

ROOFLIGHT DIMENSIONS GUIDE

Replacement factory assembled insulating rooflight (FAIR) for use in old asbestos cement or fibre cement roof systems.

This document should be used in conjunction with TIS109 - Rooflights for use with asbestos and fibre cement roof systems

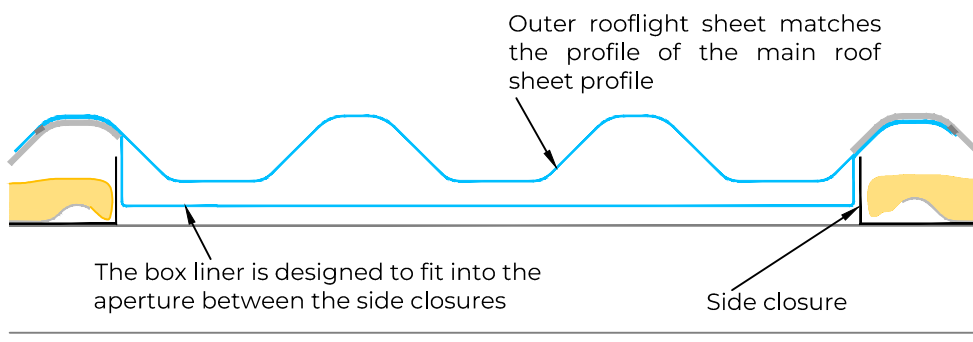
Factory Assembled Rooflight Types

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.

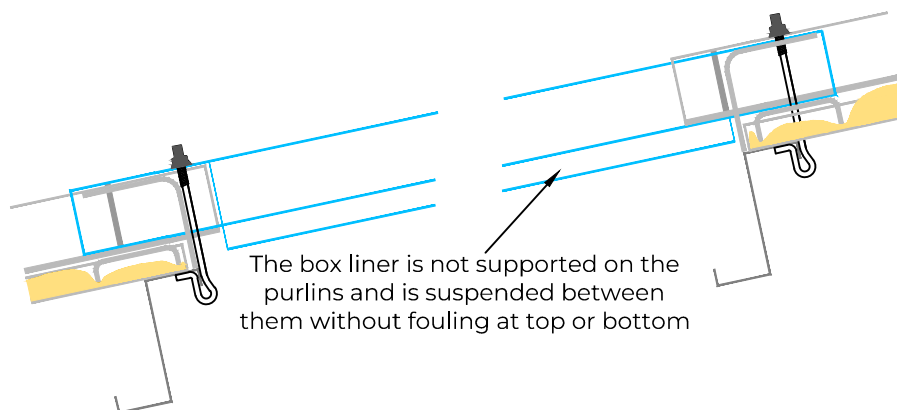
Typical Arrangement

End View



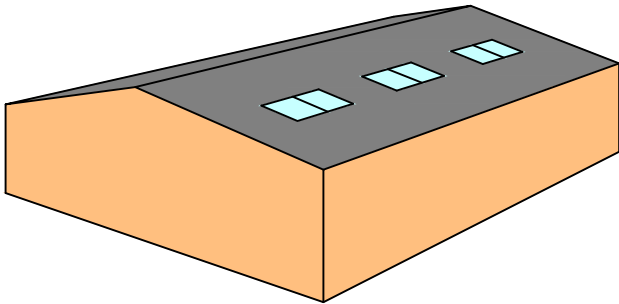
Example shown is a suspended box type FAIR installed in a fibre cement roof system with a profiled outer sheet and separate liner. A replacement FAIR would be required to have the same box liner length and width in order for the FAIR to fit correctly.

Side View

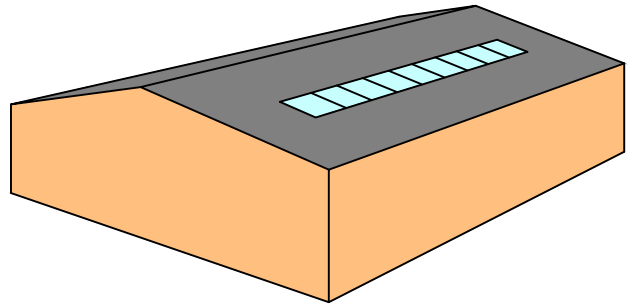


Typical Rooflight Arrangements

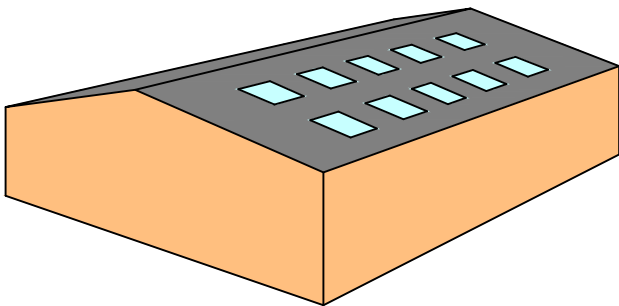
The examples shown below are some of the different possible rooflight patterns. The design of the FAIR may be affected by the rooflight pattern in addition to the roof system that it is used with.



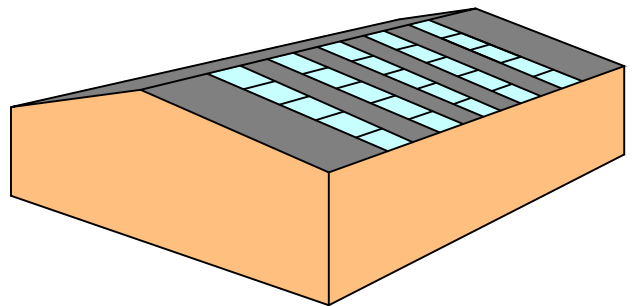
Pairs: Two FAIRs are laid side by side



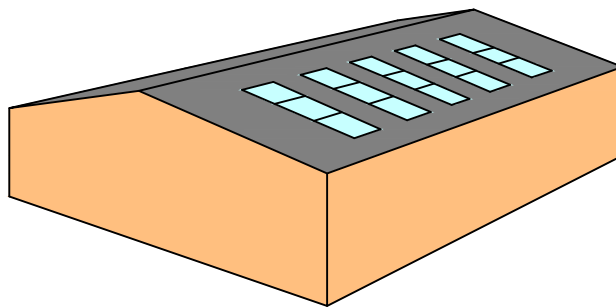
Continuous run: FAIRs are laid in banks of three or more side by side



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

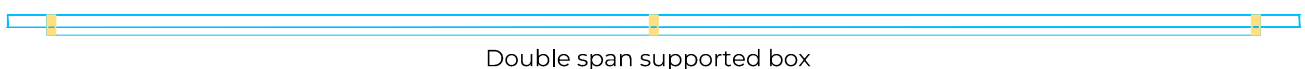
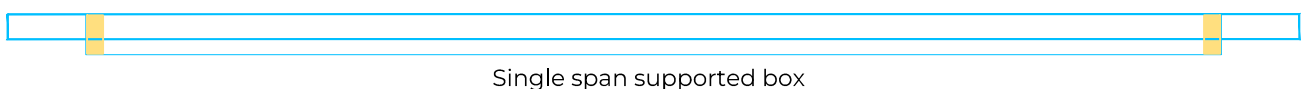
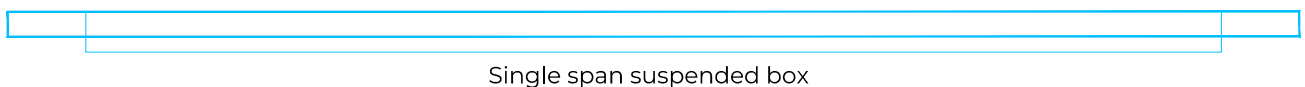
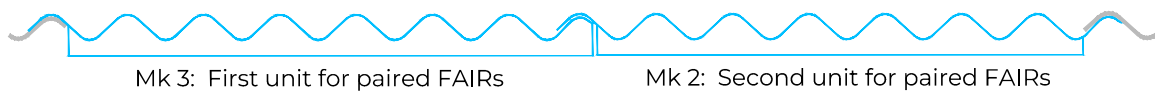
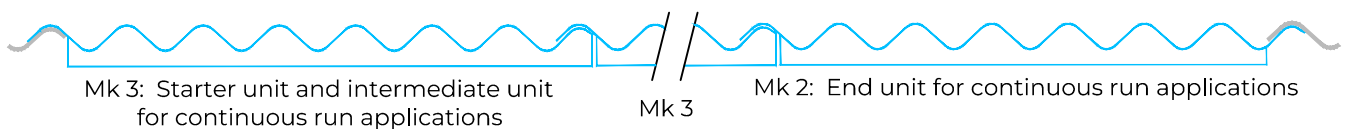


Midslope: FAIRs are laid up from the eaves and down from the ridge to form strips with main roof sheeting on all four sides

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.



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.

Profiles

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.



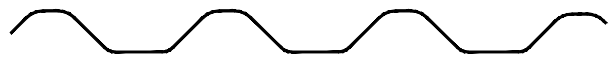
Bigsix



Doublesix



Cape Monad



Major Tile



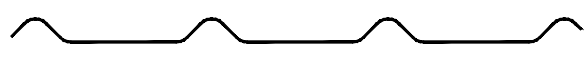
Cape Fort



Doublesix Metric

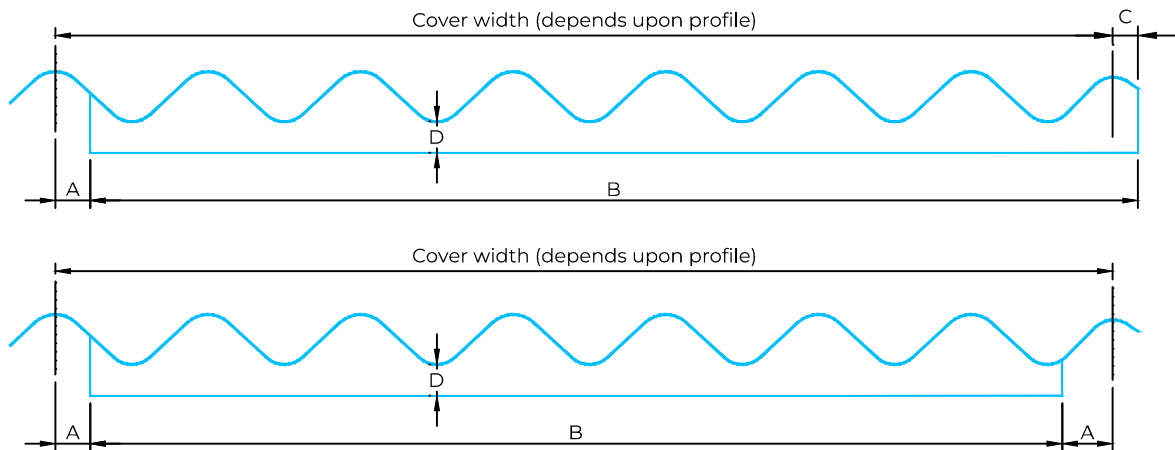


Gleno 252



Trafford Tile

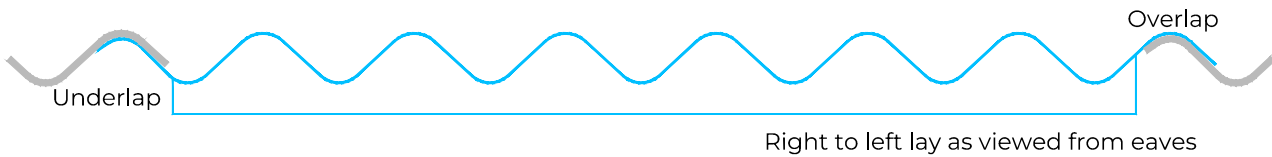
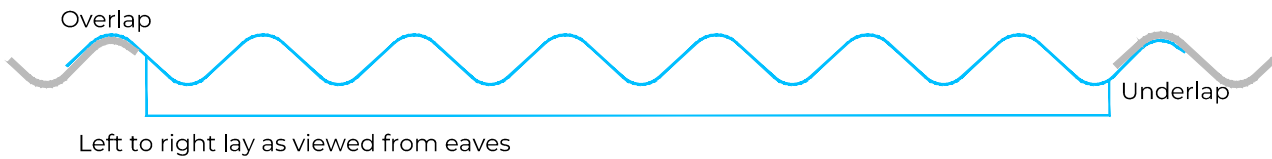
Box Liner Dimensions



- 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

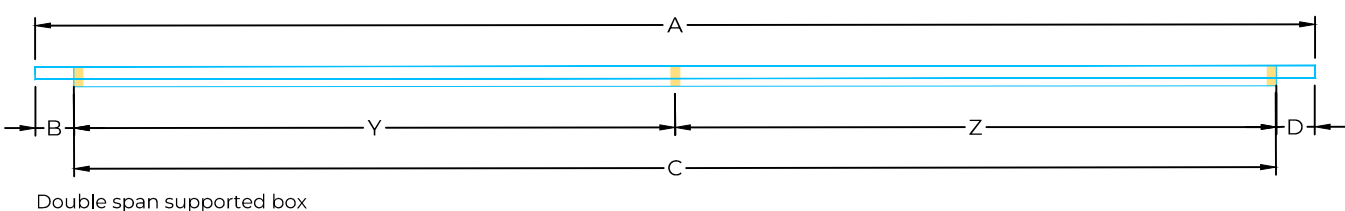
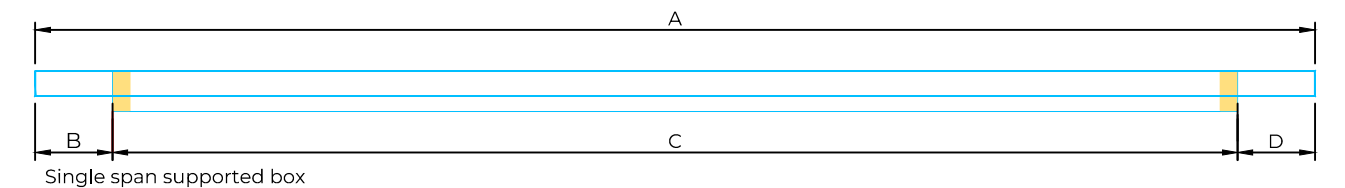
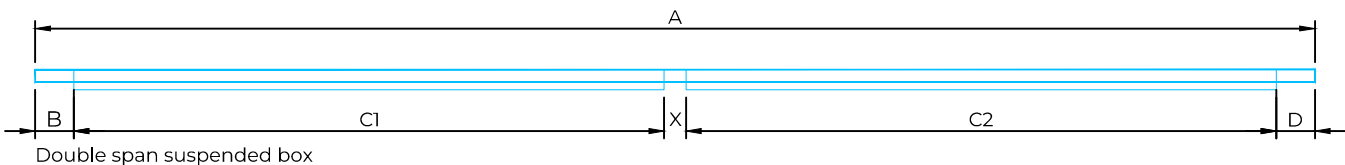
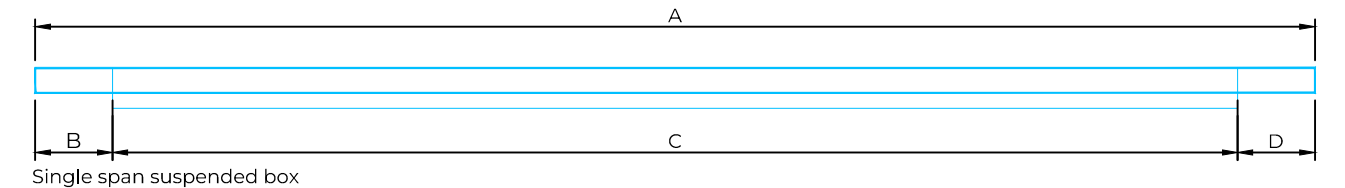
Direction of Lay

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 & Unit Types

- A: Outer sheet length
- B: Bottom cutback length
- C: Box liner length
- D: Top cutback length
- X: Gap between box liners
- Y: Distance from box liner bottom end to central fixing block
- Z: Distance from central fixing block to box liner top end



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.

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

Fire Performance

Filon Grade 300: B_{ROOF} (t4) to BS EN 13501 Part 5.

Filon Grade 104: B_{ROOF} (t4) to BS EN 13501 Part 5. TP(a) rating to BS 2782-0 Method 508A

Filon Grade 101: B_{ROOF} (t4) to BS EN 13501 Part 5. TP(a) rating to BS 2782-0 Method 508A

For further information, please refer to Filon Technical Information Sheet: TIS003 England
 TIS003-1 Wales
 TIS003-2 Scotland
 TIS003-3 Northern Ireland

A standard FAIR has a **Filon Grade 300** outer sheet and a **Filon Grade 104** liner.