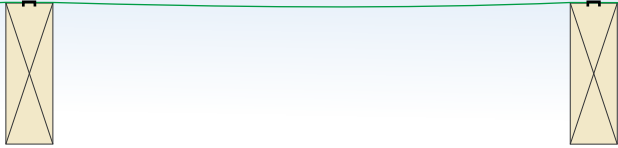


New Build Installation Guide

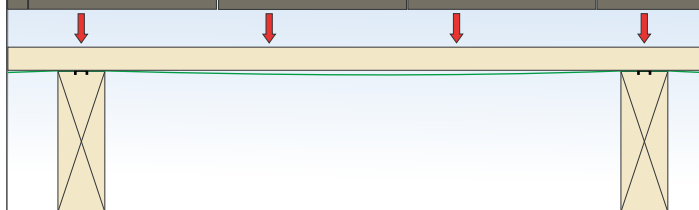
This *Raftertherm System* can be used in normal new build unventilated timber roof structures. The rafters should have a minimum depth of 150mm to accommodate the 115mm *Alreflex Raftertherm Inter Rafter Board*.

Inter Rafter Board Installation

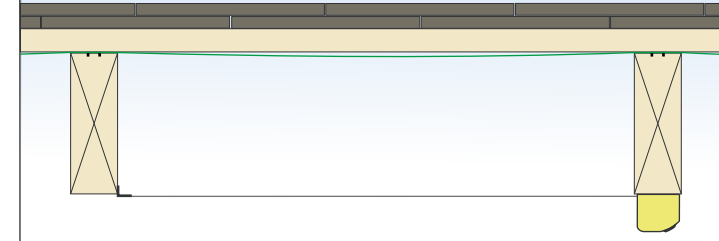
1. Fit *Tyvek Enercor* or similar over rafters to manufacturers recommendations.



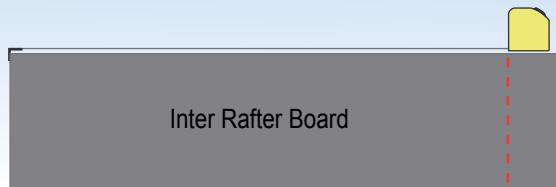
2. Fit Tiling Battens and Roof Tiles.



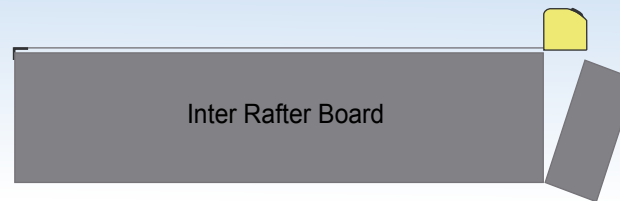
3. Measure the distance between rafters at multiple points along the rafter length.



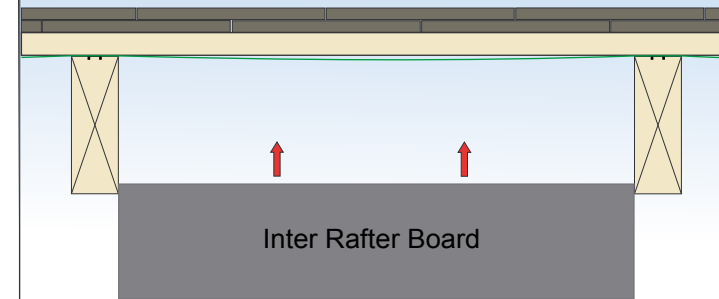
4. Transfer these measurements onto the *Raftertherm Inter Rafter Boards*.



5. Cut the *Inter Rafter Board* to fit between rafters with a fine tooth saw.

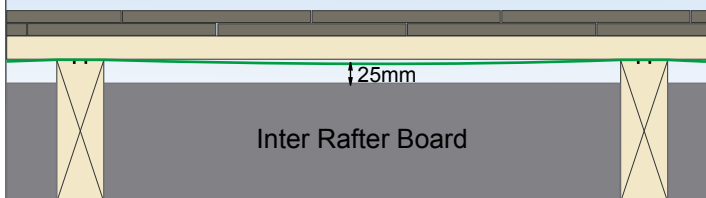


6. Fit *Raftertherm Inter Rafter Board*, ensuring a tight fit on all sides.



7. The *Raftertherm Inter Rafter Board* is finished flush to the under side of the rafters.

Ensure that a **minimum 25mm** void is left above the board. Repeat across area that requires insulating.



Standard Constructions

A U-value of 0.16W/m²K can be achieved by using the standard board combination of 115mm *Inter Rafter Board* and 50mm *Under Rafter Board*.

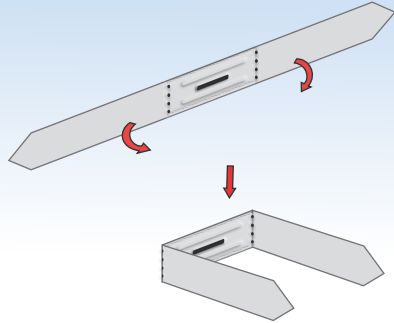
Non-Standard Constructions

Lower U-values may be obtained by the application of non - standard, purpose made *Alreflex Raftertherm Boards* (please contact our technical department for further advice on 01582 544255).

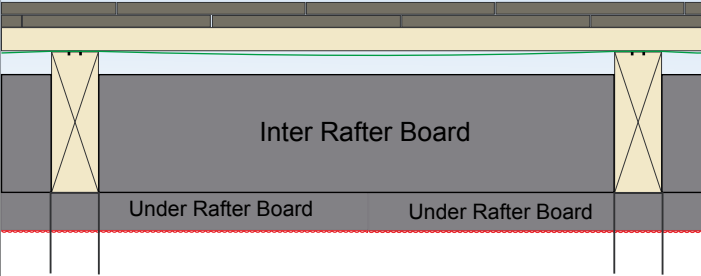
Under Rafter Board Installation

Important - The internal foil face forms a vapour barrier which is an important part of the *Raftertherm* system. Particular care and attention should be taken when taping the joints, wall junctions, cuts and punctures and around the *Raftertherm Brackets*.

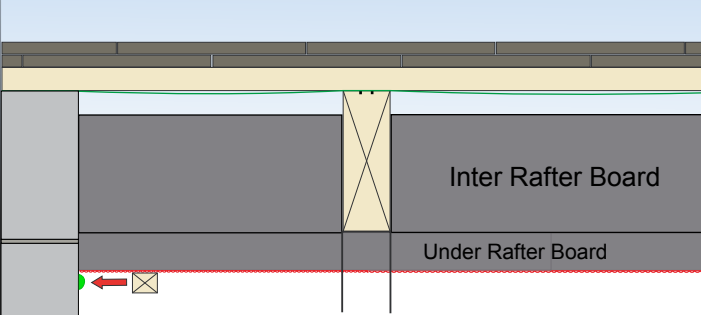
8. Bend *Raftertherm Brackets* into a U shape.



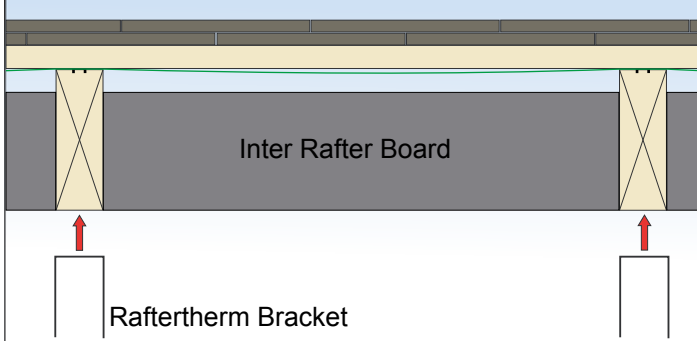
11. The *Raftertherm Under Rafter Board* should be pushed up tightly against the underside of the rafters. Repeat across roof, ensuring that the board edges are closely butted without gaps.



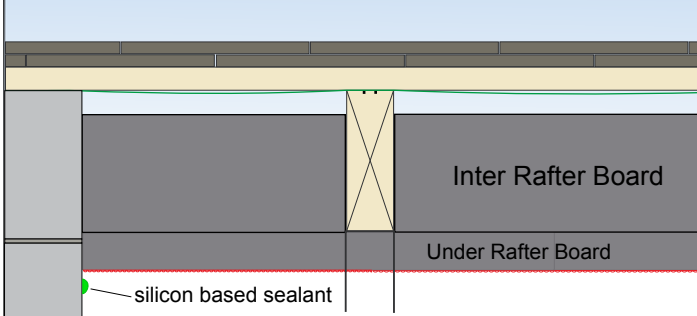
13. Fix 25mm deep battens to the wall beneath the *Under Rafter Board* to facilitate the installation of plasterboard.



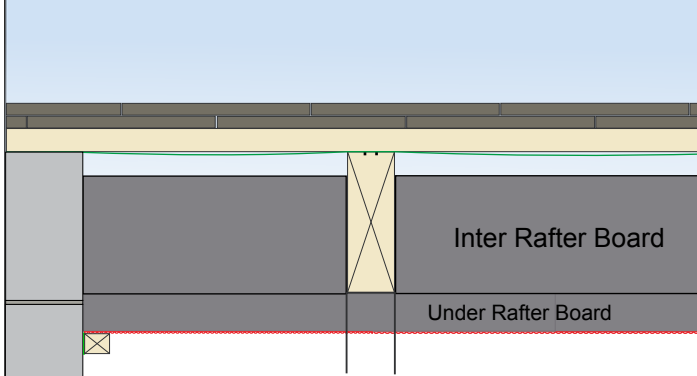
9. Fix *Raftertherm Brackets* to the underside of each rafter at 500mm centres with minimum 40mm No 8 screws.



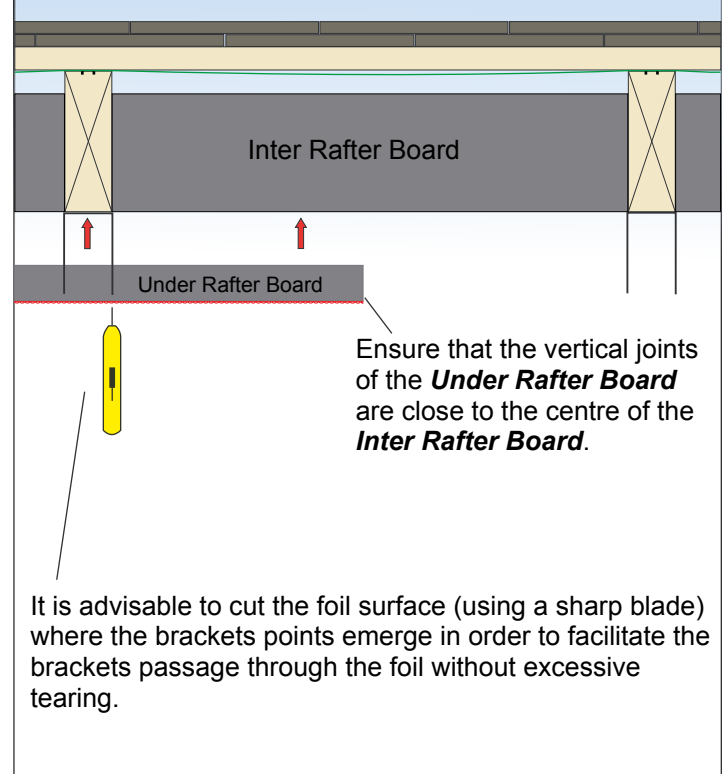
12. At junctions with masonry apply a continuous bead of silicon based sealant along the wall beneath the *Under Rafter Board*.



13(a).



10. Pierce the *Raftertherm Under Rafter Board* onto the *Raftertherm Brackets*, foil facing down into the room.

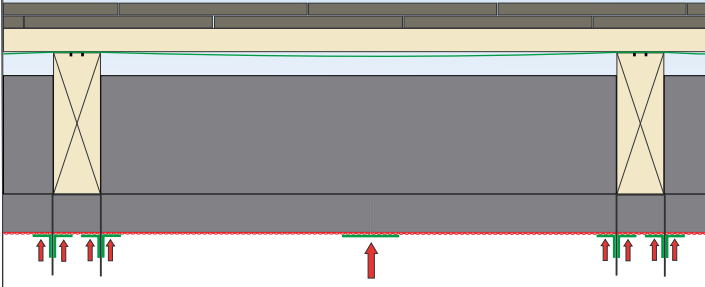


Important - When fitting recessed lighting a larger void between the *Under Rafter Board* and the plasterboard may be required. The vapour barrier should not be compromised to install any form of lighting. Please contact the Thermal Economics Technical Department for guidance.

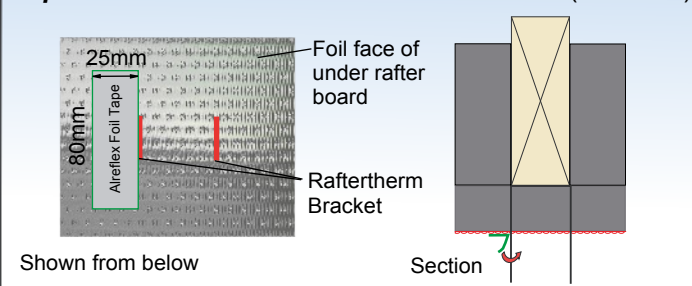
Important - Alreflex Raftertherm should be installed according to this guide in **New Build** applications, any deviance could lead to a risk of condensation build up within the structure. For details of refurbishment installation please consult our **Refurbishment Installation Guide**.

Dry Lining Installation

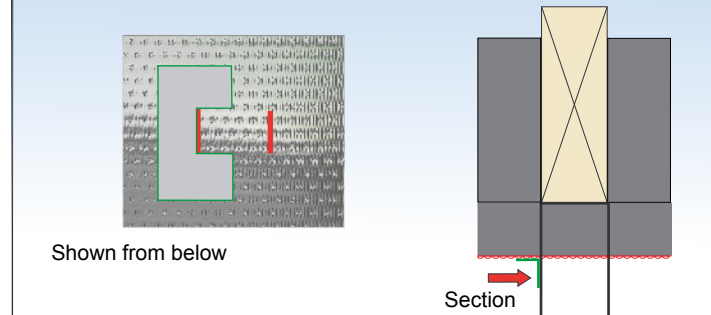
14. Tape all joints of the **Raftertherm Under Rafter Board** and junctions to walls with **Alreflex Foil Tape**. Tape around **Raftertherm Brackets** with **Alreflex Foil Tape**.



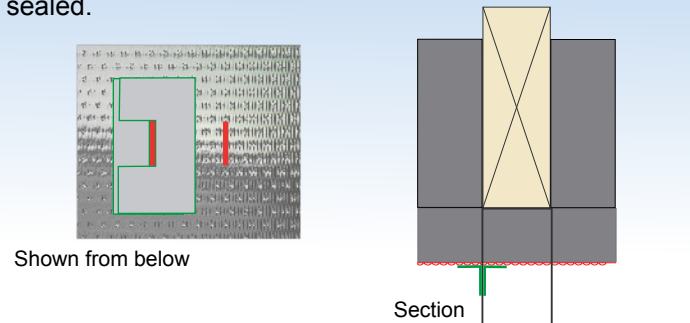
14(a). To tape around the **Raftertherm Brackets** cut an 80mm (approx) length of **Alreflex Foil Tape**. Adhere half of the 50mm width of the **Alreflex Foil Tape** to the **Raftertherm Under Rafter Board** (as below)



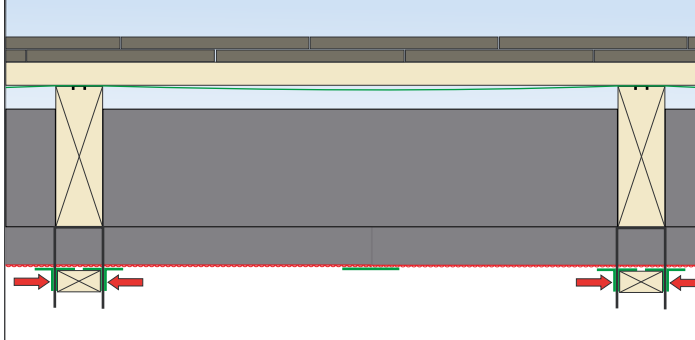
14(b). Cut the **Alreflex Foil Tape** around the protruding **Raftertherm Bracket** leg forming a C shape.



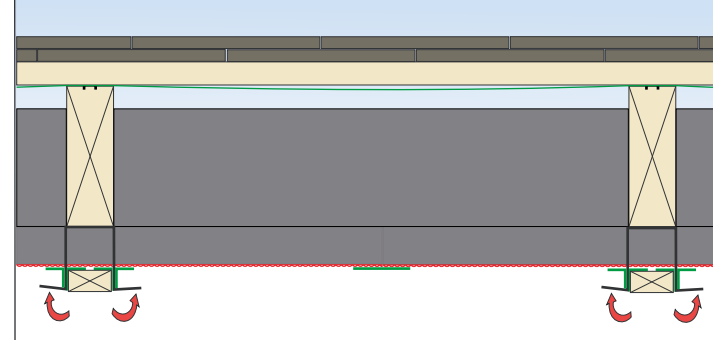
14(c). Repeat this procedure on the inside of the **Raftertherm Bracket** leg ensuring that all gaps are sealed.



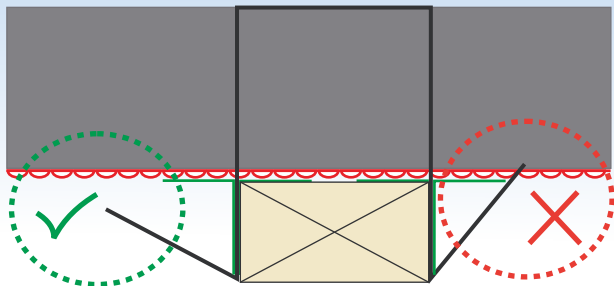
15. Fit 47 x 25mm SW battens in **Raftertherm Brackets** and fix through the sides using screws.



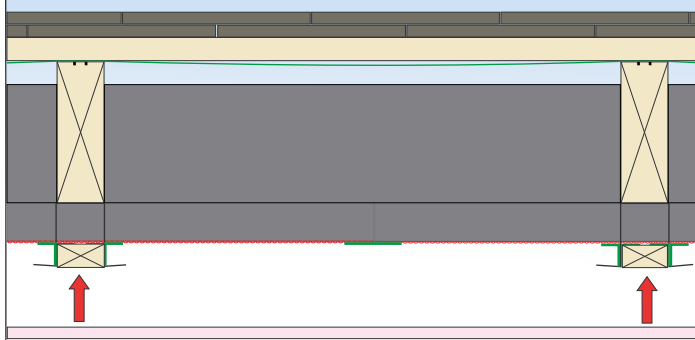
16. Bend the legs of the **Raftertherm Brackets** out to allow the fitting of the Plasterboard.



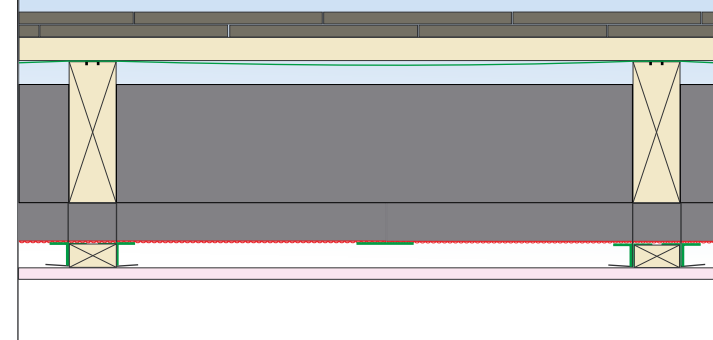
16(a) **DO NOT** bend the **Raftertherm Bracket** legs back far enough to puncture the foil layer.



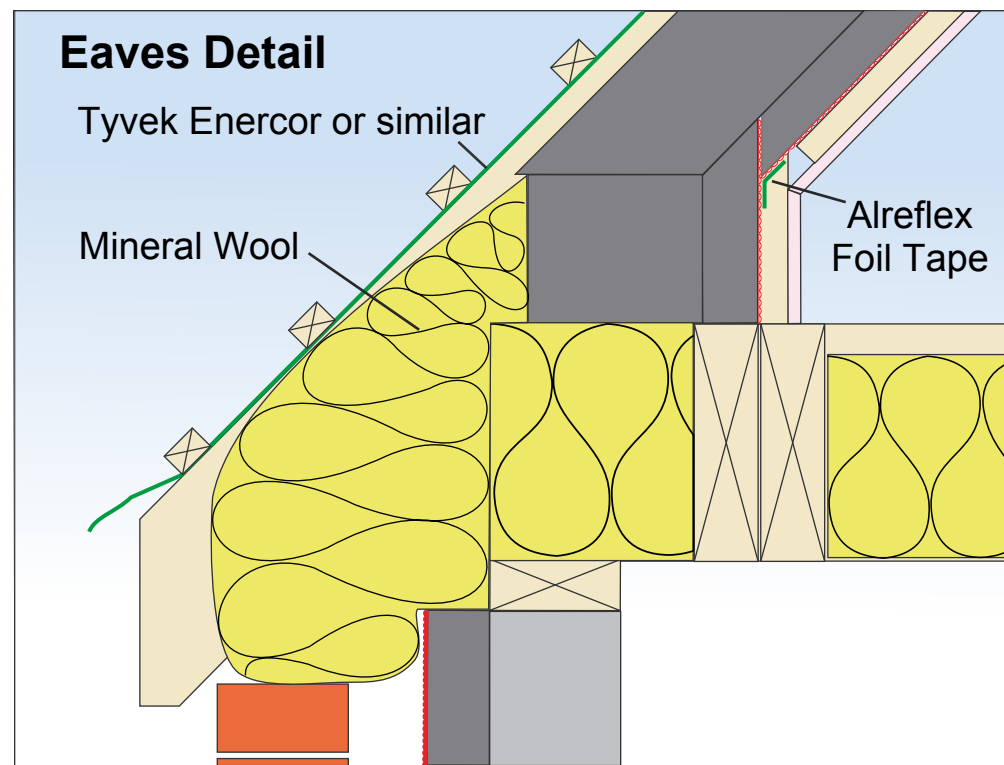
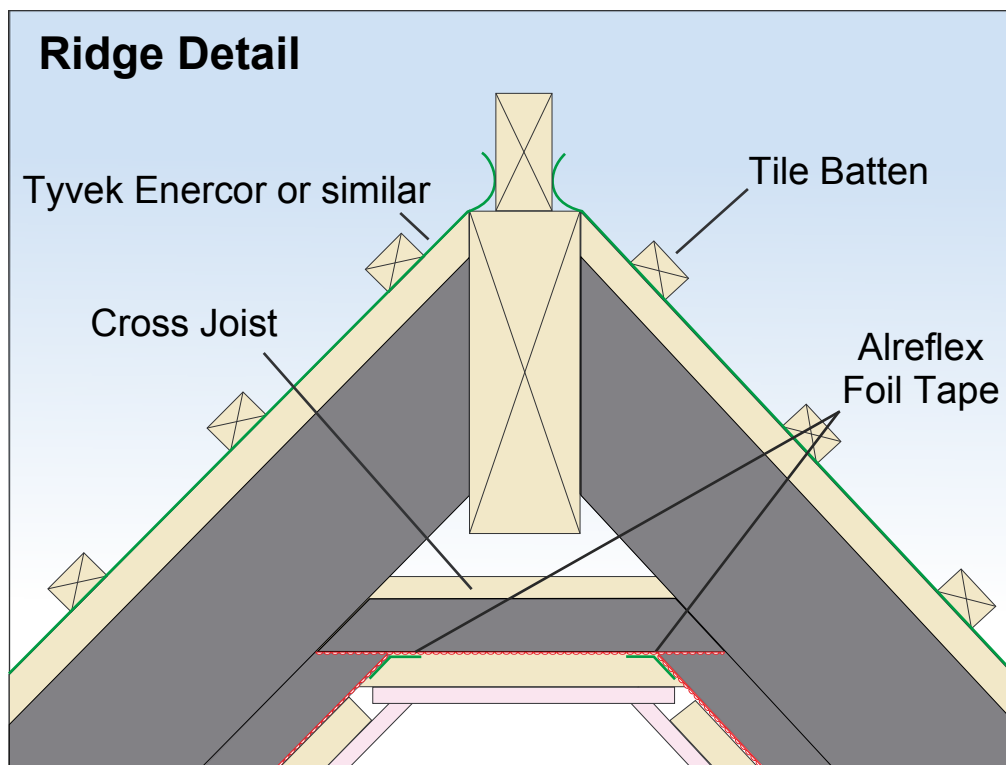
17. Fit Plasterboard by fixing into battens in the normal manner.



18.



Ridge and Eaves Installation



Please contact our Technical Department for further advice or regarding the treatment of roof constructions that are not compatible with the details given in the guide.

Tel: 01582 544255 Fax: 01582 429305 email: info@thermal-economics.co.uk