

FLUE DUST TREATMENT SYSTEM

Filter And DeNOx Solutions

Hefei, China. 2023

Stock Code: 688659 C O M P A N Y P R O F I L E

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Company Introduction

Hefei, China. 2023









ENTERPRISE MILESTONES



2013

Established Yuanchen Carbon Technology Co., Ltd

2016

Completed the shareholding system transformation and changed its name to "Anhui Yuanchen Environmental Protection Science&Technology Co., Ltd."

2005

Officially established

The first filter bag production line
was officially put into production

2014

The first catalyst production line was officially put into operation

2017

Germany Autefa needle punch production line put into operation Filter material rank first in the power market industry

ENTERPRISE MILESTONES



2019

Established wholly-owned subsidiary
Anhui Weina IoT Technology Co.,
Ltd.and Yuanchen Science and
Technology Research Institute

2022

The construction of the new material recycling industrial park has successfully rolled off the composite foil products of Yuanchen Technology

2018

The wholly-owned subsidiary
Anhui Confair Testing Technology
Co., Ltd. was established and
obtained double certification of
CNAS and CMA

2021

The company officially landed on Ashares and listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange.

Stock code: 688659

YUANCHEN TECHNOLOGY GROUP





Established in 2005, Listed on the Science and Technology Innovation Board in March 2021



Built a serious of national scientific research workstations, joint laboratories, and technology research centers



Business involves industrial flue gas dedusting and denitrification, recycling industry, smart environmental protection, testing, new material development

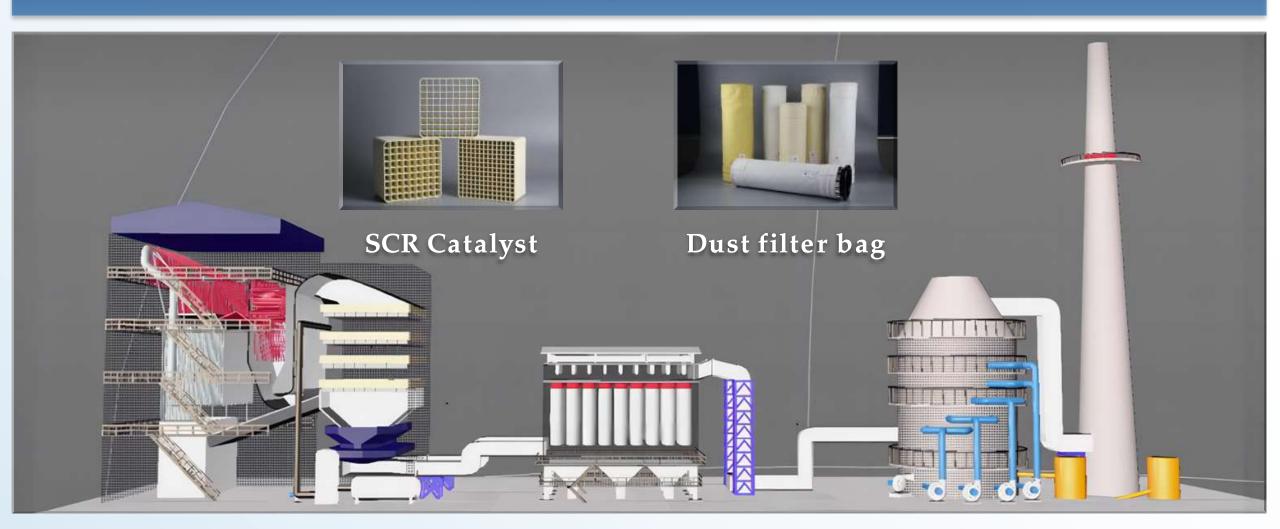
Total Assets: 1.27 billion CNY (185 million USD), 2022 Operating Income: 580 million CNY (84.4 million USD), Employees Number: 600+

PRODUCTS INTRODUCTION-MAIN PRODUCTS



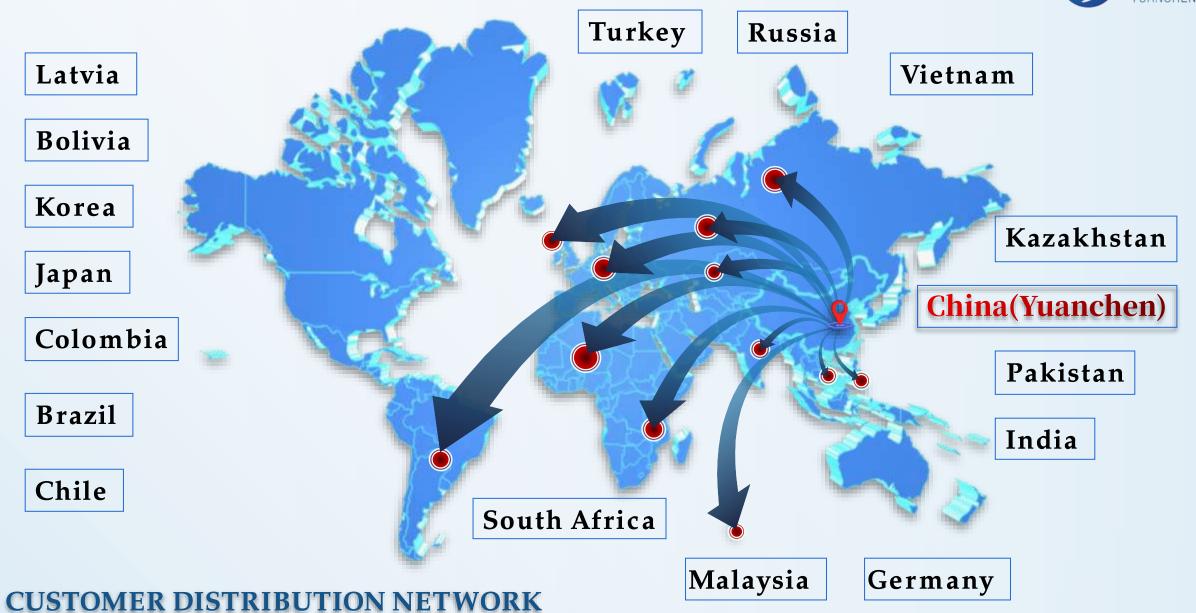


Covering environmental engineering design and manufacturing, producing dust filter fabric and bags, SCR catalyst manufacture, recycle and regeneration



OVERSEAS MARKETS





INTERNATIONAL MARKET >>>>>>>>



- Andritz Group
- **Bestway Cement**
- **Thyssenkrupp**
- **DK** cement
- **TATA Group**
- Philippines power plant
- Atlas Energy
- **Turkey EREN ENERGY**
- **THERMAX LIMITED INDIA**
- ► AO «NORDFELT»
- **F** RUSAL
- **MMK**

















>>>>>>>

ThyssenKrupp









RUNH POWER



TORAY Innovation by Chemistry







中国石化 SINOPEC



国家电力投资集团公司 STATE POWER INVESTMENT CORPORATION







中国大唐集团科技工程有限公司 China Datang Technologies&Engineening Co.,Ltd.



浙江菲达环保科技股份有限公司





Yonker 水清环保股份有限公司 YONKER ENVIRONMENTAL PROTECTION CO.,LTD.

TENGY 浙江天洁环境科技股份有限公司 Zhejiang Tengy Environmental Technology Co...Ltd





中國機械提椅工程股份有限公司 China Machinery Engineering Corporation







PARTNER

























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ENTERPRISE HONORS







CERTIFICATIONS

元琛®

- Hazardous waste management license
- Environmental management system certification

ISO14001:2004

ISO9001:2008

OHSAS18001:2007

- CNAS Laboratory
- CE Certificate











Production Process

PRODUCTION
PROCESS

Hefei, China. 2023



FILTER FABRIC AND BAG PRODUCTION LINE



Japan Tokuden electromagnetic heating laminating machine

- ✓ Guarantee of excellent breathability
- ✓ Accurate temperature control and uniform dispersion
- ✓ Excellent film fastness
- ✓ Smooth and uniform fabric effect

Sweden ETON automatic hanging system

- ✓ Avoid fabric wear and tear
- ✓ Avoid fabric stains
- ✓ Increase productivity

German AUTEFA full set of needle punching production line

- ✓ High efficiency, with an annual production capacity of 6 million squaremeters
- ✓ Advanced production technology and elliptical needle trajectory ensure high strength
- The highest level of automation, automatic recognition, correction, and adjustment
- ✓ The first fully automatic intelligent needle changing device

Intelligent equipment - filter material production line



ETON automatic suspension system in Sweden



Tokuden
electromagnetic
heating laminating
machine from Japan



Germany AUTEFA
Complete Needle
Needling Production Line



FILTER FABRIC AND

BAGPRODUCTION

LINE





INTELLIGENT EQUIPMENT - SCR CATALYST PRODUCTION LINE

Customized production lines of the German Ceramic Union:

- **EIRICH-ECT**
- > KEMA
- > LINGL
- > KERAMISCHER OFENBAU











Quality Control & Research Center

Hefei, China. 2023

QUALITY

RESEARCH CENTER





RESEARCH AND TESTING CENTER (CNAS LABORATORY)





TESTING EQUIPMENT





USA-Nicolet Is10 Infrared Spectrometer



Phenom Scanning Electron Microscope



Automatic Specific Surface Pore Size Distribution Meter



AFC133 filter material test bench



Fully automatic activity evaluation device



PSM165 filter material pore size tester



Application Of Dust Filter Bag And Catalysts In Different Industries

Catalyzer

Dust removal filter bag

Hefei, China . 2023





Flue gas

- > Temperature
- > Acidity-Alkalinity
- Dust concentration
- > Filtration velocity

Nature of dust

- Viscidity
- > Humidity
- Size distribution
- > Reaction to fire

Dust clean

- Pulse-jet cleaning
- > Reverse flow cleaning
- Clean pressure

Equipments

> Running resistance

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COMMON FIBER >>>>>>>>



NOMEX

204-240°C,wear-resisting,Good performance for acid and alkaliresistant,hydrolysis resistance is not good

Polyimide

Good performance for acid and alkali-resistant, high dust filtration concentration, 260-280°C.

PPS 🗸

Good performance for acid and alkali-resistant, wear-resisting, 160-190°C, oxygen content < 8%



✓ PTFE

260-280°C,good performance for acid and alkali-resistant,high chemicial stability

Acrylic

High chemicial stability, resist to oxidation,

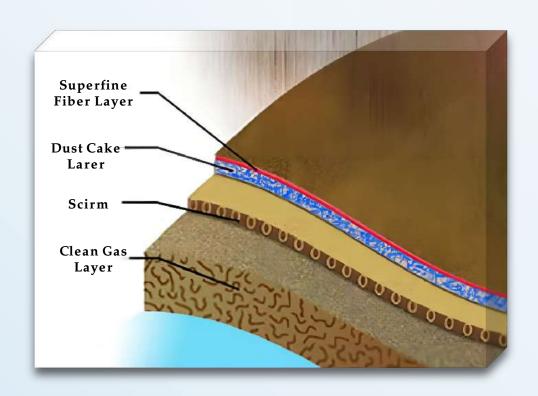
Polyester

130-150°C, high chemicial stability, resist to oxidation, hydrolysis resistance is not good.

1.PM2.5 GRADIENT FILTER DESIGN AND APPLICATION TECHNOLOGY

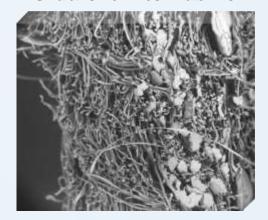


National Science and Technology Innovation Fund
Awarded invention patents and high-tech
products Emission concentration <10mg/Nm3



Filter performance	Unit	Gradient filter	Membra ne	Normal filter
Emission concentration after 30 times	mg/m³	0.2093	0.1981	4.1547
Filter efferency after 30 times	%	99.9958	99.9981	99.9164
Presure diff after 30 times	Pa	469	442.56	581.78

Gradient filter fabric



Normal filter fabric



2.FINISHED TREATMENT TECHNOLOGY

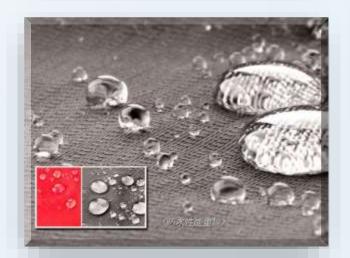


a. Anti-ammonium bisulfate technology

Advantage:

- 1) Increase the smooth surface of fibers and solid particles
- 2) The filter fiber has a smooth surface and good anti-condensation performance.
- b. Water and oil repellent









3. HIGH WEARING RESISTANT TECHNOLOGY

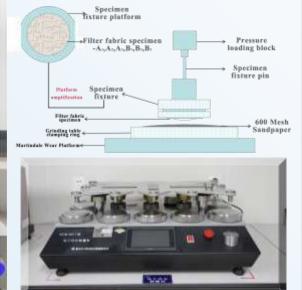


Competitor data Comparision

Filter bag lifetime:

Wearing resistance and folding resistance test





	Wearing resistance		Folding resistance		
Manufacturer	Total friction number of times	Wearing resistant index (times/mg)	Folding resistance number of times		Folding resistance index
Yuanchen	2500	24.87	Warp	2438	3.37
		21.07	Weft	19506	4.25
Sinoma	400	6.59	Warp	240	2.33
			Weft	153	2.18
Lnork	800		Warp	1409	3.149
		7.77	Weft	3270	3.515
Hualin	400	9.52	Warp	1237	3.092
			Weft	409	2.612

ANALYSIS OF DAMAGE IN FILTER BAG



Flue gas temperature

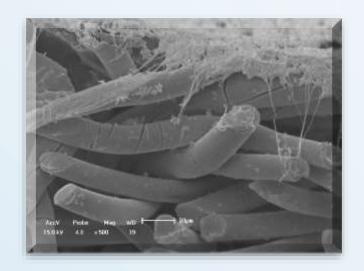


Oxides in smoke



Smoke moisture





The combination of SOx, NOx and water in the flue gas causes acid corrosion to the filter media; When the O2 and O3 content is high, It will cause oxidation damage to the filter bag.

FILTER BAG PROJECT CASES FOR POWER PLANT



National Power Investment Pingyi Power Plant1000MW+4*600MW

National Power Investment Danhe Power Generation 2*1000MW

Datang Sanmenxia Power Generation 1000 MW

Datang Tokto Power Generation2*660MW+300MW

Huadian Power Generation 2*660 MW

Huadian Hasan Power Plant2*600MW

Huaneng Yangluo Power Generation2*600MW

Huaneng Nantong Power Plant2*330MW

Guodian Yuanbaoshan Power Plant2*600MW

.

Jiangsu Shazhou Power2*1000MW

Zhengzhou Yuzhong Energy2*1000MW

Gemeng International Jixian Power Plant2*1000MW

Guangdong Zhuhai Power Plant2*700MW

Shanxi Xingneng Power Generation 4*660MW

Jingneng Bohai Power Generation 600MW

Shenhuafu Valley Power Generation 600MW

Yuedian Shajiao C Power Plant600MW

Jiangsu Guoxin Sheyang Port Power Generation 2*660MW

Hebei Jiantou Shahe Power Plant2*600MW

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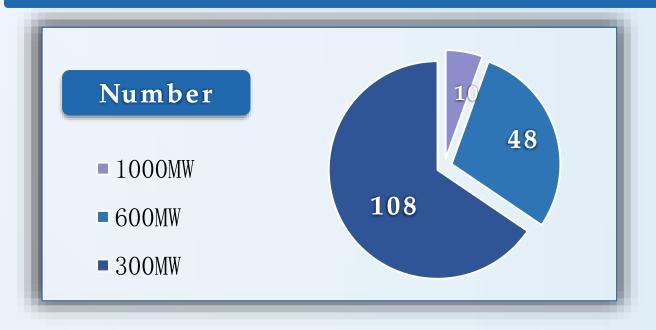
Ultra-clean emissions in the domestic dust removal field







The total installed capacity is 83890MW, the first in the industry!



FILTER BAG PROJECT CASES FOR CEMENT PLANT



Ultra-clean emissions in domestic dust removal field



Collective Group Procurement:

- CNBM Southwest Cement
- CNBM Southern Cement
- China Resources Cement
- Conch Cement
- Red Lion Cement
- Yunnan Cement
- Tianrui Cement

- Jiangsu Jinfeng Group 4*5000t/d kiln tail, 3*2500t/d
 kiln head and kiln tail
- Guangdong Tower Group 5000t/d Kiln Tail
- 5000t/d kiln tail of Pingdingshan Ruiping Group
- Tongli Group 2*5000t/d kiln head
- BBMG 1*4500t/d kiln head
- 5000t/d kiln head of Henan SDIC Group
- Zhonglian Group 5000t/d kiln head and kiln tail

.

FILTER BAG PROJECT CASES FOR STEEL PLANT



Ultra-clean emissions in domestic dust removal field

- Baowu Group
- Angang Group
- Hegang Group
- Shougang Group
- Laiwu Steel Group
- Shagang Group

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Special filter bag for semi-dry

desulfurization:

Wuhan Longjing Shandong Zhufu Steel

- Kangjie Environmental Xuzhou Steel
- Anhui Changjiang Iron and Steel

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Special filter bag for semi-dry desulfurization

FILTER BAG PROJECT CASES FOR WASTE INCINERATION





- Everbright Group
- Wuxi China Star Oriental
- Beijing First Environment
- > Sanfeng Group
- > Shanghai Kangheng Environment
- > Henan City Development Environment

Ultra-clean emissions in domestic dust removal field

project name	Filter bag specifications	Number of filter bags	project name	Filter bag specifications	Number of filter bags
Everbright Fuping	160*6000	1750	Kangheng Zhuhai	160*6000	1362
Everbright Qixia	160*6000	1750	Kangheng Guangshui	160*6000	1600
Everbright Yingtan	160*6000	2698	Kangheng Guangshan	160*6000	3300
Everbright Ruzhou	160*6000	1748	Kangheng Wuzhou	160*6000	3250
Everbright	160*6000	2194	Kangheng Nanchang	160*6000	6900
Everbright Shengzhou	160*6000	2194	Kang Heng Changzhi	160*6000	2400
Everbright Weishan	160*6000	1748	Lanzhou Fengquan	160*6000	1572
Everbright East China Sea	160*6000	1858	Chongqing Sanfeng Dongying	130*6000	2181
Everbright	160*6000	1097	Chongqing Sanfeng Chifeng	160*6000	2708
Everbright Maanshan	160*6000	1349	Shenhua Baotou	130*8065	4662
Everbright Yongzhou	160*6000	1748	Elm Evergrande	160*6000	350
Everbright Renshou	160*6000	2194	Longjing Iron Law	130*8065	3405
Everbright Yucheng	160*6000	1748	Beijing Huimin	150*6000	1690
Everbright Tengzhou	160*6000	1097	Deyanghui County	160*6000	2048
Everbright Wuhua	160*6000	1858		0 0 0	

POWER PLANT CATALYST PROJECT CASES



Ultra-clean emissions in the field of domestic denitrification

- SPIC Pingwei Power Generation 2*1000MW+4*600MW
- China Resources SITC Power 2*1000MW
- Wanneng Tongling Power Generation 1000MW
- SPIC Shentou Yidian 600MW
- Chongqing Songzao Power 600MW
- China Resources Liyujiang Power Generation 2*600MW
- Wanneng Maanshan Power Generation 2*600MW
- Guizhou Qiangui Power Generation 2*660MW
- Shanxi Wuxiang Hexin Power Generation 2*600MW
- 600MW Zhongyi Power Generation in Xinxiang, Henan

China Power Construction Gansu Chongxin Power Generation 2*600MW













The wide temperature difference denitrification catalyst is the first to be successfully applied in millions of electric power generating units!

CEMNT PLANT CATALYST & STEEL PLANT CATALYST





Inlet NOx ≤1000mg/Nm ³ Operating temperature 300-360°C Export NOx≤50mg/Nm ³ Run time 10 months



Conch Cement 1#5000T/D Project



Tianjin Iron and Steel Group Co., Ltd. 360m ²+265m ²sintering flue gas denitrification project



Shanxi Building Materials Industry and Trade 360m ² Sintering Flue Gas Denitrification Project



Fujian Sanbao Iron and Steel Co., Ltd. 320m ² sintering flue gas denitrification project



Laoting Iron and Steel Group Co., Ltd.360m ² sintering flue gas denitrification project

STEEL PLANT CATALYST PROJECT CASES



Ultra-clean emissions in the field of domestic denitrification



- Hebei Anfeng Steel 4*180+360m²
- Tianjin Iron and Steel Group 360+265m²
- Shan Dongxi Wang Steel 360m²
- Shanxi Tongcai Steel 360m²
- Fujian Sanbao Steel 320m²
- Hebei Jingye Iron & Steel 230m²
- Hebei Wuan Yuhua Iron and Steel 2*200m²
- Hebei Xinjin Steel 2*200m²
- Tianjin Tiangang United Special Steel 230m²
- Hegang Tanggang Laoting Iron and Steel Co.,
 Ltd. newly built 2# sintering 360m²
- Shagang Group Anyang Yongxing Iron and Steel Sintering 132m²

- Shanxi Zhongyang Iron and Steel 3*200m²
- Shandong Laigang Yongfeng Steel 265m²
- Jiangsu Danyang Longjiang Iron and Steel
 70+130m²
- Hebei Tianzhu Steel 208m²
- Shanxi Hongda Steel 194m²
- Shanxi Zhongsheng Iron and Steel 180m²
- Hebei Hexin Steel Sintering 130m²
- Baowu Yangtze River Steel Sintering 3*180m²
- Wu'an Baking Steel Sintering 220m²
- Northwest China Steel relocates and builds a new sintering 320m²

Pioneer and leader in the medium and low temperature market of iron and steel sintering, More than 80 sets of denitrification have been put into operation, Helping about 15,600 square meters of sintering to achieve ultra-low emissions

OVERSEA CASES OF CATALYST



Turkey: 600 cubic meter catalyst

Vietnam: 450 cubic meter catalyst

Malaysia: 143 cubic













PACKING AND DELIVERY

















Social Responsibility

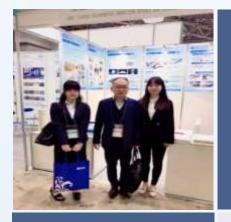
S O C I A L RESPONSIBILITY

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EXHIBITION





Japan Exhibition



Turkey Power Energy Exhibition



Korea
International
Environmental
Exhibition

Kazakhstan Exhibition



Vietnam Exhibition

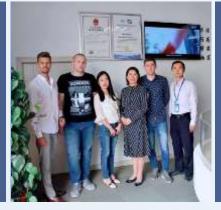


N-EXPO 2023 Tokyo





IE expo China 2023



South Africa



ICCI 2023 Istanbul

R&D INNOVATION





Technology Exchange And Learning



New Product Launch



New product Appraisal meeting



Laboratory Research



Blue Collar Innovation Studio



Analysis And Testing Center

TRANING&LISTED&CER





Successfully landed in the science and technology Board



Jianfeng Training



Academician and Expert Exchange Meeting





Jianfeng Training



Ceremony of New Building



















































































































































THANKS

Hefei, China. 2023

