


Welding and fabrication to be undertaken in accordance with the national steelwork specification.

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# Mobile Structures

note this drawing is the MT66 version with high ends and round corners

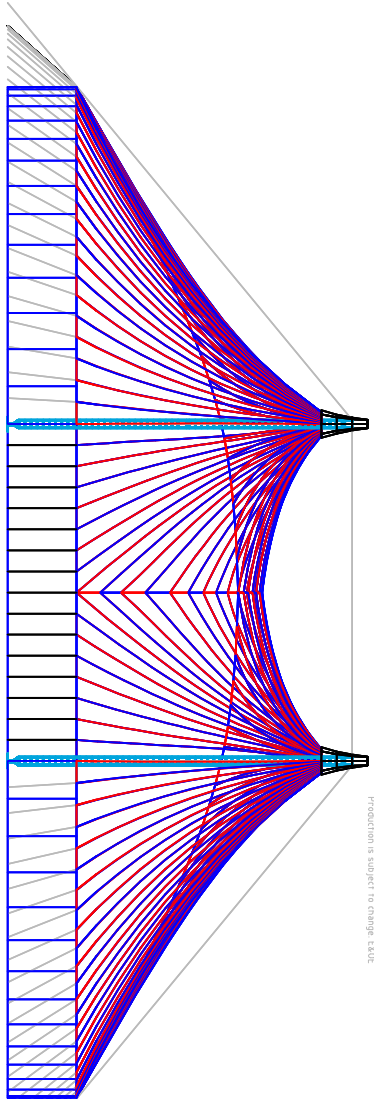
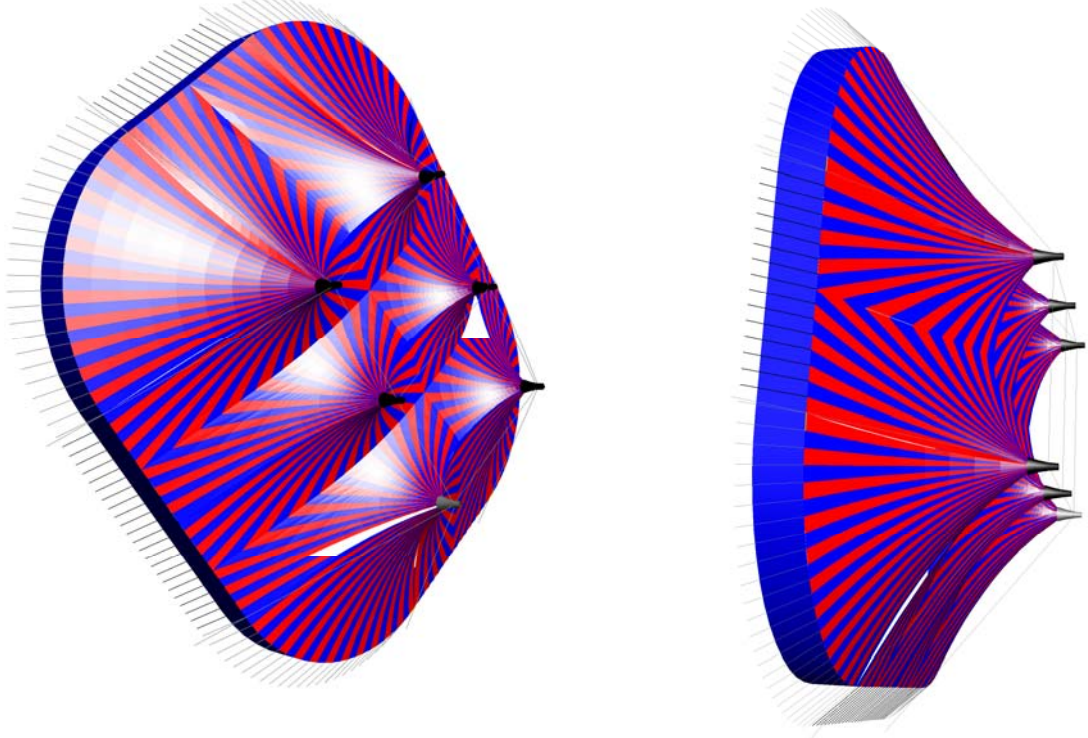
*Mobile Stadiums*  
World Leaders In  
Stadium Design



Stage Hire  
Big Top Hire

SA

UK



## DESIGN PARAMETERS – MT66 – 2

### Performance Criteria

The structure is designed for the following applied loads:  
Wind load in accordance with British Standard – CFS Chapter V Part 2 1972 taking due account of period of exposure.  
Wind speed = 42 m/s.  
Wind load = 0.5 kN/m<sup>2</sup>

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.  
The structure is designed for a maximum internal pressure of 0.5 kN/m<sup>2</sup> and a maximum external pressure of 0.5 kN/m<sup>2</sup>.  
Ground conditions may require extra staking, fastening, or anchorages.

All wind loading in this example is based upon British Standard – CFS Chapter V Part 2 1972 and a basic wind speed of 42 m/s (Ref Fig 10 page 8). This wind speed is factored to give a design wind speed referred as follows (taken 5 pages 9 and 10).

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

Z Factor S2 – A factor to account for ground roughness, building height and size.

S Factor S3 – A statistical factor. This is taken as 0.71 which is based on the structure being more than 50m in width or length. (CFS Table 3 Factor S2 p 11).

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BS 5400 Part 1 1985 Structural Steelwork  
BS 5439 Part 2 2015 Flame Retardancy  
Fabric Technical data Specification of fabric used

FR 700 Universal – PVC coated polyester fabric.

1. Base fabric of High Tenacity Bonded Polyester (DM 60 000)

2. PVC coated on both sides

3. High gloss lacquer surface

5. Easy to clean

6. Dimensionally stable

7. Resistant to cold up to -30 degrees Celsius (DM S3 361)

8. Resistant to heat up to +100 degrees Celsius (DM S3 361)

9. Yellow resistant broadly treated

10. Weather resistant

11. Load resistance against ultra violet rays

12. Light fast colours (DM S3 361)

ENGINEERED STRUCTURAL FABRICS

Fabrics used in engineering applications 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.

The coating protects the cloth against external environmental effects of ultra violet and pollution. Puff (blow) as in non stick Teflon panel, or Teflon.

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

TYPE 1 STRUCTURAL FABRIC

Support cloth DM 60001 PES

Ends/picks DM 53633 9/9

Van DM 53630 100

Weave DM 61001 L21

Grey cloth-weight DM 53641 210

Type of coating PVC

Total weight DM 53352 900

Tensile strength warp/weft DM 53354 3000/3000

Tear resistance warp/weft DM 53363 310/350

Adhesion DM 53369 100

Typical Flame retardancy ----

British BS5867 TYPE B

Italian Class 2

German DIN 4102 B1

US NFPA 701 small and large scale

Gold cross -40 degrees Celsius

Flaming strength no cracking after at 100 000 flexes (DM 53361)

Weights (kg) various

CO2/DIE

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

LACTOIEB

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

Blackout cloths are available to special order.

The above data are averages from production. Fire certificates for most countries available.

Production is subject to change. E&OE

Rev	Description	Date

Filename <b>RED_MT66_2012_001A_66x76_GA_RB_HH_roundendDV</b>		Title 1 <b>001A</b>		Title 2 <b>GA – layout and views</b>	
Seaton Park 65 Deep Lane Sheffield S5 0DU - UK Tel: +44 (0)114 257 7755		Drawn by <b>RE</b>	Date <b>18/01/2012</b>	Drawn by <b>01A</b>	Scale <b>nfs</b>