

TIANJIN BAOLAI FORTUNE INTERNATIONAL TRADE CO., LTD

Steel pipe since 1991, Your reliable steel pipes supplier





关于宝来钢业 About BAOLAI STEEL

温室结构 Greenhouse Structure

温室环境调节系统 Microclimate Control System

水肥灌溉一体化系统 Fertigation System

智能控制系统 Automatic Control System

温室内部物流与采后处理 Internal Logistics and Postharvest

园艺栽培系统 Horticulture and Cultivation System

温室加工 Greenhouse Processing

近期项目案例展示 Typical Projects



天津宝来钢业专业从事农业设施规划设计、生产加工、安装调试及售 后服务。针对不同植物对生长环境的实际需求,聚友农业致力于为客户提 供科学的综合性解决方案。我们将以国际领先的设计理念,遵循科学严谨 的建设规范,坚持精准高效的施工工艺,为客提供细致周到的优质服务, 为植物构建节能、可控、适宜的生长环境。

Tianjin Baolai Steel specializes in agricultural facility planning and design, production and processing, installation and commissioning, and after-sales service. In response to the actual needs of different plants for the growth environment, Sinosen Agriculture is committed to providing customers with scientific and comprehensive solutions. We will use internationally leading design concepts, follow scientific and rigorous construction standards, adhere to accurate and efficient construction techniques, provide customers with meticulous and thoughtful quality services, and build energy-saving, controllable and suitable growth environments for plants.



















文洛式温室 Venlo Type Greenhouse



Covering materials: single-layer glass, double-layer insulating glass, sunlight board

Production process Galvanizing process or cold bending forming process, spraying process

Standard size Span 8m/9.6m/12m, gutter height 4m-8m, bay 4m/5m/8m

Scope of application: It can be used for nursery, horticultural planting, flower maintenance, leisure and sightseeing, scientific experiments, etc.







文洛式温室 Venlo Type Greenhouse



Covering materials: single-layer glass, double-layer insulating glass, sunlight board

Production process Galvanizing process or cold bending forming process, spraying process

Standard size Span 8m/9.6m/12m, gutter height 4m-8m, bay 4m/5m/8m

Scope of application: It can be used for nursery, horticultural planting, flower maintenance, leisure and sightseeing, scientific experiments, etc.





文洛式温室 Venlo Type Greenhouse



Covering materials: single-layer glass, double-layer insulating glass, sunlight board

Production process Galvanizing process or cold bending forming process, spraying process

Standard size Span 8m/9.6m/12m, gutter height 4m-8m, bay 4m/5m/8m

Scope of application: It can be used for nursery, horticultural planting, flower maintenance, leisure and sightseeing, scientific experiments, etc.





薄膜温室 Plastic Film Greenhouse



Covering material: single-layer film, double-layer film, double-layer inflatable film

Production process Galvanizing process or cold bending forming process, spraying process

Standard size Span 8m/9.6m, gutter height 3m-4m, bay 4m/5m

Scope of application Mild climate. Can be used for nursery, gardening, flower maintenance, scientific experiments, etc.

温室主体 Greenhouse Structure



节能型日光温室 Energy-saving solar greenhouse



Covering material PE film/PO film Production process Galvanizing process or cold forming process Standard size Span 8m/10m/12m Scope of application can be used as nursery, gardening, flower maintenance, etc.

遮荫保温系统 Screen System

温室降温系统 Cooling System

人工补光 Artificial Light Syste

加温系统 Heating System

CO2补气系统 CO2 Supplement System







Shading insulation system

Mainly used to adjust the light and temperature inside the greenhouse, divided into indoor and outdoor curtains

System, namely inner shading system, inner thermal insulation system, outer shading system.

System components: motor, drive mechanism, curtain, etc.

According to the different needs of plants for light, you can choose different shade rate and heat preservation rate









Greenhouse cooling system

In the hot summer, based on energy efficiency considerations, you can gradually cool down through natural ventilation and fog

- And forced cooling system, etc., to provide a suitable greenhouse environment for plant growth. System composition:
- Natural ventilation system: including ventilation windows and driving mechanism
- High-pressure mist system: including high-pressure unit, filter system, pipeline and nozzle
- Wet curtain-fan system: including axial fan, wet curtain, water circulation





Greenhouse cooling system

In the hot summer, based on energy efficiency considerations, you can gradually cool down through natural ventilation and fog

- And forced cooling system, etc., to provide a suitable greenhouse environment for plant growth. System composition:
- Natural ventilation system: including ventilation windows and driving mechanism
- High-pressure mist system: including high-pressure unit, filter system, pipeline and nozzle
- Wet curtain-fan system: including axial fan, wet curtain, water circulation





Greenhouse cooling system

In the hot summer, based on energy efficiency considerations, you can gradually cool down through natural ventilation and fog

- And forced cooling system, etc., to provide a suitable greenhouse environment for plant growth. System composition:
- Natural ventilation system: including ventilation windows and driving mechanism
- High-pressure mist system: including high-pressure unit, filter system, pipeline and nozzle
- Wet curtain-fan system: including axial fan, wet curtain, water circulation





Artificial Light System

The artificial fill light system is designed to maximize the benefits of agricultural production by providing plants with appropriate light. For example, in order to extend the planting season or even the whole year; in order to maximize the yield and quality of crops; in order to break the plant growth law, so as to advance or delay the time of flowering and fruiting.

The artificial fill light system includes two main modes of highpressure sodium lamp fill light and LED fill light. Among them, LED fill light can be divided into top fill light and fill light between plants.







Heating System

The scientific and reasonable design of the heating system can ensure that the temperature in the greenhouse is suitable, uniform and stable.

Object growth creates a good temperature environment; and saves energy consumption to the greatest extent and reduces operating costs.

- Comprehensive warming plan: ground warming, warming between plants, warming around, space warming
- End heating form: round wing radiator, light pipe radiator, fan coil, etc.





CO2 Supplement System

When the greenhouse is in a closed state, plants continue to consume CO2 due to photosynthesis, and need to

It is necessary to supplement CO2 and maintain a certain concentration in time to ensure the normal growth of crops.

- Liquid canned CO2 gas source
- Boiler combustion (exhaust gas recovery) CO2 piping system

Air Circulation System

Stir the air in the greenhouse by the circulation fan to achieve the balance of indoor temperature and humidity

And the purpose of uniform distribution of CO2, to ensure the consistency of the crop growth environment in the greenhouse.



园艺栽培系统 Cultivation System



Modern soilless cultivation can realize water and fertilizer recycling, effectively reduce soil-borne diseases,

Significantly improve the utilization rate of water resources and fertilizer use efficiency. The main cultivation modes include

Fruit and vegetable substrate culture: rock cotton cultivation, coconut husk cultivation

Leaf vegetable hydroponic culture: late night hydroponic culture (DFT), nutrient liquid membrane technology (NFT), etc.





园艺栽培系统 Cultivation System



Modern soilless cultivation can realize water and fertilizer recycling, effectively reduce soil-borne diseases,

Significantly improve the utilization rate of water resources and fertilizer use efficiency. The main cultivation modes include

Fruit and vegetable substrate culture: rock cotton cultivation, coconut husk cultivation

Leaf vegetable hydroponic culture: late night hydroponic culture (DFT), nutrient liquid membrane technology (NFT), etc.





园艺栽培系统 Cultivation System



Modern soilless cultivation can realize water and fertilizer recycling, effectively reduce soil-borne diseases,

Significantly improve the utilization rate of water resources and fertilizer use efficiency. The main cultivation modes include

Fruit and vegetable substrate culture: rock cotton cultivation, coconut husk cultivation

Leaf vegetable hydroponic culture: late night hydroponic culture (DFT), nutrient liquid membrane technology (NFT), etc.



近期案例 Recent cases





魁北克-加拿大 (Quebec 2 - Canada)

在加拿大,中农信达为魁北克的一个客户建造了一个±81,000平方米的 交钥匙温室项目。该项目包括3.8公顷的生物黄瓜种植和3.8公顷的生物辣 椒种植。

In Canada, Sinosen has built a turnkey greenhouse project of \pm 81,000 square meters for a client in Quebec. The project includes 3.8 hectares of biological cucumber cultivation and 3.8 hectares of biological pepper cultivation.





温室内部展示

该项目包括漫射玻璃,该玻璃配备了双面AR处理。在温室中,我们安装了防虫网,甲板上装有2扇通风窗。温室项目还包括仓库,该区域的一部分用作冷藏库。

The project includes diffuse glass, which is equipped with 2-sided AR treatment. In the greenhouse we've fitted insect netting and the deck is equipped with 2-pane ventilation windows. The greenhouse project also includes warehouse, a part of this area is furnished as a cold store.







莫斯科-俄罗斯 (Moscow - Russia)

俄罗斯莫斯科项目的第三阶段。第一阶段占地10公顷,已于2015年实现; 第二阶段占地12公顷,已于2016年实现。我们很高兴能够建设该交钥匙 温室项目的第三阶段。

The third phase of a project in Moscow, Russia. The first phase of 10 hectares was achieved in 2015 and the second phase of 12 hectares in 2016. We are very pleased that we can build the third phase of this turn-key greenhouse project.





温室内部展示

客户是黄瓜和番茄种植公司。这是占地21公顷的交钥匙工程的第三阶段,适合种植西红柿和年幼植物。交钥匙工程将配备现代化的设施,例如屏幕安装,防虫网,高压雾系统, 人造照明和Priva计算机。

The customer is a cucumber and tomato growing company. This is the third phase of a turnkey project covering an area of 21 hectares, suitable for growing tomatoes and young plants. The turnkey project will be equipped with modern facilities such as screen installation, insect screens, high-pressure fog systems, artificial lighting and Priva computers.

