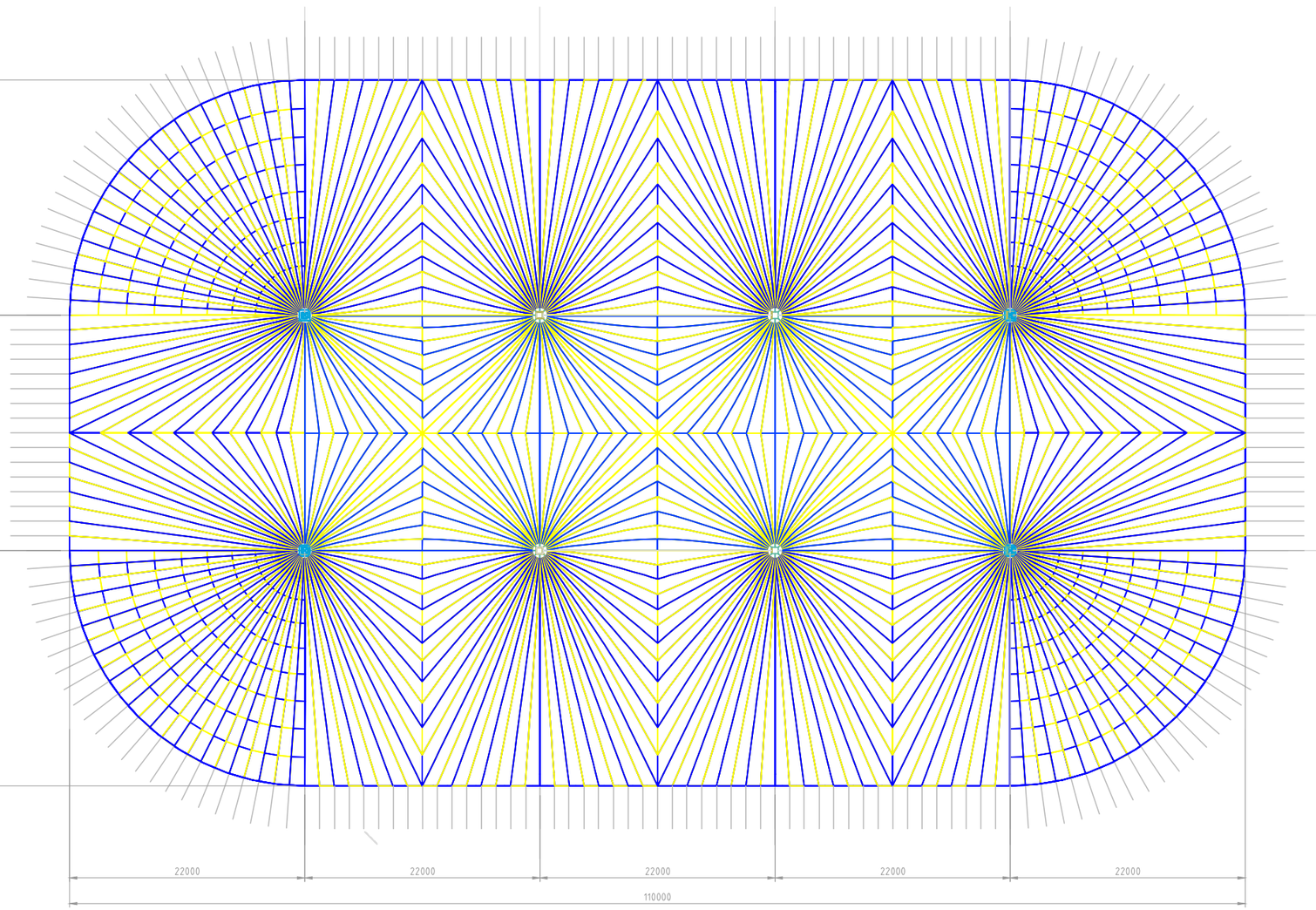
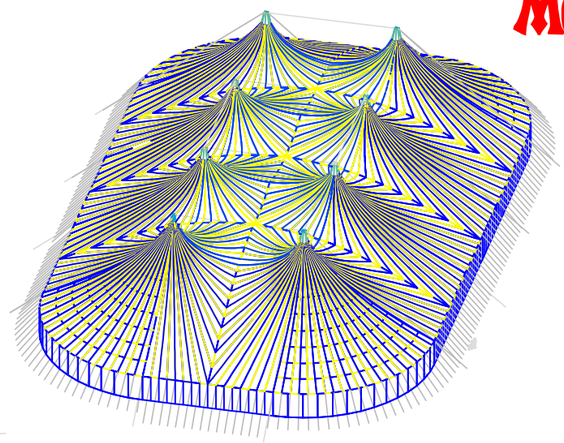
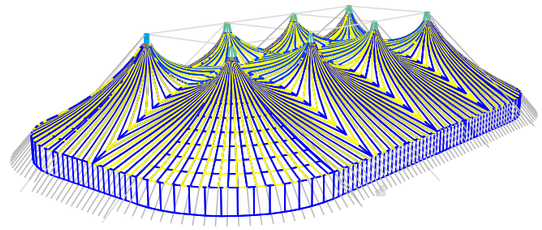
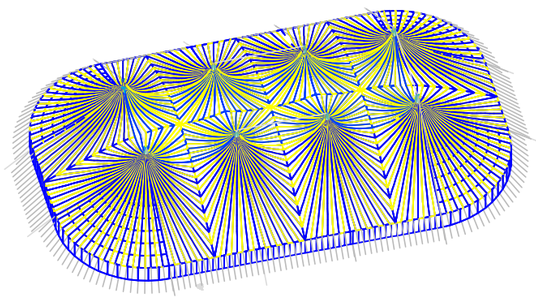
Mobile Structures









DESIGN PARAMETERS – MT66 – 2

Performance Criteria

The structure is designed for the following applied loads;
Wind load in accordance with British Standard – CP3 Chapter V Part 2 1972. Taking due account of period of exposure.

Wind speed = 42 m/s.
Wind load = 0.5 Kn/m2

No snow load has been calculated for this structure.

Large distributed and point loads can be suspended within the structure. Dominant openings are not allowed for.
Talk to Rudi Enos Design 0709 578720.
Ground conditions may require extra staking, fastening, or anchorages.

All wind loadings in this example are based upon British Standard – CP3: chapter V: part 2: 1972 and a basic wind speed of 42 m/s (REF fig 1 page 8). This wind speed is factored to give a design wind speed factored as follows (clause 5 pages 9 and 10)

1/ Factor S1 – A topography factor to account for cliffs and escarpments, the effects of hills and the sheltering in valleys – nominally 1.0.

2/ Factor S2 – A factor to account for ground roughness, building height and size.
A factor of 0.63 is used for open countryside with scattered wind breaks, on a structure more than 50m in width or length. (Cp 3 Table 9. factor S2 .p 11).

3/ Factor S3 – A statistical factor. This is taken as 0.77 which is based on the structure being temporary and subject to a wind likely to occur every 2 years. (Cp 3 Fig 2. factor S3 .p 12).

BS 8118 - The Structural Use of Aluminium
BS 5950 : Part 1 : 1985 Structural Steelwork
BS 5438 : Parts 2a & 2b Flame Retardancy.

Fabric Technical data Specification of Fabric Used:

FR 700 Universal – PVC coated polyester fabric.

1. Base fabric of High Tenacity Branded Polyester. (DIN 60 001)
2. PVC coated on both sides
3. High gloss lacquer surface
4. Dirt repellent
5. Easy to clean
6. Dimensionally stable
7. Resistant to cold up to -30 degrees Celcius (DIN 53 361)
8. Flame retardant (see below)
9. Mildew inhibitant biocidally treated
10. Weather resistant
11. Good resistance against ultra-violet rays
12. Light fast colours (DIN 54 004)

ENGINEERED STRUCTURAL FABRICS

Fabrics used for engineering application are usually polyester or glass fibre coated with a variety of chemical compounds. The woven base cloth carries most of the tensile forces while the coating protects the cloth against external environmental effects of ultra violet and pollution. An additional coating of clear lacquer is also applied for additional protection. These lacquers can be acrylic, PVDF (fluorine as in non stick frying pans), or Tedlar.

There are many different combinations of base cloth/coating/lacquer. The correct specification is chosen from experience, and technical and commercial considerations.

TYPE 1 STRUCTURAL FABRIC

Support cloth	(DIN 60001)	PES
Ends/picks	(DIN 53853)	9/9
Yarn	(DIN 53830)	1100
Weave	(DIN 61101)	L1/1
Grey cloth-weight	(DIN 53854)	210
Type of coating		PVC
Total weight	(DIN 53352)	900
Tensile strength warp/weft	(DIN 53354)	3000/3000
Tear resistance warp/weft	(DIN 53363)	310/350
Adhesion	(DIN 53363)	100

Typical Flame retardancy .....

British	BS5867 TYPE B
Italian	Class 2
French	Classement M 2
German	DIN 4102 B1
US	NFPA 701 small and large scale

Cold crack	-40 degrees Celsius	(DIN 53361)
Flexing strength	no cracking after at 100,000 flexes	(DIN 53359)
Widths (cm)	various	

COLOUR

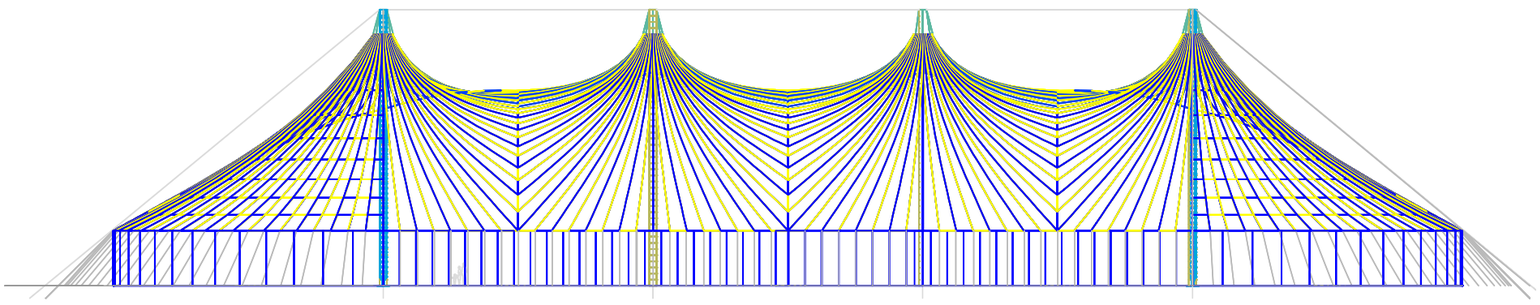
Most prime colours are available as standard. Special colours are subject to minimum ordering quantities.

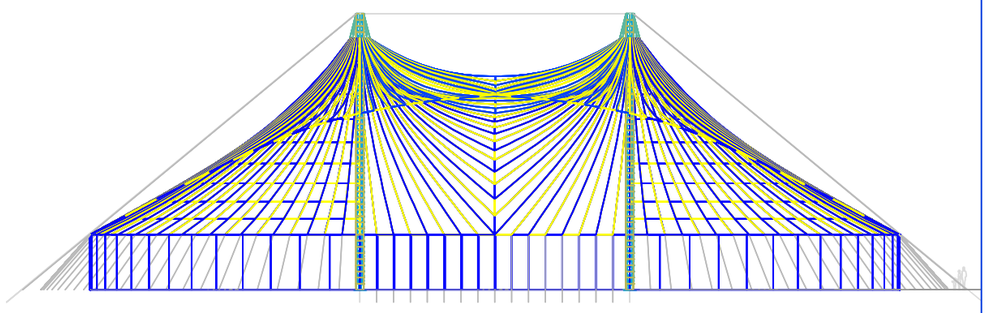
LACQUER

Various lacquers are available for different applications, such as PVDF, PTFE, Acrylic, Silicon.

Blackout cloths are available to special order.

The above data are averages from production. Fire certificates for most countries available.
Product descriptions and suggested end uses are general and subject to trial for the intended end use.
Production is subject to change. E&OE





All dimensions in millimetres unless otherwise stated.

Testing in accordance with Table 1 Acceptance Table 2 heights of structure roof depend upon installation
Welding and fabrication to be undertaken in accordance with the national steelwork specification.

DATE	27.03.2018
DESIGNED BY	re
DRAWN BY	re

REVISION

No.	DATE	DESCRIPTION
-	-	-

SCALE NTS

FILENAME SSL-MT66-2018-001A-66x110-GA-round.DWG
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OTHER DETAILS MS-LatM-104

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