

# SKALA

## SELF-CLIMBING SYSTEM - PROTECTION PLATFORM

The self-climbing system, made of hot-dip galvanized steel, is designed for safe and efficient use in construction projects. Once erected at a certain height and anchored to the structure, it operates using integrated lifting equipment that enables it to ascend or descend in sync with each construction stage.

The system provides continuous safety protection with features including anti-tilting, anti-falling, and synchronized climbing mechanisms. It is composed of several main elements: the platform structure, lifting system, power equipment, and anti-fall devices.

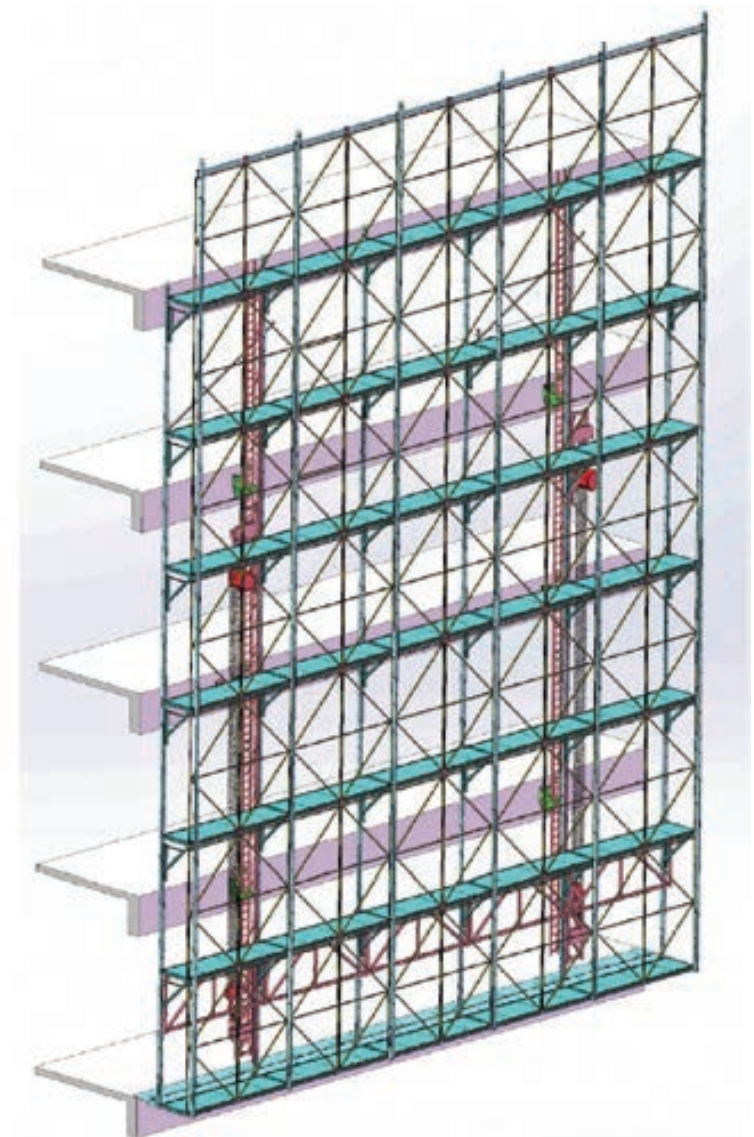
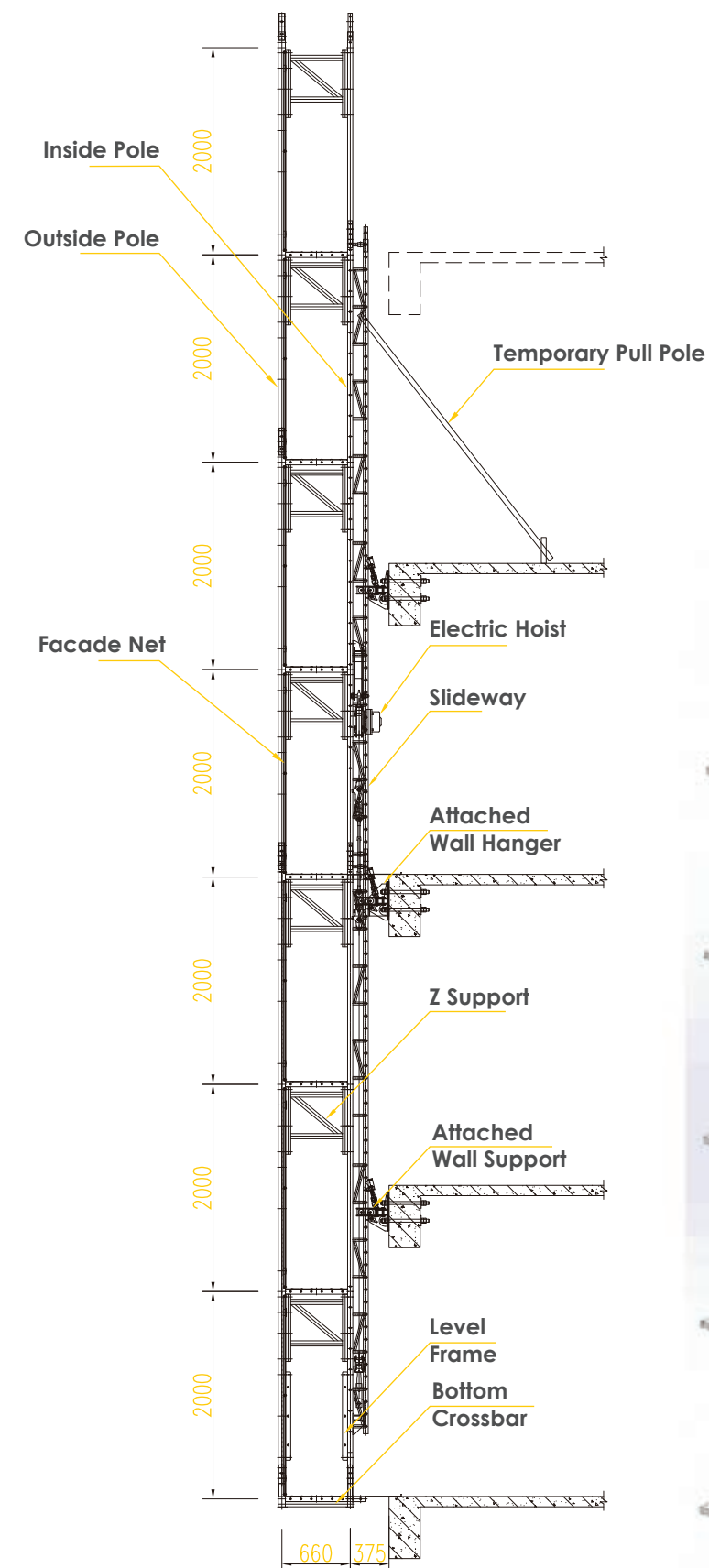
### FOUR MAIN PARTS



### DESIGN DIRECTION



### DESIGN CONCEPT



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## PRODUCT INTRODUCTION

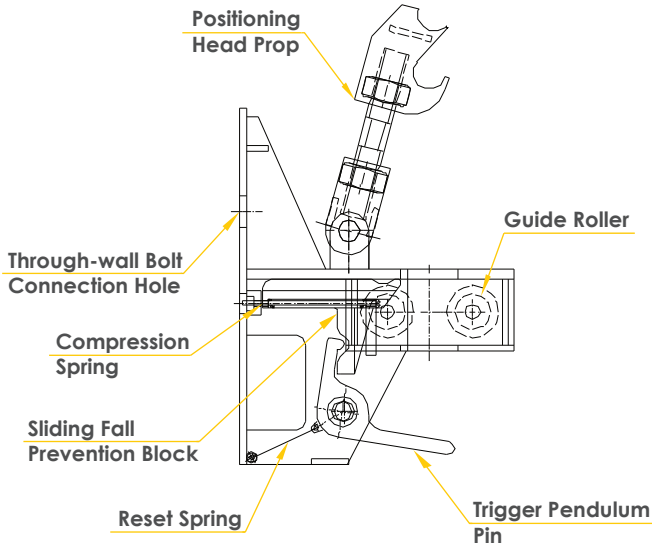


ELECTRIC HOIST PARAMETER TABLE

Model	DHP 7.5
Gnt-Rated Load (Gnt)	7.5t
Motor Model	YPEF 400-6Z
Motor Power	400
Power Supply	380V/50HZ
Lifting Speed (cm/min)	10
Number of Lifting chain (n)	4
Standard Lifting Height (m)	3-9
Lifting Chain Dia. (mm)	10
Net Weight (kg)	135
Gross Weight	140
Packaging Dimensions (cm)	60 x 60 x45
Weight Ijncrease per Meter of Lifting Height (kg)	8.4

## ATTACHED SUPPORT DEVICE

The attachment support is the connecting device between the frame structure and the building structure. It performs several essential functions, including load-bearing, lifting guidance, anti-tilting, and fall prevention. As such, it is considered one of the most critical components within an attachment-based lifting scaffold system. Its reliability directly affects the overall safety and stability of the climbing platform during operation. Designed for durability and precision, the attachment support ensures that construction activities can progress smoothly at greater heights with minimized risks.










## LIFTING SYSTEM

The lifting system utilizes a vertically-mounted circulating lifting device, designed to ensure efficient and reliable elevation of the scaffold structure. This device is composed of several key components, including upper and lower suspension point trusses, wall-mounted suspension brackets, electric hoists, hoist sprocket assemblies, adjustable turnbuckles, and adjustment springs. The system functions by suspending the electric hoist body from the upper truss of the scaffold. The lower hook of the hoist connects to the lower truss, while the chain end is secured to a wall-mounted suspension point. Through its circulating chain mechanism, the hoist enables continuous lifting without the need for manual repositioning, resulting in a smooth, uninterrupted lifting operation. This setup minimizes downtime, enhances safety, and ensures that the scaffold structure can climb in precise synchronization with construction progress.



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Smart Host	Control Substation	Mobile APP Monitoring Software
		
Signal Cable	Data Cable	Gravity Sensor
		
Main Power Cable	Main Remote Control	Sub Remote Control

## CONTROL SYSTEM

- Each main unit allows only one mobile device to connect as the designated master controller, ensuring secure and stable operation.
- The master control device provides full access to all functions of the main unit while enabling real-time monitoring of system data.
- The mobile application for master control supports both graphical and numerical data display, and includes voice alerts to immediately notify users of any system faults or abnormalities. This setup enhances operational efficiency, improves user safety, and ensures timely response to potential issues.



## DETAILS OF THE CLIMBING SYSTEM



Internal Passage



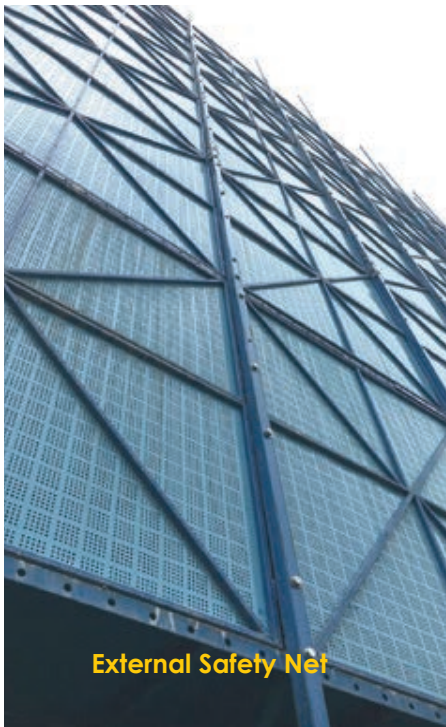
Electric Hoist



Lower Suspension Point Installation



Scaffold Plank



External Safety Net



Wall Attachment Support



Connection between Horizontal Trusses and Vertical Poles

The synchronization control device is composed of a main control box, sub-control boxes, sensors, a remote control unit, and a mobile monitoring terminal. Together, these components ensure coordinated and secure operation of the lifting system.

1. Main Control Box – Regulates the simultaneous lifting and lowering of the entire set of scaffolding points, maintaining uniform movement across the system.
2. Sub-Control Boxes – Manage individual lifting devices while transmitting real-time load signals to the main controller housed in the main control box.
3. Sensors – Continuously collect and transmit load values from each lifting point, ensuring accurate monitoring of system balance and safety in real time.
4. Remote Control Unit – Provides manual signal transmission, allowing operators to issue commands for start, lift, descent, and stop functions as needed.
5. Mobile Monitoring Terminal – Integrates data monitoring and functional control, delivering a comprehensive overview of the system's operational status through both graphical and data displays.

This setup ensures precise synchronization, minimizes risks, and enhances safety and efficiency in scaffold lifting.



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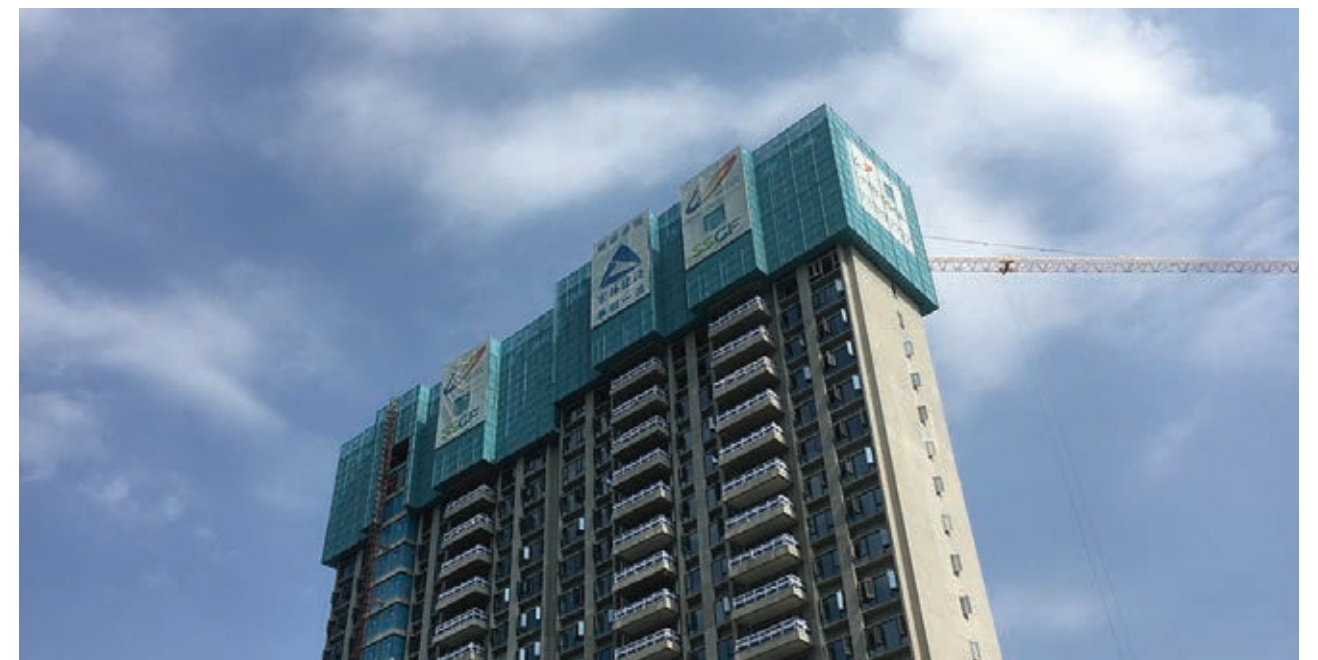
Hongkun Livable Jade Garden Project



Changsha Jiazhaoye Project



Hainan Ecological Software Park Phase II Project



Hongkun Livable Jade Garden Project



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01

## COMPACT STRUCTURE

The wall attachment support integrates fall prevention, anti-tilting, and guidance functions into a single unit, ensuring stable operation with high sensitivity and dependable safety performance.

02

## SAFE & RELIABLE

The lifting system uses a direct hanging and cyclic Igiffin method, employing a chain hoist to achieve a stationary electric hoist, ensuring safety and reliability.

03

## USER-FRIENDLY

With visual intelligent synchronization control, overload, and loss-of-load fault protection, the system is simple to operate.

04

## USER-FRIENDLY

The internal structure of the scaffolding is fully sealed with clear passageways at each level. The exterior is aesthetically pleasing and meets safety and civilized construction standards.

05

## SAVE TIME & LABOR

The scaffolding structure is simple and reliable in terms of load-bearing, offering sufficient rigidity and strength. It is lightweight and easy to operate, saving time and labor.

06

## QUALITY GUARANTEED

All components are factory-customized, ensuring the strength and rigidity of the scaffolding elements.

