



# ARCHITECTURAL TENSILE FABRIC STRUCTURES





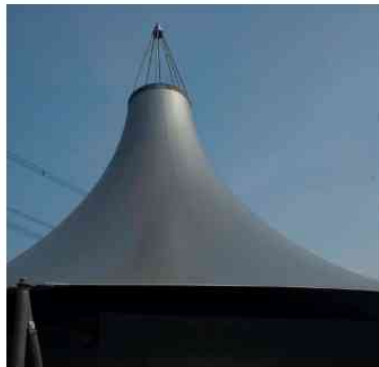
## External Fabric Structures

Tensile structures are now an acceptable building material, permitting the design of exciting roof forms that would be almost impossible with traditional building methods. Not only do tensile structures offer the variety of form, but also translucency, colour, clearspan and softness. These structures are lightweight using tension to create the three dimensional form. Such structures have been developed since the 1970's and now offer some of the most dramatic architectural works to date. Membrane structures span generations in their durability, offering in excess of 30 years of lifespan, and fire retardency up to Class O.





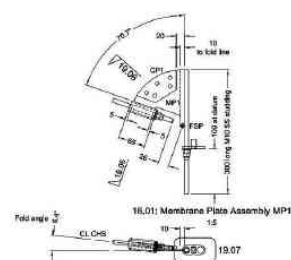
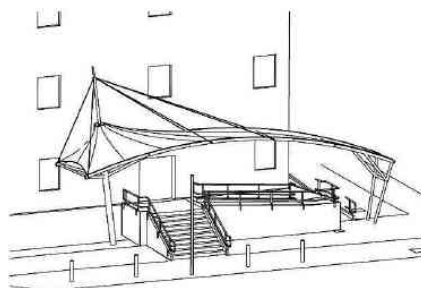
## External Fabric Structures



The structures are all prefabricated to engineered drawings and calculations, with some membranes being as large as 1000 sq.m before reaching site. The size of the overall structure can be relatively unlimited when employing site joints. Applications include : entrances, walkways, features, sports stadia, atria, retail, exhibitions, and landmarks.



## Design



We offer full design, engineered drawings and calculations. The engineer will take the architectural brief and commence the design with a series of general arrangements, following client's approval, then develop the general arrangements into full production model and drawings. Creating the 3D form with specialist software and extracting the parts which make up the structure will provide fabrication shop drawings.

All the parts which make up the structure are C.N.C nested to minimise material wastage and cut to ensure millimetre perfect accuracy. The 3D membrane model will have geodesic seams which create individual panels which are joined by welding. Prior to fabrication, samples of the materials are tested for quality, the factory also ensures it's welding strength by seam testing on our in-house 25kN tensile testing machine.

Our single source of supply approach to tensile structures utilises our in house design, project management, steel fabrication, membrane fabrication and installation services. Our erectors have many years experience in the field and ensure that health and safety is paramount at all times. Throughout the design phase we always consult our erectors to ensure that the structure is designed to be erected easily and safely.



## Membrane Lite

Using the latest developments and technologies which have been engineered over the last thirty years in the field of tensioned membrane structures, we offer Membrane-Lite. The membrane forms are all anti-clastic and use pre stressing techniques to ensure perfect tension and longevity.



The products offered within the Membrane-Lite range of structures are ideally suited for meeting points, shading purposes, walkways, entrances, car parking shades, and covered seating areas. All structures are modular in that no matter how many are ordered for a project, they can be linked together to form a single structure.





## Interior Fabric Architecture & Tensioned Ceilings



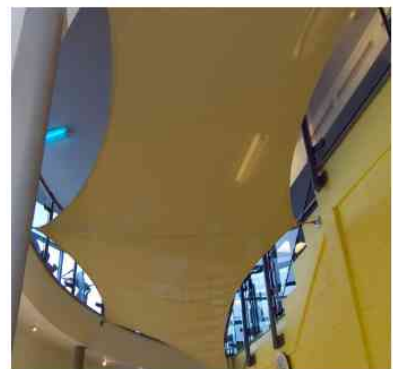
Through years of experience in external fabric architecture, we have designed interior sails and structures using the same technologies however with more refined and intricate detailing. The emphasis on the detail design is so important with the sail and its attachments being much more apparent in some installations.

The fabrics we employ are fire retardant to Euroclass B S2 DO or British Standards 476 Class O. These will be PVC coated polyester or glass fibre with a vast library of colours to choose from. The fittings are all marine grade stainless steel 316, and membrane plates polished.



## Interior Fabric Architecture & Tensioned Ceilings

Whether for vaulted, inclined, horizontal or curved surfaces. We offer unparalleled flexibility. Our fabric enables large surface-areas to be covered with pre-manufactured one-piece panels (up to 200 m<sup>2</sup>). Its technical characteristics guarantee operational uniformity and durability.



The membrane is an extra strong, aerated textile that is corrosion-proof and easy to maintain. It offers the possibility of playing with light, materials and shapes, giving volume and colour to the ceiling. Installation is made easy using our modular ceiling panel system, by combining extrusion jointing and then tensioning using calibrated stainless steel traction springs on the outside fabric boundaries.



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