



Case Study - Manufacturing Facility; Bournemouth

Rooflight replacement brings new light into factory

Carried out by Hi Tec Roof Systems Ltd, the project included a flat roof refurbishment and replacement of the original northlight rooflights on an operational factory in Bournemouth.

The client's Facilities Manager contacted Hambleside Danelaw directly after the company was recommended to replace a large area of rooflights.

The existing structure was a flat roof with 32 runs of double sided northlight glazing with a flat mansard roof. The existing Georgian wire glazing was in a poor condition causing issues with water ingress and creating a hazard with potential for panels to fall into the building. It was also causing issues with glare at certain times of the day and this was intensified due to the many reflective surfaces of the internal machinery.

The Facilities Manager considered a number of material options including replacement glazing and polycarbonate but needed advice on the performance and impact the material would have on the internal illuminance of the building.

Amanda Davis, Hambleside Danelaw's Southern Area Sales Manager, explained the benefits of diffused light from translucent materials like GRP and Zenon rooflights were specified to make the most efficient use of available daylight.

GRP is a thermoset material reinforced with transparent glass fibres. When natural light passes through the material, refraction occurs which scatters or 'diffuses' the available light and spreads it over a far greater area. This diffusion minimises the creation of shadows, glare and hot spots that other rooflight materials can cause and creates a more consistent and uniformly lit space.

Samples were provided to put the proposal to the factory business' Board of Directors and GRP was chosen as the most cost-effective and appropriate solution for the application. The project went to tender and Hi Tec Roof Systems won the contract for the full roof refurbishment.

The product supplied was a factory-assembled insulated rooflight panel with the highly impact resistant Zenon Evolution as an outer sheet and a 4mm polycarbonate insulation layer. The panels were delivered over 5 phases to suit the time scale of the installation of the rooflights and the application of the flat roof.

Delighted with the improved and more effective daylight and thermal performance, the client decided to proceed, ahead of schedule, with a further building on the same site to the same specification.

For more information, please contact our team on:

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Or you can visit our website; www.hambleside-danelaw.co.uk/zenon-rooflights/

Before rooflight replacement



Installation progress



Installed composite panels



Products used in this project

Zenon composite panel rooflights

All Zenon composite panel (or FAIRS) rooflights are constructed from Zenon Pro and Evolution sheets, depending upon the specification, durability and non-fragility periods required. They incorporate the highly durable Zenon Shield, a highly durable UV protective surface film.

The panels can be manufactured to incorporate different insulation layers for improved U-values as required, including the unique Zenon Insulator™ honeycomb insulation system for high light transmission and low embodied carbon. They can be supplied as an uninsulated panel, where compliance with the thermal requirements of Building Regulations is not required, or different insulation options can be selected.

The liner panels feature a special rib profile to minimise the deflection of liner panel, and to create an air separation layer below any insulation system incorporated in the rooflight to maximise the thermal performance.

They also feature unique ZSL50 thermal side strips for better continuity of the roof insulation and improving the air tightness of the assembly.

Metal fixing strips can be incorporated into the manufacture of the assembly to facilitate the use of conventional side lap stitcher screw fasteners that would be used where metal or GRP overlaps the GRP of an adjacent panel.

Zenon Evolution rooflight sheets

Zenon Evolution is ideal for environmentally conscious industrial and commercial buildings or where superior strength is demanded. Benefits include;

- High strength rooflight sheet with lower embodied carbon
- Available in over 1000 profiles to suit new build and refurbishment projects
- Suitable for installing in single skin and double skin assemblies
- Insulated with either polycarbonate or our patented Insulator™ core
- Compatible with both site-assembled and composite panel cladding systems
- Stronger than conventionally reinforced rooflights of the same weight
- Better profile definition to suit the surrounding metal sheets
- Increased diffusion of natural daylight
- More reliable sealing, no special sealants required
- Carries Zenon Shield, a highly durable UV protection surface film
- Exceeds non-fragility requirements
- Manufactured and CE marked in accordance with BS EN 1013
- Best for strength, durability, performance and peace of mind