Weifang Gold Smith Building Materials Co.,Ltd

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GOLD SMITH

GREENHOUSE

WEIFANG GOLD SMITH BUILDING MATERIALS CO.,LTD

CATALOG

A COMPANY PROFILE

ABOUT US

Weifang Gold Smith Building Materiasl Co.,Ltd is located in No.5555 Xinglong East Road Linqu County Weifang City Shandong Province P.R.China. We are specialized in manufacturing greenhouse and greenhouse Products.

We are committed to research the efficient agricultural equipment and development of modern agriculture. We specialized in greenhouse engineering scientific research and steel structure design, production,installation, greenhouse material, greenhouse accessories for temperature control equipment, heat preservation facilities, sales and service.

We can produce more than twenty types of greenhouse, such as Venlo type PC(Polycarbonate) sheet greenhouse, venlo type glass greenhouse, multi-span arch-type film greenhouse, greenhouse restaurant, glass greenhouse, scientific research greenhouse, tunnel greenhouse, solar greenhouse and so on.

Our greenhouse was sold to 23 provinces in China, include Chinese national development Tibet agricultural greenhouse project, Xinjiang Autonomous region vegetable growing project.

Our greenhouse also exports to many countries in North America,Europe, Africa, Southeast Asia, Middle east and Oceania, such as: United Sates, Canada, the Netherlands, Germany, Italy, France, Ukraine, Russia, Uzbekistan, Kazakhstan, Saudi Arabia, The United Arab Emirates, Kuwait, Thailand, India, Australia, Algeria, Nigeria,Tanzania and so on.

B.GREENHOUSE TYPE

VENLO TYPE PC (POLYCARBONATE) SHEET GREENHOUSE

SPECIFICATION

Greenhouse Style: Venlo Type Greenhouse
Span Type: Multi-span
Greenhouse Structure: Hot-dip Galvanized Steel Pipe
Covering Material: PC (Polycarbonate) Sheet
PC Sheet Thickness: 6mm,8mm,10mm,16mm
Layer: Single, Double
Transmittance Rate: >80%
PC Color: White, Transparent, According to customer's requirement
Covering Material Service Time: >10 Years

GREENHOUSE SYSTEM

- Outside shading system
  1.Shading net
  2.Motor transmission and accessories
- Inside shading system
  1.Shading net
  2.Motor transmission and accessories
- Ventilation System
  1. Manual ventilation
  2. Electrical ventilation.
- Heating System
  1. Hot water heating
  2. Hot wind heating
  3. Electrical heating
- Cooling system
  1.Cooling Pad
  Cooling pad, aluminum alloy frame and cooling pad water supply system.
  2. Cooling Fan
  Size:1380×1380mm, 1000×1000mm,750×750mm
- Irrigation and fertilization system
- Automatic control system

Greenhouse Parameter

Span	8.0m, 9.6m, 10.8m, 12.0m
Eaves Height	3.0m-6.0m
Column Space	4.0m, 8.0m

VENLO TYPE GLASS GREENHOUSE

SPECIFICATION

Greenhouse Style: Venlo Type Greenhouse
Span Type: Multi-span
Greenhouse Structure: Hot-dip Galvanized Steel Pipe
Covering Material: Hollow Glass, Single Glass
Glass Thickness: 4-15mm
Layer: Single, Double Middle Hollow
Transmittance Rate: >90%
Glass Color: Transparent
Covering Material Service Time: >10 Years

GREENHOUSE SYSTEM

- Outside shading system:
  1.Shading net
  2.Motor transmission and accessories
- Inside shading system:
  1.Shading net
  2.Motor transmission and accessories
- Ventilation System:
  1. Manual ventilation
  2. Electrical ventilation.
- Heating System:
  1. Hot water heating
  2. Hot wind heating
  3. Electrical heating.
- Cooling system
  1. Cooling Pad
  Cooling pad, aluminum alloy frame and cooling pad water supply system.
  2. Cooling Fan
  Size:1380×1380mm, 1000×1000mm,750×750mm
- Irrigation and fertilization system
- Automatic control system.

Greenhouse Parameter

Span	8.0m, 9.6m, 10.8m, 12.0m
Eaves Height	3.0m-6.0m
Column Space	4.0m, 8.0m

MULTI-SPAN ARCH-TYPE FILM GREENHOUSE

SPECIFICATION

Greenhouse Style:
Arch Type Greenhouse
Span Type:
Multi-span
Greenhouse Structure:
Hot-dip Galvanized Steel Pipe
Covering Material:
PE film, PO film, Fenggu film.
Film Thickness:
0.06mm,0.08mm,0.12mm,0.15mm,0.20mm
Layer:
Single, Double
Transmittance Rate:
>70%
Film Color:
Transparent,White
Covering Material Service Time:
>5 Years

GREENHOUSE SYSTEM

- Outside shading system
  1.Shading net
  2.Motor transmission and accessories
- Inside shading system
  1.Shading net
  2.Motor transmission and accessories
- Ventilation System
  1. Manual ventilation
  2. Electrical ventilation.
- Heating System
  1. Hot water heating
  2. Hot wind heating
  3. Electrical heating
- Cooling system
  1. Cooling Pad
  Cooling pad, aluminum alloy frame and cooling pad water supply system.
  2. Cooling Fan
  Size:1380×1380mm, 1000×1000mm,750×750mm
- Irrigation and fertilization system
- Automatic control system.

Greenhouse Parameter

Span	8.0m, 10.0m, 12.0m
Eaves Height	3.0m-6.0m
Column Space	4.0m, 8.0m

SINGLE-SPAN ARCH-TYPE FILM GREENHOUSE

SPECIFICATION

Greenhouse Style: Arch Type Greenhouse
Span Type: Single-span
Greenhouse Structure: Hot-dip Galvanized Steel Pipe (Round tube)

Covering Material: PE film, PO film, Fenggu film.
Film Thickness: 0.06mm,0.08mm,0.12mm,0.15mm,0.20mm
Layer: Single, Double
Transmittance Rate: >70%
Film Color: Transparent,White
Service Time: >5 Years

GREENHOUSE SYSTEM

- Ventilation System
  1. Manual ventilation
  2..Electrical ventilation
- Heating System
  1. Hot water heating
  2. Hot wind heating
  3. Electrical heating
- Cooling system
  1. Cooling Pad
  Cooling pad, aluminum alloy frame and cooling pad water supply system.
  2. Cooling Fan
  Size:1380×1380mm, 1000×1000mm,750×750mm
- Irrigation and fertilization system
- Automatic control system

Greenhouse Parameter

Top Height	2.0m-7.0m
Width	6.0m-12.0m

PHOTOVOLTAIC GREENHOUSE

SPECIFICATION

Greenhouse Style: Venlo Type Greenhouse
Span Type: Multi-span
Greenhouse Structure: Hot-dip Galvanized Steel Pipe
Covering Material: PC sheet or Glass, Photovoltaic panel
Layer: Single, Double
Covering Material Service Time: >15 Years

GREENHOUSE SYSTEM

- Ventilation System
  1.Manual ventilation
  2.Electrical ventilation
- Heating System
  1. Hot water heating
  2. Hot wind heating
  3. Electrical heating
- Cooling system
  1. Cooling Pad
  Cooling pad, aluminum alloy frame and cooling pad water supply system.
  2. Cooling Fan
  Size:1380×1380mm, 1000×1000mm,750×750mm
- Irrigation and fertilization system
- Automatic control system

Greenhouse Parameter

Span	8.0m, 9.6m, 10.8m, 12.0m
Eaves Height	3.0m-6.0m
Column Space	4.0m, 8.0m

SOLAR GREENHOUSE

SPECIFICATION

Greenhouse Style: Single-span Greenhouse
Greenhouse Structure: Hot-dip Galvanized Steel Pipe
Covering Material: PE film, PO film, Fenggu film.
Film Thickness: 0.06mm,0.08mm,0.12mm,0.15mm,0.20mm
Layer: Single, Double
Transmittance Rate: >70%
Film Color: Transparent,White
Covering Material Service Time: >5 Years

GREENHOUSE SYSTEM

- Ventilation System
  1. Manual ventilation
  2. Electrical ventilation
- Heating System
  1. Hot water heating
  2. Hot wind heating
  3. Electrical heating.
- Insulation System
  Insulation quilt: non-woven fabrics
- Cooling system
  1. Cooling Pad
  Cooling pad, aluminum alloy frame and cooling pad water supply system.
  2. Cooling Fan
  Size:1380×1380mm, 1000×1000mm,750×750mm
- Irrigation and fertilization system
- Automatic control system

SPHERICAL GREENHOUSE

MAJOR FEATURES

1.Beautiful and novel appearance
2.Environmentally protection and energy-saving
3.High space using rate
4.Strong steel structure
5.Wide range of usage

GREENHOUSE RESTAURANT

C. GREENHOUSE STRUCTURE

STEEL STRUCTURE

Product Description

Using hot-dip galvanized steel with high structure toughness.

Greenhouse Structure Type

1. According to the covering material of greenhouse, it can be divided into the following categories

Polycarbonate greenhouse structure

Glass greenhouse structure

Film greenhouse structure.

2. According to the appearance of greenhouse, it can be divided into the following categories

Multi-span Venlo type greenhouse structure

Multi-span Arch type greenhouse structure

Single-span Arch type greenhouse structure

Major Features of Greenhouse Structure

· Using hot-dip galvanized steel with high quality

· Processing with galvanized techniques

· Assembling on site

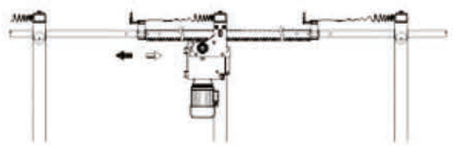
· Connectors and fasteners are not easy to be corroded.

Main Advantages

1. High quality hot-dip galvanized steel
2. The process of galvanizing after welding is used for welding component
3. The guarantee period is more than 20 years
4. Hot-dip galvanizing with double sides
5. All components are assembled on site
6. Connector and fastener corrosion will not occur within 20 years.

D. GREENHOUSE SYSTEM

OUTSIDE SHADING SYSTEM

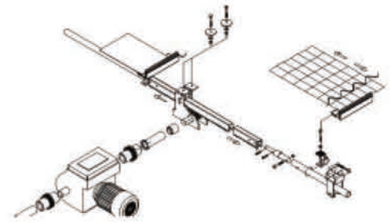


Characteristics
· Anti-UV, anti-hail
· Shading net with different shading rates (60%, 70%, 75%)
· Cooling and shading

Specification of outside shading system
The main function of the system is shading and cooling in summer and making sunshine diffuse in greenhouse and preventing crops from strong light. It can reduce internal heat accumulation of greenhouse effectively. Generally, it can reduce greenhouse temperature from 4℃ to 6℃.Outside shading system consists of outside shading structure, shading curtain, transmission mechanism and power device, system support and other fixed parts. It adopts A type rack and pinion screen type.
Outside shading system can improve the inside ecological environment by adapting sunlight strength. In summer, the shading curtain can block the sunlight according to different shading rate, and diffuse sunlight into the interior part. Meantime, it can reduce the temperature in greenhouse.

INSIDE SHADING SYSTEM

Characteristics
· Anti-fog and anti-drip
· Energy-saving and insulation
· Water-saving
· Double shading systems
· Curtain: permeable & insulating curtain



Specification of inside shading system
Double layer inside shading system can be used to increase indoor moisture retention effect.
The curtain is divided into permeability and moisture retention two different types.
Select the curtain of different types and shading rates according to the client's need.

VENTILATION SYSTEM

SPECIFICATION OF VENTILATION SYSTEM

Greenhouse ventilation system can be divided into two kinds of ventilation system.
One is continuous ventilation system. The other is interlacing ventilation system.
Both of these two kinds of ventilation system are now widely used in agricultural planting, sightseeing and entertainment and other fields.

Interlacing Ventilation System

Interlacing ventilation system is made of gear motors, driving shaft, interlacing ventilation pinion and rack, bearing plate, ventilation supporting wheel, push rod, push rod joint and other necessary parts. This kind of ventilation system is applied in top window ventilation of Venlo type greenhouse. Because of the interlacing opening of top window, the outside air and the inside air exchanges quickly, which assures the greenhouse always filled with fresh air.

Continuous Ventilation System

Greenhouse continuous ventilation system is mainly composed by gear motors, driving shaft, continuous ventilation rack and pinion, and bearing plate. The gear motor in this system drives rack rotating through driving shaft. Continuous rack and pinion work together to realize the opening and closing of the whole window.

Characteristics of Greenhouse Ventilation System

1. Staggered windowing design is used for the top-vent so as to strengthen convection effect of the air. Opening angle can reach 30°. Apply different opening according to climate difference inside and outside.Ventilated area can take up more than 20% of top surface area of greenhouse.
2. Overall mechanical transmission mode is used for side-vent. It is matched with the top-vent for cooling. Use evasion type or push-pull type side window.
3. The unique window opening outer fly net design can prevent the insect and sundries entering greenhouse and reduce infection on greenhouse crop. Gear and rack transmission mode and electric control are used for the top-vent or side window.

COOLING SYSTEM

SPECIFICATION OF THE COOLING SYSTEM

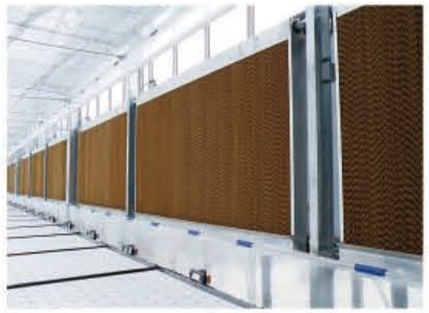
Use evaporation cooling principle of water to realize cooling. There is a specially-made cooling pad wall. When the air penetrates wet curtain medium, it conducts heat exchange with vapor on moist medium surface so as to realize humidification and cooling for the air.

Facilities of the cooling system

1) Cooling Pad:cooling pad, aluminum alloy frame and cooling pad water supply system.

2) Fan Size:

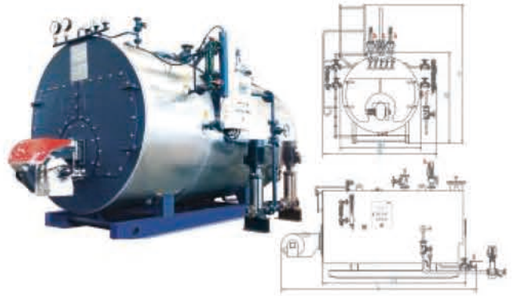
1380×1380mm, 1000×1000mm,750×750mm



HEATING SYSTEM

1.Boiler

a.Gas-fired boiler



b. Coal-fired boiler

c. Bio combustion boiler

2.Heating pipe

3.Gardening heating fan

4.Radiator

5.HFW Radiating pipe

IRRIGATION SYSTEM

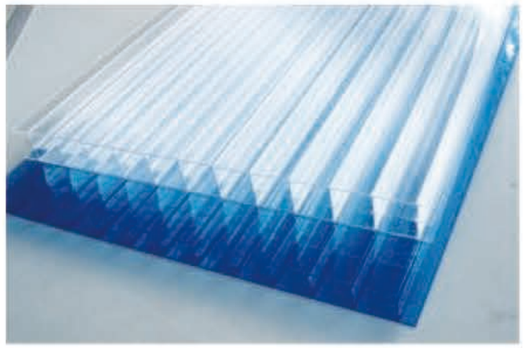
SPECIFICATION OF THE IRRIGATION SYSTEM

1. Irrigation and fertilization water treatment system with reasonable design improves absorption function of crops toward fertilizer. Meanwhile, it improves crop quality.
2. It is especially suitable for the area with poor water quality and crop greenhouse which has high requirements for planting water quality.
3. The advanced treatment process is combined with greenhouse production process effectively.

COVERING SYSTEM

PC SHEET

It can prevent ultraviolet (rays) outside and prevent moisture condensation inside.Besides, it has good light transmittance, good thermal insulation property and heat-shielding performance, and good strength, rigidity, hardness, toughness and anti-rupture performance.
The service time is more than 10 years.

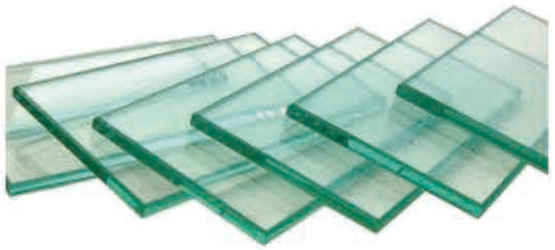


FILM

Greenhouse top and side cover all use 0.06mm, 0.08mm, 0.12mm, 0.15mm, 0.20mm, Fenggu Film, PO film, PE film,with service time,more than 5 years. The connection between films use greenhouse special aluminum or galvanized slot and spring to fix.

SINGLE GLASS

It has beautiful appearance and good light transmittance.
Its thermal insulation property and heat-shielding performance is inferior to PC sheet. The service time is more than 15 years.



HOLLOW GLASS

It has beautiful appearance and good light transmittance.
Its thermal insulation property and heat-shielding performance is equal to PC sheet.
The service time is more than 15 years.

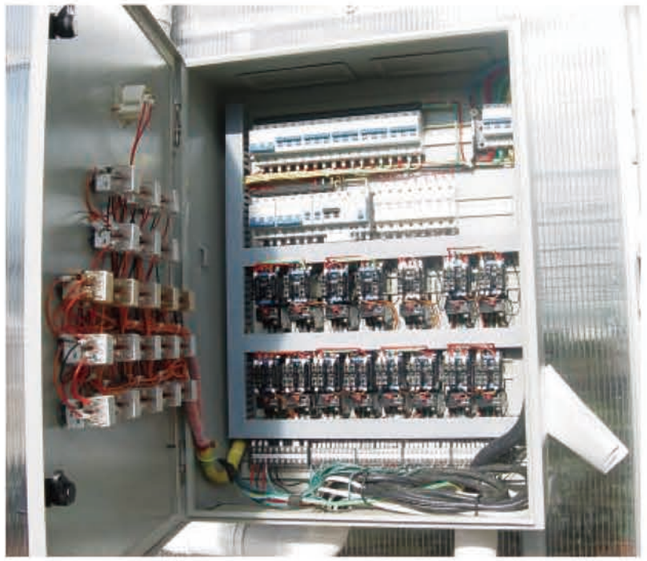
BENCH SYSTEM

SPECIFICATION OF THE BENCH SYSTEM

Material: Hot-galvanized steel pipe is adopted for recipient bed rest. Angle steel is adopted for bedstead. Aluminum alloy is adopted for the frame. The steel wire mesh is laid on the bracket Hot galvanizing anticorrosion treatment is adopted for mesh surface.
The service time is more than 15 years.

CONTROL SYSTEM

The greenhouse need to configure a set of electric control system.
The control system can be used to realize the centralized control of the natural ventilation system, the inside shading system, the outside shading system, the inside thermal insulation system, the cooling pad and cooling fan cooling system and so on.
All main power lines in the greenhouse are placed in the metal wire slot.



Simple description

1. The electric control box is placed in the indoor temperature, which is convenient for the installation and debugging and maintenance of the equipment in the greenhouse.
2. The lead in the greenhouse is damp proof insulated wire.
3. Temperature indoor use grounding system; with leakage switch.
4. Users can put three-phase five wire power into the indoor temperature control box, the power fluctuation of less than ±10%, the electrical equipment using ambient temperature -10℃ to 40 ℃.
5. Main parts of layout of the line, the extension of the tube.

SOILLESS CULTURE SYSTEM

CLASSIFICATION OF THE SOILLESS CULTURE

1.Solid substrate culture

(1) Inorganic substrate culture

Sand culture, Perlite culture, Gravel culture, Rock-wool culture, Hagdite culture

(2) Organic substrate culture

Coconuts straw planting, Peatmoss culture, Foam culture, Sawdust culture, Straw culture

2.Non solid substrate culture

(1) Hydroponics

Nutrient Film Technique, NFT

Deep Flow Technique, DFT

Floating Capillary Hydroponics, FCH

(2) Aeronautics culture

Spray Culture, Semi-spray Culture

COCONUTS STRAW PLANTING

Application range

1. Natural soilless cultivation of organic media, soil cultivation of flowers and economic plant products cultivation, seedlings cultivation.

2. It can be used as a substrate for crop production, used as field mixed fertilizer to improve soil structure, and used for many years to keep the original soil structure unchanged.

The characteristics of coconut plants used in cultivating plants

1. Better water retention: you can fully maintain the moisture and nutrients, reduce water and nutrients loss, it is conducive to plant roots in the growth process of good absorption of nutrients and water, it is conducive to plant growth.

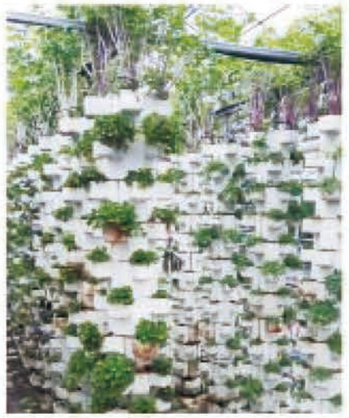
2. Better permeability: prevent plant root corrosion, promote plant root growth, can protect the soil, avoid to cause soil sliming.

3. Slow rate of natural decomposition, is conducive to prolonging the use period of the matrix.

HYDROPONICS

DESCRIPTION OF THE HYDROPONICS

Hydroponics are vegetables grown in most layers of the nutrient solution, which provide water, nutrients and oxygen only through nutrient solution. They are different from those grown in traditional soil cultivation. Vegetables grown in water cycle are short and rich in vitamins and minerals necessary for various human bodies.



E.GREENHOUSE CASE

E. GREENHOUSE PROJECT