



Serpentine Gallery Pavilion 2015

Serpentine Pavilion 2015 – SelgasCano

The annual Serpentine Gallery pavilion is an established highlight of both the London art scene and the global architectural calendar. The commission provides a showcase for contemporary architecture and for the last 15 years has presented a series of uniquely varied and diverse structures.

Each pavilion is constructed on the lawn outside the Serpentine Gallery in London's Kensington Gardens and is used as a venue for a series of events throughout the summer months before being dismantled and relocated in the autumn.



Playing with Light

The 2015 Serpentine Pavilion was designed by Spanish architects SelgasCano. A vibrant and playful structure, the pavilion is deliberately ephemeral, exploring the temporary nature of the commission through the choice and application of the materials and the continually evolving experimental approach to the design.

Perhaps the most experiential of all the pavilions we have constructed, the chrysalis-like structure uses a combination of steel tubing and bespoke printed Ethylene tetrafluoroethylene (EFTE) to form a space where light creates colourful, layered densities. Multiple entrances and 'secret' passages encourage visitors to explore the various winding routes through the structure, experiencing the changing light and colour.

The Process Begins

This is the seventh Serpentine Pavilion we've manufactured and installed. The realisation of each design has seen us work with vastly different materials and use very different manufacturing techniques. We've invested significantly in our workshop equipment over the years, giving us the scope to manufacture all aspects of the pavilions in-house, streamlining and simplifying what is, by its very nature, a project with an extremely tight timeline and a highly specific artistic intent. We began working on SelgasCano's pavilion just prior to Christmas 2014. Over the course of five months, our CAD team produced detailed production drawings and our workshops completed the manufacturing process. Groundworks began in mid-April, with the pouring of the complex concrete base, a process taking 22 days and requiring two pours forming the lower upper slabs. This was later finished with white floor paint, effectively creating a blank canvass for the reflections of colour and light thrown by the EFTE.



Framing Colour

The steel frame was especially complex. In keeping with their interpretation of the brief, the architects described their pavilion as an 'architectural sketch', the design continuing to evolve as the project progressed and structurally replicating the freeform lines of a hand drawing. The outcome was a playful and joyous pavilion, but one with a frame comprising a multitude of complex and differing angles and arches, on to which the EFTE fabric and ribbons were to be attached.



The frame was manufactured in our workshops in 100+ sections, coming together on site for the first time in a series of 54 geometrically different steel arches. The tubing of the frame not only varied in thickness from 78mm to 110mm but also in shape, with some lengths faceted and others curved. A shot gun extrusion was bent and bolted to the steel frame, providing deliberately visible means of attaching the EFTE fabric panels and interwoven ribbons.

With no scheduled test-build, the accuracy of the steelwork was vital to meeting the very strict schedule inherent in the Serpentine commission. The frame was manufactured in our workshops to a tolerance of $\pm 10\text{mm}$ to ensure that the EFTE panels would fit and that the installation on site would be as smooth as possible. Although complex, the frame fitted together perfectly on site, paying testament to the thorough approach of our team in the metal workshop.



Luminous Colour

The EFTE was used to create a double-layered shell of opaque and translucent panels in a range of colours and finishes. The multiple entrances together with the double layered skin enabled the architects to reveal secret routes through the pavilion and surprising volumes within. A total of 19 bespoke colours were printed onto the plastic fabric, a process that significantly reduced waste and contributed to minimising carbon footprint. Some panels were printed with a mirrored finish, while the translucent nature of the plastic fabric diffused the light, creating a kaleidoscope of colour and a delightful stained glass effect on the white floor.

Planning for Spontaneity

Our ability to respond to a continually evolving design was a major factor in the delivery of the SelgasCano pavilion. The architects continued to work with the playful and transient nature of the commission even as it took shape, making on-site adjustments right up to the last minute. Careful attention was paid to recreating the detailing exactly as the architect intended – from the differing intensities of the high-tech digitally printed EFTE dot-matrix colours and the density of the EFTE ribbons, to the sometimes basic appearance of the fixings.





“ We sought a way to allow the public to experience architecture through simple elements: structure, light, transparency, shadows, lightness, form, sensitivity, change, surprise, colour and materials. We have therefore designed a pavilion which incorporates all of these elements.”

Selgas Cano