

Specification / Drawing Reference	Product Reference	Material Description	Dimensions	Installation / Laying Pattern / Location / Features	Supplier	Spec Fully Defined Y/N	Sample Requirements / Other Requirements	Source For Approval	Delivery Status
MAY101-WSL-EXT-GIL-DC-7020-0500A Hardworks / Q10 Precast concrete kerbs									
GILL NBS Specification / Q10 / 200A	Edge Type 05	Pre-cast concrete textured Kerb. Conservation kerb	255 x 205 x 915 mm		Marshal's plc	Yes	Designated material: Submit sample representative of colour and appearance before ordering.	Sample provided and approved	Materials On Site
GILL NBS Specification / Q10 / 112A	Rigid Edge Type 01. Titan (TT1540)	Rigid Metal Edge. Straight and curved steel edging with interlocking joints to accommodate design layout.	150mm x 2500mm. Thickness: 4mm		EverEdge Ltd	Confirm units to be used with Landscape Architect before ordering - confirmed	Designated material: Submit sample representative of colour and appearance before ordering	Sample provided and approved	Materials Currently Being Installed
GILL NBS Specification / Q10 / 201	Step Nosing (Nosing Part of Step Type 01) Product Reference SN9/55	Step Nosing (Nosing Part of Step Type 01)	Cross-Section Dimension: 55mm x 55mm. Lengths: Uniform lengths across all steps	Fitting of Step Nosing to follow AATI concrete installation guide	AATI Rail Limited	Yes	Designated material: Submit sample representative of colour and appearance before ordering. Samples submitted and approved	Sample provided and approved	Materials Currently Being Installed
GILL NBS Specification / Q21 / 110A & 510A. Paving Type 14	In situ reinforced concrete surface	In Situ Reinforced Concrete Surface Maintenance Yard - Type P14. PAV2 Reinforced concrete with single sheet of A393 mesh		Brushed Finish	TBC	Concrete surface may be changed to Tarmac surfacing	Sample panel required		
MAY101-WSL-EXT-GIL-DC-7020-0500A Hardworks / Q22 Asphalt roads / paving									
GILL NBS Specification / Q22 / 140A & 230.	Asphalt Paths	Hot Rolled Asphalt Paving. Aggregate samples to be approved by Landscape Architect - Precoated Stone Chippings	Aggregate: Staffordshire Pink (10-14mm)	Temporary asphalt footpath surface with occasional vehicular traffic	Log Rake Spar Ltd	Yes	Sample of pre-coated chippings to be approved	Provide aggregate sample	
MAY101-WSL-EXT-GIL-DC-7020-0500A Hardworks / Q23 Gravel / Hoggin / Woodchip / Resin bound roads / paving / overlays									
GILL NBS Specification / Q23 / 110A & 320A Self Binding Gravel Paving Type 07	CEDEC Self Binding Gravel	Silver footpath gravel	Compacted thickness: 50mm	Self binding gravel to accommodate pedestrian and utility vehicle loading.	CEDEC	Yes	Lay sample areas for inspection prior to laying all types of paving. Maintain these areas during the construction period.	Sample provided and approved.	Materials on site
GILL NBS Specification / Q23 / 135A & 320A Self Binding Gravel Paving Type 07	CEDEC Silver Footpath Gravel	Silver footpath gravel	Compacted thickness: 50mm		CEDEC	Yes	Lay sample areas for inspection prior to laying all types of paving. Maintain these areas during the construction period.	Sample provided and approved.	Materials on site
SEW NBS Specification / Q23 / 160A & 320A Loose Gravel Paving Type 12	Gravel Layer	Quartzite gravel. Staffordshire Pink aggregate	10mm single size		Log Rake Spar Ltd, Derbyshire	Yes	Lay sample areas for inspection prior to laying all types of paving. Maintain these areas during the construction period.	Sample provided and approved.	Materials on site
In situ concrete approved with the addition of pink quartzite aggregate approved in place of 'seeding' concrete with aggregate.		Aggregate for Seeded Stone Carpet. Staffordshire Pink aggregate		Refer to Rev B - Worked Finishes Part 2 Hardscape Mayfield Park. Apply aggregate at a density of 25kg/m2. P02 - Seeded stone carpet with exposed aggregate (depth 2mm). P03 (depth 3mm). P04 (depth 8mm)	Log Rake Spar Ltd, Derbyshire	Yes	Lay sample areas for inspection prior to laying all types of paving. Maintain these areas during the construction period.	Loose laid pink quartzite pathway aggregate approved and ordered. Concrete mix with pink quartzite aggregate approved.	Works in progress
GILL NBS Specification / Q23 / 225A & 320A Proprietary Resin Bound Chippings. Paving Type 13a	Vehicular Loaded Resin Bound Gravel	Resin bound gravel					Sample provided and approved.		Planned Works
MAY101-WSL-EXT-GIL-DC-7020-0500A Hardworks / Q24 Interlocking brick / block roads / paving									
GILL NBS Specification / Q24 / 120A : Conventional Clay Paver Paving. 230 & 230A also refers	Paving Type P01a. Vehicular Clay Paving Bricks	Staffordshire patterned pavers Diamond Chequer Patterned Blue	200 x 100 x 65mm	Clay paving bricks with Occasional 1 Vehicle Overrun or access by Maintenance vehicles	Ketley Brick Company Ltd.	Special pavers: Confirm with Landscape Architect	2m x 2m sample panel. Retain sample area during the entire works	Sample panel constructed and approved	Works in progress
MAY101-WSL-EXT-GIL-DC-7020-0500A Hardworks / Q25 Slab / brick / sett / cobble paving									
GILL NBS Specification / Q25 / 320A Tactile Flags and Slabs Paving Type 01 Tactile Hazard Corduroy Warning Paving	PT.3.0	Tactile Hazard Corduroy Warning Paving at the top and bottom of step	Dimensions: 200 x 100 x 65mm	Laying pattern Stack bond Bedding Fine dry bedding sand and jointing sand, flexible 3mm joint, laid to falls Location Install Type 01 between concrete step and self bound gravel to ensure there is colour contrast in materials	Ketley Brick Company Ltd.	Yes		Sample provided and approved.	Works in progress
SEW NBS Specification / Q25 / 322 Tactile Flags and Slabs Paving Type 02 Tactile Hazard Corduroy Warning Paving	Tactile Hazard Warning Textured	Tactile Paving Type 02 Tactile Hazard Corduroy Warning Paving at the top and bottom of step	Dimensions: 400 x 400 x 50mm	Laying pattern Stack bond Bedding Fine dry bedding sand and jointing sand, flexible 3mm joint, laid to falls Location Install Type 02 between concrete step and Ketley Staffordshire Blue paving to ensure there is colour contrast in materials	Marshalls PLC Landscape House Lowfield Business Park Elland HX5 9HT Web: www.marshalls.co.uk/commercial	Yes		Sample provided and approved.	Works in progress
GILL NBS Specification / Q25 / 325A Paving Type 01c Staggered Pedestrian Clay Paving Brick edge for pedestrians	Paving Type 01c. Staggered Pedestrian Clay Paving Brick	Staffordshire patterned pavers - confirm colour with Landscape Architect	200mm x 100mm x 65mm	Staggered Pedestrian Clay Paving for pedestrian access only	Ketley Brick Company Ltd.		2m x 2m sample panel. Retain sample area during the entire works	Sample provided and approved.	Works in progress
Concrete Finishes									

Specification / Drawing Reference	Product Reference	Material Description	Dimensions	Installation / Laying Pattern / Location / Features	Supplier	Spec Fully Defined Y/N	Sample Requirements / Other Requirements	Source For Approval	Delivery Status
Drawing 0345-SEW-ZZ-00-DR-L-003203 Paving Type 02: 0345-SEW-ZZ-ZZ-SH-L-001100	Paving Type 02: In situ reinforced Concrete surface 01	Seeded stone carpet with exposed aggregate (depth 2mm)			Aggregate: Staffordshire Pink (10-14mm) with a density of 25kg/m2 Quarry: Long Rake Spar Co. Ltd, Youlgrave. Nr. Bakewell, Derbyshire DE45 1LW, tel +44 1629 636 210 Local Distributors: Offerton Sand & Gravel (0161 483 1948) Buildpave (01204 800 360) Beech Hill Garden Centre (01942 819 156)		Exposed Aggregate Concrete Sample Panels: 1.5 x 2m x 0.2 dp sample panels of seeded concrete paving 3No panels to demonstrate seeding at 25kg/m2, etched to 2, 5 and 8mm And additional 3No panels to demonstrate seeding at a lower intensity (15-20kg/m2) etched at 2, 5 and 8mm. Samples provided and approved	Sample panel constructed and approved	Works in progress
Drawing 0345-SEW-ZZ-00-DR-L-003203 Paving Type 04: 0345-SEW-ZZ-ZZ-SH-L-001100	Paving Type 03: In situ reinforced Concrete surface 02	Seeded stone carpet with exposed aggregate (depth 5mm)			Aggregate: Staffordshire Pink (10-14mm) with a density of 25kg/m2 Quarry: Long Rake Spar Co. Ltd, Youlgrave. Nr. Bakewell, Derbyshire DE45 1LW, tel +44 1629 636 210 Local Distributors: Offerton Sand & Gravel (0161 483 1948) Buildpave (01204 800 360) Beech Hill Garden Centre (01942 819 156)				
Drawing 0345-SEW-ZZ-00-DR-L-003203 Paving Type 04: 0345-SEW-ZZ-ZZ-SH-L-001100	Paving Type 04: In situ reinforced Concrete surface 03	Seeded stone carpet with exposed aggregate (depth 8mm)			Aggregate: Staffordshire Pink (10-14mm) with a density of 25kg/m2 Quarry: Long Rake Spar Co. Ltd, Youlgrave. Nr. Bakewell, Derbyshire DE45 1LW, tel +44 1629 636 210 Local Distributors: Offerton Sand & Gravel (0161 483 1948) Buildpave (01204 800 360) Beech Hill Garden Centre (01942 819 156)				
Drawing 0345-SEW-ZZ-00-DR-L-003213 Paving Type 05	Paving Type 05: In situ reinforced concrete surface type 04								
Drawing 0345-SEW-ZZ-00-DR-L-003213 Paving Type 06	Paving Type 06: In situ reinforced Concrete surface 05								
MAY101-WSL-EXT-GIL-DC-7020-0500A Hardworks / Q50 Site / street furniture / equipment									
GILL NBS Specification / Q50 190A Bollards	Bollard Type 01 Static Bollard. SP400 Shallow Mount Bollard	Sleeve material: Mild Steel, hot dipped galvanised sleeved bollard	Height above ground: 980mm. Height below ground: 300mm. Sectional size: 219mm	Foundations and fixing to manufacturers details. PAS68 rating and following advice from Manchester Counter Terrorism Security Advisor.	ATG Access, CoBaCo House, North Florida Road, Haydock Industrial Estate, Haydock, WA11 9TP	Colour of 2 No. 50mm recessed contrasting coloured strips to be confirmed by Landscape Architect.		Provided Technical Specification -Data sheets & illustrations to SEW 10/8/2021 with Materials Approval Request.	Materials on site
GILL NBS Specification / Q50 192A Retractable Bollards	Bollard Type 02 Retractable Bollard. SP400 Manually Retractable Bollard with sleeve	Sleeve material: Mild Steel, hot dipped galvanised. Dimensions: Height above ground: 998mm Sectional size: 209mm	Dimensions: Height above ground: 998mm Sectional size: 209mm	Foundations and fixing to manufacturers details. PAS68 rating and following advice from Manchester Counter Terrorism Security Advisor.	ATG Access, CoBaCo House, North Florida Road, Haydock Industrial Estate, Haydock, WA11 9TP	Colour of 2 No. 50mm recessed contrasting coloured strips to be confirmed by Landscape Architect.		Provided Technical Specification -Data sheets & illustrations to SEW 10/8/2021 with Materials Approval Request. Approved	Materials on site
GILL NBS Specification / Q50 210A Cycle Stands	CorTen Bicycle Racks	Back material: Untreated weathered steel		Foundations and fixing to manufacturers details	STREETLIFE BV Head Office, Hereingracht 36, 2312 LD Leiden, The Netherlands	Yes		Provide Technical Specification with Materials Approval Request. Approved	Materials on site
GILL NBS Specification / Q50 220A Benches Type 01 Large Timber Bench	Type 01. Solid 12 Bench	FSC Hardwood II - Virgin and galvanised metal fixings and untreated CorTen base	1240mm x 3000mm	Features: Armrests and Quatro 1800mm backrest required. Foundations and fixing to manufacturers details	STREETLIFE BV Head Office, Hereingracht 36, 2312 LD Leiden, The Netherlands	Yes		Provide Technical Specification with Materials Approval Request Approved	Works in progress
GILL NBS Specification / Q50 221A Benches Type 02 Small rustic timber bench	Type 02. Drifter Bench	Material Seat: Treated upcycled hardwood timber. Galvanised metal fixings and Corten base	620mm Beams x 2000mm length. Accessories / Special requirements: - 1200mm Backrest. Armrest - 20 x 30mm lighting in underside of front timber slat	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office, Hereingracht 36, 2312 LD Leiden, The Netherlands	Yes		Provide Technical Specification with Materials Approval Request. Approved	Works in progress
GILL NBS Specification / Q50 222A Benches Type 03 Wave Bench	Type 03. Olympic Wave Bench	Material Seat: FSC Hardwood II - Virgin. Galvanised metal fixings	Length: 2700mm (Comprising 3 No. standard lengths)	Features: Integrated full length backrest and arm rests. Foundations and fixing to manufacturers details. Each bench to custom radius.	STREETLIFE BV Head Office, Hereingracht 36, 2312 LD Leiden, The Netherlands	9 No. Slats (Originally No.) Extra slat required to the standard product specification to increase the total depth of the bench to 690mm and achieve a DFA2 compliant seating depth of 500mm with backrest. Confirm radius with Landscape Architect before ordering. Provide Fabrication drawings for Landscape Architects approval before fabrication. Done and approved		Provide Technical Specification with Materials Approval Request. Approved	Works in progress
GILL NBS Specification / Q50 225A Seats Type 04 Hardwood seating top with back rest	Solid Serif Top Seats	Product: Solid Top Seats. Hardwood seating top with back rest.	Length: 2340mm. Depth: Overall 690mm. Seating width with backrest 500mm	Features: Crosswise slat formation with back and armrest. Foundations and fixing to manufacturers details. 20mm x 30mm lighting recess in underside of front timber slat	STREETLIFE BV Head Office, Hereingracht 36, 2312 LD Leiden, The Netherlands	Extra slat required to the standard product (increasing the number of slats from 8 to 9) to increase the total depth of the bench to 690mm to achieve a DFA 2 compliant seating depth of 500mm with backrest		Provide Technical Specification with Materials Approval Request. Approved	Materials on site

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GILL NBS Specification / Q50 227A Seats Type 06 Multilevel seating	Heavy-Heavy (H-H) Malaparte Multilevel Benches	Treated upcycled hardwood timber	Dimensions: 3000mm length. 1400mm height	Foundations and fixing to manufacturers details. No lighting	STREETLIFE BV Head Office, Herengracht 36, 2312 LD Leiden, The Netherlands	Yes		This bench was replaced with additional picnic benches	N/A
GILL NBS Specification / Q50 231A Seats Type 05a Small drifter picnic table set	Drifter Picnic Table Set	Treated upcycled hardwood timber	Form Table: 2No 5000mm length, 1 No Beam width. Form Seats: 2 No Drifter Benches. Size: 5000mm x 620mm (L x D)	Features: 2 x 5000mm length 1 beam width Drifter benches. Foundations and fixing to manufacturers details	STREETLIFE BV Head Office, Herengracht 36, 2312 LD Leiden, The Netherlands	Yes		Provide Technical Specification with Materials Approval Request. Approved	Materials on site
GILL NBS Specification / Q50 240A Bins Type 01 Waste and Recycling Bin	Acceptor 160.	Finish: Hot dip galvanised mild steel. Integral cigarette bins	Quantity: 2 x 160. Size: 1003mm x 505mm x 1320mm		Vestre AS, Drammensveien 44A, 0271 Oslo, Norway	Yes		Provide Technical Specification with Materials Approval Request. Approved	Materials on site
GILL NBS Specification / Q50 325 Temporary Signage	RS 89 Non-illuminated socket system (To be confirmed by Landscape Architect)				NAL Ltd UK	RS 89 Non-illuminated socket system (To be confirmed by Landscape Architect)			Procurement in progress
GILL NBS Specification / Q50 327A Safety Signage: Water Safety Signs	Custom Built 'External Sign' with 2 No. uprights					Signs to be omitted as instructed		Provide Technical Specification with Materials Approval Request	N/A
GILL NBS Specification / Q50 328A Safety Equipment Throw Lines	Throw Line - Rescue Bag 25 Meter. Part No. 000801. Line: Floating braided 8mm line. Housing Reference: Throw Line Housing. Part No. 000798	Throw line with housing			ASPLU Safety Ltd, 209/211 Hunslet Road, Leeds LS10 1PF	Yes		Provide Technical Specification with Materials Approval Request. Proposal approved	Materials on site
GILL NBS Specification / Q50 329A Life Ring with housing	Life Ring Reference: Lifebuoys MED SOLAS - 75 Centimetre Life Ring. Part No. 000830. Approved: SOLAS MED MSC.81(70). Housing Reference: Lifebuoy Housing 75 cm Life Ring. Part No. 000849	Replaced with throw lines							N/A
SEW NBS Specification / Q50 350A Norfolk Bat Brick	ROOST TYPE R01. Norfolk Bat Brick	Brick	200mm x 100mm 70mm	Confirm locations with Landscape Architect	NHBS Ltd, 1-6 The Stables, Ford Road, Totnes, Devon, TQ9 5LE	Specification, location and erection of roosts to be approved by Landscape Architect		Provide Technical Specification with Materials Approval Request. Approved	Works in progress
SEW NBS Specification / Q50 351A Wagtail Boxes	Roost Type R02. Wagtail Boxes	Timber	190mm x 255mm x 170mm	Confirm locations with Landscape Architect	NHBS Ltd, 1-6 The Stables, Ford Road, Totnes, Devon, TQ9 5LE	Specification, location and erection of roosts to be approved by Landscape Architect		Provide Technical Specification with Materials Approval Request. Approved	Works in progress
GILL NBS Specification / Q50 352A Kingfisher Tunnel	Roost Type R03. Kingfisher Tunnel. Schwegler Kingfisher and Sand Martin Nest Tunnel		Nest: 275mm x 275mm x 16mm diameter. Tunnel: 550mm x 140mm x 130mm	Confirm locations with Landscape Architect	NHBS Ltd, 1-6 The Stables, Ford Road, Totnes, Devon, TQ9 5LE	Specification, location and erection of roosts to be approved by Landscape Architect		Provide Technical Specification with Materials Approval Request. Approved	Works in progress
GILL NBS Specification / Q50 390A Water Fountain	Fountain Type 01. Product: Fuente Drinking Fountain	Corten Steel	990 mm x 296mm 100mm	Fountain to be provided with cold water supply and drainage (Contractor's Design)	Artform Urban Furniture, Adlington Business Park London Road, Adlington, SK10 4NL			Provide Technical Specification with Materials Approval Request. Approved	Materials on site
GILL Spec Ref 365A Fixed Telescopes	03 Telescope -Large Imagine Telescope Ref SABA Non Coin Operated (3Nr)	Sand Blasted Stainless Steel Finish		Material samples to be fabricated and delivered to site for review by Shawton Engineering	Shawton Engineering Ltd	Contractors Proposals		Telescope provided as per Spec, but replaced with a more suitable type as agreed with SEW	Materials on site

Conservation Kerb

For a striking and modern kerb system, the Conservation X Kerb offers a slightly wider profile than a standard kerb, delivering modern design aesthetics in any application.

Marshalls' Conservation X Kerb is high in strength and precision manufactured before going through a unique secondary texturing process, helping it achieve a granite-look finish. This product is manufactured in the UK with up to 48% recycled material content.

The beauty of our Conservation X Kerb is the wide range of supporting ancillaries, making it an all encompassing kerb system solution. It can be used in a whole host of projects, including pavements, pedestrian areas within busy urban spaces, car parks and much more.

Available in Charcoal, Silver Grey and our new Cream colour, these kerbs complement the Conservation X Block and Paving ranges perfectly. You can view our full Conservation X range [here](#).



DESCRIPTION

Appearance - Solid unit with textured surface

Manufacturing Process - Hydraulically pressed concrete
Base Raw Material Concrete

Governing Manufacturing Standards - All data where relevant to be established in accordance with BS EN 1340:2003

Type - Solid unit with textured surface

CE Marking/DOP NBS Specification - <https://www.marshalls.co.uk/dop> Conservation X Kerb - Silver
Grey Conservation X Kerb - Charcoal Conservation X Kerb - Cream Q10 112,Q10 10,Q



Marshall's

Creating Better Spaces

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E: grouptechnicalservices@marshalls.co.uk
W: www.marshalls.co.uk/commercial

255 x 205 x 915 Conservation X Kerb

Date Created: 13/04/21

PHYSICAL PROPERTIES

Work Dimensions (mm)	255 x 205 x 915
Nominal Dimensions (mm)	255 x 205 x 915
Tolerances on Work Dimensions (mm)	Width ± 3 mm, height ± 3 mm, length ± 3 mm
Abrasion Resistance (mm)	≤ 23 mm (Wide Wheel Abrasion Test)
Durability (Freeze-thaw)	≤ 1.0 kg/m ² as a mean with no individual value > 1.5 kg/m ²
Material Density	2300 kg/m ³ (typically)
Slip/Skid Resistance (polished)	Mean polished skid resistance value (PSRV) : > 45
Slip/Skid Resistance (unpolished)	Mean unpolished skid resistance value (USRV) : > 45
Thermal Conductivity (K value)	Design data as defined to BS EN 13369 : 2013
Transverse/Flexural Split/Breaking	Characteristic bending strength of 3.5 MPa with no individual result less than 2.8 MPa

SPECIFICATION

Approx unit weight (kg)	96
Emission of Asbestos	No content
External Fire Performance	Deemed to satisfy when used for roofing
Reaction to fire	Class A1 when used for internal flooring
Materials Control	CE Marked to BS EN 1340 : 2003 Concrete Kerbs

SUSTAINABILITY

Carbon Footprint	22 kg CO ₂ lin m
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APPLICATION

Suitability	Laid in accordance with BS7533-6 : 2006
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SUPPLY

Units Per Pack	10
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FURTHER INFORMATION

Cleaning & Maintenance	Available on request
Efflorescence	Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking
Weathering	It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.
Product Evolution	The evolution of new product design is continuous and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details. Marshall's reserve the right to amend the technical information as deemed necessary and in accordance with the relevant national and international standards without notice
Contact Us	For technical information on the design, specification and construction when utilising the product, contact Group Technical Services on 0370 411 2233

EverEdge Titan

Galvanized steel lawn edging with interlocking sections in 2.5 m lengths.

Features and benefits:

Suitable for edging in areas where a robust, deep edge is required - including retaining banks and steep slopes.

Durable and flexible.

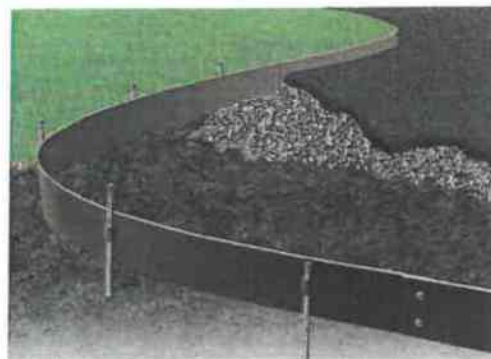
Provides clean and permanent edges, securely anchoring into the ground with 10 mm high-tensile pins inserted through five lugs, welded to the rear at approximately 500 mm centres.

The sections are joined together on an overlapping end using colour matched carriage bolts.

Can be curved on site to any radius or bent into any angle required (flexibility will differ depending on size - consult manufacturer for details).

Available in a range of depths and thicknesses.

Manufactured in the UK.



Applications:

Can be used as a border in commercial applications, including:

Driveways and tracks.

Car parks.

New housing areas.

Private gardens.

Public installations (including parks, golf clubs, memorial gardens, play areas).

EverEdge Titan overlaps and interlocks, requiring an additional 3% to the actual linear requirement - consult manufacturer for further details.

Concrete haunching can be used - consult manufacturer for details.

Adequate offloading facilities must be provided by the customer.

Product reference:

EverEdge Titan

Type:

[TT1540] - Depth: 150 mm. Thickness: 4 mm. Pin length: 400 mm.

Colour:

[Cor-Ten®] - Weathered appearance.

[Galvanized/ unpainted]

[Mild steel] - Natural weathered.

[Powder-coated, brown] - Standard. Blends in with the colouring of cut turf.

[Powder-coated, colour] - Consult manufacturer for available colour options and insert requirement.

Guidance for EverEdge Titan from Everedge Limited

As standard

Length:

2.5 m (supplied in single lengths).

Finish:

2.5 mm: Galvanized and powder-coated to BS EN 10346: 2009.

4 and 6 mm: Galvanized and powder-coated to BS EN 1461: 2009.

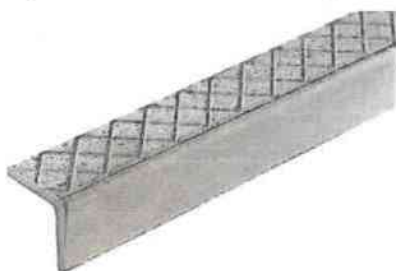
Step nosing (nosing part of step type 01) AATi

AATi type SN9/55® Cast metal stair nosing with anti-slip silicon carbide granules cast into the metal matrix of the wearing surface. This product is part of the Heavy Duty London Transport (HDLT™®) product range.

Whilst specifically designed around the UK regulations, this stair nosing is suitable for many different applications such as; Underground, Rail, Light Rail and Metro Stations. This stair nosing exhibits the same longevity and hard wearing/heavy duty characteristics as our larger profile nosings.



Special Note: This nosing has been specially designed to comply with the current BS 8300 and Building Regulations. It combines the performance of our larger profiles with the economy of scale and proportion recommended in the aforementioned standards.



This product is also a registered design and approved on the London Underground product approval register (APR).

Fig 1. Side view of SN9/55 stair nosing.

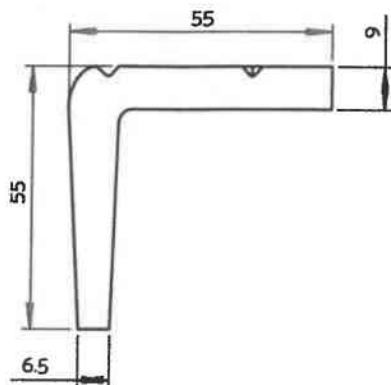
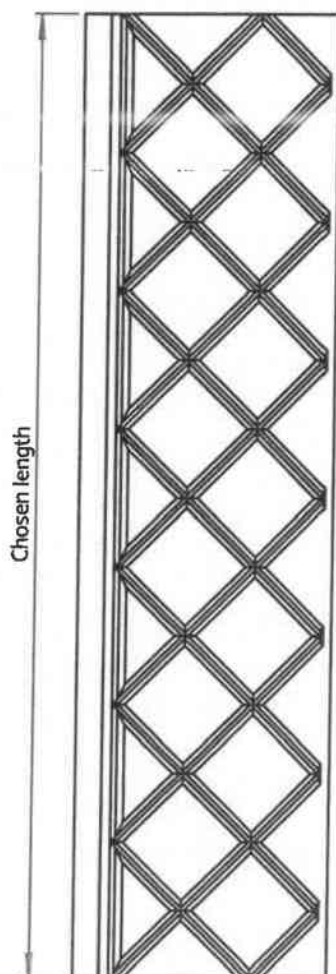


Fig 2. Plan view of SN9/55 stair nosing.



Item: AATI™ type SN9/55® - HDLT™ anti-slip stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. This is a protected and registered design:

® - Protected by European Registered Design No. 002178 178-0001/6.

™ - HDLT (Heavy duty London transport) Trademark registration No. 2530 171.

Application: This anti-slip stair nosing is suitable for many different applications and exhibits the same longevity and hard wearing/heavy duty characteristics as our larger profile nosings. Suitable for highly populated interior & exterior applications.

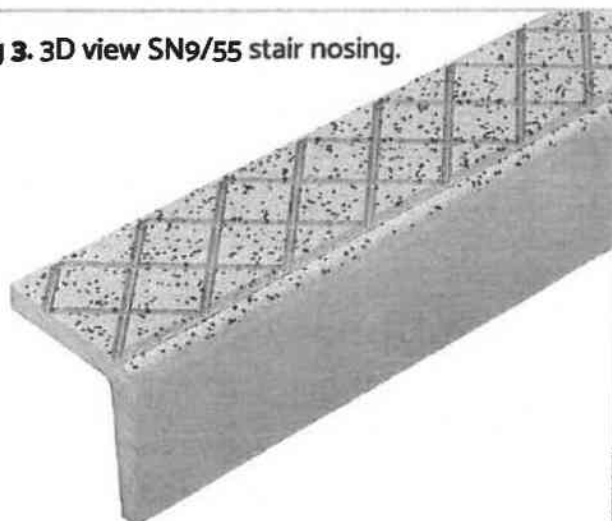
Materials: Nickel Bronze, Gunmetal, Aluminium & Cast Iron (*zinc plated black). Different materials increase the longevity of the product, please speak to AATI technical team for further information.

Environment: Metals are sustainably sourced coming from predominantly recycled origins and all the metals we use through our production process can be 100% recycled in our factory.

Compliance: This anti-slip stair nosing provides colour contrast & slip resistance in accordance with British Standards BS 8300 & Building Regulations Part M & K. Please speak to our technical team to assist you with selecting the correct product and material for your application. Information on light reflectance values available upon request.

Cut to suit: Anti-slip stair nosings can be produced to suit any stair width (Fig 2). Individual profiles can be made up to 1900mm in Cast Aluminium, Nickel Bronze & Gunmetal. Cast Iron (*zinc plated black is only available in max length of 1.7m). Longer lengths shall be supplied in multiple pieces. All products are supplied cut to length, pre-drilled and countersunk with production drawings submitted for client approval.

Fig 3. 3D view SN9/55 stair nosing.



In Situ Reinforced Concrete Surface

Sample panel to be produced (3m²) and to ensure that the work has been approved before proceeding on with the remainder of the work.



Asphalt Footpath Surface

Temporary P10A Asphalt surfacing to be approved.

Rigid Edge Type 01 Titan (TT1540)

Hot rolled asphalt paving, samples are to be submitted of the chippings for approval.



CEDEC Footpath

A silvery-grey granite with a fantastic neutral shade, CEDEC Silver allows for a more contemporary aesthetic, and is often a popular choice for city and urban paths.

Product Information

Specially developed by CED to use on footpaths where a natural appearance is desired, but expected pedestrian footfall or traffic will be too heavy for grass. CEDEC® Footpath Gravels form a firm but porous structure that retains moisture while allowing any excess to flow through.



CEDEC®'s combination of different graded aggregates create a firm, packed surface with approx. 25% compaction, which is still porous and retains moisture due to its reduced clay content. Made from granite or quartzite, CEDEC® is tree-friendly and does not affect the soil's pH balance.

After compaction, coverage of CEDEC® footpath gravel, is approximately 10m² per tonne at 50mm thick, compaction being about 25%. So to compact to 50mm an initial non-compacted layer of 65mm is required.

CEDEC® Footpath Gravel For Use in Footpaths



INTRODUCTION

The principle of CEDEC® footpath gravels is to form a firm but porous structure that retains moisture yet allows any excess to flow through. The materials used are specially graded decorative aggregates ideal for areas where the traffic is too heavy for grass but where a natural appearance is desired.

CEDEC® footpath gravels comprise granite and quartzite, which are chemically inert and durable and will not affect the pH value of the surrounding soil. This is important where newly planted trees or pH-sensitive plants are sited. Its porous nature is good for trees generally.

In order to function effectively, CEDEC® needs to be rained upon and walked upon. It will not be effective indoors or under permanent shelter.

After compaction, coverage of CEDEC® footpath gravel, is approximately 10m² per tonne @ 50mm thick, compaction being about 25%. So, to compact to 50mm, an initial non-compacted layer of 65mm is required. Please see our CEDEC Laying Guide for detailed information.

HISTORY

CEDEC® was developed following a request during the construction of Canary Wharf for a footpath gravel that was free of limestone so as not to affect the pH of the soil around the trees. It was suggested that it should be something like the surface upon which the French play boules. Initially we were somewhat perplexed as to how such a material would work without the 'gluing' effect found in the British limestone footpath gravels then available and with which we were familiar. Nevertheless in France there were hard limestones used that did not "set". Two British aggregates (a silver-grey third has now been added to the original red and gold), all being quartzite and/or granite, were found to have the correct grading and shape profiles to pack efficiently and one was chosen for Cabot Square at Canary Wharf. It worked well and not long after, other designers started to ask for the same material. Almost entirely through word of mouth CEDEC® has developed into a standard footpath gravel widely used in public landscapes and sometimes in private gardens too.

DESIGN Guidance

In using such a material, it is useful to understand how it works.

CEDEC® is a crushed aggregate sized below 6mm. It has a lot of very fine particles included. The range of sizes and shapes is such that there are relatively few interstices and a fully compacted bulk density of up to 2 tonnes per m³ may be expected.

CEDEC® is placed upon a sub-base which must itself be porous. This sub-base does two things. It provides support to the CEDEC® and allows water passing through the permeable CEDEC® to continue down into the ground. In this context it is necessary to appreciate that CEDEC™ and/or its sub-base should not be laid on concrete, clay or any impervious material without suitable drainage being installed first.

As has been said earlier, CEDEC® does not set, it packs. Therefore it remains capable of being moved about, whether by a heel or turning tyres. However, CEDEC® is not harmed by this - there is nothing to break so it can always be put back in place.

As with any loose material, CEDEC® may be picked up to some degree by shoes, especially in damp conditions. If being used near a building entrance, ensure that adequate foot cleaning or transitional areas are provided.

We have on occasions suggested that some granite setts be introduced as a buffer between the CEDEC® path and the smooth surfaces, these setts being laid with the CEDEC® as the bedding and jointing medium for which it is well suited.

CEDEC® can migrate if continually encouraged in one direction - generally downhill. In such cases, some form of step will need to be introduced to lessen the slope. In essence CEDEC® must be constrained but even so, it can be kicked onto adjoining hard paving surfaces.

When laid initially, CEDEC® should be rolled as indicated in the laying guide. This gives a useful start to the compaction process that will be continued by the processes of rain and being walked upon.

If the area will always be dry, CEDEC® is not suitable.

If the footpath is untrodden for a significant period especially before it is first used, the material may appear to become slightly 'fluffy'. If this happens, it can be corrected by using the footpath normally. If the packing process has to be speeded up, then re-rolling as originally indicated may be undertaken. The rolling process is not really essential to the production of an effective footpath and can be reduced or omitted if near trees, it will simply take longer for the CEDEC® to pack. When it is fully packed, CEDEC® will feel firm but still have a loose crumb on the surface.

For use in Tree Pits we recommend using SuperCEDEC®, which has been specifically designed for this application.

In general, CEDEC® seems to be very forgiving of maltreatment. We know of customers who have laid it 75mm deep instead of 50mm and even of it being laid 100mm deep on a membrane, with a layer of lightweight rounded aggregate underneath. This last was on a roof. The water flow between the lightweight aggregate particles was sufficient. We have customers who have used it as a driveway, contrary to our advice and knowing that with power steering, some problems could arise. Nevertheless on viewing the result some eight years later and after much use, we were disconcerted to see how well the CEDEC® still functioned.

We do not, however, recommend its use for traffic generally, though once well-compacted it will not be harmed in any significant fashion if it is driven over by a fire engine or articulated lorry. If it is roughed up, simply spread it back to its correct levels. It is however, not tarmac. Many are the situations in which it can be used but not everywhere. It can be used by wheelchairs, but it is harder work than a hard smooth surface. It has though, been used in a care environment.

Any area of CEDEC® must always be constrained by a raised surround. As an example, always leave the surface of the CEDEC® at 5-10mm lower than the adjacent paving, to minimise migration of the loose chips onto the paving.

Because CEDEC® relies on its own binding qualities for stability, it is best as a level surface. It should not normally be laid on a slope greater than 1 in 25. If appropriate, steps should be used to reduce the steepness of the slope. For slopes greater than 1 in 25, we recommend using our SuperCEDEC®.

CEDEC® is not recommended where lateral forces are applied to the compacted surface by frequent wheeled traffic. Loss of cohesion of the surface, and hence friability leading to erosion, can occur where any wheeled traffic is accelerating, slowing down or turning. For a permeable, "SUDS" compatible surface in a vehicular environment, we would suggest using our Cedagravel® system.

LAYING METHOD

The following specification for laying CEDEC® is based on standard best practice but may need to be varied according to the particular situation. These instructions should be read in conjunction with our CEDEC Design guidance.

FOUNDATION

The foundation layer should be laid to the same uniform crossfall as is required for the finished path. This layer should be firm enough to take the subsequent layers and compacting machinery without deformation. A geotextile may be used underneath the sub-base if ground conditions so indicate.

The thickness of the base layer will depend on the maximum vehicle weight likely to cross the CEDEC®, but a compacted 150mm sub-base is usually appropriate for pedestrian and light vehicle use. The sub-base should consist of a free draining layer of inert MOT Type 1 (for example granite or quartzite). A non-vibratory roller or wacker-plate should be used, but be careful to avoid damage to irrigation systems if installed. If any irregularities are found in the base layer, these should be rectified with the base layer material and not the surface material.

SURFACE LAYER

CEDEC® footpath gravel should be supplied in a thoroughly mixed state. It must be slightly moist and should not be laid if dry. Under normal circumstances CEDEC® should be laid to a thickness of 50mm after compaction. Initial compaction should be carried out BEFORE further watering takes place, by a non-vibratory roller that is not so heavy as to distort the surface, until the CEDEC® is compacted and feels stable underfoot. In awkward or small spaces with poor access, a wacker-plate may be used.

After initial compaction, which should be sufficient to prevent fines being washed through the surface, thorough saturation with water is necessary, using a hose fitted with a rose sprayer or similar method, taking care to prevent heavy disturbance of the top surface.

Final compaction of the saturated surface will be required following the watering, however a short delay (up to 30 minutes depending on circumstances) may be necessary to allow the mass of water

to drain away. Further cycles of watering and compacting may be required within one week of laying, depending on the site conditions prevalent at the time.

After compaction, CEDEC® has a bulk density of 2 tonnes per m³ and coverage is approximately 10m² per tonne @ 50mm thick, (compaction being about 25%). To compact to 50mm, an initial non-compacted layer of 65mm will be required.

MAINTENANCE

NEW SURFACE

Correct maintenance for the newly laid footpath gravel is essential and damage must be repaired promptly. If the new surface is allowed to dry out there is a possibility that the surface may tend to break up through lack of bonding. Regular maintenance by watering with a hose fitted with a rose sprayer, or similar method, plus rolling with a non-vibratory roller may be necessary until the surface is entirely consolidated. Drag matting or brushing should be carried out if necessary. Any depressions should be de-consolidated, additional CEDEC® added, re-rolled and made good as per the above laying guide.

NEVER ROLL A DRY SURFACE!

ESTABLISHED SURFACE

A mature surface will require a different regime of maintenance to a newly laid one.

Collect large litter with a spiked litter collector. Raking with a spring box rake will pick up small pieces of litter, cigarette ends, chewing gum, twigs, leaves etc. DO NOT USE A VACUUM SYSTEM! A "Leaf Blower" on low power may also be used, except under very dry conditions.

Should the surface become hard and impervious and there be some puddling, thoroughly spike the surface with a fork to improve drainage. If the CEDEC® has become seriously contaminated with soil or detritus, it may need to be replaced. If erosion has occurred, it is prudent to identify the cause of the erosion before re-laying.

CEDEC® is a graded aggregate, so non-vibratory rollers must be used. In awkward or small spaces with poor access, a wacker-plate may be used. Do NOT use a vibratory roller with the vibrate function turned on as this will deform the surface layer.

CEDEC® is currently available as CEDEC® Red, CEDEC® Gold, CEDEC® Silver, CEDEC® Grey, CEDEC® Bronze and CEDEC® Green.

For further information concerning CEDEC® or a location where CEDEC® is available for viewing, or for information on using SuperCEDEC® on steep slopes or in Tree Pits, or ECCOgravel™ in trafficked areas, please call one of our nationwide depots, or visit our website:

www.cedstone.co.uk

June 2019



Steel Grating to Bridge Design Intent



Staffordshire Pink Gravel

A mostly rounded gravel with an attractive mix of pinks and browns which darken when wet.

Sizes 6mm, 10mm, 14mm, 20mm

Color: Dark Pink/Lilac

Shape: Angular

Rock Type: Quartzite

Recycled: No



Geotextile Membrane

TERRAM Standard Geotextiles are extensively used in stabilisation and drainage applications to provide separation and filtration functions, preventing the intermixing of granular layers and the ingress of fines. Their use ensures an improved performance and design life of granular layers.

Product	Unit	Width	Lenght	Colour	Weight (Nominal)
T700	Roll	4.5m	150m	White	40kg
T700	Frame (16 rolls)	4.5m	50m	White	700kg
T1000	Roll	4.5m	100m	White	54kg
T1000	Frame (16 rolls)	4.5m	100m	White	864kg
T1300	Roll	4.5m	100m	White	70kg
T1500	Roll	4.5m	100m	White	85kg
T1500	Frame (9 rolls)	4.5m	100m	White	790kg
T2000	Roll	4.5m	100m	White	100kg
T2000	Frame (9 rolls)	4.5m	100m	White	850kg
T3000	Roll	4.5m	100m	White	112kg
T4000	Roll	4.5m	50m	White	74kg
T4000	Frame (9 rolls)	4.5m	50m	White	670kg
T4500	Roll	4.5m	50m	White	90kg

Product Data Sheet

Standard Geotextiles



PDS033 Issue 10—Mar 2021

DESCRIPTION:

Nonwoven geotextile manufactured from UV stabilised, high tenacity, virgin polypropylene fibres that have been both mechanically and thermally bonded to provide a highly permeable yet durable separation and filtration layer.

APPLICATIONS:

With over 50 years of unrivalled expertise and experience, Terram standard geotextiles are the original nonwoven geotextiles for separation and filtration applications.

Typical uses include the prevention of intermixing of sub-base and subgrade layers, drainage and bedding materials. Terram filters/separators are used extensively in the construction of:

- Paved and unpaved roads
- Railways
- Car parks and hardstandings
- Cycleways and footpaths
- Sustainable Drainage Systems (SuDS)



FEATURES & BENEFITS:

- Manufactured from inert high tenacity virgin polypropylene fibres giving excellent long term durability in all soil types.
- High static and dynamic puncture resistance ensures a low risk of damage during construction.
- Random orientated web with isotropic properties provide the same strength, permeability and filtration in all directions.
- High elongation at break maintains separation and filtration function under load particularly in soft and variable ground conditions.

APPROVAL:

Network Rail PADS certificate numbers; T1000 057/100703, T2000 57/100705, T3000 57/100706 (4.5m wide x 100m long rolls) and T4000 057/100709 (4.5m wide x 50m long rolls).



European Association of
Geosynthetic product Manufacturers



Standard Geotextiles

Product Data Sheet

PDS033 Issue 10—Mar 2021

INTENDED USE/FUNCTION:



INTENDED APPLICATION:



			Mean Value								
PROPERTIES	Test Method	Unit	T700	T1000	T1000 Orange	T1300	T1500	T2000	T3000	T4000	T4500
MECHANICAL	BS8661 classification profile			1	1	1	2	3	3	3	3
Tensile Strength	EN ISO 10319	kN/m	6	8	8	10	12.5	14.5	18	22	30
Tensile Elongation	EN ISO 10319	%	60	60	60	60	60	60	60	60	60
CBR Puncture Resistance	EN ISO 12236	N	1050	1500	1500	2000	2250	2750	3250	4300	5350
Cone Drop	EN ISO 13433	mm	42	38	38	34	32	26	24	22	14
HYDRAULIC											
Pore Size - Mean AOS	EN ISO 12956	µm	95	90	90	65	65	65	60	60	60
Permeability—(H50)	EN ISO 11058	l/m²s	100	90	90	65	65	55	50	30	30
DURABILITY											
Weathering (UV Exposure)	EN 12224	Days	30	30	30	30	30	30	30	30	30
Combined ageing (Oxidation, temperature & moisture)	EN ISO 13438	Service Life (Years)	50	100	100	100	100	100	100	100	100
PHYSICAL											
Thickness @ 2kPa (Nominal)	EN ISO 9863-1	mm	0.9	1.1	1.1	1.4	1.6	1.7	1.8	2.0	2.4
MATERIAL DIMENSIONS											
Standard Roll Length		m	150	100	100	100	100	100	100	50	50
Standard Roll Width		m	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Maximum Roll Width		m	6	6	6	6	6	6	6	6	6
Gross Roll Weight (Nominal)		kg	40	54	54	70	78	94	112	74	90

PACKAGING & IDENTIFICATION STORAGE

Terram Standard Geotextiles are supplied on cardboard cores and wrapped in Polyethylene sheeting with identification labels in accordance with ISO 10320.

The rolls of geotextile shall be stored on stable/ level ground and stacked not more than five rolls high and no other materials shall be stacked on top. The rolls can be stored outdoors when packaged, but should be protected from exposure to UV. All materials should be stored in accordance with good health and safety practice and in accordance with local laws. For additional information please refer to Terram Geotextiles MSDS.

QUALITY

Terram Standard Geotextiles are supplied having met internal quality requirements in accordance with our Quality Management system which is certified to BS EN ISO 9001:2015.

NOTES

Reported values are arithmetic mean values unless otherwise stated. For further details on physical parameters please refer to the individual Declaration of Performance certificates available for download from www.terram.com

Reported values related to durability testing are generally based on the lowest grade product within a family.

A Nominal value indicates that the value is not part of the performance specification and is provided for guidance only.

Gross roll weight is based on standard roll dimensions and is provided for lifting guidance only, it does not form part of quality control procedures.

ADDITIONAL INFORMATION

Refer to the Terram Joining Methods (downloadable from www.terram.com) for when simple overlaps are required for subsequent and adjacent roll lengths. However, pegging, sewing, stapling or gluing can also be used depending upon the application, the sub-grade conditions, the loading, the convenience and the cost.

These figures relate to standard product weights and roll sizes. Other weights, sizes and colours may be available on request. For further information please contact Terram Technical Support.

How else can we help? Get in touch with us

+44 (0) 1621 874200 info@terram.com www.terram.com

As part of its continued improvement process Terram® Ltd reserve the right to change the properties listed on this data sheet without prior notice. Terram® is a trademark of Berry Global, Inc. or one of its affiliates.

TERRAM
Geosynthetics you can trust

A brand of **Berry**

P. P. O'CONNOR

Committed To Excellence

Aggregate for Seeded Stone Carpet Staffordshire

Pink Aggregate

Aggregate from Long Rake Spar LTD and sample areas to be produced for approval. Apply 25kg/m2 of aggregate at different depth 2mm 5mm & 8mm.

Resin Bound gravel

If you are looking for a decorative, low maintenance, natural aggregate surface for your project, Addagrip Terraco have a vast range of high quality resin paving options on offer. Suitable for pedestrian and vehicle use, we have a product to suit your requirements.

Our extensive selection of Resin Bound paving systems offer a seamless, porous, low maintenance decorative surfacing for garden paths and walkways. Each system is formulated to suit particular project needs – whether you require recycled content, a rustic appearance, a splash of colour or a no-dig installation – we have the perfect solution.

If you are looking to replicate the look of a natural loose gravel path but without the maintenance issues of migrating stone, our Resin Bonded Addastone Plus product offers a fixed aggregate solution.



Self-Binding Gravel

Silver footpath gravel is being used (Refer to 4B for pictures etc on the gravel) Sample area is still required for approval.

Staffordshire patterned pavers

Staffordshire patterned pavers

Typical of the Victorian era, Ketley patterned pavers are the authentic product, the perfect match for restoration or an ideal means of achieving a traditional, period look.

Ketley chequered and panelled pavers were widely used by the Victorians beside their canal and railway systems and in their industrial and urban developments.

Ketley panel pavers are also very popular for stables and yards; they are called a variety of names including stable block pavers or cobbles, blocks, chocolate bar or square sets. Authentic Victorian clay pavers, they are produced the same way and to the same designs as they were in Victorian times. Their very high durability and grip make them ideal for use within stables or on courtyards.

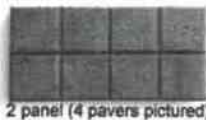
Patterned designs not only shed water rapidly and provide enhanced traction, their traditional designs also add a long established look and a strong aesthetic appeal.

Ketley Patterned Pavers are also particularly effective when used to break up large areas, by providing contrasting banding or by adding interest and texture. They are available in 3 authentic Staffordshire clay colours, Staffordshire blue, Staffordshire red and Staffordshire brown brindle.

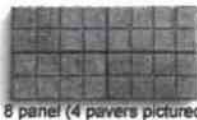
We are also able to make bespoke patterned pavers. Contact us for further information.



diamond chequer



2 panel (4 pavers pictured)



8 panel (4 pavers pictured)



star pavers

Ketley Patterned Staffordshire Clay Pavers

Specification Sheet



Performance Standard: BS EN 1344:2002

Ketley Staffordshire Pavers are produced at our works located in the heart of the Black Country. They have been made from our own Etruria Marl since Victorian times. Their unrivalled physical properties include their strength, durability and permanence of colour.

Work Size mm	Pattern	Pack Weight	No per pallet	Units/m ² Rigid with 10mm joint	Units/m ² Flexible butt jointed (3mm joint)
220x105x50	Diam cheq/ 2 Panel/ 8 panel/star	1300kg	500	38	42
200x100x50	Diam cheq/ 2 Panel/ 8 panel/star	1150kg	500	43	48
220x105x65	Diam cheq/ 2 Panel/ 8 panel/star	1360kg	400	38	42
200x100x65	Diam cheq/ 2 Panel/ 8 panel/star	1200kg	400	43	48

Colour	Staffordshire Blue, Staffordshire Brown Brindle, Staffordshire Red
Raw Material	Etruria Marl Clay
Manufacture	Extruded, Wirecut and fired above 1130°C
Bulk Density	2,300kg/m ³
Texture	Patterned
Size, Tolerance	BS EN 1344: 2002
Size Range	R1
Mean Transverse Breaking Load	T4
Unpolished Slip/Skid Resistance	U3
Abrasion Resistance	A3
Freeze/Thaw Resistance	FP100

Ketley Brick Company Ltd

Dreadnought Works, Pensnett, Brierley Hill, West Midlands, DY5 4TH, UK

Tel: 01384 78361 Fax: 01384 74553 Email: info@ketley-brick.co.uk Web: www.ketley-brick.co.uk
Ketley Brick Company Ltd. is a company registered in England and Wales with Reg number 699040.

Ketely quarry tiles – Paving type 01D

18mm thick, they are manufactured from the proven Etruria Marl clay, which becomes dense when fired; and is hard wearing and resistant to acids, alkalis, oils, grease and fats. In pendulum tests, where anything higher than 36 indicates low slip potential, our Staffordshire Blue quarry tiles score a dry value average of 63 and a wet value average of 58 on slider 55 which indicates that they are even suitable for use in shower areas, changing rooms and swimming pools. They are classified as R11 which indicates they are considered not to be slippery in wet or greasy conditions and Category C which is the highest rating for slip resistance in wet barefoot conditions.



KETLEY QUARRY TILES FOR FLOORING

Standard BS EN 14411 : 2012



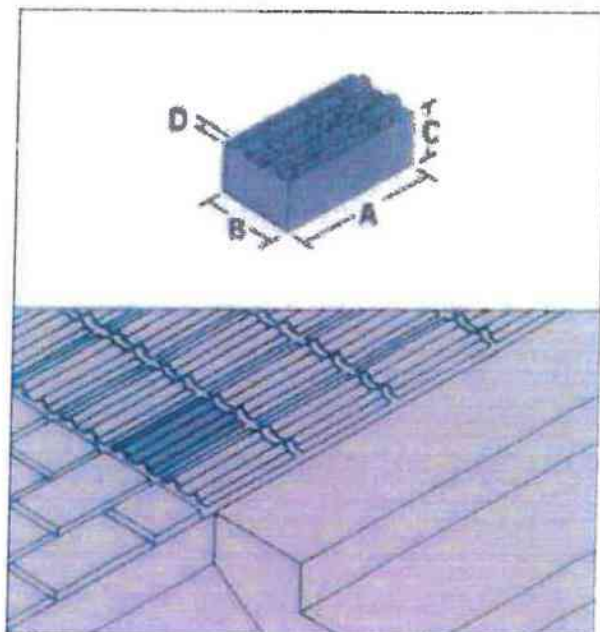
Ketley Quarry Tiles are manufactured from the same clay, using the same processes as Ketley Bricks and Pavers and Dreadnought Roof Tiles to deliver the same technical characteristics of very low water absorption, very high strength and unrivalled frost resistance.

PROPERTIES	BS EN 14411 GROUP A1b REQUIREMENT	TYPICAL VALUES
<u>Dimensions and surface quality</u>		
Length x Width	Average tolerance $\pm 2\%$ to an individual maximum of $\pm 4\text{mm}$	within $\pm 2\%$
215mm x 102.5mm		
215mm x 65mm		
150mm x 150mm		
Thickness	Average tolerance is $\pm 10\%$	within $\pm 5.5\%$
18mm		
Straightness of sides	within $\pm 0.6\%$	within 0.2%
Rectangularity	within $\pm 1\%$	within 0.2%
Surface flatness	Centre curvature $\pm 1.5\%$	Centre curvature $\pm 0.7\%$
	Edge curvature $\pm 1.5\%$	Edge curvature $\pm 1.0\%$
	Warpage $\pm 1.5\%$	Warpage $\pm 0.7\%$
<u>Physical properties</u>		
Water absorption	$0.5 < 3\%$	1.50%
Breaking strength	Min 1100N	2995N
Resistance to deep abrasion	Max 275mm ³	106mm ³
Frost resistance	Value to be stated	No damage after 100 cycles
Slip resistance	Pendulum test results exceeding 36 indicate low slip potential	Dry value av of 96 Wet value av of 58 on slider 55 for Staffs Blue
		Dry value av of 63 Wet value av of 55 on slider 96 for Brown Brindle
	Inclined platform in shod conditions	Category R11 which indicates that they are considered not to be slippery in wet or greasy conditions.
	Inclined platform in wet barefoot conditions	Category C which is the highest rating for slip resistance.
Bond strength	C2 Cementitious adhesives	$>1.0 \text{ N/mm}^2$
	Reaction resin adhesives	$>2.0 \text{ N/mm}^2$
	Mortar	0.15 N/mm^2
Moisture expansion	No requirement	Negligible
Reaction to fire	Value to be stated	A1
<u>Chemical properties</u>		
Resistance to staining	Minimum requirement 3	Paste stain 5 Chemical/oxydising stain 4 Film stain 3

PT 3.0 tactile hazard corduroy

Tactile ribbed / corduroy special pavers

Ribbed or corduroy pavers comply with Building Regulations Approved Document M - Access and facilities for disabled people, and are used to indicate the proximity of a hazard in the footway e.g. steps or an escalator. They are placed at the top of steps and provide a tactile warning.



Ketley Patterned Staffordshire Clay Pavers

Specification Sheet



Performance Standard: BS EN 1344:2002

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Size Range	R1
Mean Transverse Breaking Load	T4
Unpolished Slip/Skid Resistance	U3
Abrasion Resistance	A3
Freeze/Thaw Resistance	FP100

Ketley Brick Company Ltd

Dreadnought Works, Pensnett, Brierley Hill, West Midlands, DY5 4TH, UK

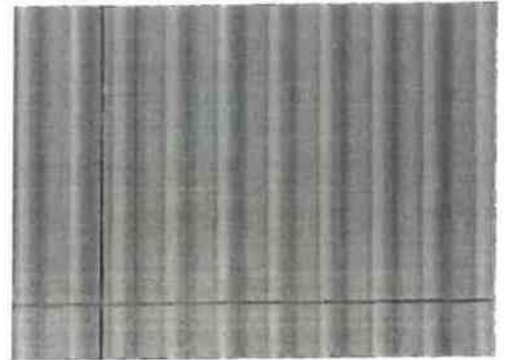
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Tactile hazard paving (paving type 02)

Designed to warn users of potential hazards in the immediate vicinity and to proceed with caution, Hazard Warning Tactile Flag Paving features a raised striped pattern which runs across its surface.

Also referred to as Corduroy paving, this product should be used in accordance with The Disabled Persons Act 1981 and DDA 2004. Hazard Warning Tactile Flag Paving is for use at the top and bottom of steps, level crossings and intersections of shared cycle/pedestrian routes. It should be installed at 90 degrees and 400mm from any potential hazards.



This product is available in a range of colour options – Red, Buff, Natural and Charcoal. Buff and Natural are also available as textured paving. Two different plan sizes feature in the range, 400 x 400mm and 450 x 450mm

- Fully DDA compliant
- Alerts the visually impaired to nearby hazards
- Available in 4 colours
- Two size options

Appearance - Solid unit with profiled surface

Manufacturing - Process hydraulically pressed concrete

Base Raw Material - Concrete

Governing Manufacturing Standards - All data where relevant manufactured, but not in compliance, to BS EN 1339 : 2003, as the tactility of paving is excluded from the Scope

CE Marking/DOP - <https://www.marshalls.co.uk/dop>



Marshall's

Creating Better Spaces

Landscape House, Premier Way,
Lowfields Business Park,
Elland HX5 9HT
Tel: 0333 000 20 50
www.marshall's.co.uk/commercial

T: 01422 312000
F: 01422 312943
E: services.advisory@marshall's.co.uk

Hazard Warning 400 x 400 x 50

Date Created: 03/08/18

PHYSICAL PROPERTIES

Tolerances	Minimum (mm)	Maximum (mm)
Length	396	400
Width	396	400
Thickness	47	53
Work Dimensions (mm)	398 x 398 x 50	
Nominal Dimensions (mm)	400 x 400 x 50	
Tolerances on Work Dimensions (mm)	Length ± 2 mm, width ± 2 mm, thickness ± 3 mm	
Abrasion Resistance (mm)	≤ 23 mm (Wide Wheel Abrasion Test)	
Durability (Freeze-thaw)	≤ 1.0 kg/m ² as a mean with no individual value > 1.5 kg/m ²	
Material Density	2300 kg/m ³ (typically)	
Slip/Skid Resistance (polished)	Mean polished skid resistance value (PSRV) : > 45	
Slip/Skid Resistance (unpolished)	Mean unpolished skid resistance value (USRV) : > 45 .	
Thermal Conductivity (K value)	Design data as defined to BS EN 13369 : 2013	
Transverse/Flexural Split/Breaking	Characteristic bending strength of 4.0 MPa with no individual result less than 3.2 MPa	

SPECIFICATION

Approx unit weight (kg)	19
Emission of Asbestos	No content
External Fire Performance	Deemed to satisfy. See commission decision 2000/553/ECU
Reaction to fire	Class A1, see commission decision 2000/605/EC

SUSTAINABILITY

Breeam	These units can achieve an "A" rated system when used in conjunction with the correct sub-base components
Carbon Footprint	13 kg CO ₂ m ²

APPLICATION

Suitability	Laid in accordance with BS 7533-4 : 2006
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SITE WORKS

Coverage	6.25 no per m ²
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SUPPLY

Av. pack size (m ²)	5.8
Units Per Pack	36
Av. pack weight (kg)	684
Packaging	All packs are suitable for crane off-load. Fork lift off-load on request

FURTHER INFORMATION

Cleaning & Maintenance	Information regarding the cleaning & maintenance of this product may be obtained on request
Efflorescence	Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking
Weathering	It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.
Product Evolution	The evolution of new product design is continuous and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details. Marshall's reserve the right to amend the technical information as deemed necessary and in accordance with the relevant national and international standards without notice
Contact Us	For technical information on the design, specification and construction when utilising the product, contact the Technical Advisory Services Department on 0370 411 2233



Staffordshire patterned pavers

Staffordshire patterned pavers



diamond chequer



2 panel (4 pavers pictured)



6 panel (4 pavers pictured)



star pavers



Ketley Patterned Staffordshire Clay Pavers

Specification Sheet



Performance Standard: BS EN 1344:2002

Ketley Staffordshire Pavers are produced at our works located in the heart of the Black Country. They have been made from our own Etruria Marl since Victorian times. Their unrivalled physical properties include their strength, durability and permanence of colour.

Work Size mm	Pattern	Pack Weight	No per pallet	Units/m ² Rigid with 10mm joint	Units/m ² Flexible butt jointed (3mm joint)
220x105x50	Diam cheq/ 2 Panel/ 8 panel/star	1300kg	500	38	42
200x100x50	Diam cheq/ 2 Panel/ 8 panel/star	1150kg	500	43	48
220x105x65	Diam cheq/ 2 Panel/ 8 panel/star	1360kg	400	38	42
200x100x65	Diam cheq/ 2 Panel/ 8 panel/star	1200kg	400	43	48

Colour	Staffordshire Blue, Staffordshire Brown Brindle, Staffordshire Red
Raw Material	Etruria Marl Clay
Manufacture	Extruded, Wirecut and fired above 1130°C
Bulk Density	2,300kg/m ³
Texture	Patterned
Size, Tolerance	BS EN 1344: 2002
Size Range	R1
Mean Transverse Breaking Load	T4
Unpolished Slip/Skid Resistance	U3
Abrasion Resistance	A3
Freeze/Thaw Resistance	FP100

Ketley Brick Company Ltd

Dreadnought Works, Pensnett, Brierley Hill, West Midlands, DY5 4TH, UK

Tel: 01384 78361 Fax: 01384 74553 Email: info@ketley-brick.co.uk Web: www.ketley-brick.co.uk

Ketley Brick Company Ltd. is a company registered in England and Wales with Reg number 699040.

Staffordshire Pink Gravel

A mostly rounded gravel with an attractive mix of pinks and browns which darken when wet.

Sizes 6mm, 10mm, 14mm, 20mm

Color: Dark Pink/Lilac

Shape: Angular

Rock Type: Quartzite

Recycled: No



Spec states that sample panels are to be produced 1.5m x 2m x 0.2m dp sample panels of seeded concrete paving 3no panels to demonstrate seeding at 25kg/m² etched to 2mm 5mm & 8mm. additional 3No panels to demonstrate seeding at a lower intensity (15kg/m² & 20kg/m²)

Feature Boulders



Paving type 02 In situ Reinforced concrete type 01 (2mm)
Paving type 03 In situ Reinforced concrete type 02 (5mm)
Paving type 04 In situ Reinforced concrete type 03 (8mm)

Exposed aggregate sample panel to be constructed 1.5m X 2m X 0.2dp sample panels of seeded concrete paving 3No panels to demonstrate seeding at 25kg/m² etched to 2,5 & 8mm and additional 3no panels to demonstrate seeding at a lower density 15kg/m² and 20kg/m² etched at 2,5 and 8mm

**Paving type 05 In Situ Reinforced
Concrete Surface Type 04**

To be confirmed following contractors proposals

**Paving type 06 In Situ Reinforced
Concrete Surface Type 05**

To be confirmed following contractors proposals



Exposed Aggregate Concrete Sample Panels

To be confirmed following contractors proposal. 1.5m X 2m wall panels 3No panels to be formed one side of each to demonstrate etching depths, the opposite side to demonstrate 3 different fair faced shutter materials.



Tiger mulch

Tiger Mulch is tested and certified to playground area safety surfacing standards - BSEN 1177, BS7188 and EN12616.

The benefits of TIGERMULCH

- Can be used in a wide range of areas
- Natural colours and colour blends
- 5 Year guarantee
- Highly tested
- Excellent slip test
- Requires little maintenance
- Reduces amount of preparation
- The premium mulch product
- No hard edging required on existing grass site
- Tried and site tested system for over 10 years



TigerMulch - FALL HEIGHT CHART - tested under BSEN1177



Colour Swatches



Green



Jungle Jump



Spring Grass



Yellow



Redwood 2



Grey

Autumn colours are made as standard
all other colours are made to order,
please check lead times.



**BRITISH MADE
ACCEPT NO IMITATIONS!**

* listed
in spec

CLD Fencing Dulok- Lite

Overview

Our entry level Double Wire Rigid Mesh System comes with clip fixings rather than a full length clamp bar and 656 Double Wire Mesh panels, making it the most cost effective system for large commercial fencing projects where rigid panels are required.

The perfect example of a true multi-use fencing system, the Dulok-Lite™ double wire panel system is suitable anywhere you need anti-cut-through protection. Designed for Commercial Fencing projects it is also suitable for school playgrounds, retail premises, business parks, public buildings and secure car parks.

Dulok-Lite™ is manufactured from twin 6mm diameter horizontal wires either side of 5mm diameter vertical wires, providing an excellent defence against vandals and intruders.

Panels are fixed to steel posts using metal clips with tamper-proof angled returns, which are secured in place with pin hex screws for added security. And if you need even more protection, Dulok-Lite™ is available in a Secured by Design option – Dulok-6 SR1. For quality assurance and added peace of mind, the system also conforms to BS 1722-14 for open mesh steel panel fences.

Features

- 200 x 50mm Mesh Apertures
- Designed for Commercial Fencing Projects
- Twin 6mm Horizontal Mesh Wires
- Nominal 5mm Vertical Mesh Wire
- Economic security solution
- Anti-vandal fasteners
- Strong cut 656 resistant double wire panels
- 3m panel height available
- Full range of RAL colours available

Applications

- Commercial Fencing
- School playgrounds
- Public buildings
- Schools
- Car parks
- Business parks and retail premises

Sloping Ground

Panels can be stepped as required. Where gradients exceed 1:16, it is recommended that taller panels are either part-buried or additional posts are used.

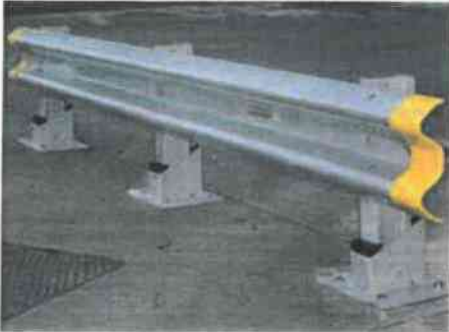
Variations

The posts are available in a range of lengths to accommodate panel heights and ground conditions. In addition, many variations are available:

- Wall fixing plates, cranked posts or base plated
- Cranked or straight extensions for barbed or razor wire
- Cranked panels



Berry systems



Flexi-Posts are a semi-flexible floor mounted system. The upper part of the post is mounted into a rubber shock absorber which allows a limited deflection of the post.

This reduces Force F (see EN 1991-1 (BS6399)) from 152kN to 69kN. It also reduces the anchor bolt forces and reduces the risk of damage to both barrier and vehicle.

We can provide bespoke posts and centre spacing's to suit your requirements, please [contact](#) our sales department for further info and discuss your needs (case of enquiring and spacing the to the spec)



Bollard Type 01 Static Bollard

SP400 Shallow Mount Bollard Spec



- Security rating AS 68: V/7500(N2)/48/90:0/0
- Height above ground 980mm
- Section size 219mm when fitted with an aesthetic sleeve, Otherwise 203mm and it can be powder coated to a specific RAL

The SP400, impact tested bollard has a slim profile making this product aesthetically pleasing and able to be fitted with a multitude of sleeve (custom options available) and street furniture options

The ATG Access SP400 Shallow Mount Bollard has been designed specifically to protect critical national infrastructure. In some cases, a site may require a high level of security yet have insufficient depth to be able to dig a traditional depth

foundation to accommodate a fixed high-security bollard. This could be due to a dense network of underground services within a city centre application or the product being installed within a suspended slab mount.

The SP400 Shallow Mount Bollard on the other hand only requires a depth of 172 mm to install. Minimal time and disruption are needed to deploy the physical security measure, ensuring a perimeter is secured quickly and efficiently remaining pedestrian permeable. The shallow mount bollard can be fitted with a multitude of aesthetic sleeves ensuring the security product fits into the surrounding environment and site.

Having been successfully impact tested under the British PAS 68 crash test certification, the SP400 shallow mount bollard has arrested a 7,500 kg vehicle travelling at 48 kph (30 mph).

The SP400 Shallow Mount Bollard comes galvanised as standard. Alternatively, we can paint the bollard to any RAL colour specified or supply it with an aesthetic sleeve (219mm diameter). The SP400 can also be incorporated into street furniture if required.

Multiple complementary products are available from the SP400 range including a removable bollard, automatic bollard, and a manually retractable bollard variant to deliver a holistic perimeter security solution for clients.

Bollard type 02 manually retractable

SP400 Manually retractable Bollard Spec



- Security rating PAS 68: V/7500(N2)/48/90:0/0 & PAS 68: V/7500(N2)/64/90:2.3/2.7
- Bollard diameter 209mm with a 240mm top lid
- Height above ground 998mm
- Foundation depth 1509mm
- Finishes, Sheradised black finish as standard with two, yellow reflective bands. Product can be vinyl wrapped with a bespoke design or advertising copy.

With the SP400 you can be safe in the knowledge that you are buying a proven high-security product. Impact tested twice to BSI PAS 68, the SP400 stopped a 7,500kg vehicle at 48kph (30mph) and 64kph (40mph). When it comes to

security, we understand that longevity is key, as such the SP400 has been designed and manufactured with serviceability in mind and offers fantastic reliability.

The SP400 is manually operated through the simple use of a hand-held battery drill or a manual hand crank. The drill drives a small hydraulic pump which raises and lowers the bollard with ease (taking only 12 seconds to raise and lower). For added protection, the socket which allows the drill to connect to and operate the bollard is secured behind a high-security lock.

Not having to depend on electricity to power the bollard means that the SP400 is an ideal choice for securing remote sites where access to an electricity supply is limited. On top of this, we estimate that a manually retractable bollard can save up 50% over an automatic model.

The SP400 comes in a sherardized black finish as standard, with a stainless steel top lid and two machine bands. We can also supply it vinyl wrapped to any RAL colour you require or fit it with a bespoke decorative sleeve to meet your site requirements.

CorTen Bicycle Racks - Streetlife

Possibilities and restraints

- Standard height of ca.75 cm
- Standard width of ca.70 cm
- The recommended spacing for bicycle racks is 95 cm
- The standard material is untreated weathering steel (-CT), other finishes are not available by default

The CorTen Bicycle Racks have a minimalist design combined with warm, thick-walled CorTen steel.

By fitting the CorTen Bicycle Rack with a standard plastic All Black bumper strip, damage to bicycle frames is prevented. A slot has been included at the top for bicycle chains and locks. The interlinked version mounted in the ground is ideal for creating a long, straight row of bicycle racks.

CorTen Bicycle Racks can easily be combined with Open Bollards and E-Bicycle Racks.



FSC Hardwood II – Virgin & Galvanised metal teatings and untreated CorTen base

Possibilities and restraints

- Available in standard lengths of ca.234 or 300 cm
- On request available in custom lengths of up to ca.300 cm
- Longer setups are possible with extension modules
- Optionally available are armrests or several types of backrests
- By default finished in galvanised steel (-TH), optionally steel parts in untreated weathering steel (-CT) or finished in a double layer powder coating (-PC)



Solid 12 Benches have a strongly understated design. Both the wooden seat and the steel supports have a sturdy look. The FSC hardwood or Accoya slats (7x7 cm – 2.8"x2.8") are mounted into Streetlock® comb fittings with a spacing of only 8mm – 0.3".

A low Quattro Back with four Solid slats can be mounted on the 12-slat Solid Bench (more than 90 cm – 35" in width) in the middle.

Alternatively, a rounded off version is available, the Soft Back, which has gentler contours and provides more comfortable back support. As a

result, the Quattro Back is often seen more as a divider. In look and feel, both backrests reflect the minimalist design of the Solid Bench series.

Length: 234 and 300 cm – 92" and 118"

which can be linked endlessly

Length Quattro Back: 180 cm – 71"

Length Soft Back: 180 and 234 cm – 71" and 92"



Drifter Benches – Streetlife Type 02

Possibilities and restraints

- Available in standard lengths ca.120, 200,300, 400 or 500 cm (in North America only 200 or 300 cm | 79 | 118")
- Standard seating depths are ca.30 cm (1 beam) or 62 cm (2 beams)
- A separate backrest of 120 or 180 cm long is optionally available
- By default finished in galvanised steel (-TH), optionally steel parts in untreated weathering steel (-CT) or finished in a double layer powder coating (-PC)

The 30- to 40-year-old hardwood used in Drifter Benches is certified as FSC Recycled 100%. These benches are an example of the circular economy, with a unique rustic look that appeals to the imagination. The benches are virtually indestructible and blend well in any environment. Drifter Benches can also be made from a sustainable wood-free alternative: Lava Grey. A 3 m – 118" long L2 Drifter Bench in this material contains recycled plastic waste produced by 15 households in a single year.

There are Drifters Benches with one or two slats (L1/L2).

The supports are made from thick-walled CorTen or hot-dip galvanised steel, optionally powder coated in a RAL colour. Dimensional deviations and irregularities in the wood are unavoidable and are an integral part of the recycling process.

Length hardwood (EU): 120, 200, 300, 400 and 500 cm

Length hardwood (North America): 200, 300 cm - 79" or 118"

Length Lava Grey: 120, 200 and 300 cm - 47", 79" or 118"



Olympic Wave Bench

Possibilities and restraints

- Standard seating depths are ca.50, 60 or 120 cm
- A double backrest is optionally available on the 120 cm deep bench



The original Olympic Wave Benches with long slats were designed for the 2012 London Olympic Games.

At the request of the landscape architect company Hargreaves Associates, a new system has been developed featuring transverse (Crosswise) wooden slats measuring 5x5 cm. The new Olympic Wave Crosswise System enables the realisation of more varied configurations, such as curved arrangements, two-sided seating (including double backs if desired) and circular benches. Our advisers will be happy to provide you with more information on the dimensions and possibilities.

Several arrangements will be installed in Oklahoma (USA) in the second half of 2018.

Solid Serif Top Seats

Possibilities and restraints

- Available in standard lengths of ca.234 or 300 cm
- On request available in custom lengths of up to ca.300 cm
- To be mounted on a separate substructure



Solid Serif Top Seats are mounted on a stone or sheet-steel base structure. The modules are invisibly locked in place with the anti-theft Streetlock® system.

Length: 234 and 300 cm – 92" and 118"

Width: 70 (9 slats) and 116 cm (15 slats) – 28" and 46"

Heavy-Heavy Malaparte Multi level benches

Possibilities and restraints

- Available in standard lengths of ca.234 or 300 cm | 92" or 118"
- Standard height of ca.140 cm | 55"

Heavy-Heavy (H-H) Malaparte Multilevel Benches are named after Villa Malaparte on the Italian island of Capri. The roof of this villa rises to a viewpoint in a trapezoidal shape, an inspiration clearly reflected in the grandstand seating arrangement. H-H Malaparte Multilevel Benches consist of three H-H beams per step, which are mounted on a steel substructure. The benches are available as one-sided or two-sided structures.

The modules with their playful trapezoidal shape are two or three levels high. They can be placed as separate elements or in a semi-circular configuration in parks or urban squares. The H-H beams are available in Upcycled Hardwood or Lava Grey.

Length: 234 and 300 cm – 92" and 118"

Height: 90 and 135 cm – 35" and 53"

Products supplied within the North American market are fully manufactured in the USA.



Heavy-Heavy Malaparte

Drifter picnic set

Possibilities and restraints

- Available in standard lengths of ca.300, 400 or 500 cm
- Available in table depths of ca. 62 cm (2 beams) or 94 cm (3 beams)
- On request available in custom lengths of up to ca.500 cm
- By default finished in galvanised steel (-TH), optionally steel parts in untreated weathering steel (-CT) or finished in a double layer powder coating (-PC)

This extremely sturdy Drifter Picnic Set is made of reclaimed mooring posts. The 30- to 40-year-old tropical hardwood is certified FSC recycled 100% hardwood.



These enormous picnic tables are an example of circularity (second life, locally sourced, very long lifespan, and indestructible). Drifter Picnic Sets can also be made from the wood-free alternative Lava Grey. The supports and brackets are made of CorTen or hot-dip galvanised steel and optionally powder coated in a RAL colour.

Sizes:

Length hardwood (EU): 120, 200, 300, 400 and 500 cm

Length hardwood (North America): 200, 300 cm - 79" or 118"

Length Lava Grey: 120, 200 and 300 cm - 47", 79" or 118"



Vestre acceptor 160

Acceptor 160 is an intuitive, modular waste-sorting system that can be extended to incorporate the required number of sorting options. It has a large capacity and can be supplied with openings on both sides. Differentiated openings in a choice of colours make sorting waste easy. The Acceptor 160 is easy to empty by opening the door and removing the bin bag, with no heavy lifting required.

Delivery – 5 to 6 weeks standard

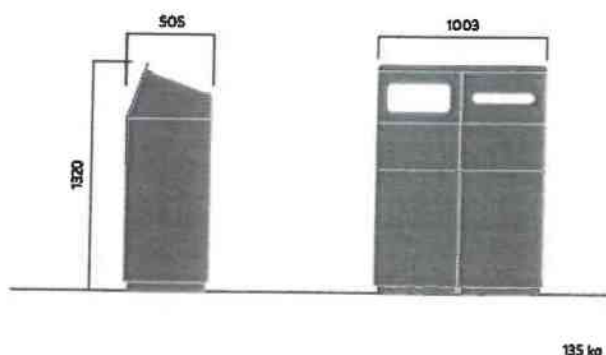


ACCEPTOR 160

2145

Designed by
Artur Wozniak

Acceptor 160 is an intuitive, modular waste-sorting system that can be extended to incorporate the required number of sorting options. It has a large capacity and can be supplied with openings on both sides. Differentiated openings in a choice of colours make sorting waste easy. The Acceptor 160 is easy to empty by opening the door and removing the bin bag, with no heavy lifting required.



Anchoring/assembly

Free-standing/mounted to the ground

Primary material

Hot-dip galvanised steel

All steel components are hot-dip galvanised, which produces a matt grey surface after a while. We offer a lifetime anti-rust warranty.



5 mm

Sustainability

Indicators	Global warming	Total energy used	Recycled materials
Unit	kg CO2	MJ	%
Cradle to Gate A1-A3	486.21	6776.88	2.24

Certifications



Warranty

- Lifetime warranty against rust
- 15 year warranty on powder coating
- 15 year warranty on wood
- Spare parts always available

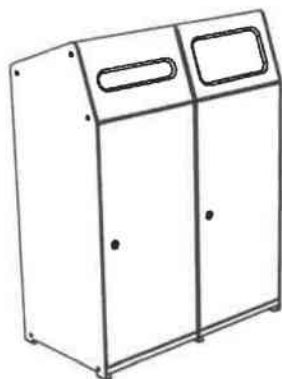
Additional features on request

- ☒ Swivel
 ☒ Modular
 ☒ ADA
 ☒ USB
 ☒ LED
 ☒ HC
☒ Antigraff
☒ Water system
☒ Lifting hook
☒ Caster

vestre

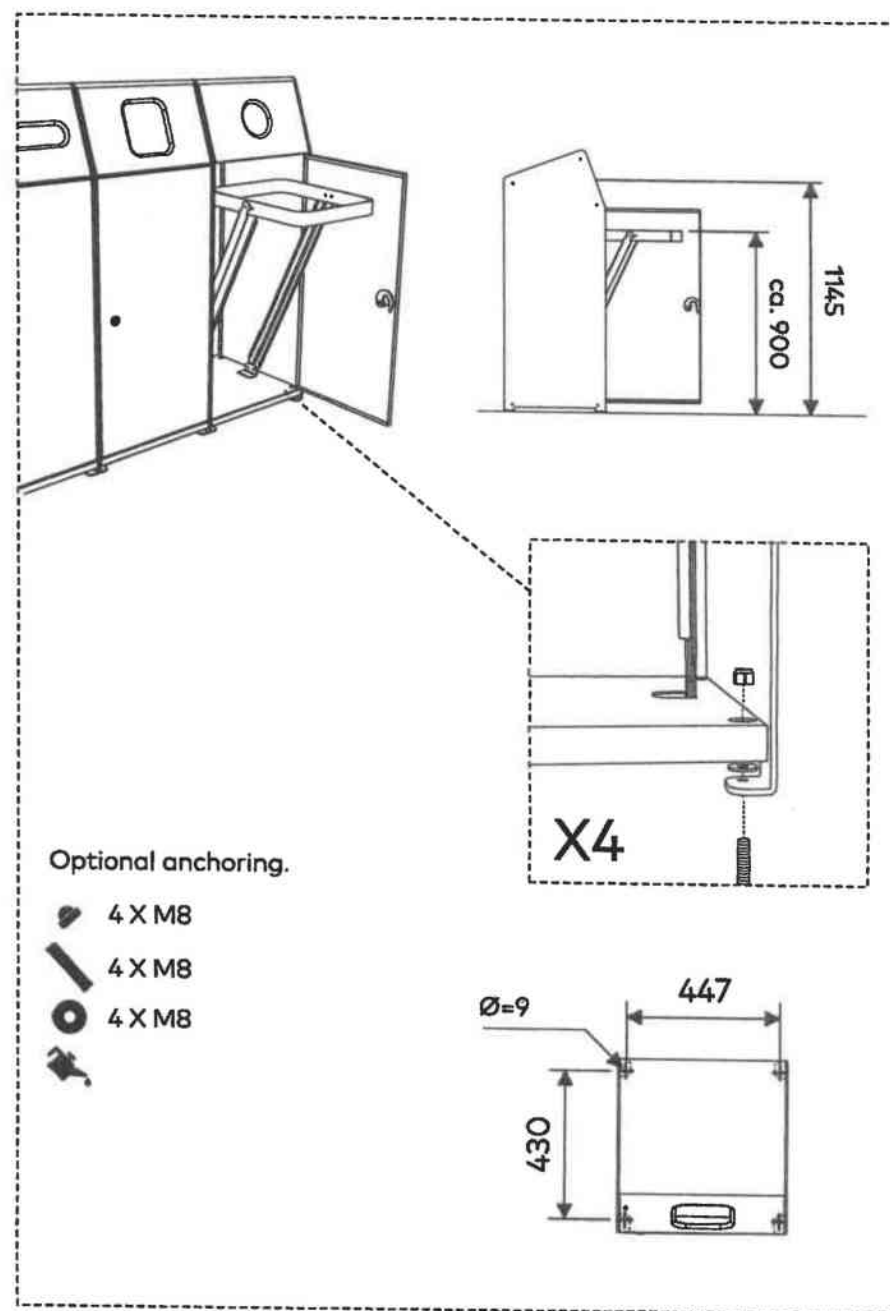
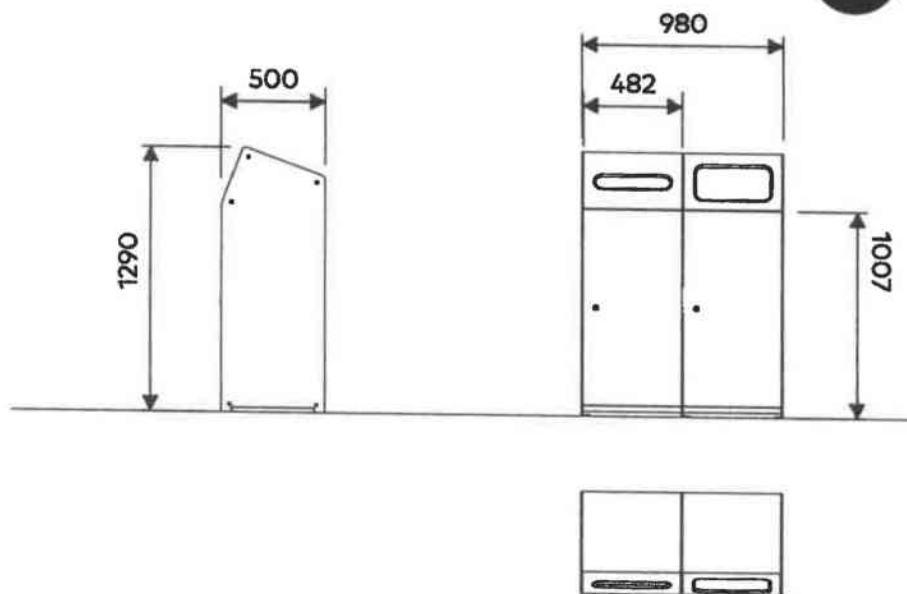
Acceptor

Art.nr: 2145

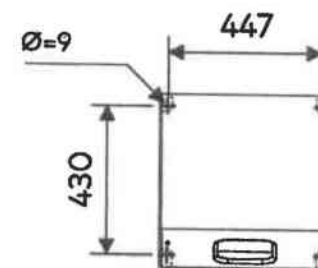
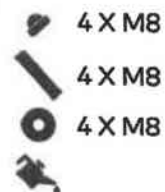


Lid selection may vary.

135 kg



Optional anchoring.





vestre

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NO 948 140 349

vestre.com

MOM AND PRODUCT INFORMATION

GOOD QUALITY SINCE 1947

Vestre develops and produces award-winning design furniture for urban and outdoor environments.

The furniture is of the highest quality and can remain outdoors for a very long time with a minimum level of maintenance. Vestre is strongly committed to the environment and our production process is quality and environmentally certified in accordance with ISO 9001 and ISO 14001. We are a member of the Ethical Trading Initiative Norway (IEH) and compensate for all greenhouse gas emissions in accordance with prevailing UN and EU standards. All our furniture is manufactured in state-of-the-art premises in Norway and Sweden.

VESTRE FURNITURE IS BUILT TO LAST

All components are designed for long-term wear and tear in harsh environments. Steel plates and pipe structures have a material thickness of 3-16 mm. Steel details are machined with modern laser and plasma technology. This is a very environmentally-friendly and accurate process that ensures optimum resource use. The welding process is undertaken both manually and with robots. Components are all-welded to ensure maximum strength and durability.

To prevent the onset of rust, all untreated steel is hot-dip galvanised. This process involves immersing the steel in a liquid zinc bath (450 °C). The process is environmentally-friendly and is undertaken in accordance with NS-EN ISO 1461. Hot-dip galvanised steel components have a life span of at least 20-30 years. All associated fasteners are either hot-dip galvanised or are made from acid-resistant steel.

Steel details may be coated in optional RAL or NCS colours. Prior to coating, a thin layer of zinc manganese phosphate is applied. This combats corrosion and inhibits oxygen and moisture penetration. The coating process results in a very durable surface that meets the requirements of corrosion class C5 (coastal areas with high salt content). Polyester powder coating contains no harmful solvents.

Most of our furniture can also be manufactured from Corten Steel®, which provides an elegant and durable rust-resistant surface.

Wood details are supplied as standard in royal impregnated pine (Linax Plus). This is an environmentally-friendly process based on natural linseed oil that penetrates the woodwork under high pressure and heat. The standard design is natural pine (unpigmented).

Wooden laths

Linseed oil impregnated wooden laths (Linax) are not UV-resistant and will turn grey after a period of time. To prevent cracks and to extend the life span of the wood, it is recommended that the laths are oiled every 3-5 years. The need for this type of maintenance depends on wear and tear. The recommended oil may be ordered from Vestre (3 litres). It is also possible to use other linseed oil based wood oils, for example, royal oil. The wood's lustre may also be freshened up after a few years by using an oil with a colour pigment, for example, brown. Painted and stained woodwork will naturally require more frequent maintenance.

Miscellaneous

It is recommended that all screws and bolt clamps are examined and tightened after a few weeks' use.



Fido 35 Dog Waste Bin

Features and Specification

The Metal Fido 35 Dog Waste Bin, complete with a dog lead hook and recognisable graphics, is an ideal solution to dog waste for unsupervised areas where there is a high risk of vandalism. The Armortec® coated steel exterior of this dog waste bin provides excellent corrosion and vandal resistance, minimising the need for regular maintenance.

The discreet dog lead hook on the side of the Metal Fido allows passing dog owners to secure their pet, enabling them to use both hands when operating the bin. The lid stop feature and robust hinge prevents the lid from being bent backwards once fully open, whilst providing added ease for the user.

The Metal Fido 35 has an aesthetic, high-quality gloss finish and is available in either deep green or red to compliment any external environment. Please note: Metal Fido 35 Dog Waste Bin is only compatible with a Metal Fido 35 Glasdon issued post.



Design Features

Robust metal construction

Dog lead hook

1.5mm Armortec coated steel

Pivoting lid with lid stay

Sack retention system

Colours

Body: Red, Deep Green

Lid: Black

Materials

Body & lid: Steel with Armortec Coating

Sack retention system: Stainless steel

Dimensions

Capacity: 35 litres

Bin height: 504mm

Body width: 344mm

Body depth: 234mm

Lid width: 369mm

Lid depth: 287mm

Weight: 11.3kg

RS-89 Illuminated Socket System

Waiting on confirmation by the landscape architect.

**Custom Built External Sign
With 2No uprights**

Technical specification with materials is needed for approval.

Aspli throw Line 25m rescue bag

Rescue Throw Line Bag 25 metre

- Floating braided 8mm line.
- 7.95kN Breaking strain- 800kg+
- Weighted bag ensures thrower achieves optimum distance and accuracy. Hold the plastic loop in one hand and throw the Bag at your target.
- Reflective band for enhanced visibility
- Foam insert in end of bag so bag floats
- Mesh panel for drainage
- Can easily be re-packed
- Belt loops. Can also be used to hang bag on hook
- Inspection record label
- For on site storage solutions see [Related products >](#)
- Aspli specialists in the design and manufacture of Water safety Equipment for over 30 years.
- Part Number: 000801



Lifebuoy 30 Inch - Lifebuoys MED SOLAS - 75 Centimetre Life Ring

Product Description

Ideal for Docks, Harbours, Aerated Waters and commercial shipping where the life buoy is lowered to a casualty.

- UV stabilized High Density Polyethylene (Orange color)
- Weight 2.5Kg.
- Size Outside Diameter 75cm ID 43.5cm
- PU Foam filled. Buoyancy 180 Newtons
- Approved: SOLAS MED MSC.81(70)
- Quality item at a Low Price.
- Buy now! with confidence from Aspli, one of the UK's most experienced, 'we have supplied the Industry for over 40 years' and are one of the largest suppliers of Water Safety Equipment.

Usually sited by Docks, Harbour Walls, Tidal ways,
Sewage works etc. where the buoy is lowered down to the casualty.
Also for Commercial shipping.

Click for our extensive range of Lifebuoy Housings and
floating Lifelines

Approvals: MED/ SOLAS

Part Number: 000830



Pricing

Qty 1-4 = £36.22 (inc VAT)

£30.18 (ex VAT)

QTY 5 + = £32.59 (inc VAT)

£27.16 (ex VAT)

Norfolk Bat Brick

All info below is from Wildcare.co.uk not NHBS



MATERIAL: Absorbent clay, roughened with sand and fired to about 1100°C to make them frost-proof.

DIMENSIONS (MM): 200 x 100 x 70

SPECIES: They have a series of slits of the correct size for Daubenton's, Natterer's, Brown Long-eared, Brandts, Whiskered, and Barbastelle to hide in.

PRICE stated on website: £21.37 ex VAT

SITING: These bricks would typically be used to replace an existing perhaps crumbling brick in a brick-built vaulted tunnel. The old brick should be carefully removed using a grinder, drill, or cold chisel, taking proper safety precautions, then inserting the bat brick using an appropriate mortar (e.g. a soft lime mortar for old brickwork, or 6:1 sand:cement for modern brickwork). Modern resin-based mortars can be used, but they should be used sparingly, only in the summer when no bats are present, with extra ventilation and so placed to provide a water-soluble 'wick' with the original substrate.

Prop the brick in place with a length of timber or an "Acro-prop" for a day or so until set, then carefully point up around any gaps. They are NOT 'entry bricks', neither were they designed to be used facing into the cavity wall of modern houses, and are considered unlikely to be used by bats in this situation.

In existing concrete tunnels or sites where it is considered difficult or undesirable to excavate or damage the existing surfaces, then a surface attachment is acceptable, though may not give quite such good results. Embedding the bricks

into the concrete roof of a new tunnel also works well. Simply place the bat brick on the surface of the shuttering ply, having first filled all the holes with sharp sand or grit, allowing a little to spill out when placed. This stops wet concrete from entering the holes and gives a rough gripping area around each bat brick after the shuttering is removed. Do seek the advice of a structural engineer before doing this, as these units may influence the structural integrity of a cast concrete tunnel roof.

MAINTENANCE: Can be very easily checked using a torch. Cleaning is not necessary (self-cleaning).

Vivara pro wagtail box

About this product

Grey wagtails (*Motacilla cinerea*) are found over most of the UK. They like fast flowing water and will usually breed near to upland rivers and streams, moving to more lowland and urban areas in the colder months. They are particularly affected by harsh winters and, due to a moderate decline in recent years, are now an Amber List species. Dippers (*Cinclus cinclus*) are currently not listed as threatened. However, they will still benefit from the provision of a nesting habitat near a fast-flowing river. Mostly found in upland areas they are also present in lowland southwest England.

This nest box is made from WoodStone, a robust material comprising concrete and wood fibres. The box should be situated on a wall, preferably close to fast flowing water, such as on the underside of a bridge.



Specification

- * Weight: 6kg
- * Size: 17 x 20 x 31cm

Roost Type 03 Kingfisher Tunnel

About this product

The Kingfisher and Sand Martin Tunnel has to be shipped on a pallet due to its size and shape. Therefore shipping costs for this item will be £35 (ex VAT) and may be more for larger quantities. Please contact customer.services@nhbs.co.uk if you would like a quotation prior to **When using for sand martins; purchase.**

This highly successful design provides vital nesting sites on artificial waterways, natural waterways lacking suitable banks or as an aid to boosting existing populations. The tunnel has been extensively tested and used for decades on building projects across Europe. The floor of the nest box and tunnel has a fine mesh grid to deter rodents. The nesting chamber is protected with a removable lid for cleaning. Constructed from lightweight concrete, it is air-permeable and able to compensate for temperature changes, preventing condensation in the nest box.



When using for kingfishers;

Many kingfishers tend to use two different tunnels for its first and second broods. It is therefore advisable to put at least two nest tunnels in the same steep slope, keeping them at least 70 cm apart.

Colonies of never less than 12 breeding pairs of sand martins congregate in suitable areas, such as cliffs, and gravel and clay pits near moving water. If the aim is to attract new colonies, ensure that at least 12 nest tunnels are used. Larger colonies may contain over 100 breeding pairs.

Specification

Supplied with detailed installation instructions.

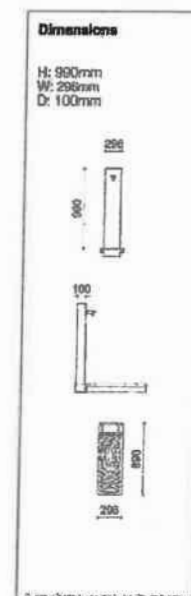
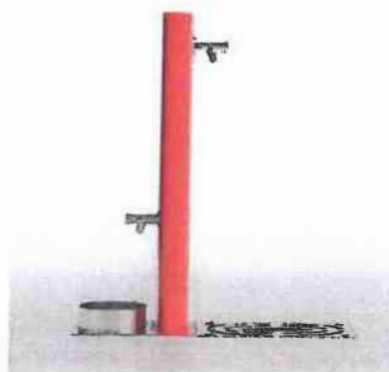
- * Material: lightweight concrete.
- * External Dimensions of tunnel: length = 58 cm, width = 12.5 cm, height = 15 cm.
- * Outer dimensions of nesting chamber: length = 26 cm, width = 26 cm, height = 17 cm.
- * Inner dimensions of nesting chamber: length = 22 cm, width = 22 cm, height = 14 cm.
- * Weight: 10kg

Fuente Drinking Fountain

The Fuente Drinking Fountain made from a steel tube, available in either rectangular, circular or elliptical section. The nickel-plated brass tap is a push button type with a spring return that is usually closed. The structure is fixed to the base of the tank, which has an outlet and overfill pipe. On the back of the tank is a place to connect the supply tube. The drain can be removed to clean the tank.

Specification:

Materials: Post - powder coated steel; corten steel; stainless steel



Stage Anchor Bolt



Massey and Harris Play equipment

Massey and Harris have a wealth of experience delivering playground solutions for a range of sectors. Our playgrounds inspire play and stand the test of time. All equipment is designed to meet BS EN 1176 and our planning and playground layouts with Safety surfacing meet BS EN 1177



Equipment below hasn't been requested they're just examples



Specification

Height 1200mm

Fall Height < 600mm

Weight 160kg

Surfacing Required 16m

Product Code 6012R



Specification

Size (Length x Width x Height) 4.4m x 4.6m x 2.3m

Weight 485kg

Product Code 8009R



Specification

Height 1500mm

Fall Height 1500mm

Surfacing Required 19.5m²

Weight 183kg

Product Code 6022R

Detailed Lighting Specification I Mayfield Park

STUDIO FRACTAL

Fitting type	Lighting Control Performance Specification
Manufacturer/Ref	Architainment / Dynalight lighting control system
Accessory	Astronomical Timeclock, daylight Photocell monitoring, manual override push button controller panel
Contact	Name Sraboni Das Office +44 (0) 1494 471340 Mobile +44 (0) 7908 057 817 Email Sraboni.das@architainment.co.uk
Luminaire description	The Lighting Scheme shall be controlled from the designated Lighting control system. Contractor to confirm with client team the control system will be located within the security building. All lighting shall be controlled via 3no. daylight tracking photocell sensors with the control system also having the capability of astronomical timeclock input for the accent lighting elements. Additionally an 8 button manual override wall plate is to be located within security building. Photocells will be attached to 3no. separate lighting columns across the site which will activate all lighting within the park when one sensors is activated via light levels dropping too low. Photocell columns to be linked back to the control system to ensure all lighting is switched on together. Accent lighting (facade and tree lighting) will be switched off via timeclock at 11pm. Zone 1-4 are areas to allow individual control of the lighting for events as set out by Engine No 4, all lighting within each zone will have the ability to be switched on/off via manual wall switches located within security building. Wall Plate Button/Scenes 1. All On/Off 2. Zone 1 On/Off 3. Zone 2 On/Off 4. Zone 3 On/Off 5. Zone 4 On/Off Please refer to Lighting control plan over zone area coverage and luminaire control channels. All networking, communication and gateway modules to be supplied if an interface is required with existing building control - contractor to confirm requirements. Control system will require enclosure to house all module components. Control/button plates and relevant communication modules required for manual override, contractor to confirm requirements and location prior to order. Electrical engineer to coordinate connection / electrical / luminaire ballast requirements with architainment to confirm compatibility with control system.
Location	Security building

Electrical Duct Boxes



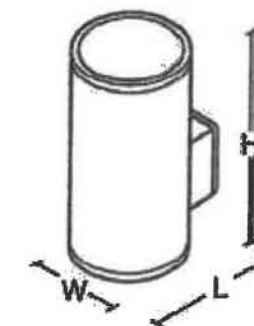
Detailed Lighting Specification I Mayfield Park

Fitting type	W1
Manufacturer/Ref	Whitecroft - Spectre Wall
Accessory	
Contact	Name Whitecroft Lighting Office (0)161 330 6811 Mobile Email: email@whitecroftlight.com Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP 65, Surface mounted wall light, 45.6W, 2663 lumens, 3000K, direct/indirect, switched driver.
	Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Black
Notes	CRI 80
Location	Building mounted

Image



Dimensions



H=350mm
L=280mm

Detailed Lighting Specification I Mayfield Park

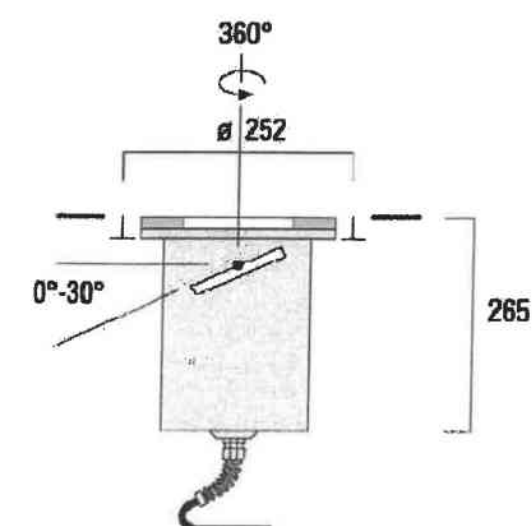
STUDIOFRACTAL

Fitting type	U1
Manufacturer/Ref	We-ef/ETC130 185-2446
Accessory	Switched transformer required. Installation blackout for installation, antislip fritted cover glass.
Contact	Name Ryan Wood Office 0844 8805346 Mobile 07803 630370 Email: r.wood@we-ef.com Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP67, 18W LED buried inground uplighter luminaire. 2177lm output, switched driver and stainless steel bezel. Luminaire to be supplied with installation sleeve. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Stainless Steel
Notes	CRI > 80
Location	Trees

Image



Dimensions



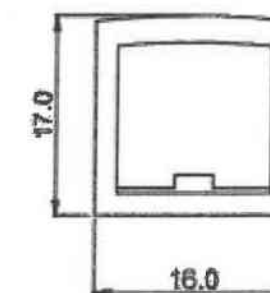
Detailed Lighting Specification I Mayfield Park

Fitting type	L3
Manufacturer/Ref	Kemps Lighting, FLEXUS 3 FX3-830-HB-1E
Accessory	surface mount fixing clips, mounting clips to be located at 100mm intervals along continuous luminaire runs, switched remote transformers / power supplies required.
Contact	Name Nick Rockliff Office 0113 263 9039 Mobile 07841 464827 Email: NickRockliff@kempslighting.com Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP65,15W/m, 450 lm/m linear flexible LED luminaire . Aluminium mounting clips,switched driver. Drivers to be within IP rated Enclosures and buried within accessible location. Contractor to confirm overall luminaire lengths, driver positions and provide cables & connectors between power supplies, drivers and luminaires. Driver qty and location to be checked prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Aluminium
Notes	CRI > 80
Location	Benches

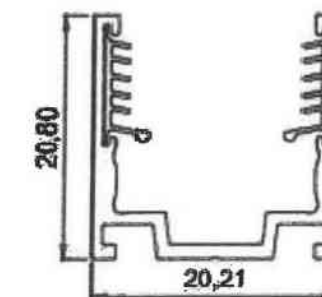
Image



Dimensions



**FX3 Cross
Section**



**Serrated
Aluminium Profile**

Horizontal Bend

Detailed Lighting Specification I Mayfield Park

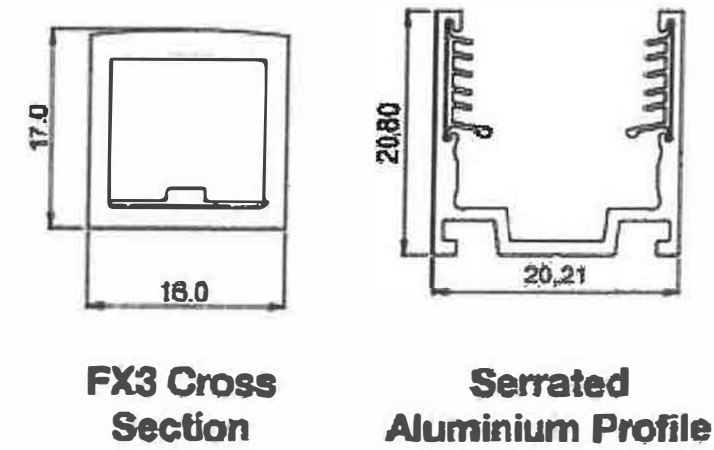
STUDIO FRACTAL

Fitting type	L2
Manufacturer/Ref	Kemps Lighting, FLEXUS 3 FX3-830-VB-1E
Accessory	surface mount fixing clips, mounting clips to be located at 100mm intervals along continuous luminare runs, switched remote transformers / power supplies required.
Contact	Name Nick Rockliff Office 0113 263 9039 Mobile 07841 464827 Email: NickRockliff@kempslighting.com Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP67, 15W/m, 480 lm/m linear flexible LED luminaire . Aluminium mounting clips,switched driver. Drivers to be within IP rated Enclosures and buried within accessible location. Contractor to confirm overall luminaire lengths, driver positions and provide cables & connectors between power supplies, drivers and luminaires. Driver qty and location to be checked prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Aluminium
Notes	CRI > 80
Location	Bridges

Image



Dimensions

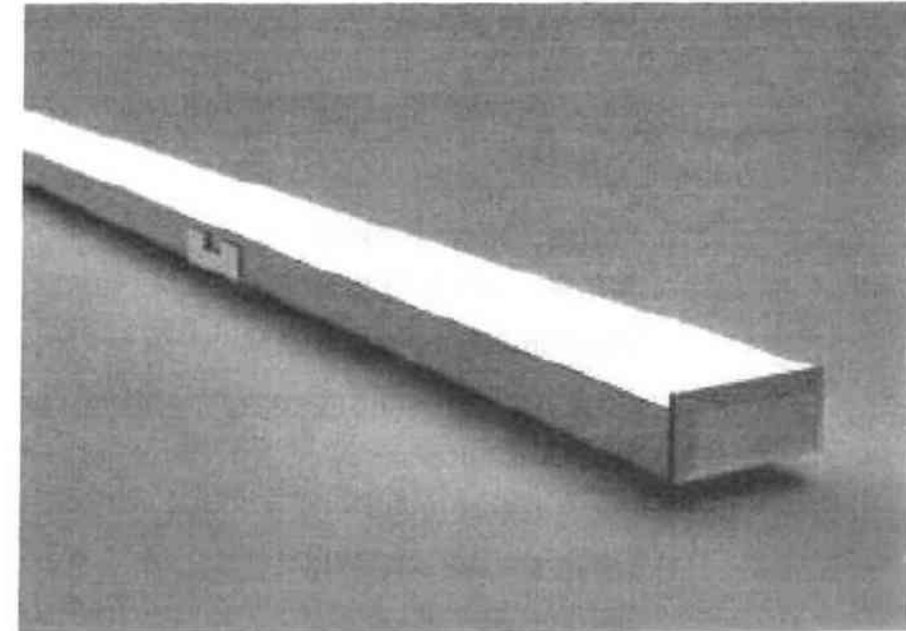


Detailed Lighting Specification I Mayfield Park

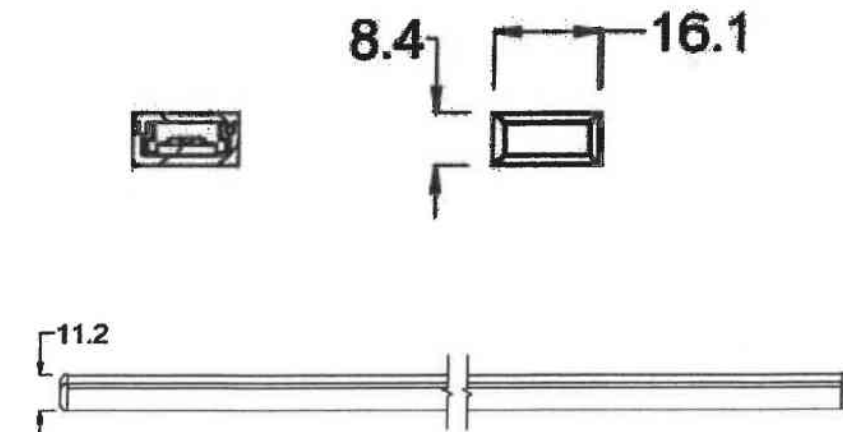
STUDIOFRACTAL

Fitting type	L1
Manufacturer/Ref	Kemps Lighting, PROTEUS-M - Linear LED, PRO-M-7-830-O-67-F
Accessory	Fixed bracketss, switched remote transformers / power supplies required.
Contact	Name Nick Rockliff Office 0113 263 9039 Mobile 07841 464827 Email: NickRockliff@kempslighting.com Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP67, 7W/m, 800 lm/m, 3000K, linear LED luminaire. Aluminium mounting clips and opal diffuser,switched driver. Drivers to be within IP rated Enclosures and buried within accessible location. Contractor to confirm overall luminaire lengths, driver positions and provide cables & connectors between power supplies, drivers and luminaires. Driver qty and location to be checked prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Aluminium
Notes	CRI > 80
Location	Benches

Image



Dimensions

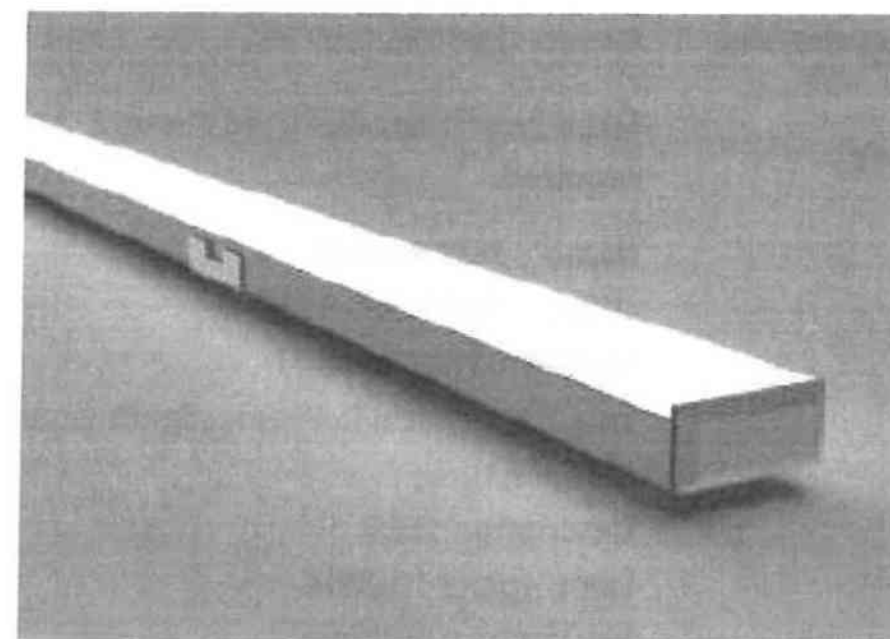


Detailed Lighting Specification I Mayfield Park

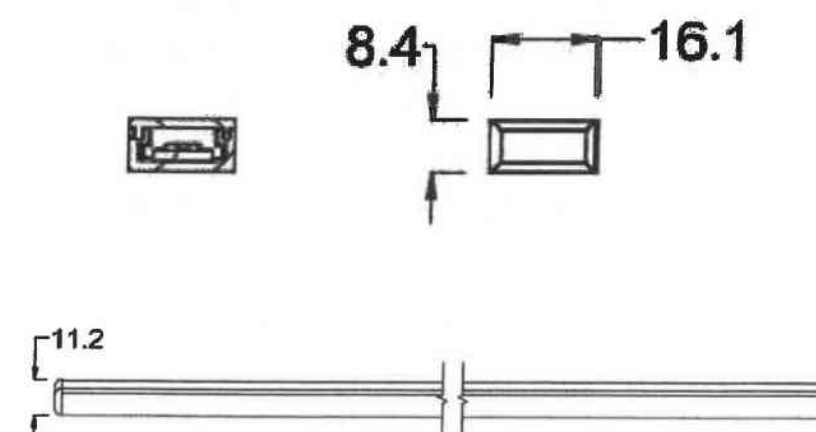
STUDIOFRACTAL

Fitting type	H1
Manufacturer/Ref	Kemps Lighting, PROTEUS-M - Linear LED, PRO-M-11-830-O-67-F
Accessory	Fixed bracketss, switched remote transformers / power supplies required.
Contact	Name Nick Rockliff Office 0113 263 9039 Mobile 07841 464827 Email: NickRockliff@kempslighting.com Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP67, 11W/m, 1460 lm/m, 3000K, linear LED luminaire. Aluminium mounting clips and opal diffuser,switched driver. Drivers to be within IP rated Enclosures and buried within accessible location. Contractor to confirm overall luminaire lengths, driver positions and provide cables & connectors between power supplies, drivers and luminaires. Driver qty and location to be checked prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Aluminium
Notes	CRI > 80
Location	Bridges

Image



Dimensions



Detailed Lighting Specification I Mayfield Park

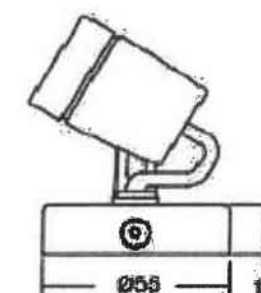
STUDIO FRACTAL

Fitting type	D1
Manufacturer/Ref	LightGraphix - LD51
Accessory	/CO Anti glare cowl, /GS surface mount base
Contact	Name Mitchell Wood Office (0)1322 527 629 Mobile Email: mitchell@lightgraphix.biz Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	IP 67, Surface mounted adjustable spotlight 1.7W, 500mA 3000K, 12° narrow spot with an antiglare cowl and surface mount base. Luminaire to be supplied with remote switched driver. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	Silver Anodised Aluminium
Notes	CRI 80
Location	Bridge

Image



Dimensions

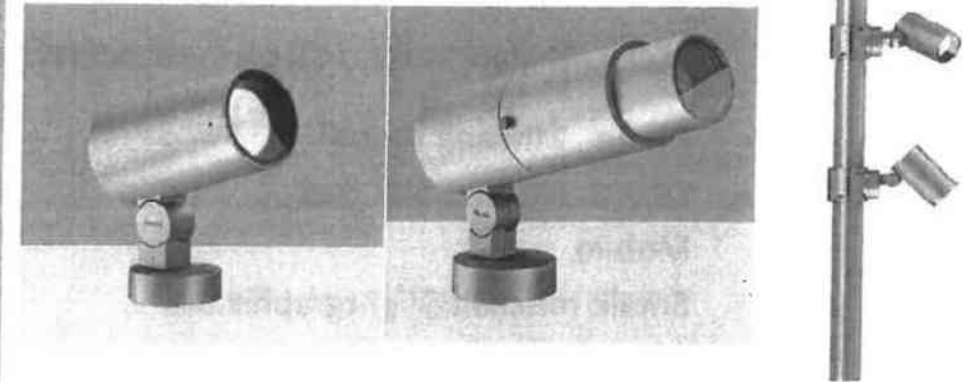


Detailed Lighting Specification I Mayfield Park

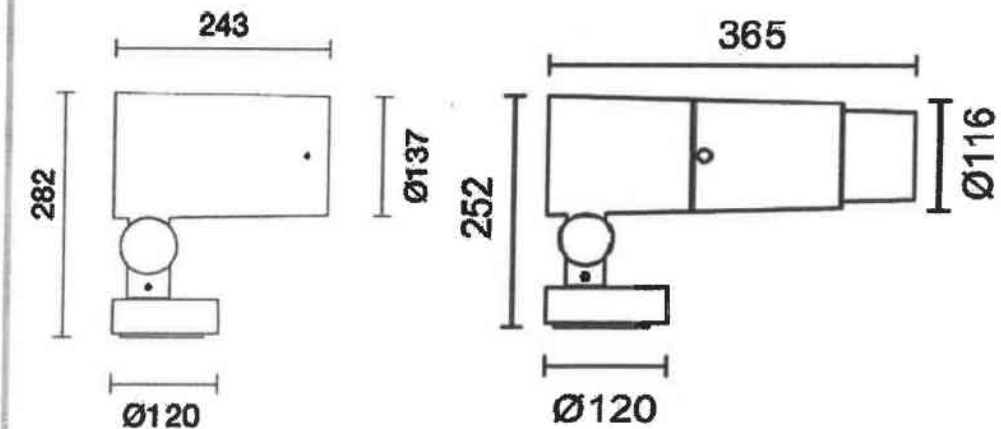
STUDIOFRACTAL

Fitting type	C3 (with GOBO Projectors)
Manufacturer/Ref	iGuzzini/5m Column, 1 x Palco InOut EF43 and 2x X417 for Gobo EN24 pole mounted per column (switched gear) Rosco steel gobo 77955 Ripple
Accessory	Luminaire Column mounting clamp required, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66 Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 1 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear. 2 x 35W (975 lumens), 3000k (warm white) LED's within aluminium housing with framer beam optics. To be supplied with metal gobo 30mm diameter. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

Image



Dimensions

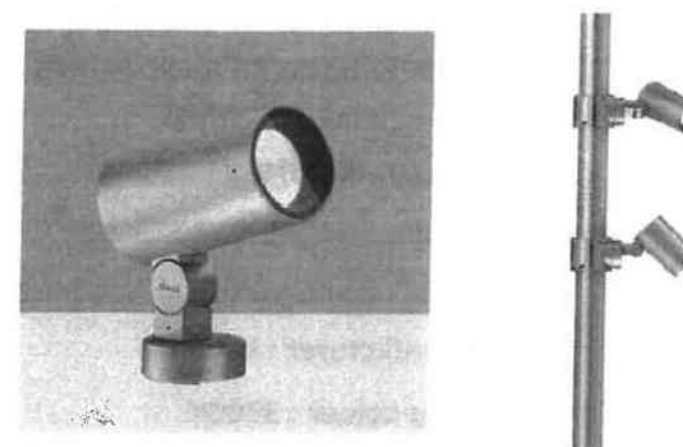


Detailed Lighting Specification I Mayfield Park

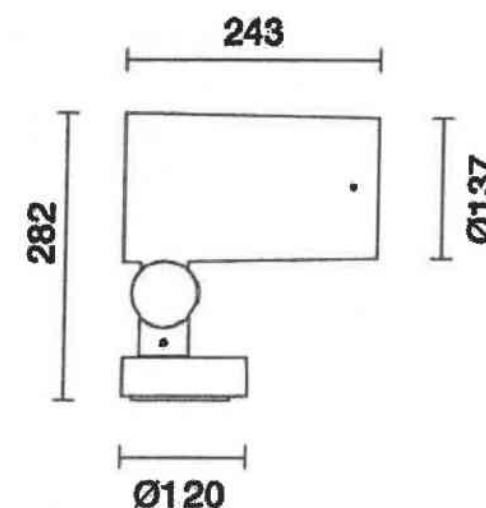
STUDIO FRACTAL

Fitting type	C2E (with WIFI + CAMERA)
Manufacturer/Ref	iGuzzini/5000mm Column, 2 x Palco InOut EF43 pole refer to plan to understand which columns require photocells
Accessory	Luminaire Column mounting clamp required + Column Photocell, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66 Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 2 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear and photocell. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4m. Camera weight to be <8kg, 10mm electrical gland required. Final Camera spec tbc by VSS consultant. Wifi Access point to be mounted at 3800mm, requirements to be confirmed AP installer. 10mm electrical gland and counter sunk fixing screws (M8) to be provided. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base

Image



Dimensions

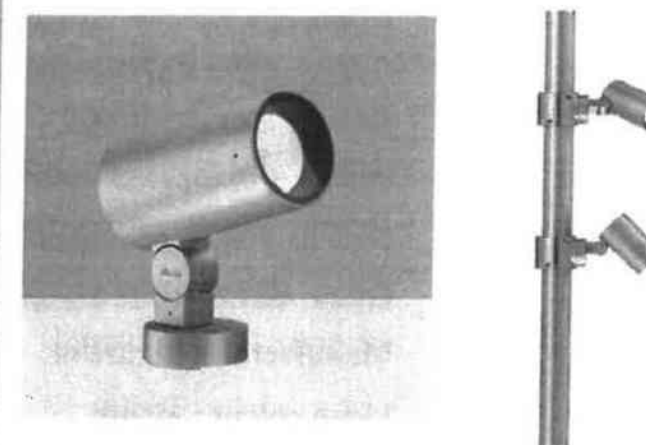


Detailed Lighting Specification I Mayfield Park

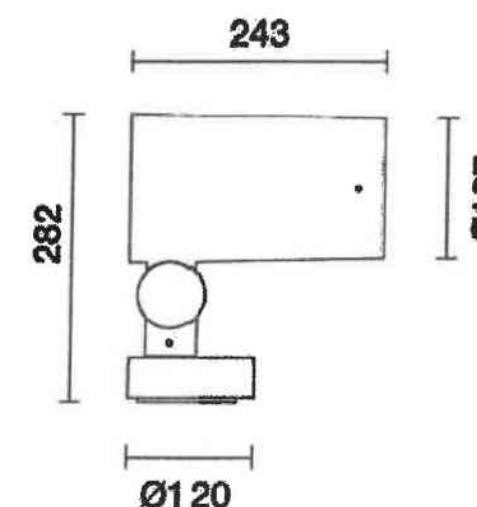
STUDIOFRACTAL

Fitting type	C2D (with WIFI + CAMERA + SPEAKER)
Manufacturer/Ref	iGuzzini/5000mm Column, 2 x Palco InOut EF43 pole refer to plan to understand which columns require photocells
Accessory	Luminaire Column mounting clamp required + Column Photocell, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66 Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 2 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear and photocell. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4m. Camera weight to be <8kg, 10mm electrical gland required. Final Camera spec tbc by VSS consultant. Speaker to be approx 2kg and mounted at 4500mm, 10mm electrical gland required requirements to be confirmed consultant. Wifi Access point to be mounted at 3800mm, requirements to be confirmed AP installer. 10mm electrical gland and counter sunk fixing screws (M8) to be provided. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base

Image



Dimensions

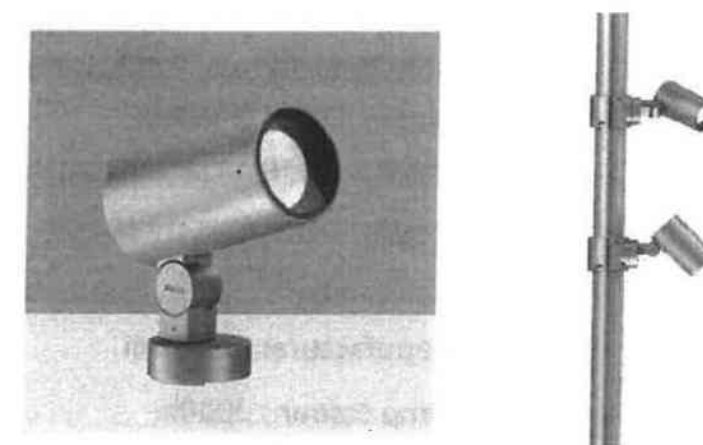


Detailed Lighting Specification I Mayfield Park

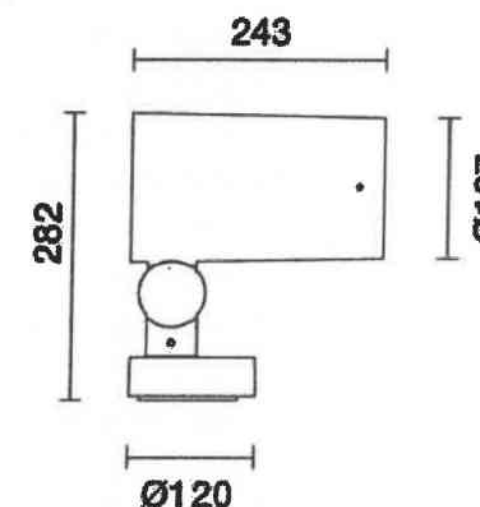
STUDIO FRACTAL

Fitting type	C2C (with VSS CAMERA + SPEAKER)
Manufacturer/Ref	iGuzzini/5000mm Column, 2 x Palco InOut EF43 pole refer to plan to understand which columns require photocells
Accessory	Luminaire Column mounting clamp required + Column Photocell, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66 Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 2 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear and photocell. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4m. Camera weight to be <8kg, 10mm electrical gland required. Final Camera spec tbc by VSS consultant. Speaker to be approx 2kg and mounted at 4500mm, 10mm electrical gland required requirements to be confirmed consultant. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base

Image



Dimensions



Detailed Lighting Specification I Mayfield Park

STUDIOFRACTAL

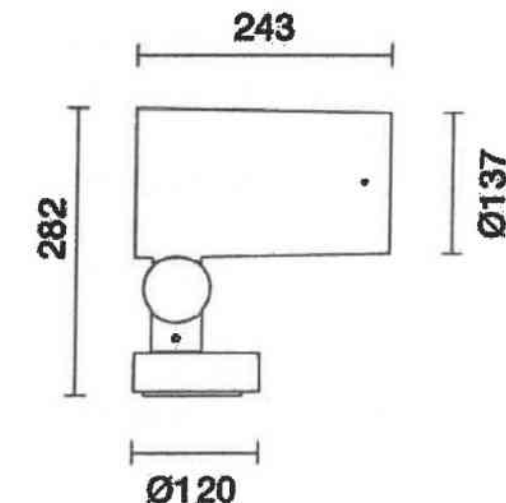
Fitting type	C2B (with VSS CAMERA)
Manufacturer/Ref	iGuzzini/5000mm Column, 2 x Palco InOut EF43 pole refer to plan to understand which columns require photocells
Accessory	Luminaire Column mounting clamp required + Column Photocell, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66 Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 2 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear and photocell. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4m. Camera weight to be <8kg, 10mm electrical gland required. Final Camera spec tbc by VSS consultant. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base

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Image



Dimensions



Document Ref:4292_SP_001
Date: 22/12/20

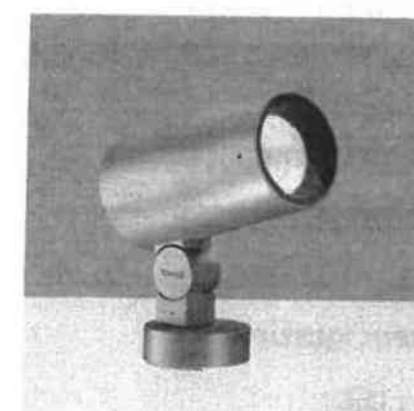
Detailed Lighting Specification I Mayfield Park

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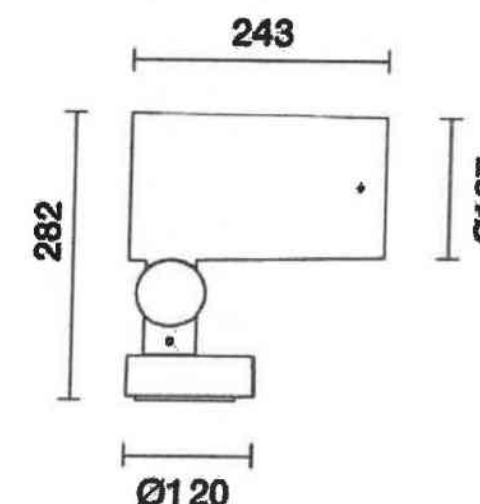
Fitting type	C2 A (with 16Amp temporary power outlet)
Manufacturer/Ref	iGuzzini/5000mm Column, 2 x Palco InOut EF43 pole refer to plan to understand which columns require photocells
Accessory	Luminaire Column mounting clamp required + Column Photocell, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66
Contact	Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 2 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear and photocell. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. 16AMP socket located within column accessible via seperate access door. Door to be notched to allow the door to be closed with temporary power cable plugged in Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

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Image



Dimensions



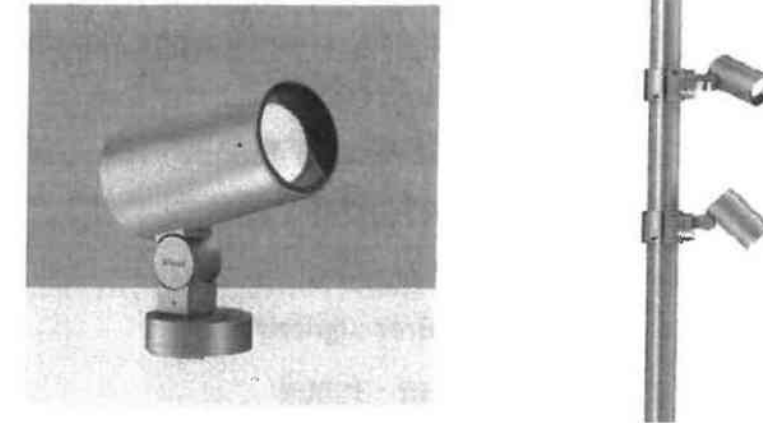
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Detailed Lighting Specification I Mayfield Park

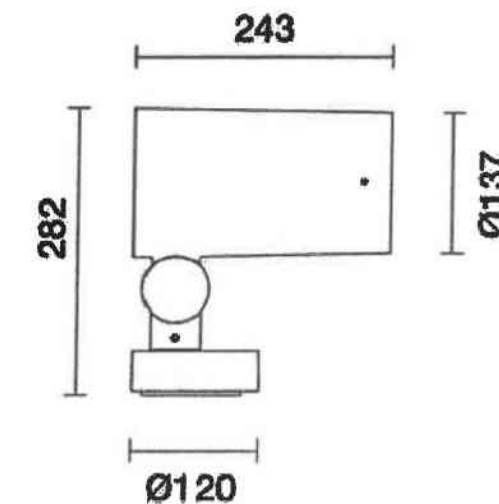
STUDIOFRACTAL

Fitting type	C2
Manufacturer/Ref	iGuzzini/5000mm Column, 2 x Palco InOut EF43 pole refer to plan to understand which columns require photocells
Accessory	Luminaire Column mounting clamps required + Column Photocell, X306 45° cylindrical screen, X308 Honeycomb louvre - IP66 Name David Griffiths Office +44 (0)1483 468000 Mobile +44 (0)7850 319459 Email david.griffiths@iguzzini.co.uk Manufacturer : Iguzzini
Lamp	Description : LED Lamp colour : 3000K No. lamps : single LED
Luminaire description	5m Column complete with 2 x IP66, 25.7W 2884lm 3000k LED projectors with aluminium housing and reflector, glass lens cover, tilt and rotate base plus column mounting clamps. Flood beam distribution. Switched gear and photocell. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

Image



Dimensions

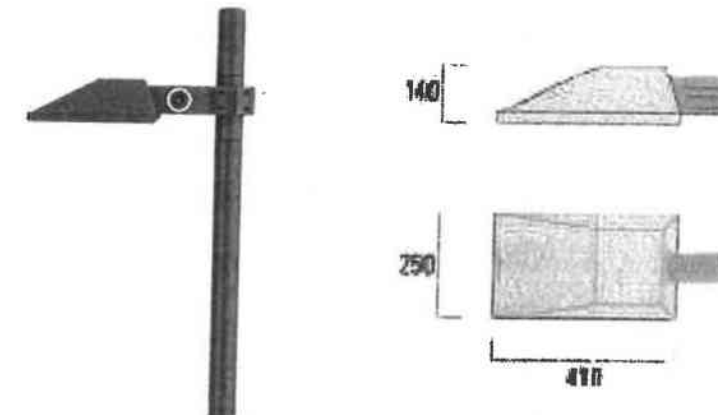


Detailed Lighting Specification I Mayfield Park

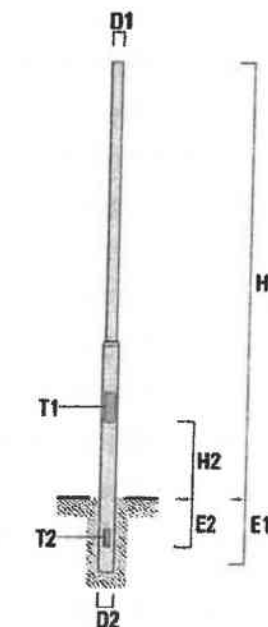
STUDIOFRACTAL

Fitting type	C1F (with WIFI)
Manufacturer/Ref	WE-EF PFL230 LED - 108-1627 on 5000mm pole
Accessory	230 Pole bracket (size of the clamp tbc), 5000 mm column
Contact	Name David Storey Office Mobile 07766 021409 Email: David.Storey@fagerhult.co.uk Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	5m Column complete with IP66, Pole mounted, 28W, LED, 2357 delivered lumens, 3000K, asymmetric-side throw beam , CRI > 80, switched driver. Column to be provided with single clamp bracket. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Wifi Access point to be mounted at 3800mm, requirements to be confirmed AP installer. 10mm electrical gland and counter sunk fixing screws (M8) to be provided. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

Image



Dimensions



H1: 5000mm
Please refer to
SF drawings for
column
requirements

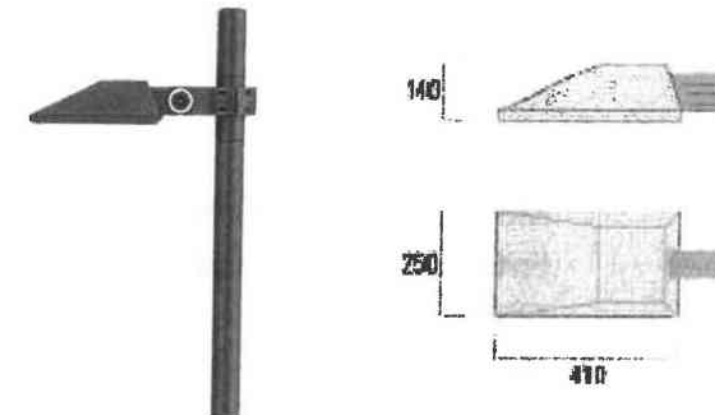
Detailed Lighting Specification I Mayfield Park

STUDIOFRACTAL

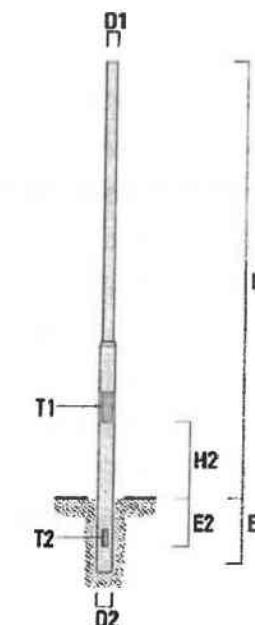
Fitting type	C1E (with WIFI + VSS CAMERA)
Manufacturer/Ref	WE-EF PFL230 LED - 108-1627 on 5000mm pole
Accessory	230 Pole bracket (size of the clamp tbc), 5000 mm column Reinforced for CCTV deflections requirements Name David Storey
Contact	Mobile 07766 021409 Email: David.Storey@fagerhult.co.uk Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	5m Column complete with IP66, Pole mounted, 28W, LED, 2357 delivered lumens, 3000K, asymmetric-side throw beam , CRI > 80, switched driver. Column to be provided with single clamp bracket. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4000mm, 10mm electrical gland required. Camera weight to be <8kg. Final Camera spec tbc by VSS consultant. Wifi Access point to be mounted at 3800mm, requirements to be confirmed AP installer. 10mm electrical gland and counter sunk fixing screws (M8) to be provided. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

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Image



Dimensions



H1: 5000mm
Please refer to
SF drawings for
column
requirements

Document Ref:4292_SP_001
Date: 22/12/20

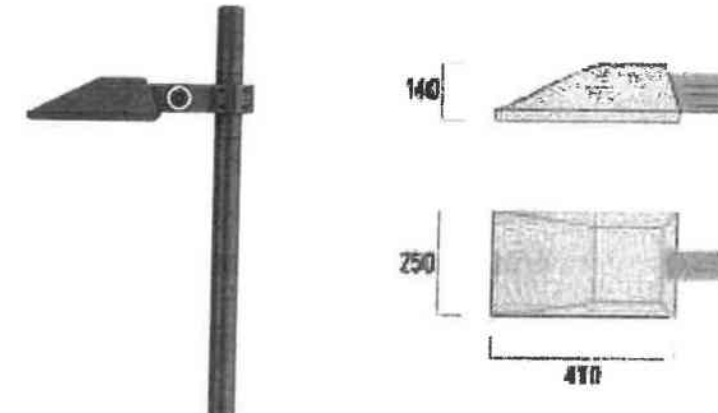
Detailed Lighting Specification I Mayfield Park

STUDIOFRACTAL

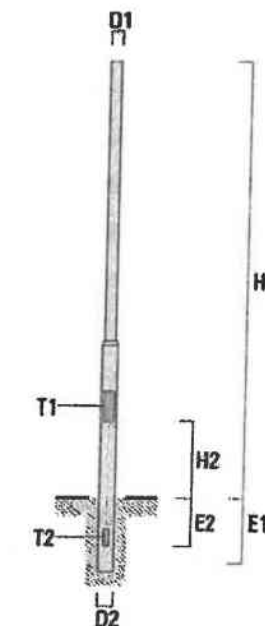
Fitting type	C1C (with VSS CAMERA + SPEAKER)
Manufacturer/Ref	WE-EF PFL230 LED - 108-1627 on 5000mm pole
Accessory	230 Pole bracket (size of the clamp tbc), 5000 mm column Reinforced for CCTV deflections requirements Name David Storey
Contact	Mobile 07766 021409 Email: David.Storey@fagerhult.co.uk Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	5m Column complete with IP66, Pole mounted, 28W, LED, 2357 delivered lumens, 3000K, asymmetric-side throw beam , CRI > 80, switched driver. Column to be provided with single clamp bracket. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4000mm. Camera weight to be <8kg. 10mm electrical gland required. Final Camera spec tbc by VSS consultant. Speaker to be approx 2kg and mounted at 4500mm, 10mm electrical gland required requirements to be confirmed consultant. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

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Image



Dimensions



H1: 5000mm
Please refer to
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column
requirements

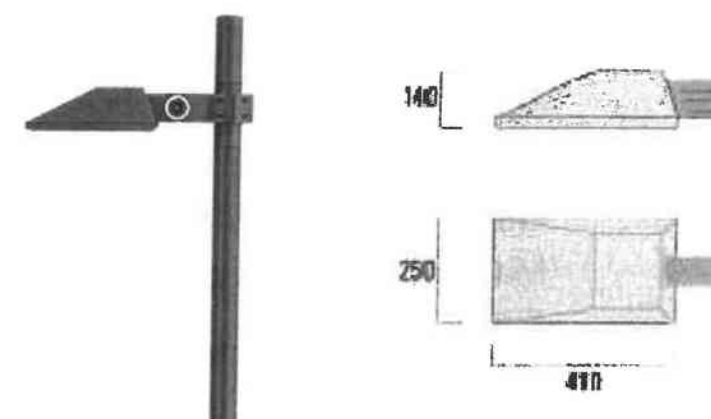
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Date: 22/12/20

Detailed Lighting Specification I Mayfield Park

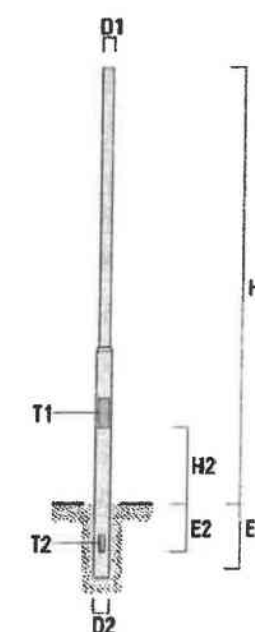
STUDIOFRACTAL

Fitting type	C1B (with VSS CAMERA)
Manufacturer/Ref	WE-EF PFL230 LED - 108-1627 on 5000mm pole
Accessory	230 Pole bracket (size of the clamp tbc), 5000 mm column Reinforced for CCTV deflections requirements Name David Storey Office
Contact	Mobile 07766 021409 Email: David.Storey@fagerhult.co.uk Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	5m Column complete with IP66, Pole mounted, 28W, LED, 2357 delivered lumens, 3000K, asymmetric-side throw beam , CRI > 80, switched driver. Column to be provided with single clamp bracket. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Columns to be reinforced to meet the VSS requirements of +/- 30mm at wind speeds of 100kph mounted at 4m. Camera weight to be <8kg, 10mm electrical gland required. Final Camera spec tbc by VSS consultant. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

Image



Dimensions



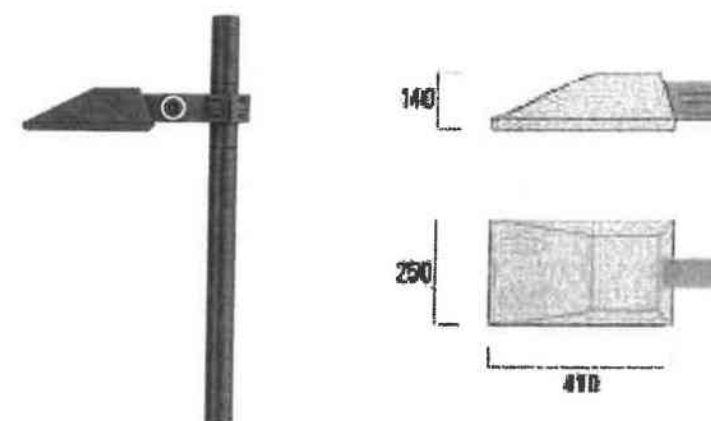
H1: 5000mm
Please refer to
SF drawings for
column
requirements

Detailed Lighting Specification I Mayfield Park

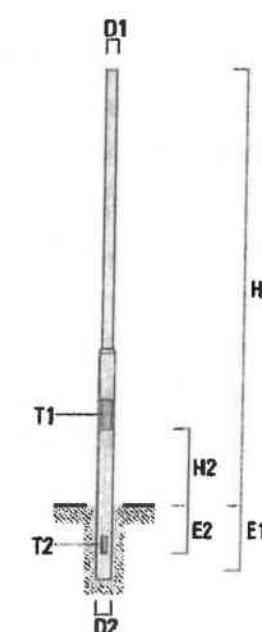
STUDIOFRACTAL

Fitting type	C1A (with 16Amp temporary power outlet)
Manufacturer/Ref	WE-EF PFL230 LED - 108-1627 on 5000mm pole
Accessory	230 Pole bracket (size of the clamp tbc), 5000 mm column 16AMP socket within column accessible via separate access door Name David Storey Office
Contact	Mobile 07766 021409 Email: David.Storey@fagerhult.co.uk Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	5m Column complete with IP66, Pole mounted, 28W, LED, 2357 delivered lumens, 3000K, asymmetric-side throw beam , CRI > 80, switched driver. Column to be provided with single clamp bracket. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). 16AMP socket located within column accessible via seperate access door. Door to be notched to allow the door to be closed with temporary power cable plugged in. Doors to have standard tri-key lock. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

Image



Dimensions



**H1: 5000mm
Please refer to
SF drawings for
column
requirements**

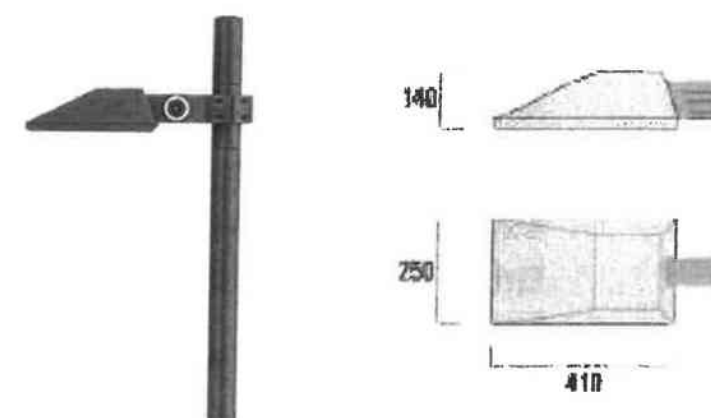
Detailed Lighting Specification I Mayfield Park

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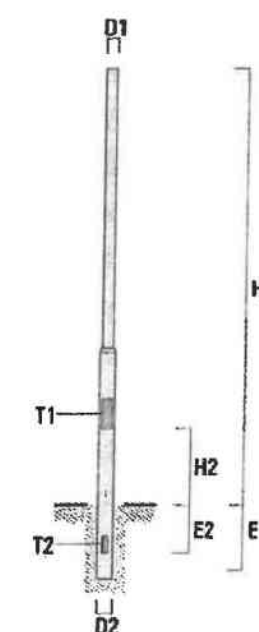
Fitting type	C1
Manufacturer/Ref	WE-EF PFL230 LED - 108-1627 on 5000mm pole
Accessory	230 Pole bracket (size of the clamp tbc), 5000 mm column
Contact	Name David Storey Office Mobile 07766 021409 Email: David.Storey@fagerhult.co.uk Manufacturer :
Lamp	Description : LED Lamp colour : 3000K No. lamps : multiple
Luminaire description	5m Column complete with IP66, Pole mounted, 28W, LED, 2357 delivered lumens, 3000K, asymmetric-side throw beam , CRI > 80, switched driver. Column to be provided with single clamp bracket. Columns to be supplied with access hatch at low level and complete with timber backboard for electrical cutout (electrical cutout supplied by contractor). Doors to have standard tri-key lock. Column supplier to ensure columns are in-line with latest BS/EN requirements and the foundation type is agreed with contractor prior to order. Manufacturer to provide drawings for design team approval prior to order. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	Note all columns to be the diameter at base
Location	Public Realm

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Image



Dimensions



H1: 5000mm
Please refer to
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requirements

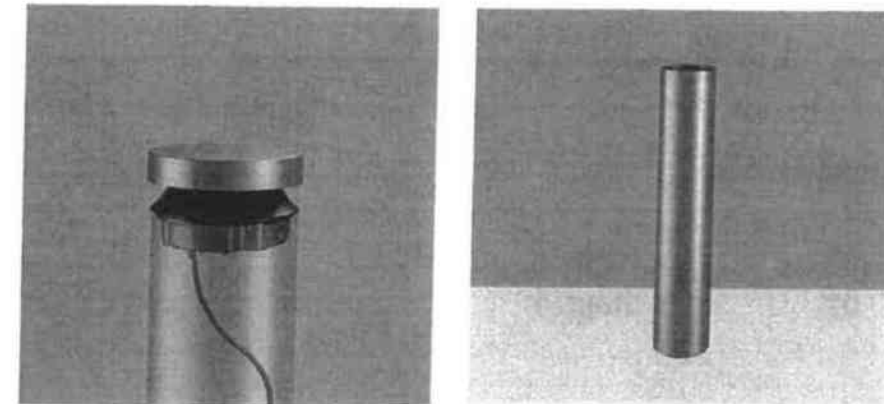
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Detailed Lighting Specification I Mayfield Park

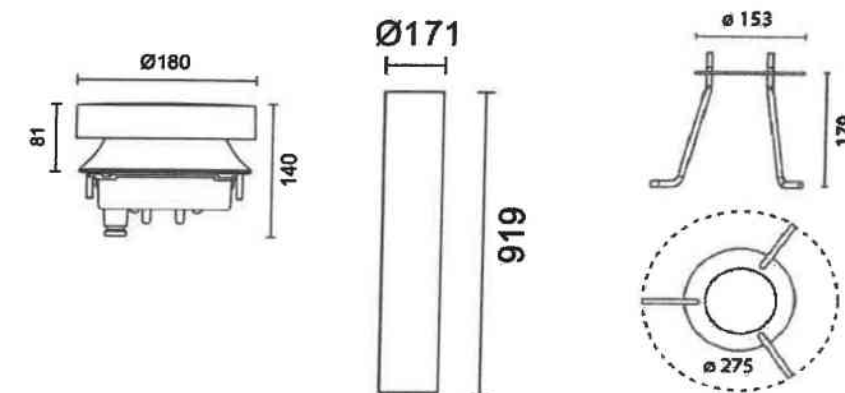
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Fitting type	B1
Manufacturer/Ref	iGuizzini - EN96 + EP17
Accessory	EP17, post for I Way optical compartment, diam 170mm-h 919mm, B513 counter plate with anchor bolts. Name David Griffiths Office 01483 468000 Mobile 07850 319459 Email: david.griffiths@iguzzini.co.uk Manufacturer :
Contact	Description : LED Lamp colour : 3000K No. lamps : multiple
Lamp	
Luminaire description	IP66, Surface mounted LED bollards, 12.3W, 1650 lumens, 3000K, 180 degrees asymmetrical beam. Material extruded aluminium. Luminaire to be supplied with EP17 post and B513 counter plate and bolts. Luminaire to be supplied with switched driver. Electrical engineer to confirm compatibility between control gear / transformer and lighting control system.
Appearance	RAL TBC by Architects
Notes	CRI 80
Location	Pathways

Image



Dimensions



Detailed Lighting Specification I Mayfield Park

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This document outlines the latest detail design specialist lighting specification for the above project.

Document Revision

00	Stage 3
01	Stage 4

Revision Note

Date of issue

23/11/2020
22/12/2020

Document Produced By E.Flouda
Document Approved By C.Sutherland

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