

# TOWER CANTILEVER SYSTEMS



## ASSEMBLY GUIDE

**FOR USE WITH EURO TOWERS LADDER FRAME 3T TOWER SYSTEMS ONLY**  
**AVAILABLE FOR 2M, 2.5M and 3M PLATFORM LENGTHS and DOUBLE WIDTH**  
**END ON OPTIONAL GATED FRAME AVAILABLE UPON REQUEST**

Mobile access working towers may only be assembled and dismantled by persons familiar with these instructions

# Kitting Lists and Ballast Requirements

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 DOUBLE WIDTH OR SINGLE WIDTH 3T TOWER INSTRUCTION MANUALS.

MANUALS AVAILABLE TO DOWNLOAD FROM [www.eurotowers.co.uk](http://www.eurotowers.co.uk)

## TYPES OF CANTILEVER

All tower platform heights in metres and weights in Kilograms

DOUBLE WIDTH -SIDE CONFIGURATION	
QTY	DESCRIPTION
2	A ET DW Cantilever Frame
10	B ET Swivel Couplers
1	C Cantilever Rigger Platform
2	D ET 3 Rung DW Plain Frame
4	E Horizontal Brace
4	F Plain Platform
2	G 5" Castor & Leg Assembly
1	H Diagonal Brace
1	I Toeboard Assembly
4	J Toeboard Clip

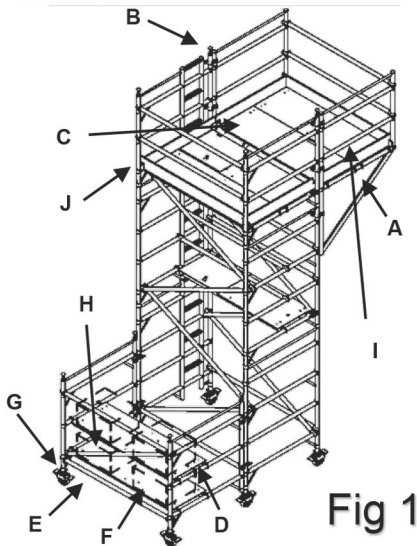


Fig 1

SINGLE WIDTH -SIDE CONFIGURATION	
QTY	DESCRIPTION
2	A ET SW Cantilever Frame
10	B ET Swivel Couplers
1	C Cantilever Rigger Platform
2	D ET 3 Rung DW Plain Frame
4	E Horizontal Brace
3	F Plain Platform
2	G 5" Castor & Leg Assembly
1	H Diagonal Brace
1	I Toeboard Assembly
4	J Toeboard Clip

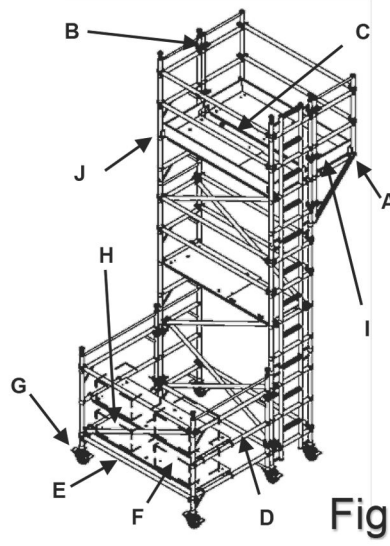


Fig 2

DOUBLE WIDTH -END CONFIGURATION	
QTY	DESCRIPTION
2	A ET DW Cantilever Frame
10	B ET Swivel Couplers
1	C Cantilever End Infill Platform
2	D ET 3 Rung DW Plain Frame
6	E 4ft Horizontal Brace
4	F 4ft Plain Platform
2	G 5" Castor & Leg Assembly
1	H 4ft Diagonal Brace
1	I Toeboard Assembly
8	J Toeboard Clip

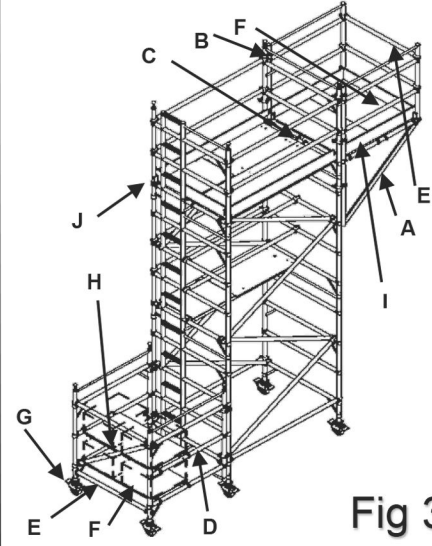


Fig 3

Double Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.41	235
1.88	265
2.34	295
2.81	325
3.27	355
3.73	385
4.2	410
4.66	440
5.13	470
5.59	500
6.05	540
6.52	570
6.98	600
7.45	630
7.91	660
8.37	690
8.84	720
9.3	750
9.77	780
10.23	810
10.69	840
11.16	870
11.62	900
12.09	930

Single Width - Side Configuration	
Tower Platform Height	Ballast Required Buttress
1.41	230
1.88	280
2.34	330
2.81	380
3.27	430
3.73	455
4.2	465
4.66	515
5.13	565
5.59	615
6.05	635
6.52	685
6.98	735
7.45	790
7.91	840

### 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 particular cantilever application, please contact Euro Towers Ltd for additional information – Tel: 01604 644 774

Double Width - End Configuration	
Tower Platform Height	Ballast Required Buttress
1.41	157
1.88	179
2.34	201
2.81	223
3.27	245
3.73	267
4.2	272
4.66	294
5.13	316
5.59	338
6.05	361
6.52	383
6.98	405
7.45	433
7.91	455
8.37	477
8.84	499
9.3	521
9.77	543
10.23	565
10.69	587
11.16	609
11.62	631
12.09	653

# General Safety Rules

## **Check Tower AND Cantilever Assembly Instructions before use.**

The MAXIMUM number of persons on a Cantilever Structure at any one time during assembly and dismantling is TWO.

The MAXIMUM number of simultaneous Work Platforms allowed 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 ONE.

NEVER remove the ballast with the Cantilever Structure in place.

NEVER assemble the Cantilever Structure without the correct Ballast

Ensure that the Cantilever Structure is within the maximum platform height stated.

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 3)

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

Guardrails and toeboards must be fitted to the working platforms.

Never jump on to or off platforms.

DO NOT exceed the safe working load of the platform or structure by accumulating debris, material or tools on platforms as these can be a significant additional load.

Should you require additional platform height, check kit list on this and the tower guide for components and ballast requirements.

NEVER extend your adjustable legs to achieve extra height, these are for levelling only.

NEVER use a ladder or other objects on the platform to achieve additional height.

Never climb on horizontal or diagonal braces. Do not gain access or descend from the working platform other than by the intended access system.

DO NOT work from the built in ladders, they are a means of access only.

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

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.

Do not use any Cantilever Structure which is damaged, which has not been properly assembled, which is not firm and stable, and which has any missing or damaged parts.

Ensure the whole structure is level and that ALL castors are locked when the structure is in position.

Ensure that ALL swivel couplers are tightened fully once in position. All couplers MUST be specific aluminium tower couplers.

DO NOT use Scaffold Couplers.

Ensure that all frames, braces and platforms are firmly in place and that all locking hooks are functioning correctly. Ensure that all frame locking clips are engaged. If any missing, replace them.

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.

DO NOT use sheeted Cantilever Structures, tarpaulin or other materials which could act like a sail.

A Cantilever Structure must not be used in winds stronger than 7.7 meters per second. (Beaufort scale 4). Be cautious if assembling or using the Cantilever Structure in open places, such as hangers or unclad buildings. In such circumstances the wind forces can be increased, as a result of the funnelling effect.

DO NOT assemble or use a Cantilever Structure near un-insulated, live or energised electrical machinery or circuits or near machinery in operation.

If an overhead hazard exists, head protection should be worn.

DO NOT lean ladders against the tower, or climb the outside of the Cantilever Structure. Whatever your intended access system, it should only be used inside the Cantilever Structure.

It is not permissible to attach and use hoisting facilities on Cantilever Structures, unless specifically provided for by the manufacturer.

Check that you have taken all necessary precautions to prevent the Cantilever Structure being moved, or rolling away. Always apply all castor brakes or use base plates.

DO NOT try to move an assembled Cantilever Structure. If you must move the Cantilever Structure, remove all materials and personnel; dismantle the Cantilever Section and Tower to no higher than 2m. Remove the ballast last.

When moving a Cantilever Structure, force must always be applied at the base.

The Cantilever Structure should only be moved manually on firm, level ground which is free from obstacles. Normal walking speed should not be exceeded during relocation. The ground over which a Cantilever Structure is moved should be capable of supporting the weight of the structure.

It is not permissible to attach bridging sections between a Cantilever Structure and a building.

**ALWAYS TAKE CARE OF ALUMINIUM SCAFFOLD TOWER AND CANTILEVER EQUIPMENT. REMEMBER YOUR SAFETY DEPENDS ON THE SAFE ASSEMBLY AND USE OF THE EQUIPMENT. RESPECT IT.**

Please contact Euro Towers Ltd for any further guidance.

# Assembly Guide... Step 1 Buttress Section

## GENERIC BUILD METHOD FOR SIDE ON AND END ON BUTTRESS SECTIONS

### SIDE ON APPLICATIONS

Euro Double and Single Width 2m, 2.5m and 3m Towers

### END ON APPLICATION

Euro Double Width 2m, 2.5m and 3m Towers only

All buttress frames **MUST** be Double Width.

Side On position; Cantilever frames should be on the ladder side of the tower, Buttress on the opposite side  
End on position; Cantilever frames should be at the plain frame end, Buttress at the Ladder Frame end.

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.

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 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).

## SAFE WORKING LOADS (SWL)

CANTILEVER / WORKING PLATFORM **150Kg**

COMPLETED STRUCTURE **750Kg**

BUTTRESS PLATFORM **250 Kgs** (Per Platform)

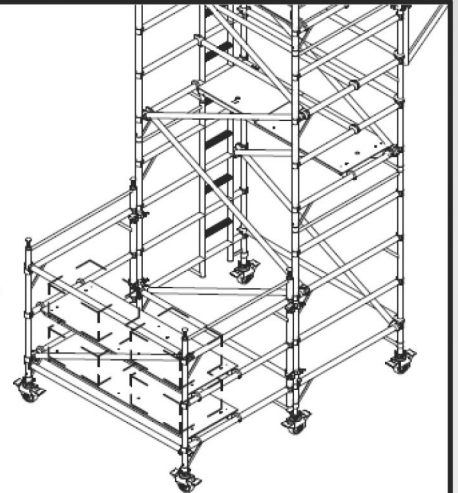
### IMPORTANT BALLAST INFORMATION

**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.**

**Single Width Cantilever Frames from Side On or End On builds use the same Ballast weight stated.**



1. Insert castor and leg into each of the buttress frames and lock brake when in position.



2. Secure each buttress frame to the main tower structure using an aluminium swivel coupler above the top and bottom rungs of each frame.



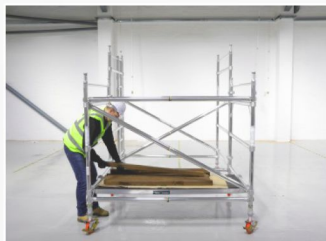
3. Fit 1 buttress horizontal brace to the vertical above the top rung and 1 below the bottom rung at the end away from the main tower structure.



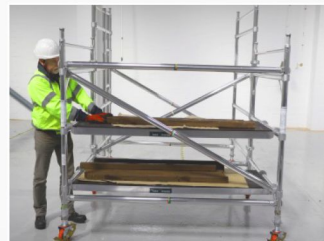
4. Fit 1 diagonal brace to the bottom rung of a buttress frame at the furthest point away from the main tower.



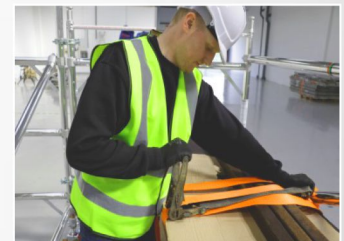
5. Fit ballast platform to the bottom rung at the end away from the main tower structure. Level the buttress using a spirit level as a guide; re-tighten couplers before continuing (if required).



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.

# Assembly Guide... Step 2 Cantilever Sections

The following information shall be displayed prominently at the base of the tower in accordance with BS1139 Part 6:2015

- a) The maximum number of simultaneous working platforms permitted is **ONE**
- b) The maximum number of persons permitted on the working platform during use is **ONE**
- c) The maximum number of persons permitted on the tower during assembly and dismantling is **TWO**
- d) The maximum number of persons permitted on any **ONE** platform on a cantilever tower is **ONE**
- e) The maximum **safe working load (SWL)** on working platform(s) on a cantilever system is **150kg**
- f) The maximum **SWL** on the cantilever tower is **750kg**
- g) The load class of the prefabricated tower scaffold is **Load Class3**

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



1. Fit 3 swivel couplers to the vertical above the top rung, below the platform and 2 rungs below the platform. Repeat on the opposite side.



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.



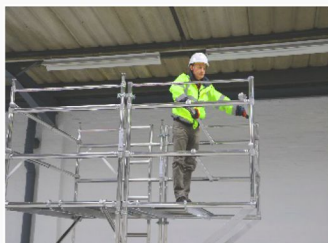
3. From behind the guardrail braces fit the rigger infill platform.



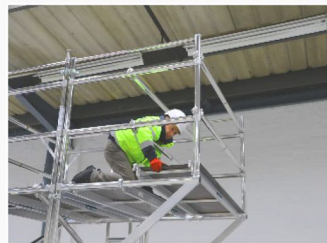
4. From behind the guardrail braces fit a platform next to the rigger infill platform.  
**(Single Width Cantilever go to step 6)**



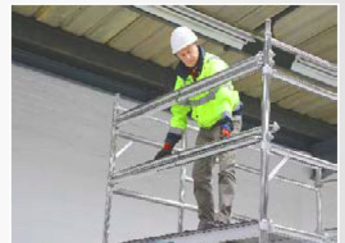
5. Fit an additional set of guardrails to the top 2 rungs on the Cantilever frames for the new platform, pushing down to lock on.



6. Reposition the inner braces to the verticals above the top 2 rungs on the Cantilever frames to complete your working guardrails.  
**(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.**

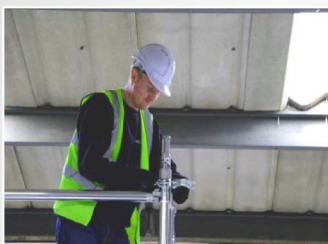
**You MUST reposition the stored braces before removing any platforms.**

# Assembly Guide... Step 2 Cantilever Sections

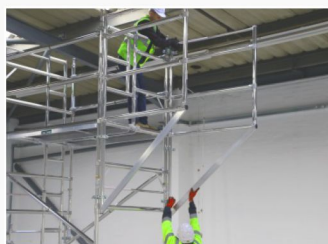
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- a) The maximum number of simultaneous working platforms permitted is **ONE**
- b) The maximum number of persons permitted on the working platform during use is **ONE**
- c) The maximum number of persons permitted on the tower during assembly and dismantling is **TWO**
- d) The maximum number of persons permitted on any **ONE** platform on a cantilever tower is **ONE**
- e) The maximum **safe working load (SWL)** on working platforms on a cantilever system is **150kg**
- f) The maximum **SWL** on the cantilever tower is **750kg**
- g) The load class of the prefabricated tower scaffold is **Load Class3**

## END ON- Double Width Tower Only, Single or Double Width Cantilever Systems



1. Fit 3 swivel couplers to the vertical above the top rung, below the platform and 2 rungs below the platform. Repeat on the opposite side



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 rungs/gate fit the rigger 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 to the top 2 rungs on the Cantilever frames for the new platform, pushing down to lock on.



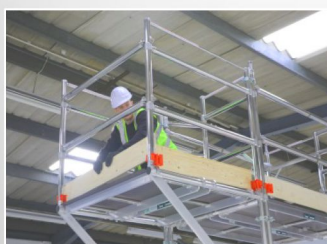
6. Going through the rungs or gate, from behind the new guardrails fit a platform next to the one you are on.



7. Fit 2 braces to the verticals above the top 2 rungs on the Cantilever frames to form your working guardrails.



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



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.**

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