Sprung Structures

Aviation

High Performance Building Solutions
Tensioned Membrane Structures Available Immediately from Inventory

Marshall Aerospace - Cambridge Airport, UK
Sprung structures provide significant advantages over conventional construction.

- Available immediately from inventory
- Designed to meet hurricane force winds
- Designed to shed snow
- Extremely resistant to wake turbulence
- Engineered for permanence, designed for relocatability
- Energy efficient insulation system
- Translucent daylight panels in the peak provide natural light, reducing operating costs
- Short and long term rental available

Our Aluminum Substructure Outperforms Steel

While conventional construction is still relying on steel as its substructure material, your Sprung structure offers greater versatility and performance with an extruded aluminum substructure that arrives on site prefabricated and ready to assemble.
Extruded Aluminum Shapes

Corrosion resistant and 100 percent recyclable, our aluminum components have a higher strength-to-weight ratio than steel. Aluminum extrusions allow for bolted connections which outperform the welded connections found in steel framed structures.

In business since 1887, Sprung has built an international reputation for performing above and beyond our customers’ expectations with 12,000 structures in over 100 countries worldwide.
Sprung structures can be erected in a fraction of the time of conventional construction.

Structures can be designed to meet the requirements of NFPA 409.

A Superior Insulation System Offers Ideal Heating and Cooling Efficiency

Constant research, testing and development have led to a Sprung structure that provides naturally better climate control. Unlike a metal building that compresses insulation and lowers the R-value, a Sprung structure keeps the insulation much closer to its design thickness for maximum performance and comfort. It also reduces climate-control costs and absorbs sound for better acoustics.
Sprung Component Architecture

Our sophisticated and patented tensioning system results in a structure with unlimited design potential that is adaptable to almost any environment imaginable. In addition, the Sprung structure reduces climate-control costs with an exceptionally well sealed, high R-value optional insulation system.

- 9” thick R-30 (U-value = .0333) insulation on 100’ - 180’ wide structures
- 8” thick R-25 (U-value = .0400) insulation on 30’ - 90’ wide structures

With limited to no foundation requirements and a design that’s engineered for relocatability and ease of movement, Sprung structures have ultimate flexibility to be relocated numerous times for a variety of applications.

Military Hangar - UAE

ICE Hangar - Campo, California, USA
Sprung’s durable membrane structure is the solution of choice for the aviation industry needing fast, reliable airport building solutions. Available immediately from inventory, Sprung structures are versatile in application and custom design, offer a wide range of hangar door options and efficient insulation packages.
<table>
<thead>
<tr>
<th><strong>TDS - TELESCOPING DOOR SYSTEMS</strong></th>
<th><strong>VERTICAL LIFTING FABRIC DOOR SYSTEMS</strong></th>
<th><strong>CENTER PIVOT ROTATION DOORS</strong></th>
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<tr>
<td>Multi-leaf bi-parting door system is available in both manual and power driven options.</td>
<td>Sprung’s vertical lifting aircraft hangar door system provides a superior door seal against outside elements.</td>
<td>Double Panel Rolling Service Door Innovative center-pivot panel design that is available in a variety of sizes.</td>
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<tr>
<td>Ideal for aircraft operations requiring a conventional door system.</td>
<td>Multi-panel membrane door system is power driven for ease of operation.</td>
<td>Triple Panel Rolling Service Door These doors are easy to open, utilizing pneumatic wheels that allow the door to slide inside the structure.</td>
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<tr>
<td>Safe, proven and reliable.</td>
<td>Proven technology world wide.</td>
<td>Quadruple Panel Rolling Door These doors open large enough to accommodate helicopters and other aircraft.</td>
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**Performance Architectural Membranes**

The exterior architectural membrane is durable and fire resistant. Tedlar and Kynar coated membranes are offered in virtually any color to compliment existing architectural color schemes. Our low temperature arctic membrane is designed exclusively for cold weather installations.
Sprung structures provide all weather protection from the elements featuring a maintenance free aluminum substructure with an almost indefinite lifespan and a 30 year pro rata guarantee.

Shipping Efficiency
The Sprung structure is ideal for remote locations due to its ease of erection. The structure is extremely lightweight and has very compact shipping sizes significantly reducing transportation costs.
Designed for extreme weather conditions, Sprung tensioned membrane structures can be shipped and constructed even during the times of the year with the most challenging weather conditions.

Worlds Fastest Delivery
Sprung maintains inventory in excess of 2 million square feet of raw materials, allowing us to deliver our product in a typical time line of 2 - 4 weeks from order.

Speed of Construction
A non insulated Sprung structure can be erected at a rate of up to 2,000 ft² (185 m²) per day, a rate that can easily be doubled or tripled with additional labor provided.
Aviation Support Facilities

Airports around the world have utilized Sprung structures for a wide range of aviation building solutions.

The Sprung Advantage

Limited Foundation Requirements

Sprung structures are available in widths from 30’ (9 m) wide - 200’ (60 m) wide by any length. The aluminum and fabric components that make up a Sprung structure, make it extremely lightweight compared to steel substructures, significantly reducing the size of concrete foundations. Structures can also easily be anchored to existing asphalt or raw earth.
Auxiliary Baggage Handling
Southwest Airlines uses Sprung structures at several airport locations to house their auxiliary baggage handling.

Warehousing
Sprung provided Polar Air Cargo with over 110,000 square feet of valuable enclosed warehouse space at Schiphol, Netherlands.

Snow Removal Equipment Storage
Denver International Airport looked to Sprung as the solution of choice for immediate snow removal equipment storage.

Connecting Corridors
Kansas City International Airport needed over 2100 lineal feet of connecting corridors for passengers during construction expansion.

Emergency Response Vehicle Storage
Hartsfield-Jackson Atlanta International Airport turned to Sprung for a structure that would be able to accommodate their emergency response vehicles.

Terminal Lounges
Fully insulated airport departure lounge during construction of the main terminal at Jackson Hole Airport.

Air Cargo Facilities
Add additional capacity immediately. Lease or purchase.

Rolling Tail Maintenance Structure
Commercial jet tail cover for use on larger aircraft that do not fit into existing hangars.

Sprung at Work
- Aircraft Hangars
- Emergency Response Vehicle Storage
- Temporary Terminals
- Security Screening
- Fire Stations
- Cargo Sort Facilities
- Aircraft Repair Facilities
- Ground Support Equipment Storage
- Temporary Aircraft Hangars
- Construction
- Helicopter Hangars
- Auxiliary Baggage Handling
- Maintenance Facilities
- Check-in Buildings
- Warehousing
- Pedestrian Corridors
- UAV Hangars
- Airport Departure Lounges
- Tail Maintenance Structures
- Connecting Corridors
- TSA Baggage Screening Facilities

Lower Project Costs
Sprung structures are engineered to accelerate construction, lower project costs and reduce operating expenses. Leasing programs are also available from 1-5 years.