

UTS SALES^{AND} REPAIRS

A SAFER WAY TO REACH NEW HEIGHTS

UTS 250 LIFTSHAFT 700

Instruction Manual

BS 1139-6: High Level 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 Prefabricated Tower Scaffold with ease and safety, using the 3T (through the trap) method.

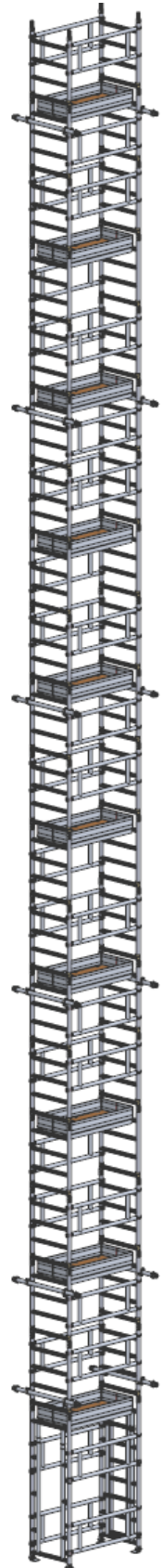
You should read and understand all notes and diagrams, including the parts list for each height, before commencing assembly. Personnel should be qualified or competent to erect this tower. Please consult the PASMA's code of practice for full information on the use of Prefabricated Access Towers. PASMA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

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

This information shall be available at the location of use of the prefabricated tower scaffold.

This prefabricated tower scaffold shall only be used according to this information.

Prefabricated tower scaffolds must only be used in accordance with national regulations.



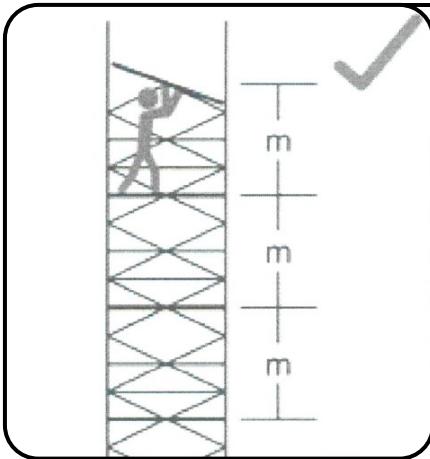
UTS SALES & REPAIR LTD

Manufactured to: BS 1139-6:2022 CLASS 3 20/0 XXXD H2

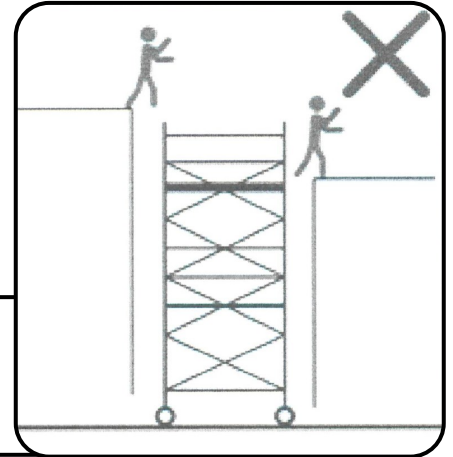
Instruction Manual EN 1004-2 en



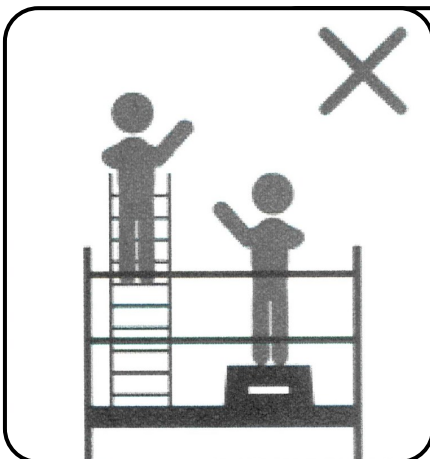
HEALTH AND SAFETY WARNINGS



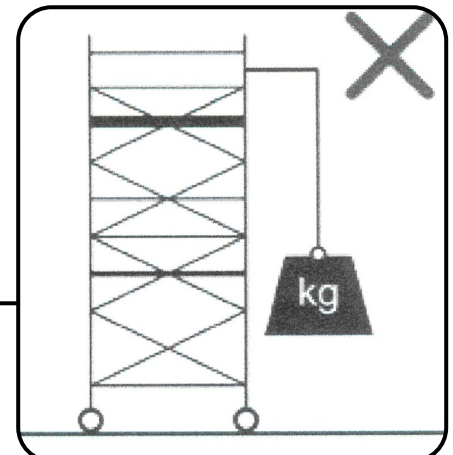
Maximum height between platforms of 2.1m



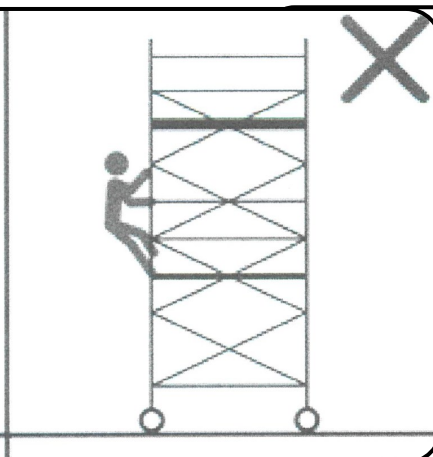
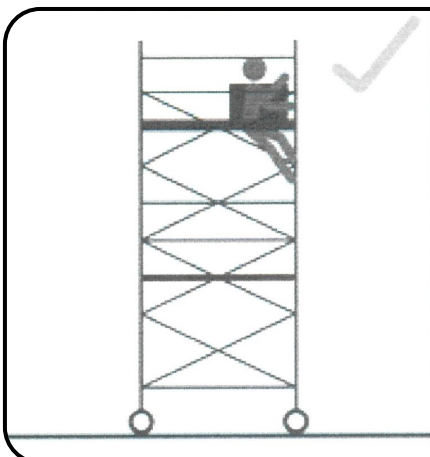
Do not use the tower as a form of access or exit



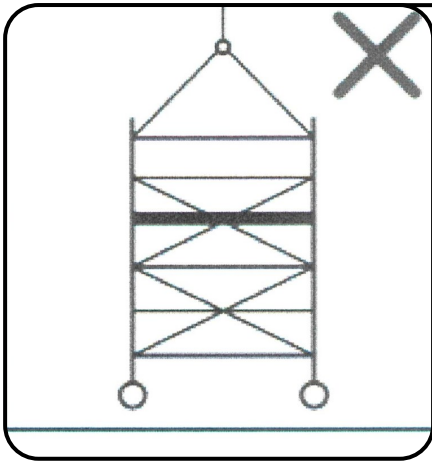
Do not use ladders, boxes or and other objects to gain additional



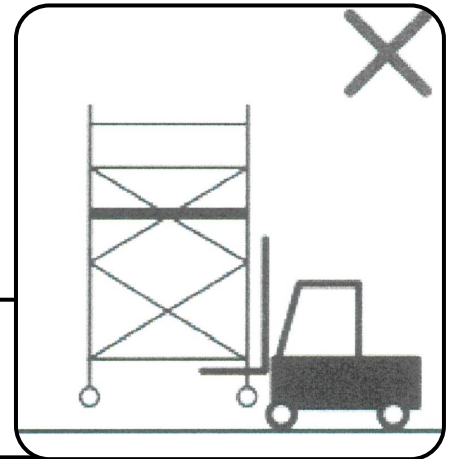
Do not lift heavy objects from the tower



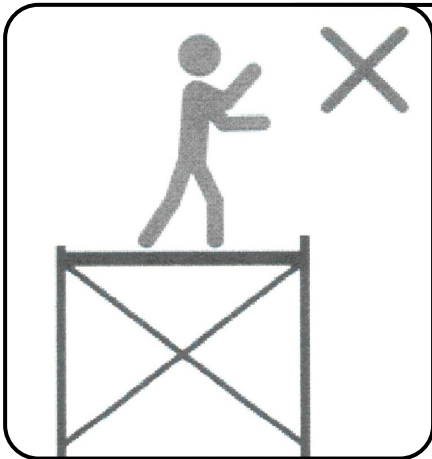
Do not climb outside of the tower, only climb up inside the tower.



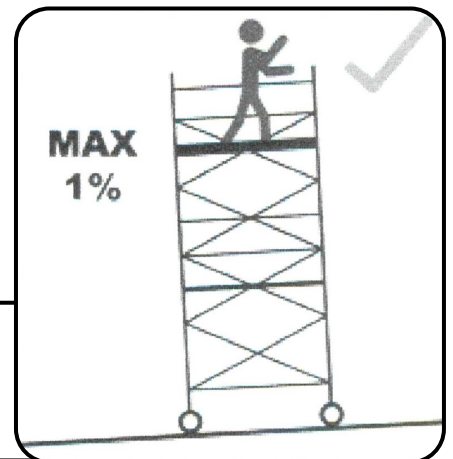
Do not suspend or lift the tower



Do not lift the tower with mechanical equipment

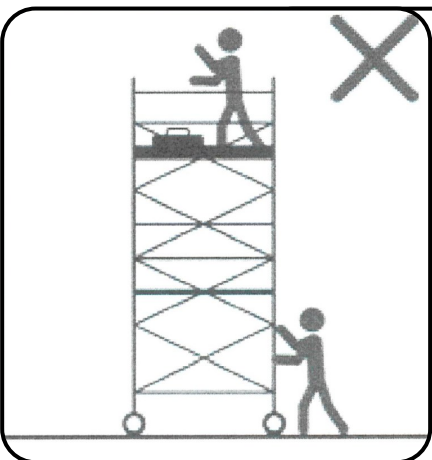


Do not stand up on an unguarded platform

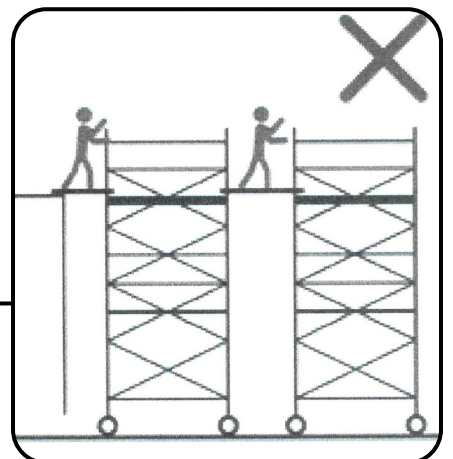


**MAX
1%**

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 250 LIFTSHAFT 700

Instruction Manual

BS 1139-6: High Level Tower

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Description, Safety Notes & Fittings

Description

The UTS 250 LIFTSHAFT 700 tower is manufactured to BS 1139-6:2022 CLASS 3 20/0 XXXD H2 and TARGET MARKED. The TARGET MARK is a recognised symbol that reassures the user that the product is certified to BSI stated standards.

The UTS 250 LIFTSHAFT 700 is an addition to the standard UTS 250 LIFTSHAFT 700 tower to allow it 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 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 Prefabricated tower scaffold.
- You will find a standard risk assessment form at the back of this instruction manual.
- The UTS 250 LIFTSHAFT 700 has a maximum platform height of 20.1 meters indoors.
- The maximum permissible load on the UTS 250 LIFTSHAFT 700 tower is 750kgs 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 prefabricated tower scaffold.
- Maximum of 1 person per working platform.
- Damaged or incorrect components shall not be used.
- The prefabricated tower scaffold is designed to wind Class 1
- The prefabricated tower scaffold is designed to load Class 3

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 250 LIFTSHAFT 700 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 Access Prefabricated tower scaffold 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 the prefabricated tower scaffold as specified.
- Always check that the tower 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 prefabricated tower scaffold 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 at least 1 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.
- Platforms shall be installed with vertical distances between them not exceeding 2.1m when assembling and dismantling.
- Alterations to the prefabricated tower are only permitted where they are shown in these instructions.
- Maximum horizontal force 20kgs.
- Prefabricated scaffold 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 and assembly, use and dismantling plans but can only complement them.
- Only the components specified in this information shall be used.
- Prefabricated scaffold towers designed in accordance with this standard 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.
- Prefabricated scaffold towers are not designed to be used as edge protection.
- In the event that an alteration to the prefabricated tower scaffold design is required, approval from the supplier and/or designer shall be obtained and a revised instruction manual or assembly, use and dismantling plan created.

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 lift shaft 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

- To move the tower safely it needs to be dismantled fully and then reassembled following the instruction manual
- It is recommended that towers should be tied to a solid structure, when left unattended.
- Recheck that the PTS is vertical or needs readjustment of legs before ascending. (Using spirit level)
- Check to make sure all components are there before using after moving or leaving unattended.
- Recheck environment before using tower after it has been moved or left unattended.

FITTING TOE-BOARDS

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

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.

Tools

- The use of a spirit Level is required when levelling the tower.
- Rope may be required to hoist components or tools to higher work platforms.

LIFTING OF INDIVIDUAL TOWER COMPONENTS AND EQUIPMENT

Raising and lowering components, tools and/or materials by rope should be conducted within the tower base (the trapdoor of the platform or within the tower footprint). Please see footprint guide on page 18.

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 wind effects section.

CHECK LIST, INSPECTION CARE AND MAINTENANCE FOR 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 PTS, please ensure that all components are neatly stored and not left lying around where they could be stood on or damaged.
- When transporting the PTS 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 PTS 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.

WEATHER AND WIND EFFECTS

- When working outdoors, the weather forecast shall be taken into account before assembly, use and dismantling.
- 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

INFORMATION TO BE DISPLAYED ON THE TOWER

After assembly or alteration, the following minimum information should be displayed on the prefabricated tower scaffold and be clearly visible from the ground (e.g. on a tag)

- The name and contact details of the responsible person.
- If the tower is ready for application or not.
- The load class and the uniformly distributed load.
- If the prefabricated tower scaffold is intended for indoors use only.
- The date of assembly.
- The maximum number of simultaneous working platforms permitted.
- The maximum number of persons permitted on the working platform(s) during use.
- The maximum number of persons permitted on the tower during assembly and dismantling.
- The maximum number of persons permitted on any one platform.
- The maximum safe working load on working platforms.
- The maximum safe working load on the prefabricated tower scaffold.
- The load class of the prefabricated tower scaffold.
- The maximum horizontal force permitted at the working platform(s).
- The maximum wind limits for working on the prefabricated tower scaffold.
- The maximum wind limits for the prefabricated tower scaffold.

FITTING ADJUSTABLE

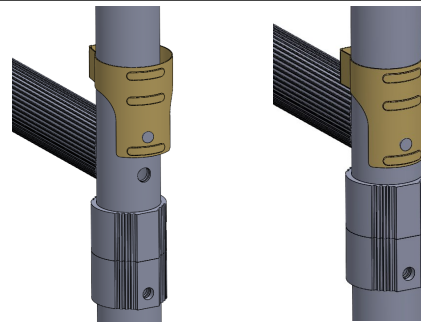
BASE FEET

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).



LOCKING CLIPS

Fit the locking clips as shown in the diagram opposite.

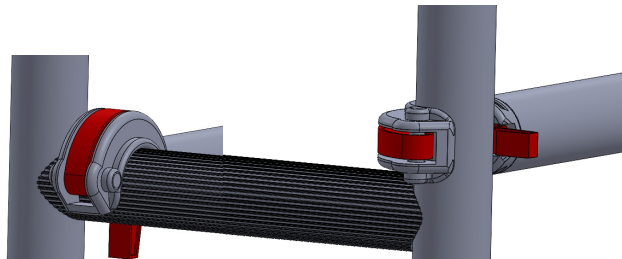


CORRECT FITTING OF HORIZONTAL BRACING

THE CORRECT FITTING OF HORIZONTAL BRACING IS IMPORTANT.

The diagrams opposite illustrate the CORRECT brace positions.

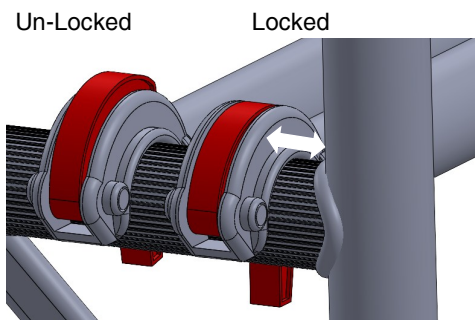
REMEMBER: Always fit braces DOWNWARD or from the inside facing OUTWARD – BUT NEVER INWARD



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.

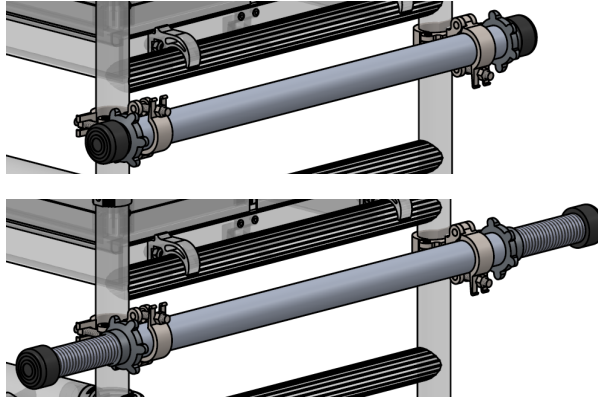


Wall Props

Loosen couplers so they can slide but not fall off.
Attach to end frame verts, make sure they are level and then tighten.

Use leg screw nut to adjust both sides out until they are in touch with both walls.

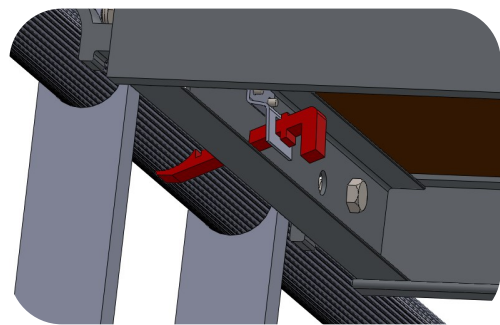
When both sides are touching, tighten both evenly until hand tight.



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.

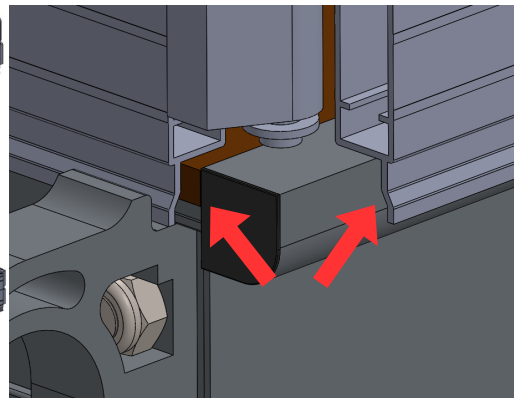
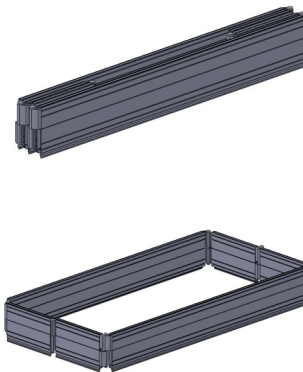


FITTING TOE-BOARDS

1 piece folding aluminium toe board.

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

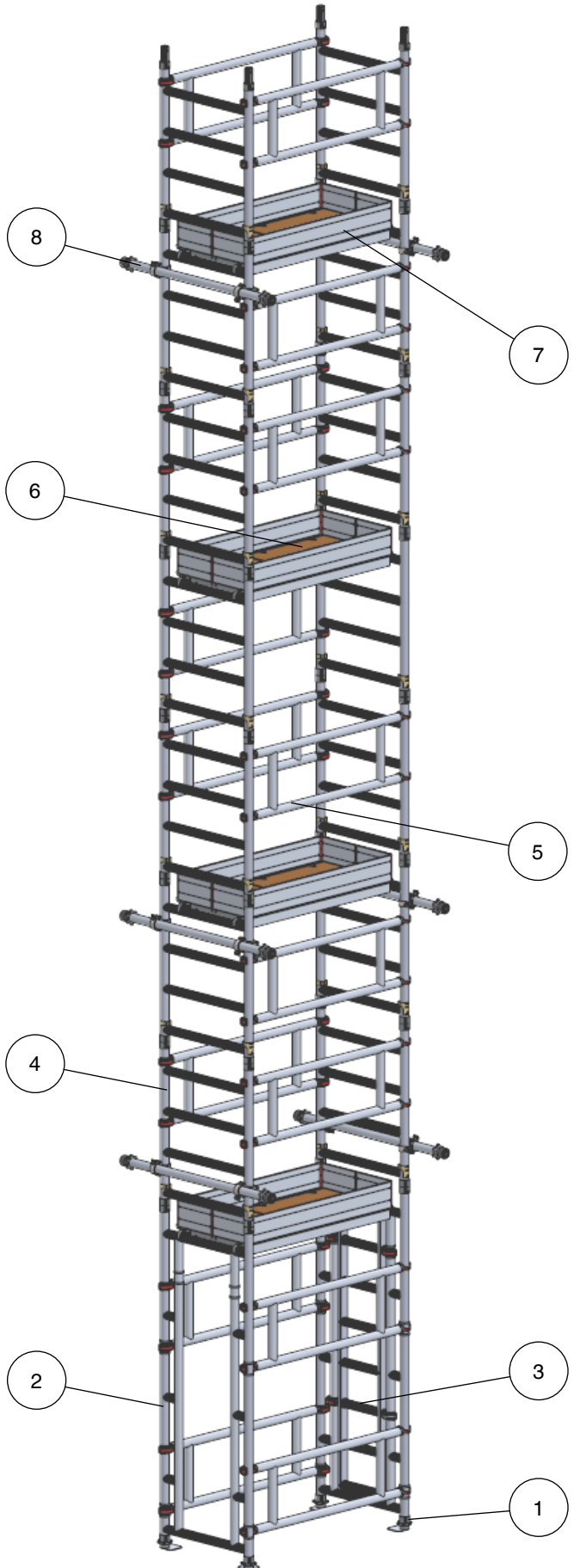
Ensure short ends of toe boards have hooked over both ends of the platform, hook bottom edge down between platform hook and frame.



Identifying Components and Their Weights

Tower Components and Approx. Weights

Item	Description	Weight (Kg)
1	Adjustable Leg with Plate	3.4
2	2.1m Stair Portal Frame	5
3	2.1m Stair Portal with Ladder Frame	5.6
4	1.0m 4 Rung End Frame	7
5	1.3m OMT Brace Frame	6.5
6	1.3m Trapdoor Platform	12
7	1.3m Aluminium Folding Toeboard	6
8	Wall Prop	4

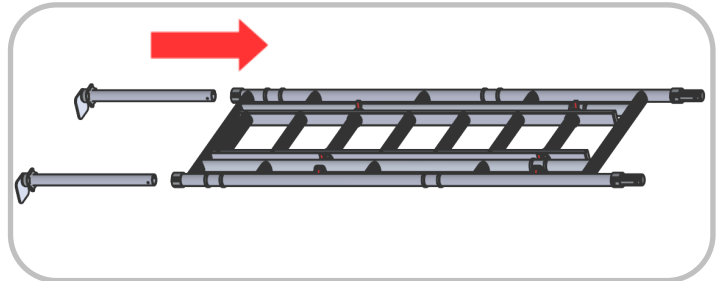


Assembly Procedure

UTS recommends that a minimum of one person is required for the assembly of the UTS 250 LIFTSHAFT 700 tower. Only climb the tower from the inside using the end rungs.

1.

Insert Adjustable Leg with Plate into the bottoms of the 2.1m Stair Portal with Ladder and the 2.1m Stair Portal.



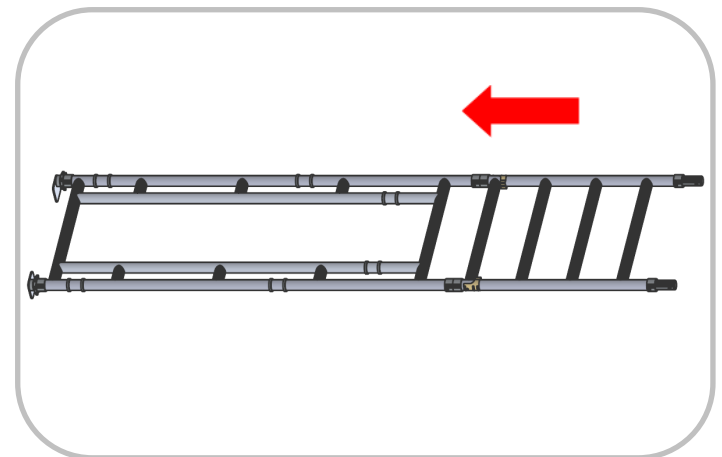
2.

While resting frames on the floor

Fit 1x 4 Rung End Frame to the Stair Portal Frame

Ensure Frame clips engage.

Repeat Step 1 and 2



3.

Position the Stair Portal Frame Assembly inside of the lift shaft, stand upright and lean against the wall.

Attach 2x OMT Brace Frames, the bottom claws need to be located between the pair of rings above the first rung.

The frame will now be self supporting by resting the other ends of the Brace Frames on the ground.

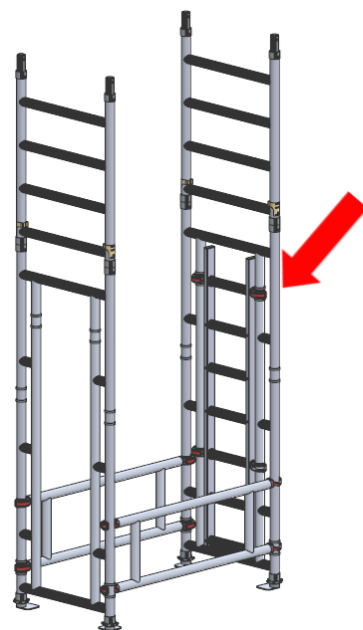


Stand the other Stair Portal Frame assembly up at the other end of the enclosed space.

4.

Move into position and attached both OMT Brace Frames, position bottom claw between locating rings above the 1st rung.

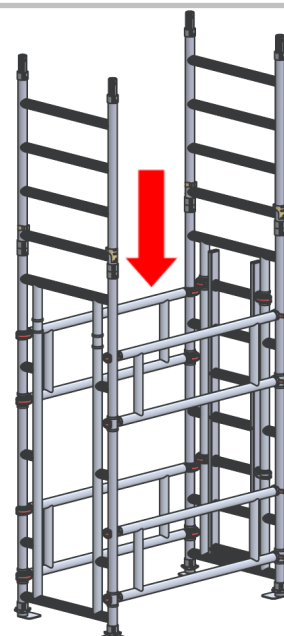
Fit the clip in ladder to the portal frame away from the lift shaft opening



5.

Fit 2x OMT Brace Frames, fit the bottom claws between the locating rings between the 3rd and 4th rungs.

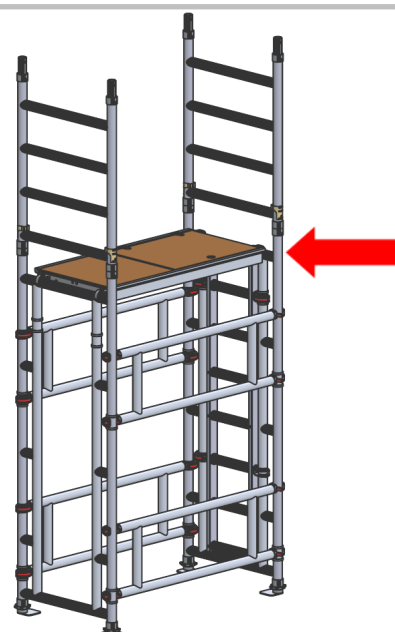
Note: use a spirit level and the adjustable legs to get the brace frames and end frames level.



7.

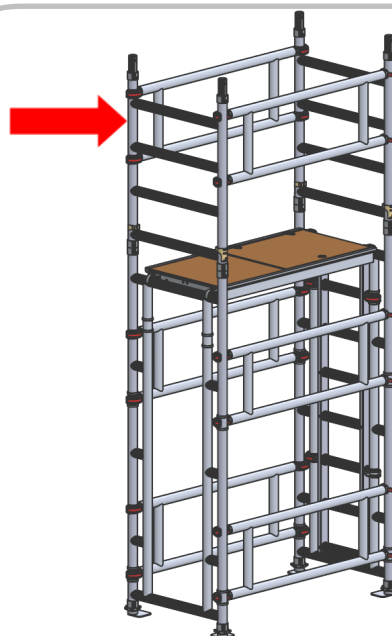
Fit a Trap Platform.

To top rung of the Stair Portal Frame. Make sure the trap door is at the end of the tower with the ladder fitted.



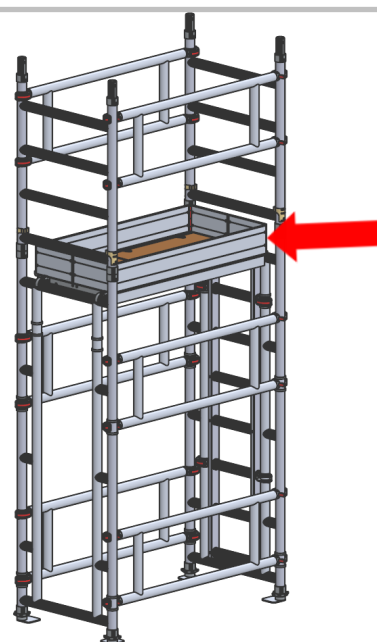
8.

From the seated 3T position,
Fit 2x OMT Brace Frames, 1 to either side of the tower.
Top claws need to be above the 4th rung above the platform and bottom claws need to be below the 3rd rung above the platform.



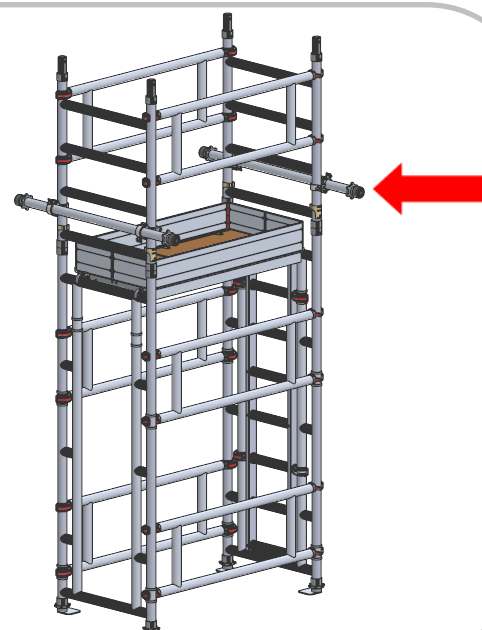
9.

Fit Folding Toeboard to platform.



10.

Fit 2x Wall Braces by connecting the couplers between the 1st and 3rd rungs of the OMT Frame.
Once in place extend out using adjustable screw.
Once both sides are extended and touching the walls add additional turns evenly until it is hand tight and doesn't slip on the wall.
2.1m Tower is complete

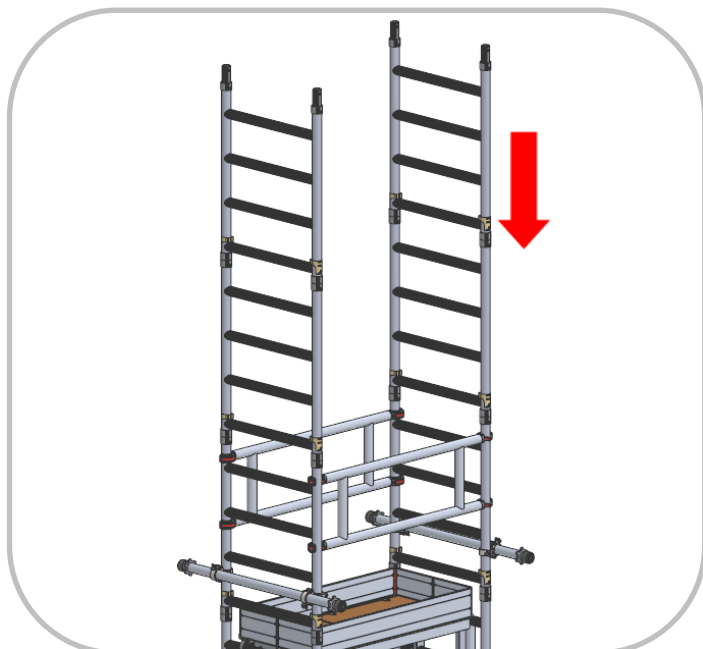


11.

Fit 4x 4 Rung End Frames,

Fit 1 on top of another at ground level to create a 2m frame, then fit above previous frame. Ensure frame clips engage.

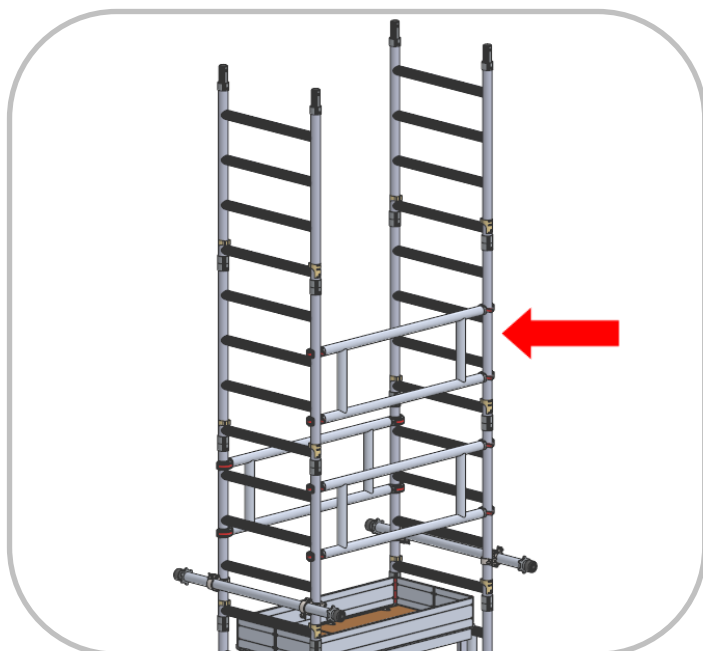
Repeat with the other pair and fit to other end of the tower.



12.

Fit 1x OMT Brace Frame

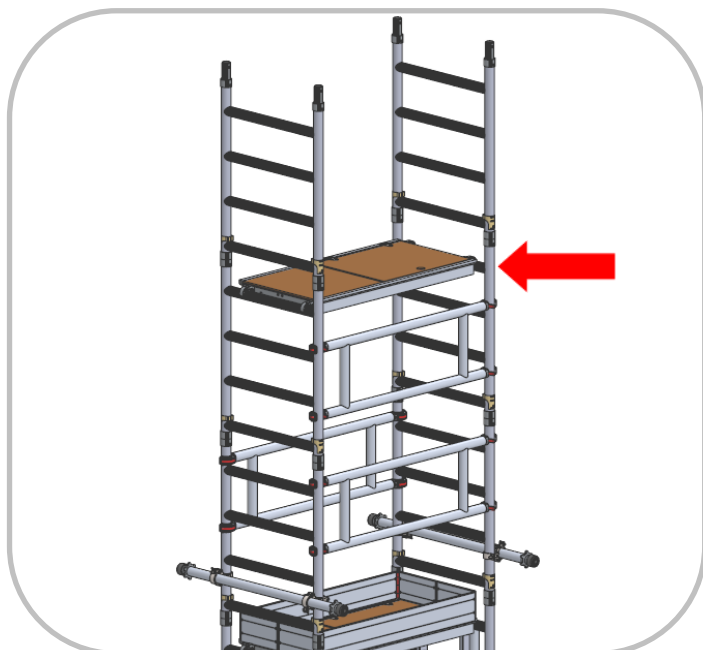
Top claws need to be above the 7th rung above the platform and bottom claws need to be below the 6th rung above the platform.



13.

Fit a Trap Platform.

To the 8th Rung above the previous Platform (2.0m)

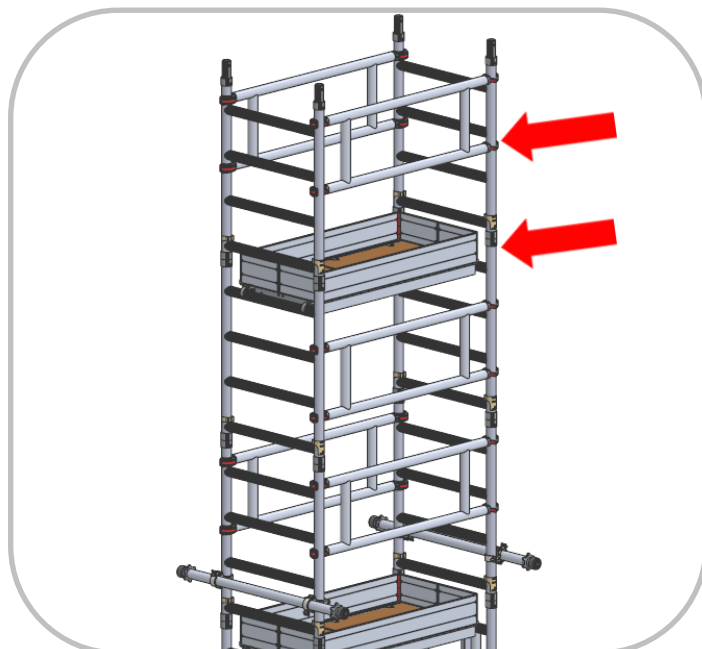


14.

Fit 2x OMT Brace Frames, 1 to either side of the tower.

Top claws need to be above the 4th rung above the platform and bottom claws need to be below the 3rd rung above the platform.

Fit Folding Toeboard to platform.



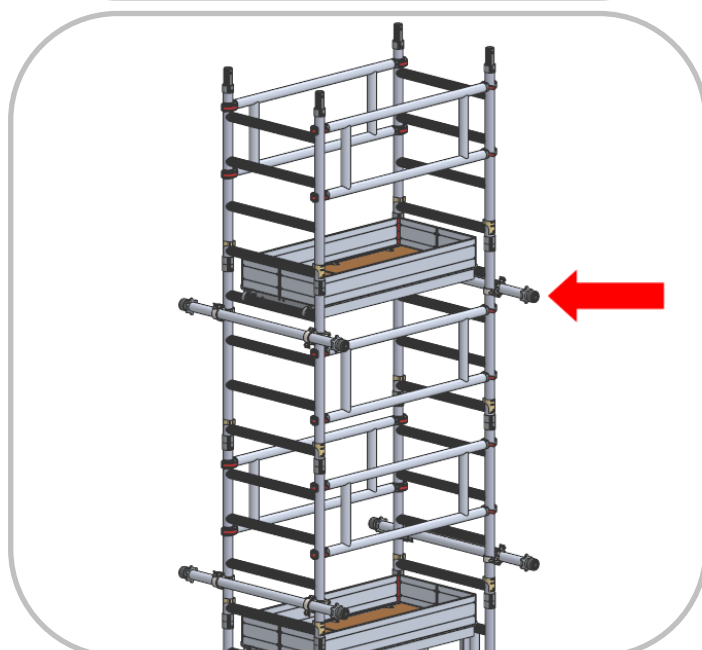
15.

Fit 2x Wall Prop, couplers attach to the verticals of the End Fames just below the Rung that the platform sits on.

Once in place extend out using adjustable screw.

Once both sides are extended and touching the walls add additional turns evenly until it is hand tight and doesn't slip on the wall.

4.1m Tower is complete

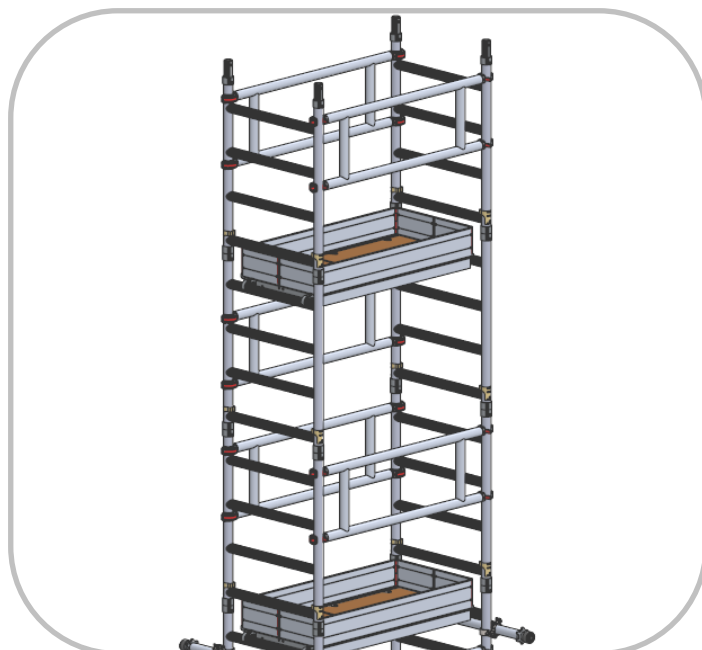


16.

Repeat steps 11-14 to add another 2m rise.

Alternate sides of the tower for the single OMT brace frame from step 12

If completing a 6.1m Tower repeat step 15, if going taller go to next step.



17.

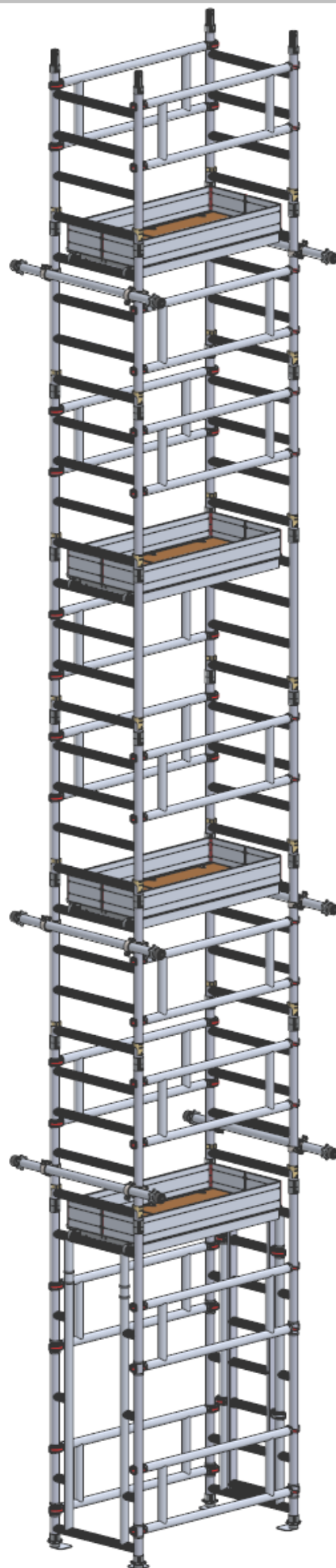
Repeat steps 11-14 to add another 2m rise.

Alternate sides of the tower for the single OMT
brace frame from step 12

Then Fit Wall Braces as stated in step 15.

As shown in the image the single OMT Brace
frames are on alternate sides as the tower
builds.

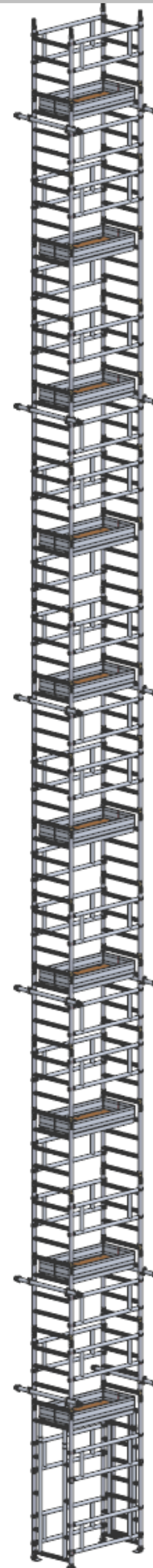
8.1m Tower complete



Repeat steps 11-17 as needed to achieve all platform heights.

After the 2 lowest pairs of wall braces, all others should be spaced approx. 4m vertically.

18. If working at each height as its being built ensure wall braces are fitted as shown in step 15, below the working platform, they can then be removed and reused as needed provided there is never a gap of more than 4m between wall braces.



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:

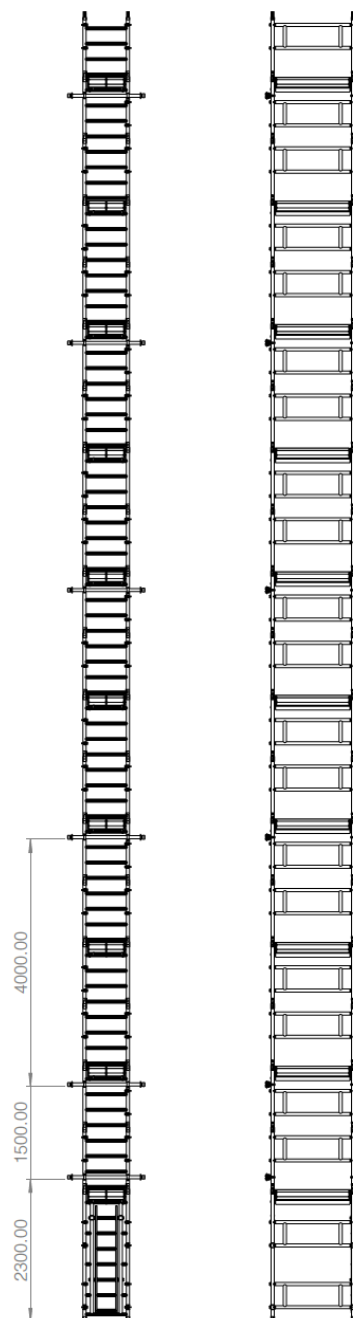
DO NOT OVER-REACH and NEVER DROP COMPONENTS when dismantling always lower them to the ground.

WALL PROPS

At the base of the tower wall props are fitted as soon as possible above the portal frame. For every other wall prop they should be fitted just below the platform as it allows for greatest distribution of stability.

There should always be wall props just below the working platform.

Wall props need to be fitted at maximum every 4m vertically.



UTS 250 LIFTSHAFT 700 COMPONENTS

Component		Working Height (M)	4.1	6.1	8.1	10.1	12.1	14.1	16.1	18.1	20.1	22.1
Approx Kgs	Description	Platform Height (M)	2.1	4.1	6.1	8.1	10.1	12.1	14.1	16.1	18.1	20.1
2	Adjustable Leg and Base Plate		4	4	4	4	4	4	4	4	4	4
11	2.1m Stair Portal Frame		2	2	2	2	2	2	2	2	2	2
5	Stair Portal Ladder		1	1	1	1	1	1	1	1	1	1
5.6	4 Rung End Frame		2	6	10	14	18	22	26	30	34	38
9.1	1.3m Trap Door Platform		1	2	3	4	5	6	7	8	9	10
6	1.3m OMT Brace Frame		6	9	12	15	18	21	24	27	30	33
3.5	Wall Prop		2	4	6	6	8	8	10	10	12	12
6	1.3m Aluminium Folding Toeboard		1	2	3	4	5	6	7	8	9	10
Approx. Tower Shelf weight (Kgs)			104.3	166.8	229.3	284.8	347.3	402.8	465.3	520.8	583.3	638.8

Notes:

Notes:

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