

BS1139-6:2014

No: CE/21-22/046



Assembly Manual Bridgeway Towers MABW Series

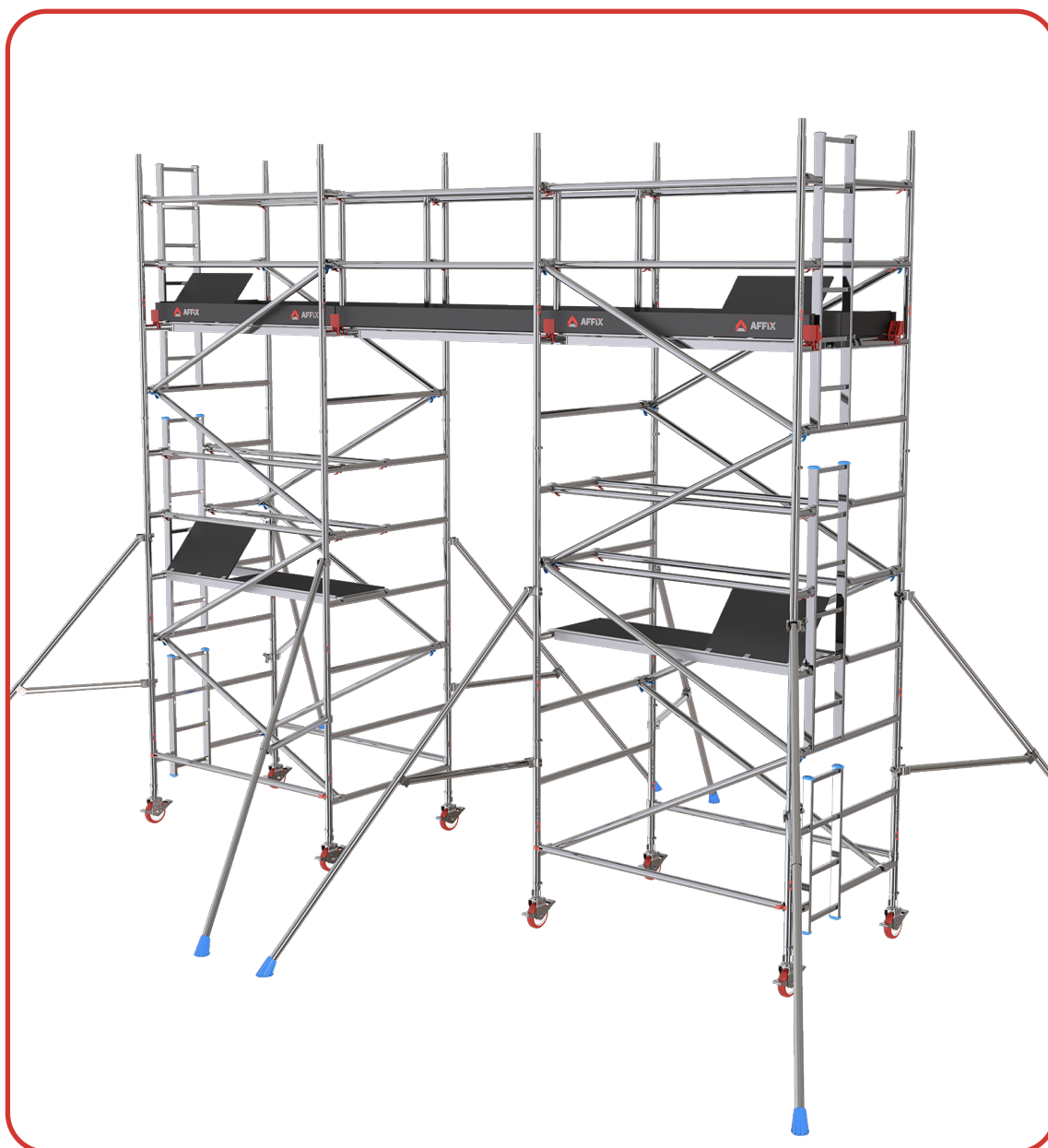
Aluminium Mobile Bridgeway Towers

MABW

BS1139-6 3 7/9 XXXD

The **AFFIX Tower** is a mobile access tower manufactured in our **ISO 9001** accredited facility.

This user guide provides you with step by step instructions to ensure your system is assembled easily and safely, using the **3T (Through the Trapdoor)** method.





DESCRIPTION:

The Affix **MABW** Series Aluminium Mobile Bridge Tower offers customer the flexibility to work on the long span platform of **7.5 Mtrs Length** together by joining two **Double Width Towers** together through an additional platform, with a long clear span between them. The **MABW Series** towers allow the user to work on longer platform with more workers to work simultaneously. This tower is ideal for bridging over machines, desks, pipe work runs etc. The information and instructions included in this manual are provided to help get the best possible service from your **MABW** Series Aluminium Mobile Bridge Tower. This user guide provides you with step by step instructions to ensure your system is assembled easily and safely, using the 3T (Through the Trapdoor) method.

Through The Trapdoor (3T) Method:

The **3T** method of construction is an approved method of assembly and it minimizes the risk of a fall from height. The erector can complete an 'assembly or access' platform level from which the 'next lift' of frames, braces and platform is added, until the final working height of the tower is achieved. By following the **3T** method, the erector sits through the hatch of the platform with their feet resting on the frame rungs. In this position the erector can attach the guardrail braces. Once guard-rails are secured in position the erector can climb onto the platform and continue constructing the next level.

Compliances:

The Affix **MABW** Mobile Tower structure and its components have been designed in accordance with BS1139-6: 2014.

Maximum Safe Working Loads

The safe working load of the tower is **750 kgs** including its own weight. The maximum safe working load of any individual platform is **250 kgs** evenly distributed. If the tower is to be used for any specific loading contact your supplier or the manufacturer, Affix Scaffolding WLL.

Tel: +974 5529 9893 or Email: info@affixscaffolding.com.

RECOMMENDATIONS :










- Recommend a minimum of two people to assemble, dismantle and move the platform tower.
- Check that all components are on site and in good working order.
- Ensure that the assembly location is checked to prevent hazards during assembly or moving and while working on the tower. Particular attention should be given to the ground condition, whether level or sloping, obstructions and wind conditions. The ground condition must be capable of supporting the tower structure.
- Towers must always be climbed from the inside of the assembly using the ladder.
- Lifting of components must be done inside the effective base area of the tower.
- Moving the tower must only be done by manual effect from the base of the tower.
- When moving tower be aware of overhead hazards (e.g. electric cables).
- No personnel or material to be on the platform whilst the tower is being moved.
- Beware of horizontal loads which can lead to instability of the tower. The Max. side force is 20kg.
- Outdoor scaffold towers should, wherever possible, be secured to a building or fixed structure. It is good practice to tie scaffold towers of any height, especially when unattended, or exposed to windy conditions.
- Do Not use boxes or steps to gain additional height.
- Do Not lift or suspend an assembled mobile tower.
- Damaged components or components from other tower systems must never be used.
- Stabilizers should always be fitted when specified. Use the stabilizer shown on the component list according to the tower height.

Air speed and resultant action to be taken

Beaufort Scale	Description	Air Speed	Action to be taken
0	Calm, smoke rises easily upwards	1 mph	No action needed
3	Moderate breeze, raises dust	12 mph	No action needed, keep a watch
4	Raises loose papers, leaves and small twigs move	17 mph	Cease work
5	Strong breeze, tree branches bend, unable to use umbrella	25 mph	If expected, tie tower to a rigid structure
6	Gale force, cannot even walk	40 mph	If expected, dismantle the tower

Safety Checklist :

Mobile towers - 3T Method Checklist

- Inspect components prior to use 
- Ensure all brace claws operate and lock correctly prior to erection 
- Tower upright and level 
- Castors locked and legs correctly adjusted 
- Diagonal braces fitted 
- Stabilizers/outriggers fitted as specified 
- Platforms located and wind-locks on 
- Toe boards located 
- Check that the guardrails are fitted correctly 

SAFE WORKING LOADS AND HEIGHTS



- Safe working load on the working platform is **250kgs** evenly distributed.
- The load on the tower should not exceed **750 kgs**.
- The recommended tower height is **10M**.

ASSEMBLY PROCESS :

PREPARATION

Locate the tower, ensuring ground is level.

Sort the braces into horizontal and diagonal braces, the diagonals are slightly longer. Also note that the braces are differently color coded.

Check the locking triggers in the bracing hooks such that they are working properly.

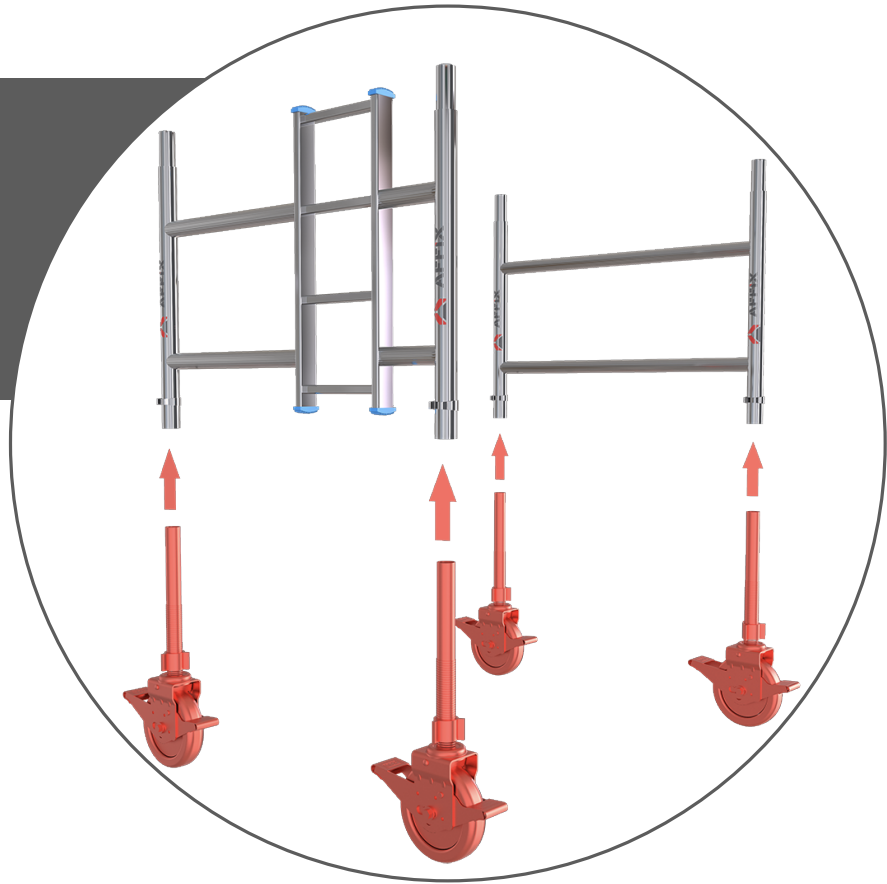
Lock the castor by moving the brake lever fully down.

FIRST LEVEL

Step 1

Insert the **Castor Wheels** with the jack pipe inside the bottom of the tubes of the 1st level **2 Rung Ladder Frame** and **2 Rung Span Frame**.

DO NOT USE Hammer.



Step 2

Step 2.1

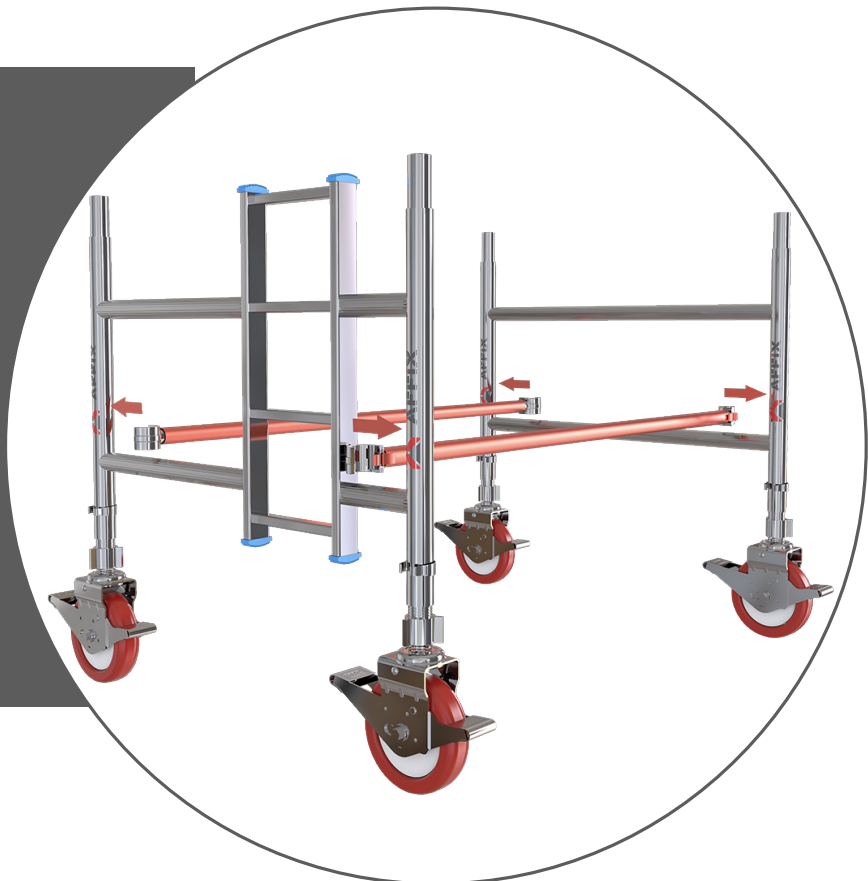
Hook both the bottom 2 Horizontal Braces horizontally to both the Span frame's vertical pipes, just above the 1st rung.

Step 2.2

Lock all the four wheels by pressing the lock gear with foot.

Step 2.3

One person should hold the frame in upright position during this step.



SECOND LEVEL

Step 3

Step 3.1

Insert both the **2nd level 4 Rung Span Frame** and the **4 Rung Ladder Frame** on the respective sides into the corresponding spigots.

For clamping instructions refer to the **Clamping Instructions** section on **Page 17**.

Step 3.2

One person should hold the frame in upright position during this step.



Step 4

Step 4.1

Hook the Diagonal Brace to the **1st Rung** of the 1st level **Span frame** at one end and the other end should be hooked to the **1st Rung** of the 2nd level **Ladder frame** on the other side.

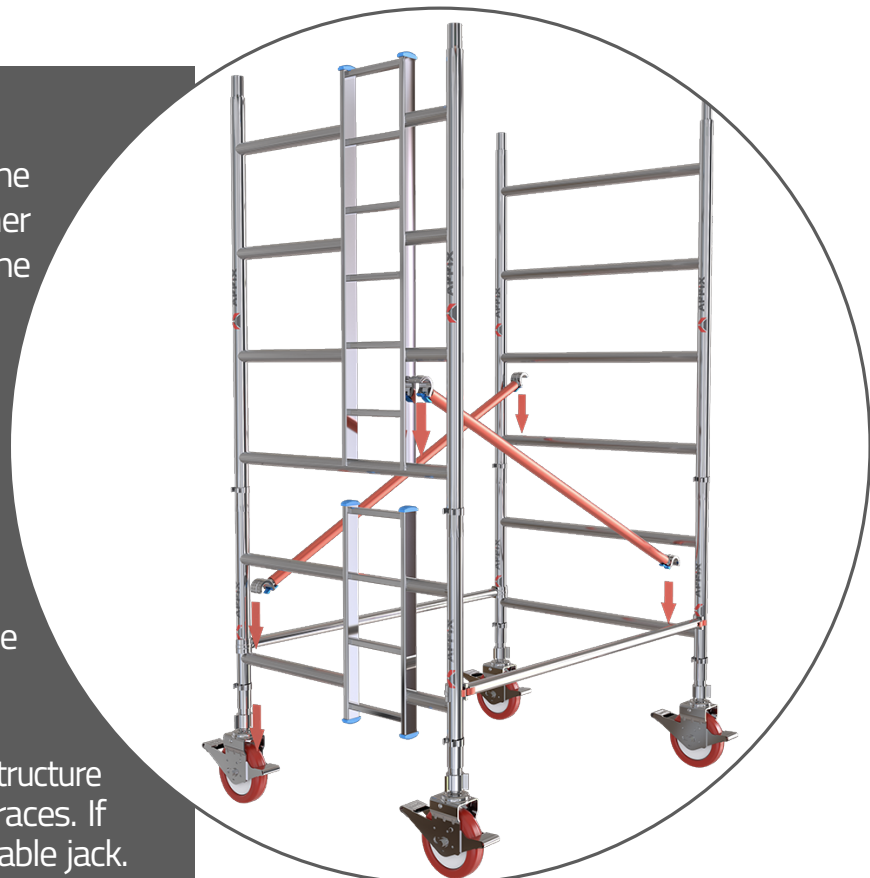
Step 4.2

Hook the **2nd** Diagonal Brace to the **1st Rung** of the 2nd level **Ladder frame** at one end and the other end should be hooked to the **1st Rung** of the 1st level **Span frame** on the other side.

Both the bracings should be in X shape while viewing from the side

Step 4.3

After fixing both the Diagonal Braces, level the structure using a Spirit Level on the Rungs and the braces. If adjustment required, adjust using the adjustable jack.



Step 5

Step 5.1

Hook the Diagonal Brace to the **3rd Rung** of the 2nd level **Span Frame** at one end and the other end should be hooked to the **1st Rung** of the 2nd level **Ladder Frame** on the other side.

Step 5.2

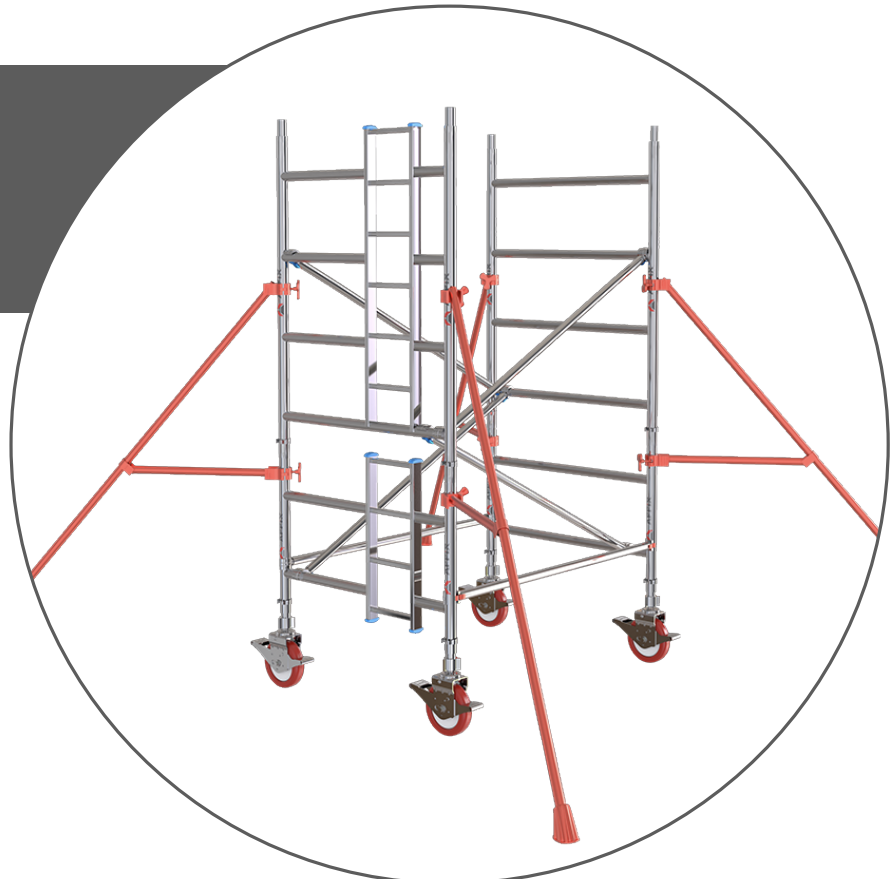
Hook the **2nd Diagonal Brace** to the **1st Rung** of the 2nd level **Span Frame** at one end and the other end should be hooked to the **3rd Rung** of the 2nd level **Ladder Frame** on the other side.

Both the bracings should be in X shape while viewing from the side



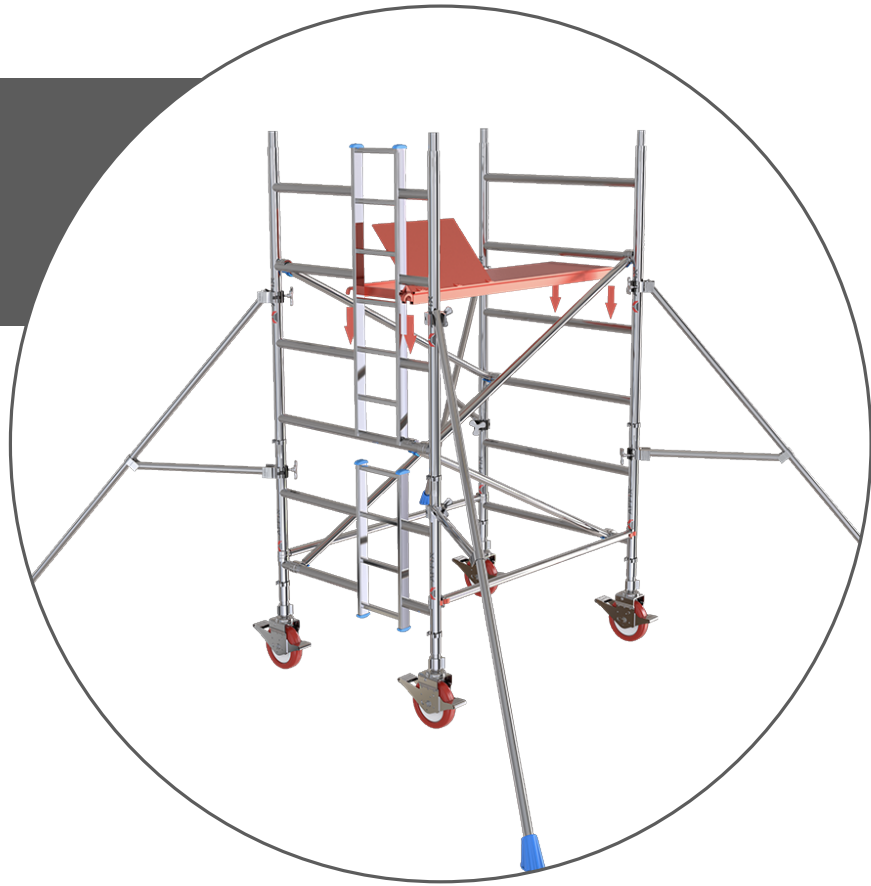
Step 6

Clamp the 4 Stabilizers on all 4 corners as per the **Components Table on Page no. 21**. For detailed instructions on installation refer to **Page no. 19**.



Step 7

Hook the Intermediate trapdoor platform on the **2nd Rung** of the 2nd level frames. Make sure the trapdoor is towards the ladder side.



Step 8

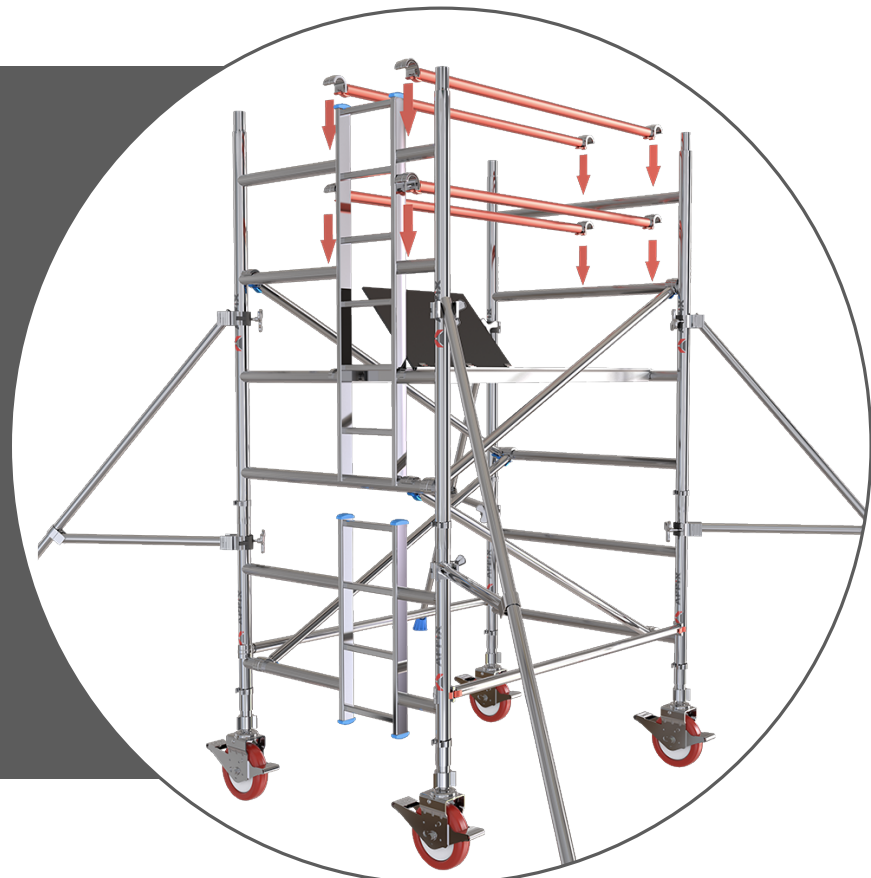
Using the 3T method, standing on the ladder and leaning back against the edge of the trapdoor aperture, fit the horizontal braces as mid rails and guardrails.

Step 8.1

Hook the lower pair of **Horizontal Braces** to the **3rd Rung** of both the 2nd level frames.

Step 8.2

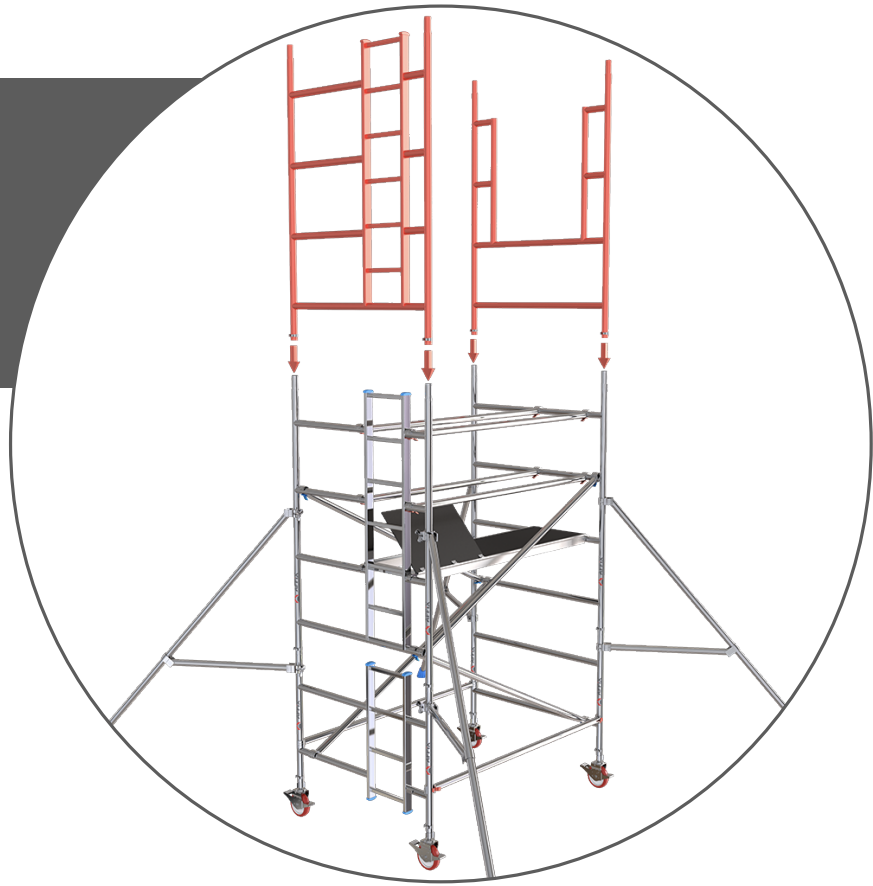
Hook the upper pair of **Horizontal Braces** to the **4th Rung** of both the 2nd level frames.



THIRD LEVEL

Step 9

Insert the 3rd level **Walk-through Frame and Ladder Frame** into the corresponding spigots of 2nd level **Span Frame and Ladder Frame**. For clamping instructions refer to the **Clamping Instructions section on Page 17**.



Step 10

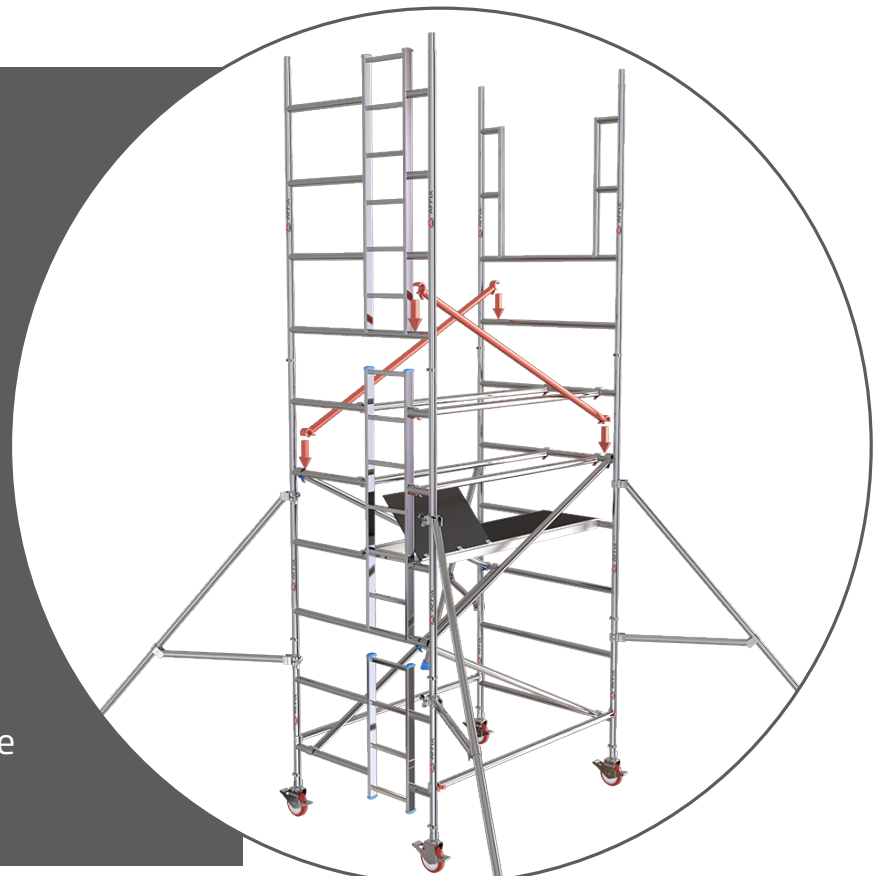
Step 10.1

Hook the Diagonal Brace to the **3rd Rung** of the 2nd level **Span Frame** at one end and the other end should be hooked to the **1st Rung** of the 3rd level **Ladder Frame** on the other side.

Step 10.2

Hook the 2nd Diagonal Brace to the **1st Rung** of the 3rd level **Walk-through Frame** at one end and the other end should be hooked to the **3rd Rung** of the 2nd level **Ladder Frame** on the other side.

Both the bracings should be in X shape while viewing from the side.



Step 11

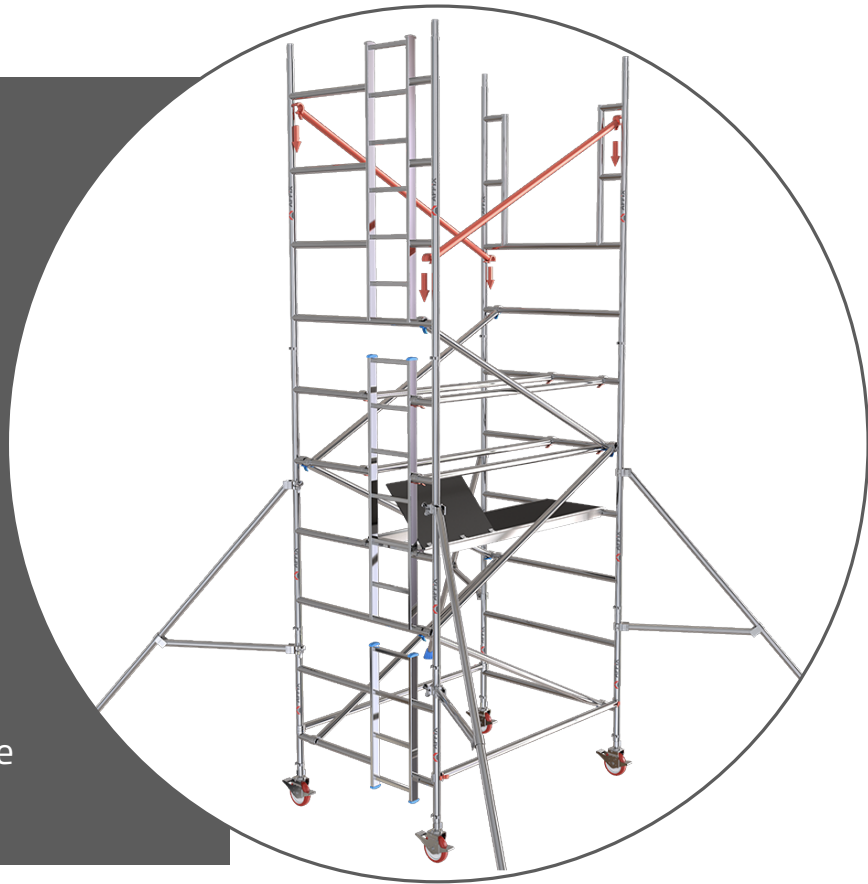
Step 11.1

Hook the **Diagonal Brace** to the **3rd Rung** of the 3rd level **Walk-through Frame** at one end and the other end should be hooked to the **1st Rung** of the 3rd level **Ladder Frame** on the other side.

Step 11.2

Hook the **2nd Diagonal Brace** to the **1st Rung** of the 3rd level **Walk-through Frame** at one end and the other end should be hooked to the **3rd Rung** of the 3rd level **Ladder Frame** on the other side.

Both the bracings should be in X shape while viewing from the side



Step 12

Hook the working **Fixed Platform** on the **2nd Rung** of the 3rd level frames. Make sure the platform is not on the ladder side.



Step 13

Hook the working **Trapdoor Platform** on the **2nd Rung** of the 3rd level frames beside the Fixed Platform. Make sure the trapdoor is towards the ladder side.



Step 14

Using the 3T method, standing on the ladder and leaning back against the edge of the trapdoor aperture, fit the horizontal braces as mid rails and guardrails.

Step 14.1

Hook the lower pair of **Horizontal Braces** to the **3rd Rung** of both the frames of 3rd level on both the sides.

Step 14.2

Hook upper pair of **Horizontal Braces** to the **4th Rung** of both the frames of 3rd level on both the sides.



Step 15

Step 15.1

Clamp the 4 plastic **Toe-board Holders** on all the 4 corners of the working platform level, around the working platform. For more details, refer to **Toe-board Assembly Details on Page 17**.

Step 15.2

Insert the wooden toe-boards in the **toe-board holder slot** on 3 sides only, not on the Walkthrough Frame side.



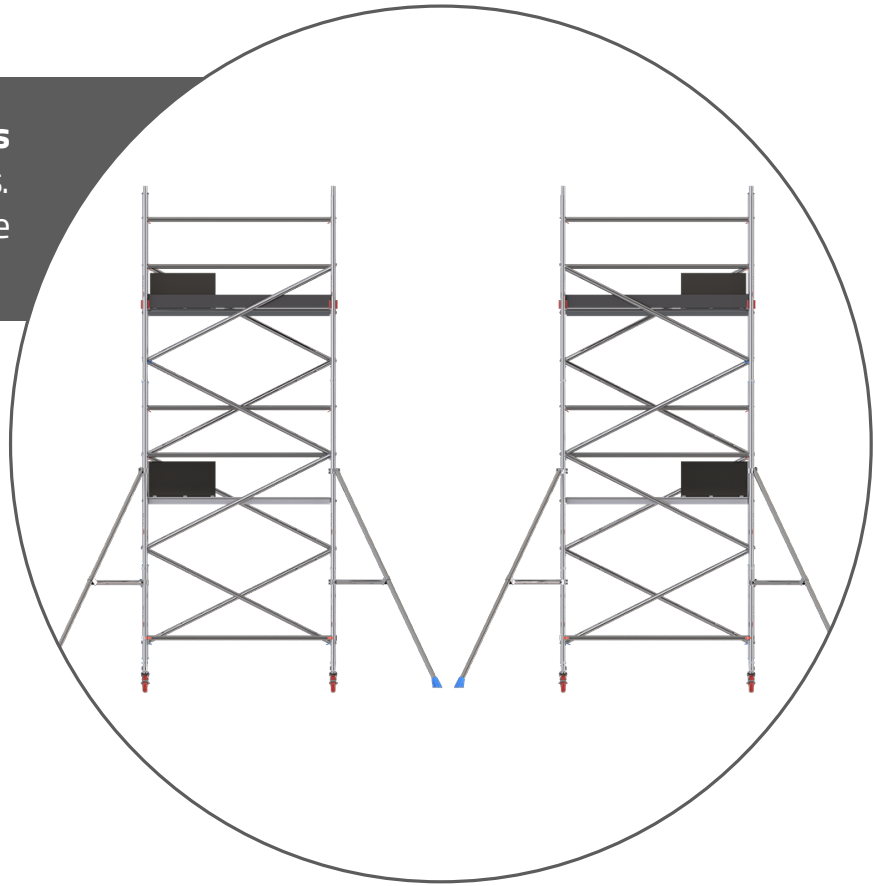
Step 16

One tower assembly is complete now.



Step 17

Erect another tower at a distance of **2.4 Mtrs** from the first tower, repeating the same steps. Ensure the **Walkthrough Frames** of both the towers face each other.



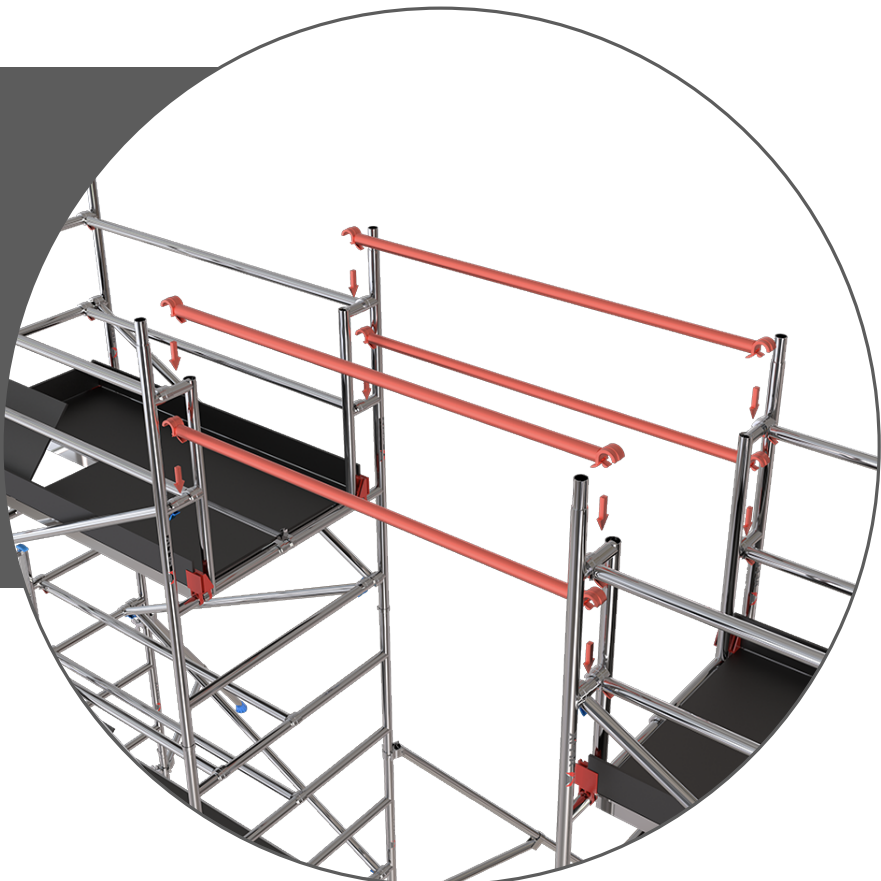
Step 18

Step 18.1

Hook the lower pair of **Horizontal Braces** to the **3rd Rung** of both the **Walkthrough frames** of both the towers, as Mid rail.

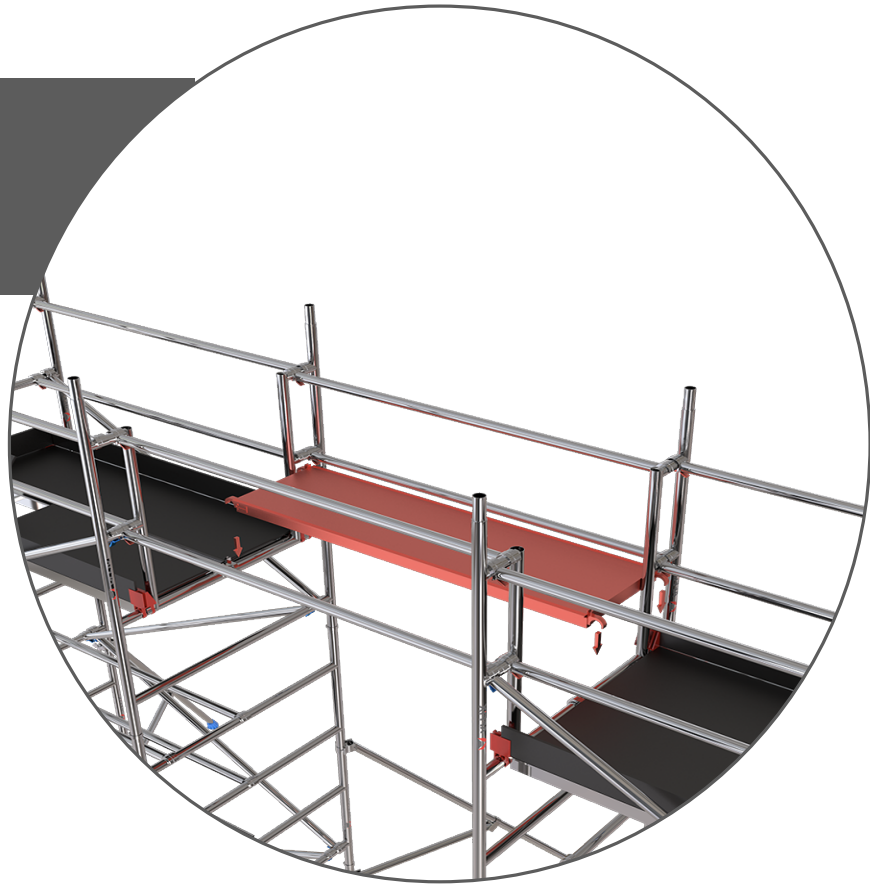
Step 18.2

Hook the upper pair of **Horizontal Braces** to the **4th Rung** of both the **Walkthrough frames** of both the towers, as Guard rail.



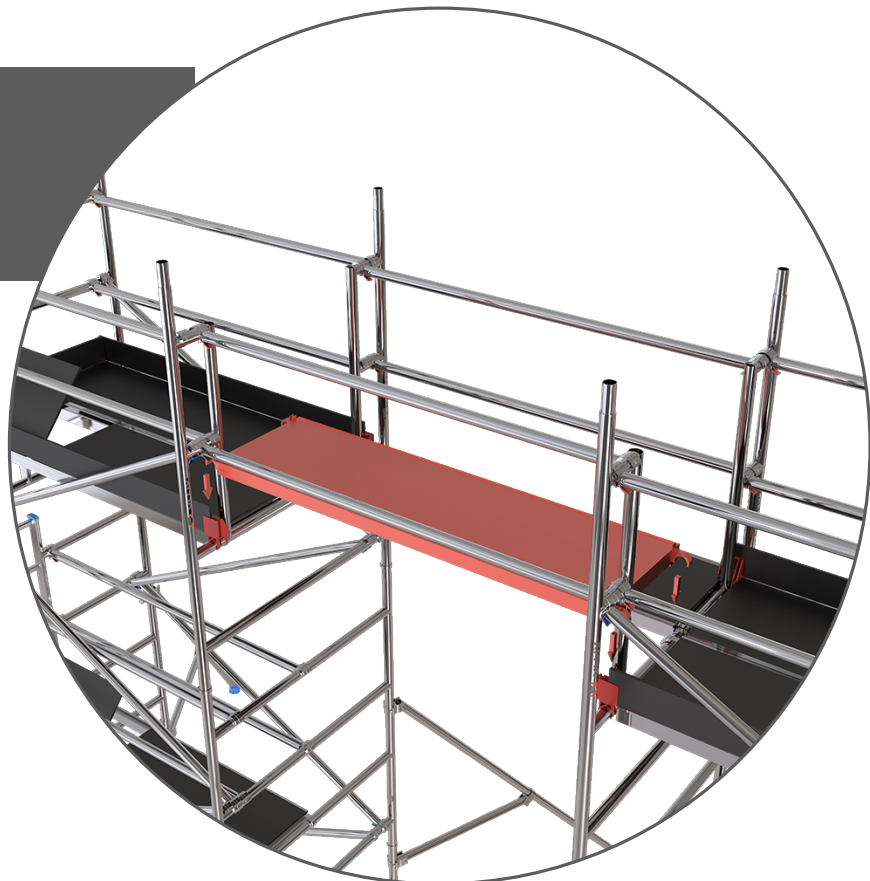
Step 19

Hook one Bridge Deck on the **2nd Rung** of both the **Walkthrough Frames** of both the towers, joining both the towers.



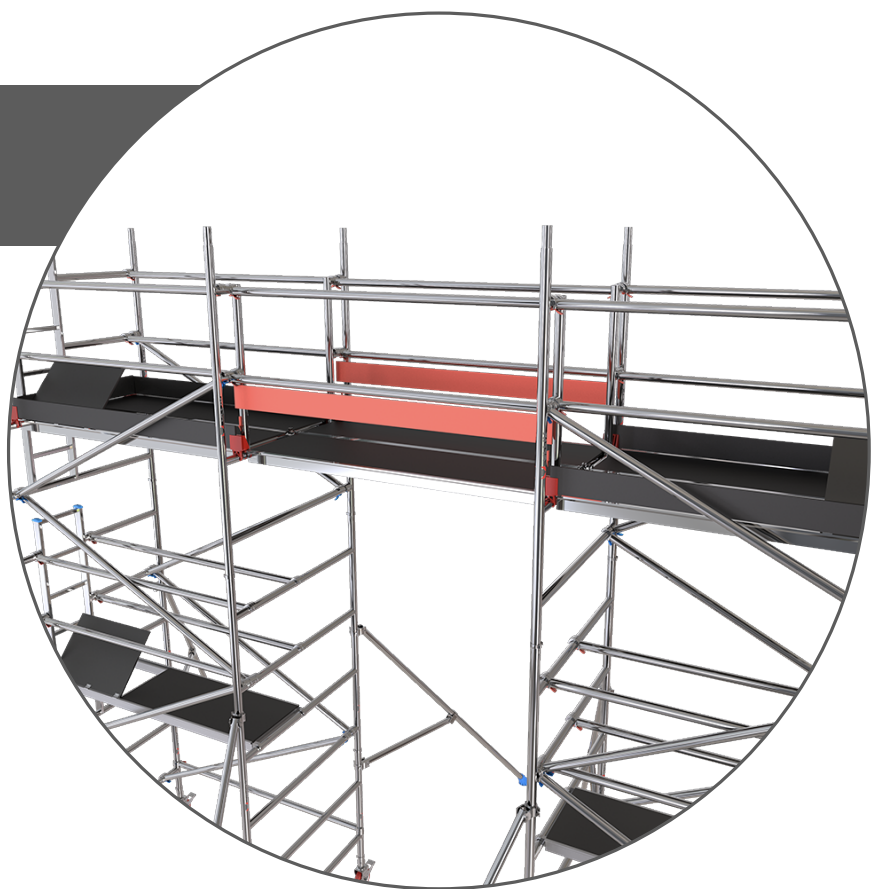
Step 20

Hook the **Second Bridge Deck** on the **2nd Rung** of both the **Walkthrough Frames** of both the towers, joining both the towers.

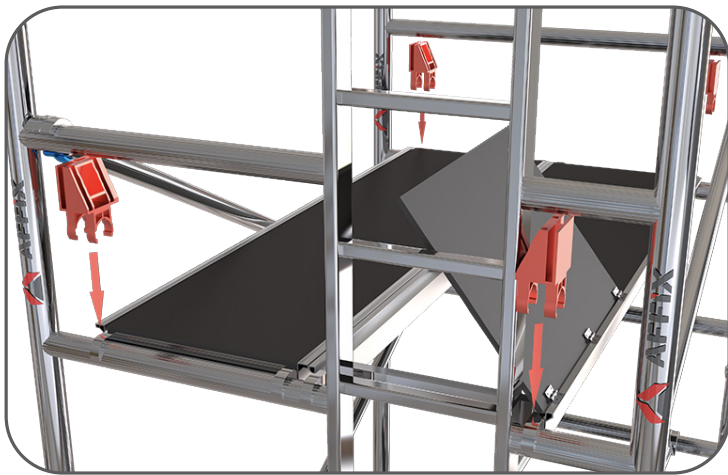


Step 21

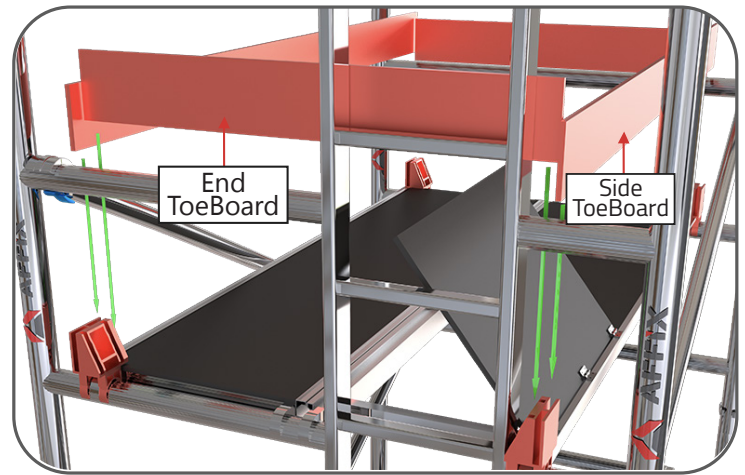
Insert the wooden **toe-boards** in the toe-board holder slot on both the sides.



Toeboard Assembly Details



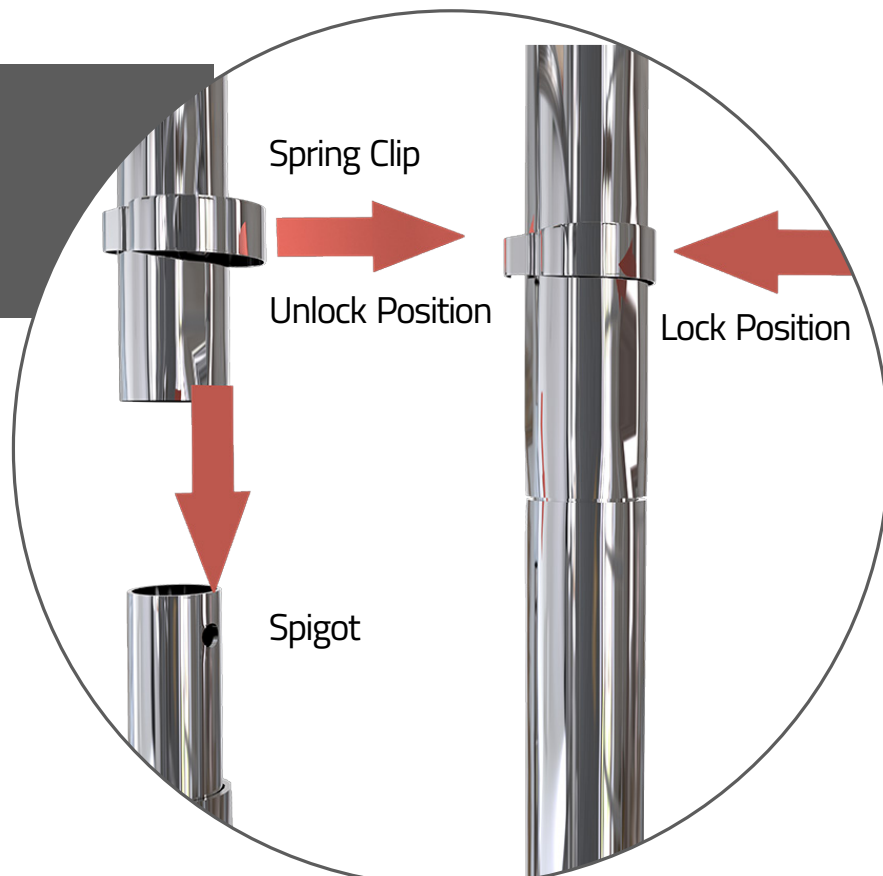
Fix the claw of the Toeboard **TB** on the **Rungs** facing each other as shown in the figure.



Then insert the **Side Toeboard** and the **End Toeboard** in the respective toeboard slots as shown in the figure.

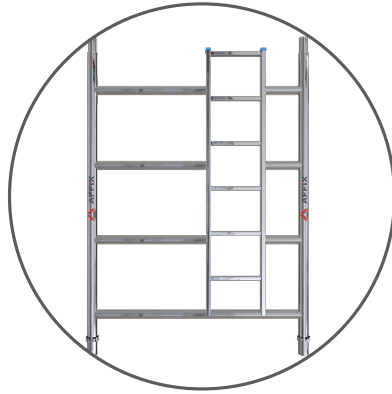
Clamping Instructions

Always ensure the **Spring Clips** are in the lock position after inserting the upper frame in the **Spigot**. To insert, unlock the **Spring Clip**.

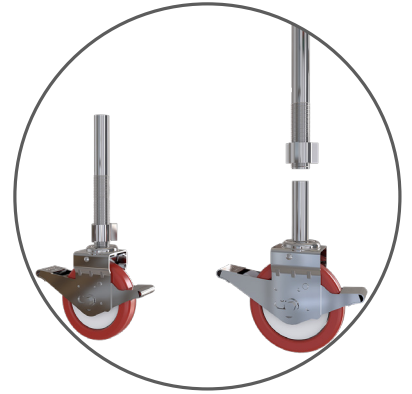




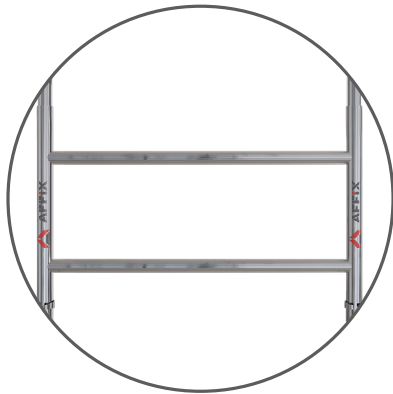
FS20135
Span Frame



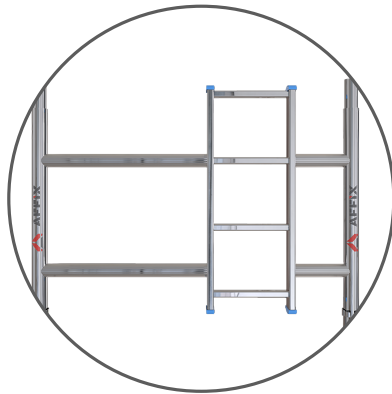
FL20135
Ladder Frame



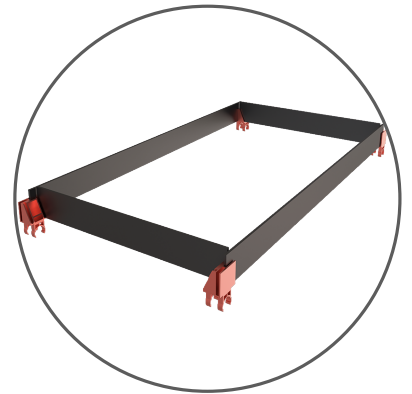
CW150/200, JA500
Castor Wheel, Adjustable Jack



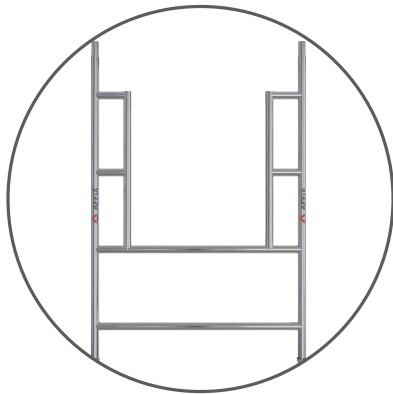
FS10135
Span Frame



FL10135
Ladder Frame



BT200/250
ToeBoard Set



FW20135
Walkthrough Frame



ST200/300/450/600
Stabilizer



PT200/250
Trapdoor Platform



PF200/250
Fixed Platform



BD200/250, BH200/250
Diagonal Brace, Horizontal Brace

Stabilizers are to be used, when specified, to guarantee the structural stability of the tower.

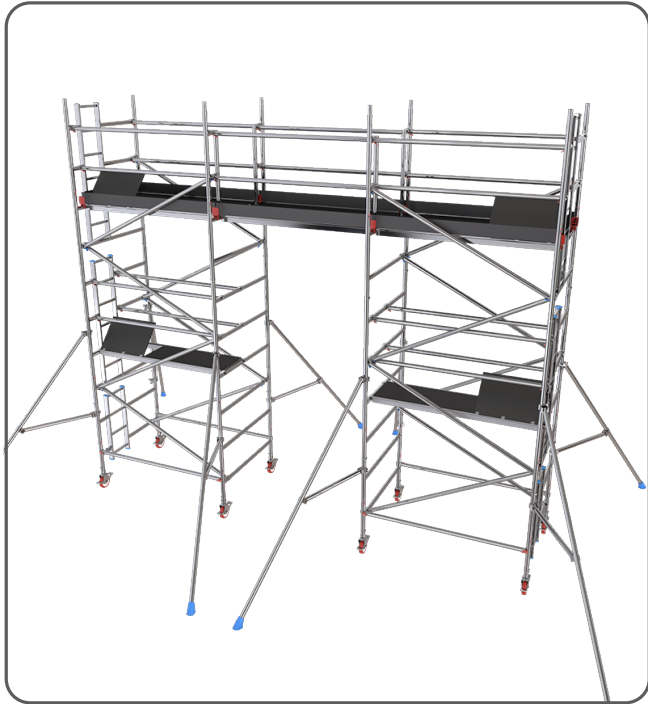


Fig. 01

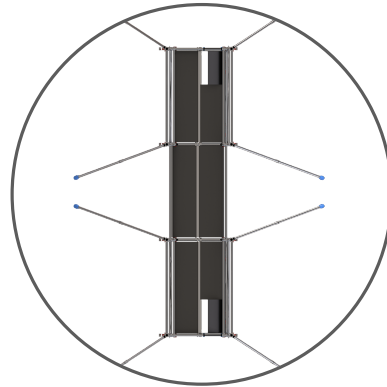


Fig. 02

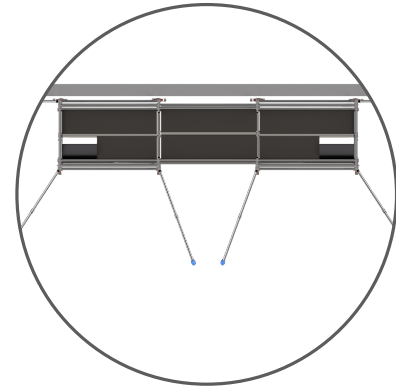


Fig. 03

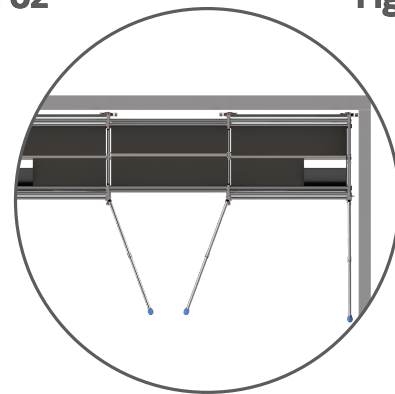


Fig. 04

Fig. 01

Lightly tighten the upper clamp of the stabilizer on each corner vertical posts at a height where the foot is touching the ground. Position the clamp of the lower arm such that the lower arm is as horizontal as possible.

Fig. 02

Position the stabilizers so that the footpads are approximately equidistant from each other.

Adjust the stabilizers and reposition the clamps as required to make firm contact with the ground. When in correct position, tighten all the clamps firmly.

Fig. 03

To position a tower against a wall, do not remove the stabilizer, move parallel to the wall.

Fig. 04

To position a tower in the corner of walls, remove the corner stabilizer and place the two towards the wall, parallel to the wall. The middle one should be placed as shown in the graphic Fig.04

Moving the Tower

To move the tower to a new position, first prepare the tower.

- Check that the wind speed does not exceed **17 mph**.
- Ensure the tower is empty (material and personnel).
- Check the overhead obstructions including electrical cables.
- Raise the stabilizer feet (only enough to clear obstructions, maximum 25mm).
- Taking care to ensure tower stability is maintained, release the castor brakes.
- Carefully move the tower by manually applying force at the base. Do Not Use mechanical means to move the tower.
- Once positioned, prepare the tower for use.
- Check and adjust as necessary to ensure all castors and stabilizers are in firm contact with the ground.
- Check that the tower is vertical.
- Reapply the castor brakes.

Comply To

- Certified and independently tested for use.
- Compliant to 3T Assembly process.
- Safe working load on the platform is 250kgs/Sq Mtr, evenly distributed.
- Maximum permissible distributed load on the tower 750 Kgs.

Type Approval

The scaffold towers referred to herein have been tested by



MABW SERIES TABLE Confirming to BS1139-6:2014

ALUMINIUM MOBILE BRIDGE TOWER

	MABW	325	425	525	625	725	825	925	1025
Tower Height	in Mtrs	3.2	4.3	5.3	6.3	7.3	8.3	9.3	10.3
Working Height	in Mtrs	4.2	5.3	6.3	7.3	8.3	9.3	10.3	11.3
Platform Height	in Mtrs	2.2	3.3	4.3	5.3	6.3	7.3	8.3	9.3
Weight	in Kgs	244	326	357	430	466	539	576	649
Components	Code	Specs							
Ladder Frame	FL20135	2.0 Mtrs	2	4	4	6	6	8	10
Span Frame	FS20135	2.0 Mtrs	0	2	2	4	4	6	8
Walkthrough Frame	FW20135	2.0 Mtrs	2	2	2	2	2	2	2
Ladder Frame Mini	FL10135	1.0 Mtr	2	0	2	2	0	0	2
Span Frame Mini	FS10135	1.0 Mtr	2	0	2	2	0	0	2
Caster Wheel	CW150	6 Inches	8	0	0	0	0	0	0
Caster Wheel	CW200	8 Inches	0	8	8	8	8	8	8
Adjustable Jack	JA500	0.5 Mtrs	8	8	8	8	8	8	8
Horizontal Braces	BH250	2.5 Mtrs	12	20	20	28	28	36	44
Diagonal Braces	BD250	2.7 Mtrs	8	12	16	20	24	28	36
Stabilizer	ST200	2.0 Mtrs	8	0	0	0	0	0	0
Stabilizer	ST300	3.0 Mtrs	0	8	8	8	0	0	0
Stabilizer	ST450	4.5 Mtrs	0	0	0	8	8	8	0
Stabilizer	ST600	6.0 Mtrs	0	0	0	0	0	0	8
Platform Trapdoor	PT250	2.5 Mtrs	2	4	4	6	6	8	10
Platform Fixed	PF250	2.5 Mtrs	2	2	2	2	2	2	2
Bridge Deck	PT250	2.5Mtrs	2	2	2	2	2	2	2
Toe Board	BT250	Set	3	3	3	3	3	3	3

BS1139-6:2014 Certification by TUV India



Statement of Confirmation

No.: CE/21-22/046

Client's Reference – EN-AS-BS-2122-000

Name & Address of the Manufacturer:

AFFIX SCAFFOLDING.

Hugo Building, Office No.13
Opp Old Fatihima Shopping Centre
Umm Dom Stree, Muaither, Doha , Qatar

Product Type:

- Cantilever Tower
- Bridgeway Tower
- Stair Tower

Review Results/Observations:

The Technical File referenced above submitted by the manufacturer has been reviewed for its document contents – the above product/s, generally comply with the Safety requirements of the British Standards:

BS-1139-6:2014

Validity: 15 November 2024 (Subject to annual factory production control audits)



Mahesh Gaur
General Manager - Product Certification and Product Testing Laboratory

(This Statement of Confirmation is valid under the conditions stated overleaf)

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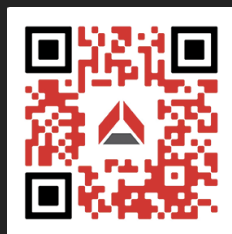
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Website

SCAN ME



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