



Photo: Studio Berar



## ProlyteSystems

ProlyteSystems offer innovative, solidly engineered solutions for constructing complex structures or roof systems for any event. Whether your event is an intimate social gathering or a massive outdoor concert, your stage design should be robust, stylish, and ready to work in any type of environment; regardless of the size or demands of your application, Prolyte offers what you need. With Prolyte you are asserted of a long-term solution next to a cost-efficient investment.

## Consistent quality

ProlyteSystems are highly regarded throughout all sectors of the events and entertainment markets, a reputation earned by consistently delivering safe and solid constructions that adapt

to all types of applications. In addition, Prolyte users enjoy unparalleled support with comprehensive technical assistance and training. Through product selection to build-up, training is an integral part of the delivery procedure.

## A solid investment

ProlyteSystems offers tower and roof structures in various sizes and shapes. Additionally, custom constructions can be requested. All Prolyte structures are designed, engineered and manufactured to the highest standards in the industry. Setting high standards in stage design, ProlyteSystems are renowned for their easy set-up, short building times, compact transport size and high priority to safety. Where safety for performers and audiences is paramount, ProlyteSystems are a natural choice.



Photo: Starlight AB, project: Cheek at Helsinki Olympic Stadium

### PROVEN QUALITIES

ProlyteSystems are based on standard truss, providing economic packages. Our Roof Systems are modular and versatile; each roof has several set-up possibilities. They are quick and easy to assemble, saving you building time and labour costs. They have compact loading volumes, saving on shipping and storage costs. ProlyteSystems are integrated in our complete range of truss; you only need to buy the special parts, upgrading or downsizing your roof system as required.

This approach has two main advantages:

- You can invest in a roof system on a step-by-step basis
- Out of season, the components can be added to your regular truss rental stock, thereby increasing the economic value of the system as a whole

### DESIGN CRITERIA

In developing design and construction procedures at Prolyte Group, customer needs and overall satisfaction comes first. Our worldwide reputation has been built by providing systems that are ideally suited to the needs and requirements of the user. Providing comprehensive training and build-up procedures gives us access to constant feedback from the market, which in turn helps direct our design and construction methodology. Equally important, products and designs only work when they are proven in daily practise. Having extensive hands-on experience makes our engineers aware of the practical implications of their engineering work. This fact is evident in the design of ProlyteSystems Road proof. Tested. Safe. Approved. Loading data - as featured in this brochure - are based on uniformly distributed loads (UDL). Exact loading data will depend on position and weight per point. Please make sure to check the exact loading data before you apply any load.

### CHALLENGE US

The specific products shown here may not be suited to your particular needs. Working with creative teams can be very challenging at times, but the Prolyte Group are always receptive to new ideas. We welcome opportunities to be put to the test. Although often it seems like we have to make the impossible happen, we always succeed in finding a fitting solution. And, what is more, we never compromise on what we know is important. All of our custom roofs are designed following the same strict design criteria, thereby offering consistent quality and safety.

### STANDARD ROOF SYSTEM COMPONENTS

- Standard truss
- Standard tower systems (MPT, ST or CT)
- Special parts (such as gable parts or tent and keder profiles)
- Additional canopy or side-walls

### PROVIDING THE BEST; CHANGING TO EUROCODE

Due to the activation of the EC9 standard, the Prolyte roof systems are in a transition phase. Based on its philosophy of offering only the best quality products and the safest solutions possible, Prolyte has actively engaged in re-calculating all its roof structures, to be compliant with the Eurocode. Even though Prolyte has an excellent track record of offering safe and reliable roof structures the re-design and recalculation of its roof systems is a complex process that requires a massive engineering effort.

Prolyte is working hard to complete this process ASAP.

### WHAT WILL CHANGE?

Following the Eurocode the calculation has become more complex, with changes along the whole design process. The main differences are; the approach in the calculation of the safety factor, a change in the in service and out service wind loading requirements and making the practical usability of the system part of the design criteria. Prolyte applies these new calculation rules to all its roof systems to ensure our customers and users can rely on the safest structures. That is why some configurations or dimension may change. Please consult Prolyte for an up-to-date overview of all its roof systems.

### Prolyte roof systems are designed and manufactured in compliance with:

<b>EN 1990 / EC0</b>	Basics of structural design
<b>EN 1991 / EC1</b>	Actions on structures
<b>EN 1993 / EC3</b>	Design of steel structures
<b>EN 1999 / EC9</b>	Design of aluminum structures
<b>EN-13782</b>	Temporary structures - Tents – Safety
<b>EN-13814</b>	Fairground and amusement park machinery and structures – Safety
<b>EN-12385</b>	Steel wire ropes





Photo: Interstage, The Netherlands

## DEFINITION

Mobile roof structures are predominantly used in temporary applications. They are designed and constructed to facilitate transportation and regular building and dismantling sessions at different locations.

## APPLICATIONS

Mobile roof structures are mainly used in the event market, which can be defined as (but not restricted to) all activities for leisure and sports, arts and cultural performances, amusement, or presentation of products.

Examples include:

- Product presentations
- Theatre shows, musicals and operas
- Concerts, festivals and fairgrounds
- Exhibitions and trade shows
- Celebrations and parties
- Conventions and large-scale meetings

## STANDARDS

Most countries apply no specific standards in reference to temporary building constructions. When defined, they usually comply with the local

building regulations and therefore to standards on permanent constructions. This is a constant source of problems and discussion. Prolyte has chosen to comply to the strictest regulations that apply.

## WHAT IS TEMPORARY?

How do we define temporary? Days? Weeks? Months? The publication "Temporary Demountable Structures" mentions "generally no more than 28 days". But what if this is in the middle of storm season? How temporary is a stage build for seasonal use? What are the risks of building a stage when rough weather is forecast? By what measure can we predict future circumstances? Each engineer should be aware of the possible risks and dangers beforehand, and should make decisions based on a case-by-case evaluation.

## NEED TO KNOW MORE?

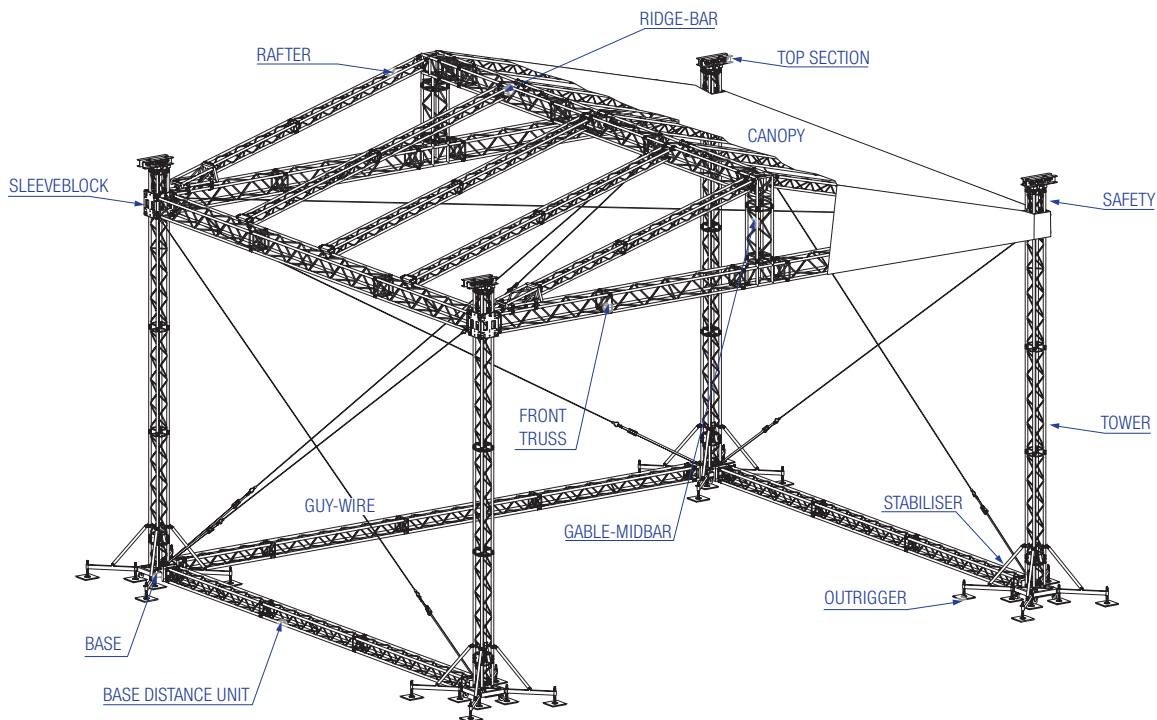
Please go to [www.prolyte.com](http://www.prolyte.com) for more technical information on ProlyteSystems, manuals and loading tables. In the Prolyte Black Book (technical background information) we provide more in-depth technical knowledge on roof and stage structures and their application.

## DO

- Get regular on-site weather information updates
- Use wind sensors to measure local/on-site wind speeds (place them at 10 m. height min.)
- Inform your crew beforehand on safety procedures in case of emergency situations like unexpectedly high wind speeds (see BSR E1.21 - draft; Operations Management Plan).
- Use approved fire retardant canopies and scrims only
- Use scrim with cf factor reference only
- Make sure towers are exactly centred (out of plumb ratio should be less than 0,5%)
- Apply guy-wires at all times
- Make sure your construction is properly grounded

## DO NOT

- Lift your roof to trim height without proper ballast provisions applied
- Use material in poor condition
- Allow loads to be suspended before knowing their exact weight and size
- Exceed the limits of the structural report
- Build roof structures on unstable grounds
- Leave your roof system suspended from a hoist
- Lift a roof to trim height when wind speed surpasses 7,9 m/second



## ANCHOR

Fixed point used to withstand the pulling force from the guy-wires, which absorb the horizontal loading of the roof system. The anchor should be tested or certified.

## BALLAST

The amount of weight applied to a roof structure to withstand wind forces.

## BASE

The tower base section transfers the vertical (axial) load from the tower to the ground. A number of screw jacks on the outriggers allow for exact horizontal placement of the base section, and enable exact vertical placement of the towers.

## BASE DISTANCE UNIT (BASE-BRACERBAR)

Compression bracer between two base sections - absorbing the horizontal forces, which result from internal guy-wires.

## CANOPY

The actual roof cover. Canopies should have accurate water drainage characteristics in order to prevent water traps. In most countries canopies have to comply with fire protection regulations.

## GABLE

Front view of a triangular roof structure.

## GABLE-MIDBAR

The central vertical part in the gable, connecting the ridge-bar ends to the centre of the horizontal gable beam.

## GUY-WIRE

Steel wire bracing added to make the entire system rigid, and to transfer horizontal loads from the top of the system to the base. As a result, the towers will undergo an axial loading and no bending forces. The use of polyester ratchet straps as tensioning devices is prohibited by fire safety regulations in some countries.

## RAFTER

A structural member of the roof system designed to carry the canopy loading.

## RIDGE-BAR

The highest horizontal part of a triangular shaped roof.

## SAFETY

A double suspension point that should be used to replace the chain of the hoist, once the roof is at trim height.

## SLEEVE BLOCK

Corner or connection piece that fully encloses the tower. The sleeve block has a set of internal guidance wheels that prevent friction of metal to metal in its vertical movement.

## SCRIM

Special fabric or cloth used to close the sides or sound wings of the roof structure. The scrim is often painted or printed with special decorations. Scrim should be fire-retardant, have good acoustic characteristics and be wind permeable.

## STABILISER / OUTRIGGER

Bracing part of a single tube that connects the tower to the outrigger, thereby shortening the buckling length of the tower.

## TOWER ('MAST', 'COLUMN')

The tower or mast section transmits the roof weight from the top-section into the base.

## TOP SECTION

The highest part of the mast, transferring the forces from the chain hoist to the tower.





Photo: Stagemarket, Russia

## CANOPY

### Material

All ProlyteSystems have canopies and side-walls made of fire-retardant PVC material. This material is known as M2 (France) or B1 (Germany DIN 4102).

### Colour

Standard canopies are grey on the outside and black on the inside. Other colours are available on request.

### Weight

The average weight of the canopy cover is 0,8 kg/m<sup>2</sup>. For the larger roof structures, the canopy is delivered in separate pieces in order to facilitate handling and transportation.

### Assembly

Ratchet straps are used to tension the canopy. These ratchets are attached to the canopy using a pipe, which fits in the side of the canopy. This method guarantees even and tight fitting of the canopy over the truss structure in order to facilitate rainwater drainage. The position and resulting tension from the ratchets is calculated as an extra load in the overall calculations.

### Side-walls

The side-walls can be closed with the use of black scrim. Please make sure to use the right cf factor in order to guarantee sufficient wind permeability. For most roofs the side-walls have to be removed above certain wind speeds.

### Options

- Transparent or coloured canopies and side-walls
- Built-in rain drainage system
- Repair kit
- Flight cases

## BALLAST

Ballast is the additional weight needed to prevent the roof structure from being blown away as a result of wind forces. Ballast also protects against wind pressures, sliding or other hazards. Whatever type of ballast you use, it is essential that the ballast be fixed to the towers at all times. The required ballast weight can be different for each tower. Often the front towers of the structure require higher weights than the middle or rear towers.

The choice of the proper type of ballast is not easy. Environmental conditions are of great importance. The nature of soil, as well as access to ballast materials - often water or sand - and transportation availability are determining factors. Possible ballast types include:

- Water tanks
- Concrete plates
- Guy-wires in combination with anchors
- Steel tanks
- Sand bags

## CHAIN HOISTS

Chain hoists are used to raise and lower the entire structure. The use of electrical chain hoists guarantees an even movement of the main grid.

We recommend slow travel of the whole structure; the lifting speed of the hoist should not exceed 4 m/minute. All hoists must comply with Protection Class IP 54. Hoists should be disconnected and replaced by safeties once the grid is at trim height. For optimum safety we strongly advise use a load monitoring system for large or complex roof structures.



Photo: Giovanni Eekels Verhuur BV, The Netherlands

## SYSTEM DESCRIPTION

The Arc Roof is a fixed construction, based on three inward-curving trusses that are mounted to side masts. A hinged connection at the outer ends simplifies system setup. Special corners connect the arches to the main grid. Different configurations are made possible by simply changing the arches. The arched trusses have a keder profile on top for fitting the optional canopy.

## BASIC TRUSSING

- Tower — MPT base sections  
H30V truss
- Grid — H30D arched truss - with keder profile or  
H30V arched truss - with keder profile

## INCLUDING

- Tension gear and steel wires
- Comprehensive building manual
- Structural report

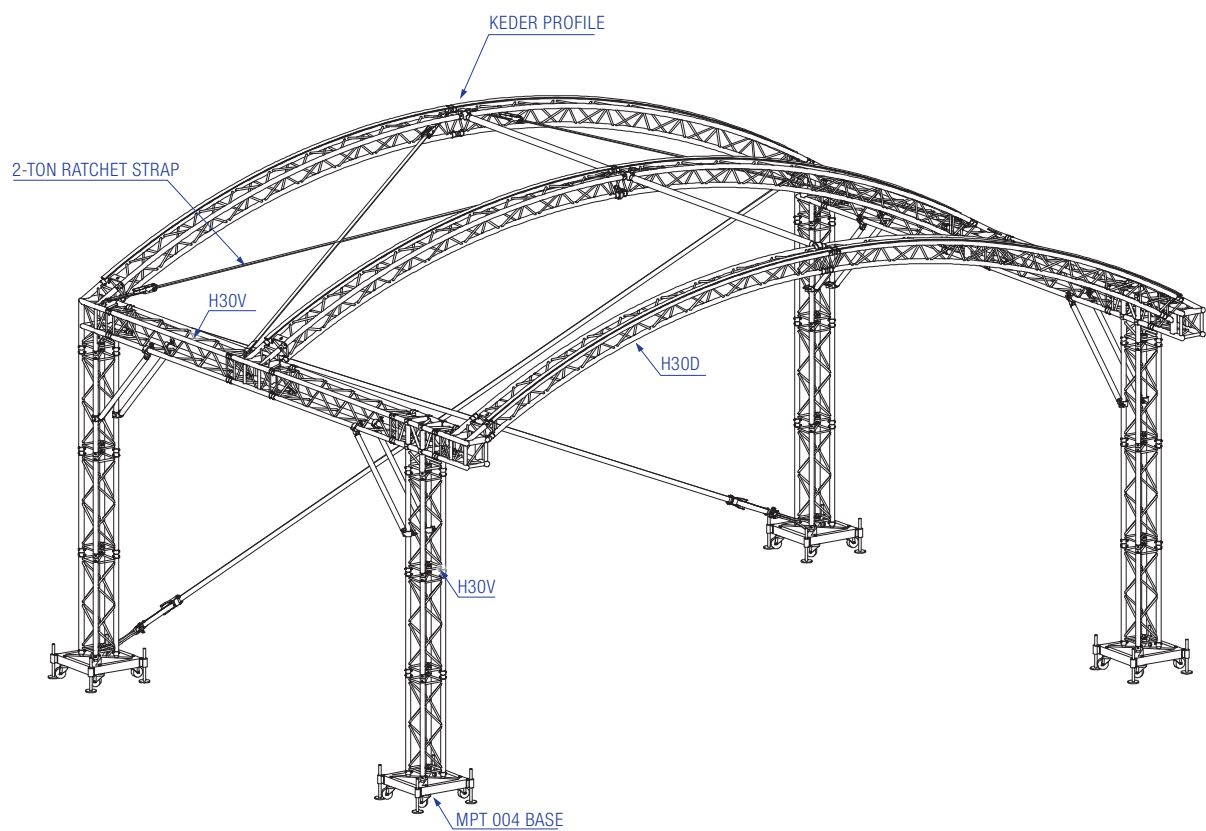
ROOF STRUCTURE	
Towers	Non. Portal structure, MPT base sections and H30V truss
Main grid	H30V truss and 6 special corners
TECHNICAL SPECIFICATIONS - ARC ROOF	
Dimensions	10 x 8 m , 8 x 6 m, 6 x 4 m, (32'9" x 26'3"), (26'3" x 19'8"), (19'8" x 13'1")
Loading capacity (UDL)	10 x 8 m approx. 2450kg 8 x 6 m approx. 1950kg 6 x 4 m approx. 1800kg
Total weight	10 x 8 m approx. 1200kg 8 x 6 m approx. 800kg 6 x 4 m approx. 600kg
Transportation volume	10 x 8 m approx. 32m <sup>3</sup> 8 x 6 m approx. 20m <sup>3</sup> 6 x 4 m approx. 16m <sup>3</sup>
Max. wind speed	28,4 m/second, 63,3 mph

OPTIONS	
Canopy	side, back and top
Canopy colour	standard: outside grey, inside black (other colours possible)
Soundwings	Optional (yes, 1000kg)
Ballast	several possibilities on request depending on construction
Staging	Prolyte stage elements, EasyFrame B or Probeam combined with a scaffolding stage
Groundring	Yes, reduces ballast loading





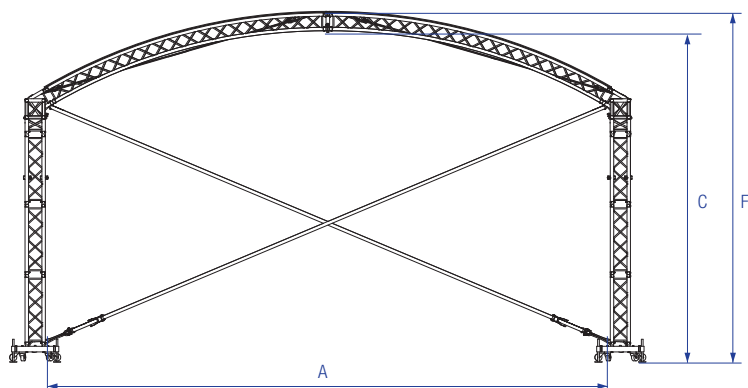
Photo: Live Systems Ltd, UK. project: Tall Ships Races Festival in the Shetland Islands





# ARC ROOF

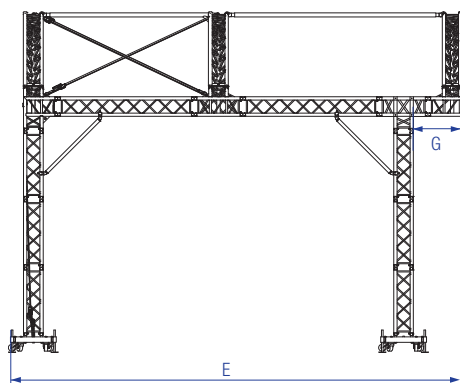
Front view - 8 x 6 m Arc



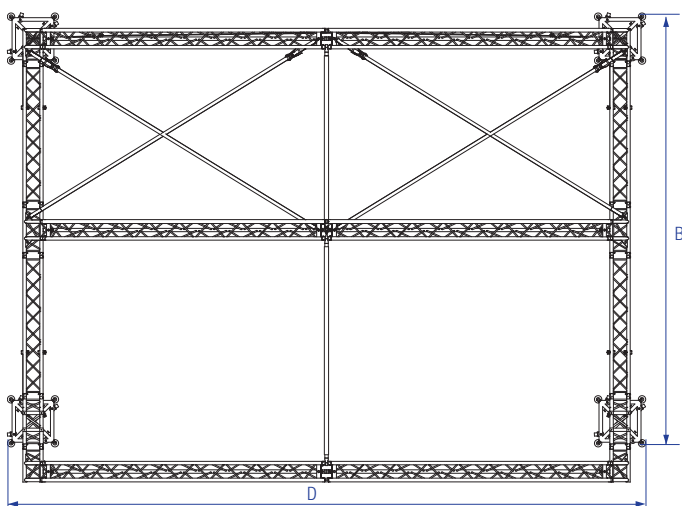
ARC ROOF SYSTEM

10 x 8 m	4 Arcs
8 x 6 m	3 Arcs
6 x 4 m	2 Arcs

Side view - 8 x 6 m Arc



Top view - 8 x 6 m Arc



ARC ROOF SYSTEM		Inside						Overall							
Stage measurements		A		B		C		D		E		F		G	
10 x 8 m	32'9" x 26'3"	10,20 m	33'46"	7,14 m	23'43"	6,00 m	19'69"	10,79 m	35'40"	8,50 m	27'89"	6,32 m	20'73"	0,71 m	2'33"
8 x 6 m	26'3" x 19'8"	8,04 m	26'38"	5,14 m	16'86"	4,72 m	15'49"	8,60 m	28'22"	6,50 m	21'33"	4,99 m	16'37"	0,71 m	2'33"
6 x 4 m	19'8" x 13'1"	6,04 m	19'82"	3,43 m	11'25"	4,45 m	14'60"	6,60 m	21'65"	4,78 m	15'68"	4,72 m	15'49"	0,71 m	2'33"



Photo: PIEEE Totaal BV, Evenementen en Presentatie Techniek, The Netherlands, Project: Paleis Het Loo, Apeldoorn, The Netherlands

### SYSTEM DESCRIPTION

The Tunnel Roof is a fixed construction, based on inward-curving trusses that form a complete arch. The Tunnel Roof is available in two sizes: 12 m stage width combined with an arch 6 m height, or a 16 m stage width combined with an arch of 8 m height. The depth of the stage can be varied in 2 or 3 m bay sections. Each 5th section must be stiffened by guy-wires or similar support method. There is no limit to the depth of the stage.

Special adapters provide a connection between the stage floor and the truss arches. The Tunnel Roof combines very well with a StageDex stage as well as with an EasyFrame B support frame or Probeam. The arch

connections are integrated in the stage floor, making it possible to use the weight of the stage as ballast for the roof. The arched trusses have a keder profile on top for fitting an optional canopy. Due to the arched construction, the Tunnel Roof is both very compact and strong.

### INCLUDING

- Tension gear and steel wires
- Comprehensive building manual
- Structural report

#### ROOF STRUCTURE

Towers	-
Main grid	H30V arched truss or H40V arched truss

**Consult Prolyte for up-to-date information on loading capacity, wind speed, total weight and transportation volume in line with the Eurocode regulations.**

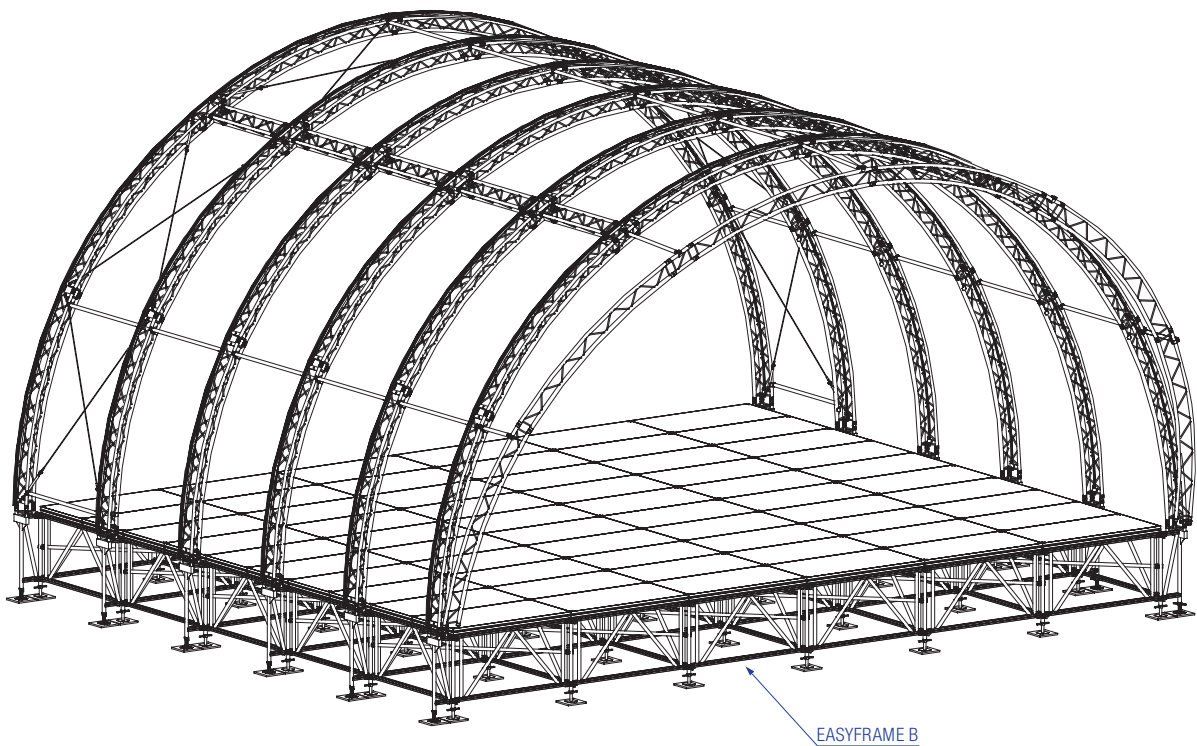
#### OPTIONS

Canopy	Back and top
Canopy colour	Standard: outside grey, inside black (other colours possible)
Soundwings	No
Ballast	Several possibilities on request
Staging	Prolyte stage elements, EasyFrame B or Probeam combined with a scaffolding stage
Cantilever	Yes

## TUNNEL ROOF



Photo: Codex

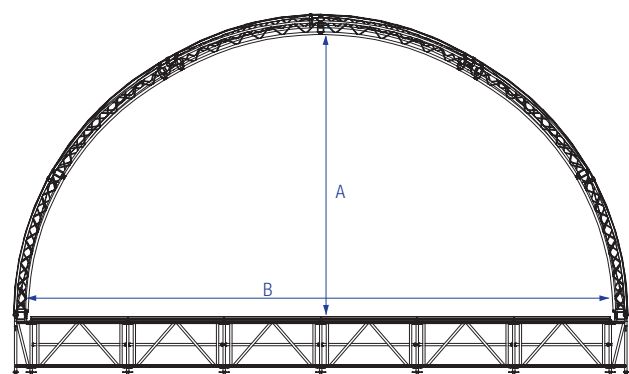


EASYFRAME B



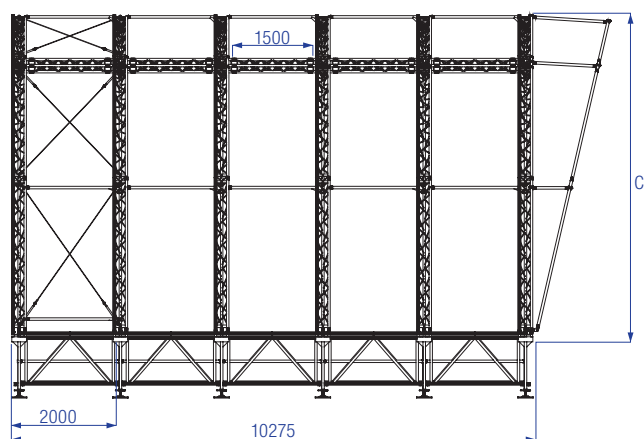


Front view

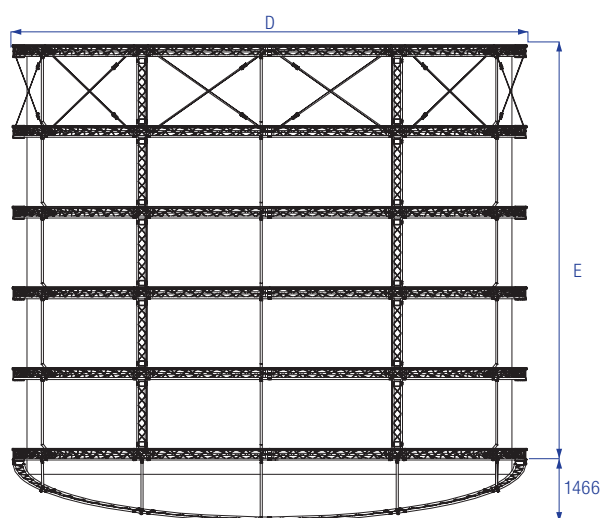


Dimensions may vary according to the type of truss required in the definitive configuration of the roof, in compliance with Eurocode.

Side view



Top view



TUNNEL ROOF SYSTEM		inside				overall				
Stage measurements		A		B		C		D		E
16 m, depth variable	52'5"	7,97 m	26'1"	16,27 m	53'4"	8,00 m	26'2"	16,95 m	55'7"	variable*
12 m, depth variable	39'4"	5,97 m	19'7"	12,18 m	39'1"	6,00 m	19'8"	12,73 m	41'9"	variable*



Photo: DWR distribution, South Africa. Project: Proudly Bidvest Charity Walk

## SYSTEM DESCRIPTION

A tower-based structure with a sloping roof toward the back of the stage, the Flat Roof is remarkably easy to build. Mainly based on standard trusses, the roof is available in three different sizes to provide a number of building options. The Flat roof can be considered as an entry-level system, which can easily be expanded to a MPT Roof system.

## INCLUDING

- Tension gear and steel wires
- Structural report

### ROOF STRUCTURE

Towers	4 x MPT-tower, mast sections of H30V truss
Main grid	H40V and H40L truss

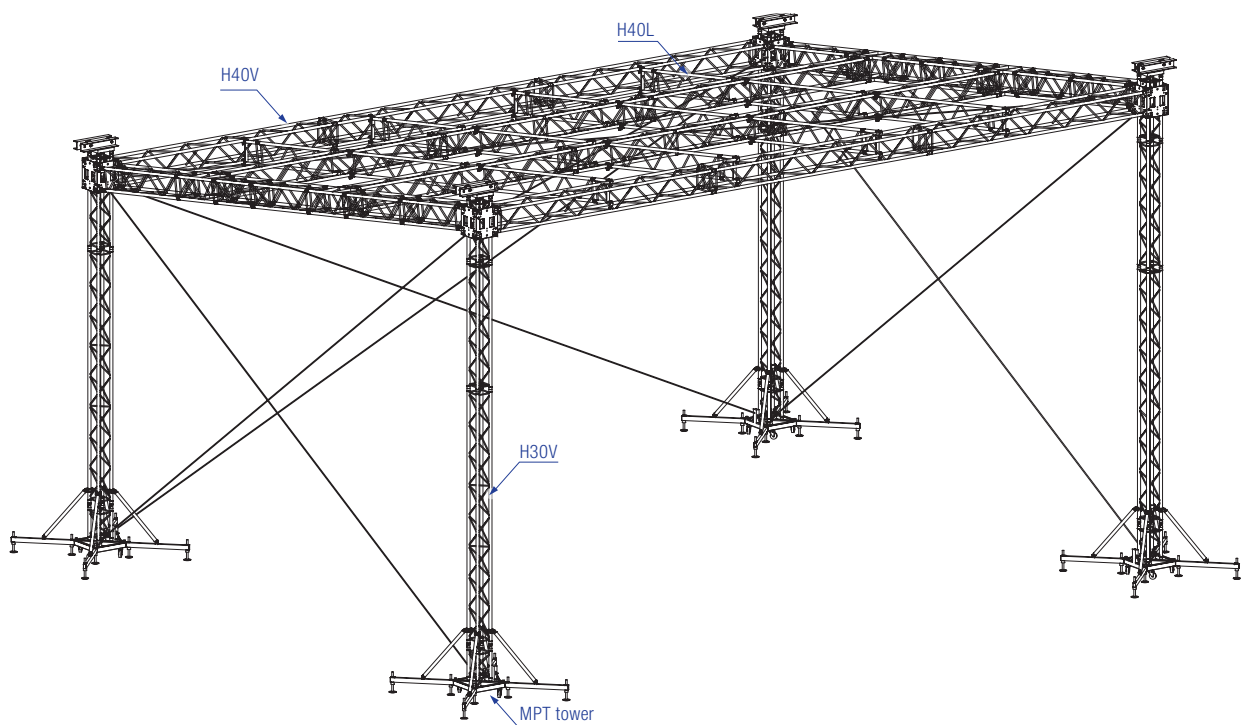
**Consult Prolyte for up-to-date information on loading capacity, wind speed, total weight and transportation volume in line with the Eurocode regulations.**

### OPTIONS

Canopy	side, back and top
Canopy colour	standard: outside grey, inside black (other colours possible)
Soundwings	optional (yes, 1000kg)
Ballast	several possibilities on request depending on construction
Staging	Prolyte stage elements, EasyFrame B or Pro-beam combined with a scaffolding stage
Cantilever	n.a.
ProLyft hoist 12x10 Flat Roof and accessories	4 x PAE-1000DC-0020 4 x PAE-A-FC1000 1 x PLA-33-20 2 x PLA-30-10 1 x PAE-C4DC-10 1 x PLA-41-001 4 x PAE-A-50-010 2 x PLA-30-20 1 x PLA-34-02



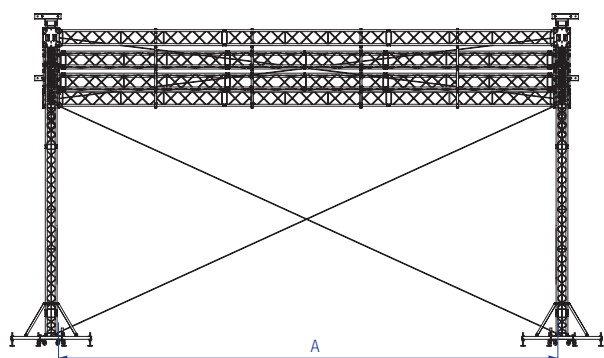
Photo: DWR distribution, South Africa. Project: Proudly Bidvest Charity Walk



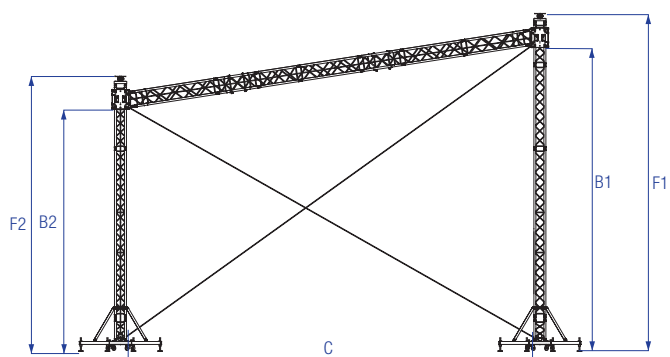


# FLAT ROOF

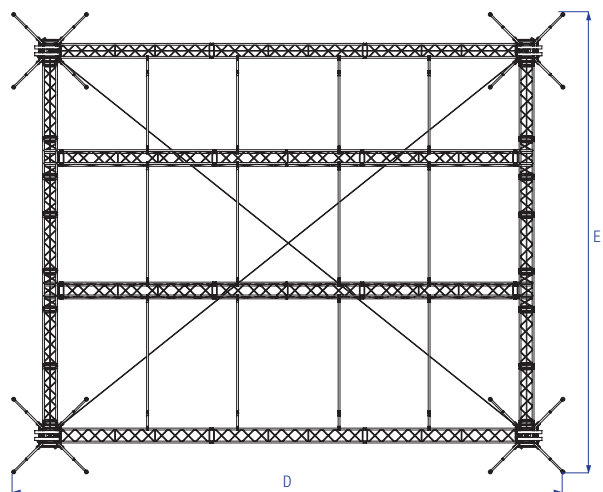
Front view



Side view



Top view



FLAT ROOF SYSTEM		Inside							
Stage measurements		A		B1		B2		C	
10 x 8 m	32'9" x 26'3"	10,15 m	33'3"	7,24 m	23'6"	6,08 m	19'11"	7,78 m	25'6"
8 x 6 m	26'3" x 19'8"	8,15 m	26'7"	6,02 m	19'9"	5,16 m	16'11"	5,80 m	19'0"

FLAT ROOF SYSTEM		Outside							
Stage measurements		D		E		F1		F2	
10 x 8 m	32'9" x 26'3"	12,44 m	40'9"	10,07 m	33'0"	8,06 m	26'5"	7,06 m	23'1"
8 x 6 m	26'3" x 19'8"	8,44 m	47'4"	8,09 m	26'6"	8,06 m	26'5"	7,06 m	23'1"



Photo: BVRent

#### SYSTEM DESCRIPTION

The CLT Roof is a tower-based structure with a curved roof. It is based on the standard MPT Roof, which can easily be transformed into a CLT Roof simply by adding a different set of top units.

The CLT rooftop section is based on arched H30D truss with integrated keder profiles to mount the canopy. These arches are supported by special frames which are mounted on the basic grid trusses.

#### INCLUDING

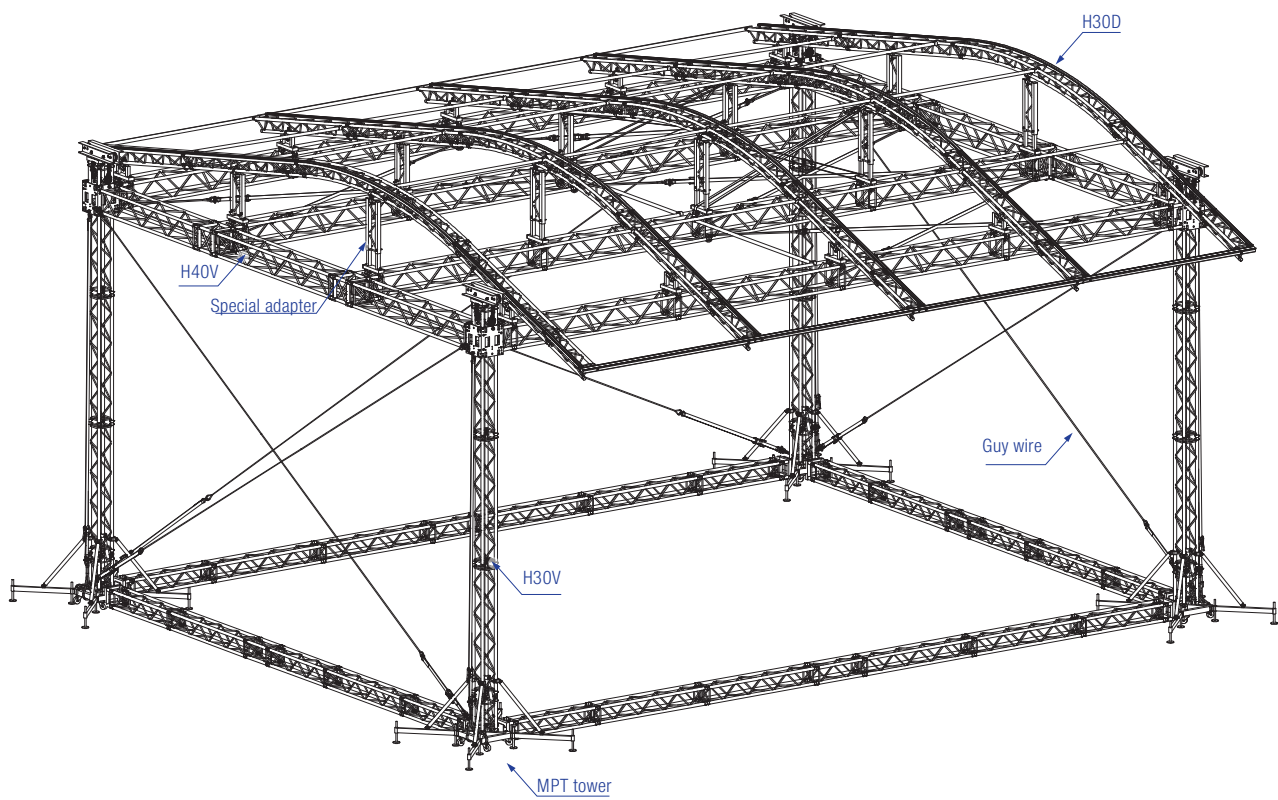
- Tension gear and steel wires
- Structural report

ROOF STRUCTURE	
Towers	4 x MPT-tower
Main grid	H40V and H30D truss
TECHNICAL SPECIFICATIONS - CLT ROOF	
Dimensions	12 x 10 m, 12 x 8 m, (39'4" x 32'9"), (39'4" x 26'3")
Loading capacity (UDL)	12 x 10 m approx. 2470kg 12 x 8 m approx. 2470kgv
Total weight	approx. 1900 kg / 4188 lbs
Transportation volume	approx. 32 m <sup>3</sup> / 1130 cu. ft.
Max. wind speed	28,4 m/second, 63,3 mph

OPTIONS	
Canopy	side, back and top
Canopy colour	standard: outside grey, inside black (other colours possible)
Soundwings	optional (yes, 1000kg)
Ballast	several possibilities on request from 1,5 - 3 ton per tower depending on construction
Staging	Prolyte stage elements, EasyFrame B or Probeam combined with a scaffolding stage
Cantilever	yes (included)
ProLyft hoist	yes (included)
(12x10 CLT roof)	4x PAE-1000DC-0020 4x PAE-A-FC1000 1x PLA-33-20 2x PLA-30-10 1x PAE-C4DC-10 1x PLA-41-001 4x PAE-A-50-010 2x PLA-30-20 1x PLA-34-02



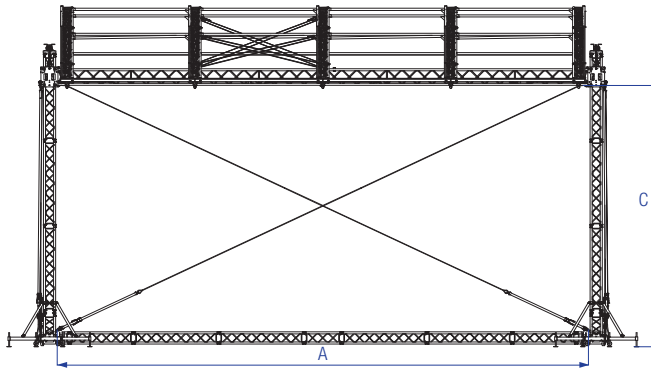
Photo: PSP ELEKTRONIK, Project: MTV stage



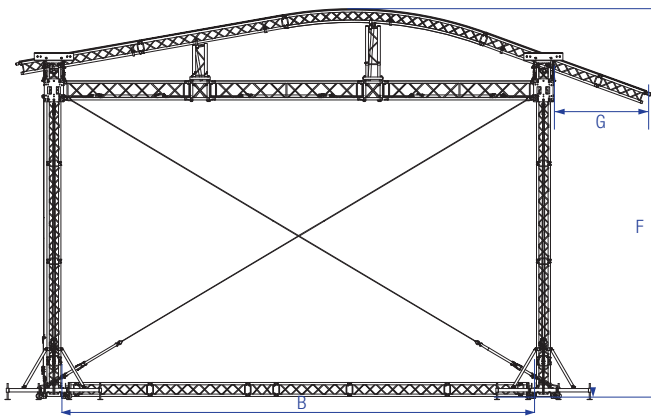




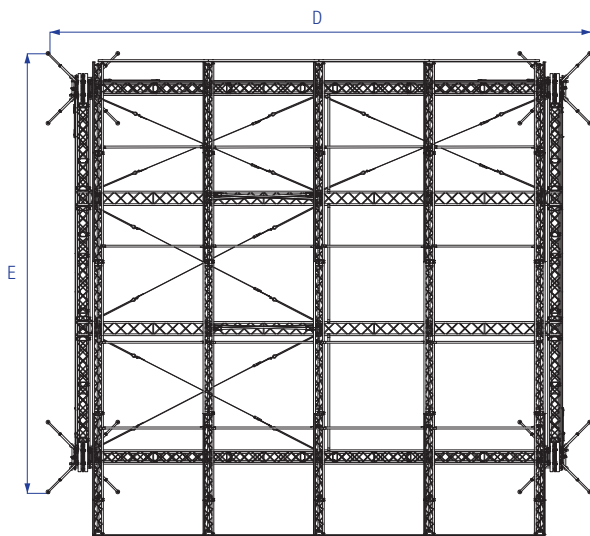
Front view



Side view



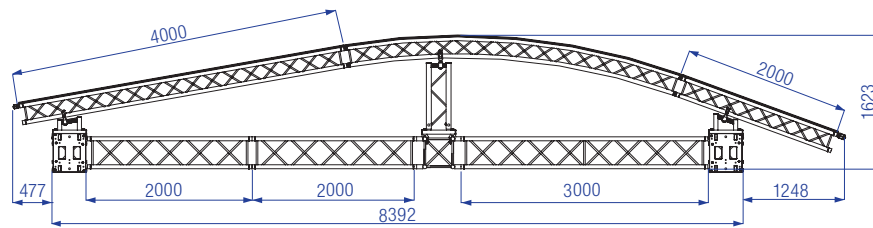
Top view



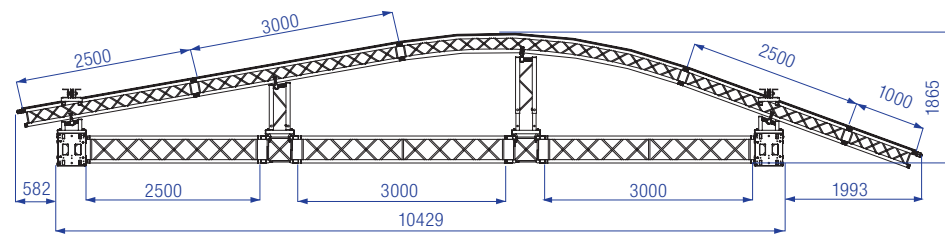
CLT ROOF SYSTEM		inside						overall							
Stage measurements		A		B		C		D		E		F		G	
12 x 10 m	39'4" x 32'9"	12,53 m	41'11"	9,73 m	31'92"	6,13 m	20'11"	13,11 m	43'01"	10,30 m	33'79"	8,00 m	26'25"	2,19 m	7'19"
12 x 8 m	39'4" x 26'3"	12,53 m	41'11"	7,69 m	25'23"	6,13 m	20'11"	13,11 m	43'01"	8,30 m	27'23"	8,00 m	26'25"	1,45 m	4'76"

# CLT ROOF

CLT ROOF 12 x 8 m



CLT ROOF 12 x 10 m



all measurements in mm



Photo: Install Profi, Russia

### SYSTEM DESCRIPTION

The MPT Roof is a tower-based structure with a pitched roof, a design which guarantees optimum strength. Primarily configured from standard trusses, the MPT Roof is available in four different sizes. However, the unrivalled flexibility of the system affords nearly 40 calculated building varieties or setup possibilities for your MPT Roof. At ProlyteSystems, we are aware that every season and every event brings different demands, and accordingly we have designed the MPT Roof to accommodate an extraordinary range of applications.

### BASIC TRUSSING

Tower	- MPT masts system H30V truss
Grid	- H30D truss H40V truss

### INCLUDING

- Tension gear and steel wires
- Structural report I

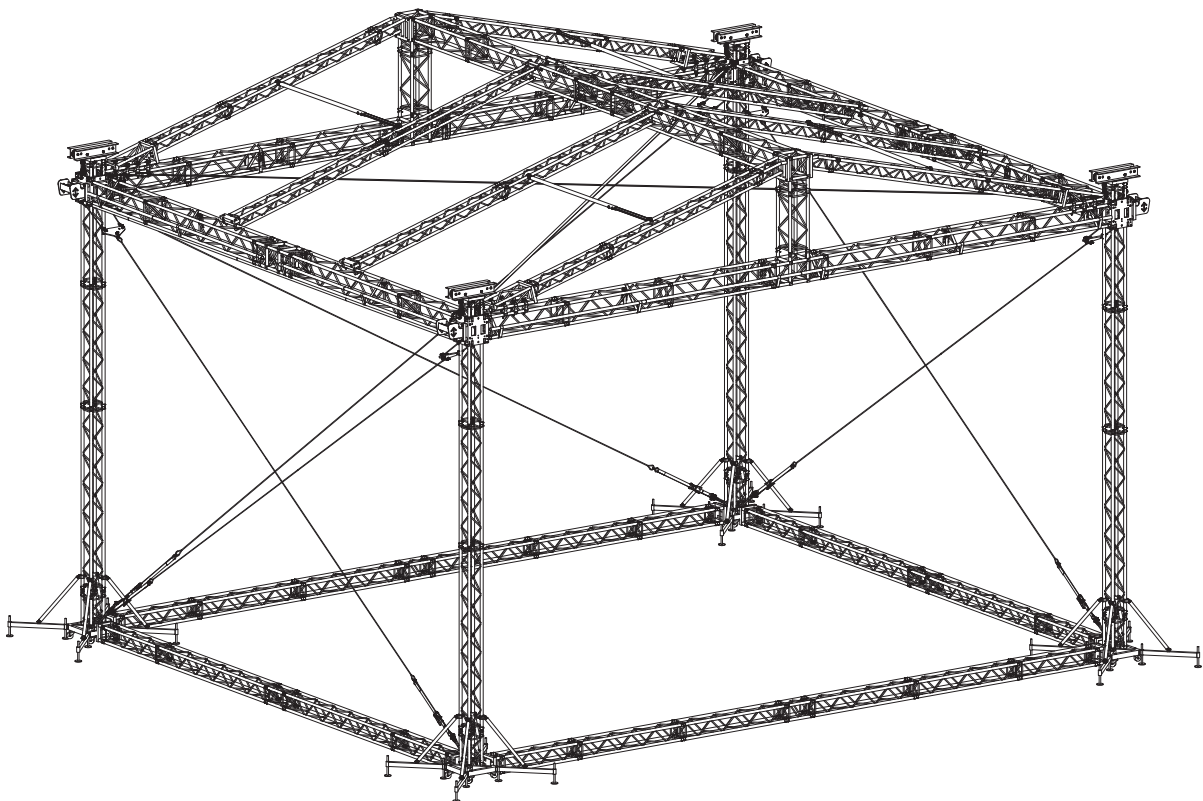
ROOF STRUCTURE	
Towers	4 x MPT-tower, mast sections of H30V truss
Main grid	H30D and H40V truss
TECHNICAL SPECIFICATIONS - MPT ROOF	
Dimensions	12 x 10 m, 10 x 8 m (39'4" x 32'9"), (32'9" x 26'3")
Loading capacity (UDL)	12 x 10 m approx. 3950kg 10 x 8 m approx. 4500kg
Total weight	12 x 10 m approx. 2400kg 10 x 8 m approx. 2100kg
Transportation volume	12 x 10 m approx. 40m <sup>3</sup> 10 x 8 m approx. 32m <sup>3</sup>
Max. wind speed	28,4 m/s, 63,3 mph

OPTIONS	
Canopy	side, back and top
Canopy colour	standard: outside grey, inside black (other colours possible)
Soundwings	Optional (yes / loading 1000 kg each)
Ballast	several possibilities on request depending on construction and wind speed
Staging	Prolyte stage elements, EasyFrame B or Probeam combined with a scaffolding stage
Cantilever	yes
Prolyft hoist (12x10 MPT roof without sound-wings) and accessories	<div> <div>4x PAE-1000DC-0020</div> <div>4x PAE-A-FC1000</div> <div>1x PLA-33-20</div> <div>2x PLA-30-10</div> <div>1x PAE-C4DC-10</div> </div> <div> <div>1x PLA-41-001</div> <div>4x PAE-A-50-010</div> <div>2x PLA-30-20</div> <div>1x PLA-34-02</div> </div>
Prolyft hoist (12x10 MPT roof with sound-wings) and accessories	<div> <div>6x PAE-1000DC-0020</div> <div>6x PAE-A-FC1000</div> <div>2x PLA-33-20</div> <div>2x PLA-30-10</div> <div>1x PAE-C8DC-10</div> </div> <div> <div>1x PLA-41-001</div> <div>4x PAE-A-50-010</div> <div>2x PLA-30-20</div> <div>2x PLA-34-02</div> </div>



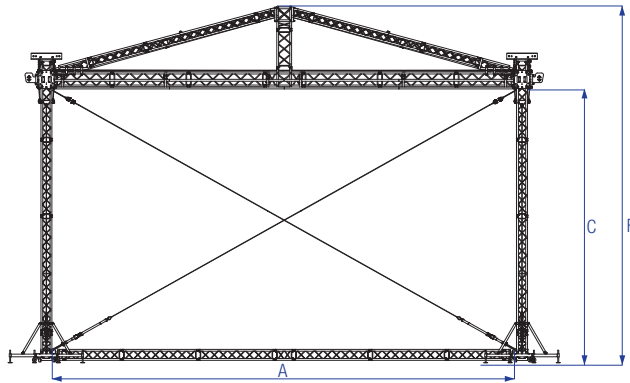


Photo: Southbeats festival, project by Impact Production Services (IPS)

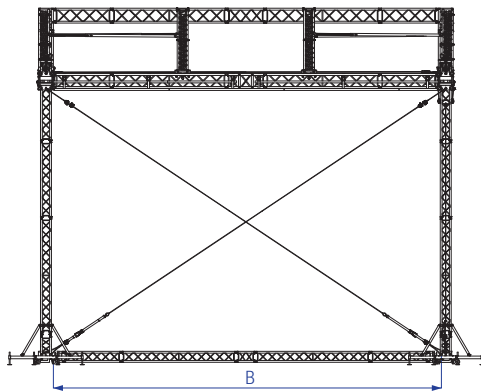




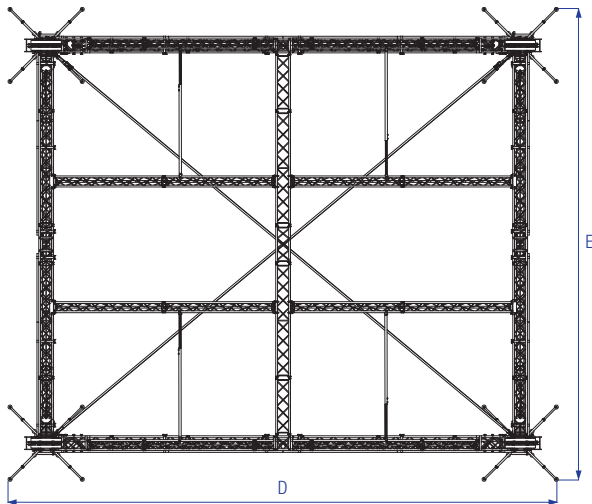
Front view



Side view



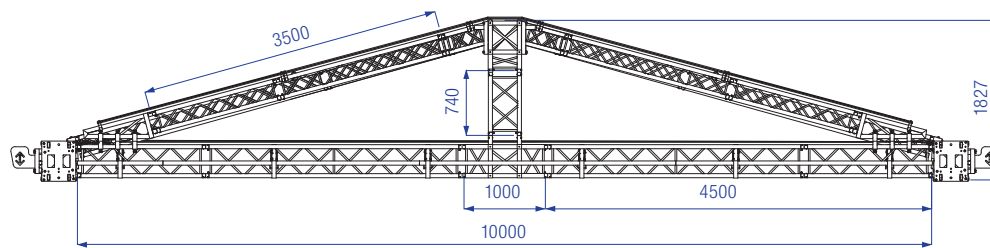
Top view



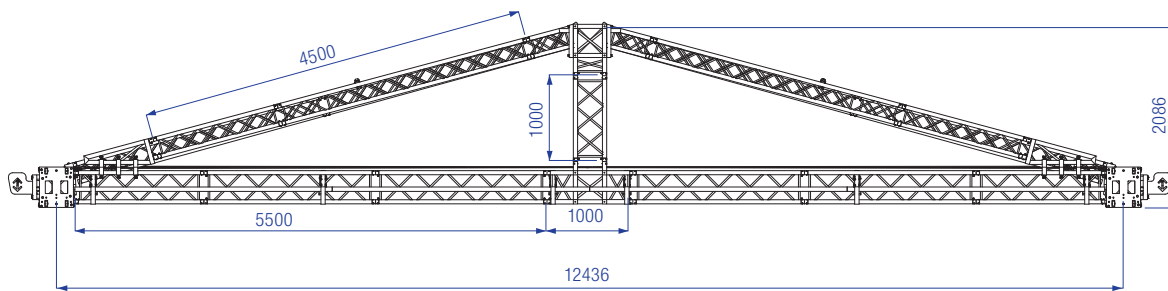
MPT ROOF SYSTEM		Inside						Overall					
Stage measurements		A		B		C		D		E		F	
12 x 10 m	39'4" x 32'9"	12,15 m	39'86"	10,15 m	33'30"	7,21 m	23'65"	12,72 m	41'73"	10,72 m	35'17"	9,35 m	30'67"
10 x 8 m	32'9" x 26'3"	10,15 m	33'30"	8,15 m	26'73"	7,21 m	23'65"	10,72 m	35'17"	8,72 m	28'60"	9,10 m	29'85"

# MPT ROOF

**MPT ROOF 10 x 8 m**



**MPT ROOF 12 x 10 m**



all measurements in mm





Photo: ST truss works

#### SYSTEM DESCRIPTION

The ST Roof is a tower-based structure with a pitched roof, a design that inherently offers optimum strength. The larger ST Series offers flexible possibilities for creating stage dimensions up to 30 × 20 m. Technical specifications available on request.

#### INCLUDING

- Tension gear and steel wires
- Structural report

#### ROOF STRUCTURE

Towers	6 x ST-tower, mast sections of S40T truss
Main grid	S52SV truss

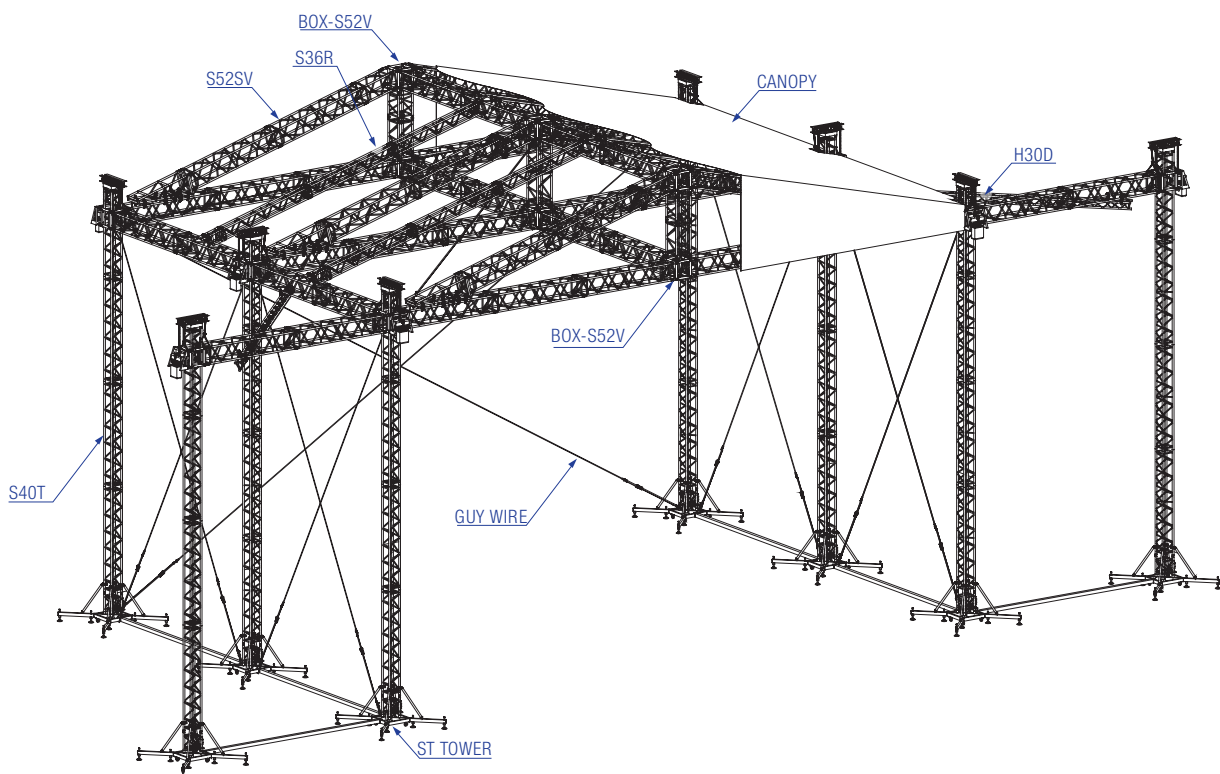
**Consult Prolyte for up-to-date information on loading capacity, wind speed, total weight and transportation volume in line with the Eurocode regulations.**

#### OPTIONS

Canopy	side, back and top	
Canopy colour	standard: outside grey, inside black (other colours possible)	
Soundwings	Optional (yes, loading 2000 kg each)	
Ballast	several possibilities on request from 1 - 7 ton per tower depending on construction	
Staging	Prolyte stage elements, EasyFrame B or Pro-beam combined with a scaffolding stage	
ProLyft hoist (20x14 ST roof without sound-wings) and accessories	6x PAE-1000DC-0030	1x PAE-A-FC19IN4U
	6x PAE-A-FC1000	6x PAE-A-50-010
	3x PLA-33-20	2x PLA-30-20
	4x PLA-30-10	2x PLA-34-02
	1x PAE-C8DC-10	
ProLyft hoist (20x14 ST roof with sound-wings) and accessories	8x PAE-1000DC-0030	1x PAE-A-FC19IN4U
	8x PAE-A-FC1000	8x PAE-A-50-010
	3x PLA-33-20	2x PLA-30-20
	6x PLA-30-10	2x PLA-34-02
	1x PAE-C8DC-10	

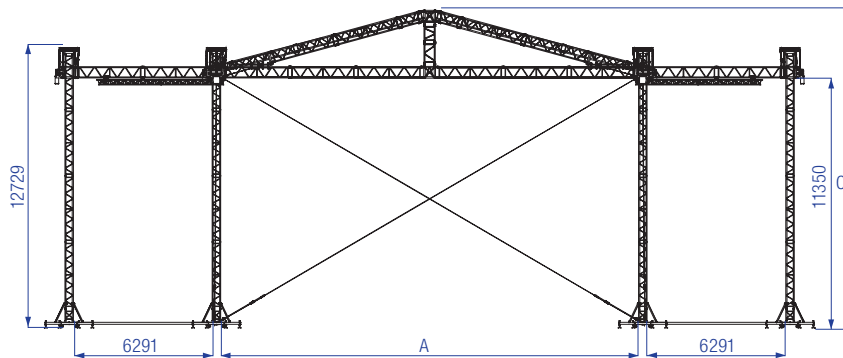


Photo: Showtech, Dubai

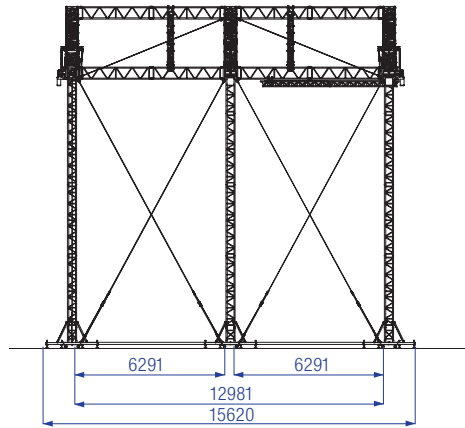




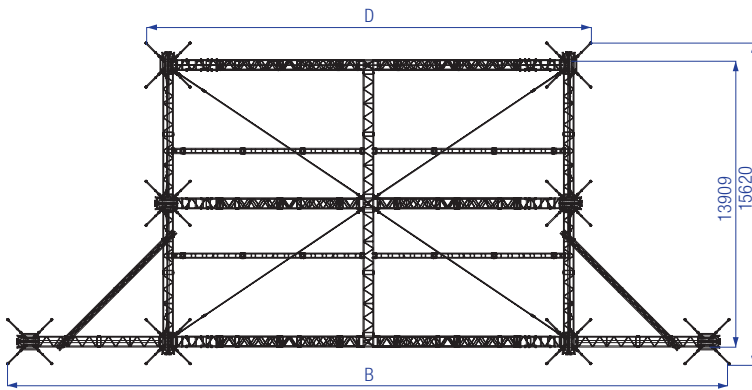
Front view



Side view



Top view



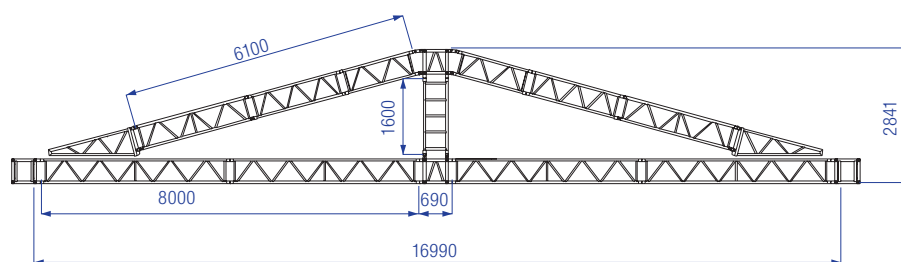
#### ST-ROOF SYSTEM

Stage measurements		A		B		C		D	
20 x 14 m	65'6" x 45'9"	20,99 m	68'8"	37,0 m	108'2"	14,70 m	48'2"	23,62 m	77'4"
18 x 14 m	59'0" x 45'9"	18,99 m	62'3"	35,0 m	114'8"	14,70 m	48'2"	21,62 m	70'9"
16 x 14 m	52'5" x 45'9"	16,99 m	55'7"	33,0 m	121'3"	14,70 m	48'2"	19,62 m	64'3"

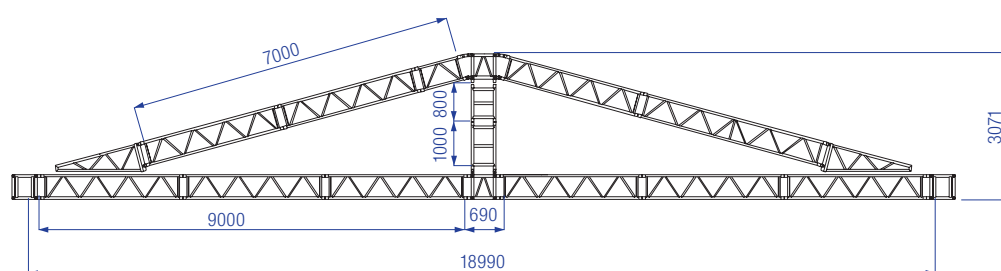


# ST ROOF

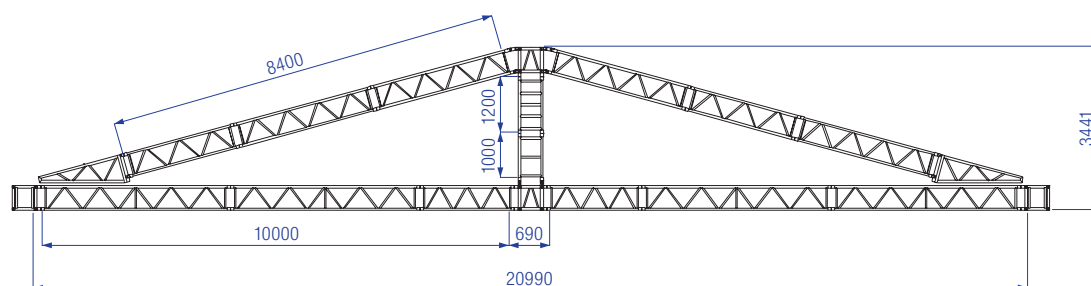
**ST ROOF 16 x 14 m**



**ST ROOF 18 x 14 m**



**ST ROOF 20 x 14 m**



all measurements in mm



Photo: Interstage, The Netherlands Project : MBM MartyBrugmansMusic, Concert At Sea, Renesse, The Netherlands

#### SYSTEM DESCRIPTION

The Giant ARC Roof is a tower-based structure that is constructed using 3-to-5 arches. Straight truss sections, interconnected with bottom hinges and topside spreader plates, create the arch needed over the complete span. Two steel wires per span absorb horizontal forces caused by the loading. The arches are connected to either a standard ST or CT tower.

#### INCLUDING

- Tension gear and steel wires
- Structural report

#### ROOF STRUCTURE

Towers	ST tower (16 x 12 m) or CT tower (20 x 16 m)
Main grid	S52SV truss (16 x 12 m) or B100RV truss (20 x 16 m)

**Consult Prolyte for up-to-date information on loading capacity, wind speed, total weight and transportation volume in line with the Eurocode regulations.**

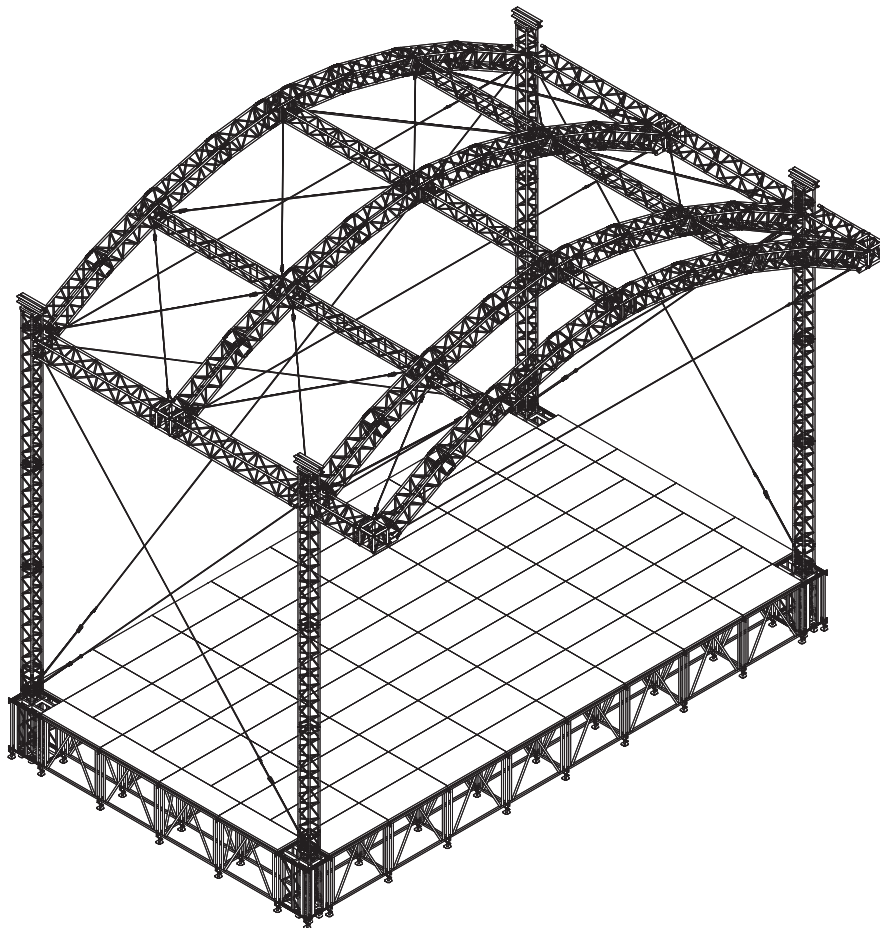
#### OPTIONS

Canopy	side, back and top	
Canopy colour	standard: outside grey, inside black (other colours possible)	
Soundwings	yes / loading 2000 kg each	
Ballast	several possibilities details on request	
Staging	Prolyte stage elements or Probeam combined with a scaffolding stage	
ProLift hoist (16x14 Giant Arc Roof ) and accessories	4x PAE-1000DC-0030	1x PLA-41-001
	4x PAE-A-FC1000	4x PAE-A-50-010
	2x PLA-33-20	2x PLA-30-20
	4x PLA-30-10	1x PLA-34-02
	1x PAE-C8DC-10	

## GIANT ARC ROOF



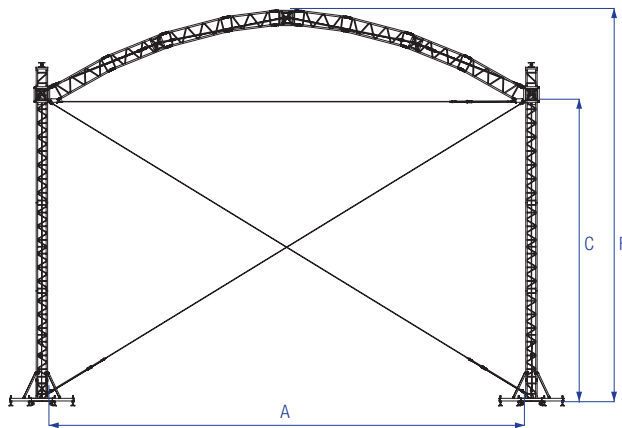
Photo: Interstage, The Netherlands, Project: Bevindingsfestival Overijssel, Zwolle, The Netherlands



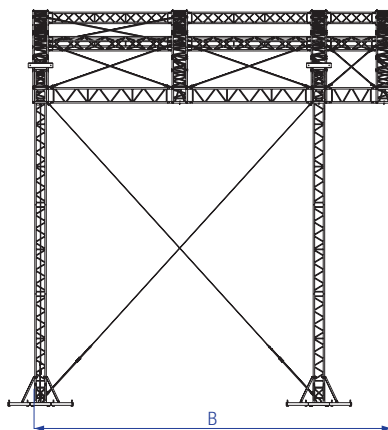




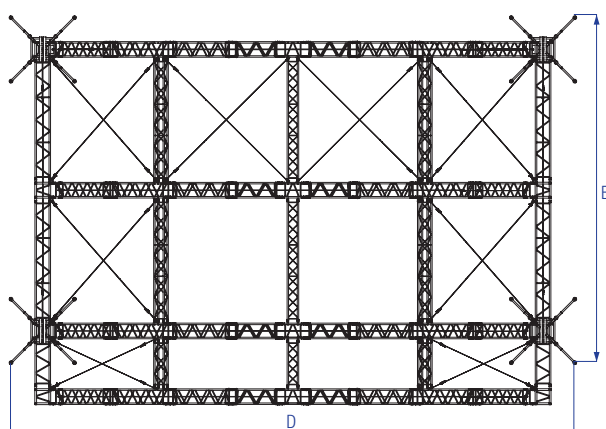
Front view



Side view

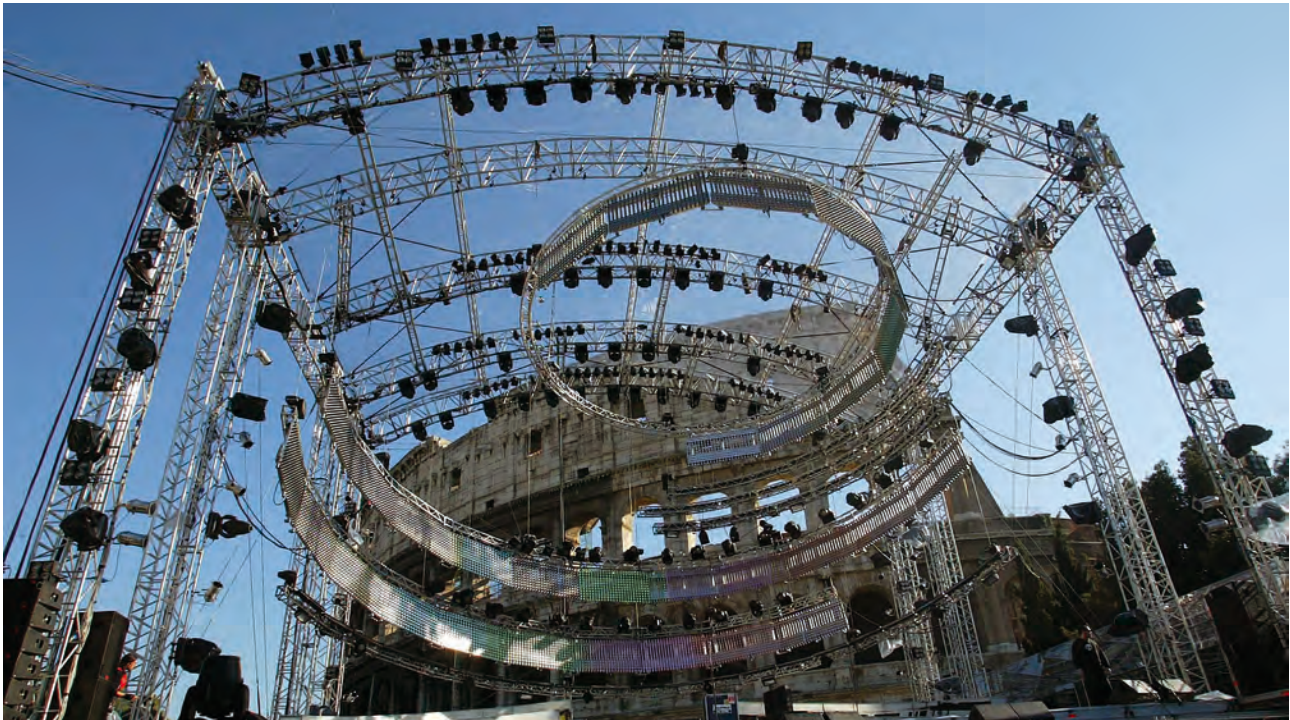


Top view

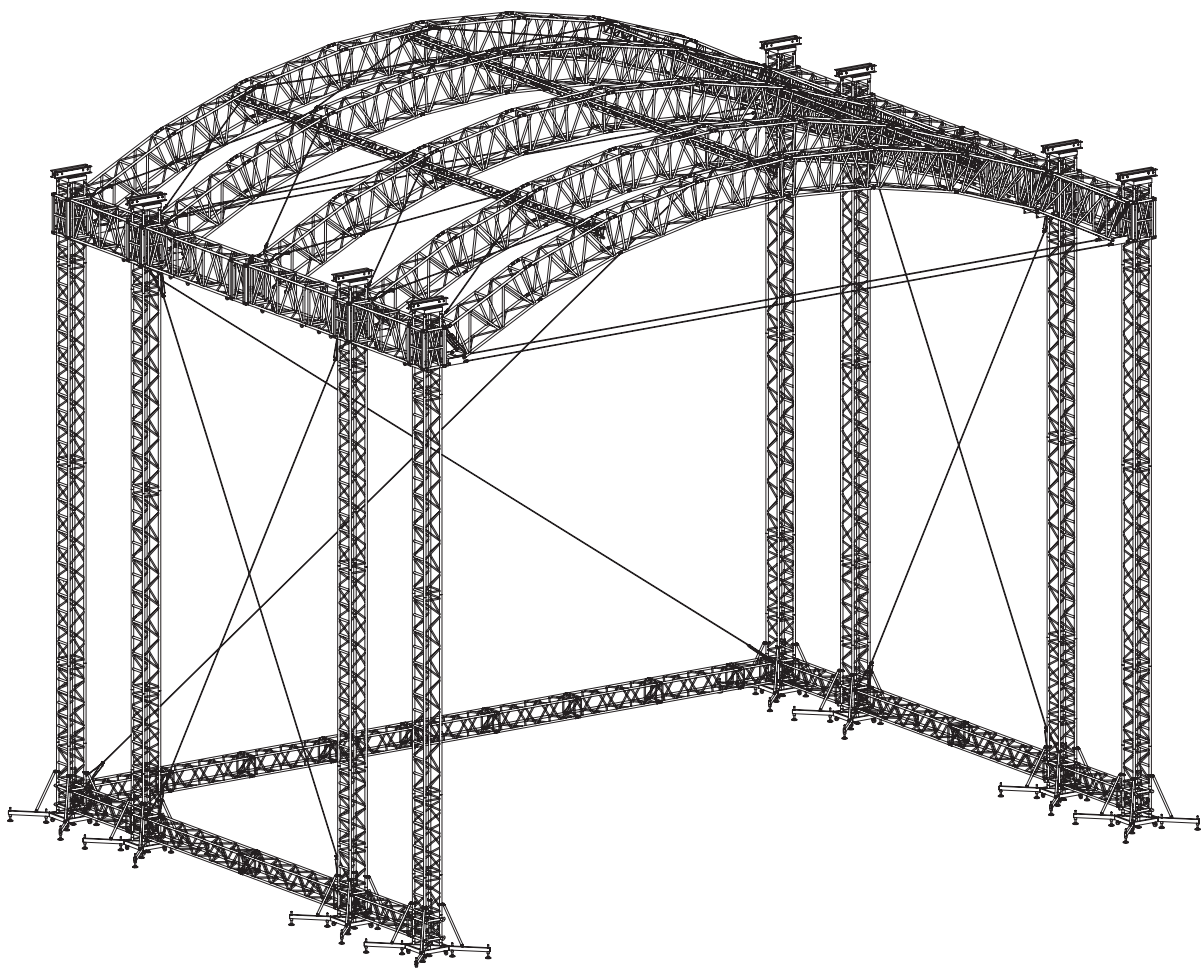


GIANT ARC ROOF SYSTEM		Inside						Overall					
Stage measurements		A		B		C		D		E		F	
16 x 12 m	52'5" x 39'4"	16,30 m	53'5"	12,09 m	39'7"	11,34 m	37'2"	18,93 m	62'1"	11,62 m	38'1"	13,47 m	44'2"

## GIANT ARC ROOF

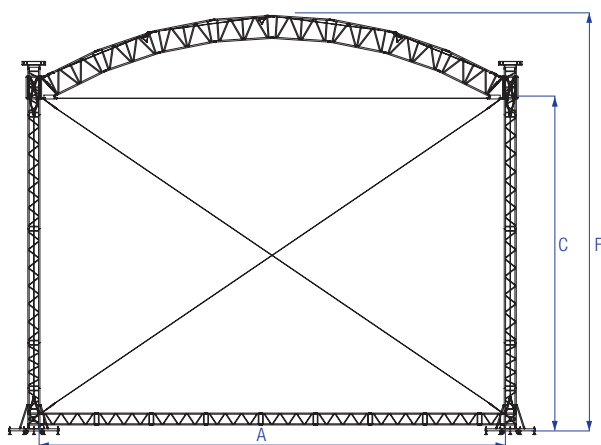


Project: MTV Award Rome



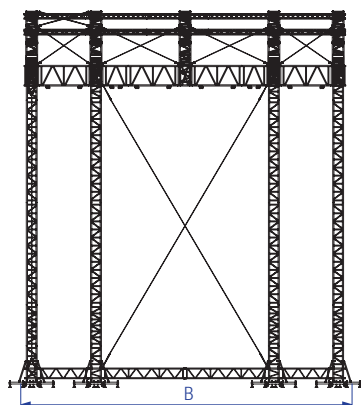


Front view

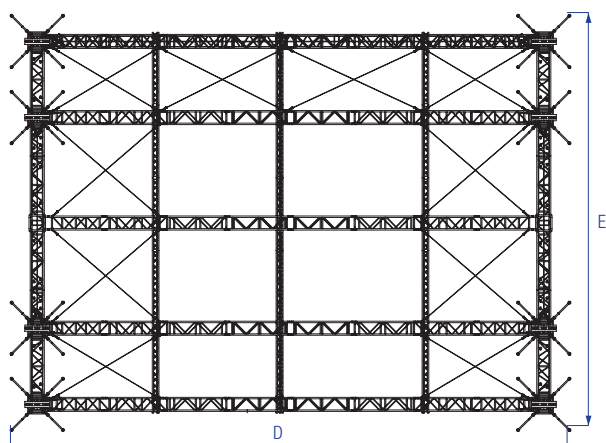


Dimensions may vary according to the type of truss required in the definitive configuration of the roof, in compliance with Eurocode.

Side view



Top view



GIANT ARC ROOF SYSTEM		Inside						Overall					
Stage measurements		A		B		C		D		E		F	
20 x 16 m	65'6" x 52'5"	20,37 m	66'8"	15,65 m	51'3"	14,72 m	48'3"	23,16 m	76"	17,19m	56'4"	18,38m	60'3"





Photo: PROMontaje, Caracas, Venezuela

## SYSTEM DESCRIPTION

The XXL roof system is based on 13 CT towers, of which one is a stack tower underneath the back span. The roof has main grid based on B100RV truss and a pitched roof structure based on B52SV truss, which is the standard S52SV truss adapted with a main chord of 60 x 6 mm. Layher adapters guarantee a flawless integration of the towers and the stage. ProLift Aetos hoists lift the 17-ton structure in place. The main roof area can be constructed in 3 different sizes 30m. x 20m, 25m. x 20m, 20m x 20m, realising a clearance of 14m. between the stage and the main grid. The loading capacity of the roof is approx. 30 ton, uniformly distributed along the roof.

This system also includes side wings to accommodate sound and video. The sound wings are suitable for a point load in the middle of the front span for a main PA of 3 ton and a point load on the side truss for the side fills of 1,8 ton.

Furthermore the construction features a covered side stage area on both sides. In normal conditions, this structure could be built in 3 to 4 days with an experienced crew of approx. 20 technicians.

## INCLUDING

- Tension gear and steel wires
- Structural report

## ROOF STRUCTURE

Towers	CT towers
Main grid	B100RV main grid, B52SV as raster

## TECHNICAL SPECIFICATIONS - XXL Roof

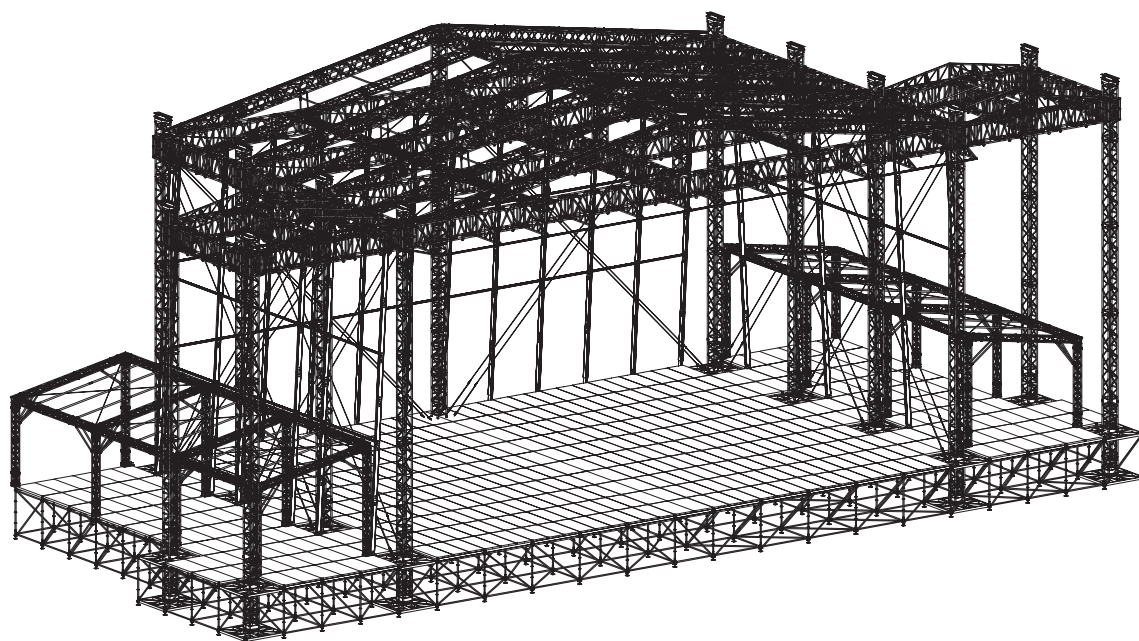
Dimensions	30x20 m (1181 x 787 "), 25x20 m (984 x 787 ") 20x20 m (787 x 787 ")
Loading capacity (UDL)	Loading 30x20 28,3T UDL Loading 25x20 24,3T UDL Loading 20x20 20,2T UDL
Max. wind speed	28,4 m/s, 63,3 mph

## OPTIONS

Canopy	top, side and back
Canopy colour	standard: outside grey, inside black (other colours possible)
Soundwings	Optional (yes 4800 kg each)
Ballast	several possibilities on request
Staging	Prolyte stage elements or Probeam combined with a scaffolding stage

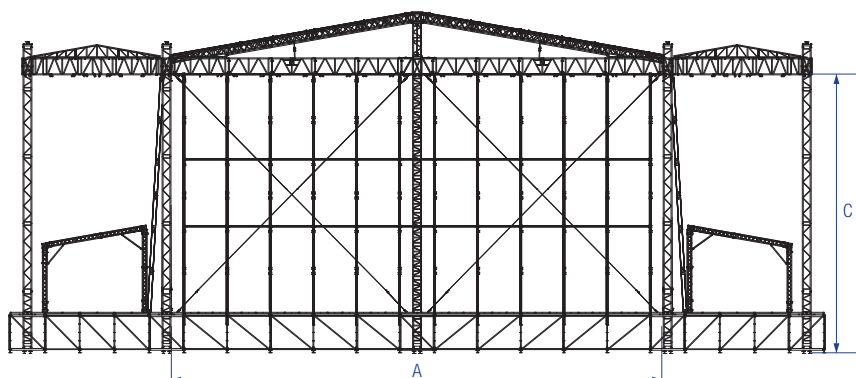


Photo: PROmontaje, Caracas, Venezuela

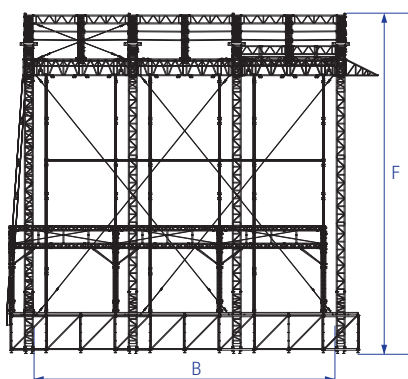


# XXL ROOF

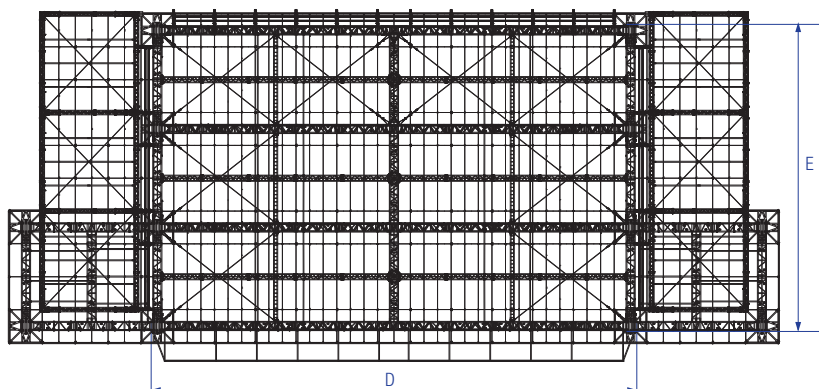
Front view



Side view



Top view

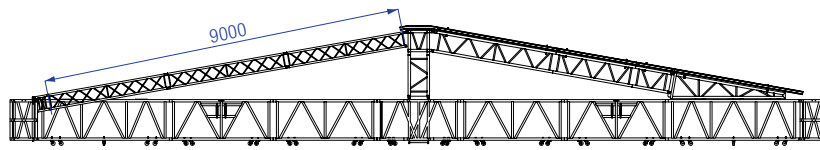


XXL Roof		Inside						Overall					
Stage measurements		A		B		C		D		E		F	
30X20	98'0"x65'6"	29,33M	96'12"	18,12M	59'45"	16,56M	54'33"	30,40M	99'73"	19,12M	62'72"	20,19M	66'24"
25X20	82'0"x65'6"	24,18M	79'33"	18,12M	59'45"	16,56M	54'33"	25,25M	82'84"	19,12M	62'72"	20,19M	66'24"
20x20	65'6"x65'6"	19,03M	62'43"	18,12M	59'45"	16,56M	54'33"	20,11M	65'97"	19,12M	62'72"	20,19M	66'24"

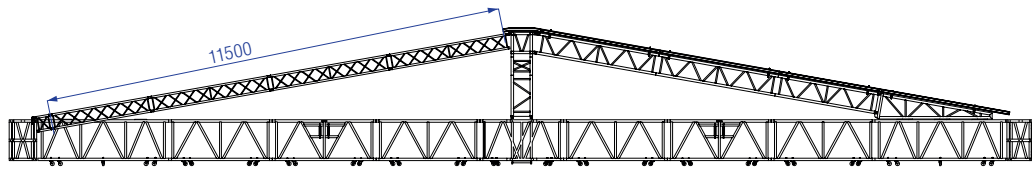




**XXL Roof 20x20m**



**XXL Roof 25x20m**



**XXL Roof 30x20m**

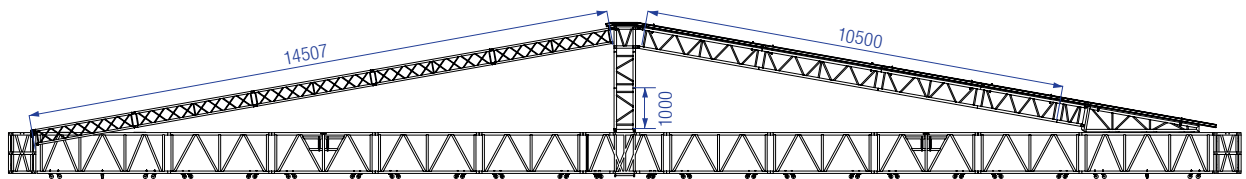




Photo: Interstage, Project: Concert at Sea, The Netherlands

## SYSTEM DESCRIPTION

The Space Roof is a modular roof system based on a space frame structure. The roof can be suspended from standard Prolyte CT towers. The aluminium profiles combine with special node points to create a roof structure of any desired size or shape. The Space Roof can be built up to 37 x 22 m in size. The specially designed top canopy guarantees efficient water drainage.

Due to the complexity and size of the Space Roof, quotations are made on request only, allowing us to match your requirements with the possibilities this system offers.

## STRONG POINTS

- Modular roof system, modular sizes possible
- Extremely high load-bearing capacity
- Efficient transportation due to very compact transport volume (approx. 1/6<sup>th</sup> of a comparable truss roof)
- Integrated rigging points
- Safe and easy rigging access due to 2 m high frame and 8 cm wide profiles

- Measurements comply with standard scaffolding systems
- Stage sub-structure needs minimum amount of diagonals, allowing for easy creation of corridors underneath

## BASIC STRUCTURE

Towers - C52T  
Grid - Space frame

## INCLUDING

- Tension gear and steel wires
- Structural report according to DIN 4112 / EN13814 C
- Ballast solution
- Rain gutter at front side

## ROOF STRUCTURE

Towers	C52T
Main grid	Space frame in a matrix size of 2072 x 2072 mm

## TECHNICAL SPECIFICATIONS - Space Roof

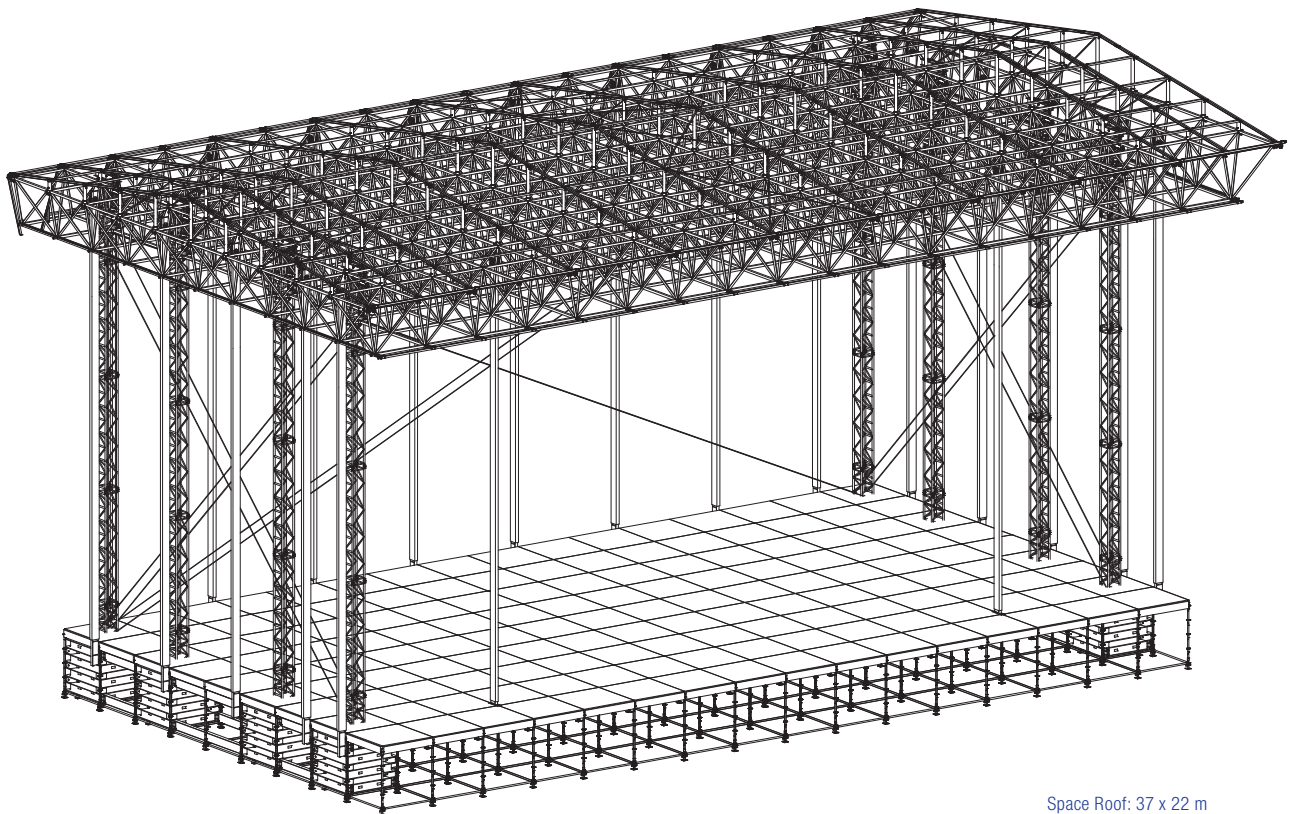
Dimensions	37 x 22m, 31 x 20m, 31 x 16m other sizes on request
Loading capacity (UDL)	max. 30000 kg
PA loads	Additional PA load near front tower 4000 kg per side
Total self weight	approx. 35000 kg (max. size)
Max. wind speed	36,9 m/second, 82,5 mph

## OPTIONS

Canopy	Top, sides and back
Canopy colour	Standard: outside grey, inside black (other colours possible)
Soundwings	Optional, not included
Ballast	90 Tons
Staging	Layher scaffolding stage combined with Probeam
ProLyft hoist 2000 kg	8-16 x PAE-1000DC-1235/PAE-1000LV-1235 + load cells, depending on size and version
Comprehensive building manual	yes



Photo: Starlight, Gothenburg

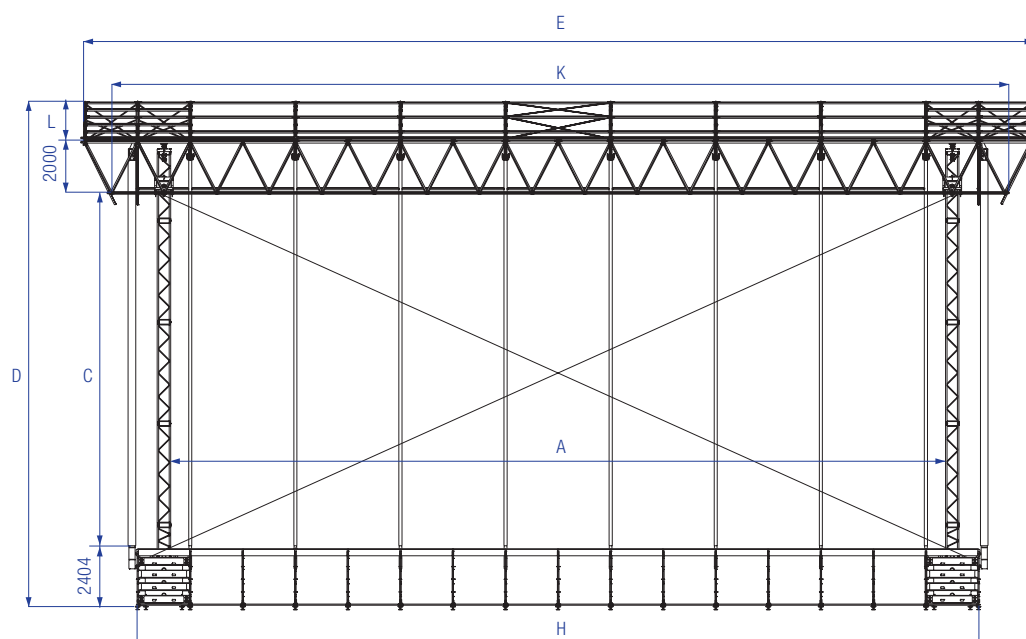


Space Roof: 37 x 22 m

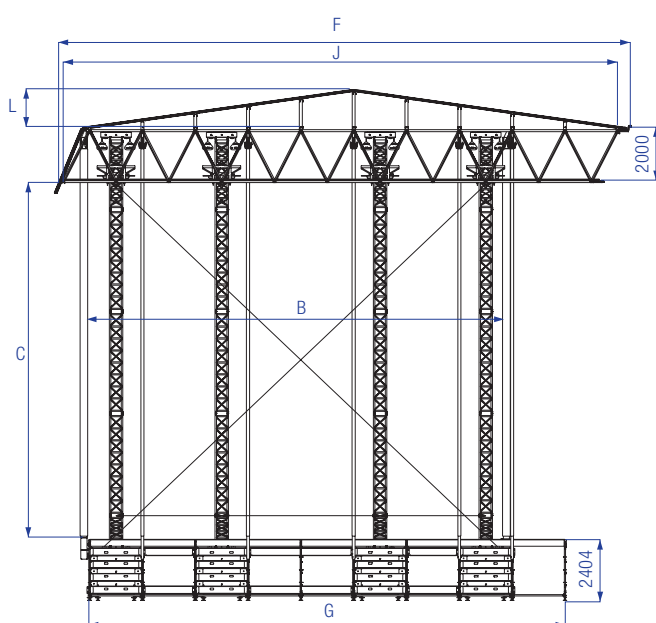


# SPACE ROOF

Front view



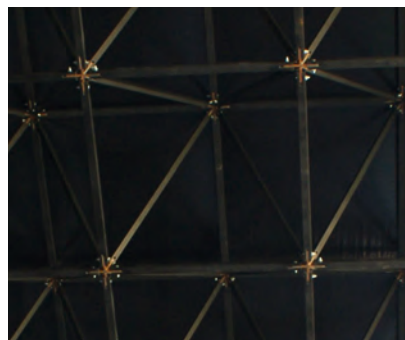
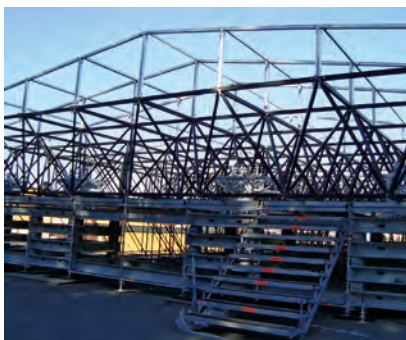
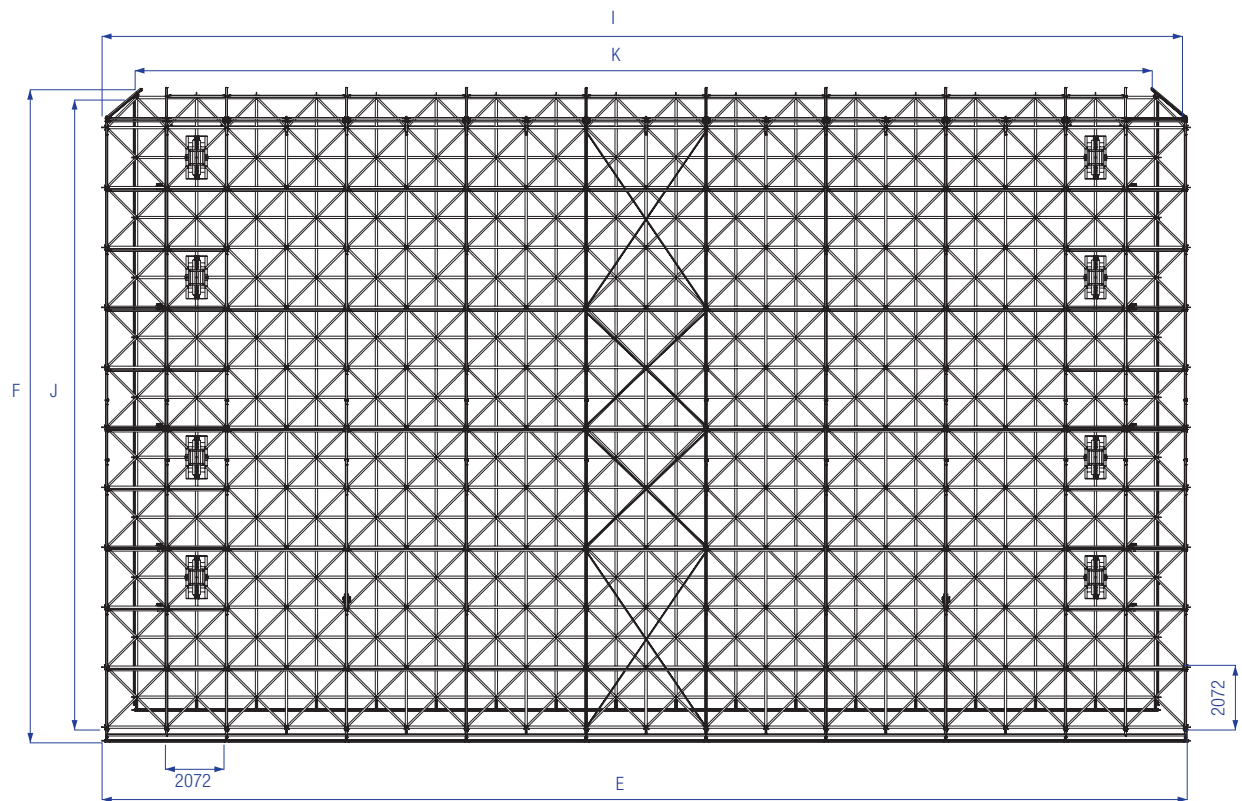
Side view



Space Roof SYSTEM		Inside						Overall					
Stage measurements		A		B		C		D		E		F	
37 x 22 m	121'4" x 72'2"	30,55 m	100'2"	16,59 m	54'4"	14,00 m	45'9"	20,06 m	65'8"	37,65 m	123'5"	22,62 m	74'2"
31 x 20 m	101'8" x 65'6"	24,33 m	79'8"	14,20 m	46'6"	10,00 m	32'8"	15,91 m	52'2"	31,44 m	103'1"	20,54 m	67'4"
31 x 16 m	101'8" x 52'5"	24,33 m	79'8"	10,06 m	33'0"	10,00 m	32'8"	15,91 m	52'2"	31,44 m	103'1"	16,40 m	53'8"



Top view



Space Roof SYSTEM		Floor				Grid						Pitch roof	
Stage measurements		G		H		I		J		K		L	
37 x 22 m	121'4" x 72'2"	18,65 m	61'2"	33,15 m	108'8"	37,30 m	122'4"	21,76 m	71'4"	35,22 m	115'6"	1,57 m	5,2"
31 x 20 m	101'8" x 65'6"	16,58 m	54'4"	26,94 m	88'4"	31,08 m	101'9"	19,68 m	64'6"	29,01 m	95'2"	1,43 m	4'7"
31 x 16 m	101'8" x 52'5"	12,43 m	40'8"	26,94 m	88'4"	31,08 m	101'9"	15,54 m	50'9"	29,01 m	95'2"	1,14 m	3'7"





Space Roof, photo: Interstage, Project: Zwarte Cross, The Netherlands



