

LSAA

LIGHTWEIGHT STRUCTURES ASSOCIATION OF AUSTRALASIA INC.

2007 Design Awards

"Lightweight Architecture - Stretching our Boundaries Internationally"



25-26th October 2007
Crowne Plaza, Gold Coast

LSAA 2007 Conference & Design Awards

"Lightweight Architecture - Stretching our Boundaries Internationally"

The Lightweight Structures Association (LSAA) is an autonomous, inter-disciplinary group of interested parties involved in the field of lightweight structures with the basic aim of promoting the proper application of lightweight structures, their design, fabrication, construction and materials, and the development of these and other aspects particular to lightweight structures.

The LSAA is pleased to announce the entrants and winners of the LSAA Design Awards. The Awards will be presented during the Conference Dinner, 25th October 2007 at the Crowne Plaza Surfers Paradise. The two day conference will highlight the achievements of the industry in the global arena and examine new developments and local issues.

The Awards are in recognition of excellence in design, construction and application of Lightweight Structures.

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Judges



Peter Kneen is a pioneer in the field of lightweight structures with numerous space-frames, fabric structures, cable net structures and shade structures to his credit. He was a founding member of the MSAA, the precursor to the expanded LSAA.

During a 25 year stint at the University of New South Wales he was the first academic to be promoted on the basis of industry input and leading design work. Notable projects include the design of the spire of the Victorian Arts Centre and the Parque Anhembi Exhibition building in Sao Paulo.

The education of both engineers and architects in the effective use of structural form, appropriate materials and computer technology is an ongoing passion.

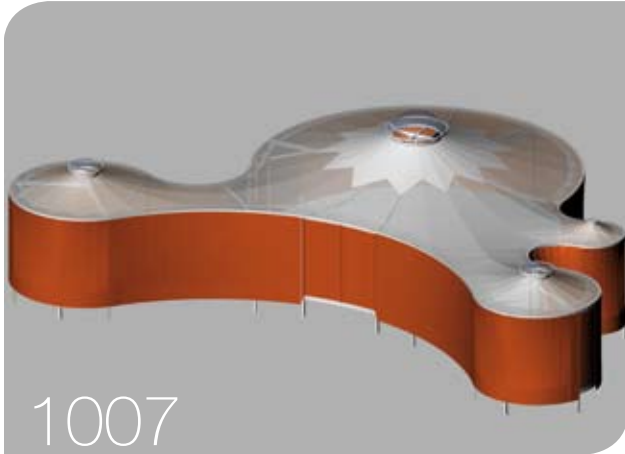


Alec Tzannes (FRAIA) is the current National President of the Royal Australian Institute of Architects and founding Director of Tzannes Associates, a firm that has received over 30 awards for architecture and urban design in Australia.

Underpinning the work of the Tzannes studio is a commitment to the design of the public environment. On a more poetic level, the Tzannes studio explores architecture that engages with concepts about time, place, materials, space and light. Sustainable energy propositions are integrated within every phase of the design process.

At Tzannes, public and private design objectives form the basis of design concepts to ensure new work is of lasting cultural value.

Category 1: Small Structures



Melbourne International Arts Festival
- The Clubhouse

Entrant: Tensys
Client: Melbourne International Arts Festival
Architect: Wood Marsh Architecture
Structural Engineer: Tensys
Specialist Consultant(s): Tensys
Builder: Melbourne International Arts Festival
Fabricator(s): Atkins Fabrications Pty Ltd, Thornton Engineering Australia Pty Ltd - steelwork



Northern Busways Park & Ride
Terminals

Entrant: Structurflex Ltd
Client: North Shore Council
Architect: Opus
Structural Engineer: Compusoft Engineering Auckland
Builder: Works Infrastructure
Fabricator(s): Structurflex Ltd



Orion Springfield

Entrant: Architectural Sails
Client: The Mirvac Group
Architect: Rice Daubney
Structural Engineer: Wade Consulting Group
Builder: Mirvac Constructions (Qld) P/L
Fabricator(s): Architectural Sails



Mpowerdome Entry Structure

Entrant: UFS Australasia Pty Ltd
Client: Mpowerdome
Architect: Small Quinton Coleman Architects
Structural Engineer: Wade Consulting Group
Builder: UFS
Fabricator(s): Fabric Shelter Systems

Category 2: Medium Structures



Australian Wildlife Centre Healseville Sanctuary

Entrant: Taiyo Membrane Corp, Tattersall Engineering, Minifie Nixon Arch

Client: Zoos Victoria

Architect: Minifie Nixon

Structural Engineer: Tattersall Engineering

Specialist Consultant(s): Wade Consultants, Taiyo Membrane Corporation

Builder: Behmer and Wright

Fabricator(s): Taiyo Membrane Corp



Mosque Jakarta

Entrant: Taiyo Membrane Corp

Client: Taiyo Birdair Asia PTE LTD

Architect: Taiyo Membrane Corp

Structural Engineer: Robert McDonald (TMC)

Fabricator(s): Taiyo Membrane Corp



La Piazza - Jakarta

Entrant: PT Binatama Akrindo

Client: PT Summarecon Agung Tbk.

Unit La Piazza

Architect: PT Binatama Akrindo Sarjono Sam

Structural Engineer: PT Binatama Akrindo Tensys

Builder: PT Binatama Akrindo

Fabricator(s): Atkins Fabrications Pty Ltd, PT Binatama Akrindo
- Tridome space frame system + steelwork



Al Raheeb Kindergarten Fujairah, UAE

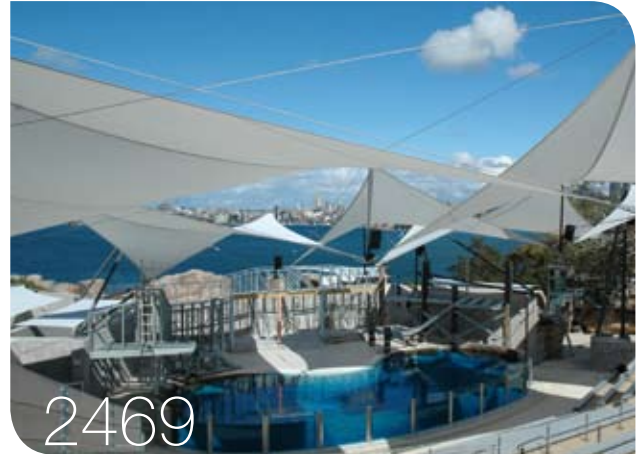
Entrant: Structurflex Ltd

Client: Dubai Municipality

Structural Engineer: Wade Consulting Group

Builder: Mazroui General Contracting

Fabricator(s): Structurflex Ltd



Great Southern Oceans

Entrant: Architectural Sails

Client: Zoological Parks Board of New South Wales

Architect: Jackson Teece Architects

Structural Engineer: Hughes Trueman (Concept Design)

Specialist Consultant(s): Wade Consulting Group, Meinhardt

Builder:

Fabricator(s): Architectural Sails



Jirrawun Arts Centre

Entrant: UFS Australasia Pty Ltd

Client: Jirrawun Arts Pty Ltd

Architect: Bruce Henderson Architects

Structural Engineer: Craft Projects

Specialist Consultant(s): UFS

Fabricator(s): Fabric Shelter Systems, DMG Engineering

Category 3: Large Structures



Flemington Racecourse

Entrant: Taiyo Membrane Corp
Client: Victoria Racing Club
Architect: Taiyo Membrane Corporation
Structural Engineer: Xiang Du (TMC)
Fabricator(s): Taiyo Membrane Corp



Melbourne Sports & Aquatic Centre

Entrant: Taiyo Membrane Corp
Client: Major Projects Australia
Architect: Peddle Thorpe Architects
Structural Engineer: Xiang Du (TMC) & Connell Mott McDonald
Specialist Consultant(s): Connell Wagner (steel design)
Builder: John Holland Pty Ltd



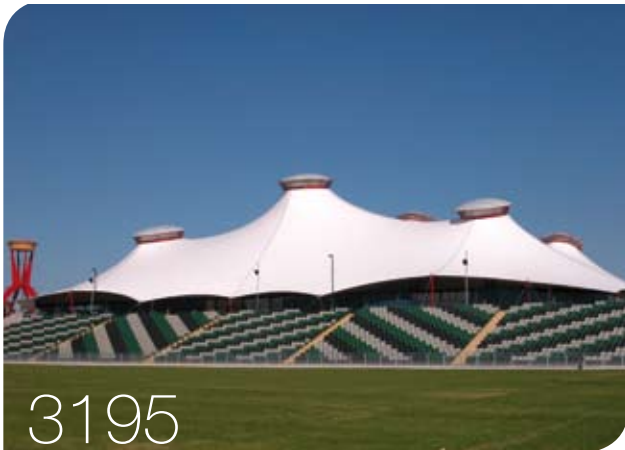
Radome

Entrant: Taiyo Membrane Corp
Client: Bureau of Meteorology
Architect: Taiyo Membrane Corporation
Structural Engineer: Michael Lester (TMC)
Specialist Consultant(s):
Builder: OZRIG
Fabricator(s): Taiyo Membrane Corp



Dubai Outlet Mall - Entrance Dome

Entrant: Structurflex Ltd
Client: Emirates Engineering Services
Architect: ARENCO
Structural Engineer: Wade Consulting Group
Fabricator(s): Structurflex Ltd



3195

The Grand Pavilion, Royal Melbourne Showgrounds

Entrant: Oasis Tension Structures
Client: Multiplex Constructions (Vic) Pty Ltd
Architect: Darryl Jackson Pty Ltd
Structural Engineer: Tensys
Specialist Consultant(s): Drafting Steel One
Builder: Oasis Tension Structures (Australia) Pty Ltd
Fabricator(s): Atkins Fabrications Pty Ltd Structurflex NZ,
 Geelong Fabrications, Ronstan



3197

Aquinas College Forum Structure

Entrant: Tattersall Engineering
Client: Aquinas College / J A Dodd
Architect: Designinc Adelaide (Geof Naim)
Structural Engineer: Tattersall Engineering
Specialist Consultant(s): Wade Consultants
Builder: Tecraft Pty Ltd
Fabricator(s): Horizon Sailmakers / C E Bartlett, Riband (Steel) A
 Noble & Son (Cables)



3348

School of Information Technology, Screen

Entrant: Taylor Thomson Whitting
Client: University of Sydney
Architect: FJMT
Structural Engineer: Taylor Thomson Whitting
Specialist Consultant(s): MPG Façade Innovations
Builder: A W Edwards
Fabricator(s): Long Span Steel



3837

Sydney Wildlife World

Entrant: UFS Australasia Pty Ltd
Client: Sydney Attractions Group
Architect: Misho & Associates/ RIHS Architects
 – Misho & Gerry Rihs
Structural Engineer: Fabric: Wade Consulting Joseph Dean,
 Steel: S2 Corporation Murray Allen
Fabricator(s): Fabric Shelter Systems Graham Griffin

Category 4: Special Applications



Moët & Chandon

Entrant: Taiyo Membrane Corp

Client: Moët & Chandon Australia

Architect: Chris Bosse (PTW)

Structural Engineer: Xiang Du (TMC)

Fabricator(s): Taiyo Membrane Corp



Entry Paradise Pavilion

Entrant: Taiyo Membrane Corp

Client: Chris Bosse

Architect: Taiyo Membrane Corp & Chris Bosse

Structural Engineer: Xiang Du (TMC)

Fabricator(s): Taiyo Membrane Corp



Clarke Quay Redevelopment

Entrant: Tensys

Client: Capitaland Commercial Ltd

Architect: SMC Alsops & RSP Architects

Structural Engineer: Tensys

Specialist Consultant(s): Arup (Environmental)

Builder: Kajima Overseas Asia Pte Ltd

Fabricator(s): Skyspan (Asia) Pty Ltd – Riverside/Bluebell canopies
Hightex GmbH – Street/Angel Canopies



Vector Arena Atrium Lights

Entrant: Structurflex Ltd

Client: Vector Arena

Architect: Peddle Thorpe Architects

Structural Engineer: CompuSoft Engineering Auckland

Fabricator(s): Structurflex Ltd



Airspace

Entrant: S2 Corporation

Client: Boeing Australia Limited

Structural Engineer: S2 Corporation Pty Ltd

Specialist Consultant(s): Healey & Castle Associates

Fabricator(s): Casa Engineering, CAD Tech, UFS



COBS -CT Counter Observation Barrier Screen - Counter Terrorist

Entrant: Alfresco Shade

Client: SAAB Barracuda Australia

Structural Engineer: Ian Norrie (Bond James Norrie), John Williams (Hughes Truman)

Specialist Consultant(s): SAAB Sweden

Builder: Alfresco Shade

Fabricator(s): Alfresco Shade

Category 1: Small Structures - Excellence Award



Orion Springfield

This canopy structure over a pedestrian crossing on a busy street links retail areas and provides a legible and memorable urban marker to an otherwise complex and perhaps typically confusing mass of signs, different building forms and materials.

The asymmetrical canopy geometry is an appropriate response to the urban setting demonstrating the value of integrating site specific urban considerations with an elegant and sophisticated light structure.

The location of steel elements, use of colour and emphasis of the ephemeral character of the canopy fabric together create an exceptional design response demonstrating the value of employing light structural concepts in urban settings.

Orion Springfield

Category 2: Medium Structures - Excellence Award

Great Southern Oceans

The geometry of this relatively conventional use of fabric as a shade structure is derived from the site constraints and layout of outdoor seating to view sea mammals trained for pool events at Taronga Park Zoo, Sydney.

Together with the architectural elements the light structure and fabric create an appropriate playful character and exceptional environment for viewing these events.

The triangulated overlapping forms of the fabric and tensile structural elements contribute to the audience experiencing a sense of engagement with the pool activities. The tensile forms create light and shade patterns of visual interest throughout the day and also provide an unmistakable form visible from some distance to mark the location of the venue.



Great Southern Oceans

Category 3: Large Structures - Excellence Award

The Grand Pavilion, Royal Melbourne Showgrounds

This tensile fabric roof structure is 'grand' in every sense as the scale of the elements and geometric configuration dramatically emphasises the substantial enclosed area of the pavilion.

Ventilation and light control elements are integrated with principal structural members to form a spectacular interior experience of space. The translucent light through the canopy fabric further emphasises the lyrical forms creating an important new interior at the Royal Melbourne Showgrounds.

The Grand Pavilion is an exemplary use of light structure technology to create architecture of significance. The structure demonstrates sophisticated design and construction skills providing an impressive facility for the accommodation of large gatherings within a single flexible space.



Category 4: Special Applications - Excellence Award



Counter Observation Barrier Screen

This structure is designed to provide protection for people and facilities exposed to extreme acts of terrorism including car bomb and rocket attack.

The use of light structure and fabric is normally not associated with the design of heavy duty protective barriers. Typically the material of choice is concrete for its mass and other related properties.

The ingenuity demonstrated by this structure to be able to protect against the most damaging effects of extreme explosive force and missile projection is exemplary. Other advantages of this innovative application of light structure include speed of erection, transportability and cost effectiveness.

Citations



School of Information Technology

Category 3: Large Structures

School of Information Technology, Screen

This structure is designed to improve the interior amenity of a teaching facility by modifying the heat load from solar access and negative acoustic effects of the adjacent busy road network.

The structural steel and glazing details form an impressive architectural screen contributing positively to the design of the public domain. Theatre advertising is also accommodated successfully in the structure to provide an effective architectural resolution to a complex series of spatial and environmental considerations.



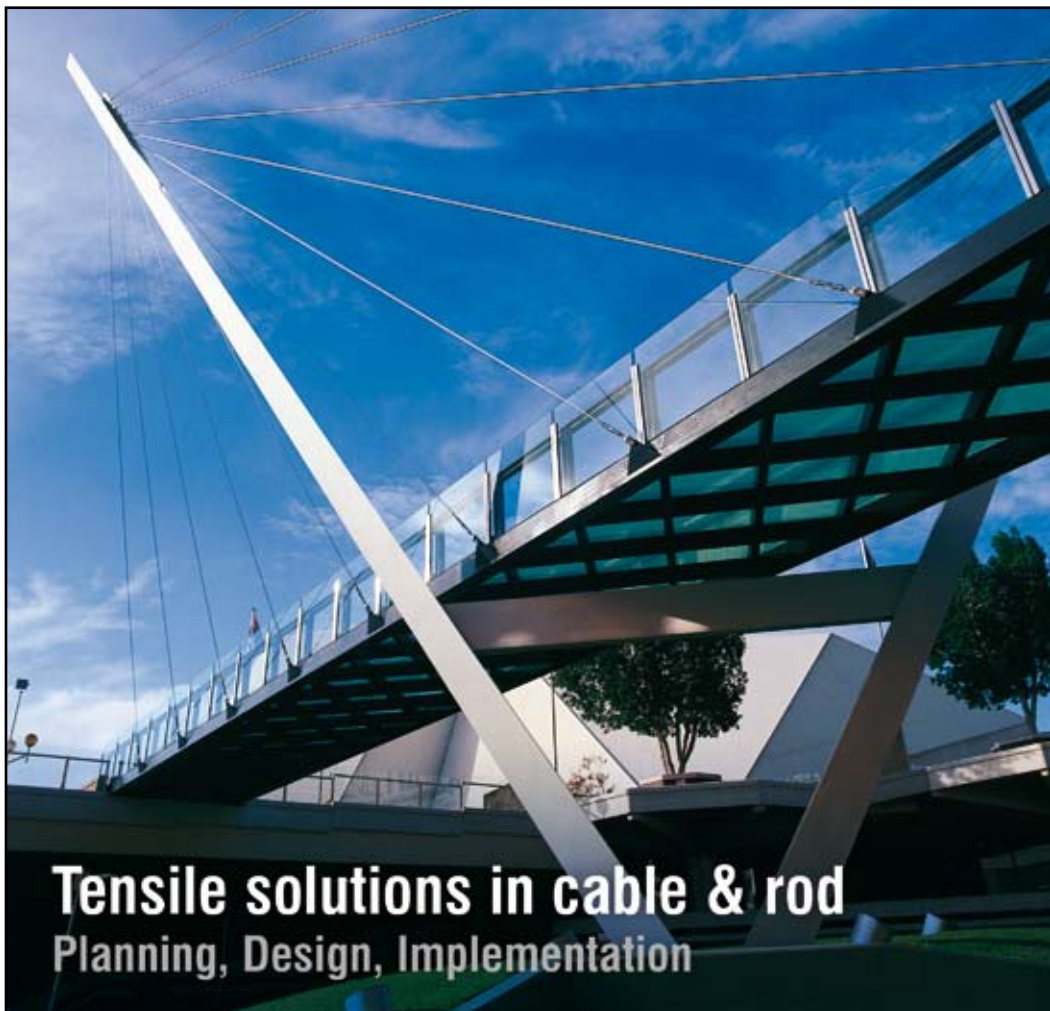
Moët and Chandon

Category 4: Special Applications

Moët and Chandon

An interior experience for a champagne maker has been created that effortlessly appears to resemble champagne itself through the use of light, and fabric.

Rarely is an interior design so appropriate to purpose conceived using light structure and fabric. The experience of the space sets the mood and tone for the celebration of all the pleasures that champagne can bring to human experience.



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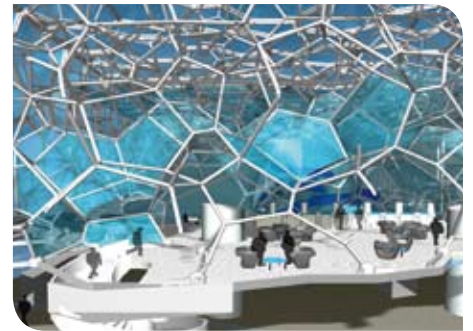
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LSAA 2007 Images

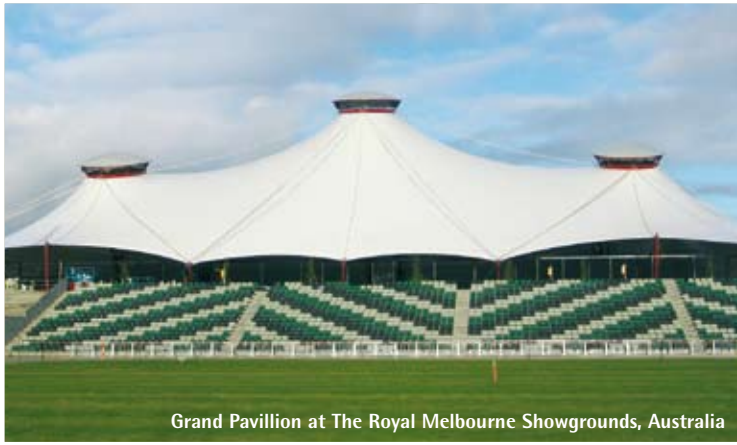


LSAA 2002 Images

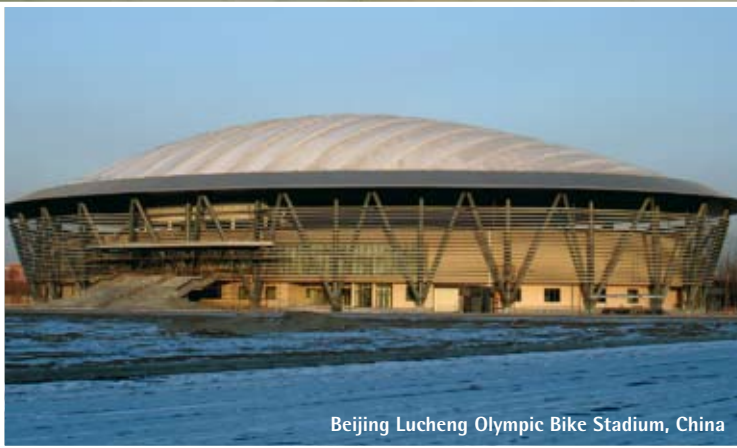


The Winning Team

Architects prefer membranes by Mehler Technologies



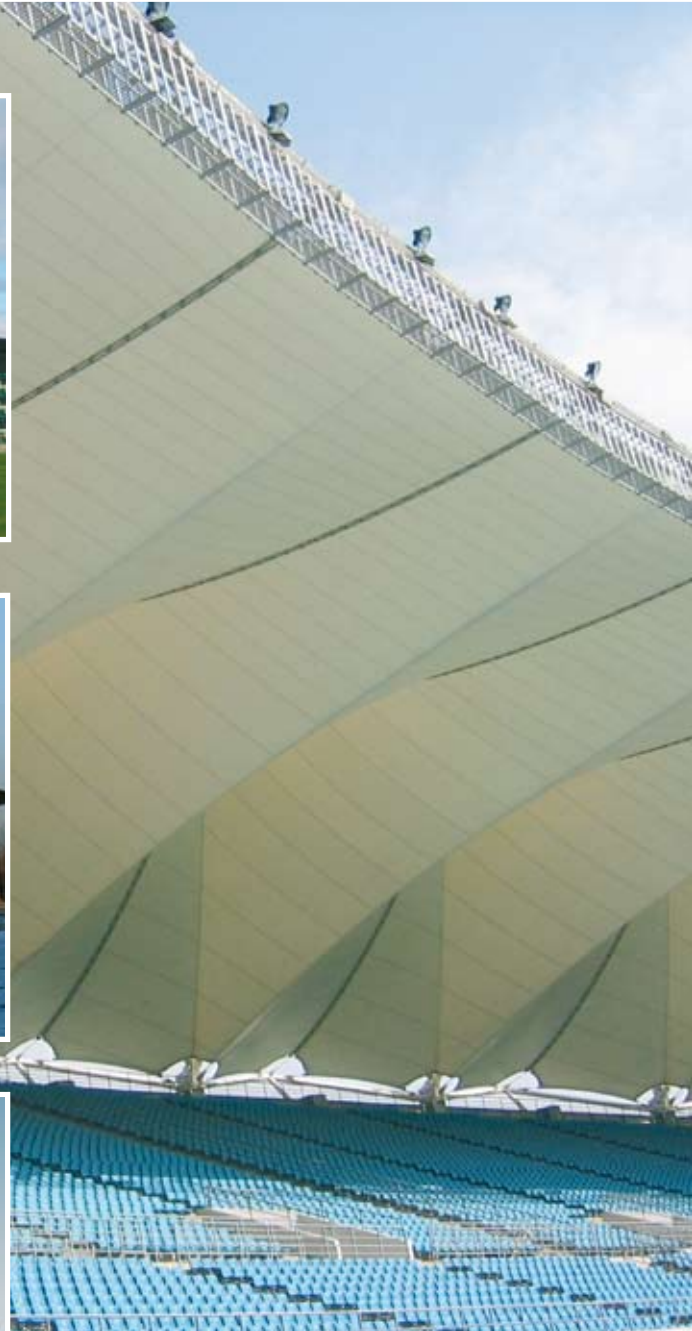
Grand Pavillion at The Royal Melbourne Showgrounds, Australia



Beijing Lucheng Olympic Bike Stadium, China



Outlet Mall, Dubai



Wuhu Sporting Stadium, China

For more than 20 years architects, engineers and city planners trust in membranes by Mehler Technologies. The outstanding properties of these textile structure fabrics convince more than ever.



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Louvre Museum - France



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