GETO®

FORMWORK & SCAFFOLDING EXPERT
ECO-SMART CONSTRUCTION
1+N INTEGRATED SOLUTIONS

Chinese Listed Company
Stock Code: SZ 300986

AUTOMATIC HYDRAULIC CLIMBING FORMWORK SYSTEM

自动液压爬升模板系统

COMPANY PROFILE
公司介绍

GETO is mainly engaged in green construction and new energy. Green prefabricated building products include aluminium formwork, steel formwork, steel-framed timber formwork, climbing systems, fair-faced concrete formwork, infrastructure formwork and scaffolding products; prefabricated steel structures, assembly precast concrete components, and modular building (including PC and steel structures). The main focus of new energy is investment, construction, and operation of "Photovoltaics, Storage, and Charging" projects, while providing the "Green Energy Future Living" one-stop residential energy solution.
In 2021, GETO was listed on the ChiNext board of the Shenzhen Stock Exchange in China. We have established 12 production bases around the world and registered 32 international trademarks in different countries and regions.

志特集团主营绿色装配式建筑和新能源两大板块。
绿色装配式建筑包括：铝模，钢模，钢框木模，爬升式模架，清水混凝土模架，公基建类模架；装配式建筑钢结构，装配式建筑 PC，模块化房屋 (包括 PC、钢结构两大类)。
新能源主营工商业“光、储、充”项目投资、建设、运维，“绿能未来居”一站式家庭能源解决方案。
“志特新材”于 2021 年在 A 股创业板挂牌上市，目前已在全球设立 12 大生产基地，在 32 个国家和地区注册了“GETO®”国际商标，产品和服务遍及全球。

CONTENTS
目录

PROFILE
简介

GTP100 Automatic hydraulic climbing formwork system is a construction technique that includes the climbing bracket, formwork, platform system, and suspension bracket, which are attached to the concrete structure.
Once the formwork is stripped off from the shaped concrete, it driven by the hydraulic cylinders and guided by the climbing rail, the brackets climb up to the next level, repeating this cycle for the construction process.
The formwork is integrated with the climbing brackets, moving forward and back together with the travelling units, thus significantly reducing labor costs. The enclosed construction environment effectively prevents falls from heights.
Suitable for large structures such as internal shafts, facade walls, core, shear walls, massive columns, bridge towers, signal towers, and silos.

GTP100 自动液压爬升模板系统是一种包括爬升架、模板、操作平台及吊架等，附着在混凝土结构上，当新浇筑的混凝土脱模后，以液压油缸为动力，以导轨为爬升轨道，将爬模架体向上爬升一层，反复循环作业的施工工艺。
竖向墙体模板随爬升架体整体爬升，整体合模和退模，大大降低人工成本；封闭的施工环境，有效避免高空坠物。
适用于建筑内井筒、建筑外墙、核心筒、剪力墙、巨型柱、桥塔、信号塔和筒仓等大型构筑物。

APPLICATION
产品应用

OPERATING CONDITIONS
使用条件

Conditions for climbing formwork construction and climbing
爬模允许施工、爬升的条件

- No severe weather conditions (e.g., thunderstorms, rain, snow, fog, frost, haze, or hail) during operation.
  运行时无雷、雨、雪、雾、霜、霾、冰雹等恶劣气象条件。
- Basic wind pressure does not exceed level 5 (approximately 24.5-28.5 m/s) .
  基本风压不大于 5 级风（约 24.5-28.5 米 / 秒）。

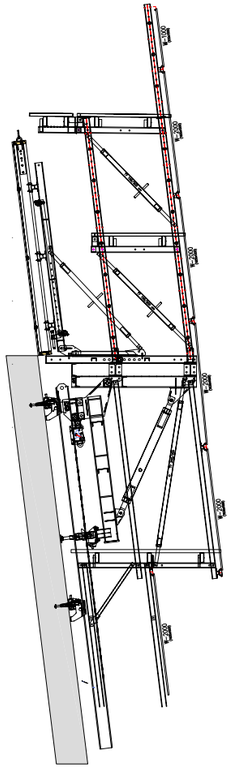

UDC
中华人民共和国行业标准 JGJ
JGJ/T 195－2018
P 备案号 J 987－2019
液压爬升模板工程技术标准
Technical standard for the hydraulic climbing formwork engineering
2018－12－06 发布 2019－06－01 实施
中华人民共和国住房和城乡建设部 发布

In wind speeds over level 7 (approximately 13.9-17.1 m/s) , typhoon reinforcement measures are required for the climbing formwork bracket.
在风速超过 7 级风（约 13.9-17.1 米 / 秒）的情况下，爬模架体须做防台风加固措施。

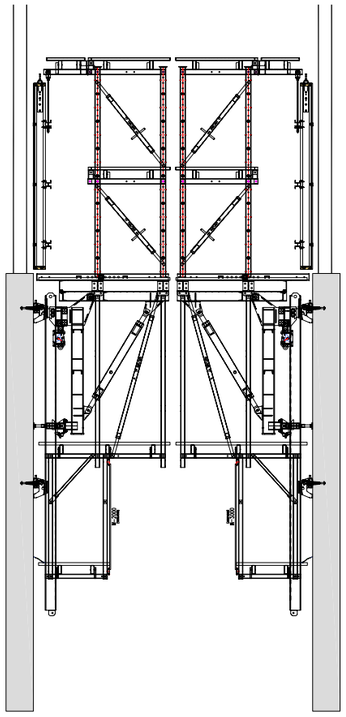
Note: Referring to the technical standards outlined in the "Technical Standard for the Hydraulic Climbing Formwork Engineering" of the People's Republic of China.
注意：参照中华人民共和国《液压爬升模板工程技术标准》文件标准。

APPLICATION
产品应用

PRODUCT SYSTEM
产品体系



Inclined climbing type
倾斜爬升型式



Hanging formwork type
悬挂模板型式

FEATURES AND ADVANTAGES
特点和优势

SAFETY
安全性

- Fully steel-hardened design improves the structural stability, reliability, and fire resistance of climbing bracket.
  爬模采用全钢化设计，提高了架体自身稳定性、可靠性、防火性。
- Formwork retraction gear reduces construction risks and effectively prevents grout leakage from the formwork traveling device.
  爬模采用齿轮齿条后退模板的退模形式，降低施工危险性，有效防止退模装置漏浆。
- Climbing bracket utilizes fully enclosed steel protective screening.
  架体采用全封闭钢防护网结构。
- Vertical and inclined hydraulic climbing options ensure a smooth, synchronous, and safe.
  可竖直爬升、斜爬，液压爬升过程平稳、同步、安全。
- Rebar installation platform is synchronized with climbing, ensuring safe operations.
  钢筋绑扎随升随绑，操作安全。

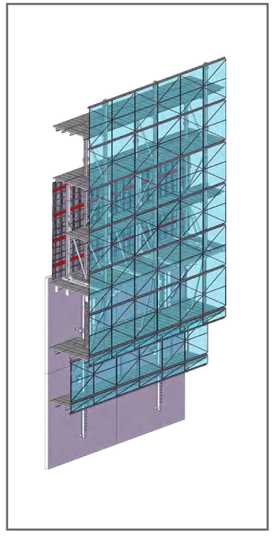
HIGHLY COST-EFFICIENT
经济适用性

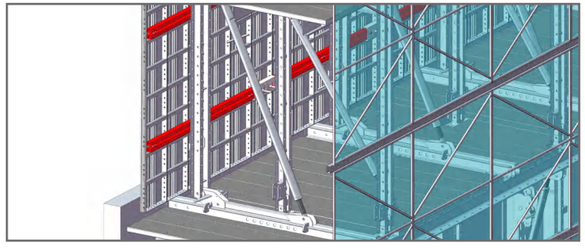
- Providing all-round operational platforms saves materials and labor.
  提供全方位的操作平台，节省材料和劳动力。
- After low-level assembly, the climbing bracket continuously climbs to the top, reducing formwork damage.
  爬模架体在低处一次组装后，一直运行使用爬升到顶，减少模板损毁。

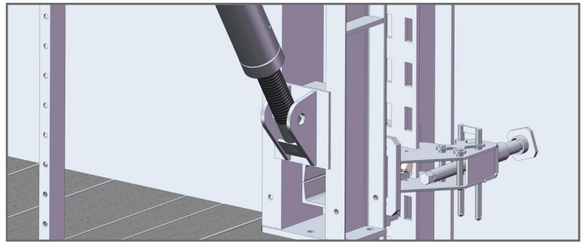
FEATURES AND ADVANTAGES
特点和优势

CONVENIENCE
便利性

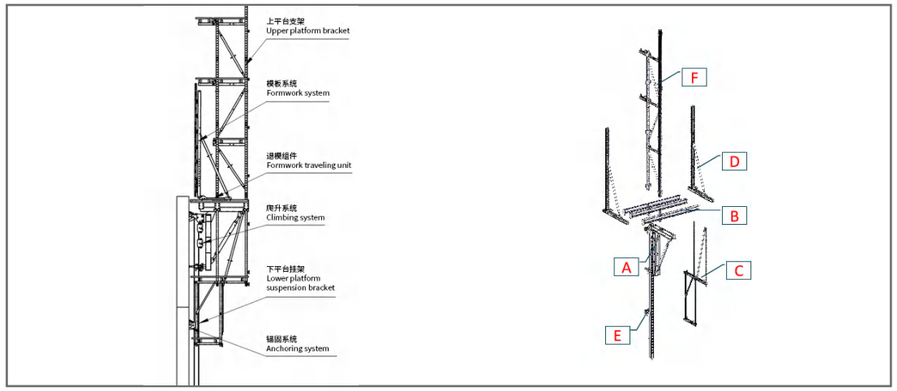
- Modularizing the protective screening for easy installation and transportation.
  将防护网模块化，方便安装及运输。
- Each platform are fully steel-hardened, modular pedals for convenient transportation and easy installation.
  各平台踏板采用全钢化、模块化踏板，运输方便，安装简便。
- The climbing formwork self-climbing with formworks, enabling direct adjustments and cleaning on the climbing bracket, without requiring crane lifting, scaffolding, or level-by-level alignment.
  爬模携带模板自爬升，在架体上清理调整模板，不需塔吊吊装模板或架体 , 也不需要层层放线和搭设脚手架。
- The bracket can be climbed both integratedly or separately.
  爬升架体可整体爬升，也可分片爬升。







COMPONENTS
产品构件组成



A Climbing system: climbing rail, hydraulic cylinder, lifting mechanism, climbing head, vertical profile, main horizontal profile, diagonal bracing spindle strut, supporting carriage.
爬升系统：导轨、液压油缸、提升装置、爬升挂头、竖杆、主水平杆、斜撑轴杆、顶墙支座

B Main platform beam: H200 beam, 20# U channel beam.
主平台梁：H200 梁、20# 槽钢梁

C Lower platform hanging bracket: -1F vertical suspension profile, -1F horizontal profile, diagonal bracing, -2F vertical suspension profile, -2F horizontal profile.
下平台挂架：-1 层竖吊杆、-1 层水平杆、斜撑杆、-2 层竖吊杆、-2 层水平杆

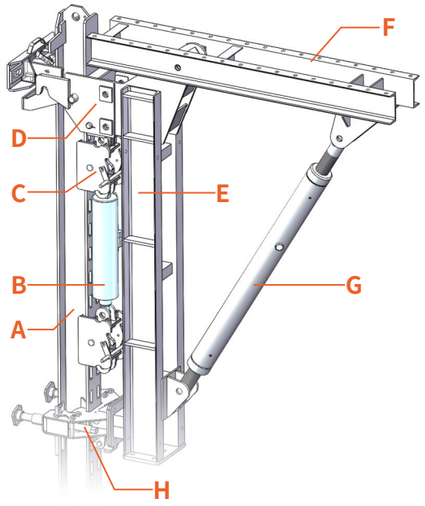
D Formwork traveling unit: vertical waler, horizontal profile, diagonal bracing spindle strut.
退模组件：竖背楞、水平杆、斜撑轴杆

E Anchoring system: attachment support, embeded climbing cone, M36 screw, stop anchor, sealing sleeve.
锚固系统：附着支座、预埋爬锥、M36 螺栓、止动埋件、密封胶套

F Upper platform bracket: upper platform vertical profile, upper platform horizontal profile, diagonal bracing, flip platform horizontal profile.
上平台支架：上平台竖杆、上平台水平杆，斜撑杆、翻转平台横杆

COMPONENTS
产品构件组成

CLIMBING SYSTEM
爬升系统



- **A** Climbing rail 导轨
- **B** Hydraulic cylinder 液压油缸
- **C** Lifting mechanism 提升装置
- **D** Climbing head 爬升挂头
- **E** Vertical profile 竖杆
- **F** Main horizontal profile 主水平杆
- **G** Diagonal bracing spindle strut 斜撑轴杆
- **H** Supporting carriage 顶墙支座

COMPONENTS
产品构件组成

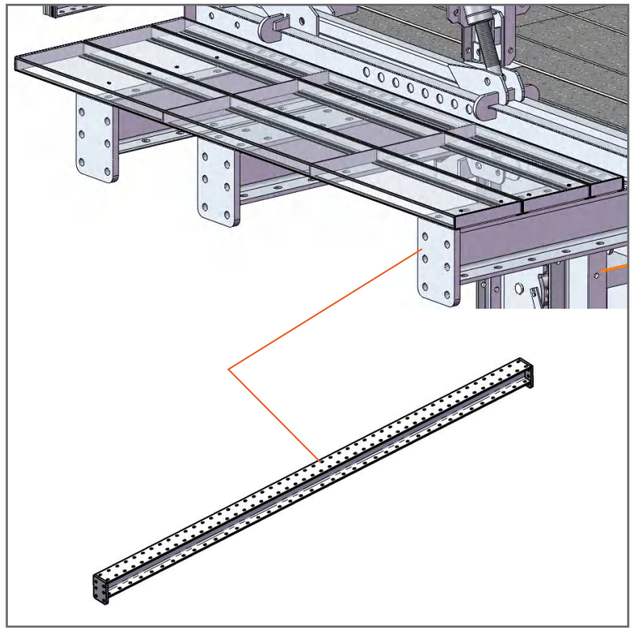
TECHNICAL DATA OF CLIMBING SYSTEM
爬升系统技术参数

S/N 序号	Item 项目	Specification 设计值	Remark 备注
1	Climbing Distance per Stroke 每个行程爬升距离	150mm	
2	Hydraulic Cylinder Stroke 油缸行程	250mm	
3	Maximum Climbing Height 最大爬升高度	5.5m	Add support in the middle of the climbing rail, otherwise it is 4.5m. 导轨中间加支撑，不加为 4.5m。
4	Maximum Lifting Capacity 最大提升能力	100kN	

COMPONENTS
产品构件组成

MAIN PLATFORM BEAM
主平台梁

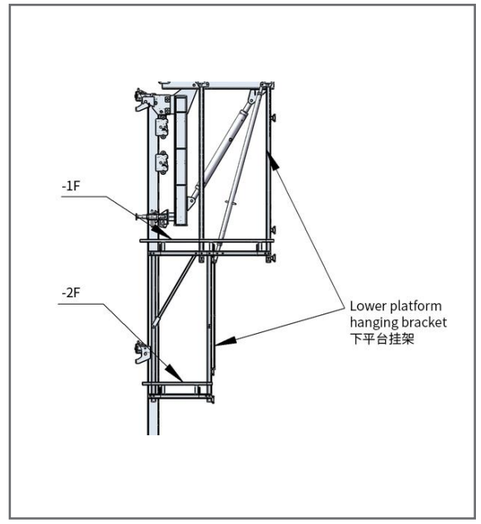
- Primary load-bearing components: H200 beam & 20# U channel beam.
  主要受力构件由 H200 梁和 20# 槽钢梁构成。
- H200 beam supports upper and lower platform loads, while the 20# U channel beam supports formwork weight.
  H200 梁承受上平台和下平台全部荷载，20# 槽钢梁承受模板自重。
- Modular design with 120mm hole spacing on the upper surface utilizing end flange connections for equal strength.
  模数化设计，上表面孔距 120mm 采用端头法兰连接，等强设计。

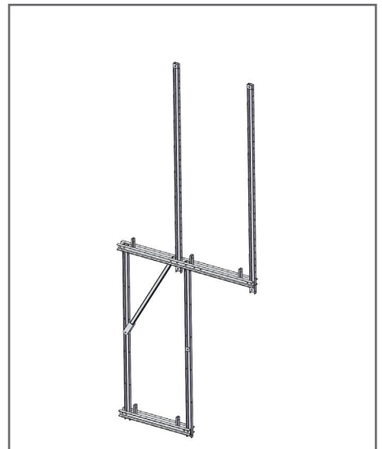


COMPONENTS
产品构件组成

LOWER PLATFORM HANGING BRACKET
下平台挂架

- Main materials: 8# U channel for vertical profile (single piece) and horizontal profile(double-pinned).
  主要材料均为 8# 槽钢，竖吊杆为单根，水平杆为双拼。
- The platform width is 2.4 meters on -1F and 1.3 meters on -2F.
  -1 层平台宽度 2.4m，-2 层平台宽度 1.3m。
- Replace diagonal bracing on -2F with diagonal bracing spindle strut to keep the platform horizontal when the climbing bracket tilts.
  -2 层斜撑杆可换成斜撑轴杆，在架体倾斜时保证平台始终处于水平状态。

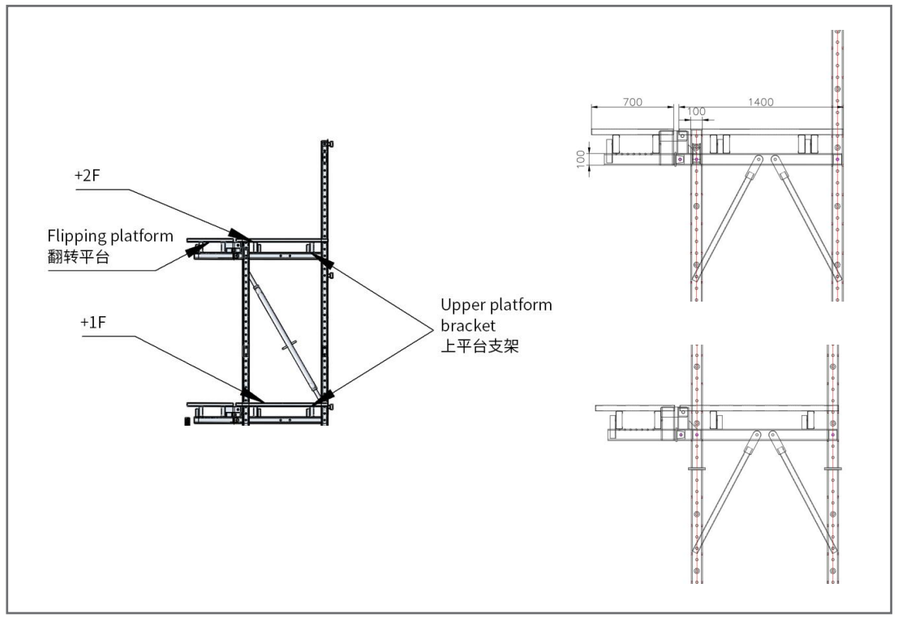




COMPONENTS
产品构件组成

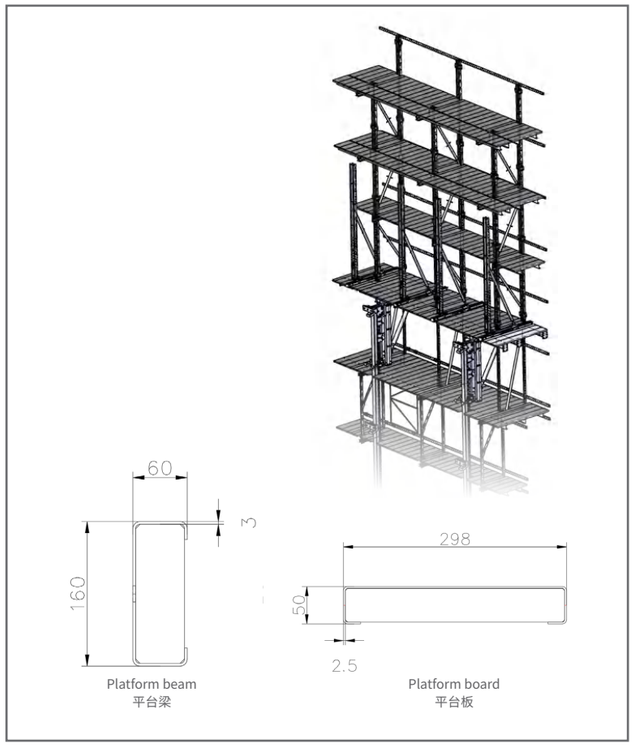
UPPER PLATFORM BRACKET
上平台支架

- Main materials: 10# U channel for vertical profiles (double piece) and horizontal profile (single piece).
主要材料均为 10# 槽钢，竖杆为双根，水平杆为单根。
- The platform width on levels +1F & +2F: 1.4 meters.
+1 层、+2 层平台宽度为 1.4m。
- Diagonal bracing spindle strut: 2m~2.5m.
斜撑轴杆 2m~2.5m 通用。
- The flipping platform enables direct lifting of formwork for replacement, facilitating construction and rebar binding.
翻转平台的作用为在模板需要更换时，模板可直接被吊出，便于施工和绑扎钢筋。



COMPONENTS
产品构件组成

PLATFORM BEAM, PLATFORM BOARD
平台梁、平台板



- The platform beams: C160x60x3, with modular lengths customizable to design requirements.
平台梁均为 C160x60x3，长度根据设计确定，可模数化。
- Standard platform boards: 300mm wide, 2mm thick. Non-standard widths: 150mm-400mm, 2mm thick.
平台板标准宽度为 300mm，非标为 150mm-400mm，厚度 2mm。
- Platform boards are affixed to beams using self-tapping screws.
平台板与平台梁使用自攻钉连接。

COMPONENTS
产品构件组成

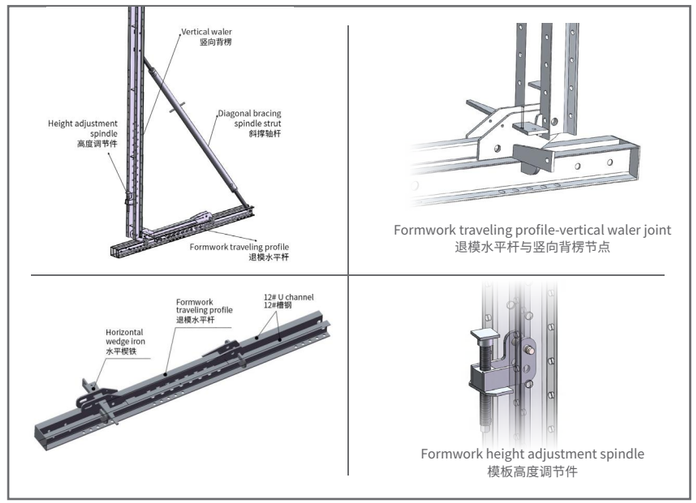
FORMWORK TRAVELING UNITS
退模组件

- The formwork traveling horizontal profile is made of 12# U channel, with detachable gears.
退模水平杆主要材料为 12# 槽钢，中间装有可拆卸齿轮。

- The vertical waler, made of double 12# U channel, supports formwork weight with height adjustment parts.
竖背楞为双 12# 槽钢组成，带有模板高度调节件，承受模板自重。

- Compatible with aluminium formwork, timber-beam formwork, and steel formwork, requiring replacement of hook screws and height adjustment spindles for the waler.
可搭配铝模、木梁模板、钢模，针对背楞需更换钩头螺栓和模板高度调节件。

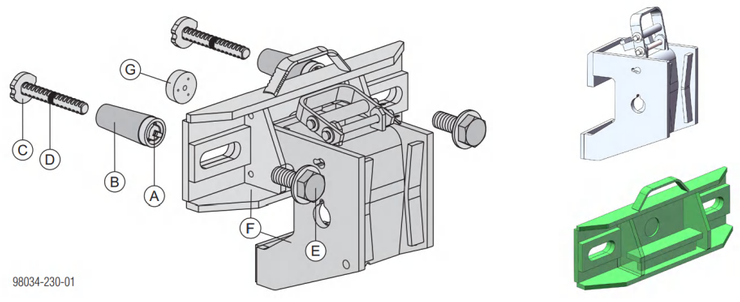
- Horizontal wedge irons snug formwork against walls, while vertical wedge irons secure formwork traveling components.
水平楔铁打紧可让模板紧贴墙面，竖向楔铁打紧可卡紧退模组件。



COMPONENTS
产品构件组成

ANCHORING SYSTEM
锚固系统

Suspending the climbing bracket head with a pin transfers the load to the structure. An upper irregular hole with a safety pin prevents accidental climbing bracket raising.
通过插销悬挂爬升挂头，将荷载传递到结构上，上部异形孔插入安全插销，防止误操作造成架体上升。



A Embedded climbing cone
预埋爬升锥

B Sealing rubber sleeve, consumable for one-time use
密封胶套，损耗件，一次性使用

C Stop anchor (screw welded steel plate) consumable for one-time use
止动埋件（螺杆焊接钢板），损耗件，一次性使用

D Depth mark
深度标识

E M36 high-strength flange screw
M36 高强法兰面螺栓

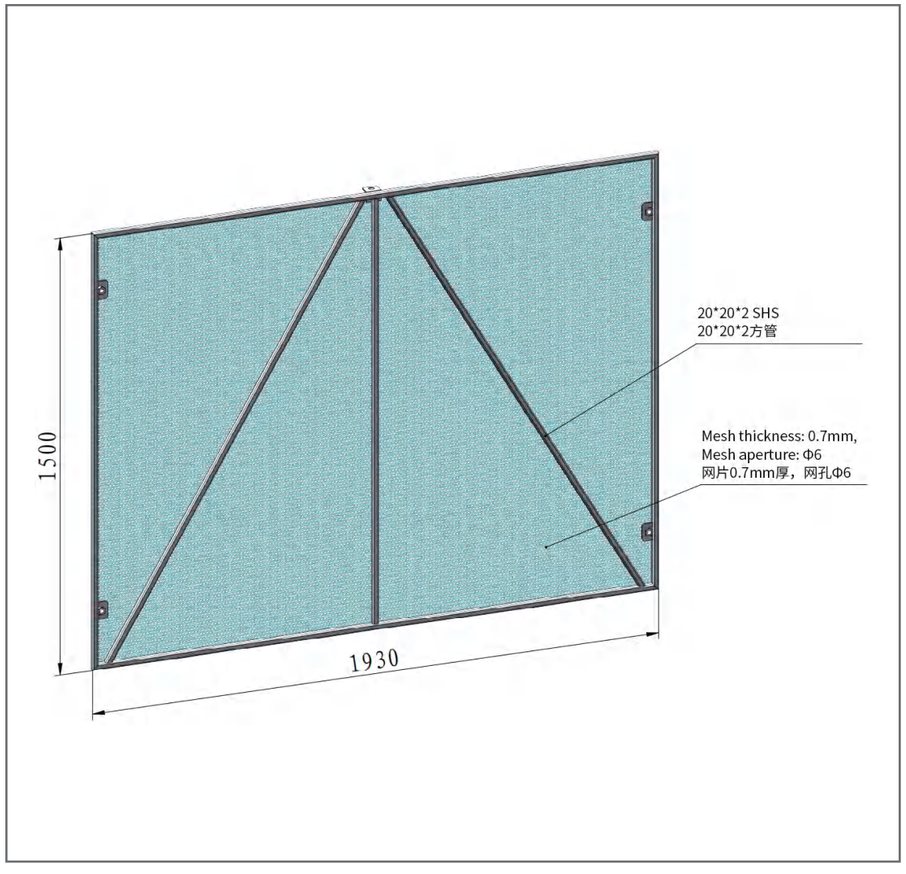
F Using split attachment supports, pull handle, insert suspension support into wall bracket, release to secure.
分体式附着支座，拉开把手，将悬挂支座插入附墙支座后放下把手即可固定连接。

COMPONENTS
产品构件组成

EXTERIOR PROTECTIVE SCREENING
外防护网

- Exterior protective material utilizes the climbing platform series' exterior protective screening, with horizontal profile as pole, spaced up to 2m apart vertically.
外防护材料沿用爬架系列的外防护网框，横杆为爬架立杆，横杆竖向最大间距 2m。

- Toe boards required on each platform.
各层平台外侧需配置挡脚板。

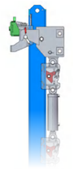


TECHNICAL DATA
技术参数

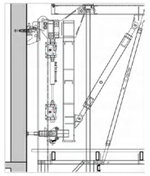
TECHNICAL DATA OF GTP100 AUTOMATIC HYDRAULIC CLIMBING FORMWORK SYSTEM
GTP100 自动液压爬升模板系统技术参数

S/N 序号	Item 项目	Specification 设计值
1	Lifting Capacity（single-unit climbing platform） 提升能力 (单榀爬架)	100kN
2	Segmented Standard Pouring Height 节段标准浇筑高度	3.0m – 5.5m
3	Maximum Climbing Height 最大爬升高度	5 min/m
4	Influence Width per Bracket 每个爬架作业范围	About 4m (subject to project specifics) 约 4m（根据项目具体情况而定）
5	Working Platform Width 爬架作业宽度	2.4m
6	Max Inclination 倾斜角度	+/- 10°
7	Driving Force 驱动力	Hydraulic power 液压动力
8	Wall Formwork System 配套墙体模板系统	Aluminium formwork / Steel formwork / Timber-beam formwork 铝模板 / 钢模板 / 木梁模板

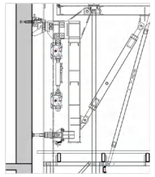
CLIMBING RAIL PRINCIPLE
导轨爬升原理



Pull the control lever upwards
控制手柄向上

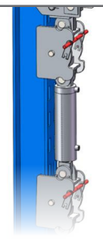


Hydraulic cylinder extension (idle stroke)
油缸伸长（空行程）

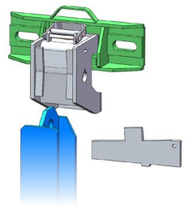


Hydraulic cylinder retraction (climbing rail ascent)
油缸收缩（导轨上升）

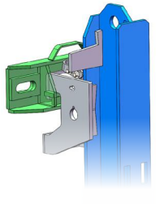
KEY POINTS
要点



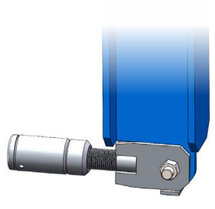
Push the control lever of the lifting mechanism to the climbing rail position.
将上下提升装置的控制手柄推上爬升导轨位置。



Raise the climbing rail until the suspension support is approximately 10cm below, then remove the wedges.
提升爬升导轨直至悬挂支座下约 10cm，拔出楔板。

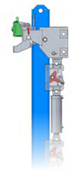


After the top of the climbing rail passes over the suspension support, insert the wedges.
导轨顶部越过悬挂支座后，插入楔板。

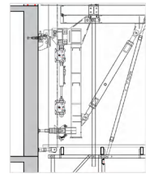


Flip the climbing rail adjustment legs to the horizontal position and firmly press against the wall.
翻转导轨调节支腿到水平位置，并顶紧到墙面。

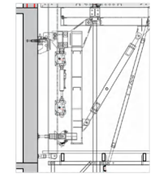
CLIMBING BRACKET PRINCIPLE
架体爬升原理



Pull the control lever downwards
控制手柄向下



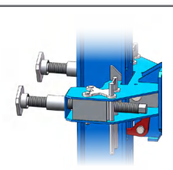
Hydraulic cylinder extension (climbing bracket ascent)
油缸伸长（架体上升）



Hydraulic cylinder retraction (idle stroke)
油缸收缩（空行程）

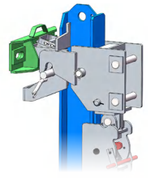
KEY POINTS
要点

Continuously push the control lever downwards and remove the anti-jump safety pin.
控制手柄一直推到下方，拔出防跳安全销。



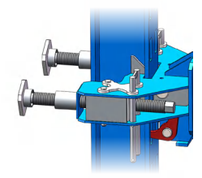
Adjust the support bracket spindle strut to move the support leg away from the wall.
调节支座丝杆，让支撑腿离开墙面。

Initiate climbing operation and remove the suspension pin after 2-3 cycles.
开始爬升操作，2~3 个行程后取出悬挂插销。



Climbing bracket close to the upper wedge plate, then insert the suspension pin.
爬升架体到上部抵近楔板，然后插入悬挂销。

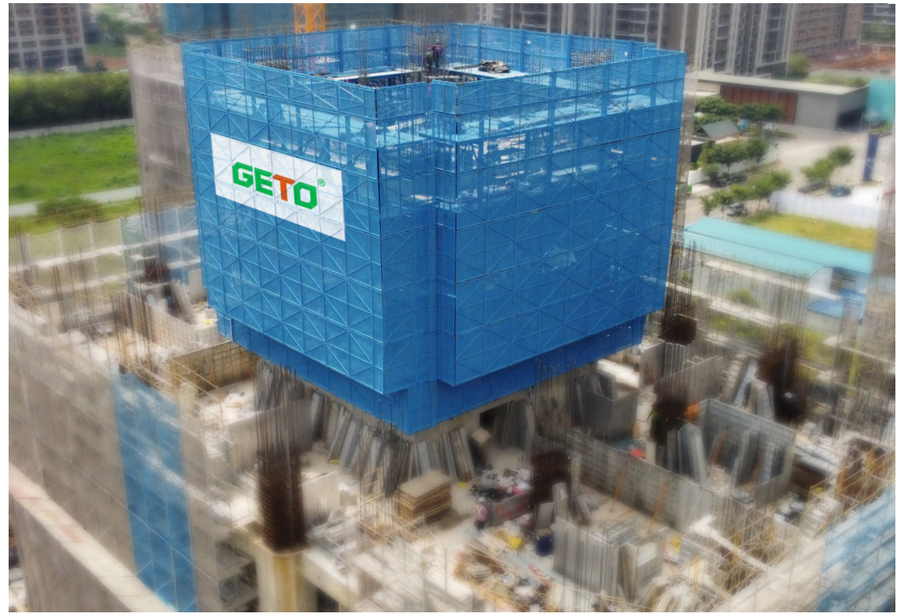
Lower the bracket until it engages with the suspension support, then insert the anti-jump safety pin.
降低架体直到它卡住悬挂支座，插入防跳安全插销。



Adjust the support bracket spindle strut to snugly fit against the wall.
调节支撑架丝杆使其抵紧墙面。

PROJECT CASES
项目案例

Residential Building Project, East Asia
东亚住宅楼项目



PROJECT CASES
项目案例

Office Building Project, East Asia
东亚办公楼项目

GETO Group

Headquarters:
Greater Bay Area—No. 13 Heqing Road, Tsuihang New District, Zhongshan City, Guangdong Province

Southern China Production Base Ⅰ:
Cuishan Lake Science and Technology Park, Kaiping, Jiangmen City ,Guangdong Province

Southern China Production Base Ⅱ:
Huizhou Industrial Transfer Industrial Park, Huizhou City, Guangdong Province

Eastern China Production Base Ⅰ:
Guangchang Industrial Park, Fuzhou City, Jiangxi Province

Central China Production Base:
Hi-tech Industry Development Zone, Xianning City, Hubei Province

Northern China Production Base:
China Aluminium Industrial Park, Linqu, Weifang City, Shandong Province

Southwest China Production Base:
Modern Manufacturing Industrial Park, Tongnan High-Tech District, Chongqing City

Northwest China Production Base:
The Circular Economy Park, Anding District, Dingxi City, Gansu Province

Hainan Production Base:
Gold Medal Port Industrial Park, Lingao County, Hainan Province

ASEAN Production Base:
Negeri Sembilan, Malaysia

Singapore Production Base:
West Region, Singapore

Saudi Arabia Production Base:
Riyadh, Saudi Arabia

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