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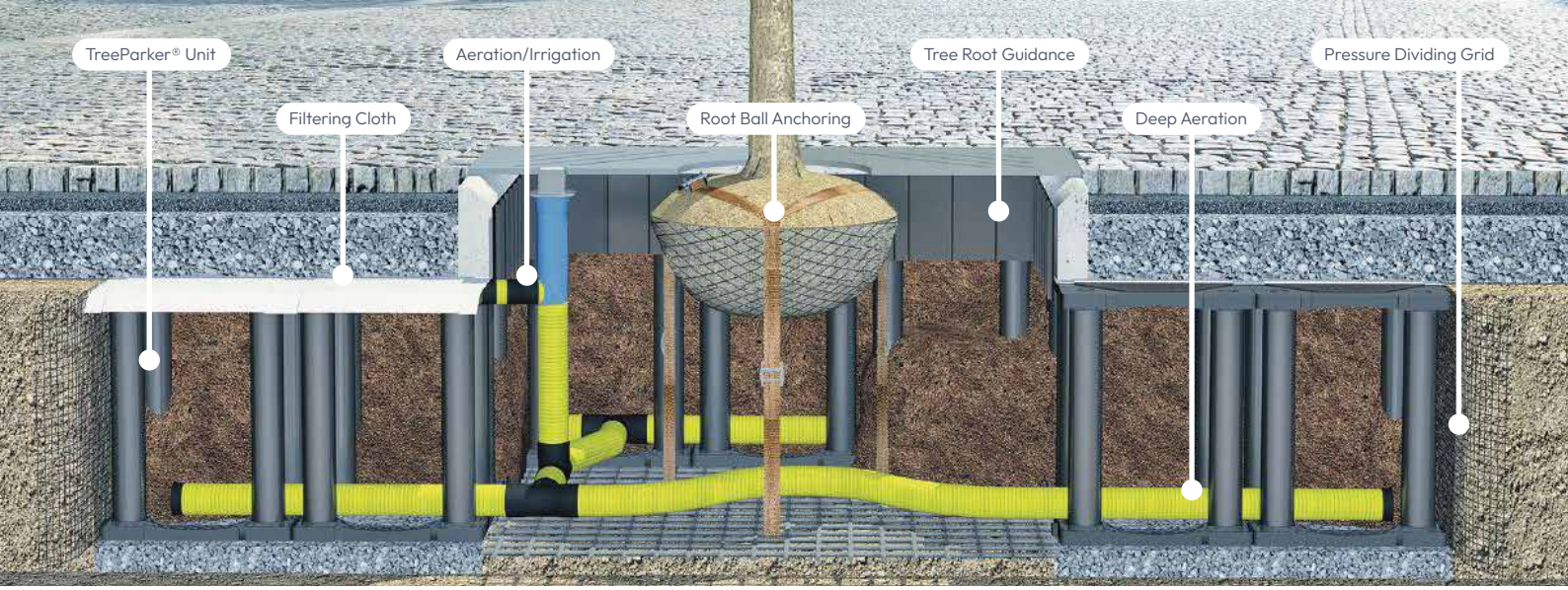
TreeParker®

Urban Tree Planting & Water Management Cell System

green-tech SPECIFIER



TreeParker® - A modular support and engineered SuDS solution for urban tree pits and paving

TreeParker® is a versatile urban tree planting cell system, manufactured by TreeBuilders® and distributed by Green-tech in the UK. TreeParker® was developed in partnership with arboriculturists, landscape architects, and civil engineers, through extensive urban tree planting trials.

Loading capacity up to 56 tonnes/m² (550 kpa)

Able to support hard paving for vehicular or pedestrian applications.

Integration with existing and new service lines

The open sided structure that the pillars provide, means services and utilities are easily worked around.

Adaptable heights offering versatility

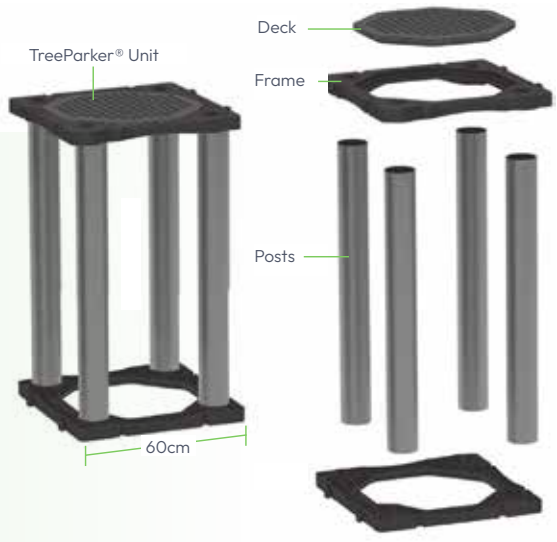
TreeParker® is available in the following heights: 400, 600, 800, 1000, 1200 and 1500mm.
This adaptability gives you more control over tree pit depth and rooting volume.

Combined root and water mangement

The TreeParker system can be used to capture and filter surface water, treating and attenuating at source.

Suitable for all size of trees

From a 3x3m tree pit to a 100m² shared trench, TreeParker® gives all tree species and sizes the best chance of successful establishment.



Simplicity is its strength

Simplicity characterises the system. Through a simple, robust design, the TreeParker® system can be installed in any tree planting space, even staggered or circular, making it easy to customise the tree pit design to your needs.

Each independent unit has sufficient load-bearing capacity, so they do not necessarily need to be linked. Just shift the units into position with a maximum spacing of 75mm between. Various heights are available, so you can match the units to your exact rooting area. TreeParker® fits in with you, not the other way round.

Treeparker®
STRUCTURAL SOIL CELL SYSTEM

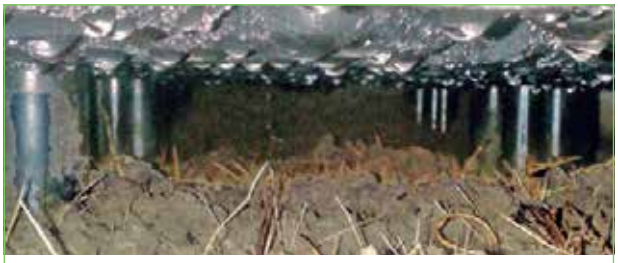
TreeParker® offers the right solution for **any challenge** within the city

Optimum rooting space

The rigid, yet open structure of TreeParker® ensures that 95% of the tree pit area is given over to the soil. This allows uninterrupted root establishment, with no danger of soil compaction or upward root growth.

Tested for the heaviest traffic loads

TreeParker® consists of modular units that are strong enough to support the heaviest vehicles. The load is transferred from the surface paving to the formation ground via the TreeParker® frames and reinforced posts, avoiding any pressure on the soil within the tree pit.



Engineered SuDS tree pit solution

TreeParker provides numerous SuDS benefits, from water storage to filtration and water reuse. Providing a circular approach to surface water management.

Stress-free integration with new and existing utilities

TreeParker® is designed to work under the urban environment. The simple, open construction enables contractors to straddle over existing service lines and pipes, with no integrated side walls to get in the way.

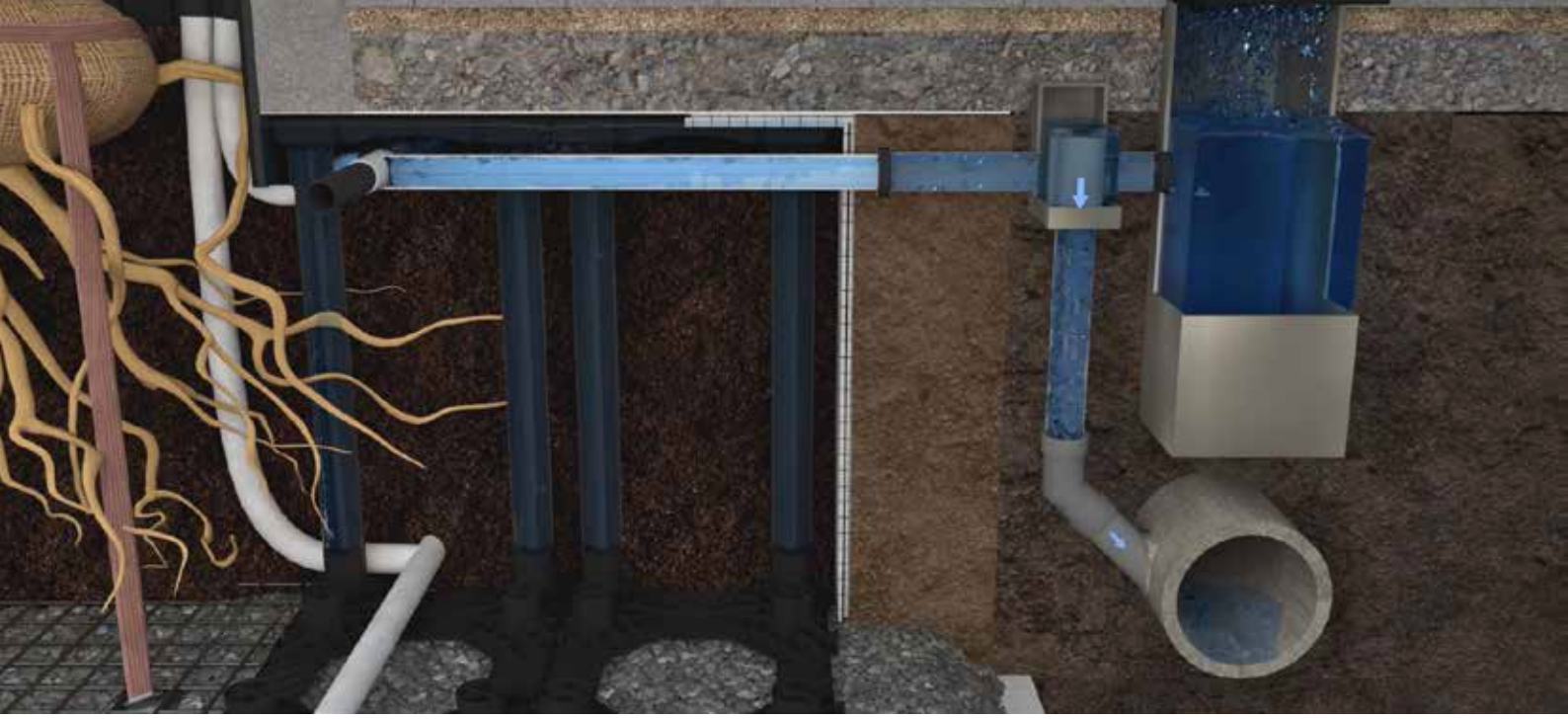
A smart combination of Green, Grey and Blue

The challenges of urban tree planting are well documented, from traffic loading to pavement lifting and integrating essential utilities.

Allows use of high-quality, friable topsoil, whilst a 95% void ratio maximises rooting volume.

15 tonne single axle load (up to 56t/m2). Non-obstructive to utilities. Supports paving above.

Maintenance-free stormwater attenuation and filtration.



TreeParker® - A stormwater management system that benefits both tree roots and the environment.

Stormwater management is a complex challenge that extends beyond just preventing flooding. It involves creating a balance between urban development and natural water cycles, managing both the quality and quantity of urban water run-off. Stormwater management is particularly relevant in built-up areas, where impervious surfaces like roads and buildings hinder the natural infiltration of water. This situation leads to increased flood risks and environmental pollution.

A dual purpose system, offering tree root protection simultaneously with storm water management.

A compact solution, requiring little installation space compared to above ground SUD Systems.

Creates a balance between urban developments and natural water cycles.

Efficient collection & discharge of rain water benefits the growth and vitality of the tree.

Maintenance-free, once installed the TreeParker system will work with the tree and drainage system to manage rainwater flow.

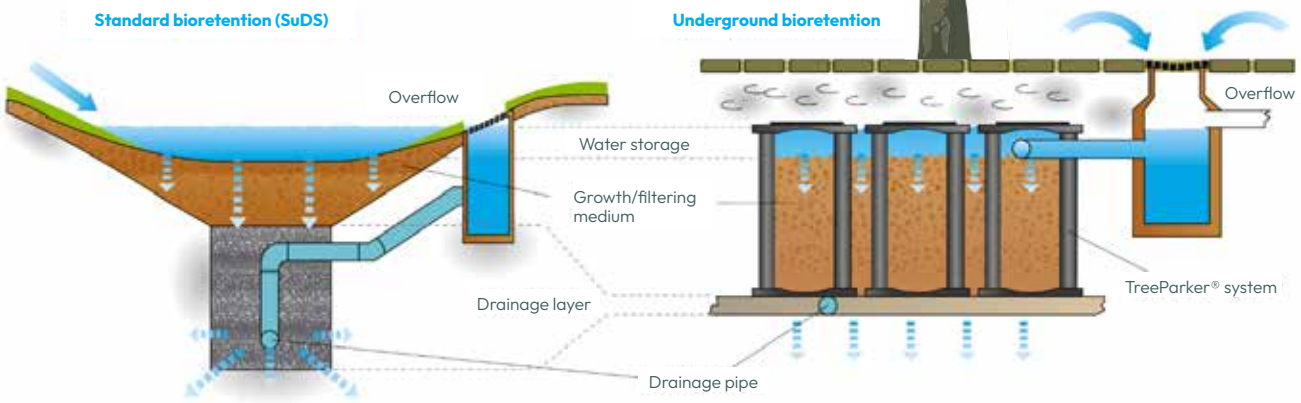
Simplicity is its strength

Sustainable Urban Drainage Systems (SuDS) provide an alternative approach to traditional rainwater management. Designed to manage storm water locally, mimic natural drainage and encourage infiltration, attenuation and passive treatment. SuDS make use of better urban planning and design to reduce flood and pollution risks, reuse rainwater and enhance the environment by improving amenity and biodiversity.

TreeParker® offers the right solution for Sustainable Urban Drainage Systems

TreeParker provides a fully holistic approach to water management. When we look at the 4 SuDS pillars, often designs only account for water quality and quantity. With the focus now on BNG, climate and sustainability, we need to look for ways to include biodiversity and amenity- that's exactly what TreeParker achieves.

Taking a green asset which naturally provides biodiversity and amenity and combining it with water management creates a true vision of sustainable blue green infrastructure



TreeParker supporting bioretention

Trees and SuDS - "Rooting Zones may be used as part of sustainable urban drainage best practice management systems – including for water quality treatment of surface water run-off from pavements. Tree pits can help reduce flow rates from a site by facilitating infiltration and/or by providing attenuation storage."

Refer to: The SuDS Manual (C753) 2015 - chapter 19

Installation of the TreeParker® system

Installation is incredibly quick and easy. There are many ways of setting up your layout; the units can be connected directly, stand-alone, staggered, or even curved. The buildup can be constructed immediately after the system has been installed.

1

The first stage is to ensure the base of your tree pit is level and consolidated to your engineer's specification. Getting this right is crucial to the success of the tree pit.

2

The base frames are installed according to the layout plan, leaving 30cm working room around the edge of the units. The units can be installed with a spacing of up to 75mm; this means that curved installations and non-standard dimensions are possible. Dimensions of a single unit are 605 x 605mm.

3

After all the base frames are in position, the support posts and top frames are installed, straddling any service lines as required. The posts are available in six height options and can also be manually adjusted as work is in progress, to overcome any unexpected underground obstacles.

4

After all the units have been installed the system is enclosed by the reinforced separation. This can be backed by an additional permeable root barrier if required.

5

The system is now ready to be filled. Backfill the surrounding trench then the inside of the tree pit, alternately in 200-300mm layers. Maximum compaction for the backfill is important, manually consolidate the soil inside the system by foot, ensuring maximum soil volume for the tree.

6

Do not completely fill the system – leave an aeration layer directly beneath the top frame of 50-100mm. This has three benefits – air is brought much closer to the soil – it will air-prune any stray upward roots – and it can also act as an entry point for surface water.

7

Finally, seal the system with the decks and cover. Drop in the inspection/aeration decks and cover with the final separation geo-textile to prevent any of the buildup dropping into the tree pit. These can also be used as inspection hatches. The system is ideal for use underneath a permeable top surface.

8

Before the pavement is finished, construct the tree pit curbing. Any type of shape or finish to engineers' specification can be used. The tree pit can also be left open for optimal aeration and irrigation.

Navigating utilities

Integrating TreeParker® and underground obstacles, such as utilities

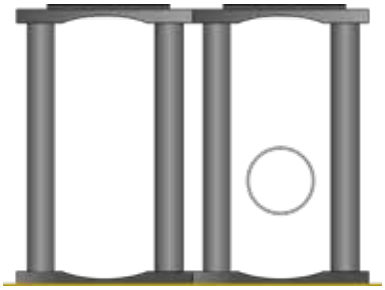
There are a number of different ways to integrate both new and/or existing utilities with the TreeParker® system.

The layout of the TreeParker® units can be adapted to the location of the utilities. This way diagonal crossing utilities can be integrated too. For more information and installation guidance on your urban tree planting project please contact info@gtspecifier.co.uk

Option 1

Running utilities through unit

The most commonly used option is to run utilities through the TreeParker® system. Due to the open design of the units, TreeParker® can accommodate pipes, conduits, and other underground utilities up to 300 mm in diameter.

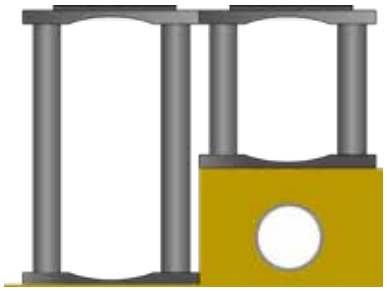


Make sure the utilities are not damaged. Damaged utilities must be repaired.

Option 2

Bridging utilities

The most common used option for integrating underground obstacles. The posts can be adjusted on location if required.

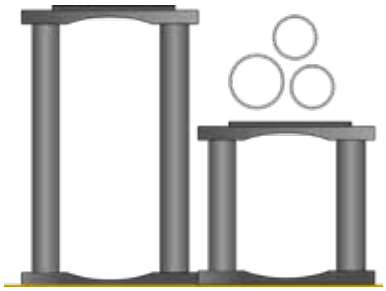


Make sure the subsoil beneath all units is compacted according to specifications.

Option 3

Tunneling utilities

The most common used option if it is not permitted to integrate utilities inside the TreeParker system. The posts can be adjusted on location if required.



Preferable minimum gap of 5 cm between top of the unit and utility.

Technical Support

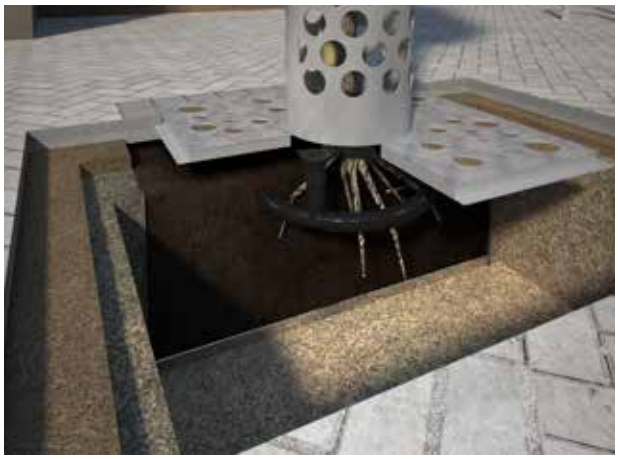
Green-tech offers a range of urban landscape solutions for any size project. The team has a wealth of experience of urban greening projects, utilising innovative product solutions developed in the UK and Europe to enhance plant growth and longevity.

We can offer:

- CPD seminars at your workplace
- Online CPD webinars
- Technical drawings
- Project-specific guidance
- Installation guides
- Case studies

CPD seminars available:

- The Green-tree guide to good soils
- Urban tree planting and SuDS
- Effective tree & plant irrigation
- Wildflower seed specification
- Green roof systems



Contact the team today for more information:

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