

## Formwork & Scaffolding Solutions



ZULIN

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Beijing Zulin Formwork & Scaffolding Co.,Ltd.

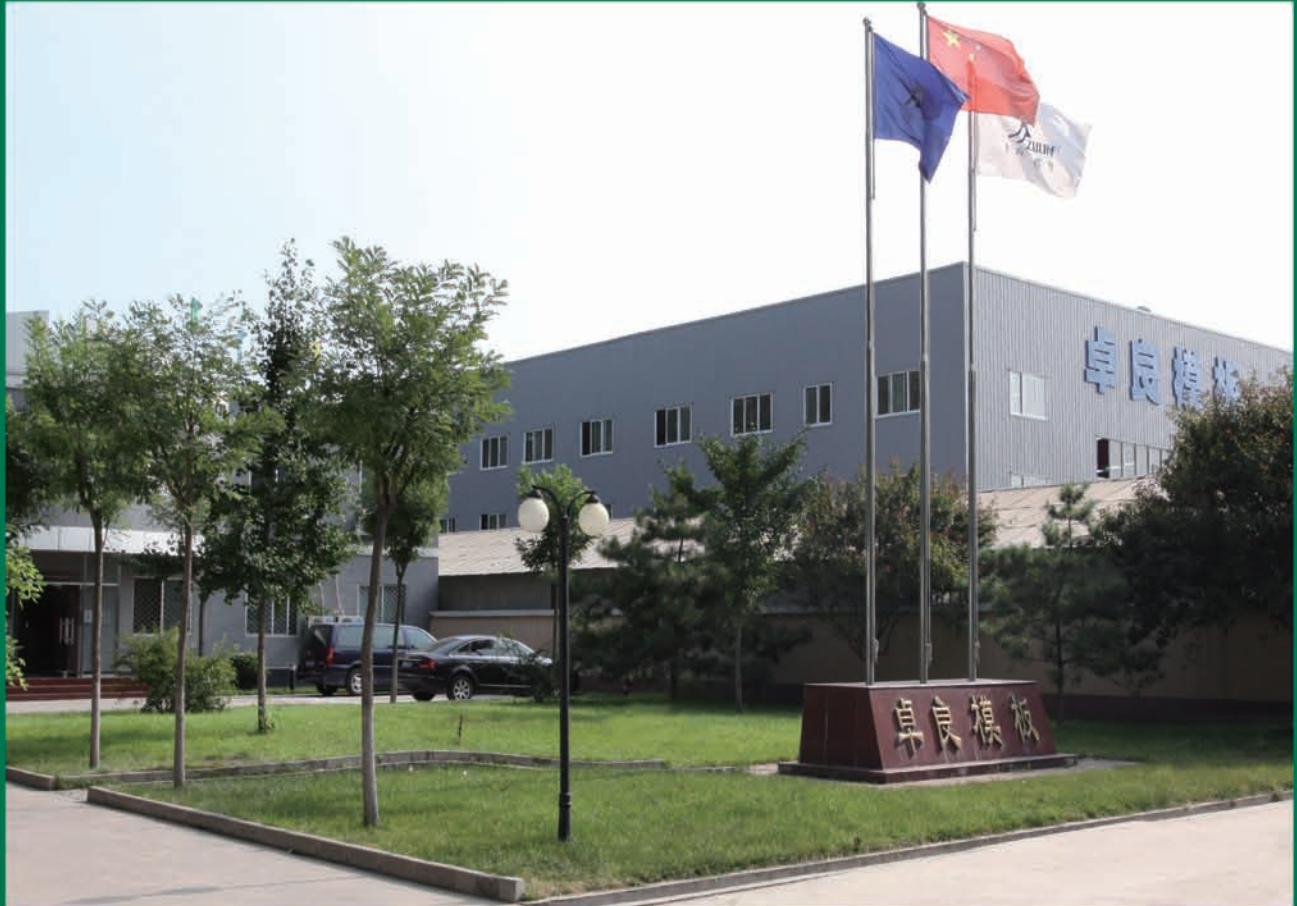
Add: Juyuan Industry Field No.20, Mapo Town, Shunyi District, Beijing 101300 P.R.of China

Tel: 0086-10-69408442 69408443

Fax: 0086-10-69409139

E-mail: [office@zulinform.cn](mailto:office@zulinform.cn)

## ► Company Profile





## Beijing Zulin Formwork & Scaffolding Co., Ltd.

Beijing Zulin Formwork & Scaffolding Co., Ltd. Was established in the year 2003. At present, ZULIN has developed a product system including climbing formwork, slab formwork, wall and column formwork, scaffolding and shoring system. Our products are applied in industrial and civil engineering, bridge and road projects, hydropower station dam, and nuclear power station projects etc...

We have first-rate production lines of timber beam and large scale steel structure plants, which means. Our production capacity is tremendous. ZULIN also has a strong technical force, and it is one of the earliest companies which are well equipped with experts in formwork and scaffolding field in China.

Over years' of research and experiment, we have developed our own intellectual property in the form of patent on the hydraulic auto-climbing formwork and many other formwork systems.

As one of the high-tech enterprises in Beijing, ZULIN is member of the a executive director board of Chinese Formwork Association. With its effective organization structure and efficient management system, ZULIN has successfully passed the ISO9001 quality management certification.

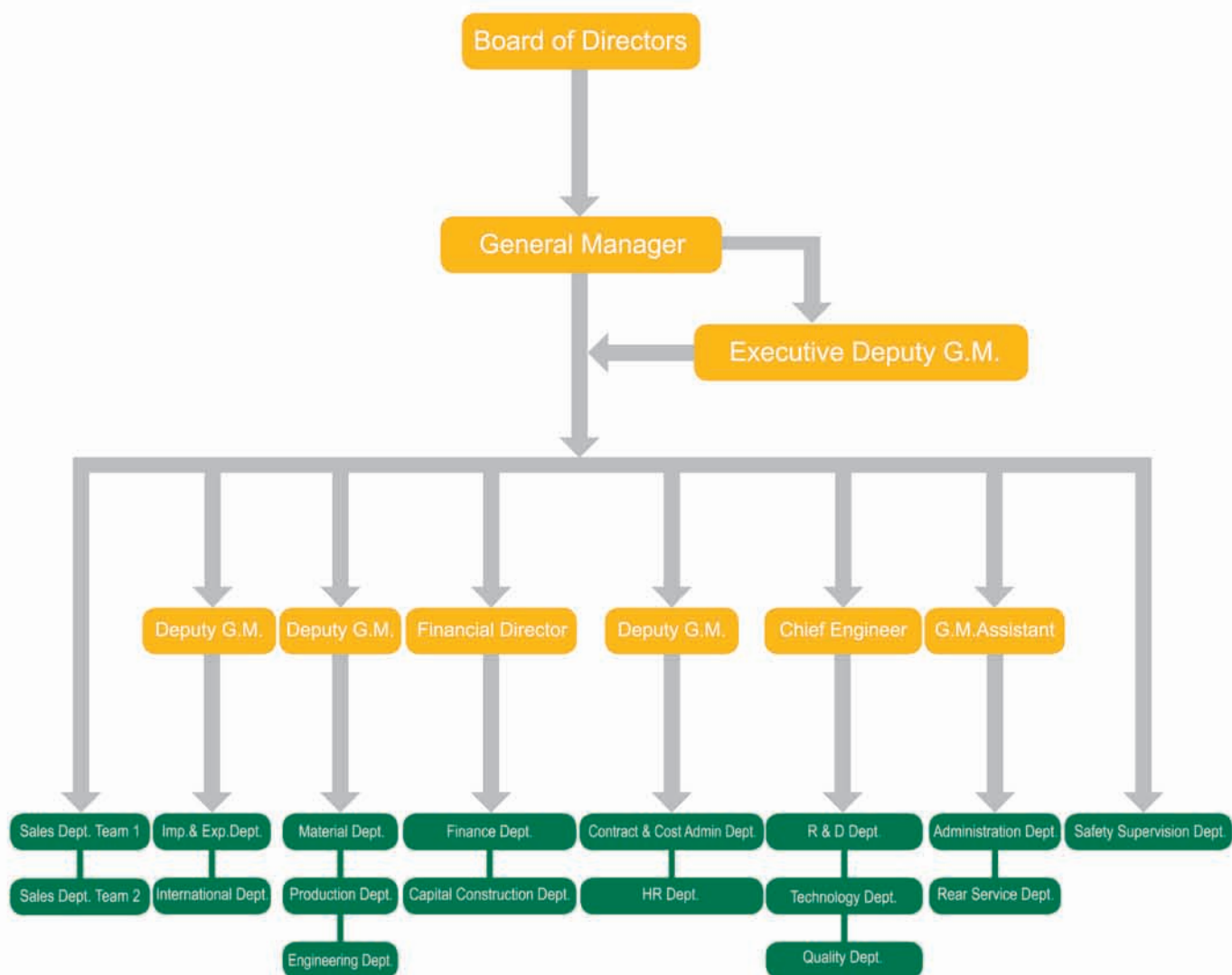
With our practice in the business and our participation in the design, supply and assembling in many large projects, we have accumulated abundant experiences in formwork and scaffolding field to be the best partner for all the building contractors.

During the long term business cooperation, we have established very good relationship with many famous contractors. ZULIN is highly praised by customers both home and abroad, and we have established branches in China and overseas as well.

Excellence is our perpetual objective. We will continue to offer more advanced technology, better products and the best service to all customers.



## ► Organization



## Talent Strategy

### The Planned ZULIN Family



Provide convenient and comfortable life condition for employees;  
Organize activities to enrich the employees' leisure life as much as possible;  
Create a good harmonious work environment, promote the teamwork of the colleagues.

#### Problem Analysis



Discussion of Technology Improvement



Staff Apartment



The Multifunctional Building



## ► Production Capacity



► Steel Plant



► Carpentry Workshop

► Timber Beam Storage Area

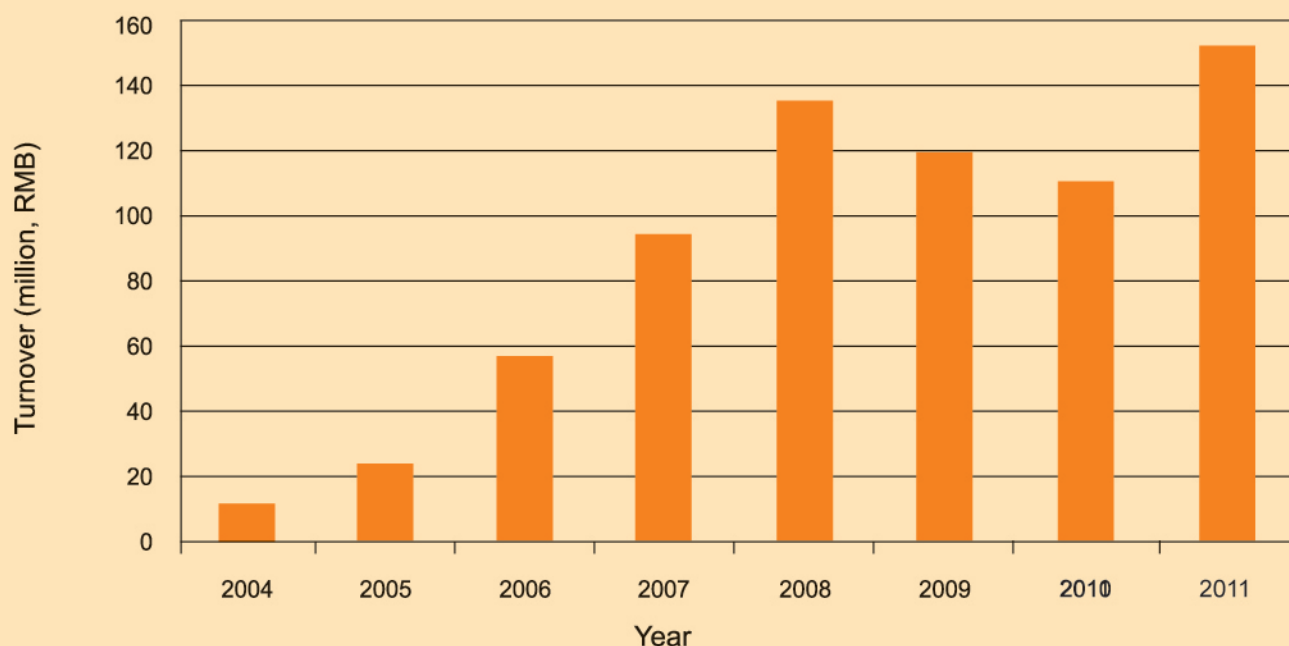


ZULIN has large scale carpentry workshop and domestic first-class timber beam production lines. The workshop covers an area of 4,000m<sup>2</sup>, and in the plant there are automatic finger jointing machine, rack shaping and mortising machine, multi-blade saw, multi-spindle moulder, glue spreader and other advanced equipment. The production capacity of timber beams is 3,000 m/d.

Steel plant covers an area of approximately 10,000 m<sup>2</sup>, and there are DC-AC welder, CO<sub>2</sub> gas shielded welder, all kinds of driller, open type inclinable press, open press with fixed bed, all kinds of punch, no tooth saw, metal band sawing machine, shearing machine, bending machine, hydraulic inspection machine, profile cutting machine, CNC plasma cutting machine and other advanced equipment. In addition, we have several long-term cooperative factories as support production capacity.



## ► Sales performance



## ► Overseas Branches

### Saudi Arabia

☎ Contact: Janson chen  
 ☎ Tel: (00)966-500250311  
 📧 MSN: chenshiyongxinyu@hotmail.com  
 📧 E-mail: jansonchen@zulinform.cn

### Australia

#### AZL FORMWORK & SCAFFOLDING CO.

📧 Email: Eric@azl.com.au  
 michael@azl.com.au  
 ☎ Tel: +61-2-96021088  
 📠 Fax: +61-2-96029880  
 📠 Mobile: +61-437820426/ +61-450958309

### Qatar

#### PHOENIX Contracting & Trading Co.

📧 Email: phoenixcontracting@gmail.com  
 ☎ Tel: +974-44903341  
 📠 Fax: +974-44519895  
 📠 Mobile: +974-55573236

### Singapore

#### ZULIN (S. E. A) Pte. Ltd.

📧 Email: zulinsingapore@singnet.com.sg  
 ☎ Tel: +65-62811810  
 📠 Fax: +65-62819708  
 📠 Mobile: +65-84037711

### Malaysia

#### REKA ZULIN Sdn. Bhd.

📧 Email: debluewhale@gmail.com  
 ☎ Tel: +60-3-80637080  
 📠 Fax: +60-3-80639080  
 📠 Mobile: +60-123113396

### United Arab Emirates

☎ Contact: Michael Zhang  
 📧 Email: michael@zulinform.cn  
 ☎ Tel: 00974-33843741

## ► Overseas Agents

### Jordan

☎ Contact: E.Husam F.Alaghbar  
 📧 E-mail: husan@jordanformworks.com  
 ☎ Tel: 00962-6-5821382  
 00962-77-7404017(Mobile)

### India

☎ Contact: Mr Sharad Rastog  
 📧 E-mail: marketing@scaffindia.com  
 ☎ Tel: +911129817133  
 +91-9810053627

### Lebanon

☎ Contact: Fouad Khoueiri  
 📧 E-mail: f.khoueiri@gmail.com  
 ☎ Tel: +961-4-715290/1  
 +961-70369569(Mobile)  
 📠 Fax: +961-4-715292

### Panama

☎ Contact: Zeng Jionghua  
 📧 E-mail: panama@zulinform.cn  
 ☎ Tel: 00507-66806188  
 📠 Fax: 00971-4-2848226

### Guatemala

☎ Contact: Ing.Christian Sandoval K.  
 📧 E-mail: christiansandoval@ovalguatemala.com  
 ☎ Tel: (00502)24763222  
 (00502)55118943(Mobile)

## Timber Beam

We have large scale carpentry workshop and first-class production lines, and the production capability is 3000 m/d.

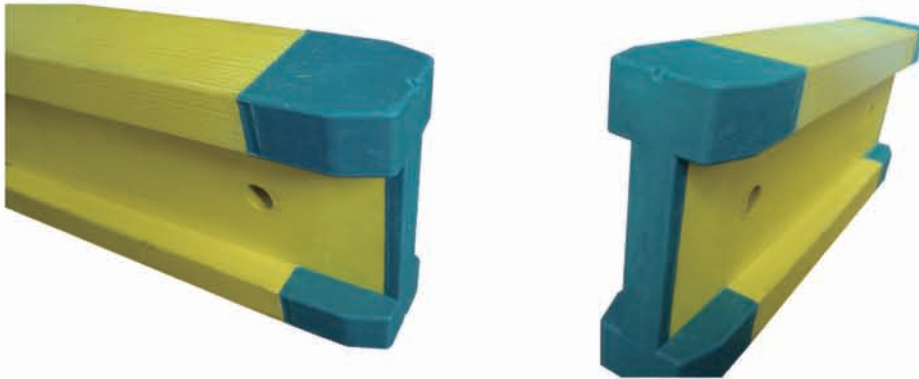


- ✓ **High standard** Manufactured on production line
- ✓ **Super performance** Fully automatic finger jointing
- ✓ **Good quality** Raw materials imported



## ► Timber Beam With Rubber End

In order to protect the end of timber beams, rubber end are designed, shown below:



According to the need, standard holes can be drilled in the two ends of timber beam. We can lengthen the timber beam by end-to-end joint. According to customers' demand, we can produce timer beams with any length.

### ◀ End-to-end-joint



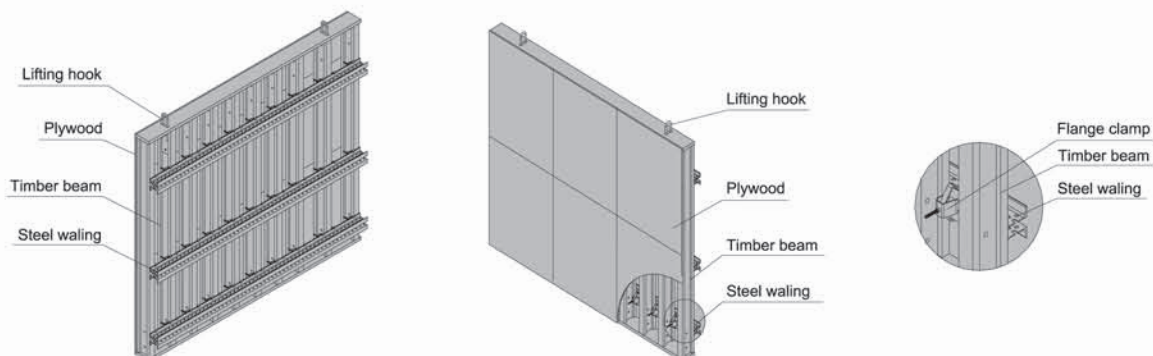
## Timber Beam Formwork

### ► Flat formwork

Flat formwork is made up of plywood, timber beam and steel waling. Fix plywood with timber beams by tapping screws, connect timber beam with steel waling by flange clamp. It is easy to assemble, disassemble and adjust in site.

It is light in weight and convenient for construction and transportation. The construction is also very friendly to environment.

The plywood has perfect performance. The plywood has good air permeability and water absorbability, the finished concrete surface is clean and smooth. The turnover can reach to 50 times.



### 1. The assembly process

1 Arrange the steel walings according to the design.



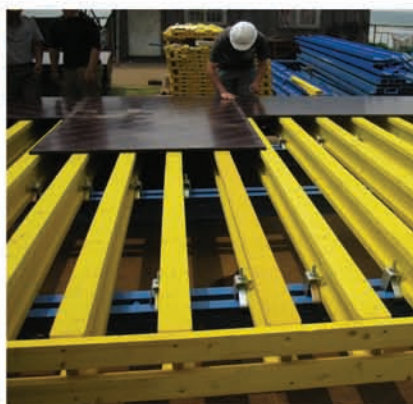
2 Fix timber beams with steel walings by flange clamps.



3 Fix lifting hooks in one end of timber beams.



4 Fix wood batten on both ends of the timber beams to combine system into a whole.



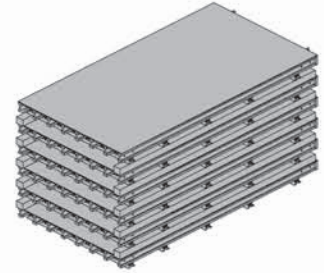
5 Fix plywood with timber beams by tapping screws.





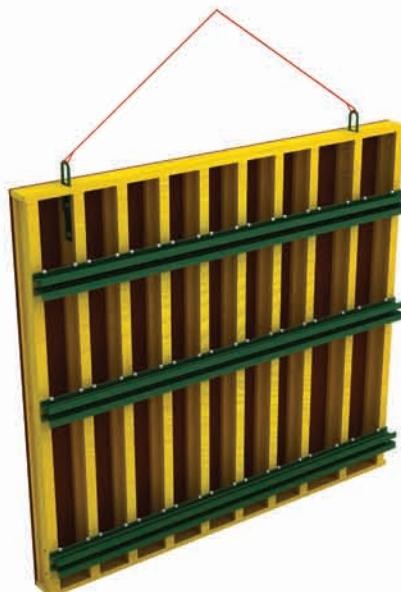
## 2.The formwork palletizing

Assembled formwork lay on the floor as shown below. Collision should be avoided during palletizing, construction and transport. In addition, rain and sunlight exposure should be prevented.



## 3.Lifting sketch

The assembled formwork can be lifted integrally.





## ► Adjustable Arced Formwork

Adjustable arced formwork is used in the concrete pouring of arced wall or column with radius more than 1m.

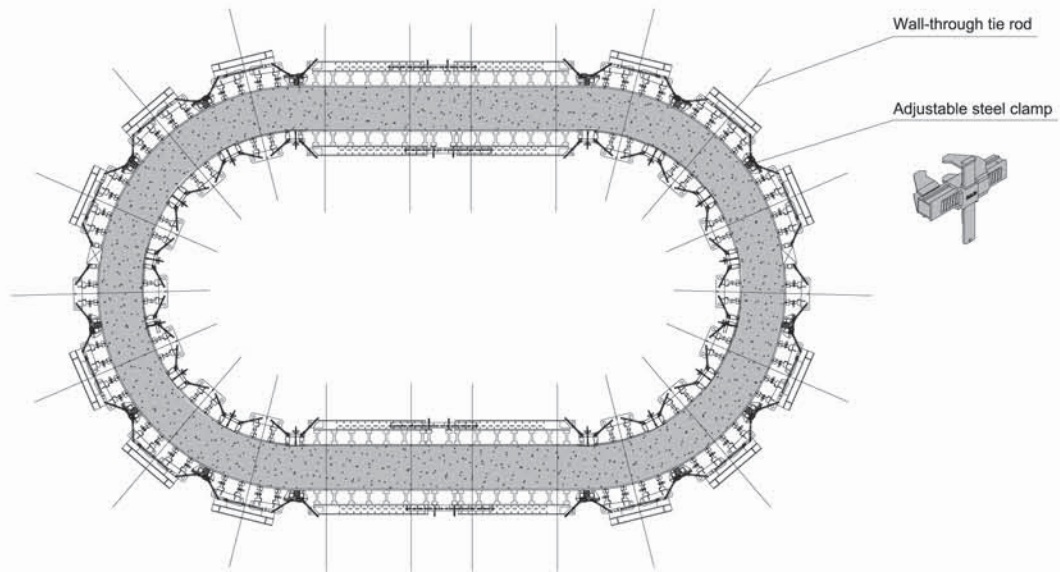


### 1. Working principle

The plywood of adjustable arced formwork is 18mm thick and it is tough. It can resist certain pressure and can be adjusted to designed arc. Adjacent units can be connected without gap by adjustable steel clamp.

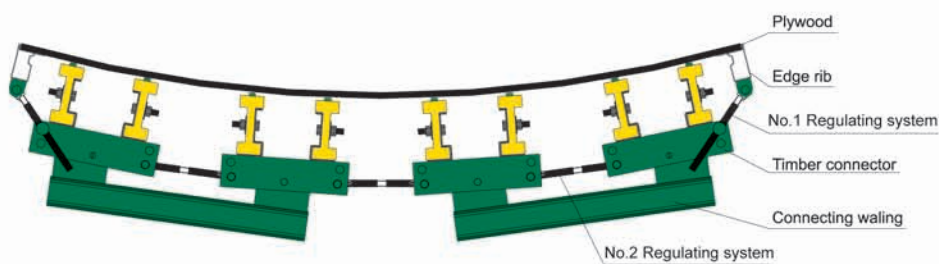
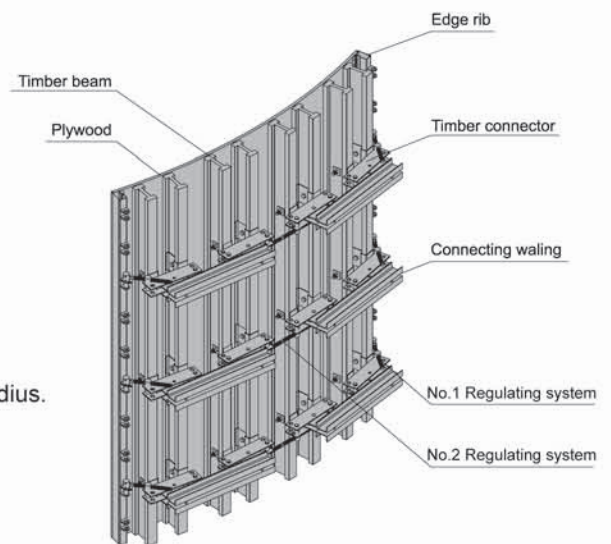


## 2. One plan sketch is shown below



## 3. Assembly process

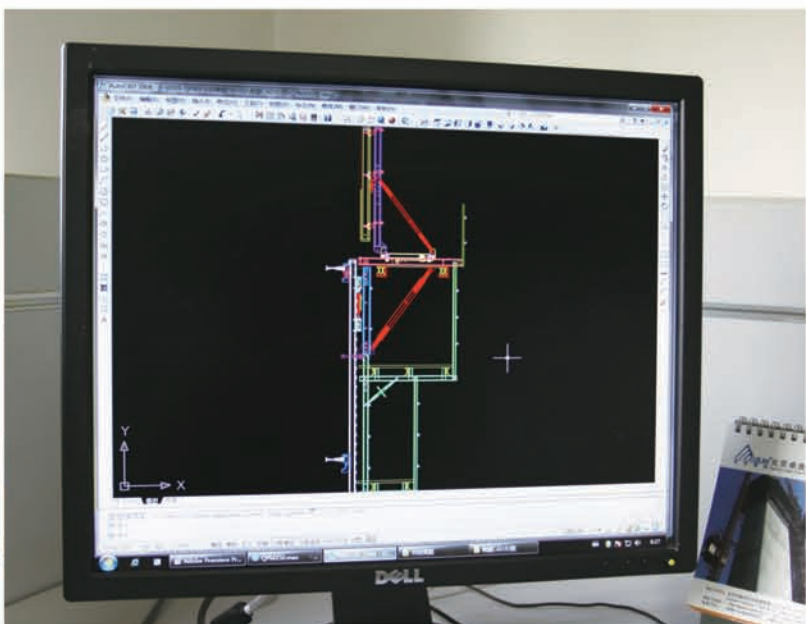
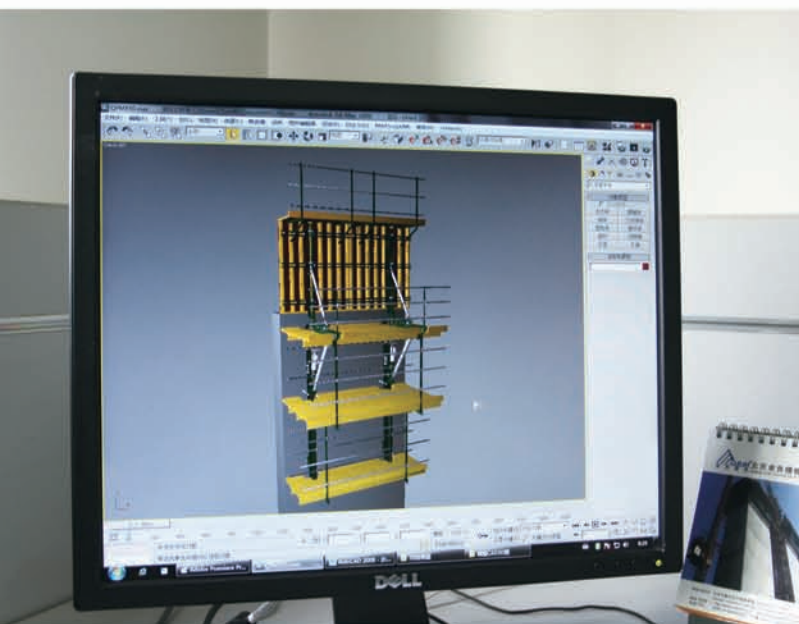
1. Assemble timber beam and timber connector.
2. Assemble plywood and edge rib.
3. Assemble regulating system.
4. Assemble connecting waling.
5. Regulate the formwork, make the formwork bent into designed radius.
6. Connect every unit by adjustable steel clamp.



Plan sketch of one standard unit

# Auto-climbing Formwork QPMX-50 & ZPM-100

——The best choice for high buildings and bridges



## ► Brief Introduction

The power of the Auto-climbing Formwork is the hydraulic system, which includes the oil cylinder and two commutators ect.. The commutators can control the climbing of climbing rail and the bracket. The steel rail and the bracket can inter-climbing, so the whole system will climb up steadily. Cranes are not needed during the construction. It's easy to operate, highly efficient and safe. It's the best choice for the construction of high buildings and bridges.

There are mainly two types of standard auto-climbing formworks, QPMX-50 and ZPM-100. Their formwork parts are both timber beam formworks.

## ► Characteristics

1. The formwork system can climb vertically or slantwise.
2. The system can climb integrally or separately. The climbing process is steady, synchronous and safe.
3. The formwork will not dismantle to the ground until the construction finished. The field will be saved and the impacting breakage will be greatly reduced (especially the plywood).
4. The system will furnish all-round platforms, and additional platform is not needed.
5. The formwork can climb itself and cleaning work can be done in situ. The use of tower crane will be greatly reduced.

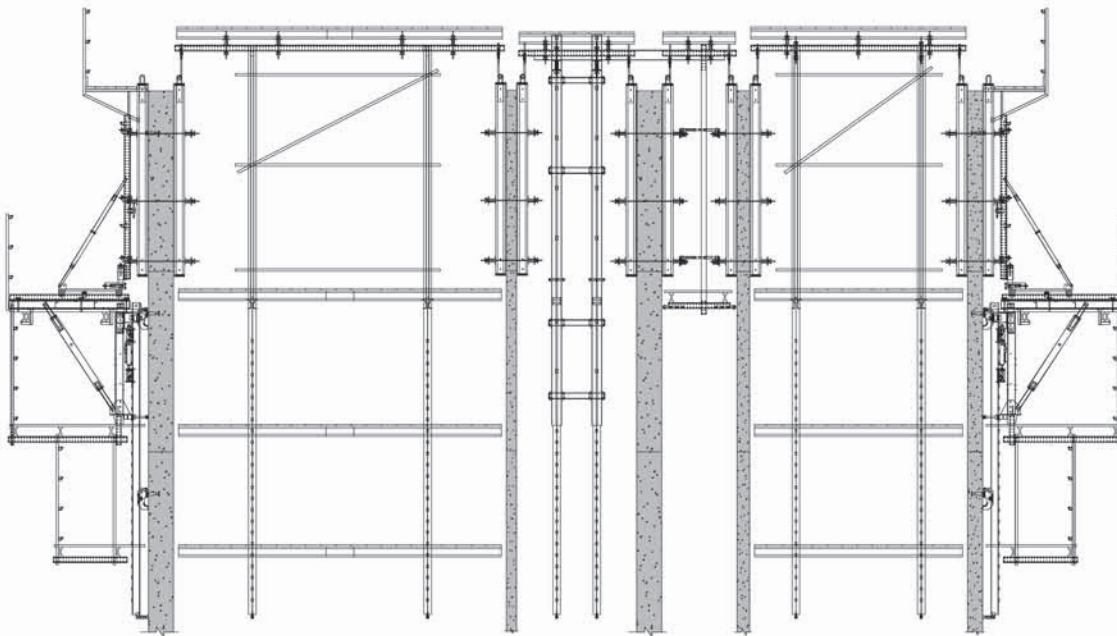
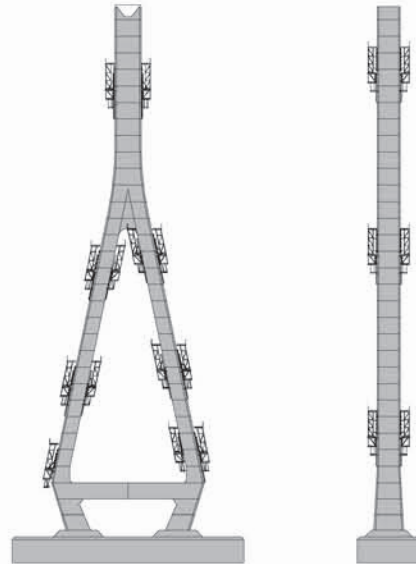
## ► Project Examples

The standard QPMX-50 system can be refitted according to projects' demand.



### ◀ Harbin Songpu Bridge

The bridge is 160 meters high and it is a cable-stayed bridge with new structure, and it is by far the largest, the most complicated and advanced bridge in Songhuajiang river basin of China. The auto-climbing formwork is the refitted QPMX-50 system.



### ▲ Baker Tower B

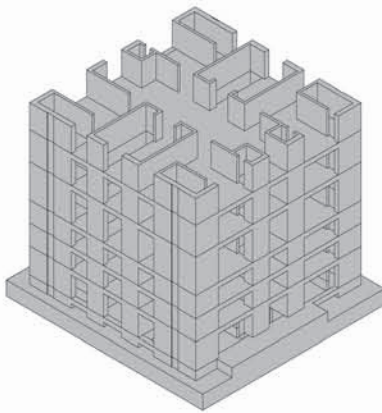
This project is in Doha, Qatar. The concrete pouring of core-tube structure is finished by refitted QPMX-50 auto-climbing formwork system.





## ◀ Jing-ao Commercial Building

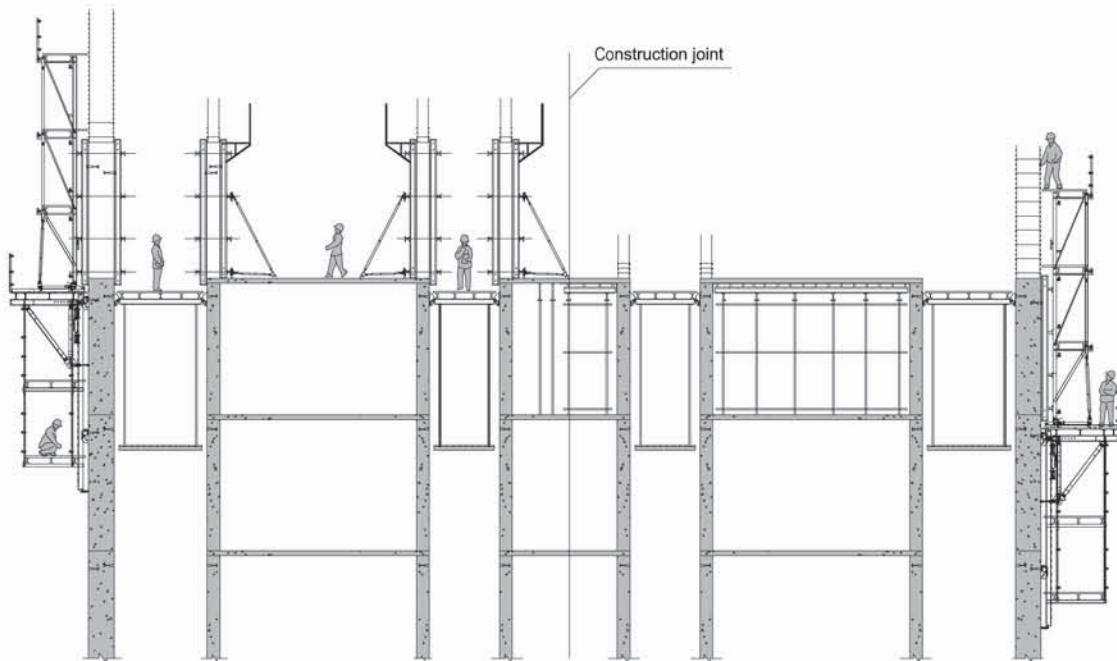
The project is in Beijing. It is an office building with 3 floors underground and 24 floors over ground. The total height is 107 meters. The auto-climbing formworks are used for the concrete pouring of core-tube outside and four elevator wells.



Structure sketch



Formwork plan



A-A Section plan





▲ **Xinzao Pearl River Bridge (Guangdong, China)**  
Contractor: Road & Bridge Southern China Engineering Co., Ltd.



▲ **Qingjiang Bridge (Hubei, China)**  
Contractor: CRBC, Second Highway Engineering Bureau



▲ **CCTV New Building (Beijing, China)**  
Contractor: China State Construction Engineering Corporation



▲ **City Of Lights C10a (Abu Dhabi, UAE)**  
Contractor: CSCEC Dubai Contracting (LLC)



# Auto-climbing Protection Panel PS50

## ► Brief Introduction

The climbing protection panel is enclosure for construction of high-rise buildings. It can enclose three floors one time. Through the enclosure, the slab edges on the upper floors are completely enclosed, and a covered working area is formed which provides protection from wind and bad weather. Site personnel are secure against falling at all times, Work productivity will be raised significantly due to the increased safety feeling.

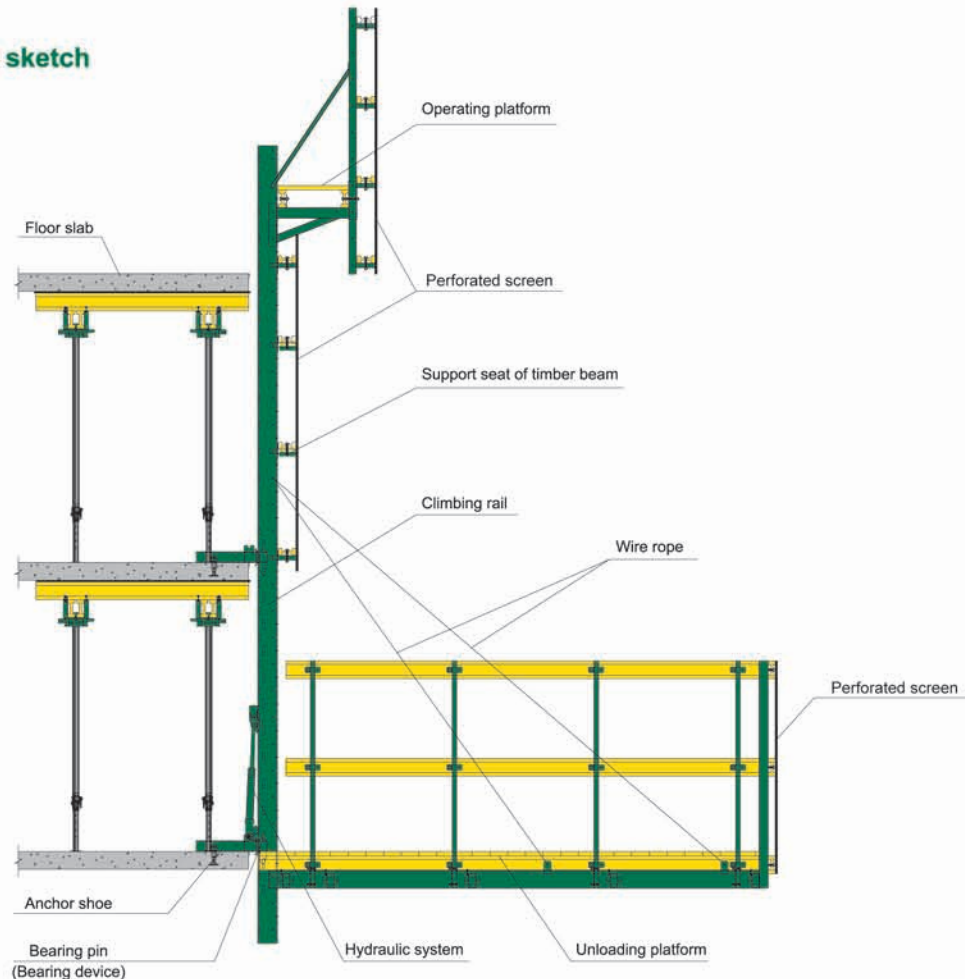
The system has hydraulic system as its power, so it can climb up by itself. Cranes are not needed during the climbing. The unloading platform is convenient for moving formwork and other materials to upper floors without disassembly. The construction efficiency will be increased highly.

A further positive side effect is the large usable advertising area on the outer surface. The protection panel can also be tailored to suit the requirements of the customers.

The climbing protection panel is an advanced, modern system which suits the demand of safety and civilization, The system can be widely used in construction.



## ► Structure sketch



## ► Project Application





## Single-side Climbing Formwork DXB-180 & DXB-240



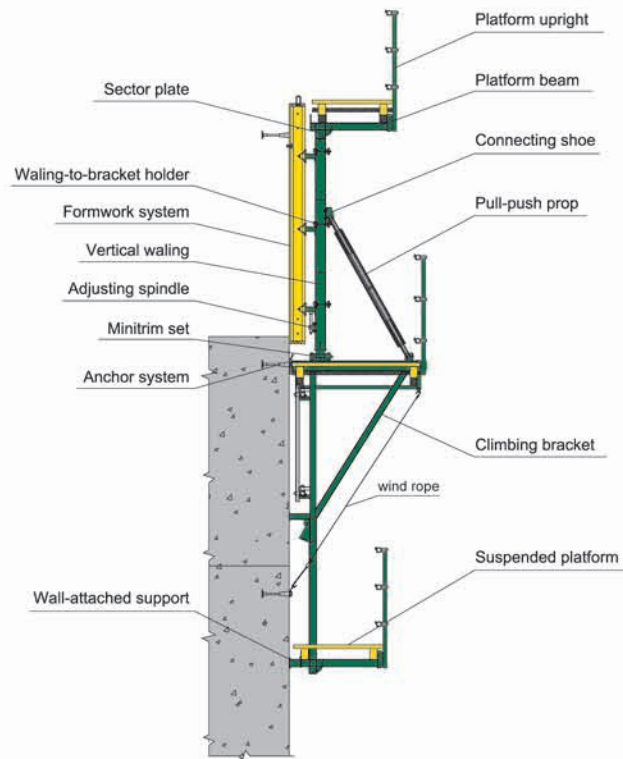
### ► Brief Introduction

Single-side climbing formwork DXB-180 & DXB-240 are improved from the DP-180 & DP-240 system. They have the similar structure. They are mainly used in the concrete pouring of dam, pier, guy anchor, concrete protecting wall, tunnel, underground workshop and so on. Because the concrete lateral pressure is entirely supported by anchor system and bracket, the wall-through tie-rod and additional reinforcement are not needed. The construction is easy, rapid and economical; the finished concrete surface is perfect and the water proofness is excellent. They are perfect formwork systems for single-side wall and large areas' concreting.

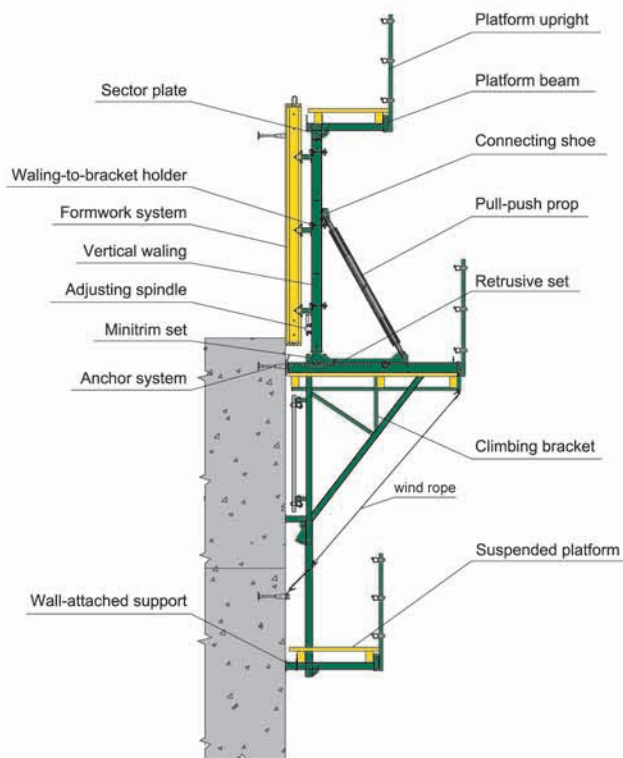
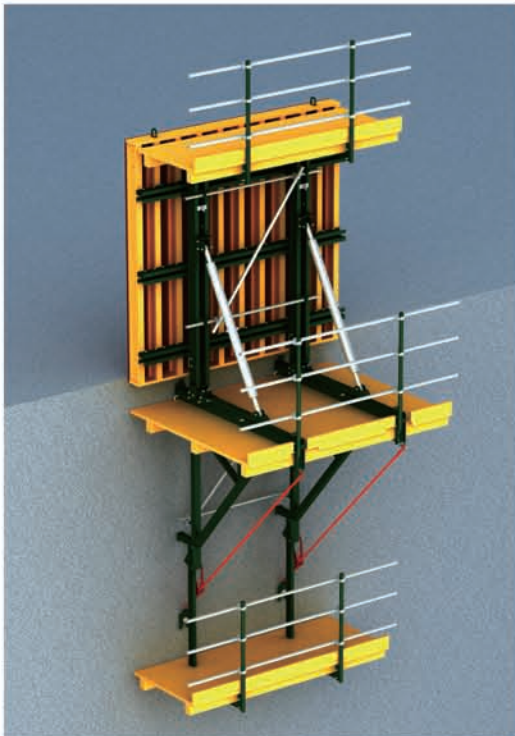


## ► Structure Sketches

DXB-180



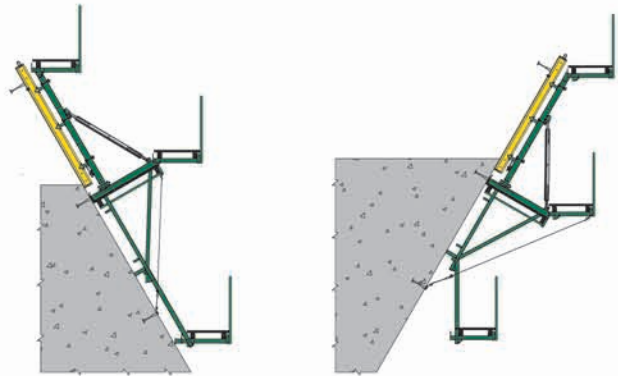
DXB-240





## ► The Adjustment Of Inclination

DXB-180 system can be inclined by adjusting pull-push prop. The maximum angle is 30°. The sketches are shown below:



## ► Characteristics

1. The lateral pressure of the concrete is entirely supported by the anchor system, Wall-through tie-rods are not needed, and the finished concrete is perfect.
2. The formwork can move backward entirely, which will be convenient for work.
3. Coupling is used for connecting the forms to make sure the forms standing in a straight line.
4. The connecting components have a high standardization and universality.
5. The formwork can prop to the finished concrete tightly to avoid dislocation or leakage.
6. The formwork can be adjusted horizontally or vertically as request.
7. DXB-180 system can be adjusted forward and backward. The maximum angle is 30°.

## ► Project Application



### ▲ AL Maha Sofitel Hotel (Doha, Qatar)

Contractor: Al Majal International Trading & Contracting Company W.L.L.





▲ **Aizhai Large suspension bridge (Hunan, China)**

Contractor: Hunan Road & Bridge Construction Group Corporation.



▲ **Zhujiang Huangpu Bridge (Guangdong, China)**

Contractor: Guangzhou ChangDa Highway Engineering Co., Ltd.



# Climbing Formwork



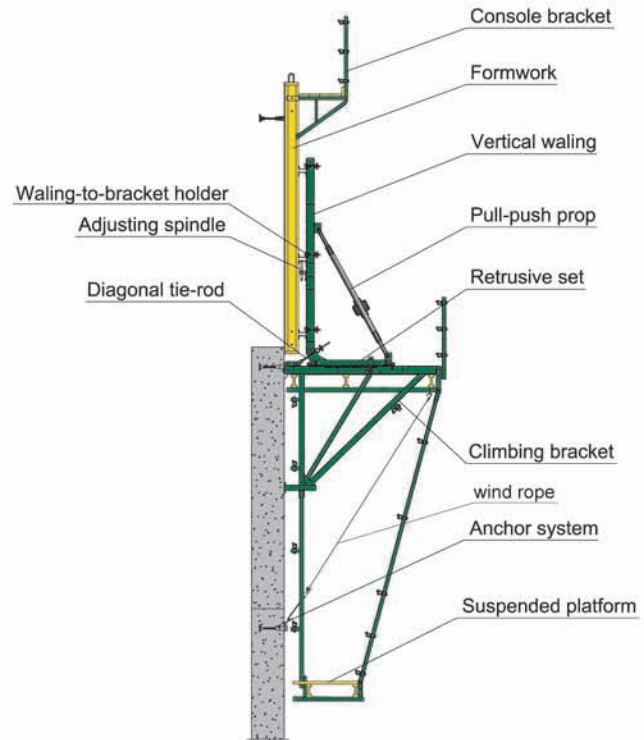
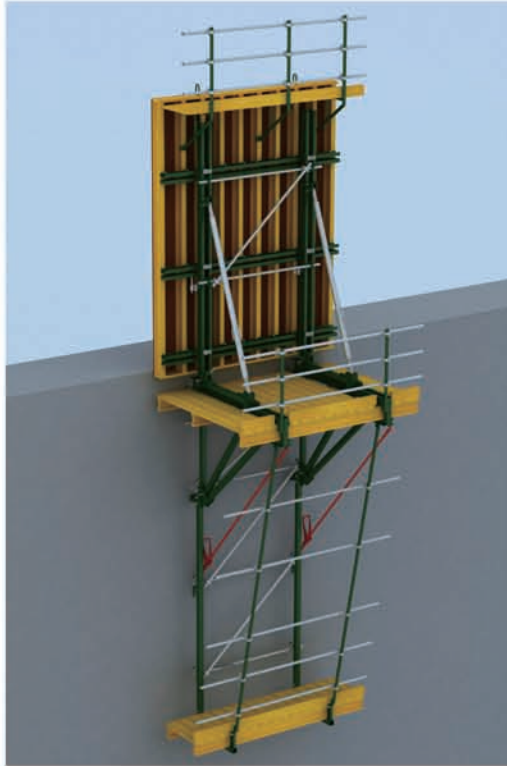
## ► Brief Introduction

Climbing formwork CB-240 is mainly used in the concrete pouring of pier, high buildings, and so on. The concrete lateral pressure is entirely supported by anchor system and the wall-through tie-rods, additional reinforcement is not needed. The construction is easy, rapid and economical. A single pouring height is high and the finished concrete surface is perfect.

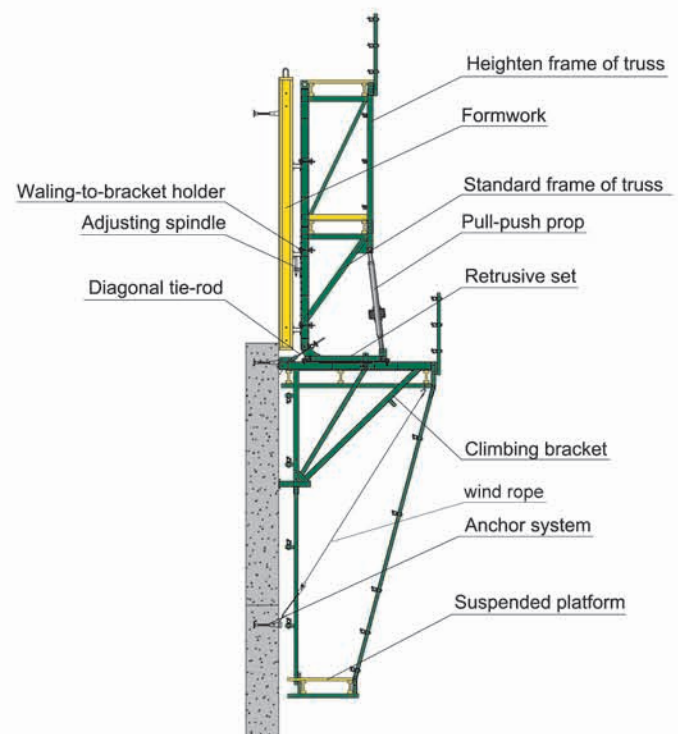
The climbing formwork CB-240 has two types of climbing units, which are pull-push prop climbing unit and truss climbing unit. The latter is better for the construction form of heavier load, higher height but less inclined angle.

## ► The Structure Sketches

### Pull-push prop climbing unit of CB240

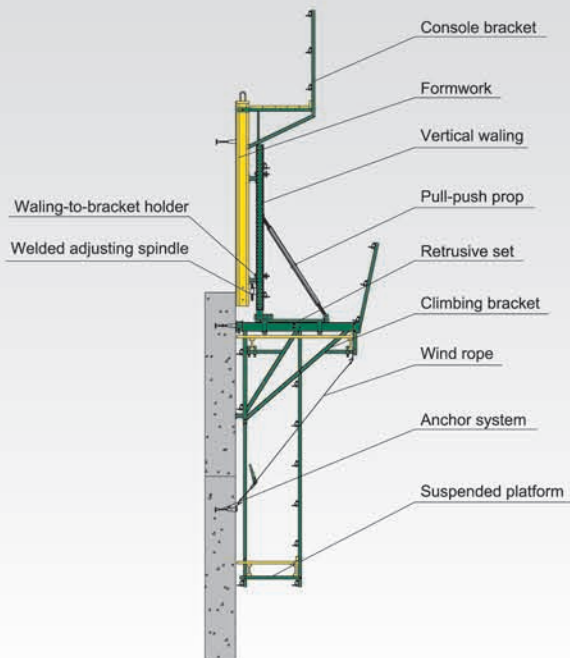


### Truss climbing unit of CB240

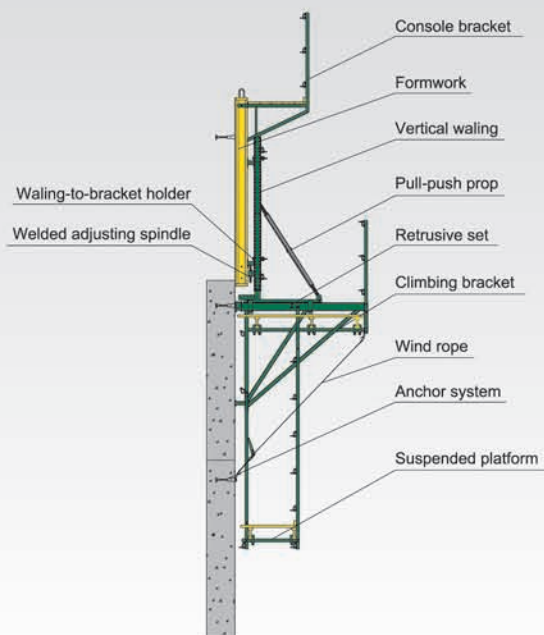




## PJ200



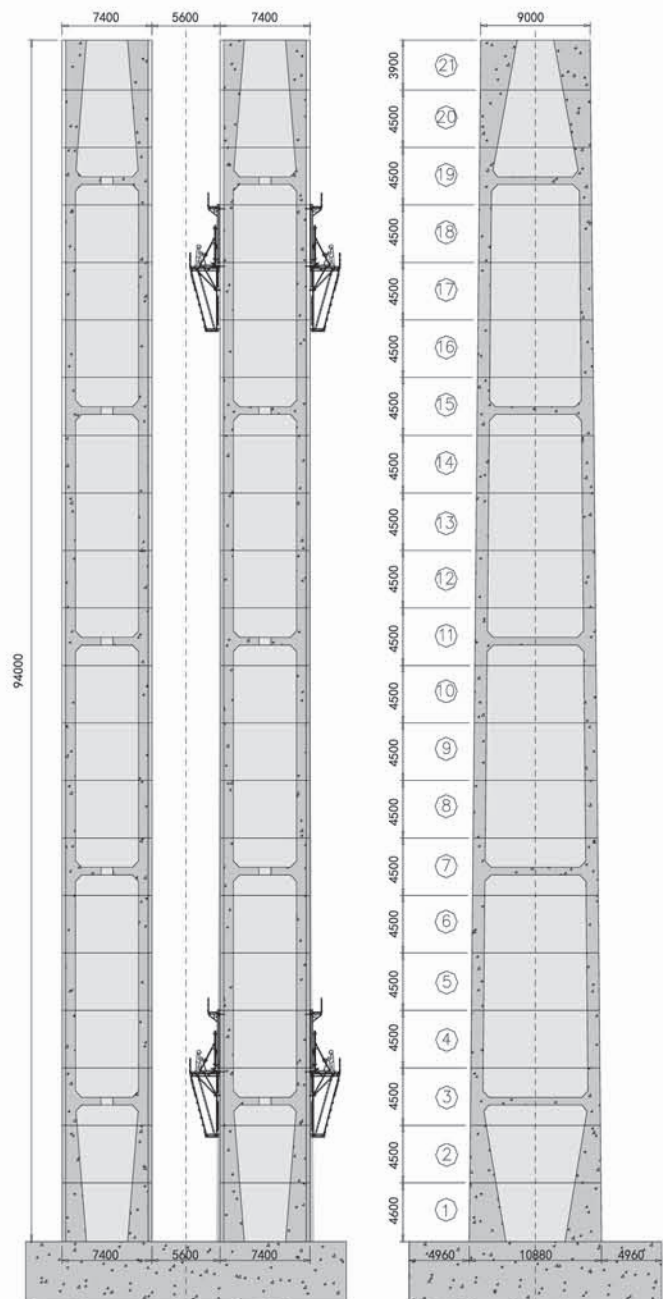
## PJ240



## ► Characteristics

1. The lateral pressure is entirely supported by the anchor system, scaffolding is not needed during the construction. It's suitable for the construction of high altitude.
2. A single pouring height can reach 6 meters, and the formwork can move backward about 650mm.
3. The formwork can be adjusted horizontally or vertically as requested. The formwork can also be inclined forward or backward by adjusting the pull-push props.
4. High standard elements can be widely used. Coupling is used for connecting the nearby units to make sure they stand in a straight line.
5. The formwork can prop to the finished concrete tightly to avoid dislocation or leakage.
6. The suspended platform is convenient for removing the anchor system and treating the concrete surface.

## ► Project Example



◀ Yalu Expressway Fuchun Bridge



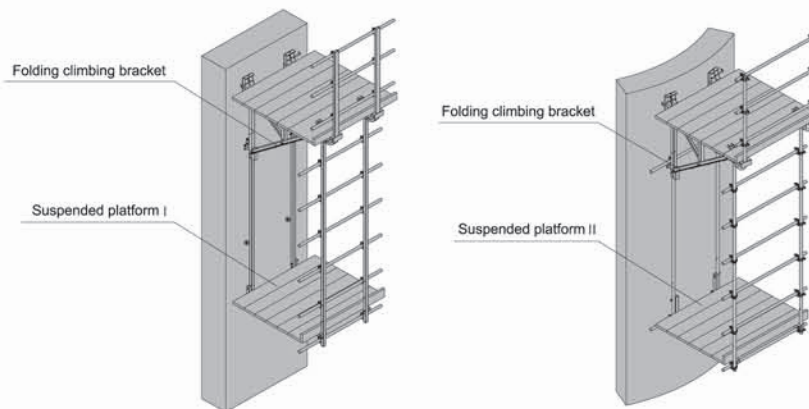
## Climbing Bracket GJ190

### Brief Introduction

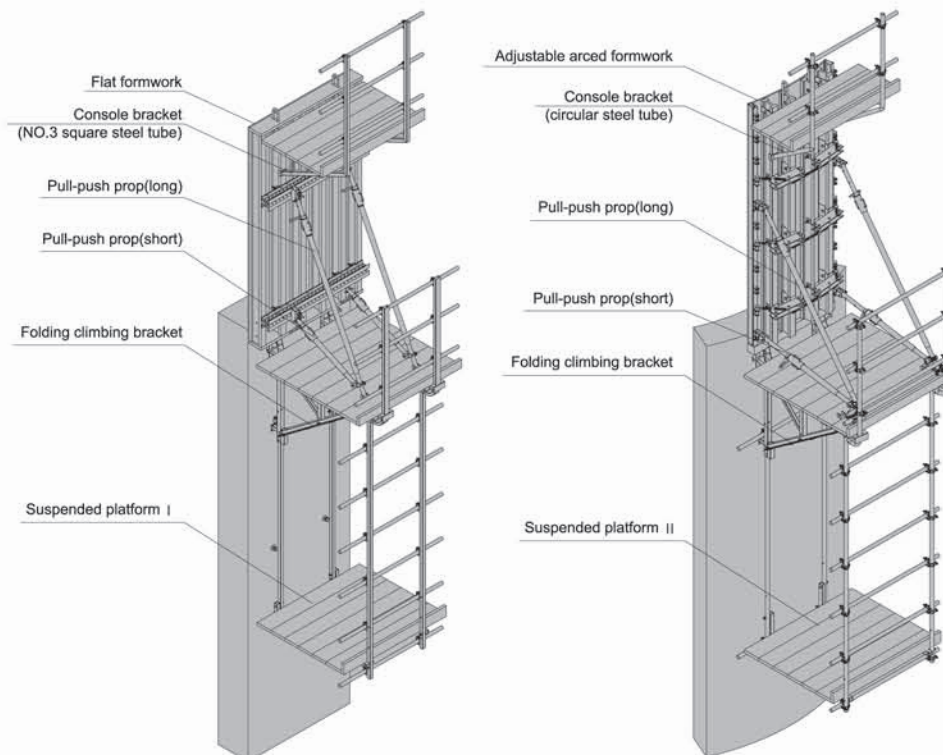
Climbing bracket GJ190 is mainly used as operating platform during construction. It can be used on the vertical wall and arced wall. The bracket hang on the anchor system and all the load are supported by anchor system. It's convenient to assemble and disassemble, and the construction is easy, rapid and safe.

The system can also be used for supporting flat formwork and adjustable arced formwork during concreting. The formwork is supported by pull-push props which are flexible and convenient for regulating. The concrete lateral pressure is entirely supported by anchor system and the wall-through tie-rods, additional reinforcement is not needed. The construction is easy, rapid and safe. The formwork and bracket are lifted separately.

### Used as operating platform



### Used as climbing formwork



## ► Application Sketches (take arced formwork as an example)



Used in the concreting of arced wall or column with the same radius up and down. ►

◀ Used in the concreting of arced wall or column with variational radius up and down.



## ► Characteristics

1. The load is entirely supported by anchor system, scaffolding is not needed during the construction. It's suitable for the construction of high altitude.
2. The folding climbing bracket is convenient to assemble, disassemble, store, transport and reuse.
3. The formwork can be inclined forward and backward by adjusting the pull-push prop. The largest angle is  $\pm 18^\circ$ .
4. High standard connectors has a good universality.
5. All the parts are convenient, flexible and reliable to assemble in site.
7. The system can be matched with both vertical formwork and arced formwork.

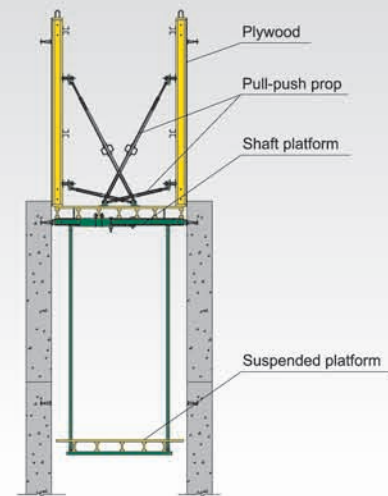




# Shaft Platform

## ► Brief Introduction

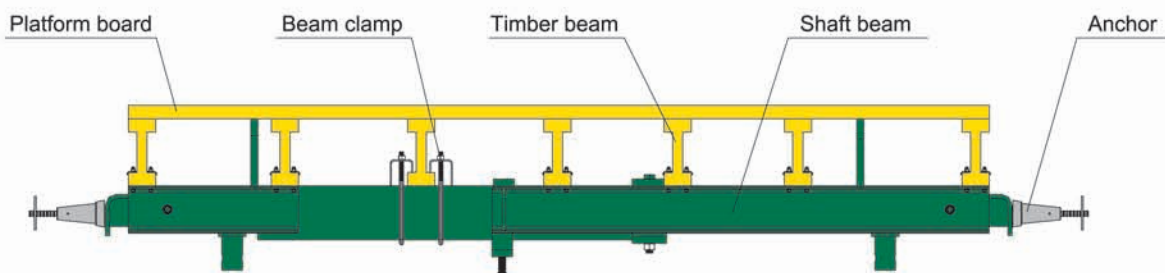
The shaft platform is mainly used in the concrete pouring of elevator well, equipment well, stair well of high-rise building and so on. Concrete lateral pressure is entirely supported by wall-through tie-rods, additional reinforcement is not needed. The construction is easy, rapid and economical.



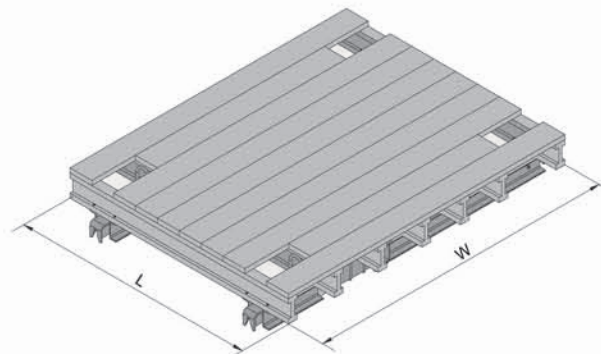
## ► System Introduction

The shaft platform is mainly made up of platform board, timber beam, beam clamp, shaft beam and anchor system.

The sketch is shown below :



"L" is the timber beam length, "W" can vary from 1.45m to 5.8m, and shaft beam has a few specifications to meet the shaft wells' dimension.



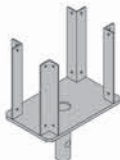
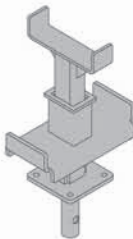

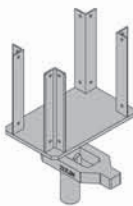



## Timber Beam Floor Formwork

Timber Beam Floor Formwork is widely used in the concrete pouring of slabs. Floor prop or scaffolding matches the supporting head as the supporting system. The main beam and secondary beam are timber beams, and plywood is on the top side. The system is flexible, convenient in application and can be reused.

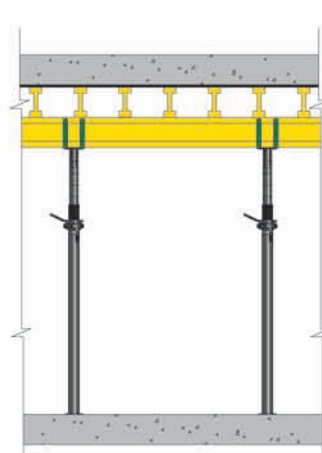
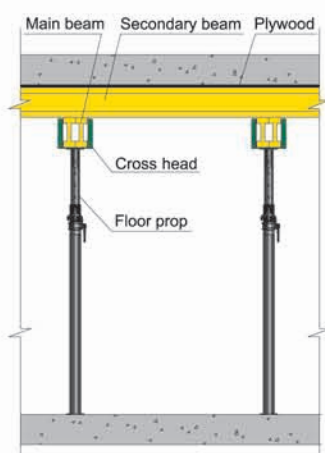
### ► The Supporting Head Series

In the concrete pouring of slab, supporting head series support slab formwork. Some of them can move early or rapidly. According to the demand, the combination of different heads is more cost-effective.

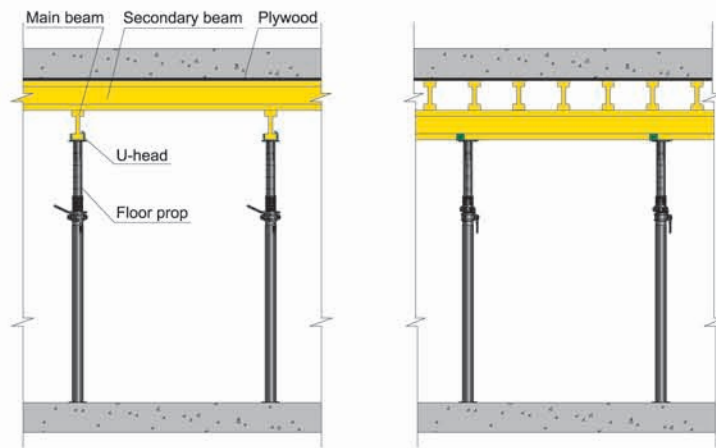
	Weight (kg)	Item No.		Weight (kg)	Item No.
Cross head	2.89	02080100	Drop head	6.53	02080500
					
U-head	1.24	02080200			
			Lowering head	5.17	2080600
Drop head					
Φ61	5.00	02080300			
Φ50	4.63	02080400			
					

### ► Application Sketches

#### 1. Cross head



## 2. U-head

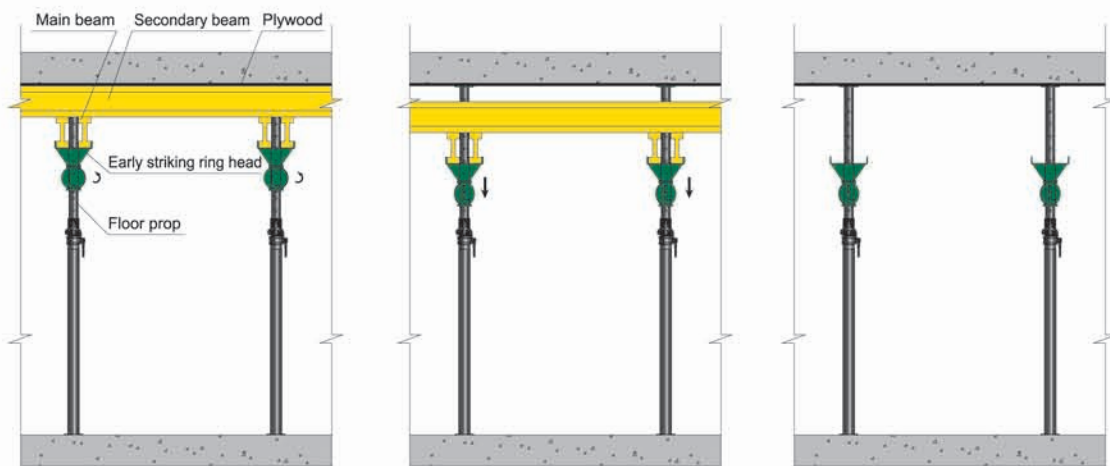


## 3. Early striking ring head assembly



### Early striking procedure

1. After concreting, hit flange plate to turn round.
2. When the flange plate turns to the right position, the head, main beam and secondary beam will drop down about 100mm orderly.
3. Remove the beams.



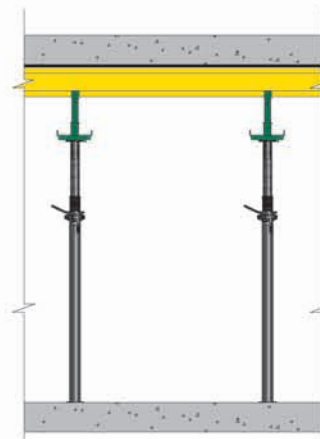
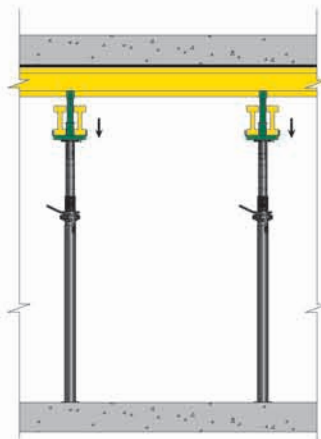
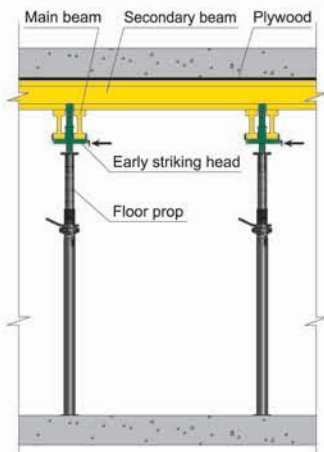


## 4. Early striking head



### Early striking procedure

1. After concreting, hit pin plate to move.
2. When the pin plate moves to the right position, the movable part of the head and main beam will drop down.
3. Remove the main beam.

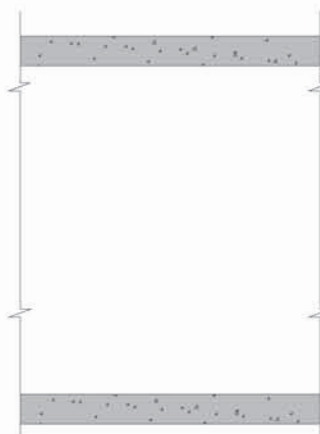
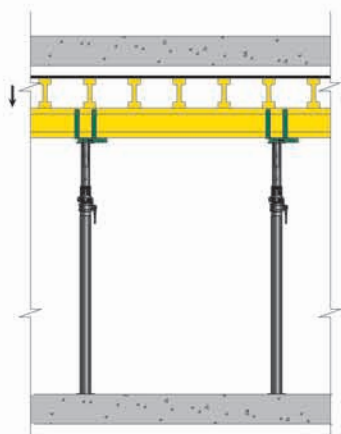
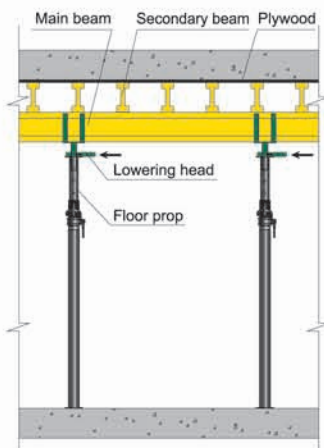


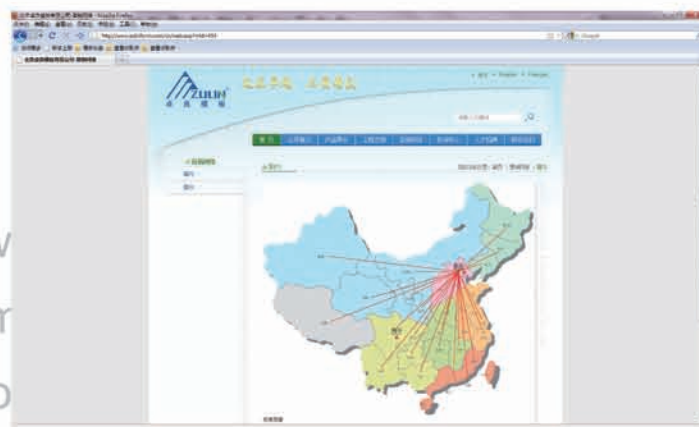
## 5. Lowering head



### Quickly striking procedure

1. After the concrete pouring, hit the pin plate to move.
2. When the pin plate moves to the right position, the main beam, secondary beam and plywood will drop down orderly.
3. Remove the timber beams, plywood, lowering head and floor props.





[www.zulinform.com](http://www.zulinform.com)



# Table Formwork

—The flexible and adaptable slab formwork

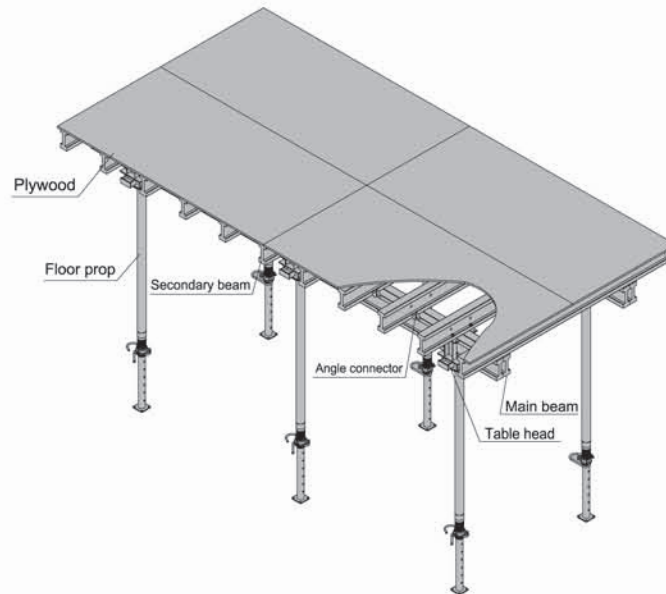


## ► Brief Introduction

Table formwork is widely used in the concrete pouring of slabs. The system is for any ground plan and any floor height. It has simple structure; the easy assembly makes it especially cost-effective.

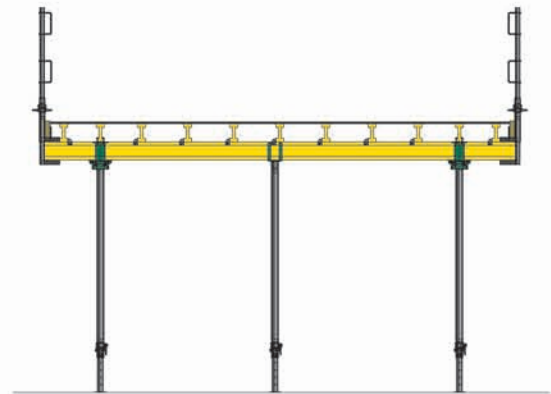
## ► Standard Units Of Table Formwork

The standard size is 2440mm×4880mm and 3300mm×5000mm.



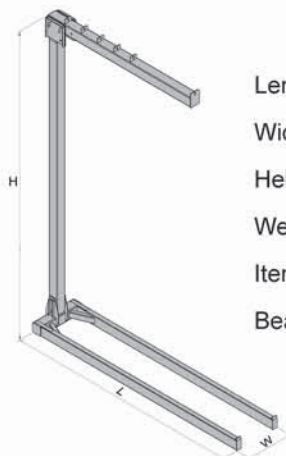
## ► Handrail Clamp

Safety guardrails should be set on the edge of the slab.



## ► Lifting Fork

Lifting fork is used to lift table formworks up and down or from one floor to another.



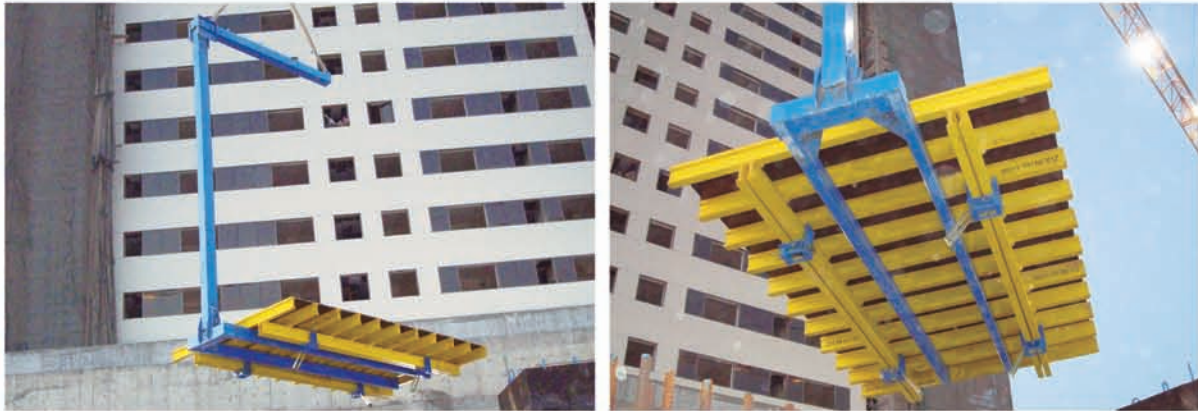
Length: 500cm  
Width: 98cm  
Height: 646cm  
Weight: 803.68Kg  
Item No.: 02030300  
Bearing load: 10KN



Length: 520cm  
Width: 106cm  
Height: 425cm  
Weight: 821.9Kg  
Item No.: 02030800  
Bearing load: 15KN

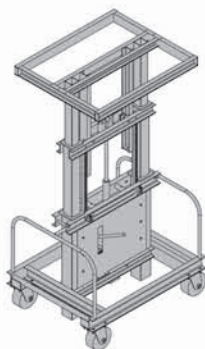


## ► Project application



## ► Shifting Trolley

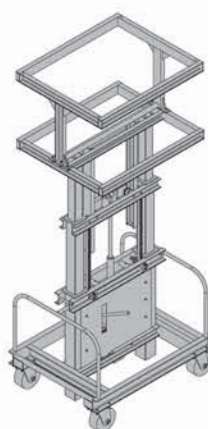
Shifting trolley is used to transport table formwork in horizontal direction.



Standard device  
Weight: 516.31Kg  
Item No.:02030700



Attached frame  
Weight: 72.17Kg  
Item No.:02030701



### Height

Standard device

Hmin=1750mm Hmax=3250mm

Standard device with an attached frame

Hmin=2500mm Hmax=3900mm

### Bearing load

Standard device: 15~20KN

Standard device with an attached frame: 11KN





▲ HYDRA AVENUE(Six Tower) (Abu Dhabi, UAE)



▲ City of lights C15 (Abu Dhabi, UAE)





# Beam Forming Support

—The Flexible Beam Supporting Instrument



## ► Introduction

The beam forming support is a technical instrument for supporting beam formwork which makes conventional beam formwork simple, and increases the construction efficiency.

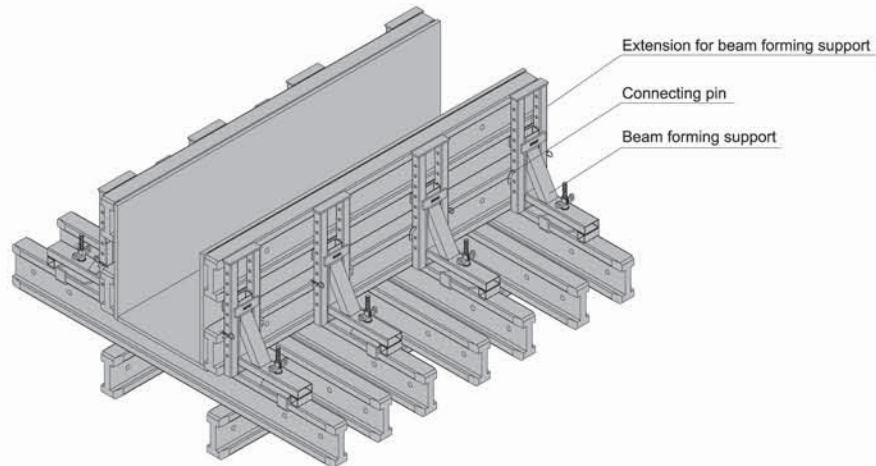
The standard system is composed by beam forming support, extension for beam forming support and clamp. We can change the vertical height by regulating extension for beam forming support. Clamp can join beam forming support and timber beam together. According to the beam width, arrange beam forming support. make sure the width of beam can satisfy the need.

Timber beam or wood batten works with beam forming support to constitute the beam formwork. The floor prop or scaffoldings can be the supporting system. The panel is the plywood, wood or bamboo.

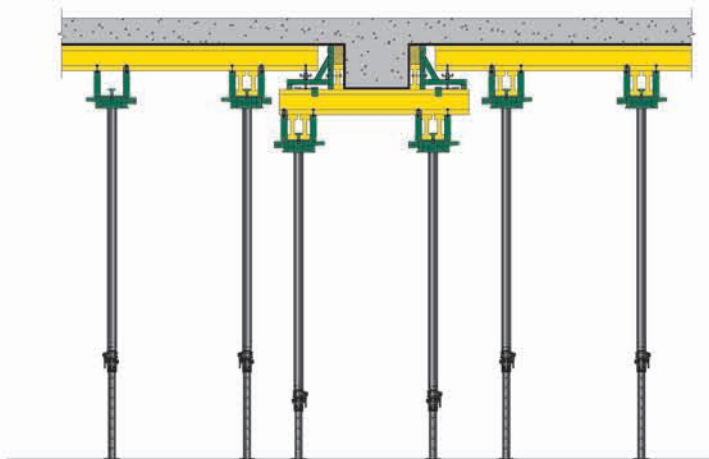
The beam forming support system always works together with slab formwork.

## ► Beam Forming Support A

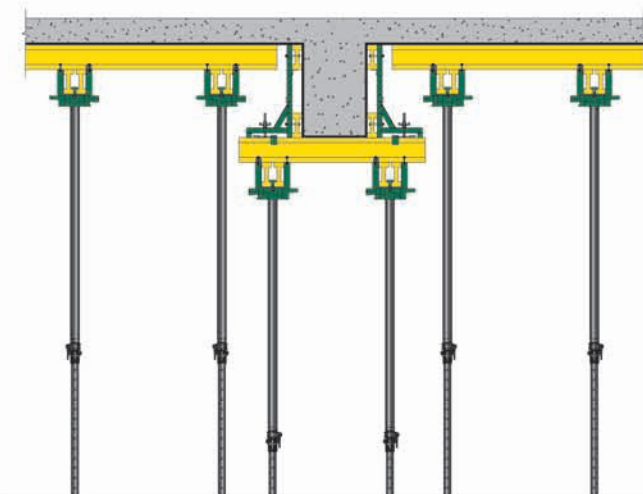
### 1. Assembly sketch



### 2. Application sketches



◀ Only use beam forming support, the biggest pouring height can reach 350mm.

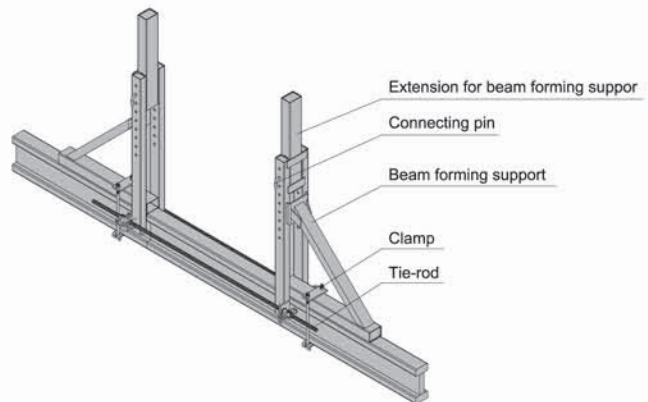
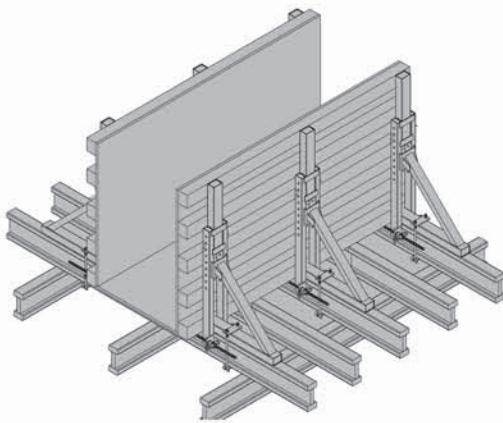


◀ Add extension for beam forming support, the biggest pouring height can reach 750mm.

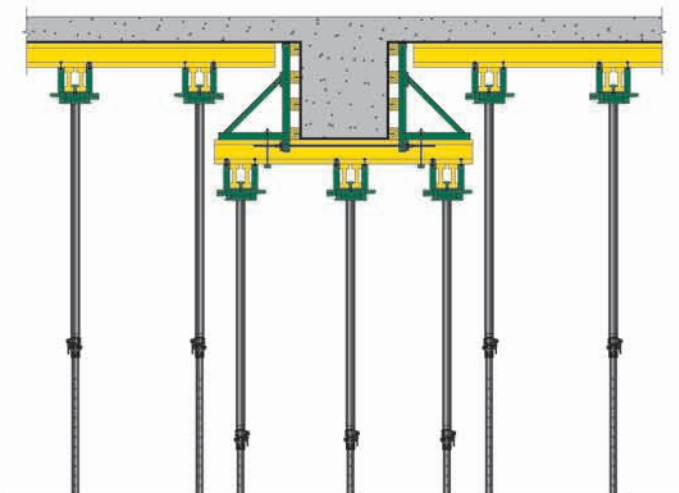


## ► Beam-clamp B

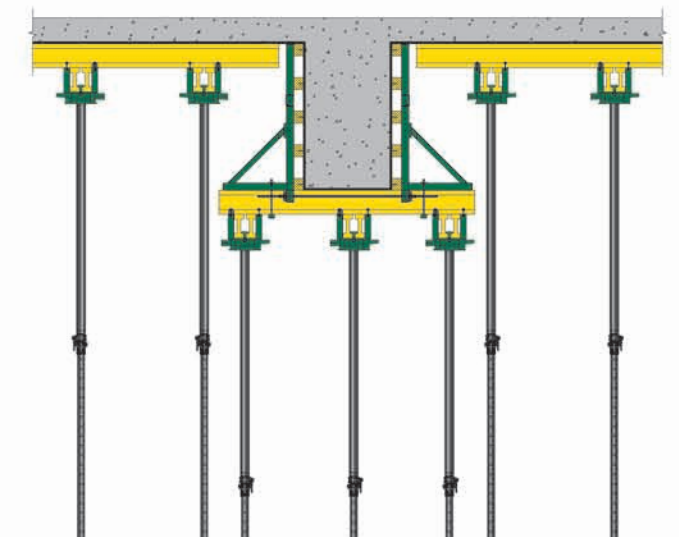
### 1. Assembly sketches



### 2. Application sketch



◀ Only use beam forming support, the biggest pouring height can reach 0.8m.



◀ Add extension for beam forming support, the biggest pouring height can reach 1.2m.

## ► Project Application





# Timber Beam Wall & Column Formwork

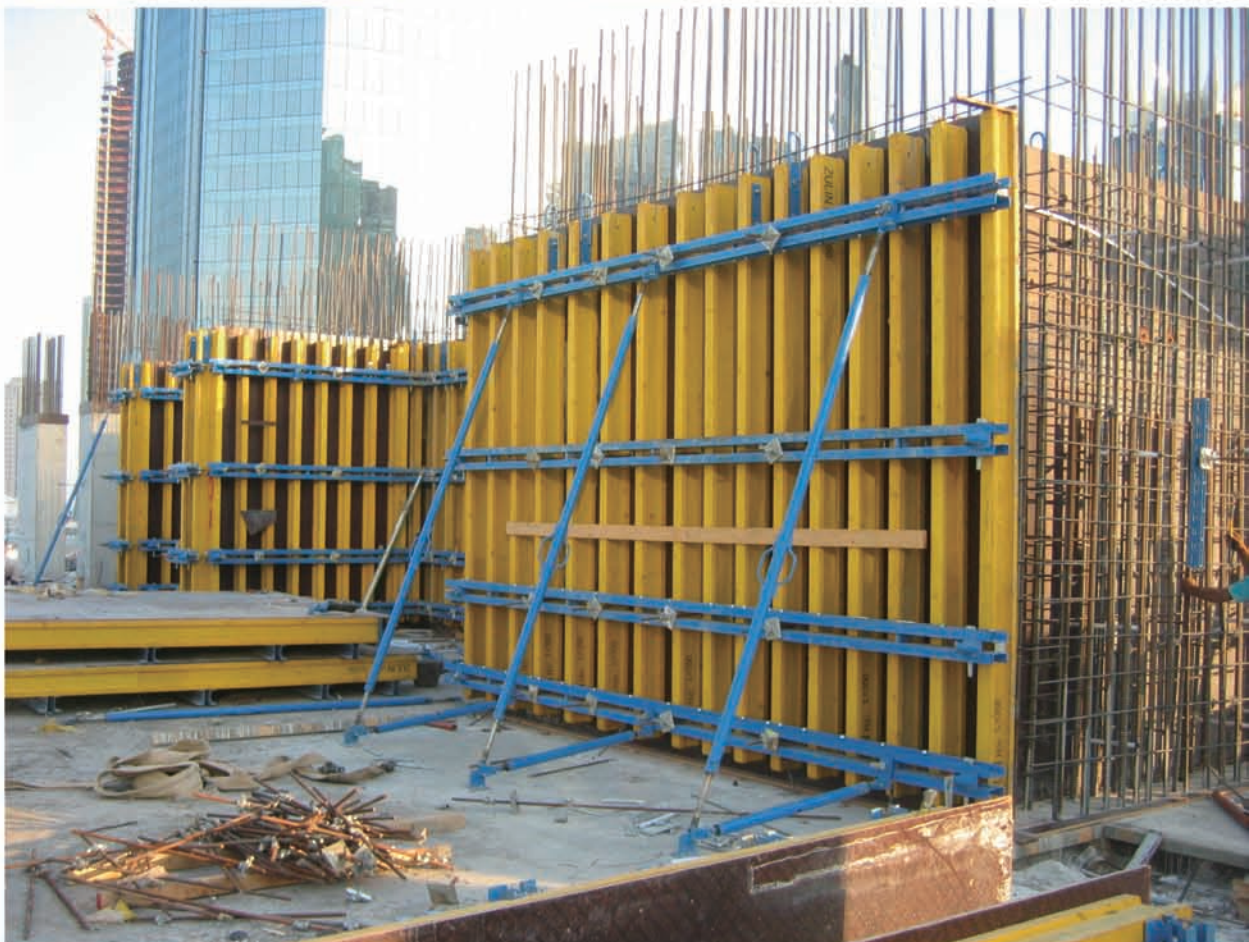


## ► Timber Beam Wall Formwork

Timber beam wall formwork is used for the concrete pouring of wall. The application of large areas' formwork has greatly increased the construction efficiency and reduced the cost. The system is convenient for construction and it is easy to control the quality.

The system has two parts, formwork and pull-push props. The formwork is made of plywood, timber beam and steel waling. Pull-push props can be designed according to the project or simply select the standard props. Tie-yoke and tie-rod are used to reinforce the corner.

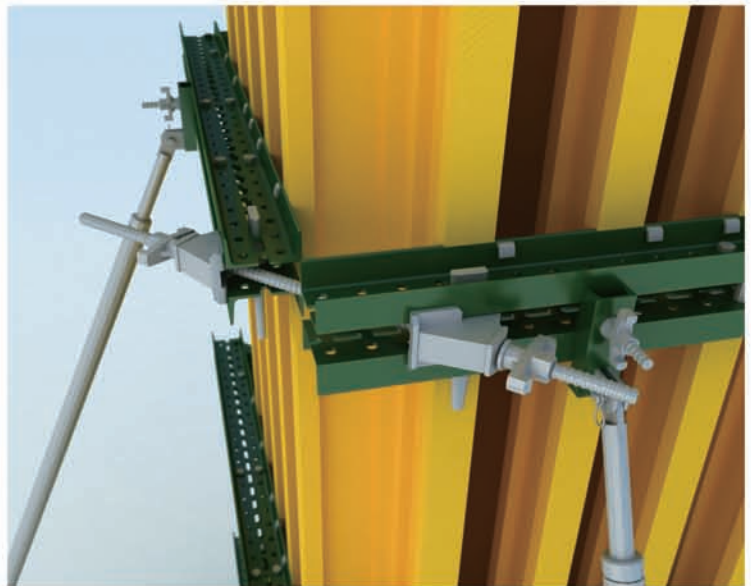
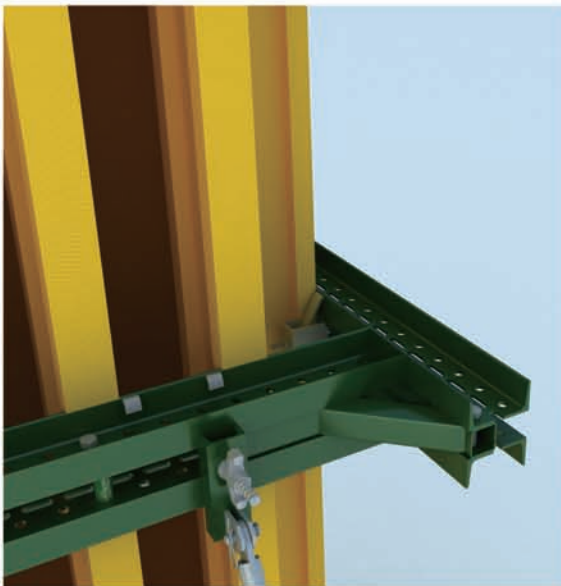
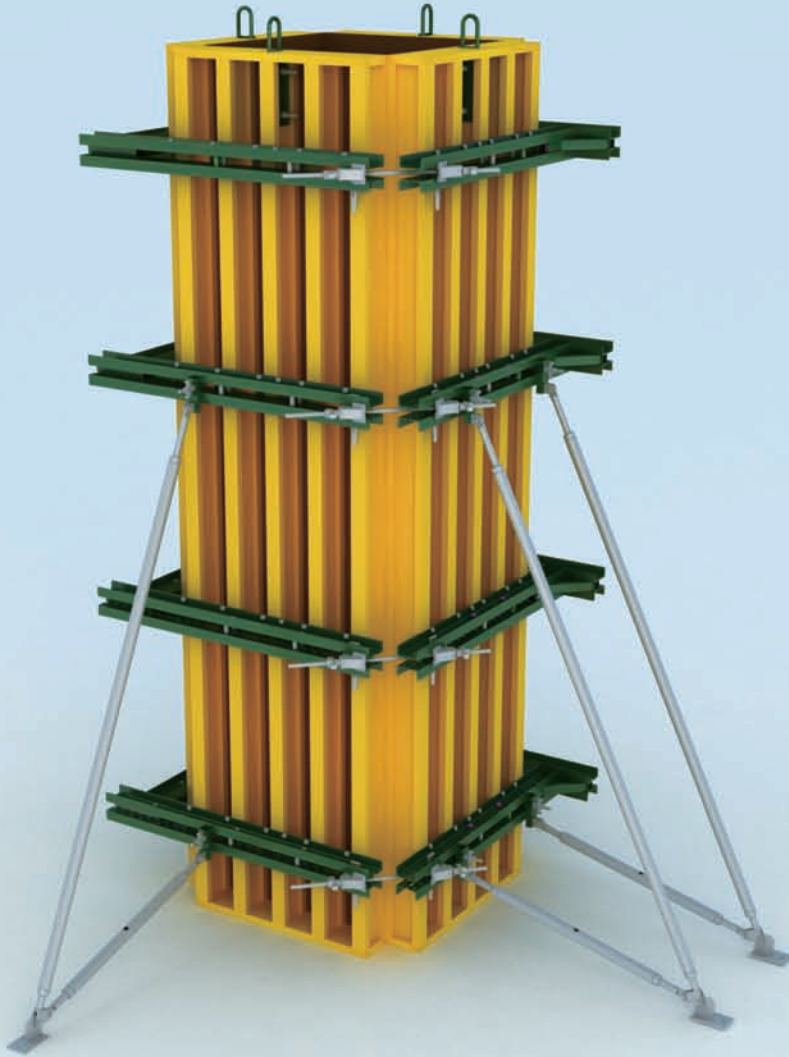






## ► Timber Beam Column Formwork

Timber Beam Column Formwork is used for the concrete pouring of square or rectangle column. The system has the same structure and similar connection type with wall formwork.



▲ Corner Connection

## Adjustable column formwork

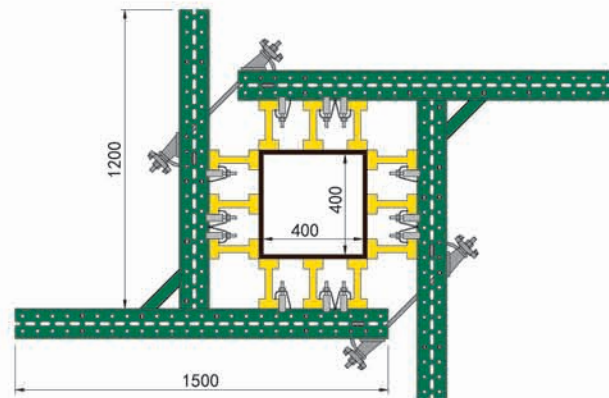
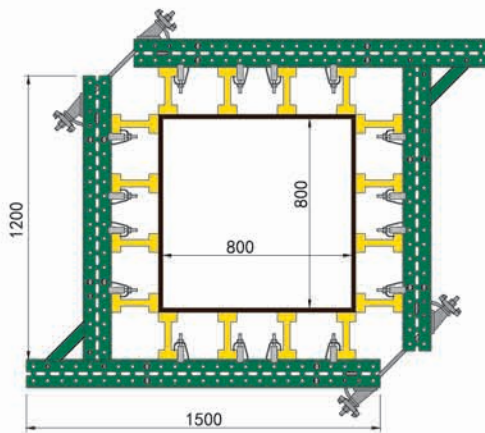
The adjustment of adjustable column formwork is realized by changing the steel walings' relative position.

### 1. Standard specifications

The steel waling of standard adjustable column formwork has three specifications. This can satisfy the need of concreting of column with side length from 200mm to 1200mm.

The length of steel waling (mm)	The side length of column (mm)
1500&1800	800~1200
1500&1200	400~800
1200&900	200~400

When the steel walings are 1500 & 1200mm long, we can adjust the section dimension from 800×800mm to 400×400mm or any size column with side length from 400mm to 800mm, square or rectangle.



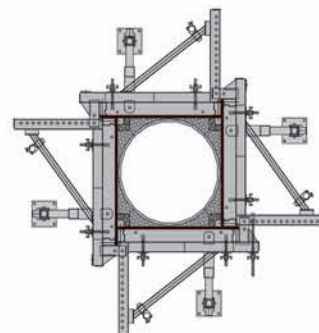
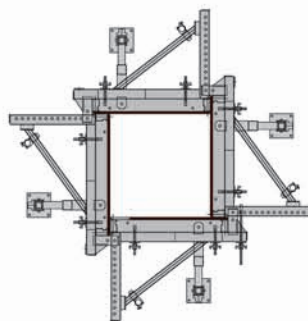
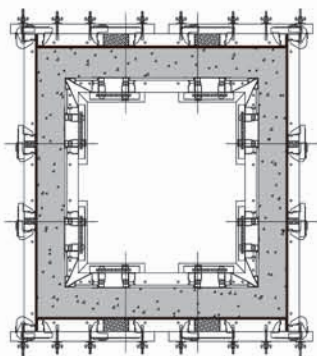
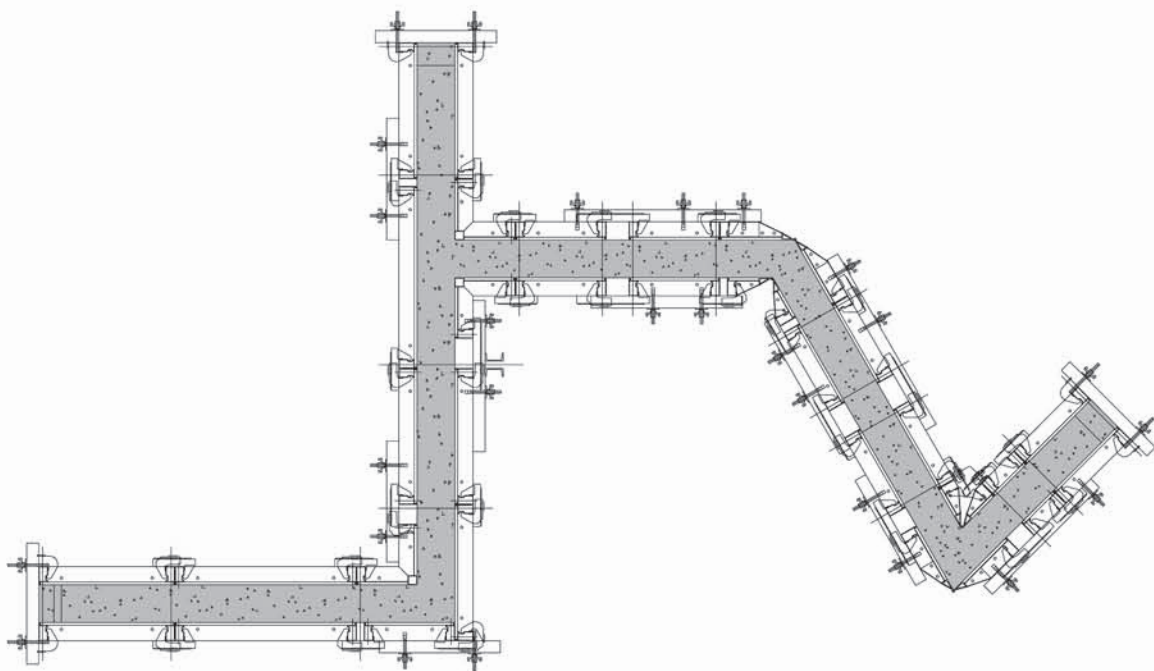
### ► Project Application



The column formwork can also be used in the concrete pouring of inclined column.

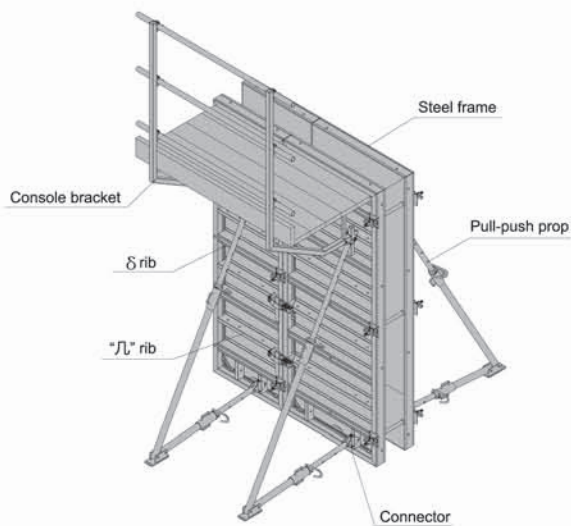


## Steel Frame Formwork GK120



## ► Characteristics

1. The steel frame formwork is plywood covered with hollow steel. The plywood is 18 mm thick.
2. The frame is highly strengthened, and the wall formwork can bear lateral pressure  $60 \text{ KN/m}^2$  while the column formwork can bear  $80 \text{ KN/m}^2$ .
3. As a standardized system, it is flexible to assemble, wood batten can be filled to satisfy the need of non-standard size.
4. The adjustable steel clamp is convenient to use, and can hold tightly.
5. There is a prizing part designed in the corner, which can help to position and remove formwork easily.
6. The plywood is screwed on from the back when connecting frame and plywood, so the surface of the finished concrete is perfect.
7. The formwork series are a complete system with a full set of accessories, and can be set up flexibly according to project demand.



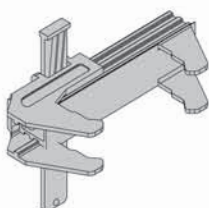
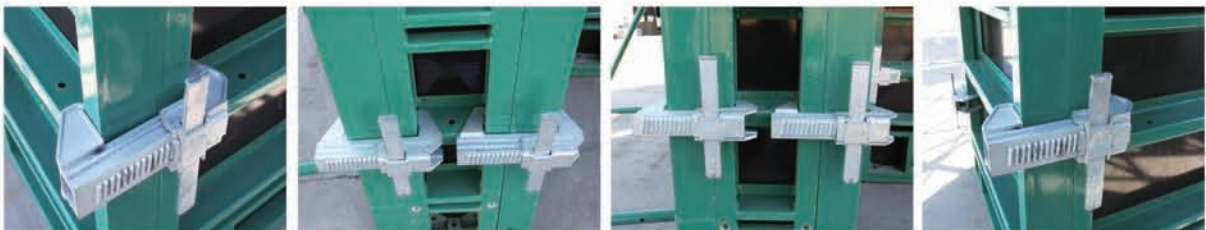
## ► A/B Series Vertical Formwork

### The connection

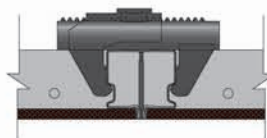
The cross section of hollow steel is shown below



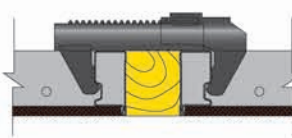
The connection of the formworks:



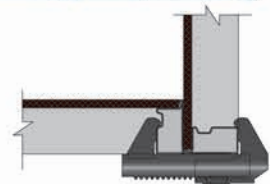
Steel clamp



Direct connection



Connection with wood batten

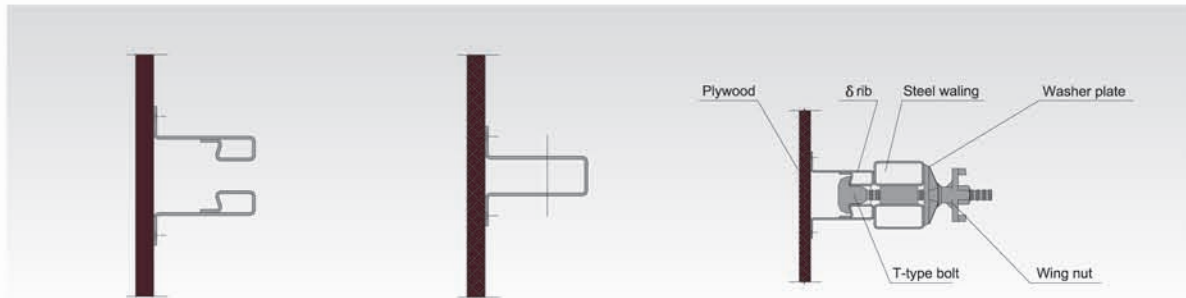


Corner connection



## The Arrangement of 几 Ribs And δ Ribs

几 ribs and δ ribs can not only enhance the formwork strength, but also be used for connecting other parts. δ ribs are used in pairs, so that it is easy to connect with the steel waling by T-type bolt.

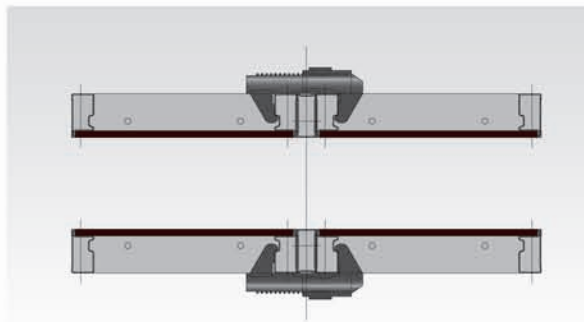


δ ribs connected with plywood

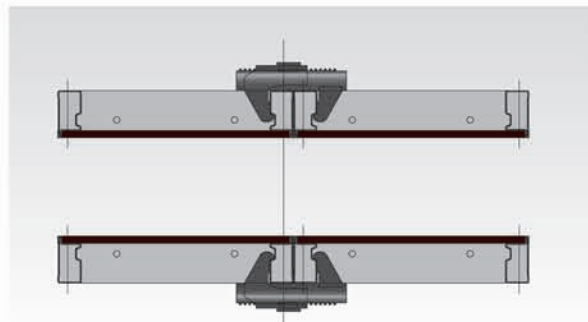
几 ribs connected with plywood

## The arrangement of wall-through tie rods

A series steel frame formwork has no holes in the hollow steel, and filler tubes should be used for arranging the tie rods; B series steel frame formwork has holes in the hollow steel, and tie rods can be arranged in the hollow steel.



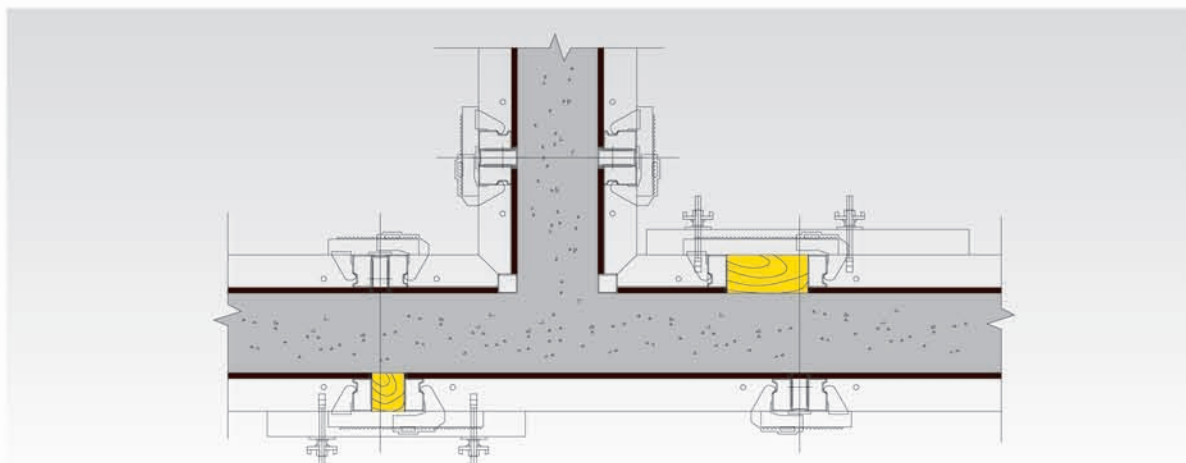
A series tie rod arrangement



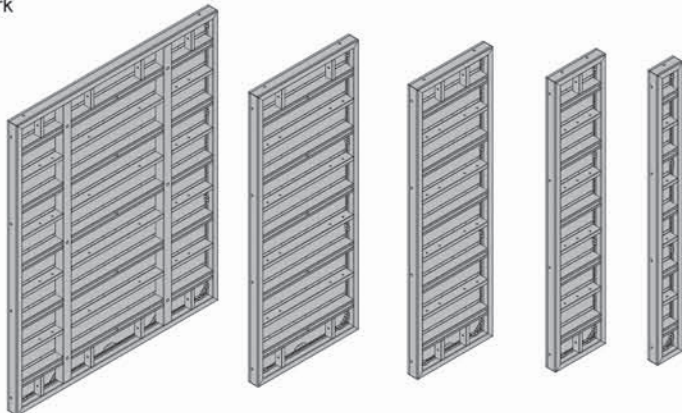
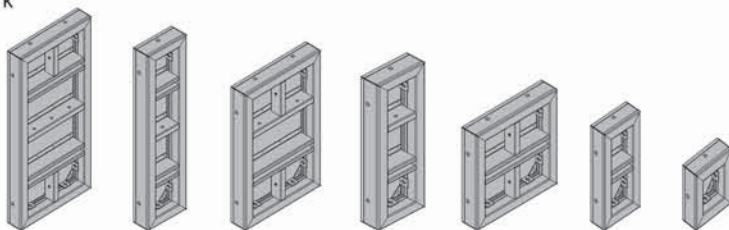
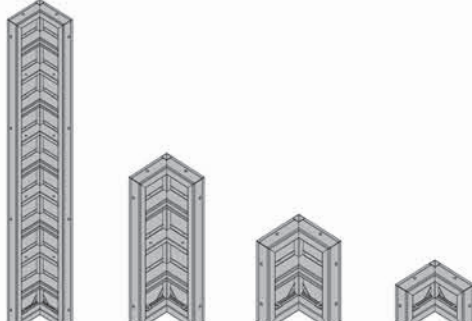
B series tie rod arrangement

## The arrangement of inside corner

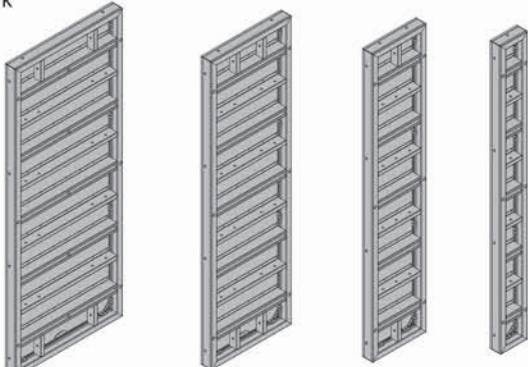
A/B series both have matched inside corner, used in the right angle. The sketch is shown below



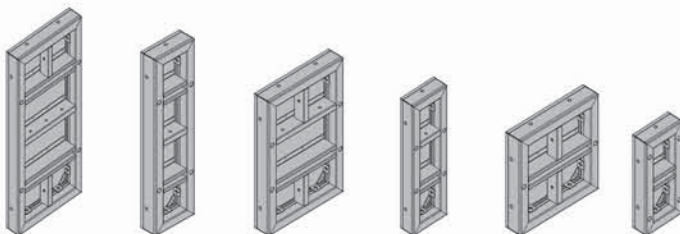
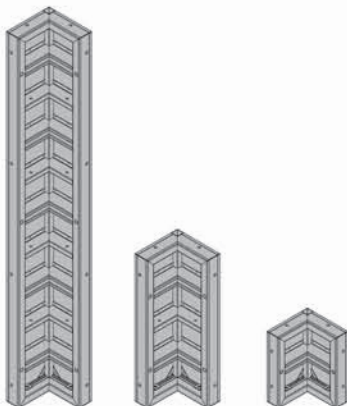
## A series vertical formwork list

		Weight (Kg)	Item No.
A series vertical formwork			
3.0×2.4m		422.96	03080101
3.0×1.2m		205.57	03080102
3.0×0.9m		165.26	03080103
3.0×0.6m		122.84	03080104
3.0×0.3m		80.34	03080105
A series vertical formwork			
1.2×0.6m		53.84	03080106
1.2×0.3m		33.67	03080107
0.9×0.6m		41.66	03080108
0.9×0.3m		25.64	03080109
0.6×0.6m		31.0	03080110
0.6×0.3m		18.25	03080111
0.3×0.3m		9.98	03080112
A series inside corner			
3.0×0.4×0.4m		143.41	03080113
1.2×0.4×0.4m		61.27	03080114
0.6×0.4×0.4m		34.04	03080115
0.3×0.4×0.4m		19.28	03080116

## B series vertical formwork list

		Weight (Kg)	Item No.
<b>B series vertical formwork</b>			
3.0×1.2m		205.37	03080201
3.0×0.9m		165.09	03080202
3.0×0.6m		122.66	03080203
3.0×0.3m		80.16	03080204

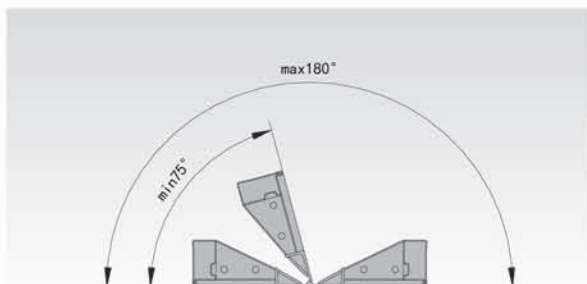


		Weight (Kg)	Item No.
B series vertical formwork			
1.2×0.6m		53.70	03080205
1.2×0.3m		33.52	03080206
0.9×0.6m		43.18	03080207
0.9×0.3m		26.17	03080208
0.6×0.6m		30.94	03080209
0.6×0.3m		18.13	03080210
B series inside corner			
3.0×0.4×0.4m		143.34	03080211
1.2×0.4×0.4m		61.13	03080212
0.6×0.4×0.4m		33.98	03080213

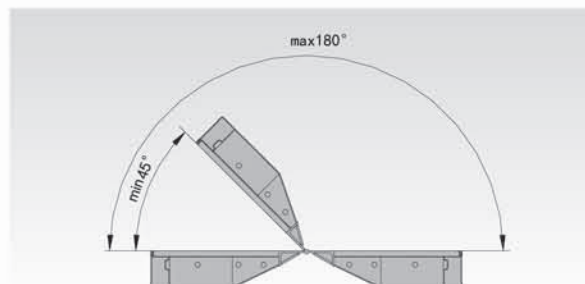
## ► Articulated Corner

### Brief introduction

There are two kinds of articulated corners, inside corner and outside corner. The assembly is convenient and can be connected with all the other GK120 steel frame formworks by steel clamps. The structure and adjustable range are shown below:

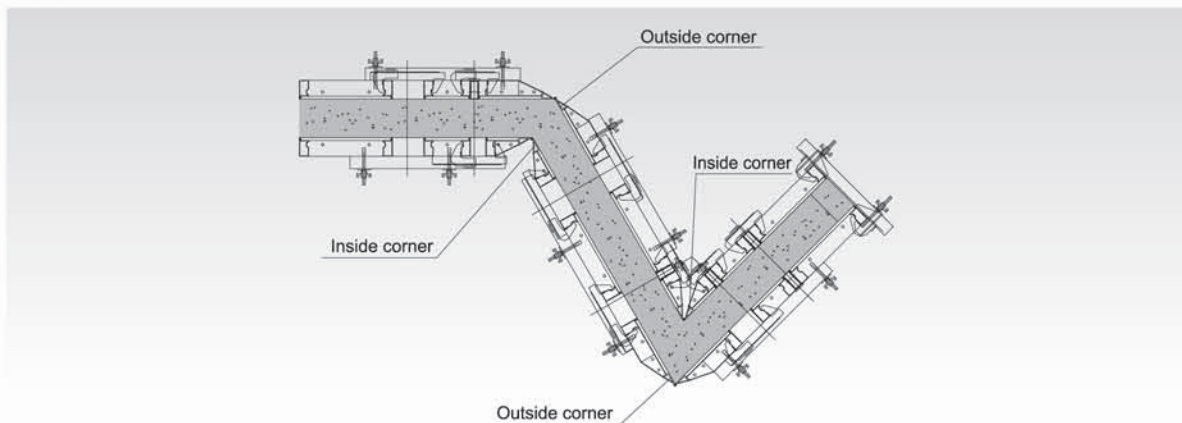


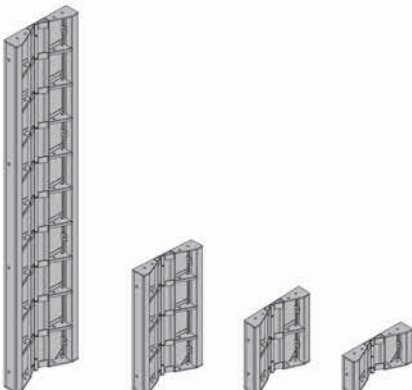
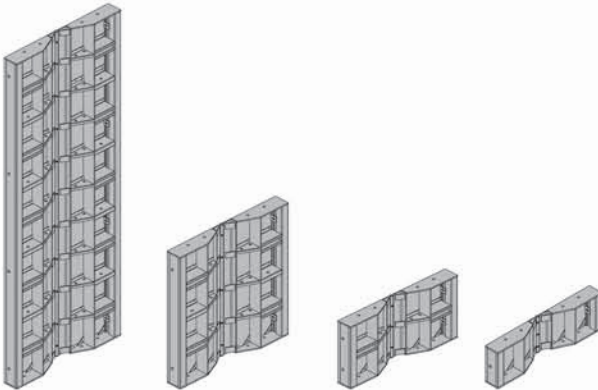
Articulated inside corner



Articulated outside corner

### Application sketch



		Weight (Kg)	Item No.
<b>Articulated inside corner</b> 3.0×0.3×0.3m 1.2×0.3×0.3m 0.6×0.3×0.3m 0.3×0.3×0.3m		125.78	03080301
		53.67	03080302
		29.89	03080303
		17.73	03080304
<b>Articulated outside corner</b> 3.0×0.5×0.5m 1.2×0.5×0.5m 0.6×0.5×0.5m 0.3×0.5×0.5m		216.21	03080401
		92.61	03080402
		51.74	03080403
		30.34	03080404

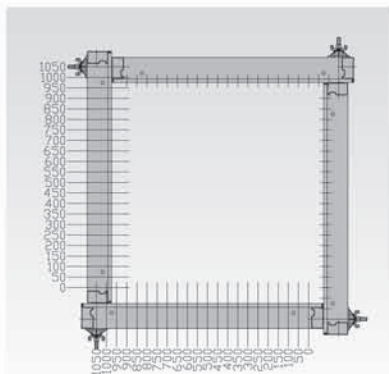
## ► Column Formwork



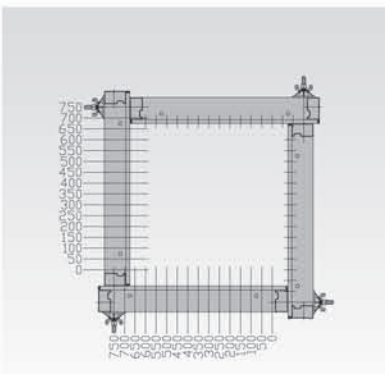


## 1050 series / 750 series adjustable column formwork

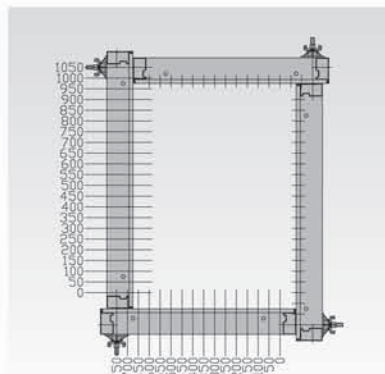
1050 series /750 series adjustable column formwork are used in the concrete pouring of square or rectangle column. The largest column dimension is 1050×1050mm and 750×750mm respectively. Combined the two together, the rectangle column can be done, and the largest dimension is 1050×750mm. Additionally, wood batten(width≤50mm) can be filled in the corner to satisfy the middle dimension. The sketches are shown below:



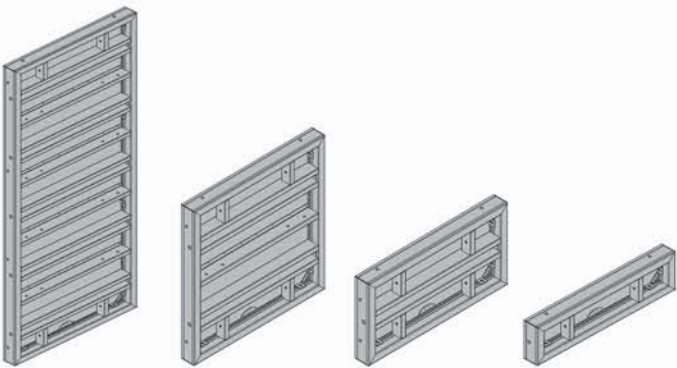
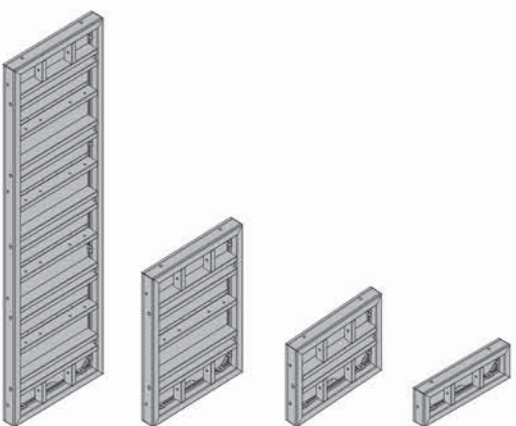
1050 series



750 series







Rectangle column

	Weight (Kg)	Item No.
1050 series adjustable column formwork		
H=3.0m	228.3	03080501
H=1.2m	100.58	03080502
H=0.6m	58.19	03080503
H=0.3m	30.78	03080504
		
750 series adjustable column formwork		
H=3.0m	182.14	03080601
H=1.2m	80.33	03080602
H=0.6m	46.57	03080603
H=0.3m	24.62	03080604
		

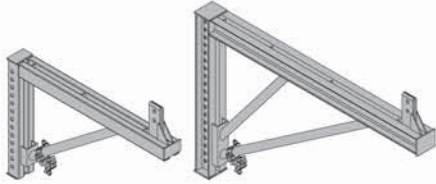
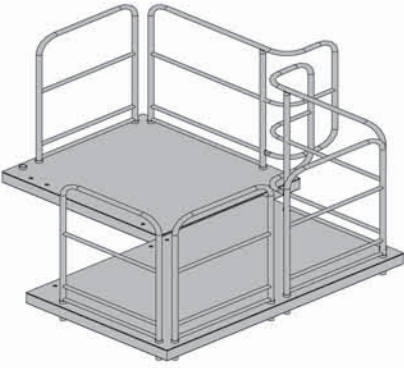
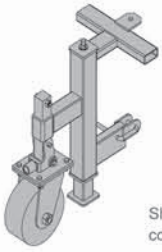
## C series vertical formwork

C series vertical formwork belongs to column formwork series. They are matched with column walers.



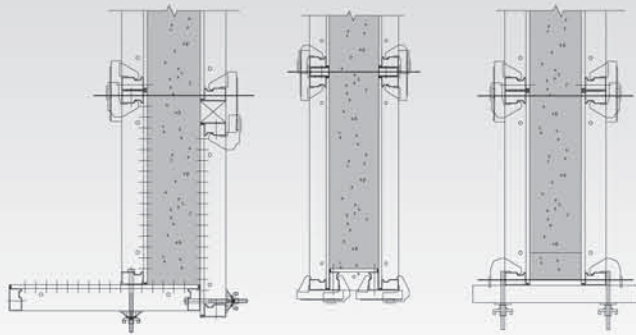
		Weight (Kg)	Item No.
C series vertical formwork			
3.0×1.0m		177.4	03080701
3.0×0.5m		108.74	03080702
1.0×0.5m		40.07	03080703
0.5×0.5m		24.65	03080704

## Column auxiliary products

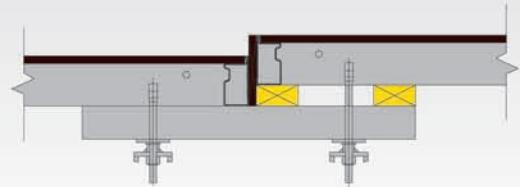
	Weight (Kg)	Item No.		Weight (Kg)	Item No.
Column waler			Column platform		
300~850mm	27.65	03080801	BP=900	175.76	
500~1350mm	67.89	03080802	BP=700	159.45	
			BP=600	159.98	
					
Shifting wheel	38.37	03080803			
					
Shifting wheel can be used to move the column formwork.			Column platform is fixed with the column formwork as operating platform.		



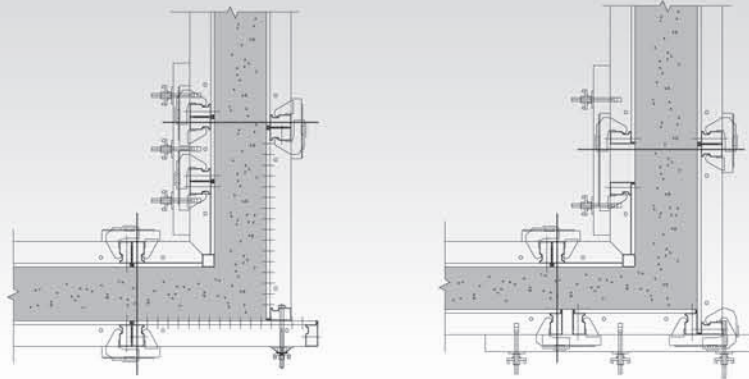
## ► The Typical Examples Of Project



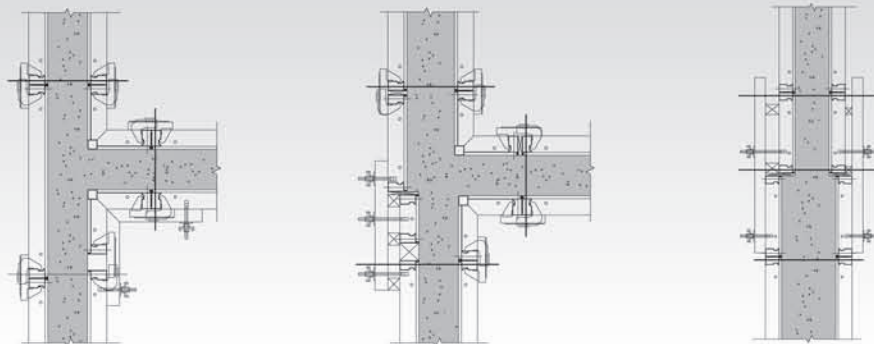
The end of the wall



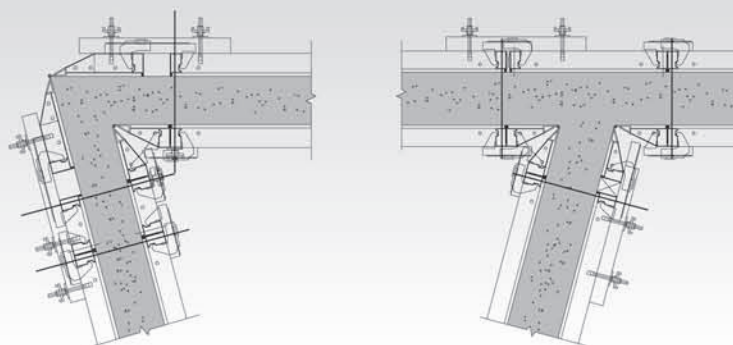
Dislocation of slab ends



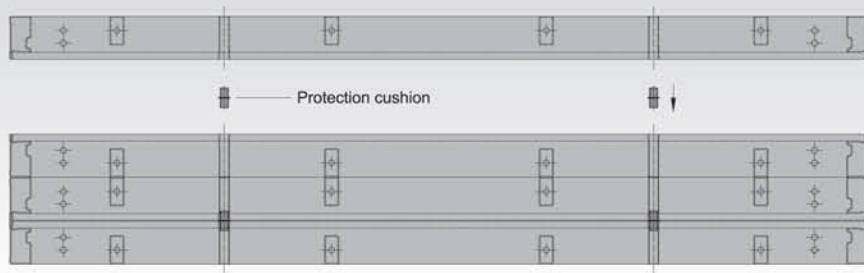
Right-angle corners



T-corners



Angle corners



The formwork storage



Work with single side bracket



Work with climbing bracket

## Project Application



### Kuwait Police College

Builder: Kuwait Arab Contractors  
Location: Kuwait



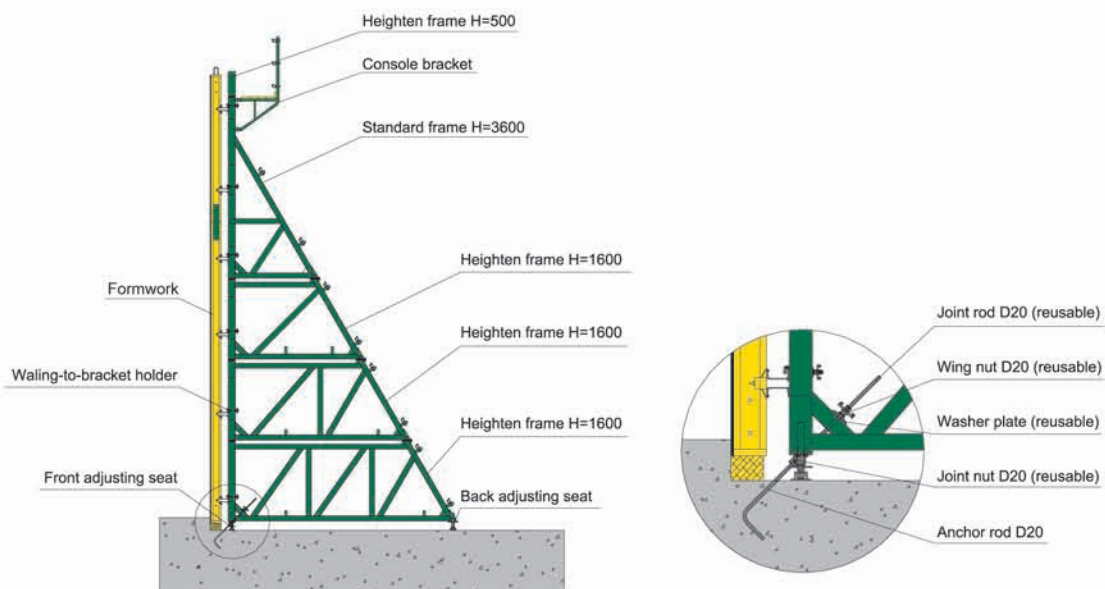
## Single-side Bracket



Single-side bracket is a kind of formwork for the concrete pouring of single-side wall. The construction is easy and fast. The components have good standard performance and versatility. The pouring height is adjustable, the maximum height of a single pouring is 8.9m.

The formwork is always used in the concrete pouring of basement, subway, sewage treatment factory and so on. The waterproofness of the finished wall is excellent.

### ► The Structure Sketch





## ► Project Application



▲ Residential & Office tower (Dubai, UAE)

▼ Tucheng Subway Station (Beijing)



▼ Hualian Park Underground Garage (Beijing)



▲ Yonghegong Subway Station (Beijing)



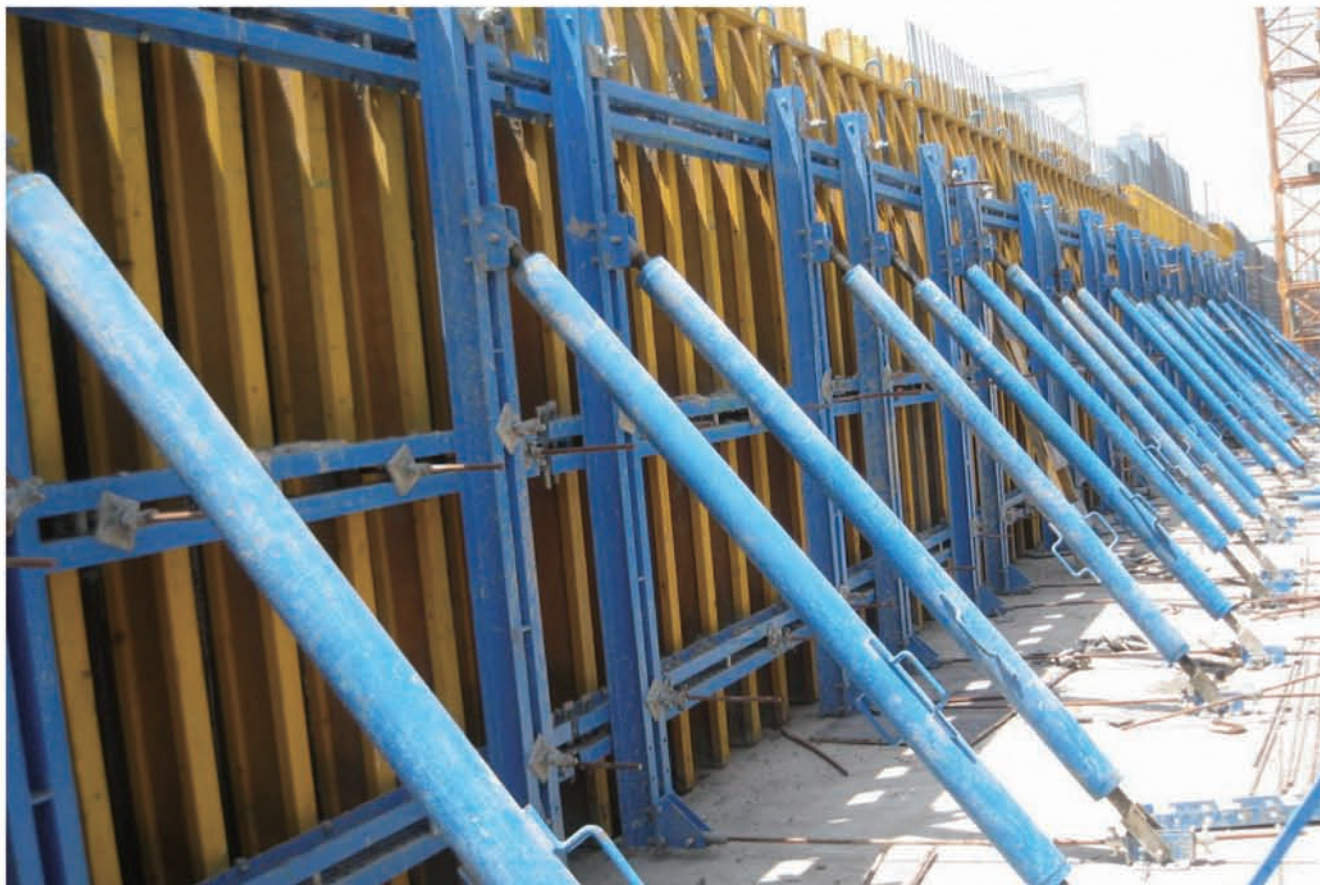
▲ Dongzhimen Subway Station (Beijing)



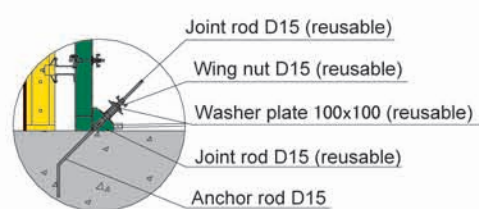
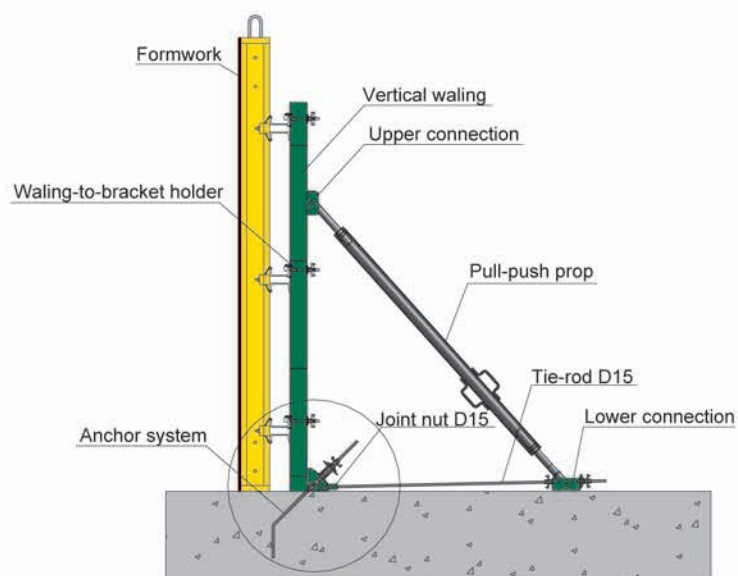
# Simple Single-side Bracket

## Brief Introduction

Simple single-side bracket is based on single-side bracket. Compared with single-side bracket, simple single-side bracket has simpler structure. It is easy to assemble and disassemble, and convenient for transportation and storage.



## The Structure Sketch







## Floor Prop & Tripod



Floor prop is a vertical support system widely used in construction. It can adapt for the support of any kind of slab formwork, and the structure is simple and flexible. It's easy to assemble and disassemble and also convenient for storage and transportation without covering much space. It is superior in terms of economy and practical use.

There are mainly three kinds of floor props:

1. Outer tube  $\Phi 60$  with inner tube  $\Phi 48$  (60/48).
2. Outer tube  $\Phi 75$  with inner tube  $\Phi 60$  (75/60).
3. Outer tube  $\Phi 88.5$  with inner tube  $\Phi 75.5$  (88.5/75.5).

### ► Standard Specification List

Specification	Weight (Kg)	Item No.
75/60 Series, Bearing capacity: 30KN, Galvanized.		
250A (75/60)	14.64	II 02020100
Height: 1400~2500		
300A (75/60)	16.53	II 02020200
Height: 1650~3000		
350A (75/60)	19.93	II 02020300
Height: 1900~3500		
400A (75/60)	25.32	II 02020400
Height: 2150~4000		
550B (88.5/75.5), Bearing capacity: 20KN, Galvanized.		
Height: 2900~5500	31.65	II 02020500
60/48 Series, Bearing capacity: 20KN, Galvanized.		
250B (60/48)	11.50	II 02020600
Height: 1400~2500		
300B (60/48)	13.98	II 02020700
Height: 1650~3000		
350B (60/48)	17.79	II 02020800
Height: 1900~3500		



▲ Packed floor props

▼ Floor props in use



## ► Folding Tripod

Folding tripod is always used as a reinforcement of floor prop. It can be folded, that will be easy for transportation and storage.



There are mainly two kinds of folding tripods: H70 and H90.

Folding tripod H70 is for floor prop with outer tube  $\Phi 60$ .

Folding tripod H90 is for floor prop with outer tube  $\Phi 75$ .

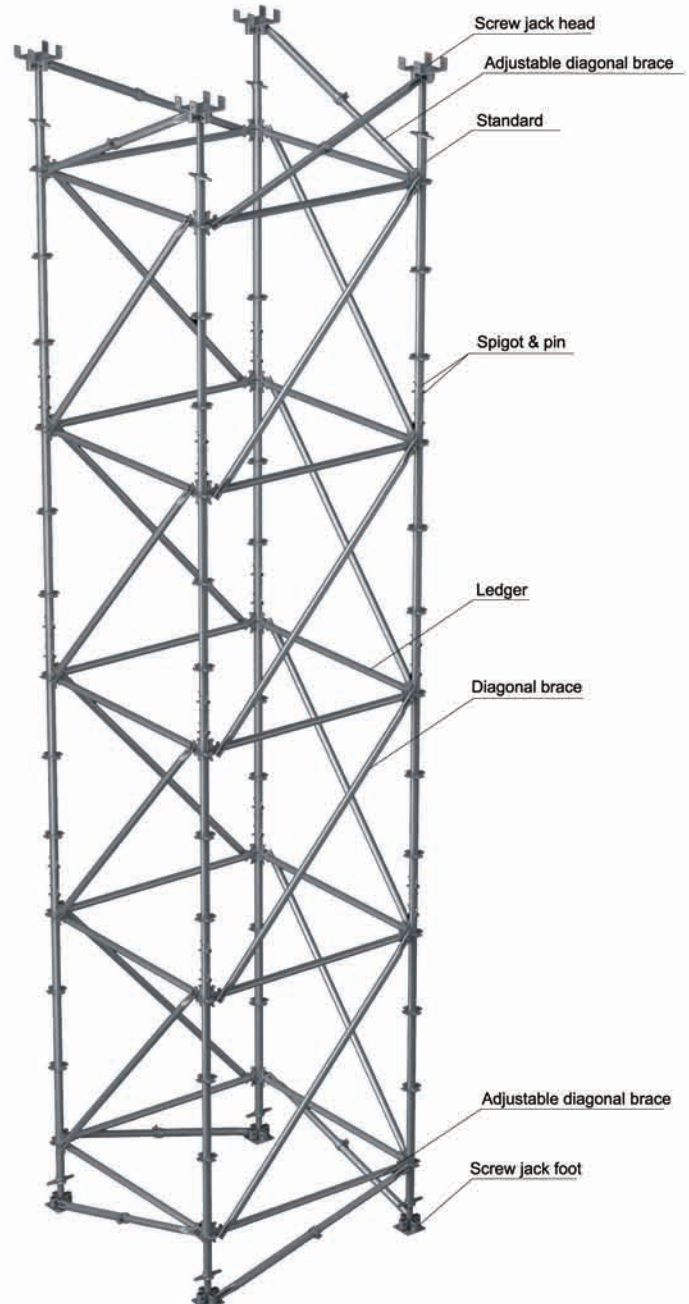
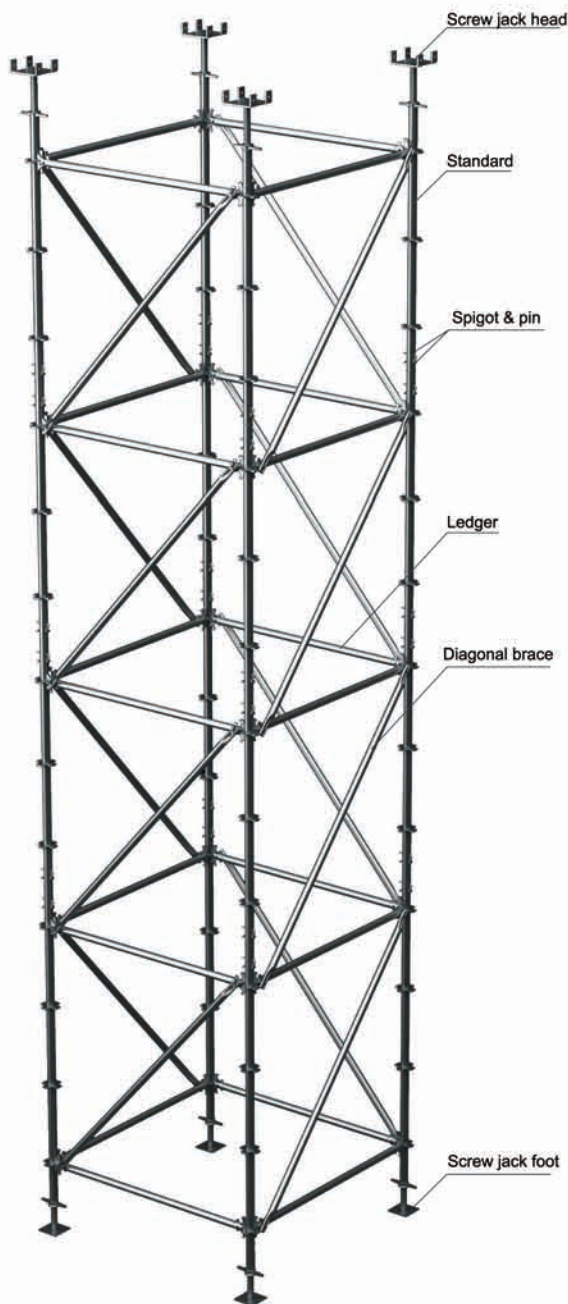
Specification	Weight (kg)	Item No.
H70	10.17	02040100
H90	12.35	02040200





## Ring-Lock Scaffolding

Ring-lock scaffolding, one of the support system for construction, owns advantages of both cup-lock scaffolding and shoring tower. It is in the development direction of new type scaffolding. According to the standard diameter, they are divided into two series:  $\Phi 48$  series and  $\Phi 60$  series. Equipped with staircases, the  $\Phi 60$  series can also be used as stair towers. The screw jack head and screw jack foot are adjustable, and can be select according to the demand. The system has excellent stability and bearing capacity, easy and flexible to assemble and disassemble, and has a high degree of standardization. It is widely used in buildings, bridges, tunnels etc..



## ► Standard Components Of Φ48 Series

Name & Specs	Weight (Kg)	Item No.	Name & Specs	Weight (Kg)	Item No.
<b>Ledger (Φ42)</b>			<b>Pin</b>	0.16	02110500
600	2.54	02110101	<b>Screw jack head</b>	4.93	02010600
900	3.40	02110102			
1200	4.27	02110103	<b>Screw jack foot</b>	3.24	02010700
1500	5.14	02110104			
1800	6.00	02110105	<b>Screw jack head L=900(600)</b>	7.17(6.17)	02110600
2100	6.86	02110106			
2400	7.73	02110107	<b>Adjustable diagonal brace</b>	5.49	02110700
3000	9.46	02110108			
1000	3.69	02110109	<b>Screw jack foot L=900(600)</b>	5.48(4.48)	02110800
<b>Standard (Φ48)</b>					
1000	4.02	02110201			
1500	6.03	02110202			
2000	8.05	02110203			
2500	10.17	02110204			
3000	12.08	02110205			
500	2.56	02110206			
<b>Diagonal brace (Φ42, W*H)</b>					
1200×1500	5.55	02110301			
1500×1500	6.09	02110302			
1200×1000	4.45	02110303			
1500×1000	5.12	02110304			
1200×500	3.63	02110305			
1500×500	4.42	02110306			
1000×500	3.11	02110307			
<b>Spigot</b>	0.56	02110400			

## ► Standard Components Of Φ60 Series

Name & Specs	Weight (Kg)	Item No.	Name & Specs	Weight (Kg)	Item No.
<b>Ledger (Φ48)</b>			<b>Pin</b>	0.30	02120500
600	3.03	02120101	<b>Screw jack foot</b>	5.53	02061000
900	4.03	02120102			
1200	5.03	02120103	<b>Screw jack head</b>	6.75	02061100
1500	6.03	02120104			
1800	7.03	02120105	<b>Screw jack head L=900(600)</b>	8.20(6.84)	02120600
2100	8.03	02120106			
2400	9.03	02120107	<b>Adjustable diagonal brace</b>	5.52	02110700
3000	11.02	02120108			
1000	4.36	02120109	<b>Screw jack foot L=900(600)</b>	6.80(5.44)	02120800
<b>Standard (Φ60)</b>					
1000	5.27	02120201			
1500	7.91	02120202			
2000	10.55	02120203			
2500	13.19	02120204			
3000	15.83	02120205			
500	3.33	02120206			
<b>Diagonal brace (Φ48, W*H)</b>					
1200×1500	6.39	02120301			
1500×1500	7.00	02120302			
1200×1000	5.12	02120303			
1500×1000	5.86	02120304			
1800×1000	6.69	02120305			
1800×1500	7.70	02120306			
1200×500	4.13	02120307			
1500×500	5.06	02120308			
1000×500	3.55	02120309			
1800×500	6.01	02120310			
<b>Spigot</b>	0.87	02120400			



## ► Project Application





## ► Project Application



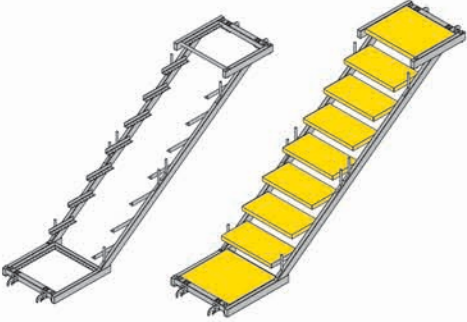
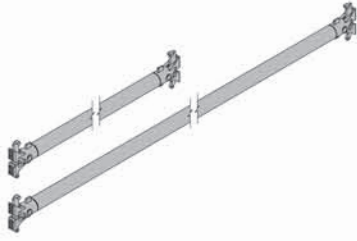




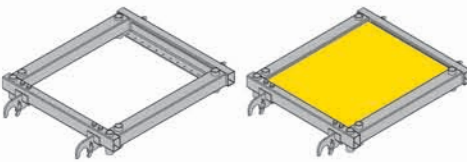





## Ring-Lock Stair Tower

The structure of ring-lock stair tower is the same as  $\Phi 60$  ring-lock scaffolding. The dimension of cross section is 1500X3000mm. The stair tower is safe and convenient, easy and flexible to assemble and disassemble, has good bearing capacity, and can be widely used in construction.



## ► Standard Components

	Weight (kg)	Item No.		Weight (kg)	Item No.
<b>Stair</b> 	67.37 (Board not included)	02130100	<b>Ledger</b> 1500 3000 	6.03 11.02	02120104 02120108
<b>Handrail</b> 	4.78	02130200	<b>Standard</b> 3000 	15.83	02120205
<b>Guardrail</b> 	4.45	02130300	<b>Diagonal brace</b> 1500×1500 	7.17	02120302
<b>Topplatform</b> 	15.39 (Board not included)	02130400	<b>Spigot</b> 	0.87	02120400
			<b>Connecting pin</b> 	0.30	02120500
			<b>Screw jack foot</b> 	5.32	02061000



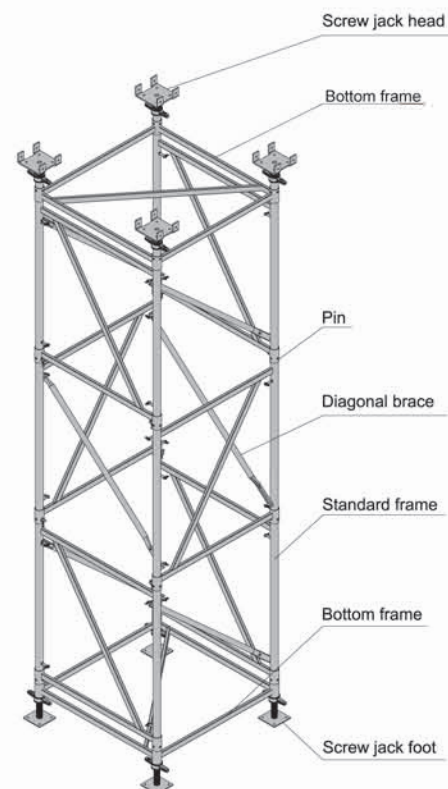
## Shoring Tower








### ► Brief Introduction

Shoring tower is an effective supporting system. It is easy to assemble and disassemble, and has excellent stability and bearing capacity. It has been widely used in the construction of industrial & residential buildings, bridges, tunnels, and dam projects, etc. The shoring towers we manufacture are mainly in three types:

### The First Type

Square tower ( $\Phi 48$ ), the cross section is square 1000×1000mm; the diameter of vertical tube is  $\Phi 48$ mm; galvanized or powder coated.

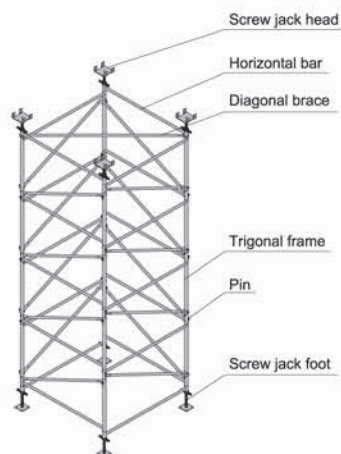





	Weight (Kg)	Item No.		Weight (Kg)	Item No.
Bottom frame 1000×1000	12.32	02010100	Standard frame 1000×1200 1000×900	16.01 13.02	02010200 02010300
					
Diagonal brace	2.12	02010400	Connecting pin $\Phi 12/L=87$	0.08	02010800
					
Screw jack head	4.93	02010600	Spring cotter $\Phi 3$	0.009	99000501
					
Screw jack foot	3.24	02010700			
					







## The Second Type

Trigonal tower, it is named according to the shape of the main parts. The tower has three cross sections, 1000×1500mm, 1000×1000mm & 1500×1500mm. The diameter of vertical tubes is  $\Phi 48$ mm; galvanized or powder coated.

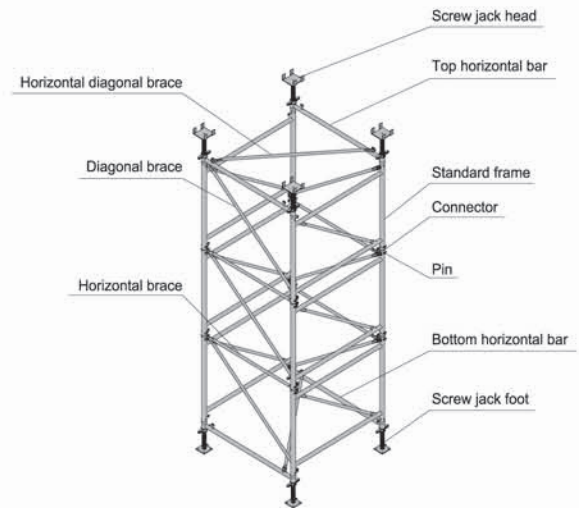


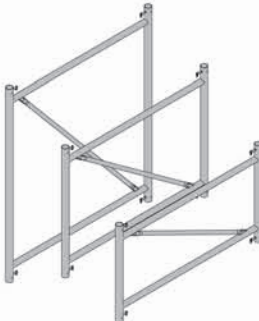


	Weight (Kg)	Item No.
Trigonal frame		
1000×1500	11.56	02070100
750×1500	10.62	02070200
750×1000	8.28	02070300
1000×1000	9.55	02070400
		
Horizontal bar		
L=1000	3.43	02070500
L=1500	4.64	02070600
		
Diagonal brace		
H=1000, D=1000	4.10	02070701
H=1500, D=1000	5.04	02070702
H=1500, D=1500	5.81	02070703
		




	Weight (Kg)	Item No.
Connecting pin $\Phi 12/L=87$	0.08	02010800
		
Screw jack foot	2.87	02070900
		
Screw jack head	4.58	02071000
		
Spring cotter $\Phi 3$	0.009	99000501
		

## The Third Type





Rectangle tower (Φ60), there are several kinds of cross sections, the smallest is 1500mm×1000mm; the largest is 1500×2500mm. The diameter of vertical tubes is Φ60mm; galvanized or powder coated.






	Weight (Kg)	Item No.
Standard frame		
1500×900	22.39	02060100
1500×1200	25.49	02060200
1500×1800	32.06	02060300
		
Horizontal brace		
D=1000	1.62	02060401
D=1250	2.01	02060402
D=1500	2.40	02060403
D=1750	2.78	02060404
D=2000	3.17	02060405
D=2250	3.56	02060406
D=2500	3.95	02060407
		
Diagonal brace (H=900)		
D=1000	2.07	02060501
D=1250	2.39	02060502
D=1500	2.72	02060503
D=1750	3.07	02060504
D=2000	3.42	02060505
D=2250	5.90	02060506
D=2500	6.48	02060507
		

	Weight (Kg)	Item No.
Diagonal brace (H=1200)		
D=1000	2.40	02060601
D=1250	2.67	02060602
D=1500	2.97	02060603
D=1750	3.29	02060604
D=2000	3.62	02060605
D=2250	6.19	02060606
D=2500	6.74	02060607
		
Diagonal brace (H=1800)		
D=1000	3.15	02060701
D=1250	3.36	02060702
D=1500	5.63	02060703
D=1750	6.05	02060704
D=2000	6.49	02060705
D=2250	7.00	02060706
D=2500	7.45	02060707
		
Spigot	0.64	02060800
		



	Weight (Kg)	Item No.
Connecting pin $\Phi 16/L=85$	0.13	02060900
		
Screw jack foot	5.53	02061000
		
Screw jack head	6.75	02061100
		
Bottom horizontal bar		
D=1000	4.96	02061201
D=1250	5.92	02061202
D=1500	6.88	02061203
D=1750	7.84	02061204
D=2000	8.80	02061205
D=2250	9.76	02061206
D=2500	10.72	02061207
		

	Weight (Kg)	Item No.
Top horizontal bar		
D=1000	4.96	02061301
D=1250	5.92	02061302
D=1500	6.88	02061303
D=1750	7.84	02061304
D=2000	8.80	02061305
D=2250	9.76	02061306
D=2500	10.72	02061307
		
Horizontal diagonal brace		
D=1000 L=1655	2.63	02061401
D=1250 L=1776	2.82	02061402
D=1500 L=1921	3.05	02061403
D=1750 L=2086	3.30	02061404
D=2000 L=2267	3.58	02061405
D=2250 L=2460	3.88	02061406
D=2500 L=2663	4.20	02061407
		
Spring cotter $\Phi 3$	0.009	99000501
		

The packed shoring tower





## Other Formworks

In order to meet customers' different demand, we can design and supply other different formworks.

### ► Steel Formwork





### ► Box Girder Formwork



### ► Cushion Cap Formwork





## ► Other Formwork



## ► Loading platform

