Issue 6 - DEC 2023

EURO TOWERS LTD

UK Manufacturer of Aluminium Access Equipment

TOWER CANTILEVER SYSTEMS

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

FOR USE WITH EURO TOWERS 232 3T TOWER SYSTEMS ONLY

END ON CONFIGURATION AVAILABLE FOR DW TOWERS

SIDE ON CONFIGURATION AVAILABLE FOR 2M, 2.5M AND 3M PLATFORM LENGTHS. SINGLE WIDTH AND DOUBLE WIDTH

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

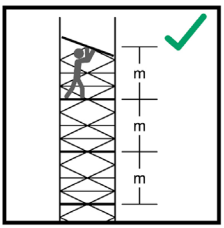
INSTRUCTION MANUAL
EN 1004-2-en

MANUFACTURED BY EURO TOWERS LTD

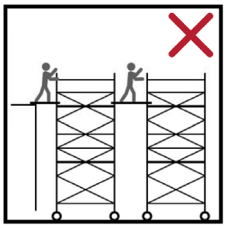
For more information or any questions please contact Euro Towers LTD
Phone: **01604 644 774** ***Email:*** **enquiries@eurotowers.co.uk** ***Web:*** **www.eurotowers.co.uk**
Address: **Euro Towers LTD, Unit 5 Edgemead Close, Round Spinney, Northampton, NN3 8RG**

CONTENTS

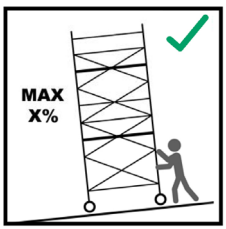
SAFETY DO'S AND DONT'S



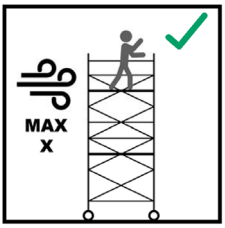
Platforms shall be installed with vertical distances between them not exceeding 2.1 m when assembling and dismantling except the distance to the first platform max 3.40m



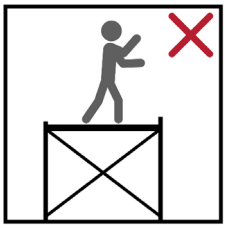
Do not bridge between towers or other structures Please contact Euro Towers for information on the correct equipment for Bridging Towers



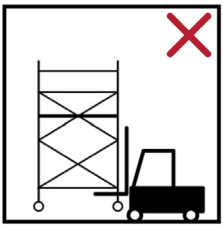
Maximum inclination for ***movement***. Note the maximum angle allowed is 1%.



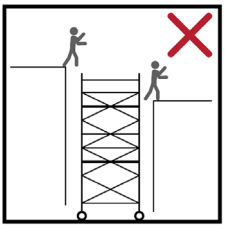
Do not build, dismantle or attempt to work on an access tower if the wind speed exceeds 17MPH



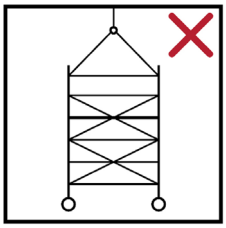
Do not stand on an unguarded platform



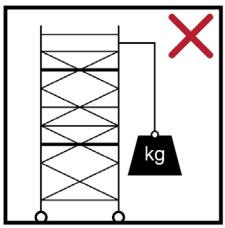
Do not lift the tower with mechanical equipment



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

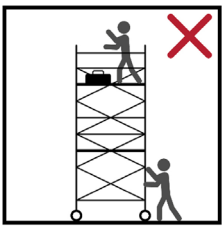


Do not suspend the tower



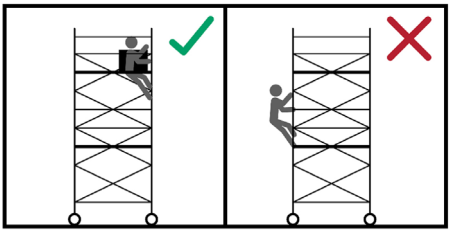
Do not lift heavy objects from the tower

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 BS1139-6:2020 should NEVER be lifted or suspended by a crane or moved by mechanical means
57. Prefabricated tower scaffolds in accordance to BS1139-6:2020 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 BS1139-6:2020 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 Cantilever Assembly Instructions before use.

Assembly and use

DO NOT assemble a Cantilever 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 cantilever structure is within the maximum platform height stated.

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

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

Stabilisers or outriggers and ballast 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

Cantilever 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 cantilever structures should, wherever possible, be secured to a building or other structure. It is good practice to tie in all cantilever 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 canitlever section is still attached. If you must move the structure, remove all materials and personnel; remove the cantilever and buttress sections. Then refer to the ***stability and moving*** section in the general safety rules.

Anchors, ties and ballast

When used, anchors in concrete and masonry must be selected and installed in accordance with BS 8539.

This prefabricated tower scaffold has been designed to be properly secured to a suitable adjacent supporting structure capable of withstanding the forces imposed upon it by the attachment of the tower. Devices for securing the tower must be simultaneously rigid in both tension and compression and capable of withstanding and transmitting the loads imposed by the tower to the supporting structure.

Ballast must be made of rigid materials such as steel or concrete but excluding liquids or granular materials.

All ballast weight MUST be spread evenly amongst the platform/platforms and secured in position.

Ensure that you have the correct ballast weight for the tower size required AND a means of securing it to the Buttress Structure Platforms. (All ballast weight guidance can be found on page 8)

NEVER assemble the cantilever structure without the correct ballast

NEVER remove the ballast with the cantilever structure in place.

Permissible loads and persons on the structure

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

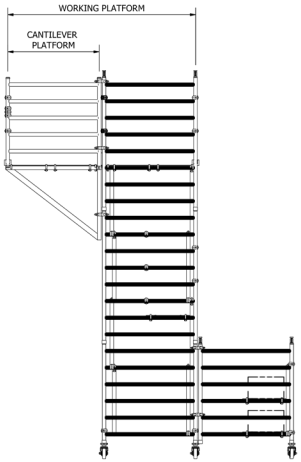
The MAXIMUM number of simultaneous working platforms is ONE.

The MAXIMUM number of persons allowed on a Cantilever Platform 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)



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

SAFE WORKING LOADS (SWL)

CANTILEVER / WORKING PLATORM 150Kg

COMPLETED STRUCTURE 750Kg

BUTTRESS PLATFORM 250 Kgs (Per Platform)

MAXIMUM IMPOSED POINT (LEG) LOADS PER LEG INCLUDING MAXIMUM BALLAST 400Kg

IMPORTANT BALLAST INFORMATION

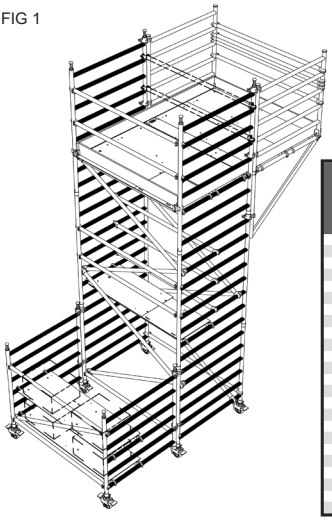
ALL ballast weight MUST be evenly spread over platforms AND secured in place.

ALL ballast weight MUST be of solid material, not sand, water, other liquids or granular materials. Additional Buttress platforms may be required on some towers.

NEVER remove the Ballast whilst the Cantilever Section is in place or before the Tower is below 2m platform height.

Ballast Weights

FIG 1

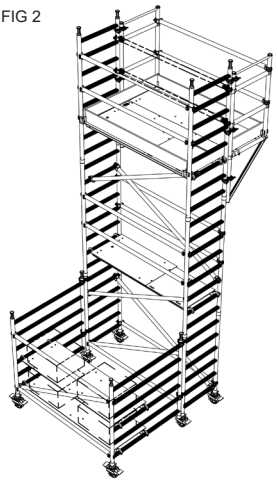


2m Double Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	240
1.8	270
2.3	300
2.7	330
3.2	360
3.7	390
4.2	420
4.6	450
5	480
5.5	510
6	550
6.5	580
6.9	610
7.4	640
7.8	670
8.3	700
9.0	730
9.2	760
9.7	790
10.1	820
10.6	850
11.1	880
11.5	910
12.0	940

2.5m Double Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	240
1.8	270
2.3	300
2.7	330
3.2	360
3.7	390
4.2	420
4.6	450
5	480
5.5	510
6	560
6.5	590
6.9	620
7.4	670
7.8	700
8.3	730
9.0	760
9.2	790
9.7	820
10.1	850
10.6	880
11.1	910
11.5	940
12.0	970

3.0m Double Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	240
1.8	270
2.3	300
2.7	330
3.2	360
3.7	390
4.2	430
4.6	460
5	490
5.5	520
6	580
6.5	610
6.9	640
7.4	690
7.8	720
8.3	750
9.0	780
9.2	810
9.7	840
10.1	870
10.6	900
11.1	930
11.5	960
12.0	990

FIG 2



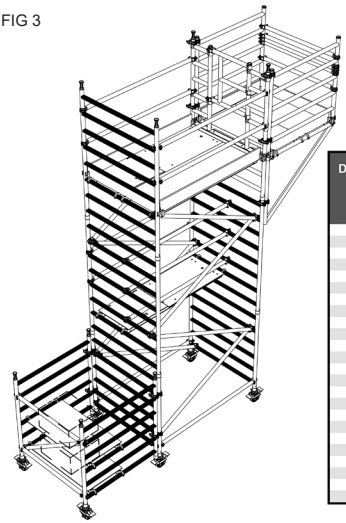
2m Single Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	240
1.8	280
2.3	320
2.7	360
3.2	400
3.7	420
4.2	470
4.6	510
5.0	550
5.5	590
6.0	645
6.5	685
6.9	740
7.4	790
7.8	840

2.5m Single Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	240
1.8	280
2.3	320
2.7	360
3.2	400
3.7	430
4.2	490
4.6	530
5.0	570
5.5	610
6.0	670
6.5	720
6.9	760
7.4	830
7.8	870

3.0m Single Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	240
1.8	285
2.3	330
2.7	375
3.2	420
3.7	450
4.2	500
4.6	545
5.0	590
5.5	635
6.0	700
6.5	745
6.9	790
7.4	870
7.8	915

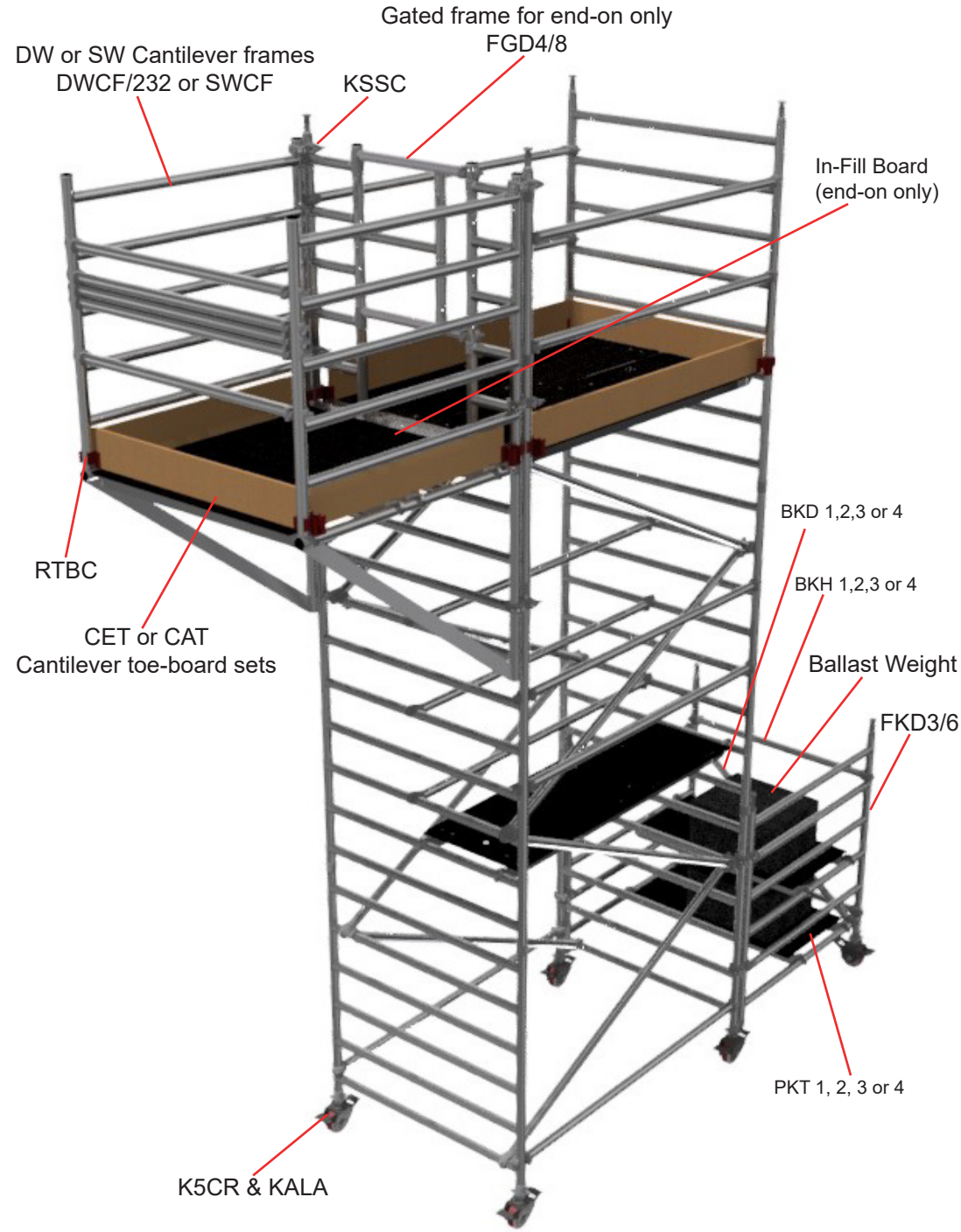
Please Note: Due to the lack of demand, the Single Width End Configuration is a bespoke application and would not be included within the standard cantilever guidance. If you have a requirement for this cantilever application, please contact Euro Towers Ltd for additional information – Tel: 01604 644 774

FIG 3



Double Width - End Configuration	
Tower Platform Height	Ballast Required Buttress
1.3	160
1.8	180
2.3	200
2.7	220
3.2	240
3.7	260
4.2	270
4.6	290
5.0	310
5.5	330
6.0	360
6.5	380
6.9	400
7.4	430
7.8	450
8.3	470
9.0	500
9.2	520
9.7	540
10.1	560
10.6	590
11.1	600
11.5	630
12.0	650

This DW tower ballast table is applicable for when using DW and SW cantilever frames (END ON only).


Gated frame for end-on only
FGD4/8
DW or SW Cantilever frames
DWCF/232 or SWCF
KSSC
In-Fill Board
(end-on only)
BKD 1,2,3 or 4
BKH 1,2,3 or 4
RTBC
CET or CAT
Cantilever toe-board sets
Ballast Weight
FKD3/6
PKT 1, 2, 3 or 4
K5CR & KALA

Side-On Cantilever Packs

All Weights are in Kilograms

2m DOUBLE WIDTH CANTILEVER - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	DWCF /232	232 6 Rung DW Cantilever Frame	8.8	17.6
6	KSSC	ET Swivel Couplers	1	6
1	CRP1	2m Cantilever In-fill board	9	9
2	BKH1	2m Horizontal Brace	1.93	3.86
2	PKP1	2m Plain Platform	13.22	26.44
4	RTBC	Red Plastic Toe-Board Clip	0.02	0.08
1	CAT1	2m DW Side On Toe-board Asm	13.4	13.4
				76

2.5m DOUBLE WIDTH CANTILEVER - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	DWCF /232	232 6 Rung DW Cantilever Frame	8.8	17.6
6	KSSC	ET Swivel Couplers	1	6
1	CRP2	2.5m Cantilever In-fill board	9.6	9.6
2	BKH2	2.5m Horizontal Brace	2.24	4.48
2	PKP2	2.5m Plain Platform	16.88	33.76
4	RTBC	Red Plastic Toe-Board Clip	0.02	0.08
1	CAT2	2.5m DW Side On Toeboard Asm	15.4	15.4
				87

3.0m DOUBLE WIDTH CANTILEVER - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	DWCF /232	232 6 Rung DW Cantilever Frame	8.8	17.6
6	KSSC	ET Swivel Couplers	1	6
1	CRP3	3.0m Cantilever In-fill board	10.2	10.2
2	BKH3	3.0m Horizontal Brace	2.55	5.1
2	PKP3	3.0m Plain Platform	20.29	40.58
4	RTBC	Red Plastic Toe-Board Clip	0.02	0.08
1	CAT3	3m DW Side On Toeboard Asm	16.8	16.8
				96

2m SINGLE WIDTH CANTILEVER- SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	SWCF	ET SW Cantilever Frame	5.5	11
6	KSSC	ET Swivel Couplers	1	6
1	CRP1	2m Cantilever In-fill board	9	9
2	BKH1	2m Horizontal Brace	1.93	3.86
1	PKP1	2m Plain Platform	13.22	13.22
4	RTBC	Red Plastic Toe-Board Clip	0.02	0.08
1*	CAT1/S	2m SW/SW Side On Toeboard Asm	4.4	4.4
1*	CAT1/DS	2m DW/SW Side On Toeboard Asm	9.6	9.6
*Toe-board dependant on tower width				57.16
		Total		**117**

2.5m SINGLE WIDTH CANTILEVER- SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	SWCF	ET SW Cantilever Frame	5.5	11
6	KSSC	ET Swivel Couplers	1	6
1	CRP2	2.5m Cantilever In-fill board	9.6	9.6
2	BKH2	2.5m Horizontal Brace	1.93	4.48
1	PKP2	2.5m Plain Platform	16.88	16.88
4	RTBC	Red Plastic Toe-Board Clip	0.02	0.08
1*	CAT2/S	2.5m SW/SW Side On Toeboard Asm	4.4	4.4
1*	CAT2/DS	2.5m DW/SW Side On Toeboard Asm	11.6	11.6
*Toe-board dependant on tower width				64.04
				132

3m SINGLE WIDTH CANTILEVER - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	SWCF	ET SW Cantilever Frame	5.5	11
6	KSSC	ET Swivel Couplers	1	6
1	CRP3	3m Cantilever Rigger Platform	10.2	10.2
2	BKH3	3m Horizontal Brace	2.55	5.1
1	PKP3	3m Plain Platform	20.29	20.29
4	RTBC	Red Plastic Toe-Board Clip	0.02	0.08
1*	CAT3/S	3m SW/SW Side On Toeboard Asm	4.4	4.4
1*	CAT3/DS	3m DW/SW Side On Toeboard Asm	13	13
*Toe-board dependant on tower width				70.07
				146

Buttress Packs

2m DOUBLE WIDTH BUTTRESS - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
4	KSSC	ET Swivel Couplers	1	4
2	FKD3-6	6 Rung DW 232 Frame	7.35	14.7
2	BKH1	2m Horizontal Brace	1.93	3.86
2	PKP1	2m Plain Platform	13.22	26.44
2	K5CR	5" Castor	3.23	6.46
2	KALA	Leg Assembly	0.98	1.96
1	BKD1	2m Diagonal Brace	2.06	2.06
				59.48
		Total		**136**

2.5m DOUBLE WIDTH BUTTRESS - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
4	KSSC	ET Swivel Couplers	1	4
2	FKD3-6	6 Rung DW 232 Frame	7.35	14.7
2	BKH2	2.5m Horizontal Brace	2.24	4.48
2	PKP2	2.5m Plain Platform	16.88	33.76
2	K5CR	5" Castor	3.23	6.46
2	KALA	Leg Assembly	0.98	1.96
1	BKD2	2.5m Diagonal Brace	2.35	2.35
				67.71
				155

3.0m DOUBLE WIDTH BUTTRESS - SIDE CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
4	KSSC	ET Swivel Couplers	1	4
2	FKD3-6	6 Rung DW 232 Frame	7.35	14.7
2	BKH3	3.0m Horizontal Brace	2.55	5.1
2	PKP3	3.0m Plain Platform	20.29	40.58
2	K5CR	5" Castor	3.23	6.46
2	KALA	Leg Assembly	0.98	1.96
1	BKD3	3m Diagonal Brace	2.65	2.65
				75.45
				172

End-On Cantilever and Buttress Pack

DOUBLE WIDTH CANTILEVER - DW END-ON CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	DWCF /232	6 Rung 232 DW Cantilever Frame	8.8	17.6
10	KSSC	ET Swivel Couplers	1	10
1	CIPD	ET DW In-fill board	2.5	2.5
1	ECPG	End-on tower cover (gated)	1.6	1.6
2	FKD3	ET 3 Rung DW Plain Frame	6.77	13.54
6	BKH4	4ft Horizontal Brace	1.8	10.8
4	PKP4	4ft Plain Platform	9	36
2	K5CR	5" Castor	3.23	6.46
2	KALA	Leg Assembly	0.98	1.96
1	BKD4	4ft Diagonal Brace	2	2
8	RTBC	Red Plastic Toe-Board Clip	0.02	0.16
1	CET1**	4ft x 2m End Toeboard Asm	12.8	12.8
1	CET2**	4ft x 2.5m End Toeboard Asm	14.8	14.8
1	CET3**	4ft x 3m End Toeboard Asm	16.2	16.2
** These are specified depending on size.		Total		**119**

DOUBLE WIDTH CANTILEVER - SW END-ON CONFIGURATION

QTY	PART	DESCRIPTION	WEIGHT	
2	SWCF	ET SW Cantilever Frame	8.8	17.6
10	KSSC	ET Swivel Couplers	1	10
1	CIPD	ET SW In-fill board	2.5	2.5
1	ECPG	End-on tower cover (gated)	1.6	1.6
2	FKD3	ET 3 Rung DW Plain Frame	6.77	13.54
6	BKH4	4ft Horizontal Brace	1.8	10.8
3	PKP4	4ft Plain Platform	9	27
2	K5CR	5" Castor	3.23	6.46
2	KALA	Leg Assembly	0.98	1.96
1	BKD4	4ft Diagonal Brace	2	2
8	RTBC	Red Plastic Toe-Board Clip	0.02	0.16
1	CET1/S**	4ft x 2m End Toeboard Asm	12.8	12.8
1	CET2/S**	4ft x 2.5m End Toeboard Asm	14.8	14.8
1	CET3/S**	4ft x 3m End Toeboard Asm	16.2	16.2
** These are specified depending on size.		Total		**110**

GATE FRAME OPTIONS

QTY	PART	DESCRIPTION	WEIGHT	
1	FGD4/8	Gated 8 Rung DW 232 Frame	12	12

Cantilever Toe-Boards

CANTILEVER TOE-BOARDS CAT1/S

QTY	PART	DESCRIPTION	WEIGHT	
2	TCSS	1390mm long toe-board	2.2	4.4
2	TKL1/B	1790mm toe-board blank	2.6	5.2

CANTILEVER TOE-BOARDS CAT1

QTY	PART	DESCRIPTION	WEIGHT	
2	TCDW	2610mm long toe-board	4.1	8.2
2	TKL1/B	1790mm toe-board blank	2.6	5.2

CANTILEVER TOE-BOARDS CAT1/DS

QTY	PART	DESCRIPTION	WEIGHT	
2	TCSW	2000mm long toe-board	2.8	5.6
2	TKL1/B	1790mm toe-board blank	2.6	5.2

CANTILEVER TOE-BOARDS CAT2/S

QTY	PART	DESCRIPTION	WEIGHT	
2	TCSS	1390mm long toe-board blank	2.2	4.4
2	TKL2/B	2290mm toe-board blank	3.6	7.2

CANTILEVER TOE-BOARDS CAT2

QTY	PART	DESCRIPTION	WEIGHT	
2	TCDW	2610mm long toe-board blank	4.1	8.2
2	TKL2/B	2290mm toe-board blank	3.6	7.2

CANTILEVER TOE-BOARDS CAT3/S

QTY	PART	DESCRIPTION	WEIGHT	
2	TCSS	1390mm long toe-board blank	2.2	4.4
2	TKL3/B	2790mm toe-board blank	4.3	8.6

CANTILEVER TOE-BOARDS CAT3

QTY	PART	DESCRIPTION	WEIGHT	
2	TCDW	2610mm long toe-board blank	4.1	8.2
2	TKL3/B	2790mm toe-board blank	4.3	8.6

CANTILEVER TOE-BOARDS CET1

QTY	PART	DESCRIPTION	WEIGHT	
2	TKL4/B	4ft toe-board blank	1.8	3.6
2	TKL1/B	1790mm softwood toe-board blank	2.6	5.2
2	TKDW/B	1260mm long softwood toe-board	2.0	4.0

CANTILEVER TOE-BOARDS CET/S1

QTY	PART	DESCRIPTION	WEIGHT	
2	TCES	550mm Toe-board blank	0.85	1.7
2	TKL1/B	1790mm softwood toe-board blank	2.6	5.2
2	TKDW/B	1260mm long softwood toe-board	2.0	4.0

CANTILEVER TOE-BOARDS CET2

QTY	PART	DESCRIPTION	WEIGHT	
2	TKL4/B	4ft toe-board blank	1.8	3.6
2	TKL2/B	2290mm softwood toe-board blank	3.6	7.2
2	TKDW/B	1260mm long softwood toe-board	2.0	4.0

CANTILEVER TOE-BOARDS CET/S2

QTY	PART	DESCRIPTION	WEIGHT	
2	TCES	550mm Toe-board blank	0.85	1.7
2	TKL2/B	2290mm softwood toe-board blank	3.6	7.2
2	TKDW/B	1260mm long softwood toe-board	2.0	4.0

CANTILEVER TOE-BOARDS CET3

QTY	PART	DESCRIPTION	WEIGHT	
2	TKL4/B	4ft toe-board blank	1.8	3.6
2	TKL3/B	2790mm softwood toe-board blank	4.3	8.6
2	TKDW/B	1260mm long softwood toe-board	2.0	4.0

CANTILEVER TOE-BOARDS CET/S3

QTY	PART	DESCRIPTION	WEIGHT	
2	TCES	550mm Toe-board blank	0.85	1.7
2	TKL3/B	2790mm softwood toe-board blank	4.3	8.6
2	TKDW/B	1260mm long softwood toe-board	2.0	4.0

ALL INFORMATION AND ADVICE STATED WITHIN THIS DOCUMENT IS SUBJECT TO THE USE OF EURO TOWERS MANUFACTURED PRODUCTS ONLY. ALL MAIN TOWER STRUCTURES MUST BE BUILT USING EURO TOWERS EN 1004:2020 232 DOUBLE WIDTH OR SINGLE WIDTH 3T TOWER INSTRUCTION MANUALS. ALL TOWERS MUST BE BUILT AND DISMANTLED IN ACCORDANCE WITH THE RELEVANT TOWER ASSEMBLY GUIDES AND HAVING REGARD TO THE WORKING AT HEIGHT REGULATIONS AND HEALTH & SAFETY LEGISLATION. Euro Towers Ltd Cantilever Tower Systems conforms to BS 1139-6:2022 Load Class 3, for all applicable tests and standards please refer to the supplied design certificate. MANUALS AVAILABLE TO DOWNLOAD FROM www.eurotowers.co.uk

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 buttress 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

GENERIC BUILD METHOD FOR SIDE ON AND END ON BUTTRESS SECTIONS

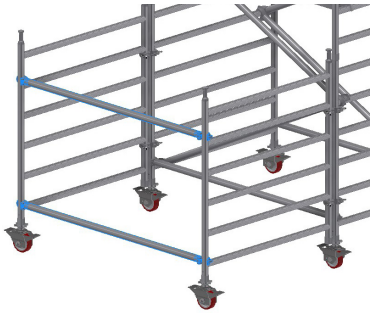
SIDE ON APPLICATIONS
Double and Single Width 2m, 2.5m and 3m Towers
END ON APPLICATION
Double Width 2m, 2.5m and 3m Towers only

All buttress frames MUST be Double Width and fitted before the cantilever section.
For end on cantilevers, the trapdoor opening on the platform and buttress should be opposite the cantilever and the cantilever frames should be at the gated frame end. For side on configurations the buttress should be on the opposite side to the cantilever. Before you start, ensure that all items required for your tower and cantilever are present and that you have sufficient suitable ballast weights and a means to secure them to the platforms to ensure safe use of the completed structure. ALL ballast weights MUST be of solid material, not sand, water, other liquids or granular material. Additional buttress platforms may be required on some towers. If stabilizers are not being used in your main tower structure, build the base section of the tower and then add the buttress and ballast weights before you complete the tower following the Double Width or Single Width 232 3T tower instruction manual.
On some towers where the diagonal brace pattern ends one rung below the work platform, you may step the last pair of braces up one rung to support the work platform and cantilever (if required).

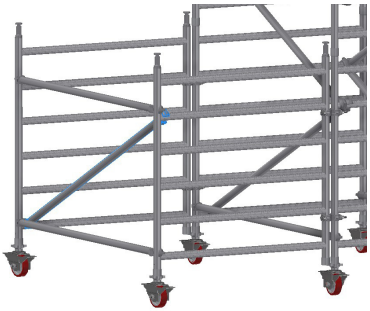
Attaching the buttress section to an existing tower

1.Insert castor and leg into each of the buttress frames and lock brake when in position. See image on page 12 for castor brake operation.

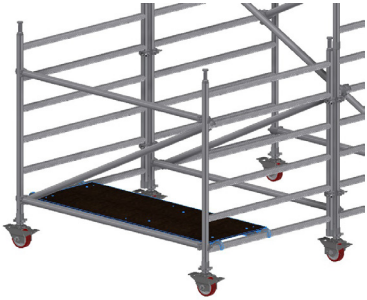
2. Secure each buttress frame to the main tower structure using the approved swivel couplers. 1 above the top rung and 1 above the second rung on each side.



3. Fit 1 buttress horizontal brace to the vertical above the 5th rung and 1 above the bottom rung at the end away from the main tower structure.



4. Fit 1 diagonal brace to the bottom rung of a buttress frame at the furthest point away from the main tower.



5. Fit ballast platform to the bottom rung at the end away from the main tower structure. Level the buttress using a spirit level as a guide; re-tighten couplers before continuing (if required).

6. Fit the required ballast weight evenly on the ballast platform(s) and secure in place.

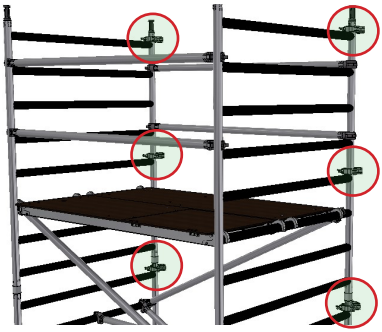
7. All additional ballast platforms and weights must be positioned on the buttress frames only, starting above the first.

8. Secure the ballast to the platform(s) to avoid accidental removal.

If your tower originally had stibilisers, you can now remove them if needed.

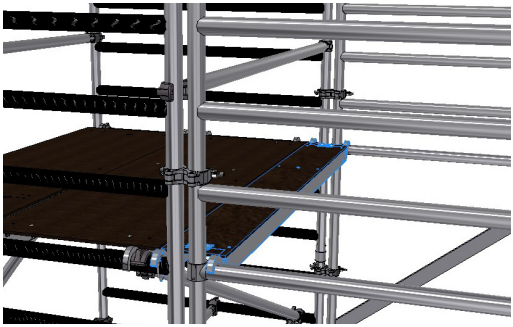
Double Width SIDE ON cantilever assembly

SIDE ON –Single Width Towers MUST use Single Width Cantilever System only



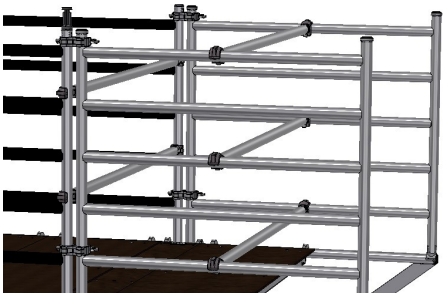
1. Fit 6 swivel couplers to the vertical as seen above. Ensure they are evenly spaced out.

2. Fit cantilever frames; ensure the rungs line up to avoid trip hazards on the platform decks. Ensure couplers are tight. Repeat on the opposite side.

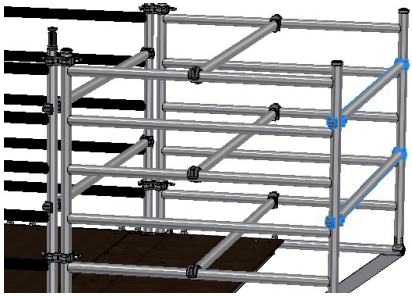


3. From behind the guardrail braces fit the infill platform.

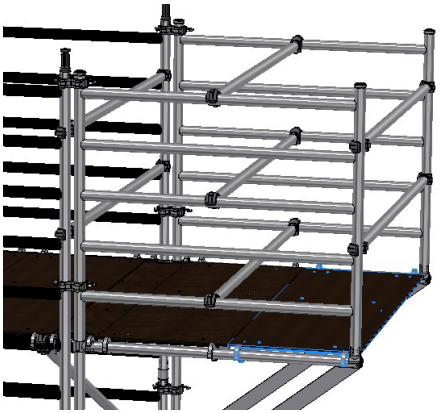
4. From behind the guardrail braces fit a platform next to the infill platform. (Single Width Cantilever go to step 6)



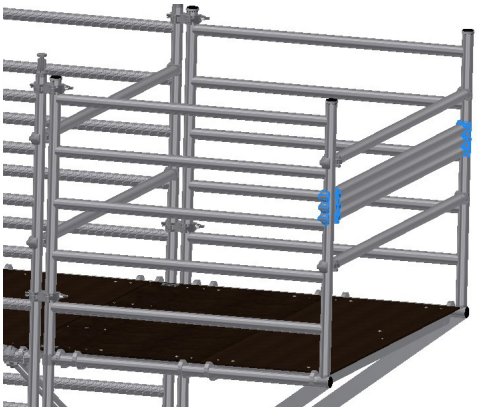
5. Fit an additional set of guardrail braces. This will be 3 horizontal braces hooks facing down to lock onto the cantilever frames.



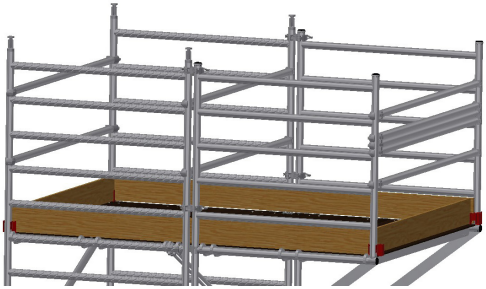
6. Reposition the inner braces to the verticals above the 3rd and 5th rung on the Cantilever frames to complete your working guardrails, hooks facing out.
(Single Width Cantilever go to step 8)



7. From behind the inner set of guardrails fit a platform next to the one you are on. Go to Step 9



8. Reposition the inner set of braces to store ready for safe dismantling on the tower

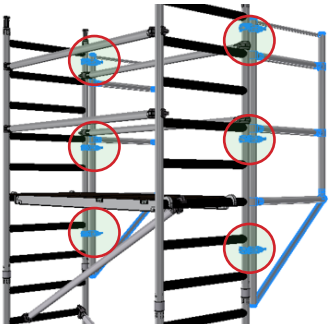


9. Fit toeboard clips and toeboards to complete the structure.

Dismantling is the reverse of assembly. You MUST reposition the stored braces before removing any platforms.

Single Width SIDE ON cantilever assembly

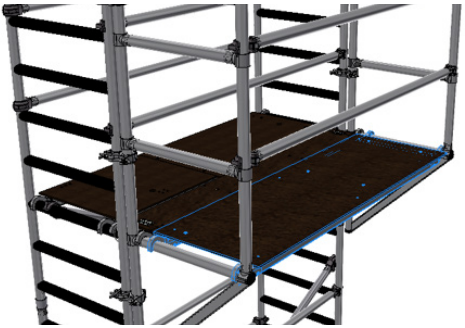
SIDE ON –Single Width Towers MUST use Single Width Cantilever System only



1. Fit 6 swivel couplers to the vertical as seen above. Ensure they are evenly spaced out. 2. Fit cantilever frames; ensure the rungs line up to avoid trip hazards on the platform decks. Ensure couplers are tight. Repeat on the opposite side.

2. From behind the guardrail braces fit 2 more braces to complate a new guardrail.

3. From behind the guardrail braces fit the infill platform.



4. From behind the guardrail braces fit a platform next to the infill platform.

5. You can now remove your original guardrail braces from the tower leaving the new cantilever guardrail braces

6. Fit toeboard clips and toeboards to complete the structure.

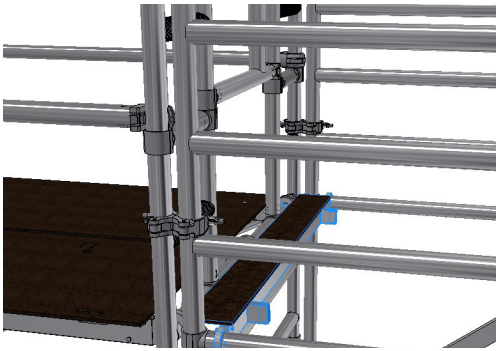
Dismantling is the reverse of assembly.

Double Width END ON cantilever (DW Tower ONLY)

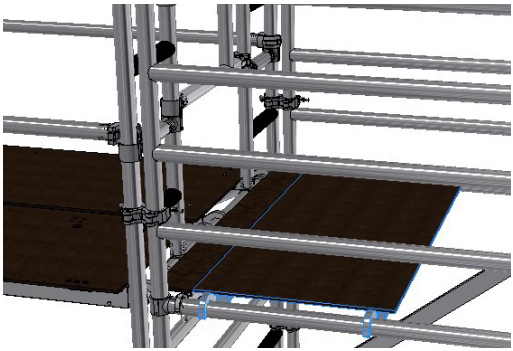
END ON- Double Width Tower Only, Single or Double Width Cantilever Systems
Please note the images below show the gated frame. See kitting list for part numbers and weights. When building your Tower for an end-on cantilever system, substitute your top frame with a gated frame as seen below. Ensure that the gate is opening inwards of the tower. Ensure the trapdoor opening is opposite the gated / cantilever end.

1. Fit 6 swivel couplers to your tower as seen above.

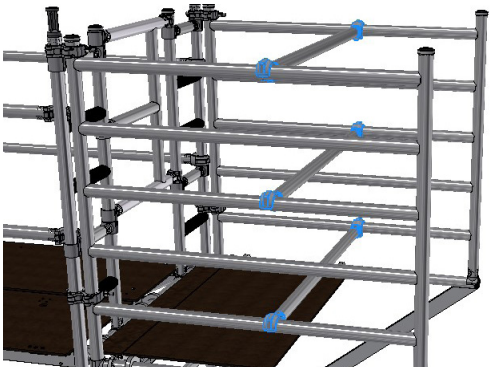
2. Fit cantilever frames; ensure the rungs line up to avoid trip hazards on the platform decks. Ensure couplers are tight. Repeat on the opposite side.



3. From behind the gate fit the end infill platform.



4. From behind the rungs fit a platform on the nearside of the cantilever system next to the end infill platform. (Single Width Cantilever go to step 7)

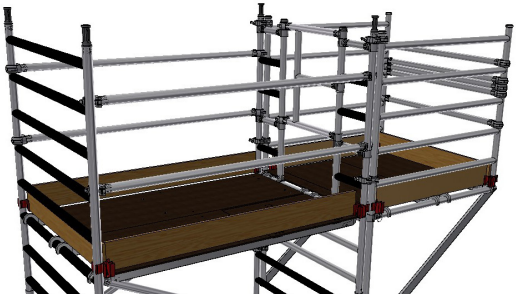


5. From behind the rungs fit an additional set of guardrails on Cantilever frame rungs for the new platform, pushing down to lock on.

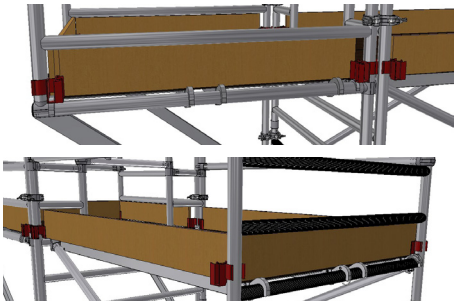
6. Reposition the inner braces to the verticals above the 3rd and 5th rung on the Cantilever frames to complete your working guardrails, hooks facing out.

7. Going through the rungs or gate, from behind the new guardrails fit a platform next to the one you are on.

8. Reposition the inner set of braces to store ready for safe dismantling on the tower. (Double Width Cantilever only)



9. Fit toe-board clips and toe-boards to complete the structure.



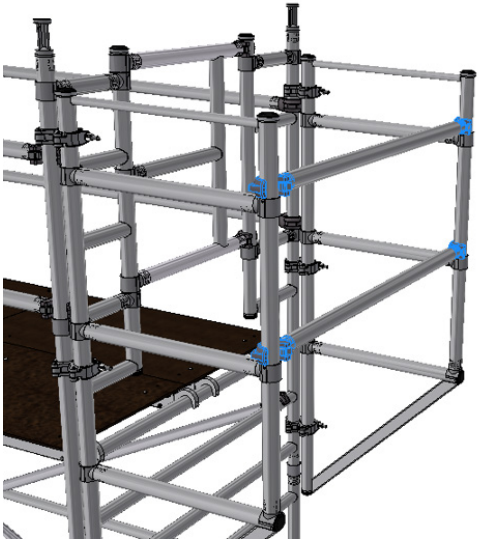
Dismantling is the reverse of assembly.

You MUST reposition the stored braces before removing any platforms.

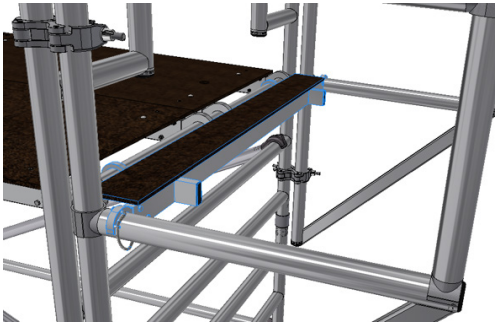
Single Width END ON cantilever (DW Tower ONLY)

END ON- Double Width Tower Only, Single or Double Width Cantilever Systems
Please note the images below show the gated frame. See kitting list for part numbers and weights. When building your Tower for an end-on cantilever system, substitute your top frame with a gated frame as seen below. Ensure that the gate is opening inwards of the tower. Ensure the trapdoor opening is opposite the gated / cantilever end.

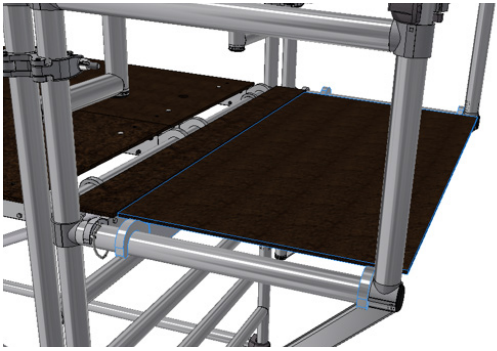
1. Fit 6 swivel couplers to your tower as seen above. Fit cantilever frames; ensure the rungs line up to avoid trip hazards on the platform decks. Ensure couplers are tight. Repeat on the opposite side.



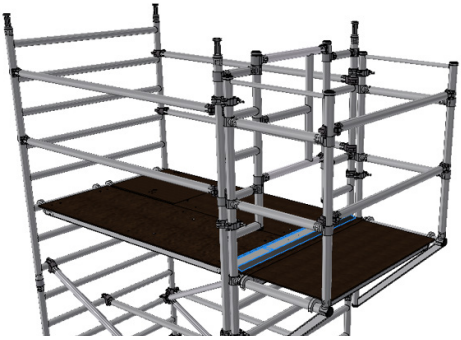
2. From behind your current guardrail or gated frame, fit an additional set of guard-rails onto the Cantilever frame rungs for the new platform. Hooks facing outwards.



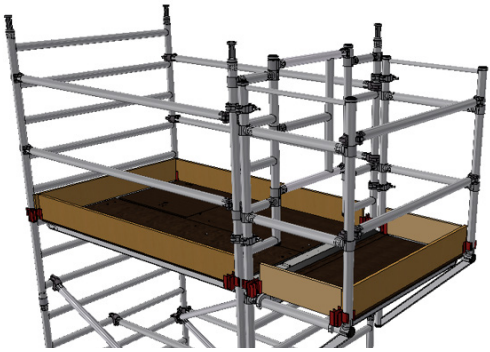
3. From behind the gate fit the end infill platform.



4. From behind the rungs fit a platform on the nearside of the cantilever system next to the end infill platform.



5. From behind the gate fit the cover panel over the platform hooks.



6. Fit toe-board clips and toe-boards to complete the structure.

Dismantling is the reverse of assembly.