Issue 1 - MAY 2023

EURO TOWERS LTD

UK Manufacturer of Aluminium Access Equipment

BRIDGING SYSTEMS

Euro Towers Ltd Bridging Tower Systems Certified to BS 1139-6:2022 Load Class 3 Wind Class 1

FOR USE WITH EURO TOWERS 232 3T TOWER SYSTEMS ONLY. REFER TO THE STANDARD 232 TOWER ASSEMBLY GUIDE

Prefabricated tower scaffold may only be assembled and dismantled by persons familiar with these instructions

INSTRUCTION MANUAL
EN 1004-2-en

MANUFACTURED BY EURO TOWERS LTD

For more information or any questions please contact Euro Towers LTD
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Address: **Euro Towers LTD, Unit 5 Edgemead Close, Round Spinney, Northampton, NN3 8RG**

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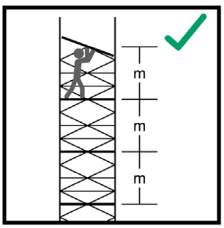
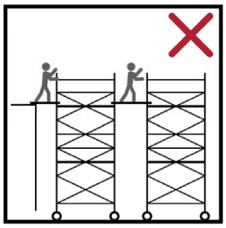
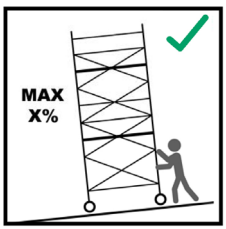
SAFETY DO'S AND DONT'S



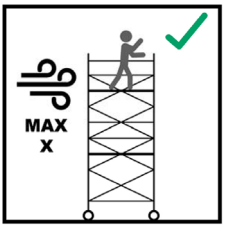
Platforms shall be installed with vertical distances between them not exceeding 2.1 m when assembling and dismantling except the distance to the first platform max 3.40m



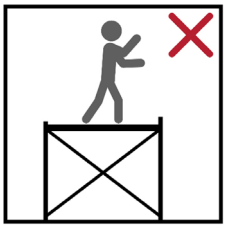
Do not bridge between towers or other structures Please contact Euro Towers for information on the correct equipment for Bridging Towers



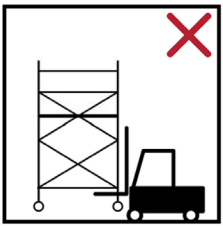
Maximum inclination for ***movement***. Note the maximum angle allowed is 1%.



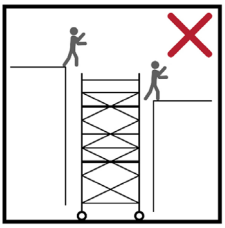
Do not build, dismantle or attempt to work on an access tower if the wind speed exceeds 17MPH



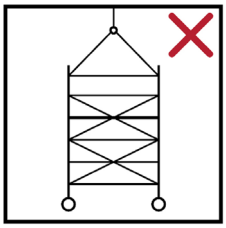
Do not stand on an unguarded platform



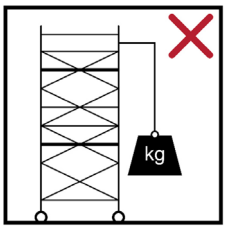
Do not lift the tower with mechanical equipment



Do not use the tower for access and egress to other structures

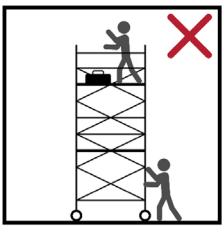


Do not suspend the tower



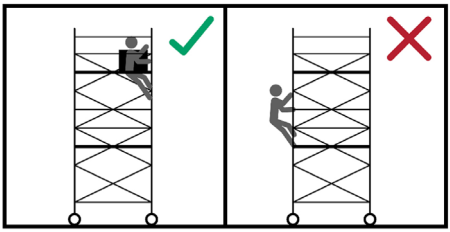
Do not lift heavy objects from the tower

Maximum inclination for working. Note the maximum angle allowed is defined by the manufacturer.



Do not move the tower with people or materials on it

Do not use ladders,boxes or other objects to gain extra height



Do not climb the outside of the tower

GENERAL SAFETY RULES

Prefabricated tower scaffolds are for the purpose of working at height safely.

Before You Start

1. Familiarise yourself with these instructions paying attention to these safety notes before you use the equipment supplied. Towers may only be assembled and dismantled by a COMPETENT person familiar with these instructions.
2. User training courses cannot be a substitute for instruction manuals but only complement them. Although training is not a specific legal requirement, it is one of the most recognised methods of proving competency.
3. This product shall only be used according to the instruction manual.
4. Only original Euro Towers components specified in this manual shall be used.
5. It is recommended that this user manual be used in conjunction with a suitable risk assessment and method statement relative to the project.
6. This information shall be available at the location of use of the prefabricated tower scaffold.
7. This prefabricated tower scaffold shall only be used according to this information.
8. Prefabricated tower scaffolds shall only be used in accordance with national regulations
9. You will require the following PPE to help avoid personal injury, Hard Hat, Safety Gloves, Safety Shoes and Hi Vis vest or jacket
10. Tools required for safe erection of a tower are: Spirit level.
11. As part of your risk assessment, do not begin to erect, move or dismantle your tower in excessive weather conditions including heavy rain, sleet/snow or weather that can affect your anti slip surfaces. Also avoid working in extreme heat and high winds. When working outdoors, the weather forecast shall be taken into account before assembly, use and dismantling.
12. Ensure you selected the correct platform height tower in relation to the desired working height (usually 2m) to avoid over reaching and other unsafe practices.
13. Inspect all individual components before use to ensure quantity, compatibility, any damages and all parts function correctly. Damaged or incorrect components shall NOT be used.
14. Check the quantity of components supplied corresponds correctly to the kitting list of the tower height you are planning to build. Do not start assembly if you do not have the correct number of components. Do not use any tower that has missing or damaged parts or has not been properly assembled.
15. Erect an exclusion zone and place warning signs if applicable to your location of work.
16. It is recommended that a minimum of two person erect, alter and dismantle a Tower but during the risk assessment additional person(s) may be required to perform the task safely.

Inspection, Care, Maintenance and transport

17. Regularly inspect the individual components to ensure that they are not damaged and function properly. Damaged components shall be isolated, tagged and removed from use. They should be replaced and sent for repair or scrap.
18. Inspect all tubes on frames, stabilisers and braces for dents, cuts and holes, damaged equipment should be isolated, tagged and removed from use. Check all joints for cracked welds and that they are secure.
19. Inspect Brace Hooks, check the clicker is functioning correctly and the hook is not distorted from abuse. Check the brace is not bent out of shape.
20. Inspect Platform for damage to the decking and fixings and that (if fitted) the trapdoor opens and closes freely and the hinge is secure. Check the aluminium framework for damage and for cracked welds that may be damaged due to overloading. Check the hooks are not distorted from abuse and the wind lock clips are attached and functioning properly.
21. Inspect Stabiliser couplers tighten and can be loosened freely. Ensure rubber foot is securely fitted and not worn out. Check for adjusting pins on telescopic stabilisers are fitted and secured
22. Inspect castors, checking that the wheel turns and spins freely, that the brakes engage and stops the castor from spinning. Ensure the castor has no flat spots and has a suitable SWL and is correctly marked.
23. Inspect the adjustable leg threads are clear of burrs and the nut runs freely up and down the thread. Check the nut housing for abuse or missing nodules.
24. Light oil or lubricating spray may be used to free up jammed, clickers, castors, adjustable leg nuts, stabiliser couplers, trap door hinges and latches.
25. Do not put excessive loads on the components during storage.
26. When transporting the components do not use excessive strapping forces when securing the load, this may distort and damage components if not done with care.
27. Check ground conditions are suitable for erecting and moving the tower and the ground can take the loads imposed by the tower including weight of equipment and persons. Do not assemble tower on unstable ground such as drain, manhole covers, compacted fill or any other hazards highlighted during the risk assessment
28. Ensure the level and slope of the area where the tower is to be erected, moved and dismantled is within the levelling height of the adjustable legs.
29. Check for obstructions that could prevent safe erection, moving and dismantling of the tower.
30. Ensure the Tower is level. Castor wheels should always remain LOCKED unless moving the Tower. Adjustable legs are used for levelling the Tower. NEVER use to gain additional height. Extra height is gained by using additional compatible components. Other items such as ladders, steps or boxes should never be used to gain additional height.
31. Check for overhead hazards such as power lines. Do not assemble a tower near uninsulated, live or energised electrical machinery or circuits, or near machinery or plant that is in operation.
32. All components should be passed up or down by hand where possible, where this is not possible use a suitable material for lifting (e.g. Heavy corded rope) and sufficient knot ties (e.g. hitch knot or timber hitch) DO NOT use mechanical hoists.

33. Towers MUST always be climbed from the inside for access and egress using the Integrated ladders or designated rungs. NEVER climb the outside of a Tower.
34. Do not lean ladders against a tower or climb the outside. Climb the ladder from the inside as per the supplied access system and use the trapdoor for access and egress
35. Never climb on Diagonal or Horizontal braces. Never jump on to or off platforms
36. Working is only permitted on a platform with a complete side protection including guardrails and toe boards
37. After assembly or alteration, the following minimum information should be displayed on the prefabricated tower scaffold and be clearly visible from the ground (e.g. on a tag):

a) The name and contact details of the responsible person. b) If the tower is ready for application or not. c) The load class and the uniformly distributed load. d) If the prefabricated tower scaffold is intended for indoors use only. e) The date of assembly. f) The maximum number of simultaneous working platforms permitted. g) The maximum number of persons permitted on the working platform(s) during use. h) The maximum number of persons permitted on the tower during assembly and dismantling. i) The maximum number of persons permitted on any one platform. j) The maximum safe working load on working platforms. k) The maximum safe working load on the prefabricated tower scaffold. I) The load class of the prefabricated tower scaffold. m) The maximum horizontal force permitted at the working platform(s). n) The maximum wind limits for working on the prefabricated tower scaffold. o) The maximum wind limits for the prefabricated tower scaffold.

Safe Use & Loadings

38. Before use, check that all components listed in the kit list have been used in the Tower in the correct position. Then repeat all checks if the tower has been moved, modified, left unattended or the enviroment changes.
39. Care should be taken when using Power Tools or Jet washing or anything specific to your job that could imply side loads and cause the tower to overturn. Maximum permitted side load must not exceed 30kg (300N)
40. When lifting components or materials keep within the base of the Tower. Ensure the total weight of the User(s) any debris or materials being lifted does not exceed the Safe Working Load (SWL) of an individual platform (250kg) or the overall structure (750kg) Loads must be uniformly distributed on the working platform and not block trapdoors.
41. Prefabricated tower scaffolds designed in accordance with BS1139-6:2022 are not anchor points for personal fall arrest equipment.
42. Work should only be completed from one Working Platform at any time complete with Guardrails and Toe-boards to prevent persons and materials falling from the tower. Work should not be attempted from any other part of the tower including stairs or braces.
43. The maximum number of person(s) permitted on the working platform at any time should not exceed the SWL (250kg). This should include any tools and or materials
44. You should never stand on an unprotected platform (guardrails must be in place)
45. Consider measures to avoid unauthorised access or tampering when the tower is left unattended.

Stability & Moving

48. Ensure the Tower is always level and the adjustable legs are engaged. Check that you have taken all necessary precautions to prevent the Tower being moved or rolling away. Always apply ALL castor brakes or use base plates for static towers or inclined surfaces.
49. Ensure that the scaffold tower is within the maximum platform height as stated and that the appropriate stabilisers are fitted to suit. *refer to kitting list
50. A scaffold tower should not be used or moved in wind speeds stronger than 17mph (7.7meters per second) (Beaufort force 4). Wind speeds in excess of this consider tying the tower to a rigid structure or dismantling before it is exposed to the strong winds.
51. Beware of the potential wind factors where there is a possibility for the tunnelling effect of open-ended buildings, unclad buildings and at the corners of buildings
52. NEVER fit sheets or cladding to a Tower. Such items can act as a sail and impose extreme horizontal loads onto a tower causing it to overturn.
53. When moving a tower plan the route removing any obstructions, ensuring the ground can take the weight of the tower, beware of soft and uneven ground. Pay attention for overhead hazards. Ensure that all materials and persons are removed from the Tower. If there are any doubts about the route, then dismantle and erect in new location.
54. Towers should only be moved manually by pushing at the base of the tower at a usual walking speed on a slope no greater than 1%. The Tower height should be reduced to 4m if all 4 stabilisers are in place and 2m if less than 4 stabilisers are in place. Stabilisers are raised approximately 25mm clear off the ground and then castors are unlocked before moving.
55. When the Tower is repositioned reapply the brakes on castor wheels ensuring the Tower is still complete and correct. The tower shall be levelled using the adjustable legs for both horizontal and vertical alignment. The stabilisers can then be lowered making firm contact with the ground.
56. Prefabricated tower scaffolds in accordance to BS1139-6:2022 should NEVER be lifted or suspended by a crane or moved by mechanical means
57. Prefabricated tower scaffolds in accordance to BS1139-6:2022 are not designed to be used as a means to enter or exit other structures, e.g. as a stair tower.
58. Prefabricated tower scaffolds in accordance to BS1139-6:2022 are not designed to be used as a means of edge protection

Alterations to the prefabricated tower are only permitted where they are shown in these instructions. In the event that an alteration to the prefabricated tower scaffold design is required, approval from the supplier and/or designer shall be obtained and a revised instruction manual or assembly, user and dismantling plan created.

Further information on inspection and maintenance can be found on Euro Towers inspection posters. For further safety information or downloading instructions call Euro Towers or visit our website. www.eurotowers.co.uk

Check Tower AND Bridging System Instructions before use.

Assembly and use

DO NOT assemble a Bridging structure on unstable ground or objects such as loose bricks, boxes or blocks. Only a sound rigid footing must be used. Check working area for uneven ground, such as slopes and differences in level.

Ensure that the Bridging structure is within the maximum platform height stated.

Should you require additional platform height, check kit list on this and the bridging structure Kitting Guide for components.

The tube couplers supplied by Euro Towers are EN74 Certified, any additional couplers used MUST conform to this standard.

Stabilisers or outriggers shall always be fitted when specified, ensure the couplers tighten and loosen freely, ensure the rubber foot is securely fitted and in good condition. Ensure all pins on telescopic stabilisers are fitted and secure.

Ensure that all swivel couplers are tightened fully once in position.

Weather conditions

Bridging towers below 8m platform heights are permissible for indoor and outdoor use. Platforms heights above this are only permitted for INDOOR use only.

Tower structures below 8m platforms heights have been assessed for wind loads equating to 17mph (27kph, 7.6m/s, Beaufort scale 4). This system is tested to wind class 1

Outdoor bridging structures should, wherever possible, be secured to a building or other structure. It is good practice to tie in all bridging structures of any height, especially when they are left unattended, or in exposed or windy conditions.

Moving and lifting

You cannot move a tower whilst the Bridgin section is still attached. If you must move the structure, remove all materials and personnel; remove the bridging and buttress sections. Then refer to the ***stability and moving*** section in the general safety rules.

Permissible loads and persons on the structure

The MAXIMUM number of persons on a Bridging Tower Structure during assembly and dismantling is THREE.

The MAXIMUM number of simultaneous working platforms is ONE.

The MAXIMUM number of persons allowed on a Bridge Platforms is ONE.

The MAXIMUM number of persons allowed on a Work Platform is ONE.

The MAXIMUM number of persons allowed on a Rest Platform is TWO.

(Safe working loads should never be exceeded, please refer to the loads below)

SAFE WORKING LOADS (SWL)

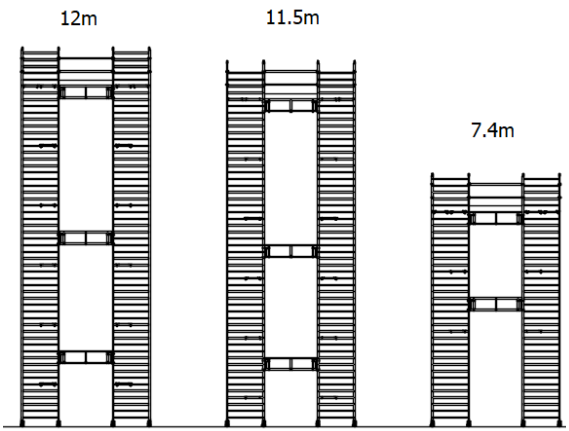
BRIDGE / WORKING PLATORM 250Kg

COMPLETED STRUCTURE 750Kg

MAXIMUM IMPOSED POINT (LEG) LOADS PER LEG 400Kg

Use of prefabricated scaffold towers for access to adjacent structures:
This is not suitable for this application. Contact us for more help with this.

Bridge beam locations



Refer to the assembly guide for the correct quantity of bridge beams.

When a tower requires more than 1 pair of bridge beams, orientate the 232 towers so that the intermediate platforms are positioned to the centre of the structure as shown in the image. This will prevent over-reaching when attaching the bridge beams.

For a 11.5m and 12m towers, attach bridge beams 3 rungs above the FIRST and THIRD platform.

For tower heights between 11.1m AND 7.8m attach bridge beams 3 rungs above the SECOND platform.

For 6.9 and 7.4m towers attach a bridge beam 3 rungs above the FIRST platform.

Where the tower configurations call for a temporary platform, use this to place the first bridge beam before repositioning the platform.

BRIDGING KIT LIST

Refer to the standard 232 tower assembly guide for your tower kit list.

2m Bridge System

QUANTITY	CODE	DESCRIPTION
2 *	**BBK1**	2m Bridge Beam
3	**PKP1/2/3**	Plain Platform
1	**CRP1/2/3 - 150**	Cantilever In-Fill Board
4	**BKH1**	2m Horizontal Brace
2	**BKH1/2/3**	Horizontal Brace
2	**BBT1/B**	1890mm Toe-Board Blank
4	**TKDW/B**	DW End Toe-Board Blank
2	**TKL1/2/3 /B**	Toe-Board Length Blank
8	**RTBC**	Red Toe-Board Clip

2.5m Bridge System

QUANTITY	CODE	DESCRIPTION
2 *	**BBK2**	2.5m Bridge Beam
3	**PKP1/2/3**	Plain Platform
4	**BKH2**	2.5m Horizontal Brace
2	**BKH1/2/3**	Horizontal Brace
2	**BBT2/B**	2390mm Toe-Board Blank
4	**TKDW/B**	DW End Toe-Board Blank
2	**TKL1/2/3 /B**	Toe-Board Length Blank
8	**RTBC**	Red Toe-Board Clip

3m Bridge System

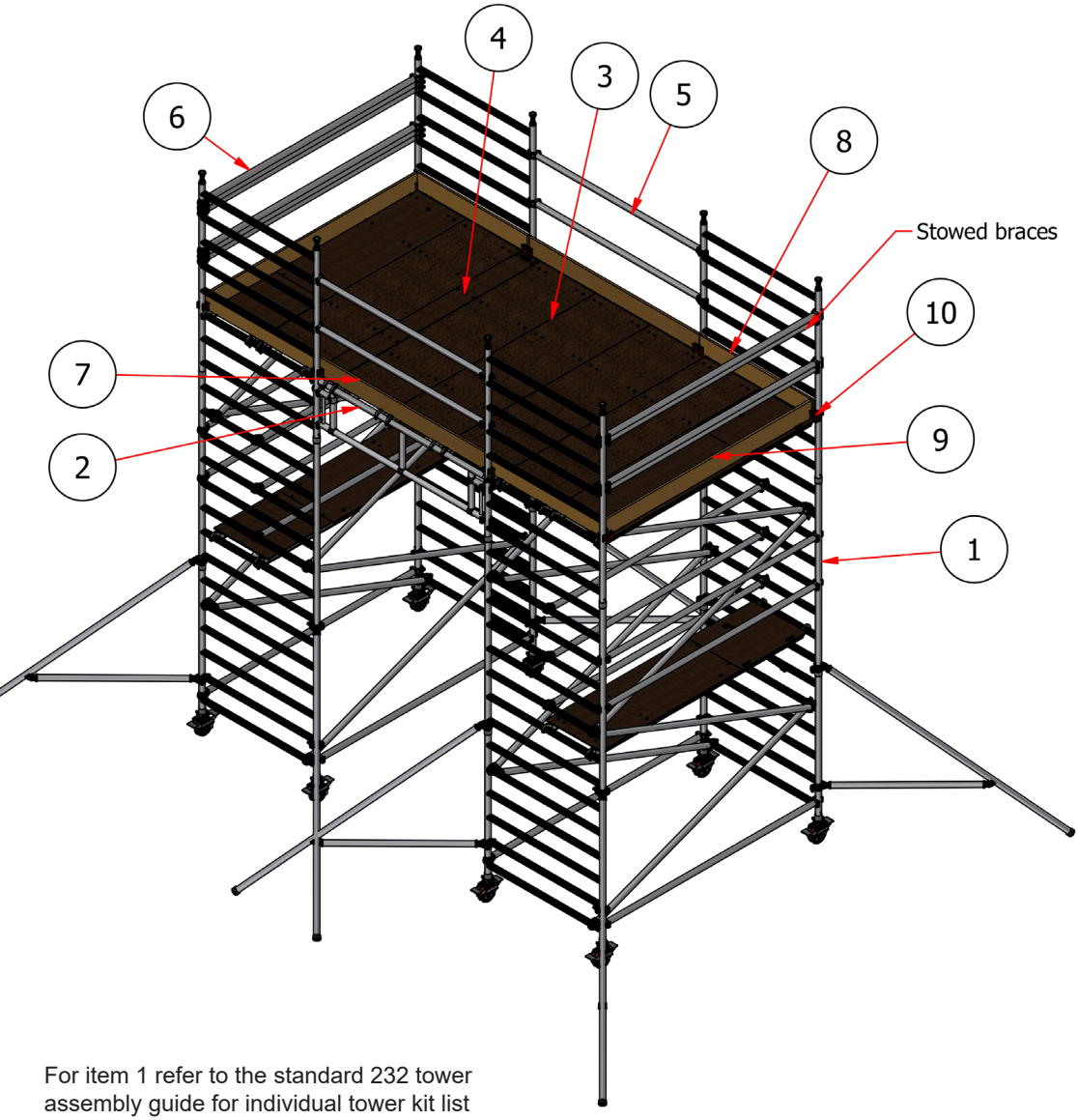
QUANTITY	CODE	DESCRIPTION
2 *	**BBK3**	3m Bridge Beam
3	**PKP1/2/3**	Plain Platform
1	**CRP1/2/3 - 150**	Cantilever In-Fill Board
4	**BBH3**	3.1m Horizontal Bridge Brace
2	**BKH1/2/3**	Horizontal Brace
2	**BBT3/B**	3110mm Toe-Board Blank
4	**TKDW/B**	DW End Toe-Board Blank
2	**TKL1/2/3 /B**	Toe-Board Length Blank
8	**RTBC**	Red Toe-Board Clip

***Bridge beam quantities depend on the height of the tower.**

1.3m – 6.5m: 2x Bridge Beams

6.9m-11.1m: 4x Bridge Beams

11.5m – 12m: 6 x Bridge Beams



For item 1 refer to the standard 232 tower assembly guide for individual tower kit list and build method

	CODE	DESCRIPTION	Weight
(2)	**BBK1**	2m Bridge Beam	**6.54**
(2)	**BBK2**	2.5m Bridge Beam	**7.39**
(2)	**BBK3**	3m Bridge Beam	**8.63**
(3)	**PKP1**	2m Plain Platform	**13.22**
(3)	**PKP2**	2.5m Plain Platform	**16.88**
(3)	**PKP3**	3m Plain Platform	**20.29**
(4)	**CRP1/150**	2m Cantilever In-Fill Board	**8.9**
(4)	**CRP2/150**	2.5m Cantilever In-Fill Board	**8.8**
(4)	**CRP3/150**	3m Cantilever In-Fill Board	**10.3**

	CODE	DESCRIPTION	Weight
(5)/(6)	**BKH1**	Horizontal Brace	**1.93**
(5)/(6)	**BKH2**	Horizontal Brace	**2.24**
(5)/(6)	**BKH3**	Horizontal Brace	**2.55**
(7)	**BBT1/B**	1890mm Toe-Board Blank	**3**
(7)	**BBT2/B**	2390mm Toe-Board Blank	**3.7**
(7)	**BBT3/B**	3110mm Toe-Board Blank	**4.9**
(8)	**TKDW/B**	DW End Toe-Board Blank	**1.51**
(9)	**TKL1/B**	2m Toe-Board Length Blank	**2.29**
(9)	**TKL2/B**	2.5m Toe-Board Length Blank	**3.68**
(9)	**TKL3/B**	3m Toe-Board Length Blank	**3.85**
(10)	**RTBC**	Red Toe-Board Clip	**0.2**

How to fit a coupler

Step 1

Step 2

Step 3

How to fit a brace

Step 1

Step 2

How to remove a brace

Step 1

Step 2

For levelling purposes only, the legs can be adjusted by turning the leg nut as shown.

Castor locked
(Note castor wheel axle has moved in line with the leg tube)

Castor unlocked

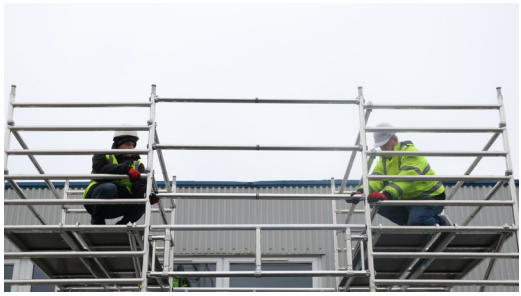
1. Fit 2 horizontal braces, the same length as the bridge beams, at the base of your towers to measure out the distance between.

2.

3. Fit a bridge beam to your towers. The bottom hook should rest on top of a rung and the top rail should be inline with the rung your platform sits on. Hooks should be facing outwards.

4. Fit your second bridge beam

5. Turn your braces down and add an additional horizontal. They should now be on the top rung, 3 rung down and 5 rung facing down.



6. Add 3 horizontal braces the same size as your bridge beams to your towers across the bridging gap above the same rungs in step 5 but hooks facing outwards.

7. Add 3 more braces to the back end of your bridge system.

8. Add an additional 3 horizontal braces into the bridge braces from behind your current guardrail braces

9. Fit 1 plain platform from behind the guardrail brace. Check your kit to see if the tower will require a infill board.

10. Repeat steps 8 & 9

11. If required fit your infill platform from behind the guardrail braces. Then remove the guardrail braces so that the platform area is clear

12. Then remove the guardrail braces so that the platform area is clear. If need space out your platforms so that there is no gap larger than 25mm.

12. Add your toe-board clips to each tower upright

13. Fit your toe-boards to the bridge system as shown in the diagram on page 8 – ref. items 7, 8 & 9

Dismantling is the reverse of assembly.

You MUST reposition the stored braces before removing any platforms.