

# Graepels Picture Perf

| All you need to know

January 2017

**Your Choice for  
Perforated Metal  
& Woven Mesh**



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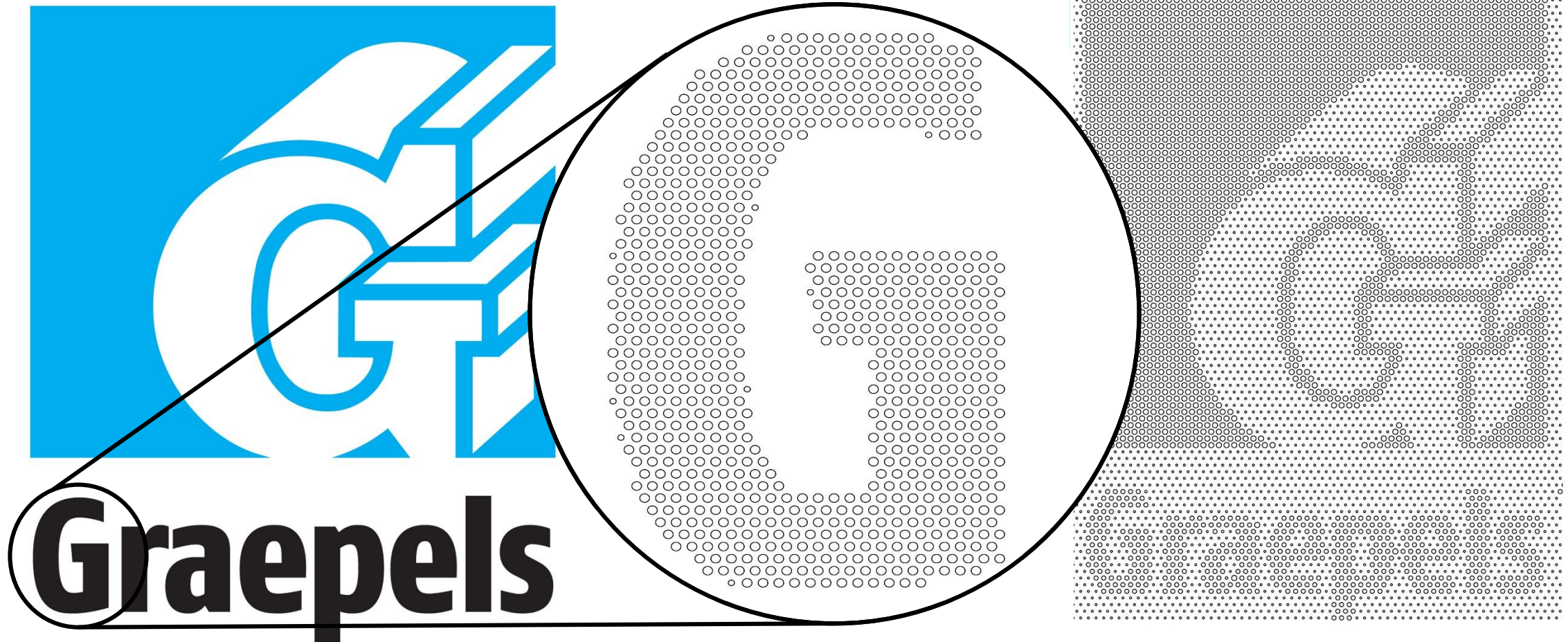
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## Picture Perf: What is Picture Perf?

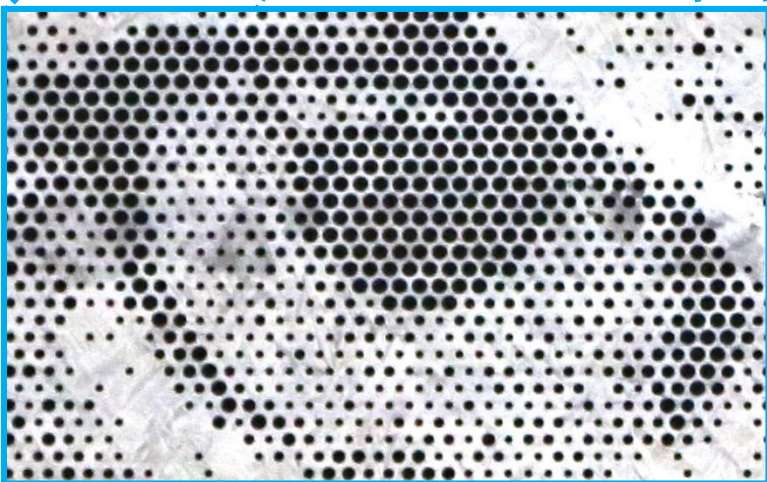
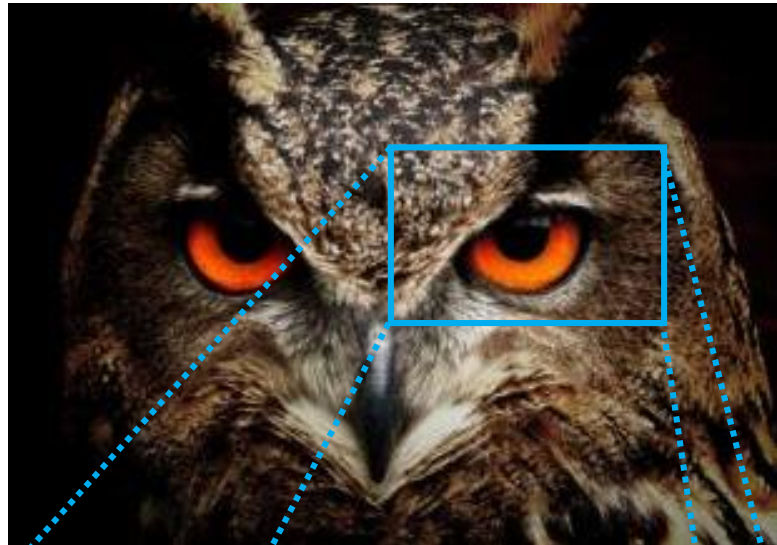
Picture Perf involves taking an image/graphic and translating it onto metal by perforating different sizes holes into a metal sheet. Various perforations shapes and sizes can be used to add shading, depth and detail





# Picture Perf: The process

Picture Perf starts with an image which is processed by our designers



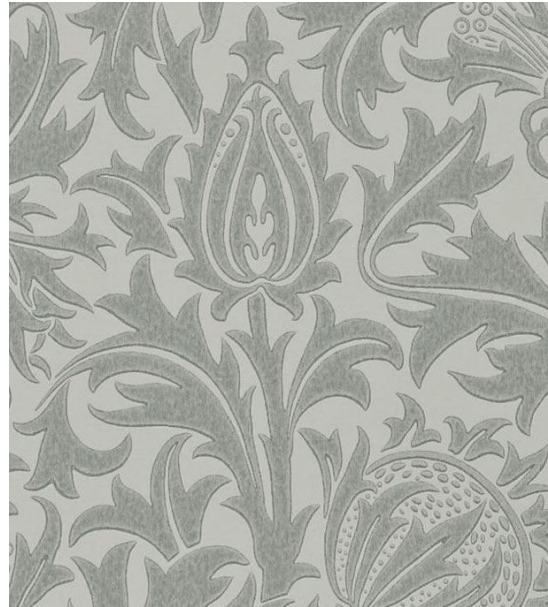


# Picture Perf: The process

High resolution images allow for more desirable Picture-Perf results



Sharpness - less graininess = Clear Picture Perf



A. Grainy Image

Low resolution image



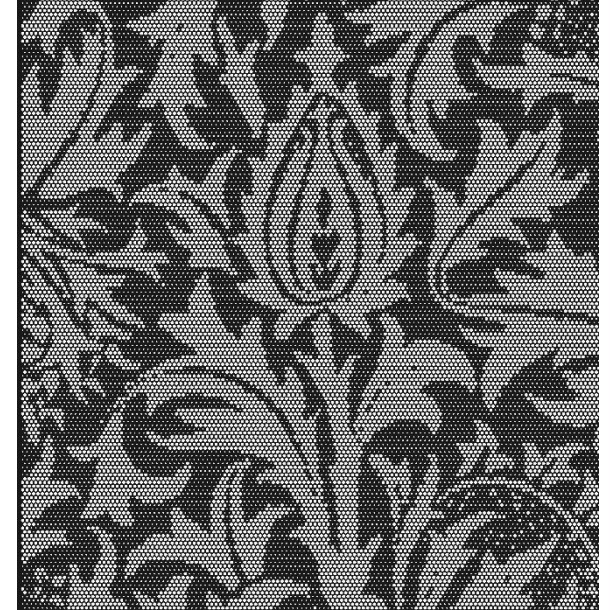
Grainy Result

Borders not well defined



B. Sharp Image

Higher resolution image



Sharp Result

Perforations are sharp



# Picture Perf: Options

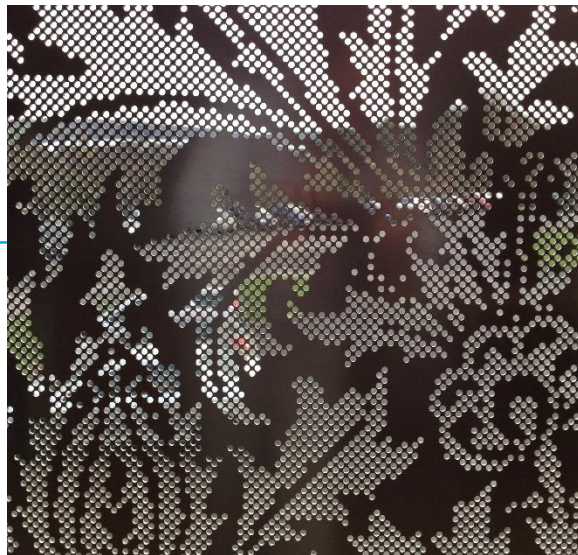
Original Image



Mock-ups



Samples



Option 1.

Perforated using two hole sizes which reflect the two colours, black and white.

This gives the sample a higher transparency. Less Contrast.

Option 2.

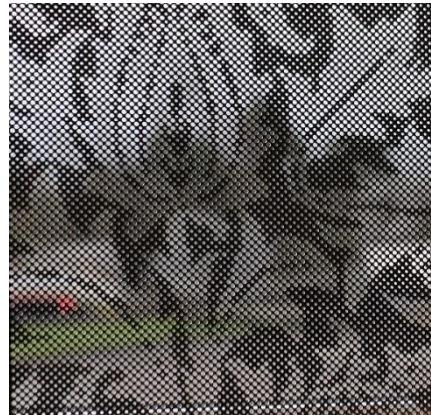
One hole size, the background of the image is un-perforated.

Decreasing the transparency of the Panel and increasing the contrast



# Completed: Aveling Lloyd, London

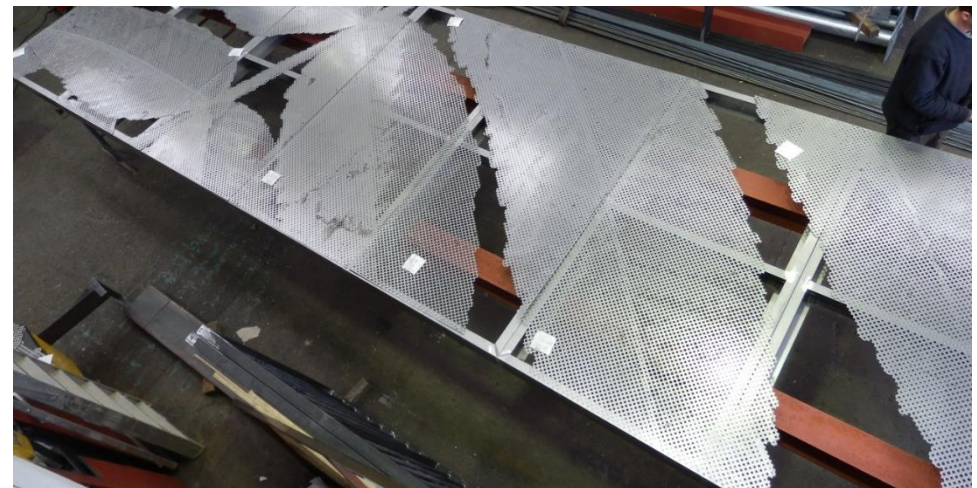
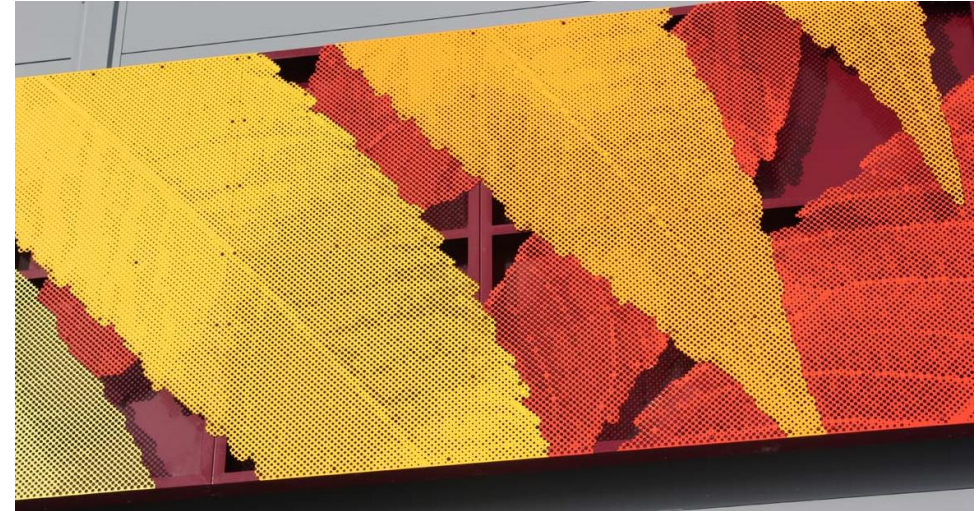
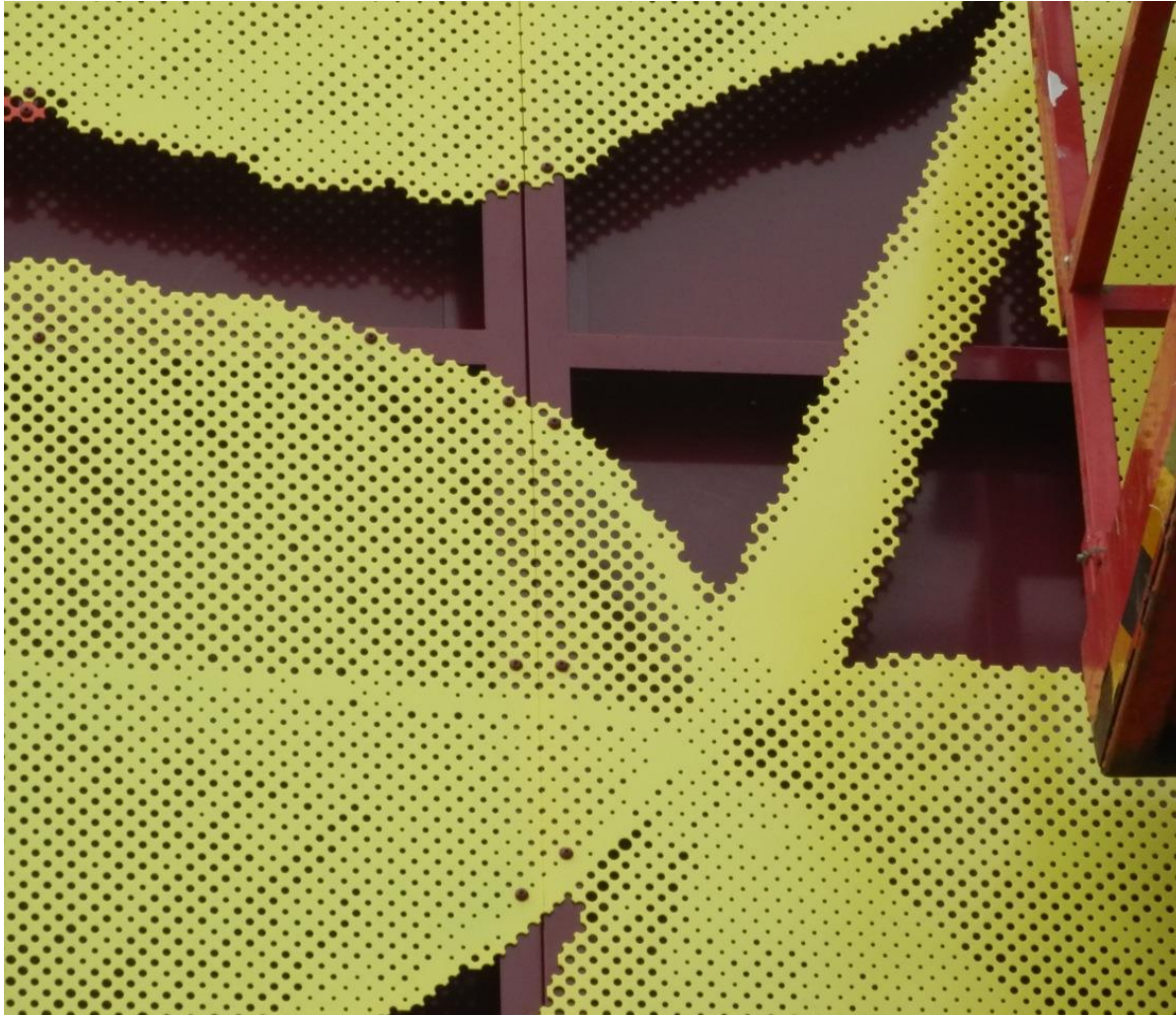
Sunscreen panels rotate with the angle of the sun during the day





## Picture Perf: Aesthetics and Design Considerations:

**Size, colour, shape and spacing:** Detail is determined by the size and spacing of the holes in relation to surface area and the proximity of the viewer





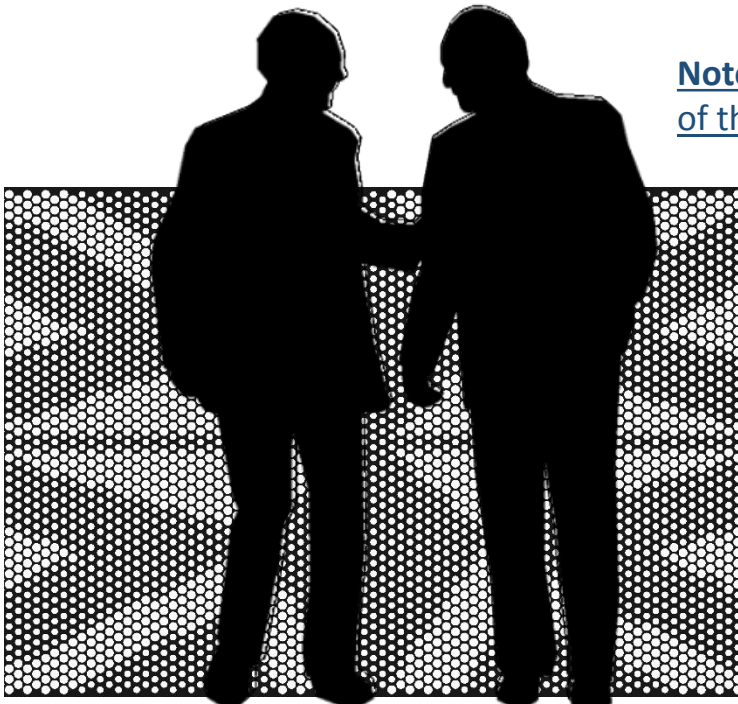
# Picture Perf: Aesthetics and Design Considerations:



**Perspective/Proximity:** The proximity from which Picture Perf is intended to be viewed should determine the perforation sizes.

For example: Smaller Picture Perf projects like a 3.7m<sup>2</sup> restaurant sign generally uses smaller perforations as the sign will be viewed relatively close. Whereas a 60m<sup>2</sup> of interior cladding behind a reception desk in a large foyer is designed to be viewed at a distance. Therefore larger perforations can be used

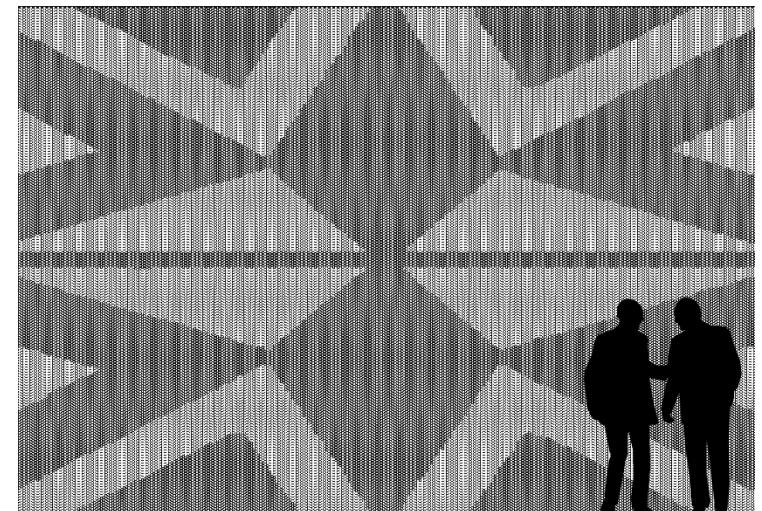
**Note:** The below images **don't** have a lot of detail. Larger perforations could be used for each for of the sheet sizes



2500x1500mm (3.75m<sup>2</sup>)  
**Hole size:** Ø20mm and Ø26mm



5000x3000mm (15.0m<sup>2</sup>)  
**Hole size:** Ø20mm and Ø26mm

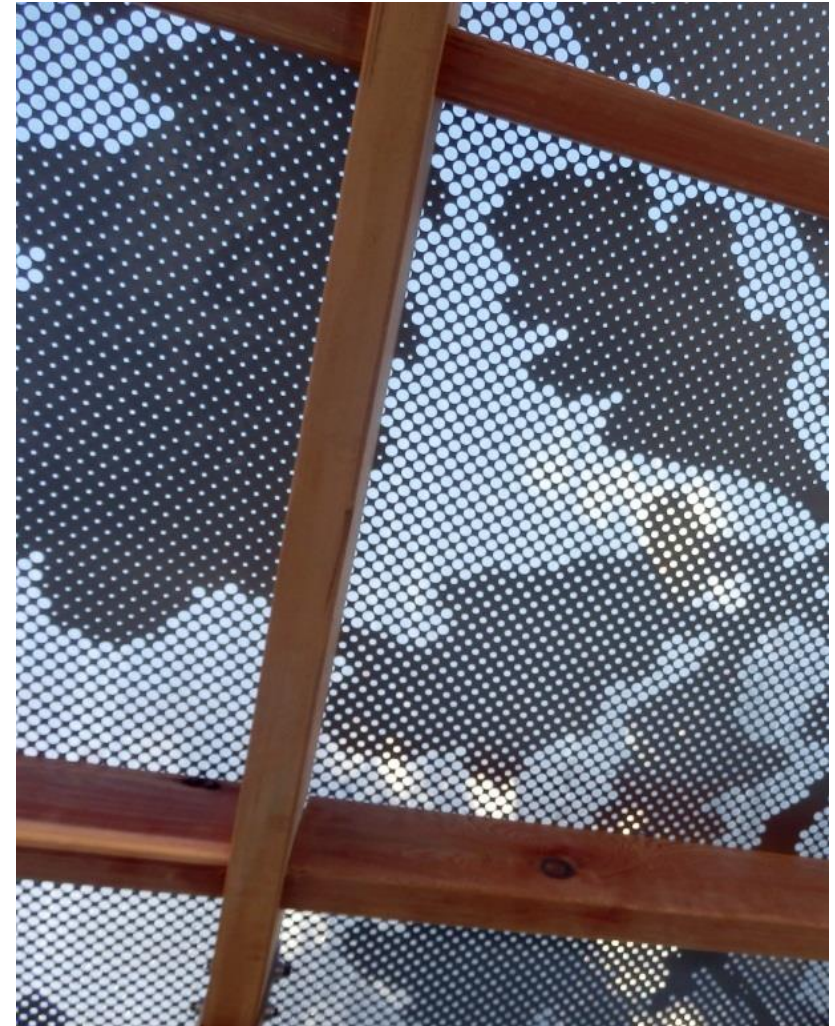


10000x6000mm (60.0m<sup>2</sup>)  
**Hole size:** Ø20mm and Ø26mm



## Picture Perf: Aesthetics and Design Considerations:

**Sheet size:** Rather than having one image per panel, spreading the image over all the panels will allow for larger perforations and detail. The image below is spread over the entire eighteen panels





# Picture Perf: Aesthetics and Design Considerations



**Percentage open area:** This is an important consideration for Picture Perf where its function is to act as a sun, rain or wind screen or for ventilation purposes.

Picture perf is half the open area of normal perforated metal. The maximum open area that can be achieved without losing a large amount of detail is roughly 30% to 40%. The average open area is 23%





# Picture Perf: Lighting

Natural lighting works well with Picture Perf





## Picture Perf: Lighting

Natural lighting works well with Picture Perf





# Bandstand in Waterlooville, Hampshire

Picture Perf without a solid background must not have busy backgrounds as it will interfere and compete with the image





## Picture Perf: Lighting

Picture Perf which relies on light instead of a solid background must not have background interference.

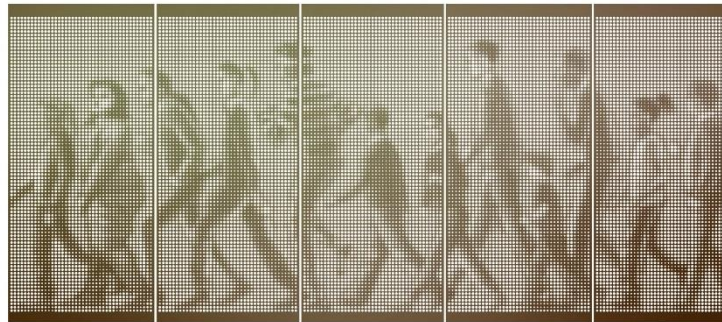
If the surrounding area is 'busy' e.g. trees, building etc., the proximity of panels to these needs to be considered so as to not to interfere or compete with the image (picture perf).



### Design considerations and issues:

- Light coloured panels and daylight- minimum contrast
- Finish - Reflective surfaces reflect the surrounding colours
- Busy Background (Bottom right image) Proximity has not been considered here.

See slide 8 for info on proximity



*Bronze gates*  
Cemetery Gate





## Picture Perf: Lighting

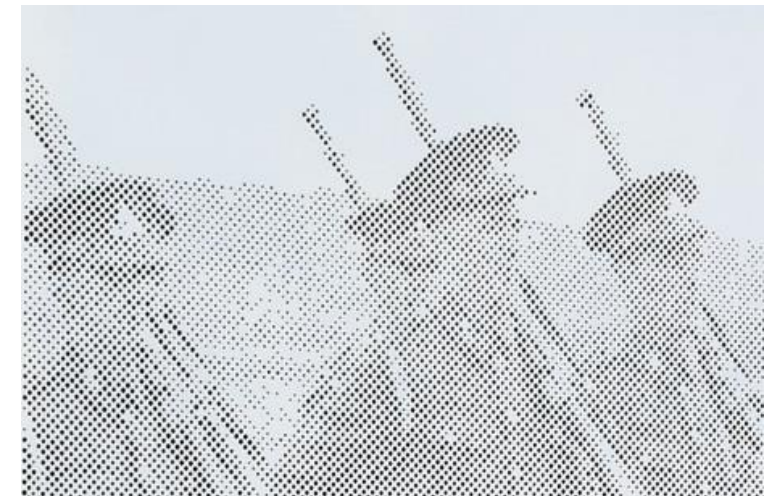
Picture Perf that relies on light instead of a solid background must have no background interference. The darker colour and high contrast (solid area) of the image and proximity to surrounding keeps the image clear.





## Picture Perf: Lighting

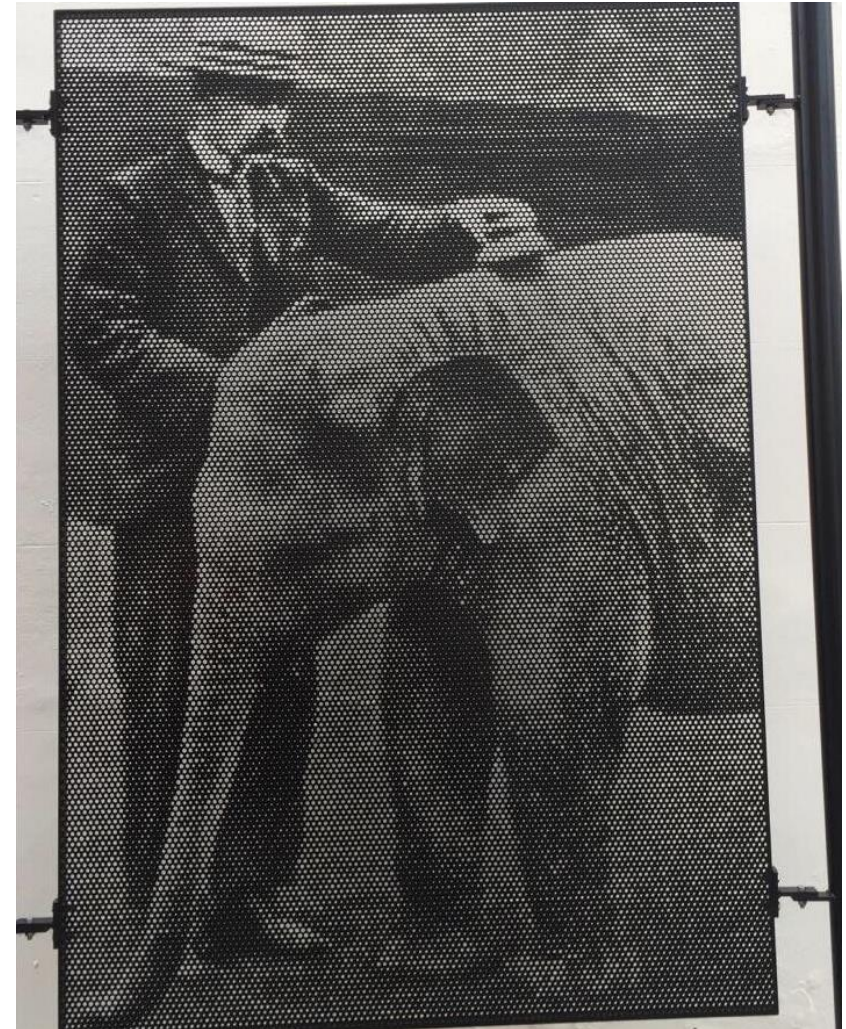
The image below shows panels which are hung on a wall. The direction of light is coming from the front. Light coloured panels should have a dark background to give contrast, and vice versa, when the direction of light is coming from the front





# Picture Perf: Aesthetics and Design Considerations

**Lighting:** The light is coming from all angles here, darker panels need a lighter background to give contrast





## Picture Perf: Aesthetics and Design Considerations

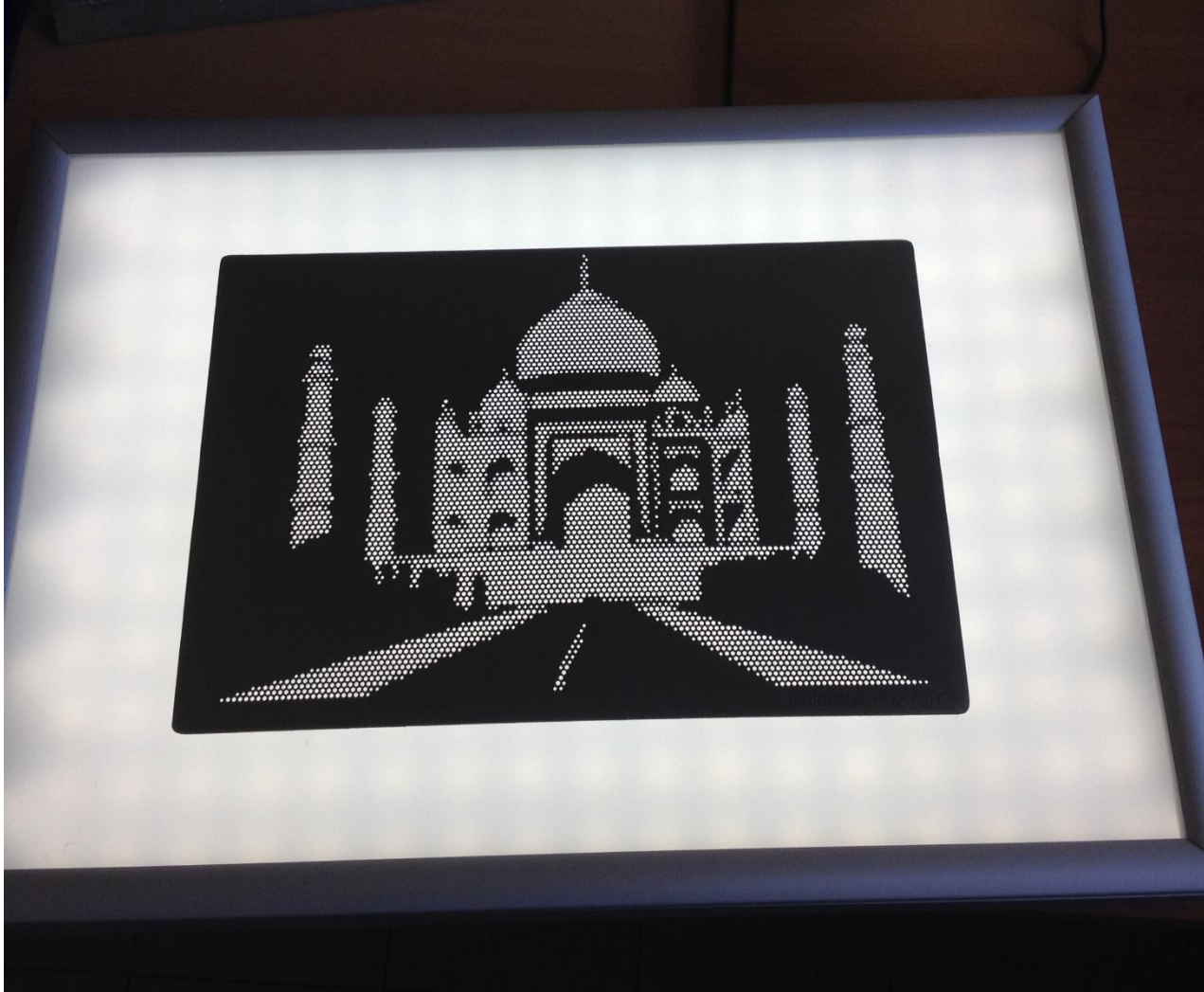
Intel sunshades: Light is coming from the back giving the image contrast





## Picture Perf: Lighting

Artificial lighting is also extremely effective and can add more depth to an image





# Design considerations

Below is the front panel of two panels which slot into each other with 90 degree flanges, the back panel is slightly smaller fitting into the front picture perf panel.



## Internal Light Off

- Lady in white is visible without the light because the picture perf is enclosed in a frame creating shadow which gives contrast against the Marilyn in white
- The same is happening to the Marilyn in black except dark shadows against the black create little to no contrast

Front Panel



## Internal Light On

- Lady in black is clearly visible with light on as the light against the black creates high contrast
- The white lady is still visible with the light as there is less surface area perforated, allowing for less contrast

Front Panel





# Design considerations

Image 1. Black Panel



Image 2. White Panel



Perforation sizes used in all 4 images:

- 8mm
- 11mm
- 13mm

➤ Image 1 and 2 uses the smallest perforation size for the river - 8mm

➤ Image 1 is the panel in black and image 2 is the panel in white

➤ Image 1 and 3 are the reverse of each other (Perforation sizes reversed) as are the images 2 and 4 – white panels

Image 3. Black Panel

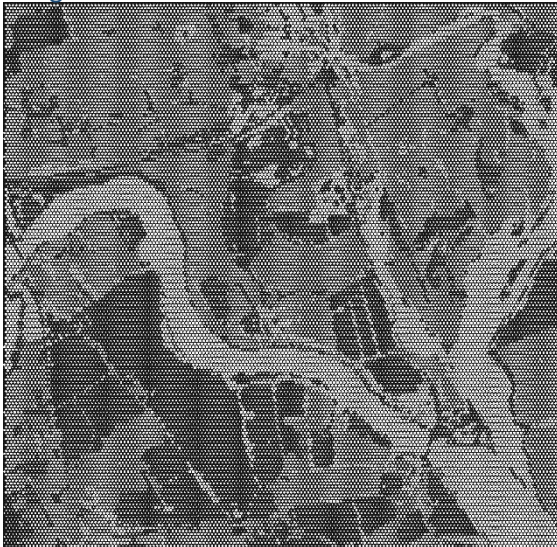


Image 4. White Panel



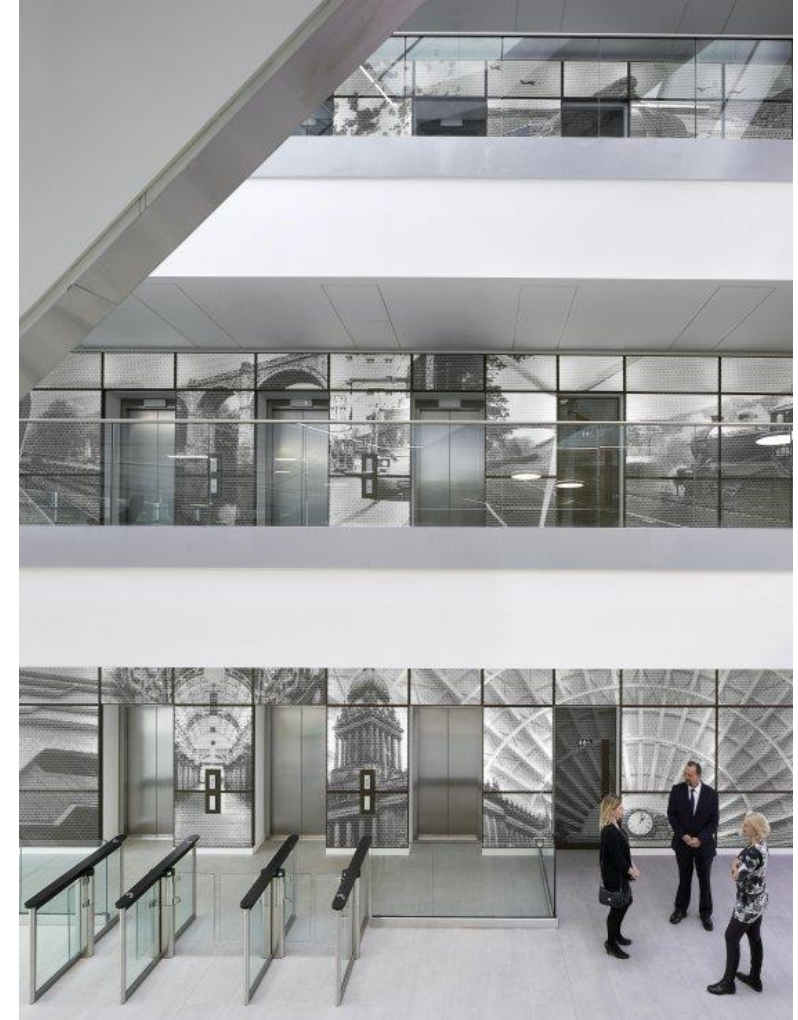
➤ Image 3 and 4 use the largest perforation size for the river – 13mm

➤ Image 1 is in black and image 2 is in white



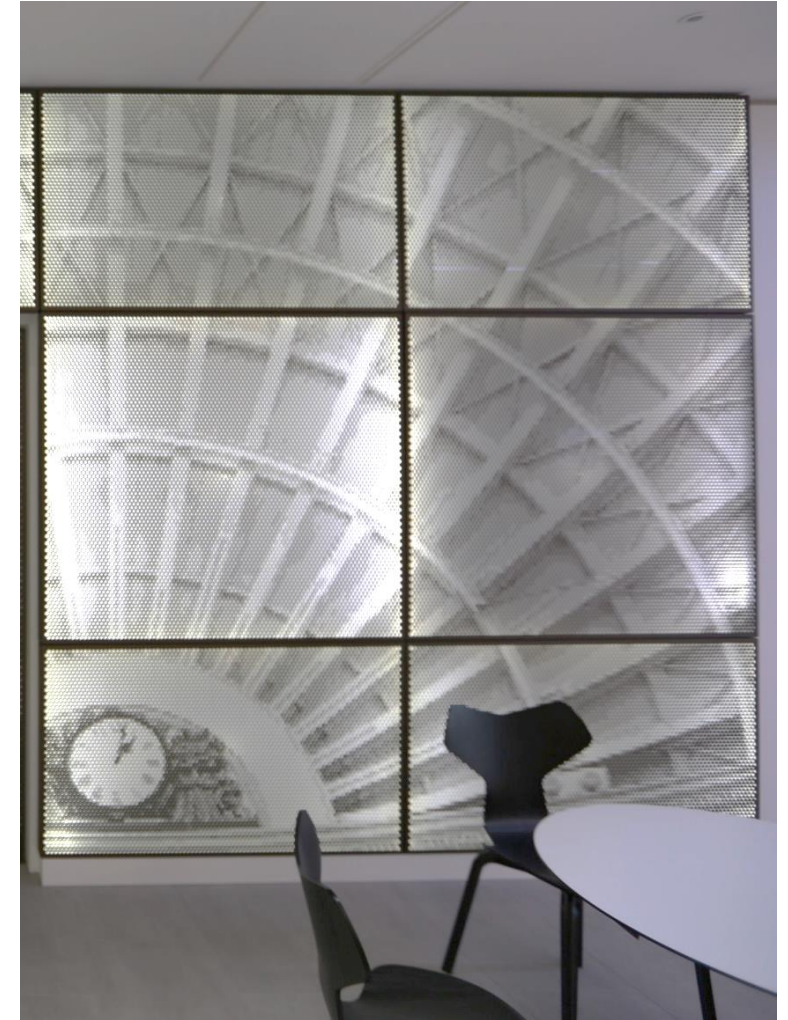
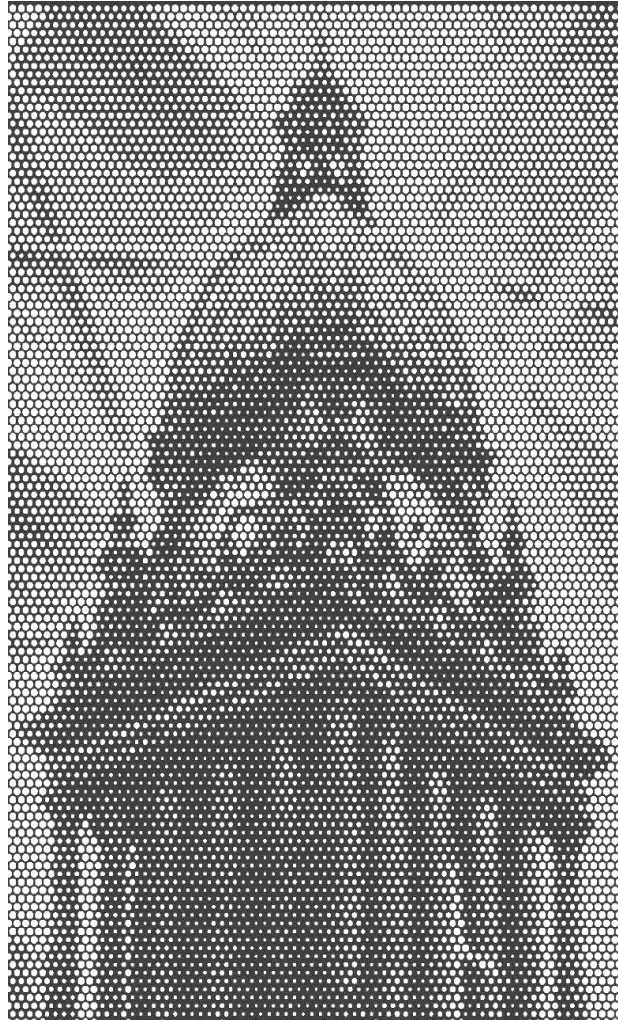
## Four Storey Office Foyer, Leeds

Incorporating images of the local landscape in this 61,000 sq ft. eye-catching building: The atrium lift wall features backlit current and historic images of the city and region, set behind perforated metal panels. When viewed closely the images appear as abstract patterns but from a distance the images of the local area are visible connecting a global business to its immediate context, whilst also becoming a unifying design element across all floors.



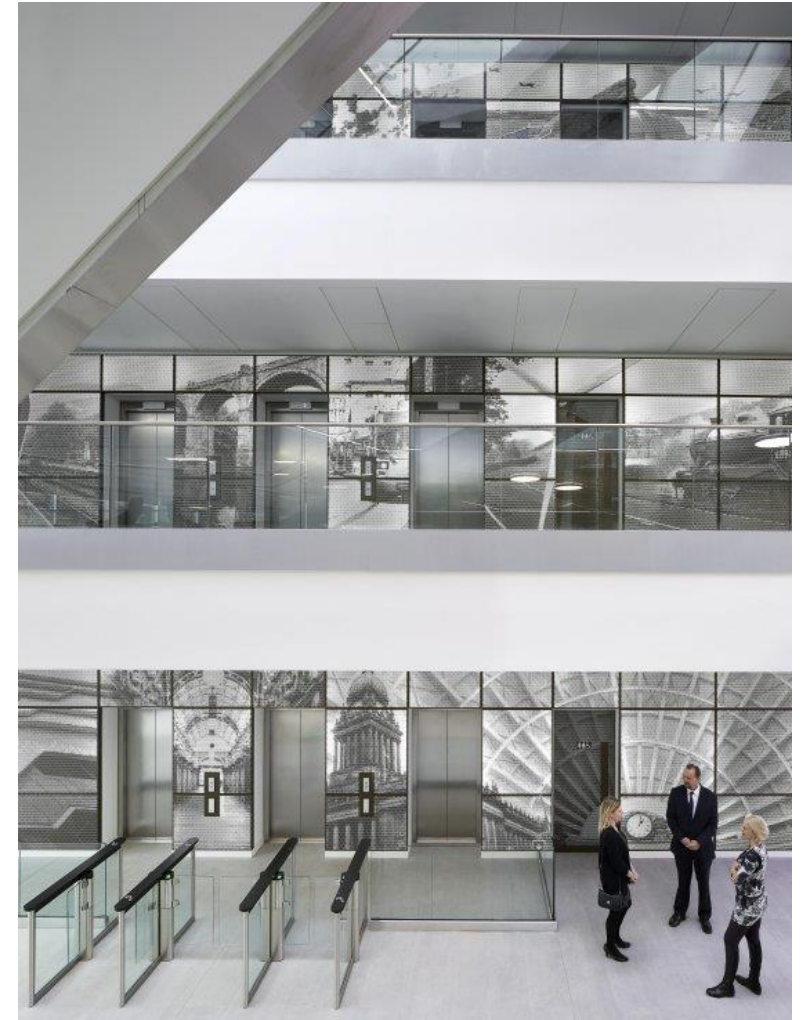


# Four Storey Office Foyer, Leeds





# Four Storey Office Foyer, Leeds





# Spike Island 2016, Picture Perf and Perforated Ceiling Tiles

Spike Island is steeped in history. Located in Cork in the south of Ireland the island has been redeveloped as tourist attraction. The Architects responsible for the project wanted to create an entrance that would impress visitors and tourists before setting foot on the island. The island is only accessible via boat, below is the new entrance to Spike which consists of metal and glass façade including Picture Perf of the famous Eamon de Valera



Finished Project



Photo before mock-up



Picture - Perf mock-up

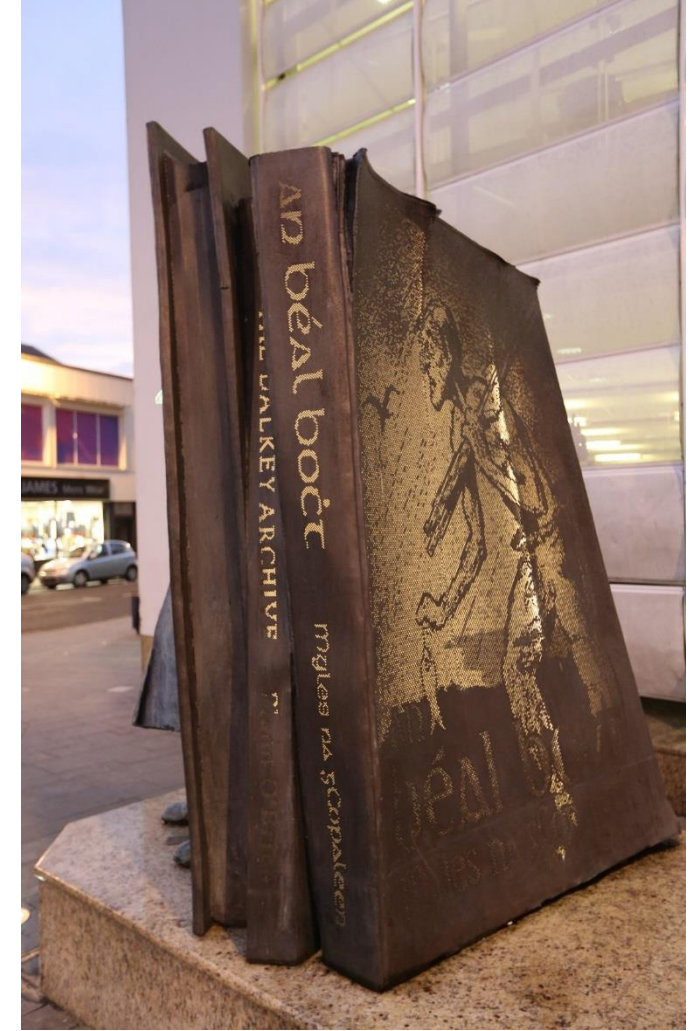




## An Béal Bocht, honouring Brian O’Nolan, Irish novelist (aka Flann O’Brien / Myles na gCopaleen)

Brian O’Nolan, major 20<sup>th</sup> century Irish novelist, playwright and satirist, was honoured with an over-life-sized statue of Flann O’Brien proudly situated outside the library in his birthplace of Strabane. Dressed in his iconic coat and Fedora hat he is leaning against three 2.5m high first editions of his most famous books.

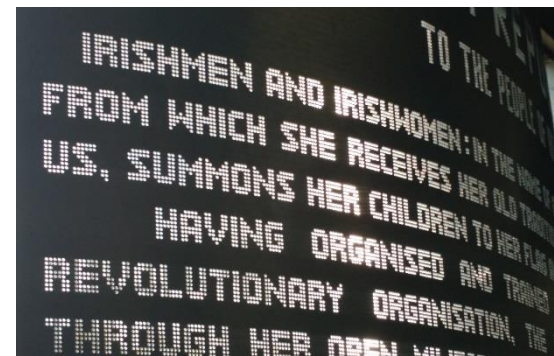
Perforated images on the bronze book covers come to life particularly when its gets dark. The LED lighting on the inside shines through the various hole sizes creating vivid images of the book cover.





# Proclamation Memorial, Clonakilty

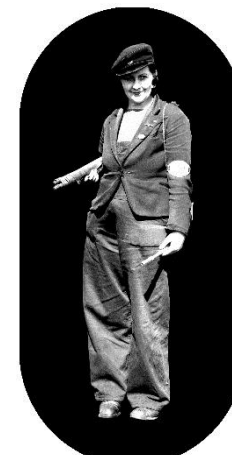
Organized by Dúchas Clonakilty Heritage 1916 sub-committee, “Gáirdín Cuimhneacháin Chloch na gCoillte” (Clonakilty Remembrance Garden) features seven trees in honor of the signatories, seating and a centerpiece of a seven-foot-high perforated metal Easter Proclamation on the sea side of the Model Village car park. These panels have backing panels and internal lighting.





## Swindon Tunnel, Swindon

The Old GWR Tunnel in Swindon is brought to life with ghostly images of the past. The ten new artworks represent railway workers through history, right up to modern times. The artist, using seven photographs from the Steam Museum Archives and three images of people working in the industry today, was able to breathe new life into the GWR Underpass. It is now a bright, safe, and 'beautiful' pedestrian route through the town which reflects the historic and contemporary achievement of the railway industry in Swindon.





# Bridges Family Clinic, Newtownards Road Belfast

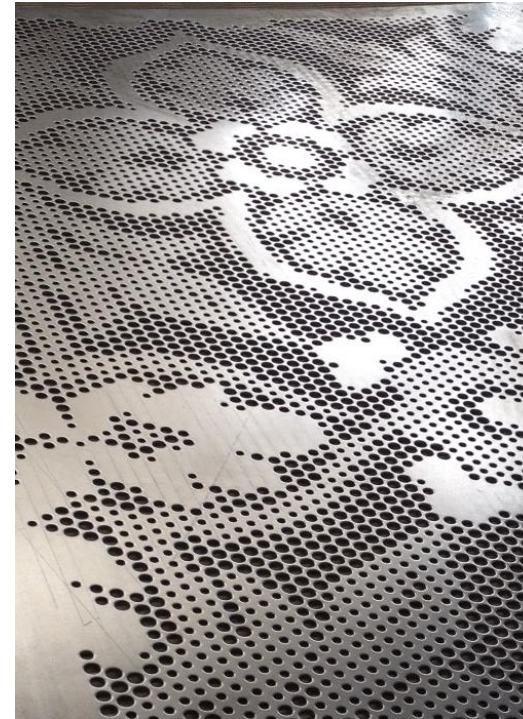
Belfast residents will recognise that the new building has retained one feature - its unique, curved wall. Drawing inspiration from the startling murmuration an artwork entitled 'Starlings' was created. *Starlings fly together in unison for a number of reasons - safety in numbers, to keep warm and exchange information – in a sense they form and protect their community. Community cohesion is an important part of this new building.*





## Premier Inn, Picture-Perf Window Screens

In August 2015, this new Premier Inn was officially opened. Using a 'Damask' reversible figured pattern. These Perforated panels are two identical panels which are reflected and bolted together – making an alternative finish to the louvre fabrication.





# Our Locations



[Website: www.Graepels.com](http://www.Graepels.com)

## Additional Products

- Rubber
- Woven Wire Mesh
- Perforated Sheets
- Balustrade Infill
- Cladding
- Steel Flooring
- Decorative Metal sheets
- Ceiling Tiles
- Safety Enclosures
- Steps, flooring, ladder rungs

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# Additional Industry Sectors



Your Choice for Perforated Metal & Woven Mesh  
Bespoke metal products since 1959



## PERFORATION & ARCHITECTURE

Graepels work closely with architects and designers from the beginning of any project



## CONSTRUCTION & INDUSTRIAL

We have over 50 years experience working in the construction and industrial sectors



## SAFETY & SECURITY

The demand for health, safety and security within various sectors is ongoing.



## PUBLIC ART & SCULPTURE

From the beginning of any project we work very closely with designers and artists to ensure the best design outcome



# Additional Industry Sectors



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## AGRICULTURAL

We offer a full range of perforated and woven wire mesh materials which are widely used within the agricultural industry.



## QUARRYING & MINING

Graepels has been manufacturing and supply products to the quarry and mining industries for over 50 years.



## LANDSCAPING & GARDEN DESIGN

Graepels products are constantly being applied in a wide range of garden designs and landscaping



## WASTE MANAGEMENT & RECYCLING

Graepels manufacture a range of products for the waste management and recycling industry





**Thank you for viewing**

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