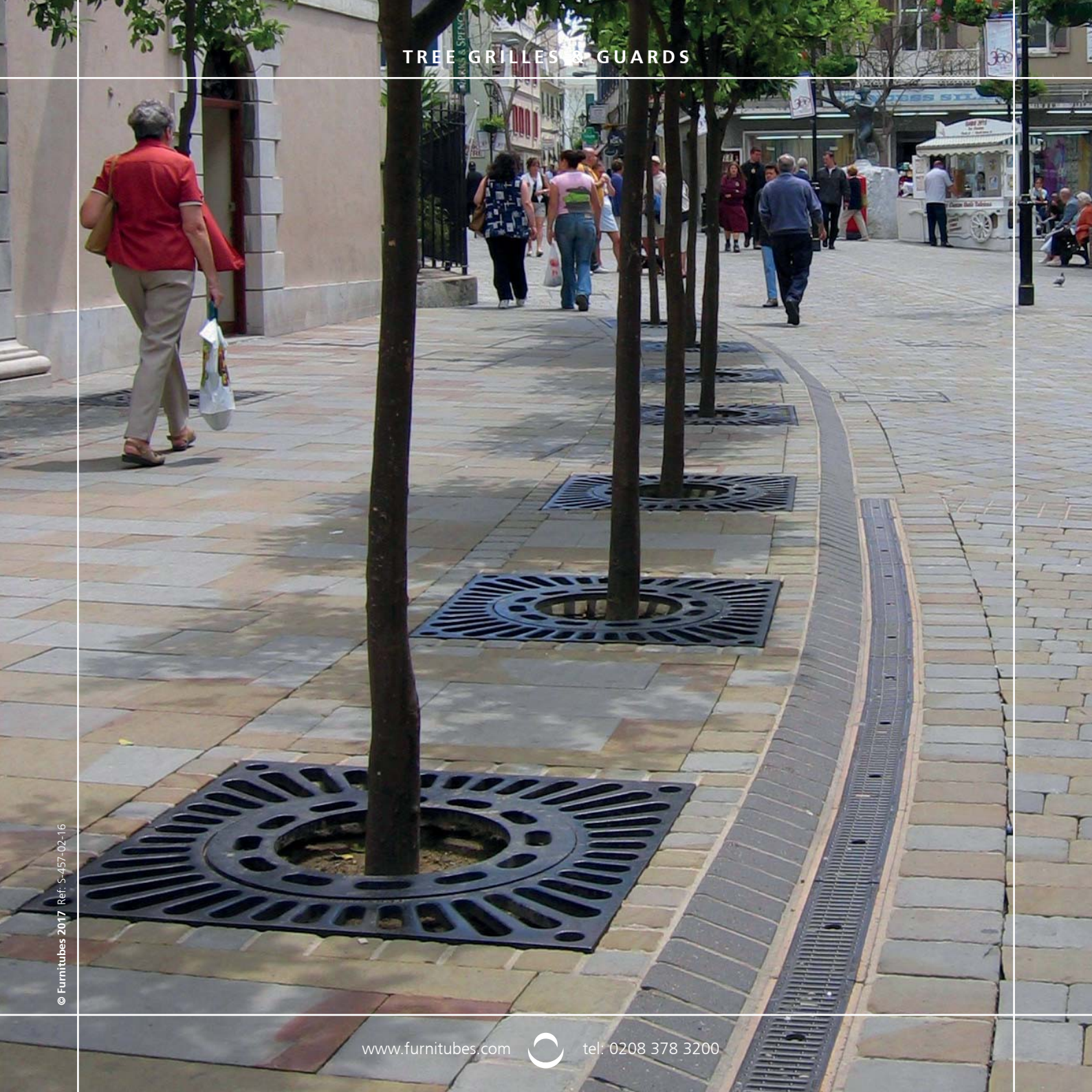




TREE GRILLES & GUARDS

TREE GRILLES & GUARDS



INTRODUCTION

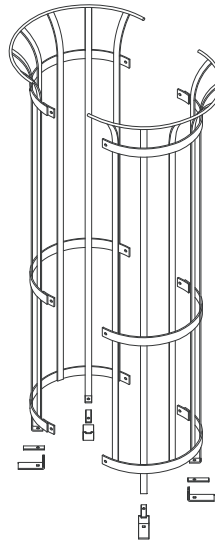
Promoting & protecting street tree planting

The planting of street trees offers many benefits to ourselves, our towns and cities and the wider environment, including:

- visual enhancement of the streetscape, with seasonal changes to colour and form
- production of oxygen and absorption of carbon emissions
- shade from solar radiation and moderation of the local climate
- habitat for local wildlife

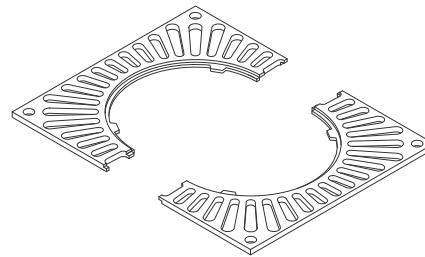
In order to develop into mature specimens with a long life it is important that trees are given the best possible chance to establish in their early years. Furnitubes offers a wide range of integrated and independent tree grilles, grille frames and guards designed not only to protect newly-planted and establishing trees, but also to serve as attractive additions to the street scene in their own right. Styles and material options are available to suit both traditional and modern environments, and many products are available in a wide range of sizes. We are also happy to design and manufacture bespoke solutions for specific sites.

INTEGRATED TREE GRILLE & GUARD SYSTEM



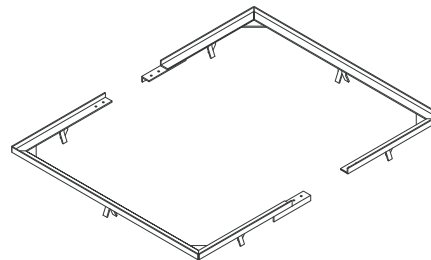
TREE GUARD

Guards offer protection to the vulnerable trunk of young or newly planted trees. They can be used independently or attached to a grille and are designed to be removed after the tree has fully established.



TREE GRILLE

Grilles help to prevent compaction of the soil around the base of the tree, allowing rain-water to naturally percolate down over the root ball.



GRILLE FRAME

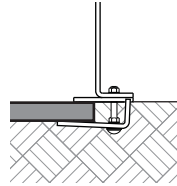
Frames are an aid to installing the grille, allowing the tree pit to be accurately set out and constructed for a neat interface between the grille and paving.

INTEGRATED TREE GRILLE & GUARD SYSTEM COMPONENTS

Tree guards

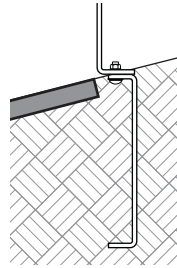
Guards offer protection to the vulnerable trunk of newly-planted trees and are recommended in areas prone to vandalism. They are manufactured in a robust mild steel welded construction and hot dipped galvanised finish to provide long-term durability. Guards are supplied in two parts to allow them to be fitted after tree planting. This also means that when the tree matures and becomes strong enough to no longer require protection, the guards can be readily removed and re-used elsewhere. For this reason all nut and bolt fixings are of a standard type, although anti-tamper fixings can be supplied for areas where the risk of theft / vandalism is high. Guards are commonly used with grilles but can equally be used independently - via bolt-on clamp assemblies or extended leg respectively. There are many variations in guard styles, all with an elegance of line that serves to complement the form of the tree. 1.8m is the typical height above ground, which protects the trunk from vandals whilst also being below the clear-stem height of standard and extra heavy standard tree stock.

Most guards are designed for fitment of bolt-on clamp assemblies or extended legs.



Clamp fitting

The clamp enables the guard to be fitted onto all our standard grilles. This fixing method is ideal for level sites as the grille is set perpendicular to the surface of the grille and therefore will be true plumb.



Extended leg

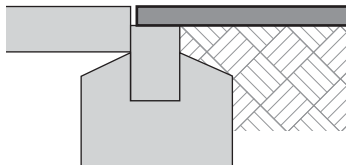
The extended leg fixing method is used when the grille is installed on sloping ground or when guards are used independently, providing a robust in-ground anchor and allowing the guard to be installed true plumb irrespective of the grille or ground slope.

Tree grilles

Grilles help prevent compaction of the soil around the base of the tree, allowing rainwater to naturally percolate through the grille apertures to the root ball. Grilles also offer the opportunity to visually punctuate large areas of paving and to emphasise the placement of trees. Grilles are available in a wide range of designs and are supplied in two or more segments for installation after tree planting. As standard, grilles are suitable for pedestrian traffic only but many can be upgraded for vehicular loading, with grilles cast in ductile iron and the use of heavy duty frame supports. Most grilles are heavy enough to resist opportunistic theft but if required the two halves of many grilles can be fixed together.

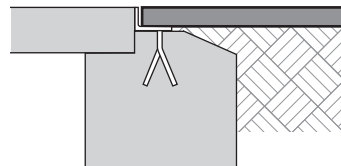
Tree grille frames

Tree grilles can be installed without a frame providing they are supported on external edges. For easier setting out and laying of the paving, a tree grille frame provides a correctly dimensioned and flat face upon which to locate the grille. If the tree rootball can be passed through the central aperture of a frame, a one-part frame can be used and installed prior to planting. For larger rootballs and / or installation of the frame after planting, a two-part grille frame is required. Frames are available in standard weights (suitable for pedestrian traffic), medium duty (for max 6.5T vehicular over-run) and heavy duty for larger loads, which will generally require grilles to be cast in ductile iron.



Without frame








Grille edge supported on shoulder of suitable in-situ foundation



With frame

Grille frame set in foundation & grille located within frame

SUMMARY TABLE: GRILLES & OPTIONS

PRODUCT RANGE	PRODUCT CODE	External		Internal		Material Standard	Grille Parts	Frame options			Guards Options
		Shape	Dims	Shape	Dims			Std	Medium	Heavy	
	GREENWICH GS 1070	Square	1000 sq	Circular	Ø700	Cast iron	2	•	•	•	4
	GS 1045	Square	1000 sq	Circular	Ø450	Cast iron	4	•	•	•	4
	GS 1270	Square	1200 sq	Circular	Ø700	Cast iron	2	•	•	•	4
	GS 1245	Square	1200 sq	Circular	Ø450	Cast iron	4	•	•	•	4
	GS 1570	Square	1500 sq	Circular	Ø700	Cast iron	4	•	•	•	4
	GS 1545	Square	1500 sq	Circular	Ø450	Cast iron	6	•	•	•	4
	GC 1045	Circular	Ø1000	Circular	Ø450	Cast iron	4	•	•	•	4
	GC 1270	Circular	Ø1200	Circular	Ø700	Cast iron	2	•	•	•	4
	GC 1245	Circular	Ø1200	Circular	Ø450	Cast iron	4	•	•	•	4
	SUNBURST SS 0945	Square	900 sq	Circular	Ø450	Cast iron	2	•	•	•	4
	SS 1245	Square	1200 sq	Circular	Ø450	Cast iron	2	•	•	•	4
	SS 1445	Square	1400 sq	Circular	Ø450	Cast iron	2	•	•	•	4
	SC 1245	Circular	Ø1200	Circular	Ø450	Cast iron	2	•	•	•	4
	LIVERPOOL LV 1045	Square	1000 sq	Circular	Ø450	Cast iron	2	•	•	•	4
	LV 1245	Square	1200 sq	Circular	Ø450	Cast iron	2	•	•	•	4
	LV 1470	Square	1400 sq	Circular	Ø750	Cast iron	2	•	•	•	4
	ELTHAM ES 1045	Square	1000 sq	Square	450 sq	Cast iron	2	•	•	•	3
	ES 1245	Square	1200 sq	Square	450 sq	Cast iron	2	•	•	•	3
	ES 1575	Square	1500 sq	Square	750 sq	Cast iron	4	•	•	•	3
	PORTMAN PS 1045	Square	995 sq	Square	445 sq	Steel	2	•	-	-	4
	PS 1245	Square	1175 sq	Square	445 sq	Steel	2	•	-	-	4
	PS 1575	Square	1475 sq	Square	745 sq	Steel	2	•	-	-	4
	OXFORD OS 1230	Square	1200 sq	Circular	Ø300	Cast iron	4	•	•	•	3
	OS 1250	Square	1200 sq	Circular	Ø500	Cast iron	2	•	•	•	3
	OS 1230S	Square	1400 sq	Circular	Ø300	Cast iron	4	•	•	•	3
	OS 1250S	Square	1200 sq	Circular	Ø500	Cast iron	2	•	•	•	3
	JUBILEE JUS 1000	Square	1000 sq	Square	500 sq	Steel	4	•	-	-	-
	JUS 1300	Square	1300 sq	Square	500 sq	Steel	4	•	-	-	-
	JUC 1000	Circular	Ø1000	Square	500 sq	Steel	4	•	-	-	-
	JUC 1300	Circular	Ø1300	Square	500 sq	Steel	4	•	-	-	-



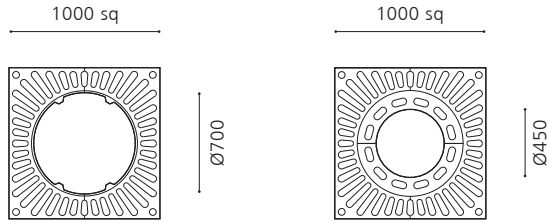
GREENWICH RANGE GRILLES

Our most extensive range of tree grilles

The Greenwich range is a long-established Furnitubes exclusive design, first used in our home London borough over 30 years ago, and now a popular choice much further afield. The range offers an extensive choice of square and circular cast iron grilles in various size options from 1000mm up to 1500mm, with central apertures of either Ø450mm or Ø700mm - a truly extensive and coordinated range with options to fit all sizes of tree planting pits. The grilles are characterised by their central sunburst pattern combined with concentrically arranged lozenge-shaped apertures. Grille assemblies comprise 2, 4 or 6-part components depending on the size and shape selected, with most offered with the option of a 1 or 2-part frame to ensure that the paving can be accurately set out and laid prior to planting the tree and installing the grille. Complementary steel guards are available for all grilles in 4 distinct styles.



GREENWICH RANGE GRILLES



GREENWICH 1000 SQ GRILLES

Cast iron tree grille

GS 1070

1000 ext. x Ø700 int., 2-part

GS 1045

1000 ext. x Ø450 int., 4-part

GREENWICH GRILLE FRAMES

Steel, hot dipped galvanised

GSF 101 G

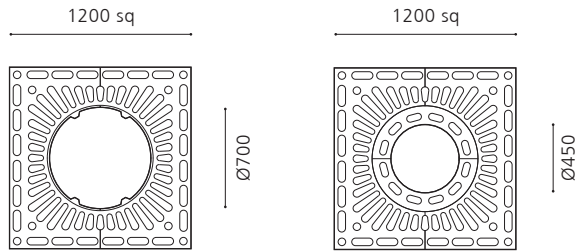
1000 sq, 1-part

GSF 102 G

1000 sq, 2-part

OPTIONS:

- Medium & heavy duty frames



GREENWICH 1200 SQ GRILLES

Cast iron tree grille

GS 1270

1200 ext. x Ø700 int., 2-part

GS 1245

1200 ext. x Ø450 int., 4-part

GREENWICH GRILLE FRAMES

Steel, hot dipped galvanised

GSF 121 G

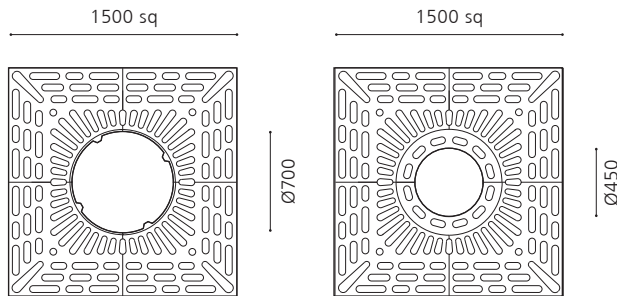
1200 sq, 1-part

GSF 122 G

1200 sq, 2-part

OPTIONS:

- Medium & heavy duty frames



GREENWICH 1500 SQ GRILLES + FRAMES

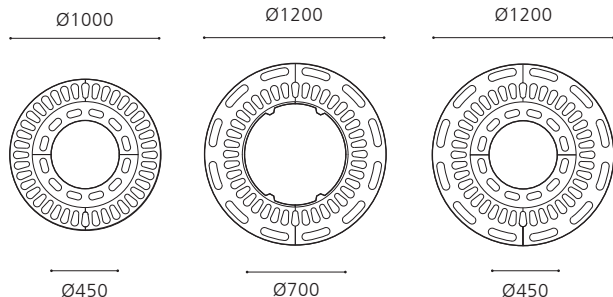
Cast iron tree grille & steel grille frame, hot dipped galvanised

GS 1570 MK2

1500 ext. x Ø450 int. 4-part grille & 2-part grille frame

GS 1545 MK2

1500 ext. x Ø700 int. 6-part grille & 2-part grille frame



GREENWICH CIRCULAR GRILLES

Cast iron tree grille

GC 1045

Ø1000 ext. x Ø450 int., 4-part

GC 1270

Ø1200 ext. x Ø450 int., 2-part

GC 1245

Ø1200 ext. x Ø450 int., 4-part

GREENWICH GRILLE FRAMES

Steel, hot dipped galvanised

GCF 101 G

Ø1000, 1-part

GCF 121 G

Ø1200, 1-part

OPTIONS:

- Medium & heavy duty frames

GCF 102 G

Ø1000, 2-part

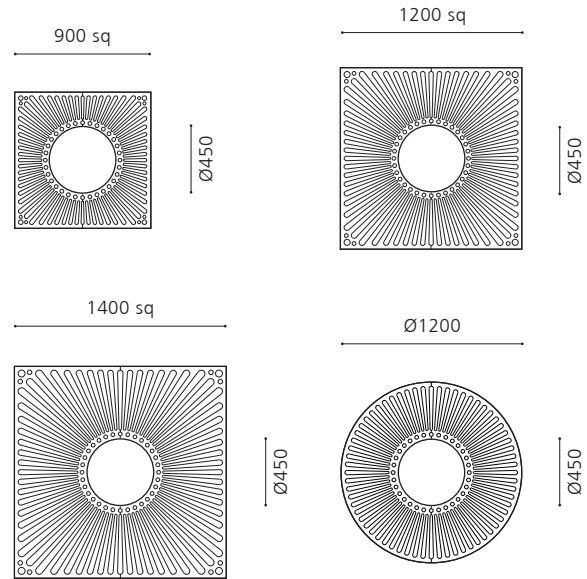
GCF 122 G

Ø1200, 2-part

SUNBURST RANGE GRILLES

Popular classic grille range

The Sunburst range has been a popular design used for street tree planting schemes for many years. The apertures in the grilles radiate out from the centre of the grille to visually accentuate the placement of the tree. The grille is available in three different sizes in square form, and a single circular size. All grille assemblies comprise 2 halves and are offered with the option of a 1 or 2-part frame to ensure that the paving can be accurately set out and laid prior to planting the tree and installing the grille. Complementary steel guards are available for all grilles in 4 distinct styles.



SUNBURST GRILLES

Cast iron tree grille

SS 0945

900 ext. x Ø450 int., 2-part

SS 1245

1200 ext. x Ø450 int., 2-part

SS 1445

1400 ext. x Ø450 int., 2-part

SC 1245

Ø1200 ext. x Ø450 int., 2-part

SUNBURST GRILLE FRAMES

Steel, hot dipped galvanised

SSF 091 G

900 sq, 1-part

SSF 092 G

900 sq, 2-part

SSF 121 G

1200 sq, 1-part

SSF 122 G

1200 sq, 2-part

SSF 141 G

1400 sq, 1-part

SSF 142 G

1400 sq, 2-part

SCF 121 G

Ø1200, 1-part

SCF 122 G

Ø1200, 2-part

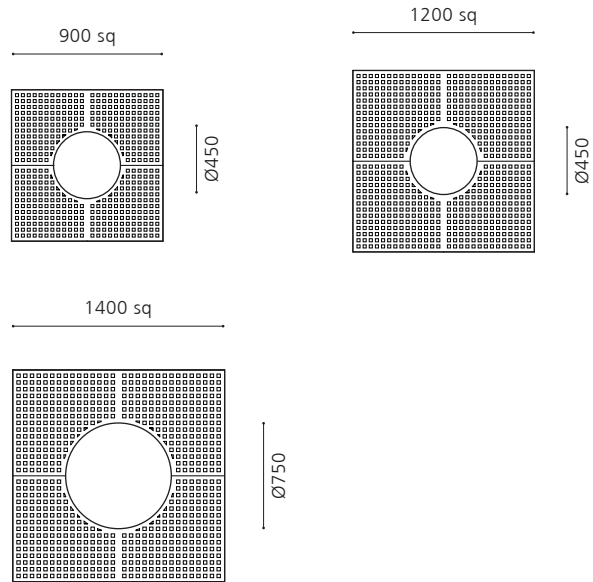
OPTIONS:

- Medium & heavy duty frames

LIVERPOOL RANGE GRILLES

Popular modern grille range

The Liverpool range is a popular alternative to more traditional grilles, characterised by simple arrangement of square holes set on a formal grid, with a circular central aperture that complements placement of the tree. The 3 standard options will suit a range of new tree stock sizes and associated planting pit sizes. All grille assemblies comprise 2 halves and are offered with the option of a 1 or 2-part frame to ensure that the paving can be accurately set out and laid prior to planting the tree and installing the grille. Complementary steel guards are available in 4 distinct styles.



LIVERPOOL GRILLES

Cast iron tree grille

LV 1045

1000 ext. x Ø450 int., 2-part

LV 1245

1200 ext. x Ø450 int., 2-part

LV 1470

1400 ext. x Ø750 int., 2-part

LIVERPOOL GRILLE FRAMES

Steel, hot dipped galvanised

LSF 101 G

1000 sq, 1-part

LSF 102 G

1000 sq, 2-part

LSF 121 G

1200 sq, 1-part

LSF 122 G

1200 sq, 2-part

LSF 141 G

1400 sq, 1-part

LSF 142 G

1400 sq, 2-part

OPTIONS:

- Medium & heavy duty frames



MULTI-RANGE CIRCULAR GUARDS

Guards for use with Greenwich, Sunburst & Liverpool grilles or independently

Guards offer protection to the vulnerable trunk of newly-planted trees and are recommended in areas prone to vandalism. Four common styles in two sizes are offered to fit the Greenwich, Sunburst & Liverpool grille ranges. Manufactured in robust mild steel and hot dipped galvanised as standard to provide long-term durability, guards are supplied in two parts to allow them to be fitted after tree planting. This also means that when the tree matures and becomes strong enough to no longer require protection, the guards can be readily removed and re-used elsewhere. For this reason all nut and bolt fixings are of a standard type, although anti-tamper fixings can be supplied for areas where the risk of theft / vandalism is high. Guards are fitted to grilles that are installed on level ground via bolt-on clamp assemblies or on sloping sites directly into the ground with extended legs, meaning they can also be used independently.

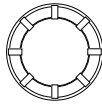


MULTI-RANGE CIRCULAR GUARDS

Ø450



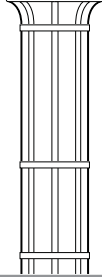
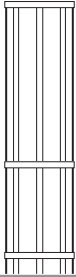
Ø450



Ø450



Ø450



1800

SCG 451

SCG 454

GCG 453

SCG 453

Ø450 MULTI-RANGE GUARDS

All-steel fabrications, hot dipped galvanised
2-part, c/w clamps for fixing to grille

SCG 451

Concentric flat bar design

SCG 454

Concentric flat bar design with flared top

GCG 453

Radial flat bar design

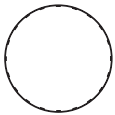
SCG 453

Tubular design

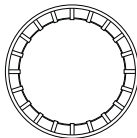
OPTIONS:

- Extended legs for in-ground fixing

Ø700



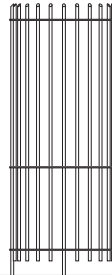
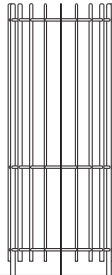
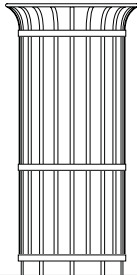
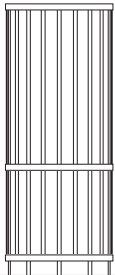
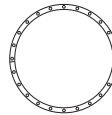
Ø700



Ø700



Ø700



1800

GCG 701

GCG 704

GCG 703

GCG 705

Ø700 MULTI-RANGE GUARDS

All-steel fabrications, hot dipped galvanised
2-part, c/w clamps for fixing to grille

GCG 701

Concentric flat bar design

GCG 704

Concentric flat bar design with flared top

GCG 703

Radial flat bar design

GCG 705

Tubular design

OPTIONS:

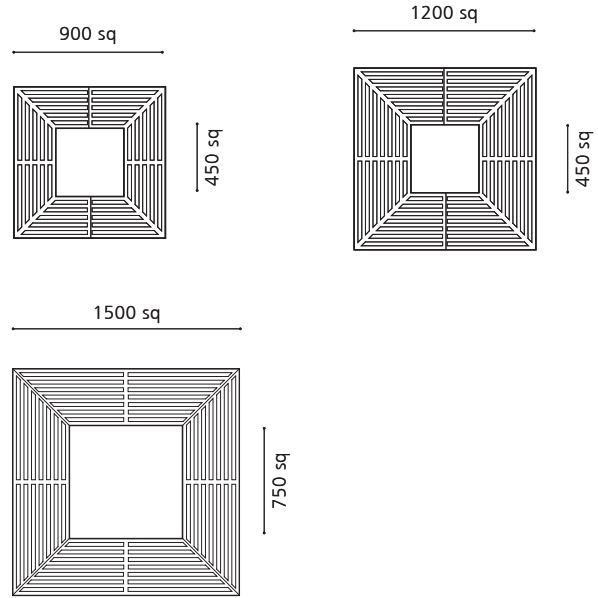
- Extended legs for in-ground fixing



ELTHAM RANGE GRILLES

Contemporary linear design

The Eltham range is characterised by its arrangement of elongated slots around a square central aperture and is a popular choice for contemporary settings. The 3 standard options will suit a range of new tree stock sizes and associated planting pit sizes. The smaller grille sizes comprise 2 halves and are offered with the option of a 1 or 2-part frame to ensure that the paving can be accurately set out and laid prior to planting the tree and installing the grille. The larger grille is a 4-part assembly for which a frame is essential to providing support and maintaining the grille in a flat aspect. Complementary steel guards are available in 3 distinct styles.



ELTHAM GRILLES

Cast iron tree grille

ES 1045

1000 ext. x 450 int., 2-part

ES 1245

1200 ext. x 450 int., 2-part

ELTHAM 1500 SQ GRILLE + FRAME

Cast iron tree grille & steel grille frame, hot dipped galvanised

ES 1575

1500 ext. x 750 int. 4-part grille & 2-part grille frame (ESF 152 G)

OPTIONS:

- Medium & heavy duty frames

ELTHAM GRILLE FRAMES

Steel, hot dipped galvanised

ESF 101 G

1000 sq, 1-part

ESF 102 G

1000 sq, 2-part

ESF 121 G

1200 sq, 1-part

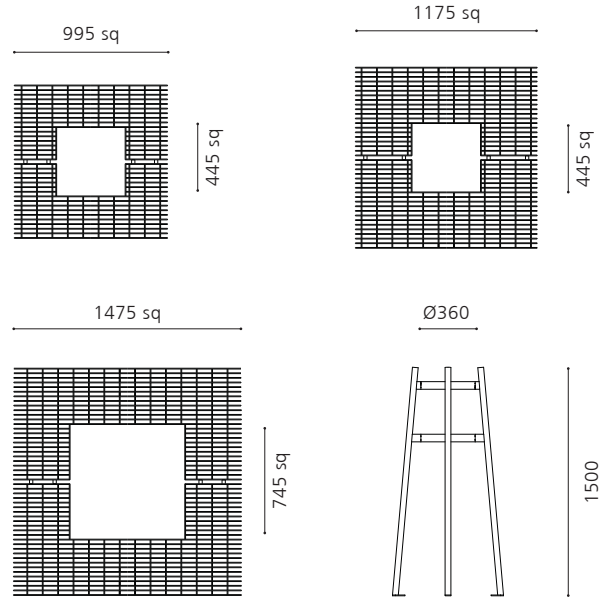
ESF 122 G

1200 sq, 2-part

PORTMAN RANGE GRILLES & GUARD

Industrial-styled steel grille range

The steel grating used in Portman grilles is both visually and physically lighter than traditional cast iron grilles, and the galvanised finish gives the range an industrial character. The open area is greater compared with other grilles, improving the permeability of rainwater into the rootball area. Grilles are supplied in 2 halves, which are securely bolted together to deter vandalism and theft. Although 3 sizes are offered as standard, manufacturing in steel also allows other sizes to be made without the set-up costs associated with cast iron grilles. Our multi-range square guards can be used with the Portman range and the dedicated 4-post tubular design is offered on the smaller 2 grille sizes.



PORTMAN GRILLES

Steel, hot dipped galvanised

PS 1045

995 ext. x 445 int., 2-part

PS 1245

1175 ext. x 450 int., 2-part

PS 1575

1475 ext. x 745 int., 2-part

PORTMAN GRILLE FRAMES

Steel, hot dipped galvanised

PSF 101 G

995 sq, 1-part

PSF 102 G

995 sq, 2-part

PSF 121 G

1175 sq, 1-part

PSF 122 G

1175 sq, 2-part

PSF 152 G

1475 sq, 2-part

PORTMAN TUBULAR GUARD

POR 360

2-part all-steel fabrication, hot dipped galvanised, c/w grille clamps



MULTI-RANGE SQUARE GUARDS

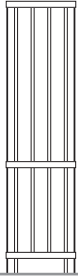
Guards for use with Eltham & Portman grilles or independently

Guards offer protection to the vulnerable trunk of newly-planted trees and are recommended in areas prone to vandalism. Three common styles in two sizes are offered to fit the Eltham & Portman grille ranges. Manufactured in robust mild steel and hot dipped galvanised as standard to provide long-term durability, guards are supplied in two parts to allow them to be fitted after tree planting. This also means that when the tree matures and becomes strong enough to no longer require protection, the guards can be readily removed and re-used elsewhere. For this reason all nut and bolt fixings are of a standard type, although anti-tamper fixings can be supplied for areas where the risk of theft / vandalism is high. Guards are fitted to grilles that are installed on level ground via bolt-on clamp assemblies or on sloping sites directly into the ground with extended legs, meaning they can also be used independently.



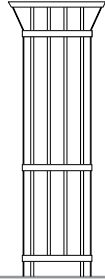
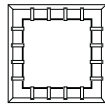
MULTI-RANGE SQUARE GUARDS

450 sq



ESG 451

450 sq



ESG 454

450 sq



ESG 453

1800

450 SQ. MULTI-RANGE GUARDS

All-steel fabrications, hot dipped galvanised
2-part, c/w clamps for fixing to grille

ESG 451

In-line flat bar design

ESG 454

In-line flat bar design with flared top

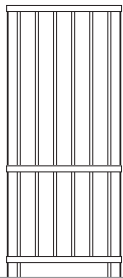
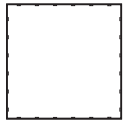
ESG 453

Perpendicular flat bar design

OPTIONS:

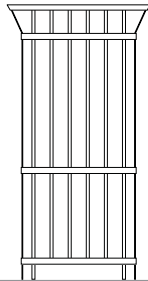
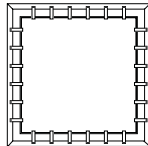
- Extended legs for in-ground fixing

750 sq



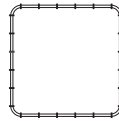
ESG 751

750 sq



ESG 754

750 sq



ESG 753

1800

750 SQ. MULTI-RANGE GUARDS

All-steel fabrications, hot dipped galvanised
2-part, c/w clamps for fixing to grille

ESG 751

In-line flat bar design

ESG 754

In-line flat bar design with flared top

ESG 753

Perpendicular flat bar design

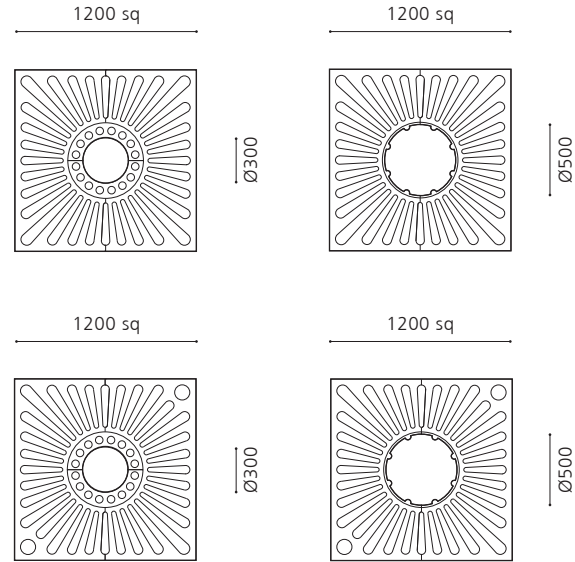
OPTIONS:

- Extended legs for in-ground fixing

OXFORD RANGE GRILLES

Traditional grilles with branding opportunity

The Oxford range of grilles was originally designed for and supplied to Oxford Street in London's West End. The sunburst style grille is available as a 2-part 1200mm square assembly, with the option of additional rings to reduce the central space, which can be removed as the tree grows. Outer castings can be supplied with apertures into which to fit independent cast branded bosses, as shown below for Grosvenor Estate.



OXFORD GRILLES

Cast iron tree grille

OS 1230

1200 ext. x Ø300 int., 4-part

OS 1250

1200 ext. x Ø500 int., 2-part

OS 1230 S

1200 ext. x Ø300 int., 4-part
with corner apertures for bosses

OS 1250 S

1200 ext. x Ø500 int., 2-part
with corner apertures for bosses

OPTIONS:

- Corner bosses including graphics in cast iron or bronze

OXFORD GRILLE FRAMES

Steel, hot dipped galvanised

OSF 121 G

1200 sq, 1-part

OSF 122 G

1200 sq, 2-part

OPTIONS:

- Medium & heavy duty frames

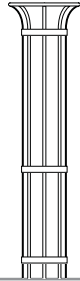
OXFORD RANGE GUARDS

Ø300



OCG 301

Ø300



OCG 304

Ø300



OCG 303

1800

Ø300 OXFORD GUARDS

All-steel fabrications, hot dipped galvanised
2-part, c/w clamps for fixing to grille

OCG 301

Concentric flat bar design

OCG 304

Concentric flat bar design with flared top

OCG 303

Tubular design

OPTIONS:

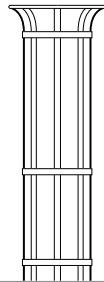
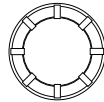
- Extended legs for in-ground fixing

Ø500



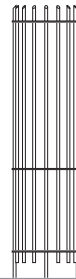
OCG 501

Ø500



OCG 504

Ø500



OCG 503

1800

Ø500 OXFORD GUARDS

All-steel fabrications, hot dipped galvanised
2-part, c/w clamps for fixing to grille

OCG 501

Concentric flat bar design

OCG 504

Concentric flat bar design with flared top

OCG 503

Tubular design

OPTIONS:

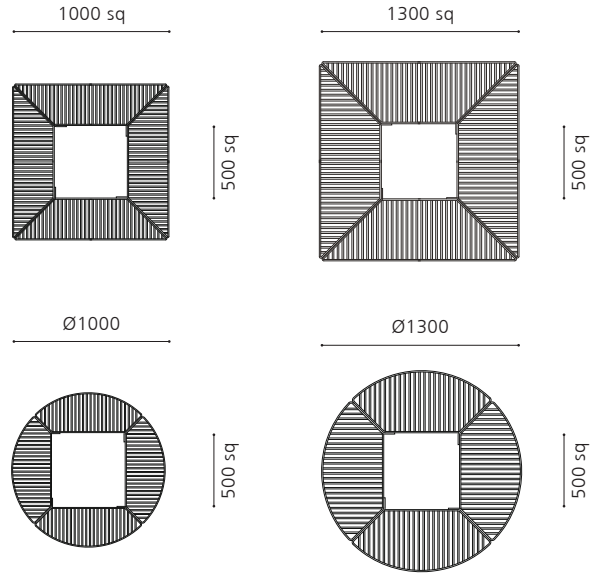
- Extended legs for in-ground fixing



JUBILEE RANGE GRILLES

Geometric steel grilles

All Jubilee range grilles comprise four fabricated steel panels, which are bolted together to form a robust overall assembly. The heavy duty parallel bars align perpendicular to each other on adjacent panels, giving a decorative visual effect that can sit comfortably within a variety of environments. One-part frames are available to ensure that the paving can be accurately set out and laid up to the edges of the grille. Grilles can be supplied in a hot dipped galvanised finish or painted to any standard RAL colour reference.



JUBILEE GRILLES

Steel, hot dipped galvanised

JUC 1000

Ø1000 ext. x 500 int., 4-part

JUC 1300

Ø1300 ext. x 500 int., 4-part

JUS 1000

1000 ext. x 500 int., 1-part

JUS 1300

1300 ext. x 500 int., 1-part

JUBILEE GRILLE FRAMES

Steel, hot dipped galvanised

JUC 1000 F

Ø1000 ext. x 500 int., 1-part

JUC 1300 F

Ø1300 ext. x 500 int., 1-part

JUS 1000 F

1000 ext. x 500 int., 1-part

JUS 1300 F

1300 ext. x 500 int., 1-part

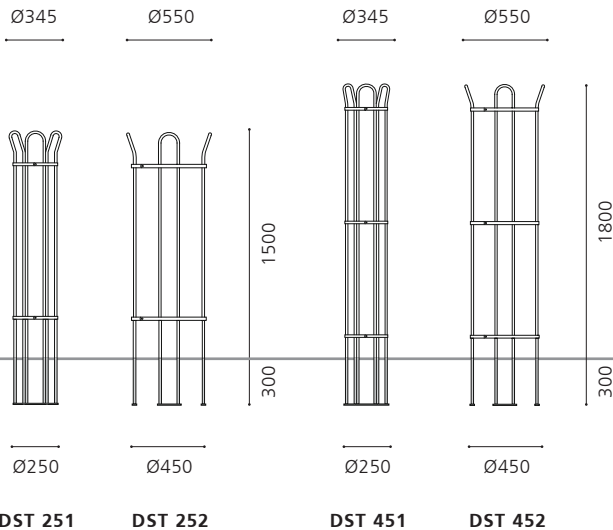
OPTIONS:

- Painted finish

DISTRICT RANGE GUARDS

Independent guards

The District range of tree guards are ideal for protecting young trees planted in soft landscape areas, particularly in urban environments where vandalism may be a concern. Two diameters and two heights are available, with the common features on all guards being the round section continuous loop uprights which are welded at the top, middle and base to rolled flat section steel rings. District guards can be supplied in a galvanised finish or painted in a choice of colours, and should be installed by firm embedment into the ground.



Ø250 DISTRICT GUARDS

All-steel fabrications, hot dipped galvanised, 2-part

DST 251

1500 high guard

DST 252

1800 high guard

Ø450 DISTRICT GUARDS

All-steel fabrications, hot dipped galvanised, 2-part

DST 451

1500 high guard

DST 452

1800 high guard

OPTIONS:

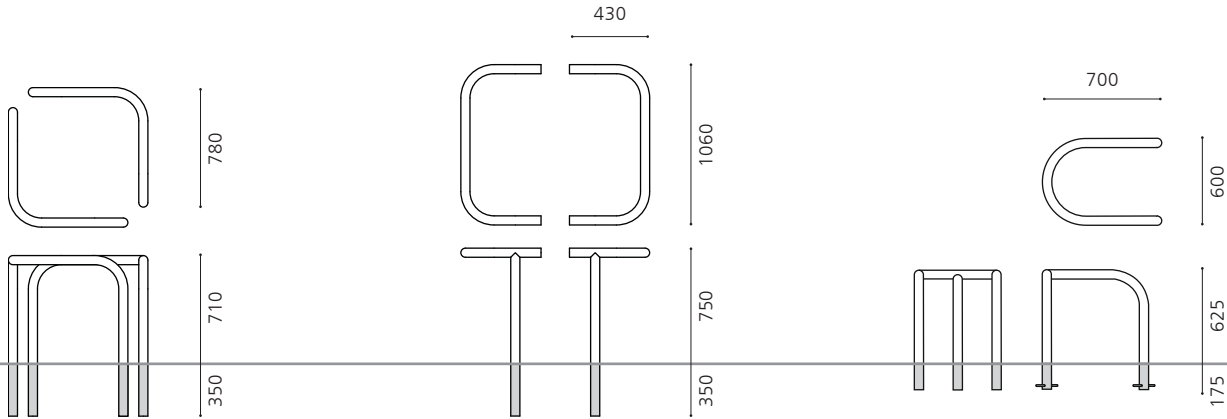
- Painted finish



LOW LEVEL GUARDS

Unobtrusive, robust protection for trees

Where trees are vulnerable to being struck by vehicles, particularly in car parks, standard high level guards may be considered too lightweight to withstand any reasonable amount of force without suffering damage. In such situations the robust Ashford, Sherwood and College guards may be a more suitable choice. Being lower level and manufactured in tubular steel, these guards are more likely to withstand low speed bumper collisions. The College can also be used as a lamp column protector, with an open side to maintain access to the column door.



ASHFORD

Steel tree guard, hot dipped galvanised, 2-part

ASH 750

OPTIONS:

- Stainless steel

SHERWOOD

Steel tree guard, hot dipped galvanised, 2-part

SHW 750

OPTIONS:

- Stainless steel

COLLEGE

Steel tree / post guard, hot dipped galvanised

COL 600

OPTIONS:

- Painted finish / base plated



TREE GRILLES & GUARDS



TREE GRILLES & GUARDS



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www.furnitubes.com/brochures



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