

Project Profile: Specialist Projects



Structural Engineering
Event Engineering

UFO, ELO Flying Saucer

This spectacular structure for the ELO summer tour comprised of a fibreglass clad flying saucer- a great project for our event and structural engineers.

Client
Total Solutions

SWH were appointed by Total Solutions Ltd (TSL) to help create a 16.5m diameter version of ELO's 'Out of Blue album cover's flying saucer to be a focal point 16m above the stage and fill the skyline of their outdoor summer venues, at Wembley and Hull.

The fibreglass clad saucer structure was designed to cantilever off a single central tower using a series of concentric faceted circular aluminium ladder beams, supported off a special hub with eight spokes radially symmetric around it.

The shape of the structure was detailed to provide extensions to the spokes to support the fibreglass shell of the saucer and was also designed to support a complex arrangement of special effects, moving lights and lasers. The loads from all of these was appraised and applied to our analysis model.

The entire structure modelled and analysed 3 dimensionally, with all aluminium elements checked to BS EN 1993-1. A detailed wind appraisal was carried out for the clad saucer, considering wind speeds up to 25m/s. Within the structure aluminium platform and LED screen support frame were designed to provide maintenance access.

