



Scaffold Instruction Manual

This booklet contains information on how to
Erect, dismantle and use
MultiScaff aluminium scaffolding.

Manufactured by:



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SAFETY INFORMATION

Competency / Work Practices

Scaffolding is to be used in accordance with current Australian and New Zealand standards, Worksafe or OH & S/WHS requirements and codes of practice. Scaffolding is to be erected in accordance with suppliers requirements, acceptable safe work practices and appropriate control measures including personal protective equipment.

For safe and efficient erection, alteration and dismantling of scaffolding, you must:

Know the basic relevant rules of mechanics.

Be able to understand the suppliers information, general site plans and specifications for scaffolds. (An ability to make simple calculations of dead load and live load is often needed.)

Have a thorough knowledge of the scaffolding equipment being used.

Have a thorough knowledge of the construction methods and design requirements associated with the equipment.

Be able to recognise hazards at the worksite and implement appropriate controls to avoid risks to health and safety

Visually inspect scaffolding for faults, safety and compliance with design and statutory requirements, codes of practice and guidelines.

Have the physical skills needed for scaffolding construction.

Be competent in manual lifting techniques.

Work safely and confidently at heights.

Correctly use the various tools.

Erect and dismantle scaffolding in the correct sequence.

DO NOT erect, alter, dismantle or access a scaffold if you are tired or under the influence of alcohol or drugs

Carefulness, common-sense and caution are factors that cannot be built into scaffolding. These must be provided by the user of the equipment.

Risk Assessment/Planning/Preparation

Before commencing any work involving Scaffolding at your chosen work area, plan ahead and be prepared. Ideally more than one person should do this. Seek expert advice if required. Always ensure that you understand and can comply with the regulations that apply to the erection and use of scaffolding in the area that you intend using this equipment.

- Conduct an inspection of the worksite
- Consult with other workers or those that might be affected by the work intended
- Ensure you have fully read and understood the instructions provided
- Review relevant local legislative requirements
- Identify Hazards – Find out what could cause harm
- Assess the risks – Understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening
- Control the risks- implement the most effective control measure(s)
- Review control measures to ensure they are working as planned.
- Determine if the situation requires Certified Scaffolders to erect the Scaffold (i.e. can a person or object fall more than 4m, including potential falls through any penetration or over any retaining wall, edge of floor etc.).All other scaffolds to be erected altered and dismantled by a competent person.
- Check that the surface is adequate for the point loads due to castors and outriggers (up to 500kg). Sole boards (minimum 500mm x 200mm x 38mm – subject to ground conditions) may be required on soft ground
- Assess the intended travel path for safe movement of a Mobile Scaffold. Develop controls to avoid accidents. Remember to check;
 - Overhead power and service Lines
 - Underground services, floor penetrations etc.
 - Uneven or unstable ground
 - Trees
 - Floor Loading Limits
 - Other workers, general public, animals in the vicinity
 - Surrounding Buildings, structures, vessels, equipment, vehicular traffic, cranes etc.
 - Corrosive substances and hazardous materials
 - Barricades
 - Inadequate lighting
 - Any wet conditions likely to make the ground or any part of the scaffold slippery
 - Dynamic loadings such as concrete pump lines
 - Moving plant (e.g. excavators)
 - Any other likely adverse situation (e.g. weather deterioration).
- When working in a public area, ensure sufficient public protection has been provided

ALWAYS ENSURE THAT YOU UNDERSTAND AND CAN COMPLY WITH THE REGULATIONS THAT APPLY TO THE ERECTION AND USE OF SCAFFOLDING IN THE AREA THAT YOU INTEND USING THIS EQUIPMENT.

Risk Assessment Table

Examples of significant hazards/risks and appropriate control measures include but are not limited to, the following;

Serious Hazard Identified & Possible Risk	Control Measures
Unstable Scaffold risk of : Collapsed Scaffold	<p>Assembly instructions must be strictly adhered to. All Scaffolds from which a person or object could fall more than 4m, must be erected by a licensed scaffolder</p> <p>Check supporting surface is firm and adequate to support the scaffold</p> <p>Ensure scaffold is erected plumb and level.</p> <p>Outriggers or ties to be fitted where required. – Refer maximum height table page 45 & Outriggers page 44</p>
Power lines risk of : Electrocution	<p>Do not use Scaffold within 4.0m of overhead electric wires. Some situations may require up to 8.0m clearance. Check with the appropriate Electrical Supply Authority. Always look up and check before moving scaffold.</p>
Working at Height..... risk of : Falling from Scaffold	<p>Guardrails and mid rails must be used on all Platforms over 2m high* - Refer note (below)</p> <p>Do not ride on Scaffold whilst it is being moved.</p> <p>Always ensure the horizontal (yellow) braces are clipped to the inside of the standards.</p> <p>Do not stand or sit on midrails or Guardrails.</p> <p>Do not use a ladder or steps to gain extra height when working on scaffold platforms.</p> <p>Internal ladders only are to be fitted to scaffold for access. Do not climb on inside or outside of scaffold framework.</p> <p>Use only the internal ladders provided for access.</p>
Material falling from Scaffoldrisk of :Injury or damage below	<p>Toeboards must be fitted at all Platforms over 2m* in height. (* some states require all heights) Ensure there are no gaps.</p> <p>Platforms to be clear of materials when mobile scaffold is being moved.</p>
Sloping Ground..... risk of : Unstable Scaffold	<p>Castors on mobile Scaffolds must have brakes which must be applied when Scaffold is in use.</p> <p>Do not use mobile Scaffold on any surface that slopes more than 5 degrees unless provision is made to take the load off the castors during use of the scaffold.</p>
Wind, Horizontal loading... risk of : Overturning of scaffold	<p>Do not fit containment sheeting, banners or similar to scaffold.</p> <p>Tie scaffold to solid structure, AND fit outriggers to lower height towers...</p> <ul style="list-style-type: none"> • Where adverse weather conditions are expected, winds exceeding 32kph • Where the scaffold is located in a wind funneling location, between large buildings, or open exposed buildings • Where the nature of work is applying horizontal forces at the working deck, e.g. drilling. • When the tower is to be left unattended for any time, especially in areas of public access

*Note: the 2m platform height relates to the distance a person or object could fall from the platform. Edge protection may be required at lower heights/ all heights - check your local requirements. (Note: New Zealand requests edge protection is provided for platforms at all heights unless a full written risk assessment has been carried out that prove no risk of harm exists.)

Before commencing to erect the Scaffold

- Ensure the suppliers instruction document is read and understood. Ensure the scaffold is erected in accordance with this manual.
- Inspect all components, and, where required replace damaged components. DO NOT use damaged or incompatible components
- Sort and separate like components. DO NOT mix and match components from other systems
- Ensure unauthorised persons are prevented from accessing the area where the scaffold is to be erected and used.
- Ensure you have any relevant permits required for working at height on your particular site.

Before using the Scaffold

- Ensure the Scaffold Tower is plumb and level.
- Check that the surface is adequate for the point loads due to castors and outriggers (up to 500kg). Sole boards (minimum 500mm x 200mm x 38mm – subject to ground conditions) may be required on soft ground.
- Check all Diagonal, Horizontal and Plan braces are installed, and that the whole configuration is deviate, and use only original components.
- Check that Ladder access is available to every platform.
- Check that Outriggers are fitted as required –refer Fitting Outriggers (page 44)
- Check all platform levels have correctly fitted edge protection (Guardrails/midrails/toe boards) to each deck over 2m* in height , (** some states require all heights*)
- If mobile, check that all Castor brakes are locked on.
- Check and assess the Scaffold at the start of each day/ use. If it has any damage or defects, do not use the Scaffold but alert the supplier or person(s) controlling the Scaffold.
- Ensure access to incomplete scaffold is closed and warning signs placed.

Using the Scaffold

- Ensure the Scaffold is never used for purposes that it was not designed to be used for.
- Ensure there are no persons or objects on the Scaffold whilst it is being moved.
- Always reapply all Castor Brakes and re-level the Scaffold after moving.
- Do not overload / exceed the specified safe working load of the Scaffold. –Refer to Maximum Load ratings (page46)
- Never use ladders or any sort of device to gain additional height above a Scaffold platform.
- Never use or attach Hoisting equipment to the Scaffold
- Do not allow any part of the Scaffold to come within 4.0m of overhead power lines. Some lines may require up to 8m clearance, check with the appropriate power authority before approaching the wires.
- Do not use the Scaffold if you are tired, suffering any medical condition, or under the influence of alcohol or drugs which may cause lethargy or danger to yourself or others.
- Ensure the mobile scaffold is protected against impact from moving plant/ vehicles
- Ensure unattended scaffold is secure and access by unauthorised persons is prevented
- Do not use the Scaffold in extreme weather, or high winds. Scaffold should be anchored/secured to resist winds that are above 32kph.
- If in exposed or elevated area, secure the scaffold to a fixed structure (to prevent overturning), and tie down platforms, (to prevent dislodgement).
- Be aware of situations where winds are magnified by funnelling effects e.g. at corners of buildings or between tall buildings.
- Never attach tarpaulins or other coverings to the scaffold as this may seriously increase its susceptibility to wind force.

Simple wind chart below, for identifying wind hazard, as a guideline only. Not to overwrite site safety procedures.

Wind Description	Speed (kph)	Visible Indications	Action Required
Medium breeze	20 - 29	Raises dust and loose paper, small branches move on trees.	Safe to work on tower.
Fresh breeze	30 - 39	Small trees in leaf begin to sway.	Ensure that the tower is tied to a rigid structure & has outriggers fitted
Strong breeze	40 - 50	Large branches in motion, umbrella's use with difficulty, telegraph wires whistle.	Cease to work on tower and ensure any loose platforms are tied down.
Gale Force	60+	Twigs break off tree, progress generally impeded.	Dismantle tower if storms forecast.

Care of the Scaffold

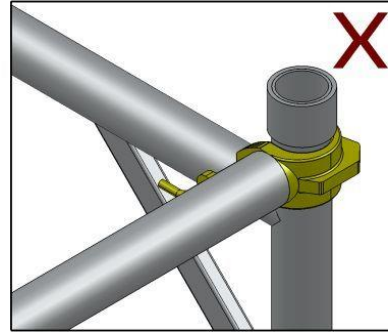
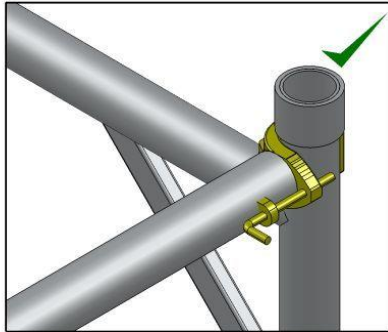
- Take good care of the scaffold, components should fit together easily without using force. Keep equipment, specially joints and moving parts clean.
- Care to be taken when dismantling scaffold, never let components drop or fall to the ground as the impact could cause structural damage.
- Never modify or alter the Scaffold or its components in any way.
- Only persons authorized by the supplier are permitted to carry out repairs.
- Only original parts are to be used when replacing any parts of any Equiptec Scaffold components.
- Any damaged component must be reported to the person responsible for the supply of the Scaffold immediately.
- If scaffold is being used for an extended period in a corrosive environment, apply a lubricating spray to all brace grasper pins/ springs and check regularly to ensure they move freely, & do not become stiff or seized.
- Do not use Components if;
 - Graspers, Brace ends are loose
 - Graspers do not engage correctly (stiff or seized)
 - Ladder stand off arm does not operate correctly
 - Aluminium components are dented, deformed or cracked
 - Castor wheels do not rotate freely
 - Castor or screw jack adjustment nuts do not rotate freely
 - Castor Brakes do not unlock or lock

Correct Installation for Horizontal Braces/Guardrails

Do **not** step on Horizontal Braces when accessing the scaffold.

Please do **not** stand or sit on midrails or guardrails.

Make sure the horizontal braces (yellow) are always clipped to the **INSIDE** of the standards.



Misuse by dropping from height or throwing onto the back of vehicles for example can damage the ends of graspers. Fittings should be regularly inspected and any damaged fitting should be replaced. Further, if the grasper becomes closed or extended in any way for any reason it is to be discarded.

Do not use scaffold with damaged or missing component. Contact your Scaffold supplier for a replacement.

Transportation

All loads must be securely fastened as slippage occurs with aluminium components.

Storage

Stack equipment securely to prevent falling.

Equipment is best stacked away from corrosive materials.

If stored indoors stack one on top of each other and outdoors store upright to allow moisture to run off.

Avoid leaving plywood components (Platforms and Toe boards) in long term storage exposed to all weathers, as excessive moisture and sunlight/heat can cause ply deterioration.

ASSEMBLY INSTRUCTIONS

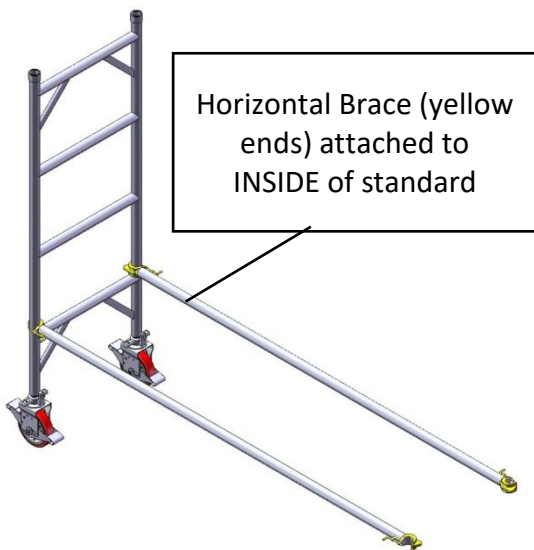
SAFE ASSEMBLY for 0.7m wide Equiptec Towers

Always ensure you understand and can meet the compliance requirements that apply to the erection and use of scaffolding in the location where the equipment will be used.

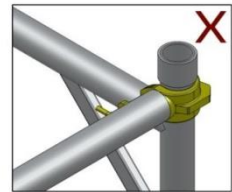
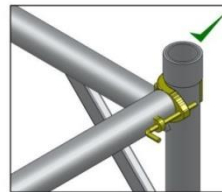
Step 1

Lock brakes on Castors and insert into 1st Base Frame. Attach 2 Horizontal Braces (yellow ends) to **INSIDE** (diagram 1b) of standards (vertical member) above bottom Rung (horizontal member). See Diagram 1a below.

1a



1b



Step 2

Lock brakes on Castors and insert into second Base Frame. Attach Horizontal Braces to **INSIDE** of standards, use threaded adjuster to approximately level scaffold. See diagram 2a

2a

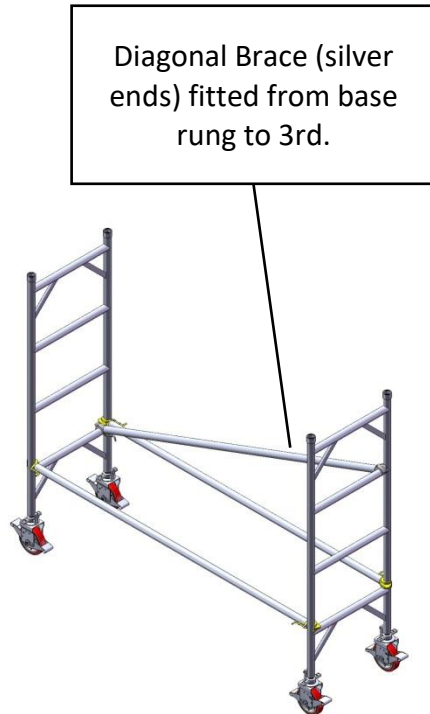


Castors with threaded adjuster for levelling, or fine tuning tower height. Ensure Castor is locked to the Base Frame after each adjustment with the locking bolt or screw tightened to the frame. **IMPORTANT: Always leave brakes applied unless moving tower**

Step 3

Install Diagonal Brace (silver) from bottom Rung, to third Rung up (2 spaces). This should be fitted in as close as practical to the inside of the frame. Check scaffold is level in each direction, and adjust using height adjustable Castors.

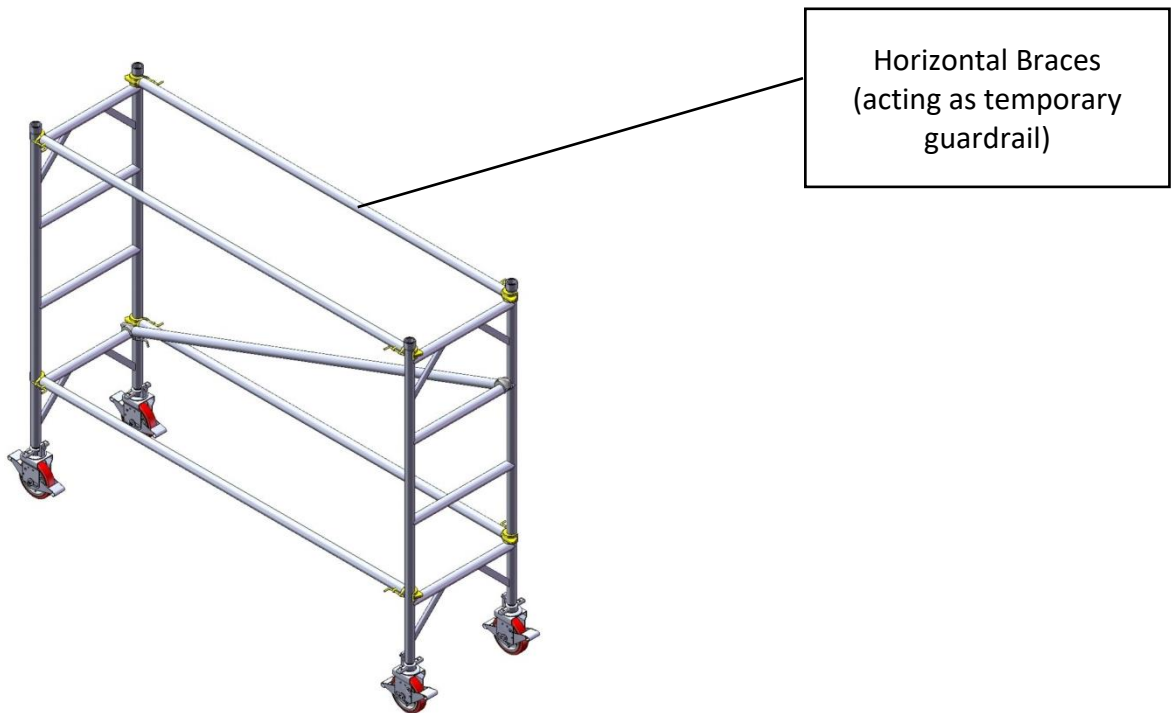
3a



Step 4

Install 2 Horizontal Braces to the top rung of Base Frame, as a temporary guardrail.

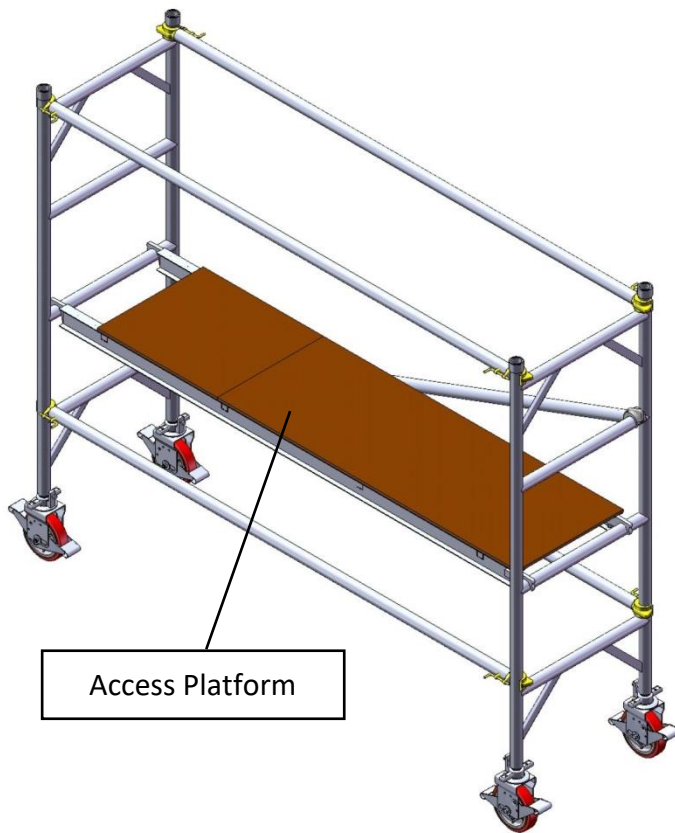
4a



Step 5

Install an Access Platform in temporary position to 2nd rung of Base Frame.

5a

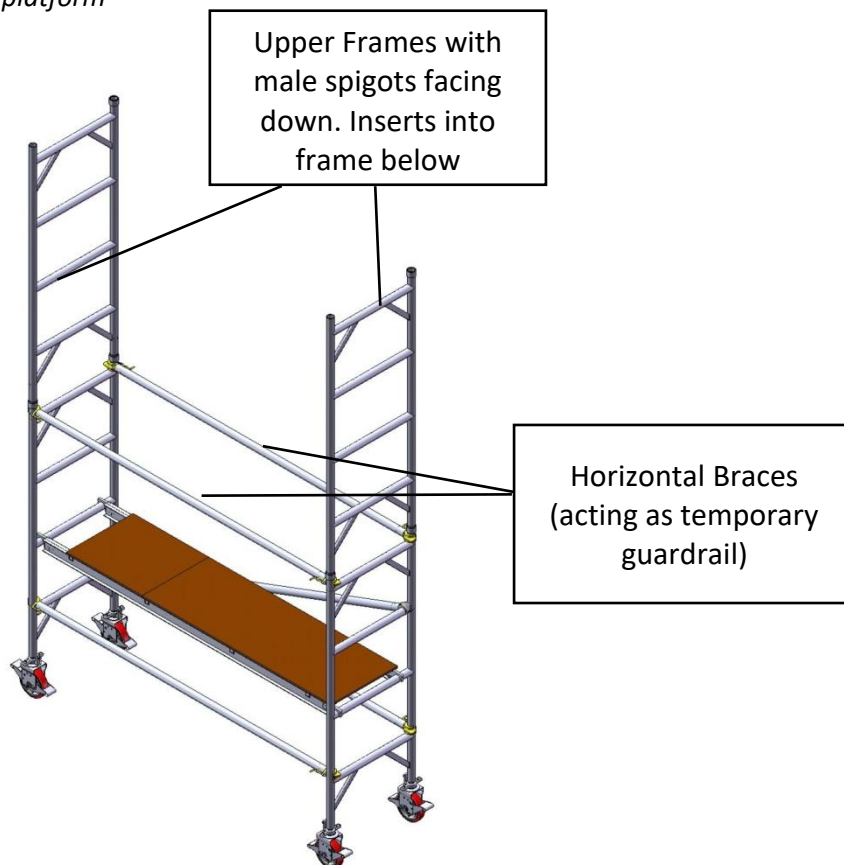


Step 6

Standing on temporary platform

Install 2 Upper Frames

6a



Step 7

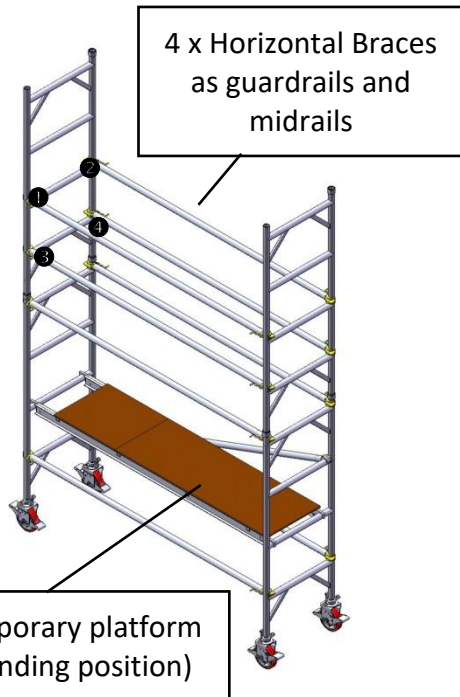
Standing on temporary platform

Fit 4 x Horizontal Braces as guardrails and Midrails for next deck (Diagram 7a.)

Fit Diagonal Brace, fit in opposite direction to Diagonal brace below (diagram 7b)

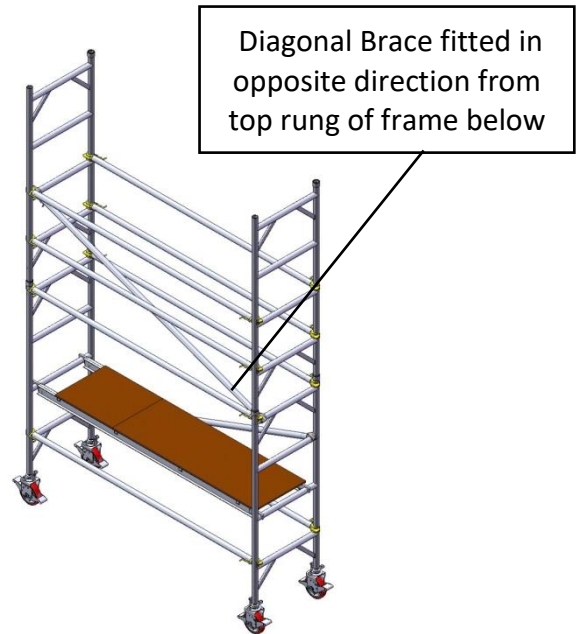
Fit Outriggers as required (Diagram 7c .Note: 0.7m wide towers require Outriggers for platform heights of 1.4m or more)

7a



Fit Diagonal Brace (diagram 7b)

7b

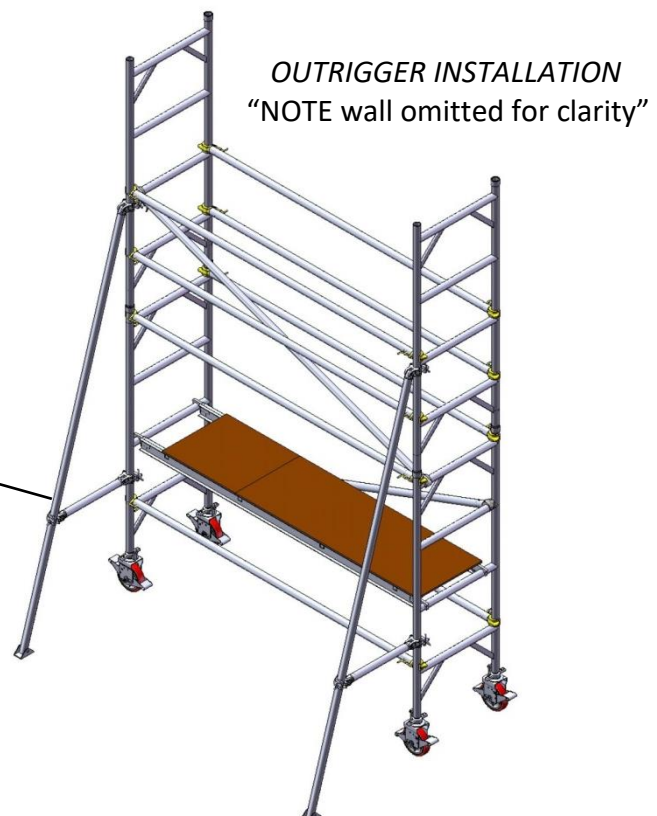


7c Fit Outriggers as required

Where the scaffold is erected alongside a solid structure (eg a wall), two outriggers are required; fitted on the side opposite the wall. Otherwise 4 Outriggers are required; fitted to each corner of the scaffold.

Top of Outrigger can be safely secured by standing on Temporary platform. Attach Outrigger standoff arm to base frame. For details of when outriggers are required refer to;

- Fitting Outriggers (pg44)
 - Maximum Freestanding Tower Height (Pg45)
- Risk Assessment Table (Pg4)



Step 8

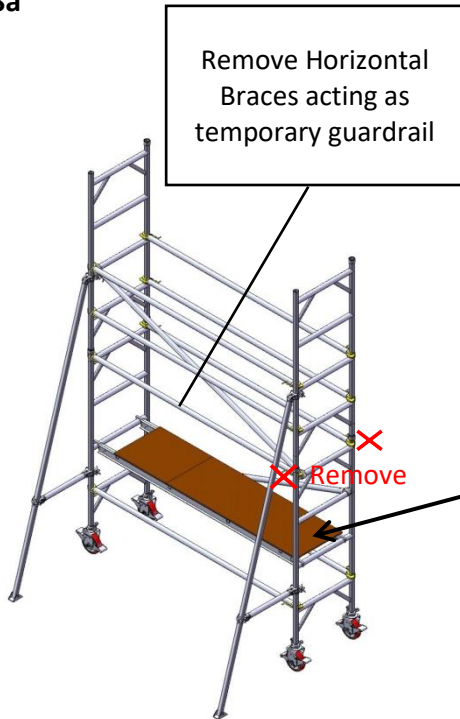
Standing on Ground,

Remove Horizontal braces acting as a temporary guardrail from top rung of Base frame. (diagram 8a)

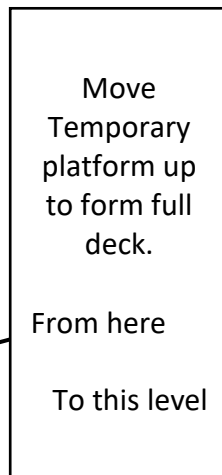
Move temporary platform up to form full deck on top rung of base frame. (diagram 8b)

Install ladder to the top rung of the Base Frame at the end of the access hatch (diagram 8c)

8a

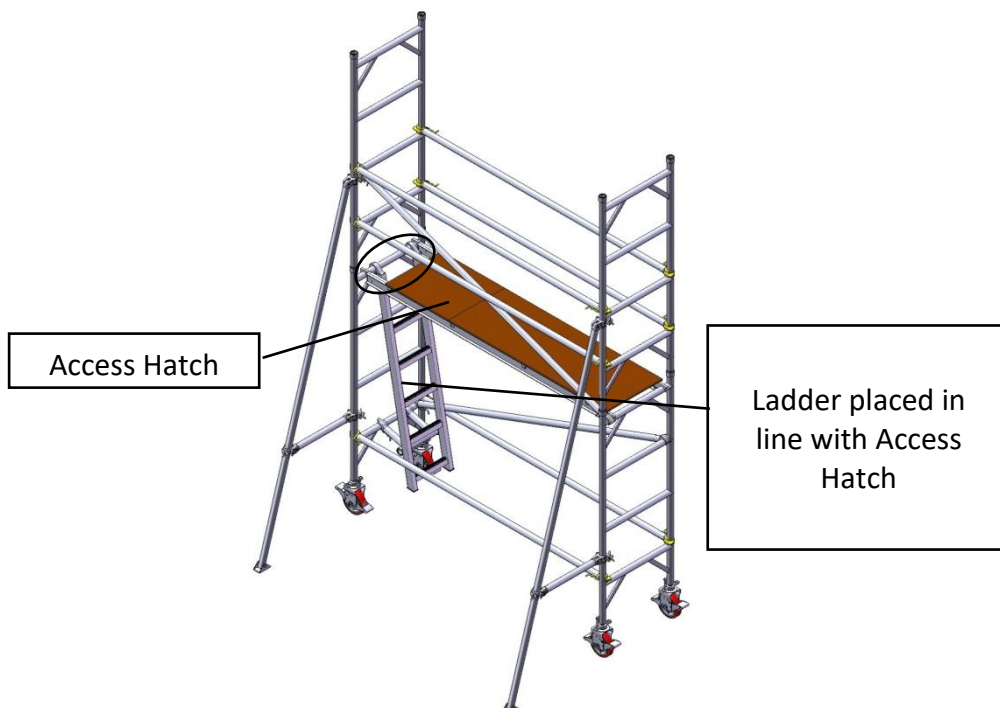


8b



8c

Install ladder to the top rung of the Base Frame at the end of the access hatch.



Step 9.

Fit toe board set



Take care installing Toe board sets. Ensure Hinge nuts face OUTWARDS.

Hint. Place toe boards on deck while inserting into male hinge pin of end board. Once secured in end board the other end can be lifted into opposite end board and placed into position. More detail available on page 43

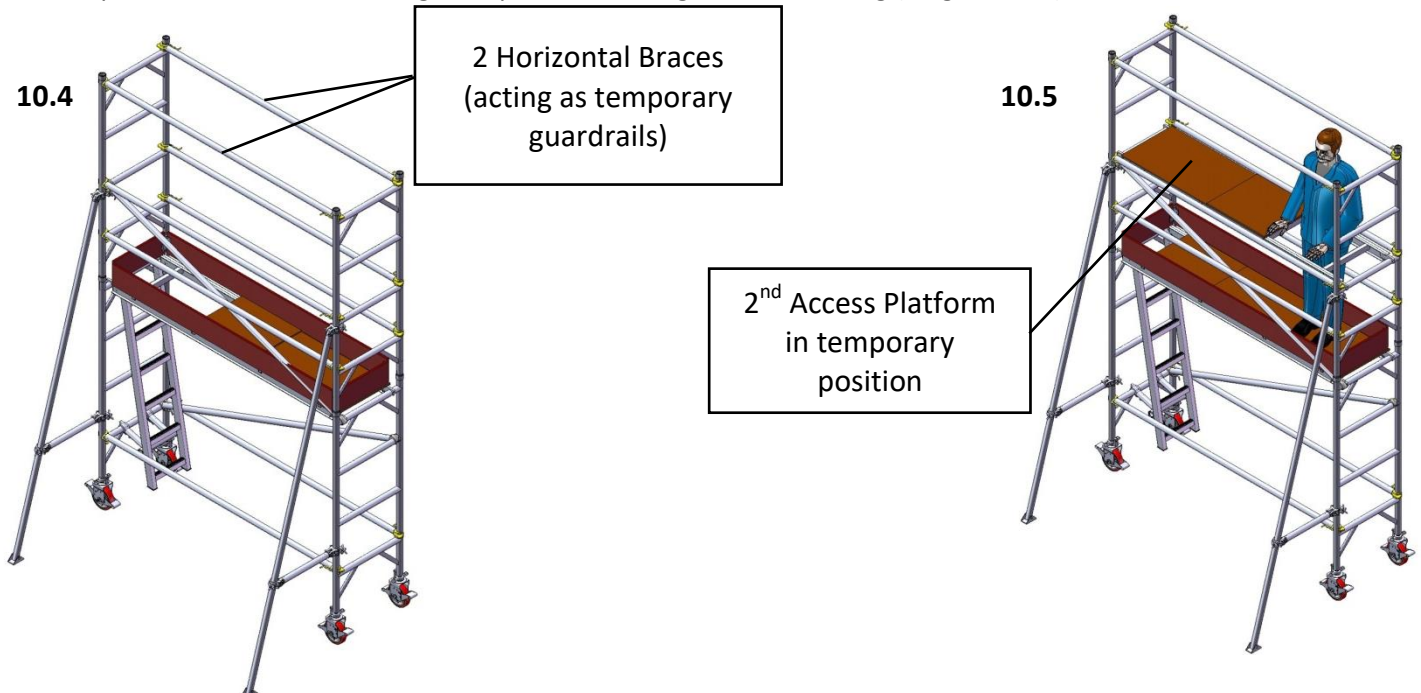
Steps 10. You have now completed a full working platform. Repeat steps 4-9 for each additional platform level, as follows.

10a. Standing on Full working platform*

Install 2 Horizontal Braces (acting as temporary guardrails) to top (4th) rung above working deck (diagram 10.4)

Install 2nd Access Platform in temporary position, 2 rungs above the working platform you're standing on Ensure Access Hatch is at opposite end, of tower to the one below.

Hint: Open hatch and stand through the platform for ergonomic handling (diagram 10.5)



2 Horizontal Braces (acting as temporary guardrails)

2nd Access Platform in temporary position

*Ensure the access Hatch is closed at all times when standing/working on any access platform

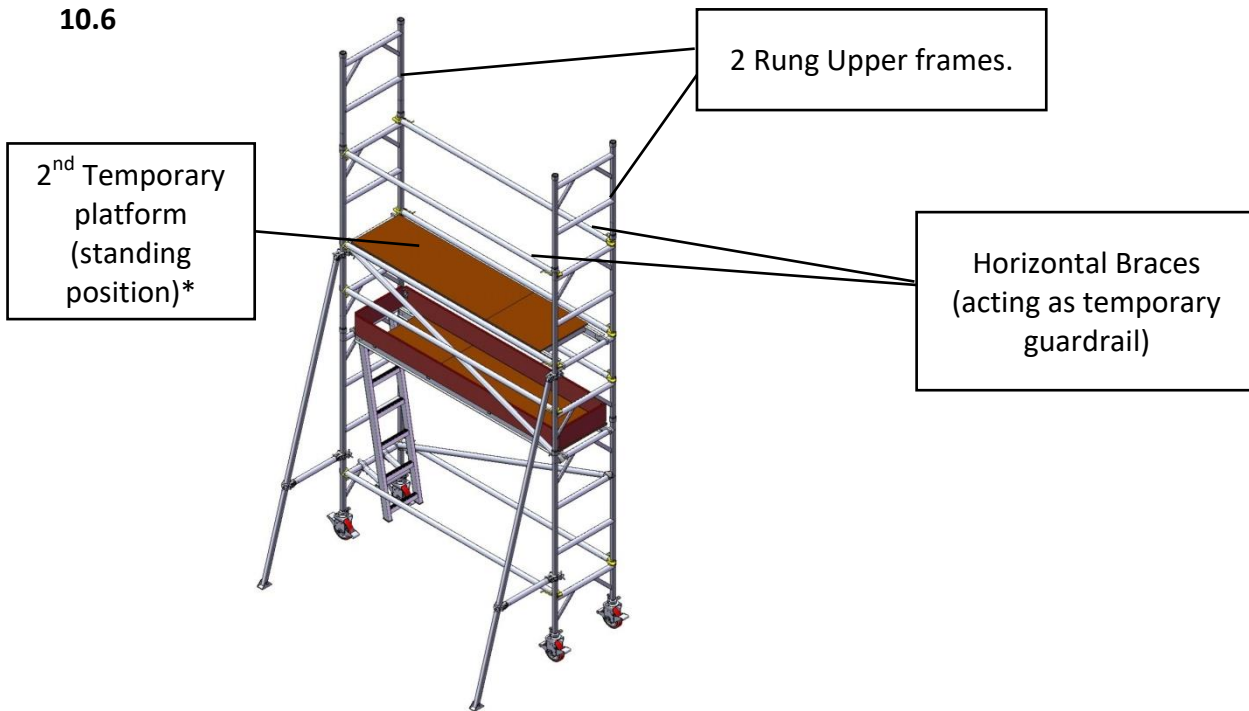
10b. Standing on 2nd Temporary platform*

Install upper frames required. This example shows 2 Rung Frames being installed for Guardrails of top working deck. (Diagram 10.6)

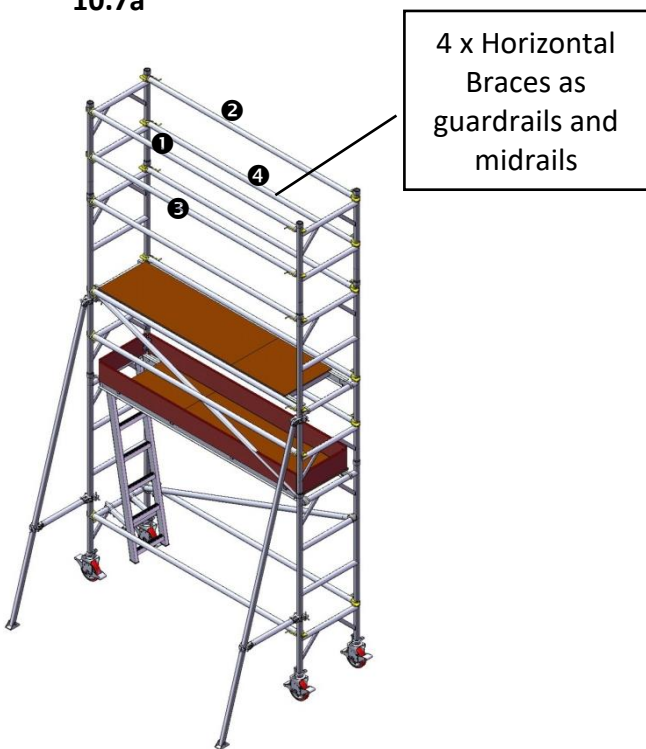
Fit 4 x Horizontal Braces as guardrails and Midrails for next deck (diagram 10.7a)

Fit Diagonal Brace, fit in opposite direction to Diagonal brace below (diagram 10.7b)

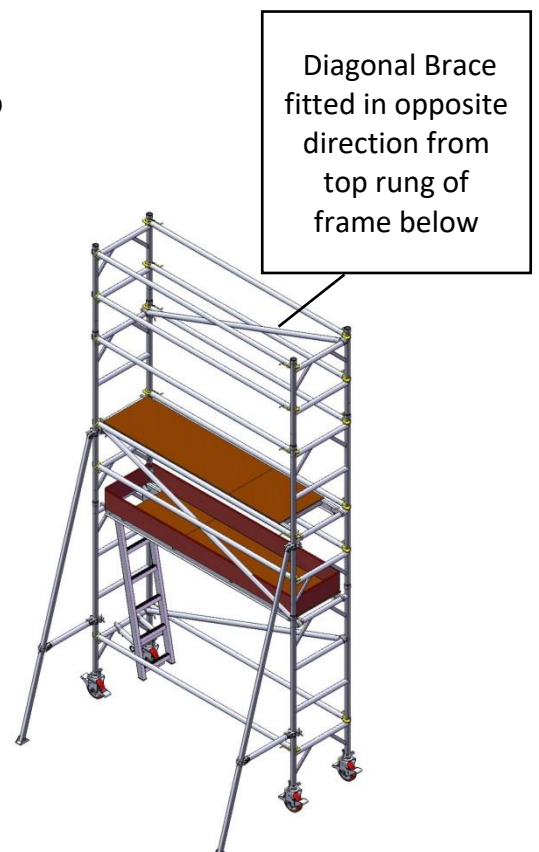
10.6



10.7a



10.7b



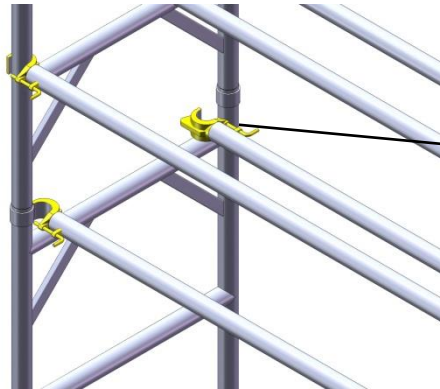
**Ensure the access Hatch is closed at all times when standing/working on any access platform*

10c. Standing on 2nd Temporary platform*

Unclip Horizontal braces acting as temporary guardrails above 2nd Platform *only at the end away from the access hatch*, leaving the graspers resting on the rung inside the standard. (Diagram 10.8a) The graspers above the access hatch remain attached.

Hint: If a diagonal grasper is in the way, release and lift that out of the way, release the horizontal grasper and pull it back to rest on the rung on the inside of where diagonal grasper is fitted, and refit the diagonal grasper.

10.8a



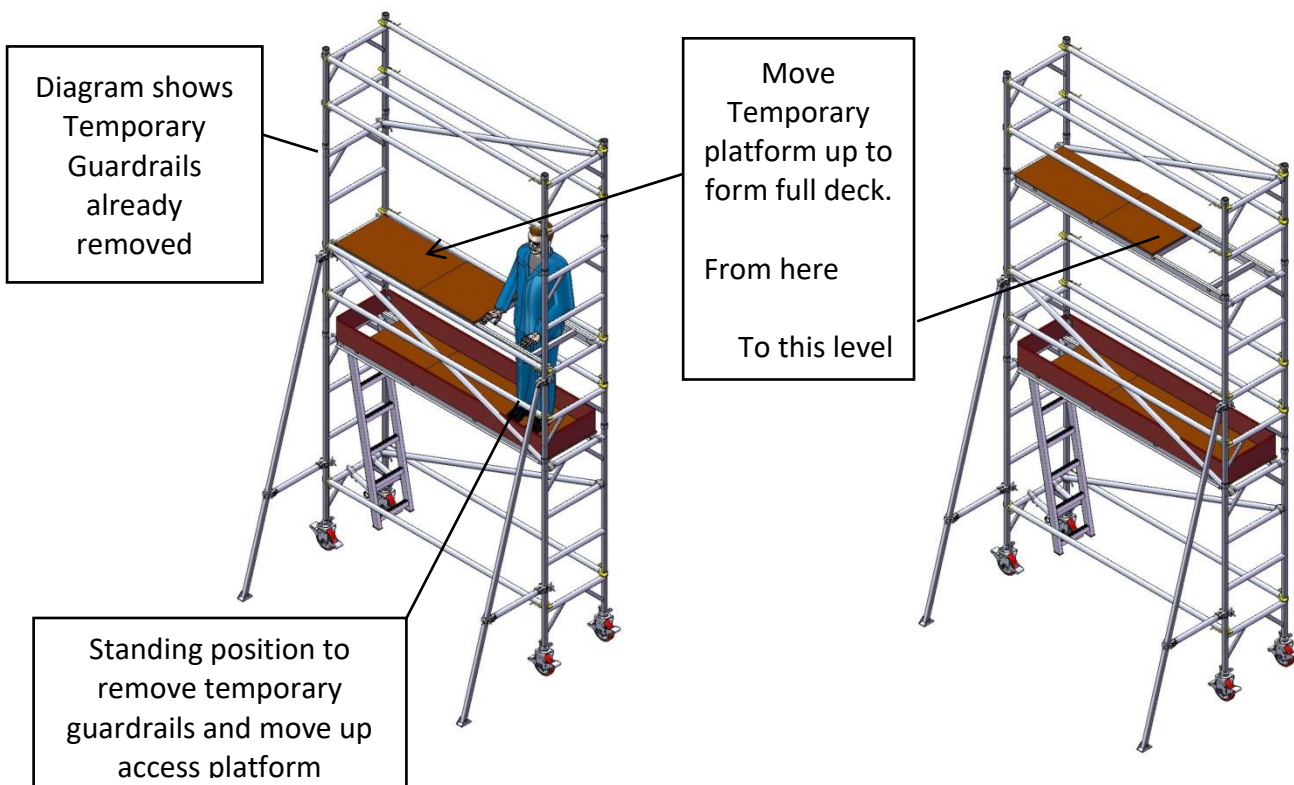
Removing Horizontal Braces acting as temporary guardrail. Step 1.

10d. Standing on 1st working platform* through access hatch of 2nd temporary platform

Remove Horizontal braces acting as a temporary guardrail from 2nd rung above temporary platform. (diagram 10.8b) Hint: if this is the final or top platform position, place the Horizontal Braces down one rung to store, ready to be used for dismantling the tower.

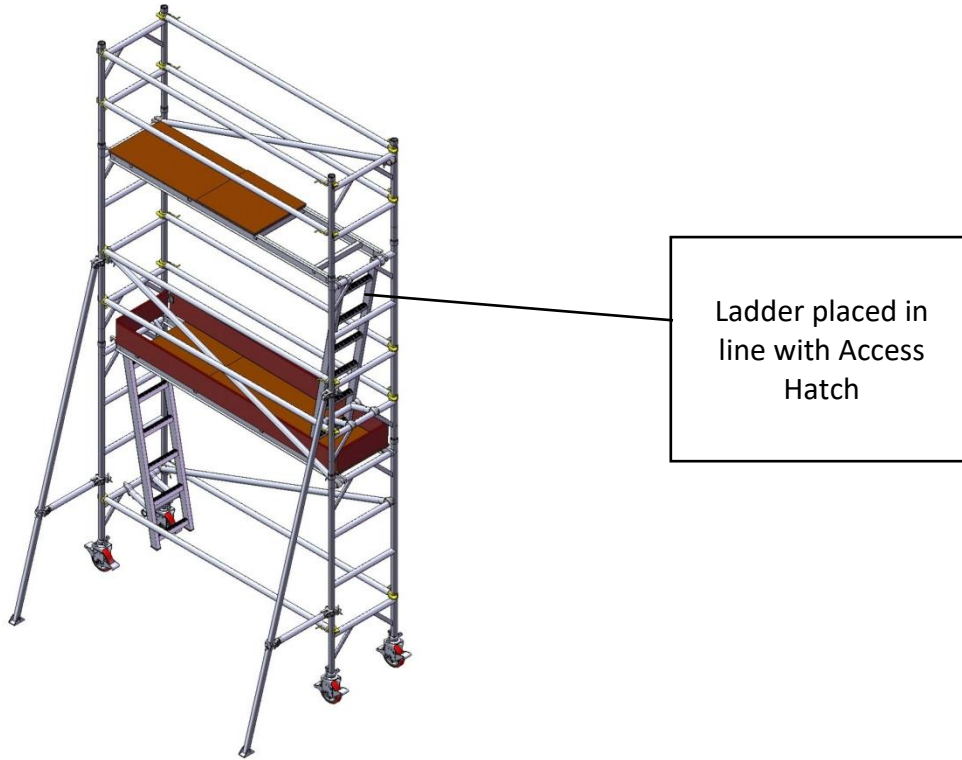
Move temporary platform up to form full deck on 4th rung above existing working platform. (diagram 10.8b) Install ladder at the end of the access hatch (diagram 10.8c)

10.8b

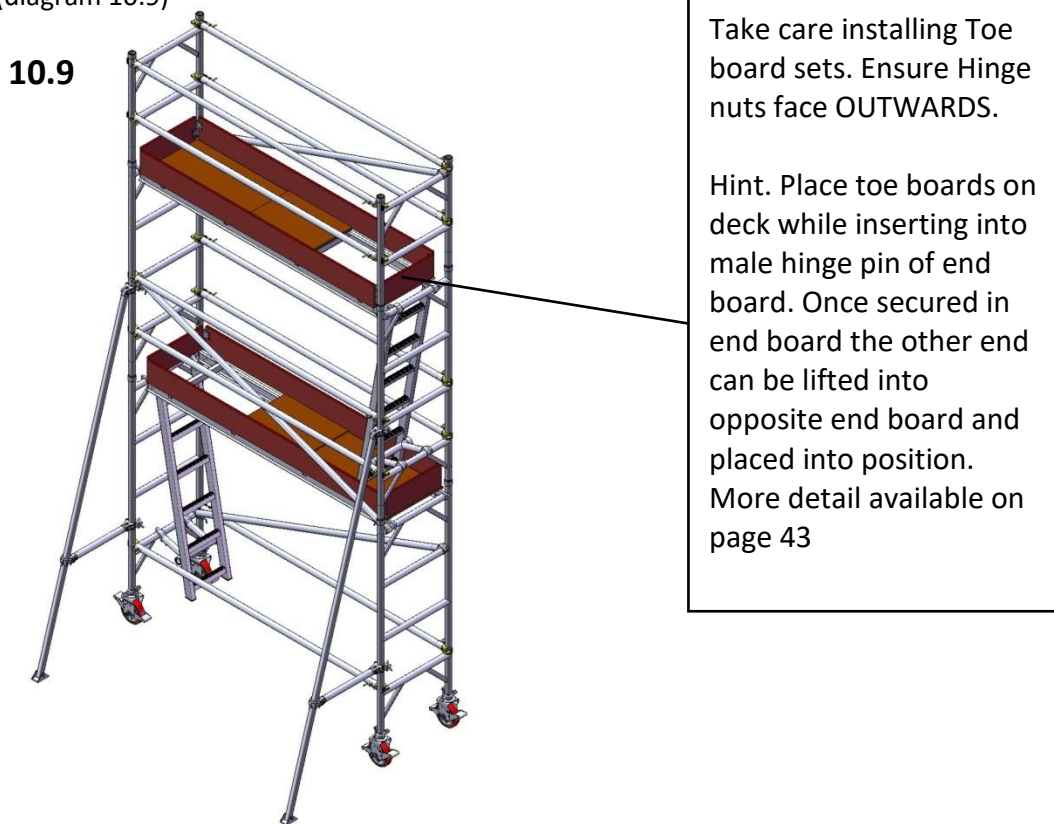


*Ensure the access Hatch is closed at all times when standing/working on any access platform

10.8c Standing on 1st working platform



10e. Standing on 2nd (top) platform*
Fit toe board set (diagram 10.9)



**Ensure the access Hatch is closed at all times when standing/working on any access platform*

Carefulness, common-sense and caution are factors that cannot be built into scaffolding. These must be provided by the user of the equipment.

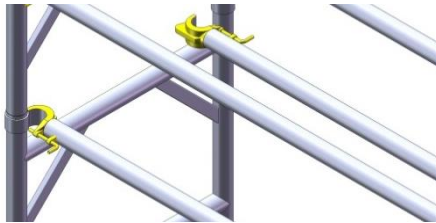
DISMANTLING OF 0.7m TOWER GUIDELINE.

The dismantling process for the Mobile scaffold tower is the reverse method of the erection process. During dismantling, stability of the scaffold must be maintained at all times.

DISMANTLING Key points...

1. Ensure the safety of other people and property in the vicinity.
2. Ensure Castor wheel brakes are locked.
3. Remove all materials, debris and equipment from working platforms
4. Starting at the top of the tower dismantle in reverse order of the erection sequence.
5. Avoid overloading / stacking removed components of dismantled equipment on the tower
6. Components should be lowered to the ground in a controlled manner and not dropped to avoid structural damage to the components
7. Horizontal guardrails should not be removed before the removal of scaffold decks of the same level.

IMPORTANT Utilise the method in instruction 10c and diagram 10.8a on page 16 to safely remove guardrails in a narrow tower where you can't walk the length of the platform (e.g. When protected by access platform hatch in temporary position)



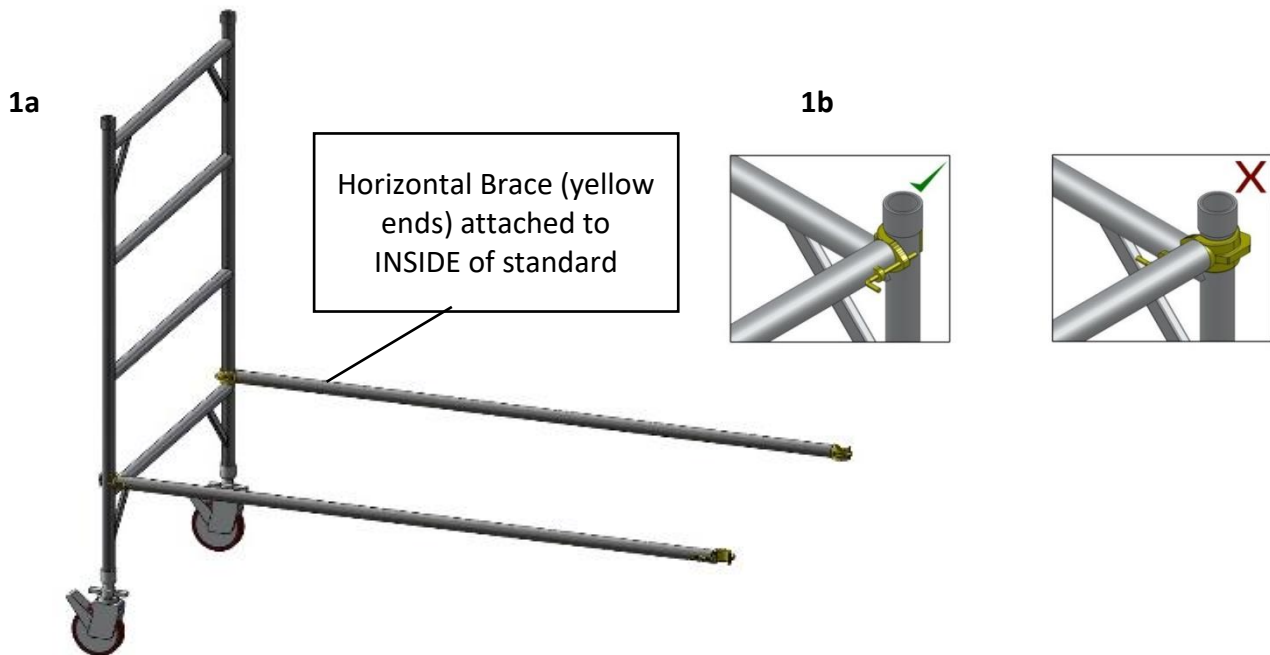
8. Do not remove diagonal braces until it is necessary to remove the frames to which they are attached.
9. If the scaffold is stabilised with outriggers or tied to a supporting structure, removal of any outriggers or ties should not be done until the dismantling is down to that level which they are attached.

SAFE ASSEMBLY for 1.3m wide Equiptec Towers

Always ensure you understand and can meet the compliance requirements that apply to the erection and use of scaffolding in the location where the equipment will be used...

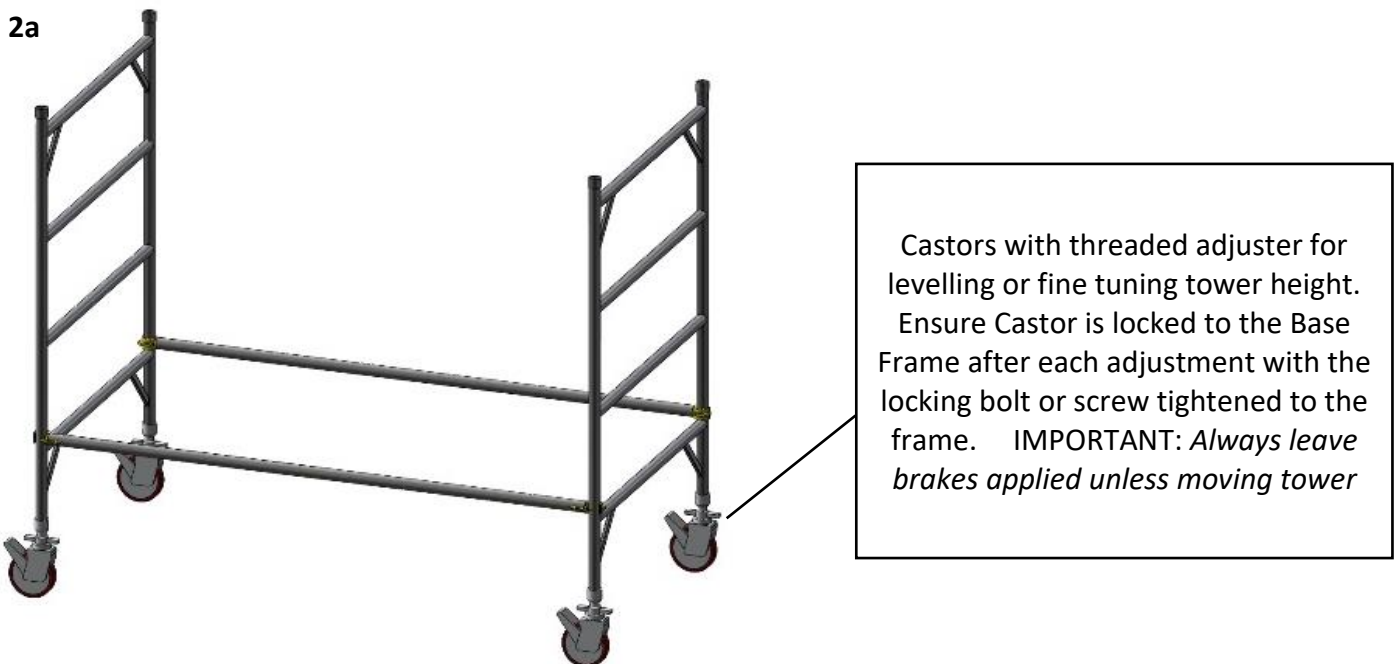
Step 1

Lock brakes on Castors and insert into 1st Base Frame. Attach 2 Horizontal Braces (yellow ends) to **INSIDE** (diagram 1b) of standards (vertical member) above bottom Rung (horizontal member). See Diagram 1a below.



Step 2

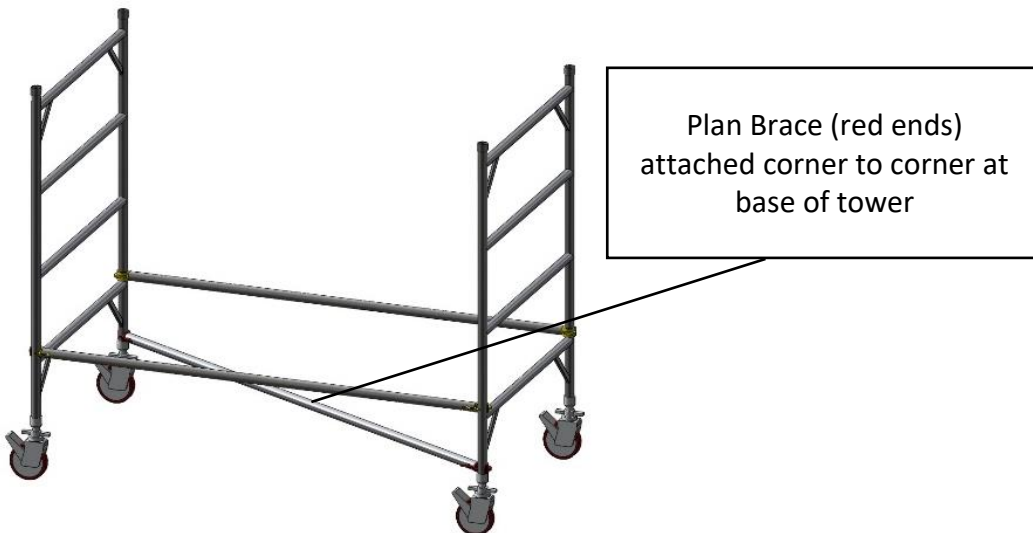
Lock brakes on Castors and insert into second Base Frame. Attach Horizontal Braces to **INSIDE** of standards, use threaded adjuster to approximately level scaffold. See diagram 2a



Step 3

Attach Plan Brace (red ends) to diagonally opposite standards. The suggested position is just above the Castor.

3a

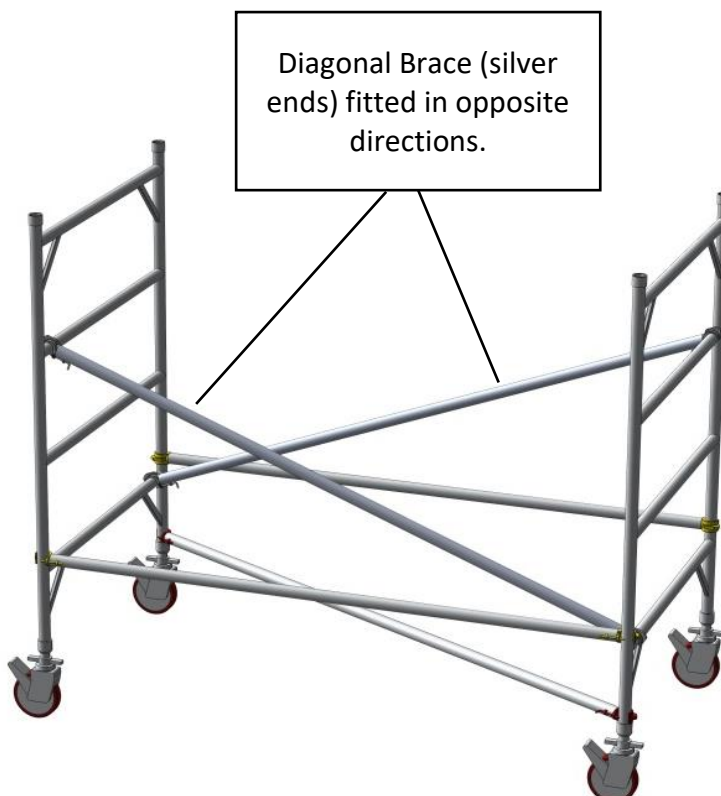


- Plan bracing should be incorporated at the base of a mobile scaffold to provide stability. Alternatively the base of the mobile may be fully decked out.

Step 4

Install 2 Diagonal Braces (silver) from bottom Rung, to third Rung up (2 spaces). These should be fitted in opposite directions as close as practical to each side of the frame. Check scaffold is level in each direction, and adjust using height adjustable Castors.

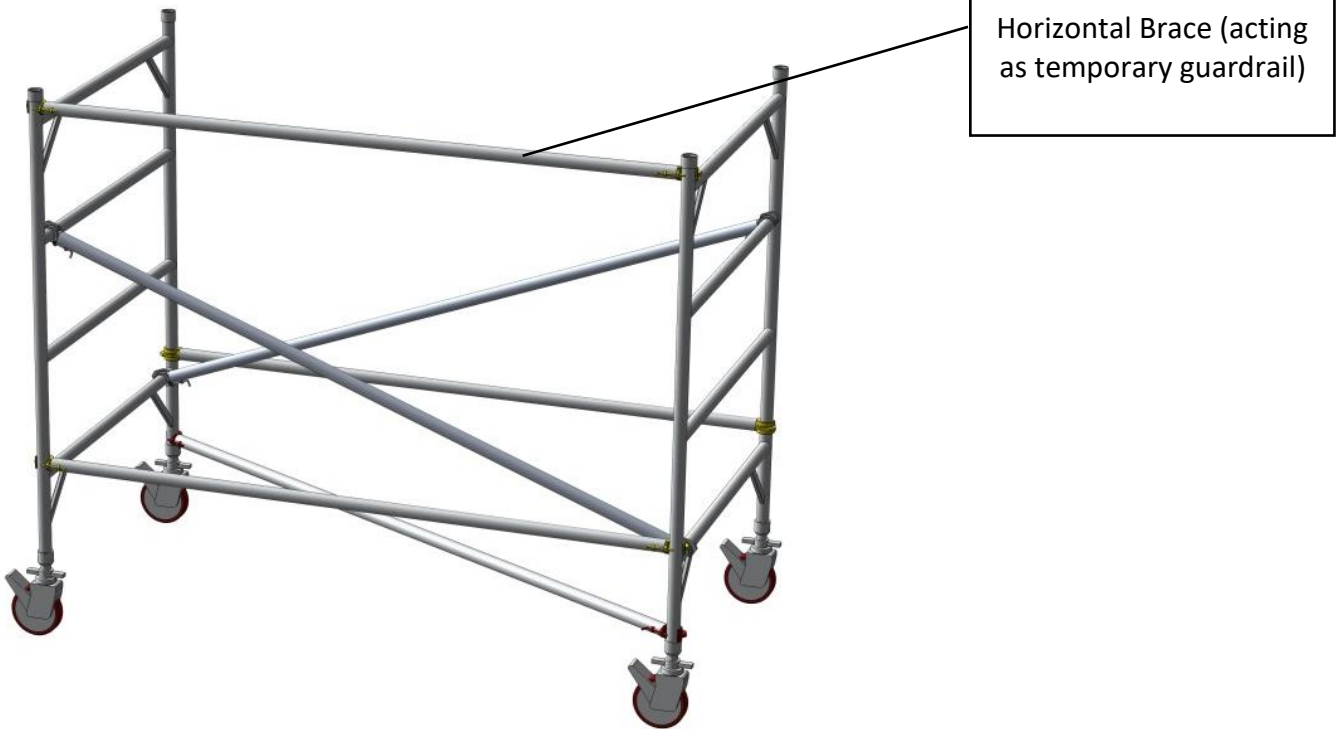
4a



Step 5

Install 1 Horizontal Brace to one side of the top rung of Base Frame, as a temporary guardrail.

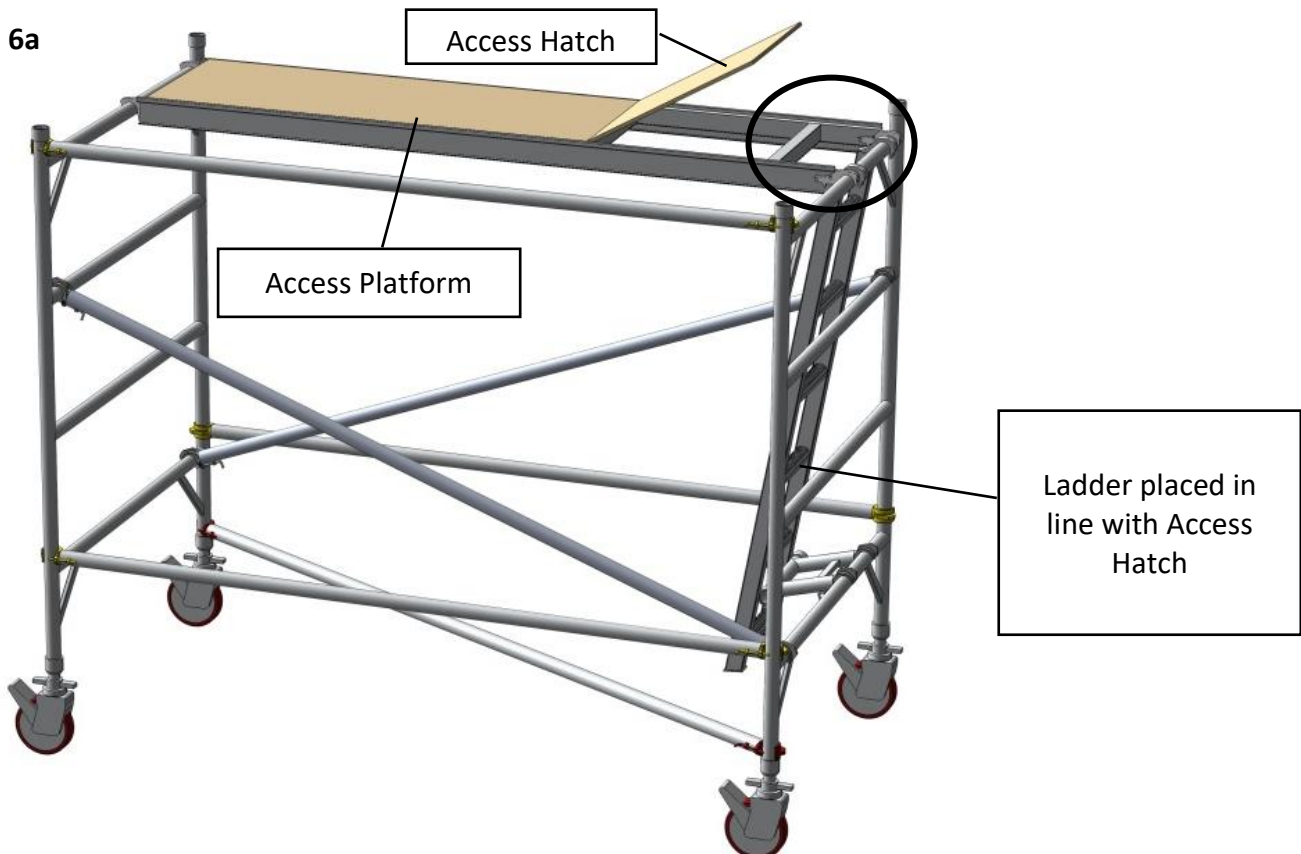
5a



Step 6

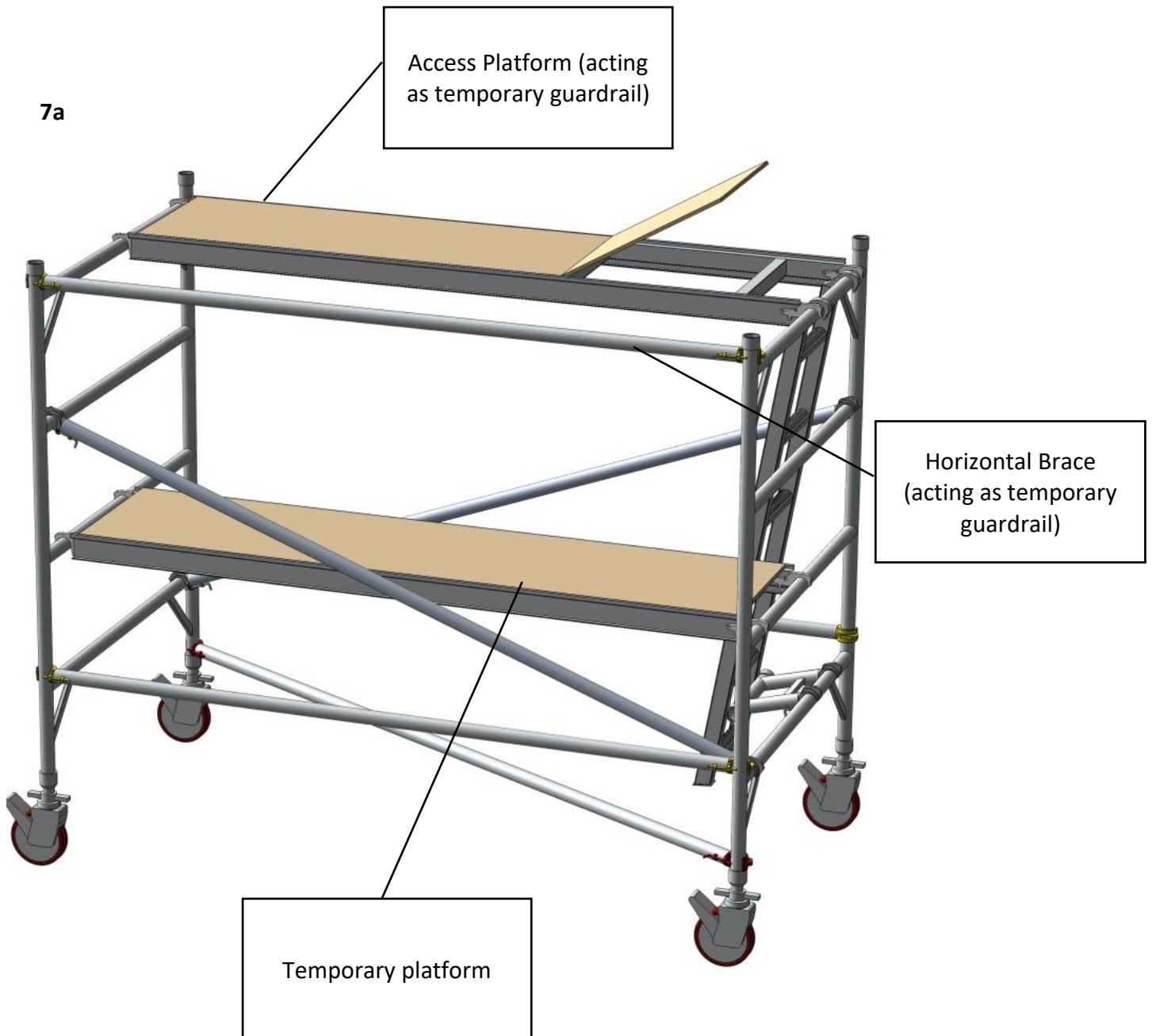
Add an Access Platform to top rung of Base Frame on opposite side to Horizontal Brace. Install ladder to the top rung of the Base Frame at the end of the access hatch.

6a



Step 7

Install a Standard Platform in temporary position to 2nd rung of Base Frame on opposite side to Access Platform.



Step 8

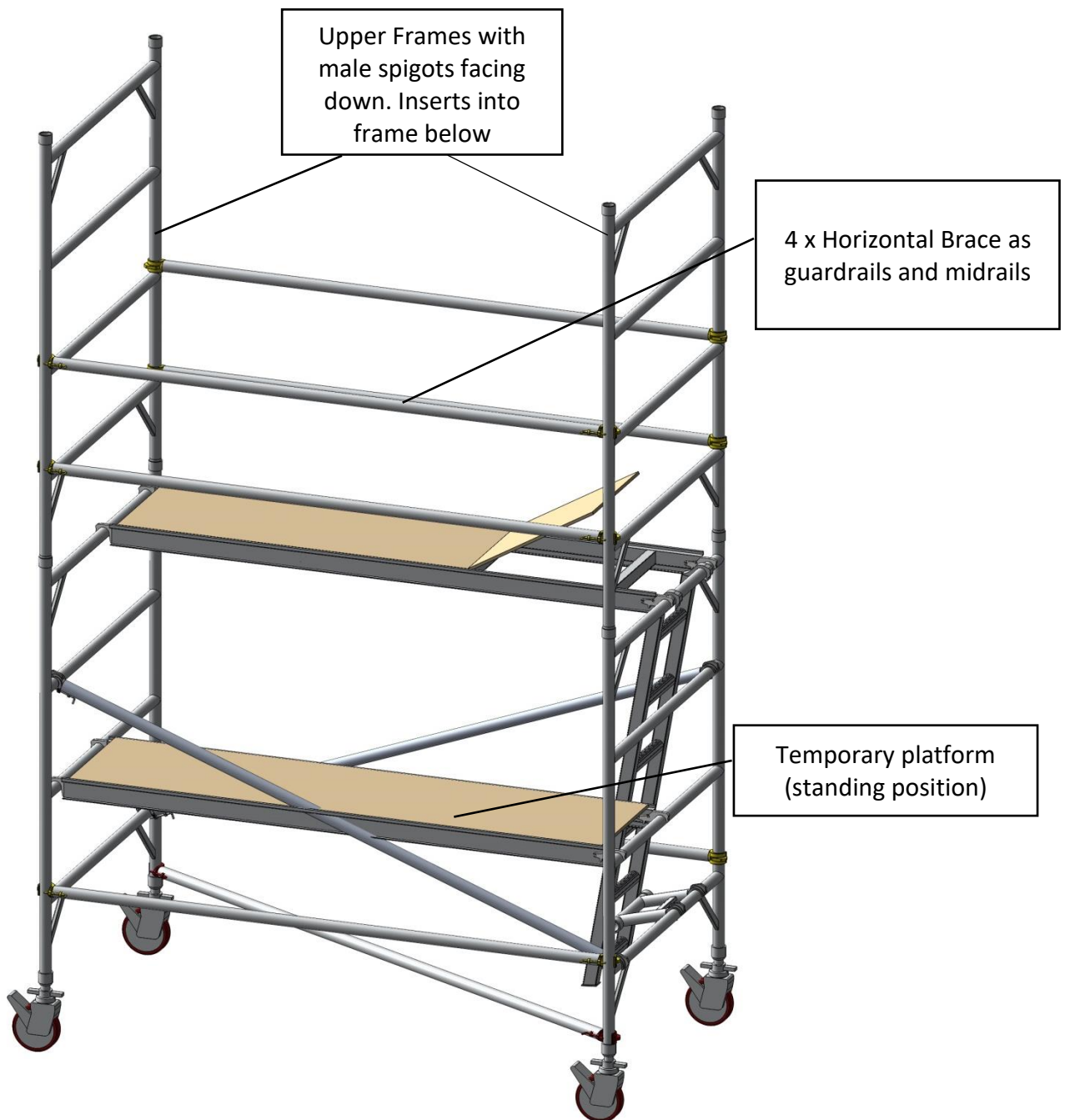
Standing on temporary platform

Install 2 Upper Frames, 4 x Horizontal Braces as guardrails and Midrails for next deck (Diagram 8a.)

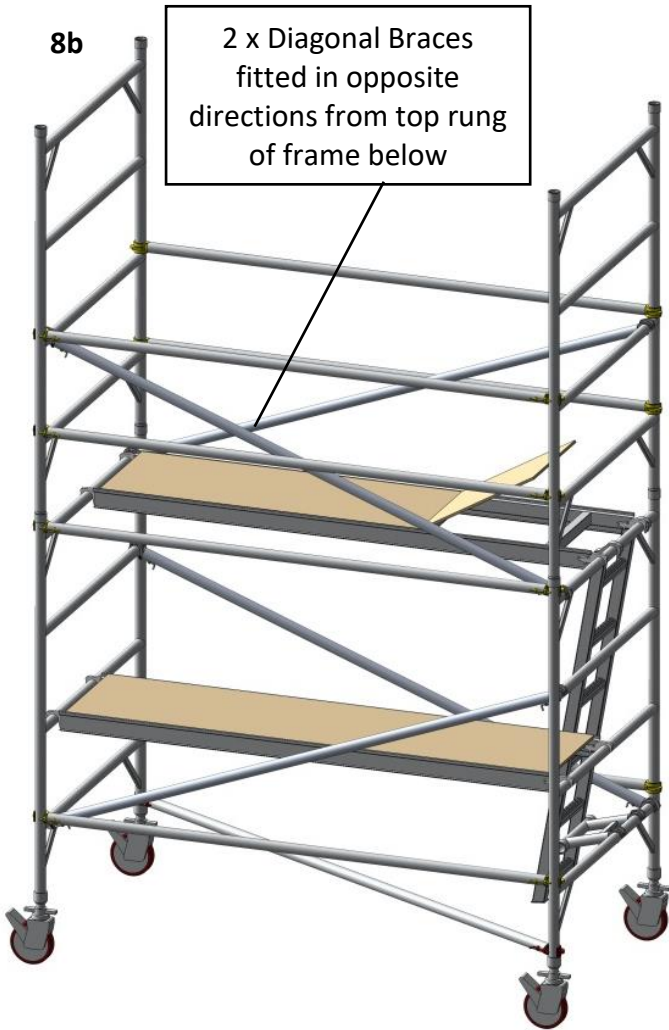
Fit 2 x Diagonal Braces (diagram 8b)

Fit Outriggers as required (Diagram 8c .Note: 1.3m wide towers require Outriggers for platform heights of 3.4m or more)

8a



Fit 2 x Diagonal Braces (diagram 8b)



8b

2 x Diagonal Braces fitted in opposite directions from top rung of frame below

8c Fit Outriggers as required

Where the scaffold is erected alongside a solid structure (eg a wall), two outriggers are required; fitted on the side opposite the wall. Otherwise 4 Outriggers are required; fitted to each corner of the scaffold. Top of Outrigger can be safely secured by standing on Temporary platform. Attach Outrigger standoff arm to base frame.

For details of when outriggers are required refer to;

- Fitting Outriggers (pg44)
- Maximum Freestanding Tower Height (Pg45)
- Risk Assessment Table (Pg4)



OUTRIGGER INSTALLATION
"NOTE wall omitted for clarity"

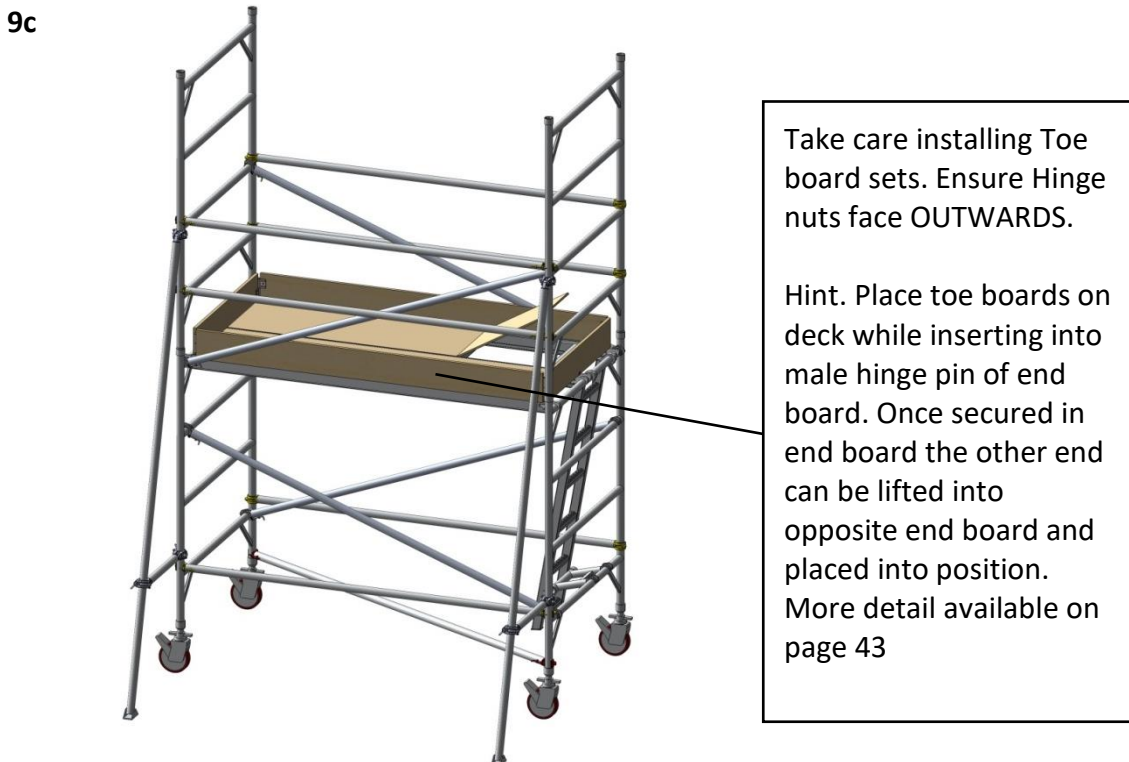
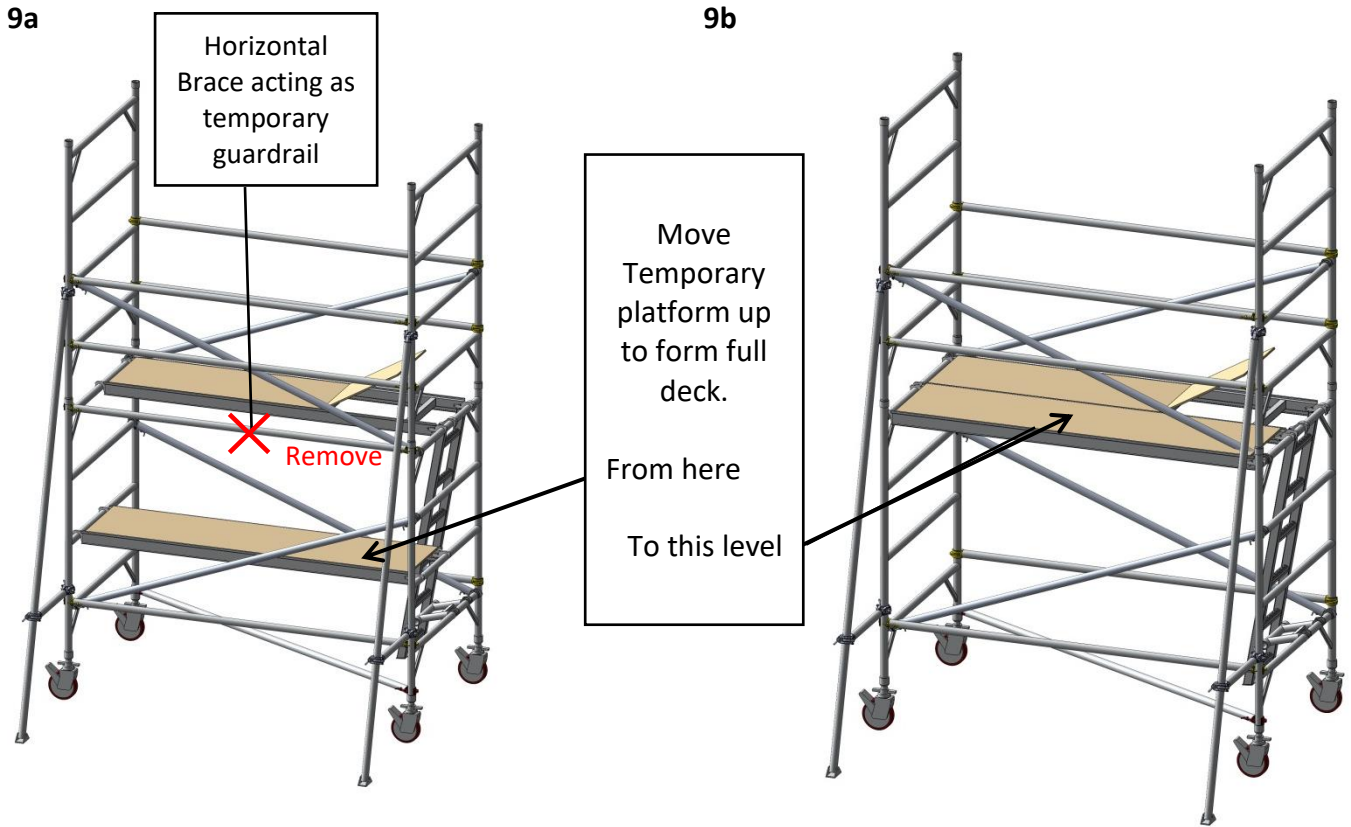
Step 9

Standing on Ground,

Remove Horizontal brace acting as a temporary guardrail. (diagram 9a)

Move temporary platform up to form full deck on top rung of base frame. (diagram 9b)

Install Toeboards (diagram 9c)



Step 10.

You have now completed a full working platform. Repeat steps 5-9 for each additional platform level, as follows.

10a. Standing on Full working platform



Install Horizontal Brace (acting as temporary guardrail on same side as access platform below it)

10b. Standing on Full working platform



Install Access Platform 4 rungs above standard platform of the deck below. Ensure Access Hatch is at opposite end and opposite side, of tower to the one below.

Install ladder through the access platform ladder gap* (*explained in diagram 6a)

10c. Standing on Full working platform



Add a Standard Platform in temporary position 2 rungs below and opposite side to top access platform which acts as a temporary guardrail

10d. Standing on Temporary platform



Install upper frames required. This example shows 2 Rung Frames being installed for Guardrails of top working deck.

Temporary Platform
(standing position for steps 10d,10e and 10f ,protected by Horizontal Brace and upper Access Platform as temporary guardrails.

10e. Standing on Temporary platform



Install 4 x Horizontal Braces as Guardrails/ Midrails

10f. Standing on Temporary platform



Install Diagonal Braces (1 for top level to brace guardrail frame, 2 if full frameset See Diagram8b on page 24)

10g. Standing on Full working platform



Remove Horizontal Brace acting as temporary guardrail.
(Hint) if this is the final or top platform position; place the Horizontal Brace down one rung to store, ready to be used for dismantling the tower.

Full working platform
(standing position, for steps 10g and 10h)

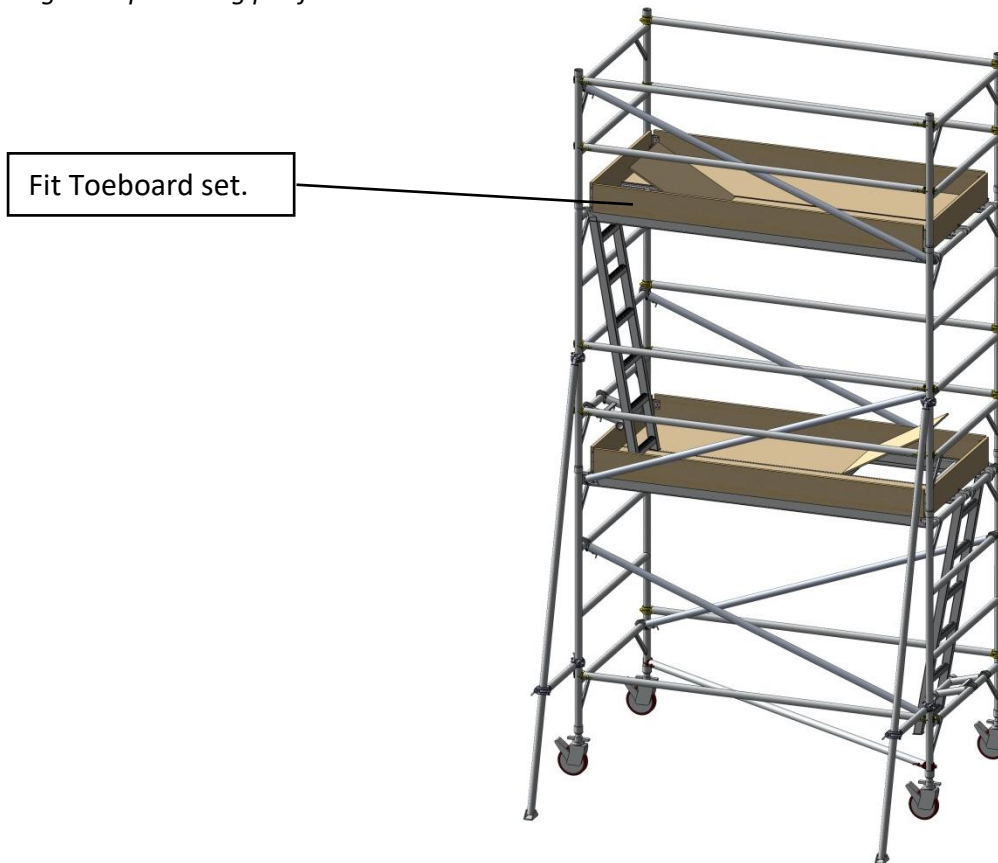
10h. Standing on Full working platform



Lift Standard platform from temporary position, up 2 rungs to form a full working platform
From here
To this level



10i. Standing on Top working platform



Carefulness, common-sense and caution are factors that cannot be built into scaffolding. These must be provided by the user of the equipment.

Dismantling of 1.3m wide tower guideline

The dismantling process for the Mobile scaffold tower is the reverse method of the erection process. During dismantling, stability of the scaffold must be maintained at all times.

DISMANTLING Key points...

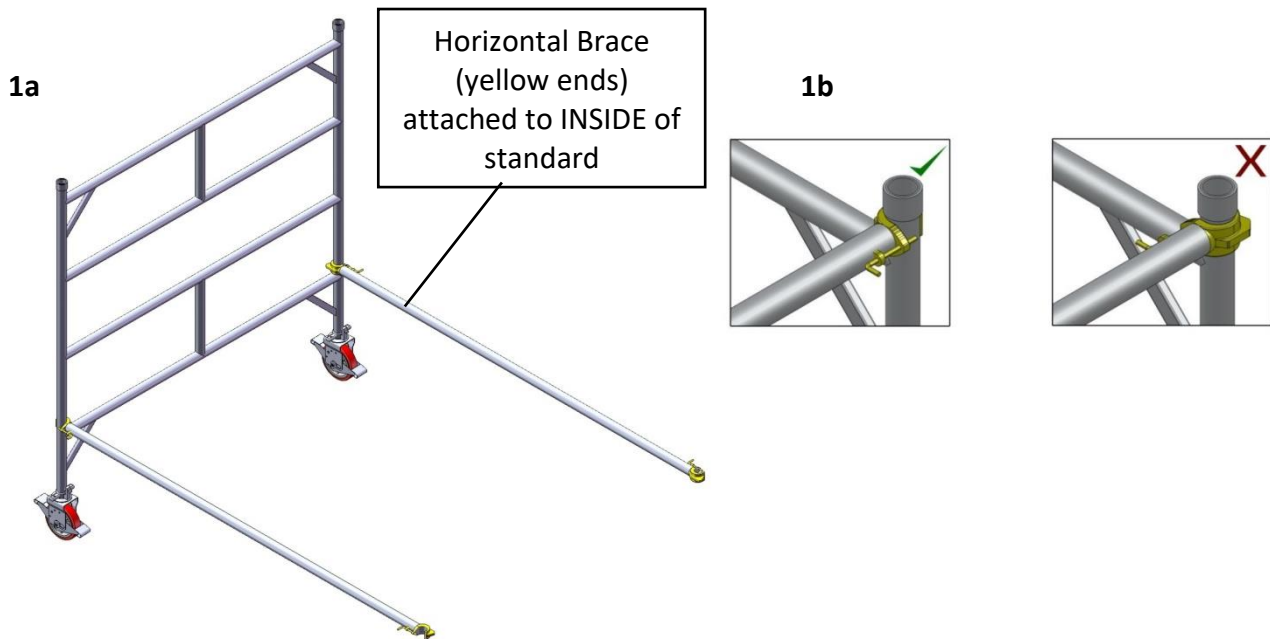
1. Ensure the safety of other people and property in the vicinity of the scaffold.
2. Ensure Castor brakes are locked.
3. Remove all materials, debris and equipment from working platforms
4. Starting at the top of the tower dismantle in reverse order of the erection sequence.
5. Avoid overloading due to stacking excessive equipment on the tower
6. Components should be lowered to the ground in a controlled manner and not dropped to avoid structural damage to the components
7. Horizontal guardrails should not be removed before the removal of scaffold decks of the same level.
8. Do not remove diagonal braces until it is necessary to remove the frames to which they are attached.
9. If the scaffold is stabilised with outriggers or tied to a supporting structure, removal of any outriggers or ties should not be done until the dismantling is down to that level which they are attached.

SAFE ASSEMBLY for 2.0m wide Equiptec Towers

Always ensure you understand and can meet the compliance requirements that apply to the erection and use of scaffolding in the location where the equipment will be used...

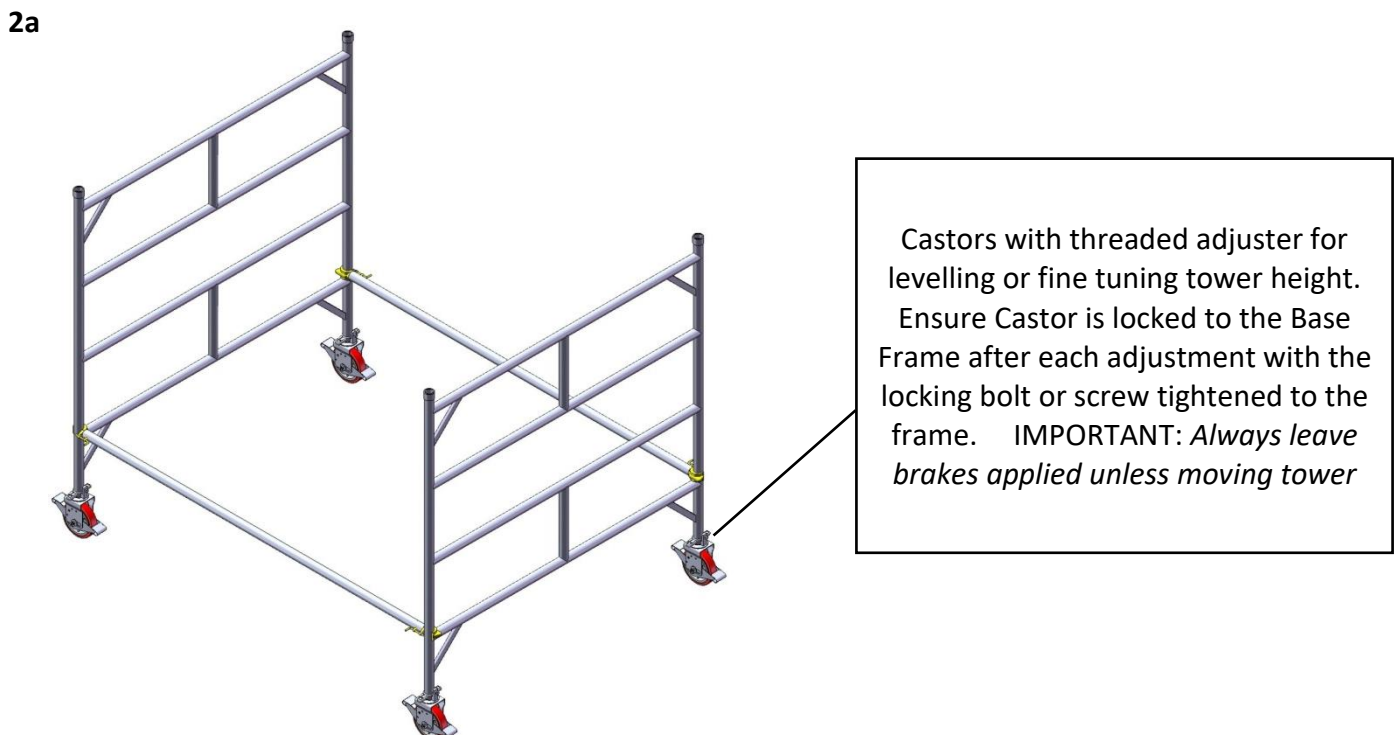
Step 1

Lock brakes on Castors and insert into 1st Base Frame. Attach 2 Horizontal Braces (yellow ends) to **INSIDE** (diagram 1b) of standards (vertical member) above bottom Rung (horizontal member). See Diagram 1a below.



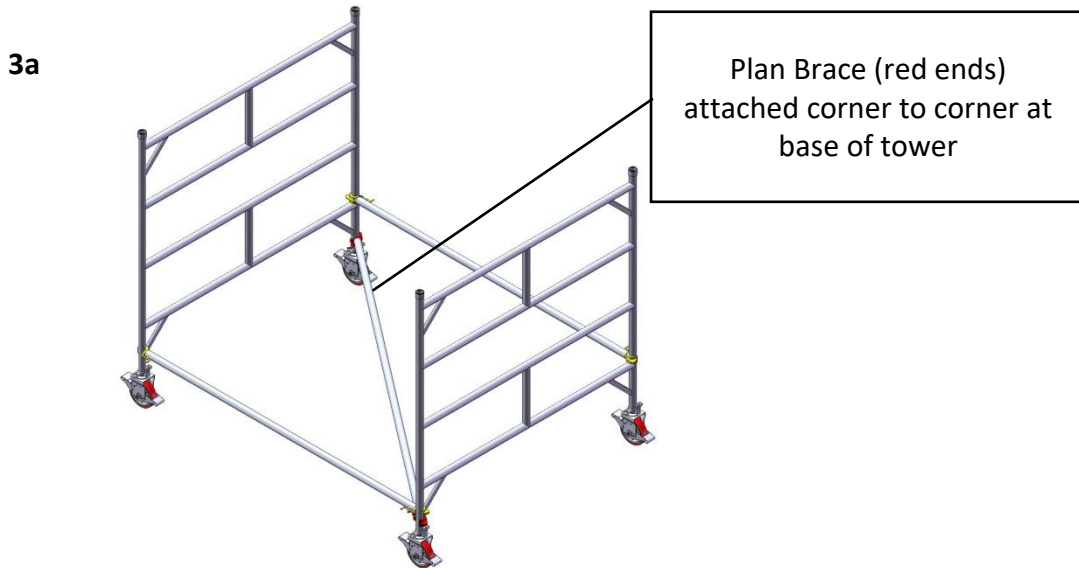
Step 2

Lock brakes on Castors and insert into second Base Frame. Attach Horizontal Braces to **INSIDE** of standards, use threaded adjuster to approximately level scaffold. See diagram 2a



Step 3

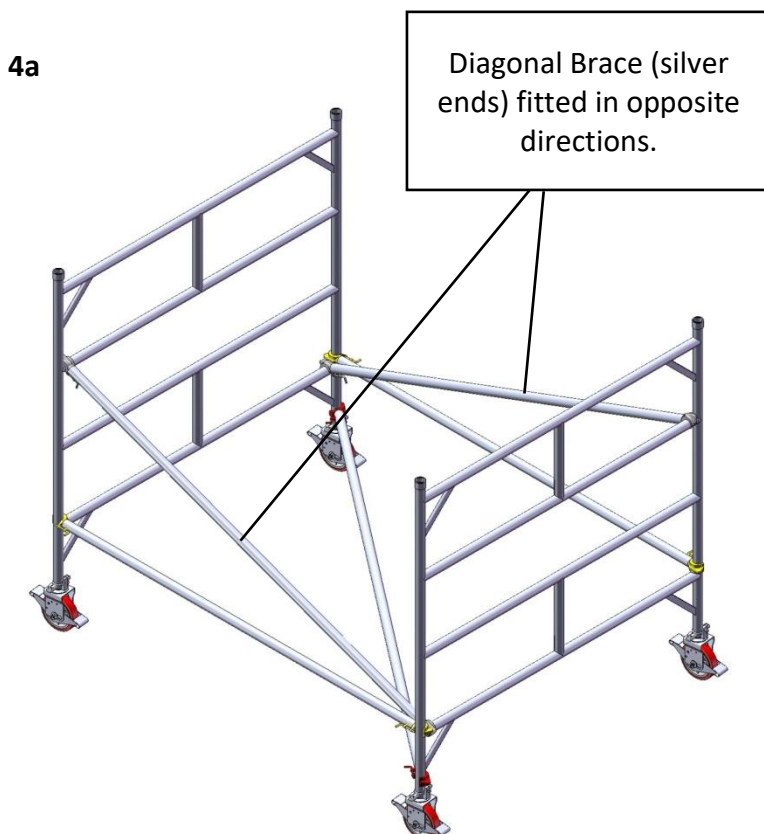
Attach Plan Brace (red ends) to diagonally opposite standards. The suggested position is just above the Castor.



- Plan bracing should be incorporated at the base of a mobile scaffold to provide stability. Alternatively the base of the mobile may be fully decked out.

Step 4

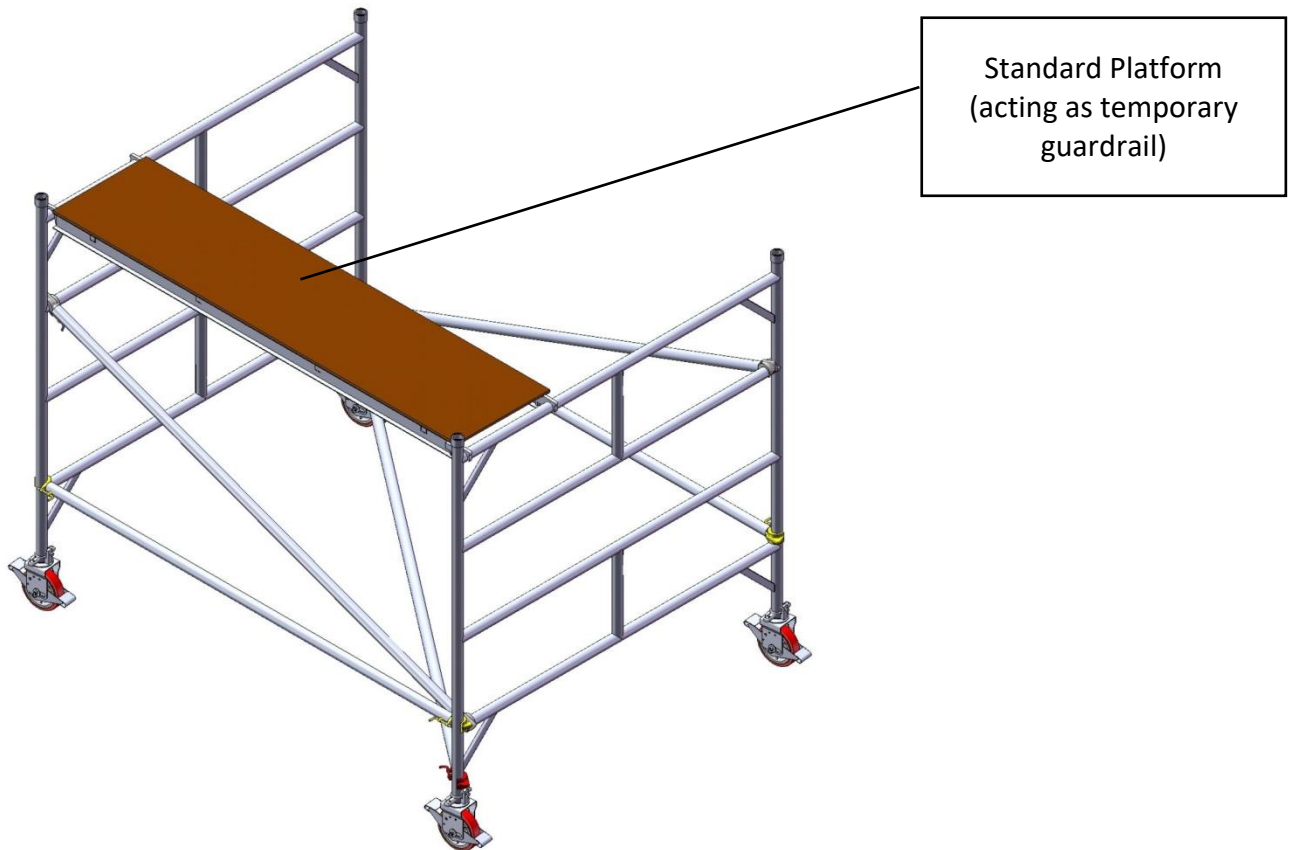
Install 2 Diagonal Braces (silver) from bottom Rung, to third Rung up (2 spaces). These should be fitted in opposite directions as close as practical to each side of the frame. Check scaffold is level in each direction, and adjust using height adjustable Castors.



Step 5

Install 1 Standard Platform to one side of the top rung of Base Frame, (will act as a temporary guardrail.)

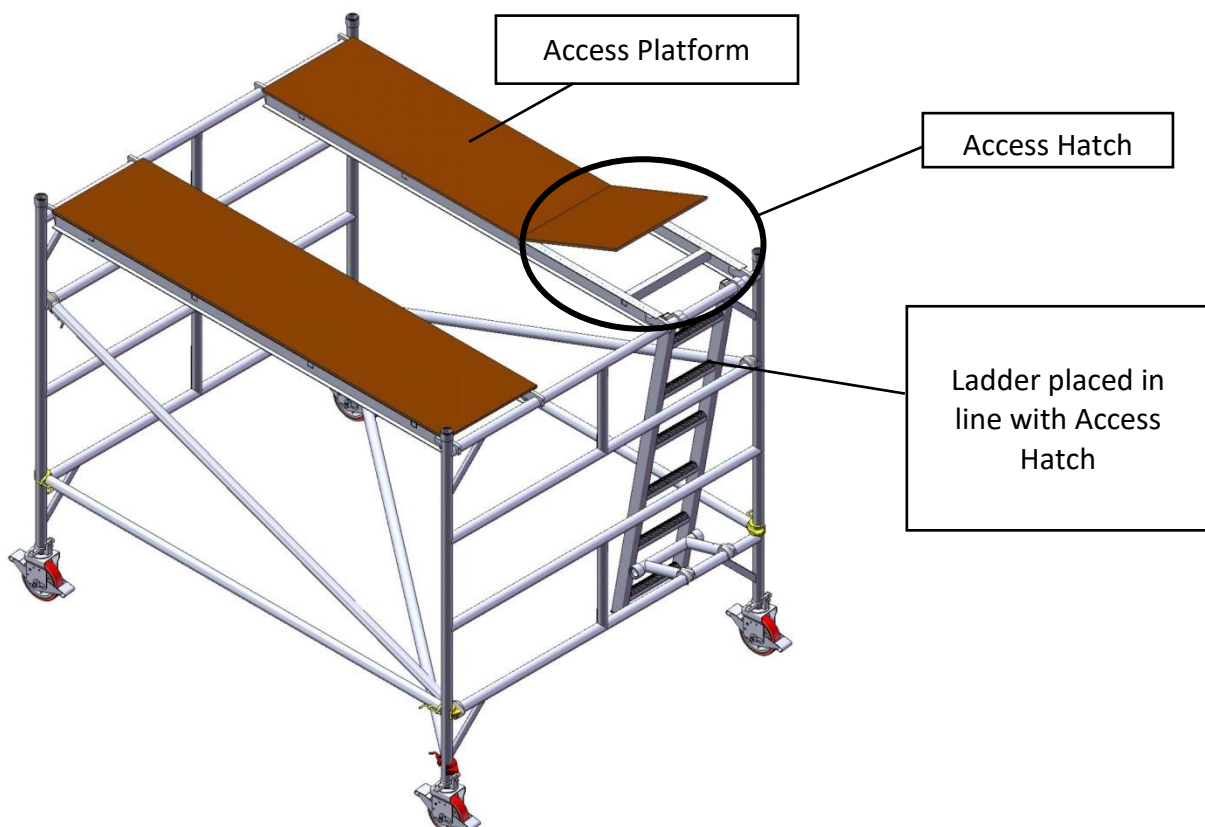
5a



Step 6

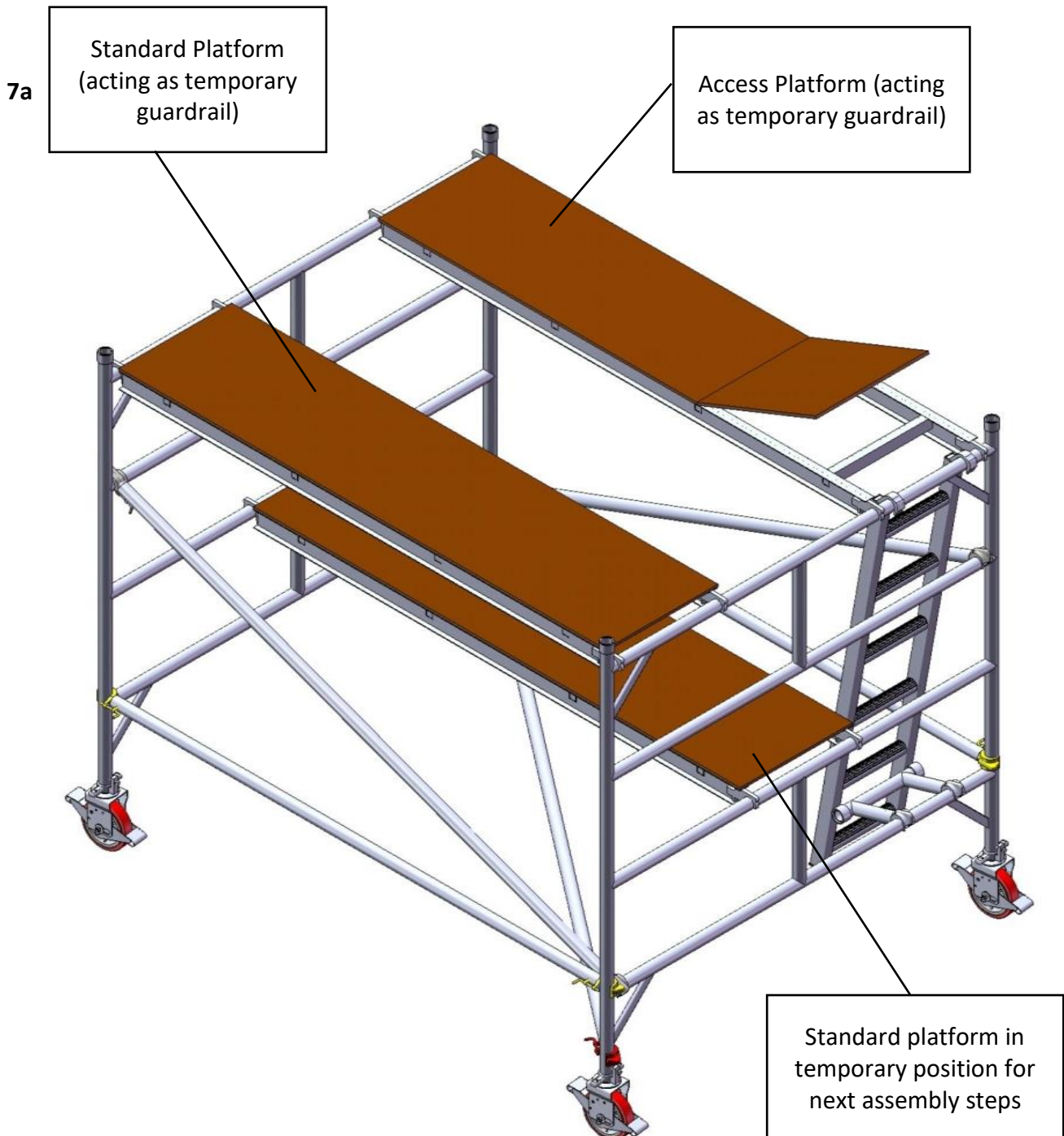
Add an Access Platform to top rung of Base Frame on opposite side to Standard Platform. Install ladder to the top rung of the Base Frame at the end of the access hatch.

6a



Step 7

Install a Standard Platform in temporary position to 2nd rung of Base Frame in centre of frame (directly below gap between the Standard and Access Platform).



Step 8

Standing on temporary platform

Install 2 Upper Frames, 4 x Horizontal Braces as guardrails and Midrails for next deck (Diagram 8a.)

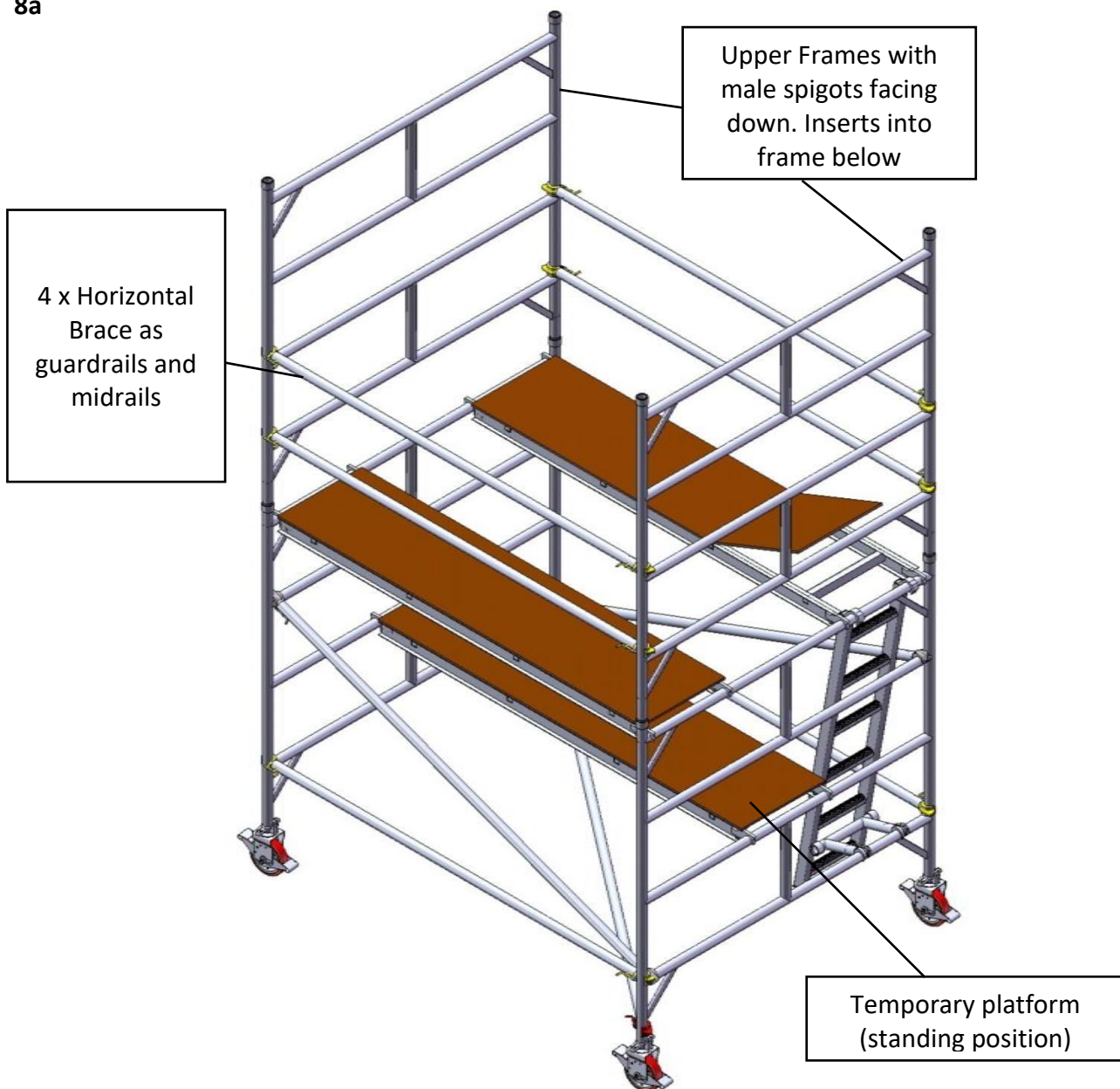
Fit 2 x Diagonal Braces (diagram 8b)

Fit Outriggers if required *(Not shown for this 4m high tower example)

*For details of when outriggers are required refer to;

- Fitting Outriggers (pg44)
- Maximum Freestanding Tower Height (Pg45)
- Risk Assessment Table (Pg4)

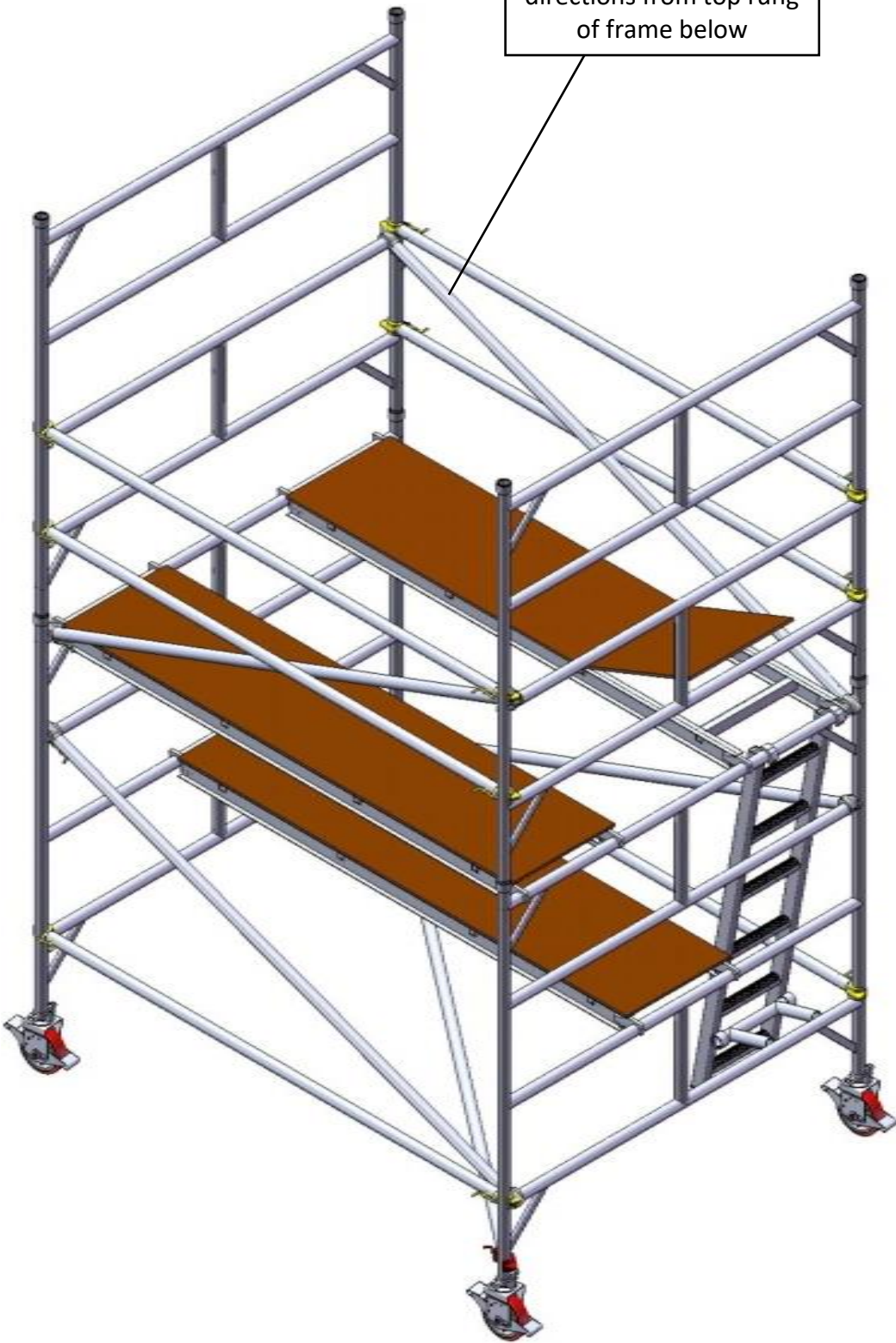
8a



Fit 2 x Diagonal Braces (diagram 8b)

8b

2 x Diagonal Braces
fitted in opposite
directions from top rung
of frame below



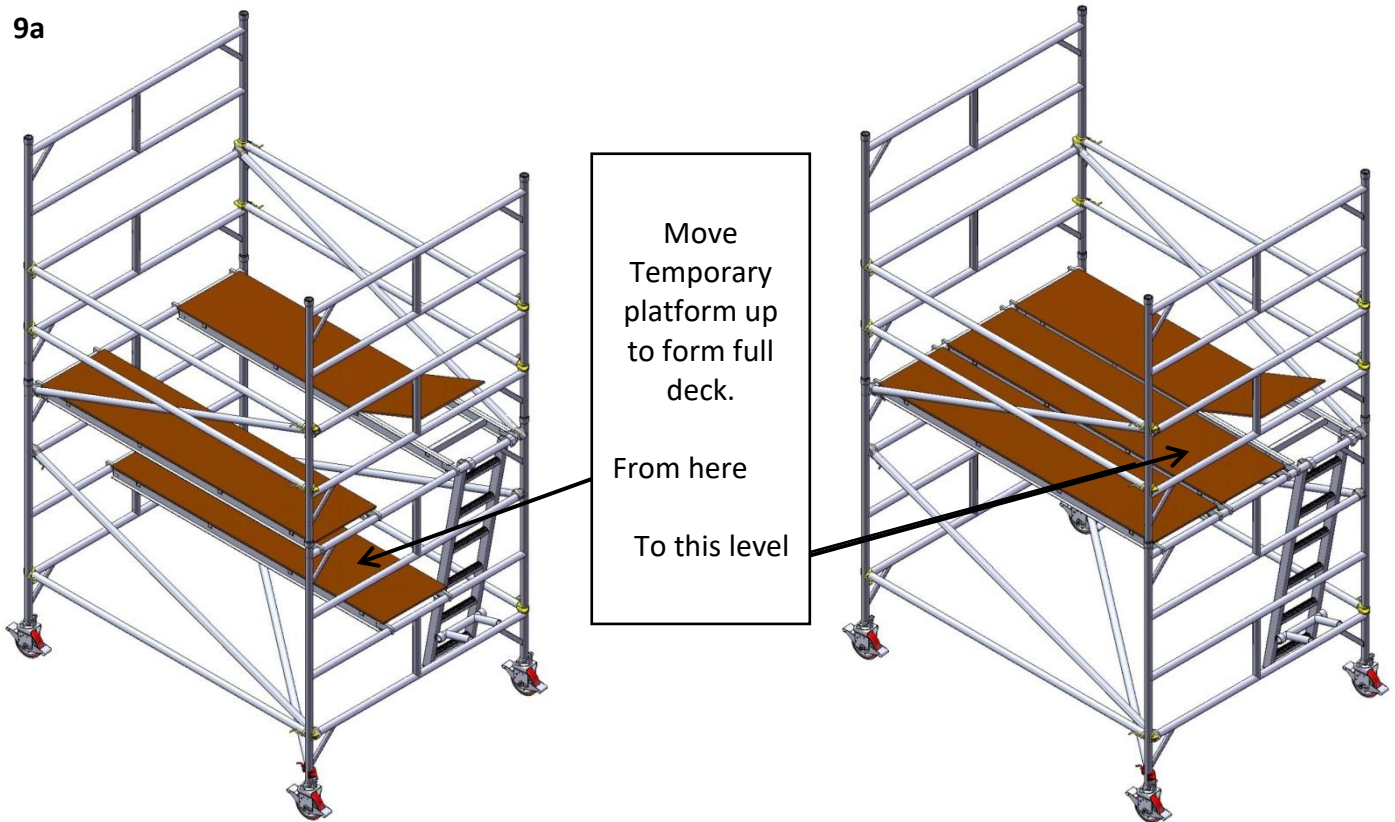
Step 9

Standing on Ground,

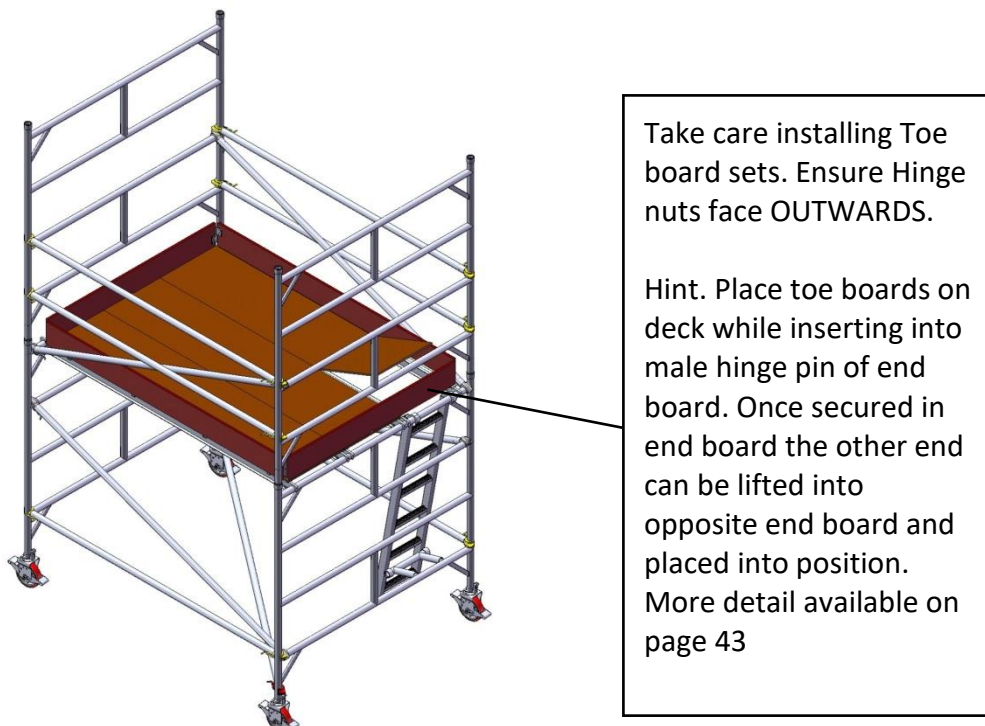
Move temporary platform up to form full deck on top rung of base frame. (diagram 9a)

Install Toeboards (diagram 9b)

9a



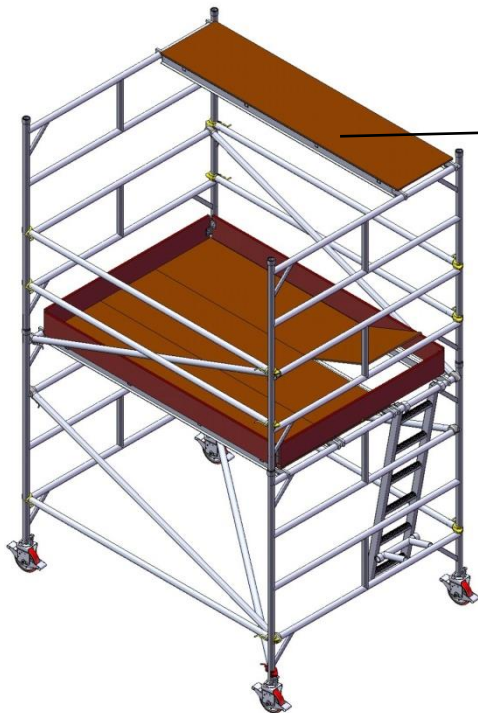
9b



Step 10.

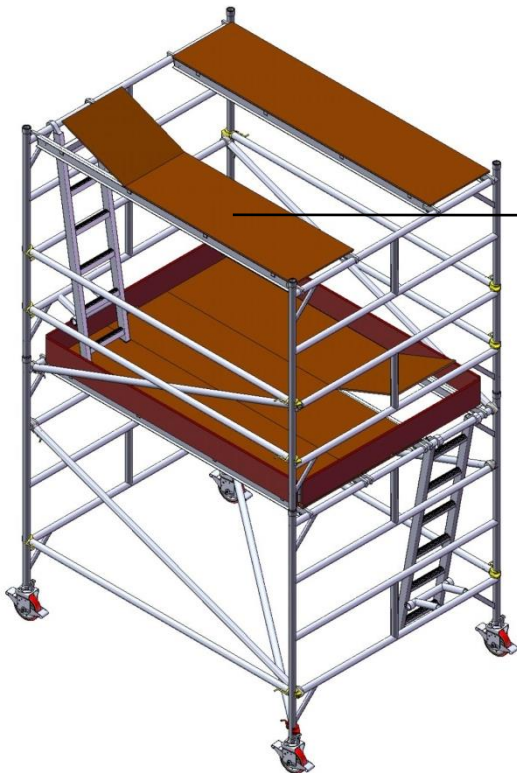
You have now completed a full working platform. Repeat steps 5-9 for each additional platform level, as follows.

10a. Standing on Full working platform



Install Standard Platform to one side 4 rungs above full working platform

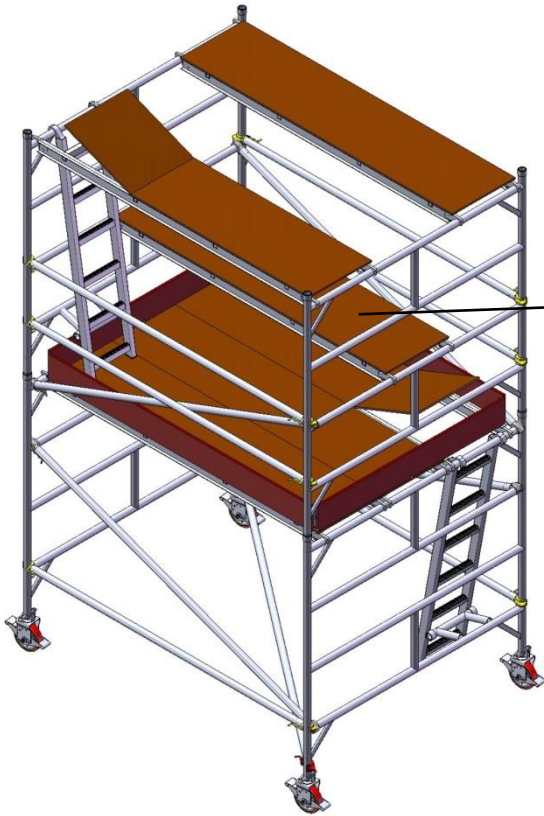
10b. Standing on Full working platform



Install Access Platform 4 rungs above standard platform of the deck below. Ensure Access Hatch is at opposite end and opposite side, of tower to the one below.

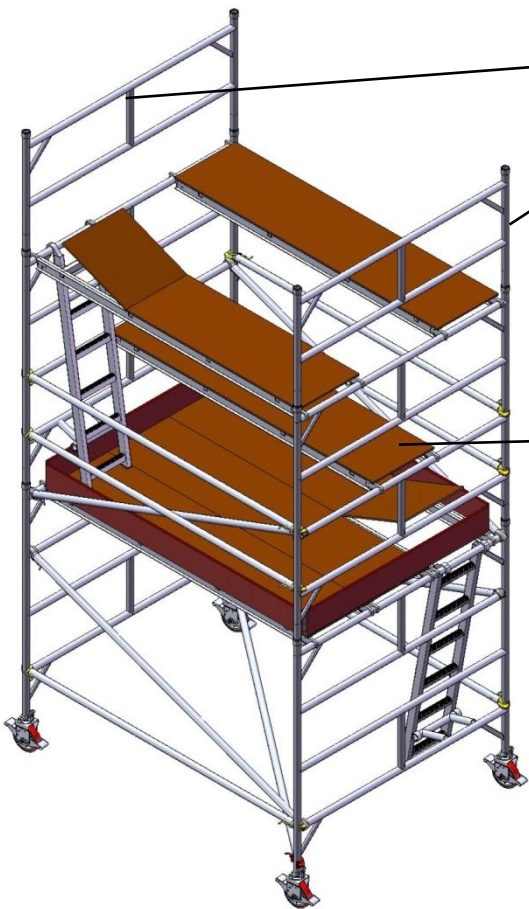
Install ladder through the access platform ladder gap* (*explained in diagram 6a)

10c. Standing on Full working platform



Add a Standard Platform in temporary position 2 rungs down and directly below gap between top access platform and Standard Platform which now acts as a temporary guardrail

10d. Standing on Temporary platform



Install upper frames required. This example shows 2 Rung Frames being installed for Guardrails of top working deck.

Temporary Platform
(standing position for steps 10d,10e and 10f ,protected by Horizontal Brace and upper Access Platform as temporary guardrails.

10e. Standing on Temporary platform



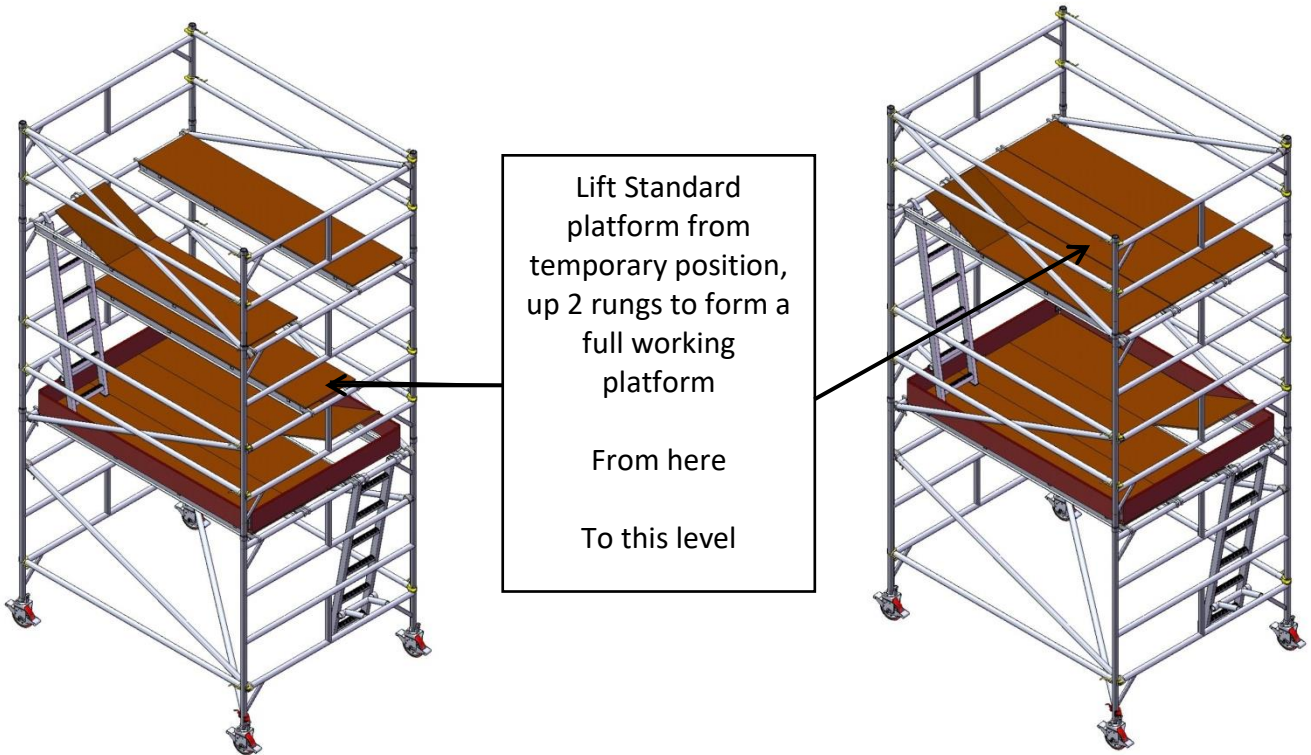
Install 4 x Horizontal Braces as Guardrails/ Midrails

10f. Standing on Temporary platform

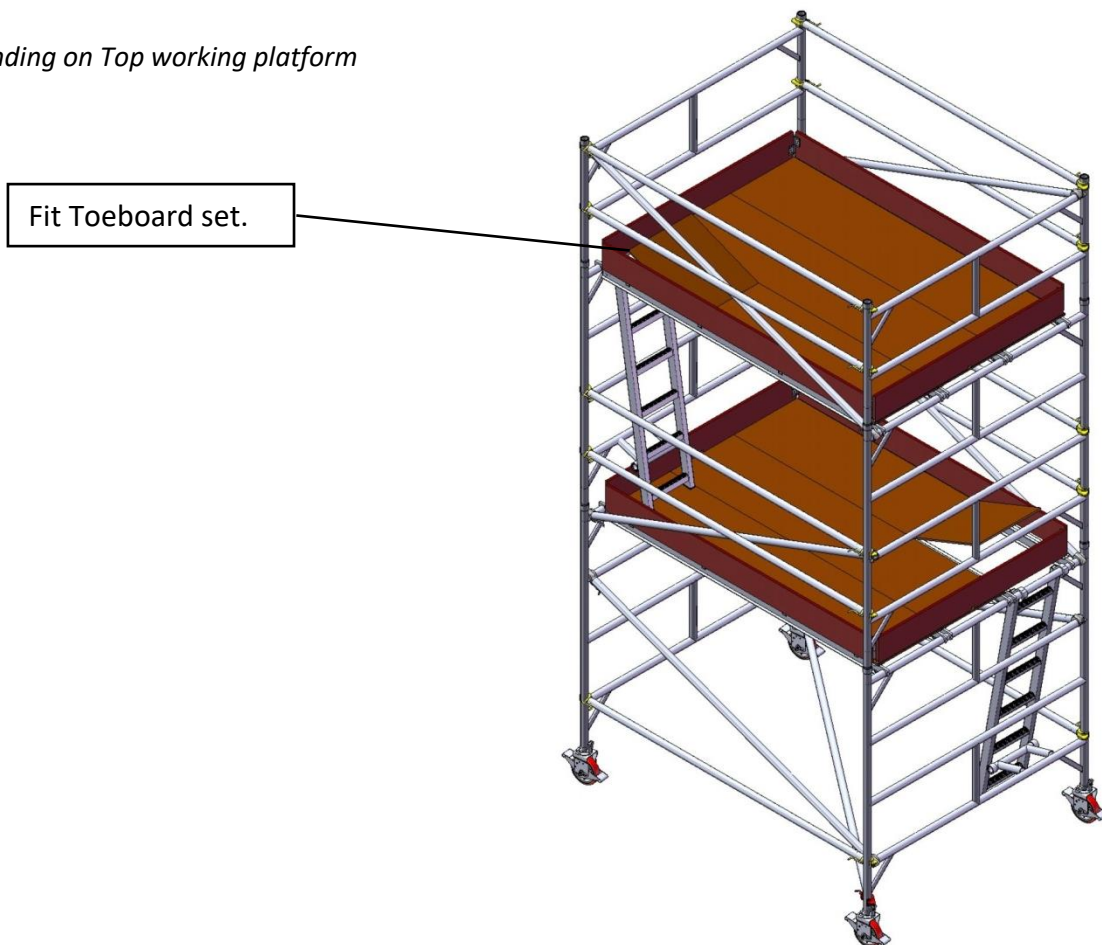


Install Diagonal Braces

10g. Standing on Full working platform



10i. Standing on Top working platform



Carefulness, common-sense and caution are factors that cannot be built into scaffolding. These must be provided by the user of the equipment.

Dismantling of 2.0m wide tower guideline

The dismantling process for the Mobile scaffold tower is the reverse method of the erection process. During dismantling, stability of the scaffold must be maintained at all times.

DISMANTLING Key points...

1. Ensure the safety of other people and property in the vicinity of the scaffold.
2. Ensure Castor brakes are locked.
3. Remove all materials, debris and equipment from working platforms
4. Starting at the top of the tower dismantle in reverse order of the erection sequence.
5. Avoid overloading due to stacking excessive equipment on the tower
6. Components should be lowered to the ground in a controlled manner and not dropped to avoid structural damage to the components
7. Horizontal guardrails should not be removed before the removal of scaffold decks of the same level.
8. Do not remove diagonal braces until it is necessary to remove the frames to which they are attached.
9. If the scaffold is stabilised with outriggers or tied to a supporting structure, removal of any outriggers or ties should not be done until the dismantling is down to that level which they are attached.

Ladder Installation Options

Supplied Ladders must **ALWAYS** be installed **INSIDE** the tower. They can be installed either;
Top of ladder level with the platform (fig1).

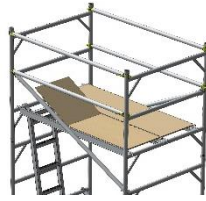


Fig 1

Top of ladder one rung above the platform (fig 2.)



Fig 2

Or top of ladder two rungs above the platform (fig 3).



Fig 3

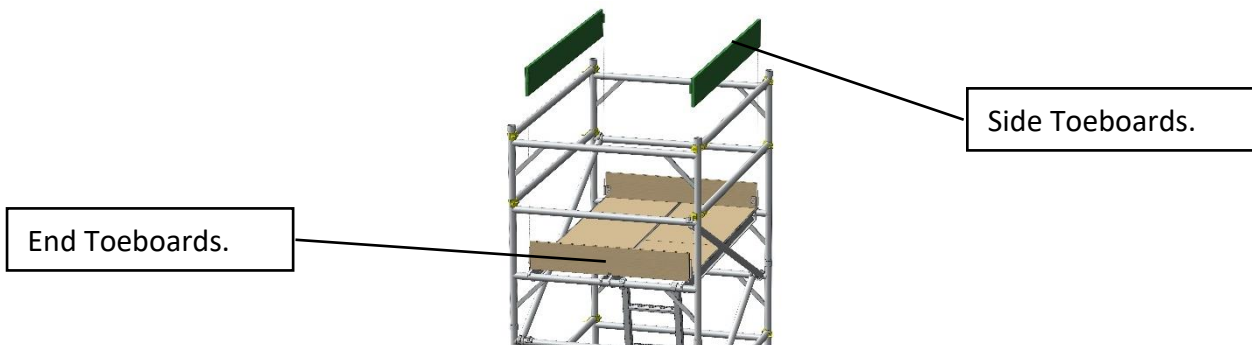
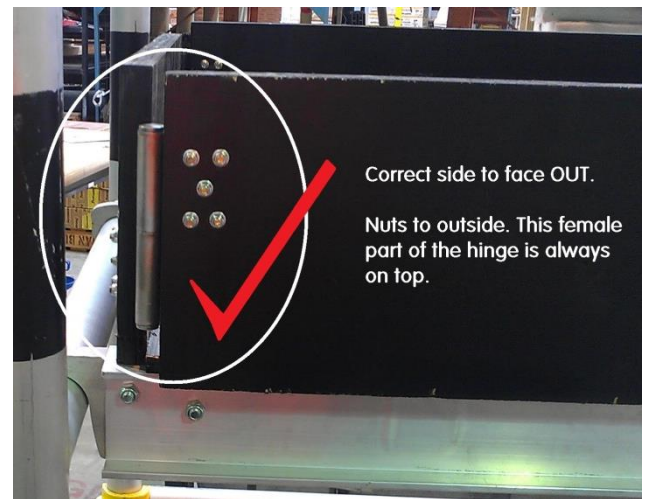
Bottom of ladder must be within 400mm of the lower platform/ground

Toeboard Installation

Toeboards are made up of a 4 piece system...2 ends and 2 sides. It is important that the Toeboards are fitted the correct way around. Two important notes are as follows...

1. The nuts holding the fittings are placed on the **OUTSIDE**.
2. Install the End Toeboards with the male part of the hinge facing up
3. Install the side Toeboards with the female part of the hinge facing downwards over the male part of the hinge on the end Toeboard

See illustrations. If there is any doubt contact the supplier for advice.



Fitting Outriggers

Adjustable Outriggers are normally used to increase the base size of a scaffold. Outriggers can be used at the base of any width tower with standard base and upper frames.

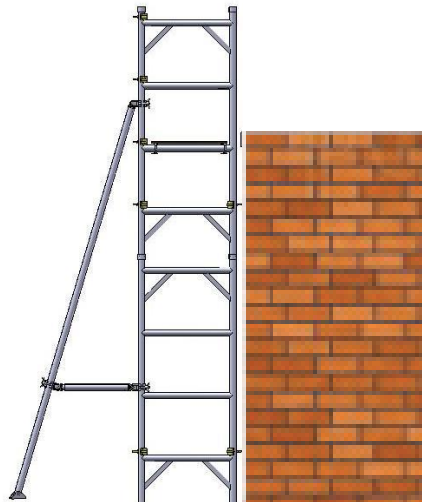
To be effective, Outriggers need to be set up at an angle of approximately 1 horizontal to 2 vertical. If room is limited, they can be set up steeper - refer to requirements in columns 5 and 6 of "Maximum Height Table" on page 45.

Only two Outriggers are required when the scaffold is against a wall or solid structure which extends up to the height of the top platform, along the full width of the scaffold.

When the scaffold is not against a wall or solid structure, four outriggers are required; one on each corner of the scaffold.

The supporting surface for the Outriggers must give adequate support. Outriggers must then be adjusted to provide firm pressure on the supporting surface. Sole plates must be used under the Outriggers feet when on soft surfaces.

When moving mobile scaffolds with Outriggers Props fitted, it is good practice to lift the Outriggers feet the minimum required space to achieve mobility. Care is needed because of the reduced base size when feet are clear of the supporting surface.



ALSO USE OUTRIGGERS and tie to solid structure... REGARDLESS of tower height, for the following situations

- Where there is a possibility of adverse weather conditions, **winds exceeding 32kph**
- Where the scaffold is located in a wind funneling location, between large buildings, or open exposed buildings
- Where the nature of work is applying horizontal forces at the working deck, e.g. drilling.

It must also be remembered that just because you have Outriggers fitted to the base of a tower does not mean you can build it up endlessly.

Care must be taken to observe maximum heights allowed with outriggers fitted...

0.7m wide towers (single width) needs outriggers from 1.5m platform height and can be taken to a maximum platform height of 5.0m with 3m Outriggers fitted.

1.3m wide towers (double width) needs outriggers from 4.0m platform height and can be taken to a maximum platform height of 7.0m with 3m Outriggers fitted.

2.0m wide towers (triple width) needs outriggers from 6.0m platform height and can be taken to a maximum platform height of 9.0m with 3m Outriggers fitted.

Fitting Inline Truss Beam

The Inline truss beam is a component designed to provide a structural rung along the side of a tower, between the standards and at the same level as the rung it is fitted to. This allows the tower to be added to @ 90 degrees and removes the need for an extra frame set to the ground. Examples of where this can be used as per sketches below. This can be fitted to any rung, and adjacent to any platform.

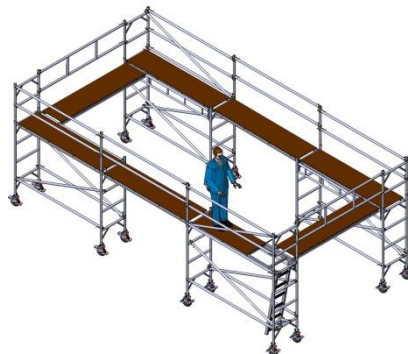
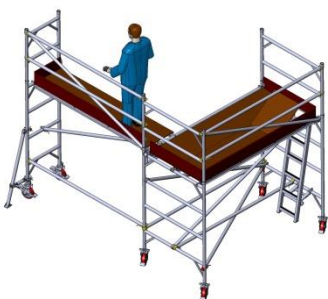
1. Place Hook of beam, on its side with base of beam facing you, onto rung at one end. The other end on an angle inside tower.



2. Leaving the beam on an upward angle, pull it towards you so the outer locating tab clears the frame at the opposite end of the tower.



3. When locating tab at far end is past the frame standard and on the outside of it, release and let it sit in position, ready to use.



When using the truss beam, if internal corner hand railing is required, clamp on posts and specific length braces can be manufactured on request. Alternatively tube and clip can be used, and would be recommended where position of platform fitted to the truss beam varies widely between jobs.

Contact Equiptec on 0800 840 000 or customer@equiptec.co for any assistance or advice on configuring or set up.

Guidelines for set up on stairs

NB: Example shown is using Multiscaff doorbase go gate frames for access through tower while set up in narrower stairways.

1. Start with Base frame set up at lowest position on the steps. Use baseplate screwjacks, set at lowest setting for initial part of set up



2. Run horizontal brace from scaffold frame to steps, to determine which steps the next frame is set up on.



3. Set up frame on the relevant step. Note: both frames screw jacks to be set at lowest setting



4. Level up –whichever frame needs adjusting least to get horizontal braces level and frame rungs lined up

1.



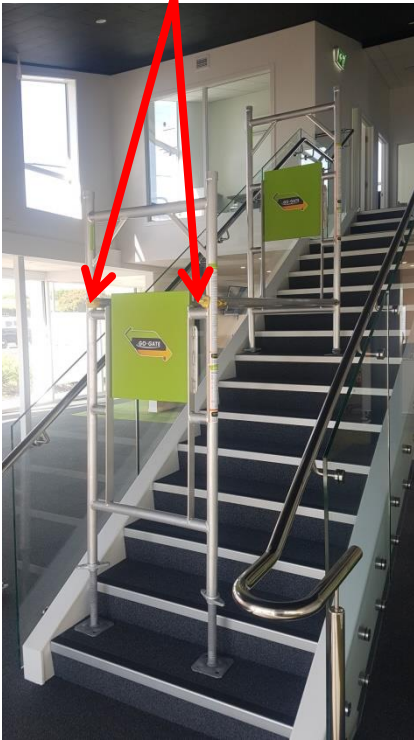
2.



In this example the lower frame has least distance to adjust up the screwjacks and level up with the other frame

Guidelines for set up on stairs

5. Fit horizontal braces to inside of standards from bottom rung of upper frame, to corresponding rung on lower frame.



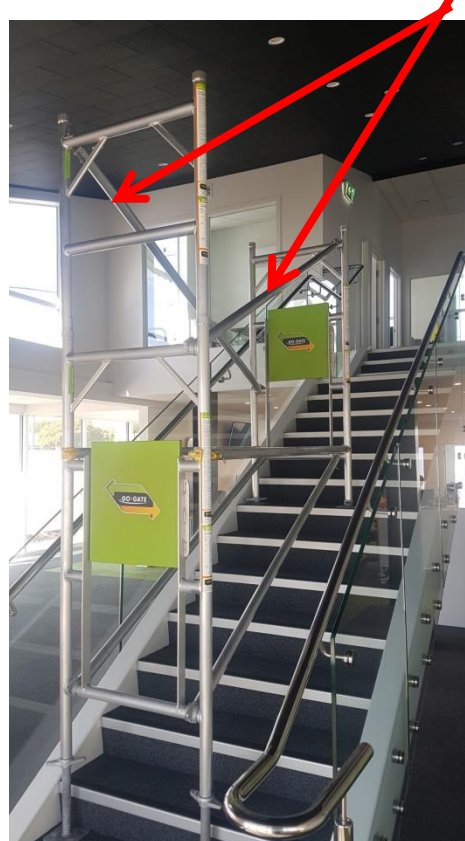
6. Fit 2x diagonal braces from bottom rung of upper frame, down to corresponding rung on lower frame forming a triangle with the horizontal braces and lower frame.



7. Fit upper frame onto lower level frame, Either 1 rung, 2 rung, 3 rung or 4 rung to suit distance needed to level up tops of both frames.



8. Fit 2x diagonal brace opposing each other... from top rung of lower frame – up and an opposing brace the other direction

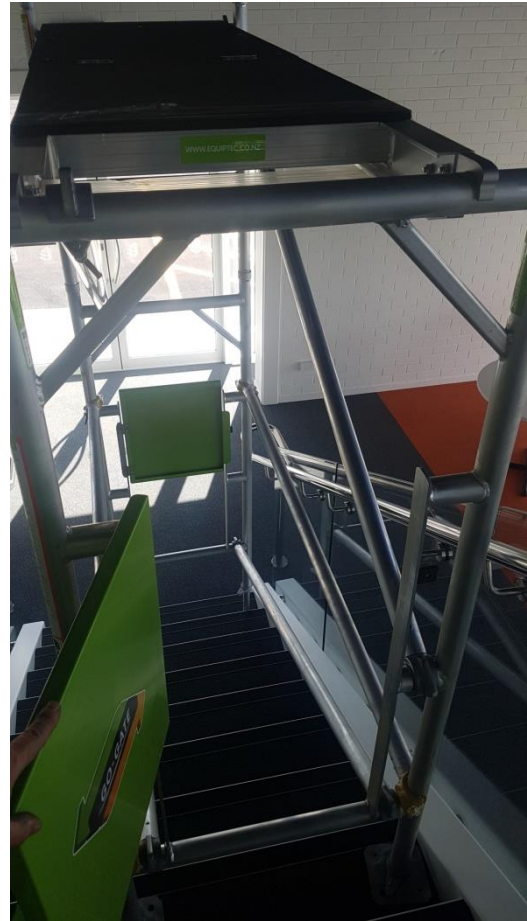


Guidelines for set up on stairs

9. Fit platform and/or additional frame sets

Above as per normal scaffold assembly.

Note : Observe all scaffold stability and safety at all times



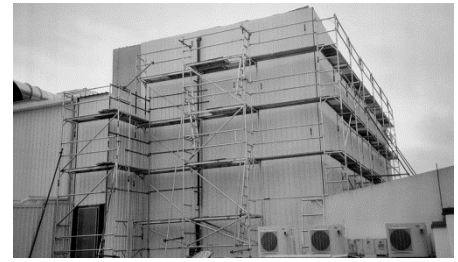
Points to Note:

- A solid triangle formed at the base will ensure a rigid scaffold assembly.
- Stability needs to be observed, if scaffold is not in confines of a stairwell, beside walls, outriggers must be used.
- Where a stair scaffold is built, next to a void or exposed edge, and the distance from the top of the scaffold to the lowest point in the void or exposed edge is greater than 5m, then a certified scaffolder must set up the scaffold.
- Make sure scaffold is secured from moving on steps. Adjustable braked wheels can be used instead of baseplates, so long as they can be secured with no way of moving off the steps. A chock or physical tie is 2 suggested ways.
- This set up pictured is using gate frames for accessing through the structure while it is set up. The bottom rungs can be a bit of a hurdle depending on the stair pitch and resulting frame height differences. Warning tape and a sign attached to the scaffold from both approaches would help identify the risk to the worker moving through the scaffold, of the overhead and underfoot obstacles in the scaffold set up. Contact Equiptec customer service for help with alternative configurations.

STATIC WALK-THRU FACE SCAFFOLDS

Maximum Platform Levels

The maximum number of platform levels is seven when the scaffold is for light duty and three when for medium duty, as defined in AS/NZS 1576 (2.2kN and 4.4kN per bay respectively)



Platforms

Platforms comprise an integral part of the scaffold structure and shall be installed on all levels. The exception is at the ground level where a continuous horizontal brace may be installed in place of the platform, or a level where full rung frames are installed and secured with diagonal bracing.

Diagonal Bracing

Diagonal bracing on one side (generally the side away from the building) is required and is required to be installed as shown on Figures 1,2 and 4, except where interrupted by ladder bays (see separate note below). They are to be installed from bottom to top in one line. A new line is to commence after every seven bays. Thus, for the long seven level scaffold (which is the maximum height permitted) shown in Figure 1, a new line is commenced just as the 1st line reaches the top of the scaffold. For the long four level scaffolds shown in Figure2, the same principle applies. In the sketch of this scaffold, the new line commences three bays after the first line reached the top of the scaffold, but still starts seven bays after the first line starts.

Diagonal Bracing for Short Scaffolds

Where the bracing reaches the end of the scaffold before it reaches the top, which will be the case where the number of bays is less than the number of storeys, as shown in Figure 4 for seven story scaffold, the braces need to continue in the opposite direction dog legging until the top is reached.

Diagonal Bracing at Ladder Bays

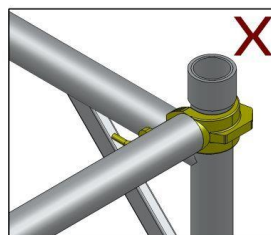
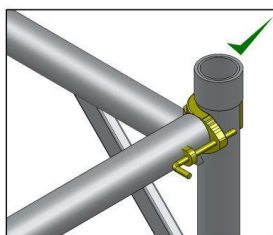
Where the main bracing is interrupted at the ladder bay, the brace shall be restarted on the far side of the bay at the same platform level. The outer side of the ladder bay itself is to be braced with the dog-leg bracing full height. This is illustrated in Figure 3.

Bracing to the building

The scaffolding is to be connected to the building with devices capable of transmitting loads of 6.0kN in either tension or compression. These connections are to be spaced horizontally at every frame, and vertically at every second platform level.

Please Ensure that:

- Risk assessment and instructions on pages 3-5 of this manual are followed
- Adequate sole boards are used to suit the ground conditions (page5)
- Walk thru upper frame **are not** substituted for base frames
- Horizontals braces (yellow) are always clipped to the **INSIDE** of the standards.



Static walk-thru face scaffolds

Figure 1: Seven Storey Scaffold
Handrails are not shown in this view

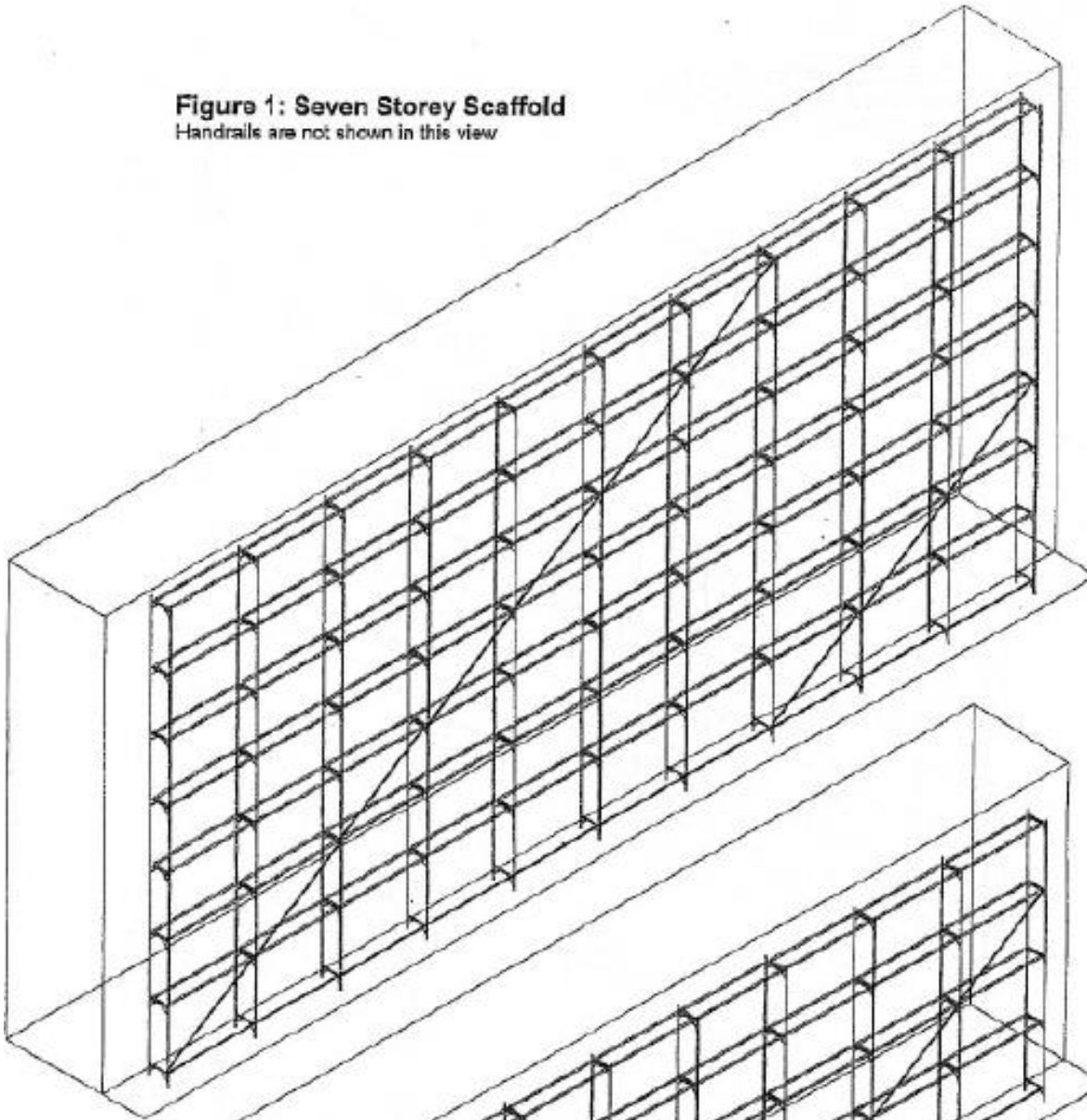
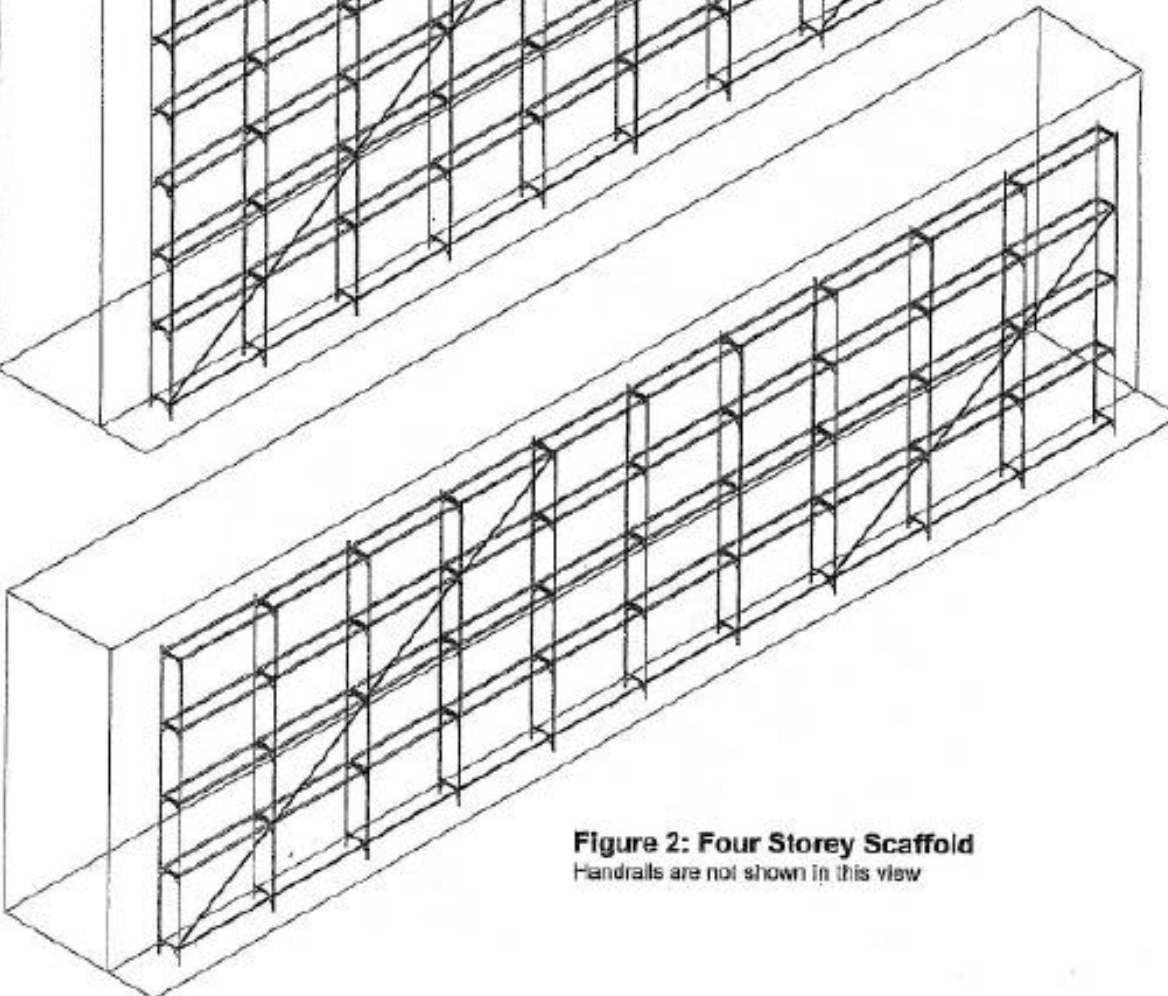


Figure 2: Four Storey Scaffold
Handrails are not shown in this view



Static walk-thru face scaffolds

Figure 3: Bracing at Ladder Bay
Seven Storey Scaffold shown for illustration.
Handrails are not shown in this view

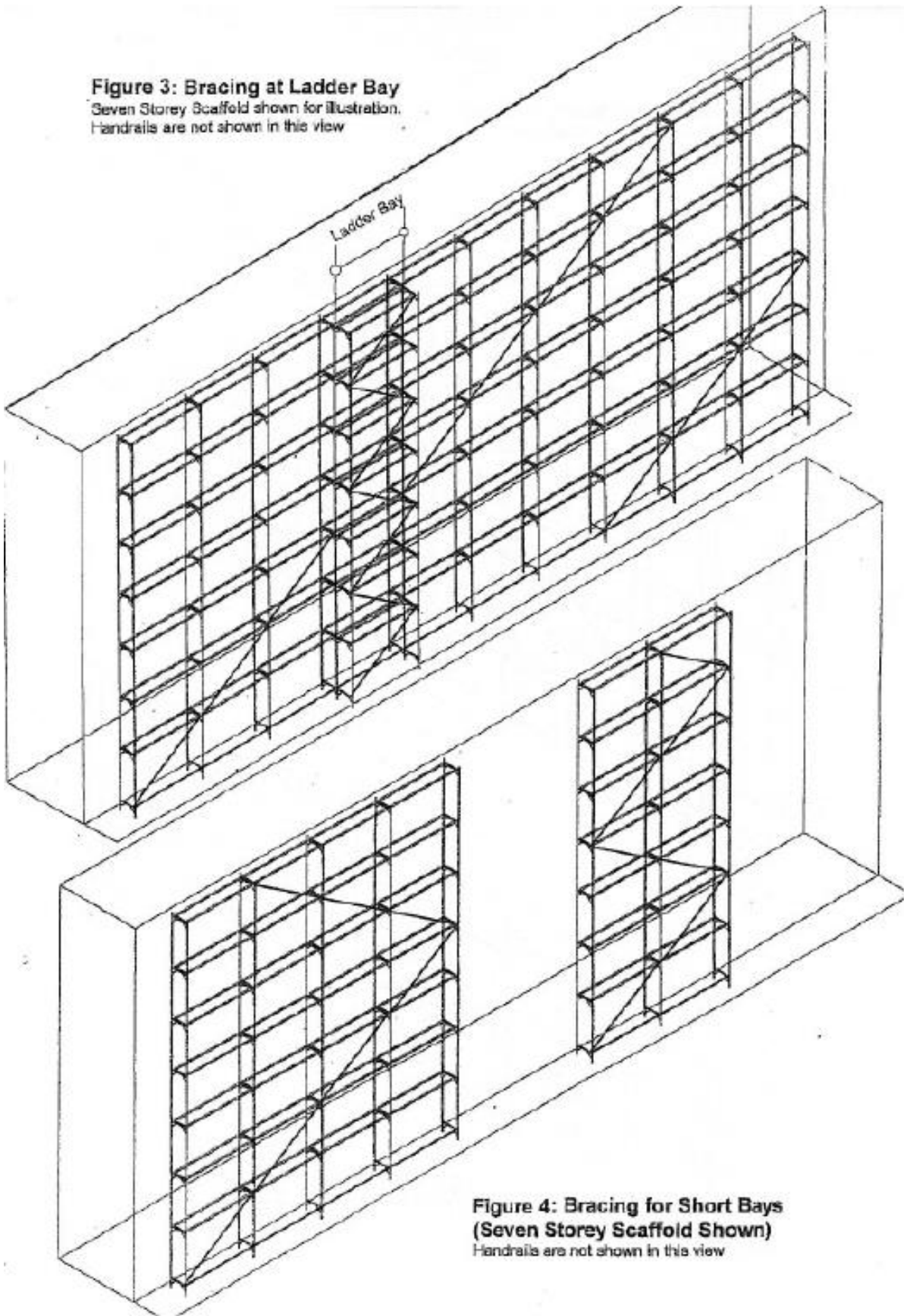


Figure 4: Bracing for Short Bays
(Seven Storey Scaffold Shown)
Handrails are not shown in this view

TECHNICAL INFORMATION

Maximum Freestanding Tower Height

The stability of a mobile tower must comply with AS/NZS 1576.1

Refer to Maximum Height Table (below) for guidance on maximum top working platform heights.
NB Also refer to Risk Assessment Table (pg. 4) for additional requirements in adverse wind or loading conditions.

Maximum Height Table (Height to top working Platform – overall tower heights are 1.0m higher; including edge protection)

Assembly by competent person

<4.0m

Assembly by Certified Scaffolders only

>4.0m

Tower Width	Maximum Height (without outriggers)	Maximum Height (with 1.2m outriggers)	Maximum Height (with 3m outriggers)	Maximum Height above top of outriggers	Minimum Base dimension -Including
0.7m	1.5m	4.0m	5.0m	2.0m	1.7m
1.3m	4.0m	5.5m	7.0m	3.5m	2.2m
2.0m	6.0m	7.5m	9.0m	5.5m	2.9m

Longer Outriggers and wide base components are available from your supplier on request.
For higher Scaffolds obtain the suppliers recommendations.
E: sales@equiptec.co



LOAD RATINGS

Total loading of any single Equiptec scaffold tower must not exceed 2000kg (including scaffold weight) evenly spread over 4 castors or screw jacks.

Working Platform Live Load Ratings/ Typical applications

- Light Duty:** 225kg (2.2kN) per bay single width, including up to 120kg (1.2kN) point load.
Typically used by painters or maintenance staff with light hand tools only
- Medium Duty:** 450kg (4.4kN) per bay double width or multi platform width scaffold, including up to 150kg (1.5kN) point load
Typically used by plasterers or builders with equipment or materials.
- Heavy Duty:** 675kg (6.6kN) per bay Aluminium scaffolding **CANNOT** be used
Typically used by bricklayers with heavy materials

WORKING LOAD LIMITS (WLL) Maximum Live load ratings

Single scaffold platform	-Light Duty eg 225kg (2.2kN)	
Working platform level* (One, two or three adjacent platforms)	Single width (0.7m wide) towers	-Light Duty eg 225kg (2.2kN) <i>uniformly distributed load</i>
	Double width (1.3m wide) Or Triple width (2.0m wide) towers	-Medium Duty eg 450kg (4.4kN) <i>uniformly distributed load</i>
Single bay scaffold tower	Single width (0.7mwide) towers	-up to 7 x Light duty platform levels
	Double width (1.3m wide) Or Triple width (2.0m wide) towers	either -up to 7 x Light duty platform levels or -up to 3 Medium duty platform levels

** NB. A typical working level consists of one scaffold platform for single width towers, two scaffold platforms for double width towers and three scaffold platforms for triple width towers.*

Special 450kg rated single platforms can be manufactured on request.

FOR ANY SCAFFOLD CONFIGURATIONS OR LOADINGS OUTSIDE THE SCOPE OF THIS DOCUMENT CONTACT THE SUPPLIER
E: sales@equiptec.co

PRODUCT INFORMATION



Component Details

BRACES



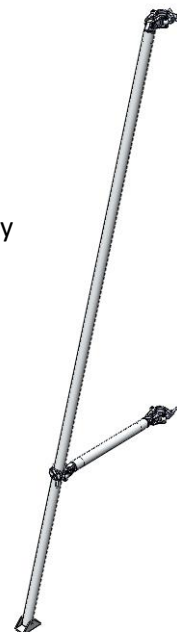
Product Code	Designation	Nom Scaff length	Weight	Grasper colour
150121	Horizontal Brace	1.3m	1.9kg	Yellow
151422	Horizontal Brace	2.0m	2.5kg	Yellow
151423	Horizontal Brace	2.5m	3.1kg	Yellow
151424	Horizontal Brace	3.0m	3.8kg	Yellow
150130	Diagonal Brace	1.3m	2.2kg	Silver
151431	Diagonal Brace	2.0m	2.9kg	Silver
151432	Diagonal Brace	2.5m	3.4kg	Silver
151433	Diagonal Brace	3.0m	3.8kg	Silver
151402	Plan Brace	1.3m x 2.0m	3.0kg	Red
150404	Plan Brace	1.3m x 2.5m	3.5kg	Red
151407	Plan Brace	1.3m x 3.0m	3.9kg	Red
150103	Plan Brace	2.0m x 2.0m	3.4kg	Red
151405	Plan Brace	2.0m x 2.5m	3.8kg	Red
151408	Plan Brace	2.0m x 3.0m	4.2kg	Red

Horizontal Braces with Yellow ends are also used as Midrails and Guardrails.
Repair kits are available for the grasper ends, if they should become bent seized or missing.

OUTRIGGERS

Used to increase the base width of a scaffold and thereby increase stability

Product Code	Nom. Dimension (length top to base)	Weight
151453	1.2m	3.8kg
151450	3.0m	6.3kg
150157	4.5m	7.9kg



CASTOR AND SCREWJACK

Product Code	Adjustable	Size	SWL	Weight	Colour
300204	No	125mm	180kg	2.6kg	Blue
300207	Yes 280mm	200mm	500Kg	6.7Kg	Red
300202	Yes 380mm	200mm	750Kg	6.6Kg	Red
300211	Yes 500mm	150x 150mm	500Kg	3.6Kg	Galv

Code 300204



Code 300207



Code 300211

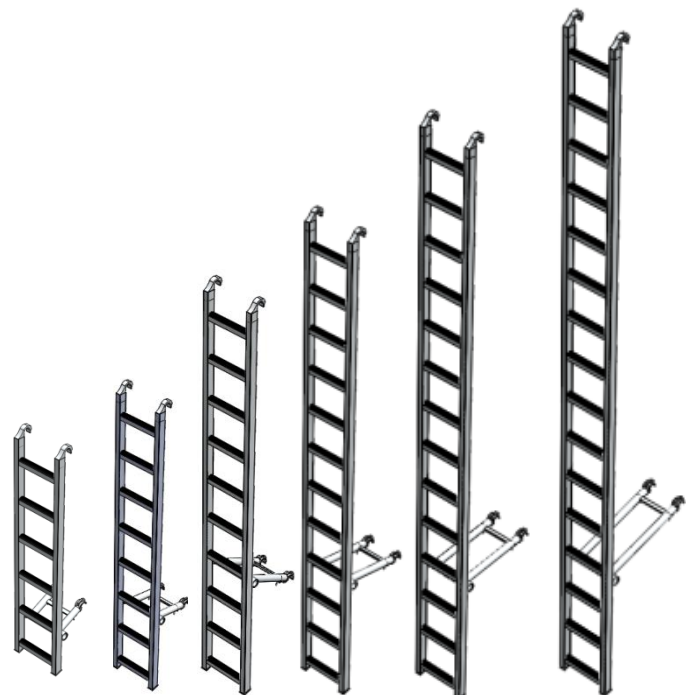


Code 300202


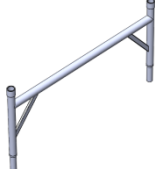
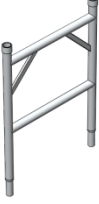










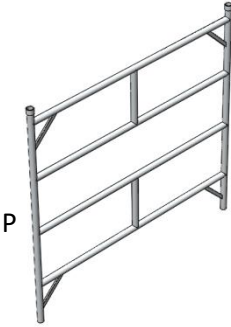


SCAFFOLD LADDERS

Product Code	Length	No. of rungs	Weight
251401	1.8m	6	7.9Kg
251402	2.4m	8	9.5Kg
251403	3.0m	10	11.0Kg
251404	3.6m	12	12.7Kg
251405	4.2m	14	14.5Kg
251406	4.8m	16	16.9Kg



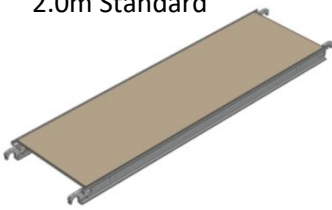
FRAMES

0.7m wide Frames	1.3m Wide Frames	2.0m Wide Frames
 <p>2.7Kg 0.7m x 0.5m Upper Frame Product Code 101400</p>	 <p>3.3Kg 1.3m x 0.5m Upper Frame Product Code 101410</p>	
 <p>4.3Kg 0.7m x 0.9m Upper Frame Product Code 101401</p>	 <p>5.6Kg 1.3m x 0.9m Upper Frame Code 101411</p>	 <p>7.3Kg 2.0m x 0.9m Upper Frame Code 100121</p>
 <p>6.2Kg 0.7m x 1.4m Upper Frame Product Code 101403</p>	 <p>8.0Kg 1.3m x 1.4m Upper Frame Code 101413</p>	 <p>10.3Kg 2.0m x 1.4m Upper Frame Product Code 100123</p>
 <p>7.7Kg 0.7m x 1.9m Upper Frame Product Code 101405</p>	 <p>10.3Kg 1.3m x 1.9m Upper Frame Product Code 101415</p>	 <p>13.8Kg 2.0m x 1.9m Upper Frame Product Code 100125</p>
 <p>7.0Kg 0.7m x 1.9m Base Frame Code 101404</p>	 <p>9.7Kg 1.3m x 1.9m Base Frame Code 101414</p>	 <p>13.2Kg 2.0m x 1.9m Base Frame Code 100124</p>

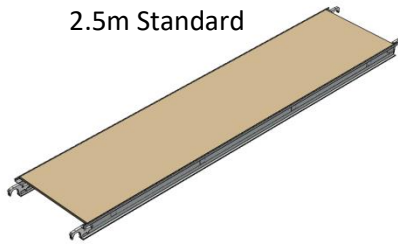
PLATFORMS

Product Code	Nom. Dimensions (LxW)	SWL	Weight
201440	2.0m x 0.56m	225Kg	14.5Kg
201441	2.0m x 0.56m (with Access Hatch)	225Kg	14.5Kg
201450	2.5m x 0.56m	225Kg	19.0Kg
201451	2.5m x 0.56m (with Access Hatch)	225Kg	19.0Kg
201460	3.0m x 0.56m	225Kg	22.5Kg
201461	3.0m x 0.56m (with Access Hatch)	225Kg	22.5Kg

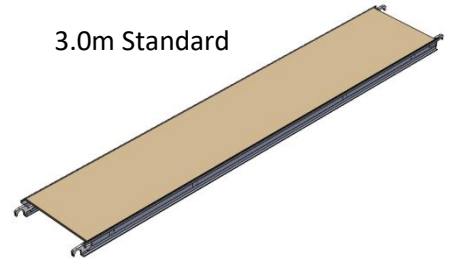
2.0m Standard



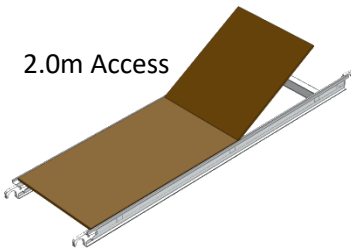
2.5m Standard



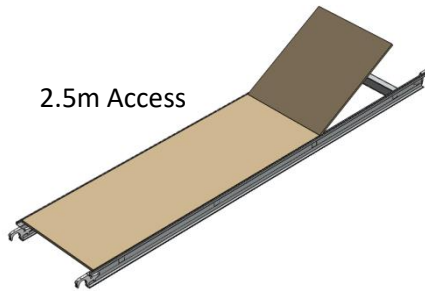
3.0m Standard



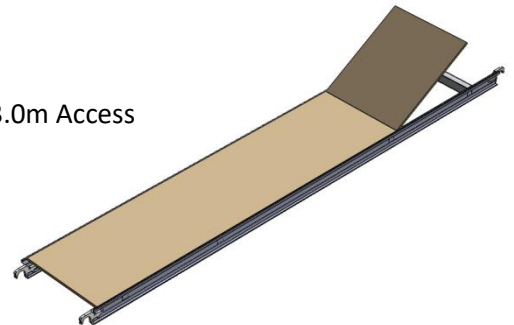
2.0m Access



2.5m Access



3.0m Access



TOEBOARDS

Product Code	Description	Nom. Scaffold width /length	Weight
501401	Single Platform End Toeboard	0.7m wide	1.6Kg
501402	Double Platform End Toeboard	1.3m wide	2.8Kg
501403	Triple Platform End Toeboard	2.0m wide	4.1Kg
501408	Side Toeboard	2.0m long	4.1Kg
501409	Side Toeboard	2.5m long	5.5Kg
501410	Side Toeboard	3.0m long	6.7Kg

End Toeboard



Side Toeboard



Component Details Continued.....

The actual centre measurement of the scaffold frames are as follows:
(Remember to add 48.4mm to find the actual frame width)

0.7m wide = 679mm	1.3m wide = 1,286mm	2.0m wide = 1,913mm
2.5m wide = 2,493mm	3.0m wide = 3,049mm	

Scaffold lengths are exactly the same i.e. 2.0m long x 2.0m wide scaffold is 1913mm centres both ways. This can be a big advantage on awkward jobs e.g. when steel pipe work passes through a scaffold, the direction of frames and braces can be reversed partway up.

All rung centres on all frames are 465mm apart. This means two rung spaces (930mm) exceeds the Australian Standard minimum hand rail height, of 900mm. AS/NZS 1576.1 -2010

Standard base frames with 200mm castors installed at minimum extension = 2,130mm actual height.

1.9m high frames have 4 rungs = 1,860mm actual height.

1.4m high frames have 3 rungs = 1,395mm actual height.

0.9m high frames have 2 rungs = 930mm actual height.

Screw jacks have up to 500mm of threaded adjustment available for uneven surfaces.

Castors have up to 280mm threaded adjustment available for uneven surfaces.

Contact Details

For any scaffold configurations or loadings outside the scope of this document, contact the supplier.

Should there be any further queries or you wish to discuss anything please don't hesitate to contact us and one of the team will be happy to assist.

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