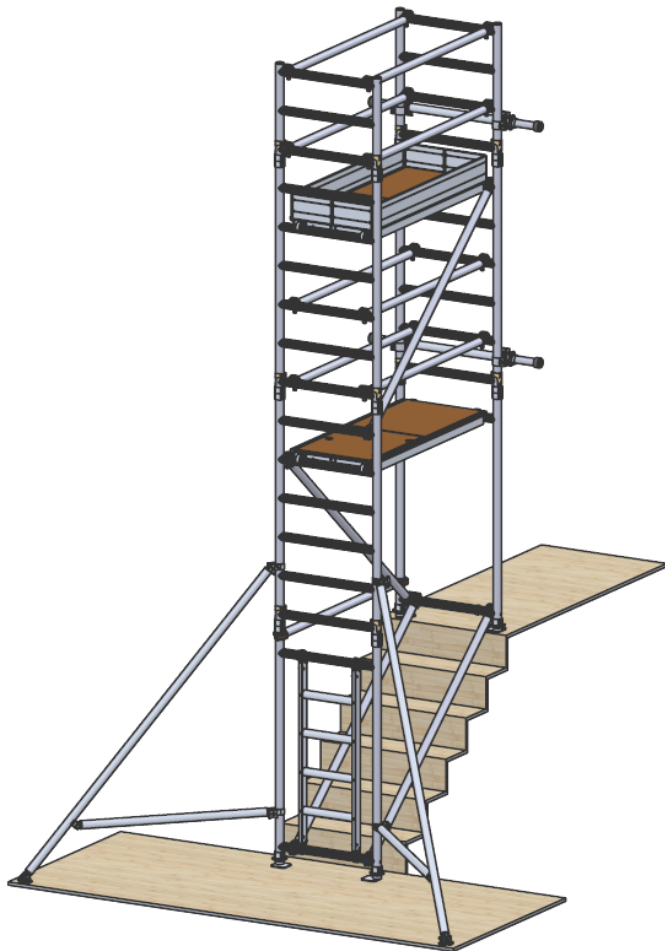


## UTS 700 STAIRWELL

### Instruction Manual

#### Mobile Access Tower

#### 3T - Through the trap method



### Instruction Manual

This Assembly Guide is intended to provide you with step-by-step instructions on how to erect your Mobile Access Tower (MAT) with ease and safety, using the 3T (through the trap) method.

You should read and understand all notes and diagrams, including the parts list for each height, before commencing assembly. Personnel should be qualified or competent to erect this tower. Please consult the PASMA's code of practice for full information on the use of Mobile Access Towers.

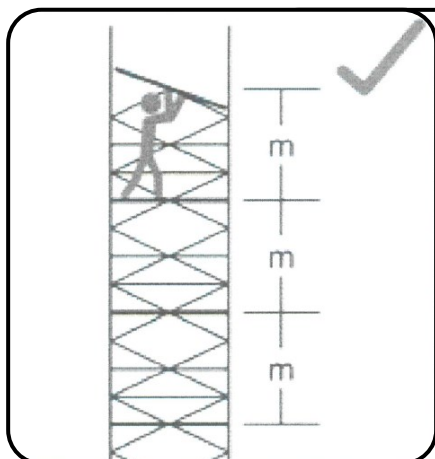
Remember to do a risk assessment of the area where the tower is to be used before commencing erection.

This instruction manual shall be available on the location of use of the mobile access and working tower.

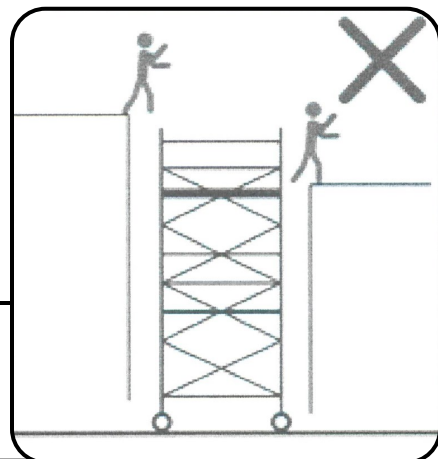
This mobile access and working tower shall only be used according to this manual without any modification.

Mobile access and working towers must only be used in accordance with national regulations.

# HEALTH AND SAFETY WARNINGS



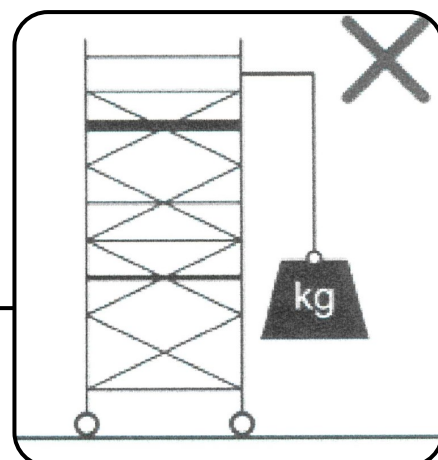
Maximum height between platforms of 2.2m



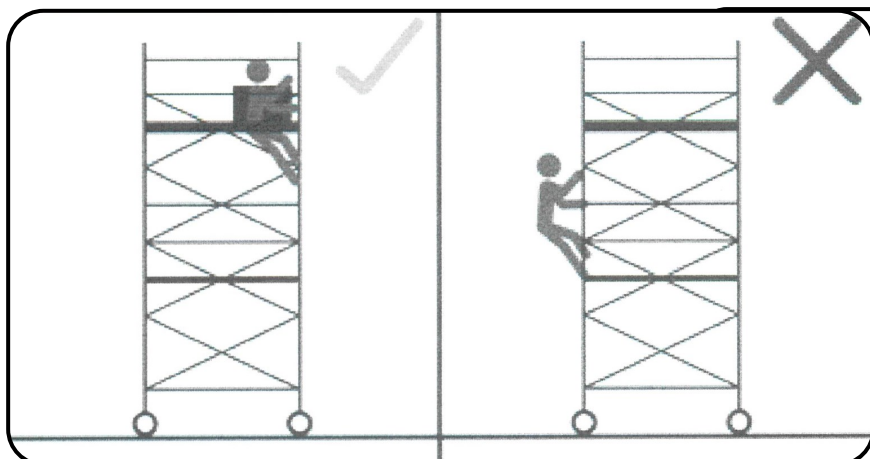
Do not use the tower as a form of access or exit



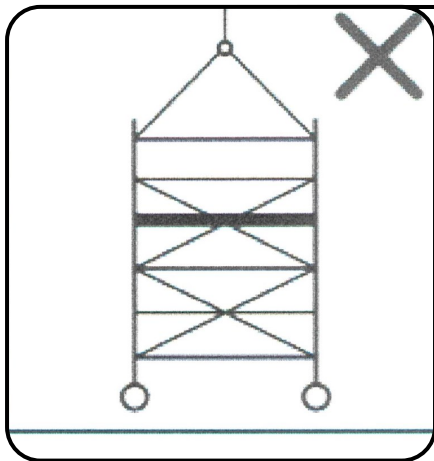
Do not use ladders, boxes or and other objects to gain additional height.



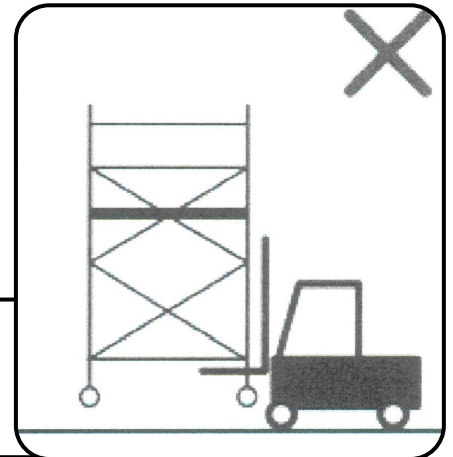
Do not lift heavy objects from the tower



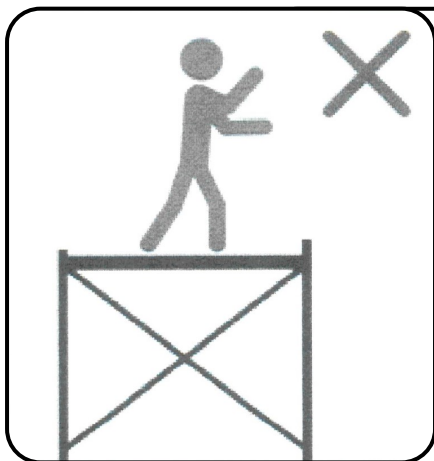
Do not climb outside of the tower, only climb up inside the tower.



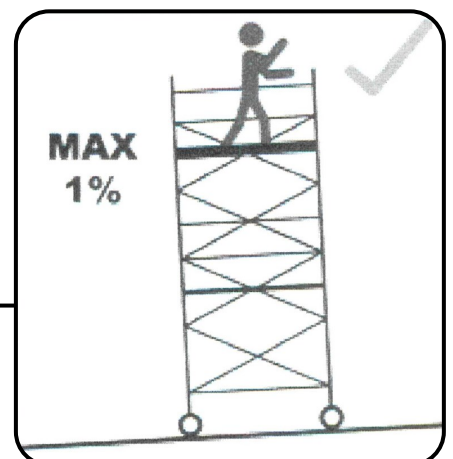
Do not suspend or lift the tower



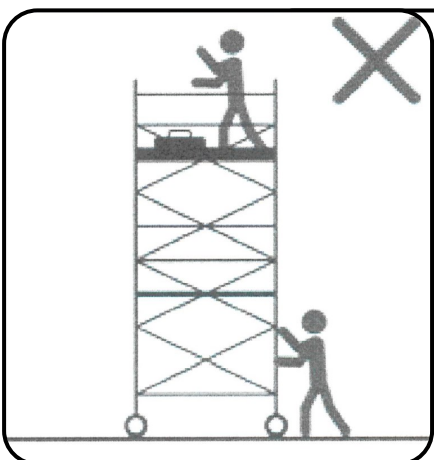
Do not lift the tower with mechanical equipment



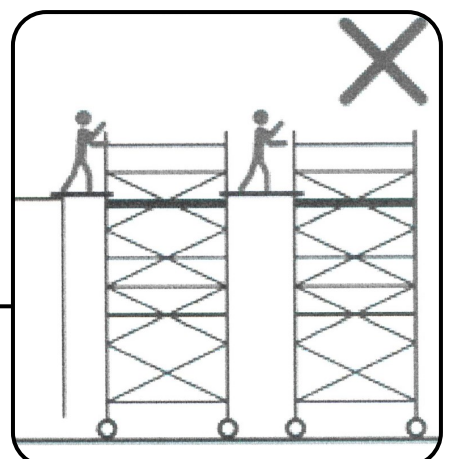
Do not stand up on an unguarded platform



Maximum inclination for working = 1%



Do not move the tower with material or people on it



Do not bridge between towers or other structures

# UTS 700 STAIRWELL

## Instruction Manual

### Mobile Access Tower

<b>Contents</b>	<b>Page</b>
Description	5
Safety Notes & Fittings	5
Inspection Care and Maintenance	7
Components and Weights	10
Assembly	11
Dismantling	18
Configurations and Weights	19
Risk Assessment Form	20

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# Description, Safety Notes & Fittings

## Description

The UTS 700 STAIRWELL tower is a lightweight aluminium industrial tower designed to be used on a stairway, in a variety of commercial and domestic environments. It gives a safe and secure and robust work area at a range of heights indoors to enable maintenance, installation work and short term access, ensuring that working at height is as safe as possible.

- Instructions for erection and use to be followed carefully.
- A risk assessment should always be carried out before erecting your MAT (Mobile Access Tower).
- You will find a standard risk assessment form at the back of this instruction manual.
- The UTS 700 STAIRWELL has a maximum working platform height of 7.3 meters indoors or outdoors.
- The maximum permissible load on the UTS 700 STAIRWELL tower is 550kgs and evenly distributed on each platform is 275kgs. This must not be exceeded over the working height platform, not including rest platforms.
- Maximum of 1 working platform per tower.
- Maximum of 1 person per working platform.
- Damaged or incorrect components shall not be used.

## Risk analysis

Proper risk analysis of our towers reveals that all components are integral to the safety of the tower once assembled, and while assembling is the greatest period of risk. If the user follows the instructions set out in this manual it will contribute to the reduction of risk of injury, this along with the PASMA training recommended in the manual should be enough to significantly reduce the risk possibility down to improbable if not impossible.

The components have been designed in such a way that they can be assembled in an order that allows for minimal risk to occur, such as making locking parts easy to lock but harder to unlock to ensure easy assembly but prevent accidental removal during use, and colour coding parts that are harder to distinguish between. Instructions in the manual and training courses are very clear about how to access the tower and the correct method is displayed on the tower as a reminder, but ensuring all components and materials are of the highest standard, means we can be confident that even if misuse was to occur, we can be confident that the components would be able to still prevent injury.

It is important to limit the risk of all tasks especially when working at height. It is the user's responsibility to complete a risk assessment then use that to reduce the risk associated with the task (a blank one can be found at the back of this manual). Once the full risk assessment is completed and all hazards have been identified and controlled it is down to the user to decide if there is still too much risk in which case do not erect or use tower and look for alternative access arrangements.

## Safety Notes

### ERECTION & DISMANTLING - THE 3T(through the trap) METHOD

Towers should be erected following a safe method of work, there are two approved methods recommended by 'Prefabricated Access Suppliers & Manufacturers Association' (PASMA) in co-operation with the Health and Safety Executive (HSE) & the "working at height regulations 2005"

The method used for erecting and dismantling the UTS 700 STAIRWELL tower is the 3T METHOD (through the trap).

This method ensures the operators erecting the tower position themselves in the trapdoor of the platform to add or remove horizontal guardrail braces for the level above the platform.

### **NEVER STAND ON AN UNGUARDED PLATFORM.**

Before assembly or erection of this Mobile Access Tower (MAT) please ensure that:

- A risk assessment has been done and all safety equipment is on site.
- The ground conditions will take the working loads of MAT as specified.
- Always check that the MAT is vertical, (Level, slope, uneven ground etc.) if levelling is required make sure you adjust legs, in line with instructions (use spirit level).
- Beware of (overhead) obstructions – live wires, electrical apparatus or moving parts of machinery or other.

- Wind conditions are within limits as specified. (Refer to page 7)
- Do not use boxes, ladders, or other devices on the platform to gain additional height.
- If in doubt DO NOT ERECT.
- Check that all components are on site and that they are in good working order before use (refer to the components and quantities shown at each stage). Auxiliary equipment and safety equipment. (ropes, etc)
- All platforms MUST have horizontal guardrails fitted.
- The tower should always be accessed from the inside using the rungs of the end frames.
- Never climb up the outside.
- Do not use the guardrail braces as a rung or step.
- It is recommended that 2 persons erect this tower.
- The assembled tower should not be used as a means to enter or exit other structures, e.g. as a stair tower.
- Beware of horizontal forces (e.g., when using power tools on an adjacent structure), which could generate instability or overturning of the tower.
- Maximum distance between platforms is 2.25m, maximum distance to the first platform is 3.4m.
- Maximum horizontal force 20kgs.
- Mobile access and working towers are not designed to be sheeted
- The tower height used should be appropriate for the working height, e.g. within 2 meters above the platform
- User training courses cannot be a substitute for instruction manuals but only complement them.
- Only the original UTS components specified in the manual shall be used.
- Mobile access and working towers designed in accordance with BS EN 1004-1:2020 are not anchor points for personal fall arrest equipment.
- Working is only permitted on a platform with a complete side protection including guardrails and toe boards.
- Mobile access and working towers are not designed to be used as edge protection.

## **STABILISERS, WALL PROPS & BALLAST**

The tower should be stabilised or propped against the building when being erected and used. In confined spaces the tower may well be trapped within a stairwell and require minimal further stabilisation. It would be down to individual risk assessments to decide what stabilisation is appropriate. Should ballast be required, a platform should be positioned on the lowest rung and the weights should be firmly attached to it and evenly distributed. For advice on ballast contact your supplier.

## **MOVING THE TOWER AND LEAVING IT UNATTENDED**

- It is recommended that towers should be tied to a solid structure, when left unattended.
- If left unattended tower should be rechecked for level and that all components are still present and correctly attached before use.
- To move the tower safely it needs to be dismantled fully and then reassembled following the instruction manual

## **TIES**

When ties are required, they should be in accordance with table 17 of BS 5973:1990 and table 24 of BS 5975:1982. Always tie to a solid structure.

The tie frequency should be at 4 meter intervals or less vertically.

## **FITTING TOE-BOARDS**

**1 piece folding toe board**, fold out over platform making sure location angle rests fits securely on side of platform.

## LIFTING OF INDIVIDUAL TOWER COMPONENTS

Raising and lowering components, tools and/or materials by rope should be conducted within the tower base (i.e. within the area bounded by the stabilisers). Ensure that the safe working load of the supporting decks and the tower structure is not exceeded.

Check for environmental changes before every use. (i.e.: all weather conditions) Refer to next page for wind effects.

## LIFTING OF EQUIPMENT

Tools and other equipment should be hauled up by a person on the platform using rope or similar, through the trapdoor of the platform or within the tower footprint.

Please see footprint guide on page 16.

Safe working loads of platform and tower not to be exceeded.

## CHECK LIST, INSPECTION CARE AND MAINTENANCE FOR MOBILE ACCESS TOWERS

- All components should be inspected before use to ensure that they are not damaged or broken, particularly the welds.
- ANY damage to ANY part particularly tubular members, castors, platform decking MUST be replaced.
- Adjustable leg threads should be cleaned and lightly oiled.
- All locking claws should be cleaned, and the locking mechanism checked for operation.
- When storing your MAT, please ensure that all components are neatly stored and not left lying around where they could be stood on or damaged.
- When transporting the MAT always tie the components down so that they do not move around and get damaged.
- Should the tower be left unattended it should be tied to a suitable structure and on reuse ALWAYS check that the tower is vertical and safe before ascending correct and complete structure.
- The MAT is not designed to be lifted or suspended as a complete structure.
- Always keep this instruction manual safe.
- Broken, damaged or incorrect components must never be used. The equipment shall be quarantined and assessed for replacement repair or destruction.

## WIND EFFECTS

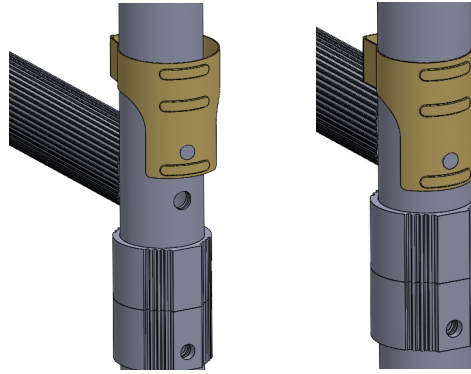
- Beware of high, gusty, or moderate breeze conditions in exposed areas. It is recommended that in wind speeds over a Moderate Breeze (see Beaufort Scale below) that work on the tower is stopped and reassessed. If the wind becomes a Strong Breeze, (see Beaufort Scale below) the tower should be tied to a rigid structure. If the wind is likely to reach Gale Force (see Beaufort Scale below) or over, work should be stopped, and the tower should be dismantled.
- Beware of tunnelling effect caused by open ended buildings, uncladded buildings and building corners.

Wind	Beaufort Scale 10 Meters above ground	Force	Speed in m.p.h.	Speed in knots
Moderate Breeze	Raises dust and loose paper, small branches move.	4	13–18	11–16
Strong Breeze	Large branches in motion, telegraph wires whistle.	6	25–31	22–27
Gale Force	Walking is difficult, twigs break off trees.	8	39–46	34–40



## LOCKING CLIPS

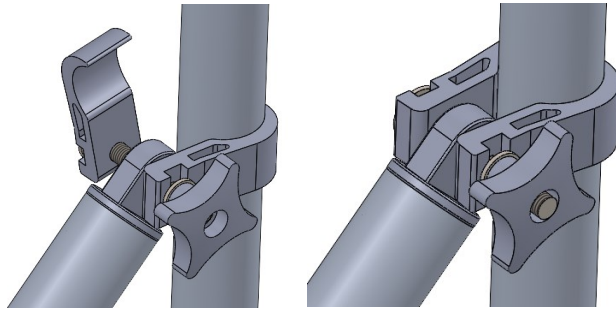
Fit the locking clips as shown in the diagram opposite.



## FITTING STABILISERS

To attach stabilisers clamps, undo palm wheel all the way, fit one side of clamp to vertical frame, then rotate second side of clamp to fit vertical frame and tighten palm wheel.

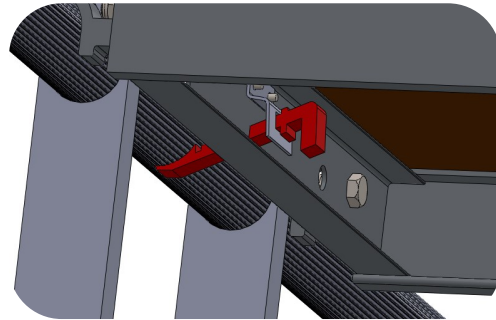
Attach a stabilisers in configurations as shown on pg18 for maximum stability in different situations.



## PLATFORM WINDLOCK LOCKING

Make sure wind locks are pushed forward until they sit securely under the rung.

They should not be able to fall out and should require a reasonable pull to disengage them.

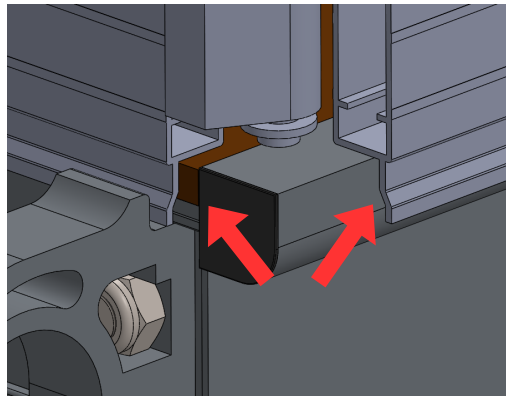
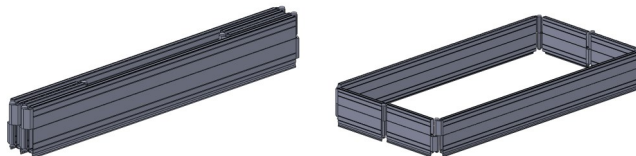


## FITTING TOE-BOARDS

**1 piece folding aluminium toe board.**

Unfold out over platform, hook bottom edges over sides of platform.

Ensure short ends of toe boards have hooked over both ends of the platform, hook bottom edge down between platform hook and frame.



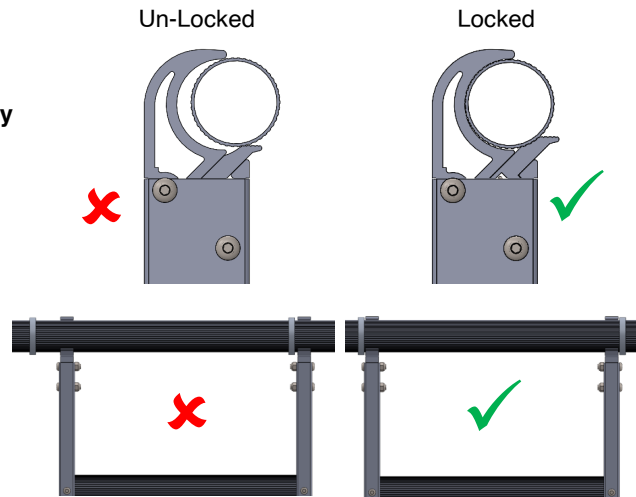


## LADDER LOCKING CLIPS

Ensure ladder clip is locked into position by pushing all the way until lock clicks out.

## CORRECT FITTING OF LADDER

Ensure ladder is clipped top and bottom between the locating rings on the rung.

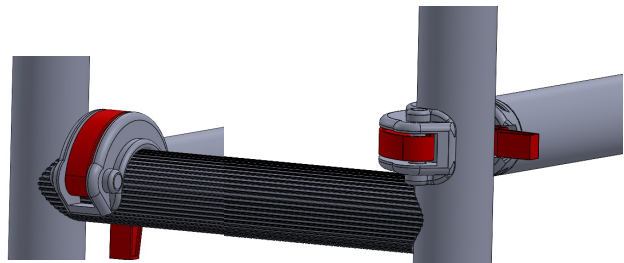


## CORRECT FITTING OF HORIZONTAL BRACING

THE CORRECT FITTING OF HORIZONTAL BRACING IS IMPORTANT.

The diagrams opposite illustrate the CORRECT brace positions.

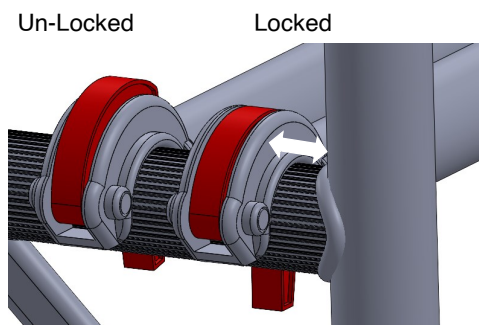
REMEMBER: Always fit braces DOWNWARD or from the inside facing OUTWARD – BUT NEVER INWARD



## BRACE CLAMP LOCKING

Ensure that the brace clamp is locked as shown.

Always make sure the brace is not clamped too close to the weld as indicated by the arrow on the drawing on the right.

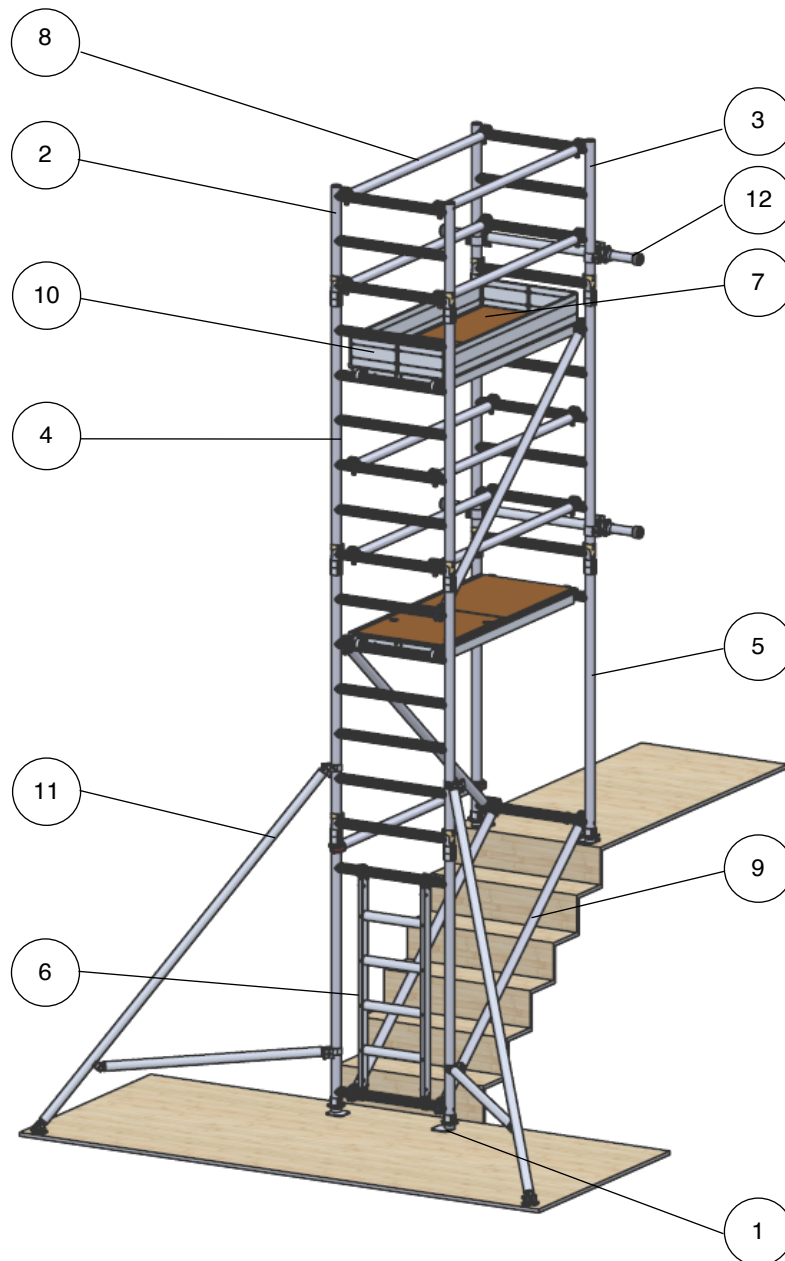


## FITTING ADJUSTABLE BASE FEET

Take the adjustable leg assembly complete with its base plates, make sure that all the adjusting nuts are positioned down at the plate and slide them into the vertical tube, turn the base unit the right way up and with the aid of a spirit level placed on the platform, the adjusting nuts can be used to level the structure. (and not to gain additional height).



# Identifying Components and Their Weights



## Tower Components and Approx. Weights

Item	Description	Weight (Kg)	Item	Description	Weight (Kg)
1	100mm Adjustable Base Plate	3.4	7	1.5m Trapdoor Platform	12
2	0.75m 3 Rung Frame	5	8	1.5m Horizontal Brace	1.9
3	1.0m 4 Rung Frame	5.6	9	1.9m Diagonal Brace	2.1
4	1.5m 6 Rung Frame	7	10	Complete Toe Board Set	6
5	1.5m Walkthrough Frame	4	11	*S1 Stabiliser	5.9
6	Walkthrough Frame Ladder	6	12	*Wall Prop	4

### \* Please Note:

It is the users responsibility to complete a risk assessment and decided on which combination of stabilisers and wall props to use e.g.:

- 4 stabilisers and no wall props
- 2 stablisers and 2 wall props
- 0 stabilisers and 4 wall props

# Assembly Procedure

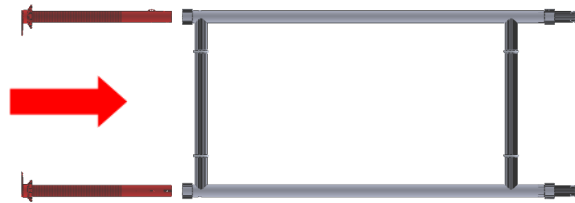
UTS recommends that a minimum of two people is required for the assembly of the UTS 700 STAIRWELL tower. Only climb the tower from the inside using the end rungs.

## PLEASE TAKE NOTE

**Never place the platform on the guardrail frame**

**Always climb from the inside of the frame – never the outside. When working on the platform never overreach**  
**The end frames should provide a firm hand hold.**

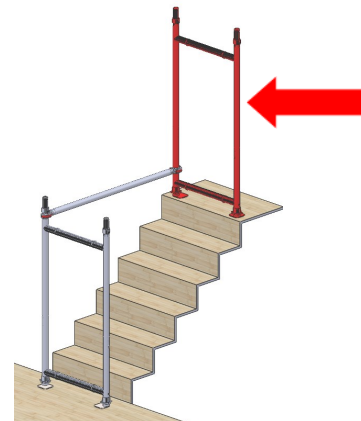
1. Insert adjustable leg assembly with base plates into the base of a walkthrough frame, then repeat this with the other walkthrough frame.



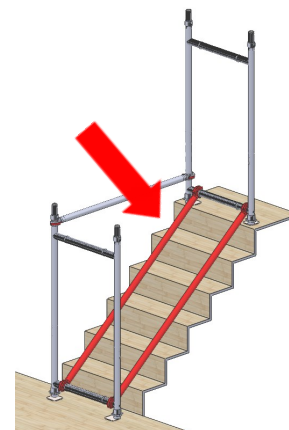
2. Attach one horizontal brace (red) to vertical of the end frame, claws facing outwards, just above the top rung. This frame will now be self-supporting, resting the other end of horizontal brace on a stair.



3. Stand the other walkthrough frame on the stairs approximately 1.5m away. Now you can connect the other end of horizontal brace (red) on to the vert just above the first rung.



4. Connect 2 diagonal braces between the 1st rungs of both frames, on either sides of the rings.  
**Note: use a spirit level and the adjustable legs to ensure the horizontal brace is flat**



## 2.8m Configuration Assembly Instructions.

1-4. Start with steps 1 — 4 on page 9

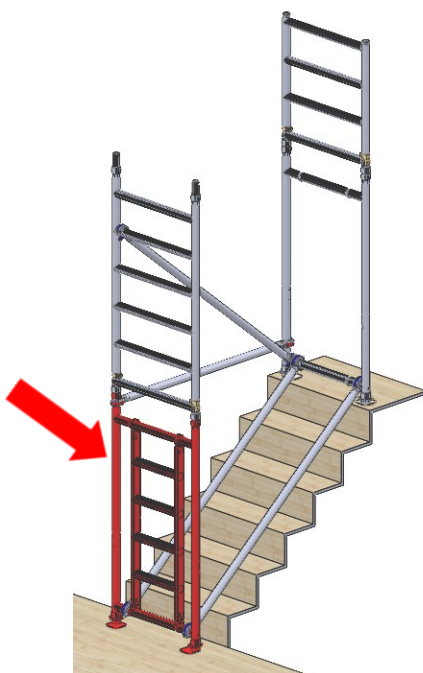
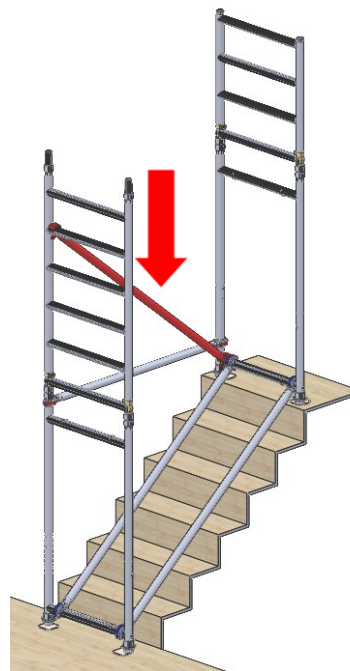
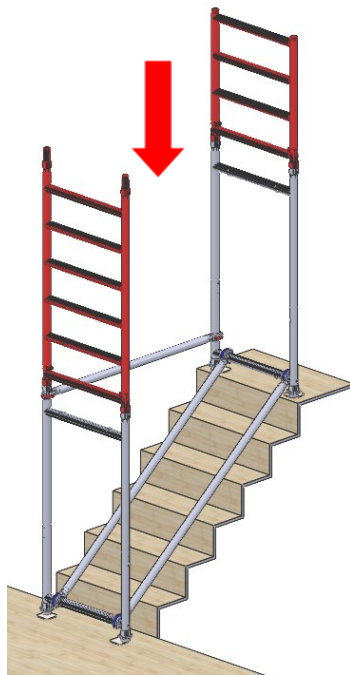
5.

From the middle of the tower fit a six rung frame to the lower walkthrough frame and a 4 rung guard rail frame to the higher walkthrough frame.

Connect the frames with a Diagonal brace (blue) placed in the opposite direction to the lower diagonal brace (blue) forming a zig-zag pattern (See photos) it should be positioned on the bottom rung of the higher walkthrough frame and the 5th rung of the 6 rung frame on the opposite side.

\*Secure all interlocking clips.

Fit walkthrough frame ladder, (ref page 7)

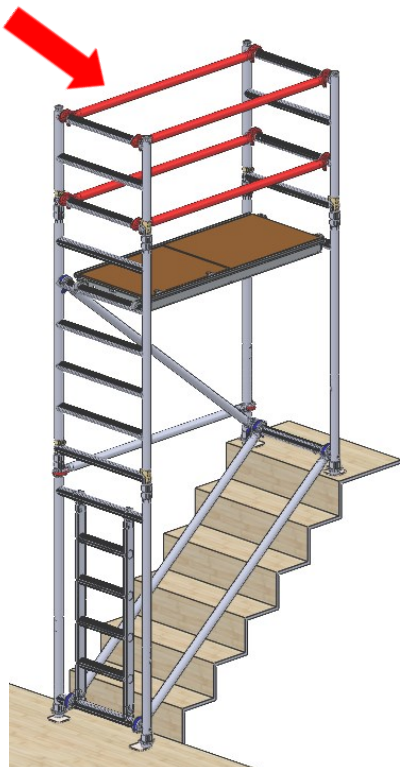
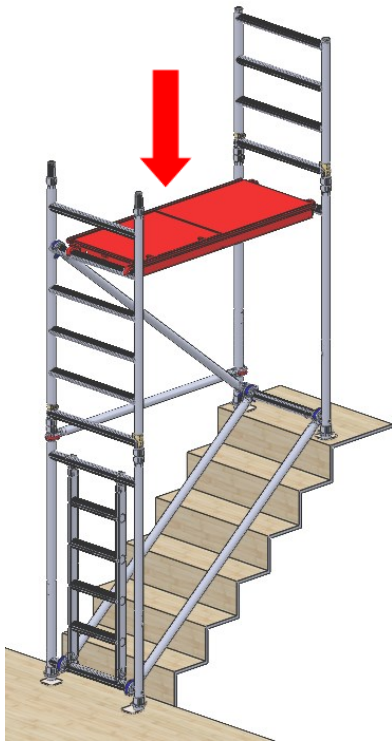


6.

Fit the trapdoor platform on the top rung of the higher step access frame and corresponding rung on the lower end frame. The trapdoor must face the lower end of the stairs (see photo) secure windlocks after checking it is level.

Ensuring the clip on ladder is locked in place with hooks facing out (see photo), climb up to and partially through the platform and adopt the '3T' (Through the Trapdoor) position with your feet on the rungs below.

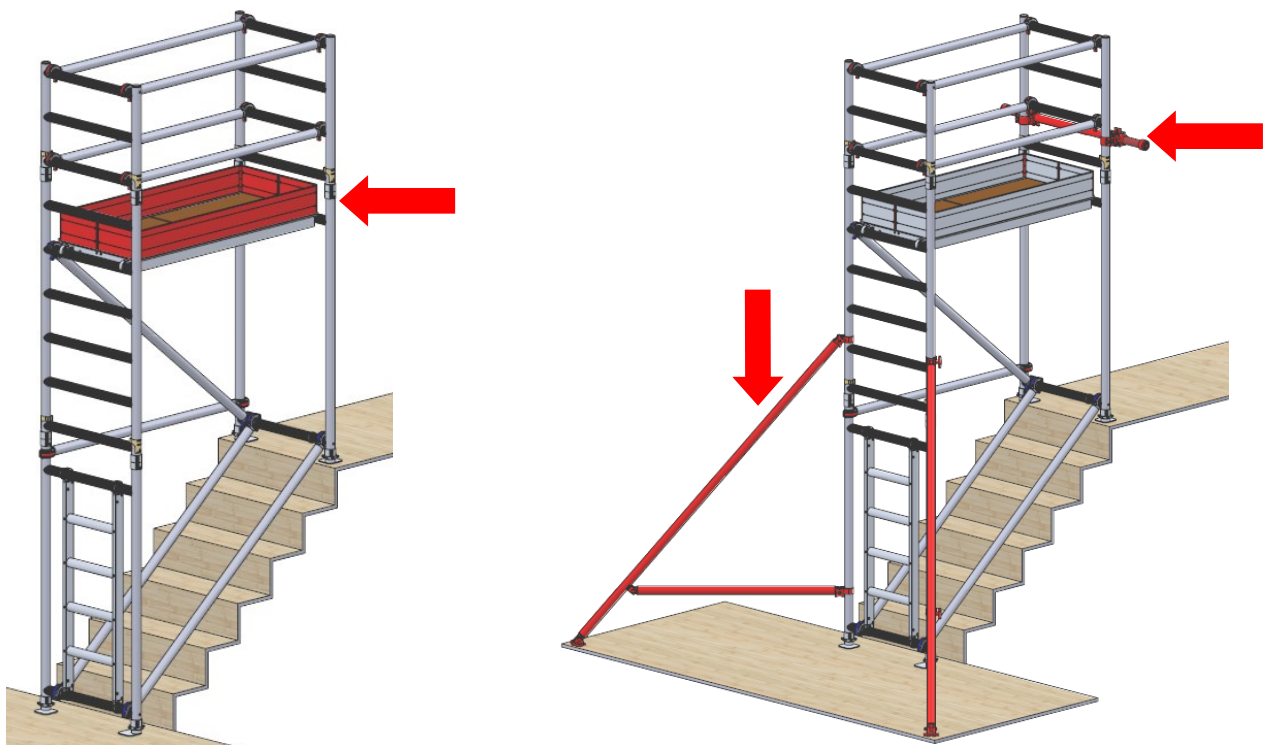
Fit a 3 rung guardrail frame to the 6 rung frame and four 1.5M horizontal braces (red) to the rungs of the frames facing downwards at 0.5m and 1.0m above the platform. (see photos) Ensure all braces are locked in place.



Fit toe boards to the working platform. (see instructions on page 4 & 5)

7.

**The tower should be stabilised or propped against the building when being erected and used. In confined spaces the tower may well be trapped within a stairwell and require minimal further stabilisation. It would be down to individual risk assessments to decide what stabilisation is appropriate.**





## 4.3/5.8/7.3m Configuration Assembly Instructions.

1-4. Start with steps 1 — 4 on page 9

From the middle of the tower fit a six rung frame to either end of the tower.

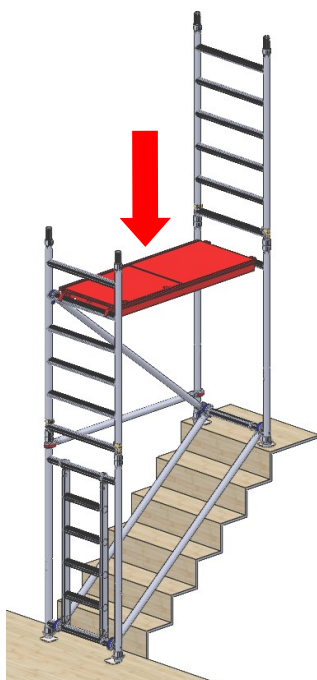
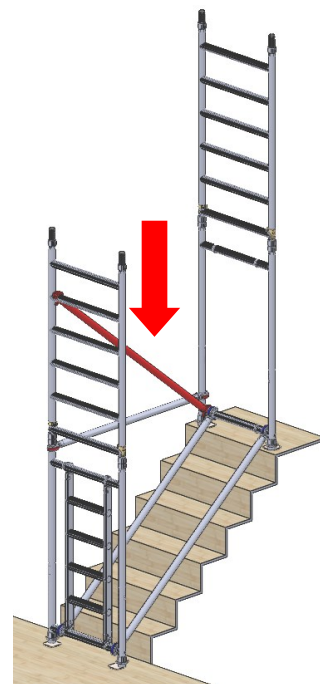
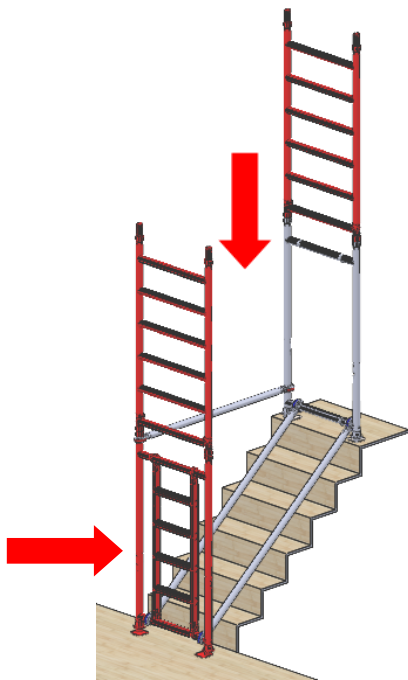
Fit walkthrough frame ladder, (ref page 7)

Connect the frames with a Diagonal brace (blue) placed in the opposite direction to the lower diagonal brace (blue) forming a zig-zag pattern (See photos) it should be positioned on the bottom rung of the higher step access frame and the 5th rung of the 6 rung frame on the opposite side.

5.

\*Secure all interlocking clips.

Fit the trapdoor platform on the top rung of the higher step access frame and corresponding rung on the lower end frame. The trapdoor must face the lower end of the stairs (see photo) secure windlocks after checking it is level.

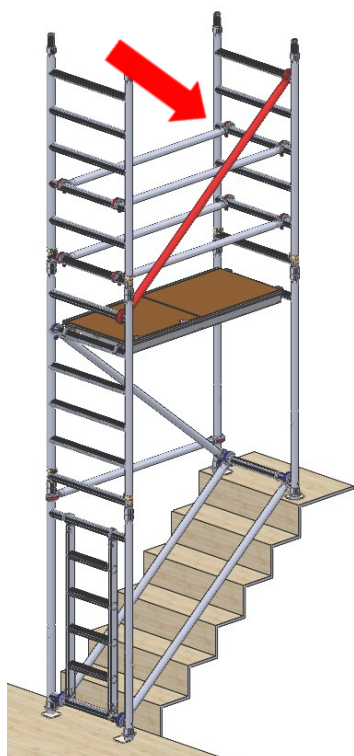
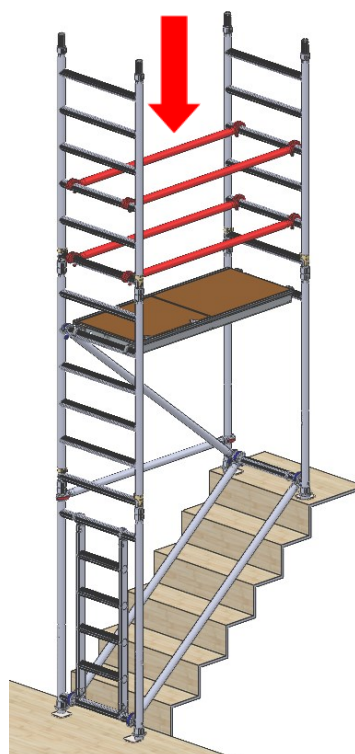
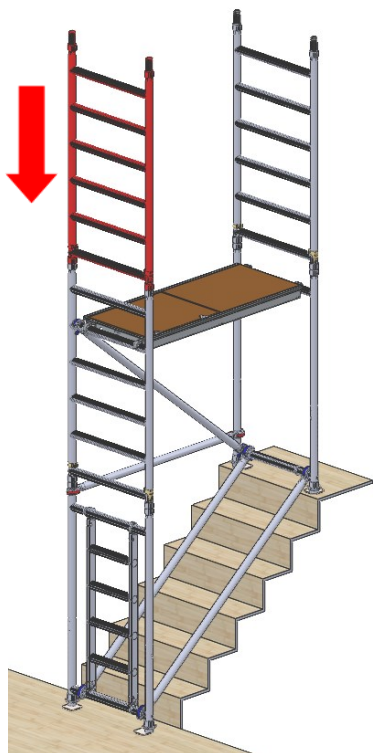




6.

Ensuring the clip on ladder is locked in place with hooks facing out (see photo), climb up to and partially through the platform and adopt the '3T' (Through the Trapdoor) position with your feet on the rungs below.

Fit a 6 rung guardrail frame to the 6 rung frame and four 1.5M horizontal braces (red) to the rungs of the frames facing downwards at 0.5m and 1.0m above the platform. (see photos)  
Ensure all braces are locked in place.

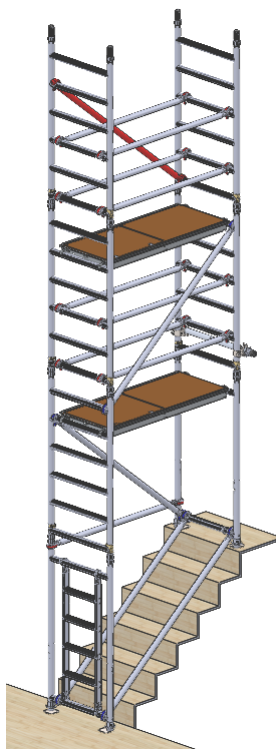
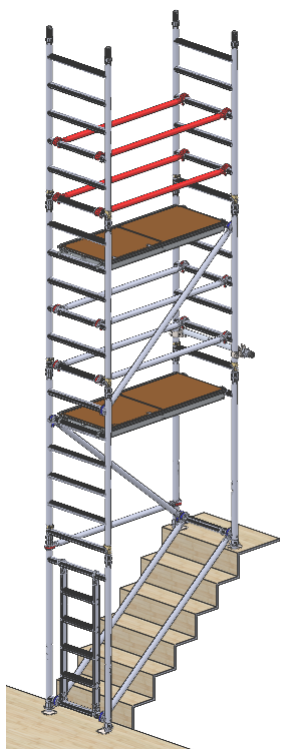


7.

If completing at 5.3m add a 4 rung frame to the uphill end of the tower and continue on to complete tower as described in point s 6&7 (pages 13&14 )

If going higher repeat steps 5 and 6 adding 6 rung frames, platforms and horizontal braces every 1.5m and diagonal braces continuing the zig zag pattern as shown in the images.

When desired height is reached (maximum of 7.3m) add a 4 rung frame to the uphill end of the tower and continue on to complete tower as described in point s 6&7 (pages 13&14 )



# Dismantling

The dismantling procedure should follow the assembly steps in reverse order, take particular attention about the removal of guardrails and platforms.

You should ensure that you are standing in a safe position and always protected by guardrails NEVER remove diagonal braces or stabilisers prematurely.

After removing the toe-boards the operator disengages the horizontal guardrail brace clamps furthest from the trap door, horizontal guardrail braces are then removed with the operator positioned through the trap door before descending to the lower level, from where the upper platform and extensions/guardrail frames can be removed.

## NOTES:

DO NOT OVER-REACH and NEVER DROP COMPONENTS when dismantling always lower them to the ground.

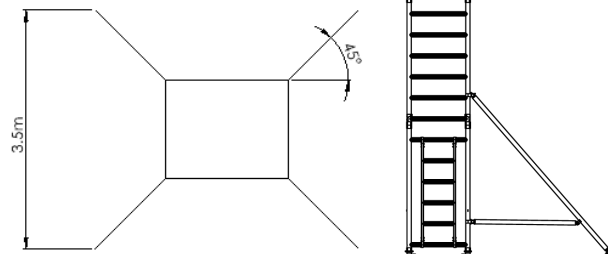
## STABILISERS & WALL PROPS

**It is the users responsibility to complete a risk assessment and decided on which combination of stabilisers and stairwell wall props to use**

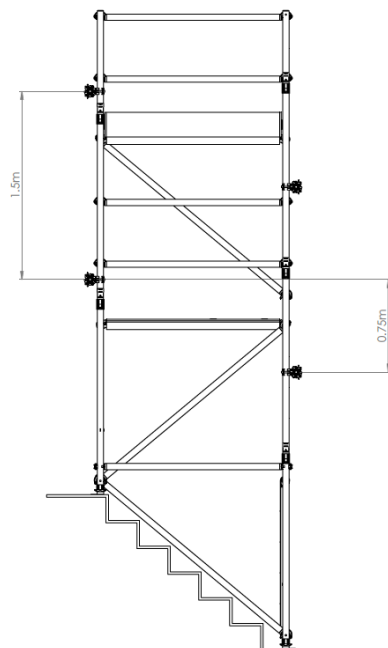
Attach stabiliser to corner of tower at approx. 45 degrees. The bottom clamp should be fitted as low as possible, refer to the diagram opposite. Ensure that the rubber feet are in contact with the ground and that the clamps are secured. Position stabilisers as shown in the diagram.

Attach wall props to the verts of the tower ends. Space them approx. 1.5m apart vertically. If using only wall props opposite ends should be offset to provide maximum stability. Position wall props as shown in the diagram.

STABILISERS — S1



Static Stabiliser maximum platform height of 7.3m



# 700 STAIRWELL

Description	Working Height (M) Platform Height (M)			
	4.8 2.8	6.3 4.3	7.8 5.8	9.3 7.3
100mm Adjustable Base Plate	4	4	4	4
0.75m 3 Rung Frame	1	1	1	1
1.0m 4 Rung Frame	1	1	1	1
1.5m 6 Rung Frame	1	3	5	7
1.5m Walkthrough Frame	2	2	2	2
Walkthrough Frame Ladder	1	1	1	1
1.5m Trapdoor Platform	1	2	3	4
1.5m Horizontal Brace	5	9	13	17
1.9m Diagonal Brace	3	4	5	6
Complete Toe Board Set	1	1	1	1
*S1 Stabiliser	4	4	4	4
*Wall Prop	2	4	6	8
Approx. Tower Shelf weight (Kgs) 1.5m	101.1	1367	172.3	207.9

## \* Please Note:

It is the users responsibility to complete a risk assessment and decided on which combination of stabilisers and stairwell wall props to use e.g.  
 2.2m Tower might use one of the following combinations:  
 4 stabilisers and no wall props  
 2 stablsers and 2 wall props  
 0 stabilisers and 4 wall props

## Notes:



# Notes:

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