



A TEMPORARY  
STRUCTURE WITH A  
PERMANENT FEEL





## Sky's the Limit

The unique product design of the TFS offers an impressive structure with the fabric tensioned in both horizontal and vertical directions to create a clean taut finish, with black pvc inside and silver finish outside.

Our experience to date shows that once a client switches to TFS, they never return to a conventional widespan alu-hall.

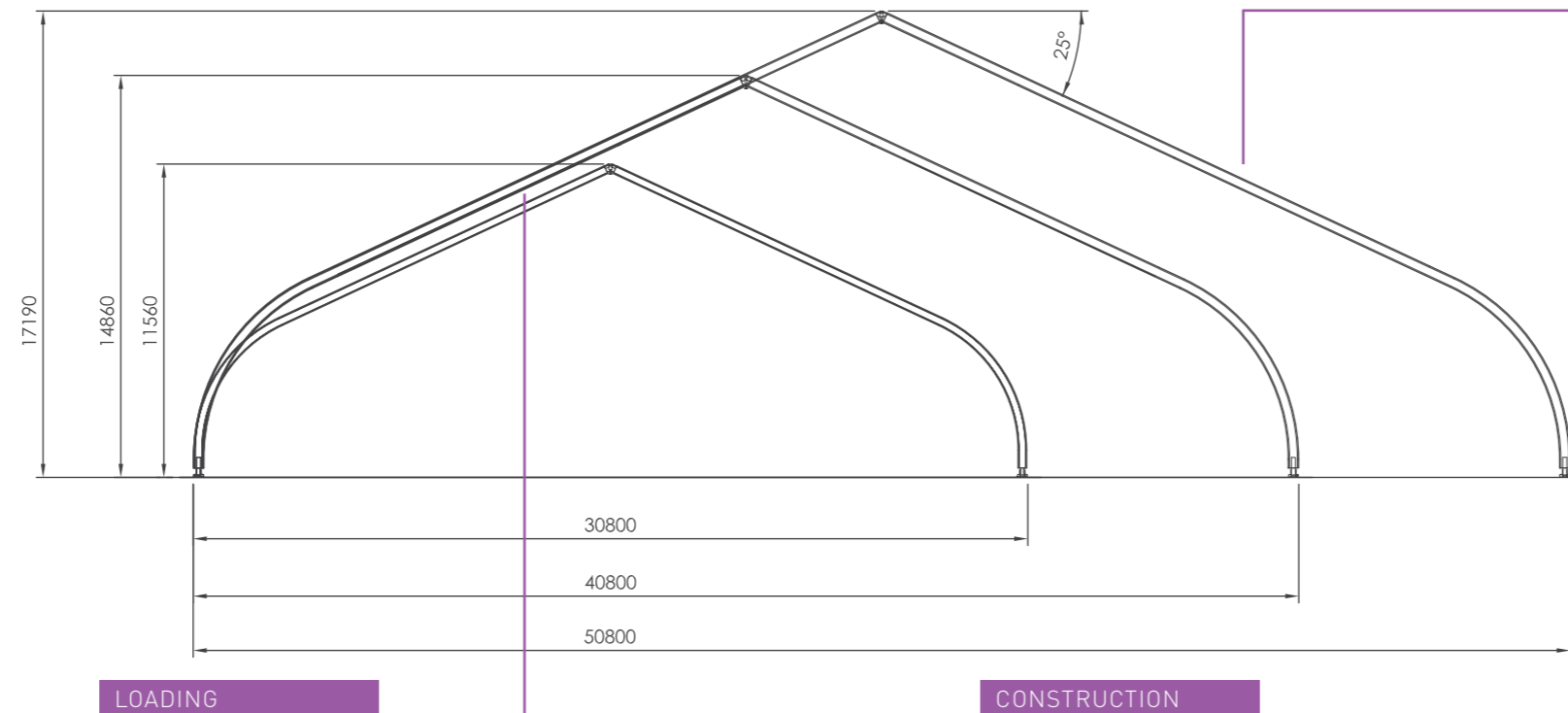
Once the gables have been fitted access to the building can be through either roller shutter doors or double glazed/emergency doors at any location of the building.

There are 3 size options: 50m wide (offering a central height of 17.19m), 40m wide (with a central height of 14.86m) and 30m wide (with a height of 11.56m).

A number of different entrance structures can further enhance the experience of the TFS.

### Advantages

- The sheer size of the structure and the flexibility of size
- Wind movement, normally associated with widespan traditional alu-halls eliminated – no rattling from hard wall panels
- Gable heights offer a versatile area to display graphic designs for advertising – this service can be arranged internally
- Constructed with one crane therefore reducing the risk of site damage
- Far quicker erection time, therefore CDM and building regulations do not normally apply
- All structures conform to British, European and American standards for stability and fire safety
- Ideal for permanent applications, such as indoor tennis courts, aircraft hangars and warehousing
- Gable panels can be fully blackout or partially translucent to let in a selected amount of natural light
- Overall height offers the opportunity to supply mezzanine floors
- Secondary membrane to further improve sound and heat insulation



### LOADING

The service load that one arch of the structure is able to resist is 300kg/arch. The indicated service load has to be placed symmetrical along the arch. Every point load on the arch cannot exceed the maximum of 100kg or 1kN. To increase the loading of the roof an orbit arch can be installed. This would enable upwards of 5 tonne to be hung from the middle section of the structure.



### CONSTRUCTION

Self-supporting aluminium construction (AL 6061 T6 alloy) on steel galvanised baseplates which are fixed to the floor by means of stakes or anchor bolts, according to the type of ground conditions. For a concrete pad you need anchor bolts. The purlins which connect the main arches of the frame are anodised as they are in contact with the roof fabric. The structure conforms to British, European and American standards for stability and fire safety.



### FABRIC

Serge Ferrari 702S black out interior, Silver exterior. A very high quality PVC coated polyester fabric of approximately 780g/m<sup>2</sup> flame retardant to the norms M2 (France), BSS438 (UK), DIN 4102 (Germany) and NFPA 701 (USA). This fabric is treated anti-UV, which makes the fabric more resistant against colour changes and ageing. The fabric is also treated anti-crypto, which makes it more resistant against mildew and fungus.





## Making Waves

**Location:** The London Boat Show

**Structure:** 1 No. 50m x 205m TFS with Revolution entrance and linking walkway

Despite The London Boat Show's move to the larger venue at ExCeL additional space was still required for exhibitors and a pool area for the World Indoor Windsurfing Championships.

**Specification:**

- Ceiling to floor division to create separate exhibition and watersports arena
- Construct pool (70m x 30m) on scaffold platform capable of holding 2.1 million litres of water (enough to fill 8,000 baths!)
- Extensive testing proved, unlike conventional alu-halls, that the TFS could withstand 30 knots of internal windspeed generated by 25 powerful fans to enable the windsurfing competition to take place
- Arena Structures contracted and project managed the following –
  - 3,000 grandstand seats
  - House and emergency lighting system
  - Heating
  - Generators
  - Fuel management
  - Scaffolding
  - Staging
  - Trussing
  - Toilets
  - Kitchens
  - Site security



“IT WAS IMPORTANT TO FIND A UNIQUE VENUE WITH A HIGH QUALITY DESIGN THAT CAN DELIVER AN ATTRACTIVE AND FLEXIBLE SHOW ENVIRONMENT FOR THE LONDON BOAT SHOW.”

**National Boat Shows Ltd** Murray Ellis - Director of Operations



## Higher Plane

**Location:** Saint Hill Manor, East Grinstead

**Structure:** 1 No. 40m x 95m TFS with adjacent alu-hall facilities

The Church of Scientology needed additional temporary accommodation for their weekend consisting of award ceremony, gala dinner and Charity Concert. The TFS was linked to the castle at Saint Hill Manor and was occupied by over 7,000 guests during the course of a busy and successful weekend. Internal white lining, used for the first time in this structure, created a backdrop to the additional and elaborate dressing of the structure.

### Specification:

- Whole project constructed in a muddy, sloping farmers field
- Floor constructed and designed to accommodate for the soft, wet conditions
- The brief called for the floor to be on three different tiers
- Arena's own internal designers called upon to create bespoke connection to the castle and form elaborate staircase for VIP and green rooms
- Elaborate lining manufactured and used in conjunction with miles of pea lights to create a dramatic effect
- Sub contract services included –
  - Steel deck
  - Internal décor
  - Carpeting
  - Joinery
  - Trackway
  - Trussing
  - Staging
  - Heating and power
  - Toilets
  - Kitchens
  - Lighting and sound



"WE WERE REALLY IMPRESSED BY ALL ARENA'S PERSONNEL, THEIR 'CAN DO' ATTITUDE AND RESPECTFULNESS FOR OUR PREMISES AND SUPPLY PARTNERS."

**Saint Hill Manor** Tatjana Keenan - Events Manager



## Exemplary Temporary

**Location:** Wembley, London

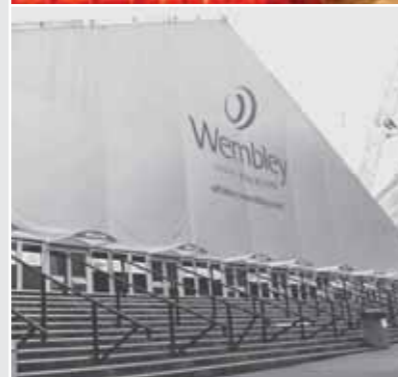
**Structure:** 1 No. 50m x 130m TFS

During the refurbishment of Wembley Arena we were pleased to supply Wembley London Ltd with a structure for the 2005 music and entertainment season. Named the Wembley Arena Pavilion, the structure was built with the support of the Star Events Group, specialists in staging. This structure, along with Wembley London Ltd, won the AEO Excellence Award for Venue Facility Development and Innovation for 2005.

### Specification:

- Provide a temporary structure capable of holding 10,000 music fans with full facilities required by the audience
- Deliver a structure that met the exacting standards of Brent Council and satisfied building regulations of a permanent installation
- Noise pollution levels were limited with the introduction of a secondary PVC membrane. This was tested stringently by acoustic specialist, Capita Symonds. The differences were significant and helped secure approval by the licensing authorities
- The site was a sloping car park which required over 18 miles of scaffolding, delivered by sister company Arena Scaffolding
- Arena Structures project managed and helped design a bespoke heating and air conditioning solution to ensure an environment comparable with any fixed venue. Within our brief was the provision of over 200 toilets, bar and merchandising areas, hospitality and green rooms, heating and cooling, and emergency lighting system
- The whole construction process was in the shadow of the Wembley Stadium project and therefore we worked within the standards of CDM

**Awards:** AEO Excellence Awards 2005 – Venue Facilities Development and Innovation  
Performance Textiles, Industry Awards 2006 – Project of the Year  
The Event Services, Industry Awards 2006 – Special award for Venue of the Year



“THE PAVILION WAS A MAJOR COMMITMENT AND WE WANTED TO ENSURE THAT WE BROUGHT TOGETHER THE BEST POSSIBLE INDUSTRY EXPERTS TO DELIVER A FIRST CLASS VENUE.”

**Wembley London Ltd** David Thompson - Director of Operations



## We've Boldly Gone

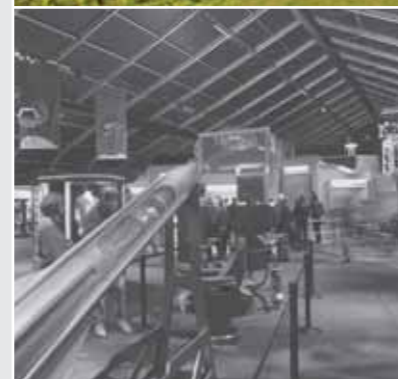
**Location:** Hyde Park, London

**Structure:** 1 No. 50m x 130m TFS with Starburst entrance structure

The makers of the highly successful Star Trek series brought to the UK an impressive selection of costumes, films sets and memorabilia. Held in the heart of London during the Christmas period and into early Spring many visitors were attracted to the event.

### Specification:

- Constructed in Hyde Park, adjacent to Park Lane, London
- Situated directly above an underground car park, giving Arena's in-house engineering department a number of challenges to overcome
- The brief was to supply a structure with futuristic look, that performed like a fixed exhibition venue
- Over £5 million of film sets and cutting edge computer technology was installed and it was essential there was no condensation. Therefore Arena managed the supply of a heating and air conditioning system
- Graphic panels fixed to PVC to advertise and promote the exhibition
- Complex trussing arrangement managed by Star Events Group ensured substantial loads could safely be hung from the roof



"WE HAVE BEEN DELIGHTED WITH THE IMPACT THE TFS HAS MADE. IT REALLY FEELS LIKE A PERMANENT STRUCTURE INSIDE."

**3A** Dennis Arnold - Event Promoter



## Reporting on Summit

**Location:** G8 Summit, Gleneagles Hotel

**Structure:** 50m x 60m TFS with mezzanine  
25m x 50m Multi-deck restaurant  
8 No. 10 x 20m Briefing rooms  
15m x 35m Toilets

World interest dictated the need for a large, superior structure to accommodate the press during this high profile event in Scotland.

### Specification:

- Large, high-tech structure to accommodate the world's media
- 50m x 60m TFS whose floor area was almost doubled by utilising the incredible height to install a first floor mezzanine
- 2,500 journalists accommodated within an air conditioned TFS, constructed in a paddock and seamlessly connected to the Gleneagles equestrian centre, which was also transformed for the Summit
- Both gables were translucent to optimise light
- At the same time a multi-deck restaurant, briefing rooms and toilet structure were also being constructed



"THE SUCCESS OF THE G8 WAS DUE IN NO SMALL PART TO THE ENVIRONMENT THAT WAS CREATED BY THE TFS."

**Jack Morton Worldwide** Mark Wallace - Project Director



## Exhibition for the Designers

**Location:** Grounds of the Royal Chelsea Hospital, London

**Structure:** 2 No. 50m x 120m with bellend and Revolution reception areas

For interior designers, this exhibition provides a wealth of suppliers from which to select their exclusive looks. Situated within the grounds of the Royal Hospital, Chelsea and adjacent to the embankment in London.

Internally a mezzanine area was formed which provided an area for kitchen facilities and restaurant area. Toilet facilities were provided in adjoining structures.

### Specification:

- Prestigious site with difficult access through narrow pillars
- Very short build time, over 14,000m<sup>2</sup> constructed within 13 days, involving 40 men working shifts, 11am to 11pm
- Over 60 articulated vehicles delivered the equipment
- 800m<sup>2</sup> of first floor 'mezzanine restaurant' constructed with windows overlooking hospital gardens
- Translucent gable panels used to dramatic effect creating 'cathedralesque' look
- Standfitting constructed by our sister company



"THE TFS COMBINES CUTTING EDGE TECHNOLOGY WITH FUTURISTIC LOOKS AND A PERMANENT FEEL. THIS WINNING COMBINATION IS EXACTLY WHAT DECOREX NEEDS TO PROMOTE."

**Ian Thompson Associates** Caroline Lawson-Dick - Exhibition Director



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