



Green Wall Systems

Climbing Plant Trellis Support



Extra width to accommodate a lateral planting space

Superior strength to support heavier plants

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Adding a new dimension to your urban landscape schemes

Greening of facades, pergolas and garden spaces is an ecologically sound method of taking your project beyond the ordinary. Greening is progressively difficult in overcrowded urban scenarios whilst its importance is ever increasing. GreenBlue offers plant climbing systems coupled with superior technical advice and active support, enabling you to bring your greened urban vision into reality. This design guide has been produced to help you simply specify the solution that is right for your scheme.

What distinguishes GreenBlue climbing system technology?

The use of climbing plants is a wonderful way to enhance living and working environments. The trellis range offers a radical and effective range of components manufactured from marine grade 316 stainless steel which are both robust and aesthetically pleasing. A wealth of experience in the product field has lead to a range of high quality, improved brackets which can be used to create radical designs – exuding architectural flare before the plant is matured

and leading onto the softening and ecological statement offered by a fully established green wall.

What needs to be considered when planning your installation?

Use of a living plant makes forward planning essential. It is important not only to select the right location for a climber but the ratio of plant material to structure should also be determined and the final weight of the foliage should be taken into consideration. The climber species for your project should be the first choice – the best suited support system can then be determined.

With the GreenBlue range, there is a comprehensive choice of sleek, multifunctional, architectural brackets to compliment every type of scheme and plant species.

You can rely on GreenBlue to provide technical support from the earliest design stage to the final completed project – including CAD drawings, technical advice and on-site support. Trust GreenBlue to deliver the best urban greening solution – adding a new dimension to your project.

Each one of our wide range of system components is a masterpiece of technology, design and manufacture





Series 40/60/90

Perfectly engineered to enhance your urban scheme

These brackets are manufactured from marine grade 316 stainless steel and boast a filigree effect which is enhanced by the highly polished finish.

- Affordable alternative to eye-bolts.
- Cable holders not required due to the cable attachment and tension loop.
- Wire and wall fixings included with the

Benefits of the Series 60 & 90

- Versatile brackets with supporting disks for small to medium climbers.
- · Prevention of the brackets' loosening is maintained by the unique threaded join

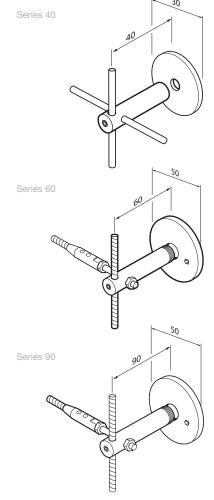




Before and after views of extensive foliage against a commercial warehouse

between the base plate and the standoff bar, this allows for simple alignment of the wires and re-tensioning of the brackets using the tensioning tool.

- M10 connecting thread can be attached to almost any wall surface including insulated walls.
- Tensioning tool, wire, tensioners and wall fixings included with bracket kits.
- Supplied with thread and Allen key / hexagon socket for securing against the wall







Series 100/180

Perfectly engineered to enhance your urban scheme

The original support bracket – proved for over 20 years – for use on medium to large sized schemes. A timeless classic combining ease of installation and reassuring stability.

These brackets are manufactured from marine grade 316 stainless steel and boast a filigree effect which is enhanced by the highly polished finish.

Benefits of the Series 100 & 180

- Versatile brackets with supporting disks for medium to large climbers.
- Greater lateral forces can be sustained and uneven wall surfaces accommodated due to the patented concave 5.0mm thick welded base plate design.

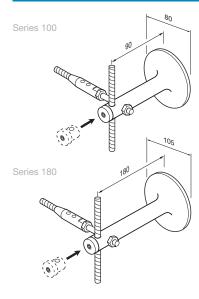




A wide span allowing plants to be trained across a lateral planting space

Excellent stability provided by heavy-duty welding wher

- Installation on insulated walls can be carried out effectively with the special support system.
- Ease of installation and alignment with hidden wall fixing.
- Simplicity of interim wire tensioning with grub screw end cap.
- Wire, tensioners and wall fixings included with the bracket kits.



Support bracket and joint sealing ring in situ on 16 cm thermal insulation – for complete facade coverage







Series 118

Perfectly engineered to enhance your urban scheme

Heavy duty twin anchored support bracket – for use with large woody climbers.

These brackets are manufactured from marine grade 316 stainless steel and boast a filigree effect which is enhanced by the highly polished finish.

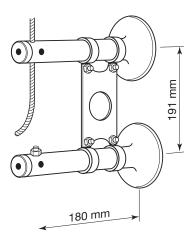
Benefits of the Series 118

- Versatile brackets with supporting disks – for medium to large climbers.
- Greater lateral forces can be sustained and uneven wall surfaces accommodated due to the patented concave 5.0mm thick welded base plate design and double point anchoring.
- Integrated cable tracking means growing plants can entwine around the cable – subsequent secondary growth can displace the straight cable allowing for greater support.
- Slide mounting joining plate between brackets – for ease of installation.





When space is not available for tree planting – vertical vine planting systems provide perfect softening of urban structures



Successful greening of tight spaces

- Installation on insulated walls can be carried out effectively with the special support method.
- Ease of installation and alignment with hidden wall fixing.
- Simplicity of wire tensioning with grub screw end cap.
- M10 connecting thread can be attached to almost any wall surface including insulated walls.
- Wire, tensioners and wall fixings included with the bracket kits.

Series 120/124/134

Perfectly engineered to enhance your urban scheme

Range of heavy duty brackets which can accommodate a range of different width bars and longer vertical lengths.

These brackets are manufactured from marine grade 316 stainless steel and are enhanced by the brushed steel finish.



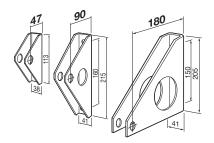
Benefits of the Series 120/124/134

- Wire spacing of 140mm is ideal for lighter plants such as Clematis.
- Installation on insulated walls can be carried out effectively with the special support system.
- Simplicity of wire tensioning with wire grip.
- All bar lengths compatible with all bracket sizes.
- M10 connecting thread can be attached to almost any wall surface including insulated walls.
- Wire, tensioners and wall fixings included with the bracket kits.



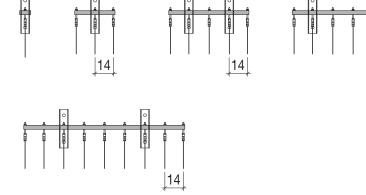


Series 120/124/134



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Series 120: for softening of warehouse cladding







Series 245

Custom engineered to enhance your urban scheme.

Innovative flexible stainless steel cable mesh netting. Custom made to suit your application perfectly.

Netting system integrates seamlessly with all GreenBlue bracket ranges or sustainable frameworks to create living walls, web bracing, demarcation borders and safety barriers – to mention but a few applications.





Combination cable mesh net supported by series 124 spacers and support tubes providing a high degree of stability. Also features lateral framework cables.

Framework cable attachment for series 60.

Planting in a bicycle parking area in ar inner courtyard



Fixings and accessories

	Code	Compatable Bracket Packages	Component Description	Unit Measures
	GBW20	Series 40	2.0mm diameter 7 x 7 strand stainless steel wire rope.	10 Lm
	GBW40	Series 60, 90, 100, 180, 118, 120, 124 & 134	4.0mm diameter 7 x 19 strand stainless steel wire rope.	10 Lm
	GBB40	Series 40	4.0mm diameter stainless steel round bar.	1 or 2 Lm
	GBB60	Series 60 & 90	6.0mm diameter stainless steel round bar.	1 or 2 Lm
	GBWG55	Series 60, 90, 100, 180, 118, 120, 124 & 134 Series 40, 60, 90, 100, 180, 118 Series 60 & 90 Series 100 & 180	Wire grip for 4.0mm diameter wire with stud for tensioning.	Each
	GBWC40		Wire cross to hold 4.0mm wires/bars at 90°.	Each
	GBWC60		Wire cross to hold 6.0mm wires/bars at 90°.	Each
	GBDI8		Disk to hold up to 8 wires at varied angles – use with GBMWG.	Each
	GBMWG	Series 100 & 180	Wire grip for 4.0mm wire – for use with GBDI8.	Each
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Climbing plant guide

It is advisable when designing a plant climbing system to choose the plant species as the first step – GreenBlue offer a range of brackets to support all plant types.

The following pages provide an assortment of climbing plants suitable for use with GreenBlue trellis systems. There are a range of aspects to consider when choosing a climbing plant – such as wall direction, wall size, coverage requirement, flowering species, appearance, evergreen or deciduous, maintenance levels and trunk type.

AKEBIA DECNE. - Lardizabalaceae

- · Slow starting but vigorous.
- Hardy, semi-evergreen twining plant with attractive foliage and flowers.
- Thrives in well draining soil conditions in sun or shade.

CLEMATIS L. – Ranunculaceae

- A popular easy to establish flowering climber
- Thrives best in full sun, with roots in cool, moist, well draining soil.
- Can be pruned hard in spring time if required.
- General ongoing maintenance is critical.

HEDERA L. – Araliaceae

- Evergreen Ivy which can be used to cover large areas
- Thrives in almost any soil condition and location.
- May be severely trimmed back when the foliage becomes too dense.
- If unattended is capable of damaging certain wall constructions so specification and location analysis must be made carefully.
- Given careful maintenance, it is a colourful and reliable climber.

JASMINUM L. - Oleaceae

- The flowering, twining "Jasmines" are easily grown in most fertile soils, preferring sunny positions.
- A hardy species, capable of covering large walls and pergolas.

- Excellent for withstanding industrial sites.
- · Not best suited to exposed cold locations.

LORNICERI L. - Caprifoliaceae

- Climbing "Honeysuckles" include lovely fragrant flowering climbing plants.
- They luxuriate in half or complete shade and are happy in almost all soils.
- It is a somewhat untidy specie and is best in a 'scrambling' environment such as arches or fence lines.

PASSIFLORA L. - Passifloraceae

- The "Passion Flowers" are best planted in sheltered, sunny, south/west facing walls.
- Boast beautiful, fascinating and exotic flowers leading to various fruits after long summers.
- Many species cannot withstand the climate in the British Isles.
- The flowers/stems may be damaged by first frosts however they reappear in spring.

SOLANUM L. - Solanaceae

- Spectacular semi-evergreen climber for sheltered areas.
- Require full sun in south/west facing areas.
- Are not fastidious as to soil conditions.
- Tender to frost however new stems quickly grow back

TRACHELOSPERMUM LEMAIRE – Apocynaceae

- Beautiful evergreen, twining, self clinging plant.
- Can be grown in all but the coldest localities.
- Best on south/west facing walls.
- Bear sweetly scented flowers in July/August.

VITIS L. - Vitaceae

- Vines usually grown for its fruit and ornamental values
- Woody climbers which support themselves with twining tendrils.

• Small flowers and fruits are produced after hot, dry seasons.

WISTERIA NUTT. (wistaria) – Leguminosae

- Vigorous, fast growing, deciduous twining climber
 most spectacular climber when in full bloom.
- Multitude of long, superb draping flowers in May/ June.
- Not suited to chalky soil.
- Can be trained by careful cultivation may require annual hard pruning in late winter.
- Require a sheltered sunny location

Description	Location	Soil	Height	Maintenance	Suitable Series
Akebia "Quinata" Vigorous, low maintenance climber with small red/ purple blooms.	North East South West	Reasonable well draining soil.	9.0m to 12.0m	Remove dead or unwanted stems in May.	Series 90, 100, 180, 118, 120, 124, 134, 245
Clematis "Armandii" Strong growing climber with cream/white bloom in April/ May. Subject to injury in harsh winters.	South West	Fertile soil needed and shade base with stones/shrub.	4.5m to 6.0m	Demanding climber, remove dead stems immediately.	Series 40, 60, 90, 100, 180, 118, 120, 124, 134, 246
Hedera "Colchica" Handsome, hardy, strong growing lvy with dark thick leathery leaves	North East South West	Will survive in most soil unless contaminated	8.0m to 12.0m	Keep from gutters and roofs - prune in spring and summer.	Series 90, 100, 180, 118, 120, 124, 134, 247
Jasminum "Stephanense" Easily grown, vigorous climber with fragrant flowers in June/July.	South West	Reasonable well draining soil.	6.0m to 8.0m	Remove dead or unwanted stems after flowering.	Series 90, 100, 180, 118, 120, 124, 134, 248
Lornicera "Brownii" Awesome flowering Honeysuckle in july-October – careful training as natively untidy.	East South West	Fertile soil needed and shade base with stones/shrub.	6.0m to 8.0m	Remove dead or unwanted stems after flowering.	Series 40, 60, 90, 100, 180, 118, 120, 124, 134, 249
Passiflora "Caerulea" Vigorous climber with tangled stems. Flowers are truely exotic. Is affected by frosts.	South	Free draining soil.	6.0m to 8.0m	In April cut back unwanted and frost damaged growth.	Series 40, 60, 90, 100, 180, 118, 120, 124, 134, 250
Solanum "Crispum" Vigorous, hardy, semi-evergreen climber with small slightly fragrant flowers	South West	Luxuriates in chalky soil – will survive in reasonable soil.	4.5m to 6.0m	In April cut back unwanted and frost damaged growth.	Series 40, 60, 90, 100, 180, 118, 120, 124, 134, 251
Trachelospermum "Jasminoides" Self clinging climber with sweetly scented blooms - for sheltered areas.	South West	Well drained acid soil for best results.	7.0m to 8.0m	High maintenance. Remove damaged and weak stems in March.	Series 40, 60, 90, 100, 180, 118, 120, 124, 134, 252
Vitis "Vinifera" Vigorous woody ornamental vine which provides grapes. The leave offer superb autumnal colours.	East South West	Most free draining soils – the presence of chalk is beneficial.	8.0m to 10.0m	Cut back unwanted growth in summer.	Series 100, 180, 118, 120, 124, 134, 253
Wisteria "Floribunda" a lovely woody climber which can be trained. Provides dark green leaflets and fragrant violet/ blue flowers.	East South West	Reasonable well draining soil – dig in compost in installation	4.0m to 6.0m	Cut back years growth to 150mm in July.	Series 100, 180, 118, 120, 124, 134, 254



Note: All bracket kits include all relevant fittings, brackets and tensioners etc.

	Code	Bracket type	Stand off from wall	Distance between brackets (max)	Fixing type	Wall type for fixing
Series 40/60/90	GB040R	Series 40	40mm	1.0m	Rawl	Wood, Concrete & Masonary
	GB060R	Series 60	60mm	2.5m	Rawl	Wood, Concrete & Masonary
	GB090R	Series 90	90mm	2.5m	Rawl	Wood & Concrete
	GB090C	Series 90	90mm	2.5m	Resin	Concrete
	GB090M	Series 90	90mm	2.5m	Resin & Sleeve	Masonary
	GB090IC	Series 90	90mm	2.5m	Resin, Anchor Bolt, Sealing Ring	Thermal insulation to Concrete
٧,	GB090IM	Series 90	90mm	2.5m	Resin, Sleeve, Anchor Bolt, Sealing Ring	Thermal insulation to Masonary
	GB100W	Series 100	100mm	3.0m	Screw	Wood
	GB100C	Series 100	100mm	3.0m	Resin	Concrete
	GB100M	Series 100	100mm	3.0m	Resin & Sleeve	Masonary
0	GB100IC	Series 100	100mm	3.0m	Resin, Anchor Bolt, Insulated Spacer & Sealing Ring	Thermal insulation to Concrete
100/180	GB100IM	Series 100	100mm	3.0m	Resin, Anchor Bolt, Insulated Spacer, Sleeve & Sealing Ring	Thermal insulation to Masonary
	GB180W	Series 180	180mm	3.0m	Screw	Wood
Series	GB180C	Series 180	180mm	3.0m	Resin	Concrete
S	GB180M	Series 180	180mm	3.0m	Resin & Sleeve	Masonary
	GB180IC	Series 180	180mm	3.0m	Resin, Anchor Bolt, Insulated Spacer & Sealing Ring	Thermal insulation to Concrete
	GB180IM	Series 180	180mm	3.0m	Resin, Anchor Bolt, Insulated Spacer, Sleeve & Sealing Ring	Thermal insulation to Masonary
	GB118W	Series 118	180mm	3.0m	Screw	Wood
	GB118C	Series 118	180mm	3.0m	Resin	Concrete
118	GB118M	Series 118	180mm	3.0m	Resin & Sleeve	Masonary
Series	GB118IC	Series 118	180mm	3.0m	Resin, Anchor Bolt, Insulated Spacer & Sealing Ring	Thermal insulation to Concrete
S	GB118IM	Series 118	180mm	3.0m	Resin, Anchor Bolt, Insulated Spacer, Sleeve & Sealing Ring	Thermal insulation to Masonary

	Code	Bracket type	Stand off from wall	Distance between brackets (max)	Number of wires	Number of brackets	Bar length
	GB120.1	Series 120	50mm	3.0m - 4.0m	1	1	70mm
	GB120.3	Series 120	50mm	3.0m - 4.0m	3	1	290mm
	GB120.5	Series 120	50mm	3.0m - 4.0m	5	2	570mm
	GB120.7	Series 120	50mm	3.0m - 4.0m	7	2	850mm
	GB120.9	Series 120	50mm	3.0m - 4.0m	9	2	1130mm
Series 120/124/134	GB124.1	Series 124	90mm	3.0m - 4.0m	1	1	70mm
	GB124.3	Series 124	90mm	3.0m - 4.0m	3	1	290mm
	GB124.5	Series 124	90mm	3.0m - 4.0m	5	2	570mm
	GB124.7	Series 124	90mm	3.0m - 4.0m	7	2	850mm
eries	GB124.9	Series 124	90mm	3.0m - 4.0m	9	2	1130mm
Š	GB134.1	Series 134	180mm	3.0m - 4.0m	1	1	70mm
	GB134.3	Series 134	180mm	3.0m - 4.0m	3	1	290mm
	GB134.5	Series 134	180mm	3.0m - 4.0m	5	2	570mm
	GB134.7	Series 134	180mm	3.0m - 4.0m	7	2	850mm
	GB134.9	Series 134	180mm	3.0m - 4.0m	9	2	1130mm

Series 120/124/134

Fixing of the Series 120/124/134 brackets is possible into a range of materials/walls – refer to the below table for fixing methods. When specifying the Series 120/124/134, the bracket code should be taken from the table left and the letter code from the table below should prefix the product code e.g. GB120.7C would specify a GB120.7 bracket with fixings for a concrete wall.

Prefix letter	Fixing Type	Wall for Fixing		
W	Screw	Wood		
С	Resin	Concrete		
M	Resin & Sleeve	Masonary		
IC	Resin, Anchor Bolt, Insulated Spacer & Sealing Ring	Thermal Insulation to Concrete		
IM	Resin, Sleeve, Anchor Bolt, Insulated Spacer & Sealing Ring	Thermal Insulation to Masonary		





Wall greening packages & installation support

Complete Support through the whole design, specification, pricing and installation process.

The wall greening packages have been developed following long experience in the GreenBlue range of products; ensuring that compatible products are integrated to provide a range of solutions that are proven to be effective.

Benefits of the wall greening packages

- · Peace of mind for architects
- Save time in product design
- Assurance that compatable products are combined
- Wealth of product experience incorporated
- Adaptable for all applications

The installation support service is offered free of charge for every first installation of GreenBlue products; this ensures that the products are installed correctly and efficiently – providing the best long term results and project completion efficiency.

Benefits of the installation support service

- Peace of mind for contractors and architects
- Increase efficiency of the installation through training of proven methods
- · Free of charge service



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