

Technical Information Sheet

Rooflight Dimensions Guide



TIS209 August 2020

First issue

Replacement Factory Assembled Insulating Rooflight (FAIR) for use in an old asbestos cement or fibre cement roof system. Dimensions and types guide

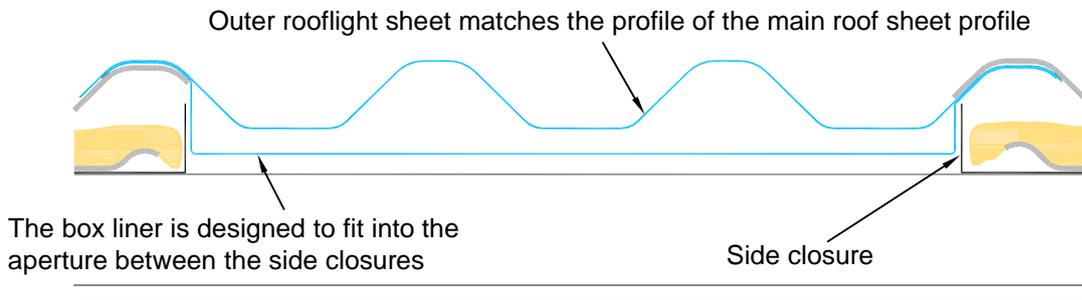
This document should be used in conjunction with Technical Information Sheet TIS109 which provides our rooflight recommendations for use with asbestos cement or fibre cement roof systems.

Factory assembled rooflight types

Factory assembled rooflights as installed in asbestos cement and fibre cement roofs were in fairly common use during the seventies and the eighties. The most common materials used were translucent GRP or clear PVC.

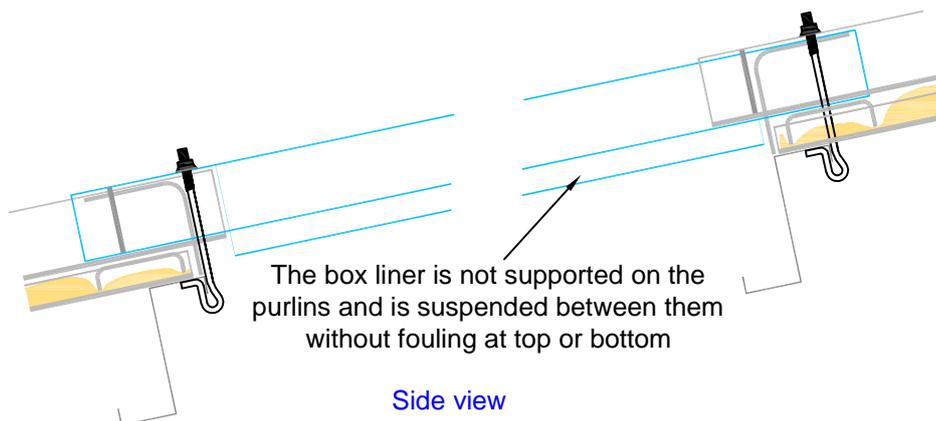
The rooflights were manufactured to match the external main roof sheet profile and, often, to suit profiled liner panel systems or board liner systems. The box liner of the rooflights may have been supported on the roof purlins or, more often, they were suspended between the purlins.

Typical arrangement

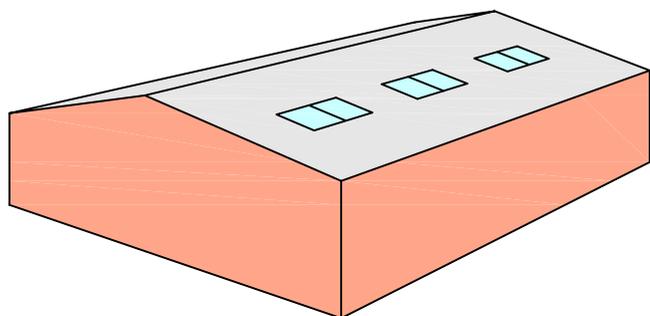


End view

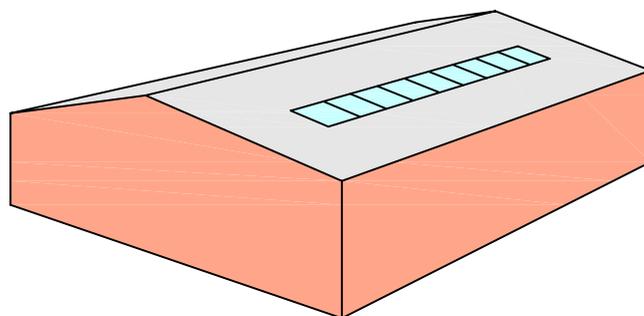
Example shown is a suspended box type FAIR installed in a fibre cement roof system with a profiled outer sheet and separate liner. A replacement FAIR would be required to have the same box liner length and width in order for the FAIR to fit correctly.



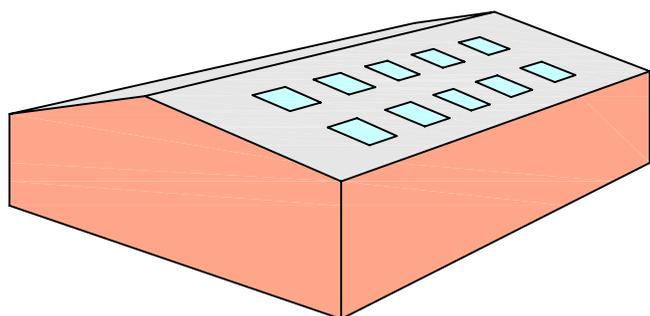
Typical rooflight patterns



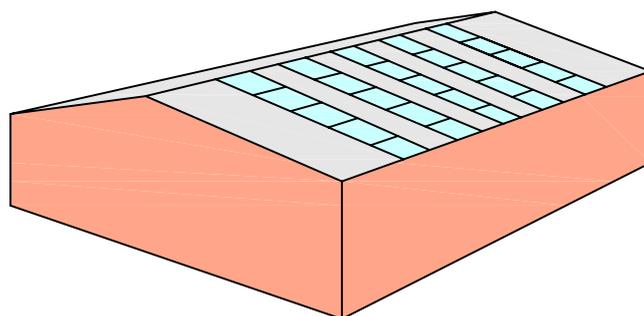
Pairs: Two FAIRs are laid side by side



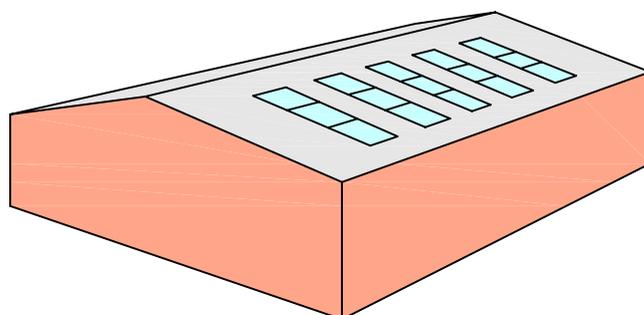
Continuous run: FAIRs are laid in banks of three or more side by side



Chequerboard: FAIRs are laid as single width units



Ridge to eaves: FAIRs are laid from the eaves up to the ridge to form strips down the roof slope



Midslope: FAIRs are laid up from the eaves and down from the ridge to form strips with main roof sheeting on all four sides

The examples shown above are some of the different possible rooflight patterns. The design of the FAIR may be affected by the rooflight pattern in addition to the roof system that it is used with.

Typical FAIR types

Filon replacement FAIRs may be manufactured to match the existing FAIRs to ensure correct fit into an existing aperture. In addition to details such as the outer sheet profile, box liner width, depth and length, the position of the box liner in relation to the outer sheet across the width is also important.

Also shown are other FAIR types for various applications along with suspended box types and supported box types that have internal fillers at fixing points.



Bespoke: Replacement FAIR box liner width and depth made to match the existing rooflight



Type A: Starter unit and intermediate unit for continuous run applications

Type A

Type B: End unit for continuous run applications



Type A: First unit for paired FAIRs

Type B: Second unit for paired FAIRs



Type B: Unit for single width applications



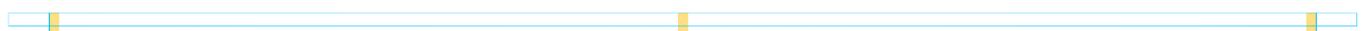
Single span suspended box



Double span suspended box



Single span supported box



Double span supported box

Information required for quotation or order

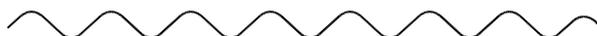
In order to provide replacement FAIRs that will fit correctly there is important information required.

In most circumstances tooling will be required to manufacture a box liner of the correct dimensions, but on rare occasions tooling may already be in place to offer a close match or to offer a compromise that would work with some site adjustment to the surrounding internal roof system.

The typical information required follows.

Profile

The outer sheet profile of the Filon replacement FAIR has to match that of the existing rooflight and main roof sheeting, some common examples are shown below. Dimensioned drawings of these and other profiles are shown in the Filon Profiles book that may be downloaded from our website. The Filon Technical Department can also be contacted should assistance be required.



Bigsix



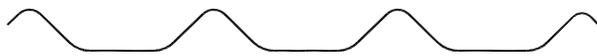
Doublesix



Cape Monad



Major Tile



Cape Fort



Doublesix Metric

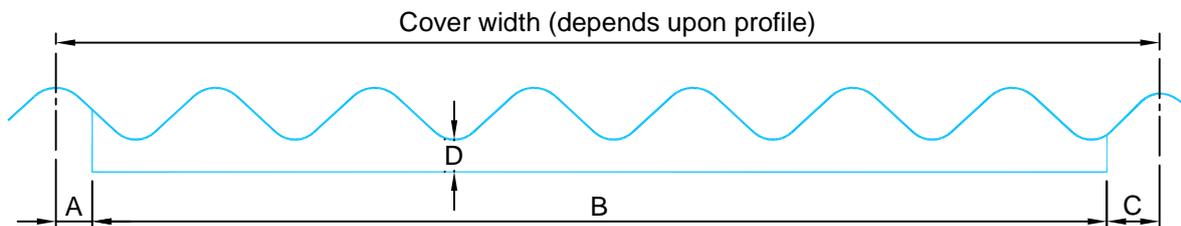
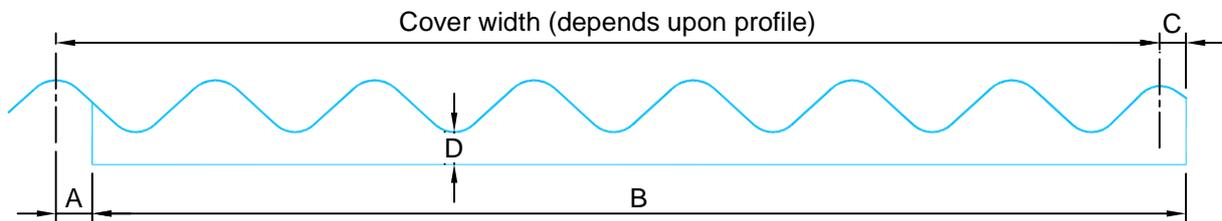


Gleno 252



Trafford Tile

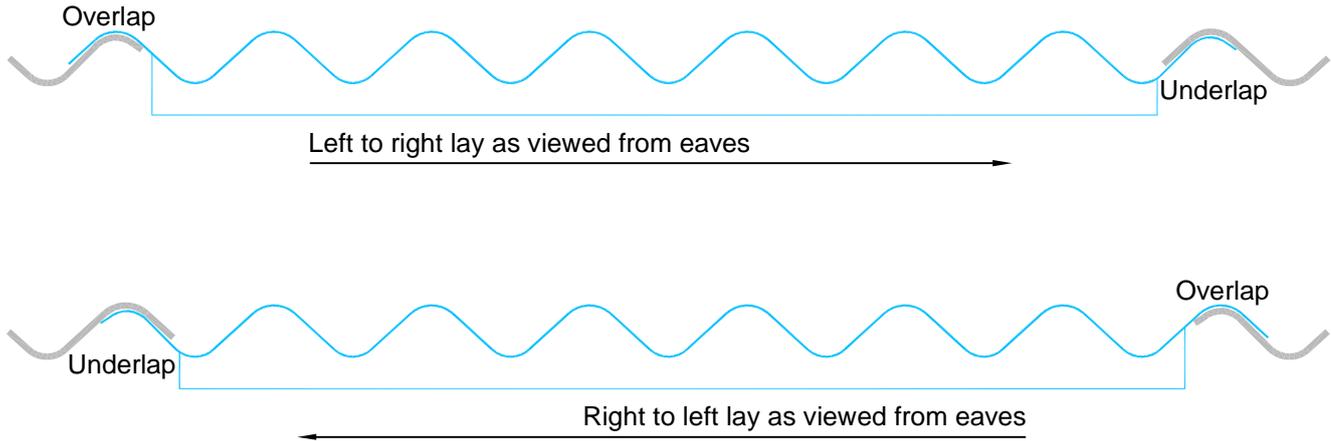
Box liner dimensions



- A: Centre of outer sheet overlapping profile to box side wall
- B: Box liner width
- C: Centre of outer sheet underlapping profile to box side wall
- D: Box depth

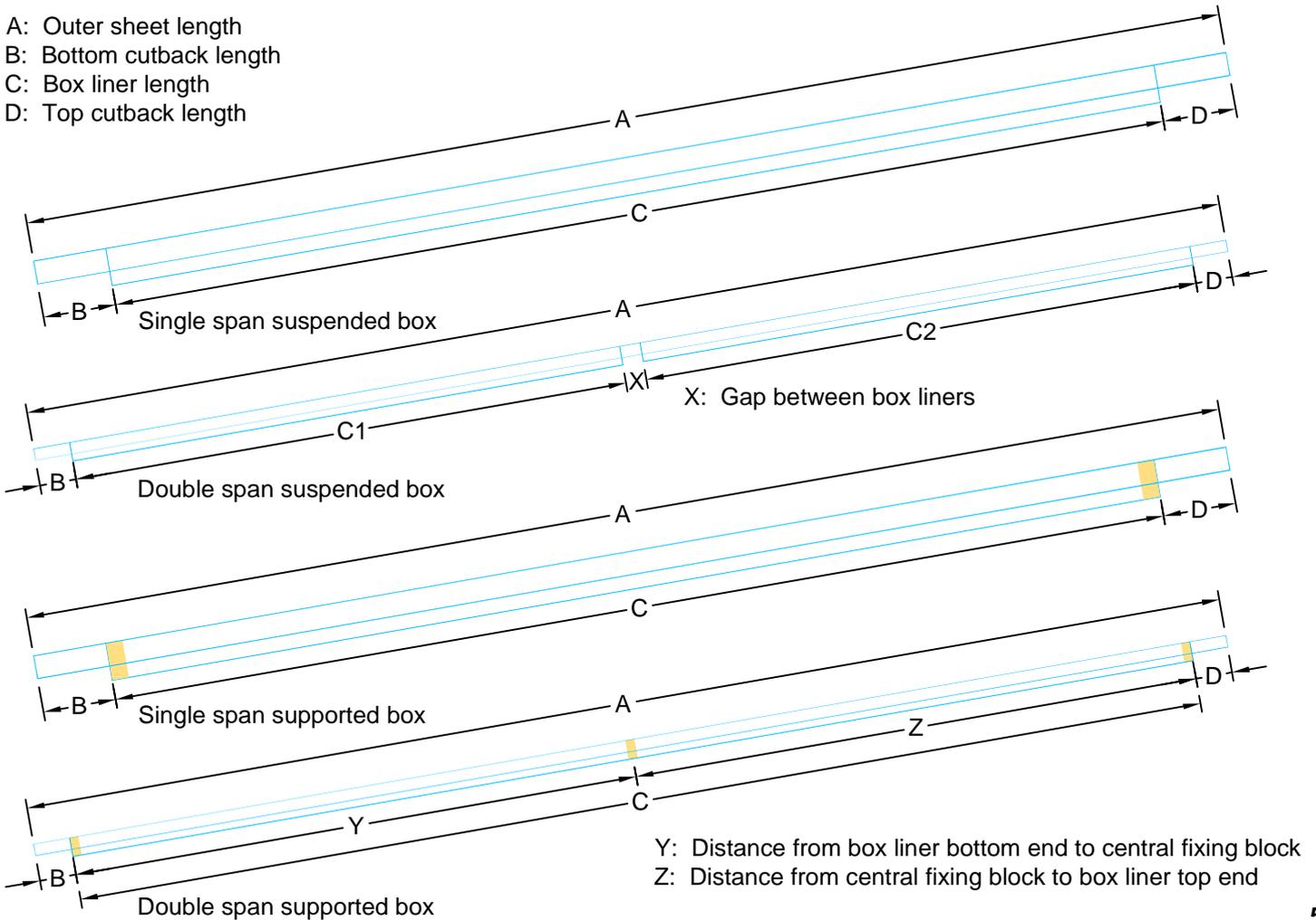
Direction of lay

Asbestos cement and fibre cement sheeting normally has a shallower profile depth at the underlapping side to accommodate the thickness of the material. This means that the sheets and rooflights are handed and, when viewed from the eaves, would have been laid from the left hand side of the roof or the right hand side. Replacement FAIRs must have the same handing.



Length dimensions and unit types

- A: Outer sheet length
- B: Bottom cutback length
- C: Box liner length
- D: Top cutback length



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Sheet types

The FAIR outer sheet type selected will depend on the expected durability requirements. It should be noted that replacement FAIRs installed into an old fragile asbestos cement or fibre cement roof will be classed as fragile due to the fragility of the surrounding roof regardless of how strong the FAIR outer sheet is. The options available are shown in the table below.

Standard Durability statement available	Higher 25 year durability guarantee available	Superior 25 year durability guarantee available	Optimum 30 year durability guarantee available
CE24E	CE30E or CEDR24E	CE36E or CEDR30E	Supasafe E

Fire Grades

Filon offers three Fire Grades to ensure compliance with Building Regulations for Fire Safety as follows: -

Box liner

Filon Grade 104 that is rated AA, Class 1 to BS476 Parts 3 and 7 may be used as standard in almost all applications.

Filon Grade 300 that is rated AB, Class 3 to BS476 Parts 3 and 7 may be used in certain circumstances. These include buildings that are exempt from Building Regulations, buildings within certain size constraints and rooflights within certain area and spacing constraints, e.g., maximum 5m² rooflight or group of rooflights area and minimum 3.0m between rooflight areas. If the rooflights are evenly distributed and do not exceed 20% of the room they are located over, the space separation may be reduced to 1.8m on non-residential buildings.

Outer sheet

Filon Grade 300 as standard.

Note that Filon Grade 101, designated Class 0 by definition in Building Regulations, is also available.

For further information, please refer to Filon Technical Information Sheet TIS003.



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