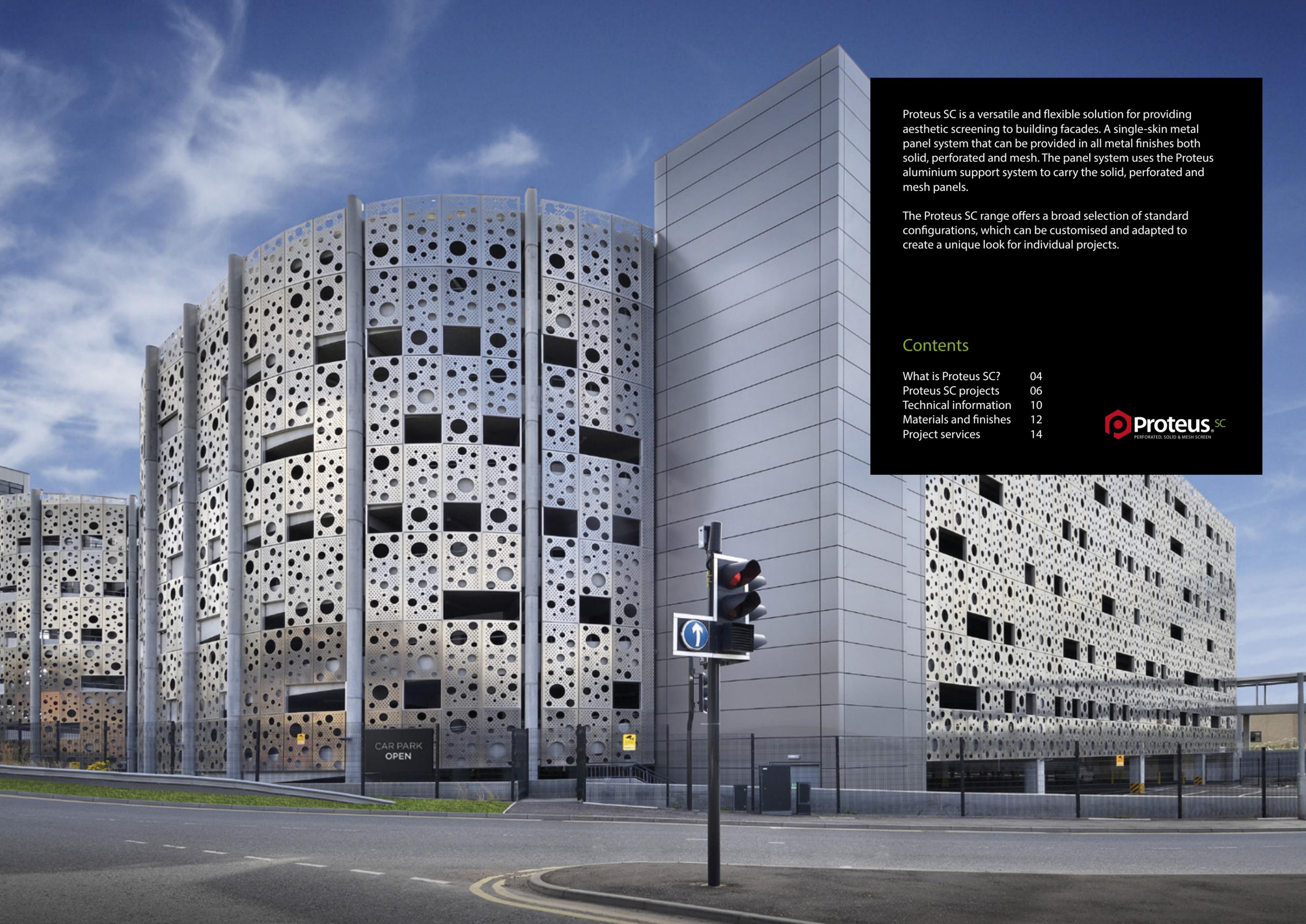


C/SfB  
(41) Nh2  
September 2014





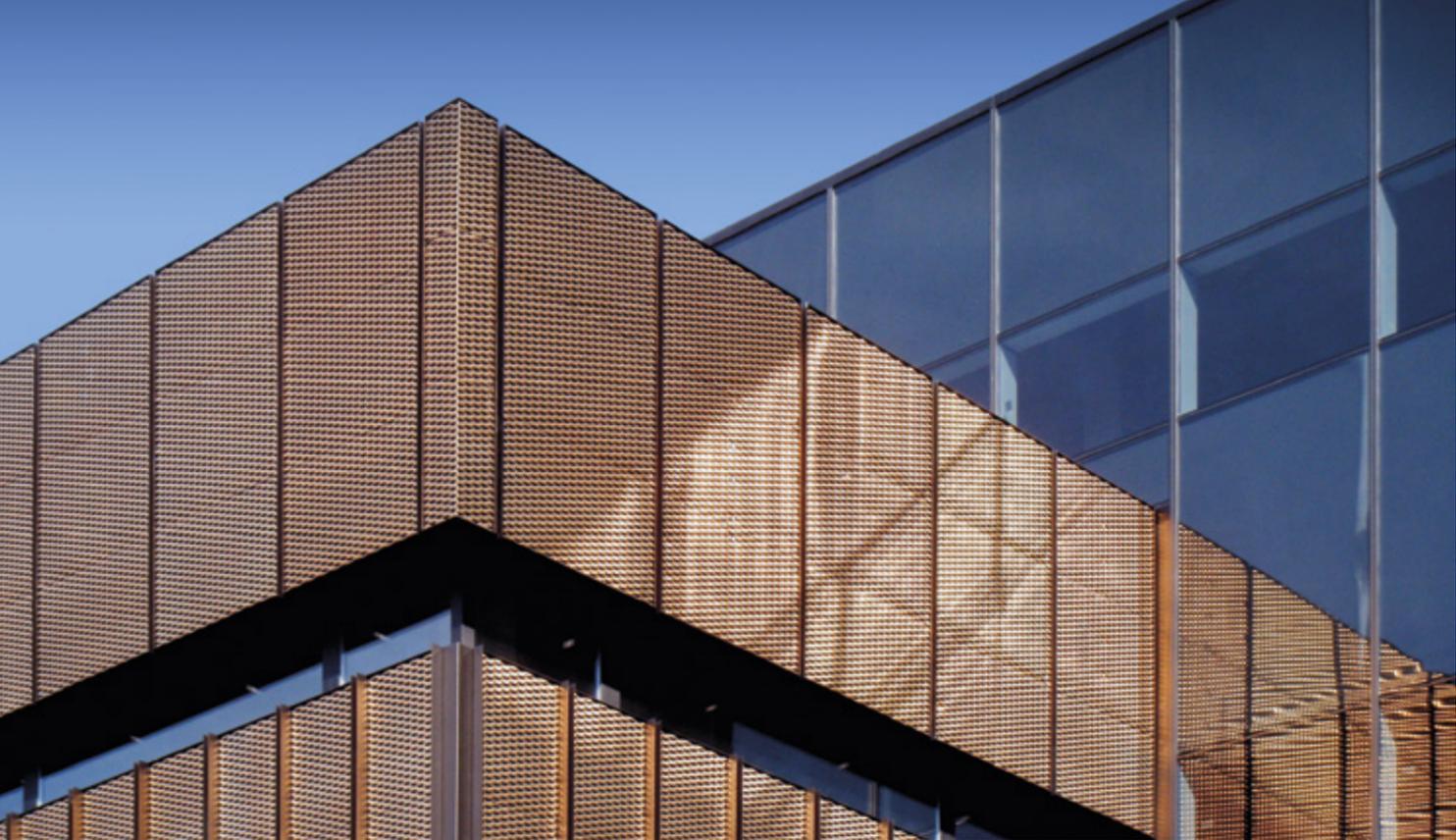
Proteus SC is a versatile and flexible solution for providing aesthetic screening to building facades. A single-skin metal panel system that can be provided in all metal finishes both solid, perforated and mesh. The panel system uses the Proteus aluminium support system to carry the solid, perforated and mesh panels.

The Proteus SC range offers a broad selection of standard configurations, which can be customised and adapted to create a unique look for individual projects.

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Technical information	10
Materials and finishes	12
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## What is Proteus SC?

Proteus SC is an engineered panel system in either solid, perforated or mesh panel formats utilising an extensive range of metals, colours, textures and forms.

Proteus SC consists of a single skin solid, perforated or mesh panel, generally constructed from 1mm to 5mm thick sheet metal. The design of the panel will be subject to the material chosen by the designer, with some materials having limitations on width and thickness which will have an impact on the solution, however Proteus SC can be engineered around these limitations to deliver the best possible solution for the designer. The live loadings applied to the building along with the amount of perforations or size of eyes within the mesh, either required for aesthetics or air flow requirements will also be a consideration when creating the final design solution.

Our Proteus SC panel systems are supported by the unique engineered Proteus system of aluminium carriers and ancillary components, which can be installed on to any type of wall construction, in certain applications these carrier systems will be designed to span between structural floors to remove the requirement for any secondary structure.

The Proteus SC system can also be provided with an acoustic insulation layer encapsulated within the panel, for internal applications we can also provide contrasting fabric inserts when the panels are perforated.

### Where can Proteus SC be used?

The Proteus SC system can be used in a variety of applications, here are just a few typical uses:

- Car parks
- Stair towers
- Window screens
- Plant screens
- Balconies & balustrading
- Acoustic panels
- Sun screening
- External wall coverings
- Internal wall coverings

**Engineered to suit the application and supporting structure**

**Wide range of colours, textures and perforations to create bespoke facades**

**All panels assembled at our factory and pre-finished for rapid installation on site**

**Fully adjustable support system on all axis**

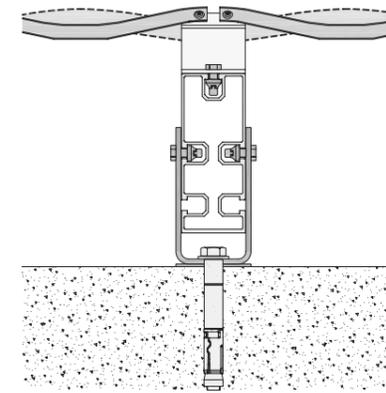
**Integrates seamlessly with all other Proteus systems**

**Flat, curved, corner and soffit panels available for solid, perforated and mesh panels**

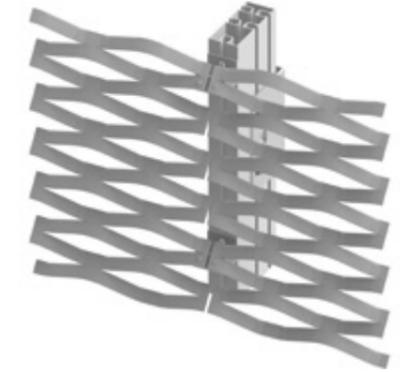
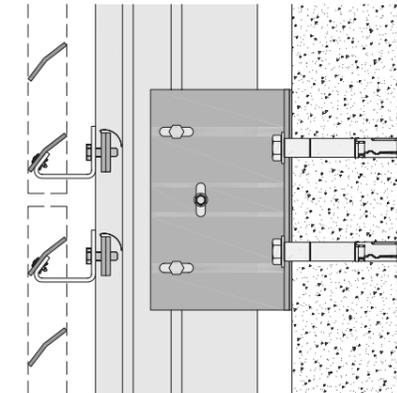
**Construction can be broken down and fully recycled**

## Mesh panel system

### Mesh vertical joint

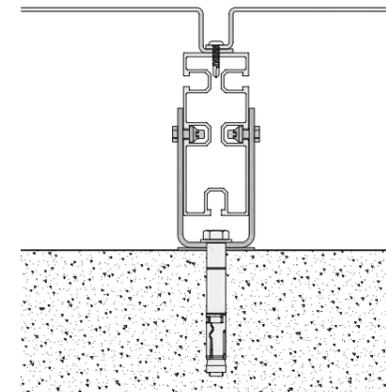


### Mesh horizontal joint

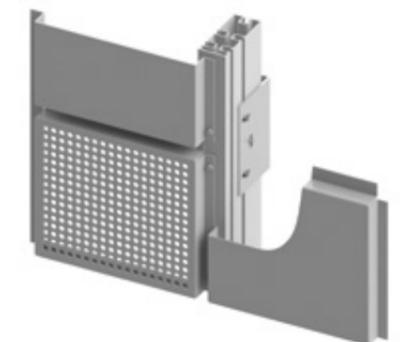
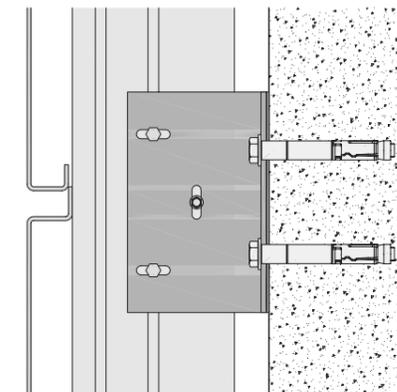


## Tray panel system

### Tray vertical joint

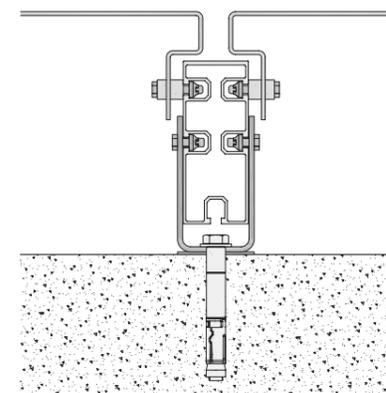


### Tray horizontal joint

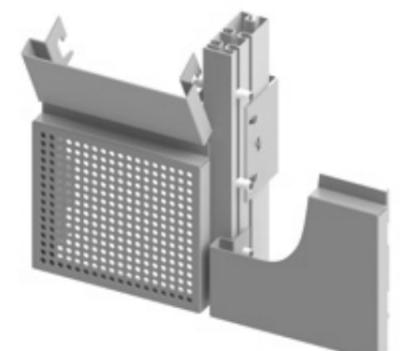
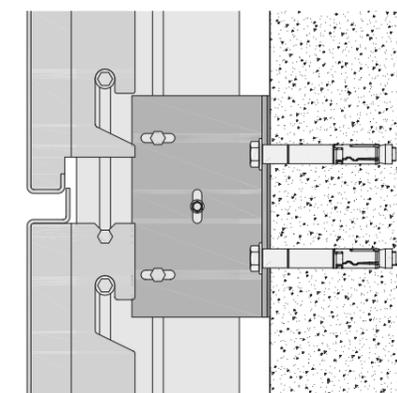


## Hook panel system

### Hook vertical joint

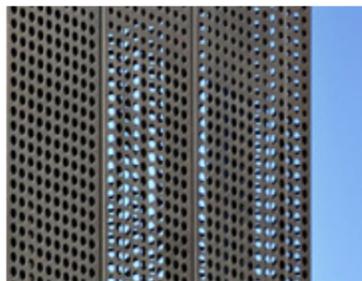
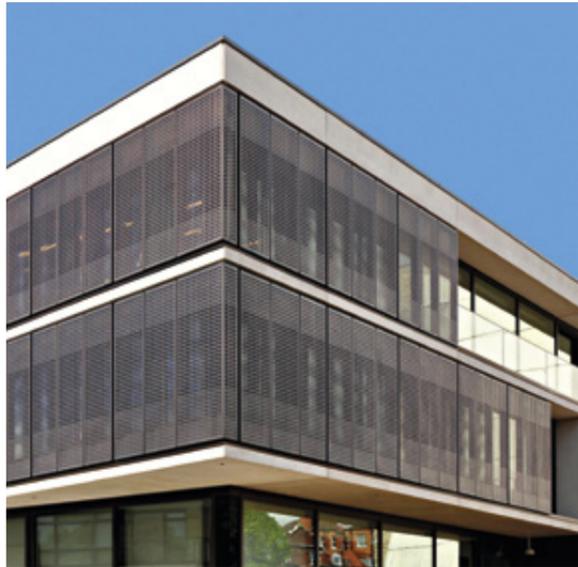


### Hook horizontal joint



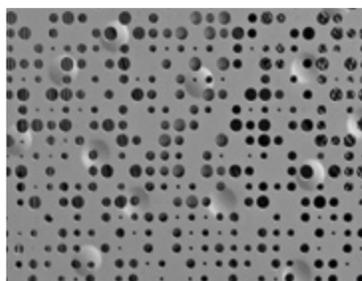
## Proteus SC projects

Proteus SC is suitable for a range of buildings, from offices and other workplaces through to public buildings and residential developments. The images here reflect just a few of the high-profile schemes that have used Proteus SC.



### Project: JCC, London

**Sector:** Education  
**Architect:** Lifschutz Davidson Sandilands  
**Finish:** Brass with a burnished Artisan finish



### Project: Pembury Circus, London

**Sector:** Residential  
**Architect:** Fraser Brown McKenna  
**Finish:** Polyester powder coated steel

## Project: BSkyB Studios, Wind Turbine

**Sector:** Commercial  
**Architect:** Arup  
**Finish:** Natural silver anodised aluminium



**Project:**  
Hayes Primary School,  
Surrey

**Sector:** Education  
**Architect:** Hayhurst & Co  
**Finish:** Mirror finish stainless steel with  
grit polished rear face

An imaginative and practical new building, The Hayes Primary School in Croydon has been extended and modernised with a striking bright polished stainless steel façade providing a renewed energy to a building at the heart of its community.



## Perforated screen

Proteus SC Panels offer designers the flexibility to generate a myriad of perforation sizes, patterns and textures.



## FORM

Bespoke textured patterns

Most perforated or solid screens are one dimensional. Form now offers designers the ability to conceive a second dimension by forming shapes into the surface offering designers the ability to generate texture and movement in the screen.

**KEY:**

Other perforation shapes are available upon request.

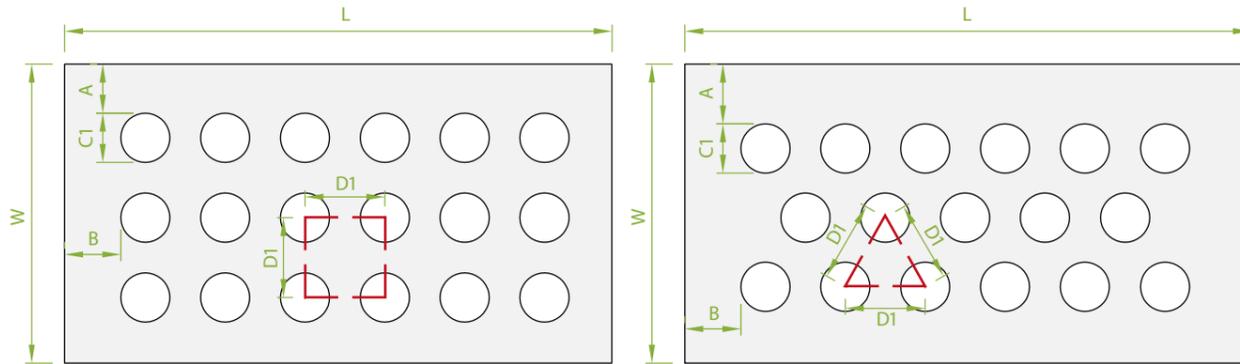
Circle	Square	Rectangle	Rhombus
Hexagon	Triangle	Ellipse	Obround

<b>A</b>	Perimeter border 1
<b>B</b>	Perimeter border 2
<b>C1</b>	Perforation size 1
<b>C2</b>	Perforation size 2
<b>D1</b>	Perforation spacing 1
<b>D2</b>	Perforation spacing 2
<b>L</b>	Length of panel
<b>W</b>	Width of panel

Pattern orientation can be modified to suit requirement.

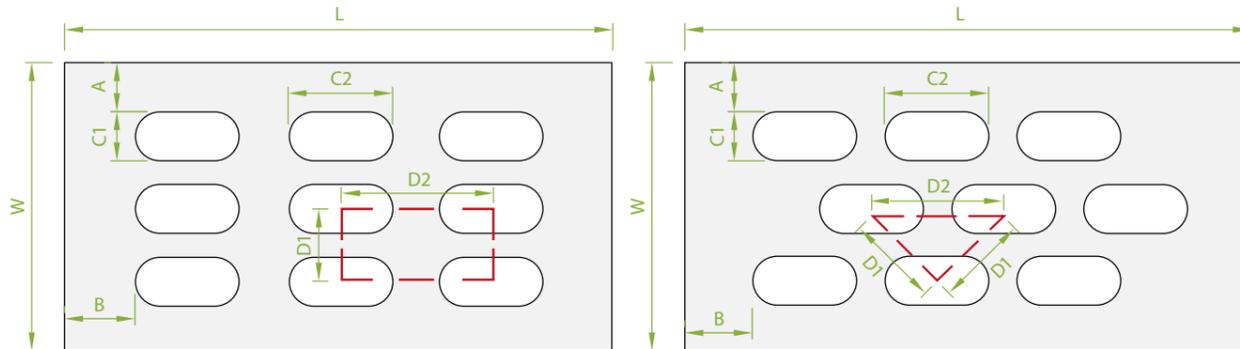
### Square pattern

### Triangular pattern



### Square pattern

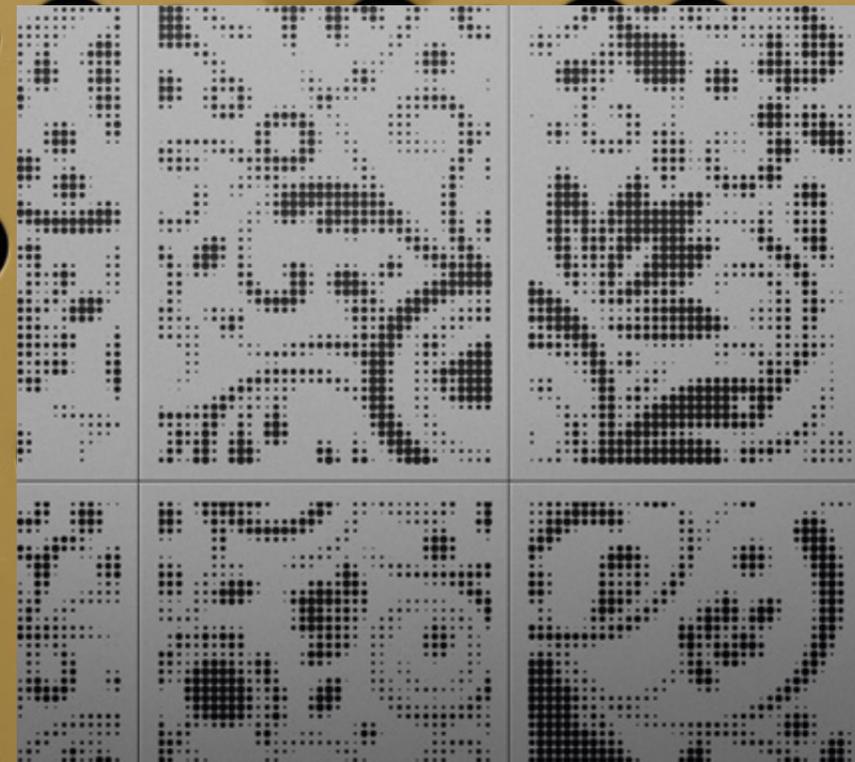
### Triangular pattern



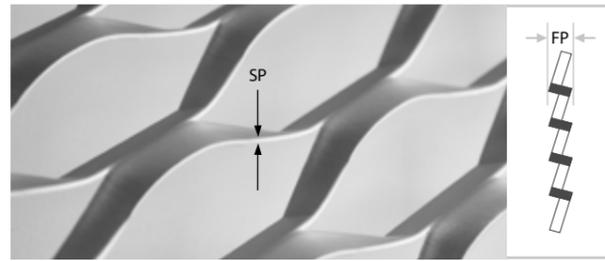
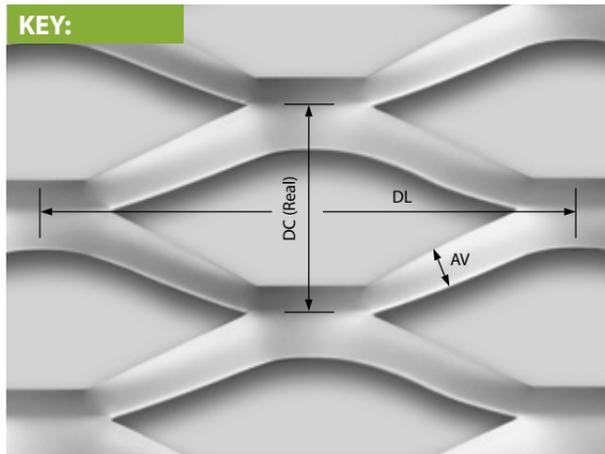
## CREATE

Bespoke perforated panels

Utilising the latest computer software to pixelate images, logos, letters and numbers to create a bespoke perforation pattern that can be applied to one panel or a number of panels to create a "jigsaw" that can be applied to a whole building façade. Create offers a designer and building owner the ability to set their individual mark on a building façade.



## Expanded mesh



		Example			
DL	Long Diagonal				
DC	Short Diagonal				
AV	Strand Width	DL x DC	DC (Real)	av	sp
SP	Thickness	200	75	(80)	24
FP	Flat Thickness				1.5

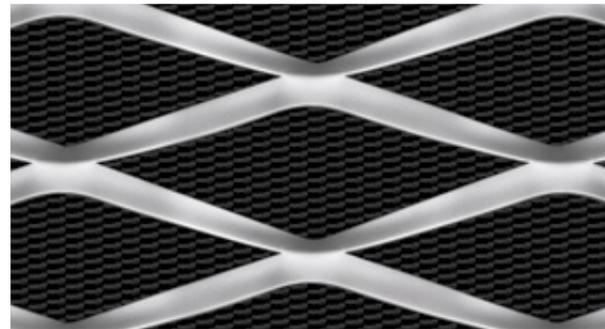
## XL expanded mesh

### Antilia



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
400 x 150 (100) - 40 x 2	12.5	4.3	41	27.5
400 x 150 (100) - 40 x 3	18.7	6.5	41	27.5

### Apus



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
400 x 140 (140) - 33 x 2	7.2	2.6	53	63
400 x 140 (140) - 33 x 3	11	3.8	53	63

### Aquila



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
350 x 120 (120) - 33 x 2	8.6	3	52	59
350 x 120 (120) - 33 x 3	12.9	4.5	52	59

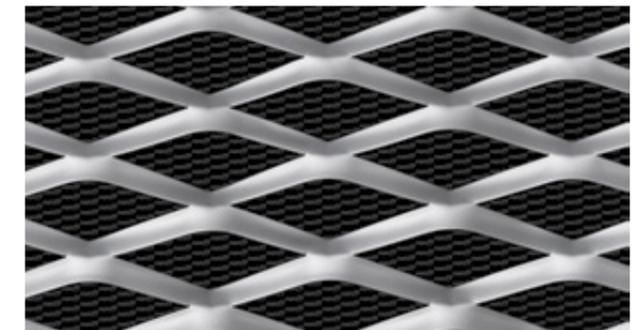
## Large expanded mesh

### Carina



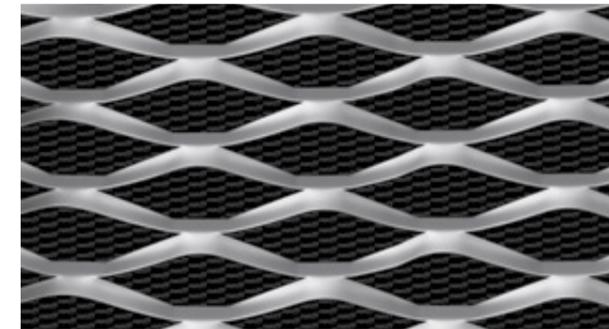
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
250 x 90 (96) - 25 x 1.5	6.3	2.1	37	59
250 x 90 (96) - 25 x 2	8.4	2.8	37	59
250 x 90 (96) - 25 x 3	12.6	4.2	37	59

### Draco



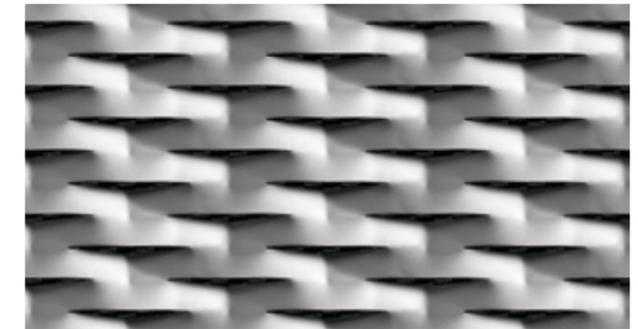
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
200 x 75 (80) - 24 x 1.5	7.1	2.4	32	52.3
200 x 75 (80) - 24 x 2	9.4	3.2	32	52.3
200 x 75 (80) - 24 x 3	14.1	4.7	32	52.3

### Eridanus



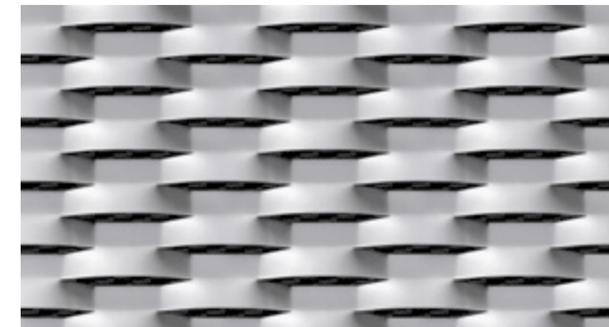
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
200 x 65 (70) - 20.6 x 1.5	7.2	2.4	28	56
200 x 65 (70) - 20.6 x 2	9.3	9.3	28	56
200 x 65 (70) - 20.6 x 3	14	14	28	56

### Fornax



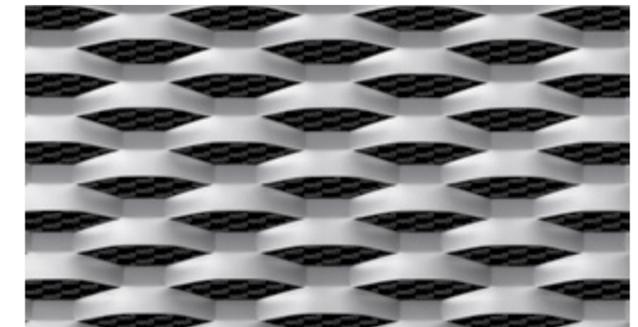
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
160 x 40 (52) - 24 x 1.5	10.6	3.6	18	10.2
160 x 40 (52) - 24 x 2	14.1	4.7	18	10.2

### Grus



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
160 x 40 (52) - 24 x 1.5	10.8	3.6	16	15
160 x 40 (52) - 24 x 2	14.4	4.8	16	15
160 x 40 (52) - 24 x 3	21.6	7.2	16	15

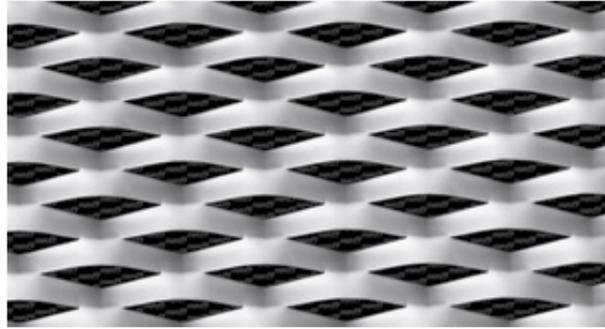
### Hydra



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
150 x 56 (56) - 21.5 x 1.5	9.3	3.1	21	29.8
150 x 56 (56) - 21.5 x 2	12.4	4.2	21	29.8

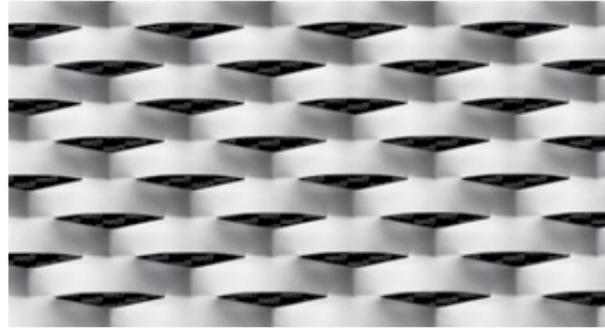
## Medium expanded mesh

### Indus



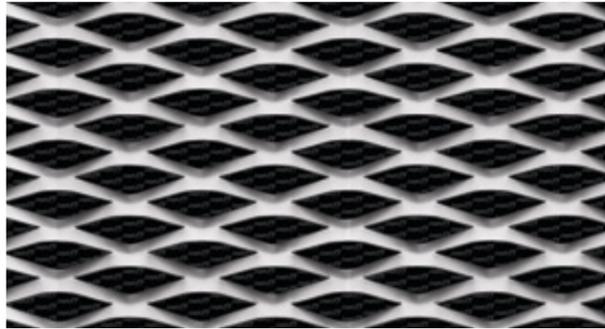
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
115 x 40 (48) - 20 x 1.5	9.7	3.2	21	26
115 x 40 (48) - 20 x 2	12.8	4.2	21	26
115 x 40 (48) - 20 x 3	19.3	6.4	21	26

### Lyra



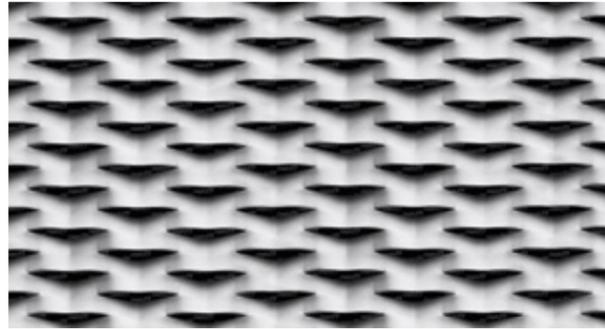
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
110 x 40 (52) - 24 x 1.5	10.6	3.6	18	16
110 x 40 (52) - 24 x 2	14.1	4.7	18	16
110 x 40 (52) - 24 x 3	21.1	7	18	16

### Musca



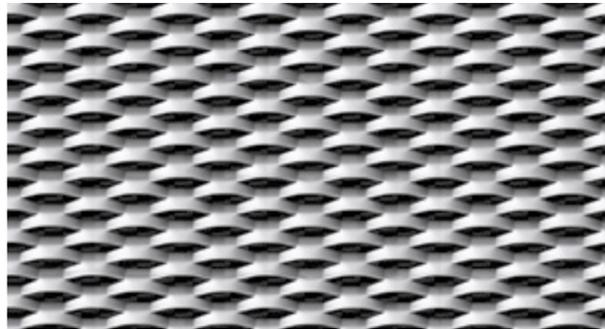
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
100 x 35 - 11 x 1.5	7.55	2.7	15	45
100 x 35 - 11 x 2	10.1	3.5	15	45

### Octans



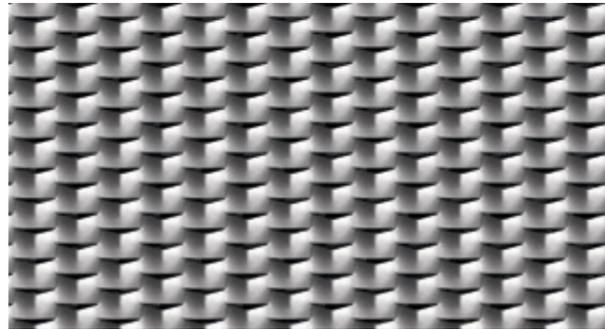
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
100 x 30 - 13 x 1.5	10.4	3.55	13	17
100 x 30 - 13 x 2	13.4	4.7	13	17

### Pavo



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
70 x 26 - 10 x 1.5	9	3.1	11	29
70 x 26 - 10 x 2	12	4.2	11	29

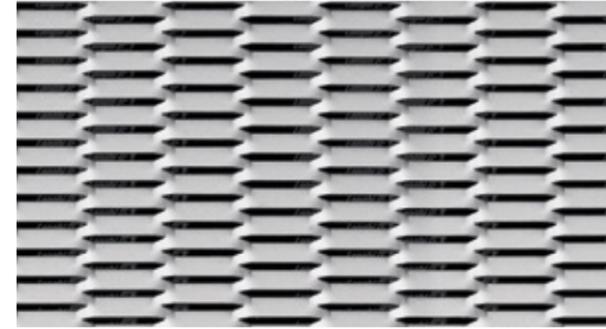
### Pictor



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
62 x 22 - 10 x 1.5	10.5	3.6	9	12
62 x 22 - 10 x 2	14.1	4.9	9	12

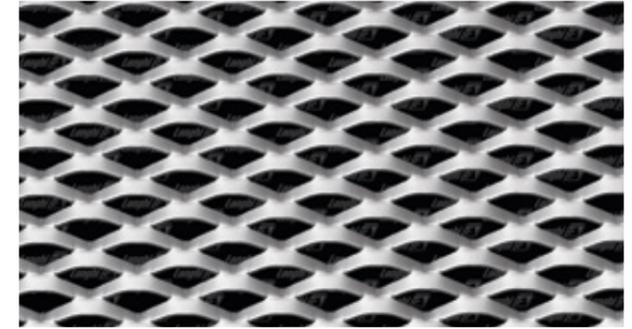
## Small expanded mesh

### Sagitta



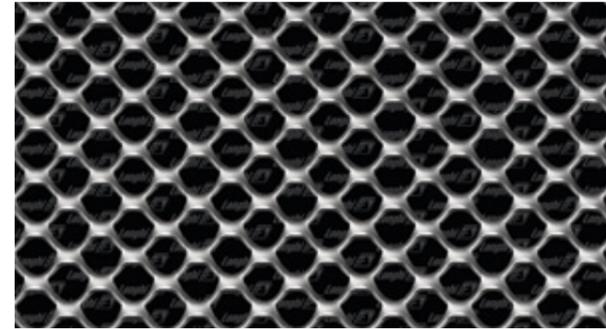
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
45 x 8 - 3.5 x 1	6.8	2.4	4	23
45 x 8 - 3.5 x 1.5	14.4	4.8	4	23

### Tucana



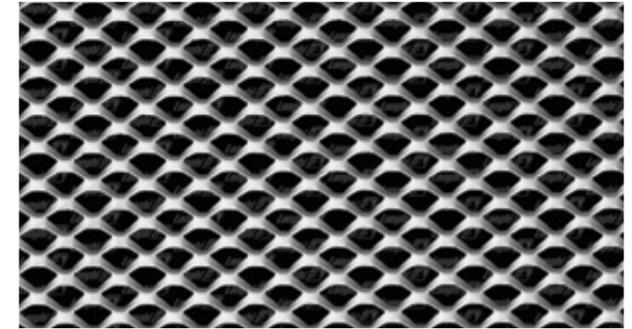
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
28 x 14 - 5 x 1.5	8.4	3	7	32
28 x 14 - 5 x 2	11.3	3.9	7	32

### Ursa



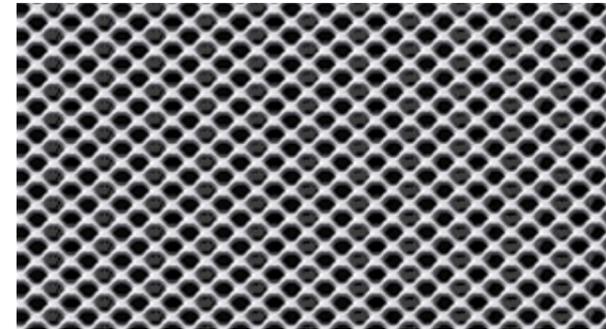
Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
20 x 10Ø - 3.25 x 1.5	5.4	1.95	5	60
20 x 10Ø - 3.25 x 2	7.1	2.5	5	60

### Vela



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
16 x 11 - 3 x 1.5	5.8	2.25	4	45
16 x 11 - 3 x 2	8.6	3	4	45

### Volans



Dimensions DL x DC - av x sp (mm)	Steel Kg/m <sup>2</sup>	Aluminium Kg/m <sup>2</sup>	Finished Panel Thickness (mm)	Open Area (%)
10 x 5Ø - 1.6 x 1	3.3	1.15	2	50
10 x 5Ø - 1.6 x 1.5	4.9	1.7	2	50
10 x 5Ø - 1.6 x 2	6.5	2.4	2	50

Please contact Proteus regarding requests for mesh profiles not shown in this brochure, a wide range of other profile size and shapes are available. Please contact us to discuss your material requirements as not all metals are suitable for manufacturing into mesh.

Please see our website to view available anodised and painted finishes  
[www.kmearchitectural.com](http://www.kmearchitectural.com)

# Materials and finishes

Please note that all colours shown are representative in print process, we recommend that you request a swatch sample from our sales department for an accurate representation.

All logos and trade names remain the property of their respective owners.



## Copper & copper alloys

### TECU®

The rich diversity of the TECU range of copper and copper-alloy materials allows unparalleled variety and high-quality aesthetics for architecture.

**Material width:** 670, 1000mm

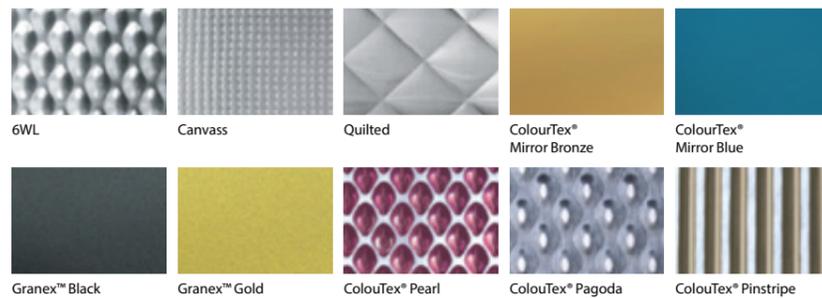


## Stainless steel



Stainless steel offers the ideal combination of high strength, excellent corrosion resistance and a modern, progressive image.

**Material width:** 1000, 1250, 1500mm

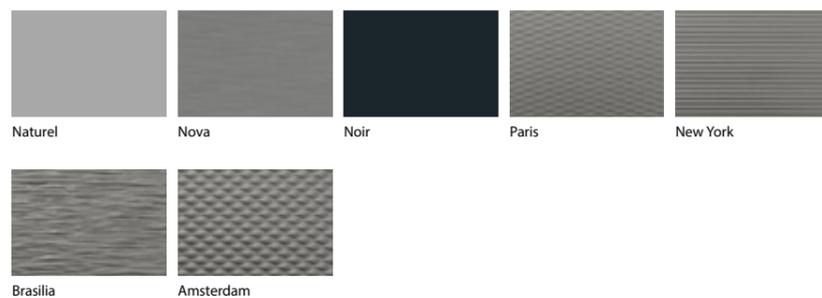


## Zinc



Building owners and architects are increasingly turning to zinc for its long, maintenance-free life and adaptability to various design styles ranging from traditional to modern.

**Material width:** 670, 1000mm



## Anodised aluminium



Anodising enhances and reinforces the natural beauty of aluminium to create a living surface constantly interacting with the natural or artificial light playing across its surface.

**Material width:** 1000, 1250, 1500, 2000mm



## Pre coated and post coated aluminium

Aluminium, with its distinctive contemporary look, can be post coated in any RAL colour and can be prefinished with unique coating formulations offering long-term performance.

**Material width:** 1000, 1250, 1500mm



## Weathering steel

Weathering steel offers superior resistance to atmospheric corrosion because of its protective layer, which develops and regenerates continuously as the material is weathered.

**Material width:** 1000, 1250mm



Please contact Proteus regarding requests for material not shown in this brochure, a wide range of other colours, textures and sizes are available. Please note some materials require minimum order quantities in relation to varying thickness/specification that may be required to create a single skin screen panel.

The finishes shown are a small sample of the available finishes, please see our website for more [www.kmearchitectural.com](http://www.kmearchitectural.com)

## Project services

### Consultation

We offer a full consultation service at the early stages of your project, helping you choose the right specification for your scheme and your budget. Our technical department will provide design assistance to ensure compliance and provide a cost-effective solution. As part of the consultation process we can provide standard product samples and can also assist in the development of project specific prototypes, mock ups and project samples to allow you to visualise your perfect Proteus solution.

### Estimating

Our experienced estimators can advise on all aspects of the Proteus system and its application, along with detailed cost information in a timely manner. We can provide robust budget estimates for cost plan purposes through to full project take-offs with detailed quotations taking into account all Proteus materials required to complete your project.

### Manufacture

All Proteus products are custom manufactured in our UK factory for each individual project. All elements are supplied pre-finished, ready for on-site installation. Our manufacturing operation features state-of-the-art production facilities, backed up by an uncompromising approach to quality control. Our CNC-driven process offers full flexibility in terms of dimensions.

## Proteus product range



The Proteus AR system consists of a range of continuous and modular louvres and modular brise soleil. The system is manufactured from aluminium and is fixed to the Proteus carrier system via an ingenious plastic clip system.



The Proteus HR system is a honeycomb panel system that utilises the Proteus aluminium support and fixing system. The face of the panel utilises a range of thin metal veneers such as aluminium, zinc, stainless steel, and copper resulting in optically flat and stunning facades.



The Proteus CX system is a honeycomb panel system that utilises the Proteus aluminium support and fixing system. The face of the panel has a 3.5mm thick ceramic layer, giving the appearance of large-format stone/ceramic panels.



The Proteus GL system is a honeycomb panel system that utilises the Proteus aluminium support and fixing system. The face of the panel has a 4mm to 6mm thick back painted glass layer. The system is a creative, cost effective and energy efficient method of applying glass to buildings.

## Quality assurance

We manufacture all our products to the highest quality standard, operating a BSI accredited Quality Management System in compliance with the requirements of ISO 9001. Our products are manufactured from the highest-quality materials from our approved supply chain, using state-of-the-art production equipment which is rigorously controlled through inspection and testing at each production stage. Our products are designed and manufactured in accordance with all related and prevailing standards.



FS 581452

## Environment

We operate a highly efficient manufacturing facility that operates a BSI accredited Environmental Management System in compliance with the requirements of ISO 14001. We are constantly focused on increasing our understanding and improving the sustainability of our products. By continually improving our products and processes we aim to recover and recycle all our waste. Using the most precise material optimisation software, we ensure our yield of finished product from raw materials is maximised, thus reducing our waste. As a direct result, we reduce our carbon-dioxide emissions, reducing our environmental footprint and that of our customers. Our systems can be simply disassembled on site and transported to be reused or recycled.



EMS 581453

## Health and safety

Our Business Delivery is managed efficiently and responsibly through the practice of our BSI accredited Occupational Health & Safety Management System in compliance with the requirements of ISO 18001. Through our Management System we promote a safe and healthy working environment by providing a framework that allows our organisation to identify and control its health and safety risks, reduce the potential for accidents, ensure legislative compliance and improve overall performance.



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