NLS NaturalSpan System

Product Overview

The NaturalSpan system is thermally broken extruded aluminium glazing bar arrangement incorporating typical mullion and transom assembly with internal water management and condensation channels to the lower cill edges of the glazing frame. The system is capable of spanning infinite lengths and can be designed to span great distances unsupported.

The system benefits from the flexibility of being able to be manufactured to a variety of different rooflight styles to suit a variety of applications. Most commonly:

- Mono-pitch assembly – Max 5.5m unsupported (please confirm with office for bespoke items)
- Ridge light with hipped ends assembly - (please confirm with office for span capabilities)
- Ridge light with vertical ends assembly - (please confirm with office for span capabilities)
- Lantern light assembly - (please confirm with office for span capabilities)
- Barrel Vault assembly – Span capability from 500mm to 9 metres unsupported to an infinite length.
- Pyramid Assembly - (please confirm with office for span capabilities)
- Octagonal assembly - (please confirm with office for span capabilities)
- Vertical assembly - (please confirm with office for span capabilities)
- Bespoke assembly (please contact the design office with bespoke queries)

Glazing is secured using a pressure plate system secured to the glazing bars and finished using an extruded capping piece.

External perimeter flashings can also be introduced to encapsulate the unit and can be manufactured to suit the specific project requirements.

Ventilation

Ventilation can be introduced in the system in a variety of applications:

- Glaze-in natural ventilators in both manual and 24v or 240V automatic opening options
- Glaze-in smoke ventilators in 24v automatic opening option.
- Trickle ventilation
- Hit and miss ventilation
- Vent Axia fan ventilation
- Vortice fan ventilation
- Permanent louver ventilation
- Controllable louver ventilation
- Dampened louver ventilation

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Glazing

A Full range of high performance glasses to suit the specific requirements of any project are available, single, double or triple glazing. Many options are available to achieve the required values.

Polycarbonate glazing is also offered in 3 different colour tints of clear, opal or bronze.
Polycarbonate options are:

- 16mm multi-wall structural polycarbonate
- 25mm multi-wall structural polycarbonate
- Factory assembled double or triple skin cassettes manufactured from 3mm polycarbonate

Non-Fragility

Naturalight Systems Limited have recognised the importance of non-fragility of glass roof assemblies and extensively researched the need for such within the current marketplace. As ACR(M) 2005:001 'non-fragility of roofing assemblies' cannot be applied to glass rooflight structures where many thought it could be, advice was sought from CWCT and the outcome was that Naturalight Systems Limited tested and had passed a NaturalSpan rooflight assembly to TN66 / TN67. (Please contact the design office for design constraints)

Loadings

Generally designed in accordance with cp3, chapter v part 2:1972 BS6399: part 1 and part 3 1984
Max. 1.5kPa wind and 0.75kPa imposed loadings

Thermal Performance

Part L Compliant in all variations below 2.0Wm2k overall system U-Value

Fire Regulations

BS 476 pt7: Class 1 (1991)
Class 'O' Tp(a)

Finish

Rooflights can be supplied in mill finish or polyester powder coated to a variety of RAL colours
BS6496 80-100 microns

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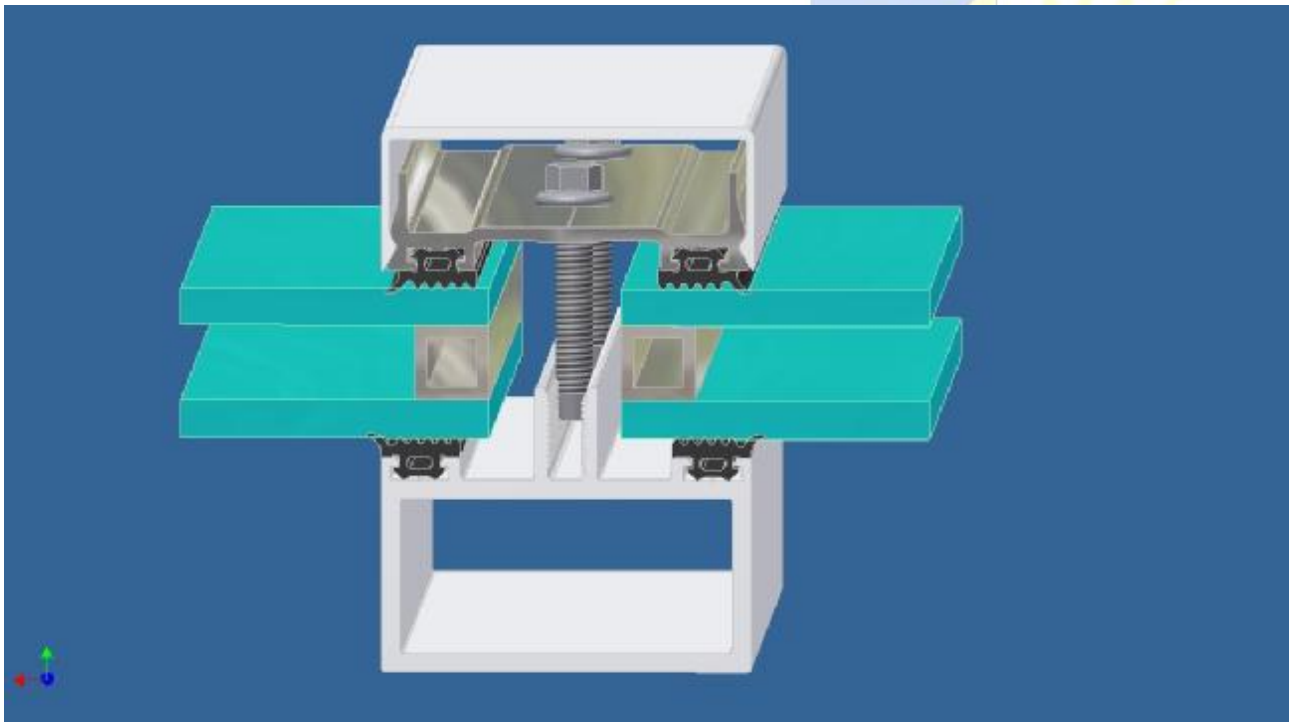
General Design Information:

BS 8118: Part 1: 1991 - Structural use of aluminium
BS 6399: Part 2: 1995 & BS 6399: Part 3: 1988 - Imposed roof loadings.
BS 6366: Part 2: 1997 - Wind loadings.
BS 6375: Part 1: 1989 – Performance of windows, classification for weather tightness.
BS 5368: Part 1-4: 1994 – Method of testing windows
BS 5516: 1991 – Design and installation of patent glazing
BS 5399: Part 2: 1995 Code of practice for wind loads
BS EN 12153 – CWCT Air permeability test method applicable to glazed roofs
TN66 / TN 67 – Non fragility of glass roofing assemblies (where applicable)



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