

BOSS®



SOLO⁷⁰⁰

**One Person Aluminium Tower
3T - Through the Trapdoor Method**

Instruction Manual
EN 1004-2 en

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1 Safety First

1.1 Introduction

Please read this instruction manual carefully.

This instruction manual shall be available at the location of use of this mobile access tower. Instruction manuals are also available to download at www.bossaccesstowers.com.



This product shall only be used in accordance with this manual without any modification.



FAILURE TO FOLLOW THESE INSTRUCTIONS MAY LEAD TO DEATH OR SERIOUS INJURY.

Mobile access towers must always be used in accordance with the national regulations. If any aspect of these instructions conflicts with local regulations please contact Werner UK Sales & Distribution Ltd. for advice.

Please note that diagrams are for illustrative purposes only.

User training courses are available, but must not be used as a substitute for familiarity with this manual.

BoSS mobile aluminium towers are light-weight scaffold towers used throughout the building and construction industry for both indoor and outdoor access solutions where a stable and secure platform is required. Ideal for maintenance and installation work or short-term access, the highly versatile towers provide a strong working platform for a variety of heights.

Verification and assessment documentation is held by Werner UK Sales & Distribution Ltd.

Compliances



The BoSS SOLO⁷⁰⁰ mobile tower system has been designed, tested, approved and certified to EN 1004-1:2020.

This instruction manual is in compliance with EN 1004-2-en.

1 Safety First

1.2 Tower Designation

EN 1004 3 4/4 XXXD H2

Design Code

Load Class (2 = 153kg/m² UDL, 3 = 204kg/m² UDL*)

Max. Platform Height Outdoors (m)

Max. Platform Height Indoors (m)

Access Method

A = Stairway, B = Stair ladder, C = Inclined Ladder, D = Vertical Ladder

Clear Height Class (H1 = 1.85m, H2 = 1.90m)

*UDL = Uniformly distributed load

1.3 Maintenance - Storage - Transport

- The BoSS mobile tower system is robust and requires little maintenance.
- All components and their parts should be regularly inspected to identify damage, particularly to joints.
- Refer to the BoSS Inspection Guidance for detailed inspection and maintenance advice, the guidance is available to download at: www.bosssacesstowers.com.
- Threads, hinges, and brace latches may be lubricated with light oil. Ensure oil does not contaminate climbing or walking surfaces.
- Safety labels should be kept legible. Replacement labels are available from Werner UK Sales & Distribution Ltd.
- Surfaces should be kept reasonably free of dried paint, plaster etc.
- Use of solvents on wooden platform surfaces and plastic components should be avoided.
- Components should be stored in clean, dry conditions with due care to prevent damage.
- During transportation ensure components are not damaged by excessive strapping forces.

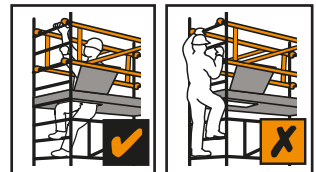
2 Building The Tower

2.1 Pre-Assembly Checks

- Check overhead that the area into which the structure is to be erected contains no obstructions, particularly electrical or radio radiation hazards. The structure is conductive.
- Ensure the ground on which the mobile access tower is to be erected is capable of supporting the tower in use.
- Check the surface is level within the 210mm range of the adjustable legs.
- Only components specified in this manual shall be used with BoSS towers. Check all required components are onsite and in a suitable working condition.
- Damaged components shall not be used and must be put beyond use and disposed of according to local regulations.



- Adjustable legs should only be used for levelling purposes and never to gain extra height.
- Ensure distance from the ground to first climbing rung is less than 400mm.
- Only climb the tower from the inside using the access method provided.



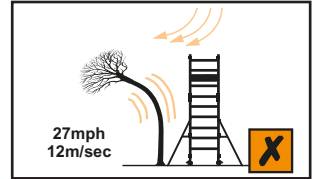
- This tower provides a work platform. It must not be used to access other structures.



- Tower scaffolds are not designed to be lifted or suspended.
- Ensure the safe working load on the structure is not exceeded.
- Tools and materials should be lifted using a reliable lifting material (e.g. a strong rope) employing a reliable knot (e.g. clove hitch) to ensure safe fastening and always lift within the footprint of the prefabricated tower scaffold (i.e. within the area bounded by the stabilisers).

2 Building The Tower

- Check this manual is available and its contents familiar to all those involved.
- If assembling outdoors; check the forecast windspeed.
 - The assembled tower is certified to wind forces equating to 27mph, but handling components under those conditions would be hazardous.



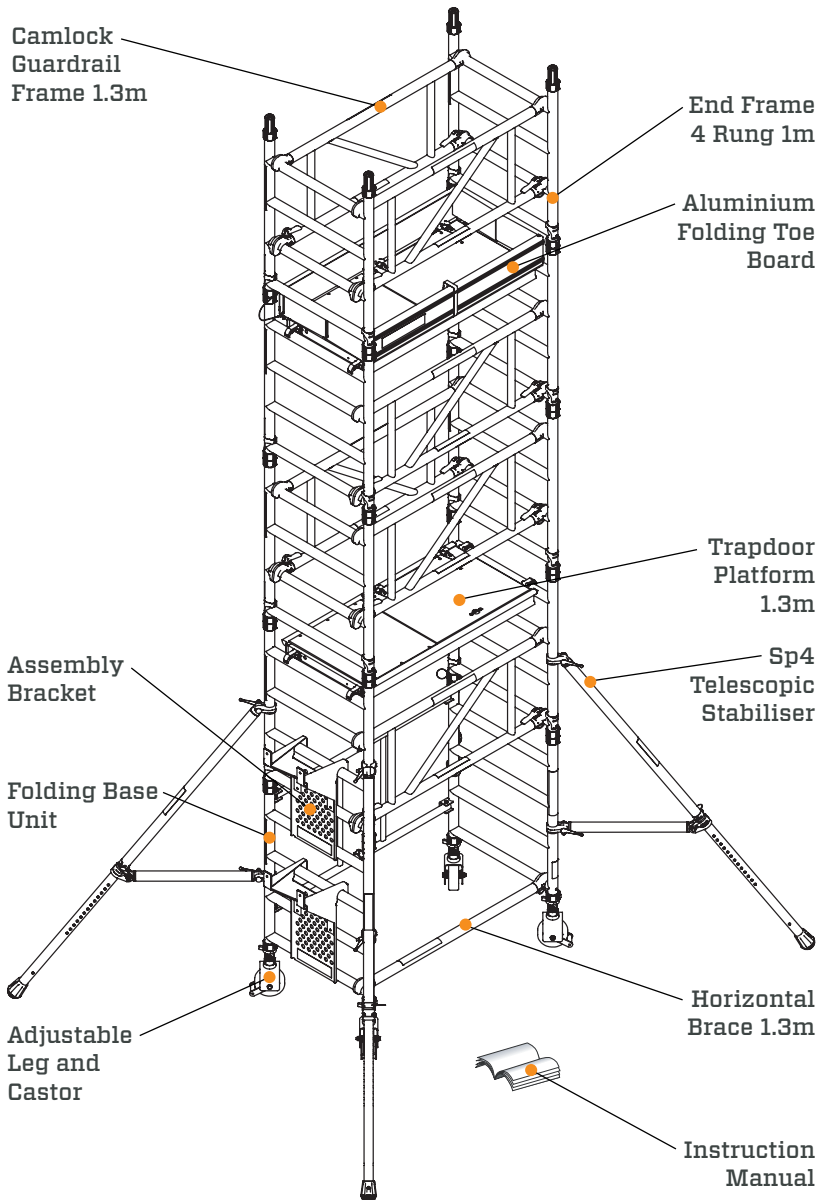
- Also consider the wind funnelling effect of nearby buildings.



- This structure is designed to be self-supporting under the loading condition requirements of EN 1004-1:2020 and does not require tying in. Consideration should be given to potential wind conditions if the tower is left unattended.

2 Building The Tower

2.2 Component Diagram



2.3 Quantity Schedule

BoSS SOLO⁷⁰⁰ to EN 1004 - 1.3m x 0.7m

Component Code	Component Description	Internal or External Use				
		Component Weight (kg)	Composite Code	61402200	61403200	61404200
		Platform Height (m)	Working Height (m)	4.2	5.2	6.2
32842300	Castor 150mm (6")	3.3		4	4	4
33551300	Adjustable Leg	1.1		4	4	4
67020100	Folding Base Unit	10.4		1	1	1
67011000	End Frame 4 Rung 1m	3.9		4	6	8
35651300	Horizontal Brace 1.3m	1.6		1	1	1
67030100	Camlock Guardrail Frame 1.3m	5.0		3	5	6
67070100	Trapdoor Platform 1.3m	9.8		1	2	2
67040100	SP4 Telescopic Stabiliser	4.4		4	4	4
67050100	Aluminium Folding Toe Board	4.4		1	1	1
67060100	Assembly Bracket	2.3		1	2	2
Total Self-weight of Tower (kgs)				94.7	124.6	137.4
Max. Exerted Leg Load (kgs)				90	100	110

2 Building The Tower

Assembly Variations

This section lists the permitted component variation from the Quantity Schedule.

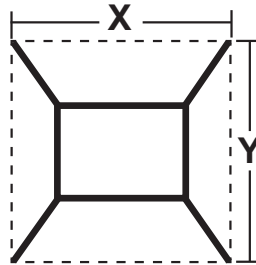
Note: These substitutions must be made before assembly.

Other Castor sizes and types may be substituted:

Component Code	Description	Weight (kg)
31842300	Diameter 150mm (Tyred)	3.2
32942300	Diameter 200mm	3.2
31942300	Diameter 200mm (Tyred)	3.2

2.4 Stabilisers

Position the lower clamp so that the arm is as close to horizontal as possible. Adjust the position of the top clamp to ensure the stabiliser foot is in firm contact with the ground. Ensure the clamps are secure.



Platform Length 1.3m	
SP4	X = 2810 Y = 2810

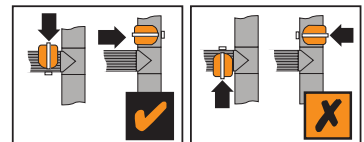
2.5 Assembly

This tower structure must be assembled, and components oriented, in accordance with this instruction manual. Deviation from this instruction manual is not permitted.



THIS TOWER MUST NOT BE USED AS AN ANCHOR POINT FOR PERSONAL FALL PROTECTION EQUIPMENT.

- No tools are required for assembly.
- The assembly uses the 3T (Through the Trapdoor) method that provides collective fall protection.
 - From the sitting position in the trapdoor opening fit all guardrails before standing on the platform.
 - Fit braces in the locations described and ensure the claws are locked.

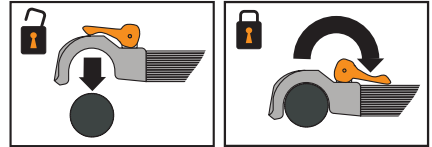


2 Building The Tower

- DO NOT stand on an unprotected platform



- Fit camlock guardrails in the locations described and ensure that the camlocks are engaged.



- Castor brakes should be locked as soon as the tower base is in position.
- The tower base should be levelled to within 0.6° before continuing the assembly.
- The adjustable legs are for levelling the tower only and not to be used to gain extra height. It is recommended, for ease of levelling, that a maximum gap of 50mm is left between the bottom of the leg and the adjustable nut.
- Ensure when the base is levelled the distance from the ground to the first climbing rung is less than 400mm.
- Ensure interlock clips are engaged after fitting frames.
- Stabilisers should be fitted at the earliest opportunity.
- Ensure wind-locks are engaged on trapdoor and fixed platforms.
- Always start assembly with the smallest end frames at the base.

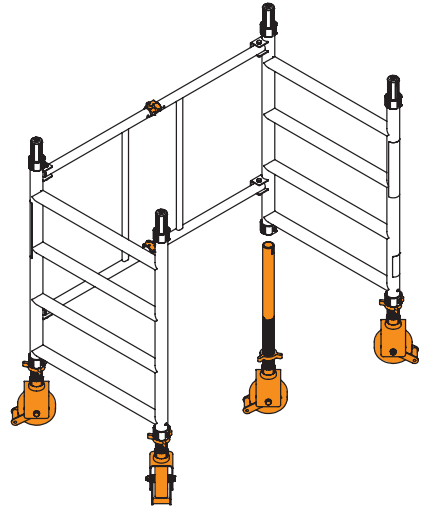
2 Building The Tower

- 1 Insert castors into adjustable legs.
Fit leg and castor assemblies into base unit.

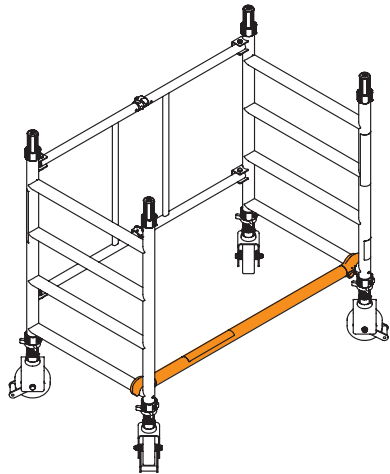
Ensure brakes on castors of one end frame are released.

Engage locks on rear folding frame.

Ensure all castor brakes are engaged.



- 2 Fit horizontal brace in position shown.
Check tower is square and level.



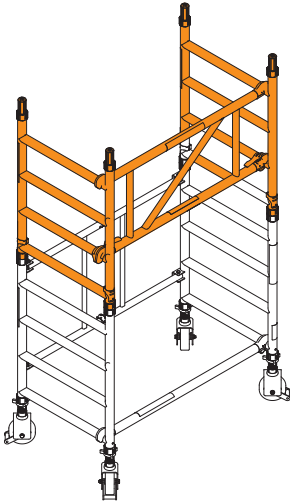
2 Building The Tower

3

3.2m tower build

Fit 4 rung frames to tower.

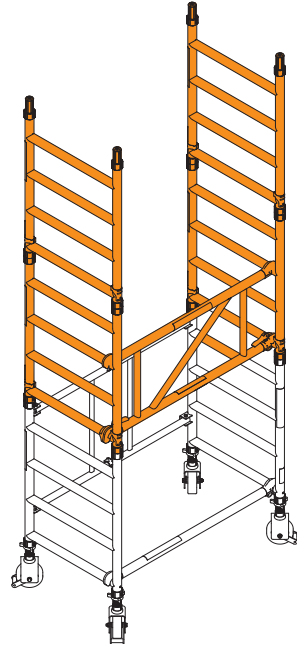
Fit camlock guardrail unit in position shown.



2.2m and 4.2m tower build

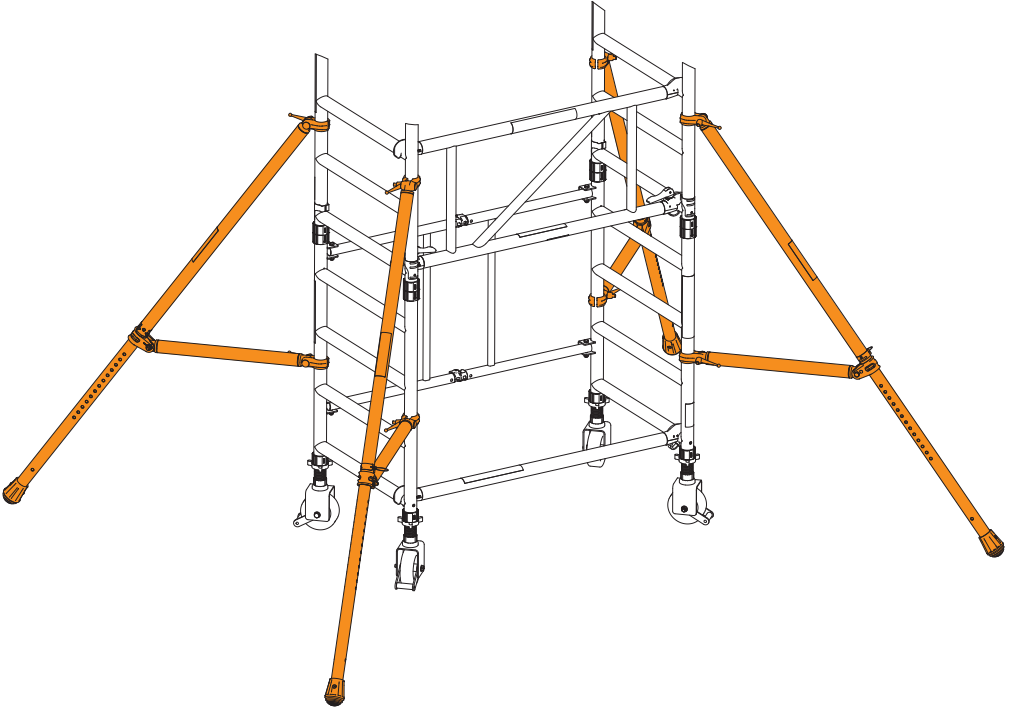
Connect two 4 rung frames and fit to tower. Repeat on opposite side.

Fit camlock guardrail unit in position shown.



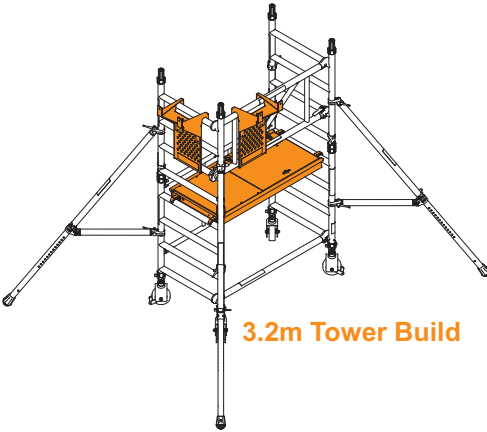
2 Building The Tower

- 4 Fit stabilisers as shown. See page 8 for details.

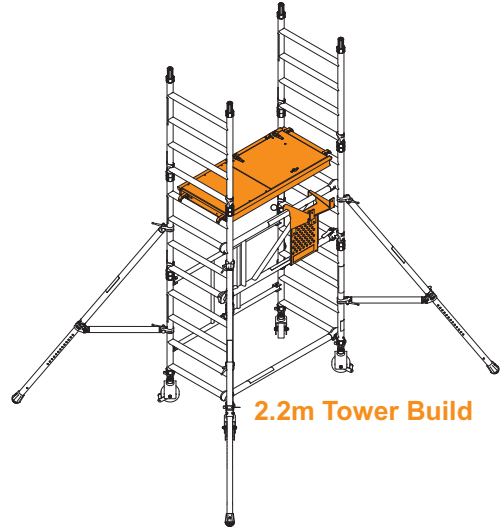


2 Building The Tower

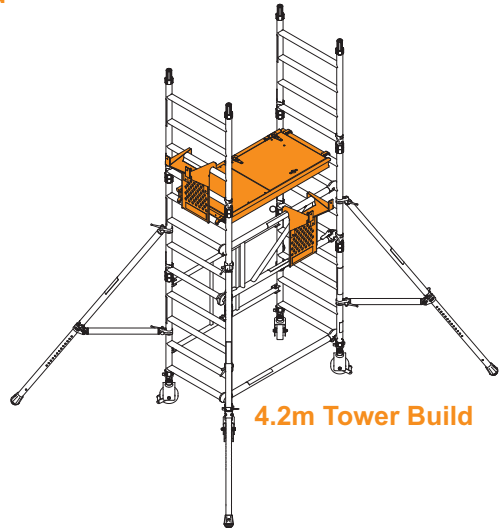
- 5** Fit trapdoor platform in position shown.
Fit assembly bracket(s) in position shown.



3.2m Tower Build



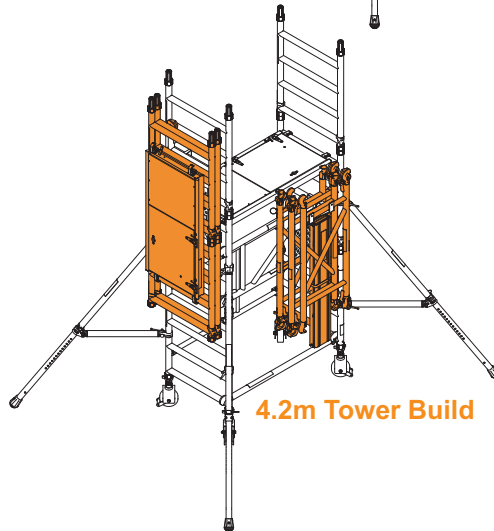
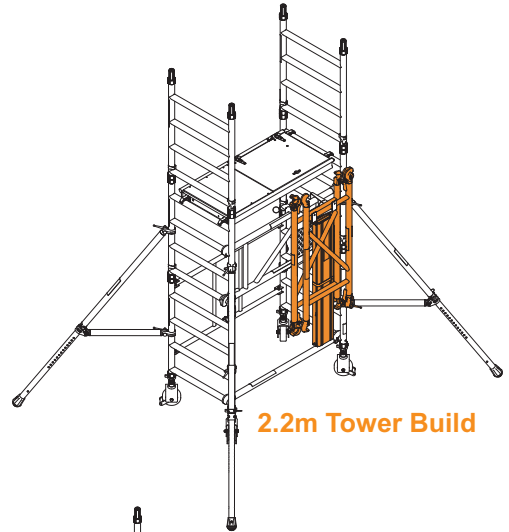
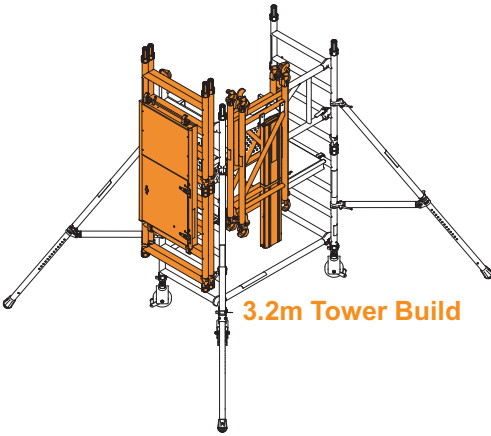
2.2m Tower Build



4.2m Tower Build

2 Building The Tower

- 6** Load components onto assembly brackets in the order specified in corresponding table on next page.

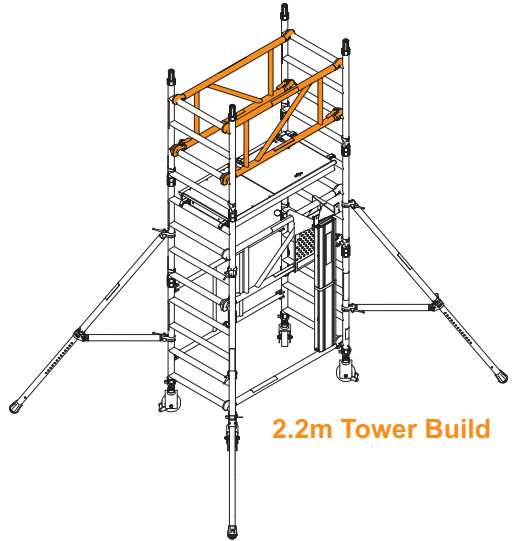


2 Building the Tower

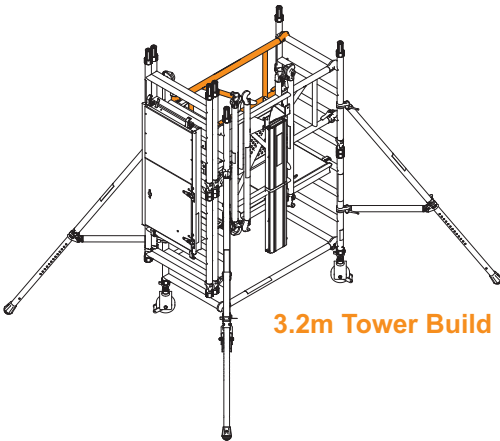
Assembly Bracket Position	Load Order	Platform Height (m)		
		2.2	3.2	4.2
Side	1	Aluminium Folding Toe Board	Camlock Guardrail Frame 1.3m	Camlock Guardrail Frame 1.3m
	2	Camlock Guardrail Frame 1.3m	Camlock Guardrail Frame 1.3m	Camlock Guardrail Frame 1.3m
	3	Camlock Guardrail Frame 1.3m	Aluminium Folding Toe Board	Aluminium Folding Toe Board
	4	-	Camlock Guardrail Frame 1.3m	Camlock Guardrail Frame 1.3m
	5	-	-	Camlock Guardrail Frame 1.3m
End	1	-	Connected Pair of End Frame 4 Rung 1m	Connected Pair of End Frame 4 Rung 1m
	2	-	Connected Pair of End Frame 4 Rung 1m	Connected Pair of End Frame 4 Rung 1m
	3	-	Trapdoor Platform 1.3m	Trapdoor Platform 1.3m

2 Building the Tower

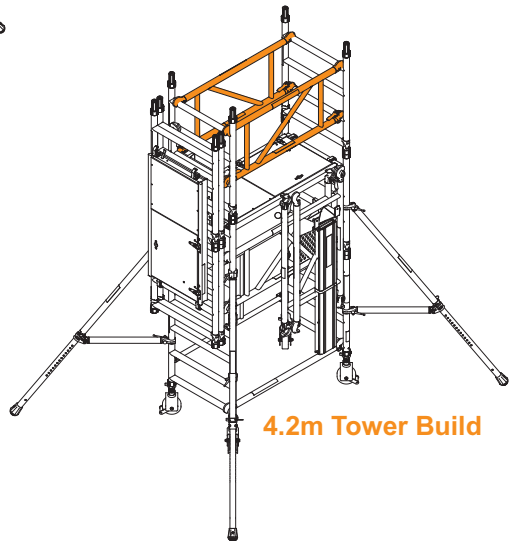
- 7 From the protected trapdoor position, fit camlock guardrail(s) as shown.



2.2m Tower Build



3.2m Tower Build



4.2m Tower Build

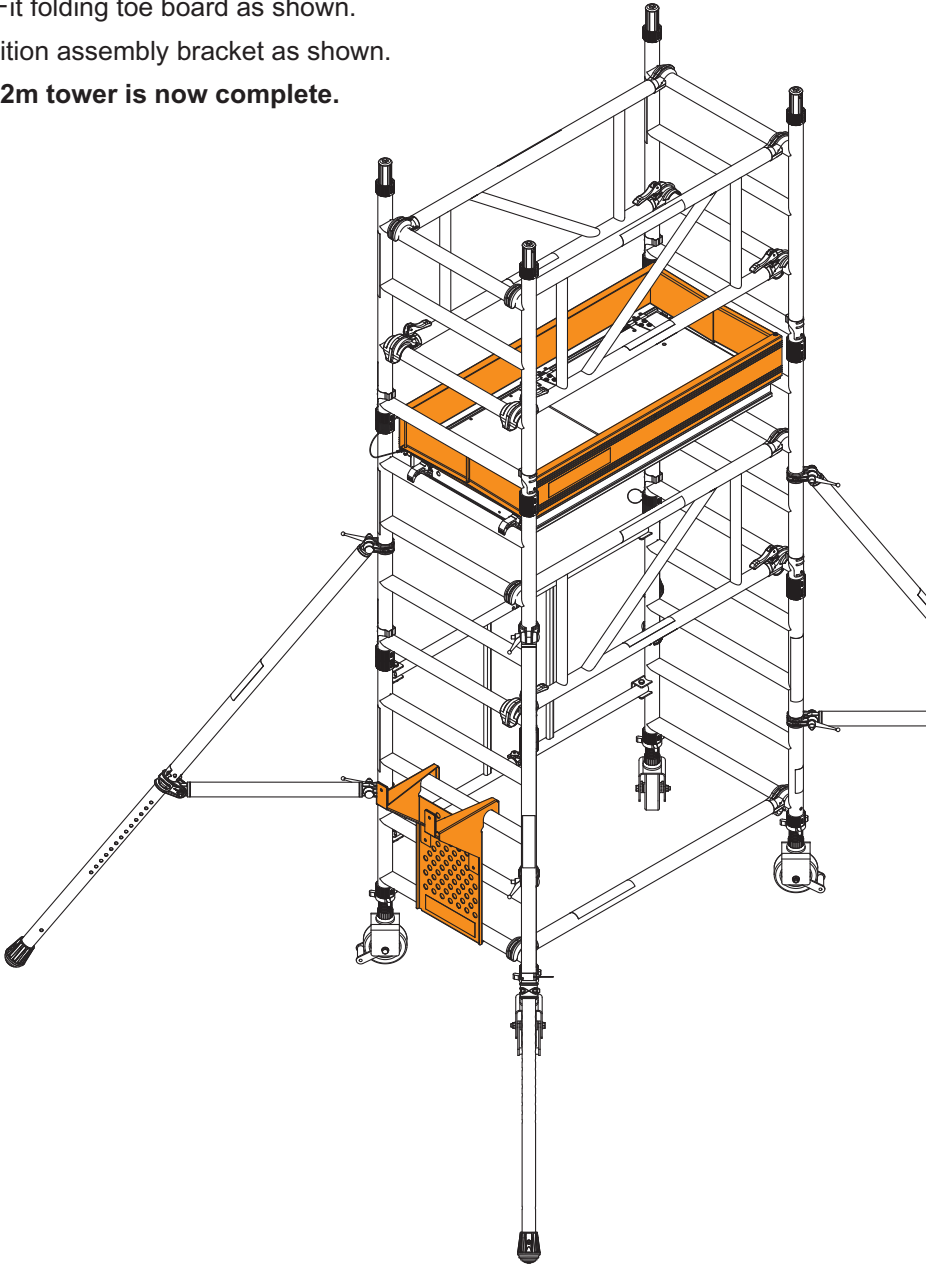
2 Building The Tower

8 2.2m tower build only

Fit folding toe board as shown.

Reposition assembly bracket as shown.

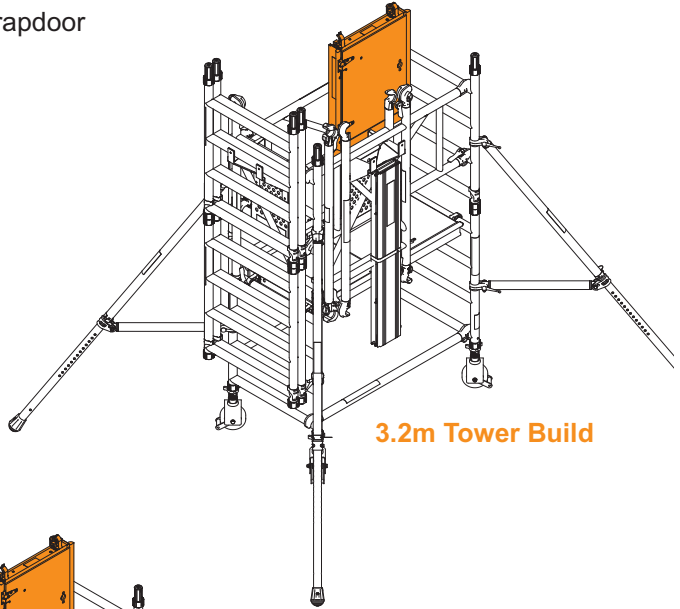
The 2.2m tower is now complete.



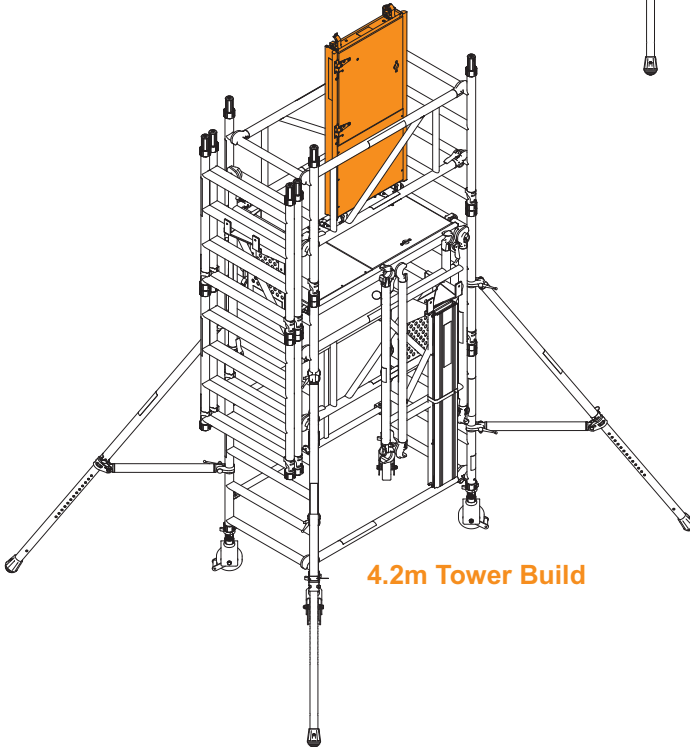
2 Building the Tower

9 3.2m and 4.2m tower builds only

Temporarily position trapdoor platform as shown.



3.2m Tower Build



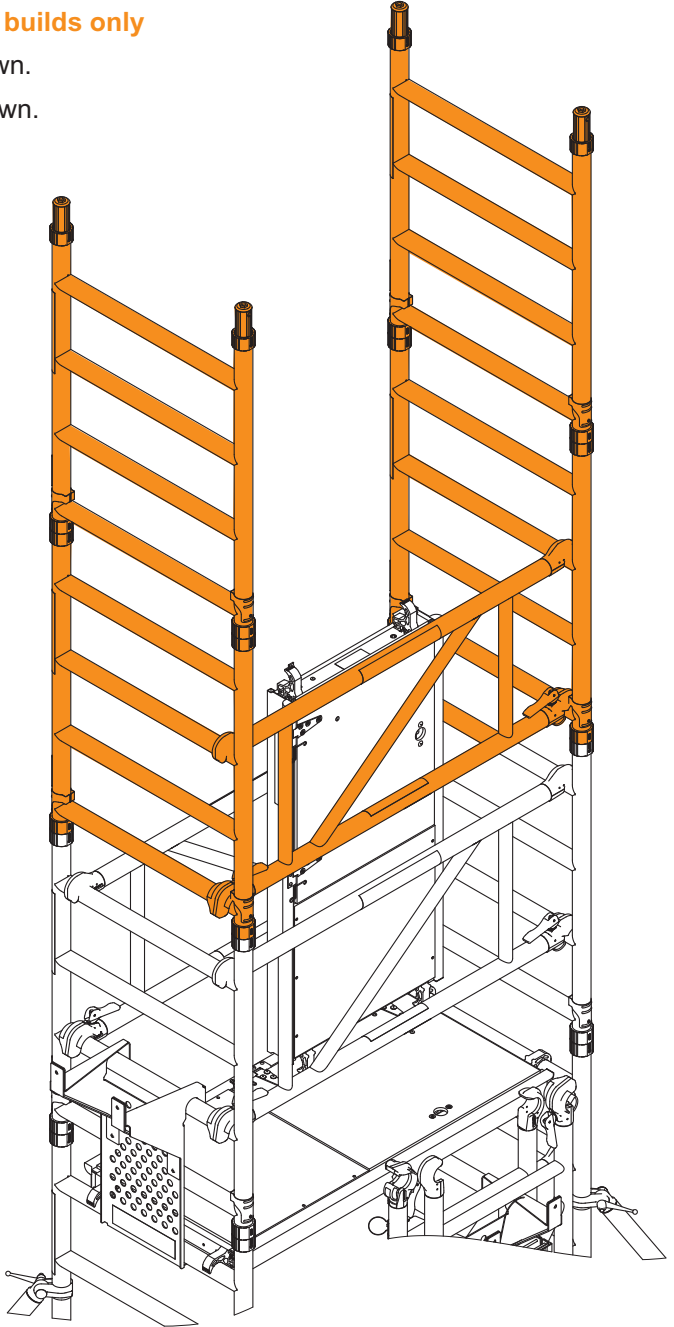
4.2m Tower Build

2 Building The Tower

10 3.2m and 4.2m tower builds only

Fit end frames as shown.

Fit camlock guardrail as shown.

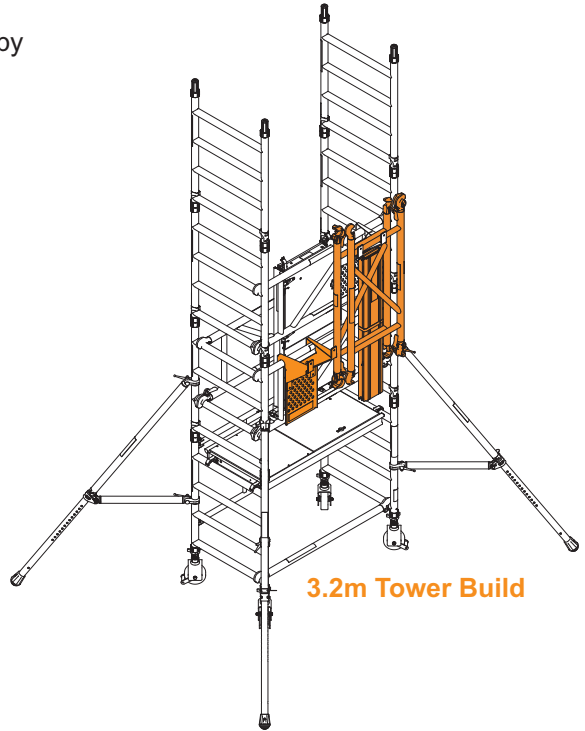
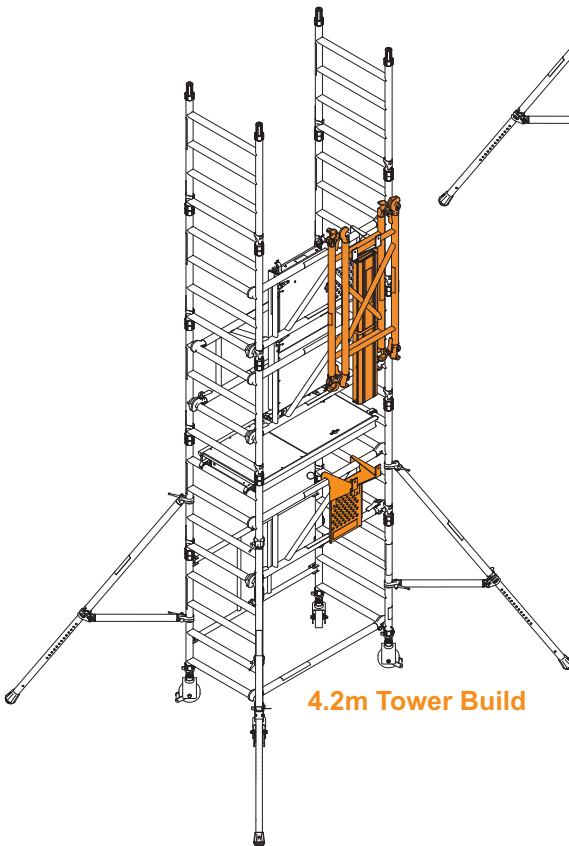


2 Building the Tower

11 3.2m and 4.2m tower builds only

Reposition empty assembly bracket as shown.

Transfer folding toe board followed by camlock guardrails as shown.

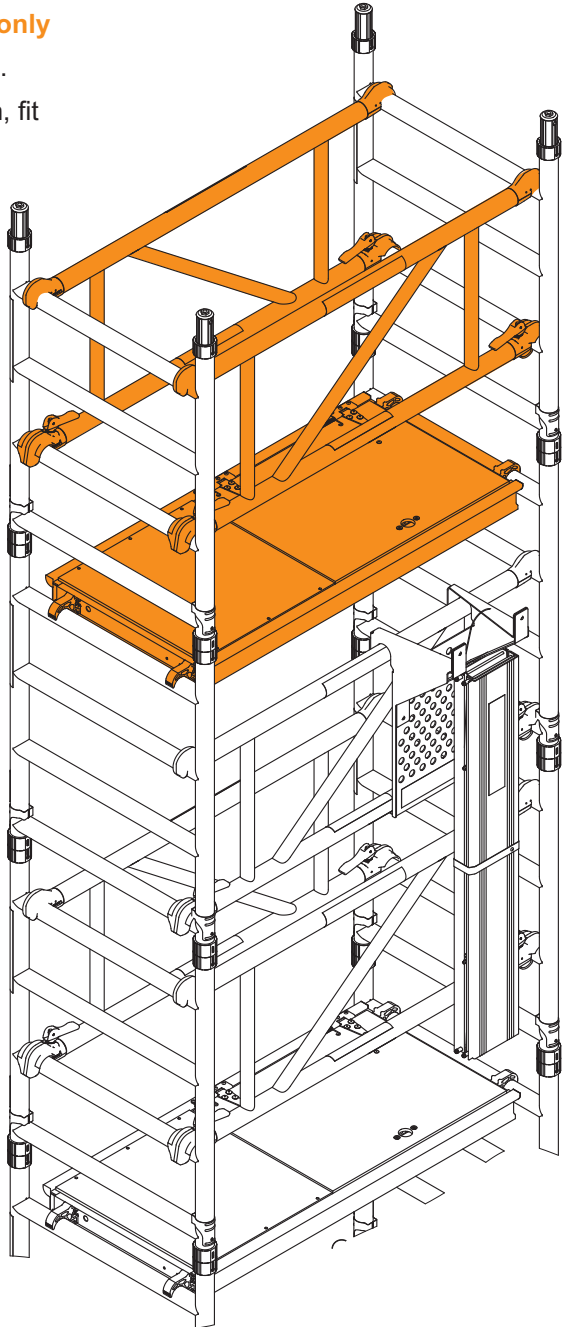


2 Building The Tower

12 3.2m and 4.2m tower builds only

Fit trapdoor platform as shown.

From the protected trapdoor position, fit camlock guardrails as shown.



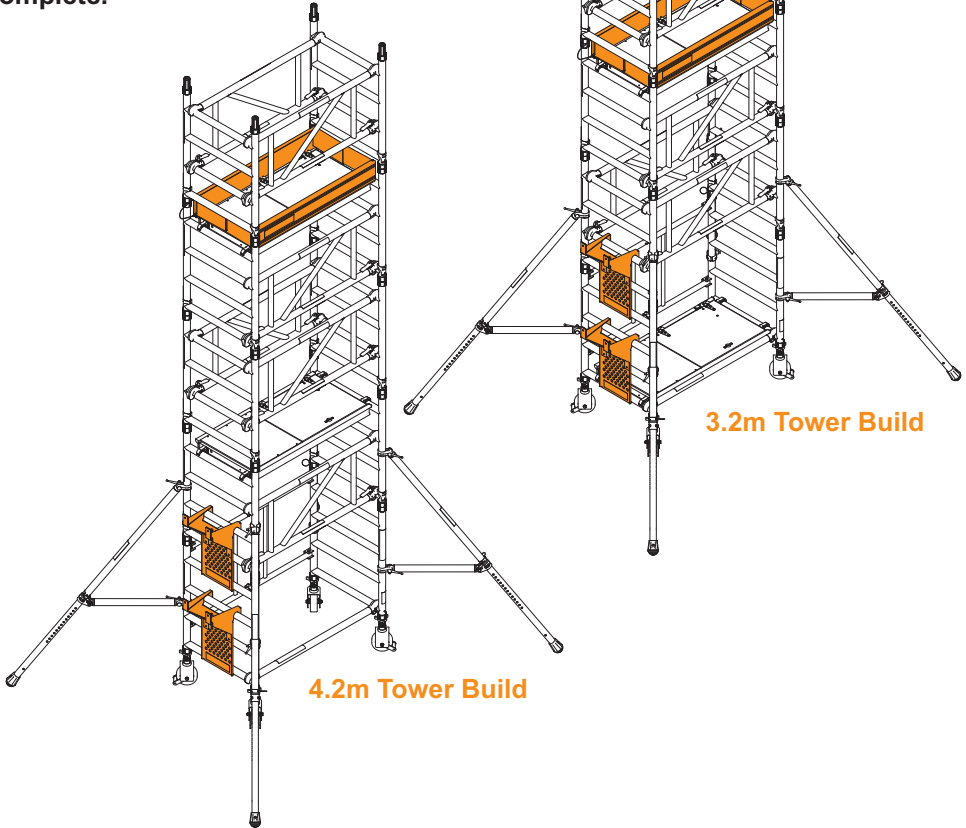
2 Building The Tower

13 3.2m and 4.2m tower builds only

Fit folding toe board as shown.

Reposition assembly brackets as shown.

The 3.2m & 4.2m tower(s) are now complete.



2.6 Dismantling

To dismantle the tower, reverse the assembly procedure.












3 Using The Tower

3.1 Safety Checklist

This inspection must be carried out before initial use, after moving the tower, if any environmental condition change that may affect the tower and at regular intervals determined by local regulations.

Local regulations may also specify other information to be supplied to the user or attached to the structure. These regulations must be followed.

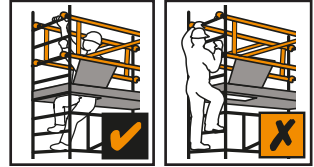
3.2 Pre-Use Checklist

Tower upright and level to within 0.6°	
Castor brakes locked and all wheels in ground contact	
All interlock clips engaged	
Braces/Guardrails correctly positioned	
All claws latched	
All platform wind-locks engaged	
Stabilisers fitted and positioned	
Toe boards fitted to working platform	
Instruction manual available to user	
No environment changes affecting safe use have occurred or are likely	
Tower is the correct height for intended use	

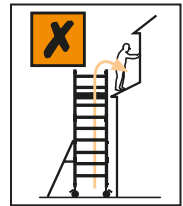
3 Using The Tower

3.3 Use

- This tower must not be used as an anchor point for personal fall arrest equipment.
- The tower must only be climbed on the inside, using the access method specified.



- This tower provides a work platform. It must not be used to access other structures.



- Raising and lowering tools and materials must only be conducted within the tower footprint.
- Only one platform at a time can be used as a working platform. Toe boards must be fitted to that platform.
- Ensure the safe working load on the structure is not exceeded. The number of people permitted on the tower at any time is limited by the safe working load.
 - 1.3m platform rated at 146kg UDL
- The adjustable legs are for levelling the tower only. They must not be used to gain extra height.
- Do not use boxes, stepladders or other objects to gain extra height.

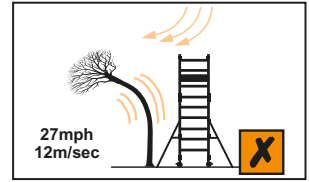


- Beware of horizontal forces that might cause instability. Maximum horizontal force = 30kg.



3 Using The Tower

- Beware of high winds. This tower has been assessed as a freestanding structure for wind loads equating to 27mph (43kph, 12m/s). If greater windspeeds are forecast the tower must be moved to a sheltered location or dismantled while it is still safe to do so.



- Sheets, tarpaulins, or signage must not be attached to this tower outdoors.

3 Using The Tower

3.4 Movement Of The Assembled Prefabricated Tower Scaffold



MOVING A FULLY ASSEMBLED TOWER CAN BE EXTREMELY HAZARDOUS.

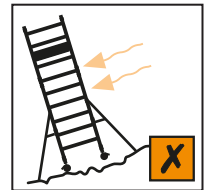
If there is any doubt about the safety of the move, the tower must be dismantled and reassembled in the new location.

This tower is not designed to be lifted or suspended.

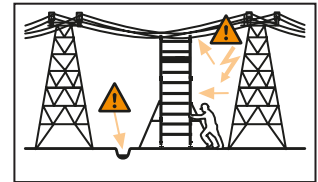
Ensure gloves or other suitable hand protection is worn.

Before

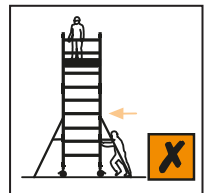
- Beware of rough, sloping ground and high winds. Tower stability is improved by reducing height.



- Survey the route to be taken. Assess the ground condition/slope and any overhead obstructions or hazards and wind conditions.



- Ensure there are no persons, tools, or materials on the tower.



- Release the castor brakes.
- Release the stabiliser top clamp to allow the feet to be raised a maximum of 25mm. Re-tighten the clamps.

3 Using The Tower

During

- The tower must be moved only by manual effort, pushing at the base of the tower.
- Constant attention must be given to the position of the castors, stabiliser feet and the top of the tower.
- If there is any resistance to movement, stop and investigate the reason before continuing.

After

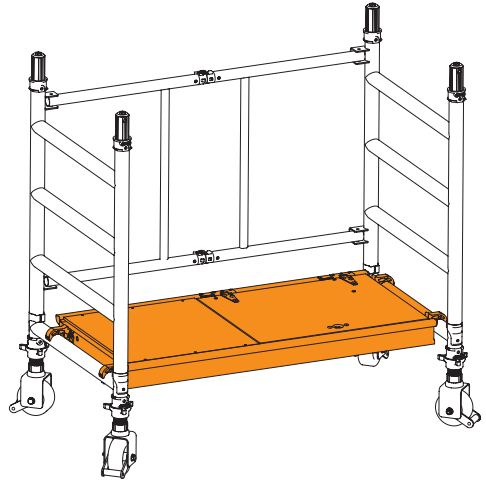
- As soon as the move is complete; lock the castor brakes, lower the stabiliser feet, and perform the pre-use inspection.

4 Storing The Tower

4.1 Storage Trolley Assembly

1 Assemble the folding base frame with one trapdoor platform placed on the bottom rung forming the base of the trolley.

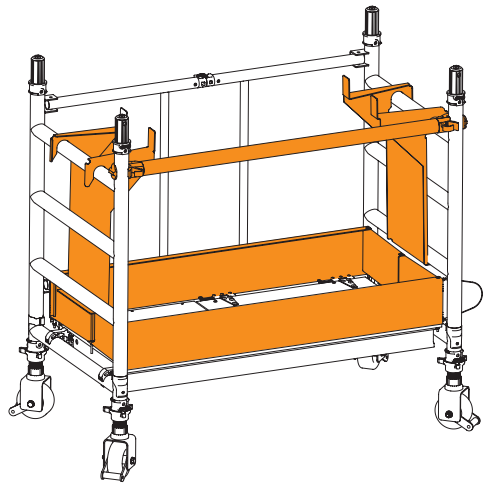
Lower all adjustable legs as far as possible.



2 Fit the folding toe board set to the trapdoor platform.

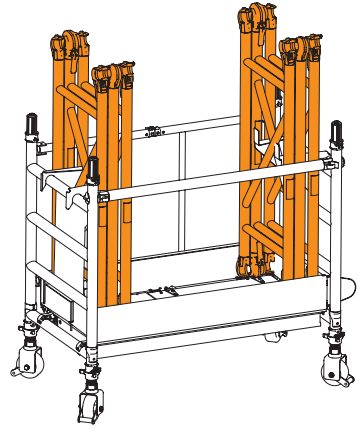
Position the 1.3m horizontal brace on the front upright, just above the 4th rung.

Place the assembly brackets, one at each end on the inside of the folding base unit end frames.

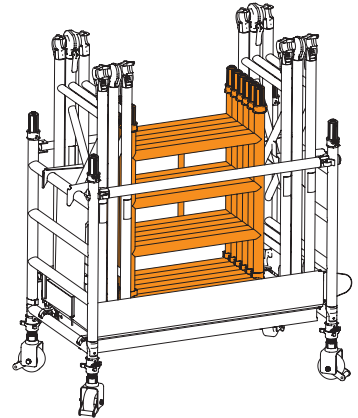


3 Storing The Tower

3 Place the camlock frames, three at either end within the trolley. Ensure the diagonal struts of the camlock frames fit between the arms of the assembly brackets.



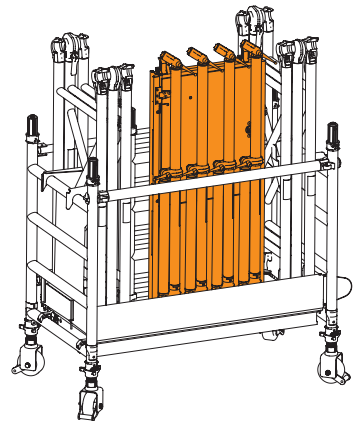
4 Place the 1m end frames in the centre of the trolley between the guardrail frames.



5 Add the final trapdoor platform in front of the 1m end frames.

Fit the four SP4 stabilisers in front of the trapdoor platform.

The trolley unit is now complete.





For further information and support for the SOLO⁷⁰⁰ or any other products, design advice and services, please contact:

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