Tensile structures





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IASO, integrated with creativity





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we are IASO

IASO was founded over 30 years ago and has its origins in sun protection, later incorporating other specialist areas of business, including Textile Architecture and Pools. The main pillar of these three areas is the fabric we use.

We specialise in Textile Architecture because we love light. Even though we work with solar protection and membrane roofs, we still love light. For this reason, we seek out solutions that protect, but don't obscure.

Functional, but also light. Dynamic. Translucent or transparent. Airy and modern. We take care of the details from start to finish, because this makes the difference, and is the best warranty for both product and customer.

IASO, textile architecture

Our extensive experience designing and building tensile coverings, in collaboration with the most prestigious architects and engineers, makes us a leader in this sector. Our numerous projects speak for themselves, and we will share some of them in this catalogue.



IASO, a comprehensive project

We work together on the development of your project, offering our knowledge, experience and technical and human capacity.

We value the uniqueness of each project, no matter the size. We believe that architectural value supersedes the size of the building. We like challenges, they drive us. And they produce new solutions.

At IASO, we develop your project with our Comprehensive Project methodology. IASO is a single partner: bringing together engineering, production and installation, while ensuring project success. The benefits of our work system can be seen in each of our projects.





we take on challenges







IASO, technological fundamentals

In textile architecture, construction of PES/PVC or GLASS/PTFE structures is now a highly regarded building system. Of the numerous advantages offered, we can include the option of covering large spans with low structural cost. This is ideal for urban spaces, theme parks, shopping centres, sports facilities, hospitality, etc.







Tensile structures have proprietary technology, mainly based on material behaviour. Requiring a double curvature on the entire surface of the textile membrane determines its shape and, thus, its final appearance. Creative ability and designer knowledge, with systematic use of software, distinguish the final architectural result.

IASO in the world

From its headquarters in Lleida (Spain), IASO operates through different regions of the world, supported by its network of offices and representatives.

We develop our services based on our Comprehensive Project philosophy, knowledge and quality to achieve the best success for your project.



ALDAI PARK





This new urban area is located on what was once an old city cemetery dating back to 1812. The covering is an architectural element that is a highlight of this new park. It allows to perform activities in rainy weather throughout much of the year.

This membrane has a hyperbolic paraboloid geometry of six vertices and an irregular shape. Each of its vertices, located at different heights, is attached to pillars hinged and stabilised by cables fastened to the foundation.





CALLE UNTERHACING

Improvement of Calle Unterhacing, in the Adeje municipality in the province of Tenerife, features the covering of three areas. A total of three circular structures supported on three pillars with wire mesh provide shade on the pedestrian street. The covering for each structure is made with stainless steel wire mesh and membranes fastened with springs.

The uniqueness of this street's refurbishment makes this space a benchmark on the Adeje municipality coast.



Urban spaces







ARAGONES ASTRONOMICAL CENTRE





Project: Aragones Astronomical Centre Location: Huesca, Spain Architect: Lacarte Fanlo Architects Area: 940 m² Material: PES/PVC screen

The Aragones Astronomical Centre, from the moment you step inside, offers its visitors the best experience and understanding of our universe. It can accommodate 66 people. Inside it has an exhibition hall, workshops and two observatories.

From the outside, the great hall of the building can be accessed, which sets the stage for our planet in relation to the greater universe.

The conical shape of the structure and the sphere in a central and outlying position captures your complete attention. Blue continuous textile lining makes up part of this tableau. Points of light are added that pass through the fabric and, with their irregular pattern, are reminiscent of the stars that make up our universe. The membrane, tailored in one single piece, is fixed through its upper part to the metallic structure on the lines that follow the arcs of the main structure.







CAMPING LES DUNES



Camping Les Dune is very close to one of the Costa Brava beaches. A tourist resort with a common area, it has been expanded through a new textile covering. The entire complex of cables, booms and fabric is reminiscent of sailing ships. Its inclined central pillar stands out where the radial bars divide, stabilised by cables, allowing for the fastening of outer vertices of the membrane.

A unique tensile structure, offering more sun protection in outside spaces and comfort for visitors of Camping Les Dunes.

Project: Camping Les Dunes Location: Sant Pere Pescador. Spain Architect: Miquel Morral / Irene Sancho Area: 662 m² Material: PES/PVC Ferrari ref. 1502 T2















ZMAR ECO CAMPO





The placement of the tensile structures creates three unique spaces for sports practice and a multipurpose area at the Zmar Eco Camping Resort & Spa. From a tensile membranes covering, tailored in one single piece and symmetrical with respect to the long axis, its double conoid geometry occupies a rectangular area. Inside are tall pillars, while on the perimeter there are cable-stayed pillars. One design for three tensile structures, but each with a different functionality.

The three tensile membranes, integrated with the resort design, give more protection and versatility to the new camping spaces.





In 2009, this project received the Sustainable Construction award from the Lisbon Real Estate Exhibition, SIL '09.



32nd COPA AMÉRICA



Project: 32nd Copa América Location: Valencia. Spain Main contractor: Lubasa Area: Customs Port 170 m² - Puerta Malvarrosa 270 m² - Puerta Nazaret 80 m² Puerta Reloj 190 m² Material: PES/PVC Ferrari ref. 702 alu opaque

For the 32nd edition of the Copa América, which took place in Valencia in 2007, 4 coverings were built for the entrance to the enclosure next to the port. All had the same typology, but different dimensions.

Each membrane consists of several high points that rest on articulated metal pillars, while the contour of the covering characterises the arches whose vertices are stayed through cables, fastened to the foundations.









EXPOZARAGOZA 2008



Project: ExpoZaragoza 08 textile shade covering Location: Zaragoza. Spain Architect: Félix Escrig / José Sánchez Area: 5,000 m² Material: PES/PVC mesh Ferrari ref. 392 graphic on mesh: PES/PVC Ferrari ref. 502 opaque



Textile covering, designed as a large shade structure. The membrane is made with an open weave to provide shade to visitors. A focal point is the artistic design of the roof, which gives originality to the entire structure. The partial opacity of the main fabric allows for the different shapes of the pattern to be projected onto the floor, with façades conjuring up myriad sensations for the visitor.



YAMIT 2000 water park



Project: Yamit 2000 water park Location: Hulon. Israel Design: Ami Korren / I. Shani Area: 1,566 m² Material: PES/PVC Ferrari ref. 1302 S2



Pool covering for the Yamit 2000 water park made from a tensile polyester-PVC fabric.

The membrane system consists of a tensile membrane roof made from polyester fabric, coated with PVC on both sides, designed in a conoid shape to cover the park pool.





CORAL WORLD EILAT



Project: Coral World Aquarium, Eilat Location: Eilat. Israel Design: Ami Korren / I. Shani Area: 872 m² Material: PES/PVC Ferrari ref. 1302 S2 / mesh ref. 362

Tensile membrane for the shark tank at the Coral World aquarium in Eilat, Israel. The membrane is suspended from metallic arches, and incorporates a second blue mesh fabric on its inside.

Additionally, the roof has a series of holes that allow for natural light to enter, necessary for the species that live inside of it.









INSOTEL CALA MENDIA



The Hotel Cala Mendia resort was renovated, which improved and updated all of its facilities. One of the refurbished zones is the Sunset bar area, where a tensile roof was chosen to cover the new "chill out" atmosphere for guests. The membrane is fastened onto the building façade, and is designed towards the pool, where it is attached to the perimeter pillars.









CINEMA CITY



Project: Cinema City Location: Jerusalem. Israel Main contractor: New Line Cinema Area: 2,656 m² Material: PES/PVC Ferrari ref. 1502 T2 and ETFE transparent film with monolayer system

Cinema city in Jerusalem, is the largest entertainment complex and cultural centre of this Israeli city. With an area of 20,000 metres squared, with 19 screening rooms and an inner hall.

The covering, the very first that includes a system of transparent ETFE foils, combines 6 translucent fabric membranes and 5 transparent sheet membranes. The V type fabric in the translucent section is the most resistant. The transparent areas were made with a monolayer system of ETFE reinforced with stainless steel cables. A covering that offers brightness, protection and natural ventilation.















CARREFOUR SAINT DENIS



A new covering designed for the pedestrian exit of the shopping centre's underground cark park. The structure rests on the two lateral lines of the pavement gap, which allows the incorporation of the travelators. The textile membrane, made from two pieces, is wing-shaped, which characterises the metallic elements.











Shopping centres



ZENIA BOULEVARD



Project: Zenia Boulevard Shopping Centre Location: Orihuela Costa. Spain Construction management: Díez Cisneros Main contractor: C.C. Zenia S.L. Area: 4.500 m² Material: PES/PVC Ferrari ref. Soltis 86 / ref. 832 / ref. 902 S2

The new tensile structures for the Zenia Business Centre offer shady spaces for the centre's different streets.

A textile covering is installed on Calle las Olas, made from tensioned stainless steel cables and a UV-resistant polyester mesh. On Calle la Lonja, a paraboloid structure has been made with a PVC-coated polyester fabric. Finally, another tensile structure makes up the covering for the pergola of the food court area and Playground.

The different tensile coverings are made with distinct designs, but all provide shade. The play of colourful fabrics protecting the different streets of the Shopping Centre provides a lightness to this commercial space.





SAN CAYETANO SCHOOL



Project: San Cayetano Sports Complex Location: Palma de Mallorca. Spain Main contractor: SPES Engineering and Construction Architect: Pedro Rabassa / Isabel Rabassa Area: 766 m² Material: PES/PVC Ferrari ref. 1002 T2

The covering for the new Colegio San Cayetano sports complex is made with a tensile membrane supported by arches and fastened, on its lower perimeter, to the metallic structure. A structure built with metallic profiles of the circular and squared sections, protected against oxidation by hot-dip galvanising. The single layer cover is made of one piece of membrane and fixed at the boundary with an aluminium clamping profile.







MEDIALAB-PRADO CENTRE



Project: Remodelling of the Belgian Sawmill for Medialab-Prado Centre headquarters Location: Madrid. Spain Area: 923 m² Architects: María Langarita / Víctor Navarro Main contractor: PECSA Material: Fibreglass/silicone and ETFE double sheet in a system of inflated cushions

Renovation of the former Belgian Sawmill of Madrid, which houses the Medialab-Prado headquarters, is based on a design aesthetic that is light and versatile. The hub of stairs that connects the two buildings is coated with a double membrane of fibreglass with silicone. This material allows for a smooth passage of light, which, together with the lighting system, provides a truly unique lighting effect. There are 51 ETFE double layer cushions fastened onto the existing metallic roof structure.

The Belgian Sawmill has been awarded a renovation prize from the XII Spanish Biennial of Architecture and Urbanism: the 2013 COAM Award, and the 2014 Sacyr Award for Innovation, in the Construction Project category.













PLAYGROUND







The new covering for the Beasain municipality provides protection from both sun and rain, a playground and a pediment. The membrane is supported by metallic arches arranged obliquely, and with different pillar heights.



MAGICAL MEDIA



Project: Multimedia Magical Audio Visual Centre Location: Lleida. Spain Architect: Pich-Aguilera / Josep M^a Puigdemasa Area: 2,839 m² Material: Glass/PTFE and glass/silicone

The Magical Media building is located in the Lleida Science and Technology Park. This audio visual centre consists of two buildings and a textile covering that unites them. This translucent cover is made from two membranes and an internal insulation, whereby good thermic insulation is achieved along with smooth passage of light.

There is also a set building that has textile cladding made of a fibreglass/PTFE mesh.









LLERENA AUDITORIUM



Project: Llerena Auditorium Location: Llerena. Spain Architect: Vicente López Bernal Area: 1,580 m² Material: PES/PVC screen Ferrari ref. Soltis 86

A wire mesh covering, more than 1,500 m² and divided into nine parts, has been installed in the Llerena Auditorium in Badajoz. Each module is made of wire mesh and a 0.8×0.8 m square membranes.

The wire mesh structures give movement and lightness throughout the auditorium.



Infrastructure and facilities





ASTRABUDUA STATION



Project: Astrabudua metro exit Location: Erandio. Spain Area: 686 m² Material: PES/PVC Ferrari ref. 832

A new access point for the Astrabudua metro station, made with a metallic structure of nodes and bars and a textile covering.

Following the geometry of nodes, the membrane is supported by small points that generate small conoids in the membrane, which can be seen from the outside, and give uniqueness to this cladding.







AUTONOMOUS UNIVERSITY



Project: Autonomous University of Barcelona Location: AUB Campus, Cerdanyola del Vallès, Barcelona Area: 310 m² Material: Glass/PTFE

Near the Humanities Library, a tensile membrane roof was made to expand the rest area for students. The structure is tensile with 6 pillars of different heights to cover an area of more than 300 m^2 .

Students can now enjoy this outside space, with a new tensile structure for greater protection.









MADRID-BARAJAS AIRPORT



Project: Barajas T4 Terminal Location: Adolfo Suárez Madrid-Barajas Airport. Spain Architect: Richard Rogers Partnership / Lamela Studio Main contractor: Ute Terminal / Ute Satélite Area: 75,000 m² of fabric Material: Ferrari ref. sky 300, transparent ETFE film, with thickness of150 µm

The new T4 terminal of Adolfo Suárez Madrid-Barajas Airport consists of two buildings, the terminal and its satellite building. The type of construction is analogous, and there are circular and oval skylights on its coverings. Under the glass, light diffusers were designed to sift natural light and improve the internal atmosphere. For this, it was necessary to use fluorinated fabric and films that were fire resistant and allowed for a high passage of light.



VALENCIAPORT



The new tensile structure for the entry and exit zone of the port of Valencia. Two structures, with the same geometries, each cover 100 m² on the ground. The metallic structure rests on two front pillars and two crossed arches, which rise from the pavement and pass over the two pillars, with overhanging ends. The membrane covering is made from one single piece containing three conoids, two of which are supported by the two front pillars, and the third at the intersection of the two arches.

Project: Port of Valencia Location: Valencia. Spain. Main contractor: Port Authority of Valencia Architect: Ignacio Pascual Area: 200 m² Material: Glass/PTFE





POLYTECHNIC UNIVERSITY





Renovation of this former barracks has enabled new use for this building.

In the central courtyard, there is a new structure with two orthogonal walkways that link the buildings and help fasten the wire mesh for sun protection.





RONDA OESTE



Project: Ronda Oeste, Sabadell Location: Sabadell. Spain Area: 502 m² Material: Glass/PTFE mesh



A textile covering was installed to allow for installation ventilation in one of the tunnels of the new municipality bypass. This Teflon-coated fabric has excellent dirt resistance and exceptional durability.



TOWERS OF HERCULES



Project: Towers of Hercules, Los Barrios Location: Algeciras. Spain Main contractor: Sando Constructions Architect: Rafael de la Hoz Area: 2,700 m² Material: HDPE mesh



An outdoor car park with a metallic structure and mesh textile covering for shade was built for this emblematic building. The porticos, with a distance of 5m between them, have different inclinations, which create a wave-shaped covering.



MAKRO SHOPPING CENTRE



Project: Makro Shopping Centre Car Park Location: Alfragide. Portugal Area: 3,752 m² Material: PES/PVC Ferrari ref. 702 S2

A textile covering for the outside car park of this shopping area.

The metallic structure allows for the membranes to be fastened with a shape integrated into the architecture of the commercial building.





Cover image: piece of the tensile structure for Calle Unterhacing in Tenerife.

Images of the Carrefour Saint Denis project are provided by Hors Limites Architecture.

Photographs from the San Cayetano School in Palma de Mallorca are provided by Joaquín Izquierdo; photos of the interior pavilion and night façade are by Ramón Gabriel; and the day façade photo is provided by Isabel Rabassa. Project images for Calle Unterhacing in Tenerife are provided by Jiménez y Bazán Arquitectos SLP.

Project photographs for the Llerena Auditorium are provided by Vicente López and Jesús Díaz.



Comprehensive Project



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