

Landscape Solutions

Urban Tree Planting
Root Protection
Ground Stabilisation & Support
Tree & Plant Irrigation
Soft Landscaping
Street Furniture
Soils & Growing Media
Urban Wildflowers

2018

gtspecifier.co.uk



Contents

| | | | |
|--|-----------|--|-----------|
| Introduction | 4 | Urban Wildflower & Grass Seed | 54 |
| Testimonials | 6 | British Native Wildflower seed | 55 |
| gtSpecifier - here to help | 7 | Grass Seed | 58 |
| A Typical Urban Tree | 8 | Wildlife Habitats | 59 |
| Putting Down Roots | 10 | Dig Deeper | 60 |
| gtRootBarrier RollRib | 11 | Rain Garden & Podium | 61 |
| gtRootBarrier 325 & 360 | 12 | Green-tree Roof Substrate Intensive | 62 |
| gtRootBarrier 420 | 13 | Case Study – Four Pancras Square, King's Cross | 63 |
| Stability & Protection | 14 | Green-tree Roof Substrate Extensive | 64 |
| ArborRaft System | 15 | gtSedum Cassettes | 65 |
| ArborRaft System installation | 16 | British Standard Topsoil | 66 |
| Case Study - The ArborRaft system specified in Nottingham Trent University redevelopment | 17 | Case Study – Glasgow Fort Retail Park | 67 |
| Tree Anchoring | 18 | Amenity Tree Soil & TerraCottem Arbor | 68 |
| gtRootball Wire Fixing Kit | 19 | ArborRaft Soil | 69 |
| gtSleeper & Kerbstone Anchoring Kit | 20 | Green-tree Subsoil & Green-tree Clean Cover System | 70 |
| gtContainerised Rootball Fixing Kit | 21 | Specialist & Bespoke Soil Mixes | 71 |
| gtGuying Kit | 21 | Pond Measuring & EPDM Liners | 72 |
| Thirsty Trees | 22 | Box Welded & Butyl Pond Liners | 73 |
| Urban Tree Planting | 23 | Technical Information | 74 |
| Watering Frequency | 23 | GTS1 | 76 |
| Mona Relief, Grande & Grande Aria | 24 | GTS2 | 77 |
| Mona Relief Vente & Piazza | 25 | GTS3 | 78 |
| Mona Plant System | 26 | GTS4 | 79 |
| Case Study – HMS Ringtail Memorial | 27 | GTS5 | 80 |
| Mona Plant System Rings | 28 | GTS6 | 81 |
| Mona Plant System Links | 29 | GTS7 | 82 |
| A Lifetime of Protection | 30 | GTS8 | 83 |
| gtFortress Tree Grille & Ring Guard | 31 | GTS9 | 84 |
| Laser Cut Tree Grilles | 32 | GTS10 | 85 |
| Laser Cut Guards | 33 | GTS11 | 86 |
| gtKingsdale & gtDentdale Steel Tree Grilles | 34 | GTS12 | 87 |
| gtResigrille Tree Grille | 35 | gtLittondale | 88 |
| Dales Collection Guards and Grilles | 36 | gtRibblesdale | 88 |
| Dales Collection Tree Guards | 37 | gtGarsdale | 89 |
| Cast Iron Tree Grilles Dales Collection | 38 | gtNewdale | 89 |
| The Wider Environment | 40 | gtCoverdale | 90 |
| gtEcomatt - Mulch Mat | 41 | gtWave | 90 |
| Tubex 12D | 42 | gtKingsdale/gtDentdale | 91 |
| Tree Shelters | 43 | gtWharfdale | 91 |
| Tree Belting & Blocks | 44 | gtSawdale | 92 |
| Weld Mesh and Staking | 45 | gtNidderdale | 92 |
| Rite-Edge – Aluminium Lawn Edging | 46 | gtAiredale | 93 |
| Rite-L-Edge – Aluminium Landscape Edging | 47 | gtMalhamdale | 93 |
| GRB Plus | 48 | Laser Cut Tree Grilles | 94 |
| Bodpave 40 & 85 | 50 | Ground Anchors | 95 |
| gtResibond - Porous tree pit surface | 51 | Ground Anchor sizing | 97 |
| gtGreen Screens | 52 | Additional Conditions of Sale | 98 |
| Case Study – gtGreen Screens integral to city centre regeneration project | 53 | | |



Introduction

Landscapes that last...

Our towns and cities are under pressure, two thirds of the world's population is expected to live in urban areas by 2030.

Environmental, social and economic demands are making it difficult for us to create healthy, liveable and economically resilient places.

As we strive to improve our urban environments and tackle city pressures it is evident the extent trees and green areas contribute to achieving these aims.

Urban green spaces play the vital role of the lung in the urban fabric, a counterpoint to modernist developments and surroundings for urban dwellers social well-being.

gtSpecifier's UrbanSpecifier Guide offers a complete portfolio of products that protect and enhance sustainable urban landscapes for future generations.

Trees for the future...

The creation of sustainable urban forestry in recent years has become a key factor for policy makers, planners, landscape designers and architects on the design and implementation of all urban development and regeneration projects.

Planting the tree is just the start – the importance of the ongoing health of the tree is becoming the fundamental strategy to addressing the balance of modern environmental urban pressure points – Storm water & sustainable drainage, micro climates, air quality and CO₂ levels.
"Trees are assets which increase in value over time"



Testimonials

“ The gtSpecifier team have been extremely helpful giving advice and technical aid to The terra firma Consultancy, whilst specifying the ArborRaft System on some of our projects as well as providing us with a valuable tree pit CPD session ”

Gill German, Assistant Landscape Architect
The terra firma Consultancy Ltd

“ It is very reassuring to be able to specify products, safe in the knowledge that they are backed up with thoroughly researched technical data by people who care and have pride about their work. gtSpecifier have provided valuable support for innovative products which are, by their very nature, subject to close scrutiny and refinement. They have provided us with a prompt and efficient service over a number of years. ”

David Keary
Keary Design Associates Limited

“ gtSpecifier's CPDs are full of useful advice and their staff are very helpful and always ready to assist with any design and technical details we might need. ”

Anna French,
Director - Anna French Associates Ltd

“ We always find gtSpecifier's CPD presentations to be most informative and invaluable in keeping up to date with new products and standards within the landscape industry essential to our daily work. ”

Andy Sinclair CMLI, Chartered Landscape Architect,
Vector Design Concepts

“ As always, gtSpecifier's CPDs are very informative and their willingness to assist and provide technical CAD details and specification information is invaluable. ”

Gemma Griffin, Director,
Macgregor Smith Limited

gtSpecifier - here to help

The gtSpecifier range of urban landscape solutions have been designed to protect, enhance and improve trees, plants and the environment.

To support our seminars and advisory work we have a portfolio of technical drawings and 3D images covering the most common planting scenarios. These drawings and specifications can all be found online at gtspecifier.co.uk, each individual drawing can be downloaded and incorporated into landscape projects making life a lot simpler.



Barry Browne
Project Development Manager
barryb@gtspecifier.co.uk



Richard Wexham
Product Specification Manager
richardw@gtspecifier.co.uk



Sherry Bonnett
Business Analyst
sherryb@gtspecifier.co.uk



Francis Peters
Opportunities Assistant
francisp@gtspecifier.co.uk



Becky Swiers
Junior Estimator
beckys@gtspecifier.co.uk

A Typical Urban Tree

Urban trees and urban green areas encourage social activities and community cohesion – both having a positive physical and psychological effect.

Evidence has shown that in some locations areas with high numbers of trees experience less crime.

Tree-lined streets promote calmer driving. Carefully positioned trees can improve sightlines and help to slow down cars. Within urban settings they can be used as an alternative to bollards and speed bumps or to reinforce the presence and enhance the role of a central reservation.

Urban trees also help to reduce noise pollution, absorbing and deflecting sound.

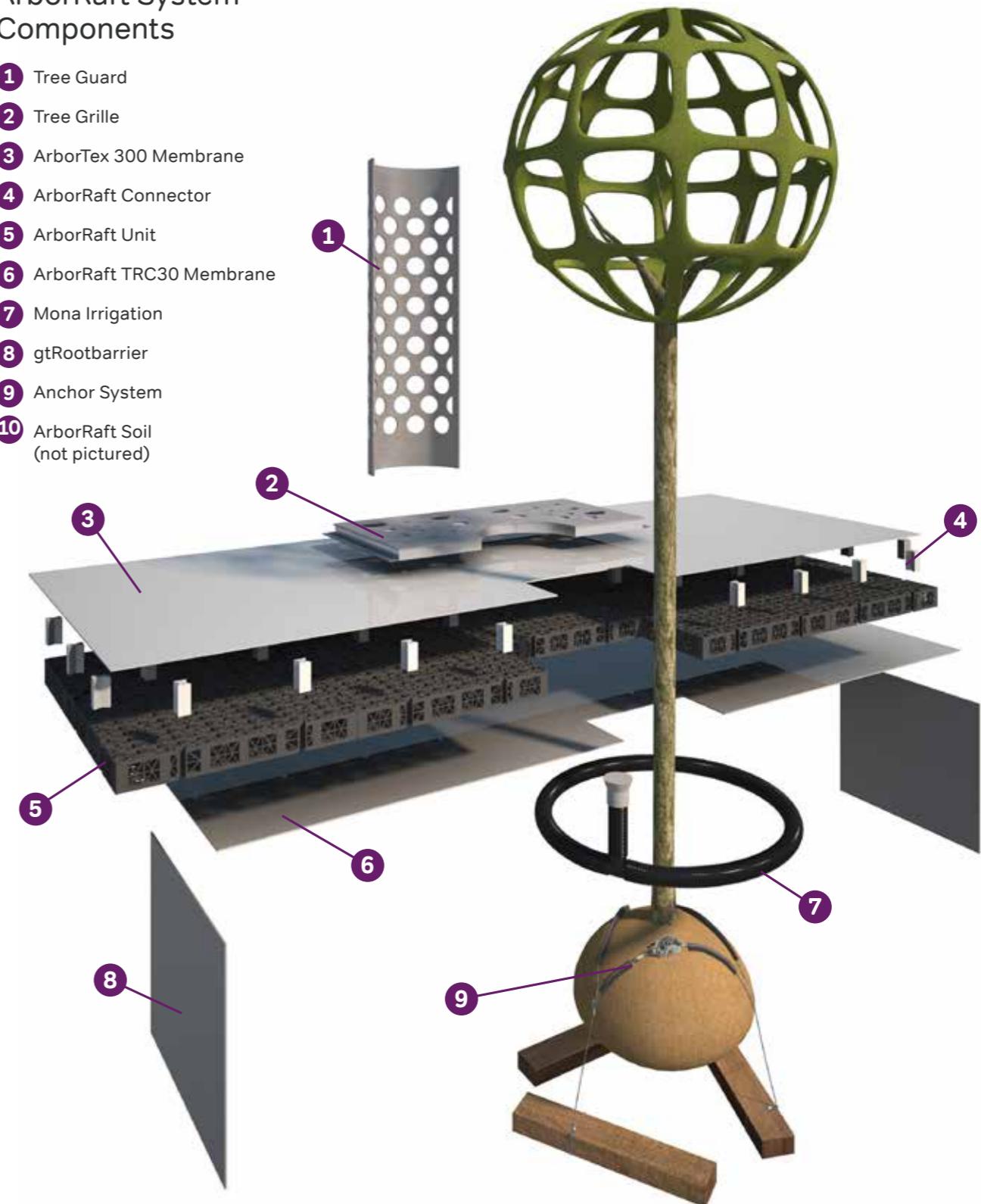
The presence of vegetation, and soft rather than hard surfaces, reduces the extent to which sound carries around urban areas. Green spaces and Greenroofs reduce noise by reducing reflection of the sound wave and the trees absorbs lateral short wave – both alleviating urban noise.



Urban Tree Planting Seminar Available at Your Workplace

ArborRaft System Components

- 1 Tree Guard
- 2 Tree Grille
- 3 ArborTex 300 Membrane
- 4 ArborRaft Connector
- 5 ArborRaft Unit
- 6 ArborRaft TRC30 Membrane
- 7 Mona Irrigation
- 8 gtRootbarrier
- 9 Anchor System
- 10 ArborRaft Soil (not pictured)



Putting Down Roots

- Rootbarrier in Urban Landscapes

Urban trees deliver 'real' economic, social and environmental benefits, but their dense woody root systems grow very close to the surface which can cause considerable damage.

The three most common root damages are:

- Roads, footpaths and cycle paths can be undermined causing dangerous and damaging surface movement
- Structures with shallow foundations can be damaged causing subsidence and cracking
- Cabling and pipe work can become compromised

gtRootBarrier® offers a solution to this problem, allowing healthy urban root systems to develop to grow but ensuring woody roots are diverted away from vulnerable areas in their search for water and nutrients.

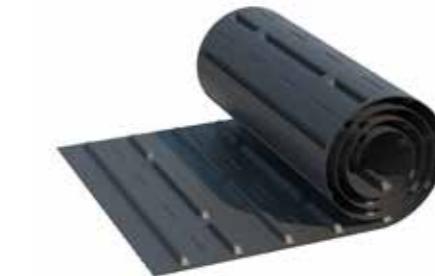
Urban Tree Planting Seminar Available at Your Workplace



Technical Drawings
See page 74-97

gtRootbarrier

gtRootBarrier RollRib®



gtRootBarrier RollRib® is made of 1.5 mm HDPE, is UV-resistant and is 100% recyclable.

The system is installed vertically and guides roots carefully downwards. Vertical and horizontal anchor points prevent the tree roots from pushing the RollRib® up above the ground.

Sections can be easily screwed together in various configurations to surround the tree and guide roots away from utilities.

Material

- 100% recycled HDPE
- 100% recyclable
- UV-resistant
- Resistant against chemical elements
- Impervious to root growth, dirt and micro-organisms

Properties

- Cutting line every metre allows sections to be easily cut to size and overlapped for root security.
- Integrated 'soil anchor points' prevent the tree roots from pushing the RollRib® up
- Robust to counteract root pressure
- Flexible enough to be used linearly, in a square or around a tree
- Quick and easy installation

Dimensions

| Characteristic | Value | Test Method |
|--------------------------------|----------------------------|-------------|
| Density | 0.95-0.97g/cm ³ | ISO 1183 |
| Thickness at 2 kPa | 1.5mm | |
| Tensile Strength at Elongation | >20 MPa | ISO 527-2 |
| Tensile Strength at Yield | >20 MPa | ISO 527-2 |
| Elongation at Break | >400% | ISO 527-2 |

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|------------------------|
| Q31 | 510 | Tree pit root barriers |
| Q37 | 320 | Root barrier |
| 45-40-65 | 360 | Underground guying |
| 45-65-50 | 363 | Polymeric membranes |

gtRootBarrier 325 & 360

gtRootBarrier® 325 is manufactured using a unique coating to make it totally impermeable and is only available in the UK from gtSpecifier.

Tree management means that the natural requirements of the tree are combined with the need to protect structures from the root system. gtRootBarrier® effectively controls the roots whilst protecting them from pollutants and acids in the soil.

gtRootBarrier® 360 is coated on both sides, redirecting root growth towards optimum soil and nutrition.

This makes gtRootBarrier® 360 even sturdier as well as being a barrier from either side. Consider how handy gtRootBarrier® 360 would be to keep the roots of two trees or shrubs from growing together. This would make it simpler to remove one or both plants from the soil at a later stage.

Features

- Strong and impenetrable to the roots of trees, shrubs and other plants
- Easy to install
- Lightweight
- Flexible
- 100% waterproof
- Recyclable
- 25 Year Guarantee



gtRootBarrier 325 installed on a high street



gtRootBarrier 325 protects utilities



gtRootBarrier® 325



gtRootBarrier® 360

Technical Specification

| | gtRootbarrier 325 | gtRootbarrier 360 |
|----------------------------|---|---|
| Roll size | 50m | |
| Width | 0.65m, 1m, 1.3m, 2m | |
| Material | DuPont™ Xavan® with an extruded coating on one side | DuPont™ Xavan® with an extruded coating on both sides |
| Weight | 325g/m ² | 360g/m ² |
| Puncture resistance | 3420 N | 3480 N |

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|------------------------|
| Q31 | 510 | Tree pit root barriers |
| Q37 | 320 | Root barrier |
| 45-40-65 | 360 | Underground guying |
| 45-65-50 | 363 | Polymeric membranes |

gtRootBarrier 420

RootBarrier® 420 UV is a black root protection screen with a double-sided extruded coating.

The smooth coating denies the roots a hold and forces them to grow downwards. gtRootBarrier® 420 UV is based on a sturdier geotextile and has a thicker coating than gtRootBarrier® 325 and gtRootBarrier® 360. Because of this the root protection screen is suited for the more aggressive roots of e.g. bamboo and reeds. gtRootBarrier® 420 UV is UV-proof and may be used partly above ground.

Features

- Strong and impenetrable to aggressive roots
- UV-proof and 100% waterproof
- Easy to install, lightweight and flexible
- Resistant to bacteria and most chemicals
- Recyclable
- 25 Year Guarantee



gtRootBarrier® 420 efficiently controls root direction



Technical Specification

Roll size: 50m
Width: 0.7m, 1m, 1.4m
Manufactured from:
DuPont™ Xavan® with an extruded coating on both sides
Weight: 420 gr/m²
Puncture Resistance: 4120 N

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|------------------------|
| Q31 | 510 | Tree pit root barriers |
| Q37 | 320 | Root barrier |
| 45-40-65 | 360 | Underground guying |
| 45-65-50 | 363 | Polymeric membranes |

Terram Rootguard & Rootguard Plus

Terram Rootguard and Rootguard Plus are used to protect buildings, walls, paths, drainage pipes cables and lawns from potential damage caused by root development.

Terram Rootguard – permeable solution

Manufactured from polypropylene/polypropylene fibres, Terram

Rootguard provides excellent resistance to root development while still allowing water to permeate making it an ideal solution for areas surrounding land drains. High tensile strength and puncture resistance give Terram Rootguard the capability to withstand the differential forces that can develop in clay soils.

Terram Rootguard Plus – impermeable solution

Terram Rootguard Plus is a composite of Terram Rootguard and an HDPE membrane which gives the strength to withstand penetration from even the most vigorous of tree roots. Idea for areas where there is no requirement for water to pass through the barrier.

| Composition | | | Terram Rootguard | Terram Rootguard Plus |
|-------------------------|--------------|------------------|------------------|-----------------------|
| Tensile strength | EN ISO 13019 | kN/m | 18.0 | 14.0 |
| Elongation | EN ISO 13019 | % | 30 | 25 |
| CBR Puncture Resistance | EN ISO 12236 | N | 3250 | 2550 |
| Mass per unit area | EN ISO 9864 | g/m ² | 260 | 275 |
| Roll width | m | | 2.25 | 2 |
| Roll length | m | | 25 | 25 |

Stability & Protection - Tree & Ground Stabilisation Systems

Most urban tree root systems grow within the top 500mm of the soil in a tree pit.

Roots develop and grow in the upper zone of the tree pit because that is where water, minerals and oxygen can be extracted and with the most success – this process is vital to the trees long term health.

In urban areas the upper zone of the tree pit can experience extreme pressures from hard landscapes, pedestrian, vehicle traffic and water run-off. These pressures can result in the tree pits becoming over-compacted.

The consequence of over-compacted soil is not only poor establishment or failure of the tree, but also increase surface water run-off and surface ponding that reduces the visual and physical amenity of the landscape and can contribute to localised flooding.

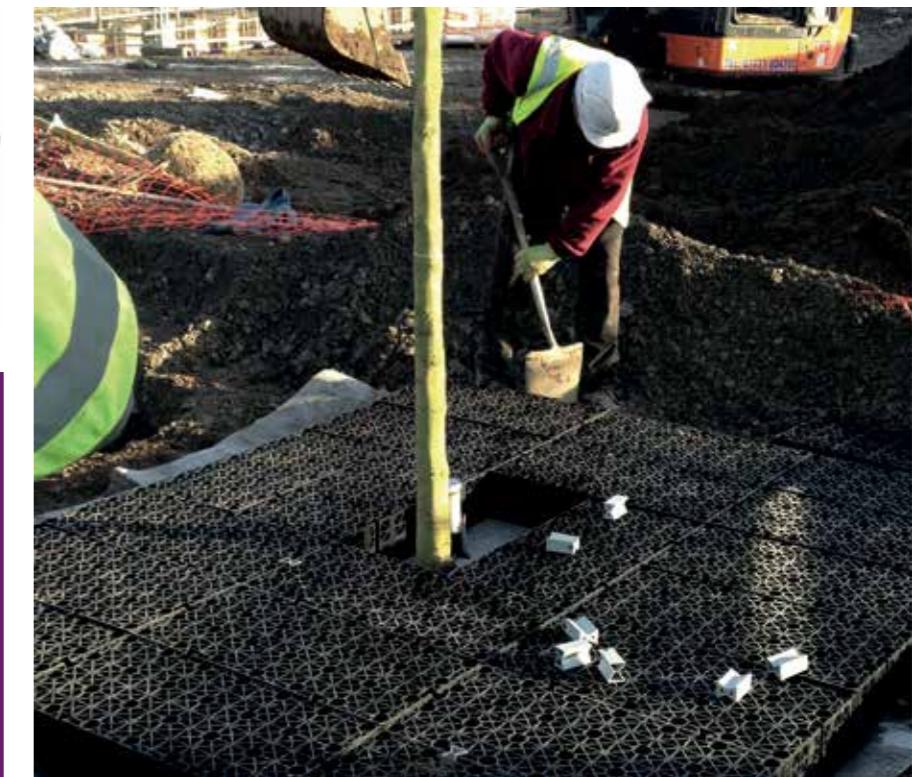
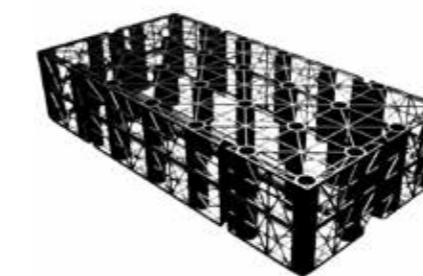
gtSpecifier has a range of products that provide protection for newly planted trees, even in the most challenging urban situations.

Urban Tree Planting Seminar Available at Your Workplace



Technical Drawings
See page 74-97

ArborRaft System



How it works?

Open Structure

The open structure of the ArborRaft soil is retained, allowing roots to grow naturally and essential oxygen, nutrients and water to flow freely through the growing media. The nature of the system assists drainage and the free-flow of water through the tree pit. The system is flexible and can be designed to fit any tree pit size encouraging larger tree pits with less plastic.

Structural Strength

The structural strength of the ArborRaft System absorbs the impact of loads placed upon it to protect the growing media and tree roots below.

Prevents Compaction

The system prevents soil compaction, damage to the root structure and does not restrict the natural growth path of tree's roots. This assists the tree to create its own root-anchoring system that reflects the growth and spread of its canopy.

Protects The Pavement

The system creates an air gap and a barrier that prevents root growth upwards and protects the hard surface from root damage.

The ArborRaft System combines nutrient rich ArborRaft Soil with exceptionally strong geocellular units. Together they create a healthy growing space for trees in areas subject to vehicle loadings and trafficking.

Individual ArborRaft units are locked together to form a raft system that sits within the tree pit, providing load bearing support and reducing soil compaction.

The ArborRaft System works by spreading the load of any vehicle movements around the tree's rooting area. This eliminates soil compaction of the growing media within the pit and maintains the ideal growing environment for the trees to establish and mature.

The ArborRaft System accommodates vehicle loadings from cars through to heavy goods vehicles. The open structure of the individual units acts as an air gap diverting root growth away from the pavement towards nutrient-rich soil. It is a tried and tested system that has successfully been installed into projects across the UK and Europe.

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| D20 | 571 | Geocells |
| Q31 | 512 | Tree pit irrigation and ventilation accessories |
| 45-40-65 | 360 | Underground guying |
| 45-65-35 | 307 | Plastics geocell sheets |

ArborRaft System installation

View the ArborRaft Installation Video Online
gtSpecifier.co.uk



1. Excavate tree pit to include 500mm supporting shelf at the top of the tree pit.



2. Backfill lower pit with approved subsoil, position tree or leave vacant for planting season.



3. Compact subsoil to architects specification



4. Add ArborRaft soil to top approx. 400mm of tree pit.



5. Install irrigation system.



6. Cover with ArborRaft TRC30 Membrane.



7. ArborRaft units simply lock together with connectors.



8. Backfill with ArborRaft Soil



9. Cover with Arbortex 300 Membrane and finish to hard landscaping specification.



10. Finish as per specification.



Case Study - The ArborRaft system specified in Nottingham Trent University redevelopment



Nottingham Trent University city site is located in the heart of Nottingham city centre with 30 buildings surrounded by 5.1 hectares of open space. The heart of the campus underwent a multi-million pound refurbishment to keep up with current demands and needs.

The redevelopment consisted of two state-of-the-art buildings with beautiful landscaped outdoor spaces in the Clifton complex. With over 8,000 students based at Clifton the new facilities have been designed to provide a high quality environment to inspire students for generations.

The courtyard outside of the restaurant is part of the University's 'Green Zone' - an area in the centre of campus that will be free from smoking, unauthorised traffic and parked bicycles, which will contribute to the peaceful atmosphere of the campus.

The landscaping works for this area including the planting of 50 mature trees. Larger, more established trees were specified to maximise aesthetic and biodiversity value.

The landscaping contract was awarded to Ulyett Landscapes Limited, a long established landscaping company based in the East Midlands who are well respected for their work with local authorities, architects, civil engineers, builders and private house owners.

Ulyett Landscapes turned to gt Specifier, the specification team within leading landscape supplier, Green-tech, for our advice on the most suitable products for planting, securing and encouraging the healthy growth of the trees.

Taking into account the size of the trees and the environment - the whole site was on an incline; the team recommended the ArborRaft Tree Planting System. This is a system that combines nutrient-rich ArborRaft soil with exceptionally strong geocellular units. Together they create a healthy growing space for trees in urban areas subject to vehicle or pedestrian trafficking.

The individual ArborRaft units lock together and form a raft system that sits within the tree pit, providing load bearing support and reducing soil compaction. As the system retains the open structure of the soil, the roots are allowed to grow naturally and the essential oxygen, nutrients and water can flow freely through the growing media which all ensures the ideal growing environment to establish and flourish.

As well as the ArborRaft System the team provided advice and Green-tech supplied an anchoring system for each tree, the mona tree irrigation system, rootbarrier, subsoil, ArborRaft soil and bark for top dressing - everything needed for successful planting under one roof.

Barry Browne who heads up the gt Specifier team comments,

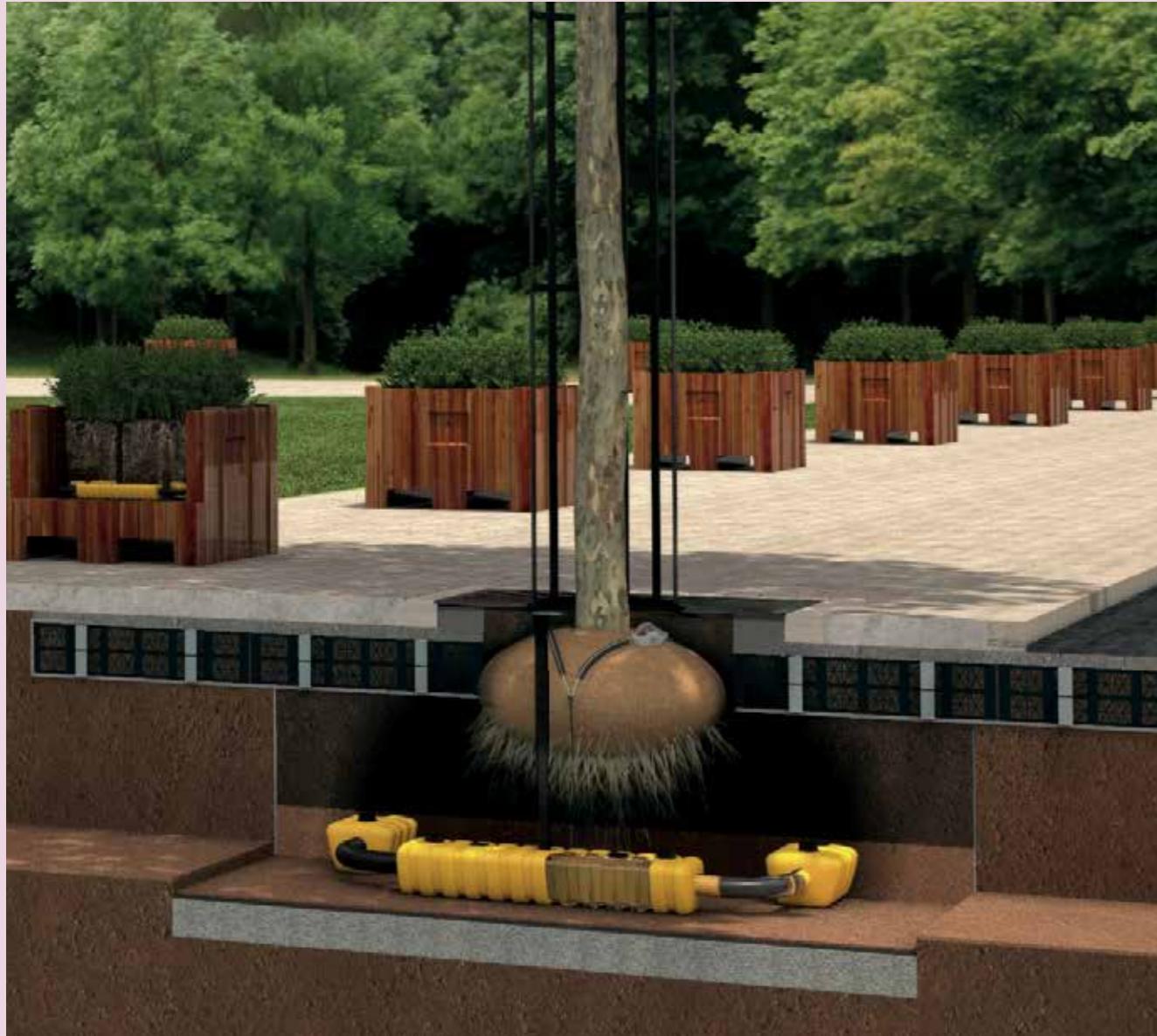
"Nottingham Trent University is one of the UK's most environmentally friendly universities and we are thrilled to be able to help them to create a sustainable, ecologically-sound Campus. The provision of green grass and open spaces were pivotal to the University's redevelopment plans - they wanted to provide places to unwind and reconnect with the outside world. We were delighted when they were so impressed that they chose the ArborRaft System again when their adjoining car park was revamped a few months later."

Tree Anchoring

ANCHORING SYSTEMS ARE AN ESSENTIAL ELEMENT OF ANY LANDSCAPE PROJECT THAT INCLUDES PLANTING OF SEMI-MATURE TREES.

As soon as a tree is planted it needs to be anchored to ensure it remains stable. Not only does it look unsightly if a tree starts to bend or move but it will damage the roots. A securely anchored tree will give the best chance of survival and encourage the tree to thrive as the root ball is fully supported.

There are two types of anchoring methods. Anchoring above the ground with a guying system and anchoring below the ground with either a rootball fixing system or a sleeper and kerbstone system. The type of anchoring method you choose is dependent upon a number of factors and the gtSpecifier team will be happy to advise on the best solution for your project.



gtRootball Wire Fixing Kit



THE gtROOTBALL FIXING KIT IS THE IDEAL SOLUTION FOR UNDERGROUND SECURING OF NEWLY PLANTED ROOTBALLED AND CONTAINERISED TREES.

The kit has been assembled to provide the best possible start for the new planting, delivering security, safety and peace of mind for the installer. The kits are available in 5 sizes to suit tree sizes from light standard to semi mature. They are

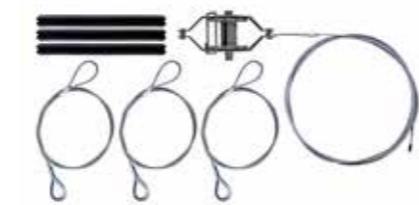
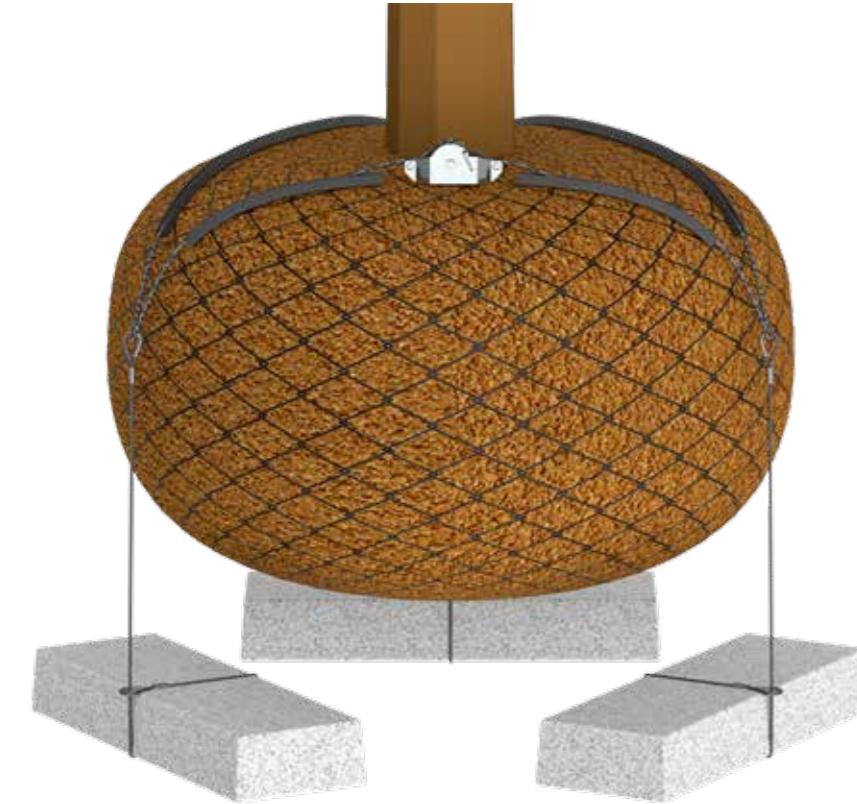
simple to install offering precise positioning for the anchor points, with high strength tensile wires that incorporate rootball protectors spreading the load and preventing damage to the tree's rooting structure.

Kit Components

- High tensile wire
- SG galvanised anchors
- Rubber rootball protector
- Galvanised ratchet

| Anchor Kit Ref | Kit Components | Suitable for Trees |
|----------------|--|---|
| GTRBK1W | 3x Aluminium Anchors, 2m of Galvanised wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | Up to 2.5m Height, Up to 12cm Circumference |
| GTRBK5W | 3 x SG Galvanised Anchors, 4m of Galvanised wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 2.5m - 4.5m Height, 12cm-25cm Circumference |
| GTRBK10W | 3 x SG Galvanised Anchors, 5m of Galvanised wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 4.5m-7.5m Height, 25cm-45cm Circumference |
| GTRBK20W | 3 x SG Galvanised Anchors, 8m of Galvanised Wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 7.5m-12m Height, 45cm-75cm Circumference |
| GTRBK90W | 3 x SG Galvanised Anchors, 12m of Galvanised Wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 12m+ Height, 75cm+ Circumference |

gtSleeper & Kerbstone Anchoring Kit



Where trees are being installed in urban environments, care must be taken to avoid utilities and services.

The gtSleeper & Kerbstone Anchoring Kit utilises heavy objects such as sleepers and kerbstones to weigh down the tree and act as anchor points. Well compacted subsoil is then placed over the sleepers and kerbstones to provide added

weight and security for the tree. This tried and tested system has been incorporated into many rail, utilities and urban projects across the UK it is also available with tree protectors and traditional high tensile wires.

Wire Kit Components

- High tensile wire
- Rubber rootball protector
- Galvanised ratchet

| Anchor Kit Ref | Kit Components | Suitable for Trees |
|----------------|---|---|
| GTDMK5W | 3 x Wire Slings, 2m of Galvanised wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 2.5m - 4.5m Height, 12cm-25cm Circumference |
| GTDMK10W | 3 x Wire Slings, 4m of Galvanised wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 4.5m-7.5m Height, 25cm-45cm Circumference |
| GTDMK20W | 3 x Wire Slings, 5m of Galvanised wire, 1 x Galvanised Ratchet Tensioner, Rubber Rootball Protector | 7.5m-12m Height, 45cm-75cm Circumference |

gtContainerised Rootball Fixing Kit

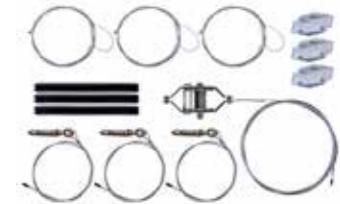
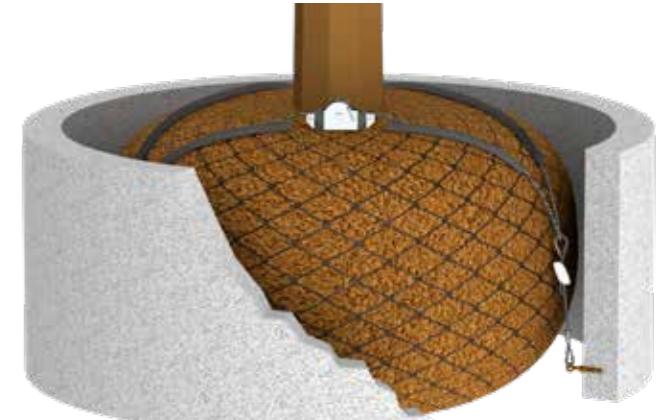


The gtContainerised Rootball Fixing Kit is the preferred method of securing newly planted rootballed and containerised trees.

Ideal for roof garden planting projects, the kit provides the flexibility and security of being able to plant trees above ground. The kit replaces traditional anchors with 3 eye-bolts that can be secured into the solid base of a container, planter or even roof top*, this offers a discreet securing system that will not impact on the overall design.

Kit Components

- High tensile wire
- Eyebolts
- Rubber rootball protector
- Ratchet tensioner
- Fastlink wire joiners
- Steel thimbles



| Anchor Kit Ref | Kit Components | Suitable for Trees |
|----------------|---|---|
| GTCRBK5W | 3 x Expanding Eye Bolts connected to Wire Slings, 2m of Galv Wire, 1 x Ratchet Tensioner, Rubber Rootball Protector | 2.5m - 4.5m Height, 12cm-25cm Circumference |
| GTCRBK10W | 3 x Expanding Eye Bolts connected to Wire Slings, 5m of Galv Wire, 1 x Ratchet Tensioner, Rubber Rootball Protector | 4.5m-7.5m Height, 25cm-45cm Circumference |

gtGuying Kit



Developed for use with newly planted and established trees in exposed areas.

The guying kit acts as an anchor and support to prevent the tree from leaning or becoming displaced.

The simplicity of the guying kits reduces overall installation time plus

creates anchor points that enable better establishment. The guying kit can be used in a variety of ground conditions to suit your project requirements.



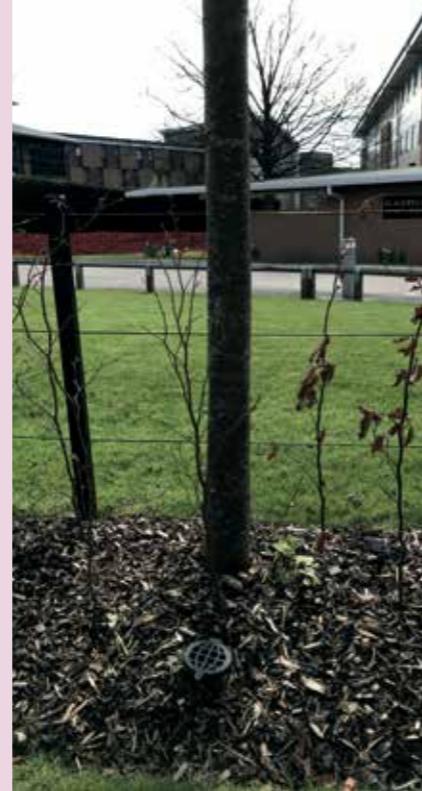
| Anchor Kit Ref | Kit Components | Suitable for Trees |
|----------------|---|---|
| GTOHG5 | 3 x Galvanised Anchors attached to Ratchet Tensioners, 3 x Wire Clips, Collars and Wire Assemblies (6m), 3 x Ratchet Shrouds | 2.5m - 4.5m Height, 12cm-25cm Circumference |
| GTOHG10 | 3 x Galvanised Anchors attached to Ratchet Tensioners, 3 x Wire Clips, Collars and Wire Assemblies (8m), 3 x Ratchet Shrouds | 4.5m-7.5m Height, 25cm-45cm Circumference |
| GTOHG20 | 3 x Galvanised Anchors attached to Ratchet Tensioners, 3 x Wire Clips, Collars and Wire Assemblies (12m), 3 x Ratchet Shrouds | 7.5m-12m Height, 45cm-75cm Circumference |
| GTOHG90 | 3 x Galvanised Anchors attached to Ratchet Tensioners, 3 x Wire Clips, Collars and Wire Assemblies (12m), 3 x Ratchet Shrouds | 12m+ Height, 75cm+ Circumference |

Thirsty Trees – Tree & Plant Irrigation

Newly transplanted urban trees take time to address the balance between the amount of water absorption by the root ball and the loss of water via transpiration.

During this initial period of imbalance, additional watering is critical to the survival of newly planted trees. Drought stress remains one of the biggest contributors to high mortality rates of transplanted trees in their first few years of establishment. Research has highlighted that a

regular watering regime can result in over three times the growth rate of new roots in an urban tree pit. gtSpecifier offers a specialist range of irrigation solutions that ensures the urban tree receives the very best start.



Urban Tree Irrigation Seminar Available at Your Workplace.



Urban Tree Planting Watering Frequency



| | Girth (cm) | Height (m) | Rootball size (dia x depth) | Container size (dia x depth) | Weight (kg) | Est. daily transpiration rates (litres) | Recommended first season watering (litres/month) |
|-------------------------------|------------|------------|-----------------------------|------------------------------|-------------|---|--|
| Feathered | 6 | 1-1.5 | 20x15 | 15L | 20 | 1 | 36 |
| Light Standard | 6-8 | 1.5-2.0 | 20x15 | 15L | 30 | 1 | 36 |
| Standard | 8-10 | 2.0-2.5 | 30x20 | 45x35/45L | 40 | 1.2 | 45 |
| Selected Standard | 10-12 | 2.5-3.0 | 40x30 | 45x35/45L | 50 | 2 | 75 |
| Heavy Standard | 12-14 | 3.0-3.5 | 40 x 30 | 45x35/45L | 50 | 3 | 115 |
| Extra Heavy Standard | 14-16 | 3.5-4.0 | 50x50cm | 60x50cm | 100 | 4 | 150 |
| Advanced Nursery Stock | 16-18 | 4.0-4.5 | 50x50cm | 60x50cm | 175 | 5 | 190 |
| | 18-20 | 4.0-4.5 | 60x60cm | 70x60cm | 250 | 6 | 220 |
| Semi mature | 20-25 | 4.5-5.5 | 70x60cm | 80x60cm | 350 | 7 | 300 |
| | 25-30 | 5.0-6.0 | 80x60cm | 90x60cm | 500 | 8 | 340 |
| | 30+ | 5.5+ | 90x60cm+ | 100x60cm+ | 650 | 9 | 370 |

Mona Relief, Grande & Grande Aria



Mona Relief

A robust unit that delivers water straight to the roots of the tree. Installed with a perforated pipe that surrounds the tree's rootball, the Mona Relief system is a cost effective solution for preventing drought with newly planted trees.

Optional Aria Vented Inlet

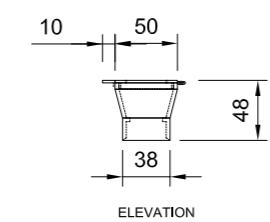
Allows water to be filled through the cap, whilst preventing debris from blocking the pipe.

Technical Specification

| Model | Vented Model | Diameter of Irrigation Ring | Application Type |
|-------|--------------|-----------------------------|---|
| MR1 | MRSA1 | 400mm | Specimen Shrubs |
| MR2 | MRSA2 | 560mm | Standard Trees, Selected Standard, 8-10cm Girth |
| MR3 | MRSA3 | 800mm | Selected Standard, Heavy Standard |
| MR4 | MRSA4 | 1300mm | Extra Heavy Standard |

Features

- 35mm irrigation pipe
- Simple to install
- Quick to install
- Discreet and unobtrusive



Aria Vented Inlet

Mona Relief Grande & Grande Aria

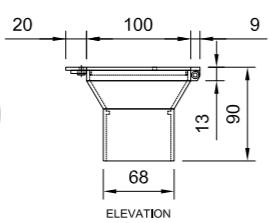
Delivering water straight to the roots of the tree, the Mona Relief Grande has an in-built filter ensuring only water and air have access to the irrigation ring. Installed with a perforated pipe that surrounds the tree's rootball, the Mona Relief system is a cost effective solution for preventing drought with newly planted trees.

Technical Specification

| Grande Model | Grande Aria Model | Diameter of Irrigation Ring | Application Type |
|--------------|-------------------|-----------------------------|---|
| MRG3 | MRGA3 | 900mm | Specimen Shrubs |
| MRG5 | MRGA3 | 1530mm | Standard Trees, Selected Standard, 8-10cm Girth |
| MRG8 | MRGA8 | 2500mm | Selected Standard, Heavy Standard |
| MRG8D | MRGA8D | 2500mm (Double Inlet) | Extra Heavy Standard |

Features

- 60mm irrigation pipe
- Simple to install
- Integral filters
- Flip top inlet



Mona Relief Grande



Grande Aria Vented Inlet

Mona Relief Vente & Piazza



Mona Relief Vente

The Mona Relief Vente irrigation unit is manufactured from cast aluminium, it is decorative, robust and fits perfectly within an urban landscape environment. Mona Relief Vente is compatible with standard relief irrigation tubing and the gtSpecifier range of tree grilles and guards.

Features

- Decorative aluminium finish
- Suitable for hard and soft landscaped areas
- Robust design
- Securely screws into place to prevent tampering
- Co-ordinates with the Dales Collection grilles and guards

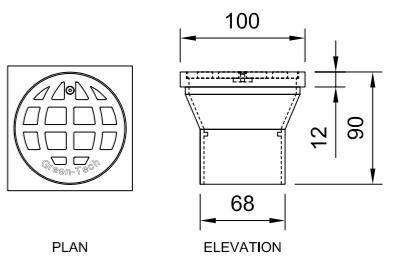
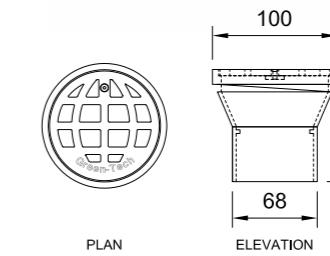


Mona Relief Piazza

A square irrigation unit manufactured from cast aluminium, specifically designed for installation in hard landscaped areas. Ideal for incorporation within paved tree grilles.

Features

- Robust and secure inlet
- Contemporary design
- Co-ordinates with paved tree grilles



Technical Specification

| Vente Model | Piazza Model | Diameter of Irrigation Ring | Application Type |
|-------------|--------------|-----------------------------|---|
| MRV3 | MRP3 | 900mm | Specimen Shrubs |
| MRV5 | MRP5 | 1530mm | Standard Trees, Selected Standard, 8-10cm Girth |
| MRV8 | MRP8 | 2500mm | Selected Standard, Heavy Standard |
| MRV8D | MRP8D | 2500mm (Double Inlet) | Extra Heavy Standard |

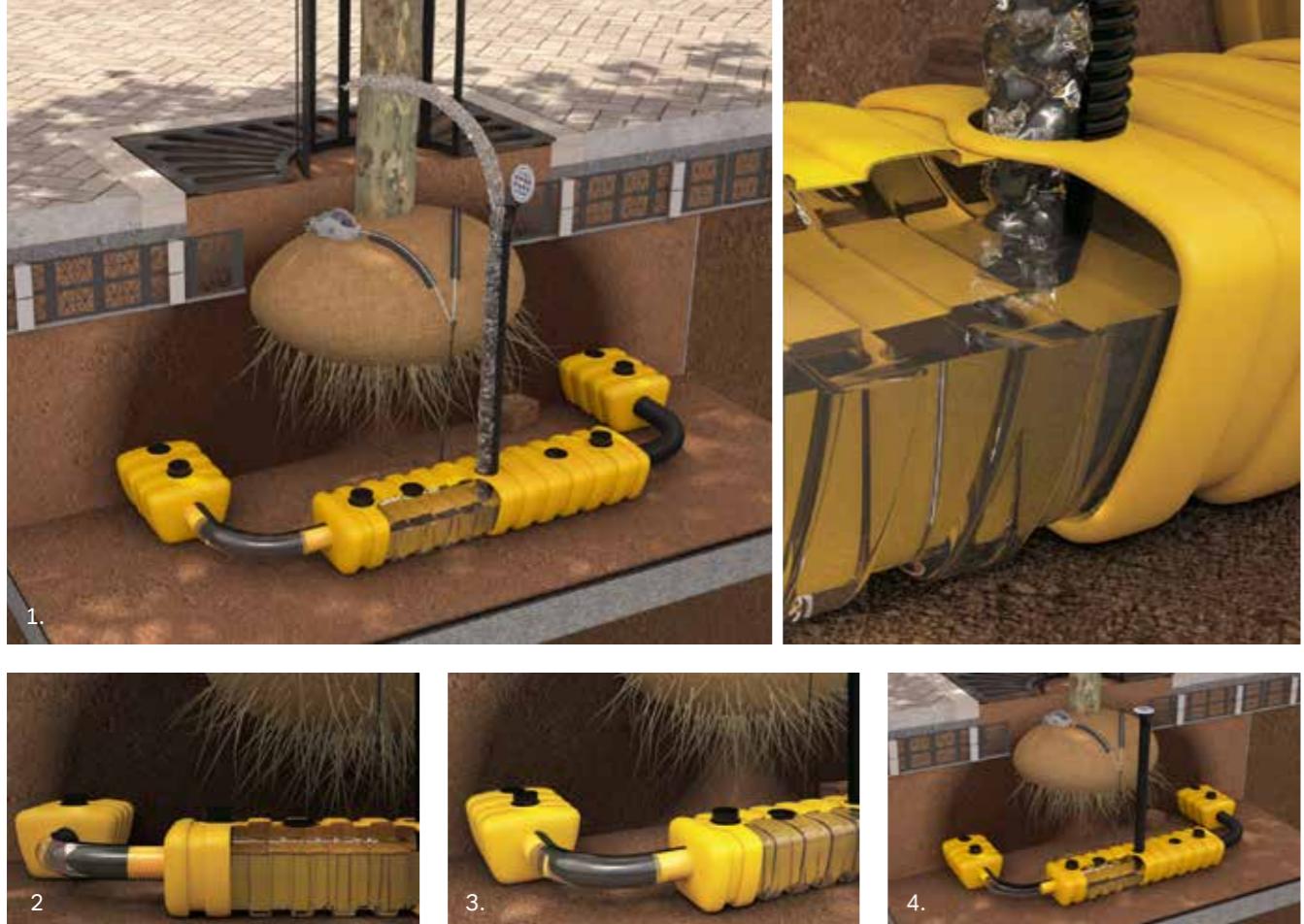
NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q31 | 512 | Tree pit irrigation and ventilation accessories |
| 90-15-40 | 429 | Micro distribution pipelines |

Bespoke inlets available for your project. Email: info@gtspecifier.co.uk

Mona Plant System

Exclusive to
gtSpecifier



The Mona Plant System was developed in Sweden over 30 years ago after extensive research into the growth and success of plants and trees in an urban environment.

Naturally a plant takes on essential water and nutrients from the soil, transporting water through its roots. It does this through the process of capillary action, which occurs when the roots absorbing the liquid are stronger than the force of gravity. The water is then pulled through the soil, direct to the plant's roots absorbing nutrients from the soil on the way.

Each yellow tank in the Mona Plant System acts as a water reservoir, storing water underground to provide essential water and nutrients as and when required. The yellow reservoirs contain internal capillary legs that can irrigate the roots of plants sitting 150mm above the reservoir and within a 400mm diameter. The Mona Plant System provides a more natural pattern of feeding for the plant resulting in stronger, healthier blooms.

1. Mona tanks are filled with water via a filler pipe above ground
2. Tanks act as reservoirs to hold the water
3. Roots absorb water via the process of capillary action as and when required by the plant
4. A healthy rootball is established and maintained

Watch the system online
www.gtspecifier.co.uk

Case Study – HMS Ringtail Memorial



The Mona Tree Irrigation System has been incorporated into a series of urban trees that form part of a war memorial in Lancashire. The memorial honours the servicemen of World War II who passed through the Royal Naval Air Station (RNAS) Burscough, known as **HMS Ringtail**.

HMS Ringtail is an old World War Two airfield in Lancashire. It was a busy military base that was closed for flying in 1946 and kept under the military status of care and maintenance and used as an engine holding and repair unit. Recently a new retail park has been built on land that was formerly HMS Ringtail. A new Booths Supermarket has been built on the Park, designed to resemble a WW2 aircraft hangar. In addition to this the existing Ringtail memorial has been moved into the new development, along with a life size bronze sculpture of a WW2 Navy Air Man.

Cheshire based Hulton Landscapes secured the contract to construct the new memorial garden and ensure the existing monument was removed and placed at its new location. Hard landscaping on the site included the excavation and preparation works along with the creation of paved areas, the installation of bespoke lighting, and the construction of disabled access ramp and steps with a curved balustrade and handrail.

To complement the architecture and character of the surrounding landscape the development included a detailed programme of planting of shrubs and established trees. The trees in the hard landscape were fitted with Mona Irrigation Rings that feed water direct to the tree's rootball. The irrigation rings are part of the established and renowned Mona Irrigation System which focuses on the feeding of trees and shrubs through the process of capillary action. The Mona system providing a natural pattern of feeding for the planting, it is more efficient than traditional methods of irrigation due to the 'on-demand' nature of

feeding, ensuring the plant or trees only take on water as and when required.

Tree anchoring systems, gtRootbarrier and gtResigrilles and tree guards were also installed into the project, providing the trees in the hard landscape the best start in life and long-lasting protection.

Barry Browne, Project Development Manager, gtSpecifier commented:

"The Mona Plant System has been tried and tested on many landscape projects throughout the UK and Europe. The versatility of the system means that it can be adapted for a variety of planting scenarios, installation is simple and it requires no mechanical input, working only with the plant's natural feeding pattern."

Mona Plant System Rings



Mona Plant System Rings have been developed specifically after requests from specifiers and contractors wishing to effectively and efficiently irrigate a tree rootball or a planter. It is the most efficient method of ensuring quick establishment and a healthy start for trees and plants.

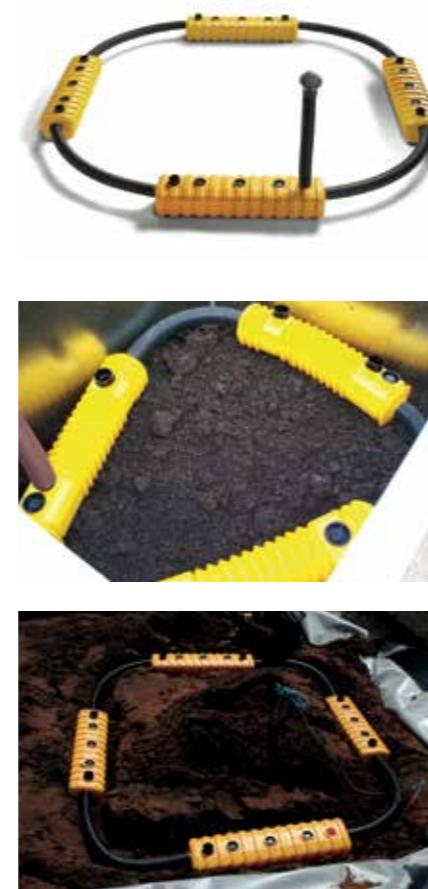
Mona Plant System Rings have been installed in many projects across the UK and Europe. Particularly suitable for interior landscape projects with large planter installations. Ensures quick establishment of plants and healthy root development, the system also provides a more robust solution to the watering of newly planted

trees. Mona Plant System Reservoirs surround the rootball to provide a continuous source of water.

The system forms a ring around the rootball to ensure optimal growth. Ideal for the installation of rootball trees in hard landscaped areas.

- For use in hard landscaped areas with rootball trees
- Install in large decorative planters for consistent watering
- Ideal for deep planting
- Suits interior or exterior landscaping
- Particularly suitable for the establishment of large trees

Exclusive to
gtSpecifier



Mona Plant System Links



Probably the most versatile of all the Mona Plant Systems, the links can be incorporated into a variety of projects and landscape designs.

Each yellow tank is connected via a flexible pipe allowing for any configuration of link system to be built into the specification.

- Ideal for interior and exterior landscaping
- Flexible hose connects the tanks for any configuration
- For use in curved and unusual shaped beds
- Gradients are handled with ease
- Perfect for staircases and roof gardens
- Ideal for shallow planting

Applications

- Urban Environments
- Slopes
- Staircases
- Large Planters
- Roof Gardens
- Flower Beds
- Roundabouts



Watch the
system online
www.gtspecifier.co.uk

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q31 | 512 | Tree pit irrigation and ventilation accessories |
| Q32 | 233 | Watering |
| 90-15-40 | 433 | Tree irrigation rings |

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q31 | 512 | Tree pit irrigation and ventilation accessories |
| Q32 | 233 | Watering |
| 90-15-40 | 433 | Tree irrigation rings |

A Lifetime of Protection - Tree Grilles & Guards

Urban protection is critical to the survival of a young tree.

gtSpecifier tree protection products can also be used to add architectural design and definition to a urban landscape, offering a diverse range of materials and design – all manufactured in the UK to ISO9001 Quality Standards.

At ground level, the trees can be protected using a grille, either in cast iron or fabricated steel. A tree grille allows the tree roots to receive natural water, it prevents the soil in the tree pit being compacted and protects tree root systems from vehicle and pedestrian damage.

Above ground the tree can be protected using a guard. In the earlier stages of a young trees life it is very vulnerable to damage caused by vandalism and traffic – this damage can have a detrimental long term effect on the trees development and in worst case can lead to tree mortality.

Request an Urban Planting Seminar
gtspecifier.co.uk



gtFortress Tree Grille & Ring Guard

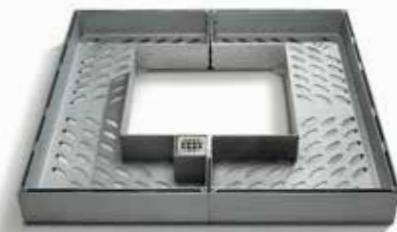


gtFortress Tree Grille

The gtFortress Tree Grille is a stylish and practical tree grille with the urban setting in mind. The design allows paving to be continued almost up to the tree trunk, protecting the trees root system from urban traffic and soil compaction but also allowing rainwater through to maximise irrigation and urban drainage. To ensure the maintenance of the tree a Mona Piazza or Vente Irrigation Unit can be fitted seamlessly into the grille and paving scheme.

As a standard item, the gtFortress Tree Grille is ideal for use with block paving, but dimensions of the inner

trays can be altered to suit other paving styles. As with all gt tree grilles, the inner trays or grille sections are fastened with security fixings and are fully removable allowing the tree to be removed and replaced if required. Galvanised to BS EN ISO 1461.



Features

- Heavy duty, robust grille
- Can be modified to include a choice of paving
- Provides a seamless urban landscape

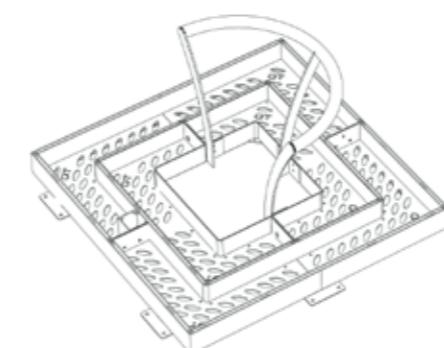
Technical Specification

| | |
|--------------------|---|
| Material | Standard Hot Dip Galvanised Steel. Can also be powder coated in any RAL or BS colour. |
| Grille Size | 1000mm ² with 400mm Internal Aperture. 1200mm ² with 400mm Internal Aperture. Larger & Bespoke sizes also available |
| Guard Size | Can be manufactured in any size to suit the paving scheme/pattern |
| Tree Guard | Normally not required with this design, but a guard can be manufactured as a bespoke product to match the design scheme |

| NBS Clauses | | |
|-------------|--------|------------------|
| Section | Clause | NBS Clause Title |
| Q31 | 566 | Tree protection |
| Q50 | 262 | Tree grilles |
| 45-40-65 | 370 | Tree grilles |

gtFortress Ring Guard

The gtFortress Ring Guard is manufactured from structural grade 275 carbon steel made from recycled sources. It is fully welded with a 50mm diameter tube top rail and 50mm by 5mm formed flat bar uprights. Galvanised as a standard finish, powder coating is available. The Fortress Ring Guard can be supplied as two halves for assembly or as a complete ring encompassing the tree.



Features:

- For installation with the Fortress tree grille
- Robust and structurally sound
- Contemporary modern design
- Can be colour coded to your project

| NBS Clauses | | |
|-------------|--------|----------------------------|
| Section | Clause | NBS Clause Title |
| Q10 | 305 | Tree grilles and surrounds |
| Q31 | 566 | Tree protection |
| Q50 | 260 | Tree guards |
| 45-40-65 | 350 | Tree guards |

Laser Cut Tree Grilles



Bespoke designs and sizes available.

Description

The latest addition to the Dales Collection is a range of laser cut steel tree grilles and guards. Contemporary in design the laser cut grilles will compliment any urban landscape project. The grilles create a unique profile and the four finishes that are available can be co-ordinated with the overall look and feel of the project.

The Dales Collection Laser Cut Tree Grilles are available in four finishes:

Powder Coated – to any colour



Branch Tree Grille

Specification
Available stainless steel, powder coated or corten steel. Available in sizes from 800 to 2500mm².

Corten Steel – rust-like appearance



Geo Tree Grille

Specification
Available stainless steel, powder coated or corten steel. Available in sizes from 800 to 2500mm².

Stainless Steel – a polished finish



Planet Tree Grille

Specification
Available stainless steel, powder coated or corten steel. Available in sizes from 800 to 2500mm².

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|------------------|
| Q31 | 566 | Tree protection |
| Q50 | 262 | Tree grilles |
| 45-40-65 | 370 | Tree grilles |

Galvanised Steel – a matt finish

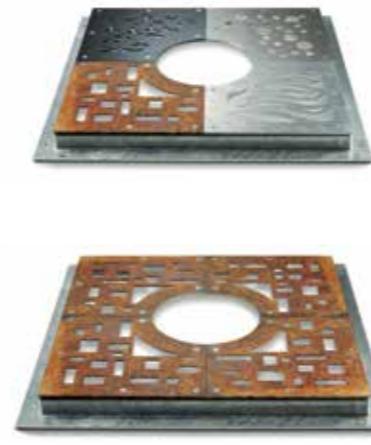


Flare Tree Grille

Specification
Available stainless steel, powder coated or corten steel. Available in sizes from 800 to 2500mm².



Laser Cut Guards



Description

Dales Collection Laser Cut Tree Guards offer a stylish and robust alternative to other tree guard products. The flexibility of using laser guided CNC technology allows a greater range of design alternatives than mere fabrication alone. The range of laser profiled guards are manufactured to compliment the range of Dales Collection Laser Cut Tree Grilles, offering design continuity alongside practical application.

Utilising this manufacturing technology allows a wide range of shapes, profiles and imagery to be incorporated into the guards. Alongside the standard ranges, Greentech offer a completely bespoke service where tree guards can be manufactured to drawings and designs supplied by the client. Logos and personalisation are available which can encompass corporate identity and identification of civic distinctiveness or pride, as well as project specific imagery to allow coherence across an entire scheme.

Available in either 275 carbon steel (finished galvanised and powder coated to any standard RAL colour), or as a polished stainless steel product in either grade 304 or grade 316 stainless steel, Green-tech offer a finished product looks that will suit any scheme. All manufacturing materials are from recycled sources.



Designed by Fred Baier and Lucy Strachan for The Ruthin Art Trail

Technical Specification

| | |
|-------------------------|--|
| Material | Manufactured in stainless, mild or corten steel |
| Finish | Available in stainless steel, powder coated, corten or galvanised |
| Supplied | In two halves or four corners for assembly. |
| Fixing | Supplied with supporting frames for ease of installation. |
| Optional extras: | Irrigation holes and covers, uplighters, co-ordinating tree guards, permanent fixings available for additional security. |

Please note, Laser Cut Tree Grilles are made to order. Please check lead times at time of ordering.

32 View Installation Guides Online at www.gtspecifier.co.uk

Technical Specification

| | |
|-----------------|--|
| Material | Mild or stainless steel |
| Finish | Available in stainless steel, powder coated, corten or galvanised |
| Supplied | Supplied in two halves |
| Fixing | Designed to fix directly to Dales Collection grilles and frames. Ground fixings available on request. |

Please note, Laser Cut Tree Guards are made to order. Please check lead times at time of ordering.

Contact the team: info@gtspecifier.co.uk 33

gtKingsdale & gtDentdale Steel Tree Grilles

Description

The Dales Collection Range of fabricated tree grilles, have been manufactured in accordance with demand from Landscape Architects across the UK requiring or more contemporary finish to complement their overall urban design. Manufactured to co-ordinate with external light fittings and contemporary tree guard designs, the gtSpecifier range is hardwearing and robust, simply installed within supporting frames providing additional rigidity.



Bespoke tree grille designs also available.



Technical Specification

| | gtKingsdale | gtDentdale |
|-----------------|---|---|
| Size | 1000mm x 1000mm, 1200mm x 1200mm | 1000mm x 1000mm, 1200mm x 1200mm, 1800mm x 1800mm |
| Material | Stainless Steel marine grade 316. Other grades available on request. | |
| Finish | Stainless steel | Satin brushed |

| NBS Clauses | | |
|-------------|--------|------------------|
| Section | Clause | NBS Clause Title |
| Q31 | 566 | Tree protection |
| Q50 | 262 | Tree grilles |
| 45-40-65 | 370 | Tree grilles |

gtResigrille Tree Grille



Description

The gtResigrille has been developed after requests from contractors across the UK, requiring a tree grille that offers the aesthetic and porous properties of a resin bound surface. The cast iron grille has a recess of 50mm, this unit is then filled with gtResibond creating a secure, robust and porous surface. When filled the gtResigrille supports the load of street traffic protecting the rootball of the tree. Not only does the gtResigrille look contemporary, it is hard wearing and able to withstand frequent trafficking. The gtResigrille also offers a clean surface – no rubbish, cigarette ends or leaves will become trapped within the gtResigrille.

Features

- Time-saving and simple to install
- Hard wearing and robust
- Resistant to trafficking
- Contemporary, clean finish

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|------------------|
| Q31 | 566 | Tree protection |
| Q50 | 262 | Tree grilles |
| 45-40-65 | 370 | Tree grilles |

Technical Specification

| | |
|----------------------------|--|
| Material | Mild Steel Hot Dip Galvanised to BS EN ISO 1461 |
| Grille Size | 1000mm ² with 400mm Internal Aperture. Larger & Bespoke sizes also available 1200mm ² with 400mm Internal Aperture. Larger & Bespoke sizes also available |
| Guard Size | 1.8m x 400mm Internal Aperture |
| Depth of gtResibond | 50mm |
| Colours available | gtBrittany Bronze, gtCorn Flint, gtRed, gtWhite and gtSilver – See page 51 |

Dales Collection Guards and Grilles



The Dales Collection

A contemporary range of tree guards and grilles that are not only eye-catching and well-designed but will withstand even the busiest of town centres. Designed to protect the tree pit in a pedestrian environment. Tree grilles provide essential air and drainage for the tree's roots to ensure a healthy and long-life for the planting, while guards offer protection for the tree above ground as it grows.

Design & Finish

Dales Collection tree guards are manufactured in the UK using UK sourced mild carbon steel. The standard guard finish is a hot dip galvanised to BS EN ISO 1461, alternatively a rich primer and a hardwearing polyester powder coating provides an outstanding finish.

Dales Collection grilles utilise engineering grade cast iron making them extremely robust and durable. This is because 250 grade cast iron will not rust in the traditional sense, in fact over a 100 year timescale an unpainted Dales Collection tree grille will only lose a minimal amount of microns to oxidisation.

Standard tree grilles are supplied with the natural cast iron finish.

The range of Dales Collection guards and grilles can be matched to your corporate colours to match specification design.

Installation

The gtDales grilles are supplied in half or quarter components for ease of transit. Using a Type 1 or Type 2 support frame the grille can be simply bolted within the grille for added stability and security. The Type 2 frame is necessary for specifications that require a tree guard. If additional security is required, security clips are available to prevent unauthorised removal of the tree grille.

- Manufactured from grade 250 cast iron
- Incorporate with the gtDales Tree Guards
- High quality finish
- Colour coded to corporate branding
- Simple installation

Dales Collection Tree Guards



gtSwaledale



gtMalhamdale



gtNidderdale



gtAiredale

| | |
|------------------------|---|
| Size | 1.8m x 400mm or 600mm diameter |
| Materials | Mild steel |
| Standard Finish | Hot dip galvanised to BS EN ISO 1461 |
| Optional Finish | Painted in black rust resistant gloss or corporate colour match |

| | |
|------------------------|---|
| Size | 1.8m x 400mm or 600mm diameter |
| Materials | Mild steel |
| Standard Finish | Hot dip galvanised to BS EN ISO 1461 |
| Optional Finish | Painted in black rust resistant gloss or corporate colour match |



gtWharfdale

| | |
|------------------------|---|
| Size | 1.8m x 400mm or 600mm diameter |
| Materials | Mild steel |
| Standard Finish | Hot dip galvanised to BS EN ISO 1461 |
| Optional Finish | Painted in black rust resistant gloss or corporate colour match |

| | |
|------------------------|---|
| Size | 1.8m x 400mm or 600mm diameter |
| Materials | Mild steel |
| Standard Finish | Hot dip galvanised to BS EN ISO 1461 |
| Optional Finish | Painted in black rust resistant gloss or corporate colour match |

Select your guard

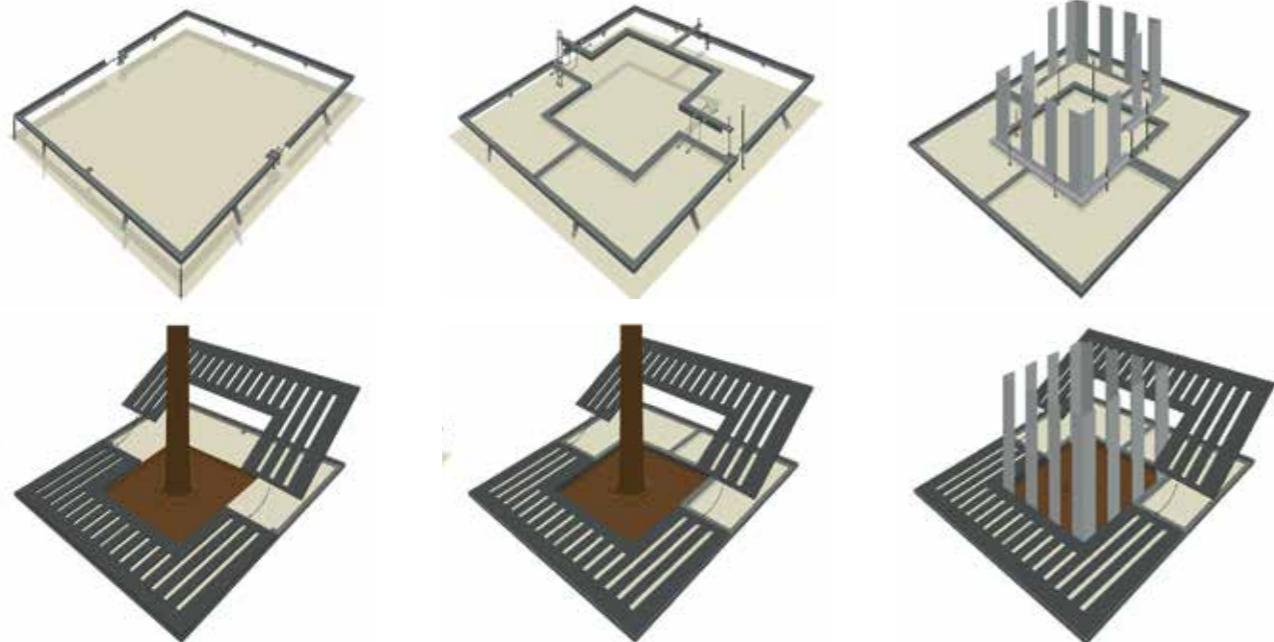
1. Select your guard design
2. Select your finish. Galvanised/ Black Powder Coated/ Corporate Colour
3. Select your fixing. Ground Secured/ Grille Secured.

| NBS Clauses | | |
|-------------|--------|----------------------------|
| Section | Clause | NBS Clause Title |
| Q10 | 305 | Tree grilles and surrounds |
| Q31 | 566 | Tree protection |
| Q50 | 260 | Tree guards |
| 45-40-65 | 350 | Tree guards |

Cast Iron Tree Grilles Dales Collection

Support Frames

Support Frames stabilise the grilles and helps to prevent shrinkage and subsidence of the tree pit. Security Clamps secure the individual sections of the tree grille to each other and to the support frame, which increases the rigidity of the whole unit and prevents removal of the grille sections.



Type 1 Frame

2 Piece Grille Support Frame

Step 1: Bolt the two halves of the support frame together around the tree using the fixings provided.

Step 2: Set frame into ground on ragged legs, ensuring the frame is completely level.

Step 3: Place Tree Grille into frame.

Step 4: Apply security straps if applicable.

Type 2 Frame

4 Piece Grille Support Frame or 2 Piece Grille with Guard Support Frame

Step 1: Bolt the inner sections into the outer halves, it is essential that the inner sections are toe down to ensure the grille fits flush.

Step 2: Bolt the two completed halves together around the tree.

Step 3: Set the frame into ground on ragged legs, ensuring the frame is completely level.

Step 4: Place Tree Grille into frame.

Step 5: Apply security straps if applicable.

Technical Specification

| | |
|-----------------------------|---|
| Material | Grade 250 Cast Iron |
| Standard Finish | Metal primer, cast iron finish |
| Optional Finish | Painted in black rust resistant gloss or corporate colour match |
| Optional Accessories | Mona irrigation hole |

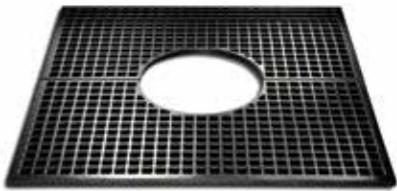
| NBS Clauses | | |
|-------------|--------|------------------|
| Section | Clause | NBS Clause Title |
| Q31 | 566 | Tree protection |
| Q50 | 262 | Tree grilles |
| 45-40-65 | 370 | Tree grilles |

Cast Iron Tree Grilles Dales Collection



gtRibblesdale

| Size | Internal Aperture | Pieces | Support Frame |
|-----------------|-------------------|--------|---------------|
| 700mm x 700mm | Radius: 230mm | 2 | Type 1 |
| 800mm x 800mm | 270mm square | 2 | Type 1 |
| 1000mm x 1000mm | Radius: 225mm | 2 | Type 1 |
| 1080mm x 1080mm | Radius: 225mm | 4 | Type 2 |
| 1200mm x 1200mm | Radius: 225mm | 2 | Type 1 |
| 1760mm x 1760mm | Radius: 225mm | 4 | Type 2 |



gtNewdale

| Size | Internal Aperture | Pieces | Support Frame |
|-----------------|-------------------|--------|---------------|
| 770mm x 770mm | 320mm square | 2 | Type 1 |
| 1000mm x 1000mm | 340mm square | 4 | Type 2 |
| 1200mm x 1200mm | 420mm square | 2 | Type 1 |
| 1400mm x 1400mm | 440mm square | 2 | Type 1 |
| 1800mm x 770mm | 600mm square | 4 | Type 2 |



gtGarsdale

| Size | Internal Aperture | Pieces | Support Frame |
|-----------------|-------------------|--------|---------------|
| 1000mm x 1000mm | Radius 225mm | 2 | Type 1 |
| 1200mm x 1200mm | Radius 320mm | 4 | Type 2 |



gtLittondale

| Size | Internal Aperture | Pieces | Support Frame |
|--------|-------------------|--------|---------------|
| 890mm | Radius: 200mm | 2 | Type 1 |
| 1185mm | Radius: 220mm | 2 | Type 1 |
| 2000mm | Radius: 435mm | 3 | Type 2 |



gtCoverdale

| Size | Internal Aperture | Pieces | Support Frame |
|-----------------|-------------------|--------|---------------|
| 900mm x 900mm | Radius: 200mm | 2 | Type 1 |
| 1200mm x 1200mm | Radius: 220mm | 2 | Type 1 |
| 2000mm x 2000mm | Radius: 500mm | 2 | Type 1 |



gtRaydale

| Size | Internal Aperture | Pieces | Support Frame |
|-----------------|-------------------|--------|---------------|
| 1200mm x 1200mm | Radius: 255mm | 2 | Type 1 |
| 1500mm x 1500mm | Radius: 350mm | 4 | Type 2 |
| 1800mm x 1800mm | Radius: 400mm | 4 | Type 2 |



gtWave

| Size | Internal Aperture | Pieces | Support Frame |
|--------|-------------------|--------|---------------|
| 1200mm | Radius: 200mm | 2 | Type 1 |



The Wider Environment

For larger urban planting projects that include parks, buffer planting and recreational areas gtSpecifier has developed a number of landscape solutions to accommodate these projects.

Urban areas that will experience little or no urban pressures such as heavy trafficking from pedestrians or vehicles will require a different format of planting assistance. This type of urban planting requires a less engineered approach, gtSpecifier offers an extensive range of soft landscaping tree products that will provide optimum growing assistance without the high specification.

More commonly found in rural planting projects, the soft landscaping product portfolio offers the tree the protection and support it requires to thrive, but uses more traditional techniques. This creates a softer, rural parkland appearance to the overall planting scheme.

Tree Planting Seminar Available at Your Workplace



Technical Drawings
See page 74-97

gtEcomatt - Mulch Mat



All recycled materials, re-pulled clothing, tailor's clippings and re-used jute.



gtEcomatt Mulch Mat

Manufactured in the UK, exclusively for Green-tech Ltd from 100% recycled materials: 30% SCP Material: 40% Recycled Jute: Re-used jute sacking and bags from the rice, cocoa and coffee trade. The product is needle punched onto a degradable polythene backing, to allow both air and water to pass through the layers.

Benefits

- Helps to suppress competing weed growth within the vicinity of the plants root development area.
- Allows water and air to percolate through the wool layer and helps to retain moisture in time of drought.
- The matting/roll acts as an insulator and absorbs heat from the sun thus creating an assisted environment for the plant to establish itself.
- Totally degradable, lasting a minimum of two seasons.

Technical Specification

Available in rolls or 500mm & 1000mm square mats. 450g & 750g weights are available.

For gradients up to 35° use 450g gtEcomatt, in instances up to 45-50° we recommend the 750g. A site survey should be undertaken prior to installation to consider specific site circumstances such as wind speed, nature and current erosion.

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|----------------------------------|
| Q31 | 385 | Mulch matting/ geotextile fabric |
| Q31 | 490 | Individual mulch mats |
| Q31 | 570 | Tree spats/ mulch mats |
| 45-40-95 | 311 | Pre-seeded mats |
| 45-65-50 | 325 | Plastics sheets |
| 45-65-50 | 344 | Plant and natural fibre linings |

Tree Planting Seminar Available at Your Workplace

Tubex 12D



Tubex 12D

Tubex 12D is a new material technology combining biopolymer (starch based) and oxo-biodegradable polypropylene. This combination gives customers all the qualities of a Tubex shelter (flared rim, laserline and twin wall rigidity), whilst ensuring that it degrades in a more controllable fashion.

- 12D shelters have all the benefits of a traditional shelter (light transmission, microclimate, ventilation, protection, easy to install etc) with the added benefit of better degradation control.
- 12D shelters offer a complete product life cycle (shelf life, service life, degradation period) that fits the needs of our customers.

Service Life

The shelters have been designed to suit different applications with a service life of between 3 and 5 years.

Degradation time frame

The time frame in which the product degrades will always be dependent upon the environment it is in. Many factors contribute to this process, with the important ones being sunlight and bacteria. Sunlight is needed to break up the polymer chains whilst bacteria is needed to digest these small chains.

Begins degrading after 3-5 years

Height Guide

| To protect from | Minimum tube height |
|-----------------|---------------------|
| Rabbits | 0.6m |
| Hares | 0.75m |
| Fallow Deer | 1.5m |
| Red Deer | 1.8m |

Sizes Available

| Height (m) | Type | Lifespan |
|------------|----------------------|----------|
| 0.6 | Easywrap 50-65mm 12D | 3Y |
| 0.6 | Tubex Ecostart 12D | 3Y |
| 0.6 | Tubex Std 12D | 3Y |
| 0.75 | Tubex Std 12D | 3Y |
| 1.2 | Tubex Std 12D | 5Y |
| 1.5 | Tubex Std Plus 12D | 5Y |
| 1.8 | Tubex Std Plus 12D | 5Y |
| 0.6 | Shrub Shelter 12D | 3Y |

Tree Shelters



Tree Spirals

Manufactured in 100% recycled material offering a life expectancy of over four years, tree spirals have been used as the main protector of young trees for many years now. The spiral should be supported by a cane. Available in two standard diameters. 250 per box as standard.

| Size | Colours available |
|-------------|----------------------------|
| 45cm x 38mm | Clear, Brown or Green Tint |
| 45cm x 50mm | Clear, Brown or Green Tint |
| 60cm x 38mm | Clear, Brown or Green Tint |
| 60cm x 50mm | Clear, Brown or Green Tint |
| 75cm x 38mm | Clear, Brown or Green Tint |
| 75cm x 50mm | Clear, Brown or Green Tint |



Defender Pro Shelter

The Defender Shelter offers protection for young trees and shrubs against browsing animals and harsh weather conditions, promoting faster tree growth and increased survival rates. They are extremely quick and easy to install with the unique 'no ties' staking and securing system it ensures planting is done swiftly and simply, with maintenance carried out with the same level of simplicity and speed. It is also an environmentally responsible product being manufactured using 100% recyclable UV stabilised polypropylene which is harmless to the environment.

| | Height |
|----------------------------|--------|
| Defender Pro Tree Shelter | 60cm |
| Defender Pro Tree Shelter | 1.2m |
| Defender Pro Shrub Shelter | 60cm |

Key benefit

- Quick and easy to install with 'no ties' staking and securing system
- Shelter designed to split open as girth of the tree increases
- Transported 'flat pack' so allowing delivery at point of application
- Durable twin-wall construction
- Estimated life span 5 – 7 years



Technical Information

- Manufactured from UV stabilised polypropylene
- Harmless to the environment
- Designed to be transported flat pack
- 100% recyclable
- Radial top lip to minimise abrasion to tree stem



Tree Belting & Blocks



Holdfast Buckle Tree Tie

| Length | Width |
|--------|--------|
| 300mm | 12.5mm |
| 380mm | 25mm |
| 450mm | 25mm |
| 600mm | 25mm |

Holdfast belting, blocks and ties are manufactured from biodegradable rubber that will withstand the harshest environments. They provide a secure fit without damaging the bark or the tree, offering flexibility even in the coldest temperatures.

Holdfast Blocks

HB1 HB2 HB3

| | | | | | |
|--------|------|--------|------|--------|------|
| Width | 50mm | Width | 75mm | Width | 90mm |
| Height | 45mm | Height | 63mm | Height | 75mm |
| Depth | 25mm | Depth | 25mm | Depth | 44mm |

| NBS Clauses | | |
|-------------|--------|-------------------------|
| Section | Clause | NBS Clause Title |
| Q31 | 500 | Tree planting |
| Q31 | 546 | Single vertical staking |
| Q31 | 550 | Double staking |
| 45-40-65 | 440 | Tree ties |

Weld Mesh and Staking



Weld Mesh:

12 gauge wire, 25mm x 75mm grid size, galvanised.

Dimensions

| Height | Diameter |
|--------|----------|
| 1200mm | 200mm |
| 1200mm | 250mm |
| 1200mm | 350mm |
| 1800mm | 200mm |
| 1800mm | 250mm |
| 1800mm | 300mm |

Timber Stakes:

Soft Wood, treated with chamfered top.

Dimensions

Heights available from: 1200mm – 2400mm
Diameters available: 50mm – 150mm

Cross Bars:

Soft wood, treated.

Dimensions

| Height | Depth | Width |
|--------|-------|-------|
| 900mm | 38mm | 75mm |
| 900mm | 25mm | 75mm |

Holdfast Spacer Sleeves

| Length | Width |
|--------|-------|
| 1200mm | 25mm |
| 1200mm | 40mm |
| 300mm | 25mm |
| 300mm | 40mm |

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|-------------------------|
| Q31 | 500 | Tree planting |
| Q31 | 546 | Single vertical staking |
| Q31 | 550 | Double staking |
| 45-40-65 | 440 | Tree ties |

Rite-Edge – Aluminium Lawn Edging



Rite-Edge Lawn Edging

Rite-Edge aluminium landscape lawn edging has been designed by both landscape architects and landscape contractors to offer greater flexibility in design and installation over any other edging material. Rite-Edge is manufactured from strong, lightweight aluminium that will not rust, crack or rot like steel, wood or plastic.

View Technical Specification Online
gtspecifier.co.uk

Technical Specification
Material: Aluminium Alloy 6063 to T6 Hardness
Installation: With fixing stakes at 1200mm intervals
Life Expectancy: 27 Years

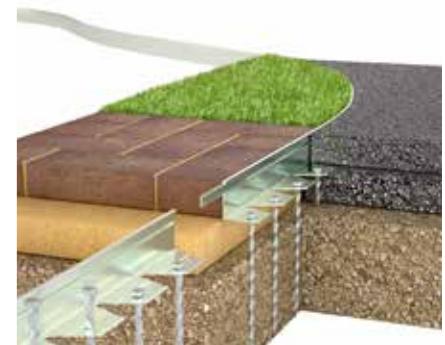
Dimensions

| Colour | Piece size | Lengths per pack | Total length per pack |
|---------|--------------------------|------------------|-----------------------|
| Natural | 102mm high x 2400mm long | 14 | 33.6m |
| Brown | 102mm high x 2400mm long | 14 | 33.6m |
| Green | 102mm high x 2400mm long | 14 | 33.6m |
| Black | 102mm high x 2400mm long | 14 | 33.6m |

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---------------------|
| Q30 | 560 | Grass edging strips |
| 45-75-25 | 420 | Metal edgings |

Rite-L-Edge – Aluminium Landscape Edging



Rite-L-Edge Flexi



Rite-L-Edge Non-Flexi

Rite-L-Edge

There are many applications where Rite-L-Edge should be used instead of Rite-Edge lawn and border edging, but the general rule of thumb is that if the surface to be edged requires any form of mechanical compaction then the most suitable depth of Rite-L-Edge should be used.

Benefits

- Durable aluminium alloy
- Quick connection
- Hidden installation
- Will not rust
- Reversible
- Flexible

Applications

- Tarmac Drives and Pathways
- Resin Bound and Bonded Aggregate Surfaces
- Permeable Paving Edging
- Rubber Safety Surfacing and Athletics Surfaces
- Decorative Gravel Driveways
- Artificial Grass
- Green Roof Edgings and Flashings

Dimensions

| Flexi Code | Non-Flexi Code | Height | Base | Piece length | Lengths per pack | Metres per pack |
|------------|----------------|--------|------|--------------|------------------|-----------------|
| C570 | C570NF | 18mm | 30mm | 2.4m | 30 | 72m |
| C571 | C571NF | 25mm | 50mm | 2.4m | 30 | 72m |
| C572 | C572NF | 38mm | 50mm | 2.4m | 20 | 48m |
| C573 | C573NF | 50mm | 50mm | 2.4m | 20 | 48m |
| C574 | C574NF | 64mm | 50mm | 2.4m | 20 | 48m |
| C575 | C575NF | 75mm | 70mm | 2.4m | 15 | 36m |
| C576 | C576NF | 100mm | 70mm | 2.4m | 10 | 24m |
| C577 | C577NF | 120mm | 70mm | 2.4m | 10 | 24m |
| C579 | C579NF | 150mm | 70mm | 2.4m | 10 | 24m |

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|------------------|
| Q10 | 200 | Special |
| 45-75-25 | 420 | Metal edgings |

GRB Plus



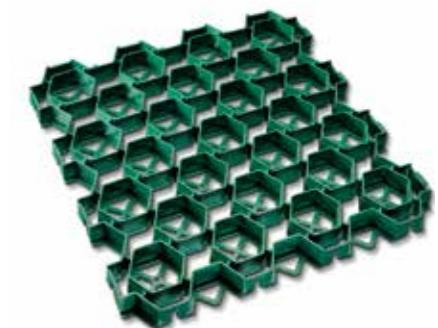
A tried and tested solution for ground protection and stabilisation, GRB Plus has been specified on many major projects across the UK.

GRB Plus provides excellent strength and protection whilst permitting the free-flow of water and minimising drainage problems.

- Manufactured from 100% recycled polymer
- Manufactured in the UK
- Supports vehicles up to 250 tonnes
- Minimal maintenance
- Unique GRB Plus locking system for a speedy installation
- Lightweight, easy to assemble
- No additional fixings or tools required
- Allows surface water to drain freely
- Can be finished with grass, gravel and stone

| NBS Clauses | | |
|-------------|--------|--|
| Section | Clause | NBS Clause Title |
| Q25 | 180 | Plastics grass reinforcing paving system |
| Q25 | 185 | Gravel filled plastics paving system |
| Q25 | 60 | Plastics grass reinforcing pavers |
| Q30 | 361 | Reinforced grass system |
| 45-20-64 | 440 | Polymer cellular pavers |

GRB Plus



Typical specification of GRB Plus

| | |
|--|---|
| Grid Area | 500 x 500 x 40mm |
| Wall Thickness | 4mm |
| Wall Depth | 40mm |
| Weight/m² | 4.56kg/m ² |
| Number of units per m² | 4 |
| Load Capacity | Up to 250 tonnes/m ² |
| Axle Weight | Up to 16 tonnes |
| Material | 100% Recycled UV Stable Polymer from UK sources |
| Temperature Stability | -30 to +80°C |
| Chemical Resistance | Rocksalt, ammonia, acid rain, petroleum products, hydrocarbons |
| Estimated Installation Time | 100m ² per person per hour (depending upon ground preparation) |
| Base Specifications | Minimum 250mm for car parking, 450mm for heavier vehicles |
| m² per pallet | 56m ² |
| Gross Weight per pallet | 260kg |

Available in
green or black

Sub base depths

| Project | Typical depth |
|-----------------------------|---------------|
| Patios, garden paths | 100mm |
| Driveways, public footpaths | 150mm |
| Heavy uses | 250mm |
| Highways | 450mm+ |

Bodpave® 40 & 85

BodPave® 40

BodPave® 40 porous pavers are a cost effective ground reinforcement solution for displaced gravel, worn and rutted grass areas for water to run off. Bodpave® 40 paving grids are designed to be installed onto a well prepared, free-draining and relatively even surface.

The ground reinforcement paving grids simply connect together and can be filled with either sand, gravel or topsoil and seeded for use as grass pavers which provides a visually pleasant and stable surface structure through which grass can be grown, or filled with an angular gravel for use as a gravel retention reinforcement surface.



Technical Specification

Load bearing capacity of up to 150t/m²
Size (WxLxD): 500x500x40mm+ fixing pins
Colours available: Black or Green

BodPave® 85

Bodpave® 85 porous pavers can be installed with either a grass or gravel filled surface. Bodpave® 85 pavers/grids are strong interlocking 100% recycled cellular porous plastic paving grid systems for grass reinforcement, ground stabilisation and gravel retention for regular trafficked surfaces (pedestrian and vehicles)

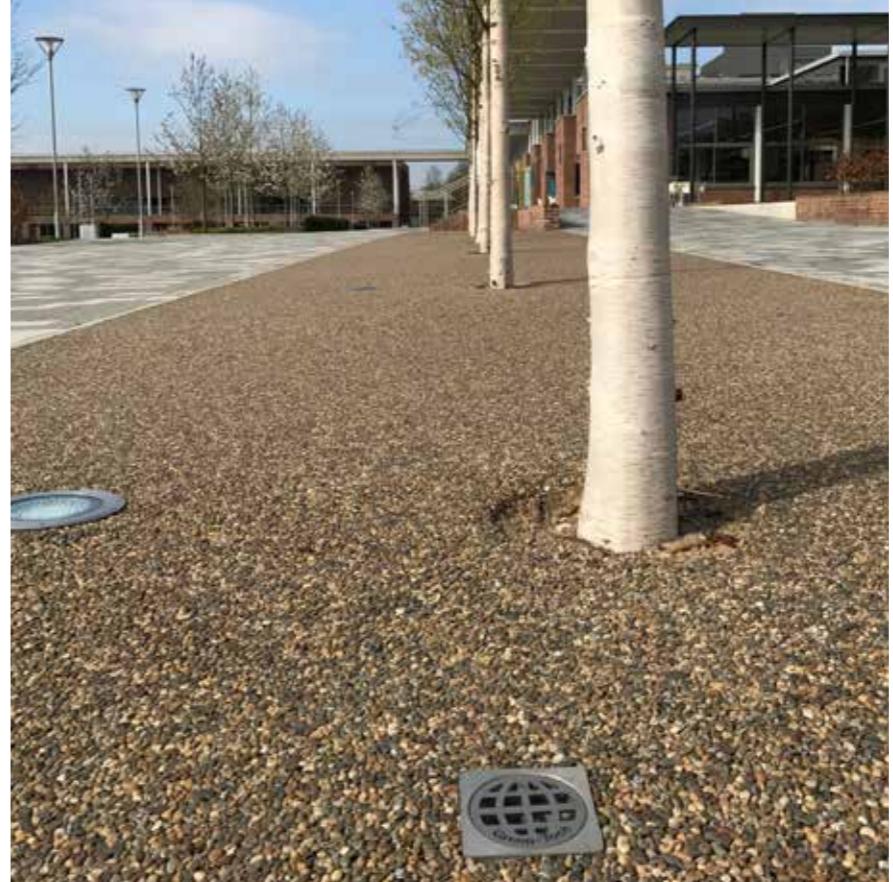
BodPave® 85 permeable pavers are manufactured in the UK from UV Stabilised 100% recycled HDPE and are very strong, chemically inert and non-toxic. Bodpave® 85 porous paving provides a durable, safe and environmentally friendly surface for trafficked areas with a very low carbon footprint. BodPave® 85 is a cost effective solution to worn and rutted grassed areas, displaced gravel and for source control of surface water run-off.



Technical Specification

Load bearing capacity of up to 400t/m²
Size (WxLxD): 500x500x50mm+ fixing pins
Colours available: Black or Green

gtResibond - Porous tree pit surface



gtResibond is an aesthetically pleasing porous resin bound surface layer of aggregate, suitable for the surrounds of trees within hard-landscaped areas.

gtResibond can be used in areas where conventional means of mulching with loose materials may not be practical due to the constant displacement of the material increasing maintenance time and costs. Regarded in the industry as a 'resi-bound' system, gtResibond relies on the aggregate and the resin being agitated together in a mixer and then spread over the prepared base with hand floats and trowels.

Features

- Once laid and allowed to cure is virtually maintenance free
- Categorised as a hard surface, it has the attributes of being durable and hard wearing; able to withstand pedestrian trafficking, wheel chairs and prams
- Porous allowing the free flow of air and moisture in the soil thus maintaining a healthy environment for the tree to develop

Technical Specification

Pack coverage: 1m² of surfacing (45mm depth)
Ambient temperature: 5°C and 35°C during application and cure
Cure: 20°C 3.0 – 4.0 hours
Mix Life: 20°C 20 minutes
Appearance: Pale straw coloured liquid
Viscosity: 25°C 0.7–1.2 Pas (7–12 P)
Storage Life: 20°C 2 years

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q25 | 450 | Gravel filling |
| Q31 | 512 | Tree pit irrigation and ventilation accessories |
| 45-20-00 | 415 | Resin bound mixed aggregate surfacing |

Resin-bound Tree Pit installation seminar available at your workplace

gtGreen Screens

The evolution in green screens from gtSpecifier.

Our product development team has created a green screen system that can simply be inserted into the ground without any requirement for pot or planter removal. The new green screens have been grown in the UK within an airport which aids full root development. This means the roots are not inhibited by other materials from day one. The compost used contains controlled release fertiliser to sustain plant health once planted on site. The screens are easy to transport and on arrival at site the protective polythene can simply be removed and inserted into the ground.

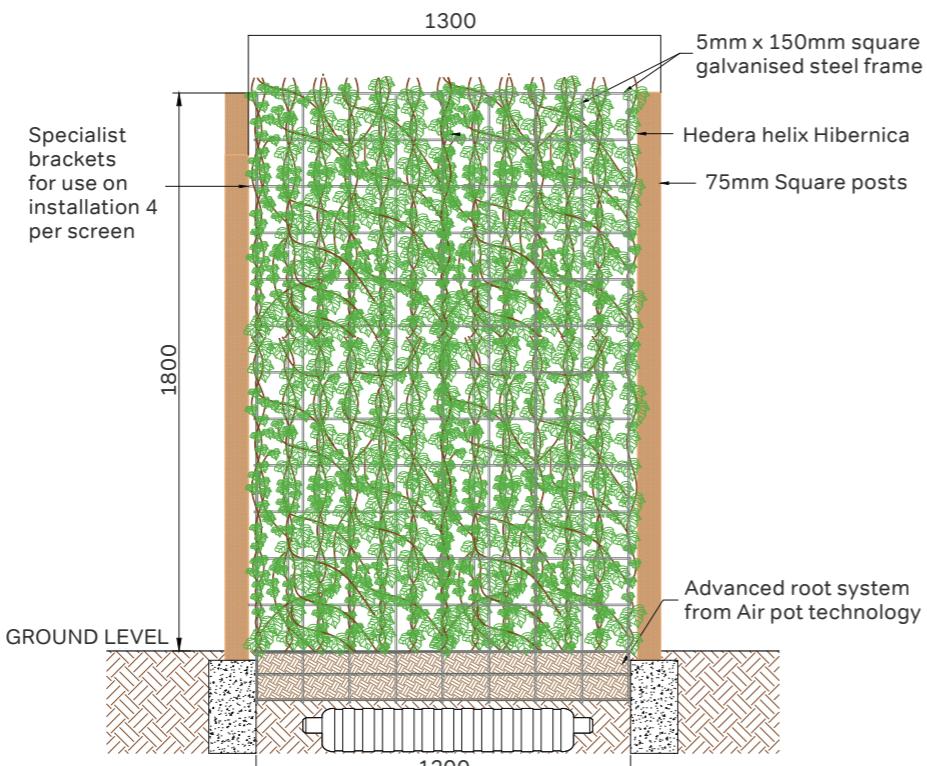
- A security fencing solution
- Excellent environmental credentials
- Simple and quick to install
- Cost effective
- Low maintenance

gtGreen screens can be contract grown to suit a range of requirements, plant varieties and sizes.

| | |
|--------------------------------|--|
| Material | Galvanised Steel |
| Mesh Dimensions | 150mm x 150mm |
| Wire Thickness | 5mm |
| Weight | approx. 30kg |
| Green Screen Dimensions | 1050mm (h) x 1200m (l) 1800mm (h) x 1200 (l) 3000mm (h) x 1200mm (l) |
| Plant type | Hedera helix Hibernica |
| Stakes | 75mm x 2.4m |
| Brackets | 25mm |



Case Study – gtGreen Screens integral to city centre regeneration project



| NBS Clauses | | |
|-------------|--------|---|
| Section | Clause | NBS Clause Title |
| Q40 | 125 | Open mesh steel panel general purpose fencing |
| Q40 | 430 | Proprietary fencing |
| 40-40-25 | 130 | External freestanding container planting system |
| 40-40-25 | 165 | External planter system |



68 Ivy (Hedera Hibernica) green screens have been installed into a Liverpool Mutual Homes development, situated on land between Great Homer Street and Kirkdale Road.

The regeneration of the prominent landmark tower block, is situated on a major route in and out of Liverpool city centre.

The living walls provide much needed screening for the car park and access areas to the housing block from the main road. Simple to install yet instantly effective, the green screens played a part in a much bigger project of regeneration where, the rundown accommodation was brought back into use and provided residents with modern, high quality apartments and a range of community facilities.

gtSpecifier's Project Development Manager **Barry Browne**, commented: "gtGreen screens provide the perfect screening solution. Their ease of installation, low maintenance, and environmental credentials make them an increasingly popular choice by Specifiers."

Urban Wildflower & Grass Seed



Without a doubt wildflower spaces have increased in importance over the past few years, whether in a rural or urban environment.

Wildflowers are no longer just the love of enthusiasts, but finding favour with landscapers, landscape architects and Ecologists across the UK to create bespoke wildflower mixes that meet specific criteria. The team takes time to consider bio-diversity, location, flowering periods and project aspirations before it creates a mix suitable for a specification.

The John Chambers range of Heritage Mixes are all supplied with a certificate of authenticity, listing the species, origin and recipe. The certificate forms an integral part of the John Chambers quality management process guaranteeing peace of mind for the specifier, installer and client.



British Native Wildflower seed



Hedgerow/Woodland-Edge Mix



| | |
|---------------------|--|
| Mix Includes | Knapweed; Common or Hardheads, Campion; Red, Mustard; Garlic or Jack-by-the-hedge, Teasel and Selfheal |
| Usage | Partial shade and sheltered areas, dry areas under hedges |

Butterfly Meadow Mix



| | |
|---------------------|--|
| Mix Includes | Knapweed; Common or Hardheads, Vetch; Common, Daisy; Oxeye, Clover; Red and Mustard; Garlic or Jack-by-the-hedge |
| Usage | Plants selected for their colours and scents to attract the butterfly and insect population |

Wetland Area Mix



| | |
|---------------------|--|
| Mix Includes | Iris; Yellow, Buttercup; Meadow, Vetch; Tufted, Campion; Red and Meadowsweet |
| Usage | Water-edge and moist soils |

Early Flowering Mix



| | |
|---------------------|--|
| Mix Includes | Burnet; Salad, Buttercup; Meadow, Medick; Black, Mustard; Garlic or Jack-by-the-hedge and Campion; Red |
| Usage | Most suited for flowering in late spring/early summer |

Availability

All our British Native Wildflower seeds are available as both a 100% mix and an 80/20 mix (80% low maintenance grass and 20% wildflowers)

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|-------------------------|
| Q30 | 312 | Wildflower seed mixture |
| 45-40-75 | 303 | Wildflower seed mix |

British Native Wildflower seed



Late Flowering Mix



| | |
|---------------------|---|
| Mix Includes | Vetch; Common, Agrimony, Plantain; Ribwort, Buttercup; Meadow and Knapweed; Common or Hardheads |
| Usage | Most suited for flowering in late summer |

Calcareous Soils Mix



| | |
|---------------------|---|
| Mix Includes | Burnet; Salad, Agrimony, Knapweed; Common or Hardheads, Medick; Black and Yellow-Rattle Or Hay-Rattle |
| Usage | Chalk and limestone rich soils (pH above 7) |

British Native Wildflower seed



Loam Soils Mix



| | |
|---------------------|--|
| Mix Includes | Burnet; Salad, Medick; Black, Yellow-Rattle Or Hay-Rattle, Knapweed; Common or Hardheads and Buttercup; Meadow |
| Usage | Loam and alluvial soils |

Wet and Damp Soil Mix



| | |
|---------------------|--|
| Mix Includes | Iris; Yellow, Buttercup; Meadow, Campion; Red, Vetch; Tufted and Meadowsweet |
| Usage | High water-retaining soils |

Acid Soils Mix



| | |
|---------------------|---|
| Mix Includes | Vetch; Common, Bluebell or Wild Hyacinth, Marigold; Corn, Vetch; Tufted and Chicory |
| Usage | Moderately acid soils (pH 4 – 5.5) |

Clay Soils Mix



| | |
|---------------------|--|
| Mix Includes | Burnet; Salad, Buttercup; Meadow, Knapweed; Common or Hardheads, Medick; Black and Plantain; Ribwort |
| Usage | Heavy clay soils |

Sandy Soils Mix



| | |
|---------------------|--|
| Mix Includes | Knapweed; Common or Hardheads, Yellow-Rattle Or Hay-Rattle, Medick; Black, Carrot; Wild and Selfheal |
| Usage | Heavy sand areas and soils |

Woodland/Shaded Areas Mix



| | |
|---------------------|---|
| Mix Includes | Agrimony, Mustard; Garlic or Jack-by-the-hedge, Bluebell or Wild Hyacinth, Campion; Red and Vetch; Tufted |
| Usage | Shaded and partially shaded areas |

Availability

All our British Native Wildflower seeds are available as both a 100% mix and an 80/20 mix (80% low maintenance grass and 20% wildflowers)

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|-------------------------|
| Q30 | 312 | Wildflower seed mixture |
| 45-40-75 | 303 | Wildflower seed mix |

Availability

All our British Native Wildflower seeds are available as both a 100% mix and an 80/20 mix (80% low maintenance grass and 20% wildflowers)

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|-------------------------|
| Q30 | 312 | Wildflower seed mixture |
| 45-40-75 | 303 | Wildflower seed mix |

Grass Seed



Landscaping with Rye

Landscaping grass seed with rye for general purpose/amenity. Used by landscapers across the UK. 35g/m².

| Percentage | Mixture |
|------------|---|
| 60% | Esquire – Dwarf Turf Perennial Ryegrass |
| 20% | Fancy – Dwarf Turf Perennial Ryegrass |
| 20% | Strong Creeping Red Fescue |



Low Maintenance

Country parks and nature reserves. 25-35g/m².

| Percentage | Mixture |
|------------|--------------------------------|
| 20% | 20% Amenity PRG |
| 45% | 45% Strong Creeping Red Fescue |
| 20% | 20% Chewings Fescue |
| 10% | 10% Hard Fescue |
| 5% | 5% Browntop Bent |



Formal

For lawns, quality landscape areas, fairways. 30-50g/m².

| Percentage | Mixture |
|------------|--------------------------------|
| 25% | 25% Chewings Fescue |
| 20% | 20% Slender Red Fescue |
| 5% | 5% Browntop Bent |
| 50% | 50% Strong Creeping Red Fescue |



Product feature key

1 = Low, 5 = High

| | |
|-------------------|------------|
| Hardwearing | Appearance |
| Drought Tolerance | Shady Area |
| Low Maintenance | |

Landscaping without Rye

Grass seed for general purpose/amenity. High quality landscape grade grass seed. 35g/m².

| Percentage | Mixture |
|------------|--------------------------------|
| 40% | 40% Strong Creeping Red Fescue |
| 40% | 40% Chewings Fescue |
| 20% | 20% Slender Creeping Fescue |



Suburban

Back lawns, utility areas, housing estates, cricket outfields. 35g/m².

| Percentage | Mixture |
|------------|--------------------------------|
| 30% | 30% Amenity PRG |
| 25% | 25% Amenity PRG |
| 10% | 10% Chewings Fescue |
| 35% | 35% Strong Creeping Red Fescue |



DOT

For road verges and embankments. 35g/m².

| Percentage | Mixture |
|------------|--------------------------------|
| 35% | 35% Amenity PRG |
| 20% | 20% Strong Creeping Red Fescue |
| 20% | 20% Hard Fescue |
| 5% | 5% Strong Creeping Red Fescue |
| 5% | 5% Browntop Bent |
| 5% | 5% White Clover |



Wildlife Habitats



Vincent Pro Bat Box

The Vincent Wildlife Trust has been pioneering mammal conservation for 40 years. It manages 40 priority bat roosts, many of international significance, and delivers conservation education and monitoring.

- Designed by one of the UK's leading bat researchers, Colin J Morris
- Highly effective bat box proven with at least 7 species – Barbastelle, Leislers, Common pipistrelle, Soprano pipistrelle, Brown long-eared, Natterers and Whiskered
- Comparative trials show excellent performance and occupancy rates
- Vertical chambers with varying size options for different species and different temperature zones
- Rough landing surface with access ladder
- Reduced cleaning requirements as droppings fall to ground
- Dark roof/front elevation to absorb heat
- Sturdy durable FSC timber.
- £1 donation given to The Vincent Wildlife Trust for each box sold to support conservation and research



Conservation Bat Box

The Conservation Bat Box is part of our range of high-specification habitats aimed at conservation professionals and pro landscapers. The Conservation Bat Box has twin vertical chambers with angled cut-away front showing ladder style grooves which allows the bat to climb into the preferred chamber. It is handmade from untreated solid, high quality, durable FSC timber which provides longevity and excellent insulation. The design of our Conservation Bat Box is approved for use by The Bat Conservation Trust.



Conservation Nest Box

A truly multi-species nestbox, it meets recognised standards for bird care. This quality nestbox features a contrasting painted front panel (water-based), naturally durable solid FSC certified timber throughout. It features a universal 30mm stainless steel hole protector over a 32mm drilled hole. As an alternative, the upper front panel may be removed to convert to a open-front bird box.



Conservation Solitary Beehive

The 'Conservation Solitary Beehive' is designed not only for function, but to present a marriage of high quality, solid, robust construction with attractive styling.

On either side of the solitary beehive are professional stackable beehive trays. These are secured using retractable threaded screws accessed via the lifting lid. The stackable trays allow larvae inspection for the purpose of monitoring and parasite control.

Dig Deeper with Urban Soils & Growing Media

“The health and structure of a tree is a reflection of the soil in which it grows”.

The ecological processes which govern tree survival and growth are concentrated around the soil and root interface. The tree root gains not only water and oxygen from the soil but key essential nutrients - phosphorus, potassium, calcium, magnesium, sulphur and nitrogen.

The soils in which urban trees grow are often mistreated and of poor quality. The soil is often compacted, has little organic matter or high levels of contaminants. Poor quality tree pit soil results in poor trees and the benefits they provide are minimised.

gtSpecifier offers a range of manufactured soils that can be both stable and fertile. The benefit of using a manufactured soil is that it can deliver a repeatable quality and can be formulated to site specific needs. This allows the tree to be set in the best foundation possible every time.

Guide to Good Soils Seminar Available at Your Workplace



Rain Garden & Podium



Green-tree Podium Roof Garden Substrate

A nutrient rich roof garden substrate for roof garden projects where weight constraints are less strict.

The consistent and sand rich composition of the substrate demonstrates a good level of drainage for water management needs.

Benefits:

- Saturated bulk density approx: $1.7T/m^3$
- High level of fertility so no additional feed required.
- Ideal for supporting the growth of grass seed, turf, shrubs and small trees.

Green-tree Rain Garden Filter Medium

A bespoke engineered soil for use as a filter medium in rain garden applications.

Designed specifically for the requirements of rain gardens and grey water management schemes to slow down the flow of water run off.

Effective permeability rates and porosity levels are achieved whilst also providing the correct nutrient requirements to support the finished planting scheme.

Typical permeability 55-120mm per hour.

Green-tree Roof Substrate Intensive

Green-tree Roof Garden intensive substrate is an established growing media within the Green-tree family of products. A blend of lightweight aggregate and the award winning Green-tree topsoil, the intensive roof garden growing media is ideal for green roof construction projects and particularly containerised planting. Lightweight in texture with good water-holding capacity, Green-tree Roof Substrate Intensive guarantees healthy plants and trees in a roof garden environment.

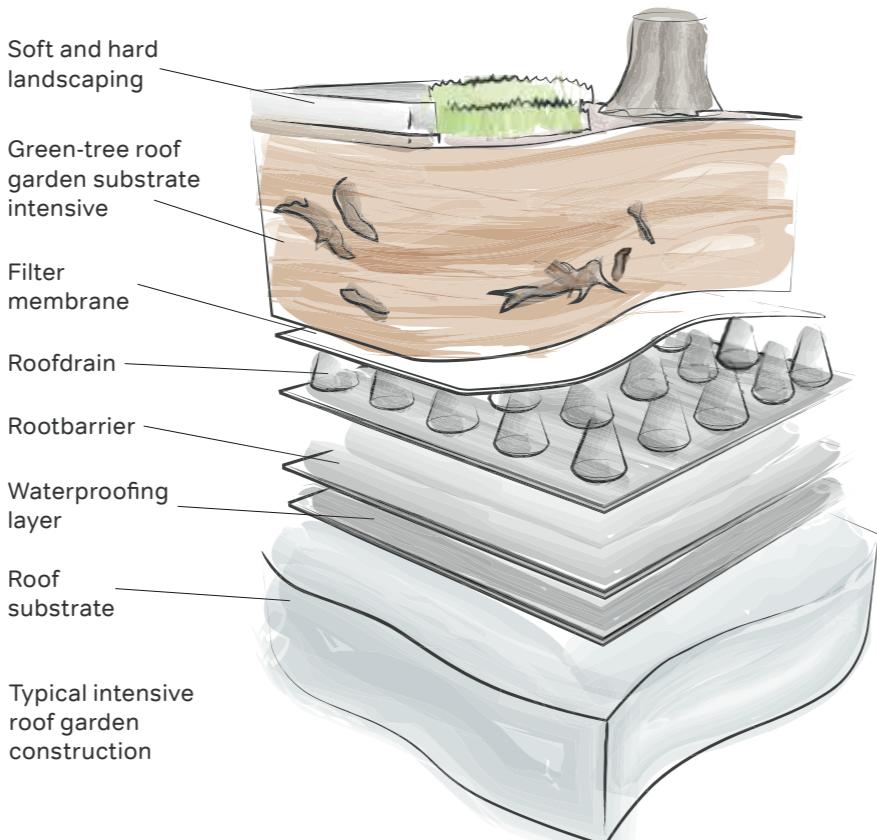
Benefits

- Good levels of fertility
- Good water holding properties
- Excellent aeration properties
- Lightweight compared to standard soils
- Typical bulk density at saturation point 1.32 tonnes/m³*

Applications

- Containerised planting
- Soft landscaping
- Tree planting
- Decorative planting
- Allotment planting

Moffat, Hi-Ab and Tail Lift Offload available on request. Scheduled and timed deliveries available, speak to a member of the team.



*Data supplied is current at time of printing, for up to date analysis & results please contact your Technical Sales Advisor

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|--|
| Q28 | 125 | Green roof growing media system |
| 45-40-85 | 340 | Special imported topsoil and growing media |

Case Study – Four Pancras Square, King's Cross



Green-tree's intensive roof garden substrate and gtRoofdrain has been installed in the prestigious London development of Four Pancras Square.

Four Pancras Square is a Grade A office building located to the North of the existing King's Cross railway station, on the new Pancras Square. The 170,000 sq ft ten floor building is the final part of a two million sq ft cluster of nine office buildings south of Regent's Canal.

Green-tree Roof Garden intensive substrate was recommended and 136m³ supplied for the roof top containerised planting scheme. The substrate is a blend of lightweight aggregate and award-winning Green-tree topsoil. It was ideal for this project due to its lightweight texture and good water-holding capacity which ensures healthy plant establishment in harsh rooftop environments.

To allow for the collection and storage of water to irrigate plants during low rainfall periods but also provide a continuous drainage layer across the roof structure,

460m³ of 25mm gtRoofdrain was also incorporated into the project. gt Roofdrain forms a lightweight high performance drainage layer with integrated filter geotextile. The core acts a water reservoir to sustain plant growth in drier periods.

gt Specifier Project Development Manager, **Barry Browne** commented:

"Green-tree Green Roof Substrates are sought after and used for roof garden and containerised projects due to the lightweight and workable properties of the product. They have been used in a number of high profile projects across the country and have received great praise from architects and contractors."

Dig Deeper

Green-tree Roof Substrate Extensive

Green-tree Extensive Roof
Garden substrate is ideal for incorporation into expansive green roof projects that require very little maintenance. A proven growing media, that is lightweight in texture and manufactured from the award winning Green-tree topsoil. Green-tree extensive Roof garden Substrate ensures quick plant establishment in harsh rooftop environments.

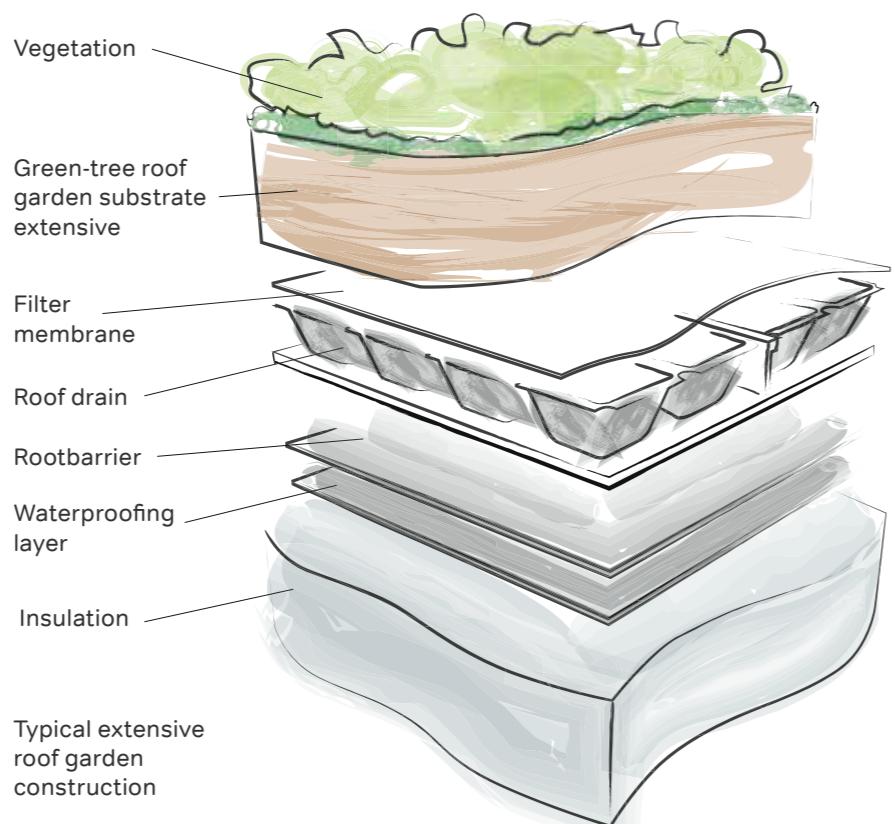
Benefits

- Lightweight
- Controlled fertility levels
- Good aeration and water holding properties
- Simple to work with
- Guaranteed consistency throughout the green roof installation
- Typical bulk density at saturation point 1.14 tonnes/m³*

Applications

- Extensive green roof planting with sedum
- Green roof planting with wildflowers and wildflower turf
- Moss planting
- Herb planting

Green-tree Extensive substrate is widely used with plants, wildflowers, shrubs and sedum for green roofs.



NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|--|
| Q28 | 125 | Green roof growing media system |
| 45-40-85 | 340 | Special imported topsoil and growing media |

*Data supplied is current at time of printing, for up to date analysis & results please contact your Technical Sales Advisor

Dig Deeper

gtSedum Cassettes



Designed specifically for extensive green roof installations, the new gtSedum cassettes can convert a roof into a lush sedum green roof simply and effectively.

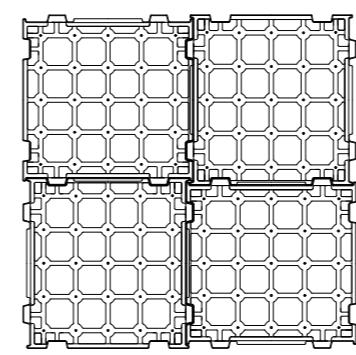
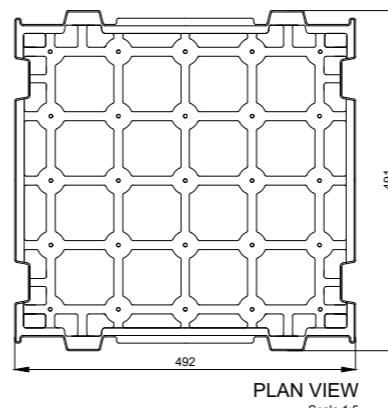
Incorporating a minimum of eight types of sedum into each individual cassette, the system is designed to provide an instant and practical solution to green roofs. Sedum is the ideal choice for extensive green roofs as it requires minimal maintenance, is drought tolerant and requires a minimal substrate layer. It is a well-rooted, low-growing plant therefore it is ideal for the harsh, open environments typically associated with green roofs.

Green roofs are quickly becoming a great resource for urban greening and conversions of large open roof spaces, with the evolution of sedum cassettes green roofs are achievable for all.

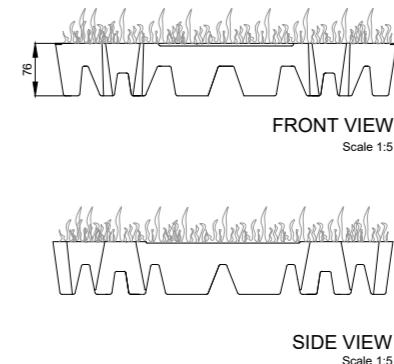
- Instant and practical solution
- Ideal for harsh, open environments
- Drought tolerant
- Simple installation
- Minimal maintenance

Simple installation process

The cassettes are designed to simply fit together to any formation required. Each cassette incorporates a drainage layer to aid capillary action and a filter layer to ensure that the substrate is not washed away. The lightweight substrate has been specifically developed for use in green roof installations with controlled levels of fertility to support sedum growth.



PLAN VIEW SHOWING LINKED UNITS
Scale nts



| NBS Clauses | | |
|-------------|--------|------------------|
| Section | Clause | NBS Clause Title |
| Q37 | 355 | Combined layers |

British Standard Topsoil



Green-tree topsoil is manufactured using organic compost and overburdened sand from quarries.

The top soil is certified to BS3882:2015 standards, requiring no additional fertiliser for the first season. Green-tree topsoil is perfect for landscaping and construction projects that are focused on environmental sustainability and maintaining their green credentials.

Typical analysis of Green-tree topsoil

| | |
|------------------------|---------|
| pH | 7.7 |
| Clay Content | 7% |
| Silt Content | 10% |
| Sand Content | 83% |
| Total Nitrogen | 0.15% |
| Extractable Phosphorus | 31mg |
| Extractable Potassium | 540mg/l |
| Extractable Magnesium | 142mg/l |
| Organic Matter | 4% |
| Carbon: Nitrogen Ratio | 15:1 |

Benefits:

- Complies to BS3882:2015 standards
- High organic matter content and fertility status
- Environmentally sustainable compost blend
- Year-round availability
- Offers good water holding capacity and drought resistance
- Peat free
- Prescription mix available
- Easy to spread on site

Applications:

- Housing developments
- Commercial developments
- Public parks and recreation areas
- Structural planting
- Domestic gardens

Guide to Good Soils Seminar Available at Your Workplace

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q28 | 330 | Imported manufactured topsoil/ growing medium |
| 45-40-85 | 340 | Special imported topsoil and growing media |

Case Study – Glasgow Fort Retail Park



Over 1000 tonnes of Green-tree top soil and growing media supplied for Scotland's largest Retail Park.

One of Scotland's largest and most popular 'out of town' shopping destinations, Glasgow Fort Retail Park covers 800,000sq ft. and has in the region of 100 retail and leisure outlets plus parking for 2,500 vehicles.

Owner, British Land, is one of Europe's largest publicly listed real estate companies. Their strategy is to create Places People Prefer. Working with Landscape Architect, Macgregor Smith, their landscape strategy was to create an environment that encourages people to dwell in the external spaces. The landscape upgrade project included tree planting within the site that echoes the surrounding Scottish woodlands with 12m tall semi-mature Birch trees and native Pines. Extensive landscaped borders surrounding the park also featured heavily in the scheme.

Commercial Landscaper, Grace Landscapes Limited was awarded the landscaping contract. Our parent company, Green-tree supplied everything required for the successful planting and development of the trees, shrubs and overall planting scheme. Which included sixty tree anchor systems and irrigation system for each tree. Where the trees were installed into a hard landscaped area, such as pavements or the car park, a decorative aluminum irrigation unit was supplied to provide a contemporary finish

1000 plus tonnes of Green-tree top soil, Green-tree Intensive Roof Garden Substrate and Green-tree Amenity tree soil was supplied and used for the planting of the trees and throughout the entire landscaping scheme. In addition, shrubs in the borders surrounding the shopping complex were top dressed with 210m³ of bark mulch.

Green-tree topsoil is used on many high profile projects across the UK including commercial and housing developments, public parks and recreation areas. It is manufactured from natural by-products of the recycling industry and packed with nutrients and structural components to give a rich and organic topsoil, which has year round availability.

"This is a prestigious project and one which we were proud to have won. Green-tree always has the items in stock and can delivery quickly to site. We have no hesitation recommending them. They always offer us appropriate and helpful advice, fast and accurate delivery and competitive prices."

Darren Hardman, Regional Contract Manager (NE), Grace Landscapes

Amenity Tree Soil & TerraCottem Arbor



Amenity Tree Soil

A load bearing, fertile planting medium designed for use in urban environments. Green-tree Amenity Tree Soil allows the development of tree root infrastructure under hard surfaces such as pavements and car parking areas. It has a naturally open structure that is load bearing, providing solid structure and aeration to the root system.

Benefits:

- Combats problems of poor root structure and subsequent poor growth
- Allows compaction whilst providing aeration to soil and allows oxygen and water access to the root system
- Compaction testing kits available
- Regular testing to maintain quality

Applications:

This product should only be used in situations where a compact soil structure is absolutely unavoidable. In order for the root zone to be successfully implemented, adequate drainage is a must. Green-tree Amenity Tree Soil should be used in conjunction with the Mona Landscape Irrigation range for future irrigation of the urban tree planting.



A load bearing growing media for trees in hard landscaped areas.

Typical analysis of Green-tree Amenity Tree Soil

| | |
|-------------------------------------|--------------------------|
| pH Value | 7.8 |
| Particle Shape | Sub Rounded |
| Percolation Rate (at 40cm tension) | 53mm/hour |
| Loose Bulk Density (1.85 Compacted) | 1.7 tonne/m ³ |



NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q28 | 145 | Plant pit backfilling soil system |
| Q28 | 330 | Imported manufactured topsoil/ growing medium |
| Q31 | 505 | Tree pits |
| 45-40-85 | 340 | Special imported topsoil and growing media |

TerraCottem Arbor

Developed specifically for tree and shrub planting. A mix of specialist polymers, growth precursors and volcanic rock act to enhance water retention, soil structure and microbiological activity while a mix of tree specific fertilisers aid rapid plant establishment for the vital first 12 months after planting. Tree survival rates are increased reducing replacement costs.



Applications:

- Tree and shrub planting.

When to apply/frequency?

Apply once when planting.

Benefits:

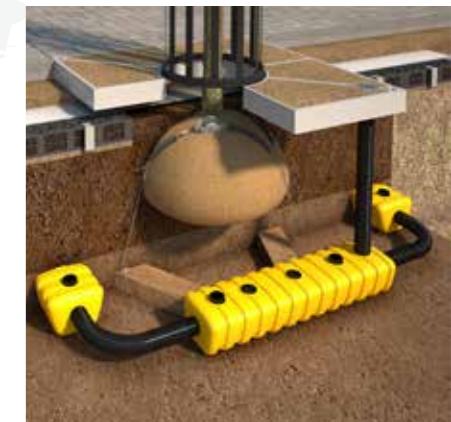
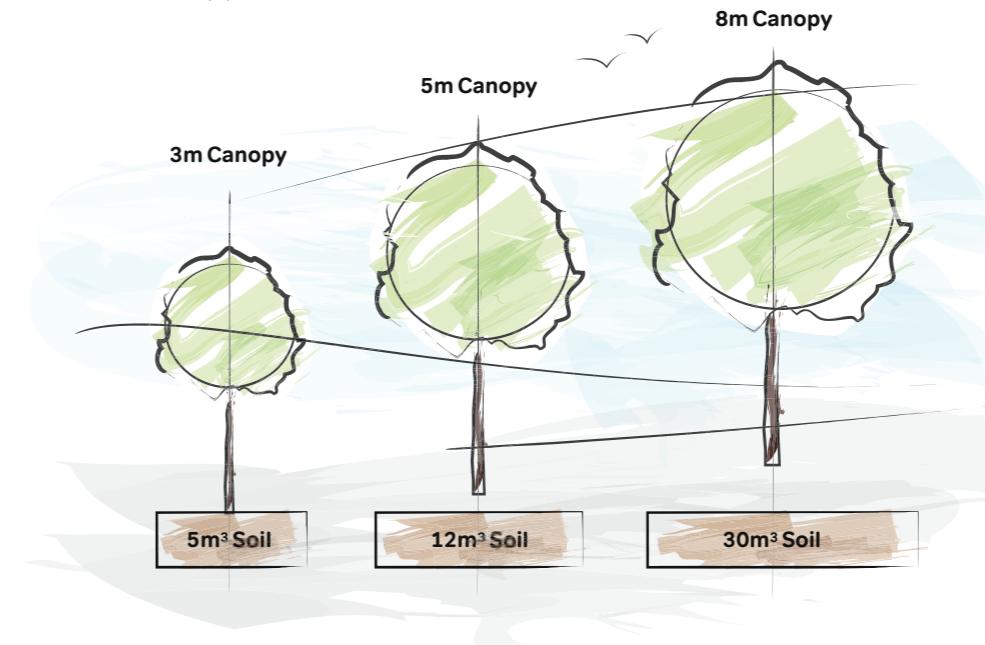
- Healthier plants, increased yields and survival rate
- Increased water retention capacity with water savings up to 50%
- Stronger and deeper root development
- Faster and better plant establishment
- Higher resistance to drought stress and diseases
- Better use of fertilisers

New to the UK



ArborRaft Soil

Rooting areas in relation to canopy cover*



The tried and tested ArborRaft soil has been specially developed for the UK market to work as a rootzone with the ArborRaft system. This ensures the structure of the growing media remains open and the correct level of water, air and nutrients are transported through the soil to the tree's roots.

The design of the system working in partnership with the ArborRaft soil prevents compaction within the tree pit, protecting and enhancing the tree's root growth.

Extensive testing has been completed for the ArborRaft Soil, ensuring that the optimum moisture, aeration and nutrient content is achieved, whilst maintaining a stable soil layer.

The ArborRaft Soil working in partnership with the ArborRaft System provides the ideal start in life for an urban tree. The growing media is stable, prevents compaction and provides an open structure to allow the free-flow of water oxygen and nutrients.

The importance of soil quality and quantity within tree pits has been further highlighted in the TDAG - Trees in the Townscape Report of

2012 and the more recent TDAG Trees in Hard Landscapes report, September 2014 stating that:

'In dense urban areas, the amount of soil installed will, to a large extent, determine the size the tree will reach over its lifespan.' TDAG, Trees in the Townscape Report

'Together with soil aeration, providing adequate rooting volume is the other fundamental precondition to secure a healthy cohabitation between trees and urban infrastructure.' TDAG, Trees in Hard Landscapes

Large rooting areas are of paramount importance to the development of the tree where nutrient rich soil can enhance the first few years of an urban tree's life.

| Section | Clause | NBS Clause Title |
|----------|--------|---|
| Q28 | 145 | Plant pit backfilling soil system |
| Q28 | 330 | Imported manufactured topsoil/ growing medium |
| Q31 | 505 | Tree pits |
| 45-40-85 | 340 | Special imported topsoil and growing media |

*Diagram for illustrative purposes only. Exact soil volume required is dependent on tree species and planting environment

Green-tree Subsoil & Green-tree Clean Cover System

Subsoil Conforms to BS8601:2013



Green-tree Subsoil

Often a large volume of material to be imported prior to the finished soil type, Green-tree Subsoil is used to build up levels and construct any specific landscape contouring requirements. Subsoil is an essential component of most soil profiles. It provides storage of moisture, transmits rainfall to deeper layers or watercourses and enables deep rooting by trees, shrubs, grasses and other plants.

Green-tree Subsoil conforms to BS8601:2013, ensuring consistent product of excellent quality. BS 8601:2013 specifies requirements for the classification, composition and use of subsoils that are moved or traded for creating soil profiles intended to support plant growth. The Green-tree team work closely with material suppliers throughout



the country to source the highest quality, clean and consistent materials for supply into your project offering traceability throughout the supply chain.

Applications

- Raise levels on site
- Create landscape contours
- General on-site infill

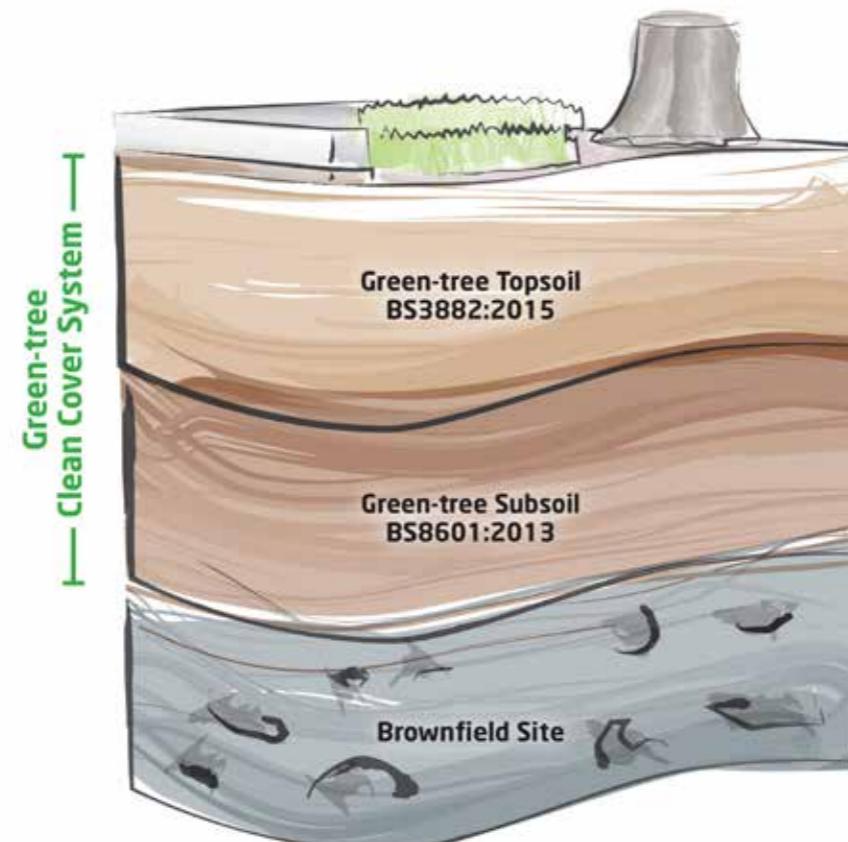
Green-tree Clean Cover System

The Green-tree Clean Cover System offers a remedial and effective solution for the development of brown-field sites.

By incorporating the Green-tree Clean Cover System into initial plans, the project can progress with reduced excavation works yet provide a suitable long-term solution for the development.

Utilising a cover system will reduce the hazard to human health or the environment from potential contaminants found on brown-field sites, providing a suitable growing medium for plant and tree growth.

The Green-tree Clean Cover System is a combination of manufactured British Standard topsoil and subsoil which are both chemically clean. This provides a growing medium that is tested to CLEA requirements, with very low level chemical, metal and metalloid content and clear of asbestos content.



Technical Drawings
See page 74-97

Dig Deeper

Specialist & Bespoke Soil Mixes



Green-tree Rootzones

A mix of high quality free draining sand with organic compost designed to create the optimum conditions required for healthy root growth. Our Green-tree team can source any combination of rootzone required, alongside our standard mixes.

Applications

- High specification sports applications
- Golf course construction and green finishing
- Used in conjunction with GRB Plus ground reinforcement system



Green-tree Low Fertility Soil

A mix designed to limit the nutrient level of the soil in response to specific planting schemes. Designed to meet the requirements within BS3882:2015, our Low fertility mix can be supplied in bulk tippers or in bulk bags from our in-house bagging facility at GTHQ, ideally supplied alongside our new John Chambers wildflower range of seed.

Applications

- Roof gardens
- Wildflower planting schemes
- Difficult access areas

Green-tree Sportsmix

Green-tree Sportsmix is a blend of organic, green compost Pas100 and fine sand, offering a high quality, fertile repair mix. The new flagship soil product can be supplied throughout the year in all weather conditions, is cost effective and offers the same high quality consistency from the first load to the last.

Applications

- Sports Pitches
- Race Courses
- Ideal for remedial work



Green-tree Structural Soil

A soil and sand based substrate reinforced with polypropylene fibres. Green-tree Structural soil is an advanced substrate that is stable and free-draining. It provides excellent structural strength enabling it to be used for a variety of applications that are frequently trafficked. During the mixing process of Green-tree structural soil crimped polypropylene fibres are entwined with the substrate increasing its overall strength and resistance.

Applications:

- Emergency and access roads
- Overspill car parks
- Golf course buggy routes
- Public recreation areas
- Verges and pedestrian walkways

NBS Clauses

| Section | Clause | NBS Clause Title |
|----------|--------|-----------------------------|
| Q30 | 361 | Reinforced grass system |
| 45-40-85 | 330 | Manufactured growing medium |

Pond Measuring & EPDM Liners

Measuring your pond, a simple guide

To work out the dimensions of your pond liner follow the calculation below

Measure the pond length, width and depth at their widest point:

Length + (2x Depth) + 1m = Total Length

Width + (2x Depth) + 1m = Total Width

Total Length x Total Width = Size of Liner

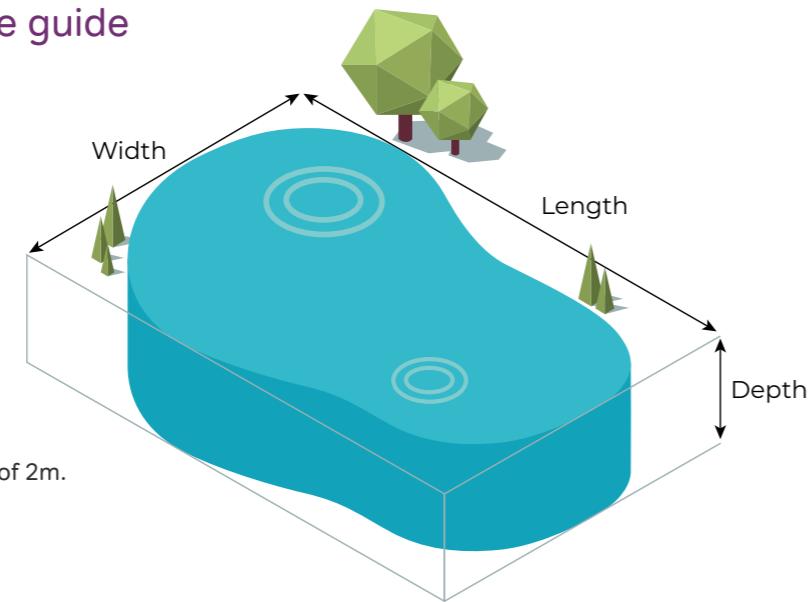
Example:

A pond is 10m long by 6m wide and has a depth of 2m.

Liner Length: $10 + (2 \times 2) + 1 = 15m$

Liner Width: $6 + (2 \times 2) + 1 = 11m$

Size of pond liner required = $15 \times 11m (165m^2)$



EPDM Synthetic Rubber Pond Liners

EPDM is a synthetic rubber membrane ideal for lining ponds, lakes, lagoons and streams. Ideal for aquatic installations EPDM is a popular choice for larger projects where unusual shapes, contours and sizes are required. A highly robust pond liner, EPDM is resistant to UV degradation and other harsh environmental conditions. The EPDM pond liners can be installed all year round as they remain extremely flexible at various temperatures.



Box Welded & Butyl Pond Liners

Box Welded Pond Liners

Box Welded Pond Liners are tailor-made to fit vertical sided and formal shaped ponds (standard, rectangle, circle, irregular or box shaped). Ideal for ponds which require planting shelves, uneven depths or sloping bases which can be fabricated to meet your individual requirements before arrival on site. A welded liner offers a perfect fit with no unsightly overlaps or creases and is made exactly to the specified dimensions vastly reducing the risk of on-site installation errors.

**Bespoke liners
for your project**



Butyl Pond Liners

Butyl rubber pond liners offer exceptional physical properties including flexibility with the ability to accommodate any variation in ground contours or movements. It offers high puncture resistance, a water-tight membrane and is UV stable being able to withstand long periods of exposure to the sun. A popular choice with landscapers and garden designers to line large ponds, lakes and natural swimming pools.



Technical Information

Drawings & Specifications

The gtSpecifier range of Urban Landscape equipment is designed to protect, enhance and improve trees, plants and the environment. The following pages highlight the gtSpecifier portfolio of technical drawings and 3D images for the most common planting scenarios that we encounter in our day to day specification work.

At gtSpecifier we have the ability to create bespoke drawings to suit your particular project or urban space. Please contact a member of the team to request an Urban Landscape Consultation.

T: 01423 332 114
E: info@gtspecifier.co.uk
W: gtSpecifier.co.uk

gtSpecifier.co.uk

Bespoke Drawings
Landscape Ideas & Solutions
Urban Landscape Seminars



Professional Seminars

Professional seminars at your workplace

The gtSpecifier team has a wealth of knowledge and experience of the landscape environment after many years of working with landscape contractors and garden designers.

The team can bring their seminars to your workplace and they will even provide lunch!



Effective Tree and Plant Irrigation

The considerations to make when installing an irrigation system.



Tree Anchoring Systems

The benefits of tree anchoring systems and effective installation.



The Green-tree Guide to Good Soil

The difference between natural, screened and manufactured soil.



A Resin-bound Tree Pit Installation

A resin-bound tree pit provides an eye-catching finish to your project.



ArborRaft Tree Planting System

Reduce soil compaction and protect the pavement above.



Introduction to John Chambers Wildflowers

The benefits of using wildflower seed in projects and factors to consider when choosing a wildflower mix.



Green Roof

An introduction to green roof substrate and installation.

gtSpecifier's CPDs are full of useful advice and their staff are very helpful and always ready to assist with any design and technical details we might need.

Anna French
Director, Anna French Associates Ltd

As always, gtSpecifier's CPDs are very informative and their willingness to assist and provide technical CAD details and specification information is invaluable.

Gemma Griffin
Director, Macgregor Smith Limited

Get in touch today to book your seminar.

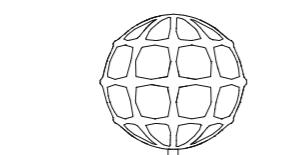
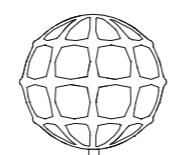
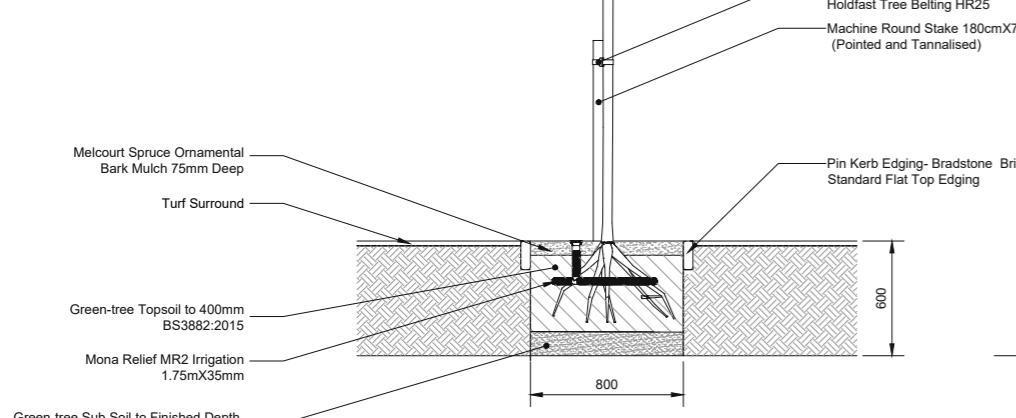
**T: 01423 332100
E: info@gtspecifier.co.uk
www.gtspecifier.co.uk**

GTS1



Standard soft planting scheme, small bare root tree

| Description | Quantity/Volume |
|---|-----------------|
| HB1 Holdfast 25mm rubber block | 1 |
| HR25 Holdfast 25mm rubber belting | 0.50 l/m |
| 1.8m x 75mm Dia Machine round stake | 1 |
| Melcourt Spruce Ornamental 5-35mm | 0.05 Cu/m |
| Mona Relief irrigation MR2 1.75m x 35mm | 1 |
| Green-tree Topsoil | 0.256 Cu/m |
| Green-tree Subsoil BS8601:2013 | 0.128Cu/m |

Holdfast Rubber Block HB1
Holdfast Tree Belting HR25Machine Round Stake 180cmx75mm.
(Pointed and Tannalised)

Pin Kerb Edging- Bradstone British Standard Flat Top Edging

FRONT VIEW CUTAWAY

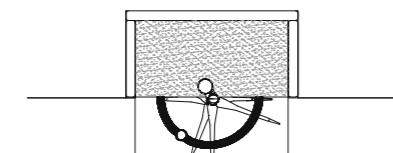
SCALE 1:25

Turf Surround

800

800

SCALE 1:25



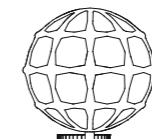
PLAN VIEW

GTS2



Standard soft planting scheme, hard surface protected with Rootbarrier

| Description | Quantity/Volume |
|---|-----------------|
| HB1 Holdfast 25mm rubber block | 1 |
| HR25 Holdfast 25mm rubber belting | 0.50 l/m |
| 1.8m x 75mm Dia Machine round stake | 1 |
| Weldmesh Tree Guard | 1 |
| Melcourt Spruce Ornamental 5-35mm | 0.05 Cu/m |
| Mona Relief irrigation MR2 1.75m x 35mm | 1 |
| Green-tree Topsoil | 0.256 Cu/m |
| gtRootbarrier 325 0.65m x 50m | 0.8 l/m |
| Green-tree Subsoil BS8601:2013 | 0.08Cu/m |

Melcourt Spruce Ornamental Bark
Mulch 75mm Deep

Turf Surround

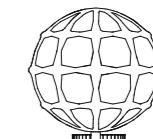
Kerb to Engineers Specification

Surface as Per Engineers Specification

Green-Tree Topsoil Layer 400mm-
BS3882:2015Green-Tree Subsoil Layer to finished
Depth of Tree Pit BS8601:2013Mona Relief MR2 Irrigation
1.75m x 35mmGT RootBarrier 325 to One Side
650mm Deep

FRONT VIEW CUTAWAY

SCALE 1:25

Machine Round Stake 180cm x
75mm (Pointed and Tannalised)

Holdfast Rubber Block HB1

Holdfast Rubber Belting HR25

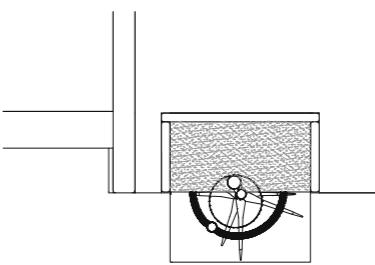
Weld Mesh Tree Guard Size and
Diameter to SpecificationPin Kerb Edging to Engineers
Specification

800

800

SIDE VIEW CUTAWAY

SCALE 1:25



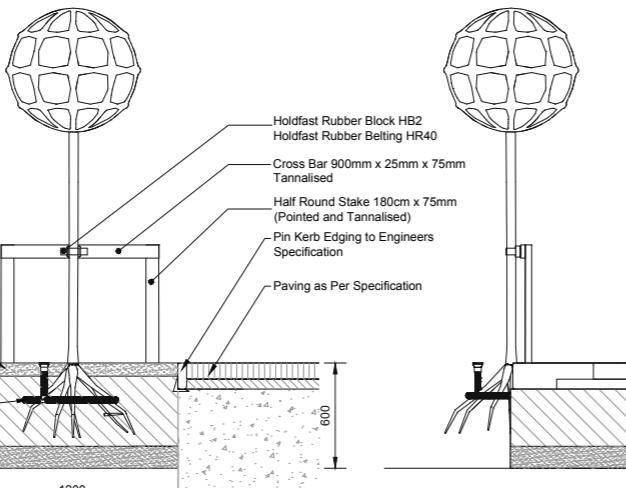
PLAN VIEW

GTS3



**Cross bar planting scheme,
Rootbarrier protected hard
surface on 2 sides**

| Description | Quantity/ Volume |
|--|---------------------|
| HB2 Holdfast 40mm rubber block | 1 |
| HR40 Holdfast 40mm rubber belting | 0.50 l/m |
| 1.8m x 75mm Half round stake | 2 |
| 900mm x 25mm x 75mm Cross bar | 1 |
| Melcourt Spruce Ornamental 5-35mm | 0.1 Cu/m |
| Mona Relief irrigation MRSA3 2.5m 35mm | 1 |
| Green-tree Topsoil | 0.576 Cu/m |
| gtRootbarrier 325 0.65m x 50m | 2.4 l/m |
| Green-tree Subsoil BS8601:2013 | 0.18Cu/m |

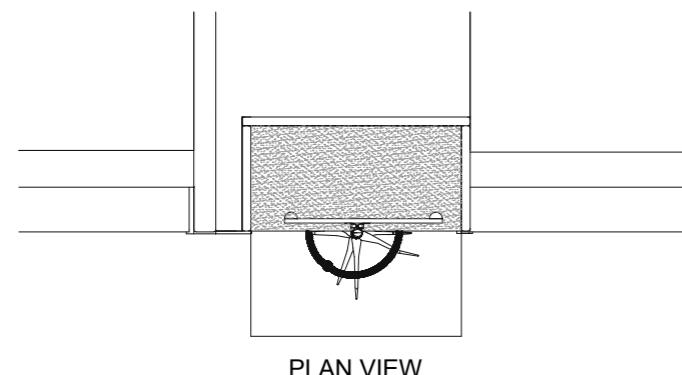


FRONT VIEW CUTAWAY

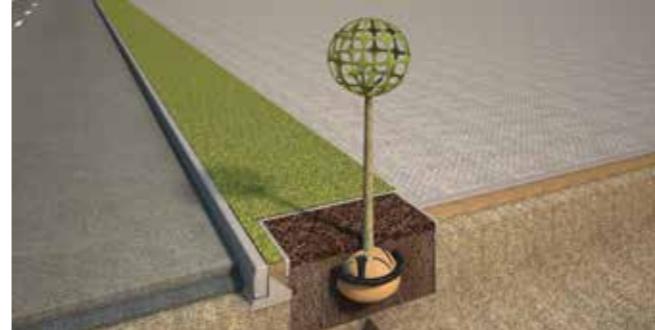
SCALE 1:25

SIDE VIEW CUTAWAY

SCALE 1:25

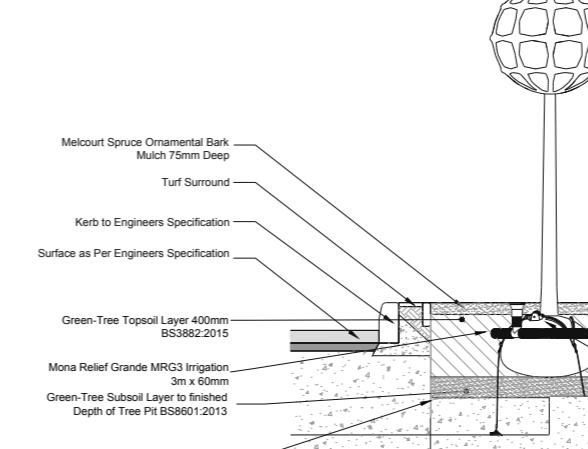


PLAN VIEW



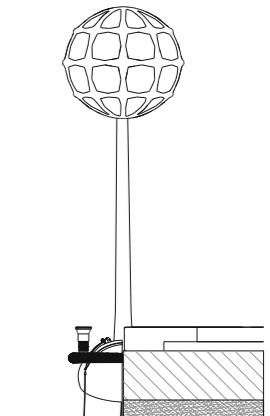
**Anchored rootball,
Rootbarrier protected
hard surface on 2 sides**

| Description | Quantity/ Volume |
|---|---------------------|
| Melcourt Spruce Ornamental 5-35mm | 0.17 Cu/m |
| Green-tree Topsoil | 0.9Cu/m |
| Mona Relief irrigation MRG3 3m x 60mm | 1 |
| gtRootbarrier 325 0.65m x 50m | 3.0 l/m |
| gtRootball Fixing Kit – refer to page 97 for sizing | 1 |
| Green-tree Subsoil BS8601:2013 | 0.28Cu/m |

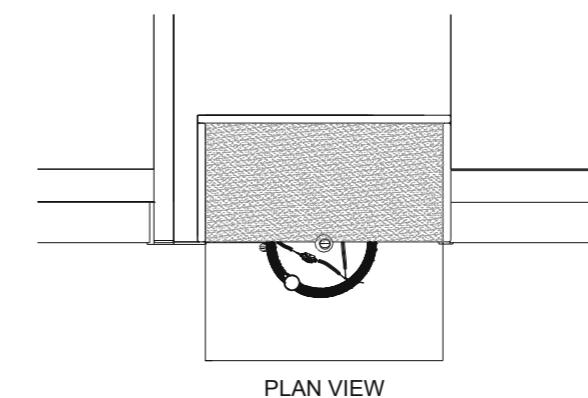


FRONT VIEW CUTAWAY

SCALE 1:25

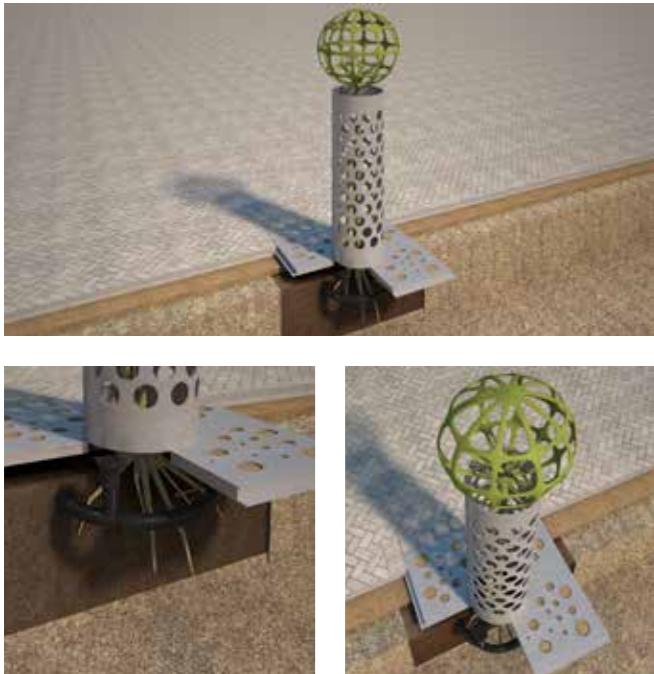


SIDE VIEW CUTAWAY



PLAN VIEW

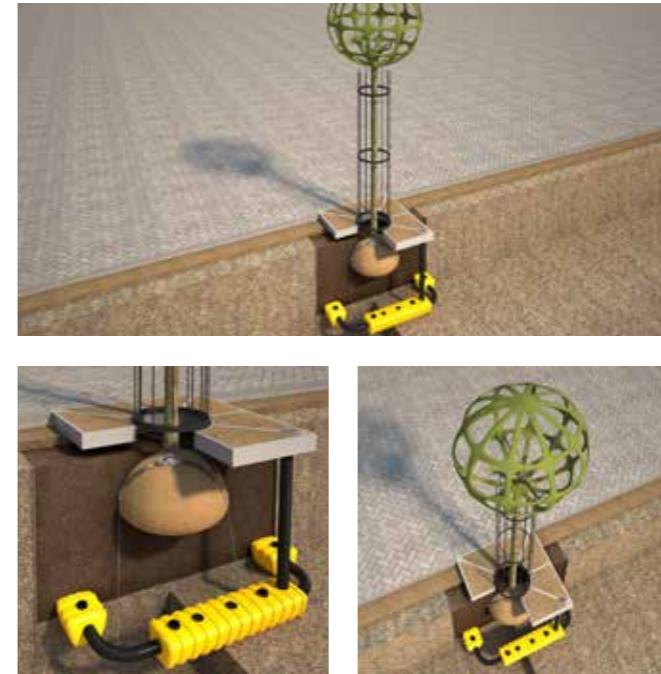
GTS5



1.5sqm structural soil tree pit, tree secured with stake

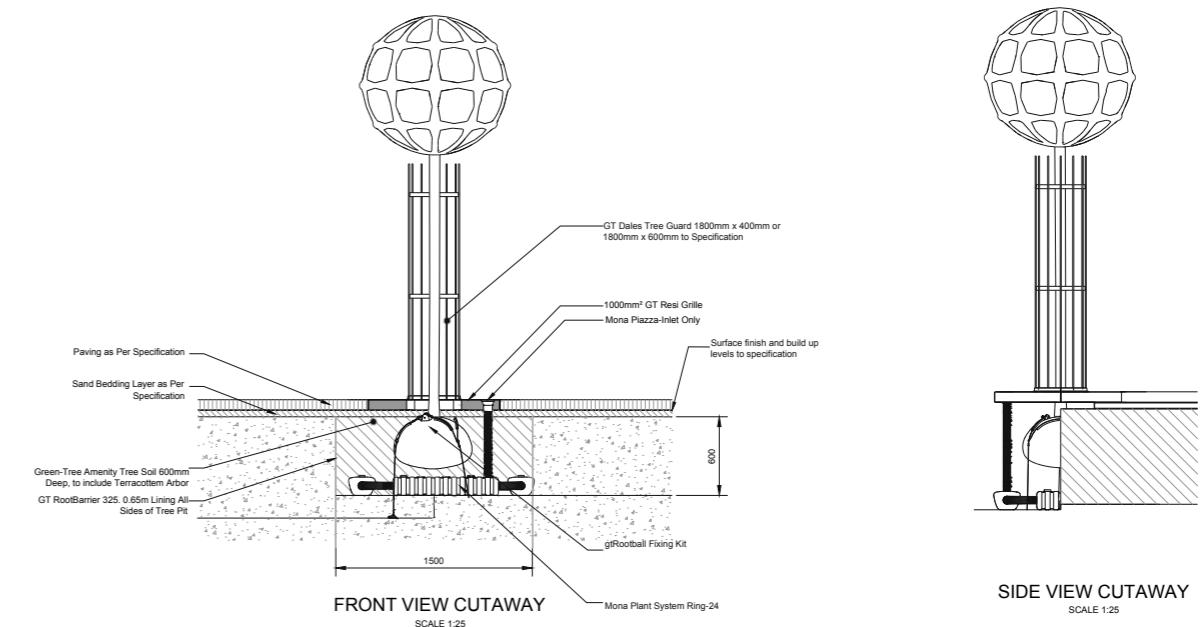
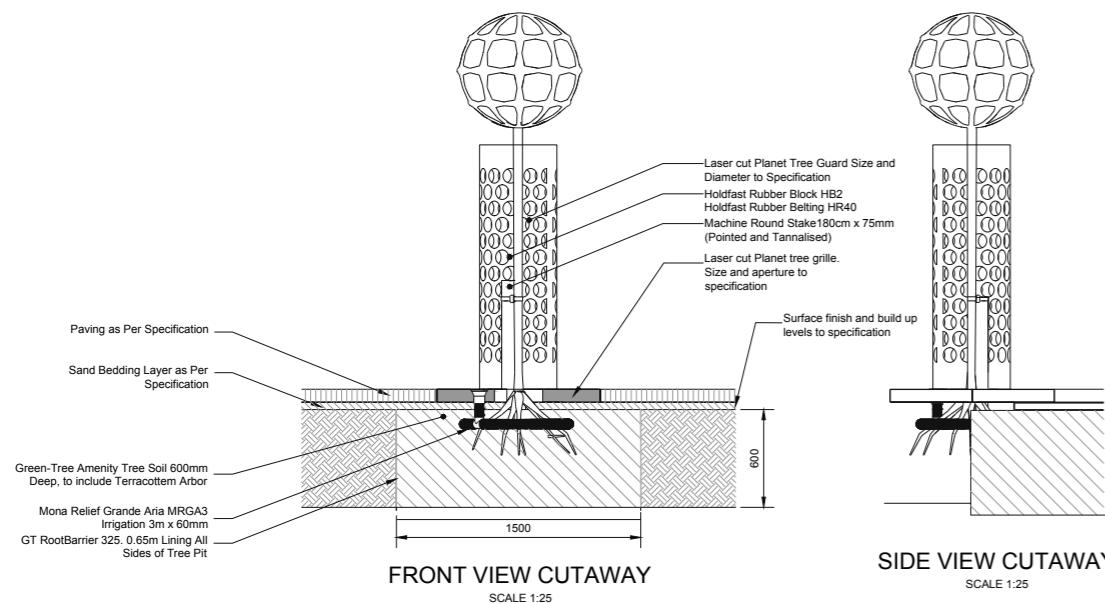
| Description | Quantity/Volume |
|--|-----------------|
| HB2 Holdfast 40mm rubber block | 1 |
| HR40 Holdfast 40mm rubber belting | 0.50 l/m |
| 1.8m x 75mm Dia Machine round stake | 1 |
| Mona Relief irrigation MRGA3 3m x 60mm | 1 |
| gtRootbarrier 325 0.65m x 50m | 7.0 l/m |
| Green-tree Amenity Tree soil | 1.5 Cu/m |
| gtLaser Cut Tree Grille | 1 |
| gtLaser Cut tree guard | 1 |
| Landscaper Pro Flora tablets 15-9-9 | as per spec |

GTS6



1.5sqm structural soil tree pit, Anchored rootball and Mona ring 24 irrigation system

| Description | Quantity/Volume |
|---|-----------------|
| gtWharfdale tree guard | 1 |
| gtResigrille tree grille | 1 |
| Mona Piazza inlet | 1 |
| gtRootball Fixing Kit – refer to page 97 for sizing | 1 |
| Mona Ring 24 Irrigation system | 1 |
| Green-tree Amenity Tree soil | 1.8 Cu/m |
| Landscaper Pro Flora tablets 15-9-9 | as per spec |
| gtRootbarrier 325 1m x 50m | 7.0 l/m |

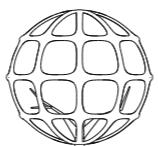
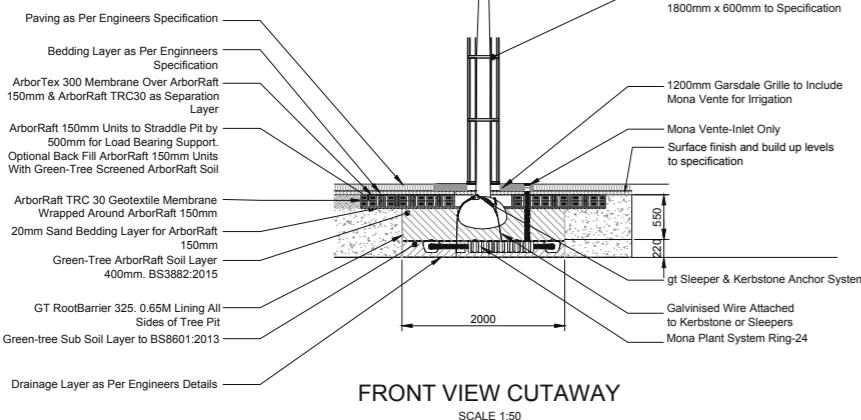
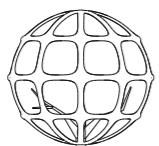


GTS7

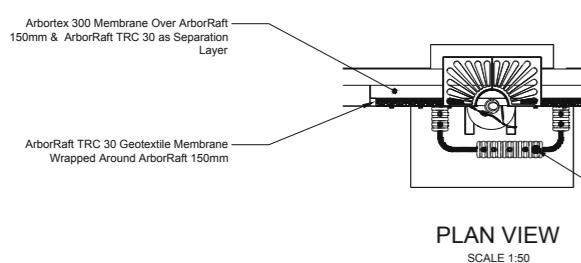


2sqm ArborRaft urban tree planting system, Sleeper & kerbstone anchoring

| Description | Quantity/Volume |
|---|-----------------|
| gtWharfdale tree guard | 1 |
| gtGarsdale tree grille 1.2sqm | 1 |
| Mona Vente inlet | 1 |
| gtSleeper & Kerbstone anchoring kit – refer to page 97 for sizing | 1 |
| Mona Ring 24 Irrigation system | 1 |
| ArborTex 300 membrane sqm | 9 sqm |
| ArborRaft unit 708x354x150mm | 45 |
| Permatie connector | 270 |
| ArborRaft TRC30 membrane sqm | 11 sqm |
| Green-tree ArborRaft Soil | 1.6 Cu/m |
| Green-tree Subsoil BS8601:2013 | As per spec |
| gtRootbarrier 325 0.65m x 50m | 7.0 l/m |



SIDE VIEW CUTAWAY
SCALE 1:50

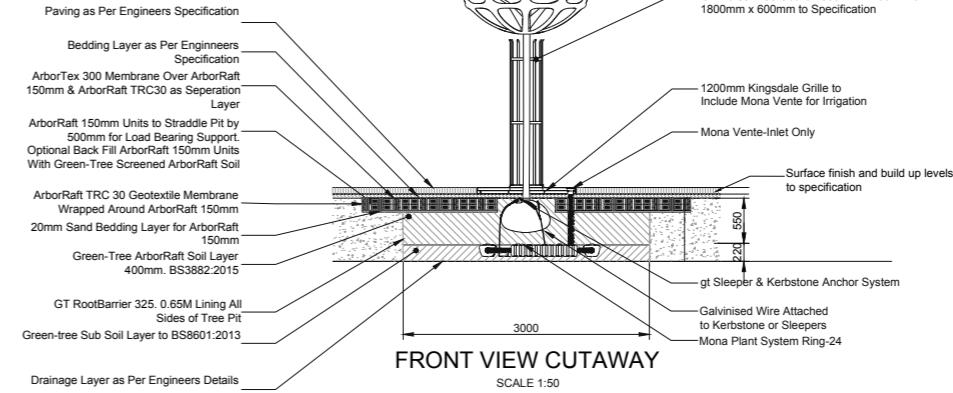


GTS8

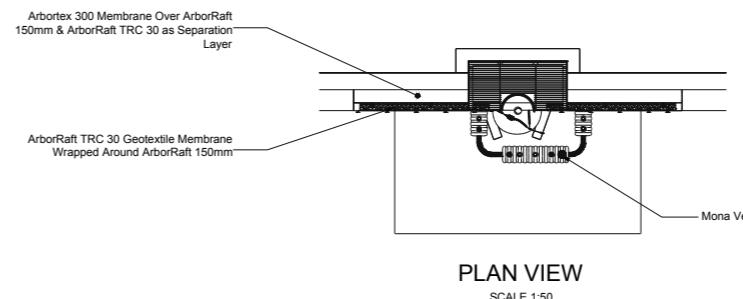


3sqm ArborRaft urban tree planting system

| Description | Quantity/Volume |
|---|-----------------|
| gtMalhamdale tree guard | 1 |
| Kingsdale tree grille 1.2sqm | 1 |
| Mona Vente inlet | 1 |
| gtSleeper & Kerbstone anchoring kit – refer to page 97 for sizing | 1 |
| Mona Ring 24 Irrigation system | 1 |
| ArborTex 300 membrane sqm | 16 sqm |
| ArborRaft unit 708x354x150mm | 72 |
| Permatie connector | 432 |
| ArborRaft TRC30 membrane sqm | 19 sqm |
| Green-tree ArborRaft Soil | 3.6 Cu/m |
| Green-tree Subsoil BS8601:2013 | As per spec |
| gtRootbarrier 325 0.65m x 50m | 13.0 l/m |



SIDE VIEW CUTAWAY
SCALE 1:50

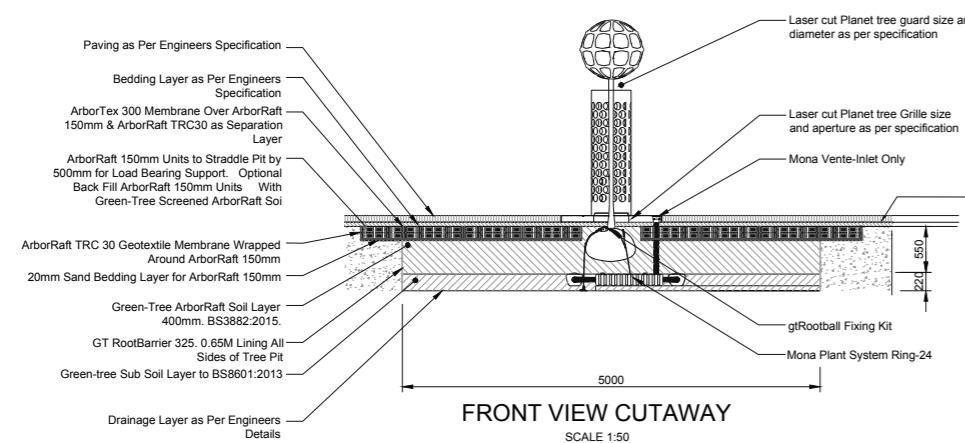
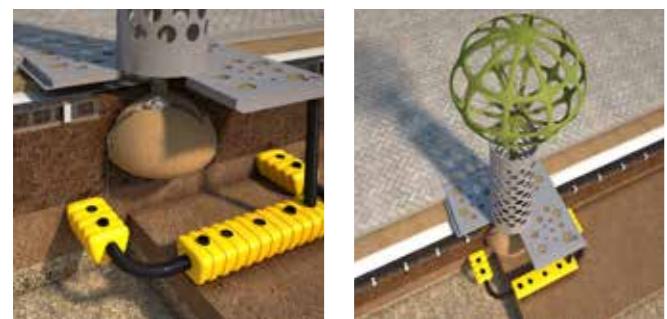


GTS9

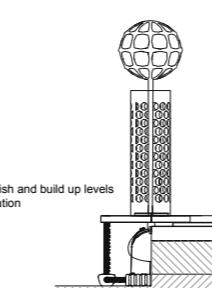


5sqm ArborRaft urban tree planting system

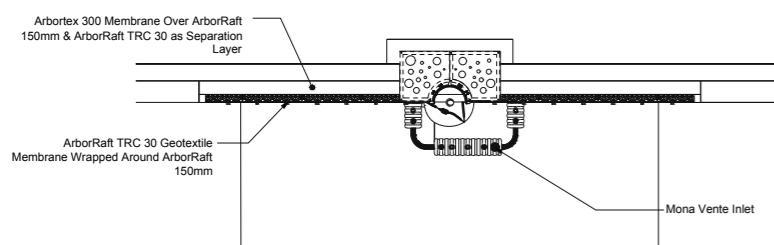
| Description | Quantity/Volume |
|---|-----------------|
| gtLaser Cut tree guard | 1 |
| gtLaser Cut tree grille 1.2sqm | 1 |
| Mona Vente inlet | 1 |
| gtRootball Fixing Kit – refer to page 97 for sizing | 1 |
| Mona Ring 24 Irrigation system | 1 |
| ArborTex 300 membrane sqm | 36 sqm |
| ArborRaft unit 708x354x150mm | 153 |
| Permatie connector | 918 |
| ArborRaft TRC30 membrane sqm | 39 sqm |
| Green-tree ArborRaft Soil | 10 Cu/m |
| Green-tree Subsoil BS8601:2013 | As per spec |
| gtRootbarrier 325 0.65m x 50m | 21.0 l/m |



FRONT VIEW CUTAWAY



SIDE VIEW CUTAWAY



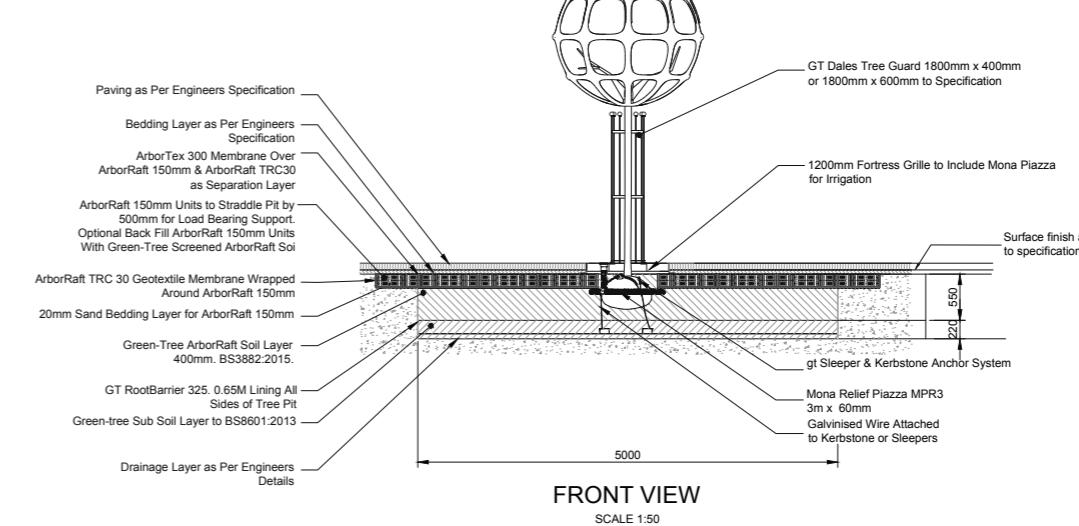
PLAN VIEW

GTS10

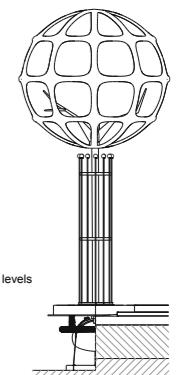


5m x 1.5m ArborRaft narrow/pavement planting system

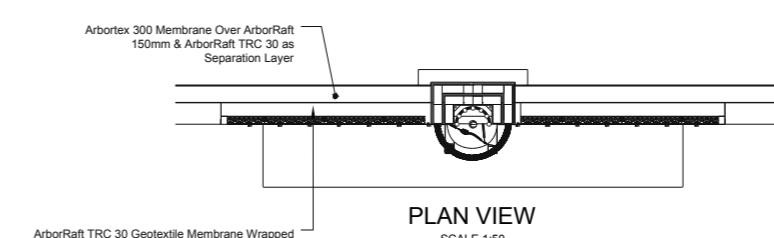
| Description | Quantity/Volume |
|---|-----------------|
| gtDales Collection tree guard | 1 |
| gtFortress tree grille 1.2sqm | 1 |
| Mona Relief irrigation MRP3 3m x 60mm | 1 |
| gtSleeper & Kerbstone anchoring kit – refer to page 97 for sizing | 1 |
| ArborTex 300 membrane sqm | 15 sqm |
| ArborRaft unit 708x354x150mm | 72 |
| Permatie connector | 432 |
| ArborRaft TRC30 membrane sqm | 17 sqm |
| Green-tree ArborRaft Soil | 10 Cu/m |
| Green-tree Subsoil BS8601:2013 | As per spec |
| gtRootbarrier 325 0.65m x 50m | 13 l/m |



FRONT VIEW



SIDE VIEW



PLAN VIEW

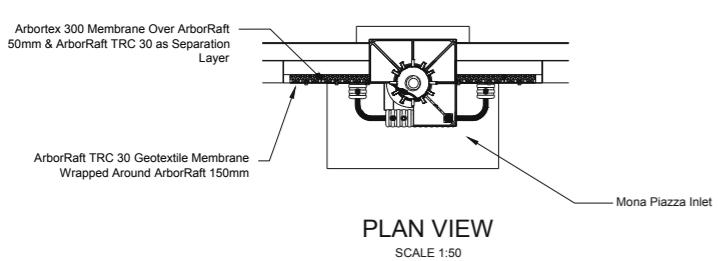
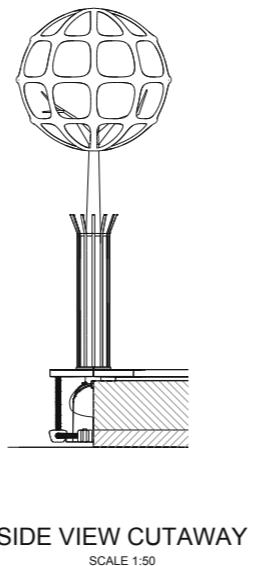
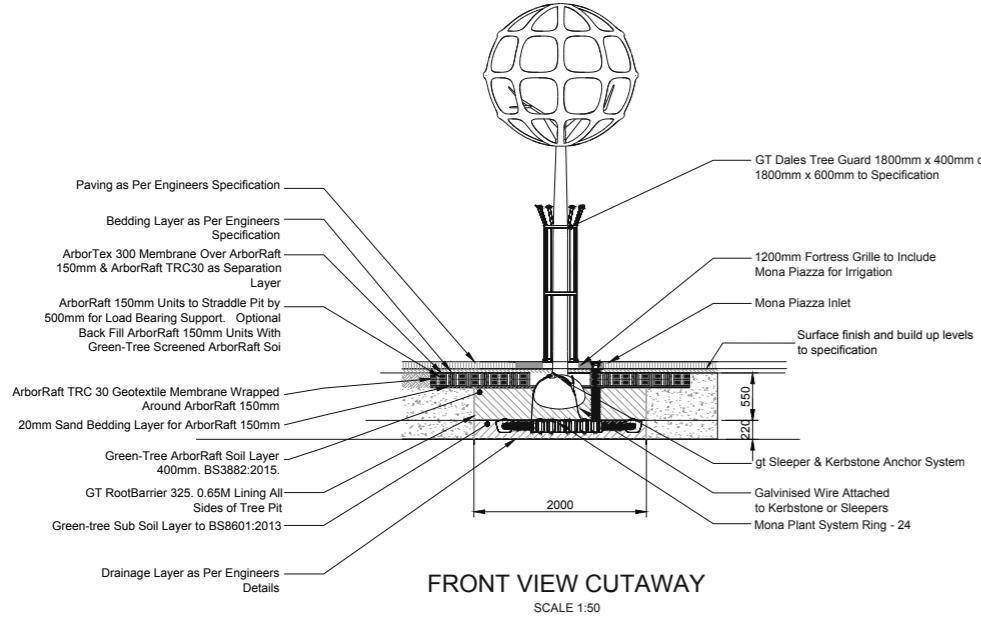
GTS11



2sqm ArborRaft urban tree planting system, gtResigrille and guard



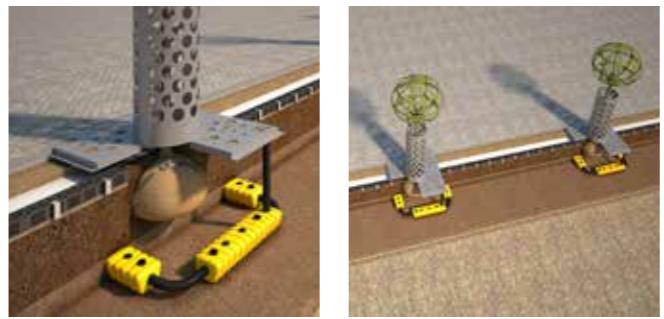
| Description | Quantity/Volume |
|---|-----------------|
| gtDales Collection tree guard | 1 |
| gtFortress tree grille | 1 |
| Mona Piazza inlet | 1 |
| gtSleeper & Kerbstone anchoring kit – refer to page 97 for sizing | 1 |
| Mona Ring 24 Irrigation system | 1 |
| ArborTex 300 membrane sqm | 9 sqm |
| ArborRaft unit 708x354x150mm | 45 |
| Permatie connector | 270 |
| ArborRaft TRC30 membrane sqm | 11 sqm |
| Green-tree ArborRaft Soil | 1.6 Cu/m |
| Green-tree Subsoil BS8601:2013 | As per spec |
| gtRootbarrier 325 0.65m x 50m | 7.0 l/m |



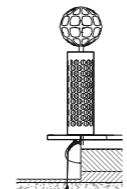
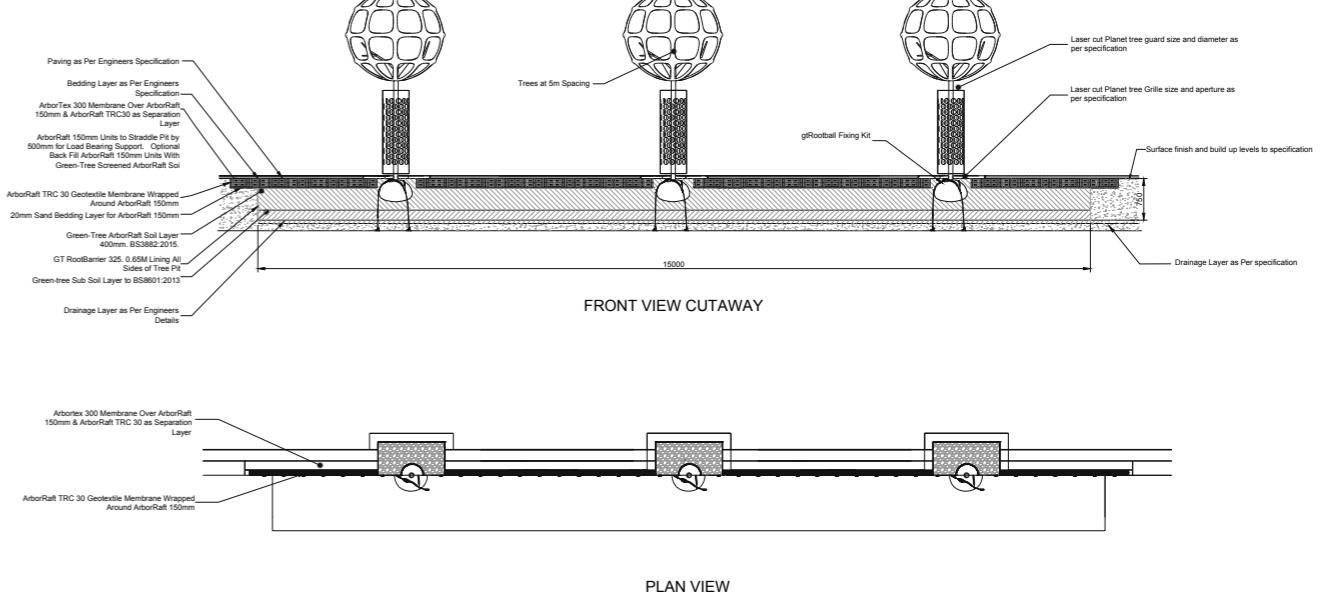
GTS12



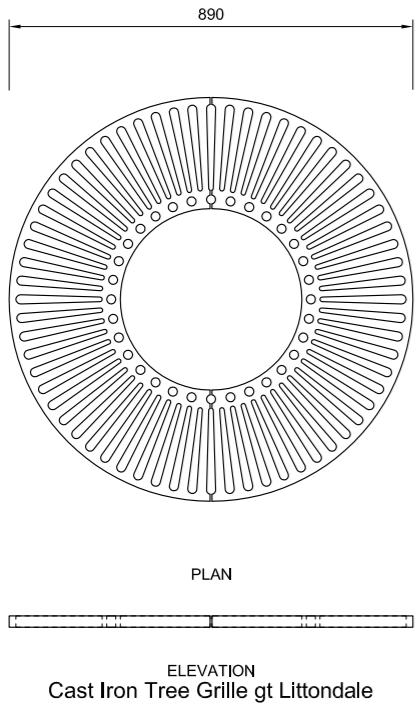
15m x 1.5m ArborRaft urban trench system, multiple tree planting



| Description | Quantity/Volume |
|---|-----------------|
| gtLaser Cut tree guard | 3 |
| gtLaser Cut tree grille 1.2sqm | 3 |
| Mona Vente inlet | 3 |
| gtRootball Fixing Kit – refer to page 97 for sizing | 3 |
| Mona Ring 24 Irrigation system | 3 |
| ArborTex 300 membrane sqm | 46 sqm |
| ArborRaft unit 708x354x150mm | 184 |
| Permatie connector | 1104 |
| ArborRaft TRC30 membrane sqm | 69 sqm |
| Green-tree ArborRaft Soil | 9 Cu/m |
| Green-tree Subsoil BS8601:2013 | As per spec |
| gtRootbarrier 325 0.65m x 50m | 33.0 l/m |



gtLittondale



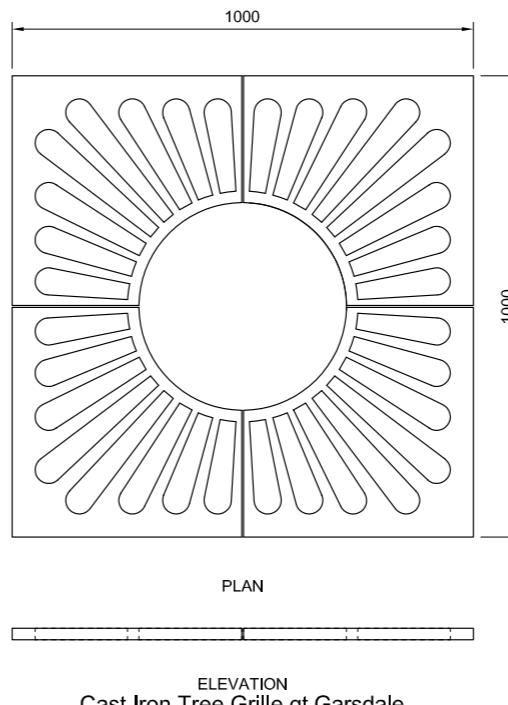
Sizes Available

Diameter: 890mm, 1200mm, 2000mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Optional Finish: | RAL/BS Colour Preference. |
| Irrigation Holes: | We can supply tree grilles with irrigation holes and covers in order to give access to the irrigation of the tree root system. |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtGarsdale



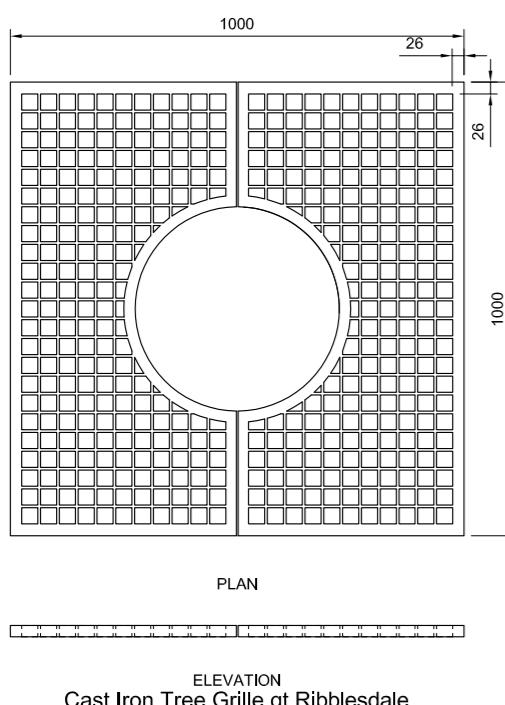
Sizes Available

Square Dimensions: 1000mm, 1200mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Optional Finish: | RAL/BS Colour Preference. |
| Irrigation Holes: | We can supply tree grilles with irrigation holes and covers in order to give access to the irrigation of the tree root system. |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtRibblesdale



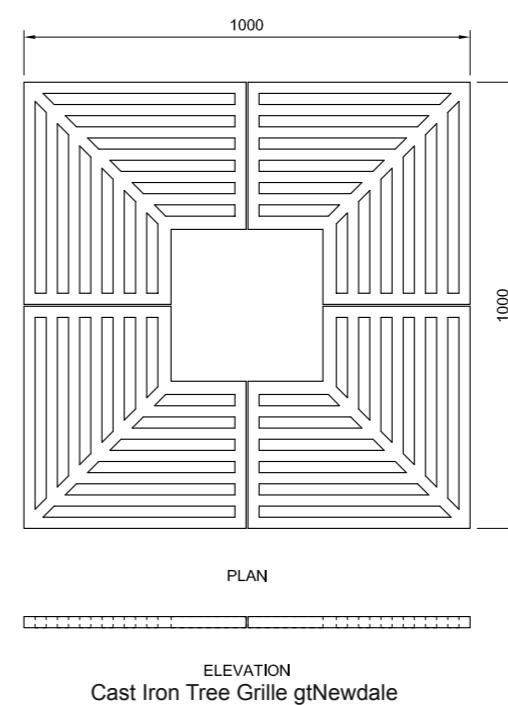
Sizes Available

Square Dimensions: 700mm, 800mm, 1080mm, 1200mm, 1400mm, 1760mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Optional Finish: | RAL/BS Colour Preference. |
| Irrigation Holes: | We can supply tree grilles with irrigation holes and covers in order to give access to the irrigation of the tree root system. |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtNewdale



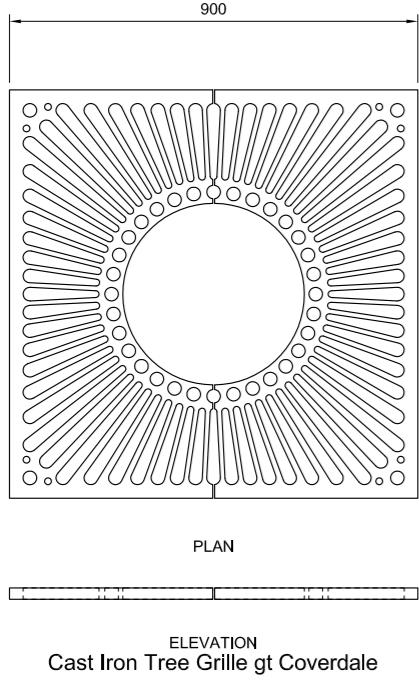
Sizes Available

Square Dimensions: 770mm, 1000mm, 1200mm, 1400mm, 1800mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Optional Finish: | RAL/BS Colour Preference. |
| Irrigation Holes: | We can supply tree grilles with irrigation holes and covers in order to give access to the irrigation of the tree root system. |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtCoverdale



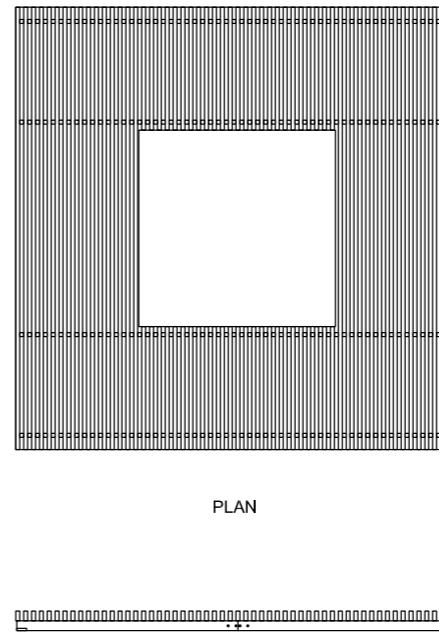
Sizes Available

Square Dimensions: 900mm, 1200mm, 1400mm, 2000mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Optional Finish: | RAL/BS Colour Preference. |
| Irrigation Holes: | We can supply tree grilles with irrigation holes and covers in order to give access to the irrigation of the tree root system. |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtKingsdale/gtDentdale



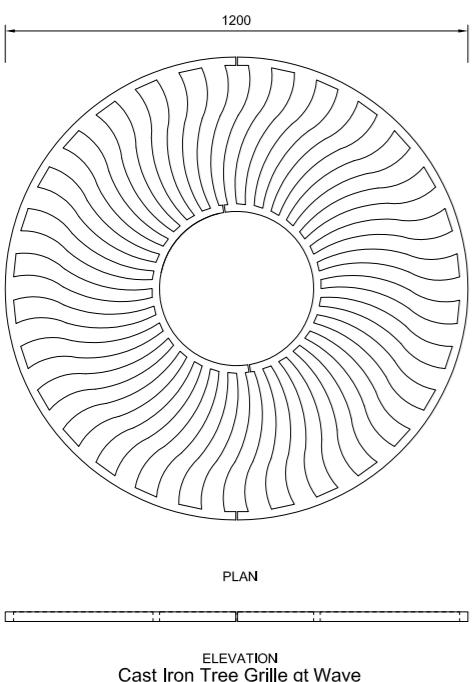
Sizes Available

Size: 1000mm 1200mm 1800mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Stainless steel or satin brushed. |
| Optional Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtWave



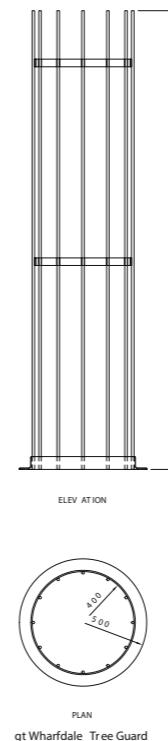
Sizes Available

Diameter: 1200mm

Product Specification:

| | |
|---------------------------|--|
| Material: | Grade 250 cast iron. |
| Standard Finish: | Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black). |
| Optional Finish: | RAL/BS Colour Preference. |
| Irrigation Holes: | We can supply tree grilles with irrigation holes and covers in order to give access to the irrigation of the tree root system. |
| Supporting Frames: | Tree grilles can be supplied with a range of supporting frames depending on the application. |
| Security Clips: | Frames and grilles designed with integral security and locking system to further increase rigidity and protection. |

gtWharfdale



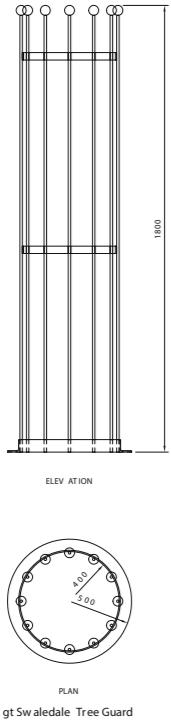
Sizes Available

Size: 1.8m x 400mm or 600mm

Product Specification:

| | |
|-------------------------|--|
| Material: | Mild Steel. |
| Standard Finish: | Phosphate Wash & Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black) or Hot dip galvanised to BS EN ISO 1461. |
| Optional Finish | RAL/BS Colour Preference. |
| Fixing Options: | If used with Green-tech's supporting frames and tree grilles, the base of tree guard bolts directly to the inner of the supporting Frame. If not used with supporting frame and tree grilles, the tree guards come with 400mm length ground fixing legs. |
| Other Options: | Standard Height - 1800mm Other heights on request. Standard Diameter - 420mm Outside Diameter. Other Diameters available on request. |

gtSwaledale



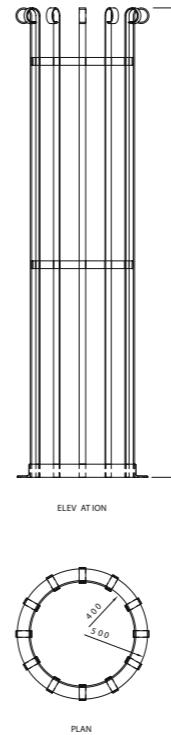
Sizes Available

Size: 1.8m x 400mm or 600mm

Product Specification:

| | |
|-------------------------|--|
| Material: | Mild Steel |
| Standard Finish: | Phosphate Wash & Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black) or Hot dip galvanised to BS EN ISO 1461. |
| Optional Finish | RAL/BS Colour Preference. |
| Fixing Options: | If used with Green-tech's supporting frames and tree grilles, the base of tree guard bolts directly to the inner of the supporting Frame. If not used with supporting frame and tree grilles, the tree guards come with 400mm length ground fixing legs. |
| Other Options: | Standard Height - 1800mm Other heights on request. Standard Diameter - 420mm Outside Diameter. Other Diameters available on request. |

gtAiredale



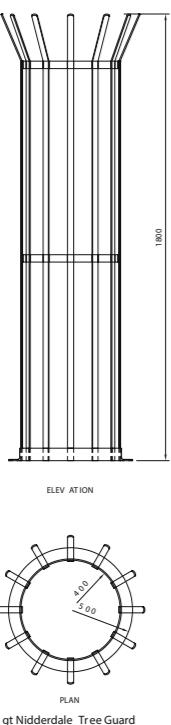
Sizes Available

Size: 1.8m x 400mm or 600mm

Product Specification:

| | |
|-------------------------|--|
| Material: | Mild Steel |
| Standard Finish: | Phosphate Wash & Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black) or Hot dip galvanised to BS EN ISO 1461. |
| Optional Finish | RAL/BS Colour Preference. |
| Fixing Options: | If used with Green-tech's supporting frames and tree grilles, the base of tree guard bolts directly to the inner of the supporting Frame. If not used with supporting frame and tree grilles, the tree guards come with 400mm length ground fixing legs. |
| Other Options: | Standard Height - 1800mm Other heights on request. Standard Diameter - 420mm Outside Diameter. Other Diameters available on request. |

gtNidderdale



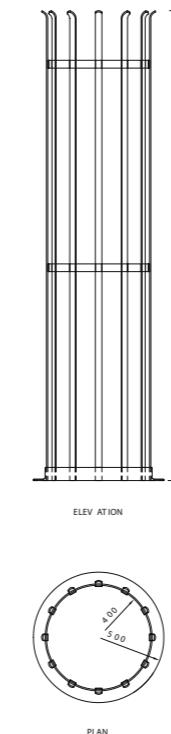
Sizes Available

Size: 1.8m x 400mm or 600mm

Product Specification:

| | |
|-------------------------|--|
| Material: | Mild Steel |
| Standard Finish: | Phosphate Wash & Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black) or Hot dip galvanised to BS EN ISO 1461. |
| Optional Finish | RAL/BS Colour Preference. |
| Fixing Options: | If used with Green-tech's supporting frames and tree grilles, the base of tree guard bolts directly to the inner of the supporting Frame. If not used with supporting frame and tree grilles, the tree guards come with 400mm length ground fixing legs. |
| Other Options: | Standard Height - 1800mm Other heights on request. Standard Diameter - 420mm Outside Diameter. Other Diameters available on request. |

gtMalhamdale



Sizes Available

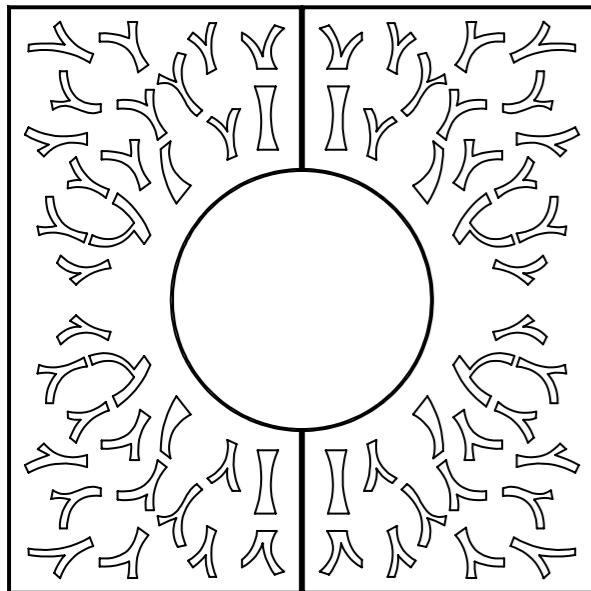
Size: 1.8m x 400mm or 600mm

Product Specification:

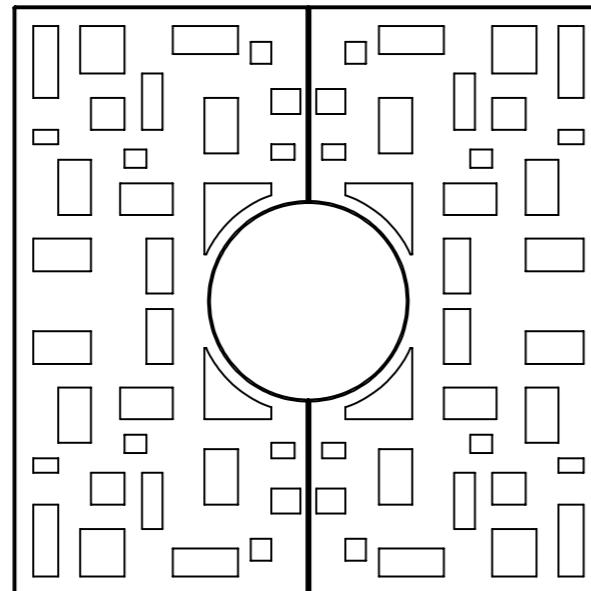
| | |
|-------------------------|--|
| Material: | Mild Steel |
| Standard Finish: | Phosphate Wash & Alesta Zero Zinc Primer Satin Polyester Powder Coated (Black) or Hot dip galvanised to BS EN ISO 1461. |
| Optional Finish | RAL/BS Colour Preference. |
| Fixing Options: | If used with Green-tech's supporting frames and tree grilles, the base of tree guard bolts directly to the inner of the supporting Frame. If not used with supporting frame and tree grilles, the tree guards come with 400mm length ground fixing legs. |
| Other Options: | Standard Height - 1800mm Other heights on request. Standard Diameter - 420mm Outside Diameter. Other Diameters available on request. |

Laser Cut Tree Grilles

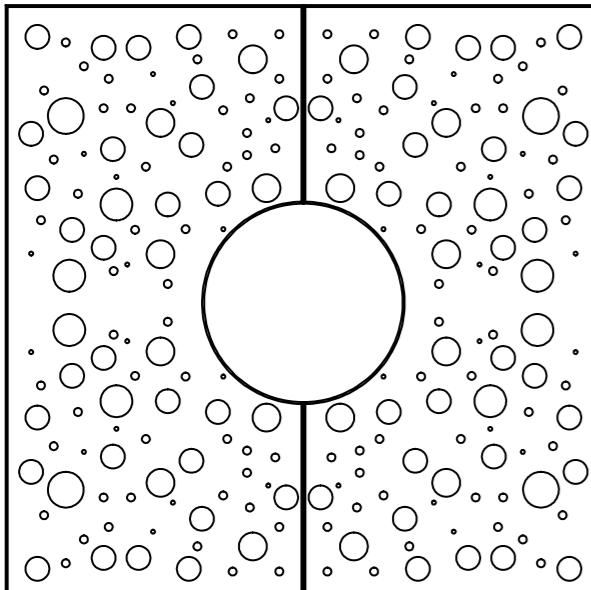
Branch Tree Grille



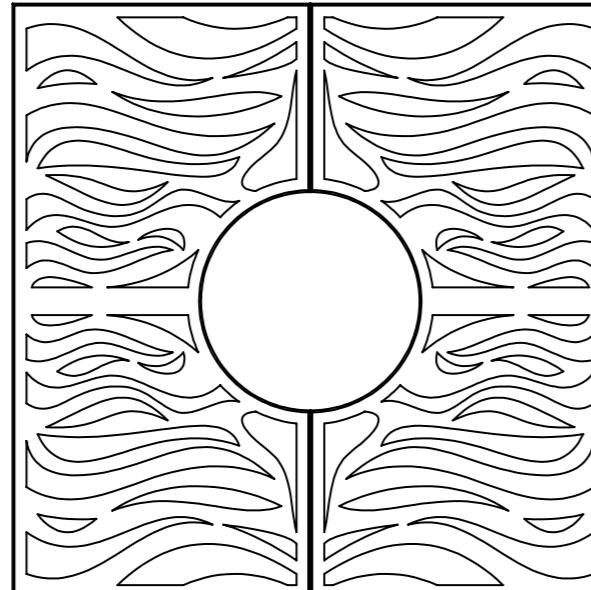
Geo Tree Grille



Planet Tree Grille



Flare Tree Grille

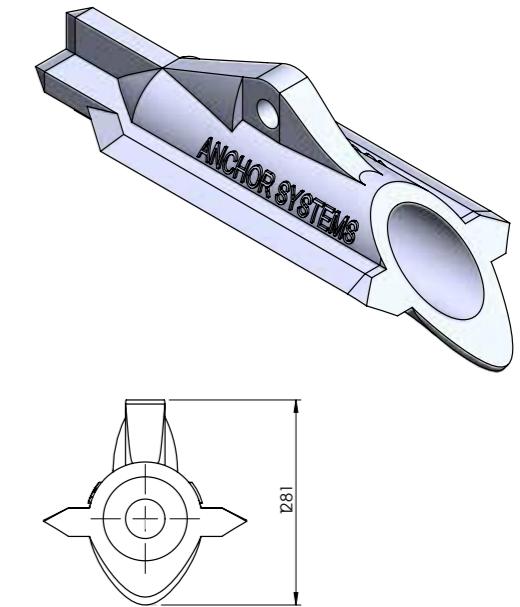
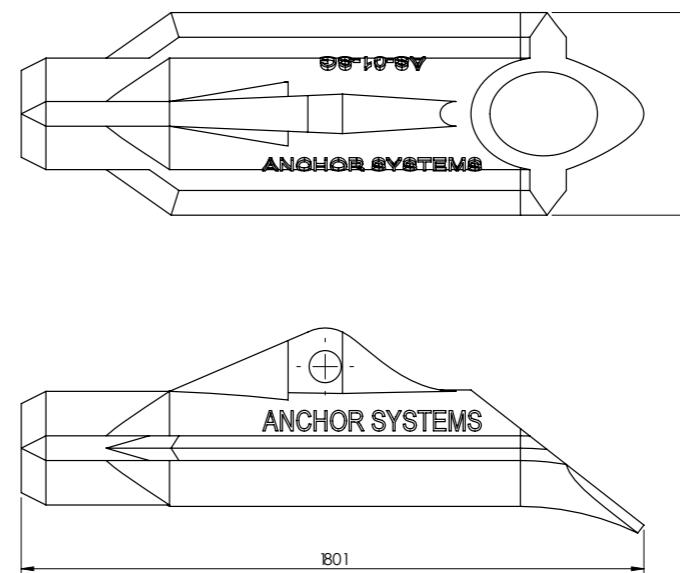


Technical Specification

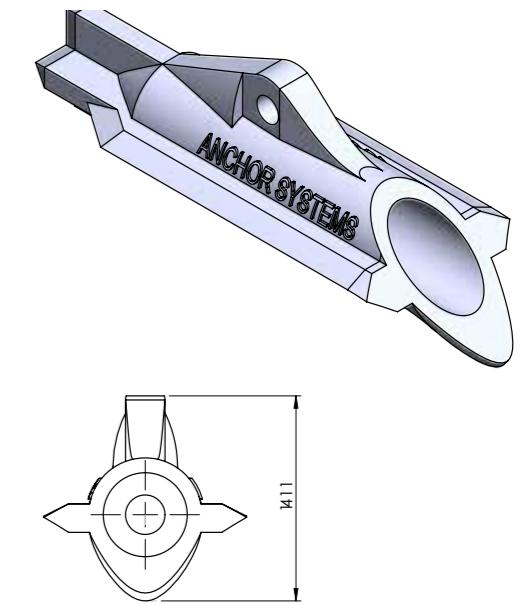
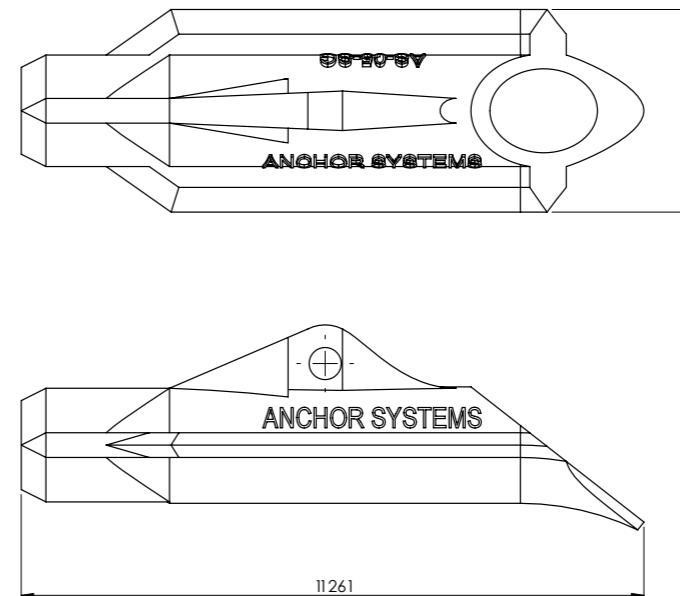
| | |
|-------------------------|--|
| Material | Manufactured in stainless, mild or corten steel |
| Finish | Available in stainless steel, powder coated, corten or galvanised |
| Supplied | In two halves or four corners for assembly. |
| Fixing | Supplied with supporting frames for ease of installation. |
| Optional extras: | Irrigation holes and covers, uplighters, co-ordinating tree guards, permanent fixings available for additional security. |

Tree Anchoring data sheet

GTRBK1W Ground Anchor

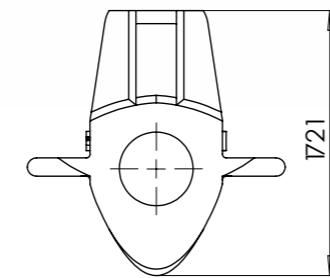
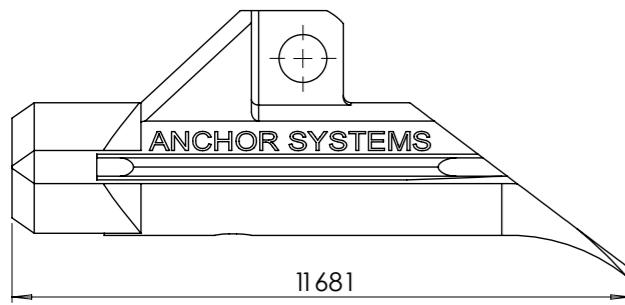
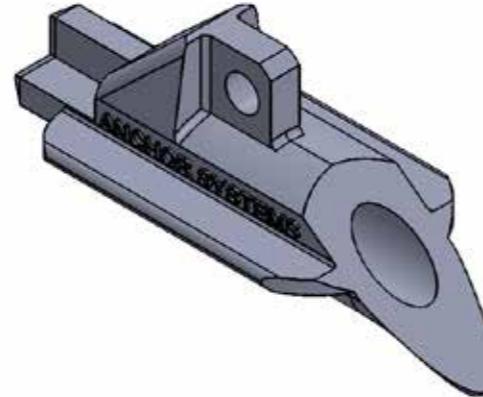
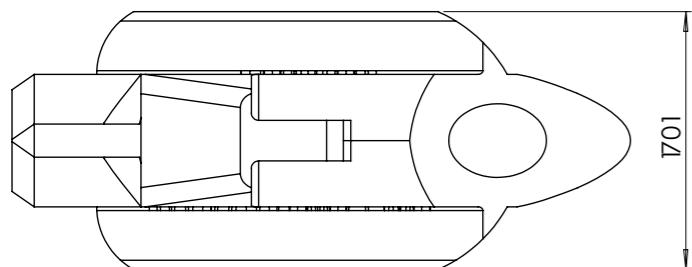


GTRBK5W Ground Anchor

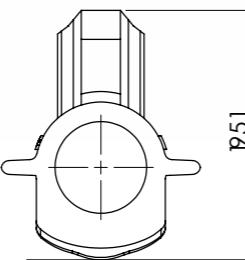
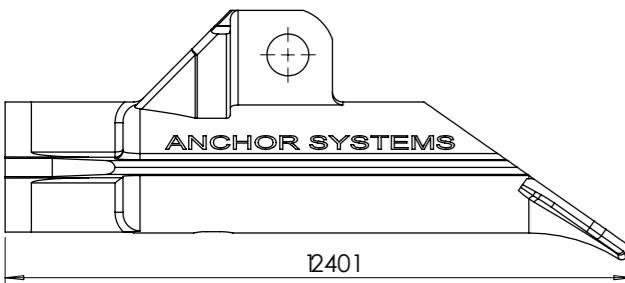
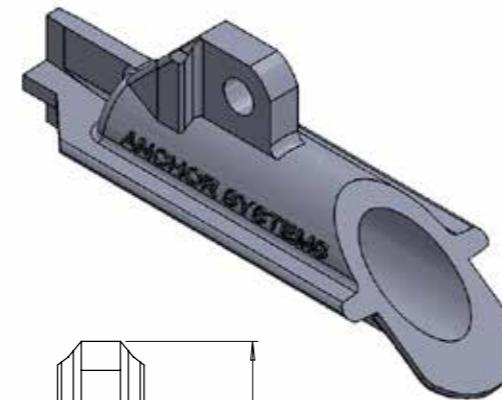
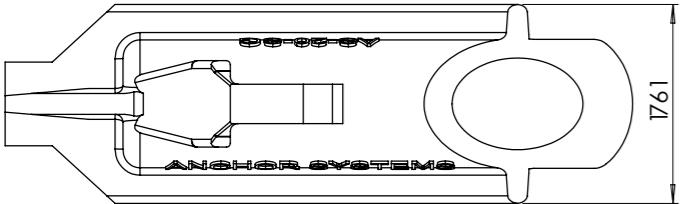


Tree Anchoring data sheet

GTRBK10W Ground Anchor

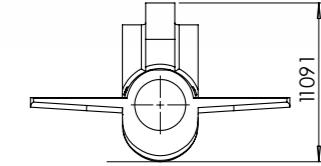
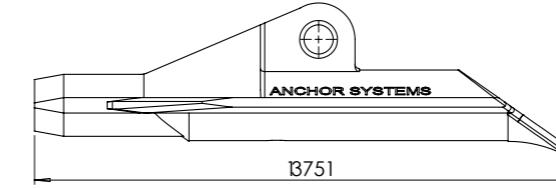
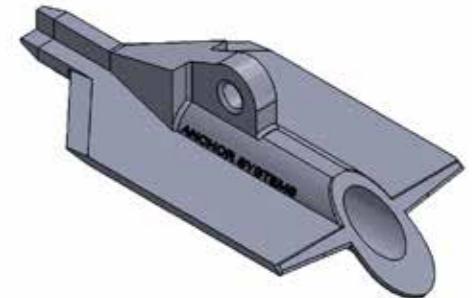
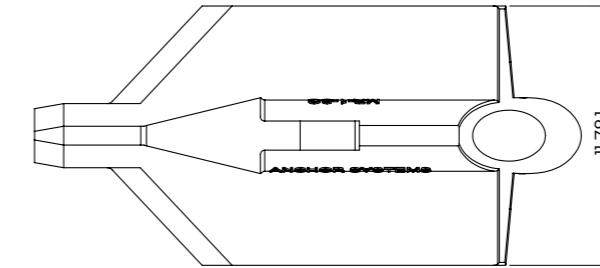


GTRBK20W Ground Anchor



Tree Anchoring data sheet

GTRBK90W Ground Anchor



Anchor sizing table

| Height of tree | Circumference | gtWire Fixing Kit | gtSleeper & Kerbstone Anchoring Kit (Wire) | gtContainerised Rootball Fixing Kit | gtGuying Kit |
|----------------|---------------|-------------------|--|-------------------------------------|--------------|
| Up to 2.5m | Up to 12cm | GTRBK1W | N/A | N/A | N/A |
| 2.5m - 4.5m | 12cm - 25cm | GTRBK5W | GTDMK5W | GTCRBK5W | GTOHG5 |
| 4.5m - 7.5m | 25cm - 45cm | GTRBK10W | GTDMK10W | GTCRBK10W | GTOHG10 |
| 7.5m - 12m | 45cm - 75cm | GTRBK20W | GTDMK20W | N/A | GTOHG20 |
| 12m+ | 75cm+ | GTRBK90W | N/A | N/A | GTOHG90 |

Typical Data for gtAnchoring Systems

| gtRootball Wire Fixing Kit | Anchor Wire grade | Testing Standard | MBL of Anchor Wire | Ratchet Wire Grade | Testing Standard | MBL of Wire Ratchet | Anchor Head/ Drop-Man material | ULS of Anchor head |
|----------------------------|-------------------|------------------|--------------------|--------------------|------------------|---------------------|--------------------------------|--------------------|
| GTRBK1W | 3mm 7*7 | BSEN 12385/2002 | 698Kg | 3mm 7*7 | BSEN 12385/2002 | 698Kg | LM6 Aluminium | 5kN |
| GTRBK5W | 5mm 7*7 | BSEN 12385/2002 | 1938Kg | 5mm 7*7 | BSEN 12385/2002 | 1938Kg | SG Iron / Galvanised BSEN1461 | 30kN |
| GTRBK10W | 6mm 7*19 | BSEN 12385/2002 | 2604Kg | 5mm 7*7 | BSEN 12385/2002 | 1938Kg | SG Iron / Galvanised BSEN1461 | 55kN |
| GTRBK20W | 8mm 7*19 | BSEN 12385/2002 | 4629Kg | 6mm 7*19 | BSEN 12385/2002 | 2604Kg | SG Iron / Galvanised BSEN1461 | 70.74kN |
| GTRBK90W | 8mm 7*19 | BSEN 12385/2002 | 4629Kg | 6mm 7*19 | BSEN 12385/2002 | 2604Kg | SG Iron / Galvanised BSEN1461 | 195.3kN |

Additional Conditions of Sale

gtSpecifier is a trading style of Greentech Ltd. and is bound by the terms & conditions of Greentech Ltd, a full set of which can be found at www.green-tech.co.uk

- Orders will be accepted by telephone, fax, in writing or by e-mail.
- All orders over £2500 must be confirmed in writing.
- All orders will be acknowledged in writing and a copy of our Terms and Conditions of sale attached
- Deliveries will be made as soon as possible after an order is placed, unless a delivery date is specified.
- The company cannot guarantee a time or date of delivery.
- Customers are required to be on site at time of delivery.
- Carriage will be paid on orders over £300 in value. The Highlands and out of area postcodes and R.O.I may incur additional delivery charge.
- Access to the delivery address is the customer's responsibility.
- We must be informed of any site restrictions.
- We reserve the right to alter our terms, conditions and specifications at any time without prior notice. A copy of our current terms and conditions can be requested at any time.

Site Responsibility

gtSpecifier's portfolio of brands work with natural, living trees, plants and shrubs. It is not the responsibility of gtSpecifier to guarantee the success of these living items but only to advise on their optimum growing habitat. It is advisable that with any urban landscape specification the relevant Landscape Architects, local Arborist and Site Engineers are consulted prior to starting work. It is not the responsibility of gtSpecifier to advise in any engineering capacity only to provide advice on the growing habitat of trees, plants and shrubs.

Green-tree Topsoil is a highly fertile growing medium for the establishment of new plants, shrubs and grasses etc. The fertile nature of Green-tree products encourages

plants to thrive and sensible precautions must be taken to control emergence of weeds (spring/summer in particular) especially if the topsoil is left on site exposed to the elements, laid in the open or stockpiled. Topsoil left bare or unmaintained will allow weed growth which may out-compete new seeding or planting. Green-tech stocks products for weed control or suppression and also provides technical guidance on the use of these products.

Landscape Solutions from gtSpecifier



gtSpecifier has a wealth of experience of developing landscape solutions for urban developments and projects. Working with Landscape Architects, Landscape Contractors, Garden Designers and Nurseries from across the UK, gtSpecifier has created a portfolio of systems and solutions that guarantee the success of urban landscapes.

- Urban Tree Planting
- Root Protection
- Ground Stabilisation and Support
- Tree Irrigation
- Soft Landscaping
- Street Furniture
- Soils & Growing Media
- Urban Wildflowers

For more information and guidance on the gtSpecifier product range and the solutions the team can offer log on to www.gtspecifier.co.uk.

