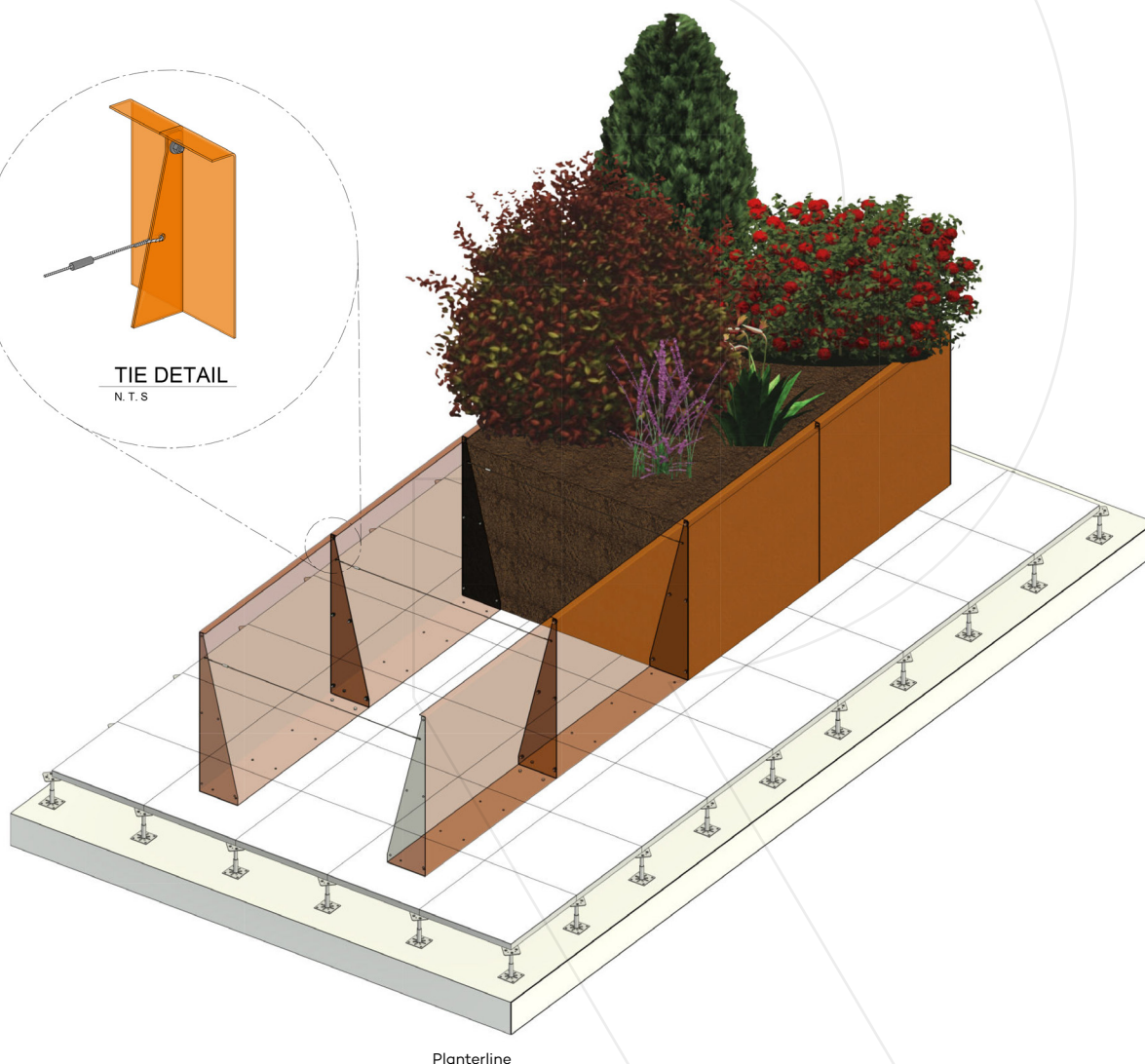
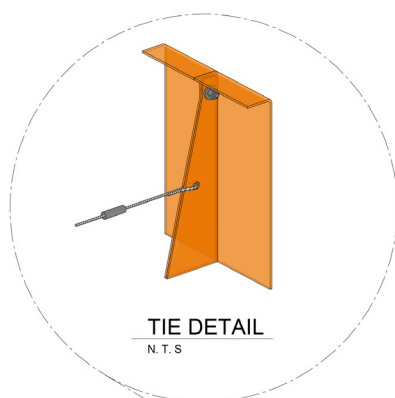


PLANTERLINE

TECHNICAL DATA SHEET

PLANTERLINE

TECHNICAL DATA SHEET



Find out more or request a sample

Email sales@raftsystems.com or visit raftsystems.com

© 2025 Raft® Ltd. At the time of writing and publication of the sheet, all information is specified correctly. The company reserves the right to change the specifications of this product at any time without prior notice to third parties. Any images and diagrams used in this sheet are intended only as illustrations. No rights can be derived from them.

Ref: DS-PP-0323 Last update: August 2025

PLANTERLINE

TECHNICAL DATA SHEET

Planterline

PRODUCT NAME	COLOUR	DIMENSIONS		OTHER	
Planterline Planterline Bespoke	Powder Coated	Maximum straight panel length	2400mm	Material specification	CorTen A steel materials class A EN10029
	CorTen	Maximum returns at corners	1000mm (Limited to one side)		
		Height Range	300-1100mm	Corner types	Folded
		Steel thickness	3mm	Top return	40mm single top

Standard Planterline planters only

Loading analysis

PLANTER HEIGHT	PANEL DEFLECTION	WET SOIL LOAD PER M²
300mm	0.02mm	300H - 510kg 400H - 680kg
600mm	0.14mm	500H - 850kg 600H - 1020kg 700H - 1190kg
900mm	0.66mm	800H - 1360kg 900H - 1530kg
1100mm	1.1mm	1000H - 1700kg 1100H - 1870kg

Structural calculations for our Planterline planters have been completed to ensure they are fit for standard use. Based on the calculations made, a deflection amount was measured on four planter heights as per the below above.

Please note this information should be used as a guide only. Please contact us if you would like further information on the structural calculations made.

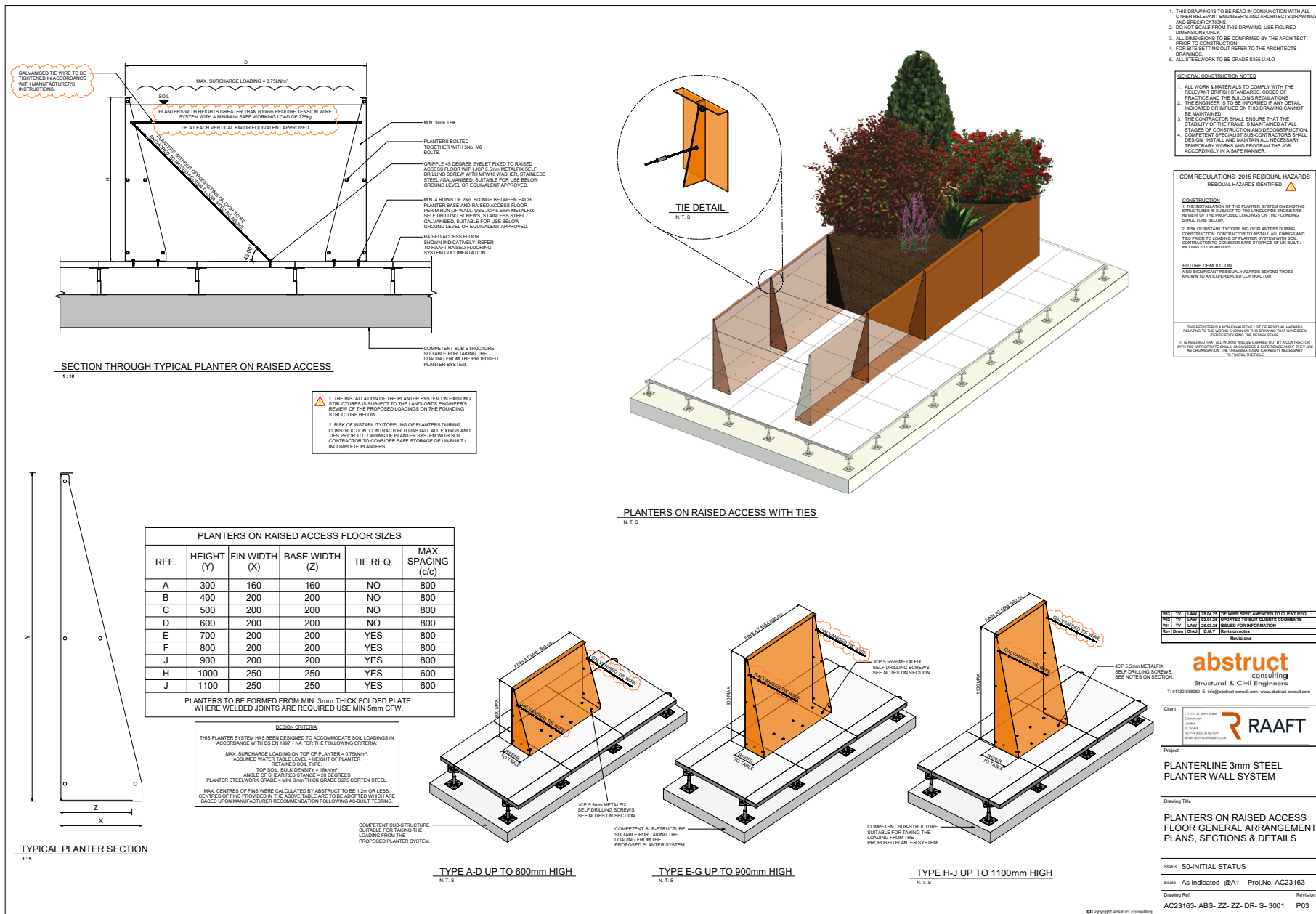
PLANTER HEIGHT	WEIGHT PER LM
300mm	13kg
400mm	16kg
470mm	18kg
500mm	19kg
600mm	24.5kg
700mm	27.5kg
800mm	30.5kg
900mm	39kg
1000mm	43kg
1100mm	46kg

These weights are for standard Planterline planters only and anything bespoke would need to be discussed with technical team.

Find out more or request a sample
Email sales@raaftsystems.com or visit raaftsystems.com

PLANTERLINE STRAIGHT

INSTALLATION GUIDE



INSTALLATION GUIDE



DESIGN CRITERIA:

THIS PLANTER SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE SOIL LOADINGS IN ACCORDANCE WITH BS EN 1997 - NA FOR THE FOLLOWING CRITERIA:

MAX. SURCHARGE LOADING ON TOP OF PLANTER = 0.75MN/m².
ASSUMED WATER TABLE LEVEL = HEIGHT OF PLANTER.
RETAINED SOIL TYPE:
TOP SOIL, BULK DENSITY = 1800kg/m³.
ANGLE OF SHEAR RESISTANCE = 28 DEGREES
PLANTER STEELWORK GRADE = Mm. 3mm THICK GRADE S275 CORTEEN STEEL.

MAX. CENTRES OF FINNS WERE CALCULATED BY ABSTRACT TO BE 12cm OR LESS. CENTRES OF FINNS PROVIDED IN THE ABOVE TABLE ARE TO BE ADOPTED WHICH ARE BASED UPON MANUFACTURER RECOMMENDATION FOLLOWING AS-BUILT TESTING.



1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEER'S AND ARCHITECTS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
3. ALL DIMENSIONS TO BE CONFIRMED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
4. FOR SITE SETTING OUT REFER TO THE ARCHITECTS DRAWINGS.
5. ALL STEELWORK TO BE GRADE S355 U.N.O

GENERAL CONSTRUCTION NOTES

1. ALL WORK & MATERIALS TO COMPLY WITH THE RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND THE BUILDING REGULATIONS
2. THE ENGINEER IS TO BE INFORMED IF ANY DETAIL INDICATED OR IMPLIED ON THIS DRAWING CANNOT BE MAINTAINED.
3. THE CONTRACTOR SHALL ENSURE THAT THE STABILITY OF THE FRAME IS MAINTAINED AT ALL STAGES OF CONSTRUCTION AND DECONSTRUCTION
4. COMPETENT SPECIALIST SUB-CONTRACTORS SHALL BE EMPLOYED TO INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS AND PROGRAM THE JOB ACCORDINGLY IN A SAFE MANNER.

CDM REGULATIONS 2015 RESIDUAL HAZARDS
RESIDUAL HAZARDS IDENTIFIED: 1

CONSTRUCTION

- CONSTRUCTION**
1. THE INSTALLATION OF THE PLANTER SYSTEM ON EXISTING STRUCTURES IS SUBJECT TO THE LANDLORDS ENGINEER'S REVIEW OF THE PROPOSED LOADINGS ON THE FOUNDING STRUCTURE BELOW.
2. RISK OF INSTABILITY/TOPPLING OF PLANTERS DURING CONSTRUCTION. CONTRACTOR TO INSTALL ALL FIXINGS AND TIES PRIOR TO LOADING OF PLANTER SYSTEM WITH SOIL. CONTRACTOR TO PROVIDE SAFE STORAGE OF UN-BUILT / INCOMPLETE PLANTERS.

FUTURE DEMOLITION

FUTURE DEMOLITION
A NO SIGNIFICANT RESIDUAL HAZARDS BEYOND THOSE KNOWN TO AN EXPERIENCED CONTRACTOR

THIS REGISTER IS A NON-EXHAUSTIVE LIST OF RESIDUAL HAZARDS RELATING TO THE WORKS SHOWN ON THIS DRAWING THAT HAVE BEEN IDENTIFIED DURING THE DESIGN STAGE.

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A CONTRACTOR WITH THE APPROPRIATE SKILLS, KNOWLEDGE & EXPERIENCE AND IF THEY ARE AN ORGANISATION, THE ORGANISATION CAPABILITY NECESSARY TO COMPLY WITH THE 60903.

P03	TV	LAW	28.04.25	TIE WIRE SPEC AMENDED TO CLIENT REQ
P02	TV	LAW	02.04.25	UPDATED TO SUIT CLIENTS COMMENTS
P01	TV	LAW	26.03.25	ISSUED FOR INFORMATION
Rev	Drawn	Chkd	D.M.Y	Revision notes

abstract

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Project

PLANTERLINE 3mm STEEL
PLANTER WALL SYSTEM

Drawing Title

**FREESTANDING PLANTERS
GENERAL ARRANGEMENT
PLANS, SECTIONS & DETAILS**

Status S0-INITIAL STATUS

Scale As indicated @A1 Proj.No. AC23163

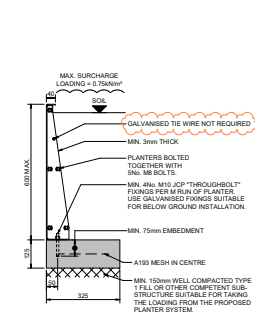
Drawing Ref.	Rev.
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AC23163- ABS- ZZ- ZZ- DR- S- 3005 P03

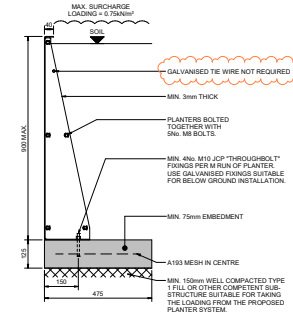
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PLANTERLINE STRAIGHT

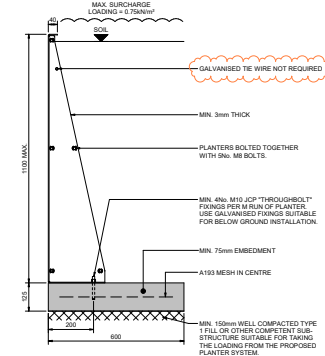
INSTALLATION GUIDE



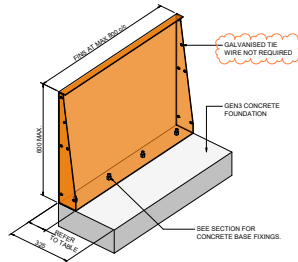
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N.T.S



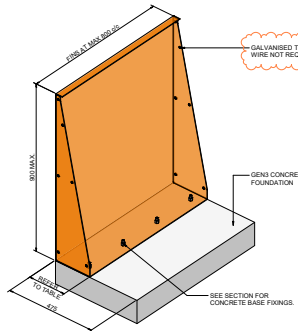
TYPE E-G UP TO 900mm HIGH
N.T.S



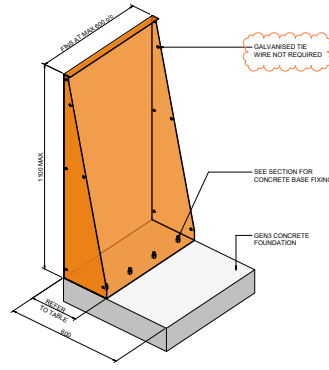
TYPE H-J UP TO 1100mm HIGH
N.T.S



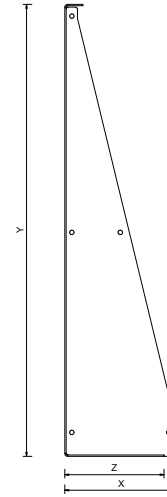
BASE FIXED PLANTER TYPE A-D
N.T.S



BASE FIXED PLANTER TYPE E-G
N.T.S



BASE FIXED PLANTER TYPE H-J
N.T.S



TYPICAL BASE FIXED PLANTER SECTION
N.T.S

CONCRETE BASE FIXED PLANTERS				
REF.	HEIGHT (Y)	FIN WIDTH (X)	BASE WIDTH (Z)	MAX. SPACINGS (c/c)
A	300	100	100	800
B	400	100	100	800
C	500	100	100	800
D	600	100	100	800
E	700	200	200	800
F	800	200	200	800
G	900	200	200	800
H	1000	250	250	600
J	1100	250	250	600

PLANTERS TO BE FORMED FROM MIN. 3mm THICK FOLDED STEEL WHERE WELDED JOINTS ARE REQUIRED USE MIN 5mm CFW.

DESIGN CRITERIA:
THIS PLANTER SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE SOIL LOADINGS IN ACCORDANCE WITH BS EN 1997 + NA FOR THE FOLLOWING CRITERIA:
MAX. SURCHARGE LOADING ON TOP OF PLANTER + 0.75kN/m²
ASSUMED WATER TABLE LEVEL + HEIGHT OF PLANTER
RETAINED SOIL TYPE
TOP SOIL BULK DENSITY + 18kN/m³
ANGLE OF SHEAR RESISTANCE + 28 DEGREES
PLANTER STEELWORK GRADE + MIN. 3mm THICK GRADE S275 CORTEN STEEL
MAX. CENTRES OF FIN WIRE CALCULATED BY ABSTRACT TO BE 1.2m OR LESS
CENTRES OF FIN PROVIDED IN THE ABOVE TABLE ARE TO BE ADOPTED WHICH ARE BASED UPON MANUFACTURER RECOMMENDATION FOLLOWING AS-BUILT TESTING

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS AND SPECIFICATIONS
- DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY
- ALL DIMENSIONS TO BE CONFIRMED BY THE ARCHITECT PRIOR TO CONSTRUCTION
- FOR SITE SETTING OUT REFER TO THE ARCHITECTS DRAWING
- ALL STEELWORK TO BE GRADE S355 U N O

GENERAL CONSTRUCTION NOTES

- ALL WORK & MATERIALS TO COMPLY WITH THE RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND THE BUILDING REGULATIONS
- THE ENGINEER IS TO BE INFORMED IF ANY DETAIL INDICATED OR IMPLIED ON THIS DRAWING CANNOT BE MAINTAINED
- THE CONTRACTOR SHALL ENSURE THAT THE STABILITY OF THE FRAME IS MAINTAINED AT ALL STAGES OF CONSTRUCTION AND DECONSTRUCTION
- COMPETENT SPECIALIST SUB-CONTRACTORS SHALL DESIGN, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS AND PROGRAM THE JOB ACCORDANTLY IN A SAFE MANNER

CDM REGULATIONS 2015 RESIDUAL HAZARDS
RESIDUAL HAZARDS IDENTIFIED

CONSTRUCTION
1. THE INSTALLATION OF THE PLANTER SYSTEM ON EXISTING STRUCTURES IS SUBJECT TO THE LANDSCAPE ENGINEER'S REVIEW OF THE PROPOSED LOADINGS ON THE FOUNDING STRUCTURE BELOW
2. RISK OF INSTABILITY/TOPPLING OF PLANTERS DURING CONSTRUCTION. CONTRACTOR TO INSTALL ALL FIXINGS AND TIES PRIOR TO LOADING OF PLANTER SYSTEM WITH SOIL. CONTRACTOR TO CONSIDER SAFE STORAGE OF UN-BUILT / INCOMPLETE PLANTERS

FLUTE DETAIL
A103 DETAIL RESIDUAL HAZARD BEYOND THOSE KNOWN TO AN EXPERIENCED CONTRACTOR

THIS REGISTER IS A NON-EXHAUSTIVE LIST OF RESIDUAL HAZARDS RELATIVE TO THE WORKS AND/OR ON THIS DRAWING THAT HAVE BEEN IDENTIFIED DURING THE DESIGN PHASE
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A CONTRACTOR WITH THE APPROPRIATE SKILLS, KNOWLEDGE, EXPERIENCE AND JQS ARE IN COMPLIANCE WITH THE RELEVANT STANDARDS AND SPECIFICATIONS TO CARRY OUT THE WORK

PROJ	IV	LAW	18.04.23	THE WISE SPEC AMENDED TO CLIENT REQS
PROJ	IV	LAW	17.04.23	UPDATED TO SUIT CLIENT COMMENTS
PROJ	IV	LAW	16.03.23	REVISED FOR INFORMATION
Rev	Draw	Client	D.M.V	Revision notes

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Client
117 121 21 2019 2020
London
020 7444 1122 011 2019
020 7444 1122 011 2019

RAAF

Project
**PLANTERLINE 3mm STEEL
PLANTER WALL SYSTEM**

Drawing Title
**CONCRETE BASE FIXED
PLANTERS NO WIRE TIE
GENERAL ARRANGEMENT
PLANS, SECTIONS & DETAILS**

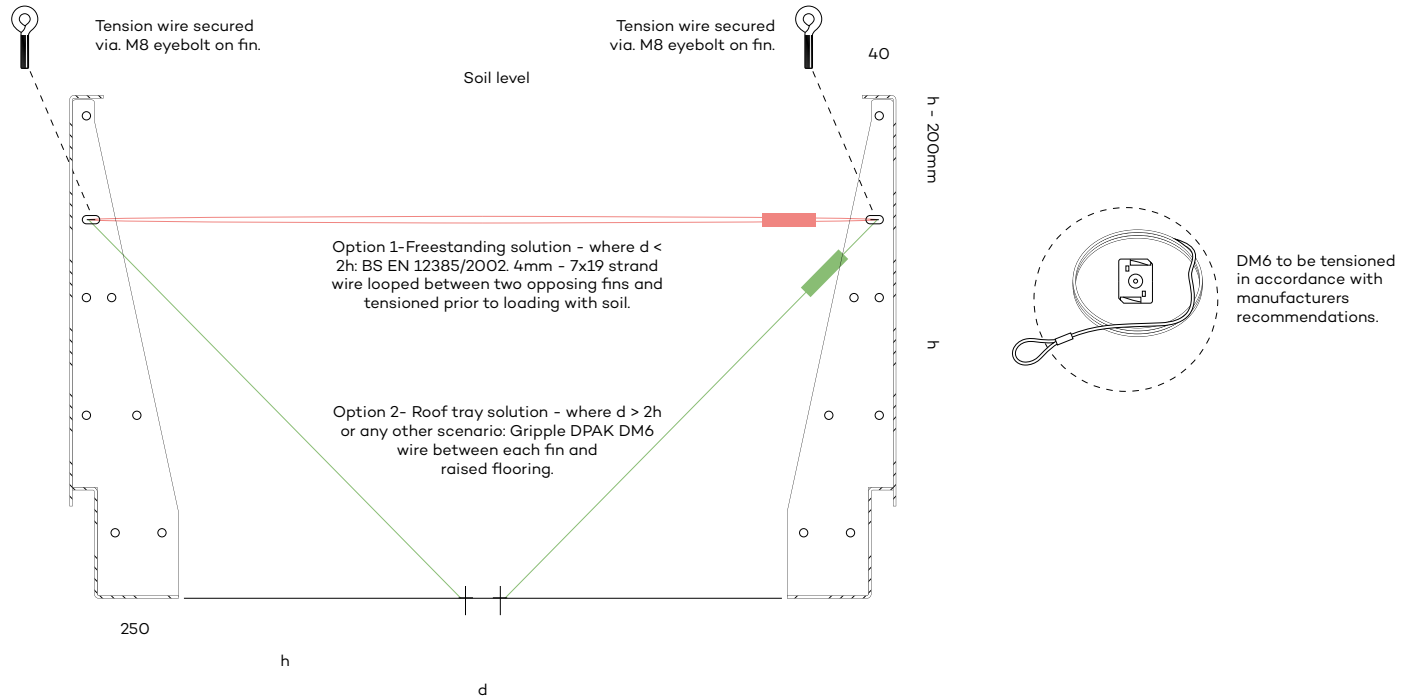
Status **S0-INITIAL STATUS**

Scale **As indicated @A1 Proj No. AC23163**

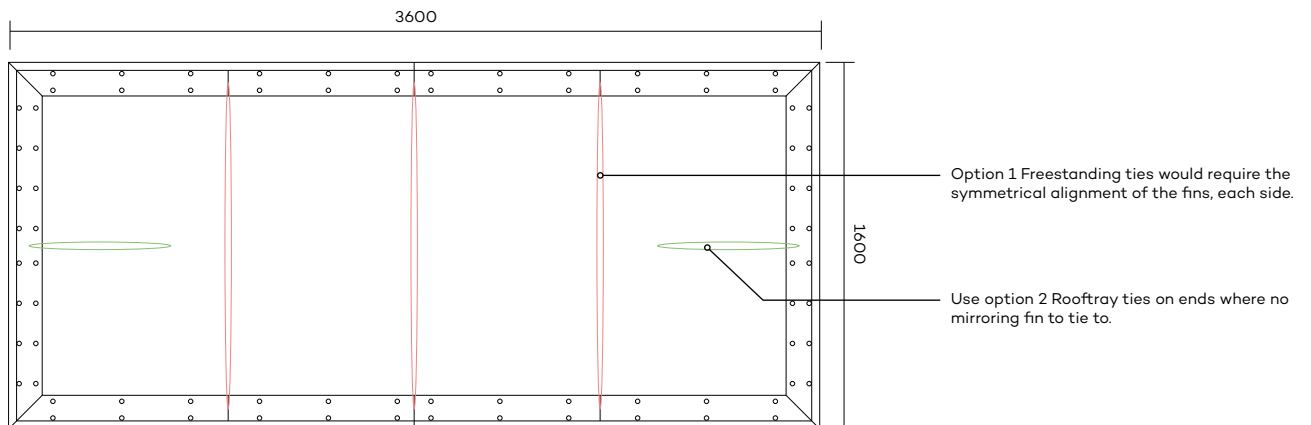
Drawing Ref. **AC23163- ABS- ZZ- DR- S- 3010** Revision **P03**

Strengthening options

All planters higher than 600mm.



Plan view of both bracing solutions (Freestanding and Rooftray)



Find out more or request a sample

Email sales@raftsystems.com or visit raftsystems.com

Accessories



Lockable cabinet

Used within the planter walls (welded in place) for access or storage of weatherproof products/items. It can accommodate P67 rated power sockets and lighting boxes for external lighting.

For added security, a panel lock, complete with a key, prevents unauthorized access.

The cabinet comes in the following sizes:

500(H) x 600 x 200 mm

400(H) x 500 x 200 mm

250(H) x 300 x 200 mm

Lighting detail

Illuminate your planters with our lighting options. Feel free to contact any member of our team if you're keen on enhancing your planters with a touch of light.



Installation Information

The installation is then completed by covering the extent of the floor structure panels, which pass beyond the planter perimeter with porcelain tiles. To secure the planter into concrete, we advise from past planter installations, the creation of a 300mm wide by 150mm deep concrete race around the planter's perimeter. M10 through bolts (supplied by Raft®) are used for fixing down the planter into the concrete. Bracing becomes necessary for planters exceeding a height of 600mm. This is to account for potential loads imposed by soil and any additional stresses within a terrace environment. The recommended bracing solutions for Raft® planters include tensioning wire or a metal strap spanning from one side to the other.

Product finishes

CorTen A is a type of weathering steel which was developed to remove the need for regular painting and rust-prevention maintenance.

Note: Refer to the CorTen guide for more information.

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. When delivered the CorTen will contain mill-scale which will remove over time prior to the natural stable coating of dark brown being achieved. The weathering process can take around 18 months.

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. 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.

Choose from these finishes:



CorTen



PPC

Find out more or request a sample

Email sales@raaftsyste.ms.com or visit raaftsyste.ms.com



Sustainability

Planterline is crafted from two material options: Untreated steel or Stainless Steel, and it boasts 100% recyclability. Consequently, Planterline stands out for its outstanding whole-life cost, as it is marketed with recycling in mind rather than incurring disposal costs. The primary component in steel production is iron, ranking second only to aluminium in terms of its natural abundance in the Earth's crust. Considering current extraction rates, there exists a sufficient iron supply to sustain production for well over 1000 years.

Steel

Mild steel is widely recognized as a sustainable material for several compelling reasons:

1. Longevity and Durability

Mild steel boasts exceptional longevity and durability. When compared to less robust materials, it provides extended service over many years. For instance, while other materials may require annual replacement, using mild steel every five years significantly reduces the environmental impact, as it necessitates less energy for continuous replacement.

2. Versatility

Mild steel offers high versatility in terms of shapes and sizes during production. Its malleability allows it to take on various forms, making it highly adaptable and suitable for a wide range of applications.

3. Recyclability

One of the most significant sustainable advantages of mild steel is its recyclability. While the percentage of recyclable content may vary by type, it typically contains a high percentage of recyclable material. This aligns seamlessly with its versatility, as any surplus steel from manufacturing processes can be repurposed for smaller products or recycled, making it an environmentally friendly metal choice.

4. Absence of Harmful Chemicals

Unlike some other metals, the production of mild steel does not involve the release of harmful chemicals or toxins. This characteristic contributes to its eco-friendliness.

Product maintenance

Steel

For the Planterline, the steel is powder coated. This will require little/no maintenance as there won't be any interaction between this part of the product and the user.

Fire protection

Planterline planters are made using CorTen A, or Mild Steel, neither of which burn nor pose a fire hazard.

CorTen A is high performance materials that display excellent resistance to atmospheric corrosion when compared to other steels, making them exceptionally suitable for bespoke planter applications.

Protective equipment

We recommend that PPE (Personal Protective Equipment) is used when installing the Planterline:

- a) **Good strong safety boots/shoes to protect the feet.**
- b) **Protective eye wear 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.**

General construction notes

- All folding tolerances are $\pm 1.2\text{mm}$ with an angle variation of $\pm 1^\circ$
- All rolling tolerances $\pm 8\text{mm}$
- All fabricated and welded components are manufactured to a tolerance of $\pm 2\text{mm}$
- Tolerance of $\pm 5\text{mm}$ across a diagonal measurement
- Where powder coated components are applicable, they are completed to the following specification:
 - Pre-treatment - shot blast SA 25
 - Primer - Zinc-rich primer with a minimum of 60μ
 - Top coat - Final top coat to be a minimum of 60μ
- All Cor-Ten finishes are supplied as untreated/unweathered

Find out more or request a sample

Email sales@raaftsystems.com or visit raaftsystems.com

Storage and handling

The product is securely packed and sealed 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.**



Manual handling

Refer to bills of materials for weights.

General construction notes

- All folding tolerances are $\pm 1.2\text{mm}$ with and angle variation of $\pm 1^\circ$
- All rolling tolerances $\pm 8\text{mm}$
- All fabricated and welded components are manufactured to a tolerance of $\pm 2\text{mm}$
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