



SPECIALISED MECHANICAL & ELECTRICAL PLANT HIRE

ME 720 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.

ME 720 STAIRWELL

Instruction Manual

Mobile Access Tower

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Description, Safety Notes & Fittings

Description

The ME 720 STAIRWELL tower is manufactured to BSEN 1139-6:2014 CLASS 3 7/7 XXXD.

- 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 ME 720 STAIRWELL has a maximum working platform height of 7.2 meters indoors or outdoors.
- The maximum permissible load on the ME 720 STAIRWELL 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 ME 720 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 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 ME components specified in the manual shall be used.
- Mobile access and working towers designed in accordance with BS EN BSEN 1139-6:2014 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.

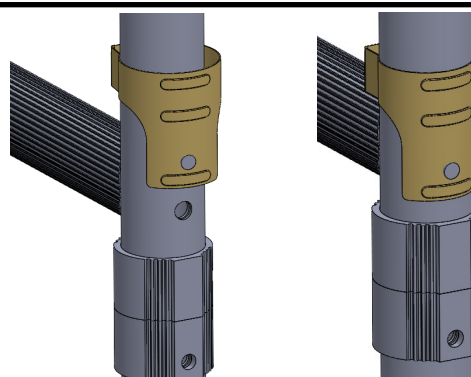
WIND EFFECTS

- 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 CLIPS

Fit the locking clips as shown in the diagram opposite.



ADJUSTABLE BASE PLATE

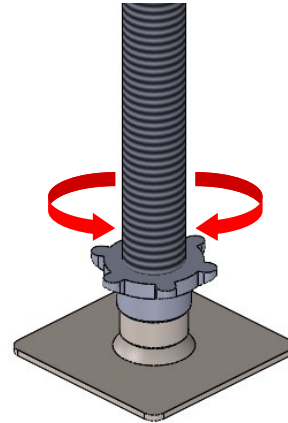
Use the threaded leg to adjust the tower to ensure platforms are level.

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.

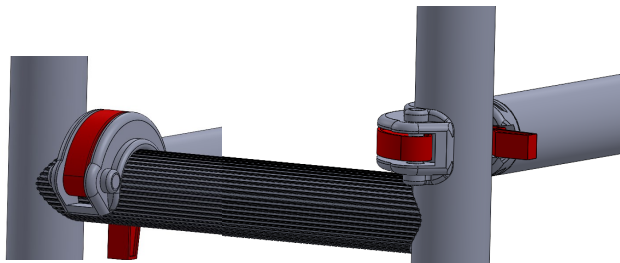


CORRECT FITTING OF HORIZONTAL BRACING

THE CORRECT FITTING OF HORIZONTAL BRACING IS IMPORTANT.

The diagrams opposite illustrate the CORRECT brace positions.

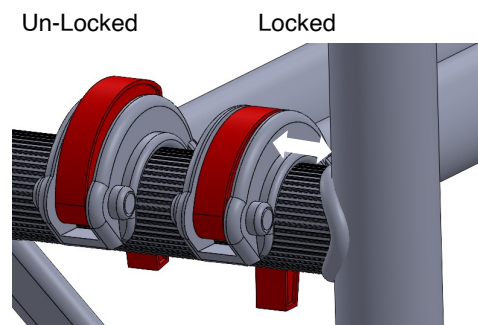
REMEMBER: Always fit braces DOWNWARD or from the inside facing OUTWARD – BUT NEVER INWARD



BRACE CLAMP LOCKING

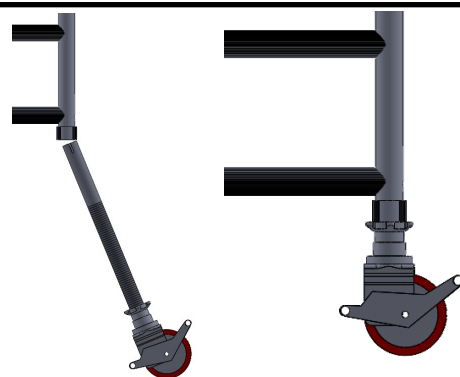
Ensure that the brace clamp is locked as shown.

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

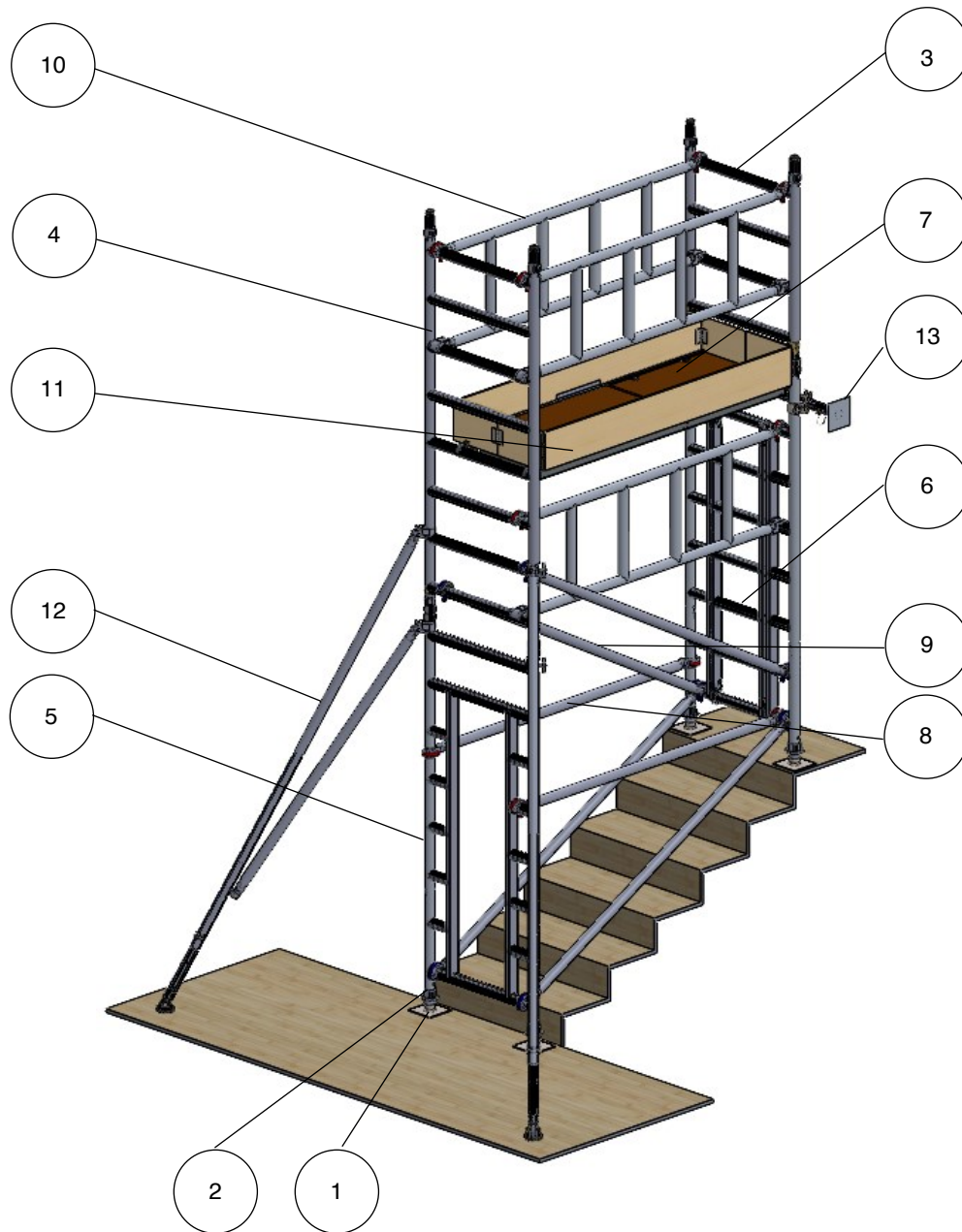


FITTING ADJUSTABLE LEGS

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:

Use a combination of stabilisers and stairwell braces:
 4 stabilisers and no braces
 2 stabilisers and 1 brace
 0 stabilisers and 2 braces.

Tower Components and Approx. Weights

Item	Description	Weight (Kg)	Item	Description	Weight (Kg)
1	150mm Base Plate	3.4	8	1.8m Horizontal Brace	2.1
2	Adjustable Leg 500mm	1.1	9	2.1m Diagonal Brace	2.2
3	1m 4 Rung Frame	5.6	10	1.8m AGR	6
4	2m 8 Rung Frame	10	11	Complete Toe Board Set	8
5	2m 8 Rung Walkthrough Frame	10	12	S2 Stabiliser	5.9
6	Walkthrough Frame Ladder	5	13	Stairwell Brace	4
7	1.8m Trapdoor Platform	12.7			

Assembly Procedure

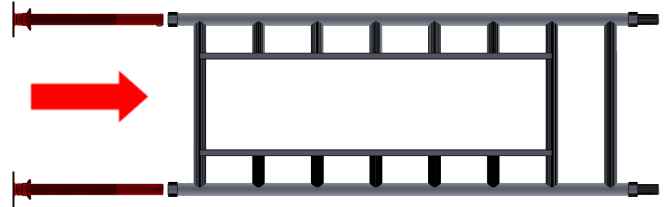
ME recommends that a minimum of two people is required for the assembly of the ME 720 STAIRWELL tower. Only climb the tower from the inside using the end rungs.

PLEASE TAKE NOTE

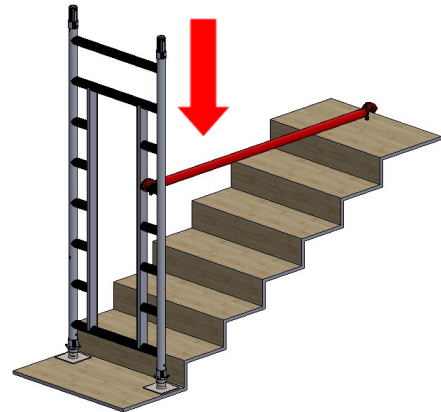
Never place the platform on the guardrail frame

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.

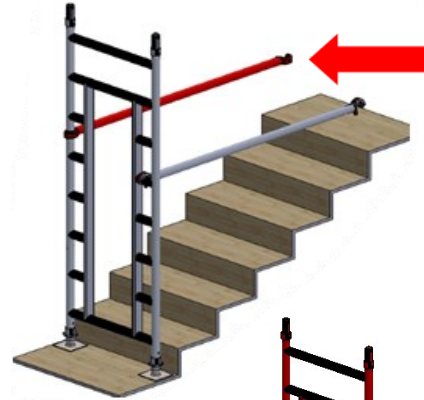
1. Insert adjustable leg assembly with base plates into the base of a rung end frame, then repeat this with the other rung end frame.



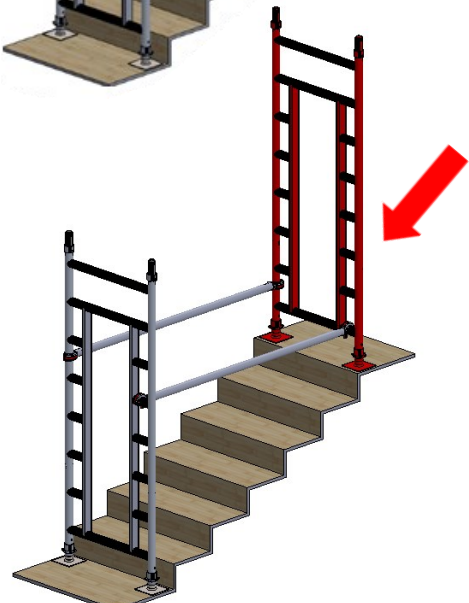
2. Attach one horizontal brace (red) to the 5th rung of the end frame, claws facing downwards. This frame will now be self-supporting, resting the other end of horizontal brace on a stair.



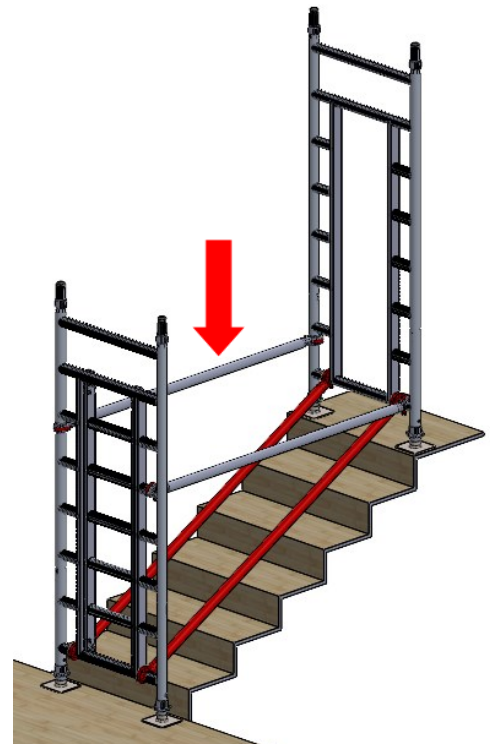
3. Connect another horizontal brace (red) on to the vert between the 5th and 6th rungs on the opposite side.



4. Stand 2m walkthrough frame on stair and connect horizontal brace with clips down onto the 1st rung, then connect the other horizontal brace between the 1st and 2nd rung.
Note: use a spirit level and the adjustable legs to ensure the horizontal braces are flat

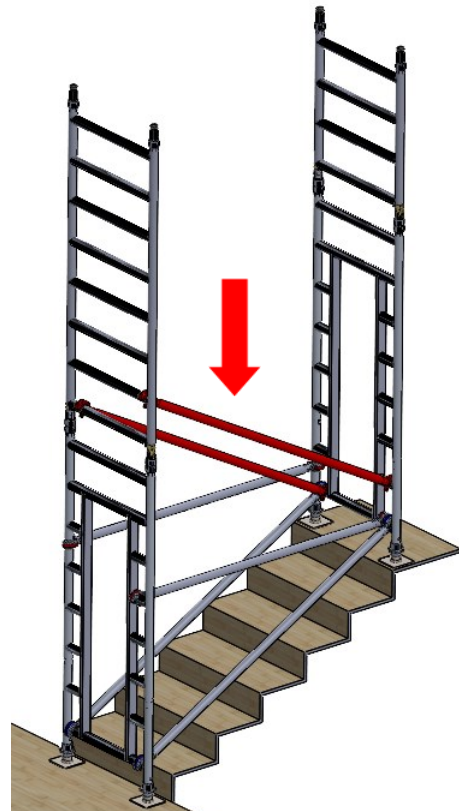
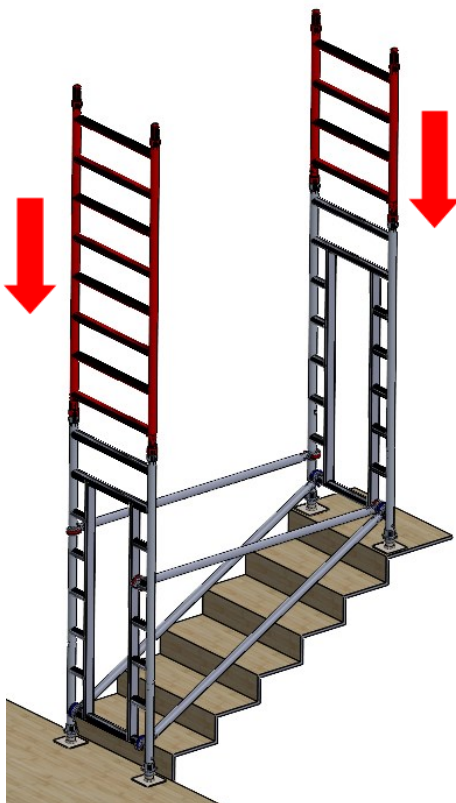


5. Connect 2 diagonal braces between the 1st rungs of both frames, on either sides of the walkthrough opening.



3.8/5.8m Configuration Assembly Instructions.

6. Fit a 8 rung frame to the downhill end of the tower and a 4 rung frame to the uphill end of the tower.
Connect a diagonal continuing from the first one, 1st rung uphill to 9th rung downhill
Connect a diagonal on the other side of the tower between the 2nd rung uphill and 10th rung downhill.



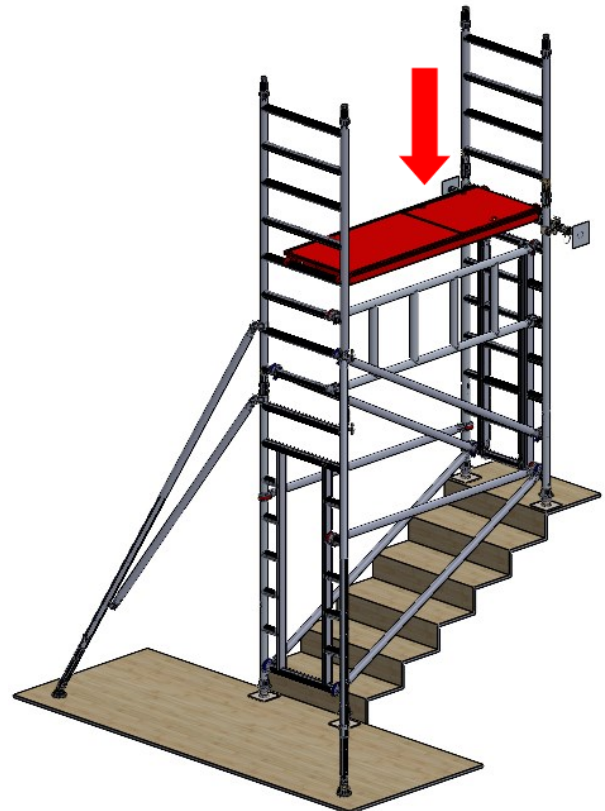
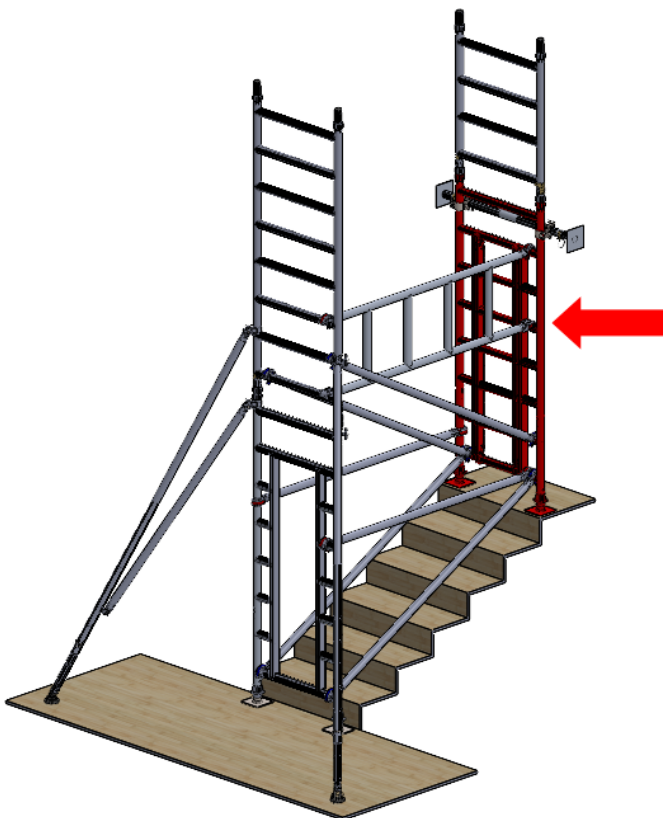
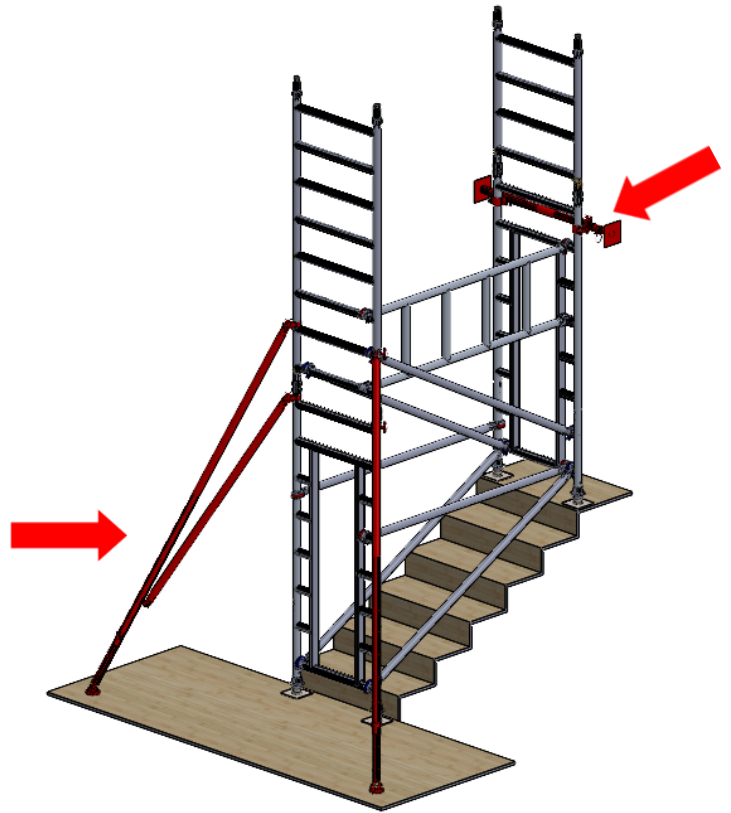
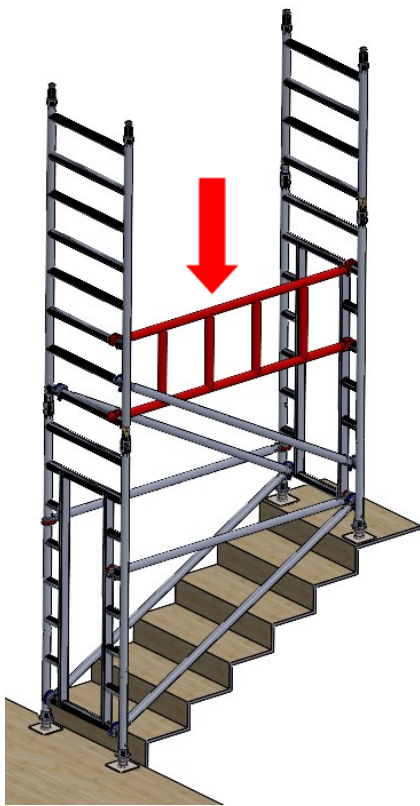
7.

Fit an AGR to the 5th and 7th rung uphill and the 9th and 10th rung downhill.

Attach stabilisers and/or stairwell braces to the tower.

Fit ladder section to the opening on the uphill walkthrough frame.

Add a platform between the 12th rung downhill and the 8th rung uphill, lock wind locks.

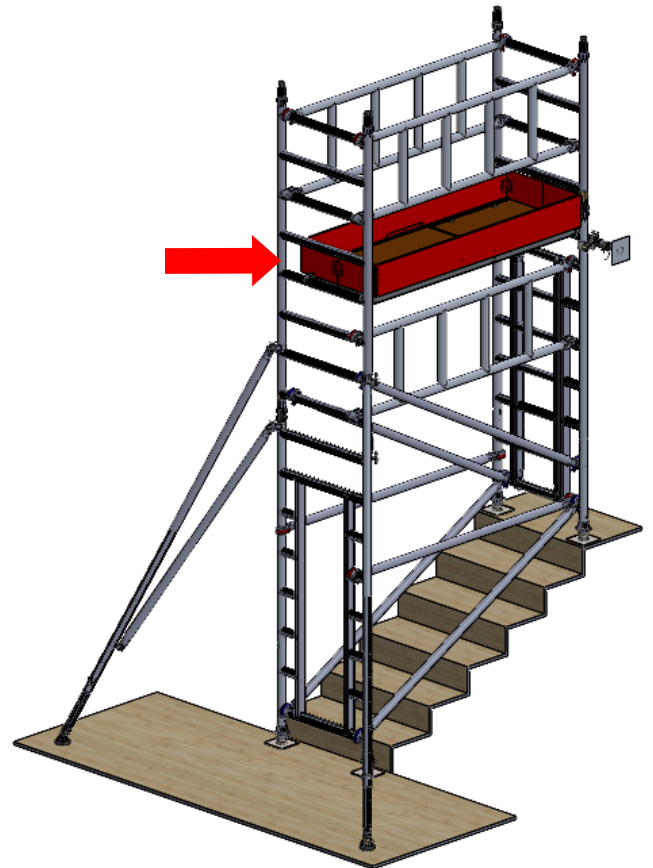
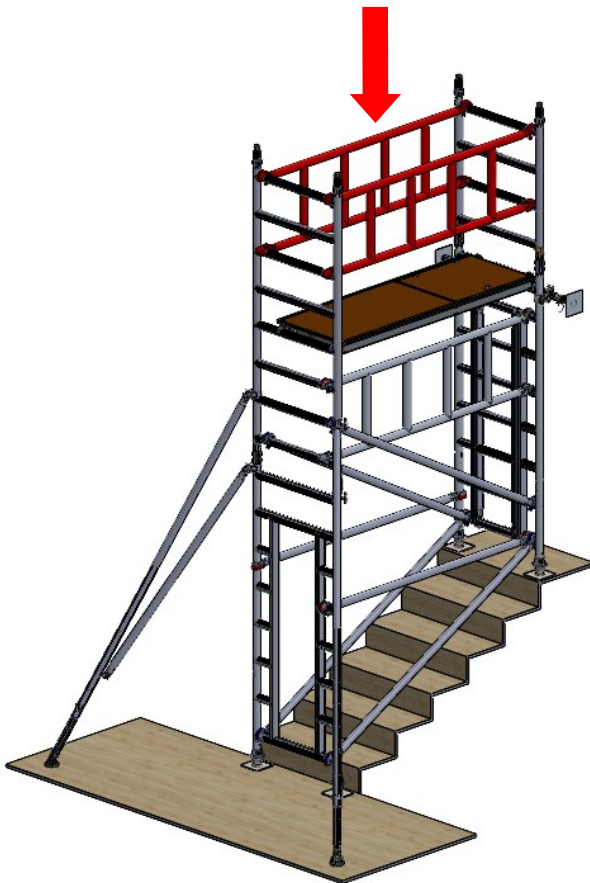


8.

From a seated position within the trap door of the platform fit 2 AGRs to the 2nd and 4th rung above the platform.

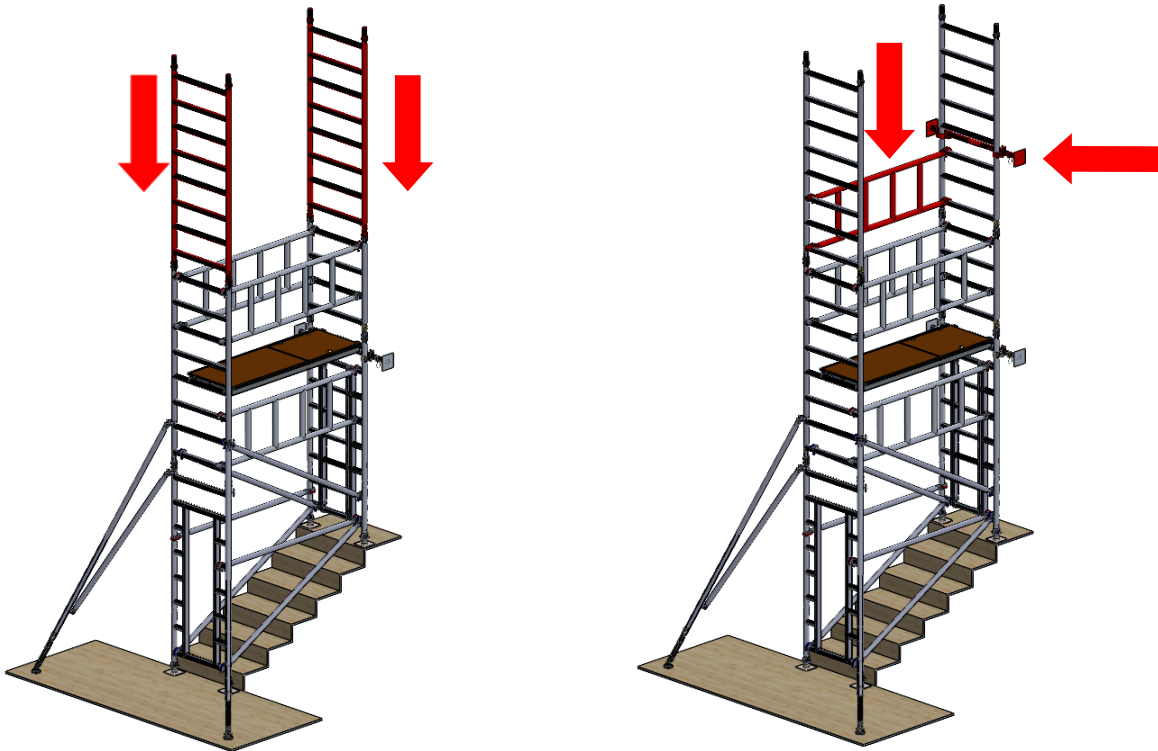
If completing at 2.8m fit toe boards to the working platform. (see instructions on page 4 & 5)
or

Continue to step 9 for taller towers.



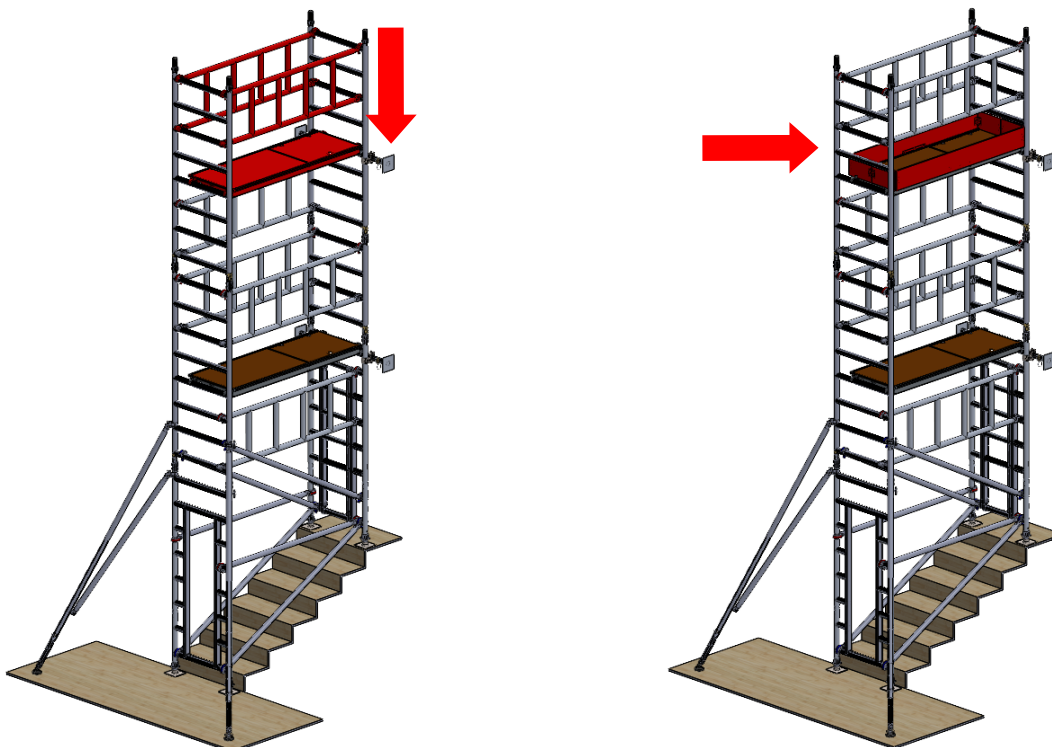
9.

Connect an 8 rung frame to either end of the tower.
Fit an AGR to the 5th and 7th rung above the platform.
Fit additional stairwell brace if needed.



10.

Add a platform between the 20th rung downhill and the 16th rung uphill, lock wind locks.
From a seated position within the trap door of the platform fit 2 AGRs to the 2nd and 4th rung above the platform.
If completing at 4.8m fit toe boards to the working platform. (see instructions on page 4 & 5)
Or
If completing at 6.8m, repeat steps 9 & 10 then fit toe boards to the working platform.



3.8/5.8m Configuration Assembly Instructions.

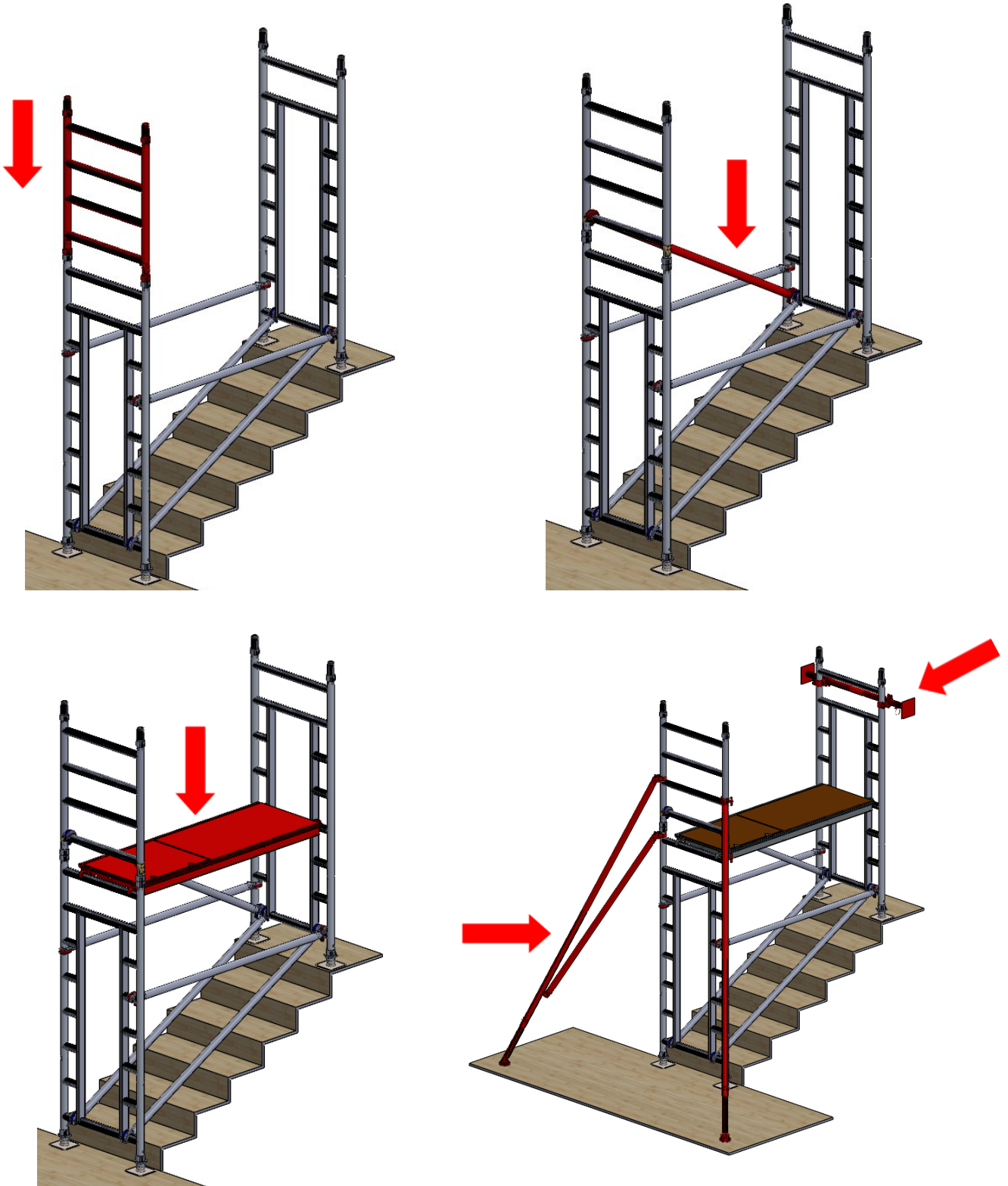
1-5. Start with steps 1—3 on page 9&10

Fit a 4 rung frame to the downhill end of the tower.

Connect a diagonal continuing from the first one, 1st rung uphill to 9th rung downhill.

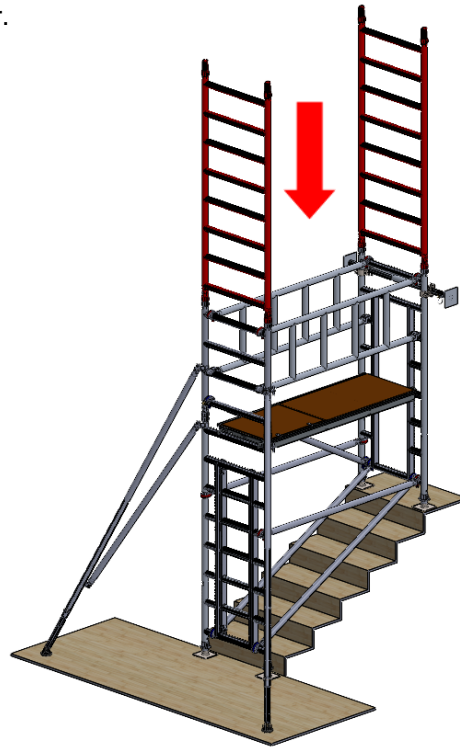
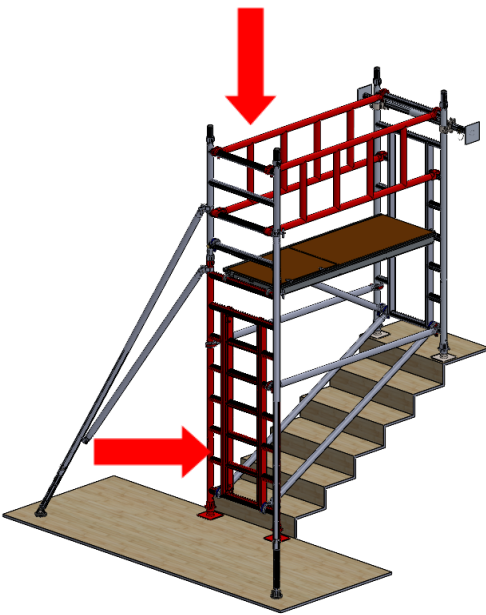
6. Add a platform between the 8th rung downhill and the 4th rung uphill, lock wind locks where possible.

Attach stabilisers and/or stairwell braces to the tower.



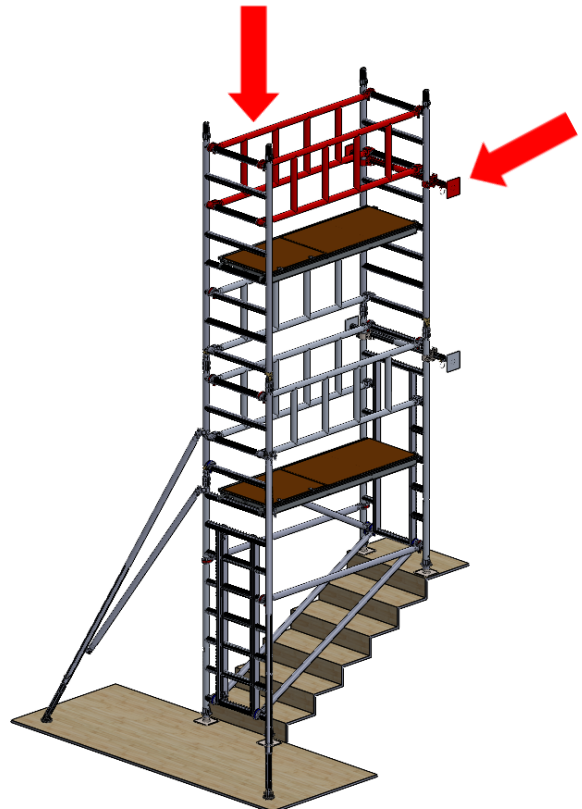
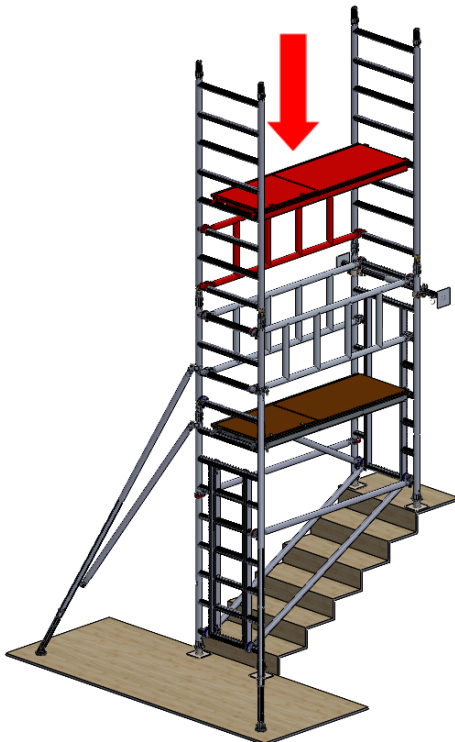
Fit ladder section to the opening on the uphill walkthrough frame.

7. From a seated position within the trap door of the platform fit 4 horizontal braces to the 2nd and 4th rung above the platform.
Connect an 8 rung frame to either end of the tower.



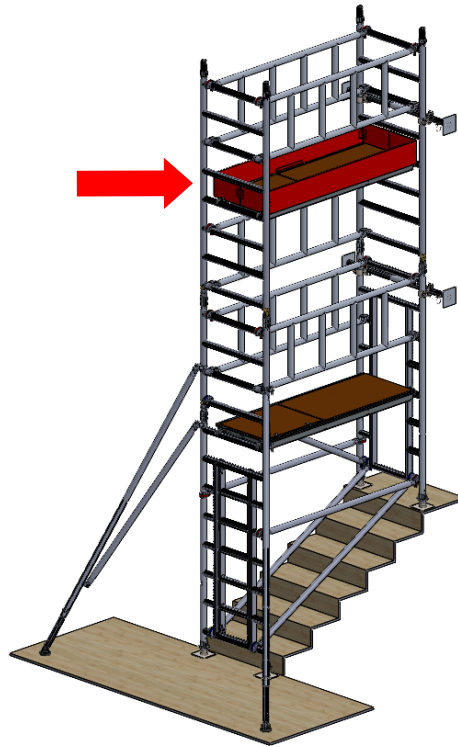
Fit an AGR to the 5th and 7th rung above the platform.

8. Add a platform between the 16th rung downhill and the 12th rung uphill, lock wind locks.
From a seated position within the trap door of the platform fit 4 horizontal braces to the 2nd and 4th rung above the platform.
Fit additional stairwell brace if needed.



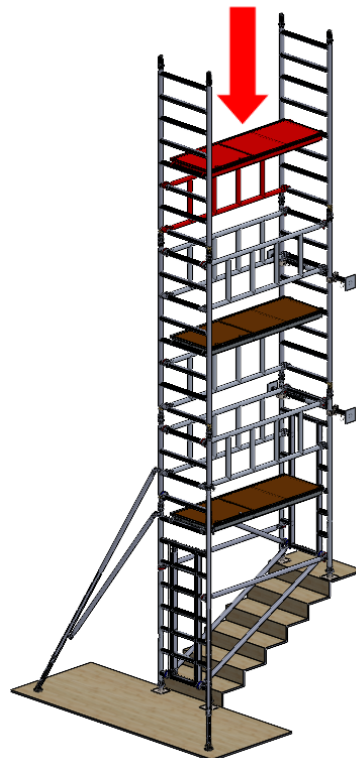
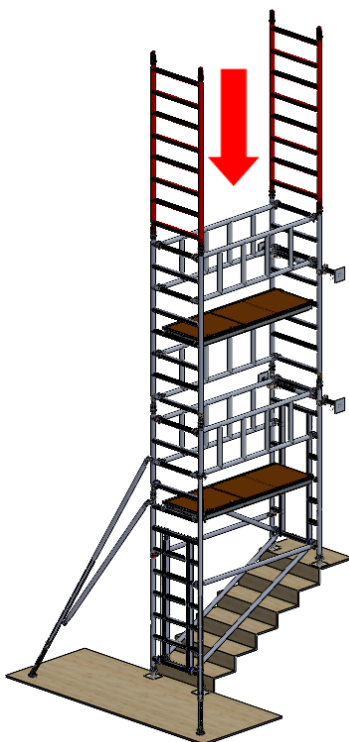
9.

If completing at 3.8m fit toe boards to the working platform. (see instructions on page 4 & 5)
or
Continue to step 10 for taller towers.



10.

Connect an 8 rung frame to either end of the tower.
Fit an AGR to the 5th and 7th rung above the platform.
Add a platform between the 24th rung downhill and the 20th rung uphill, lock wind locks.

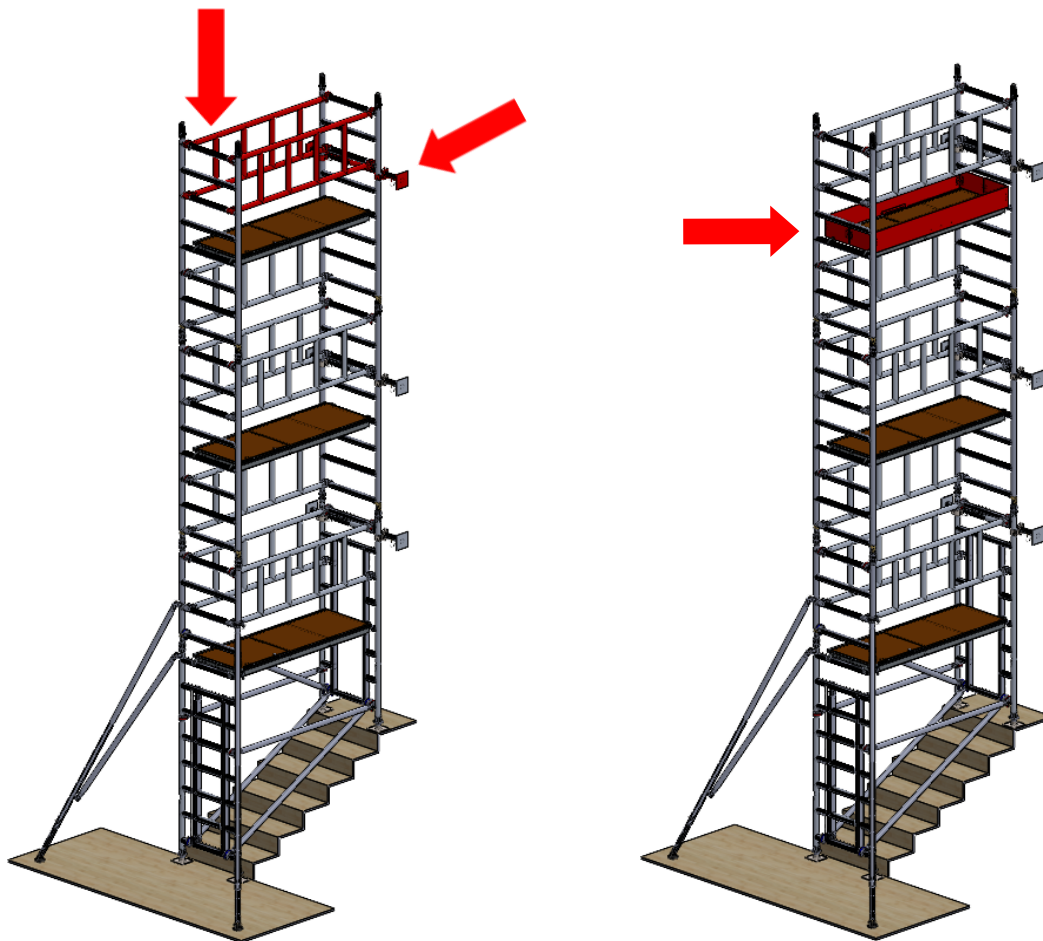


10.

From a seated position within the trap door of the platform fit 4 horizontal braces to the 2nd and 4th rung above the platform.

Fit additional stairwell brace if needed.

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



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.

BRACES & STABILISERS

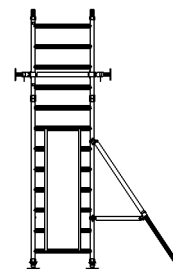
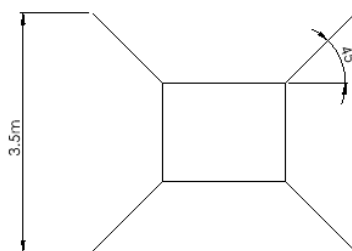
Stairwell towers can use a combination of Stabilisers and Braces. Both ends of the tower should be supported by one of the methods but it is acceptable to mix methods.

Where possible use stabilisers, but if room does not allow due to lack of space use Stairwell braces instead.

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

If using Stairwell braces ensure that the couplers are tightly fastened to the verticals of the tower. Attach a minimum of 1 brace per frame per end if no stabilisers are being used on that end of the frame.

STABILISERS



Stabiliser maximum platform height of 6.8m

720 STAIRWELL

Configurations to BSEN 1139-6:2014

Working Height (M)

Description	4.8 2.8	5.8 3.8	6.8 4.8	7.8 5.8	8.8 6.8
150mm Base Plate	4	4	4	4	4
Adjustable Leg 500mm	4	4	4	4	4
1m 4 Rung Frame	1	1	1	1	1
2m 8 Rung Frame	1	2	3	4	5
2m 8 Rung Walkthrough	2	2	2	2	2
Walkthrough Frame	1	1	1	1	1
1.8m Trapdoor Platform	1	1	2	2	3
1.8m Horizontal Brace	2	2	2	2	2
2.1m Diagonal Brace	4	3	4	3	4
Complete Toe Board Set	1	1	1	1	1
S2 Stabiliser	4	4	4	4	4
Stairwell brace	4	4	4	6	6
Instruction Manual	1	1	1	1	1
Approx. Tower Shelf weight (Kgs) 1.8m	117.1	136.9	167.8	187.6	218.5

Please Note:

Use a combination of stabilisers and stairwell braces as indicated by risk assessment for suitability of use.

As a minimum each end of the tower should have 2 stabilisers or 2/3 braces (2.8, 3.8, 4.8 = 2 braces, 5.8, 6.8 = 3 braces)

Notes:

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