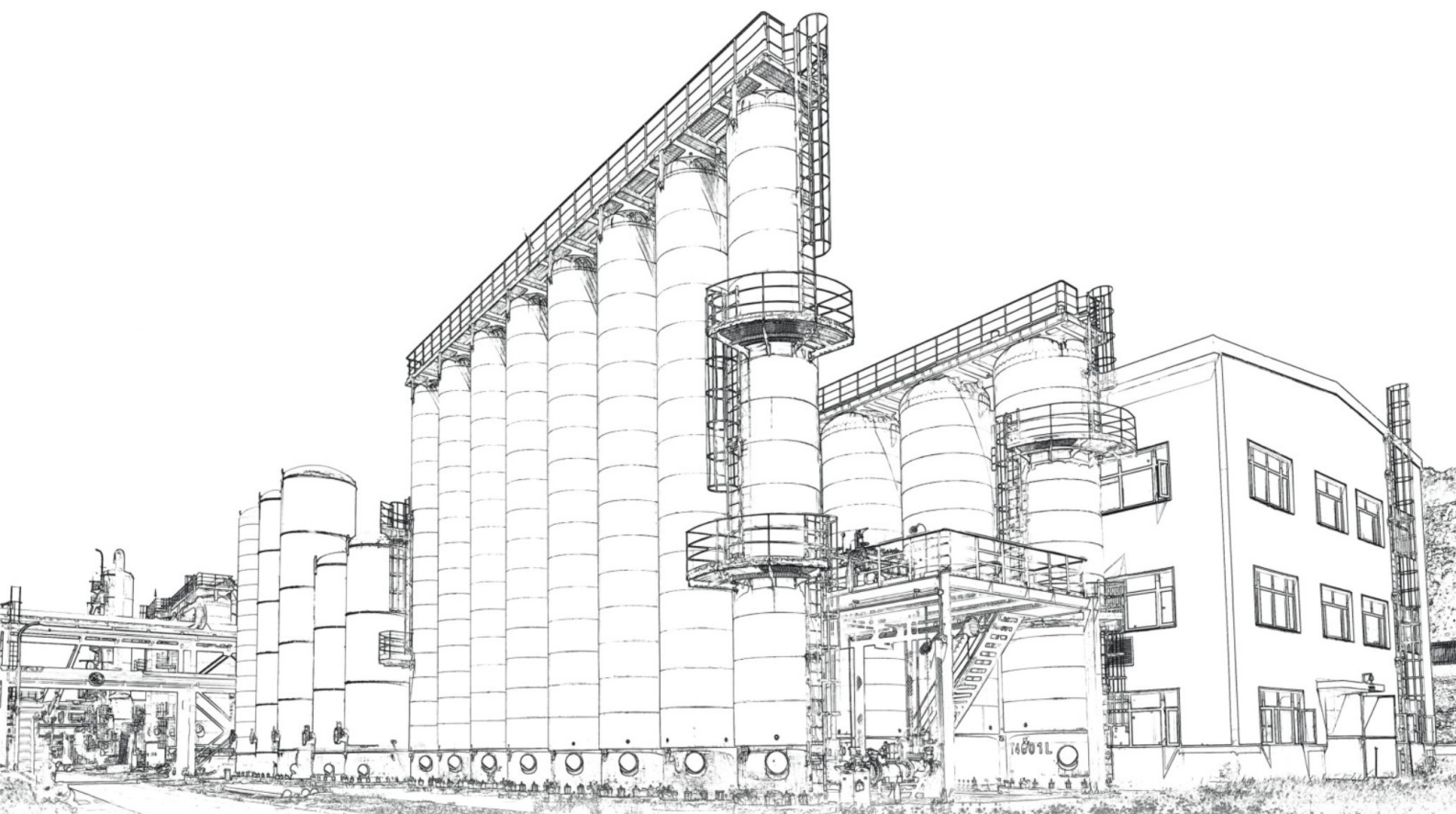




天采科技 Techairs

持续创新 追求卓越
Continuous innovation and pursuit of excellence



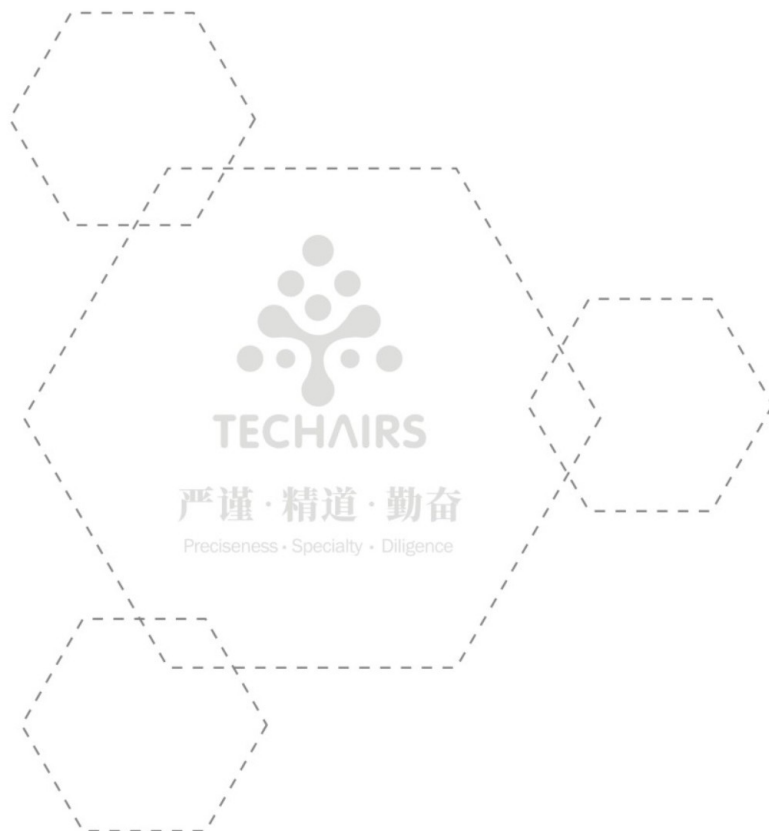
四川天采科技有限责任公司
Sichuan Techairs Co.,Ltd.



TECHAIRS

严谨 · 精道 · 勤奋

Preciseness · Specialty · Diligence



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Doctor Zhong Yaling

董事长钟娅玲博士



国家“千人计划”特聘专家

Special experts for the National "Thousand Talents Program"

钟娅玲



荣誉 / Honors

国务院特殊津贴专家，应中组部邀请参加国庆60周年阅兵。

Experts with special fund from the State Council. Was invited by the Central Organization Department to participate in the 60th anniversary of the National Day military parade.

四川省“百人计划”专家。

An expert in the "Hundred Talents Program" in Sichuan Province.

四川省学术、技术带头人。

Sichuan academic and technical leader.

成都市人才计划“专家”。

Chengdu Talent Program "Experts".

成都市政府科技顾问团专家。

Expert of Chengdu Municipal Government Science and Technology Advisory Group.

成都市“十佳”留学回国人员。

Chengdu "Top Ten" repatriate returning from studying abroad.

成都市科协副主席。

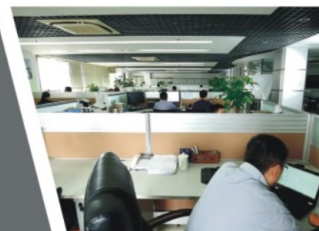
Vice Chairman of Chengdu Association for Science and Technology.

全国“标准化技术委员会”专家。

National "Standardization Technical Committee" experts.



Profile of Sichuan Techairs Co., Ltd. 天采简介



四川天采科技有限责任公司（原“亚连科技”）专业从事气体制备、分离与净化提纯技术的研发与工程转化。公司精通变温变压吸附，膜分离，湿法，浅冷，深冷，精馏等各种气体分离方法。通过建立强大的工程转化平台，广泛集成国内、国外各种化工单元成熟技术，为石油化工、煤化工、工业气体、钢铁冶金、精细化工、生物化工、燃料乙醇等行业，提供一揽子能够提升客户创新与竞争能力的解决方案、关键部件（吸附剂、催化剂、程控阀）与成套技术与装备。

Sichuan Techairs Co., Ltd. (formerly known as "Yalian Technology"), A Chinese national high-tech enterprise, is specialized in the R&D and engineering transformation of hydrogen production, the separation, purification of industrial exhaust gas, and new energy like ethanol fuel.

The Company, through the engineering transformation platform of R&D/engineering design/technology package, provides packaged technologies, key parts (adsorbent, catalyst, and special control valve), integrated equipment, and packaged services for various industries including petroleum, chemical, electronic, fine chemical engineering, fuel ethanol and biomedical engineering.

20⁺ 年

创业至今
From start to now

177⁺ 项

专利创新
Innovation with 177+ patents

5 项

科技进步奖
Science and Technology Progress Award

600⁺ 套

项目业绩
Performance of 600+ projects





创立时间 Date of establishment

1996年
1996



领先业务 Leading business

气体制备、分离与提纯
Gas preparation, separation and purification



技术领先者 Technology leader

双高PSA (THiPSA™) 技术
Two-High PSA (THiPSA™) technology



子公司 Subsidiary

成都高端化工工程有限责任公司
Chengdu Hi-tech Chemical Engineering Co., Ltd.



合资公司、全资公司 Joint venture company, Wholly-owned Company

江苏洁欧康科技有限公司（原奥石科技）
浙江天采云集科技股份有限公司
Jiangsu Zeechem Technology Co., Ltd.
Zhejiang Techairs Cloud Technologies Inc.



生产制造 Products

吸附剂、催化剂、程序控制阀、一体化装备
Adsorbent, Hydrogen catalyst, Programmable control valve,
Skid-mounted device



实验室
Laboratory



全资公司
Wholly-owned Company

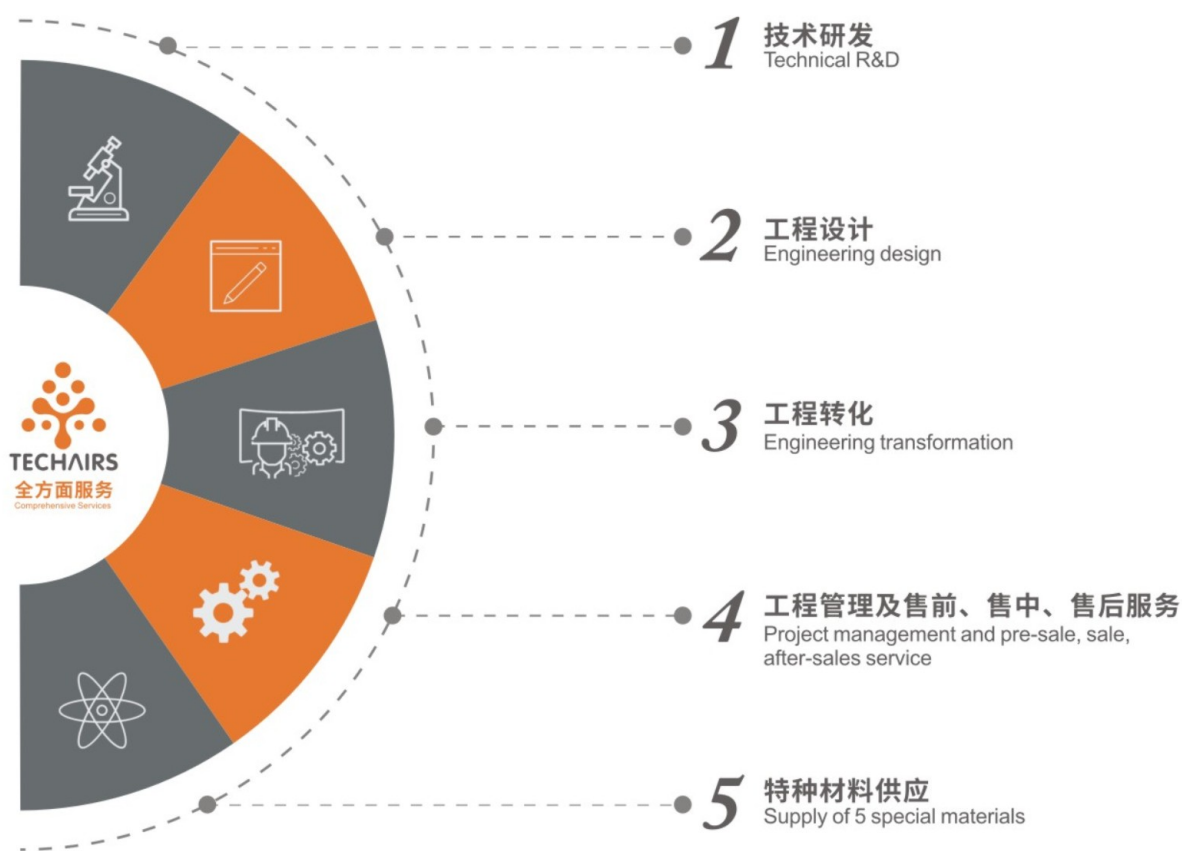


合资公司
Joint venture company



Business Mode

业务模式



提供服务 / Service Providing

- 技术研发
Technical R&D
- 项目咨询
Project consultation
- 技术转让
Technology transfer
- 工程设计
Engineering design
- 工程总承包
Engineering EPC
- 项目管理
Project management
- 售后服务
After-sales service
- 特种材料供应
Supply of special material



Time Shaft of Techairs

天采时间轴



2017 浙江天采云集科技股份有限公司成立。
Zhejiang Techairs Cloud Technologies Inc. was established.

与瑞士Zeochem公司开展战略合作，生产世界级品质分子筛。
Carry out strategic cooperation with Switzerland Zeochem to produce World-class Zeolite.

2016



2014 成立装备化生产基地。
Skid-Mounted base was established.

公司更名为天采科技。
The Company Name Was Changed To Sichuan Techairs Co., Ltd.

2013



2008 建立亚洲最大分子筛基地。
The Largest Molecular Sieve Base In Asia Was Established.

亚连科技成立，设计世界最大乙醇脱水。
Yalian Co., Ltd. was founded and the world's largest ethanol dehydration unit was designed.

2004



1996 亚联生化所创立。
Yalian Biochemical Research Institute was established.



Quality Management

质量管理



TECHAIRS™ 制造—品质保证

TECHAIRS™ manufacturing - quality assurance

1 我们提供最高品质保证和运行安全的装置产品与技术服务。

We provide units, products and technical services with the highest quality and operation safety.

- 拥有ISO9001:2000质量管理体系，
ISO9001:2000 quality management system certification,
- 国家工程设计资质，
National engineering design qualification,
- 国家级高新技术企业，
National hi-tech enterprise certification,
- 甲级环境污染防治工程工艺设计资质，
Class A process design qualification for environmental pollution prevention and control engineering,
- 一二类压力容器设计制造资质，
Class I/II pressure vessel design and manufacturing qualification,
- 三维配管、工程设计、模拟计算及企业管理软件等。
3D piping, engineering design, analog calculation and enterprise management software.



2 与客户携手可持续发展。

Sustainable development with customers:

- 中石化、中石油等勘探设计入网资格，
Network access qualification by Sinopec and Petro China for exploration and design.
- 英国DAVY技术国内分子筛乙醇脱水指定OEM，
British DAVY technology appointed for domestic molecular sieve ethanol dehydration designated OEM,
- 巴斯夫优质合作供应商，
Premium-quality cooperative supplier of BASF
- 众多气体公司技术及产品优质供应商。
Premium-quality supplier of technology and products of gas companies.





Patents of 天采专利



获准专利

177 Approved patent

177项



获准发明专利

56 Approved invention patent

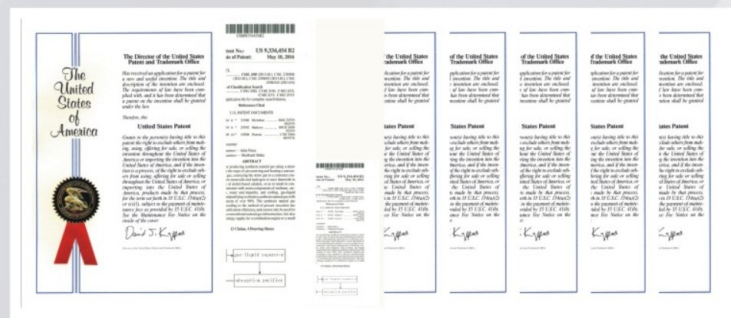
56项



国际专利

8 International patent

8项



科技进步奖

5 Science and Technology
Progress Award

5项





Technology & Application

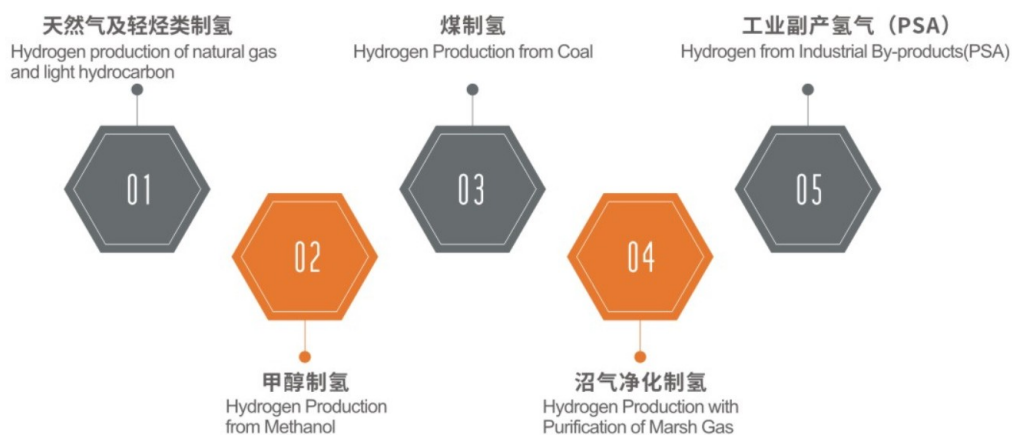
技术与应用



1

制氢技术及产品:

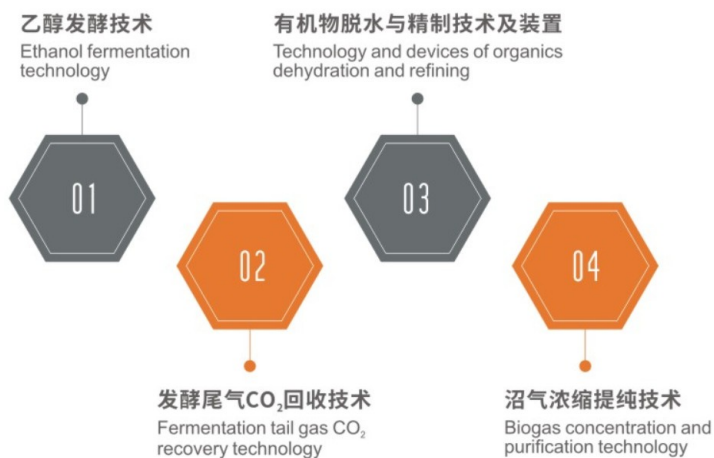
Technology and products of hydrogen production:



2

燃料乙醇生产技术:

Fuel ethanol production technology:



3

气体分离、净化提纯技术及产品：

Technology of Gas Separation and Purification and Products:

核心变压吸附 (PSA)—双高 THiPSA™ 技术

Core pressure swing adsorption (PSA)—Two-High THiPSA™ technology

变温（低、中、高温）吸附技术（TSA）

Adjustable temperature (low, medium and high temperature) adsorption technology (TSA)

变压吸附法 (PSA)制 CO 技术及装置

Technology and devices of CO
production with pressure swing
adsorption method (PSA)

01

02

变压吸附法 (PSA)制 CO₂ 技术及装置

Technology and devices of
CO₂ production with pressure
swing adsorption method (PSA)

天然气净化及甲烷 浓缩技术与装置

Technology and Devices of
Natural Gas Purification and
Methane Concentration

03

04

多晶硅/三氯氢硅尾气 回收技术与装置

Technology and Devices of
Polysilicon/Trichlorosilicon
Exhaust Recovery

C₂/C₃分离技术与装置

Technology and Devices of
C₂/C₃ Separation

05

06

有机废气(VOCs) 治理技术与装置

Technology and Devices for
Treatment of Organic Waste
Gas (VOCs)

电子行业尾气分离

Electronic Industry Tail Gas

07

08

荒煤气分离 提氢技术

H₂ Purification from raw
coke oven gas

1

制氢技术及产品：

Technology and products of hydrogen production:

天然气及轻烃类制氢

Hydrogen production of natural gas and light hydrocarbon:



01

技术应用 / Technology Application

以天然气及其他轻烃类为原料，转化工段优化了转化效率及物料消耗，PSA工段采用双高THiPSA™技术，保证了产品氢气的高收率以及高纯度，技术达世界先进水平。

The conversion workshop section has optimized the conversion efficiency and material consumption with the raw material of natural gas and other light hydrocarbon. The Two-High THiPSA™ technology is adopted for the PSA workshop section to guarantee the high yield and purity of the hydrogen. The technology has reached the world advanced level.



技术指标 / Technical indexes

- 纯度(Purity): 99%~99.9999%
- 规模(Capacity): 200~100000Nm³/h

特点及优势 / Features and advantages

工艺技术成熟，运行安全可靠。

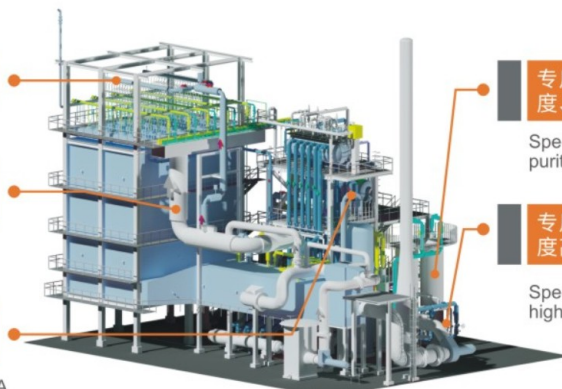
Mature process technology and safe and reliable operation.

项目建设及回收周期短，市场竞争力大。

Short cycle of project construction and investment recovery rate to achieve strong market competitiveness.

采用多级余量回收，PSA解析气回烧，节能且环保。

Multistage margin recovery and the PSA desorption gas burn-back enabling energy saving and environmentally friendly.



专用吸附剂，运营成本低，高纯度、高收率。

Special adsorbent, low operating cost, high purity and high yield.

专用程序控制截止阀，自动化程度高。

Special programmable control valve with high level of automation.

天然气制氢系列化业绩 / HYDROGEN PRODUCTION FROM NATURAL GAS SERIALIZED PERFORMANCE ▶



● 甲醇制氢 Hydrogen Production from Methanol



02

■ 技术应用 / Technology Application

采用甲醇水蒸气重整新工艺，技术成熟达世界先进水平。国内首创MH智能制氢机，适用于燃料电池及分布式加氢站。小型MH制氢机，占地小，美观且可移动。

The new reforming technology of methanol steam is adopted with the world advanced level. The first domestic MH intelligent hydrogen production machine is applicable to the fuel cells and distributed hydrogenation stations. The small MH hydrogen production machine requires small area of land, smart appearance, and mobile.



■ 技术指标 / Technical indexes

- 纯度(Purity): 99%~99.9999%
- 规模(Capacity): 25~100000Nm³/h

■ 特点及优势 / Features and advantages

甲醇转化率高(≥95%)，消耗低。

The methanol has a high conversion rate (≥95%) and low consumption.

双高 THiPSA™ 技术应用。

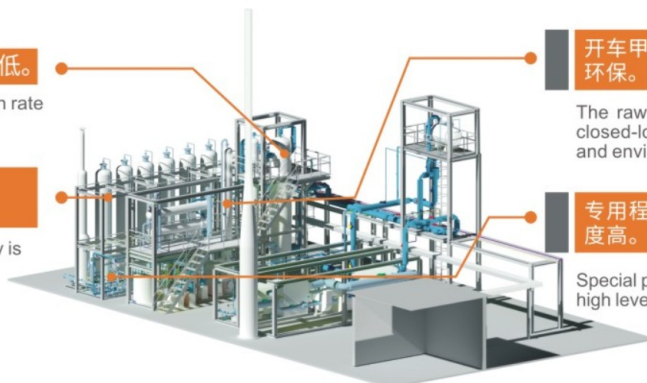
The Two-High THiPSA™ technology is applied.

开车甲醇原料闭环循环利用,节能环保。

The raw material of start-up methanol is closed-loop recycled, being energy saving and environmentally friendly.

专用程序控制截止阀，自动化程度高。

Special programmable control valve with high level of automation.



甲醇制氢系列化业绩

/ HYDROGEN PRODUCTION FROM METHANOL SERIALIZED PERFORMANCE



北京
550Nm³/h



山东德州
600Nm³/h



江西
2x400Nm³/h



马来西亚
1000Nm³/h



大连
2x600Nm³/h



山东菏泽
3000Nm³/h



山东
8400Nm³/h



山东
15000Nm³/h



煤制氢

Hydrogen Production from Coal



03

■ 技术应用 / Technology Application

天采是间歇煤制氢国内业绩最多的公司（原料来源广泛，如粉煤、块煤、无烟煤、褐煤或工业焦炉煤气，荒煤气等），技术达世界先进水平。成功应用煤造气PSA制氢，荒煤气PSA制氢，焦炉煤气净化PSA制氢。

Techairs has the most reference for domestic market with the most outstanding performance in intermittent production of hydrogen unit. The raw feed comes from wide source of raw material, such as powdered coal, lump coal, anthracite, lignite, industrial coke oven gas and crude gas etc. Its technology has reached the world advanced level. The coal/gas PSA is successfully adopted for the hydrogen production as well as the crude gas PSA and the coke oven gas purified PSA.



■ 技术指标 / Technical indexes

- 纯度(Purity): 99%~99.9999%
- 规模(Capacity): $\geq 2000\text{Nm}^3/\text{h}$

■ 特点及优势 / Features and advantages

工艺技术成熟，运行安全可靠。

Mature process technology and safe/reliable operation.

原料来源广泛，处理规模大。

Wide source of raw material feed and large processing scale.

四段全低变换工艺，CO变换率>95%。

Four stages of full low conversion process with the CO conversion rate >95%.

先进热能回收技术，生产能耗低。

Advanced recovery technology of thermal energy and low consumption of production energy.

三废锅炉应用，环保性好。

The "three wastes" boiler is adopted, being environmentally friendly.



沼气净化制氢

Hydrogen Production with Purification of Marsh Gas



04

■ 技术应用 / Technology Application

国内首创沼气净化工艺，国内唯一沼气低成本制氢技术新工艺，拥有完整知识产权专利。成功应用于废水处理沼气甲烷回收，城市垃圾填埋气提纯甲烷，填埋气脱碳，沼气制CNG,及沼气净化制氢。

We have complete intellectual property patent for the first domestic purification process of marsh gas. The exclusive new process of low cost hydrogen production from marsh gas technology in China. It was successfully adopted for the marsh gas of waste water processing to recover the methane, the landfill gas of municipal refuse to purify the methane, the landfill gas to decarbonization, the marsh gas to produce the CNG, and the hydrogen production from marsh gas purification.



■ 技术指标 / Technical indexes

- 纯度(Purity): 99%~99.999%
- 规模(Capacity): 200~100000Nm³/h

■ 特点及优势 / Features and advantages

原料适应性强，沼气副产值高。

Strong adaptability of raw material and high by-product output of marsh gas.

应用低压分离，产品气压力无损失。

Low pressure separation is adopted with no loss of gas pressure for products.

双高一甲烷收率高，氢气纯度高。

Two-High—high yield of methane and high purity of hydrogen.

甲烷化成套装备，投资少

Low investments for complete equipment of methanization.

自动化程度高，运行负荷灵活调节。

High degree of automation, flexible adjustment for operating load.

工业副产氢气 (PSA) Hydrogen from Industrial By-products(PSA)



05

技术应用 / Technology Application

各种富氢工业尾气（如氯碱尾气，焦炉煤气，合成氨尾气，炼油副产气，甲醇弛放气，PTA尾气等）通过变压吸附工艺分离提纯高纯度氢气，技术达世界先进水平。

All kinds of hydrogen-rich industrial exhausts (such as chlor-alkali exhaust, coke oven gas, synthetic ammonia tail gas, by-product gas from refining, released gas from methanol, PTA exhaust etc.) are separated and purified for high purity hydrogen through the pressure swing adsorption process, and the technology has reached the world advanced level.



技术指标 / Technical indexes

- 纯度 (Purity) :99%~99.9999%
- 规模 (Capacity) :5~100000Nm³/h
- 收率 (Yield) :96%~98%

特点及优势 / Features and advantages

工艺技术成熟，制氢成本较低。

Mature process technology and low costs of hydrogen production.

原料来源广泛，产品气纯度高。

Wide source of raw material and high purity of product gas.

双高 THiPSA™ 技术应用。

Two-High THiPSA™ technology is applied.

专用吸附剂寿命长，运营成本低。

The special adsorbent has a long service life and low operating costs.

专用程控阀，自动化程度高。

Special programmable control valve with high level of automation.

2 燃料乙醇生产技术： Fuel ethanol production technology:

乙醇发酵技术 Ethanol Fermentation



01

技术应用 / Technology Application

以玉米，木薯等粮食为原料，通过厌氧发酵的方式，再经脱水等净化工艺，生产纯度大于99.9%的工业乙醇。

Using corn, cassava and other grains as raw materials, absolute ethanol with purity more than 99.9% was produced by anaerobic fermentation and dehydration.

技术指标 / Technical indexes

- 纯度 (Purity) : 99.9%
- 规模 (Capacity) : 10-500000 mT/year



有机物脱水与精制技术及装置 Technology and devices of organics dehydration and refining



02

技术应用 / Technology Application

采用变温变压 (TPSA) 脱水新技术，具有低能耗（每吨产品乙醇只消耗0.1吨蒸汽），高纯度（产品乙醇浓度可达99.99%以上），高收率（较膜分离法收率高）等特点，脱水分子筛为英国DAVY技术指定OEM，技术及装置远销海外。

The new technology of dehydration with variable temperature and pressure (TPSA) is adopted, featuring in low energy consumption (each ton of ethanol products only consumes 0.1 ton of steam), high purity (the concentration of the ethanol products can exceed 99.99%) and high yield (the compared membrane separation method is of higher yield), and the dehydrated molecular sieve is the OEM designated by DAVY technology of UK, and the technology and devices are sold overseas.

技术指标 / Technical indexes

- 纯度 (Purity) : >99.99%
- 收率 (Yield) : >80%



3

气体分离、净化提纯技术及产品： Technology of Gas Separation and Purification and Products

核心变压吸附（PSA） —双高 THiPSA™ 技术

Core pressure swing adsorption (PSA)
—Two-High THiPSA™ technology

中美合作共同开发的以PSA技术为核心，耦合多种分离技术，为石油化工、煤化工、工业气体、钢铁冶金、精细化工、生物化工等行业提供同时实现高纯度、高收率的双高PSA分离技术。

The double high PSA separation technology is jointly developed by both China and US with the core PSA technology and coupled multiple separation technology to provide the simultaneous realization of high purity and efficiency for the petroleum chemical industry, coal chemical industry, industrial gas, iron and steel metallurgy, refining chemical industry, biological chemical industry and etc.

变温（低、中、高温） 吸附技术（TSA）

Adjustable temperature (low, medium and high temperature) adsorption technology (TSA)

采用吸附剂平衡吸附量随温度升高而降低的特性，以常温吸附，（低温，中温，高温）升温脱附的气体分离提纯技术。

The balanced adsorption capacity of adsorbent decreases as the temperature rises. This is adopted for the technology for the gas separation and purification with the room temperature adsorption (low, medium and high temperature) and rising temperature adsorption process.

变压吸附法（PSA）制CO技术及装置

Technology and devices of CO production with pressure swing adsorption method (PSA)



01

技术应用 / Technology Application

以水煤气、半水煤气、合成气、高炉气、转炉气等其他富含CO的气体为原料，采用两段分离技术，分离、提纯高纯度CO产品。

Separate and purify the CO products of high purity with the raw material of CO-rich gas, such as water gas, semi-water gas, synthesis gas, blast furnace gas, converter gas etc. and the two-stage separation technology.

技术指标 / Technical indexes

- 纯度(Purity): 98%~99%(v/v)
- 规模(Capacity): 10~10000Nm³/h



● 变压吸附法 (PSA)制CO₂技术及装置

Technology and devices of CO₂ production with pressure swing adsorption method (PSA)



02

■ 技术应用 / Technology Application

以发酵气，变换气，脱碳再生气，天然矿井气，热电厂等富含CO₂的气源为原料，经PSA浓缩、净化、分离、提纯食品级CO₂产品。

Separate and purify the CO₂ products of food grade with the raw material of CO₂-rich gas source, such as fermentation gas, conversion gas, decarbonization gas, natural mine gas and gas from thermal power plant after PSA concentration and purification.

■ 技术指标 / Technical indexes

- 纯度(Purity): 98%~99.95% (v/v)
- 规模(Capacity): 1000~300000t/year



● 天然气净化及甲烷浓缩技术与装置

Technology and Devices of Natural Gas Purification and Methane Concentration



03

■ 技术应用 / Technology Application

天然气、甲烷净化新工艺，具有独立知识产权，克服了传统PSA应用于甲烷浓缩的收率低、能耗高、预处理严格等缺点，高浓度(>95%)，高收率(>98%)。可用于发电、CNG能源、天然气制氢及化工原料。

It has the independent intellectual property rights and the new process of purification of natural gas and methane. It has overcome the shortcoming of low yield, high energy consumption and strict preprocessing for the application of PSA to the methane concentration, making the yield of the methane of high concentration (>95%) exceed 98%, which can be adopted for power generation, CNG energy and hydrogen production from natural gas and chemical raw materials.

■ 技术指标 / Technical indexes

- 纯度 (Purity) :适用于CNG&LNG (Apply to CNG&LNG)
- 规模 (Capacity) :≥50Nm³/h
- 收率 (Yield) :96%~98%



多晶硅/三氯氢硅尾气回收技术与装置 Technology and Devices of Polysilicon/Trichlorosilicon Exhaust Recovery



04

技术应用 / Technology Application

采用多项前段精馏及后段提氢专利技术，技术耦合，全组分回收多晶硅尾气中的HCL与氯硅烷，氯硅烷可作为原料返回利用，产品气纯度可达99.999%以上。

A number of front-stage distillation and back-stage hydrogen extraction patented technology is adopted, and the technology is coupled, so the HCL and chlorosilane are recovered from polycrystalline silicon exhaust for the whole units. The chlorosilane can be adopted as raw material and the gas purity of products can exceed 99.999%.



技术指标 / Technical indexes

- 纯度 (Purity) :>99.999%
- 规模 (Capacity) :100~50000Nm³/h
- 收率 (Yield) :100%

C₂/C₃分离技术与装置 Technology and Devices of C₂/C₃ Separation



05

技术应用 / Technology Application

以炼厂干气回收为例，采用浅冷油+PSA耦合工艺，利用浅冷油吸收，PSA吸附，低温精馏回收。C₂组分的产品乙烯和富乙烷轻烃收率大于93%且纯度高。

Take the refinery dry gas recovery as an example, the coupling process of cold and light oil + PSA is adopted with the adsorption with the cold and light oil, PSA adsorption and low temperature distillation recovery. The products of C₂ component such as ethylene and ethane-rich light hydrocarbons have a higher purity and yield of more than 93%.



有机废气 (VOCs) 治理技术与装置 Technology and Devices for Treatment of Organic Waste Gas (VOCs)



06

技术应用 / Technology Application

采用吸附脱除技术，投资运行成本低，废气去除效率可达99%，且不产生二次污染，符合国家环保政策及国际EHS要求。

The adsorption and removal technology is adopted with low investments and operation costs. The removal efficiency of exhaust can up to 99% with no secondary pollution, which complies with the national environmental policy and the international EHS requirements.



PSA气体分离系列化业绩

/ PSA GAS SEPARATION SERIALIZED PERFORMANCE



海南
660Nm³/h



黑龙江
1000Nm³/h



大连
1500Nm³/h



吉林
4200Nm³/h



乐山
5000Nm³/h



石家庄
12000Nm³/h



神木
60000Nm³/h



台湾
65000Nm³/h



Milestone Cases

里程碑案例



大陆地区 / MAINLAND AREA



天然气制氢
Hydrogen production from natural gas

► 重庆，国内首套最低消耗天然气制氢装置。

Chongqing , the first domestic hydrogen production plant with minimum consumption of natural gas.



沼气制氢
Hydrogen production from marsh gas

► 大连，国内首套沼气制氢装置。

Dalian , the first device of hydrogen production from marsh gas in China.



煤制氢
Hydrogen Production from Coal

► 山东，世界最大规模的乙醇分子筛脱水装置。

Shandong , the world's largest ethanol molecular sieve dehydration device.





多晶硅尾气回收
Recovery of polysilicon exhaust

► 四川，我国第一套多晶硅尾气全组分干法回收装置。

Sichuan , the first dry recovery device for polysilicon exhaust in China.



荒煤气氢气提纯
H₂ Purification from raw coke oven gas

► 神木，高纯度荒煤气氢气提纯。

Shenmu , High purity H₂ Purification from raw coke oven gas.



VOCs治理
VOCs governance

► 新疆，VOCs治理。

Xinjiang , VOCs governance.



PTA制氢
Hydrogen Production for PTA Industry

► 杭州，PTA项目制氢。

Hangzhou, Hydrogen Production for PTA Industry.



海外地区 / OVERSEAS AREA



提氢
Hydrogen extraction

- ▶ 台湾，首次替代国外吸附剂（UOP,Linde）
Taiwan , replaced foreign adsorbent (UOP,Linde) for the first time.



甲醇制氢
Hydrogen production from methanol

- ▶ 马来西亚，首次使用国产甲醇制氢装置代替Caloric设备。
Malaysia , domestic devices of hydrogen production from methanol was used to replace the Caloric equipment for the first time.



气体分离
Ethanol fermentation

- ▶ 韩国，气体分离机。
Korea,Skid-mounted Gas separator



乙醇发酵生产
Ethanol fermentation

- ▶ 泰国，高纯度无水乙醇，纯度超99.9%
Tailand, High purity absolute ethanol production with purity more than 99.9%





Zhejiang Techairs Cloud Technologies Inc. 浙江天采云集



公司前台
Reception



售后技能服务培训
After-sales skills training

旗下新成立全资企业浙江天采云集科技股份有限公司，专注于沿海地区及海外销售和售后服务，为所有客户提供更具有市场竞争力的全方位服务及售后支持。

公司致力于100%的用户满意度，通过建立远程服务中心，工程师定期技术巡检等多元化售后服务，为装置的无故障运行提供最专业的技术支持。

Zhejiang Techairs Cloud Technologies Inc. is newly established as a wholly owned enterprise, focusing on coastal areas and overseas sales and after-sale service, so as to provide the all-around service and after-sale support of high strong market competitive force for all customers.

The company dedicates itself to 100% customer satisfaction, and providing the most professional technical support for the fault-free operation of the device through the establishment of remote control service center, regularly technical inspection by engineers and other diversified after-sale service.



美国OTC石油展
OTC Houston in US



欧洲精细化工展
ChemSpec Europe



俄罗斯国际石油天然气展
MIOGE Moscow in Russia



Skid-mounted device and Supply of Special Materials

装备化及特种材料供应



● 一体化装备 Skid-mounted device

1

天采科技集成几十项最新技术专利打造的装备化，以专业化、模块化为设计理念，进行分区机械化生产，再有机结合，组成智能装备化工艺设备。

定制化装备，MH制氢机，气体分离机，甲烷浓缩机，脱水设备产品远销海外。

The Skid-mounted device of Techairs technology is created with dozens of latest technology patents and conducted the partition mechanization production with the design principle of specialization and modular, and then is organically combined, so as to form the process equipment with intellectual devices.

Customized equipment, MH hydrogen production machine, gas separator, methane concentrator, dehydration device are sold overseas.

■ 装备化的流程图 Flow chart of Skid-mounted



■ 厂区一角 A corner of factory



吊车区 Hoisting area



库存区 Inventory area



装配区 Assembly area

■ 产品展示 Product display



一体化甲醇制氢设备
Device of hydrogen production from methanol



一体化甲烷化设备
Methanation Device



一体化乙醇脱水设备
Ethanol dehydration Device



一体化气体净化设备
Gas purification Device

● 吸附剂 Adsorbent

2

天采科技引入瑞士ZEOCHEM公司合作，合资企业—江苏洁欧康（原名奥石科技）生产各类PSA所需专用分子筛吸附剂（3A, 4A, 5A, 13X及特殊分子筛），是亚洲最大的分子筛原粉和成品生产基地。

ZEOCHEM 是瑞士拥有200年历史的CPH公司旗下专门生产吸附剂的子公司，分子筛技术世界领先，其生产的各类分子筛在国际上一直享有极高的声誉。

The Techairs Co., Ltd. has cooperated with the Swiss company ZEOCHEM to form the joint venture—Jiangsu Zeochem Technology Co., Ltd. for manufacturing of all kinds of special molecular sieve adsorbent (3A, 4A, 5A, 13X and special molecular sieve) required by PSA. It is the largest raw powder and finished products of molecular sieve production base in Asia.

ZEOCHEM is a subsidiary of CPH, a Swiss company with a history of 200 years, specializing in the manufacture of adsorbents. The company is with world leading molecular sieve technology and gained high reputation across the world for all kinds of molecular sieves manufactured.



厂区大门 Factory gate



厂区一角 A corner of factory

■ 产品展示 Product display



3A分子筛
3A molecular sieve

- 3A球形d1.6-2.5
3A spherical d1.6-2.5
- 静态水吸附%≥21
Static water adsorption capacity% ≥ 21
- 磨耗%≤0.25
Abrasion% ≤ 0.25
- 粒度%≥98
Granularity% ≥ 98
- 抗压强度 (N/颗) ≥85
Crushing strength (N/particle) ≥ 85
- 产品水含量%≤1.5
Moisture content of products% ≤ 1.5



4A分子筛
4A molecular sieve

- 4A球形d2.8-4.75
4A spherical d2.8-4.75
- 静态水吸附%≥21
Static water adsorption capacity% ≥ 21
- 磨耗%≤0.2
Abrasion% ≤ 0.2
- 粒度%≥88
Granularity% ≥ 88
- 抗压强度 (N/颗) ≥70
Crushing strength (N/particle) ≥ 70
- 产品水含量%≤1.5
Moisture content of products% ≤ 1.5



5A分子筛
5A molecular sieve

- 5A球形d2.0-2.8
5A spherical d2.0-2.8
- 静态水吸附%≥20
Static water adsorption capacity% ≥ 20
- 磨耗%≤0.2
Abrasion% ≤ 0.2
- 粒度%≥96
Granularity% ≥ 96
- 抗压强度 (N/颗) ≥30
Crushing strength (N/particle) ≥ 30
- 产品水含量%≤1.5
Moisture content of products% ≤ 1.5



13X分子筛
13X molecular sieve

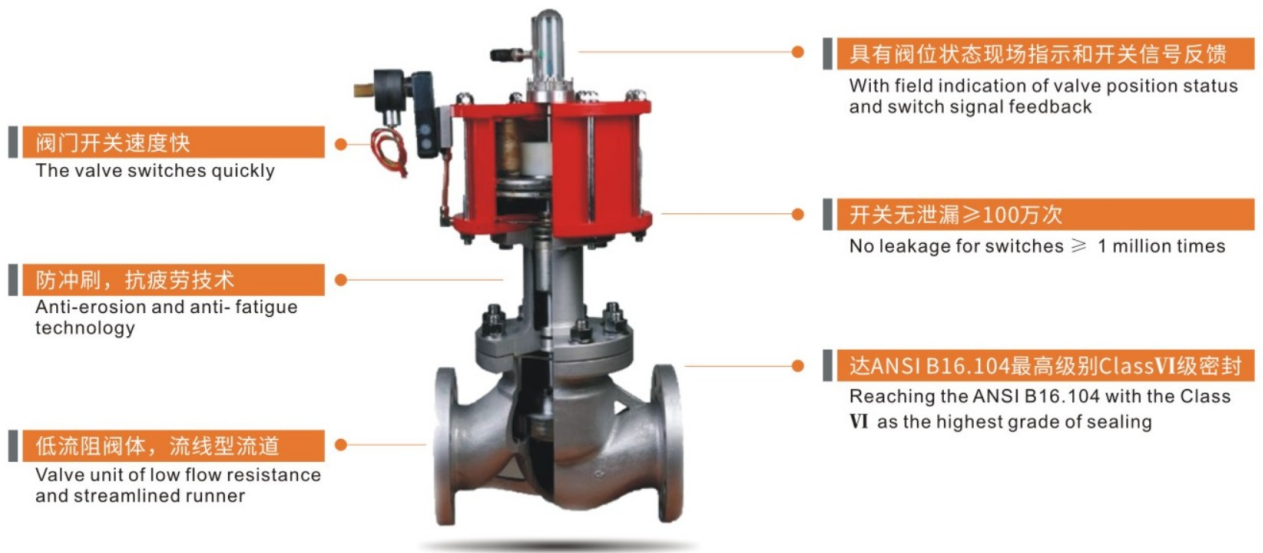
- 13X球形d1.7-2.36
13X spherical d1.7-2.36
- 静态水吸附%≥23.5
Static water adsorption capacity% ≥ 23.5
- 静态CO₂吸附%≥18
Static adsorption capacity CO₂% ≥ 18
- 磨耗%≤0.2
Abrasion% ≤ 0.2
- 粒度%≥95
Granularity% ≥ 95
- 抗压强度 (N/颗) ≥25
Crushing strength (N/particle) ≥ 25
- 产品水含量%≤1.5
Moisture content of products% ≤ 1.5

◆ 专用程控阀 Special programmable control valve

3

高性能专用程控阀，可靠性高、开关速度快、密封性好，寿命长，具有双向承压和抗高速气流能力，产品远销海外，其品质完美替代进口同类阀门产品。

The special programmable control valves with high reliability, fast switching speed, good sealing, long service life, two-way bearing and anti-high-speed airflow are sold overseas, and the quality has completely exceeded the imported valves of same category.



■ 厂区一角 A corner of factory





Market distribution and customer display

市场分布与客户展示



中国石油



中国石化
SINOPEC



中国海油
CNOOC



中国华能集团公司
CHINA HUANENG GROUP



中国石化工程建设有限公司
SINOPEC ENGINEERING INCORPORATION



天原集团
TIANYUAN GROUP



西盛大石化有限公司
YIBEI DAHUA PETROCHEMICAL CO., LTD.



永祥股份
YONGXIANG CO., LTD.



山东十方环保能源
Shandong Shifeng Environmental Protection & Bio-Energy



SOLVAY
asking more from chemistry™

ZTE中兴

hwaon
华峰



Celanese
FOUNDATION



新和成



亚洲硅业(青海)有限公司
Asia Silicon (Qinghai) Co., Ltd.



首钢集团
SHOUGANG GROUP



TECHAIRS

四川天采科技有限责任公司
Sichuan Techairs Co.,Ltd.

地址：四川成都市高新区府城大道西段399号天府新谷5号楼14-15楼
邮编：610041 电话：+86-028-85312000
传真：+86-028-85318777 邮箱：service@techairs.cn
客户热线：+86-028-85326888 13880558355
网址：www.techairs.cn

Address: 14-15F, Building 5, Tianfu Xingu, No. 399, West Section of Fucheng Avenue, High-tech Zone, Chengdu, Sichuan
Zip code: 610041 Phone: +86-028-85312000
Fax: +86-028-85318777 Email: service@techairs.cn
Customer hotline: +86-028-85326888 13880558355
Website: www.techairs.cn