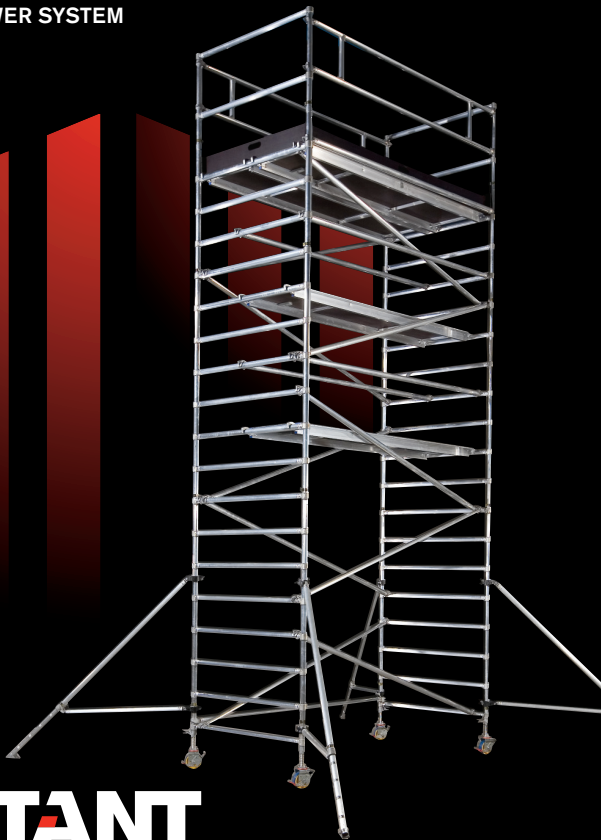


# Span<sup>300</sup>

ACCESS TOWER SYSTEM

## Assembly Guide



# INSTANT

QUALITY & STRENGTH YOU CAN TRUST

# Span 300 Assembly Guide

EN1004-3-8/12-XXCD

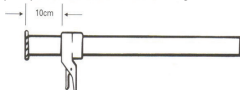
This Assembly guide is designed to provide you with step by step instructions to ensure your access tower system is erected easily and safely using the 3T (Through the Trap) Safety Standard. Before assembly please read the safety notes carefully.

Span 300 is a mobile access tower system complying with EN 1004 and WAHR, anti slip frame access, designed for Class 3 loading.

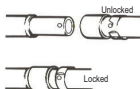
## ASSEMBLY PROCESS

### 1. Preparation

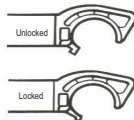
Locate the tower level adjusters on each leg at 10cm (4ins) from the bottom of the leg.



Unlock the interlock clips on all frames. When installed, always move the interlock clip to the "locked" position.



Sort the braces into horizontal and diagonal braces - the diagonals are slightly longer. Unlock the brace locks.

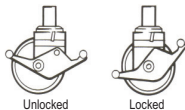


### 2. Base

Push the four leg assemblies into a pair of 7-rung (2m) frames, with 10cm (4ins) of threaded leg showing.

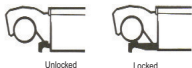
Follow the erection procedures as shown (Section 4). It is important to follow the bracing pattern precisely. The tower shown in the build procedure is a double width tower. For Single Width Towers, see notes section.

Note the locking and unlocking position for the castors as shown here.



### 3. Locking down the platform

A windlock clip is installed on the platform at the hook. This is locked as shown here.



## Safe Working Loads

The safe working load at each level of platform is 360Kg evenly distributed, regardless of whether one or two platforms are installed. Therefore, even if two platforms are installed side by side, total cumulative load shall not exceed 360Kg distributed.

The total loading on the tower structure should not exceed 720kg.

## Working Heights

Normal maximum platform height for indoor use is 12m for Double Width, and 8m for Single Width. For outdoor use, the maximum height is 8m for Single and Double Widths. For applications outside this range, contact your supplier for guidance

## 3T Safety Standard - THROUGH THE TRAP

This is an approved method of tower construction which, if carried out by a competent person, complies with all current safety legislation.

### Construction - basic principles

- Install the trapdoor platform over the ladder (if one is fitted).
- Ensure the trapdoor hinges to the **OUTSIDE** of the tower (not the centre).
- Once the platform has been installed, climb, using the approved method and **SIT IN THE TRAPDOOR OPENING**.
- While seated, attach horizontal braces to the frames to form guardrails on **BOTH SIDES OF THE PLATFORM**.
- See assembly instructions for specific placement of guardrails.
- 2 braces are normally required each side - although bracing frames can be used on the outside if desired or if specified in the instructions.
- Only when the platform is fully guarded is it safe to stand up.

### Dismantling

- Unlock the brace ends furthest away from the trapdoor.
- Sit in the trapdoor opening and unlock the near end hook and remove the braces completely.
- **DO NOT REMOVE BRACES UNTIL SITTING IN THE TRAPDOOR.**

REMEMBER - NEVER STAND ON AN  
UNGUARDED PLATFORM

## 4. BUILD PROCESS (Pictures show method for building a 6m tower)



Insert castors and adjustable legs into the 7<sup>th</sup> rung frames. Clip horizontal brace onto the vertical member just above the 1<sup>st</sup> rung, with claw facing outwards.



Attach diagonal braces in opposing directions from the 1<sup>st</sup> to the 4<sup>th</sup> rung. Attach platform to the 3<sup>rd</sup> rung (ensure trapdoor opens outwards). Check the base with a spirit level in both vertical and horizontal directions and adjust the legs if necessary.



Fit guardrails (horizontal braces) to the 7<sup>th</sup> rung either side of the platform. Insert 2 standard frames to the lower frames. Ensure interlock clips are locked.



Continue diagonal bracing in a zig-zag pattern by attaching 2 diagonal braces on each side (5<sup>th</sup> to 8<sup>th</sup> and from the 8<sup>th</sup> to the 11<sup>th</sup> rungs). Fit stabilisers to the base unit - see separate section on stabilisers below.



Fit trapdoor platform to the 10<sup>th</sup> rung of the tower.



Using the 3T method, clip 4 horizontal braces on the 12<sup>th</sup> and 14<sup>th</sup> rungs on both sides of the platform



Fit additional standard frames and lock. Clip 4 diagonal braces from rung 12 to 18 in a zig zag pattern (opposing direction). Move the trapdoor platform from the 3<sup>rd</sup> rung to the 17<sup>th</sup> rung.



Using the 3T method. Clip 4 horizontal braces to the 19<sup>th</sup> and 21<sup>st</sup> rungs on both sides of the platform.



Fit two guardrail frames and lock. Fit two bracing frames at the working level. Fit a standard platform to the 21<sup>st</sup> rung (opposite side). Then remove the horizontal brace from inside the platform and place on the lower rung.



Fit trapdoor platform and toeboards to complete the build. If intermediate platforms are to be used as working platforms, add a second platform, replace horizontal braces with bracing frames and fit toeboards.

### TOWERS ABOVE 4m

To build towers with platform heights greater than 4m, build as shown up to step 8. Repeat steps 7 and 8 until desired height is reached. Finish building the tower by completing steps 9 and 10.

### TOWERS WITH "UNEVEN" PLATFORM HEIGHTS (5m, 7m, etc)

**5m Tower:** Start tower build as shown above (steps 1-6). At step 7, install two 4 rung frames instead of standard frames and diagonally brace (rungs 12 to 18 on both sides). Install platform at rung 14 and guard using the 3T method. Install guardrail frames, bracing frames and working platforms (rung 18) as shown in steps 9&10. See picture showing 5m tower.

**7m Tower:** Start tower build as above (steps 1 - 8). After step 8, install two 4 rung frames and diagonally brace (rungs 19 to 22 on both sides). Install platform at rung 21 and guard using the 3T method. Install guardrail frames, bracing frames and working platforms (rung 25) as shown in steps 9&10.



## SINGLE WIDTH TOWER

While the general build process for the single width tower is the same as the double width, the single width tower uses only 2 diagonal braces per 2m section, rather than 4.

See attached figure for bracing details.

The build method is as follows.

- 1: Prepare the tower as detailed in sections 1 - 3.
- 2: Build the base section as shown in figures 1 and 2 of section 4
- 3: Install the first platform on the 4th rung
- 4: Fit guardrails to the 7th rung both sides of the platform.
- 5: From that point, the build process, the platform positions and bracing patterns are as detailed in the double width build process.

At the top working level, bracing frames are installed on each side, and toe-boards fitted.

If intermediate platforms are to be used as working platforms, the horizontal braces used for protection during the build process should be replaced with bracing frames and toe boards fitted.

For dismantling - see separate section below



## STABILISERS

Lightly tighten the upper clamps above the sixth rung on each corner post. Position the lower clamp above the bottom rung. Ensure the lower arm is as horizontal as possible. Position the stabilisers so that the footpads form a square as shown in picture 1.

Telescopically adjust the leg and reposition the clamps as required to make firm contact with the ground. Ensure the locking pins are in place. When in the correct position, tighten the clamps firmly.

To position the tower against a wall, do not remove the stabiliser, move parallel with the wall - see picture 2

To position the tower in a corner, remove the inside stabiliser and place the outside two parallel with the wall - see picture 3.

Ballast weight may be used to stabilise the tower, please contact your supplier for the correct amount of ballast weight required.



## DISMANTLING

To dismantle the tower, the erector should follow the build process in reverse order, but noting the following specific points

- All parts should be carefully lowered to the ground. Extreme care must be taken to avoid dropping any parts.
- Remove the toe-boards from the working platform.
- Remove the trapdoor platform at the working level. Re-position the horizontal brace to provide protection before removing the standard platform from the opposite side.
- Remove the bracing frames and guardrail frames.
- To remove the horizontal braces - first unlock the hooks at the end away from the trapdoor
- Sitting through the trapdoor, unlock the near end hook and remove the brace.
- Climb down to the next platform level, using the approved method, and repeat the process.
- **REMEMBER - NEVER STAND ON AN UNGUARDED PLATFORM**

## MOVING

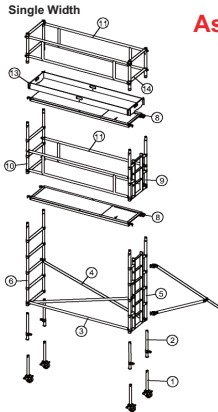
Towers should not be moved if wind speeds exceed 29 km/hr (force 4).

- First ensure tower is empty (material and personnel) and that area is clear of overhead hazards (eg electrical cables)
- Raise the stabiliser feet just enough to clear obstructions.
- Release the castor brakes.

Move the tower manually by applying force at the base - do not use machinery to push or pull the tower. Once moved - prepare the tower for use as follows:

- Check all casters and stabilisers are in firm contact with the ground.
- Check tower is vertical (spirit level) and adjust legs as required.
- Reapply the caster brakes.

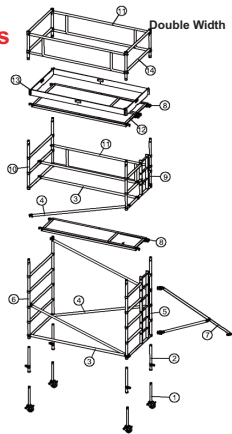
## Single Width



## Assembly Components

1. Adjustable Leg & Castor
2. Adjustable Leg
3. Horizontal Brace
4. Diagonal Brace
5. 5 Rung Ladder Frame
6. 5 Rung Frame
7. Stabiliser
8. Trapdoor Platform
9. 3 Rung Ladder Frame
10. 3 Rung Frame
11. Bracing Frame
12. Standard Platform
13. Toeboard Set
14. Guardrail Frame

## Double Width



## TOWER COMPONENTS REQUIRED

The following tables show a full list of components to build the tower to the platform height specified, complying with the requirements of EN 1004 and Work at Heights Regulations (WAHR). Braces, platforms, guardrail bracing frames and toeboards are length specific; (2m, 2.5m or 3m). Three unit weights in ascending order are given for these items, for 2m, 2.5m and 3m respectively. Other components are common to towers of all lengths, and their unit weights are also given. Total self-weight of towers are indicated, according to length and height.

## Span 300 Double Width Towers - 2m, 2.5 and 3m lengths to EN1004 and WAHR

| Platform Height (m)              | 2.1 | 3.2 | 4.1 | 5.2 | 6.0 | 7.1 | 7.9 | 9   | 9.8 | 10.9 | 11.8 |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Work Height (m)                  | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13   | 14   |
| Tower Height (m)                 | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12   | 13   |
| Tower Weight in Kg (2m length)   | 116 | 149 | 160 | 194 | 205 | 237 | 250 | 226 | 243 | 268  | 286  |
| Tower Weight in Kg (2.5m length) | 129 | 166 | 178 | 217 | 229 | 266 | 280 | 262 | 279 | 309  | 328  |
| Tower Weight in Kg (3m length)   | 145 | 192 | 204 | 254 | 266 | 313 | 328 | 382 | 394 | 439  | 454  |

Note: Quoted platform heights included 150mm (6") leg adjustment for levelling that can be increased or reduced

| Description                   | Weight (Kg) | Quantity Required |      |   |   |   |   |    |    |    |    |    |
|-------------------------------|-------------|-------------------|------|---|---|---|---|----|----|----|----|----|
| 7 Rung Frame                  | 11.2        | 2                 | 2    | 4 | 4 | 6 | 6 | 8  | 8  | 10 | 10 | 12 |
| 4 Rung Frame                  | 8.5         | 0                 | 2    | 0 | 2 | 0 | 2 | 0  | 2  | 0  | 2  | 0  |
| Guardrail Frame               | 3.6         | 2                 | 2    | 2 | 2 | 2 | 2 | 2  | 2  | 2  | 2  | 2  |
| Trapdoor Platform             | 14          | 18                | 20   | 1 | 2 | 3 | 3 | 4  | 4  | 5  | 5  | 6  |
| Fixed Platform                | 14          | 17                | 20   | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  |
| Horizontal Brace              | 1.7         | 2                 | 2.4  | 1 | 3 | 5 | 7 | 9  | 11 | 13 | 15 | 17 |
| Diagonal Brace                | 1.8         | 2.2               | 2.5  | 3 | 5 | 6 | 9 | 10 | 12 | 14 | 16 | 18 |
| Bracing frame                 | 3.8         | 4.4               | 5.2  | 2 | 2 | 2 | 2 | 2  | 2  | 2  | 2  | 2  |
| Telescopic Stabiliser (50430) | 5.2         | 4                 | 4    | 4 | 4 | 4 | 4 |    |    |    |    |    |
| Large Stabiliser (9090)       | 6.8         |                   |      |   |   |   |   | 4  | 4  | 4  | 4  | 4  |
| Adjustable Legs               | 1.1         | 4                 | 4    | 4 | 4 | 4 | 4 | 4  | 4  | 4  | 4  | 4  |
| Castor / Baseplate            | 2.2         | 4                 | 4    | 4 | 4 | 4 | 4 | 4  | 4  | 4  | 4  | 4  |
| Toe-board set                 | 8.7         | 11.5              | 14.4 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  |

## Span 300 Single Width Towers - 2m, 2.5 and 3m lengths to EN1004 and WAHR

| Platform Height (m)              | 2.1   | 3.2 | 4.1 | 5.2 | 6.0 | 7.1 | 7.9 |
|----------------------------------|-------|-----|-----|-----|-----|-----|-----|
| Work Height (m)                  | 4     | 5   | 6   | 7   | 8   | 9   | 10  |
| Tower Height (m)                 | 3     | 4   | 5   | 6   | 7   | 8   | 9   |
| Tower Weight in Kg (2m length)   | 98.7  | 131 | 140 | 173 | 184 | 221 | 231 |
| Tower Weight in Kg (2.5m length) | 107.2 | 145 | 154 | 191 | 203 | 245 | 257 |
| Tower Weight in Kg (3m length)   | 115   | 156 | 167 | 208 | 221 | 266 | 265 |

Note: Quoted platform heights included 150mm (6") leg adjustment for levelling that can be increased or reduced

| Description                   | Weight (Kg) | Quantity Required |     |   |   |   |   |   |
|-------------------------------|-------------|-------------------|-----|---|---|---|---|---|
| 7 Rung Frame                  | 11.2        | 2                 | 2   | 4 | 4 | 6 | 6 | 8 |
| 4 Rung Frame                  | 8.5         | 0                 | 2   | 0 | 2 | 0 | 2 | 0 |
| Guardrail Frame               | 3.6         | 2                 | 2   | 2 | 2 | 2 | 2 | 2 |
| Trapdoor Platform             | 14          | 18                | 20  | 1 | 2 | 3 | 3 | 4 |
| Horizontal Brace              | 1.7         | 2                 | 2.4 | 1 | 3 | 5 | 7 | 9 |
| Diagonal Brace                | 1.8         | 2.2               | 2.5 | 2 | 4 | 6 | 7 | 8 |
| Bracing frame                 | 3.8         | 4.4               | 5.2 | 2 | 2 | 2 | 2 | 2 |
| Telescopic Stabiliser (50430) | 5.2         | 4                 | 4   | 4 | 4 | 4 | 4 |   |
| Large Stabiliser (9090)       | 6.8         |                   |     |   |   |   |   | 4 |
| Adjustable Legs               | 1.1         | 4                 | 4   | 4 | 4 | 4 | 4 | 4 |
| Castor / Baseplate            | 2.2         | 4                 | 4   | 4 | 4 | 4 | 4 | 4 |
| Toe-board set                 | 1.8         | 2.2               | 2.5 | 1 | 1 | 1 | 1 | 1 |

# GENERAL GUIDANCE

## General

- Ensure the appropriate PPE is worn at all times. As a minimum, head protection must be worn at all times while working on and around the tower.
- If using castors, engage all castor brakes before climbing onto the tower.
- Do not erect or use a tower adjacent to live, energised, unisolated electrical equipment or near operating machinery.
- When tying in the tower, attach a tie to each upright at 4m height intervals. Ensure that couplers are suitable for 50mm diameter aluminum tube.
- Do not use boxes, steps or ladders to gain additional height. If additional height is required, contact your distributor to get extra components.
- Do not lean ladders against the tower. Do not push, pull, or lean against a wall from the tower unless the tower is tied into the building.
- Do not lift or suspend assembled mobile tower.
- Do not climb or stand on diagonal braces. Do not jump onto platforms.
- Always work within the tower structure and while standing on a platform. Always climb the structure from the inside.
- Access to platforms must always be through the platform trapdoor
- When wind exceeds Beaufort Force 4, cease using the tower. See table below on wind speeds. Beware of the possibility of high winds between buildings.
- Remove any ice or snow from platforms and if necessary apply grit or salt to prevent slipping.
- Do not expose any of the tower components to materials which are corrosive to aluminium, such as hydrochloric acid / potash
- Do not hoist heavy material on the outside of the tower.
- When leaving a tower unattended, tie in to a fixed point. Take necessary precautions from preventing unauthorised persons from accessing the tower.

## Construction

- It is recommended that a minimum of two people erect, move, or disassemble the tower.
- Before erecting the tower, inspect each component, which should be clean and undamaged. Check that you have all of the required components - see Component Schedule for details.
- Ensure that assembly location is checked to prevent hazards during assembly, dismantling or moving and while working on the tower. Particular attention should be given to the ground condition, whether level or sloping, obstructions and wind conditions. The ground condition should be capable of supporting the tower structure. Never use objects such as barrels, boxes, or loose bricks or blocks to support the structure.
- Components from other types of tower system should never be used.
- Towers must always be climbed from the inside of the assembly using the built-in ladder if provided.
- Components are normally hoisted using a rope. Always lift within the tower structure or within the base rectangle defined by the stabilisers.
- Ensure that interlocking clips on tower sections are used and are properly engaged. Never build a tower without interlocking clips.
- Adjustable legs should only be used to level the tower and should not be used to adjust the height of the tower. Do not adjust the legs with any personnel or material on the tower.
- Stabilisers should always be fitted when specified. Use the type of stabiliser shown on the component list according to the tower height.

## Storage, Care and Maintenance of the Tower Components

- All equipment should be kept clean, particularly leg locks, spigots and sockets, and other joints. Spigots should be able to fit easily into sockets. Keep joints and hook mechanisms lubricated with a light oil.
- Dirt and other debris should be removed with a light brush.
- Never strike or hammer components. Never throw or drop components onto a hard surface.
- Tower components should be stored vertically for transport and storage.
- Damaged components should be discarded and replaced with new components. Never use a damaged component.

## Wind speeds

Above Force 4, towers should not be used.

If wind speed is expected to exceed Force 6, the tower should be tied to local structure.

If the wind is expected to reach Force 8, the tower should be dismantled

| Force | Peak Mph | Peak Kph | Guidance                                    |
|-------|----------|----------|---|
| 4     | 18       | 29       | Moderate breeze - raises dust & loose paper |
| 6     | 31       | 50       | Strong breeze - difficult to use umbrella   |
| 8     | 46       | 74       | Gale force - walking is difficult           |