

# CASE STUDY

## LOC FOCUS ACADEMY



### Integrated shading for an ETFE roof structure.

Located near Rotterdam in the Netherlands, The Academy is a comprehensive pre-vocational school and currently has about 700 students. The building consists of 11,000m<sup>2</sup> of educational accommodation and a 2,000m<sup>2</sup> large sports hall which meets the requirements of the Dutch National Olympic Committee. The building is extremely durable with energy storage, heat pumps and LED lighting.

### APPLICATION

Bespoke

### ARCHITECT

Royal HaskoningDHV

### PRODUCT

TESS™440

### LOCATION

Barendrecht, Netherlands

### BUILDING TYPE

Education

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**Guthrie Douglas**

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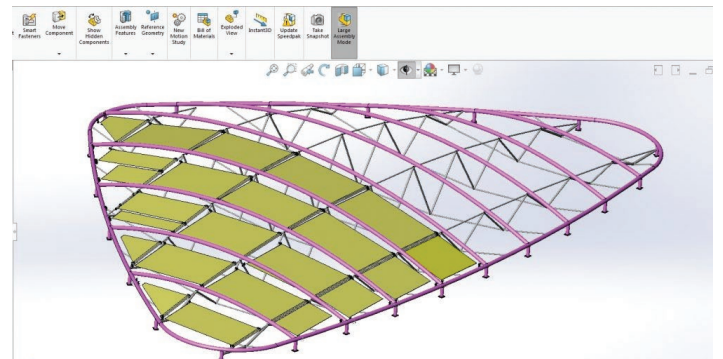
The design by Royal Haskoning reflects on the latest trends in education. A learning environment has been chosen with few classrooms. The majority of education takes place outside of the classroom, in so-called 'workplaces' which encourage independent learning.

An atrium is a key feature of The Academy and the largest learning workplace. The space is also used for events and meetings of large groups. The control of light, heat and glare into this space was part of the architect's early considerations and Guthrie Douglas were invited to consult during the design process.

The original design specification featured an ETFE roof, but building physics modelling identified that despite ETFE's solar control properties, this alone would not provide sufficient protection, to meet the exacting thermal comfort requirements of the large event space.

The challenge was to integrate shading systems into the exceptionally light support structure of the ETFE roof. We designed a bespoke 'clamp' bracket arrangement which was installed directly onto the steel support cables.

The result is a shading system which provides an effective solution for solar protection without compromising the design ethos.



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