-up:2026
Industry:Phosphorus Chemical
Volume:500000Nm³/h

Baghouse

Particulate Matters

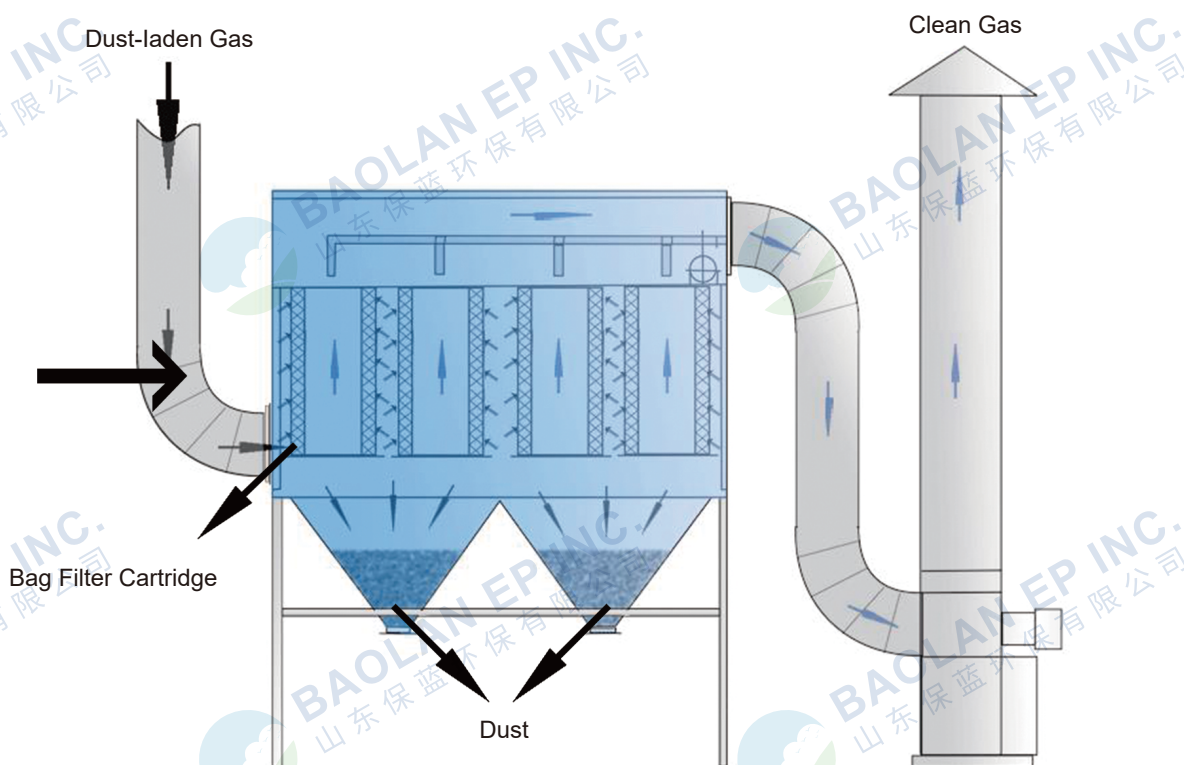
Overview

Baghouse dust collector, also known as a fabric filter, is one of the most efficient and widely used industrial dust removal devices for flue gas purification and particulate pollution control. It is designed to capture fine dust, smoke, and solid particles from industrial exhaust air to meet environmental emission standards.

The equipment consists of a sealed metal housing, filter bags, a pulse cleaning system, an ash hopper, and an automatic control unit. Dust-laden gas enters the collector, and coarse dust settles down by gravity. Fine particles are trapped on the outer surface of the filter bags while clean air penetrates through the fabric and is discharged out of the system. As dust accumulates on the bag surface, a periodic pulse jet cleaning system automatically blows off the dust layer, ensuring stable airflow and continuous operation.

Baghouse dust collectors achieve extremely high dust removal efficiency of over 99.9%, especially for fine particulate matter such as PM2.5. With optional filter media including polyester, PPS, Nomex, fiberglass and PTFE, Metal filter and Ceramic filter, the equipment can adapt to different working conditions, including normal temperature, high temperature, corrosive and sticky flue gas.

Thanks to its reliable performance, simple structure, low maintenance cost and stable emission effect, the baghouse dust collector is widely applied in cement plants, thermal power plants, steel mills, chemical factories, waste incineration plants, asphalt stations and mining industries. It is an essential environmental protection device for industrial air pollution control and clean production.



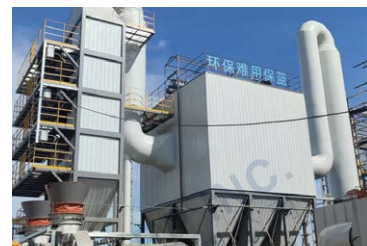
Project References



Start-up:2021
Industry:Solid waste
Volume:20000m³/h



Start-up:2021
Industry:Refractory materials
Volume:60000Nm³/h



Start-up:2023
Industry:Ecological protection
Volume:50000Nm³/h

Dry-DeSOx

SO₂/Acid Gas



Overview

Dry desulfurization is an efficient and environmentally friendly flue gas desulfurization technology. It adopts dry powder absorbent as the reaction medium and completes the desulfurization reaction under full dry working conditions without water spraying and slurry preparation.

Absorbents such as lime powder and sodium bicarbonate are injected into the desulfurization reactor, fully mixed and contacted with acidic pollutants like sulfur dioxide and sulfur trioxide in flue gas to realize pollutant removal through adsorption and chemical reaction.

The process features a simple flow, small floor area and **no desulfurization wastewater discharge**, with low operation and maintenance costs. The by-products are dry powder and can be comprehensively recycled. It is widely applicable to flue gas treatment in power plants, industrial kilns, chemical and other industries, meeting the demands of industrial emission reduction for low carbon, environmental protection and energy conservation.

Advantages of Our Dry DeSOx Technology

• High Desulfurization Efficiency

Ultra-fine sodium bicarbonate powder is activated by high-temperature flue gas, with a desulfurization efficiency of over 95%.

• Economical and Reliable Raw Materials

Sodium bicarbonate is adopted for ultra-fine powder preparation, featuring low cost and stable supply guarantee.

• Stable Dust Collector Operation

The filter material of the baghouse dust collector has a temperature resistance of over 260 °C, ensuring its long-term stable operation.

• Excellent Gas-Solid Mixing

Equipped with SDS proprietary injection and mixing components, the gas-solid contact time is extended, and the mixing uniformity is improved, with a material residence time of over 4s.

• Superior Powder Quality

A classified mill is adopted, with the powder fineness reaching over 1000 mesh (below 15μm), featuring large crushing ratio, high energy utilization, and stable, uniform particle size.

• High Automation Level

The system is equipped with a vacuum feeding system, realizing full-automatic operation and significantly reducing labor intensity.

Semi-dry DeSO_x

SO₂/Acid Gas

Overview

Semi-dry DeSO_x, full name as Semi-dry Flue Gas Desulfurization Technology, is an efficient and environmentally friendly flue gas treatment technology between dry and wet desulfurization. It is widely used in flue gas desulfurization projects in power, metallurgy, chemical, building materials and other industries. Its core function is to remove sulfur oxides such as sulfur dioxide (SO₂) from flue gas, meeting the requirements of industrial emission reduction and environmental protection compliance.

This technology uses lime milk, hydrated lime slurry and other absorbents. The absorbents are sprayed into the desulfurization reactor through a special atomization device to fully contact and mix with high-temperature dust-containing flue gas. During the process, the absorbents react chemically with SO₂ in the flue gas to form stable sulfate products. At the same time, the high temperature of the flue gas makes the moisture in the absorbents evaporate quickly, and finally semi-dry desulfurization ash is formed. It does not require a large amount of water resources or produce a large amount of desulfurization wastewater, fundamentally solving the wastewater treatment problem of wet desulfurization.

- High Efficiency
- Low Cost
- Zero Wastewater
- Easy O&M

The preferred process for ultra-low emission of small and medium-sized units and industrial kilns.



Wet-DeSOx

SO₂/Acid Gas

Overview

Wet desulfurization features mature technology and wide application. Its desulfurization efficiency can reach over 98%, stably meeting ultra-low emission standards. It has strong adaptability to coal quality and working conditions with high operational reliability. The by-product gypsum can be recycled. With a high degree of automation, it is highly suitable for large thermal power units and high-sulfur flue gas conditions.

Single Alkali FGD

Wet-DeSOx

Limestone Gypsum FGD

Double Alkali FGD

Ammonia-based FGD



Limestone-Lime Gypsum FGD

Start-up:2023

Industry:New Energy

Volume:150000m³/h

Limestone-Lime Gypsum FGD

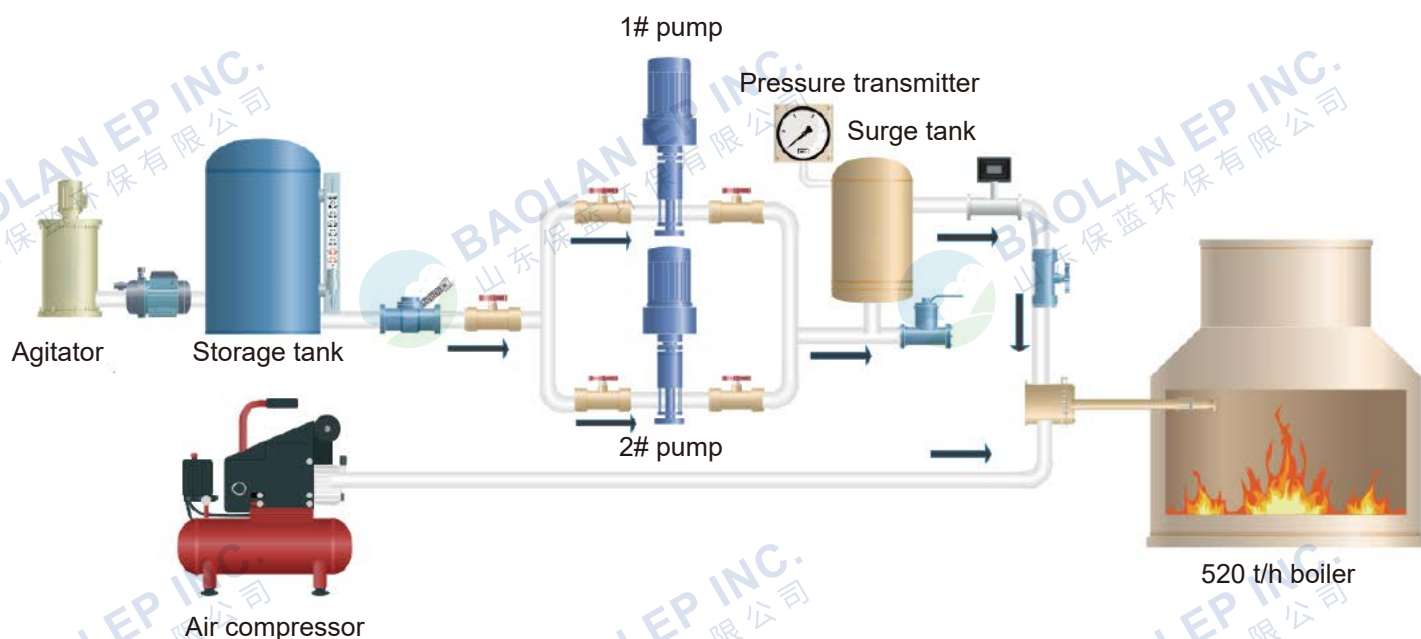
Start-up:2020

Industry:Building materials

Volume:120000m³/h

SNCR

NO_x



Overview

Selective Non-Catalytic Reduction (SNCR) is a common, cost-effective denitrification technology widely applied in industrial flue gas treatment. Unlike SCR, this process requires no catalyst and relies on a high-temperature reaction environment ranging from 850 to 1100 degrees Celsius. Reductants such as ammonia or urea solution are atomized and sprayed directly into the high-temperature flue gas zone inside the furnace or boiler. The reducing agent mixes fully with flue gas and selectively reacts with nitrogen oxides, converting harmful NO_x into harmless nitrogen and water vapor. Although its denitrification efficiency ranges from 50% to 70%, lower than the SCR system, it features simple structure, low investment and operation cost, and no catalyst replacement cost.

The complete SNCR system mainly consists of a reductant storage unit, automatic dosing device, atomizing spray gun and intelligent control system. The core of stable operation is precise temperature zone positioning and accurate reagent injection dosage, which effectively avoids excessive reagent consumption and ammonia escape. It is often used for preliminary NO_x reduction in industrial kilns, medium and small boilers. It can also be combined with SCR technology to form a hybrid denitrification system, assisting the overall flue gas treatment process to meet national industrial flue gas emission standards stably.

No catalyst, lower investment	Simple structure, compact footprint
Little renovation, easy construction	Easy O&M, low energy consumption
No catalyst wear or poisoning risk	Wide adaptability for boilers and kilns



SCR

NO_x

Overview

Selective Catalytic Reduction (SCR) is the most widely used and efficient denitrification technology for industrial flue gas treatment, which is essential for enterprises to meet national ultra-low emission standards. It works stably in a temperature window of 300 to 400 degrees Celsius. In the working process, atomized ammonia is fully mixed with flue gas, and selectively reacts with nitrogen oxides (NO_x) on the surface of the catalyst. The reaction converts toxic NO_x into harmless nitrogen and water vapor, avoiding unnecessary reaction with oxygen in flue gas. With a denitrification efficiency of over 85%, it can effectively reduce NO_x emissions from industrial boilers, power plants and kilns.

A complete SCR system includes ammonia storage and injection devices, mixers, reaction reactors and catalyst modules. The system strictly controls ammonia dosage to minimize ammonia escape and prevent secondary pollution. As the core front-end process of flue gas treatment, it removes nitrogen oxides in the high-temperature stage, reduces the operating pressure of downstream dust removal and desulfurization equipment, and ensures long-term stable and compliant operation of the entire flue gas treatment system.



-High NO_x removal efficiency

-Stable ultra-low emission

-Proven and reliable technology

-Strong working condition adaptability

-Standard layout & small footprint

-High degree of automation



Signing time:2019
Industry:Building materials
volume:20000Nm³/h



Signing time:2021
Industry:Chemical
volume:30000Nm³/h



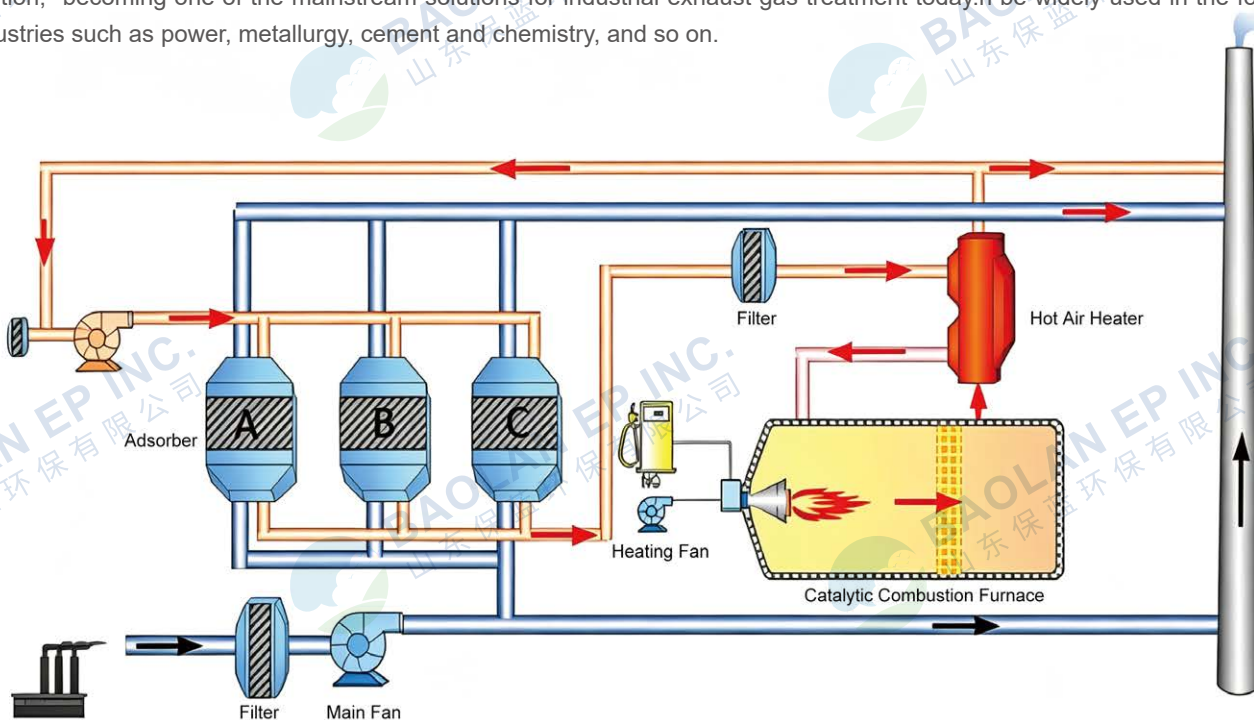
Signing time:2021
Industry:Manufacturing
volume:50000Nm³/h

Zeolite/AC Adsorption

Adsorption System for VOCs

Overview

In industries such as printing, coating, and electronics manufacturing, the treatment of low-concentration volatile organic compounds (VOCs) exhaust gas has always been a challenge for environmental protection. Traditional single technologies (such as direct combustion or activated carbon adsorption) have problems including high energy consumption, high operating costs, poor safety, or secondary pollution. The combined process of zeolite adsorption concentration + catalytic combustion achieves efficient purification and resource utilization of low-concentration exhaust gas through the synergistic effect of "adsorption-desorption-combustion," becoming one of the mainstream solutions for industrial exhaust gas treatment today. It can be widely used in the following industries such as power, metallurgy, cement and chemistry, and so on.



Project References



Start-up:2019
Industry:Automobile Manufacturing
Volume:20000Nm³/h



Start-up:2019
Industry:Chemical materials
Volume:30000Nm³/h



Start-up:2020
Industry:Electronic equipment
Volume:40000Nm³/h



Start-up:2021
Industry:New materials
Volume:40000Nm³/h



Start-up:2021
Industry: Chemical
Volume:10000m³/h



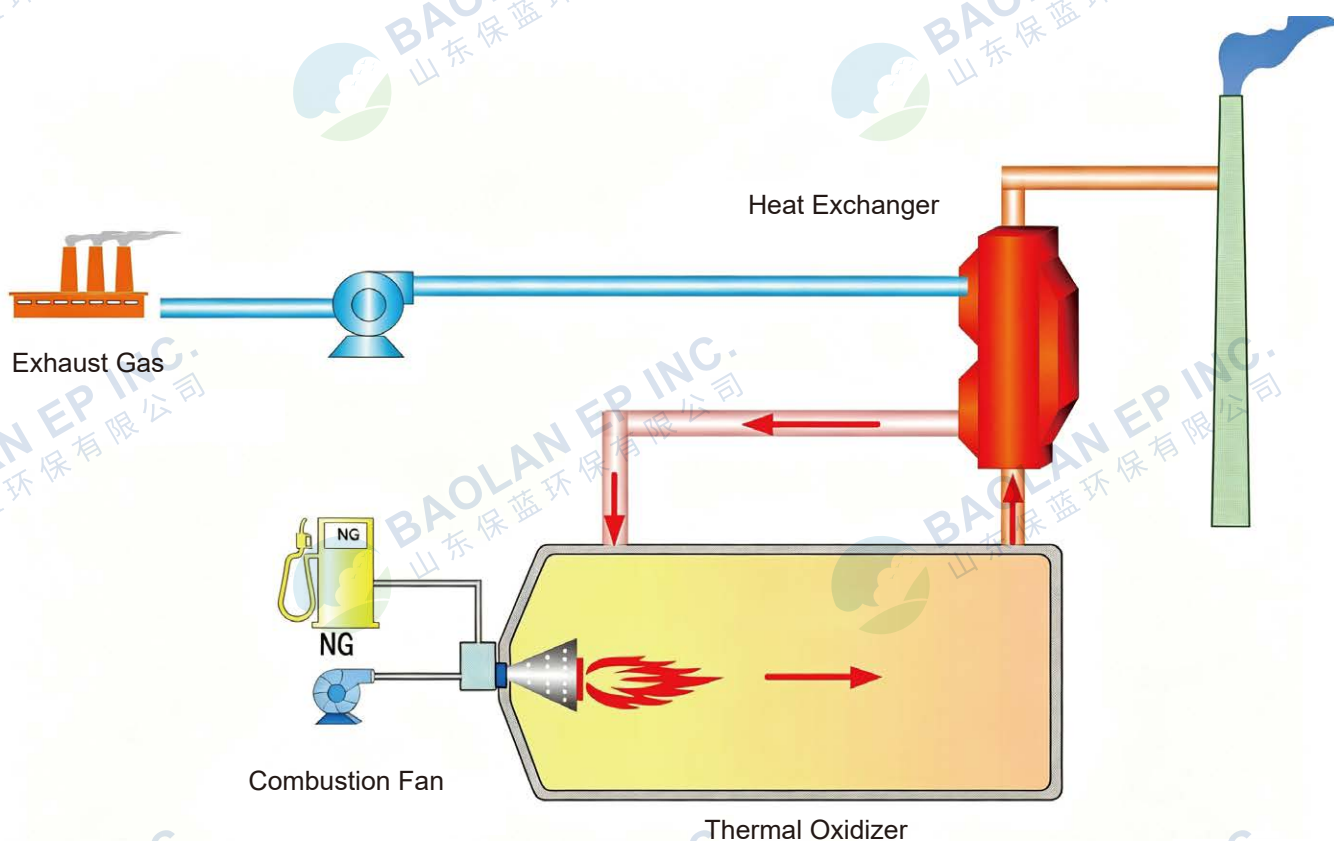
Start-up:2021
Industry:Metal smelting
Volume:40000Nm³/h

TO

Thermal Oxidizer for VOCs

Overview

Direct-fired incineration technology TO (Thermal Oxidizer, abbreviated as TO) utilizes the heat generated by the combustion of auxiliary fuels (such as natural gas, diesel, gas, liquefied gas, etc.) to raise the temperature of combustible organic waste gases to the reaction temperature (800-1000°C), thereby causing oxidative decomposition and purifying the waste gas. The high-temperature gas produced by decomposition can be used for heat recovery through devices such as heat exchangers or boilers, or it can be directly discharged.



Project References



Start-up:2021
Industry:Carbon
Volume:5000m³/h



Start-up:2024
Industry:Fine Chemistry
Volume:7000Nm³/h



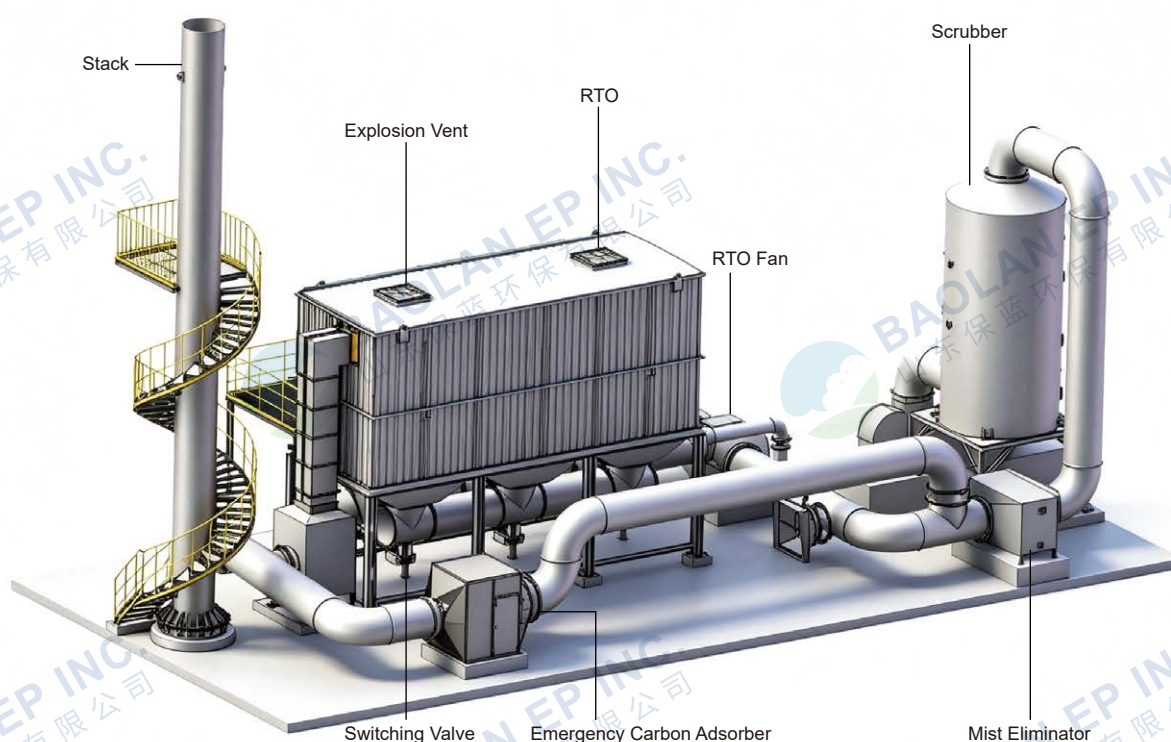
Start-up:2025
Industry:Coating
Volume:8000Nm³/h

RTO

Regenerative Thermal Oxidizer for VOCs

Overview

The Regenerative Thermal Oxidation (RTO) technology heats organic waste gases to above 760°C, causing the volatile organic compounds (VOCs) in the waste gases to oxidize and decompose into CO₂ and H₂O in the combustion chamber, achieving a purification efficiency of up to 99%. The high-temperature gases generated by oxidation flow through a specially made ceramic regenerator, heating the ceramic body and "storing heat". In the next process, the waste gases pass through the already "heat-stored" ceramic, transferring the heat of the ceramic to the waste gases. The organic waste gases pass through the ceramic as a heat exchanger carrier, undergoing repeated heat exchange, thereby saving fuel consumption for heating the waste gases, reducing operating costs, and achieving a heat recovery efficiency of up to 95%. Under medium to high concentration conditions, RTO can export waste heat, which can be utilized in the form of steam, hot air, or hot water, achieving economic benefits while meeting with EPA regulations.



Project References



Start-up:2021
Industry:Coating
Volume:30000Nm³/h



Start-up:2022
Industry:Chemical
Volume:30000Nm³/h



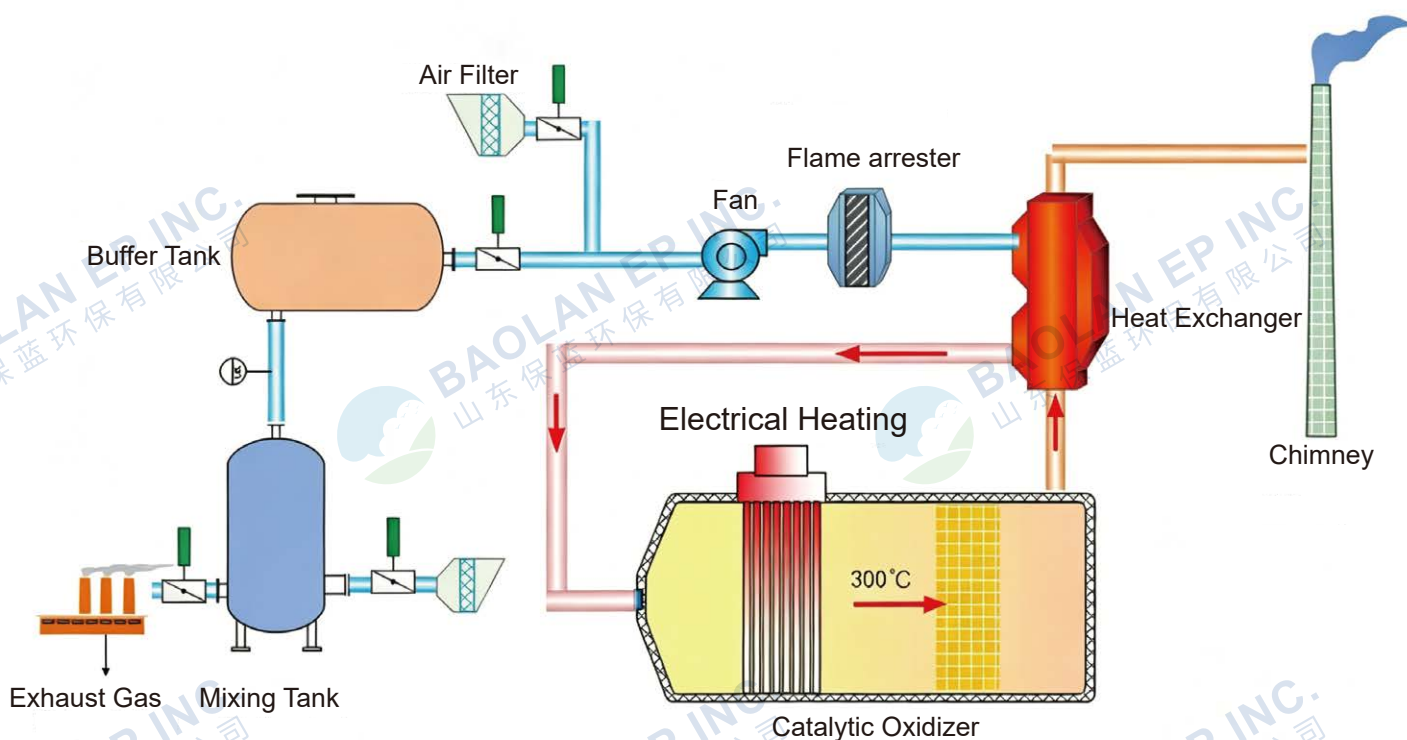
Start-up:2023
Industry:Medical and Chemical
Volume:120000m³/h

CO

Catalytic Oxidizers for VOCs

Overview

Our company's CO furnace integrates design, manufacturing, installation, and commissioning. The BL-CO series products are advanced equipment in the fields of environmental protection and energy recovery, with internationally leading levels. Over the years, through practical applications and continuous optimization in numerous industrial projects, the product structure has become increasingly rational, with strong operational stability and high processing efficiency, capable of meeting various strict environmental protection and energy efficiency standards. The BL-CO furnace can be widely applied in industries such as chemicals, coking, pharmaceuticals, spraying, and printing, achieving efficient and safe treatment of VOCs and carbon monoxide, as well as energy recovery and utilization.



Project References



Start-up:2019
Industry:Machine building
Volume:3000m³/h



Start-up:2021
Industry:Chemical
Volume:2000Nm³/h



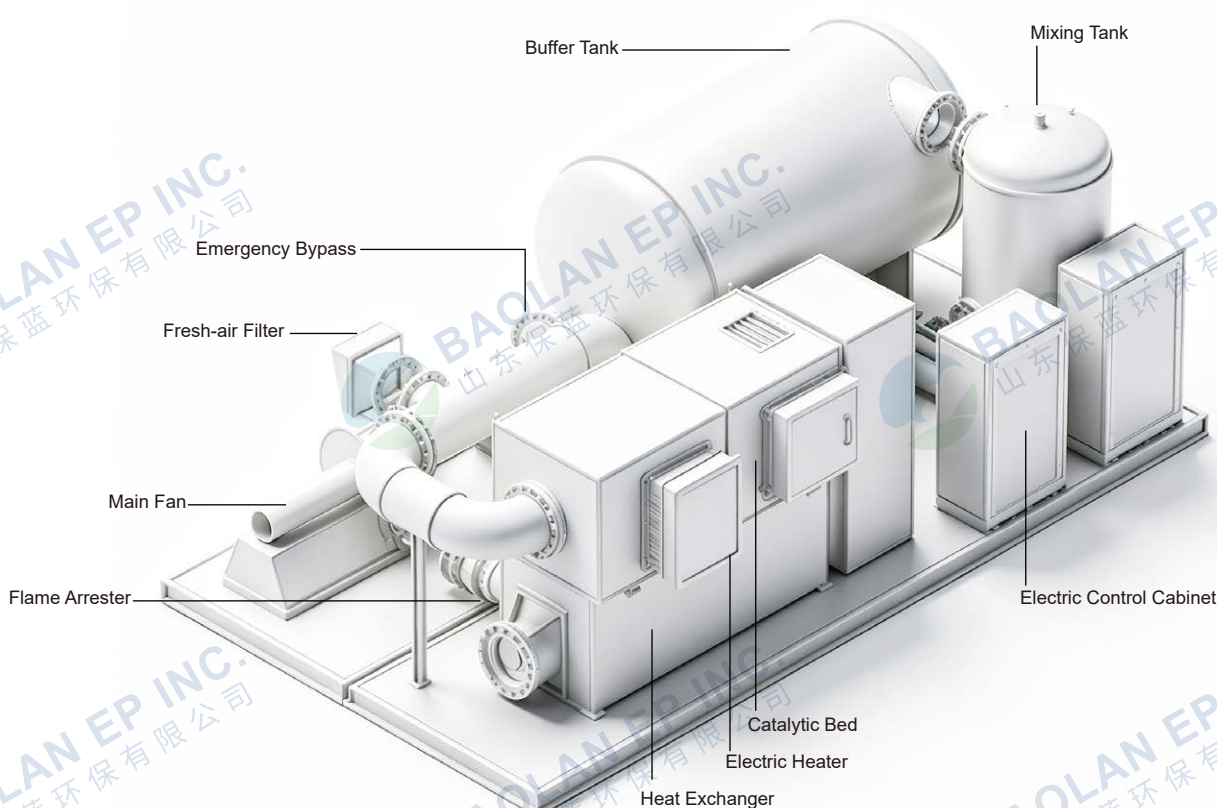
Start-up:2023
Industry:Environmental protection
Volume:5000Nm³/h

RCO

Regenerative Catalytic Oxidizer for VOCs

Overview

Regenerative Catalytic Oxidation (RCO) technology heats organic waste gases to above 300°C , enabling the volatile organic compounds (VOCs) in the waste gases to be oxidized and decomposed into CO_2 and H_2O through the action of catalysts in the combustion chamber, achieving a purification efficiency of up to 99%. The high-temperature gas generated by oxidation flows through a specially crafted ceramic regenerator and catalyst, causing the ceramic body to heat up and "store heat". In the next process, the waste gases pass through the already "heat-stored" ceramic, transferring the heat of the ceramic to the waste gases. The organic waste gases use the ceramic as a heat exchanger carrier to repeatedly exchange heat, thereby saving fuel consumption for heating the waste gases, reducing operating costs, and achieving a heat recovery efficiency of up to 95%.



Project References



Start-up:2021
Industry:Fine Chemical Industry
Volume:20000m³/h



Start-up:2022
Industry:Chemical
Volume:20000Nm³/h



Start-up:2025
Industry:Environmental engineering
Volume:15000Nm³/h

Electrostatic Tar Precipitator

ETP for Tar

Overview

The Electrostatic Tar Precipitator (ETP), also named ionization catcher, is a core front-end purification device specially designed for industrial waste gas containing viscous pollutants. It is widely used in carbon production, plastic granulation, asphalt processing, coal chemical and other industries where tar mist, oil fog and fine sticky particles are generated in flue gas.

This equipment operates based on high-voltage electrostatic ionization and adsorption principles. A strong and stable corona electric field is formed inside the device by high-voltage DC power. As polluted flue gas flows through the electric field, suspended tar droplets and fine particles are ionized and charged. Driven by Coulomb force, the charged pollutants move towards the precipitation electrodes, adhere to the plate surface, and finally flow down to the bottom oil collection tank by gravity to achieve automatic separation.

The precipitator boasts high purification efficiency, low operational resistance and stable continuous performance. It can remove more than 95% of ultrafine viscous pollutants, effectively solving the problem of easy blockage of subsequent environmental protection equipment. As a vital pretreatment facility, it well protects activated carbon adsorbers and catalytic combustion units from oil contamination damage, significantly prolonging the service life of the whole waste gas treatment system.

With compact structure, complete safety interlock protection, low energy consumption and no replacement consumables required, the equipment supports 24-hour stable operation. It guarantees long-term qualified flue gas discharge and has become indispensable environmental protection equipment for industrial exhaust purification.

-High purification efficiency

It achieves a removal efficiency of over 95% for ultra-fine tar mist particles sized 0.01~10 μm .

-Extremely low operating resistance

Compared with bag filters and activated carbon filters, it causes minimal pressure drop and greatly cuts down the energy consumption of the main fan.

-Continuous and stable operation

It supports 24-hour non-stop production. Equipped with an automatic cleaning system, it reduces downtime for maintenance.

-Low energy consumption

Only the high-voltage power supply consumes electricity without any consumable wear and tear, leading to much lower operating costs than filter media.

-Suitable for high-temperature flue gas

Withstands flue gas at 120°C~220°C.



Smoke Abatement Equipment

White & Black Smoke Abatement



Prior to Equipment Startup



After Equipment Startup

Overview

Magnetic Energy White Smoke Elimination refers to the use of magnetic energy white smoke removal equipment to efficiently remove white mixed pollutants in industrial flue gas, eliminate flue gas odor, and simultaneously resolve the visual pollution caused by white smoke. The white pollutants mainly consist of harmful substances such as dust particles, acid mist, alkali mist, aerosols, soluble salts, PM10, PM2.5 and CPM.

3000+

STRATEGIC PARTNERS

The following logo matrix just shows some representative customers

CABOT



DAIKYO
since 1976

Dongwon

ECO
Special Waste Management Pte Ltd

THE GREEN GROUP

LAFFAN RESIN PRODUCTION FACTORY

TEXCYCLE

MMP
Mitra Murni Perkasa

APP

SIBUR
INTERNATIONAL

ROSATOM

anelco

史丹利
STANLEY

中国石化
SINOPEC

中国石油

RUSAL
RUSSIAN ALUMINIUM MILL PRODUCTS

BAOWU 中国宝武

中化
sinochem
| 科 | 学 | 至 | 上 |

兖矿集团
YANKUANG GROUP

NIKE

adidas

璞泰来
PUTAILAI

WinT
云图控股
WINTRUE

Applicable Industries



Thermal power plants emit SO_2 , NO_x , dust, heavy metals, high-salt wastewater and solid wastes. SCR denitrification, WFGD wet desulfurization, ESP, bag-house dust collectors and WESP are adopted for ultra-low flue-gas emission. Membrane and evaporation-crystallization systems treat desulfurization wastewater. Filter presses recycle fly ash and gypsum, realizing comprehensive control of flue gas, wastewater and solid waste for power units.



Iron and steel industry generates massive dust, sulfur-nitrogen oxides, VOCs and toxic wastewater from sintering, coking and smelting processes. Bag-house and electrostatic precipitators remove particulates. SCR/SNCR and desulfurization systems handle kiln flue gas, while RTO/RCO treats coking VOCs. Biochemical facilities and filter presses dispose phenolic-cyanogen wastewater to fulfill full-process ultra-low emission requirements.



Chemical production discharges acid waste gas, VOCs, dust, odor and high-salinity refractory organic wastewater. Desulfurization, denitrification and dust-removal equipment treat kiln flue gas. Rotary RTO, CO oxidizers and spray scrubbers purify organic and acid exhaust. Wastewater is processed via pretreatment, MBR, ozone oxidation and evaporation-crystallization to achieve qualified discharge and water reuse under complex working conditions.



Petrochemical plants produce sulfur-nitrogen oxides from furnaces, VOC oil-gas from tank areas and oily wastewater. Oil-gas recovery devices recycle volatile hydrocarbons. Furnace flue gas is treated by desulfurization, denitrification and dust-removal units; RTO/RCO purifies organic waste gas. Oily wastewater goes through oil-water separation, biochemical and membrane treatment to meet emission and reuse standards.



Non-ferrous metal smelting produces high-concentration SO_2 , heavy-metal dust, NO_x and acidic heavy-metal wastewater. Bag-house and electrostatic precipitators capture heavy-metal particulates. Smelting flue gas recovers sulfur dioxide via acid-making systems, with SCR/SNCR for denitrification. Spray scrubbers purify acid gas. Precipitation, filter-pressing and membrane treatment realize harmless disposal of smelting exhaust and wastewater.

Applicable Industries

Automobile manufacturing industry

Automobile manufacturing mainly produces welding-grinding dust, paint-related VOCs, paint mist and coating wastewater. Cartridge dust collectors treat welding dust. Zeolite-rotor combined with RTO/RCO decomposes coating VOCs efficiently. Air flotation and biochemical equipment purify coating wastewater. These environmental-protection facilities guarantee compliant exhaust and wastewater discharge for automobile production lines.

Pharmaceutical industry

Pharmaceutical manufacturing generates solvent VOCs, acid-base waste gas, odor and high-COD refractory wastewater. Organic waste gas is treated by condensation recovery, activated-carbon adsorption or RTO/RCO. Spray towers neutralize acid-base exhaust and biological deodorization removes stench. Wastewater is treated by pretreatment, MBR and advanced oxidation to degrade organics and achieve stable standard discharge.

Papermaking industry

Papermaking produces pulping odor, dust, high-COD wastewater and white water. Alkali-recovery furnace flue gas is treated by bag-house dust collectors and desulfurization devices. Biological deodorization towers eliminate pulping odor. Dissolved-air flotation, biochemical systems, MBR and filter presses treat wastewater and white water. Part of treated water can be recycled for production to improve water utilization efficiency.

Printing & dyeing industry

Printing and dyeing processes generate VOC waste gas from setting-printing sections, as well as high-chroma and high-COD wastewater. Organic waste gas is purified by RCO/RTO, activated-carbon adsorption and spray towers. Dissolved-air flotation removes suspended solids, biochemical systems degrade organics, and advanced-oxidation equipment removes chroma. Treated wastewater can meet discharge standards or serve as reclaimed water.

**Where there is a chimney,
our equipment can be applied.**





Environ. trouble? Baolan trustable!

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