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# LEADER OF FLUID SYSTEM IN FOOD HEALTH INDUSTRY

## 食品健康行业流体系统引领者



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**TIAN'S** 天俱时



EXCEED CLIENT  
超越客户预期  
EXPECTATIONS

# CONTENTS

## 目 录

### P01

近者悦·关于天俱时  
LEADERSHIP · ABOUT TIANS

### P03

立前沿·关于食品健康事业部  
FRONTIER · ABOUT FOOD HEALTH BUSINESS DEPARTMENT

### P05

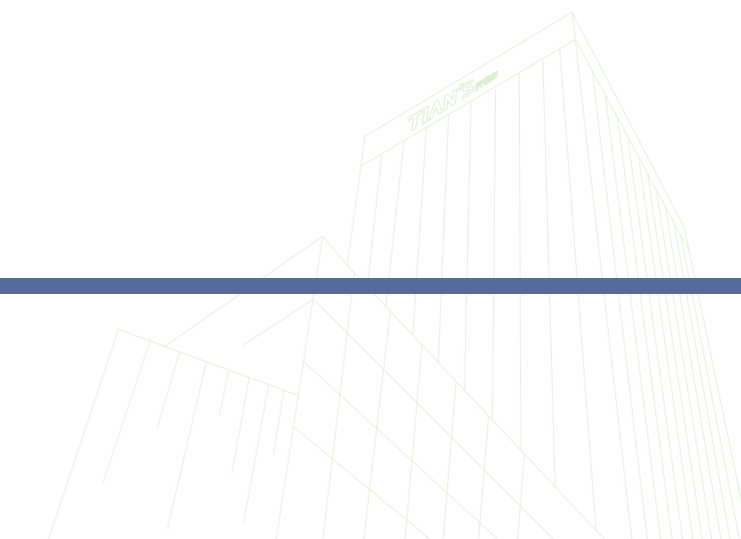
汇全面·业务能力  
COMPREHENSIVE · BUSINESS CAPABILITY

### P17

争殊荣·资质专利  
HONOR · QUALIFICATION AND HONOR

### P19

可信赖·合作客户  
RELIABLE · COOPERATIVE CUSTOMERS



# 关于天俱时

## ABOUT TIANS

### 集团简介

GROUP PROFILE

**1998** ■ 始创于1998年  
Founded in 1998

**2000** ■ 参与建设2000余个精品项目  
Participated in the construction of more than 2000 collective projects

天俱时集团始创于1998年,是国内领先的工程技术服务商、先进智能装备制造制造商,专注于食品健康、中药、保健品、生物医药、化学医药、工业环保等行业领域。从规划、设计、工程、自动化与信息化、智能装备到项目管理及运维,天俱时致力于为客户提供项目全生命周期各阶段的专业服务,帮助客户应对复杂挑战,建设高效、灵活、可持续的生产制造设施。

天俱时集团是国家高新技术企业,国家专精特新小巨人企业,中国产学研合作创新示范企业。总部位于河北石家庄,上海、苏州、天津、济南、武汉设分公司及办事处,瑞士设生物医药设计研发中心。二十余年的发展历程中,天俱时先后服务500余家知名医药企业,其中医药百强企业超60家,参与建设2000余个精品项目,业务范围遍布全国20余个省、市、自治区及东南亚多地。荣获鲁班奖、中国安装之星、全国优秀勘察设计及咨询成果等多项荣誉。

Founded in 1998, TIANS is a leading engineering technology service provider and advanced intelligent equipment manufacturer in China, focusing on food health, traditional Chinese medicine, health care products, biological medicine, chemical medicine, industrial environmental protection and other industries. From planning, design, engineering, automation and informatization, intelligent equipment to project management and operation and maintenance, TIANS is committed to providing customers with professional services at all stages of the project life cycle, helping customers cope with complex challenges, and build efficient, flexible and sustainable production and manufacturing facilities.

TIANS is a national high-tech enterprise, a national small giant enterprise specializing in special and new technologies, and a demonstration enterprise of China's industry university research cooperation and innovation. The headquarters is located in Shijiazhuang, Hebei Province, with branches and offices in Shanghai, Suzhou, Tianjin, Jinan and Wuhan, and a biomedical design and research center in Switzerland. Over 20 years of development, TIANS has served more than 500 well-known pharmaceutical enterprises, including more than 60 of the top 100 pharmaceutical enterprises, participated in the construction of more than 2000 boutique projects, and its business scope covers more than 20 provinces, cities, autonomous regions and Southeast Asia. It has won many honors, such as Luban Award, China Installation Star, and National Excellent Survey and Design and Consulting Achievements.

### 行业领域

INDUSTRY



食品健康  
Food & Health



中药保健品  
Traditional Chinese  
Medicine  
Health Products



工业环保  
Industrial Environmental  
Protection



精细化工  
Fine Chemical  
Engineering



生物医药  
Biopharmaceutical



医疗器械  
Medical Equipment

### 企业文化

CORPORATE CULTURE

#### 核心价值观

为客户创造价值 · 为员工创造价值 · 为社会创造价值

#### VALUE

Create value for customers · Create value for employees · Create value for society

#### 企业愿景

将公司建设成为全球一流的工程科技企业

#### VISION

To build the company into a world-class engineering technology enterprise

#### 文化理念

平等 · 尊重 · 信任 · 合作 · 分享

#### CONCEPT

Equality · Respect · Trust · Cooperation · Sharing

# 关于食品健康事业部

## ABOUT FOOD HEALTH BUSINESS DIVISION

### 事业部简介

ABOUT US

天俱时集团食品健康事业部专注于食品、饮料、中药等大健康领域，依托先进的设计理念和丰富的行业经验为客户提供包括物料系统、CIP/SIP系统、能源回收、配套公用工程、自动化控制系统等全方位的研发、设计、工程一站式综合解决方案。

The Food and Health Business Division of TIAN'S Group focuses on the fields of grand health including food, beverage and traditional Chinese medicine. Relying on advanced design concepts and rich industry experience, it provides customers with a comprehensive one-stop solution for research and development, design, and engineering, including material systems, CIP/SIP systems, energy recovery, supporting utilities, and automatic control systems.



## 一站式综合解决方案

ONE STOP COMPREHENSIVE SOLUTION

团队由具备多年行业经验的资深专业人员构成，兼备丰富的实际项目运行经验和工程设计实施经验，可为客户提供从设计至交付使用全项目周期的交钥匙解决方案，洞察客户需求，了解生产工艺，关注节能、环保和智能制造，从设计方案到项目实施过程始终关注用户需求，贯彻技术领先、精益实施的原则，帮助客户实现技术、投资、工期和项目品质的多方保证，天俱时食品健康以科技为驱动，推动食品大健康行业迈向高端化、智能化，从而提高企业核心竞争力。

The team is composed of senior professionals with many years of industry experience. With rich experience in actual project operation and engineering design implementation, it can provide customers with turnkey solutions throughout the project cycle from design to delivery. It always gains insight into customer needs, understand production technology, and pay attention to energy saving, environmental protection and intelligent manufacturing. From the design scheme to the project implementation process, we always pay attention to the needs of users, implement the principle of leading technology and lean implementation, and help customers realize multi-party guarantee of technology, investment, construction period and project quality. TIAN'S' food health is driven by science and technology, which pushes the food industry to be high-end and intelligent, thus improving the core competitiveness of enterprises.



### 预制菜

PREFABRICATED DISH



### 底料

BASE MATERIAL



### 饮料

BEVERAGE



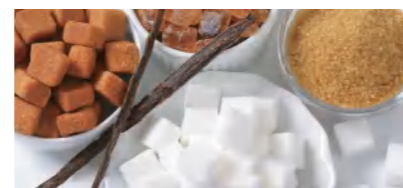
### 中药及保健品

TRADITIONAL CHINESE MEDICINE AND HEALTH PRODUCTS



### 烟草

TOBACCO



### 食品添加剂

FOOD ADDITIVES

# 业务能力 BUSINESS CAPABILITY

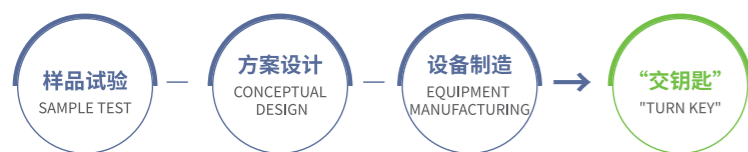


## 业务范围 BUSINESS SCOPE

为您提供工程总承包服务或菜单式选择服务

EPC Contracting or Menu Selection Service Available

### 大业务体系



识别二维码，观看提取浓缩工艺展示  
Identify QR code and watch the extraction and concentration process display

天俱时是您可信赖的工艺系统解决方案提供商；熟悉提取、浓缩、换热、蒸馏、精馏、蒸发、萃取等化工单元操作，为客户设计准确实现工艺功能同时节能、高效的完整工艺系统；工艺系统由管路、阀门、泵、容器、换热器、分离、蒸发、混合等各种单元操作设备以及配套工艺公用工程等构成，形成有机整体，实现预定工艺功能。天俱时工艺系统业务专注于中药、保健品、食品、饮料等行业，集聚专业人才，专注工艺系统及配套自动化、信息化系统，为客户提供从样品试验、方案设计、设备制造到“交钥匙”项目的全面服务。

TIANS is your reliable process system solution provider; We are familiar with chemical unit operations such as extraction, concentration, heat exchange, distillation, rectification, evaporation and extraction, so as to design a complete process system for customers to accurately realize process functions while saving energy and making efficiency; The process system is composed of pipelines, valves, pumps, containers, heat exchangers, separation/evaporation/mixing and other unit operating equipment as well as supporting process utilities, forming an organic whole to achieve the intended process functions. TIANS process system business focuses on traditional Chinese medicine, health products, food, beverage and other industries, gathers professionals, specializes in process systems and supporting automation and information systems, and provides customers with comprehensive services from sample testing, scheme design, equipment manufacturing to "turnkey" projects.

## 工艺设计与咨询

### PROCESS DESIGN AND CONSULTATION

提供针对植物提取、饮料、调味品等用户工艺系统的各个阶段的咨询与技术服务,从用户需求到完整系统的详细设计、全系统3D设计等服务。

TIANS provides consultation and technical services for various stages of the user's industrial system, such as plant extraction, drinking materials, flavoring products, including user needs, detailed design of the whole system, 3 D design of the whole system and other services.

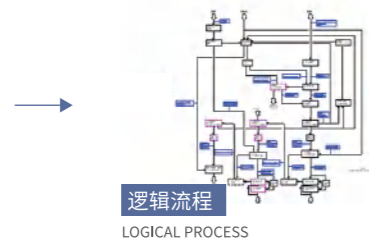


识别二维码, 观看BIM设计演示

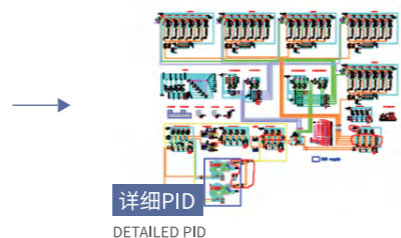
Identify QR code and Watch BIM design demonstration



用户需求  
USER DEMAND



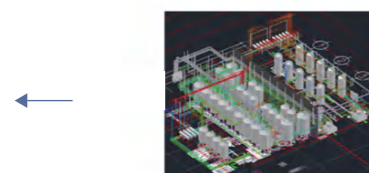
逻辑流程  
LOGICAL PROCESS



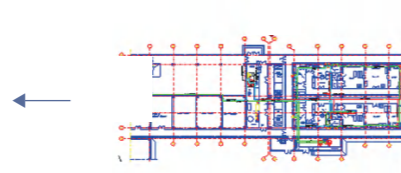
详细PID  
DETAILED PID

序号	物料名称	规格	单位	数量	备注
1	水		m <sup>3</sup>	1000	
2	电		kWh	5000	
3	蒸汽		t	100	

材料清单  
BILL OF MATERIALS



BIM交付  
BIM DELIVERY



平面布置  
PLANE LAYOUT

### 专业的设计能力

具备全等级压力容器设计资质和D类压力容器制造资质,拥有一流设计能力的专业工程师团队为客户的定制产品提供保证;

### 严格的质量管理

具备完善质量保证体系、各专业人才拥有超过20年的相关行业经验,具备完善的质量检测体系和检验器具;

### 完善的交付能力

天俱时集团在华北、华中地区拥有自主的设备加工基地,可辐射全国项目需求;

### 完备的售后支持

天俱时集团在多地设有分公司或办事处,可最快时间提供售后服务等需求。

• **Professional design ability**  
The professional engineer team with full grade pressure vessel design qualification and Class D pressure vessel manufacturing qualification and first-class design ability provides guarantee for customized products for customers;

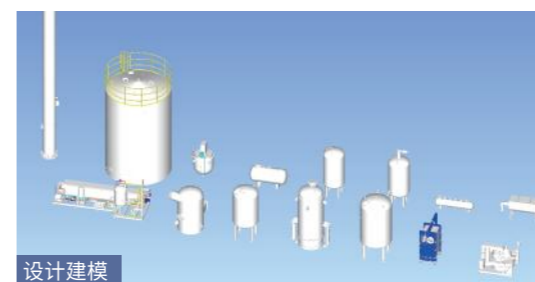
• **Strict quality management**  
Have perfect quality assurance system, professional talents have more than 20 years of relevant industry experience, and have perfect quality detection system and inspection tools;

• **Perfect delivery capability**  
TIANS Group has its own equipment processing bases in North and Central China, which can radiate the needs of national projects;

• **Complete after-sales support**  
TIANS Group has branches or offices in many places, which can provide after-sales service as soon as possible.

## 非标设备制造

### MANUFACTURING OF NON-STANDARD EQUIPMENT



设计建模  
DESIGN MODELING



生产车间  
PRODUCTION WORKSHOP



设备成品  
FINISHED EQUIPMENT



厂区外貌  
PLANT APPEARANCE

## 特色智能化集成设备

CHARACTERISTIC INTELLIGENT INTEGRATED EQUIPMENT

### ■ 智能平衡浓缩器 / INTELLIGENT BALANCED CONCENTRATOR

引进欧洲先进技术,针对中药分批生产特点针对性设计,实现“一键式”全自动运行和CIP清洗,优化能效分配,比常规双效浓缩器节能50%以上,在设备总投资、运行成本、减员增效等方面,给用户带来巨大收益,已广泛应用于中药提取、调味品、制糖等行业。

Advanced technology from Europe is introduced, and targeted design is made according to the characteristics of batch production of traditional Chinese medicine, realizing "one-button" automatic operation and CIP cleaning, optimizing energy efficiency distribution, saving energy by more than 50% compared with conventional double-effect concentrator, bringing huge benefits to users in terms of overall equipment investment, operating cost, staff reduction and efficiency increase, etc. It has been widely used in industries such as Chinese medicine extraction, seasoning, sugar production, etc.



**比常规双效浓缩器节能50%以上**

Compared with the conventional double-effect concentrator, it can save energy by 50%.



识别二维码,观看设备3D演示  
Identify QR code and watch 3D  
Display of Equipment



## 特色智能化集成设备

CHARACTERISTIC INTELLIGENT INTEGRATED EQUIPMENT



#### 操作简单

自动运行,设备一键启停、可实现无人干预;

#### SIMPLE OPERATION

Automatic operation, the equipment can be started and stopped with one key, and can realize unattended intervention;



#### 智能清洗

自带CIP清洗,一键启停;

#### INTELLIGENT CLEANING

CIP cleaning, one button start stop;



#### 高效节能

整体运行能耗相当于传统浓缩器的45%~65%,双效醇提液浓缩,乙醇阻尼装置避免乙醇散失;

#### HIGH EFFICIENCY AND ENERGY SAVING

The overall operation energy consumption is equivalent to 45%~65% of the traditional concentrator. The double effect ethanol extract is concentrated, and the ethanol damping device avoids ethanol loss;



#### 消泡技术

对易起泡物料,实现程序消泡;

#### DEFOAMING TECHNOLOGY

For materials easy to bubble, program defoaming is realized;



#### 低温浓缩

保证节能的同时,实现浓缩全过程 $\leq 60^{\circ}\text{C}$ ;

#### LOW TEMPERATURE CONCENTRATION

While ensuring energy saving, the whole concentration process is  $\leq 60^{\circ}\text{C}$ ;



#### 范围广泛

单台蒸发量从0.5吨/h到15吨/h;

#### WIDE RANGE

The evaporation capacity of a single unit ranges from 0.5 tons /h to 15 tons /h;



#### 收膏量小

即使对大蒸发量设备,最小收膏量可做到40L;

#### SMALL AMOUNT OF CREAM

Even for the equipment with large evaporation capacity, the minimum paste collection amount can reach 40L;

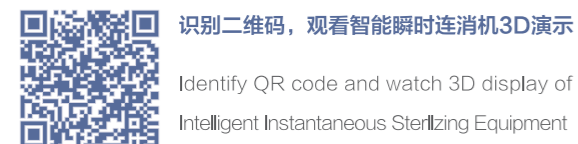
## 特色智能化集成设备

CHARACTERISTIC INTELLIGENT INTEGRATED EQUIPMENT

### ■ 智能瞬时连消机 / INTELLIGENT INSTANTANEOUS STERILIZING EQUIPMENT

智能瞬时连消机是一种根据短时高温灭菌原理,充分利用蒸汽潜热,经过新型换热器做到纯逆流换热的灭菌设备。

Intelligent instantaneous sterilizer is a kind of sterilization equipment based on the principle of short-time high-temperature sterilization, which makes full use of the latent heat of steam and achieves pure countercurrent heat transfer through a new heat exchanger.



## 特色智能化集成设备

CHARACTERISTIC INTELLIGENT INTEGRATED EQUIPMENT

该设备由换热器、维持器、喷射器、自控系统等部分组成,节能环保、稳定可靠、操作简便、无菌率高达99.9%,广泛应用于发酵制药、氨基酸、酶制剂及中药、保健品、食品饮料等行业。

The equipment is composed of heat exchanger, maintainer, ejector, automatic control system, etc. It is energy-saving, environmentally friendly, stable and reliable, easy to operate, and the sterility rate is as high as 99.9%. It is widely used in fermentation pharmacy, amino acid, enzyme preparation, traditional Chinese medicine, health products, food and beverage industries.



## 施工总承包

GENERAL CONSTRUCTION CONTRACTING

天俱时工程拥有丰富的EPC模式工程管理经验，涵盖建筑、设备、管道、结构、电气仪表、防腐绝热、弱电工程等全部专业工程，具备复杂工艺系统的二次优化设计、施工及设施管理能力，能有效控制工程的工期、质量、安全、成本、文明施工等，为客户提供超越预期的服务。

TIANS Engineering has rich experience in EPC mode project management, covering all professional projects such as buildings, equipment, pipelines, structures, electrical instruments, anti-corrosion and thermal insulation, and weak current projects. It has the ability of secondary optimization design, construction and facility management of complex process system, it can effectively control the construction period, quality, safety, cost and civilized construction of the project and provide customers with services beyond expectations.

## 二次优化设计

OPTIMIZATION DESIGN



## 自动化与信息化

AUTOMATION AND INFORMATION SYSTEM

工艺、自控、信息化专家紧密结合的自动化和信息化服务。基于丰富的案例经验和前沿技术，剖析用户项目需求而专门打造的自动化和信息化方案，为行业内客户提供优质的个性化、定制化解决方案。

Automation and information services closely combined by process, automation and information experts. Based on rich case experience and cutting-edge technology, the automation and information solutions specially created by analyzing the needs of users' projects provide high-quality personalized and customized solutions for customers in the industry.

### 配方管理

Formulamanagement

BATCH配方实现柔性生产，操作简便  
BATCH formula realizes flexible production and is easy to operate

### 模块编程

Module programming

节省调试时间，更快速交付  
Save debugging time and deliver faster

### 定制方案

Customized scheme

提供多种算法及精准控制方案，满足各自工艺工况需求  
Provide a variety of algorithms and precise control schemes to meet the requirements of respective process conditions

### 数据追踪

Data tracking

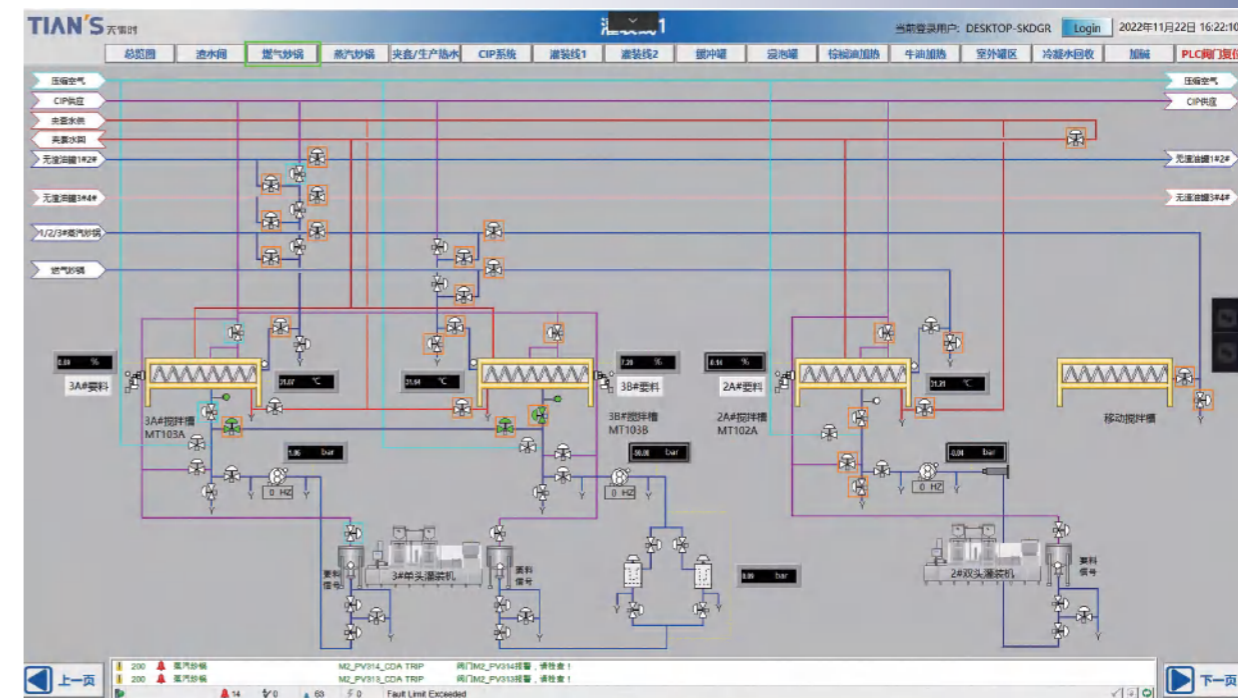
满足行业验证要求的趋势报表、电子签名、审计追踪等功能  
Trend report, electronic signature, audit tracking and other functions that meet the industry verification requirements

### 数字信息

Digital information

工厂信息化MES系统，包括物料管理、实验室信息管理（LIMS）、仓储管理、SCADA集成、能源管理、设备管理等助力企业打造智慧工厂

Factory information MES system, including material management, laboratory information management (LIMS), warehouse management, SCADA integration, energy management, equipment management, etc., helps enterprises build smart factory



## 节能与升级改造

### ENERGY SAVING AND UPGRADING

双碳背景下，节能减排是企业必由之路，也能大幅降低运行成本。在中药提取、保健品、食品、饮料等生产行业，蒸汽和电力的消耗直接影响生产成本，整个行业具有巨大的节能降耗潜力。节能措施包括采用节能型设备、优化设备配置、蒸汽余热利用、凝水余热利用、采用热泵技术等。基于天俱时近25年大量实际项目的经验，为客户提供节能技术方案和改造方案。

Under the dual carbon background, energy conservation and emission reduction are the only way for the development of enterprises, and can also significantly reduce operating costs. In traditional Chinese medicine extraction, health care products, food, beverage and other production industries, the consumption of steam and electricity directly affects production costs, and the entire industry has huge potential for energy conservation and consumption reduction. Energy saving measures include adopting energy-saving equipment, optimizing equipment configuration, steam waste heat utilization, condensate waste heat utilization, heat pump technology, etc. Based on nearly 25 years of experience in a large number of practical projects, we provide customers with energy-saving technical solutions and transformation plans.

#### 可提供分析报告

Analysis report available

现有生产系统能耗分析和节能方案。

Energy consumption analysis and energy-saving scheme of existing production system.

#### 可设计多种方案

Multiple schemes can be designed

设计方案能耗数据计算，不同方案能耗比对。

Calculation of energy consumption data of design scheme and comparison of energy consumption of different schemes.

#### 可承诺能耗指标

Promisable energy consumption index

根据工艺工况，结合新项目工艺系统，设计节能优化方案。

According to the process conditions, combined with the process system of the new project, the energy-saving optimization scheme is designed.



## 实验室测试与样品试制

### AUTOMATION AND INFORMATION SYSTEM



#### 拥有6000m<sup>2</sup>专业实验室

With 6000 m<sup>2</sup> professional laboratory



#### 近百台先进仪器设备

Nearly 100 advanced instruments and equipment



#### 数十名国内外环保专家

Dozens of domestic and foreign environmental protection experts

中药、保健品、调味品、食品饮料等行业在不断出现新工艺和旧工艺的升级，结合到工艺设备和工程，也有很多方案需要验证和测试。天俱时集团拥有6000m<sup>2</sup>专业实验室，近百台先进仪器设备，具备完善的常规理化测试能力，具备全面环保小试设备和方案验证测试能力，具备浓缩、杀菌、萃取、单体分离等小试、中试设备，可以为客户验证技术方案，测试和试制样品，保证技术方案和指标的实现。

Traditional Chinese medicine, health care products, condiments, food and beverage and other industries are constantly upgrading new and old processes. In combination with process equipment and engineering, there are also many schemes that need to be verified and tested. TIAN'S Group has a 6000m<sup>2</sup> professional laboratory, nearly 100 advanced instruments and equipment, a complete routine physical and chemical testing capability, a comprehensive environmental protection pilot test equipment and scheme validation testing capability, and a concentration, sterilization, extraction, monomer separation and other pilot/pilot test equipment, which can verify the technical scheme, test and trial produce samples for customers to ensure the realization of the technical scheme and indicators.



# 资质专利

## QUALIFICATION AND HONOR

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## QUALIFICATION AND HONOR

### 设计资质 DESIGN QUALIFICATION

- 化工石化医药行业甲级 - Class A in chemical, petrochemical and pharmaceutical industry
- 建筑行业(建筑工程)甲级 - Class A in construction industry (Construction engineering)
- 冶金行业工程设计乙级 - Class B in engineering design in metallurgical industry
- 轻纺行业轻工工程乙级 - Class B in light industry engineering in light textile industry

### 施工资质 CONSTRUCTION QUALIFICATION

- 冶金工程施工总承包壹级 - Grade I General Contracting of Metallurgical Engineering Construction
- 机电工程施工总承包壹级 - Grade I General Contracting of Mechanical and Electrical Engineering Construction
- 市政公用工程施工总承包贰级 - Grade II General Contracting of Municipal Public Works Construction
- 建筑工程施工总承包贰级 - Grade II General Contracting of Construction Engineering
- 电子与智能化工程专业承包壹级 - Grade I professional contracting of electronic and intelligent engineering
- 防水防腐保温工程专业承包壹级 - Grade I professional contracting of waterproof, anti-corrosion and thermal insulation engineering
- 环保工程专业承包贰级 - Grade II professional contracting of environmental protection engineering
- 消防设施工程专业承包贰级 - Grade II professional contracting of fire fighting facilities engineering
- 电力工程施工总承包叁级 - Grade III general contracting of power engineering construction

### 其他资质 OTHER QUALIFICATION

- 工程咨询单位甲级资信证书 - Grade A credit of Engineering consulting company
- 城乡规划编制单位丙级资质 - Grade C qualification of urban and rural planning preparation company
- 固定式压力容器规则设计 - Rules design for fixed pressure vessel
- 工业管道安装GC2 - Industrial pipe installation GC2
- 压力管道设计-工业管道GC1 - Pressure piping design - industrial piping GC1
- 承装(修、试)电力设施许可证四级 - Level IV license for electrical facilities installation (repairing or testing)
- (桥式、门式)起重机械安装C级 - Class C license for (bridge and gantry) hoisting machinery installation

- 一体式管道旋转轴  
Integral pipe rotating shaft
- 易清洗除沫器  
Easy to clean demister
- 阿维菌素的生产工艺  
Production Process of Avermectin
- 节能型制药工艺低温开式制冷循环系统  
Low temperature open refrigeration cycle system for energy-saving pharmaceutical process
- 低压变频电机冷却风机电气控制电路  
Electrical control circuit of cooling fan of low-voltage variable frequency motor
- 一种用于RABS配套的低温净化空调系统  
A kind of low temperature purification Air conditioning system for RABS
- 一种节能型双稳态净化空调系统  
A kind of energy saving bistable purification air conditioning system

116 项

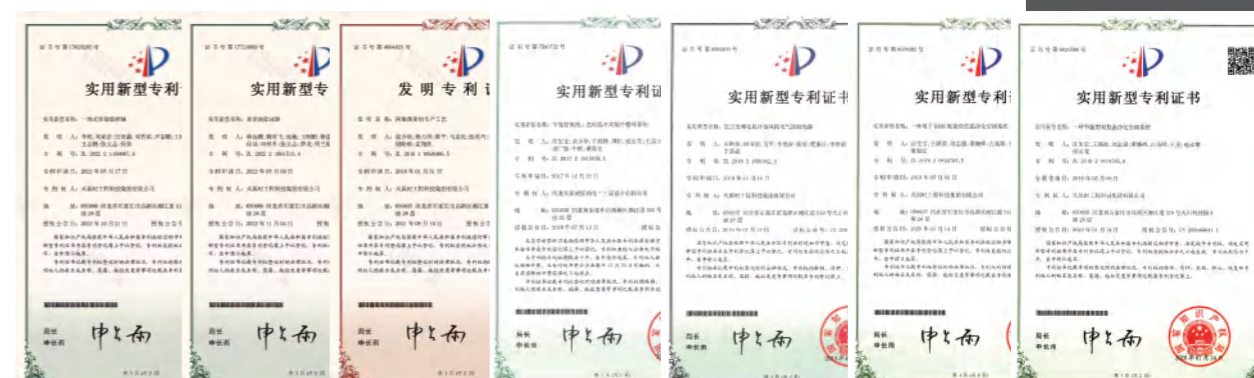
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# 合作客户

COOPERATIVE CUSTOMERS

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