

# **UTS** 700 FOLDOUT

# **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.

**UTS SALES & REPAIR LTD** 

Manufactured to: BSEN1004-1:2020 CLASS 3 8/12 XXXD

Instruction Manual EN 1004-2 en x cz x es x fr x pl





# **UTS** 700 FOLDOUT

# **Instruction Manual**

# **Mobile Access Tower**

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# **Description, Safety Notes & Fittings**

### **Description**

The UTS 700 FOLDOUT tower is manufactured to BSEN1004-1:2020 CLASS 3 8/12 XXXD and KITEMARKED. The KITE MARK is the universal symbol that reassures the user that the product is certified to BSI stated standards.

- 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 FOLDOUT has a maximum working platform height of 6.05 meters indoors or outdoors.
- The maximum permissible load on the UTS 700 FOLDOUT 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 tower.
- Maximum of 2 people per working platform.
- Damaged or incorrect components shall not be used.

### **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 FOLDOUT 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 6)
- 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 & BALLAST**

Stabilisers or outriggers and ballast shall always be fitted when specified. When using the MAT externally stabilisers must be fitted. 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.

### 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.

### MOVING THE TOWER AND LEAVING IT UNATTENDED

- Adjust the stabilisers to provide ground clearance.
- Unlock the castor wheels.
- Move with manual force only, and only from the base.
- Beware of (overhead) obstructions live wires, hanging apparatus or other objects.
- Do not move with people or material on the tower.
- Do not move the assembled MAT if wind speeds exceed a moderate breeze. Relock the castors and readjust the stabilisers once in the new position.
- When moving the tower over uneven or sloping ground remove all tools.
- Do not move the assembled tower if over 4 meters high.
- Recheck that the MAT is vertical or needs readjustment of legs before ascending. (Using spirit level)
- Mobile access and working towers shall only be moved on a flat and solid ground without obstacles and not on a slope of more than 10mm/1m
- It is recommended that towers should be tied to a solid structure, when left unattended.

### **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.

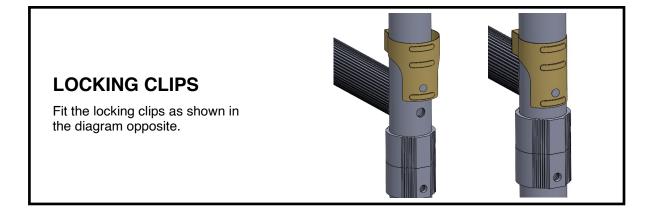
# CHECK LIST, INSPECTION CARE AND MAINTENANCE FOR MOBILE ACCESS TOWERS

- 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 CASTORS

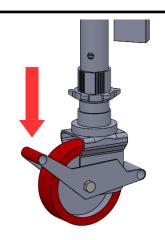
Castor wheels should be pointed outwards at approximately 45 degrees and locks engaged as shown opposite.

### FITTING STABILISERS

Attach a stabiliser to each corner of the tower at approximately 45 degrees for maximum stability (refer to relevant illustrations) and attach the clamps where indicated.

On the S2 stabiliser use the telescopic leg for adjustment on uneven ground.

Make sure that all stabilisers are firmly in contact with the ground when using the structure.

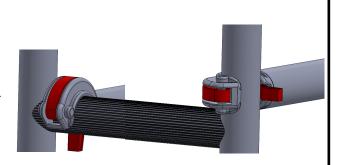


# CORRECT FITTING OF HORIZONTAL BRACING

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



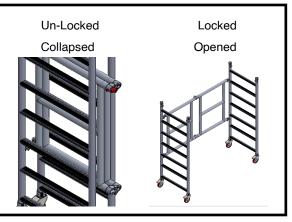
### **FOLDOUT LOCKING BASE**

Push the central hinged frame outwards until

Keep going until the top hinge locks into position.

Unfold the two end frames.

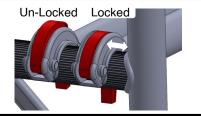
Lock the castor brakes.



### 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.

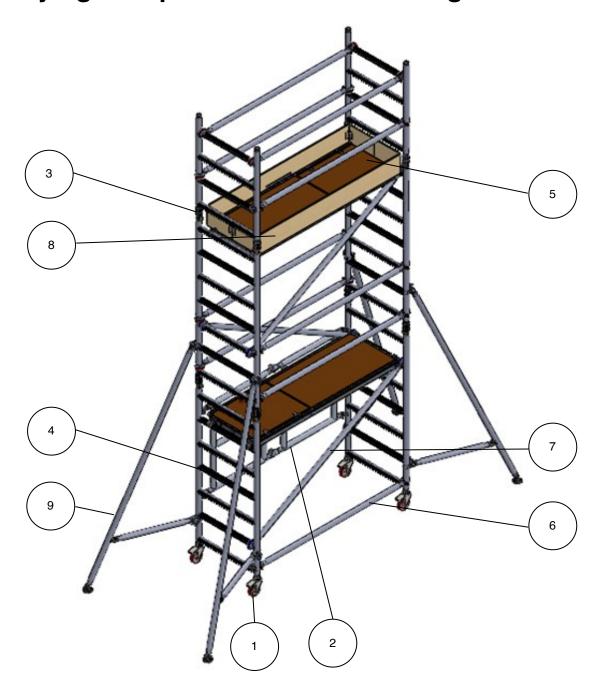


### FITTING ADJUSTABLE LEGS

Take the adjustable leg assembly complete with its castors, make sure that all the adjusting nuts are positioned down at the castor 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**



Note:

When building structures over 4.2 metres remove platform and 4 horizontal braces from platform height at 2.2 meters and use to complete structure.

## Tower Components and Approx. Weights

Item	Description	Weight (Kg)	Item	Description	Weight (Kg)
1	125mm Locking Caster	3.4	6	1.8m Horizontal Brace	1.92
2	1.8m Folding Frame	3	7	2.1m Diagonal Brace	2.1
3	1m 4 Rung Frame	5.6	8	Complete Toe Board Set	10
4	1.75m 7 Rung Frame	9.8	9	S1 Stabiliser	7
5	1.8m Trapdoor Platform	15			

# **Assembly Procedure**

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

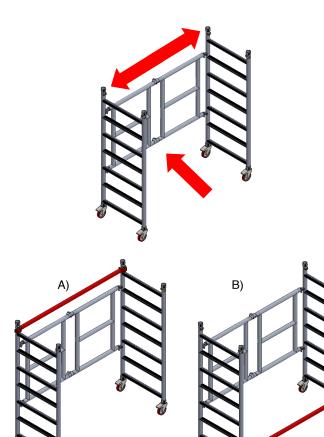
Platform Heights in Meters	Frame at top
0.8, 2.5, 4.3, 6.05	7 Rung
1.8, 3.5, 5.3	4 Rung

Insert castors wheels or base plates into the bottom of end frames

Lock all castor wheels



2. Stand the base unit up and push the central hinged frame outwards until flat. (Ref page 7) Lock the castor brakes.



Position the frame as shown. Use a horizontal (red) brace to square the frame.

Use position A for platform height 0.8m

Use position B for all other platform heights.

Refer to page 7 for fitting instructions.

Check tower is vertical (Using spirit level)

### **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.

# 0.8m Configuration Assembly Instructions.

1-3. Start with steps 1-3 on page 9

Fit platform to 3rd rung of tower, ensure wind locks are engaged. From a seated position within the tower fit the other 2 guard rails on the 5th and 7th rungs.

4. Do not stand on platform until all guardrails are in place and secure.

f your risk assessment shows it necessary, fit a set of toe boards to the platform. Check there are no gaps through which any materials could fail and that the trapdoor opens correctly



# 1.8m Configuration Assembly Instructions.

1-3. Start with steps 1-3 on page 9

Fit 4 rung sides to each end of base, ensure clips are engaged (ref page 6).

4. Fit a trap door platform to top rung of the base frame side, engage the wind locks.

Connect a diagonal brace (blue) between the 3rd rung on one end and the 7th on the other end.

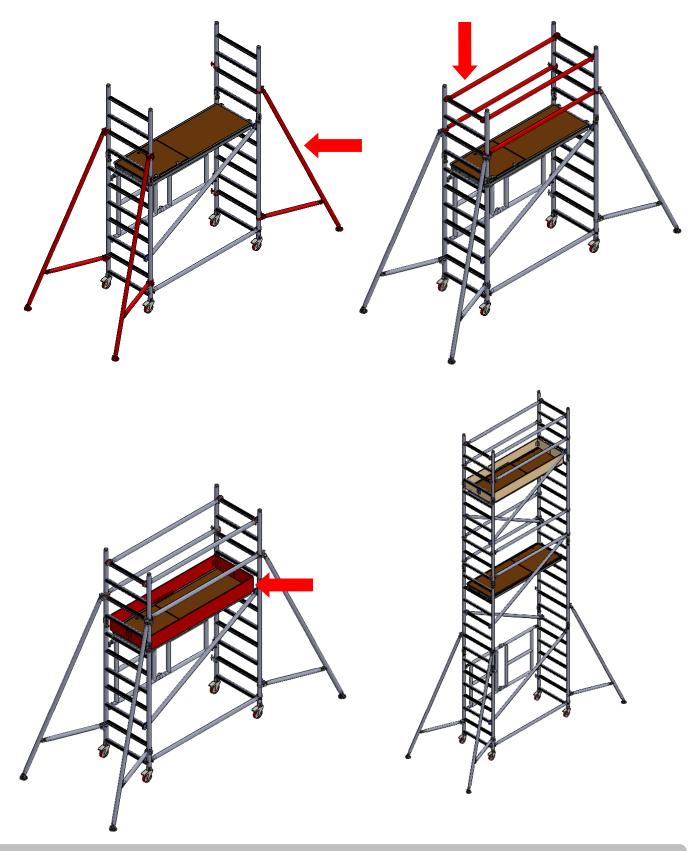




Attach stabilisers, ensure connected and tightened.

Climb the tower on the inside using the rungs of the end frames. From a protected position within the trapdoor, fit 4 horizontal braces as guardrails, 2 and 4 rungs above the platform (the 9th and 11th rungs of the tower), on both sides of the tower.

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



# 3.5/5.3m Configuration Assembly Instructions.

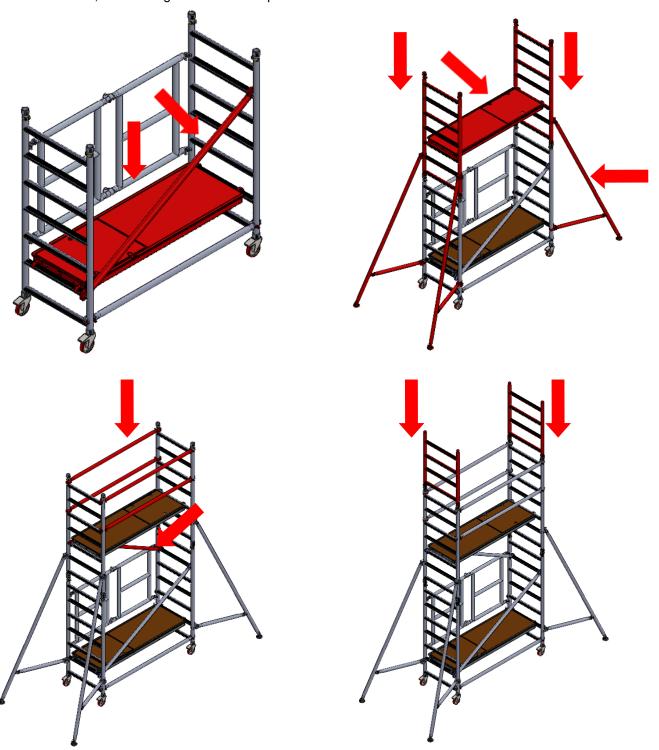
**1-3**. Start with steps 1—3 on page 9

Add a platform on the 2nd rung, lock wind locks, and a diagonal brace (blue) between the 2nd and 6th rungs.

Insert a 7 rung end ether end of the base, then add another platform to the 10th rung, lock wind locks. Attach the stabilisers to the corners of the tower.

Fit an additional diagonal brace from 6th to 10th rung. Then from a seated position within the trap of the platform fit 4 horizontal braces (red) as guardrails on the 12th and 14th rungs. Now fit the 4 rung ends to each end of the tower.

If building to 5.3m platform height: Continue to fit an additional pair of 7 rung frames, diagonal braces, horizontal guardrails and trapdoor decks.



Dismantle platforms and guard rails leaving ends and diagonals in place and reposition bottom platforms to 6th rung with guardrails on the 8th and 10th rungs.

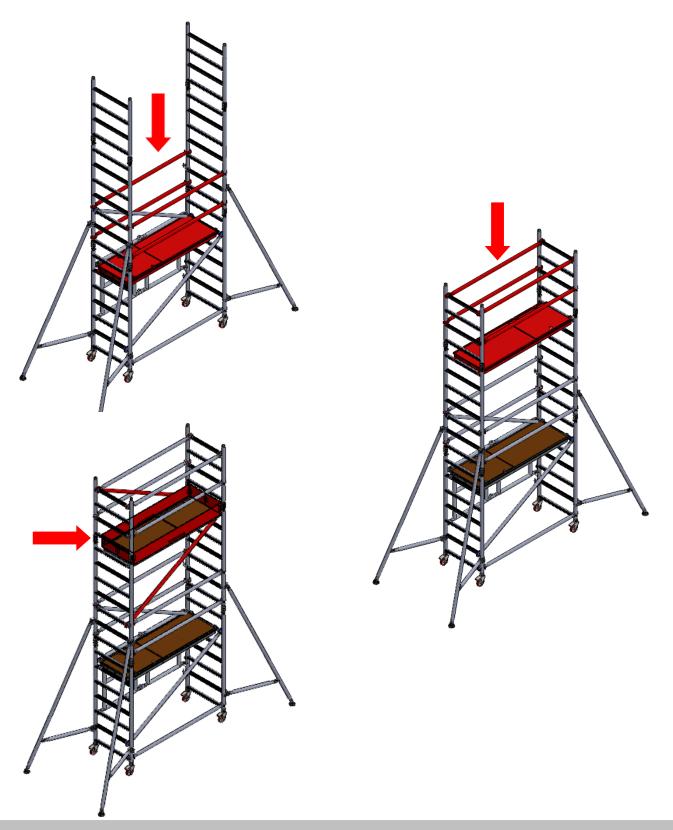
Fit second platform to 14th rung with guardrails at 16th and 18th rungs.

Fit final 2 diagonals following pattern described in previous steps.

Fit a set of toe boards to the platform. Check there are no gaps through which any material could fall and the trapdoor opens correctly

If building to 5.3m platform height: Continue to fit trapdoor decks, in sequence.

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



5.

# 2.5/4.3/6.05m Configuration Assembly Instructions.

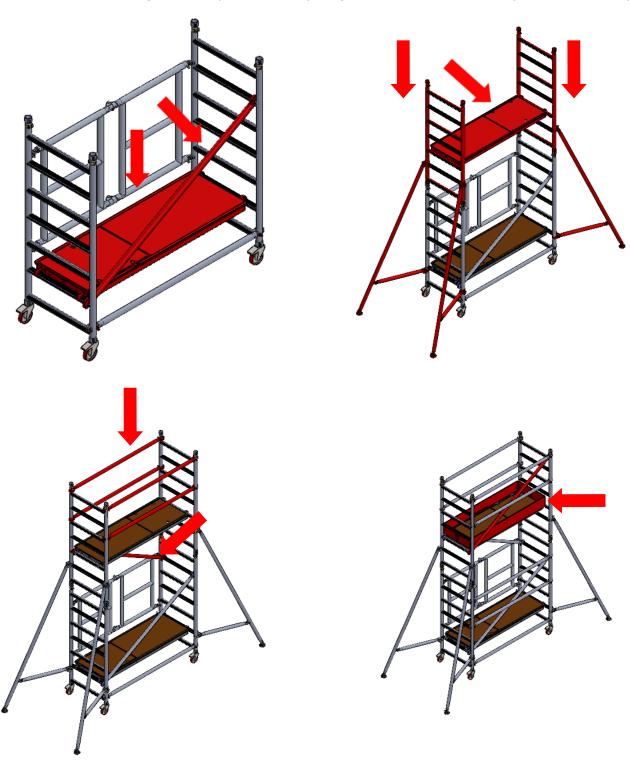
**1-3**. Start with steps 1—3 on page 9

Add a platform on the 2nd rung, lock wind locks, and a diagonal brace (blue) between the 2nd and 6th rungs.

Insert a 7 rung end ether end of the base, then add another platform to the 10th rung, lock wind locks. Attach the stabilisers to the corners of the tower.

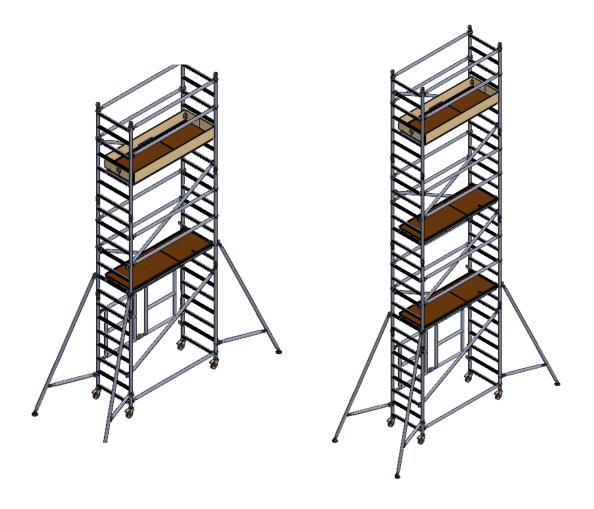
Fit an additional diagonal brace from 6th to 10th rung. Then from a seated position within the trap of the platform fit 4 horizontal braces (red) as guardrails on the 12th and 14th rungs.

Fit another diagonal in the pattern, If completing at 2.5 add toe board, if not proceed to next step.



For 4.3/6.05m configurations continue to fit additional pairs of 7 rung lift frames, diagonal braces, horizontal guardrails and trapdoor decks.

DO NOT CLIMB ON THE PLATFORM UNTIL IT IS FULLY GUARD RAILED Fit a set of toe boards to the platform. Check there are no gaps through which any material could fall and the trapdoor opens correctly



# **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**

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

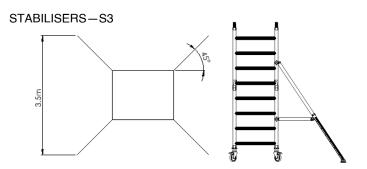
When moving the tower lift each telescopic leg just clear of the ground, unlock castors ensuring area is firm and clear of all obstructions both on the ground and above.

After moving check all castors are firmly on the ground and locked, and that the tower is vertical. Re-position stabilisers as above.

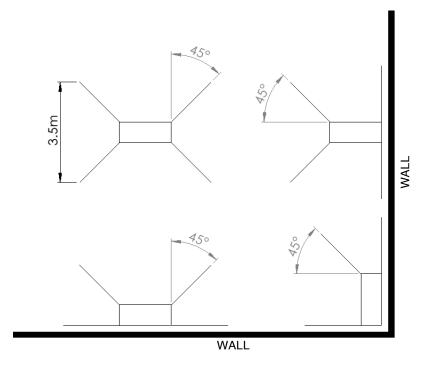
When using tower near a wall or in a corner, the stabiliser layout needs to adjusted to accommodate.

As shown in the diagram if against a wall 2 stabilisers should be made parallel to the wall and the others should remain at 45°.

If being used in a corner, the closed comer stabiliser can be removed and the 2 near walls should be made parallel with the open corner stabiliser remaining at 45°.



Static Stabiliser maximum platform height of 4.2m



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# 700 Foldout

Configurations to BSEN 1004:-1:2020

### Working Height (M) Platform Height

Description	2.8 0.8	3.8 1.8	4.5 2.5	5.5 3.5	6.3 4.3	7.3 5.3	8.05 6.05
Castors	4	4	4	4	4	4	4
Base Unit	1	1	1	1	1	1	1
700 x 4 Rung Frame		2		2		2	
700 x 7 Rung Frame			2	2	4	4	6
1.8m Trap Door Platform	1	1	1	2	2	2	3
1.8m Horizontal Brace	3	5	7	9	9	9	13
2.1m Diagonal Brace	0	1	2	4	4	5	6
Folding Toe Board Set	1	1	1	1	1	1	1
Instruction Manual	1	1	1	1	1	1	1
S1 Stabiliser		4	4	4	4	4	4
Approx. Tower Shelf weight (Kgs) 1.8m	64.4	109.5	121.9	158	166.5	179.8	213

# **Notes:**

# **RISK ASSESSMENT COMPLETION FORM**

			Probable 5	Frequent 6			Action By										
		C – Probability	_	2	က	Occasional 4	B C Risk Rating Act	(BxC)									
		k B – Severity		Minor Injury 2	3	Major Injury 4	Equipment to be used	to minimise risk									
NOTE		A – Personnel at Risk		Employee		Public	C Risk Rating										
							Hazards Identified A B										
DATE	ocation	Assessment carried out by:		MAIN ACTIVITY/SITUATION			Activity/Location	Materials/Tools etc.									
9 9	Site & Location	Assessn	Signed	MAIN AC			ON O										

Risk value key: 1 – 4 = Acceptable, 5 – 9 = Medium – Investigate and where practicable reduce the risk, 10 – 14 = High – Action must be taken to reduce the risk 15 – 24 = VERY HIGH – RISK IS TOO HIGH TO START WORK OR CONTINUE, WORK MUST BE STOPPED

# **Notes:**

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