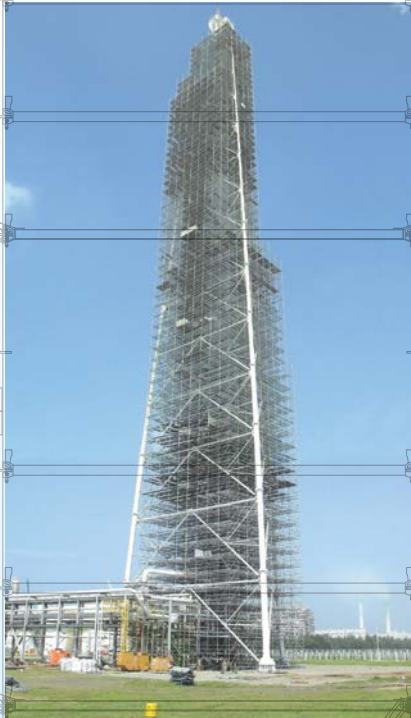


SUCOOT



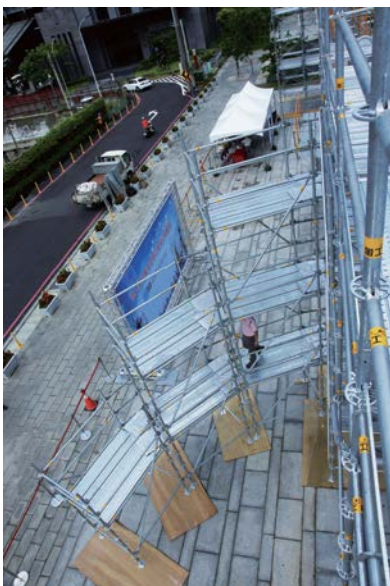
**RING SYSTEM
ACCESS SCAFFOLDING**



Table of Contents

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- 2. Main Concept 02
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102年施工架作業安全研討會及示範觀摩
 主辦單位：行政院勞工委員會勞工安全衛生研究所、臺中市政府勞工局
 協辦單位：營造業中國勞工安全衛生促進會、臺灣施工架發展協會
 協力廠商：實固股份有限公司
 展館名稱：臺灣國際勞工會、在臺轉工服務、大陸旅遊及服務中心
 應用機噐



1.About Us

SUCOOT CO., LTD. was set up in 1984 and specializes in Scaffolding Accessories & Formwork Parts. Today we have customers spreading over 65 countries around the world. Our products are engineered for safety, strength and durability to meet international standards within this industry. In terms of working processes, we have expertise in iron casting, steel forging and thread rolling. We are confident that our quality is on par with other world-leading brands. Especially our Ring System Scaffold, it has been widely used in many civil engineering projects around the world.



In 2008, we developed a Light-Duty Ring System for façade application use such as petrochemical, energy, manufacturing and wall refurbishment. It has gained many great reviews from clients and end users. We were also honored to work with Oscar best director, Ang Lee, assisting to create the movie scene, *Life of Pi*. Our engineering team combined brand-new thinking with our Ring System Scaffolding and outstanding techniques to create the film's value.

Our Ring System Scaffold also complies with the current EN standard, EN 12810-1. We are the first manufacturer in Asia to obtain EN 12810-1. This is your reassurance that our product not only meets international standards but it is of the highest quality.



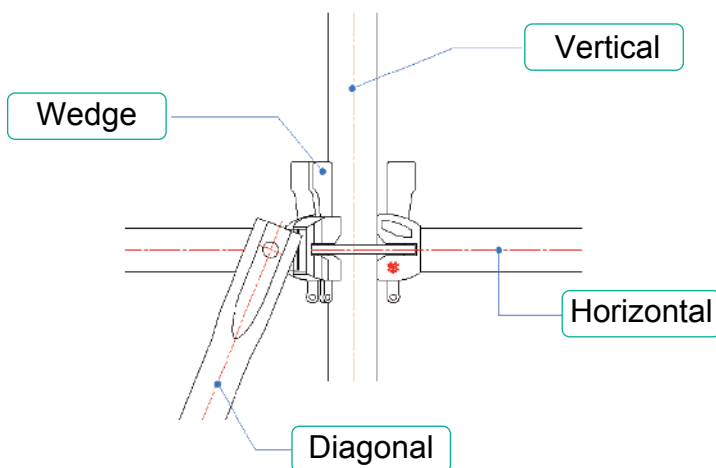
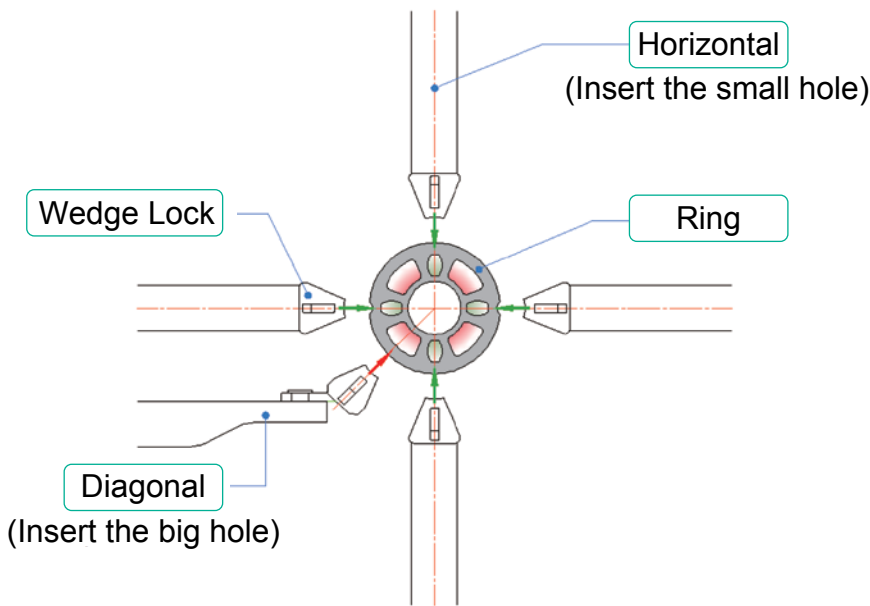
Kaohsiung Music Center



2.Main Concept

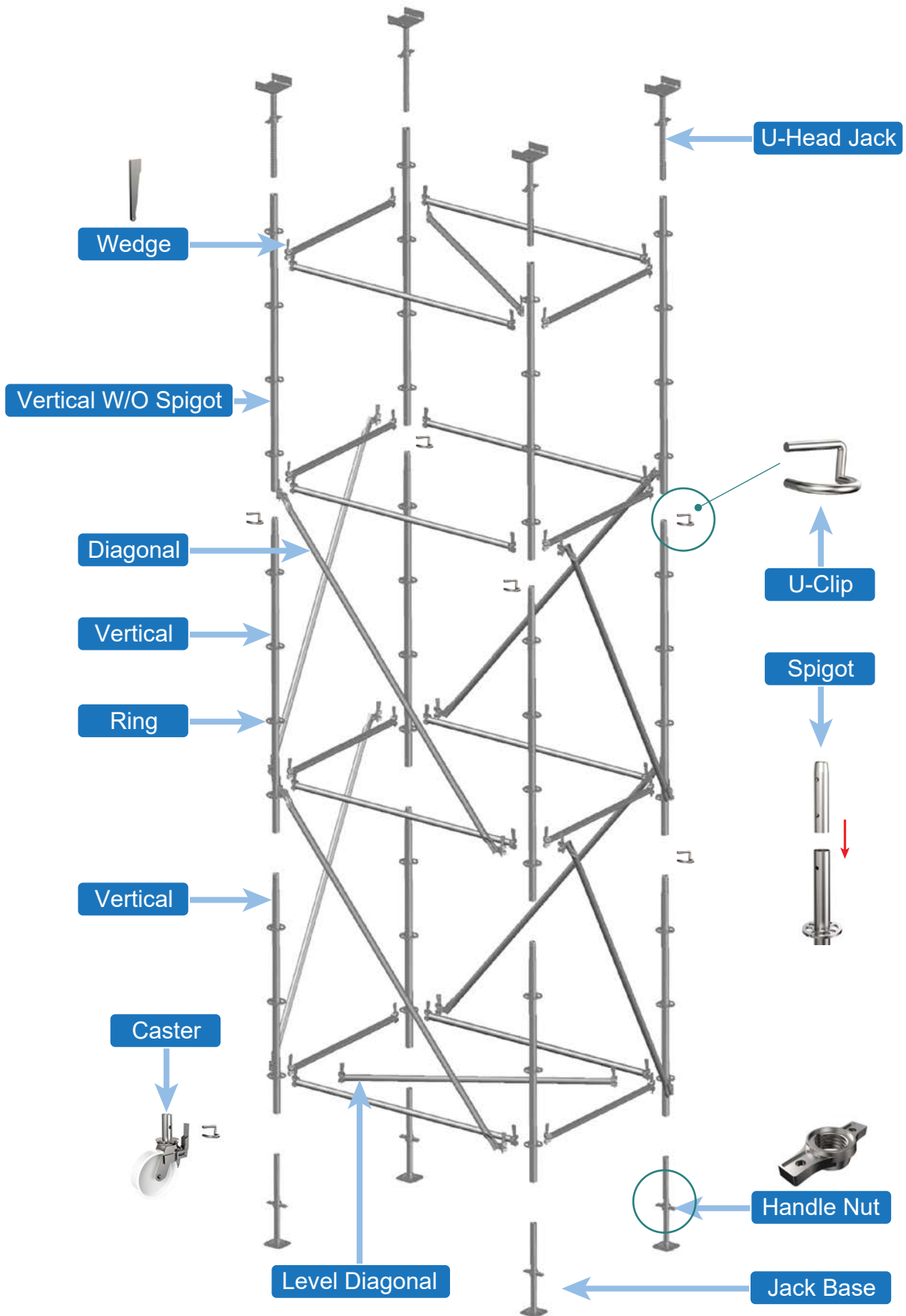
(I) There are three main parts of access scaffolding: vertical, horizontal and diagonal. The dimensions are specifically designed for a variety of situations and applications. All components are hot dip galvanized for the antirust purpose to increase the product life for repeated use.

(II) There are several connections in the Ring System designed for multiple purposes. The rings on the vertical are spaced 45-50cm apart from each other and the wedge lock provides a secure connection with the vertical. Our access scaffolding gets rid of all clamps and any other exterior connectors for a simple and stable outcome. With this simple design, time, labor and material costs can be saved. With the safest, most economical, quickest system, we can say it's one of the best in the market.





3. Component Overview





4. Applications and Features

Our access scaffolding is designed for a variety of projects, including in difficult terrain and suspended condition. With the features of easy assembly/disassembly, safety and stability, it can save time and costs at work.



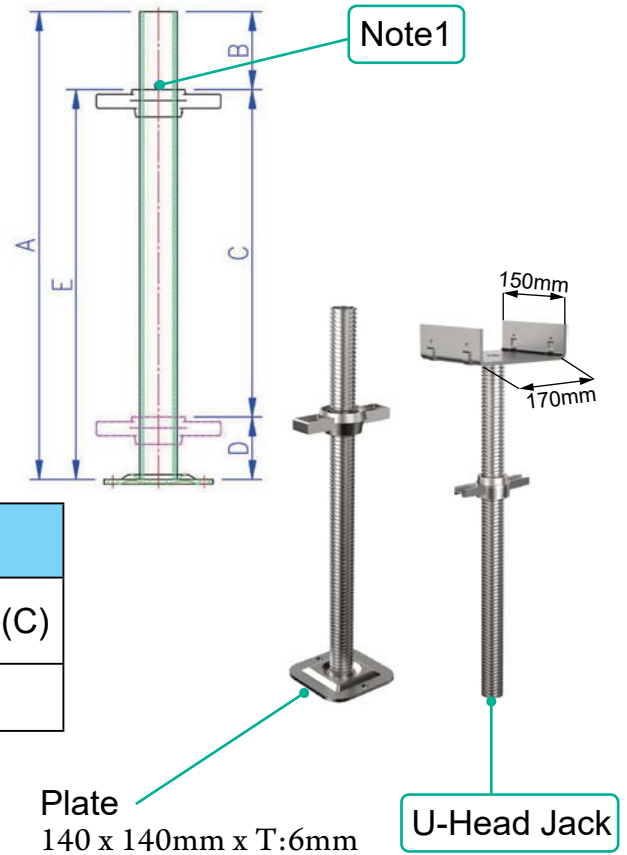
5. Dimensions and Specifications

5.1 Jack Base

The Jack Base is easily adjusted for a level height according to terrain change.

Threaded Tube
 Ø38.5mm × T:4.0mm × 600mmL (STK 400)
 Handle Nut (FCD450)

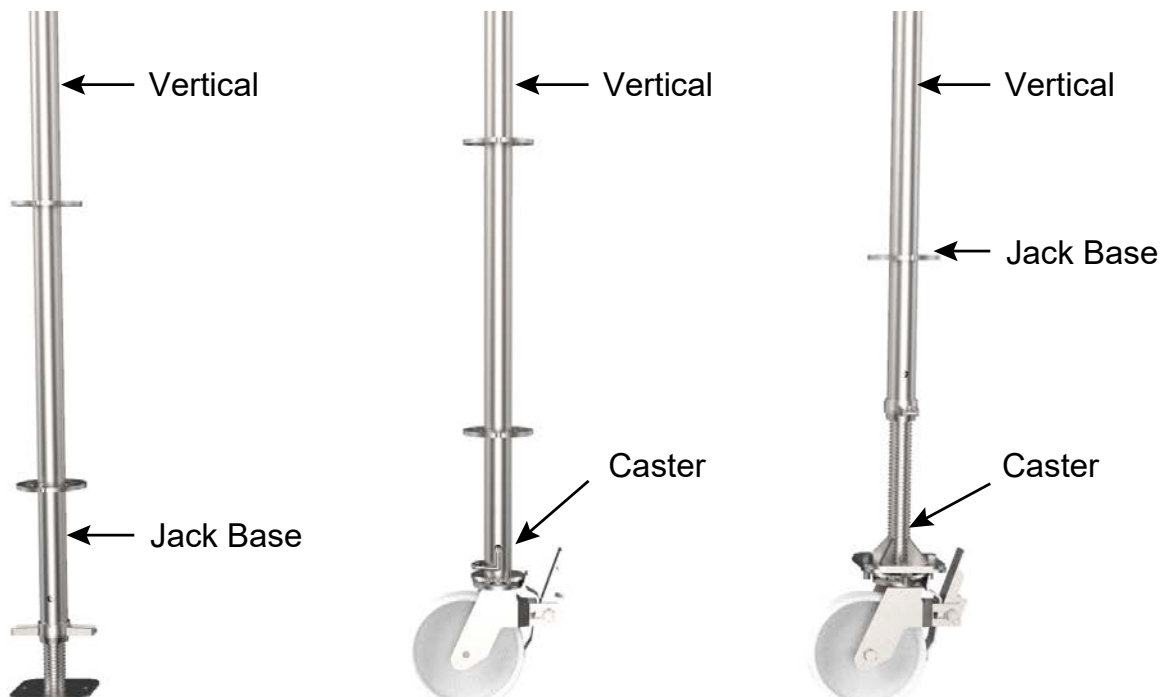
***Note 1:** Jack Base with a stop to prevent the handle nut from getting out and to ensure the connection with vertical over 100mm for safe load bearing.



Dimensions (mm)		Adjustable Length (mm)		
(A)	(B)	Max.(E)	Min.(D)	Adjustable(C)
600	100	500	80	420

5.2 Caster

For mobile scaffolding, casters are used to replace jack bases. The mobile scaffolding is normally used indoors on level surfaces.

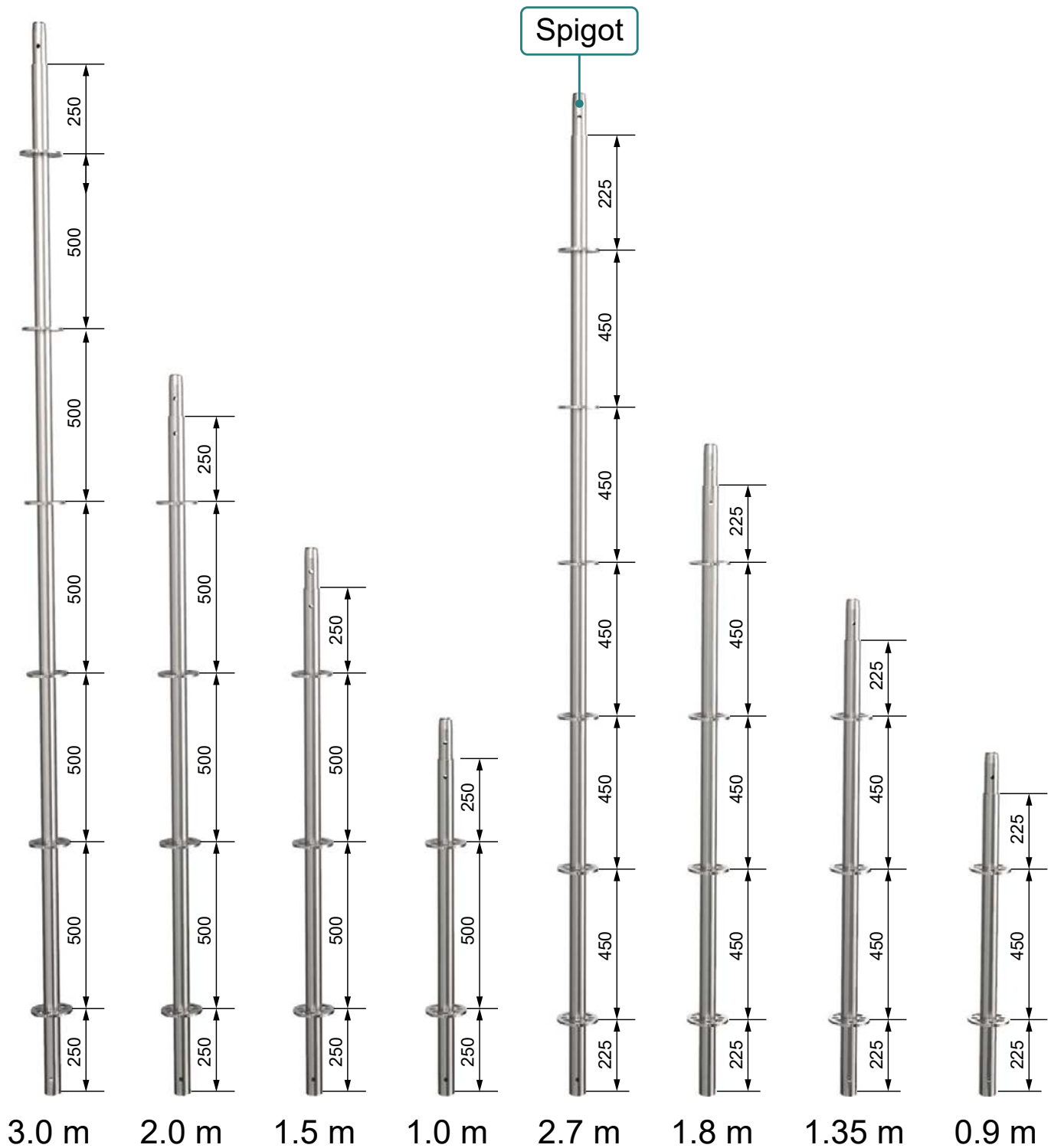




5.3 Vertical

The vertical is the main support of the entire system connected by spigot. The pipe is $\text{Ø}48.6\text{mm} \times T:2.5\text{mm}$ (STK500) with standard dimensions as below: (other special lengths can be customized)

The ring plate of thickness 8mm are spaced 50cm (or 45cm) apart from each other with 8 holes for assembling horizontal and diagonal.

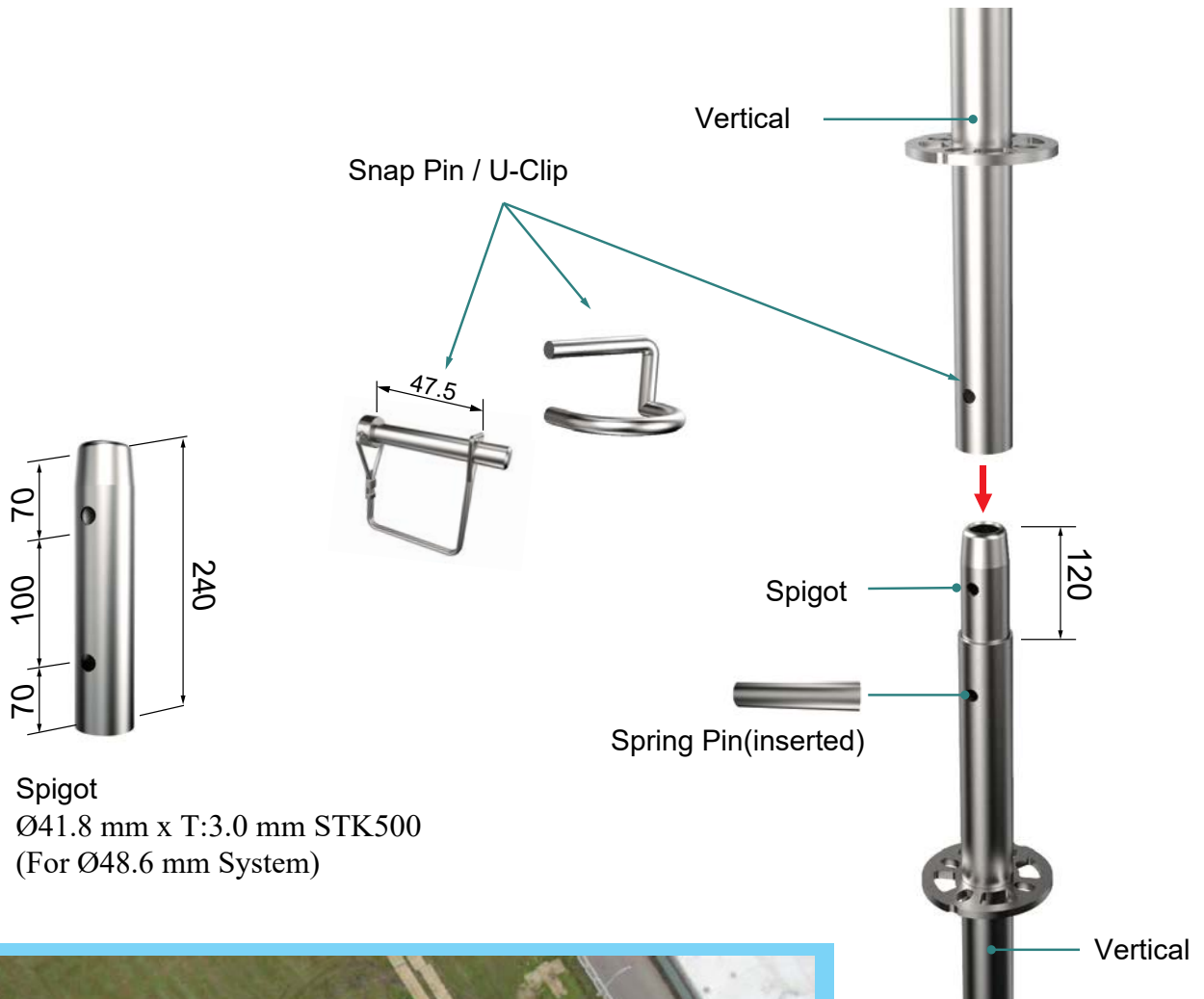




5.4 Spigot and U-Clip

Two verticals are connected by a Spigot and secured by a U-Clip to avoid wind shifts or slippage.

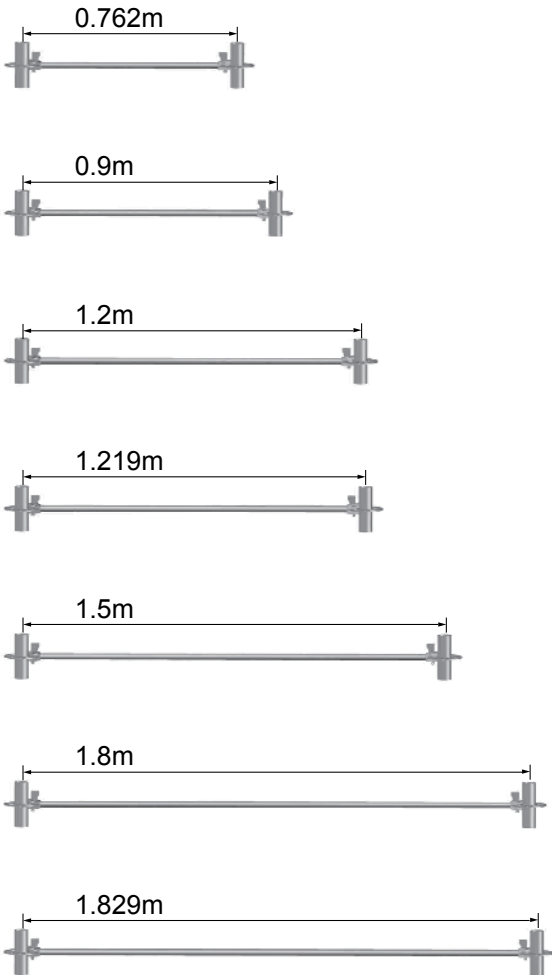
The spigot is made of $\text{Ø}41.8\text{mm} \times T:3.0\text{mm} \times 240\text{mmL}(\text{STK500})$ pipe.



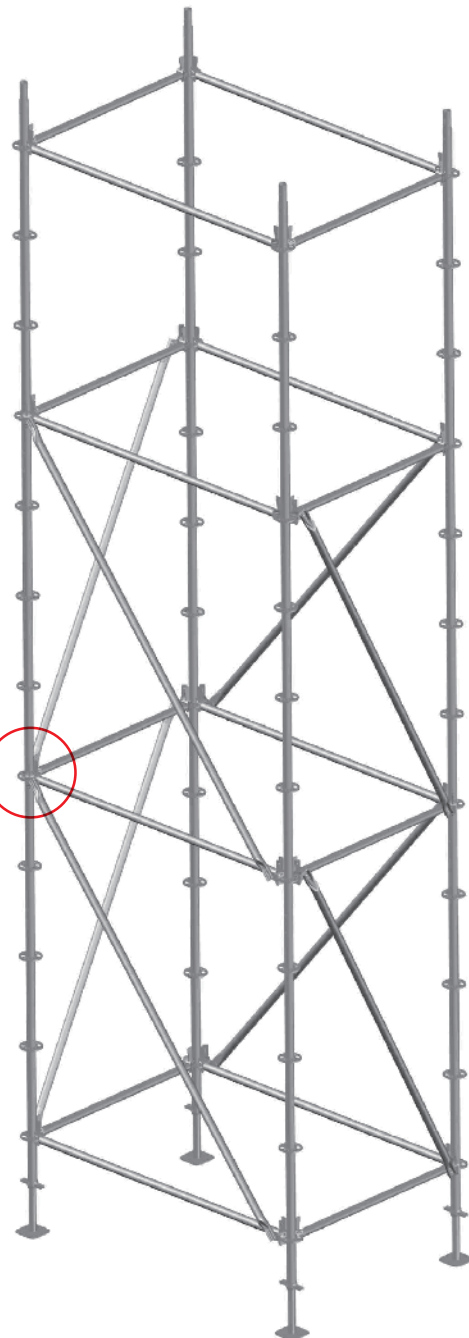
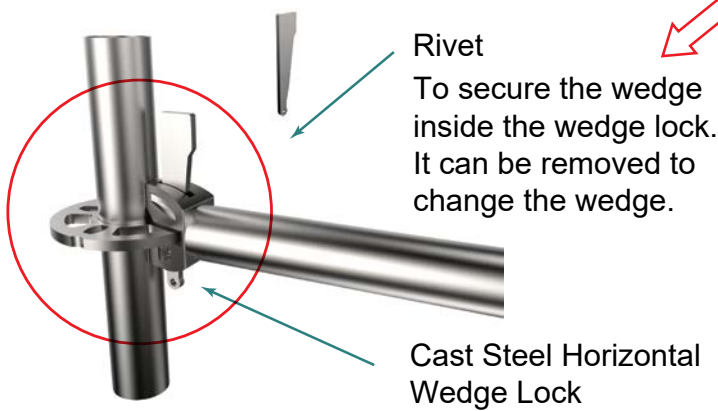


5.5 Horizontal

The horizontal connects verticals and allows hanging of planks and staircases. The secure connection transfers all lateral forces to the verticals for maximum load capacity.



The pipe is $\text{Ø}42.7\text{mm} \times \text{T:}2.3\text{mm}$ (STK500) with standard dimensions as shown on the left:



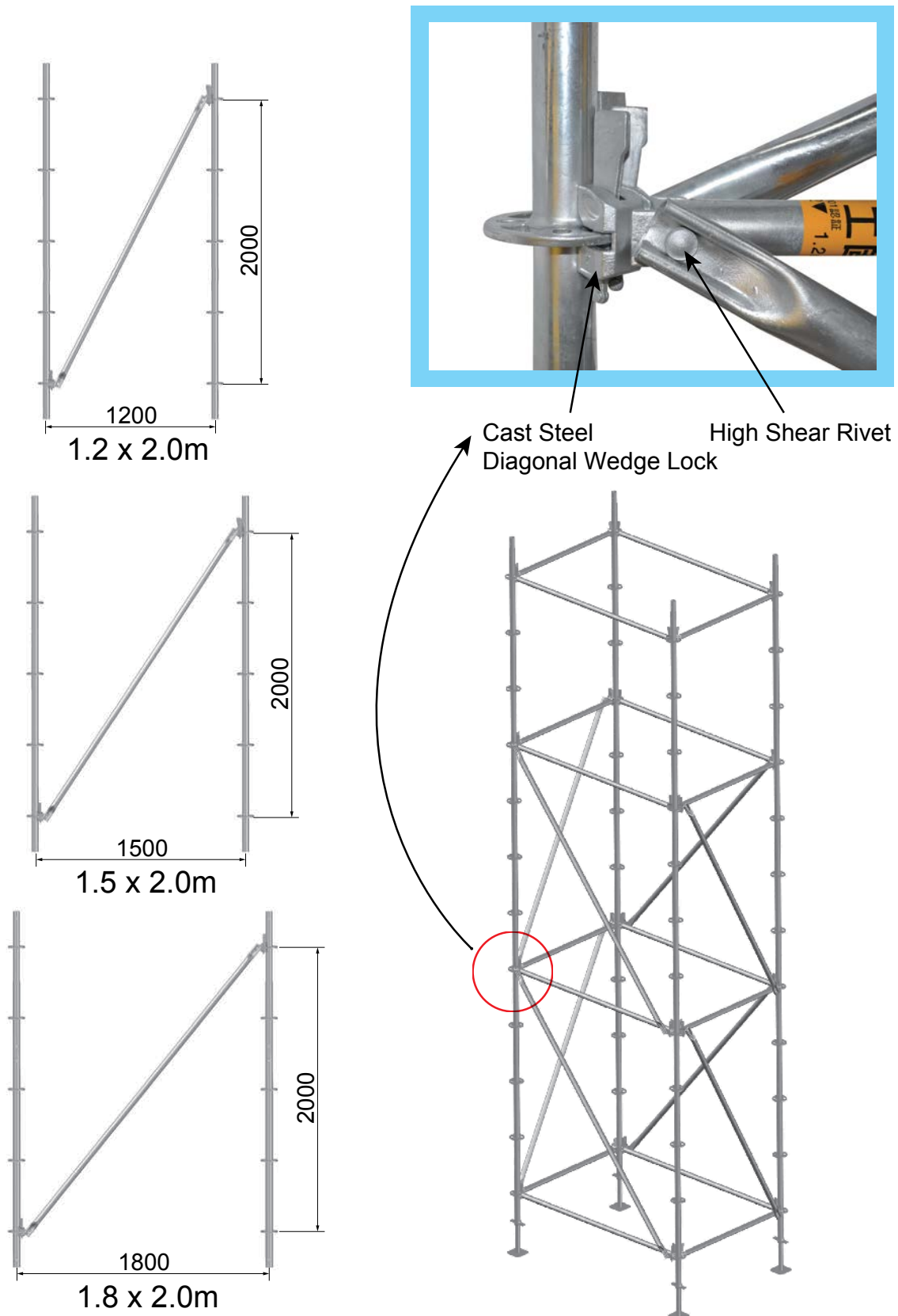
Horizontal wedge locks fixed by inserting the wedge into the small hole of ring and hammering the wedge tightly for a secure hold on the vertical.



5.6 Diagonal

The diagonal is a supplementary part to strengthen the stability of the entire system.

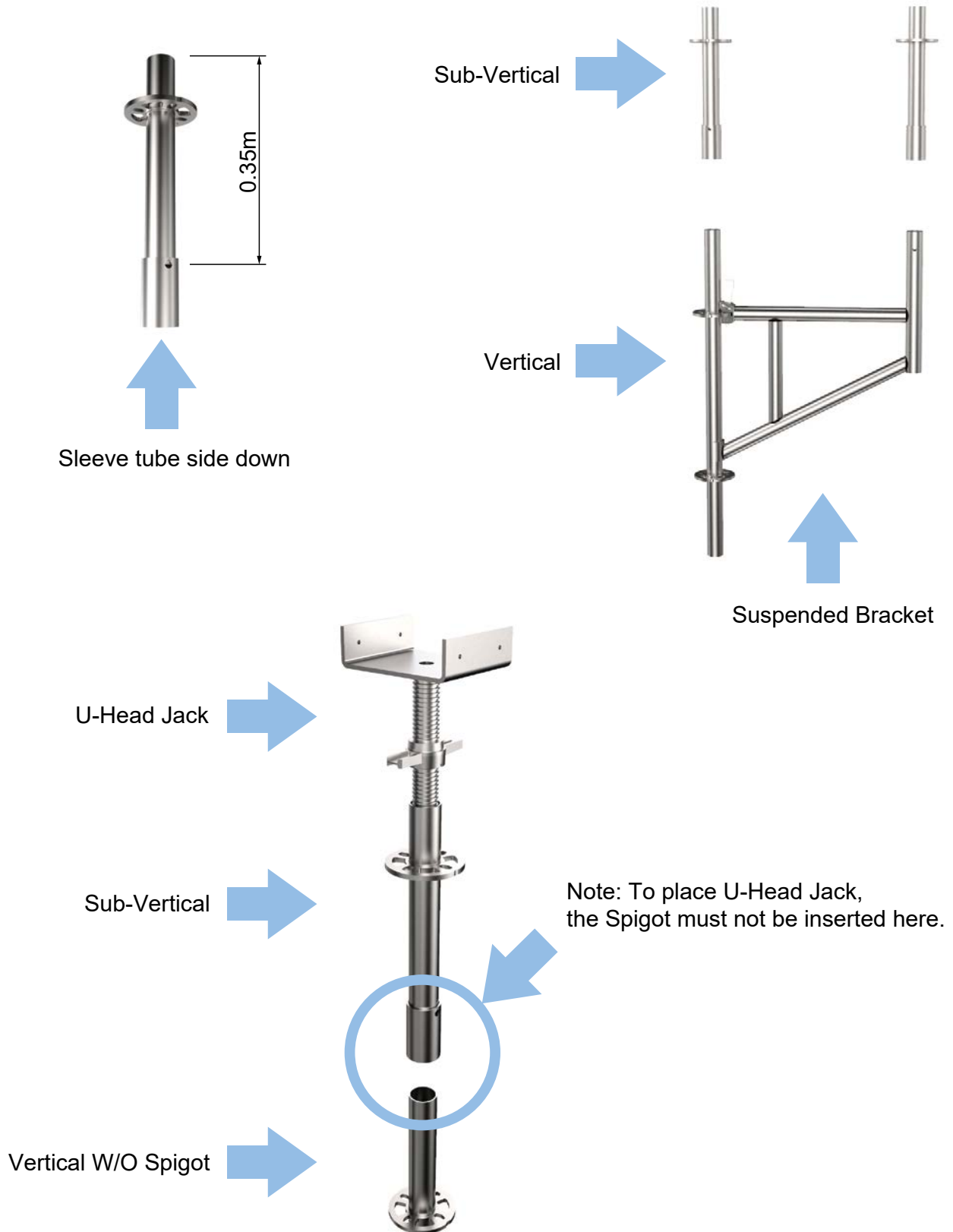
The pipe is $\varnothing 42.7\text{mm} \times T:2.3\text{mm}$ (STK500) with standard dimensions as below:





5.7 Sub-Vertical 0.35m

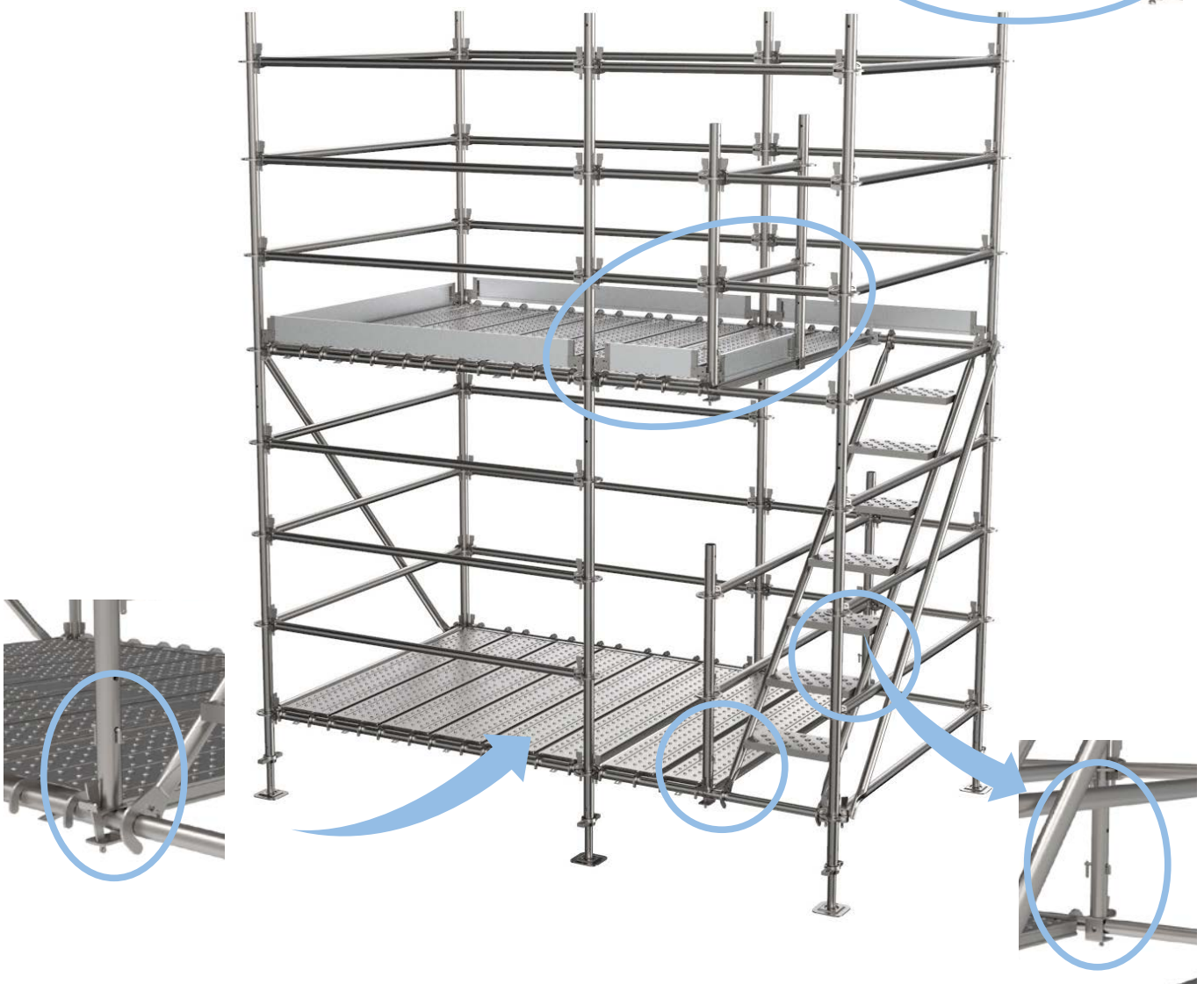
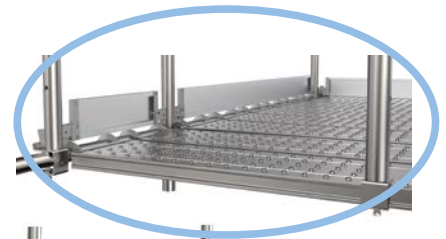
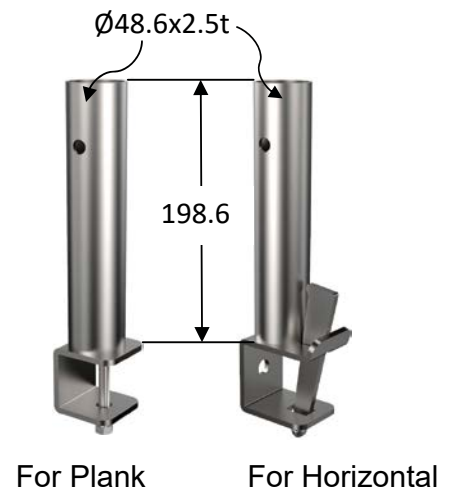
Sub-Vertical (sleeve tube side down) inserts into the top of Vertical in order to adjust the height more flexibly, especially for slope ground.





5.8 Guardrail Clip

- *Material: STK500*
- *It is used when working platform or walkway needs a guardrail.*
- *It can be used when the opening under the staircase needs a guardrail.*
- *Between two horizontals, when there is no vertical at both sides for the horizontal assembly to form a guardrail, it can be fixed at any place at horizontals for vertical erection.*
- *It can also be fixed at any position at the Horizontal and or the long side of the plank. After assembly of Vertical on the top and Horizontal, it quickly forms a guardrail.*





Vertical can be connected at the top



At the staircase corner



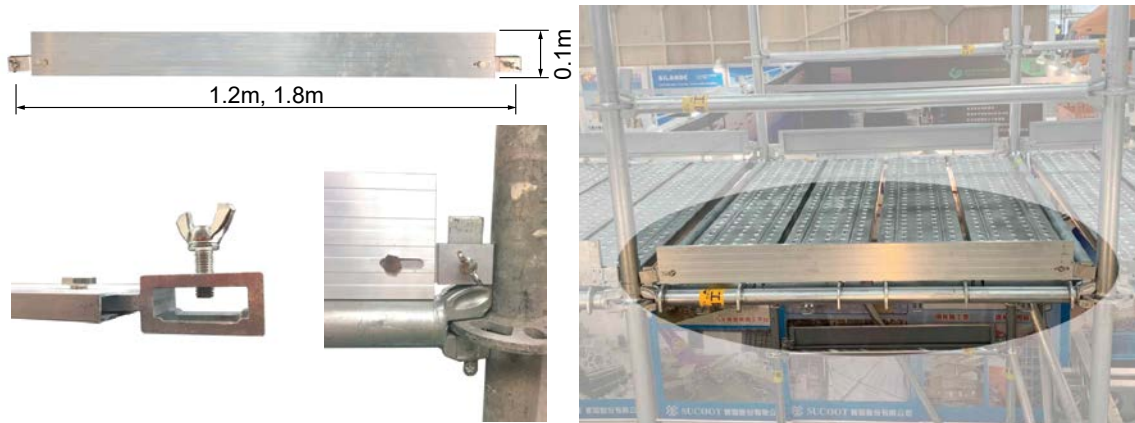
Any place at the horizontal



Any place at the plank long side

5.9 Aluminum Toe Board

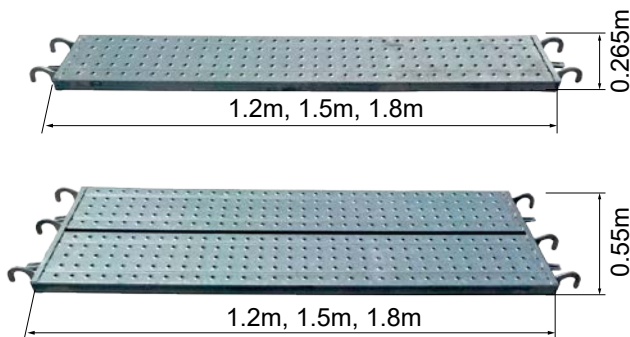
- It is made of aluminum (6063T5), lightweight, and rustless.
- Put the squared hook of toe board both ends into the wedge of horizontal and manually fix by wing screw, no tool required.
- The height can be customized (10 / 15 / 20cm).



5.10 Plank and Staircase

The plank and staircase are made of anti-slip pegboard. Furthermore, they provide ideal moving lines and a stable workplace.

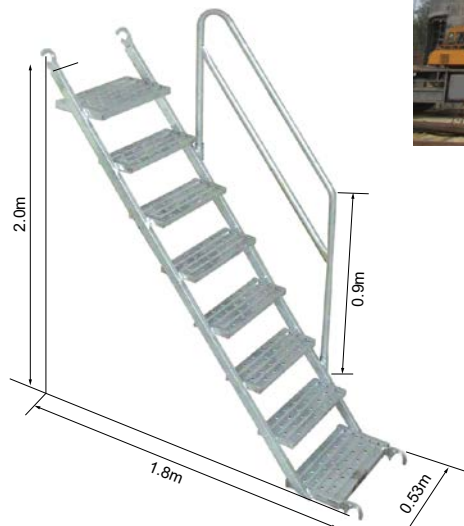
Dimensions of Planks :



Staircase for Slip Form

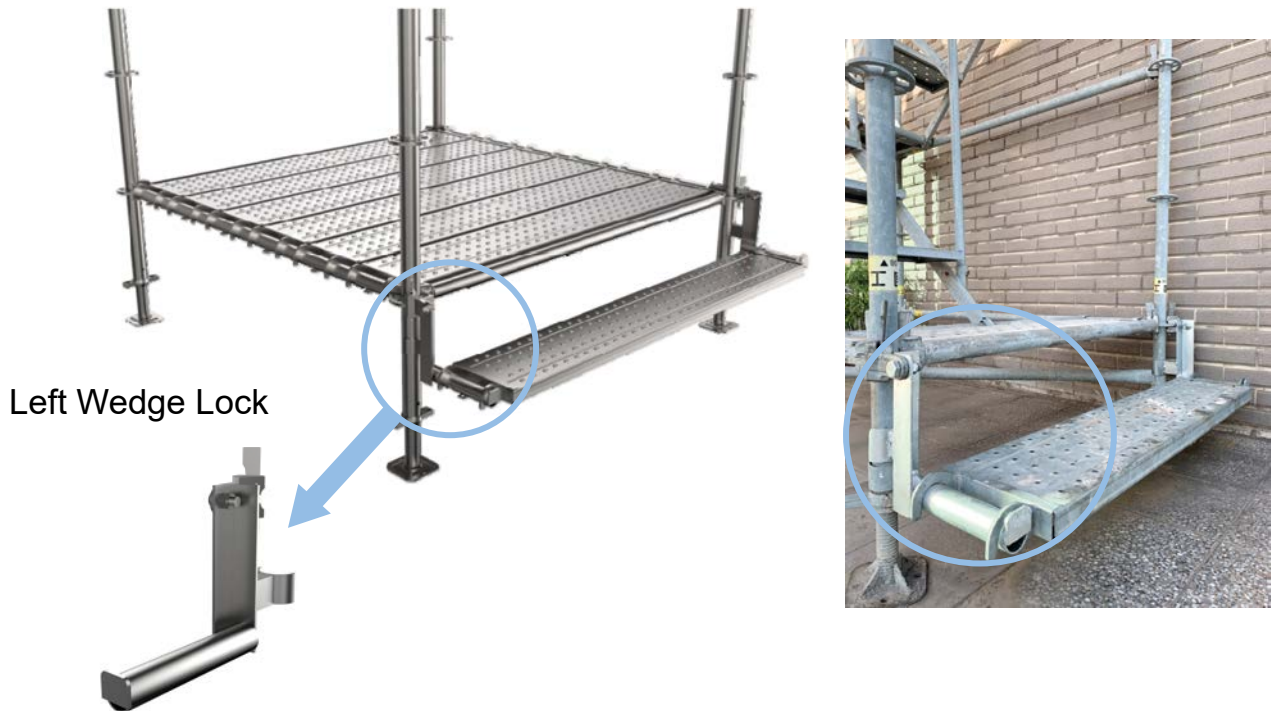


Dimensions of Staircase



5.11 L-Shaped Hanging Rack

L-Shaped Hanging Rack is designed to fit with SUCCOOT's standard plank width 265mm (length 1.2m, 1.5m, or 1.8m according to the required span) as the first step in order to reduce the height difference between the entrance and the ground.



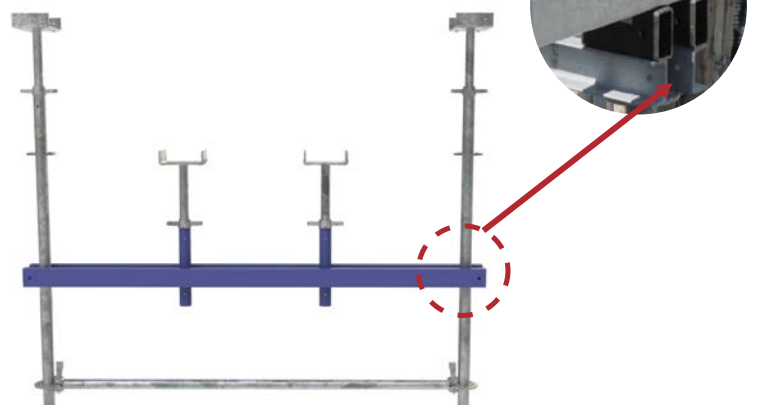
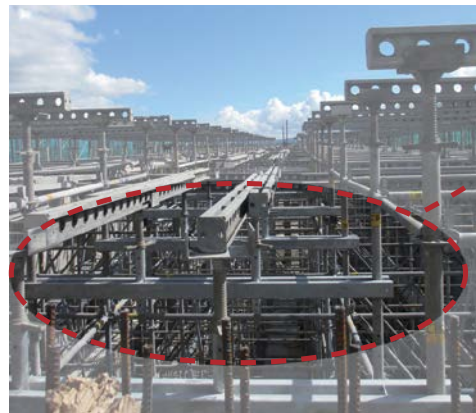
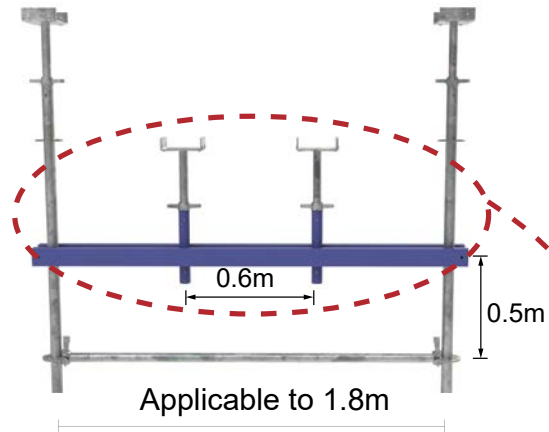
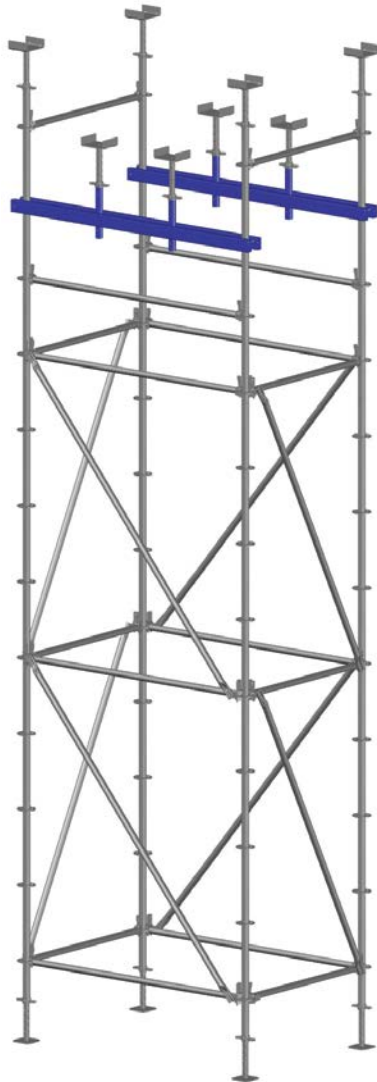
When the heavy-duty shoring system is used as a working platform, the steel planks are placed as a walkway. Due to the space of the two rings 500mm, there will be a big height difference between the two layers of the plank. Use L-Shaped Hanging Rack to accept one plank forming a buffer step to reduce the height difference.



5.12 Light-Duty Bracket

Apply to shore the roof beam formwork

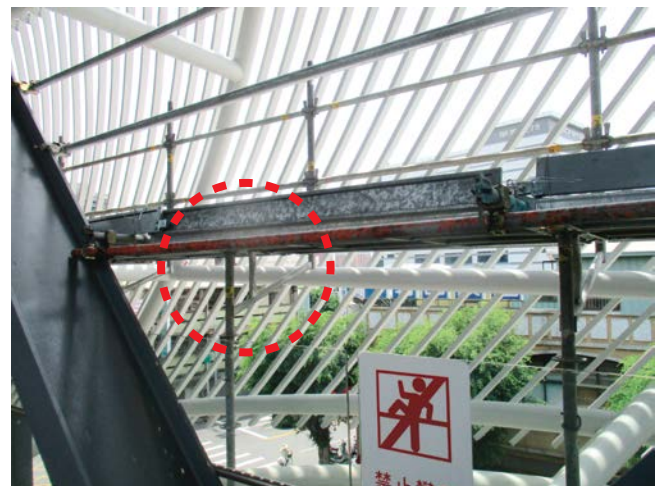
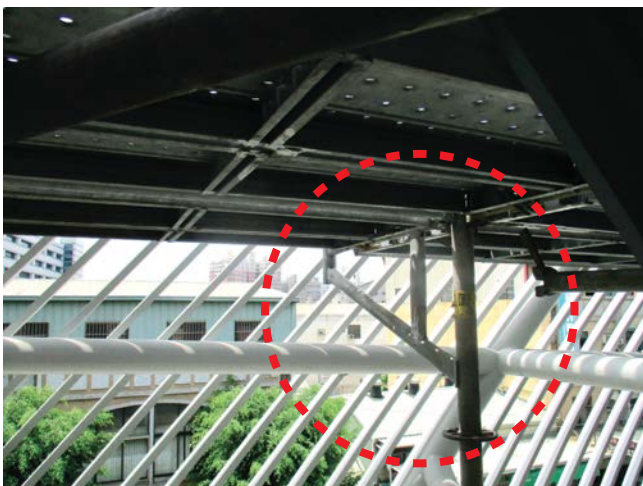
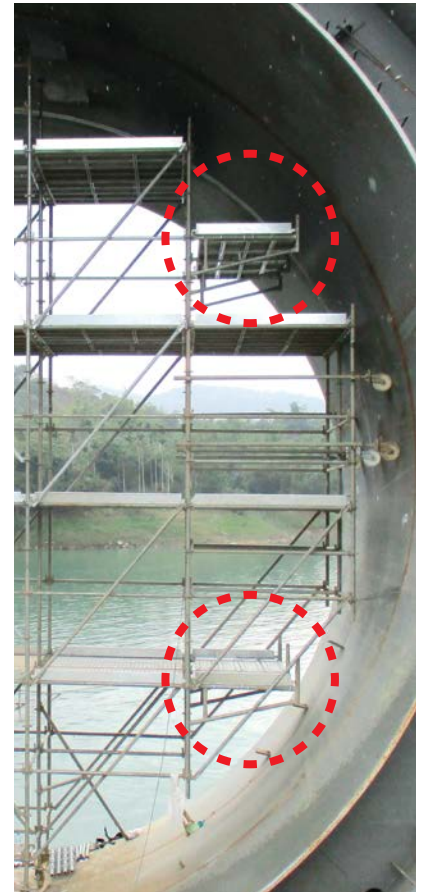
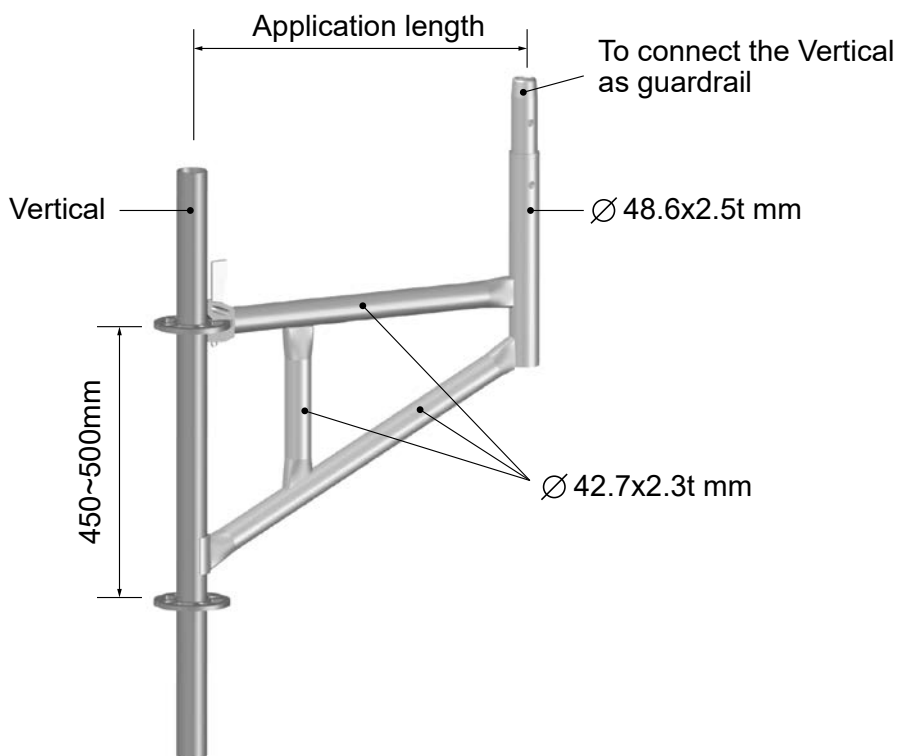
- Scaffolding with the Bracket is able to shore to beam and the slab at the same time.
- The space between the Brackets is 1.2m and they can bear up to 45 x 70cm beam.
- Save material, time and labor cost.



5.13 Suspended Bracket

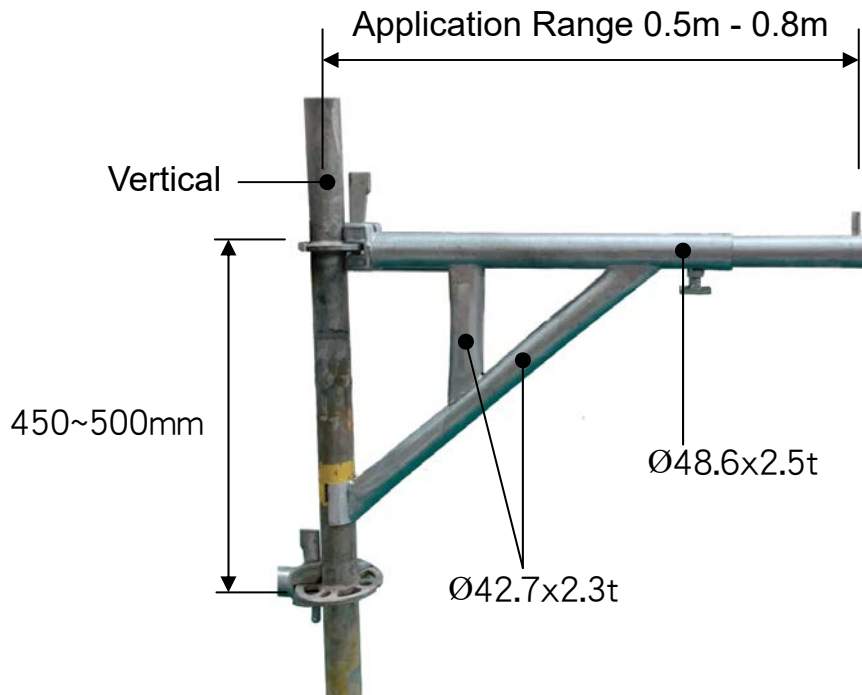
Use to extend the suspension working platform which can solve the problem of inability to support below and save the material.

- Material: STK500
- Hang the suspended bracket into the ring of the vertical and put the plank on it to form a suspension platform.
- Length: 0.6m, 0.762m, 0.9m, 1.2m, 1.219m, 1.8m, 1.829m, other sizes can be customized.

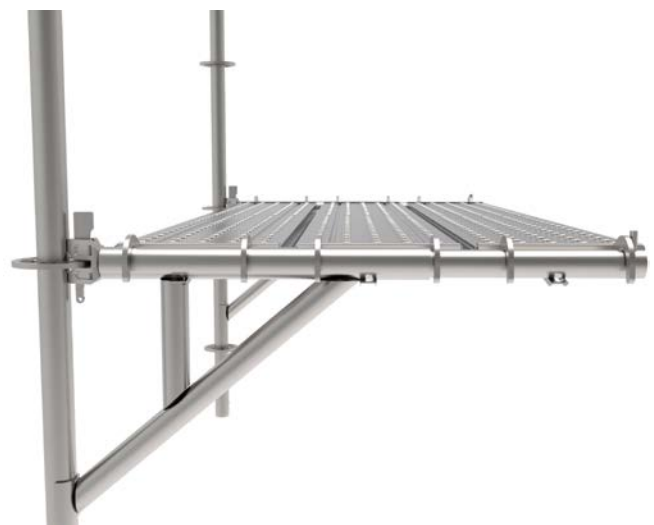


5.14 Telescopic Suspended Bracket 0.5 ~ 0.8m

- *Material: STK500*
- *Similar to the suspended bracket, the inner tube can be extended to allow one more plank width 265mm.*



For supporting 2 planks



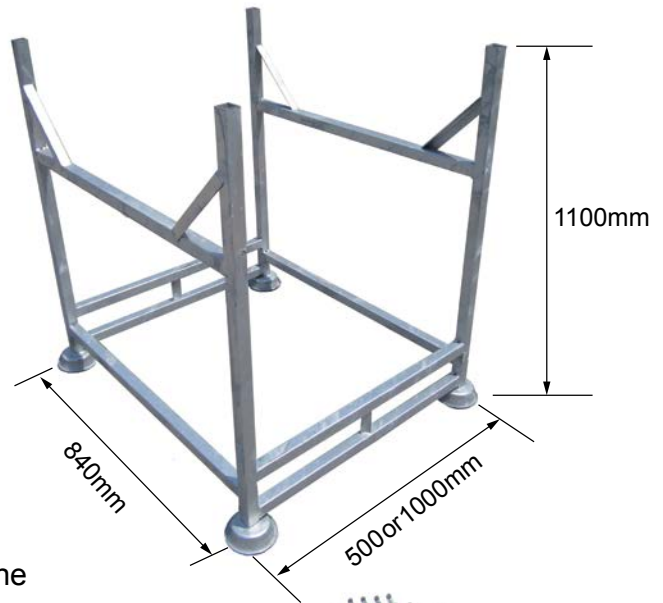
For supporting 3 planks



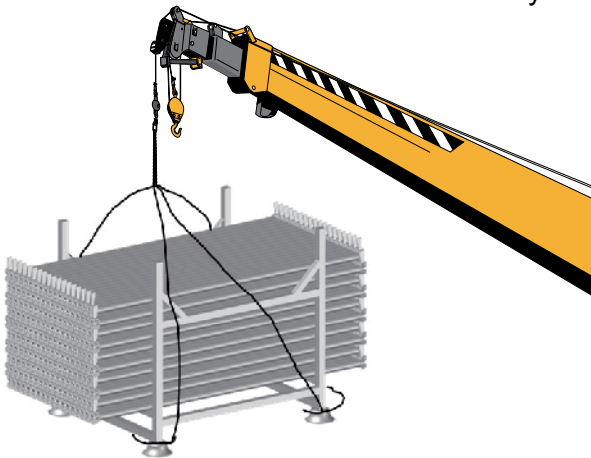
5.15 Light-Duty Scaffolding Rack

Specification : L840×W1000×H1100mm;
L840×W500×H1100mm ◦

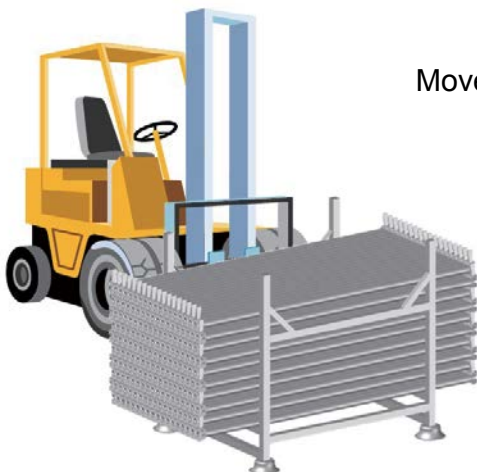
The Features: Save space for storage, convenient for inventory,
loading / unloading and transportation.



Moved by Crane



Moved by Forklift





6.Project

Columbarium Pagoda Refurbishment



Taipei Dome Complex



National Museum of Marine Biology and Aquarium



The Shooting Scene for Life of Pi



FPCC No.6 Naphtha Cracking Project (140m Height)





Petrifaction Equipment Maintenance



Round Tank Refurbishment



Pillar Construction



Mobile Working Tower



Shipyards Application



Steel-Structure Bridge Refurbishment





Building Wall Decoration



District Court Steel-Structure Roof



Slab Shoring for Power Station



Hushan Distributing Reservoir



Petrifaction Pipe Annual Maintenance





Burning Tower Project (100m Height)



Slope Walkway



Aircraft Maintenance





Suspended Scaffolding (36m Height)



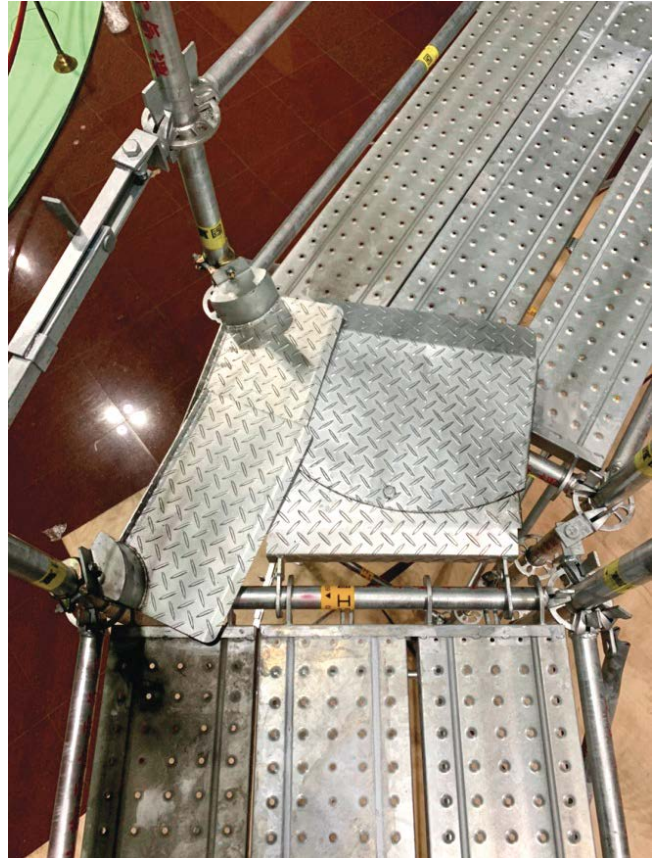
Cantilever 5.4m



Circular Scaffolding



Arc Cover Plate for Round Tank



Swivel Horizontal / Swivel Telescopic Horizontal





7. Test Report



The values below are the random testing result.

For structural calculation, please use the formal values we provide.

NCKU Research and Development Foundation
Engineering Technology and Material Laboratory
Department of Civil Engineering, NCKU
Testing Report Sheet

Page : 2/3

(109) No. SB0047 Date : March 19, 2020

Project : N/A Manufacturer : SUCCOOT CO., LTD.
Truster : SUCCOOT CO., LTD. Sampler : SUCCOOT CO., LTD.
Sender : SUCCOOT CO., LTD. Date Received : March 19, 2020
Sample : ϕ 48.6mm Ring System Scaffold(1.8m \times 1.8m Vertical : STR500)

Tube Outer Diameter (mm)	Tube Thickness (mm)	Frame Dimensions (mm)		Max. Load (tF)
		Plan Dimensions	Height	
48.6	2.6	1800/1800	5000	31.02

unit: mm

No.	Item	Material	Specification
1	Vertical	STK500	ϕ 48.6mm \times 2.6mm
2	Vertical, W/O Joints	STK500	ϕ 48.6mm \times 2.6mm
3	Horizontal	STK500	ϕ 48.6mm \times 2.6mm
4	Diagonal	STK500	ϕ 48.6mm \times 2.6mm
5	W/O Joints	STK500	ϕ 48.6mm \times 2.6mm
6	Horizontal Jack	STK500	ϕ 48.6mm \times 2.6mm
7	Vertical Jack	STK500	ϕ 48.6mm \times 2.6mm
8	W/O Joints	Provided by the manufacturer	

TESTING RESULTS ARE VALID ONLY FOR THE SPECIMENS PROVIDED BY THE SAMPLER

Tester : Yung-Feng Lee

NCKU Research and Development Foundation
Engineering Technology and Material Laboratory
Department of Civil Engineering, NCKU
Testing Report Sheet

Page : 3/3

(109) No. SB0047 Date : March 19, 2020

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Truster : SUCCOOT CO., LTD. Sampler : SUCCOOT CO., LTD.
Sender : SUCCOOT CO., LTD. Date Received : March 19, 2020
Sample : ϕ 48.6mm Ring System Scaffold(1.2m \times 1.8m Vertical : STR500)

Tube Outer Diameter (mm)	Tube Thickness (mm)	Frame Dimensions (mm)		Max. Load (tF)
		Plan Dimensions	Height	
48.6	2.6	1200/1800	5000	27.91

unit: mm

No.	Item	Material	Specification
1	Vertical	STK500	ϕ 48.6mm \times 2.6mm
2	Vertical, W/O Joints	STK500	ϕ 48.6mm \times 2.6mm
3	Horizontal	STK500	ϕ 48.6mm \times 2.6mm
4	Diagonal	STK500	ϕ 48.6mm \times 2.6mm
5	W/O Joints	STK500	ϕ 48.6mm \times 2.6mm
6	Horizontal Jack	STK500	ϕ 48.6mm \times 2.6mm
7	Vertical Jack	STK500	ϕ 48.6mm \times 2.6mm
8	W/O Joints	Provided by the manufacturer	

TESTING RESULTS ARE VALID ONLY FOR THE SPECIMENS PROVIDED BY THE SAMPLER

Tester : Yung-Feng Lee

NCKU Research and Development Foundation
Engineering Technology and Material Laboratory
Department of Civil Engineering, NCKU
Testing Report Sheet

Page : 2/3

(110) No. SB0118 Date : May 21, 2021

Project : N/A Manufacturer : SUCCOOT CO., LTD.
Truster : SUCCOOT CO., LTD. Sampler : SUCCOOT CO., LTD.
Sender : SUCCOOT CO., LTD. Date Received : May 20, 2021
Sample : ϕ 48.6mm Ring System Scaffold(1.8m \times 1.5m Vertical : STR500)

Tube Outer Diameter (mm)	Tube Thickness (mm)	Frame Dimensions (mm)		Max. Load (tF)
		Plan Dimensions	Height	
48.7	2.5	1800/1500	4000	54.44

unit: mm

No.	Item	Material	Specification
1	Vertical	STK500	ϕ 48.6mm \times 2.5mm
2	Vertical, W/O Joints	STK500	ϕ 48.6mm \times 2.5mm
3	Horizontal	STK500	ϕ 48.6mm \times 2.5mm
4	Diagonal	STK500	ϕ 48.6mm \times 2.5mm
5	W/O Joints	STK500	ϕ 48.6mm \times 2.5mm
6	Horizontal Jack	STK500	ϕ 48.6mm \times 2.5mm
7	Vertical Jack	STK500	ϕ 48.6mm \times 2.5mm
8	W/O Joints	Provided by the manufacturer	

TESTING RESULTS ARE VALID ONLY FOR THE SPECIMENS PROVIDED BY THE SAMPLER

Tester : Yung-Feng Lee

NCKU Research and Development Foundation
Engineering Technology and Material Laboratory
Department of Civil Engineering, NCKU
Testing Report Sheet

Page : 3/3

(110) No. SB0118 Date : May 21, 2021

Project : N/A Manufacturer : SUCCOOT CO., LTD.
Truster : SUCCOOT CO., LTD. Sampler : SUCCOOT CO., LTD.
Sender : SUCCOOT CO., LTD. Date Received : May 20, 2021
Sample : ϕ 48.6mm Ring System Scaffold(1.8m \times 1.2m Vertical : STR500)

Tube Outer Diameter (mm)	Tube Thickness (mm)	Frame Dimensions (mm)		Max. Load (tF)
		Plan Dimensions	Height	
48.7	2.5	1800/1200	5000	33.47

unit: mm

No.	Item	Material	Specification
1	Vertical	STK500	ϕ 48.6mm \times 2.5mm
2	Vertical, W/O Joints	STK500	ϕ 48.6mm \times 2.5mm
3	Horizontal	STK500	ϕ 48.6mm \times 2.5mm
4	Diagonal	STK500	ϕ 48.6mm \times 2.5mm
5	W/O Joints	STK500	ϕ 48.6mm \times 2.5mm
6	Horizontal Jack	STK500	ϕ 48.6mm \times 2.5mm
7	Vertical Jack	STK500	ϕ 48.6mm \times 2.5mm
8	W/O Joints	Provided by the manufacturer	

TESTING RESULTS ARE VALID ONLY FOR THE SPECIMENS PROVIDED BY THE SAMPLER

Tester : Yung-Feng Lee

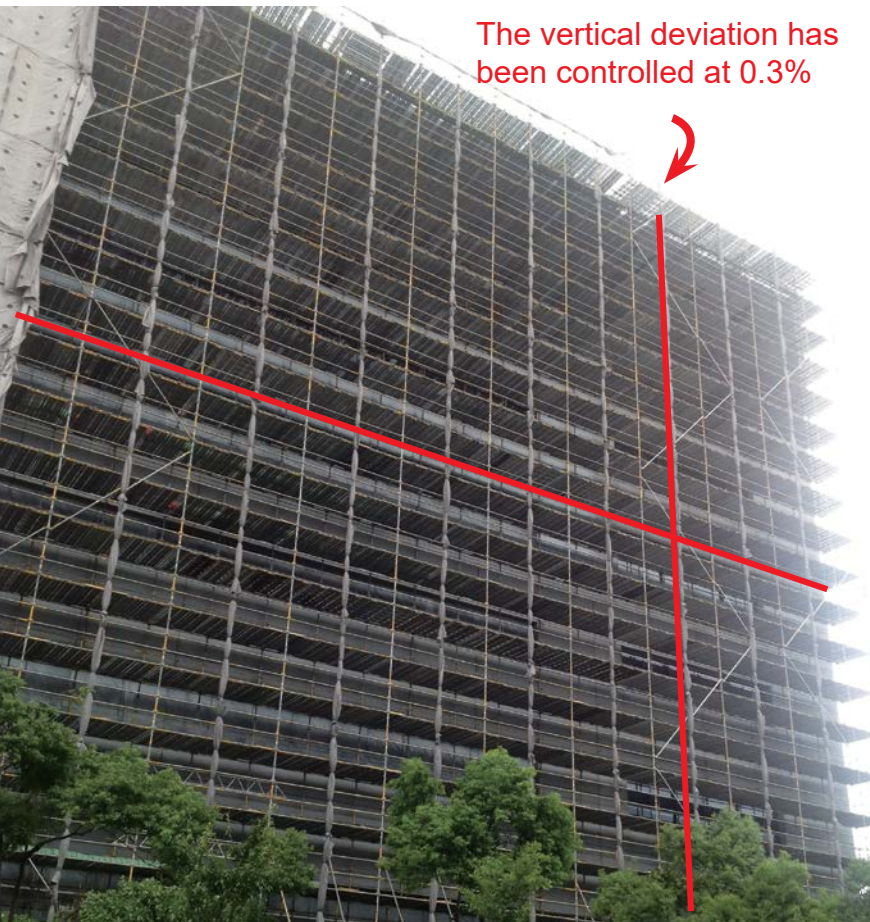


8. Certification

Features

1. The main components (Vertical, Horizontal, Diagonal) are using the STK500 material for Lightweight and High-strength with Hot Dip Galv. finish for repeating use.
2. No visible gap between the vertical connection.
3. The gap tolerances for vertical and spigot have been controlled at 1.8mm.
4. Verticality and Horizontality of our assembled scaffolding are extremely accurate.

Wall construction for TSMC



The vertical deviation has been controlled at 0.3%

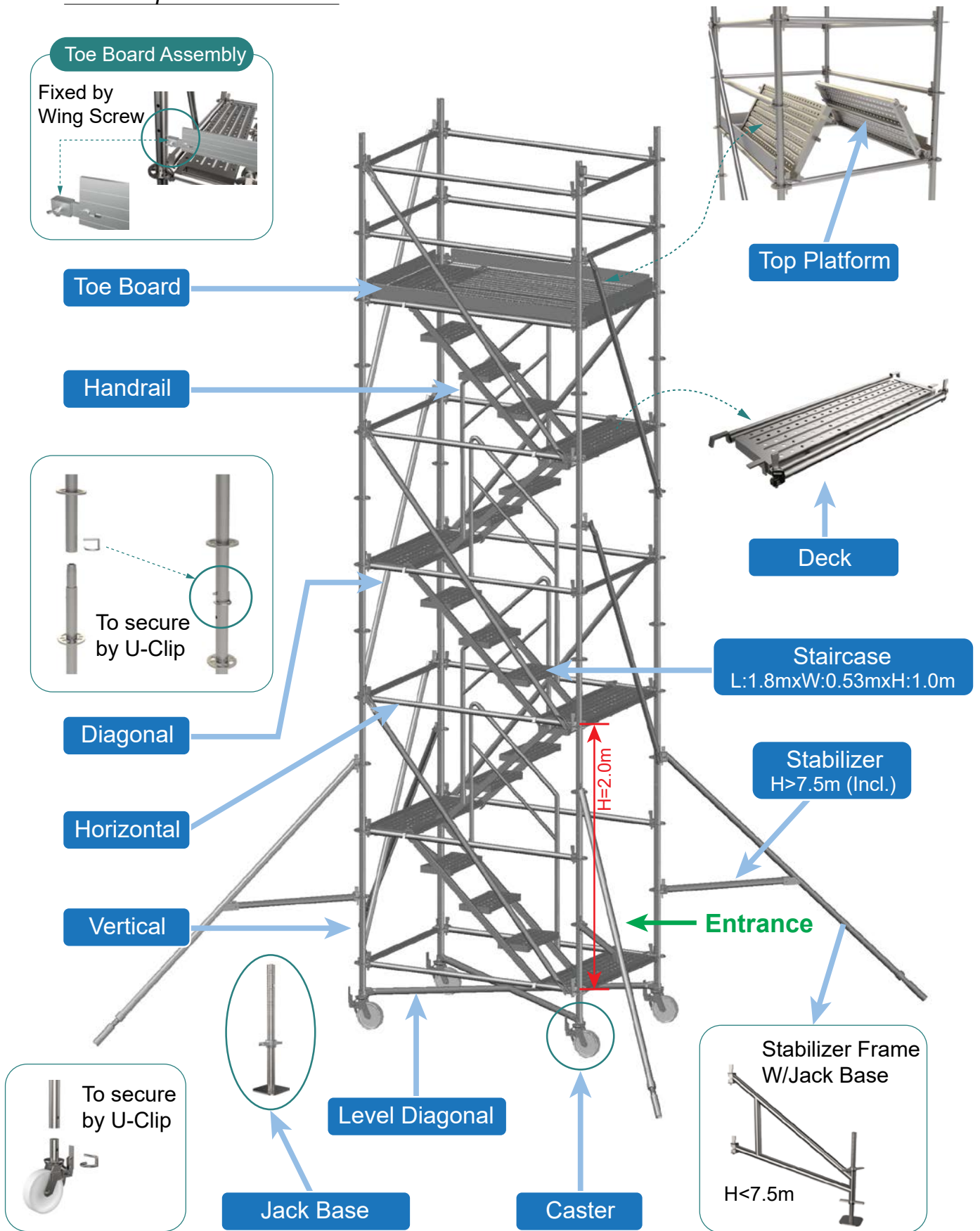
EN 12810-1 Certificate Number: 10.16.1707

ANSI/ASSE A10.8 Certificate Number: 10.16.1708



9. Mobile Working Platform

9.1 Component Overview





Application:

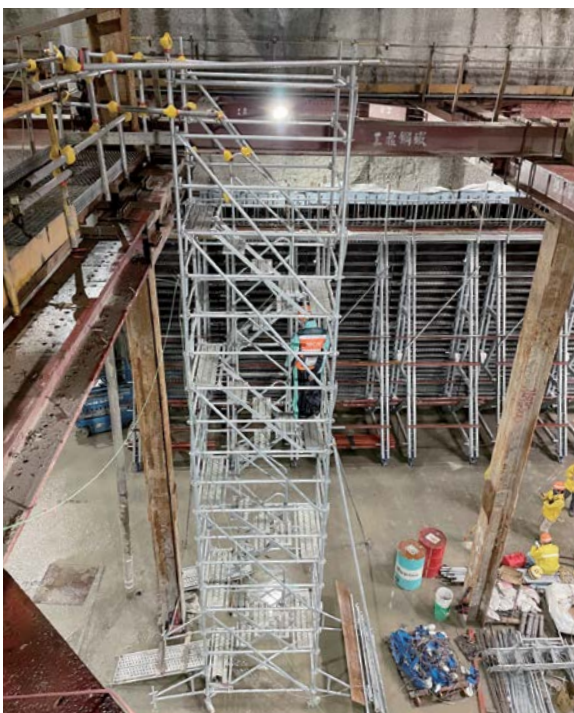
Taoyuan MRT – Access Staircase from the ground to the top of slab form



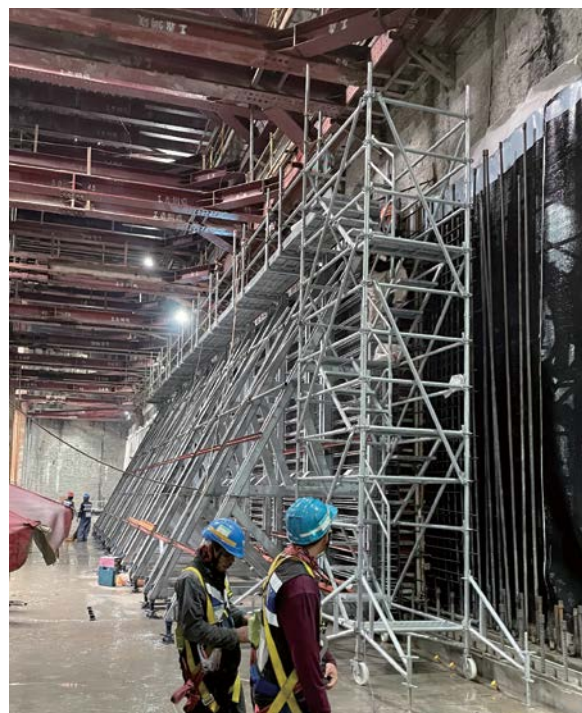
Hushan Distributing Reservoir – Access Staircase & Walkway to connect the inside and outside



Taoyuan MRT – Access Staircase on site



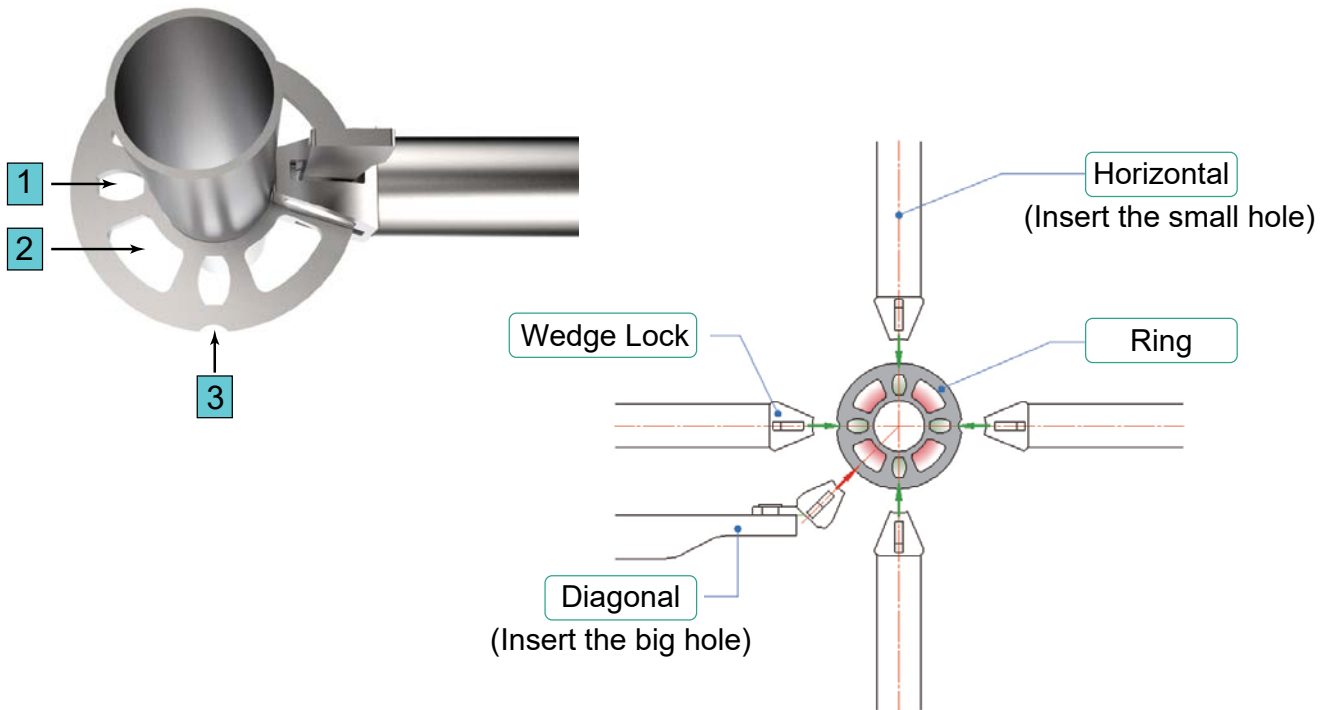
Taoyuan MRT – Access Staircase for upper working platform attached to Single-sided Wall Form





9.2 Assembly Diagram of Working Platform

- 1 -Small holes : 4 holes for horizontal assembly (fix the wedge locks on ring and hammer the wedges tightly).
 - 2 -Big holes : 4 holes for diagonal or level diagonal assembly (fix the wedge locks on ring and hammer the wedges tightly).
 - 3 -Alignment point : for verticals assembly in alignment.
- ※ U-Clip to secure firm connection of verticals while lifting up.



Specification


Item	Specification	Item	Specification
Vertical	Length: 1.0m; 1.5m; 2.0m Pipe: Ø48.6 x T: 2.5mm	Staircase + Handrail	W: 1.8m x H: 1.0m
Horizontal	Length: 1.2m; 1.8m Pipe: Ø42.7 x T: 2.3mm	Top Platform	W: 530mm x L: 1439mm
Diagonal	Length: 1.2m x 2.0m; 1.8m x 2.0m Pipe: Ø42.7 x T: 2.3mm	Level Diagonal	1.8m x 1.2m
Jack Base	Length: 600mm Pipe: Ø38.5 x T: 4.0mm	Stabilizer H > 7.5m (Incl.)	Length: 2.7m Pipe: Ø48.6 x T: 2.0mm
Caster	Wheel: 8"	Toe Board	Length: 1.2m; 1.8m Height: 100mm
Deck	W: 400mm x L: 1200mm	Steel Plank	W: 265mm x L: 1800mm W: 550mm x L: 1800mm
Stabilizer Frame H < 7.5m	L: 0.92m	Jack Base	Pipe: Ø1-1/4" x 600mmL +HN-11B x 2

Working Platform Height : H2.5m; H3.5m; H4.5m; H5.5m; H6.5m; H7.5m; H8.5m; H9.5m; H10.5m; H11.5m
 Material : Vertical, Horizontal, Diagonal - STK500. Finish: Hot Dip Galv.



9.3 Standard Equipment of Working Platform

No.	Item	Specification	H 2.5m		H 3.5m		H 4.5m		H 5.5m		H 6.5m		H 7.5m		H 8.5m		H 9.5m		H 10.5m		H 11.5m		
			Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty	W (kg)	Q'ty
1	Vertical	Ø 48.6 x T: 2.5mm 1.0m	0	4.43	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	4
2	Vertical	Ø 48.6 x T: 2.5mm 1.5m	4	6.31	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3	Vertical	Ø 48.6 x T: 2.5mm 2.0m	4	8.11	4	4	8	8	8	8	12	12	12	12	16	16	16	16	16	16	20	20	20
3-1	U-Clip	Ø 9mm(For Ø 48.6mm)	4	0.12	8	8	8	8	12	12	12	12	16	16	16	16	16	20	20	20	24	24	24
4	Horizontal	Ø 42.7 x T: 2.3mm 1.2m	6	3.34	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	15
5	Horizontal	Ø 42.7 x T: 2.3mm 1.8m	10	4.78	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	28
6	Diagonal	Ø 42.7 x T: 2.3mm 1.2 x 2.0m	1	6.60	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	11
7	Diagonal	Ø 42.7 x T: 2.3mm 1.8 x 2.0m	2	7.26	4	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12
8-1	Jack Base	Ø 38.5 x T: 4.0mm 600mmL	4	3.55	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
8-2	Caster W/Bake (White) Incl. U-Clip	8"(200mm) Height: 240mm Zinc Plated	4	4.30	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
9	Deck	L: 1200 x W: 400mm Ø 48.6 x T: 2.5 L: 1.19m	3	14.20	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	12
10	Staircase	W: 1.8m x H: 1.0m	2	14.79	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	11
11	Handrail	Ø 1-1/4" x T: 2.0mm	1	4.77	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	10
12	Top Platform	W: 530 x L: 1439mm	2	14.75	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
13	Level Diagonal	Ø 48.6 x T: 2.0mm 1.8 x 1.2m		5.32			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
14-1	Stabilizer Frame H<7.5m	L: 0.92m	4	6.66	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
14-2	Jack Base	Ø 1-1/4" x 600mmL + HN-11B x 2	4	3.90	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	Toe Board	H: 100mm W: 10mm L: 1.2m	2	0.92	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	Toe Board	H: 100mm W: 10mm L: 1.8m	2	1.34	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
17	Height of Top Platform W/ Jack Base	Jack Base Height: 80-500mm	2.33-2.75m		3.33-3.75m		4.33-4.75m		5.33-5.75m		6.33-6.75m		7.33-7.75m		8.33-8.75m		9.33-9.75m		10.33-10.75m		11.33-11.75m		11.33-11.75m
18	Height of Top Platform W/Caster	Caster Height: 240mm	2.49m		3.49m		4.49m		5.49m		6.49m		7.49m		8.49m		9.49m		10.49m		11.49m		11.49m
19	Total Height Incl. Guardrail	Guardrail Height: 1.0m	3.33-3.75m		4.33-4.75m		5.33-5.75m		6.33-6.75m		7.33-7.75m		8.33-8.75m		9.33-9.75m		10.33-10.75m		11.33-11.75m		12.33-12.75m		12.33-12.75m
20	Total Weight W/ Jack Base		314.53kg		407.11kg		485.73kg		571.71kg		639.69kg		730.59kg		798.57kg		884.55kg		952.53kg		1,038.51kg		1,038.51kg
21	Total Weight W/ Caster(White)	Above H7.5m(Incl.) Weight excluding item 14-1	317.53kg		410.11kg		488.73kg		574.71kg		642.69kg		733.59kg		801.57kg		887.55kg		955.53kg		1,041.51kg		1,041.51kg

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1. Above list is based on indoor and stationary use. In case of outdoor work or moving to other locations, special conditions (such as terrain, wind speed, vibration) have to be taken into consideration and additional elements or fixing may be required.
 2. Personnel over 1.8m height should watch out the deck overhead while getting in and out.
 3. Toe Boards, Casters, U-Clips and Wedges are not included in 3-year warranty.



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