

Biopharmaceutical Engineering SOLUTION

Driven by Both International and Local Factors



| Build a Better Bio-world



IDENTIFY QR CODE,VIEW ELECTRONIC BROCHURE IDENTIFY QR CODE TO SEE TIANS WECHAT ACCOUNT

天俱时工程科技集团有限公司 TIANS ENGINEERING TECHNOLOGY GROUP CO., LTD.

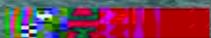
A -

F - BUILDING A,NO. YUHUA EAST ROAD, TIANSHAN TECHNOLOGY INDUSTRY PARK, SHIJIAZHUANG, HEBEI

TIAN'S 天俱时



CONTENTS





EPC

EPC GENERAL ENGINEERING CONTRACT



EPC

From Lab to

Fab

As the pioneer and practitioner of the EPC model, TIANS Group is committed to providing clients with overall solutions for all stages of the whole process of project construction, with process technology and design as the core, system integration optimization as the feature, and one-time trial production success as the goal, helping clients cope with the complex challenges of innovative technology industrialization and realizing the leap of faith from Lab to Fab.

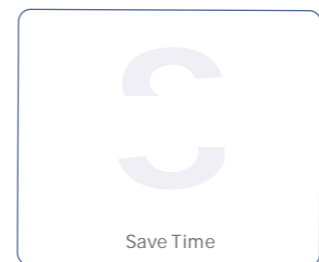


TIANS Delivery

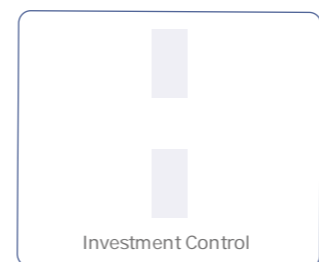
EPC

EPC GENERAL ENGINEERING CONTRACT

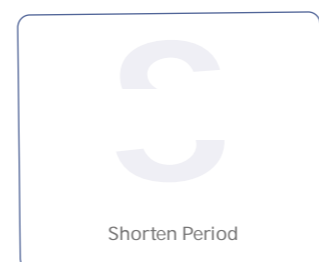
TIANS Delivery, Exceed Client Expectations



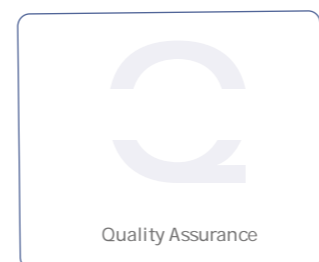
Clients just need to communication with TIANS.
All-inclusive agent model, providing overall project control with regard to safety, progress, quality and cost.
The general contractor bears the risks in project operation and construction organization.



The clients could avoid cost risks and make the investment controllable.
Benefiting from its own experiences, the general contractor helps optimize the project design and implementation, so as to improve the overall investment returns.
The general contractor bears the costs arising from the lack of organizational coordination.



Interconnect all steps in good order to achieve overall planning, which significantly shortens the construction cycle and helps clients seize the market opportunity.



Execute all-process management from the beginning of the design, provide solutions to difficulties and control project quality from all aspects.
Overall improvement on project quality through design optimization, timely suggestions and feedbacks, effective communication, avoid disconnections and provide full services design, etc.

ENGINEERING CONSULTING

Service With Global Vision

TIANS Swiss Biomedical Consulting and Innovation Center has a team of experts with a global vision, core members who have been deeply engaged in the biomedical industry for more than 20 years, and have experience in factory design for the world's top ten pharmaceutical companies.

Adhering to the sustainable service concept of efficient use of energy, cost optimization, rational use of resources, environmental protection and climate protection, we fully consider the functionality, flexibility and visibility of the project in design, and pay full attention to energy saving, environmental protection and intelligent manufacturing, so as to build an international biofactory for clients.



ENGINEERING DESIGN

EPC

EPC Design Concept

Double A Qualification

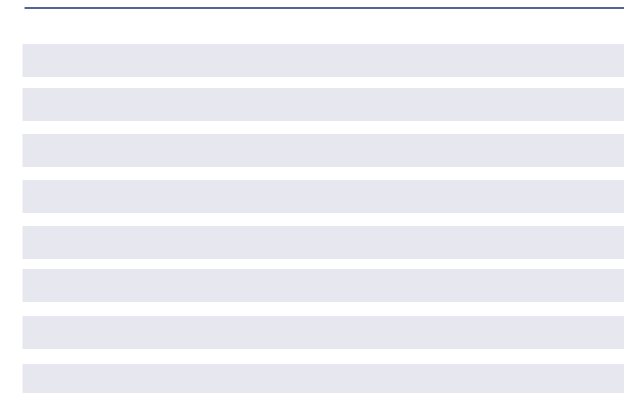
BIM BIMCenter

160+ Design Team

300+ Design Project Cases

EPC " "

TIANS design is the core to implement the EPC strategy and complete the "TIANS delivery". Based on more than 20 years of engineering general contract experience in the pharmaceutical industry, the design members have rich experience in production management, engineering design and engineering construction, they will consider the production process, construction process, environmental protection and energy-saving technology in parallel in the design process, helping clients achieve all-round guarantee of scheme, investment, progress and project quality, and provide the most practical design services that meet the project needs.



Design Services

- Project Proposal
- Project Feasibility Study Report
- Concept Design
- Basic Design
- Detailed Design
- Fire Protection Special Design
- Safety Facility Special Design
- Occupational Health Special Design



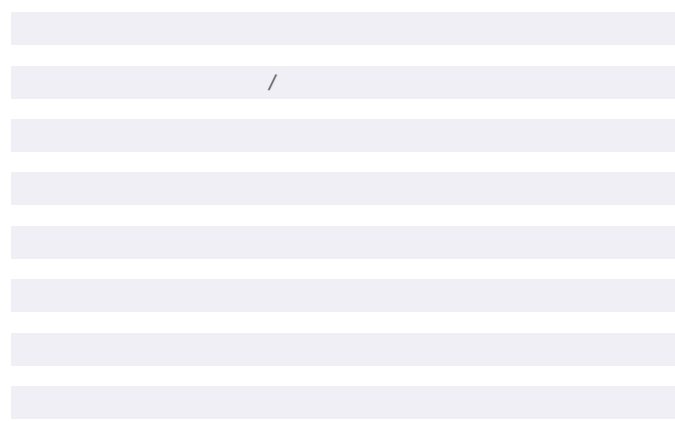
AUTOMATION & INFORMATIONIZE ENGINEERING

Leading In Single Contract Scale Of Automation Engineering

TIANS Group automation and information engineering takes automation and information technologies as the core, focuses on the field of biomedicine, masters the main production processes in the biomedical production process, public auxiliary engineering and other automation and information core technologies, combines industrial characteristics and production needs to provide clients with one-stop solutions in the whole life cycle from system planning and design, engineering implementation, commissioning and maintenance to computerized system validation, helping pharmaceutical enterprises realize digital factories.

BMS/EMS

Utility Automation (BMS/EMS System)



- Start-up Sequence Control of Air Conditioning Unit
- Automatic control of Temperature and Humidity, Air Supply Volume/Air Pressure, and Room Pressure Difference
- Mode Control (production mode, non-production mode,sterilization mode)
- System Interlocking
- Monitoring of Temperature and Humidity, Pressure Difference, Dust Particles and Planktonic Bacteria in Critical Rooms
- Alerts, Trends, Reports
- User Management
- Electronic Records and Signatures

GMP GMP VALIDATION

GMP Compliance With GMP

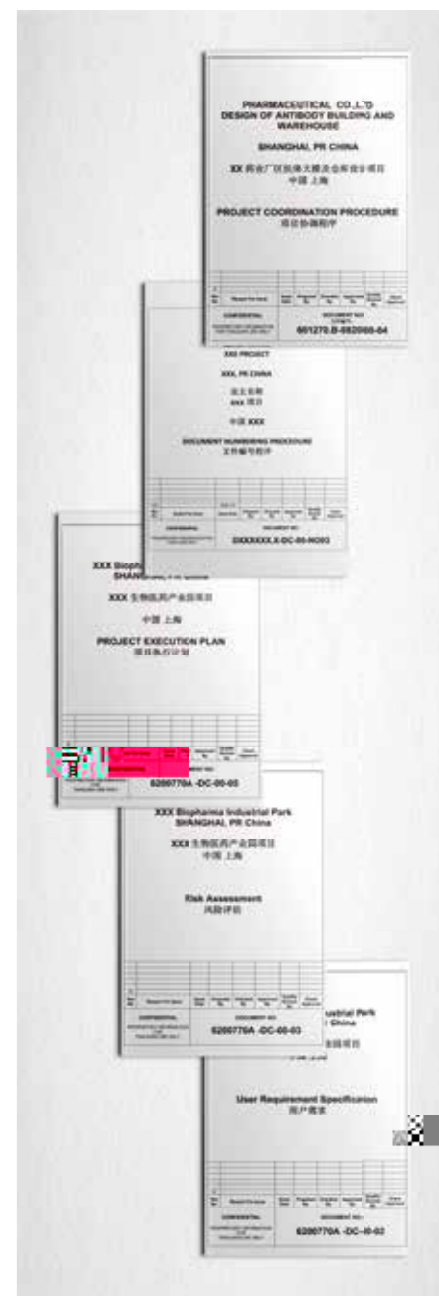
C&Q

GMP EMA FDA WHO

Based on science and risk control C & Q process, TIANS provides validation services that meet the compliance requirements of Chinese GMP, EMA, FDA, WHO, etc. during the whole project construction life cycle, covering the scope of services including validation system, air conditioning/plant facilities, equipment,computerized system, warehousing, auxiliary equipment, etc.

Validation Services

SOP	Consultation or Construction of SOPs for System Validation
/ GMP	GMP Compliance Audit of Design Documents/Drawings
URS	URS Audits
	IRA Preliminary Risk Assessment
	VP Validation Program
	RA/SRA Risk Assessment
	TM Traceability Matrix
/	FAT/SAT Factory Acceptance Test / Site Acceptance Test
/ / /	DQ/IQ/OQ/PQ Design/Installation/Operation/Performance Qualification
	VSR Validation Summary Report
GMP	On-site Support for GMP Inspections





Christian Bachofen

CB Consultancy AG

Christian Bachofen

Internationally Famous Expert in Biopharmaceutical Design and Planning

Chief Technology Officer of Biopharmaceutical of TIAN'S Group
Founder and Chief Designer of CB Consultancy AG



Hunter Song

IPPM

Hunter Song

Biotechnology and Industrial Planning Expert
Registered Electrical Engineer in the United States
Director of Recombinant Drug Branch of China Biochemical Pharmaceutical Association
Deputy Director of IPPM



Internationally Famous Pharmaceutical Process Design Experts

Senior Engineer
Member of CB Consultancy AG Management Team

QUALIFICATIONS

/ CONSULTING AND DESIGN QUALIFICATION

- Class A for engineering design in chemical, petrochemical and pharmaceutical industry
- Class A for engineering design in construction industry (construction engineering)
- Class A for engineering consulting company
- Class A for environmental engineering design in special water pollution prevention and control project
- Class B for special environmental engineering (solid waste treatment and disposal engineering, air pollution prevention and treatment)
- Design of fixed pressure vessel for special equipment
- GC for pressure pipeline design of special equipment
-
-

GC

/ CONSTRUCTION QUALIFICATION

- General contracting level I for mechanical and electrical engineering construction
- Professional contracting level I for electronic and intelligent engineering
- Professional contracting level I for waterproof and anti-corrosion insulation engineering
- Professional contracting level I for building furnishing and decoration engineering
- General contracting level II for construction engineering
- General contracting level II for municipal public works construction
- Professional contracting level II for environmental engineering
- Professional contracting level II for steel structure engineering
- Professional contracting level II for fire fighting facilities engineering
- General contracting level III for power engineering construction
- Professional contracting level III for power transmission and transformation engineering
- Special equipment pressure pipe installation GC
-
-

GC

SCIENCE & TECHNOLOGY INNOVATION

Participation In The Formulation Of National Standards



TIANS is currently involved in the formulation of the following standards and is determined to be engaged in the making of more national standards. A sound and complete standard system provides industry with intelligent support.

- Cleanrooms and associated controlled environments Part : Classification of air cleanliness by particle concentration
- Cleanrooms and associated controlled environments Part : Monitoring to provide evidence of cleanroom performance related to air cleanliness by particle concentration
- Standard for construction and acceptance of pharmaceutical industry cleanroom
- Manufacturing practices for cell culture in clean room and relevant controlled environment
- Cell preparation standard for cleanroom operation

Patents

182

Intellectual Properties

151

Authorized Patents

31

Software Copyrights



EXEMPLARY PHARMACEUTICAL PERFORMANCES

GMP FDA EMA

The biopharmaceutical team has participated and led the set-up and construction of over pharmaceutical factories in accordance with the latest Chinese GMP, FDA and EMA requirements. The team will sustain to help Chinese biopharmaceutical companies build milestone projects.



BeiGene(Guangzhou) Biopharmaceutical Co., Ltd.

BMS&EMS
Phase III & Phase IV of Project BMS & EMS System

Biopharmaceutical



BeiGene(Guangzhou) Biopharmaceutical Co., Ltd.

ADC DS
Mechanical Electrical and Clean Room Installation Engineering of ADC & DS Workshops

Antibody-drug Conjugate



BeiGene(Guangzhou) Biopharmaceutical Co., Ltd.

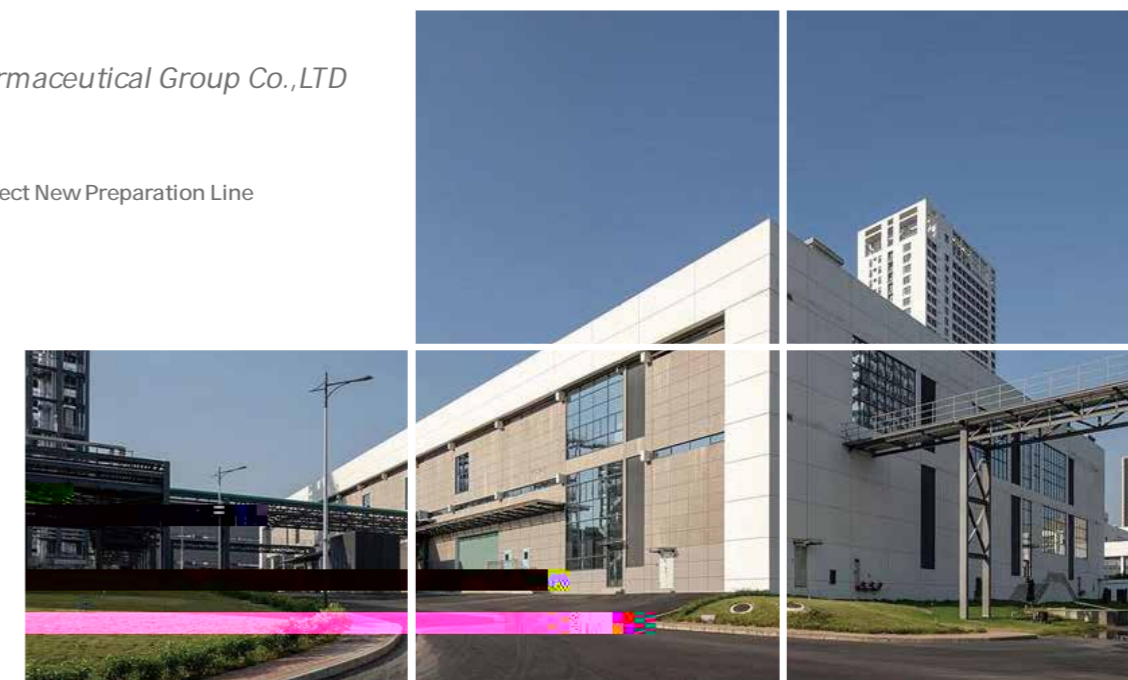
PQ
Mechanical and Electrical Installation Works of PQ Laboratory Expansion Project

Monoclonal Antibody

Shenzhen Hepalink Pharmaceutical Group Co.,LTD

EPC
EPC Engeering of Pingshan Project New Preparation Line

Sterile Injection



HIGH QUALITY: EXEMPLARY PHARMACEUTICAL PERFORMANCES



Shanghai TopAlliance Biosciences Co., Ltd.

TopAlliance Biotech Industrialisation Port Project (Phase II)

Monoclonal Antibody

HIGH QUALITY: EXEMPLARY PHARMACEUTICAL PERFORMANCES



VTTQ Pharmaceutical Group Co., Ltd.

High-end Comprehensive Preparation Workshop
Purification Mechanical and Electrical
Installation Engineering

Anti-cancer Innovative Drugs

Suzhou Junmeng Biopharm Co., Ltd.

Innovative Monoclonal Antibody for Treatment
Industrialization Project

Monoclonal Antibody



Beijing INNOCARE Pharmaceutical Technology Co., Ltd.

Drug R&D Platform Upgrade Project Purification Mechanical and Electrical
Installation Engineering

Anticancer Medicine

GenScript Biotech Corporation

BMS&EMS
BMS & EMS Engineering

Cell and Gene Therapy





Hangzhou DAC Biotechnology Co., Ltd.

ADC Preparation Workshop Clean Room Engineering

Antibody-drug Conjugate



Hangzhou EXEGENESIS Bio Co., Ltd.

Phase II Project of Gene Therapy Medicine

Gene Therapy Medicine



EGF

Relocation Project of Recombinant Human Epidermal Growth Factor Spray and Eye Drops (EGF Production Project)Purification Engineering





Shanghai United Cell Biotechnology Co. Ltd.

Cholera Vaccine Expansion & New Construction of phase IV Production Plant

Cholera Vaccine



Jiangsu T-mab BioPharma Co. Ltd.

Antibody Drug Pilot Industrialization Project Design

Monoclonal Antibodies & Antibody-drug Conjugate

Lepu Biotechnology Co., Ltd.

PD- PDL- Industrialization Project Design of Biological Monoclonal PD- and PDL-

Monoclonal Antibody



OBIO Intelli-M(Shanghai) Gene Technology Co., Ltd.

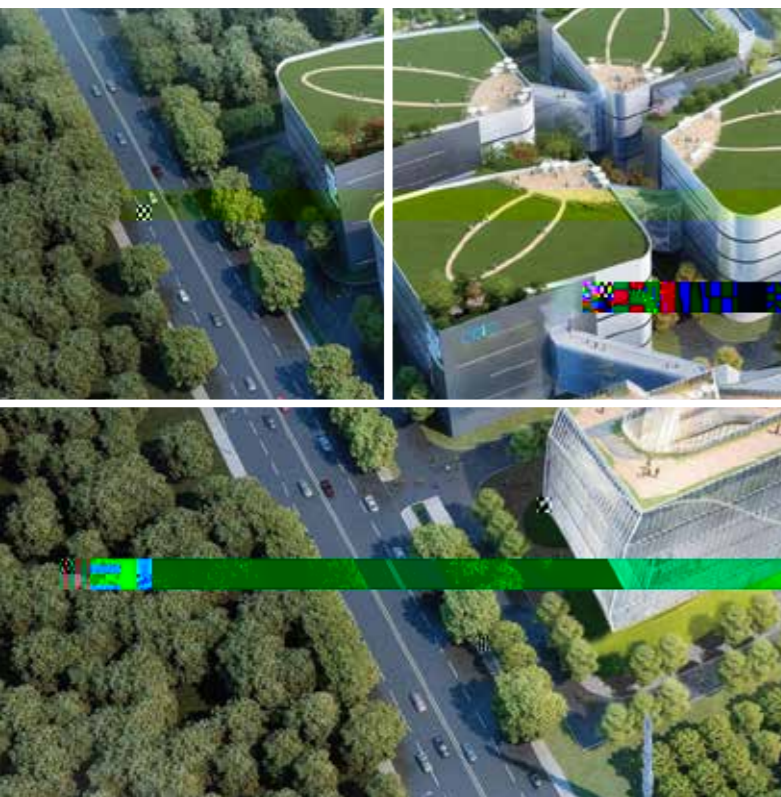
Precision Medicine Industry Base Construction Project Design

Gene Therapy Drugs

Fosun AdgenVax (Chengdu) Biopharma Co. Ltd.

Project Design of Fosunpharma Innovative Vaccine Headquarters & Industrialization Base

Vaccines



Chengda Biology (Benxi) Co., Ltd.

QC Quality Control Department (QC) Expansion Project Installation Engineering

Vaccines

