

CASE STUDY

Complex Hospital Project

Location:	Ayrshire
Client:	RTK
Construction method:	Complex roof trusses
Size:	4,694 ² of trusses
Construction period per unit:	5 days
Unique features:	An unusually high number of different truss types

Description:

DTE supplied the trusses for all six wings of a new community hospital. The largest wing required an unusually high number of different truss types, requiring 1,472m² of trusses; consisting of 359 individual trusses and 48 different truss types.

DTE housed a first floor plantroom along the length of the building by forming a split level floor with a void zone in the centre, using the DTE joist system below the trusses. The high number of truss types was required so the roof could accommodate the plantroom, walkways, two bridges and 40 skylights framed down to the ground floor corridors.

The spans of the hospital were so large that DTE had to make the trusses in three sections and manufacture them with extreme precision, so that they matched perfectly on site.

The main shape of the roof was formed using external mono type trusses to both planes and duo pitch top hat trusses along the main ridge line supported off the mono trusses below.

The eaves were to be exposed as a design feature so DTE supplied them pre-cut and shaped, ready for bolting to the mono pitch trusses on site. Because the eaves were exposed, the members also had to be supplied without any marks or blemishes.

Significant Features:

- The manufacture and supply of trusses to meet specific design needs
- Achieving large spans using trusses

Comment:

“Supplying the members without any marks on them seems like a small detail, but it is the small things which can easily be overlooked at an early stage and become a real problem later on. At DTE we insist on working closely with our clients and getting all of the information right from the start, so that we deliver exactly what the client requires.”

Michael Donaldson, General Manager, DTE Buckhaven

For any further details or to discuss your own project please give us a call today:
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