



常森园艺  
CHANSCEN

全球设施农业种植系统创新引领者  
·Global Growing System Innovator

# ABOUT US



**Changzhou Changsen Horticultural Technology Co., Ltd.** Changzhou Changsen Horticultural Technology Co., Ltd. is a global factory providing integrated solutions for protected agriculture planting systems. Specializing in the integrated services of design, production and construction for planting systems, the company focuses on high-efficiency planting systems + intelligent equipment to help modern agriculture reduce costs and increase efficiency. **Main Business** The company mainly provides: Steel brackets and hanging planting troughs for solanaceous fruits Multi-row high-density steel planting troughs for fresh cut flowers Single-layer light-duty and multi-layer heavy-duty aerial strawberry cascade systems Multi-layer planting systems for blueberries in semi-closed greenhouses It also independently develops supporting intelligent equipment such as trough forming equipment, wire 3D forming production lines, and sulfur fumigators, providing standardized and customized services with high durability and high space utilization for scenarios including greenhouse planting and vertical farms. **Strategic Positioning** Global innovator and leader in protected agriculture planting systems. **Core Values** Innovation-driven, customer-first, sustainable development, professional integrity, and win-win cooperation.



# ABOUT US



# 专业种植槽设备研发

GUTTER ROLL FORMING MACHINE R&D

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**We are a manufacturer of special-purpose production equipment for planting troughs. Our independently upgraded equipment features: Compact and lightweight design, within 4m in length and 2m in width. Servo drive control for all power units, ensuring higher precision, lower energy consumption and low-carbon operation. Daily output of over 13,000 linear meters, supporting 7×24h continuous running. Upgraded electric and hydraulic systems, adaptable to mobile operation across regions in harsh climates. Proprietary human-machine interaction system with communication module, featuring GPS positioning, output feedback and multi-language control for global application.**



# 种植系统——600C槽体

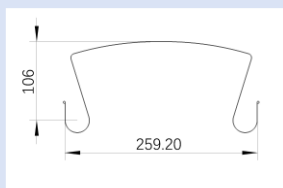
GROWING SYSTEM SET——600C Hydroponic Trough



## Product Features

Larger cross-sectional width, with a contact surface reaching 255 mm, effectively preventing sideways slippage of coco coir strips. Innovative raised drainage dot design that overcomes water surface tension. Drainage channels extend from the center to both sides for improved drainage efficiency. Reinforced structural ribs against deformation enhance compressive strength, while the smooth surface allows for easier cleaning. Concealed drainage ditch prevents leaves and fruits from falling into the channel and obstructing drainage.

### 槽体推荐



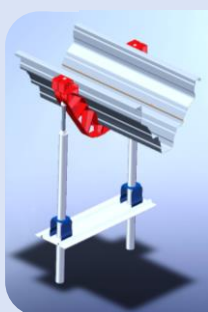
#### 600C Hydroponic Trough

Recommended crops: Tomatoes, strawberries, peppers, cucumbers, etc. Features: Prevents fruit/leaf drop, ensures smooth nutrient solution reflux, smooth surface with minimal creases.

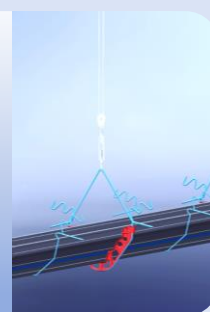
*This is a new Chanscen product for Q1 2026. Inquiries are welcome.*

# 成套种植系统——V型槽

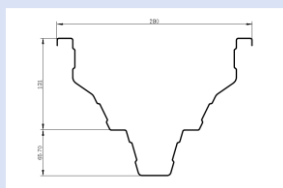
GROWING SYSTEM SET——V-Shaped Trough



High-strength trough section design, no collapse at a single support point over a 5-meter span, excellent drainage performance, and good root ventilation at the bottom. Suitable for bulk substrate cultivation without planting containers; substrate capacity is approximately 25L per meter, meeting mainstream substrate ratio requirements. Can be used to grow various crops such as strawberries, tomatoes and cucumbers; applicable for both hanging and bracket-supported planting systems.



## 槽体介绍



600B Hydroponic V-Shaped Trough  
Recommended crops: Tomatoes, strawberries.

*This is a new Chanscen product for Q3 2025. Inquiries are welcome.*

# 成套种植系统——茄果类（吊挂番茄）

GROWING SYSTEM SET—Solanums (Hanging Tomatoes)

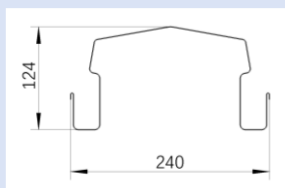


## Overview of Hanging Tomato Cultivation Trough System

A high-efficiency soilless technology. Suspending troughs in greenhouses isolates roots from the ground, enabling precise root-zone temperature control and optimal growing conditions.



槽体介绍



600A / 600C Hydroponic  $\Pi$ -Shaped Trough  
Recommended crops: Tomatoes, strawberries,  
blueberries, peppers, cucumbers.

# 成套种植系统——茄果类（支架番茄）

GROWING SYSTEM SET—Solanums (Staked Tomatoes)

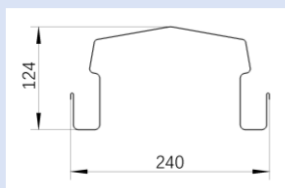


When planting troughs are installed in an elevated fixed position at 45–70 cm above ground, it improves root ventilation and eases manual operation. The troughs rely little on greenhouse structures, with their weight supported by ground stands, adding no extra load to the greenhouse frame. Installation is convenient and efficient without high-altitude work, and standardized setup can be finished by ordinary workers.



Ground-supported planting trough systems remain the first choice for small and medium-scale agricultural projects in China, and are widely adopted in various types of greenhouses across central and western China.

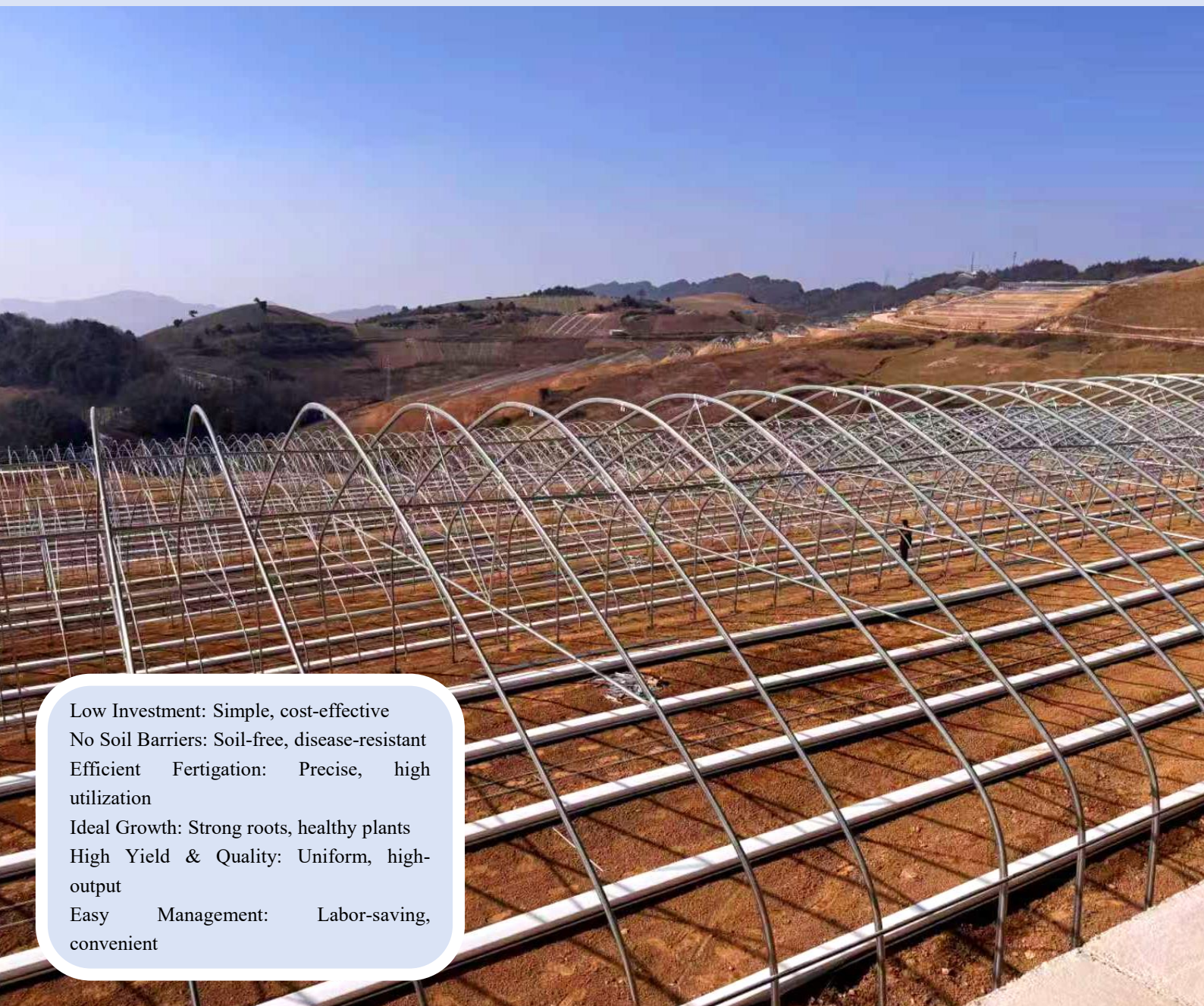
## 槽体介绍



600A / 600C Hydroponic II-Shaped Trough  
Recommended crops: Tomatoes, strawberries,  
blueberries, peppers, cucumbers.

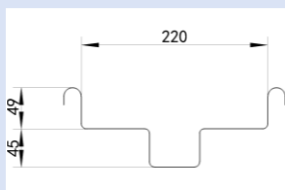
# 成套种植系统——茄果类（地面式）

GROWING SYSTEM SET——Solanums (Ground Type)



Low Investment: Simple, cost-effective  
No Soil Barriers: Soil-free, disease-resistant  
Efficient Fertigation: Precise, high utilization  
Ideal Growth: Strong roots, healthy plants  
High Yield & Quality: Uniform, high-output  
Easy Management: Labor-saving, convenient

## 槽体介绍



400C Hydroponic Trough

Recommended crops: Cut flowers, herbs, raspberries, cucumbers, blueberries.

*\*Image courtesy of Chanscen's late-2025 high-altitude tomato project (elevation >2000m).*

# 成套种植系统——浆果类（悬挂式）

## GROWING SYSTEM SET—Berries (Hanging Type)

### Regional Lifting System

Zonal Lifting Planting System is a cost-effective new planting system. It features fewer motors, lower steel consumption for top drive shafts, and lower overall cost. However, it is more complex in design and installation than conventional planting systems.



### Independent Lifting

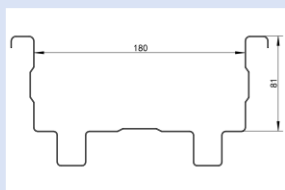
Single Trough Lifting System is the most mainstream design for overhead strawberry cascade systems on the market. It features flexible strawberry layout, flexible control, high light reception and easy installation. However, its overall cost is relatively high. It is recommended for use where single planting troughs are long.



### Horizontal Moving Type

The horizontal mobile planting system effectively improves land utilization, doubling the planting area compared with conventional systems. However, it has drawbacks such as difficult farming operations and poor ventilation for roots and foliage.

槽体介绍



485A Hydroponic Trough

Recommended crops: Tomatoes, strawberries, herbs, raspberries.

# 成套种植系统——浆果类（支架式）

GROWING SYSTEM SET—Berries (Staked Type)



## Single-row Strawberry

Made of high-strength metal materials such as galvanized round pipes and color-coated coils, with strong load-bearing capacity and corrosion resistance.



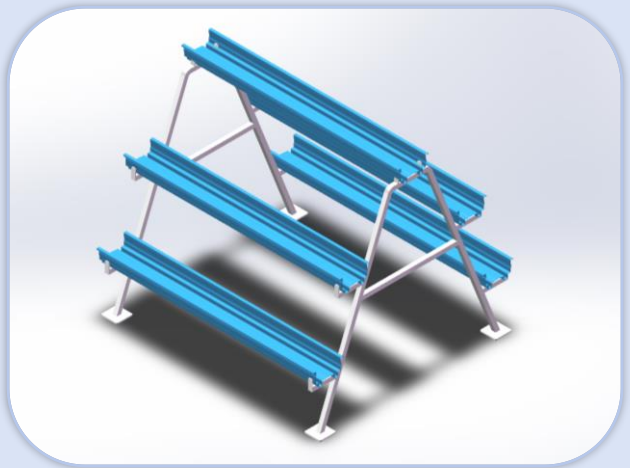
## Triangle-layout Strawberry

The "Pin" shaped strawberry rack can hold at least three planting troughs on a single support, effectively increasing yield per unit area.



## Double-row Strawberry

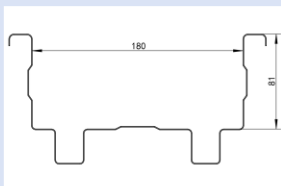
Double-row support structure with uprights and cross bars effectively improves strawberry light exposure and ventilation.



## A-frame Strawberry

The A-frame structure maximizes space use, improves crop lighting and picking convenience, and supports flexible substrate and fertilizer replacement.

槽体介绍



485A Hydroponic Trough

Recommended crops: Tomatoes, strawberries, herbs, raspberries.

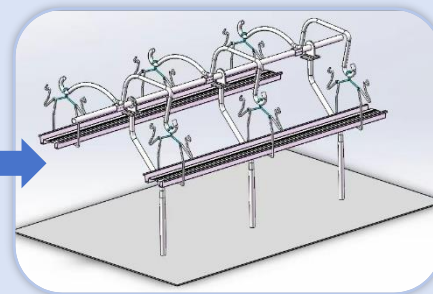
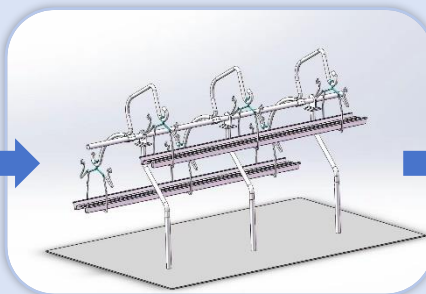
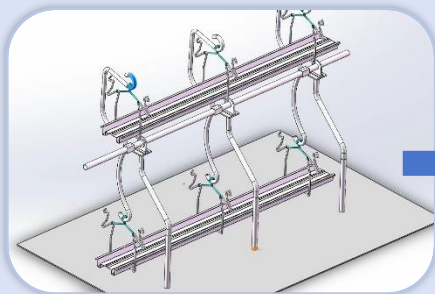
# 成套种植系统——浆果类（旋转式）

GROWING SYSTEM SET—Berries (Rotary Type)



## Advantages of Rotating Strawberry Systems

The rotary strawberry system uses layered 3D cultivation to save space. Sufficient light ensures even coloring and a marketable fruit rate over 93%. Hanging fruits allow easy picking, ideal for sightseeing agriculture. Yield increases by over 30% compared to flat planting.



## Patent application



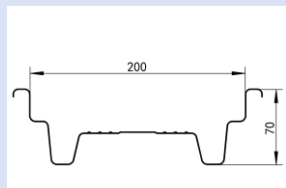
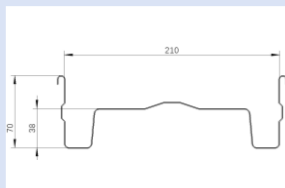
申请号或专利号：202422934857.2

发文序号：2025091000101650

申请人或专利权人：常州常森园艺科技有限公司

发明创造名称：一种旋转升降式草莓种植架

## 槽体介绍



440A / 400B Hydroponic Trough

Recommended crops: Tomatoes, strawberries, blueberries, cucumbers, cut flowers, raspberries, herbs.

# 成套种植系统——双排切花

GROWING SYSTEM SET—Double-row Cut Flowers

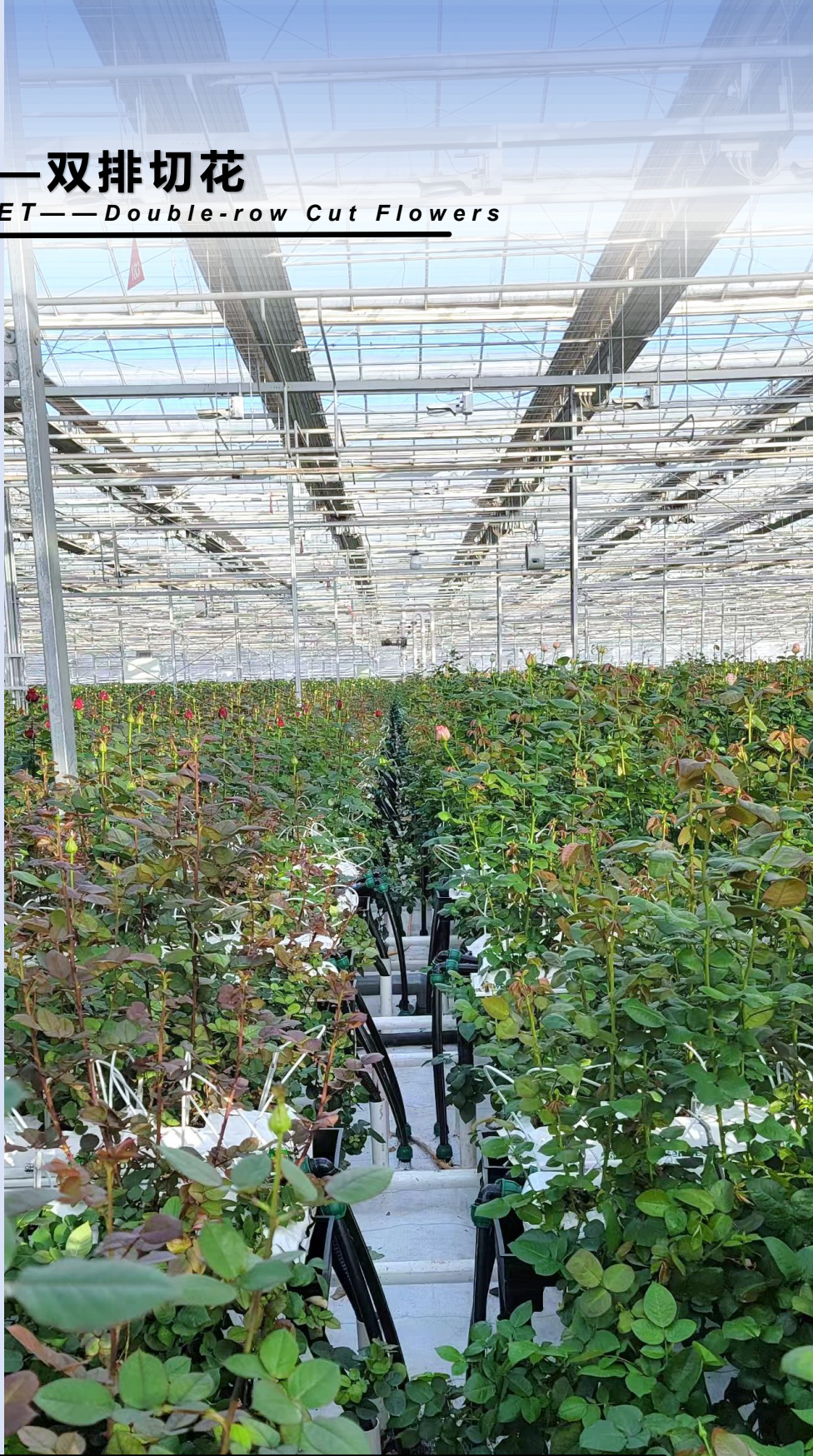
## Double-row Cut Flower Cultivation Trough System

The system consists of cut-flower planting troughs and trough supports.

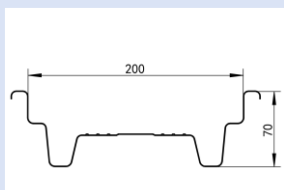
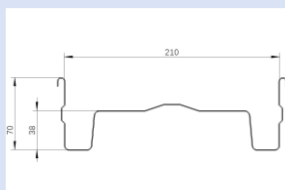
The troughs are made of color-coated coil with a thickness of 0.7 mm.

The bottom of each trough is designed with integrated drainage guide grooves, equipped with a drain outlet on one end and a plug on the other.

A slight slope ensures smooth drainage and prevents root rot. The supports feature a full-length bottom plate design, ensuring overall structural stability.



### 槽体介绍



#### 440A / 400B Hydroponic Trough

Recommended crops: Tomatoes, strawberries, blueberries, cucumbers, cut flowers, raspberries, herbs.

# 成套种植系统——双排切花

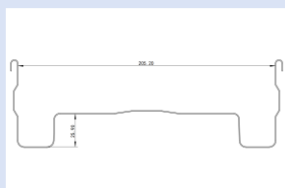
GROWING SYSTEM SET—Double-row Cut Flowers



High unit area yield and economic return. For instance, roses and gerberas both yield 280–350 stems/m<sup>2</sup> per year. It supports large-scale standardized cultivation with controlled facilities, intensive harvesting, short cycles and year-round supply. With large consumption, cut flowers have broad market prospects. Despite high upfront investment and certain risks, they bring high economic benefits.



## 槽体介绍



400A Hydroponic Trough

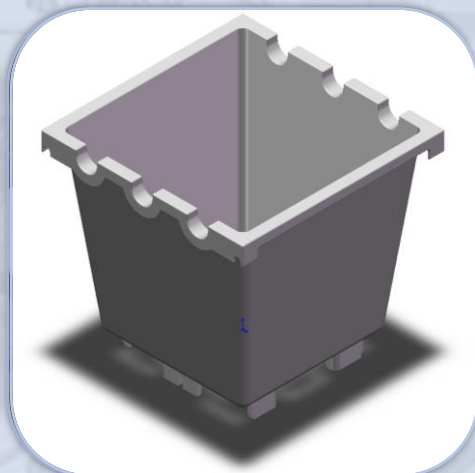
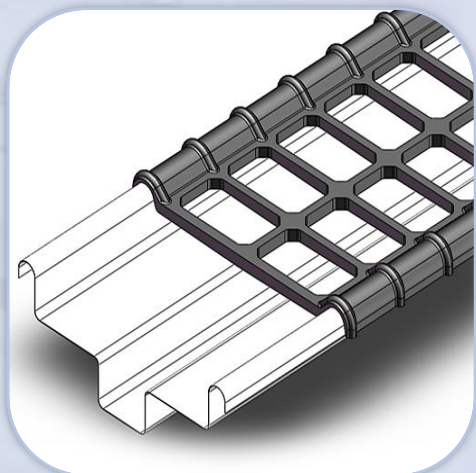
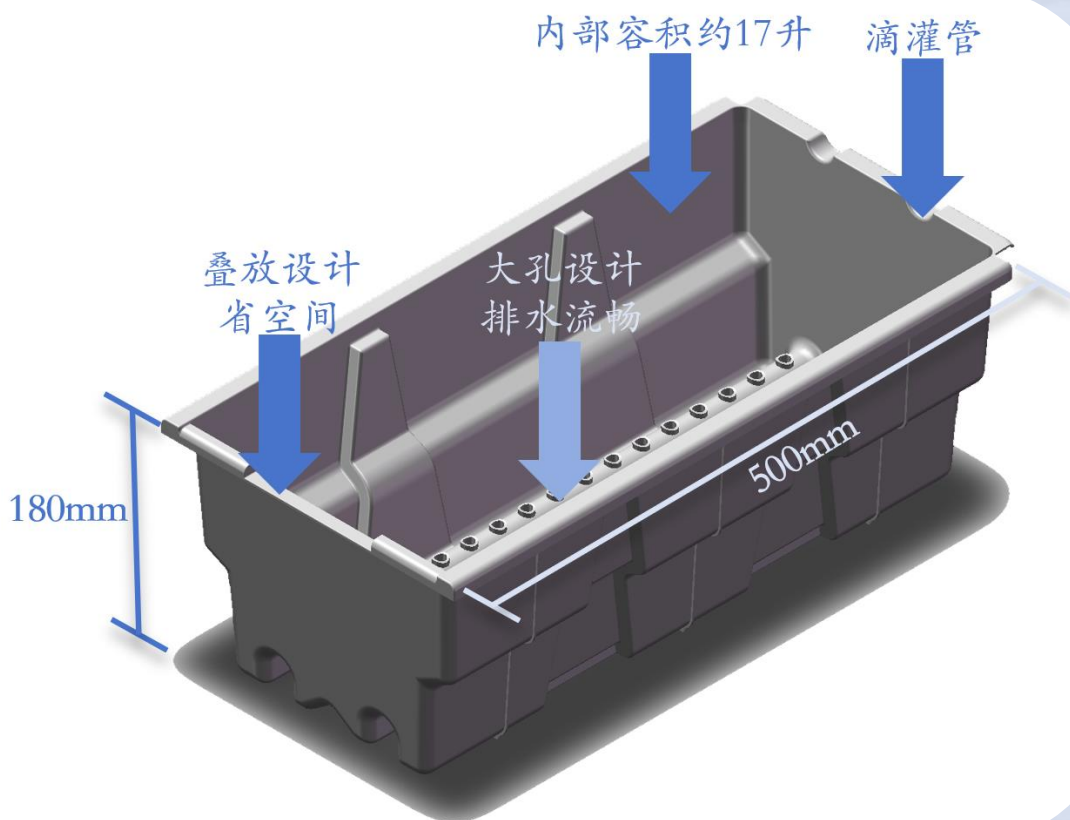
Recommended crops: cut flowers, herbs, raspberries, cucumbers, blueberries

# 塑料产品——种植容器

PLASTIC PRODUCTS—Growing Containers

## Product Features

**Soil Control:** Customizable soil mixes (pH, fertility, drainage) for different plants, free from field soil limitations. **Root Environment:** Frost-sensitive plants can be moved indoors in cold regions; sun scorch can be avoided in hot summers. **Seasonal Adjustment:** Sun-loving plants can face sunlight, while shade-loving plants can be placed in cool areas.



# 暖通与支架——种植支架

PIPE RAILWAY SUPPORT—Growing Stands



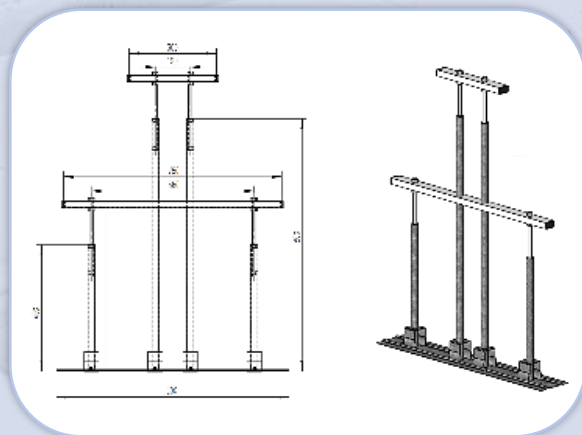
### Double-row Support

Double-row support is a common structure for cultivation troughs. It holds two planting troughs on one support, improving space utilization and enabling higher planting density per unit area.



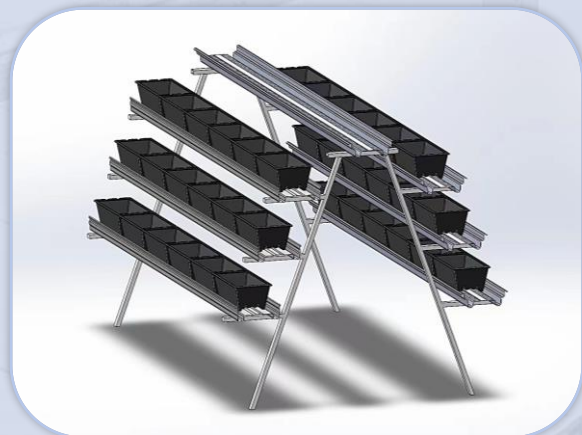
### Single-row Support

Single-row standard support is the most commonly used support in rack-mounted planting systems. Each support holds one trough, with adjustable height and customizable design to fit different trough types and terrains.



### Triangle Support

In greenhouses, triangular pin racks are often used for stable cultivation of strawberries, tomatoes and other crops, effectively supporting and securing growing troughs.

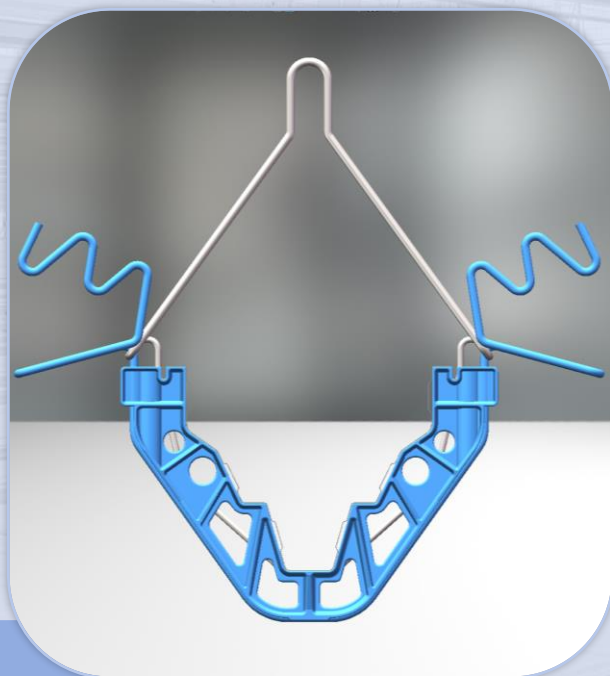


### A-frame Support

The A-frame soilless cultivation rack comprises supports, fixed troughs and an open water supply system. Its A-shaped structure holds multiple troughs for full space utilization.

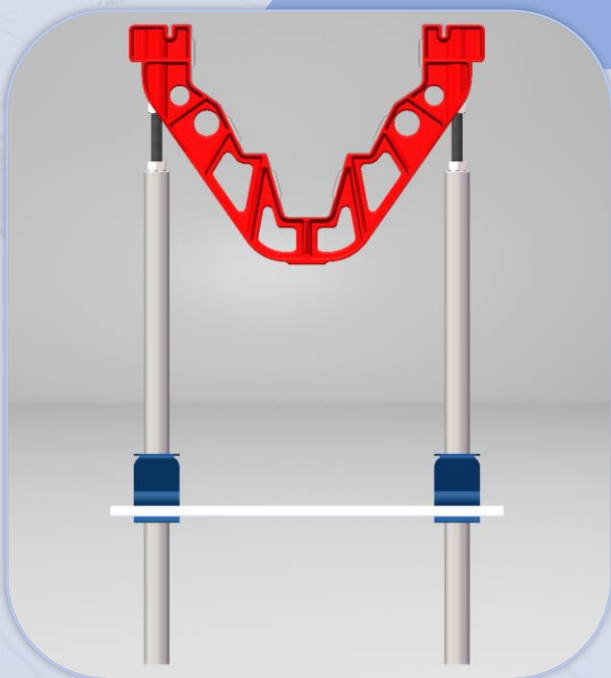
# 暖通与支架——种植支架

PIPE RAILWAY SUPPORT——Growing Stands



## V-shaped black hanging support bracket

Made of high-strength black injection-molded material, it features stable structure and light weight. Designed for both hanging and supporting of planting troughs, with metal screw components for easy installation and reliable load capacity. It provides efficient support for planting systems and creates a neat, orderly planting space.



# 暖通与支架——轨道车支架

PIPE RAILWAY SUPPORT——Rail Car Support

序号	名称	高度	管径	参数	重量区间 (kg)
1	轨道车支架 (标准窄底板)	150/100	48/51	1.5/2mm Z275	1.66-1.69
2	轨道车支架 (标准款底板)	150/100	48/51	1.5/2mm Z275	1.74-1.8
3	轨道车支架 ( $\geq 2\text{kg}$ )	150/100	48/51	1.5/2mm Z275	2.00-2.09
4	轨道车支架 (三折叠)	150/100	48/51	1.5/2mm Z275	2.02-2.1
5	轨道车支架 (分体固定管卡)	150/100	48/51	1.5/2mm Z275	1.74-1.8
6	轨道车支架 (高度可调型)	-	48/51	1.5/2mm Z275	*
7	通长轨道支架 (无长度限制)	150/100	48/51	1.5/2mm Z275	*



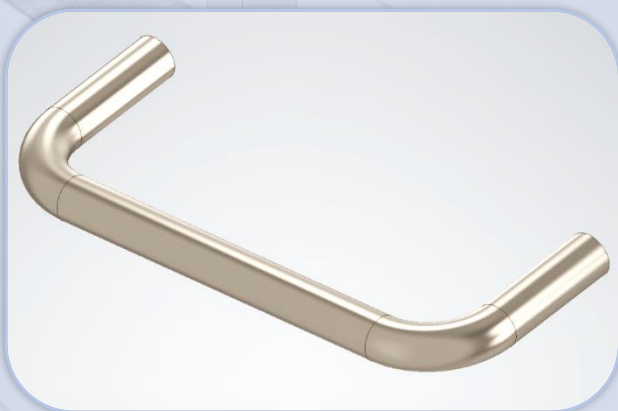
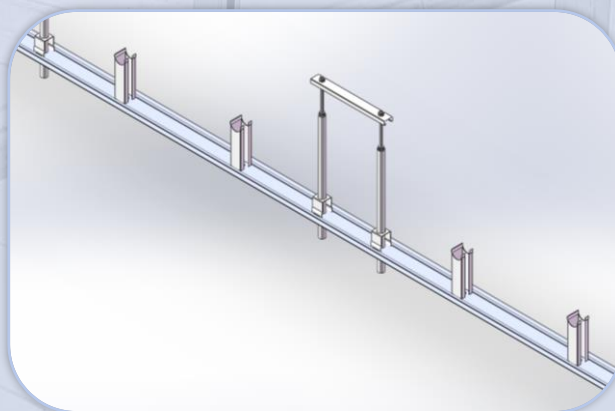
## Rail Support

Rail supports are typically made of high-strength steel to ensure load-bearing capacity and durability.

They are widely used in greenhouses requiring mobile automated equipment, such as rail systems for harvesting carts, helping to improve picking efficiency.

## Full-length rail bracket

Hot-dip galvanized for corrosion resistance, with high-strength, anti-bending, anti-compression load-bearing structure. Widened base increases ground contact by 60%, ensuring stable heavy-load transport. Rail slot diameter is customizable (standard 48mm), compatible with over 90% of greenhouse rail cars.

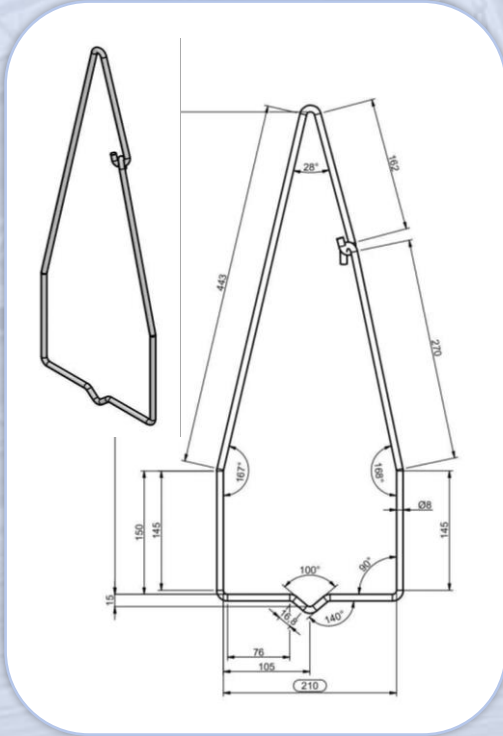


## Rail car elbow

Rail bends are components of the harvesting cart rail system that improve picking efficiency. They connect straight rail sections to form curved paths, adapting to various greenhouse layouts and equipment movement. Made of the same material as heating pipes for consistent overall strength. Sizes are customizable to meet different equipment requirements.

# 挂钩与线成型-各类温室线材3D生产加工

WIRE PRODUCTION-3D Production & Processing of Various Greenhouse Wires



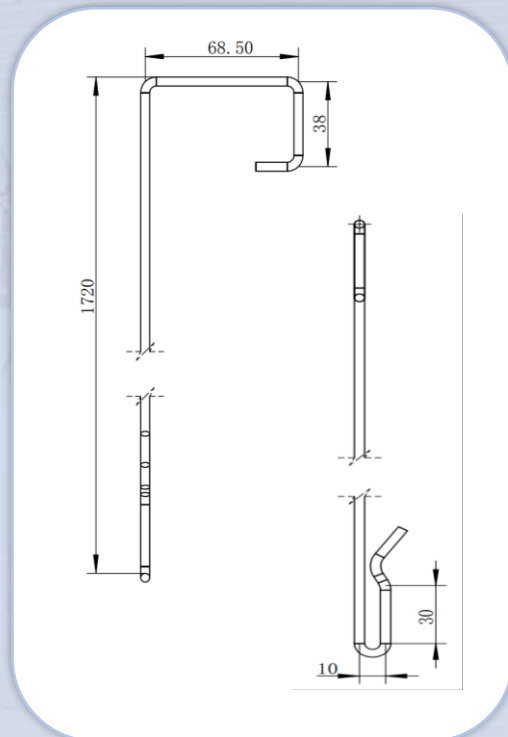
## Trough hook

Compared with similar products, the 8mm closed hook features a special design and material, offering greater safety margin and longer service life, making it a safer, more stable option for hanging troughs.



## Wire hook

Made from 5mm diameter steel wire, these hooks feature adjustable and lockable functions, allowing users to flexibly adjust the length according to actual installation needs.



# 特殊配件——硫磺熏蒸器

SPECIAL PRODUCTION—Electric Sulfurator



## Technical Parameters

Multiple heating modes for fast heating and quick pest elimination. Covers up to approx. 90 m<sup>2</sup>. Various tank sizes, colors and power options fit different greenhouses. Covers plants rapidly to remove pests and pathogens thoroughly. Uses natural sulfur with no harmful chemical residues.

Report No.: HTT20250374LR

Name and address of the testing laboratory: Shenzhen HTT Technology Co., Ltd.  
1F, B Building, Huafeng International Robotics Industrial Park, Gushu, Xixiang Street, Bao'an District, Shenzhen

Test by: Derek Wang Mar. 25, 2025  
Signature Date

Review by: Andy Shen Mar. 25, 2025  
Signature Date

Approved by: Kevin Yang Mar. 25, 2025  
Signature Date

Kevin Yang/Manager  
Name and Title

Complies with CE-LVD,  
passes all tests.

## Main Diseases to control and time of operation

Disease/Time	Contamination	Operation time (hours)
Powdery Mildew/8h	High	Roses Strawberries/Pepper – sensitive
Powdery Mildew/4h	Low	Tomatoes Pepper
Natural enemies/4h	----	Persimillis - to control spider mites Orius - to control trips
Heating logic	Voltage	Watt
PTC	220V/230V	65/100/500 (Instant)
FIR	220V/230V	100/160/420 (Instant)
Resistance wires	220V/230V	120/260 (Instant)
Graphene	220V/230V	

# 特殊配件——绕线筒、轴承座与动滑轮

SPECIAL PRODUCTION——Spool drums, bearing housings and movable pulleys

## Winding drum

Specially developed for greenhouses, ideal for cultivation troughs. Improves processing performance, resists acid-alkali corrosion, condensation and fouling. Holds approx. 8m rope, suitable for most greenhouses.



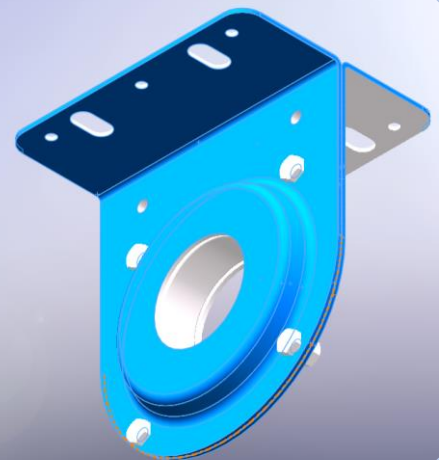
3000 Abrasion Tests

## Bearing housing

Built-in self-aligning bearings automatically adapt to on-site deviations and changing greenhouse conditions.

## Fan pressure relief valve

Set pressure:  $1.1-1.2 \times$  fan rated pressure. Discharge capacity: matches fan displacement for fast relief.



## moving pulley

The movable pulley system saves effort and shares bearing seats, reducing bearing quantity and cost. Limit components lock height for consistency; adjustable components enable precise setting.

# 水培系统

HYDROPONICS

## 深流技术

(Deep Flow Technique)



## 营养膜技术

(Nutrient Film Technique)



## 浮筏系统

(Floating Raft System)



### Complete hydroponic system

This hydroponic system integrates three core technologies with standardized modular design for efficient, flexible planting. Easy to install and maintain, it adapts to various crops and scenarios. Ideal for commercial production, research and home gardening, delivering stable, high-yield and sustainable soilless cultivation solutions.

# 苗床产品

## SEEDLING TRAY PRODUCTS



### Features of Tracked Seedbed

Water-saving & even irrigation: Saves 30%–70% water vs. top irrigation, ensuring uniform water supply.

Less disease: Bottom watering keeps leaves dry, lowering disease spread risk.



### Concept of 3D Rotating Seedbed

The three-dimensional rotating seedbed combines vertical cultivation and automatic rotation to improve crop growth efficiency and space utilization.

# 全自动灌溉设备

## FULLY AUTOMATIC IRRIGATION EQUIPMENT



### Working principle

Ebb and flow irrigation: Periodic flooding, capillary nutrient supply, recycling.

Nutrient solution: Auto-adjusted ratio for balanced nutrition.

Automatic control: Real-time growth monitoring via imaging & sensors.

### Technical features

Water & fertilizer efficient: Precise control, less waste.

Highly automated: Labor-saving, efficient.

Flexible & modular: Expandable.

Widely adaptable: For varied climates & soils.





**常森园艺**  
CHANSCEN

**案例展示**  
CASE SHOW



2026.04 | Alxa, Inner Mongolia |  
Suspended Tomatoes



2026.03 | Pudong, Shanghai |  
Elevating Strawberries



2026.03 | Pinghu, Zhejiang |  
Staked Tomatoes



2026.02 | Binhai, Yancheng |  
Elevating Strawberries



2025.12 | Chiayi, Taiwan |  
Elevating Strawberries



2025.11 | Baoding, Hebei |  
Staked Tomatoes



2025.10 | Fuping, Shaanxi |  
Elevating Strawberries



2025.09 | Shuanghe, Xinjiang |  
Suspended Tomatoes



**常森园艺**  
CHANSCEN

## 案例展示

CASE SHOW



2025.06 | Yinchuan, Ningxia |  
Double-Row Cut Flowers



2025.05 | Yuxi, Yunnan |  
Suspended Tomatoes



2025.04 | Wanzhou, Chongqing |  
Staked Tomatoes



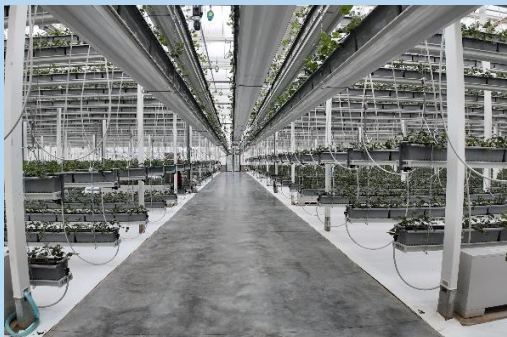
2025.03 | Changji, Xinjiang |  
Suspended Tomatoes



2025.01 | Jinshan, Shanghai |  
Semi-Closed Blueberries



2024.12 | Fugou, Henan |  
Suspended Tomatoes



2024.10 | Wujiaqu, Xinjiang |  
Strawberry Growing System



2024.07 | Eryuan, Dali |  
Suspended Tomatoes

常州常森园艺科技有限公司

Changzhou Chanscen Horticultural Technology Co., Ltd.



常森园艺



微信搜一搜

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