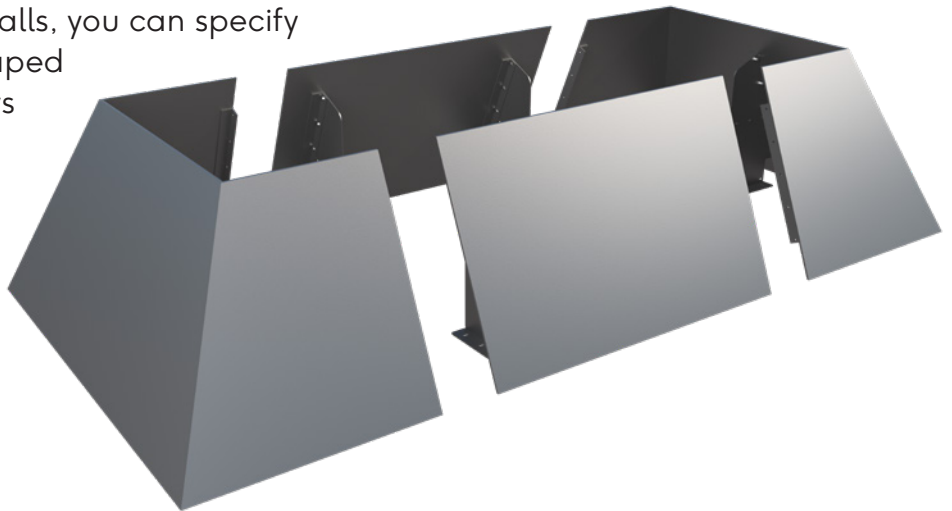


# RaafT Planters Angular Planter Walls

## Technical Datasheet

September 2021

Angular Planter Walls are designer planter wall panels that slant inwards and outwards, with various angles and prism shapes. With these planter walls, you can specify various angles and prism shaped edging to delineate pathways and green spaces. You have the opportunity to create something revolutionary that will be a talking point for years to come.



### PRODUCT INFORMATION

Dimensions	Maximum straight panel length	2980mm
	Maximum curved panel length	Avoid curves
	Height Range	To suit design (300-1000mm)*
	Steel thickness	6mm
Other	Material specification	Corten A, Stainless Steel or Powder Coated
	Corner types	Welded
	Panel details	Single panel and preformed corners
	Recycling	100% recyclable

\*Other heights can be achieved with bespoke planter walls— please discuss your requirements with the RaafT technical team.  
Email - [technical@raaft.co](mailto:technical@raaft.co)

### APPLICATIONS

Suitable for roof terraces, parks, playgrounds and many other external spaces. Angular Planter Walls has a high resistance to corrosive conditions in normal environments.



#### FIND OUT MORE OR REQUEST A SAMPLE

t: +44 (0)20 3146 7879 e: [enquiries@raaft.co](mailto:enquiries@raaft.co) w: [raaft.co](http://raaft.co)

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### INSTALLATION INFORMATION<sup>1</sup>

Height can be consistent or varied within each panel, but the bottom edge must always sit level (which will require a stepped foundation on sloped sites). Please discuss your project with the RaafT technical team to determine the most suitable installation method. No welding required.

General information can be found in the dedicated Installation..

### STORAGE & HANDLING

The product is securely packed and sealed in clear plastic sleeving to ensure no movement of the product in transit. Depending on the size/weight of the consignment this may be palletised.

Whilst there is no specific weight restrictions on what is or is not safe to lift in manual handling, an assessment of the health and safety risks should be undertaken and measures taken to reduce the risk of injury so far as reasonably practicable.

The following guidelines may be useful:

- a) Each person should be fully trained in manual handling techniques.
- b) The use of handling aids such as a trolley, folk-lift, pallet truck or conveyor should be used if moving large volumes of cartons.
- c) Break up large consignments into more manageable loads.
- d) Ensure that the product is stored at a reasonable height, so avoiding the lifting of cartons from floor level or above shoulder height.
- e) Reduce carrying distances of cartons.

### PROTECTIVE EQUIPMENT

We recommend that PPE (Personal Protective Equipment) is used when installing Angular Planter Walls

- a) Good strong safety boots/shoes to protect the feet.
- b) Protective eyewear such as safety glasses.
- c) Strong gloves to protect the hands.
- d) If using loud cutting equipment then ear plugs or defenders should be worn.

### FIRST AID

The Health and Safety Regulations 1981 require all construction sites to have the following:

- a) A first aid box with enough equipment to cope with the number of workers on site.
- b) An Appointed Person to take charge of first-aid arrangements. The Appointed Person looks after first aid equipment and facilities and calls the emergency services when required. Appointed Persons do not need first aid training.

- c) A First-Aider who has undertaken training and holds an HSE approved qualification to administer first-aid. This means that they must hold a valid certificate of competence in either:
  - First aid at work (FAW) issued by a training organisation approved by HSE
  - Emergency first aid at work (EFAW) issued by a training organisation approved by HSE
  - A recognised Awarding body of Ofqual/Scottish Qualifications Authority.
- d) The number of first-aiders will depend on the site.
- e) Information should be clearly displayed on site telling workers the name of the Appointed Person(s) or First Aider(s) and where to find them.

### FIRE PROTECTION

Angular Planter Walls are made using Corten A, Galvanised or Stainless Steel, none of which burn nor pose a fire hazard.

### STABILITY

**Corten A and Stainless Steel** are high performance materials that display excellent resistance to atmospheric corrosion when compared to other steels, making them exceptionally suitable for bespoke planter applications.

**Corten A** is a type of weathering steel which was developed to remove the need for regular painting and rust-prevention maintenance. This is achieved by the formation of a natural stable coating of dark brown oxidation across the metal's surface which acts as a barrier to the corrosive effects of rain, snow and other weather conditions.

**Stainless Steel** is an alloy principally containing iron, chromium, nickel and various other elements in small amounts. The addition of chromium provides the alloy with a high degree of corrosion resistance, removing the need for regular painting and rust-prevention maintenance.

**Powder coating** starts with shot-blasting of the steel which removes mill-scale, oxide dirt, oil and grease from the substrate; followed by a 7-stage zinc phosphate pre-treatment process for to prepare the surface. Zinc phosphate is used in the automotive industry and is therefore particularly suitable for products designed for exterior use. The product then receives the polyester powder coating to the requested colour. Polyester has excellent exterior durability and colour retention. Numerous colour options from world leading powder manufacturers are available. Powder coated products are carefully protected to avoid damage during transportation and installation.

An Anti-Graffiti finish is also available for powder coated surfaces. This is a clear top coat applied to weather resistant powder coating and provides a surface that allows easy cleaning of graffiti. More information on this is available upon request.



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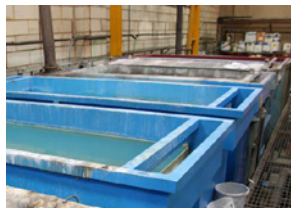
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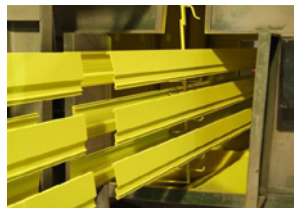
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Pre-treatment tanks



Powder coating

### ENVIRONMENTAL ISSUES

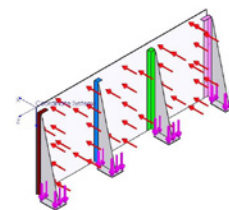
Angular Planter Walls are manufactured from either Steel, Corten A, Galvanised or Stainless Steel and is 100% recyclable. As a result the whole life cost of steel Prism Bespoke is excellent as it is sold for recycling not paid disposal. The principal element used in the production of steel is iron, which is second only to aluminium in terms of natural abundance in the Earth's crust. At current extraction rates there is enough iron to last another 1000+ years.

### SHEET MATERIAL TOLERANCES

a) CorTen A steel materials class A EN10029

### LOADING ANALYSIS<sup>2</sup>

It is assumed that the Soil has a density of approx. 18kN/m<sup>3</sup>. It is also assumed that the soil applies a load the footplates of the assembly. This load has been assumed to be applied via a 'wedge' of soil using an angle approx. 35 degrees. The results below have been tabulated for Soil load only and confirm the maximum deflection in the panel along a 1980mm length. The results also include the maximum loading received the fixing bolts as indicated.



- b) This confirms a thickness tolerance for 6mm of lower -0.4 to upper +1.1
- c) Sheet width tolerance for panels between 600–2000mm are + 20mm
- d) Sheet length tolerance for panels up to 4000mm are +20mm
- e) Flatness tolerance - the minimum yield strength of hot rolled CorTen A steel is 355 N/mm<sup>2</sup> which makes it steel type L. A 2000mm length has a flatness tolerance for 6mm thickness material of 12mm.

### FABRICATION

- a) At fabrication stage the sheet is laser cut to length and height to the requirements of the project. The tolerance for a laser cut sheet is +/- 2mm
- b) The sheet is folded top and bottom to our design and all folds are subject to a tolerance of +/- 2mm – the folds will only ever improve the flatness of the sheet
- c) Vertical brackets are welded to the back of the panel – again these brackets will only ever improve the flatness of the sheet
- d) The 2mm tolerances mentioned above are included on our production drawing

PRODUCT	PLANTER HEIGHT	SUPPORT SPACING	SOIL LOAD	SOIL LOAD ONLY		
				MAXIMUM DEFLECTION IN PANEL	NUMBER OF REAR BOLTS IN FOOTPLATE	LOAD ON REAR BOLTS
Angular Planter Wall	1000mm	825mm	4877 N/m <sup>2</sup>	3.05mm	2	808 N

Please note the above information is provided as a guide only. We recommend that professional opinions be obtained for construction projects prior to work being commissioned. RaafT Ltd accepts no responsibility for any damage or loss as a result of using the loading analysis. We will be happy to engage in any discussion with regards to specific project applications.

### SUPPORTING DOCUMENTS

More information on the Angular Planter Wall products can be found at [www.raaft.co](http://www.raaft.co).

1. The Installation Information given in this document is intended as a guide only. We recommend that professional opinions are obtained before work is commissioned. RaafT Ltd accepts no responsibility for any damage or loss as a result of using the Installation Information. We will be happy to engage in any discussion with regard to specific project applications.

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