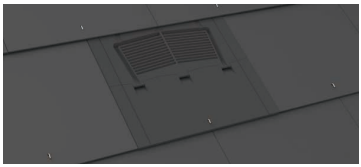
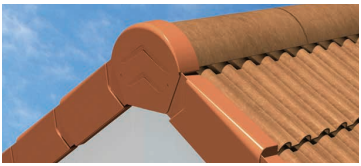
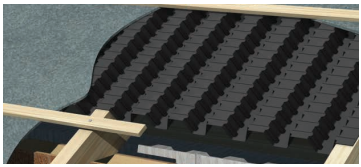
Manthorpe

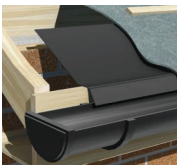
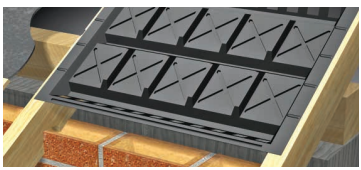
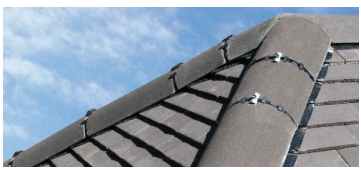
Roofing Products Guide







Professional solutions for the building industry

From our first venture into the building industry in 1986, through to our latest product innovations, Manthorpe Building Products has grown year on year thanks to a philosophy of continuous investment and development. For over 30 years we have pushed the boundaries of design and pioneered the use of new technologies within the industry to provide our customers with the highest quality building, roofing and plumbing products available.

From our state-of-the-art facilities in the heart of Derbyshire we produce a range of market leading products for every aspect of building construction, from groundwork to the roofline, from newbuild to retrofit. We pride ourselves on offering high quality innovative products and on providing excellent customer service and technical support.

In 2018, after a successful 32-year history, we were acquired by the Polypipe Group.

Tel 01773 514 200 | **Email** bpsales@manthorpe.co.uk

Quality roofing solutions from Manthorpe

BS 8612

Improving standards for dry fix roofing systems

All of Manthorpe's dry fix ridge & verge systems are fully BS 8612 compliant!

BS 8612 Compliant

On February 1st 2018, a new British Standard titled ***'BS 8612: Dry fixed ridge, hip, and verge systems for slating and tiling – Specification'*** came into effect to help provide guidance to the roofing industry on the performance and quality of dry fix roofing systems.

The performance based tests in BS 8612 provide a **Design Resistance** for the product tested. This value can then be compared to the calculated design loads required for the product when used on a particular detail in a specific part of the country to allow specifiers to assess its suitability.

Comparing apples to apples ...

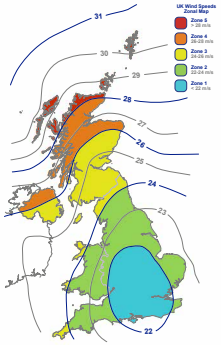
The new British Standard has been written in response to a shift in the industry in recent years toward the use of dry fix systems over traditional mortar bedding and the subsequent rise in competing products within the market. High levels of competition can lead to a dip in quality, and BS 8612 aims to address this by providing specific guidance on a range of performance criteria and a standardised metric in which all systems can be compared.

Testing, testing, testing.

The new standard contains two key types of testing; those with a simple pass or fail criteria and those that provide a performance value for the product which can be measured against customer requirements. Within the different types of testing there are seven key elements that are carried out to determine the performance of dry-fix products against the requirements of BS 8612:2018.

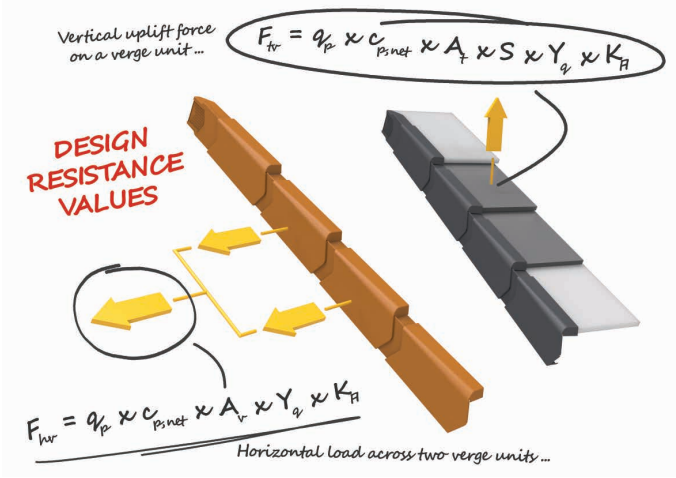
- Tensile strength*
- Peel adhesion*
- Ridge-roll elongation
- Rain drainage*
- Wind uplift resistance
- Horizontal wind resistance
- Durability (UV aging)*

*Of the seven key tests, only four require a clear-cut pass or fail, others provide a performance based result.



Performance based test results:

Calculated loads take into account a number of factors such as the exposed area of the roof, projected wind speeds, height of the property and other positioning and material safety factors. Wind uplift calculations use a zonal map to calculate the wind loads, the exposure rating of the building increases the risk of wind uplift so, buildings further north, or in coastal or elevated areas are more at risk.



Formulas such as these can be used to calculate a minimum resistance force that the ridge or verge element must withstand. Building designers, can then use these against the tested design resistance values to understand if a product will be suitable for use on their buildings.

Dry fix verge systems

Minimum fitting time, maximum protection

Following an update to BS 5534 in 2014 the traditional methods of finishing and securing the verge details of a roof with so called ‘wet’ trades have now been replaced in modern roof construction with the security, speed and flexibility offered by dry fix verge systems.

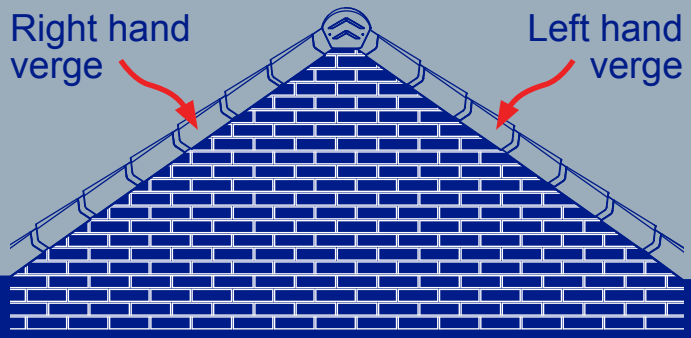


Illustration shows left and right hand verge units as viewed from outside the building. Note: careful attention should be taken when specifying ‘left’ and ‘right.’

Replacing mortar, what's the point?

Experience has shown that when traditional mortar is used to secure verge details it will usually fail during the life of the building leading to costly remedial work to areas of a property which are notoriously difficult to access. These ‘wet’ trades are also time consuming, labour intensive and are hindered by adverse weather conditions such as rain and cold temperatures.

Negatives of mortar bedded verges:

- Time consuming and labour intensive
- Prone to failure and expensive to maintain
- Installation hindered by rain and cold
- Not compliant with BS 5534 without additional fixings

These drawbacks in addition to the 2014 update to BS 5534: Code of Practice for Slating and Tiling effectively banned the use of mortar without the use of additional mechanical fixings mean that dry fix systems can offer the installer considerable advantages over traditional methods, providing high performance, easy to fix, maintenance free solutions which not only speed up the job on site, but also offer long term financial benefits.

Manthorpe's range of dry fix verge solutions have been expertly designed to provide an extremely cost-effective alternative to a traditional mortar bedded verge that offers a neat finish and avoids all of the long term maintenance problems associated with wet fix trades.

Say goodbye to wet trades ...

Due to the way in which the systems are fitted, there is no need for the use of mortar, making the task of finishing the verge quick, easy and clean, as well as making it possible during frosts and other adverse weather conditions. The systems are also nailed/screwed into the roof structure, helping to comply with the NHBC requirements for mechanically fixed roofing elements.

Manthorpe produces multiple dry verge systems that are compatible with a wide range of roof coverings. The SmartVerge systems are designed for use with various sizes of interlocking concrete tiles, including those with a deep profile. The Linear system is a modular continuous verge and intended for use with slates, interlocking plain tiles and some flat interlocking concrete tiles.

Positives of Manthorpe Dry Verge Systems:

- Fast and easy to fit in all weather conditions
- Weatherproof and maintenance free
- Extremely secure, mechanically fixed in place
- Manufactured from a robust PVCu material
- Fully compliant to the BS 8612:2018 standards
- Independently wind tunnel tested by the BRE

With the Manthorpe fast fit dry verge systems you have an alternative that saves you time, increases your efficiency and delivers significant benefits to your customers.

GDV-RH / LH

Right/Left hand

Dry fix verge units

PVCu

Product Features

- The units are manufactured from a robust PVCu material
- Compatible with large format interlocking concrete tiles
- Suitable for batten gauges between 280mm and 345mm
- Suits both new build roofs and refurbishment situations
- Complies with BS 5534 requirements for mechanical fixing

The versatile dry fix SmartVerge PVCu system is a fast and effective method for finishing the verge of roof that has been fitted with large format, interlocking concrete tiles. The individual verge units cap the end of each course of tiles to provide an unobtrusive, weatherproof cover whilst preserving the 'stepped' appearance of the roof tiles.

The system fully complies to the requirements of BS 8612 and has been independently wind tunnel tested by the BRE.[1]

The system is compatible with large format interlocking concrete tiles from the major UK manufacturers; Marley Eternit, Redland, Sandtoft, Russell and Lagan. Some tile profiles may not have been tested, but may still work in conjunction with the system.

Specification Guide

Product Code	Hand	Pitch Range	Gauge Range	Box Qty
GDV-RH	Right	15° to 55°	280 - 345mm	50
GDV-LH	Left	15° to 55°	280 - 345mm	50

The verge units are available in terracotta, slate grey, brown, white and black.

GDV-END-A / R

Round/Angled

Ridge end caps

PVCu

Product Features

- The units are manufactured from a robust PVCu material
- Compatible with the SmartVerge and Linear Verge systems
- Available to suit both round and angled styles of ridge tile
- Suits both new build roofs and refurbishment situations
- Each cap is supplied with two stainless steel fixing screws

The round and angled ridge end caps work in conjunction with both the SmartVerge dry verge system and Linear dry verge systems to provide a neat and attractive finish at the apex of the verge. The caps can also be used to finish off the end of a roll-out dry fix ridge system.

The caps are designed to accommodate most makes of half and third round concrete or clay ridge tiles, along with most common angled variants as well.

The ridge end caps provide durable protection at each end of the ridge, eliminating problems caused by water penetration whilst preventing the entry of birds and large insects into the roof cavity. Each end cap is supplied with a set of stainless steel fixing screws to allow it to be quickly and easily fixed.

Specification Guide

Product Code	Shape	Fixings Provided	Box Qty
GDV-END-A	Angled	Yes	20
GDV-END-R	Round	Yes	20

The ridge end caps are available in terracotta, slate grey, brown, white and black.

[1] *"In all of the tests the Manthorpe GDV verges resisted the wind tunnel's maximum wind speed of 48m/s (108mph) without showing any signs of distress or damage."* - BRE Report Number 224-493.

GDV-EC

Eaves closure unit

Product Features

- First component of the dry verge system to be installed
- Closures are ambidextrous & can be used on either hand
- Each closure is supplied with 2 annular shank fixing nails
- The units are manufactured from a robust PVCu material
- Complies with BS 5534 requirements for mechanical fixing

The eaves closure unit is the foundation of the dry verge system onto which the first verge unit is attached. The units neatly close off the end of the first verge piece, providing an aesthetic cap which also prevents the entry of birds and large insects into the building structure through the base of the roof verge.

The closure units can be fixed into a mounted verge timber, or into the end of the fascia or barge board, the first dry verge is then clipped securely over the eaves closure providing a strong foundation for the remainder of the system. The design is ambidextrous in nature and can be used on both verges of the roof.

Packed in bags of 2 units to allow the fitting of a full duopitch gable verge detail, they are supplied in boxes of 40 units complete with fixings (20 bags of 2 units).

Specification Guide

Product Code	Hand	Rebated	Box Qty
GDV-EC	Both	No	40

The closure units are available in terracotta, slate grey, brown, white and black.

GDV-REC

Rebated eaves closure unit

Product Features

- Rebated opening allows space for the gutter to fit inside
- First component of the dry verge system to be installed
- Closures are ambidextrous & can be used on either hand
- Each closure is supplied with 2 annular shank fixing nails
- The units are manufactured from a robust PVCu material

The rebated eaves closure is the foundation of the system onto which the first verge unit is attached. The closure allows for adequate clearance for extended guttering and also prevents the entry of birds and large insects into the building structure through the base of the roof verge.

The design is ambidextrous in nature and can be used on both verges of the roof. The closure units can be nailed into a mounted verge timber, or into the end of the fascia or barge board, the first dry verge is then clipped securely over the eaves closure providing a strong foundation for the remainder of the system.

As the units are recessed into the bottom of the verge, they are not coloured like the standard closures and are only available in black. They come bagged in pairs complete with a set of fixings and installation instructions.

Specification Guide

Product Code	Hand	Rebated	Box Qty
GDV-REC	Both	Yes	40

The rebated eaves closure units are only available in black.

GLV-RH / LH

Right/Left hand Linear dry verge units

Product Features

- The units are manufactured from a robust PVCu material
- Compatible with slates, flat and interlocking plain tiles
- Suitable for use with slates fitted on sarking board details
- Suits both new build roofs and refurbishment situations
- Complies with BS 5534 requirements for mechanical fixing

The linear dry verge system provides a mechanically secured, dry fix solution for finishing the verge of a roof laid with a low profile covering such as fibre cement slates, natural slates, interlocking plain tiles and some large format flat concrete tiles.

The unique linear verge is Manthorpe's innovative version of a continuous verge but unlike other continuous verge systems, ours is both quick and easy to install. The linear verge units are modular by design making them substantially more rigid and can be handled easily by one person.

The linear dry verge system fully complies to the requirements of BS 8612 and has also been independently wind tunnel tested by the BRE.[2]

Specification Guide

Product Code	Hand	Pitch Range	Max Verge Depth	Box Qty
GLV-RH	Right	15° to 55°	100mm	20
GLV-LH	Left	15° to 55°	100mm	20

The verge units are available in terracotta, slate grey, brown, white and black.

GLV-FC

Linear verge Eaves fixing clip

Product Features

- The units are manufactured from a robust PVCu material
- First component of the linear verge system to be installed
- Closures are ambidextrous & can be used on either hand
- Can be used to secure verge units at changes of pitch
- Each fixing clip is supplied with two annular shank nails

The linear dry verge fixing clip's primary use is to provide a mounting point for the first verge unit at the eaves. It can also be used to provide additional fixing points along the length verge.

The fixing clip can be nailed to an additional batten strip which is fixed to the underside of the verge. The lower end of the first verge unit is then clipped securely over the clip providing a strong fix to the eaves. For roofs where the bottom course tiles are tilted upwards, two fixing clips can be used to secure a cut section of linear verge unit to the verge, a third fixing clip should then be used to start the continuous run.

The ambidextrous design can be used on both the left and right hand verges and is completely concealed after installation of the system.

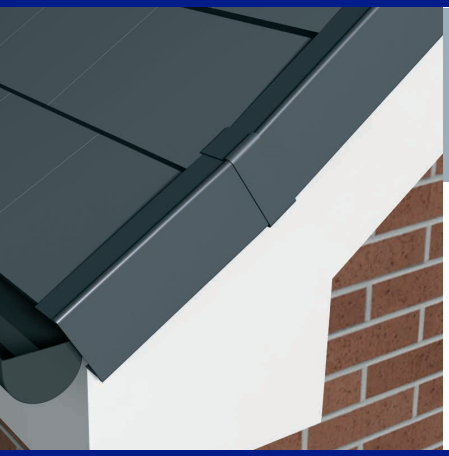
Specification Guide

Product Code	Hand	Max Verge Depth	Box Qty
GLV-FC	Both	100mm	20

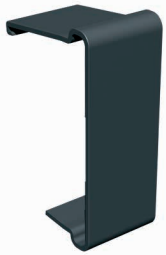
As the fixing clips are not visible once installed, they are only available in black.

[2] *"In all of the tests the Manthorpe GLV verges resisted the wind tunnel's maximum wind speed of 48m/s (108mph) without showing any signs of distress or damage."* - BRE Report Number 237-548.

GLV-VU



Linear verge
Verge union



Product Features

- Covers the joint between two verges at a change of pitch
- The units are manufactured from a robust PVCu material
- Simply clips over the verge into position, no fixing required
- Colour range to match the rest of the linear system
- Unions are ambidextrous & can be used on either hand

The linear dry verge unions are designed to cover over a joint where two linear verge units abut each other at a change of pitch. At this point the two units are not in line and unless cut precisely at the right angle, there will be a small gap between the two units.

This detail will most likely occur on roofs where the bottom course tiles are tilted upwards, GLV-FC fixing clips should be used to join the two linear verge units abutting at different angles, with the verge union used to mask the joint.

The verge union is available in slate grey, black, white, terracotta and dark brown to complement the full range of linear verge units and ridge end caps.

Specification Guide

Product Code	Hand	Material	Box Qty
GLV-VU	Both	PVCu	20

The verge unions are available in terracotta, slate grey, brown, white and black.

GLV-EE

Linear verge
Eaves end closer

Product Features

- Can be used to close off the end of the first verge piece
- Colour range to match the rest of the linear system
- Securely held in place with adhesive for a discreet fixing
- Closures can be used on right and left hand
- The units are manufactured from a robust PVCu material

The linear dry verge eaves end are used to neatly finish and close the bottom section of the first linear verge unit down at eaves level.

The eaves end is designed to slide into the end of the bottom Linear Dry Verge unit and should be secured in place using a suitable adhesive.

The end closer units are made from robust PVCu and are available in a variety of colours to match the rest of the components from the linear dry verge system.

Specification Guide

Product Code	Hand	Material	Box Qty
GLV-EE	Both	PVCu	20

The closer units are available in terracotta, slate grey, brown, white and black.

GPPV-RH / LH

Right/Left hand

Dry fix verge units

Polypropylene

Product Features

- The units are manufactured from robust polypropylene
- Compatible with small and large format interlocking concrete tiles (382 x 227mm to 430 x 380mm)
- Suits both new build roofs and refurbishment situations
- Complies with BS 5534 requirements for mechanical fixing

The versatile dry fix SmartVerge Polypropylene system is a fast and effective method for finishing the verge of roof that has been fitted with small or large format, interlocking concrete tiles. The individual verge units cap the end of each course of tiles to provide an unobtrusive, weatherproof cover whilst preserving the 'stepped' appearance of the roof tiles.

The verge system fully complies to the requirements of BS 8612 and has also been independently wind tunnel tested by the BRE.[3]

The system is compatible with small and large format interlocking concrete tiles from the major UK manufacturers; Marley Eternit, Redland, Sandtoft, Russell and Lagan. Some tile profiles may not have been tested, but may still work in conjunction with the system.

Specification Guide

Product Code	Hand	Pitch Range	Gauge Range	Box Qty
GPPV-RH	Right	15° to 55°	255 - 345mm	50
GPPV-LH	Left	15° to 55°	255 - 345mm	50

The verge units are available in terracotta, slate grey, brown and black.

GPPV-AMBI

Ambidextrous

Dry fix verge units

Polypropylene

Product Features

- The units are manufactured from robust polypropylene
- Compatible with small and large format interlocking concrete tiles (382 x 227mm to 430 x 380mm)
- Suits both new build roofs and refurbishment situations
- Complies with BS 5534 requirements for mechanical fixing

The versatile dry fix SmartVerge Ambidextrous system is a fast and effective method for finishing the verge of roof that has been fitted with small or large format, interlocking concrete tiles. The individual verge units are not handed and so can be fitted to either side of the verge to cap the end of each course of tiles to provide an unobtrusive, weatherproof cover to the roof tiles.

The system is compatible with small and large format interlocking concrete tiles from the major UK manufacturers; Marley Eternit, Redland, Sandtoft, Russell and Lagan. Some tile profiles may not have been tested, but may still work in conjunction with the system.

Like the handed units, the system fully complies to the requirements of BS 8612 and has also been independently wind tunnel tested by the BRE.[3]

Specification Guide

Product Code	Pitch Range	Gauge Range	Box Qty
GPPV-AMBI	15° to 55°	255 - 345mm	50

The verge units are available in terracotta, slate grey, brown and black.

[3] *"tests on the Manthorpe Ambi and Handed PP SmartVerge systems show that the verges will resist wind speeds of at least 45m/s (100mph) without failing." - BRE Report No. P110111-1000*

GPPV-END-A / R

Round/Angled Ridge end caps

Polypropylene

Product Features

- Compatible with the SmartVerge Polypropylene (handed) and SmartVerge Ambidextrous systems
- Available to suit both round and angled styles of ridge tile
- Suits both new build roofs and refurbishment situations
- Each cap is supplied with two stainless steel fixing screws

The round and angled ridge end caps work in conjunction with both the SmartVerge Polypropylene dry verge system and Ambidextrous dry verge systems to provide a neat and attractive finish at the apex of the verge. The caps can also be used to finish off the end of a roll-out dry fix ridge system.

The caps are designed to accommodate most makes of half and third round concrete or clay ridge tiles, along with most common angled variants as well.

The ridge end caps provide durable protection at each end of the ridge, eliminating problems caused by water penetration whilst preventing the entry of birds and large insects into the roof cavity. Each end cap is supplied with a set of stainless steel fixing screws to allow it to be quickly and easily fixed.

Specification Guide

Product Code	Shape	Fixings Provided	Box Qty
GPPV-END-A	Angled	Yes	20
GPPV-END-R	Round	Yes	20

The ridge end caps are available in terracotta, slate grey, brown and black.

GPPV-REC

Rebated eaves closure unit

Polypropylene

Product Features

- Rebated opening allows space for the gutter to fit inside
- First component of the dry verge system to be installed
- Closures are ambidextrous & can be used on either hand
- Each closure is supplied with 2 annular shank fixing nails
- The units are manufactured from robust polypropylene

The rebated eaves closure is the foundation of the system onto which the first verge unit is attached. The closure allows for adequate clearance for extended guttering and also prevents the entry of birds and large insects into the building structure through the base of the roof verge.

The design is ambidextrous in nature and can be used on both verges of the roof. The closure units can be nailed into a mounted verge timber, or into the end of the fascia or barge board, the first dry verge is then clipped securely over the eaves closure providing a strong foundation for the remainder of the system.

As the units are recessed into the bottom of the verge, they are not coloured like the standard closures and are only available in black. They come bagged in pairs complete with a set of fixings and installation instructions.

Specification Guide

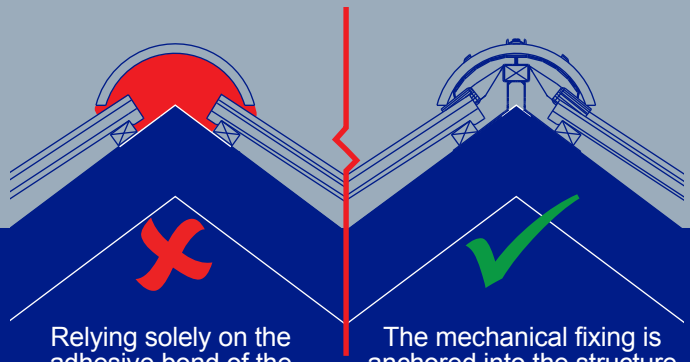
Product Code	Hand	Rebated	Box Qty
GPPV-REC	Both	Yes	40

The rebated eaves closure units are only available in black.

Roll-out ridge & hip

Dry fix roll-out ridge and hip systems from Manthorpe

Mortar is now seen as an insufficient means of securing tiles to the roof and any element secured by this method must also include a mechanical fix. These 'wet' trades are now being replaced in favour of the security and flexibility offered by roll-out dry fix systems.



Relying solely on the adhesive bond of the mortar to hold the ridge tile in position

The mechanical fixing is anchored into the structure of the roof, firmly securing the ridge tile in place

Mechanical fixing requirements

The latest revision of BS 5534 the Code of Practice for Slating and Tiling, has sought to bring the document up to date with modern building practices. The standard has recognised the need for a change in the use of mortar alone to fix roofing elements in place, which had been identified as the single largest cause of roof failures.

In particular this applies to the fixing of ridge and hip tiles, which was identified by the N.H.B.C as the number one cause of roof failures that resulted in claims. To this end, BS 5534 now states that even if mortar is used, then the ridge and hip tiles must also be mechanically secured to the roof.

The use of fixings in addition to mortar may require an additional batten to fix to, which itself is mechanically fixed to the rafters. This is often difficult to install and still does not remove the risk of subsequent mortar failure resulting in the roof leaking causing damage to the property.

The simplest and most cost effective way of complying with the new standard is to switch to dry fix roofing.

Roll-out the solution ...

Manthorpe dry fix ridge and hip systems can offer the installer considerable advantages over traditional "wet trade" methods of mortar bedding. The kits provide a high performance, easy to fix and maintenance free solution which can not only speed up the job on site, but also offer long term financial benefits.

Due to the nature in which the products are fitted, there is no need for mortar, making the job of fixing the ridge and hip tiles quick, easy and clean, as well as making it possible during adverse weather conditions.

The systems are compatible with most makes of concrete ridge and hip tiles, both round and angled, that are available from the major tile manufacturers. These can then be fitted onto many different roof coverings including; slates, flat and most profiled concrete and clay tiles.

The dry ridge and hip systems provide all of the components required for a run of 6 metres in length, excluding the ridge/hip tiles (a 3 metre ridge kit is also available).

The roll flashing is available in 2 different colours (Black and Dark Brown) and can be used in conjunction with Manthorpe's ridge end caps and both their SmartVerge and Linear dry verge systems.

The Manthorpe Roll-Out Dry Fix Ridge and Hip Systems are also fully compliant to the requirements of BS 8612 standard and have also been independently wind tunnel tested by the BRE.[4]

[4] "*The tests on the GDRR system show that it will resist wind speeds of at least 48.5m/s (108mph) and under the representative driving rain conditions the system did not leak.*" - BRE Report Number 245-269.

GDRR

Roll-out dry ridge systems

Vented ridge roll

Batten support brackets

Universal ridge unions

(Standard or clay)

Product Features

- Mechanically secure dry fix system, no need for mortar
- Provides a 5,000mm²/m of ventilation into the roof space
- 3 or 6 metre roll kits are available for various project sizes
- Quick and easy to fix with no special tool requirements
- Ends can be finished off with the dry verge ridge end caps

Product Compatibility

- Compatible with most concrete round & angled ridge tiles
- A clay union is available for wider and thicker ridge tiles
- Suitable for roof pitches between 15 and 45 degrees
- The vent roll can be used with flat along with both High and Low profile coverings in accordance with BS 8612.

The GDRR roll-out ridge systems are a dry fix alternative to laying ridge tiles on a wet mortar bed. The ridge tiles are mechanically secured to the structure of the roof protecting them from wind uplift in accordance with BS 5534 requirements.

A ridge roll is laid below the ridge tiles, which weatherproofs the detail and provides ventilation to the roof void of 5,000mm²/m whilst preventing the entry of large insects into the roofspace.

The system can be fitted to most duo pitch roofs which have a pitch between 15 and 45 degrees.

3 and 6 metre packs of the standard and clay (CL) systems are available to suit jobs of any size and an extra union is included in each pack to join multiple kits together for longer ridge runs.

Specification Guide

Product Code	Roll Length	No. of BSB	No. of Unions	Airflow
GDRR	6m	10	13	5,000mm²/m
GDRR-3M	3m	5	7	5,000mm²/m
GDRR-CL	6m	10	13	5,000mm²/m
GDRR-3M-CL	3m	5	7	5,000mm²/m

The roll edge flashing is available in black and dark brown.

System Components

The batten support brackets are designed to provide a stable and secure platform to fix a horizontal ridge batten at the apex of a truss rafter roof, onto which the rest of the system can be mounted.

The 3m or 6m long ventilated ridge roll is placed along the length of the apex prior to the ridge tiles being installed. The malleable, corrugated aluminium edges allow the roll to be shaped to the profile of the roof tiles, suiting both High and Low profile categories.

The ridge unions sit in the gaps between each of the ridge tiles, holding adjacent tiles in line and mechanically fixing them to the roof structure. The unions are flexible and can be bent to suit the shape of the tile, whether round or angled. Unions are also available for typically thicker clay tiles and additional union packs can be bought separately for ridge tiles shorter than 450mm.

Specification Guide

Product Code	Fixings Included	Screw Length	Pitch Range	Box Qty
GDRR-RU	Yes	4"	15° - 45°	12
GDRR-RU-CL	Yes	4"	15° - 45°	12

Unions are only available in black, the metal clamp plate has a brushed metal finish.

GDRH

Roll-out dry hip systems

Product Features

- Mechanically secure dry fix system, no need for mortar
- Hip support trays keep the run of hip tiles straight & level
- A box supplies enough components for a 6m run of hip
- Quick and easy to fix with no special tool requirements
- Fixings provided to secure the first and the last hip tiles

The GDRH roll-out dry hip system provides a quick, easy and neat solution to the fixing of tiles down the hip of a roof without the need for mortar.

The universal system can be used with most concrete hip tiles and roof coverings, a clay hip system is also available for thicker tiles. It will also work on variable pitches and angles of roof. The hip support trays ensure a straight hip line as well as providing additional weatherproofing down the length of the run.

The hip kit will work in conjunction with the GDRR ridge system to allow the user to create a fully dry fixed roof construction. For the best practice on securing the cut tiles or slates at the hip intersection, please refer to the roof covering manufacturer's guidelines for the detail.

Specification Guide

Product Code	Roll Length	No. of Support Trays	No. of Unions
GDRH	6m	6	13
GDRH-CL	6m	6	13

The roll edge flashing is available in black and dark brown.

GDRH-HC

Universal hip end closer

Product Features

- Designed to fit with all major angled or round hip tiles
- Removes the need for mortar when dry fixing a hip detail
- Flexible comb fingers fill up the underside of the tile profile
- No need for a block end hip, a regular hip tile can be used
- Quick and easy to fix with no special tool requirements

When every other element of the modern roof has moved away from wet trades, mixing up a small amount of mortar to point up the end of a dry hip run is illogical.

As part of Manthorpe's extensive dry fix roofing range, the universal hip end closer offers a cost effective dry fix alternative to mortaring in the end of a roll-out hip system.

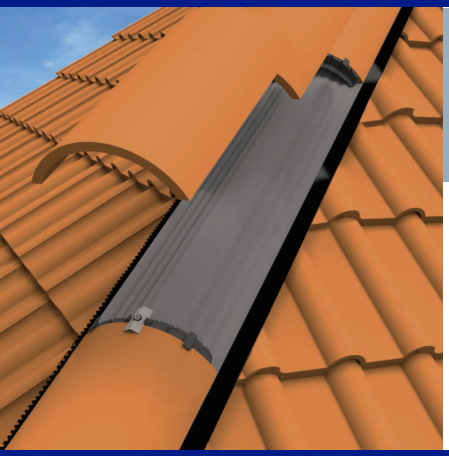
The flexible front face allows the product to conform to the profile of a standard hip tile which has been cut to a point at the end. The angled face closes off the end of the hip tile transforming it effectively into a block end tile. The closer is available in a range of colours to match with a wide range of hip tiles.

Specification Guide

Product Code	Tile Profile Compatibility	Fixing Included	Box Qty
GDRH-HC	Round & Angled	Yes	10

The hip end closer is available in black, terracotta, buff and dark brown.

GDRH-ST



Hip support tray

Product Features

- Hip support trays keep the run of hip tiles straight & level
- 1.1m lengths overlap by 100mm to form a continuous run
- Manufactured from a sturdy and robust PVC material
- Quick and easy to fix with no special tool requirements
- Supplied seperately for use with left over GDRR systems

The hip support tray is fitted above the vent roll when installing the GDRH dry hip system to provide a straight and level platform to support the tiles up the hip of the roof.

This is particularly necessary when using deep profiled or thick flat tiles as the large steps down each course will leave an uneven bed for the hip tiles to sit on.

The trays are 1100mm long and must overlap the tray below it on the hip by 100mm. The trays can easily be cut to length or shaped to the angles required at the eaves of the hip and ridge-hip junction by using a sharp utility knife.

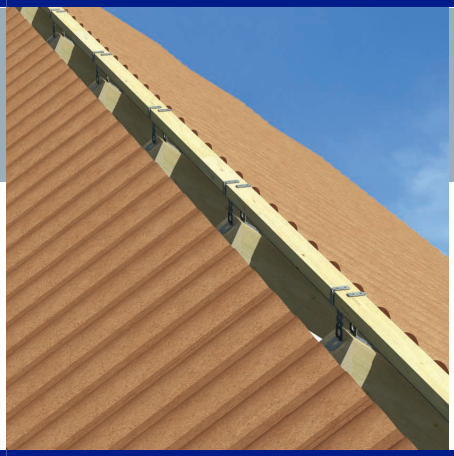
6 support trays are provided in the roll-out hip system, enough for a 6m run. Additional packs of hip support trays are also available.

Specification Guide

Product Code	Tray Length	Coverage Width*	Box Qty
GDRH-ST	1.1m	250mm	10

* Coverage based on uncompressed state, under load a wider lap may be achieved.

GDRR-FIXINGS



"Wet fix" Mechanical fixings

Product Features

- Used when a mechanical fix is needed on a wet fix detail
- A 4 inch screw ensures a strong fixing into the ridge batten
- The clamp plate braces over the tile, securing them down
- Quick and easy to fix with no special tool requirements
- Sealing washer ensures no water ingress down fixing hole

The NHBC requirement for mechanically fixed ridge and hip tiles has led to wet trades becoming seldom used on new build sites. However there is an aesthetic to a mortared ridge or hip that cannot be replicated with dry fix systems. To this end some new build and a substantial amount of rennovation work is still being done with wet trades.

To comply with the fixing requirements of BS 5534 and the NHBC when using mortar to bed the ridge and hip tiles, an additional mechanical fixing still needs to be used.

The GDRR-FIXING is a screw and clamp assembly which can be used in conjunction with a mortared detail to securely hold the ridge and hip tiles in place even if the mortar fails. A central ridge batten still needs to be installed to provide an anchor for the fixings; this can be achieved by using Manthorpe's GDRR-BS batten support brackets.

Specification Guide

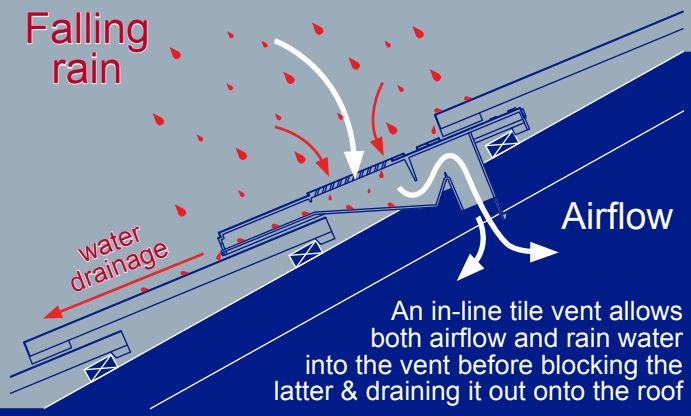
Product Code	Screw Length	Clamp Plate & Seal	Box Qty
GDRR-FIXINGS	4"	Yes	104*

* 104 individual fixing assemblies, the equivalent of 8 GDRR kits of 13 unions each.

Tile & slate ventilators

Roofspace ventilation and mechanical extraction solutions

The build up of condensation within the roof space remains an issue as the industry moves towards more energy efficient buildings. This problem is caused by the lack of adequate ventilation.



An in-line tile vent allows both airflow and rain water into the vent before blocking the latter & draining it out onto the roof

Through roof ventilation made easy

The Manthorpe range of tile and slate ventilators is designed to provide roof space ventilation, or an outlet for ventilation ducting, through a large variety of roof coverings. The vent profiles are universal in design and are compatible with the tile ranges from all major UK and Irish tile manufacturers.

The in-line design of the tile and slate vents along with the low profile cowl of the hooded slate vents offer a discreet, weather proof airflow path through the roof coverings with the recommended 4mm spaced grille openings to prevent the entry of debris and large nesting insects.

If the tile vent range is to be used with mechanical extraction or soil stack / vent pipe termination, then the GTV-AD Flexi Pipe Adaptor and one of the GRPA Flexible Pipes can be used. The slate vents, mini castellated and single pantile vents include a pipe adaptor as standard.

Available in a range of colours to suit most styles and makes of roof tiles on the market:

Slate Grey | Dark Brown | Terracotta | Anthracite Black | Antique Red

Illustrative colour swatches. Anthracite Black colour variant only available with the Non-Profile and Thin Leading Edge tile vents.

Granulated Plain Tile vents available with different colour options. See pg 35.

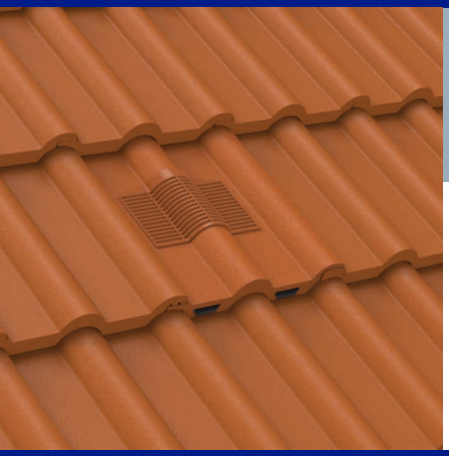
Testing times ...

Testing is an integral part of our design process; it helps us to ensure that the products we design are up to the task, and gives our customers the confidence that they have the right product for the job.

Our tile and slate ventilator range has been extensively tested by the BRE in the wind tunnel to the strict requirements of BS 5534 and the test standard pr EN 15601. The test simulates deluge and driving rain as expected once in a 50 year worst case storm conditions in the UK.

Testing Certificates:
Large format tile vents: BRE test report number: 267-473
Plain tile vent: BRE test report number: 287-217
Mini castellated vent: BRE test report number: 295-318
Single pantile vent: BRE test report number: 104-059
Interlocking plain tile vent: BRE test report number: 108-129

GTV-DR



Double roman tile vent

Product Features

- In-line and discreet low profile design in 4 different colours
- Provides 10,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The GTV-DR double roman in-line tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a double roman tiled roof. The low profile design suits the tiles from the leading manufacturers and is available in a range of colours with a textured finish.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 100mm

Designed for use with:

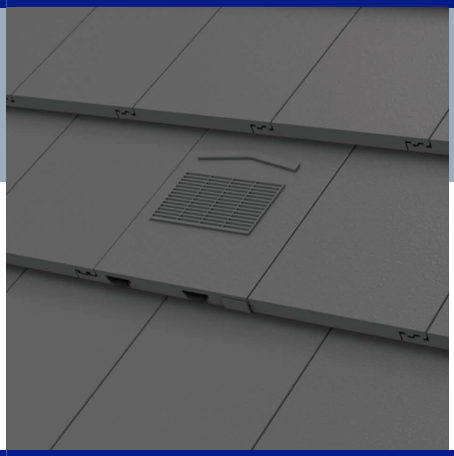
- Marley Double Roman
- Redland Double Roman
- Sandtoft Double Roman
- Russell Double Roman
- Lagan Double Roll

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-DR	10,000mm²	418 x 328	4

Colour suffixes are; GR - Slate Grey, TR - Terracotta, AR - Antique Red & BR - Dark Brown.

GTV-NP



Non-profile tile vent

Product Features

- In-line and discreet low profile design in 5 different colours
- Provides 10,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The GTV-NP Non-Profile in-line tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a flat tiled roof. The low profile design suits the tiles from the leading manufacturers and is available in a range of colours with a textured finish.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 100mm

Designed for use with:

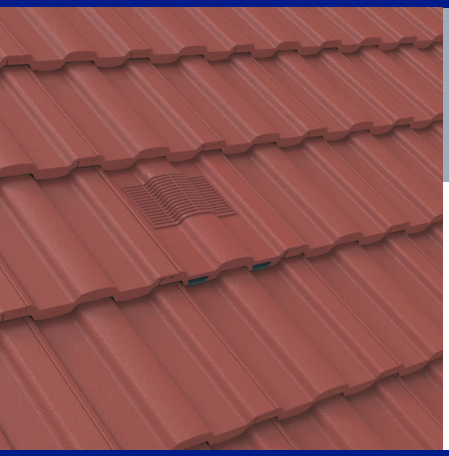
- Marley Modern
- Redland Mini Stonewold
- Sandtoft Calderdale
- Russell Grampian
- Lagan Flat Tiles

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-NP	10,000mm²	418 x 334	4

Colour suffixes are; BL - Black, GR - Grey, TR - Terracotta, AR - Antique Red & BR - Brown.

GTV-CS



Castellated tile vent

Product Features

- In-line and discreet low profile design in 4 different colours
- Provides 10,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The GTV-CS Castellated in-line tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a square topped profile tiled roof. The low profile design suits the tiles from the leading manufacturers and is available in a range of colours.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 100mm

Designed for use with:

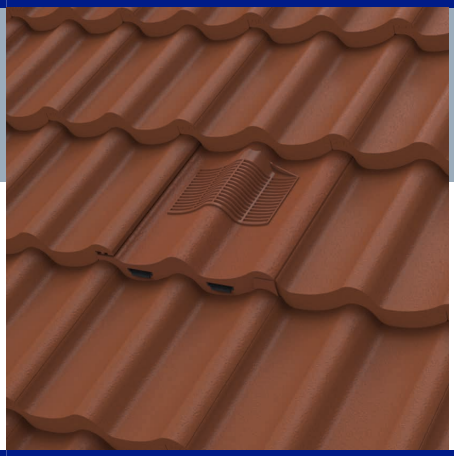
- Marley Ludlow Major
- Redland Renown
- Sandtoft Lindum
- Russell Cheviot
- Lagan Square Top Tiles

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-CS	10,000mm²	418 x 332	4

Colour suffixes are; GR - Slate Grey, TR - Terracotta, AR - Antique Red & BR - Dark Brown.

GTV-DP



Double pantile tile vent

Product Features

- In-line and discreet low profile design in 4 different colours
- Provides 10,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The GTV-DP Double Pantile in-line tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a double pantile roof covering. The low profile design suits the tiles from the leading manufacturers and is available in a range of colours with a textured finish.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 100mm

Designed for use with:

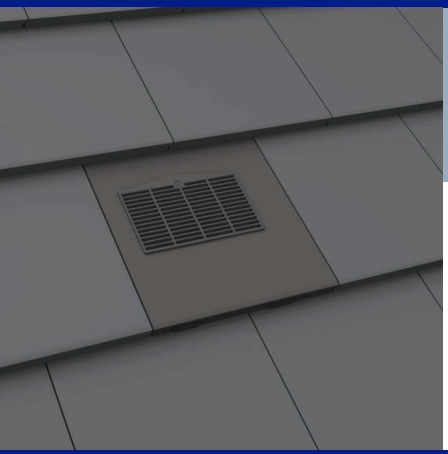
- Marley Mendip
- Redland Grovebury
- Sandtoft Double Pantile
- Russell Pennine

Specification Guide

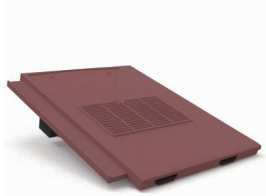
Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-DR	10,000mm²	418 x 332	4

Colour suffixes are; GR - Slate Grey, TR - Terracotta, AR - Antique Red & BR - Dark Brown.

GTV-TE



Thin leading edge tile vent



Product Features

- In-line and discreet low profile design in 5 different colours
- Provides 10,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Suits most thing leading edge tile profiles

The GTV-TE Thin Edge in-line tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a roof covered with thin leading edge flat tiles. The low profile design suits the tiles from the leading manufacturers and is available in a range of colours.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 100mm

Designed for use with:

- Marley Edgemere
- Redland Richmond 10
- Sandtoft TLE
- Russell Galloway
- Lagan Elite

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-TE	10,000mm²	418 x 332	4

Colour suffixes are; BL - Black, GR - Grey, TR - Terracotta, AR - Antique Red & BR - Brown.

GTV-FE

Flat edge tile vent

Product Features

- In-line and discreet low profile design in 5 different colours
- Provides 10,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Designed for use with the Calderdale Edge tile profile

The GTV-FE Thin Edge in-line tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a roof covered with Calderdale Edge flat tiles. The low profile design suits the tiles from the leading manufacturers and is available in a range of colours.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 100mm

Designed for use with:

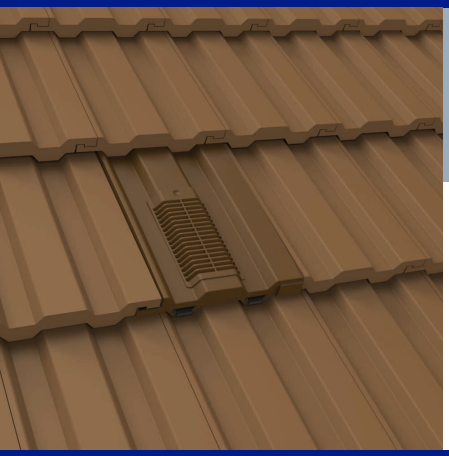
- Sandtoft Calderdale Edge

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-FE	10,000mm²	418 x 335	4

Colour suffixes are; BL - Black, GR - Grey, TR - Terracotta, AR - Antique Red & BR - Brown.

GTV-MC



Mini castellated tile vent

Product Features

- In-line and discreet low profile design in 4 different colours
- Provides 5,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof space, no adaptor required
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The small format GTV-MC mini castellated tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a roof covered with a 15"x9" format tile. The in-line profile helps to maintain an unbroken appearance to the roofline at high or low level. It suits the leading tile makes and is available in a range of colours.

- Can be installed on a minimum roof pitch of 17.5°
- Can be laid with a maximum headlap of 125mm

Designed for use with:

- Marley Ludlow Plus
- Redland 49
- Sandtoft Standard Pattern
- Forticrete V2

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-MC	5,000mm²	390 x 230	6

Colour suffixes are; GR - Slate Grey, TR - Terracotta, AR - Antique Red & BR - Dark Brown.

GTV-SP

Single pantile tile vent

Product Features

- In-line and discreet low profile design in 4 different colours
- Provides 5,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof space, no adaptor required
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The small format GTV-SP single pantile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a roof covered with a concrete single pantile. The in-line profile helps to maintain an unbroken appearance to the roofline at high or low level. Designed to suit the leading tile makes, it is available in a range of colours with a moulded textured finish.

- Can be installed on a minimum roof pitch of 20°
- Can be laid with a maximum headlap of 125mm

Designed for use with:

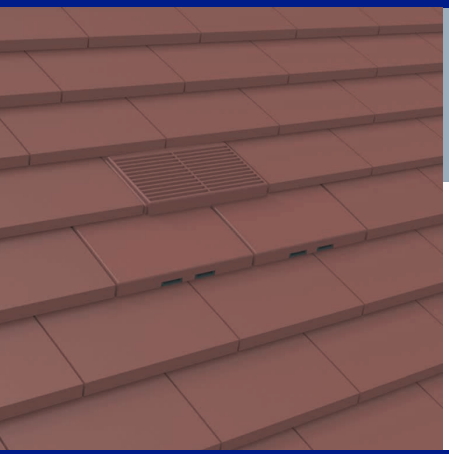
- Marley Anglia
- Redland Fenland
- Sandtoft Shire

Specification Guide

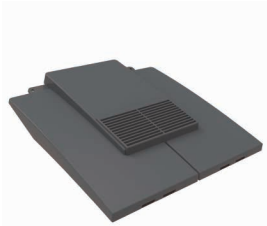
Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-SP	5,000mm²	395 x 230	6

Colour suffixes are; GR - Slate Grey, TR - Terracotta, AR - Antique Red & BR - Dark Brown.

GTV-PT



Plain tile vent



Product Features

- In-line and discreet low profile design in 4 different colours
- Provides 7,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu
- Independently wind tunnel tested by the BRE

The GTV-PT plain tile ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and mechanical extraction or soil stack termination through a plain tiled roof. The in-line profile helps to maintain an unbroken appearance to the roofline whether used at high or low level. It is designed to suit the tiles from the leading manufacturers and is available in a range of colours with a textured finish.

- Can be installed on a minimum roof pitch of 35°
- Can be laid with a batten gauge of 88 - 100 mm

Designed for use with:

- Traditional clay plain tiles
- Granular concrete plain tiles
- Smooth faced concrete plain tiles

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-PT	7,000mm²	330 x 331	6

Colour suffixes are; GR - Slate Grey, TR - Terracotta, AR - Antique Red & BR - Dark Brown.

GTV-PT-GRAN

Granular finish plain tile vent

In addition to the range of smooth faced ventilators, the plain tile vent is available with a granular finish. This rustic finish is designed to help the vent blend in when it is fitted onto a roof that has been covered with clay or concrete sand faced plain tiles.

Designed for use with:

The granular finish tiles are available in a range of 4 colours to suit a wide variety of traditional clay plain tiles with a rough granular finish such as the Acme from Marley Eternit or the classic Redland Rosemary tile, as well as other sand faced concrete plain tiles.

Colour Options:

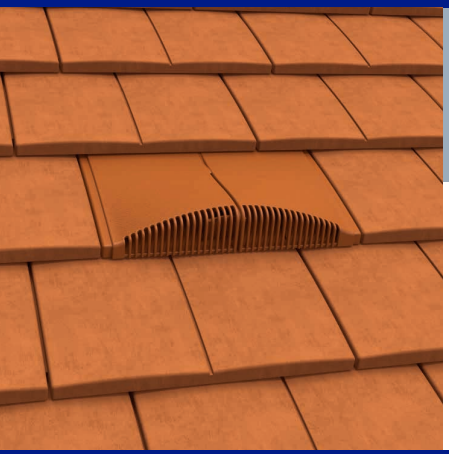
Antique Brown	Old Red	Sand Red	Light Brown

Specification Guide

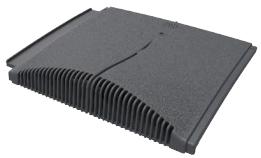
Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-PT-GRAN	7,000mm²	330 x 331	6

Colour suffixes; AB - Antique Brown, OR - Old Red, SR - Sand Red & LB - Light Brown.

GTV-IP



Interlocking plain tile vent



Product Features

- Innovative, patented design works with multiple profiles
- Provides 6,000mm² of free airflow per tile ventilator
- Outlet feeds into the roof, extraction adaptor available
- Made from durable PVCu, available in 4 colours
- Independently wind tunnel tested by the BRE

The GTV-IP Interlocking Plain Tile ventilator will suit all 3 styles of interlocking plain tiles, the patented design of the vent is adaptable to be used with the different coverage widths available by simply sliding the top section into the required position for your tile.

The curved, in-line profile helps to maintain an unbroken appearance to the roofline at high or low level with a range of colours available to suit varying roof styles.

- Can be installed on a minimum roof pitch of 22.5°
- Can be laid with a maximum headlap of 95mm

Designed for use with:

- Marley Ashmore - When set for 300mm coverage
- Redland DuoPlain - When set for 300mm coverage
- Forticrete Gemini - When set for 312mm coverage

Specification Guide

Product Code	Free Vent Area	Size (mm)	Box Qty
GTV-IP	6,000mm²	277 x 330	6

Colour suffixes are; GR - Grey, TR - Terracotta, AR - Antique Red & BR - Brown.

GTV-AD

Mechanical extraction adaptor

Product Features

- Vent outlet to 4" round adaptor for mechanical extraction
- Can also be used as a ventilation outlet for soil stacks
- Can be fitted quickly and simply from inside the roofspace
- Works with the GRPA range and other generic hoses
- Provides 8,800mm² of free airflow through the adaptor

In addition to providing ventilation to the roofspace, the Manthorpe range of tile ventilators can also be used as outlet terminals for bathroom/kitchen mechanical extraction fans and ventilation for soil stacks.

Whether connecting directly to one of the GRPA flexible pipe range or on to a generic flexible hose, the base outlets of the large format tile ventilators along with the plain tile vents can be converted to a standard 4" diameter pipe opening by using the GTV-AD adaptor.

The adaptor can be installed before the fitting of the vent, but can also be connected quickly and simply from inside the roofspace.

The smaller 15" x 9" format mini castellated and single pantile ventilators do not require an adaptor to convert to a 4" diameter pipe outlet.

Specification Guide

Product Code	Free Vent Area	Pipe Outlet Size	Box Qty
GTV-AD	8,800mm²	Ø 4"	10

GTV-AD is needed to convert the large format & plain tile vents to a 4" pipe.

GRPA / GRPA1 / GRPA3

Flexible extraction pipes

Product Features

- Flexible ducting pipes for use with ventilation & extraction
- Will connect to Manthorpe's slate and tile vent range
- Oval adaptor connects with the hooded slate ventilators
- Can be used with standard 4" diameter circular outlets
- Can be connected together to create longer pipe runs

The GRPA flexible pipe is designed for coupling directly to Manthorpe's hooded slate vent oval spigot, it can also be easily trimmed to fit a circular 110mm diameter connection.

The GRPA1 offers the reverse with an initial 110mm diameter circular connection which can be flexed to suit the oval on the slate vents if required, also has a longer pipe length.

The flexible pipes are supplied with their own metal screw clamp for simple and secure fixing.

The GRPA3 reduction adaptor allows a 4" to 3" reduction along a length of ventilation pipe. Supplied with jubilee clip.

NOTE: The GRPA pipes and other ducting should be fully insulated along its total length in the roof to avoid the risk of internal condensation. To form airtight seals it may be necessary to apply mastic sealant or tape to joints.

Specification Guide

Product Code	Free Vent Area	Pipe Length	Outlet Size	Box Qty
GRPA	8,500 mm²	455mm	Ø 4"	10
GRPA1	8,500 mm²	645mm	Ø 4"	5

The initial oval/round outlets can be trimmed off to suit the secondary outlet below.

Product Code	Free Vent Area	Inlet Size	Outlet Size	Box Qty
GRPA3	5,200 mm²	Ø 4"	Ø 3"	10

Slate ventilators

Roofspace ventilation and outlet mechanical extraction through natural and man made slates

Slate roofs have a distinct charm and have been an important part of our country's building aesthetic for thousands of years. However the double lap nature of slates and their thin edge profiles provide a difficult challenge for ventilation.

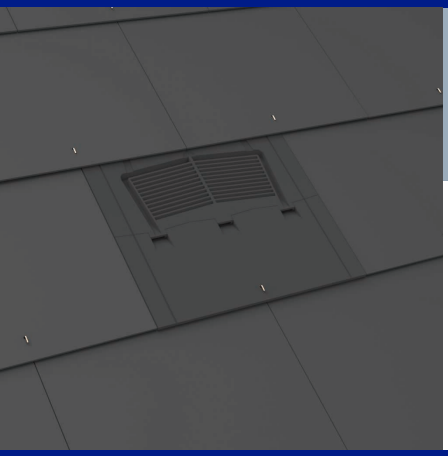
The Manthorpe range of in-line and hooded slate ventilators are designed to provide direct roof space ventilation or act as an outlet for mechanical extraction for ventilation ducting through man-made and natural slate roof coverings. The range of vent styles are universal in design and are compatible with major UK and Irish slate makes.

The vents have been wind tunnel tested to the requirements of pr EN 15601.

Testing Certificates:

Large Format In-line slate vent: BRE test report number: 137-758
Small Format In-line slate vent: BRE test report number: P107103-1000
Hooded slate vent: Marley test report: 24.10.96

GILSV30-25



In-line slate vent *Large format*

Product Features

- In-line ventilator with a discreet low profile design
- Provides 8,800mm² of free airflow per slate ventilator
- Outlet feeds into the roof space, no adaptor required
- Protective side edging improves vent weatherproofing
- Independently wind tunnel tested by the BRE

The GILSV30-25 in-line slate ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and extraction through a roof covered with natural or man-made slates from 500 x 250mm up to 600 x 300mm.

The discreet, in-line profile helps to maintain an unbroken appearance to the roofline whether used at high or low level. The integral 4" diameter spigot feeds directly into the roofspace for general ventilation applications, and requires no adaptor for extraction. The tortured path through the 4mm louvred grill and internal geometry is designed to maintain airflow whilst channelling any water out of the vent and onto the roof covering. Product available in black and grey to blend in with various slate colours.

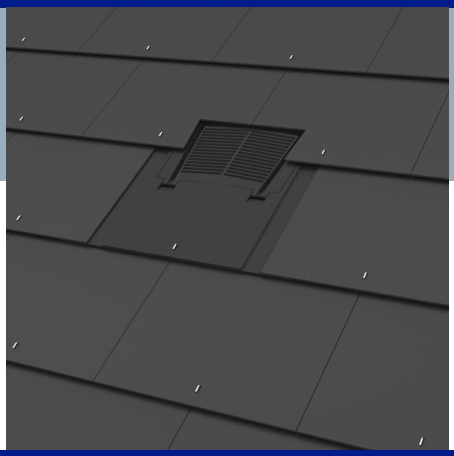
- Can be installed on a minimum roof pitch of 22.5°
- Can be laid with a max batten gauge of 250mm

Specification Guide

Product Code	Free Vent Area	Size Format (mm)	Box Qty
GILSV30-25	8,800mm²	600 x 300*	10

* Vent can be used with 500 x 250mm slates, but it requires trimming of the adjacent slates.

GILSV25-20



In-line slate vent *Small format*

Product Features

- In-line ventilator with a discreet low profile design
- Provides 6,000mm² of free airflow per slate ventilator
- Outlet feeds into the roof space, no adaptor required
- Protective side edging improves vent weatherproofing
- Independently wind tunnel tested by the BRE

The GILSV25-20 small format in-line slate ventilator is designed to provide a quick and simple solution to the problems of roofspace ventilation and extraction through a roof covered with natural or man-made slates from 400 x 200mm up to 500 x 250mm.

The discreet, in-line profile helps to maintain an unbroken appearance to the roofline whether used at high or low level. The integral 4" diameter spigot feeds directly into the roofspace for general ventilation applications, and requires no adaptor for extraction. The tortured path through the 4mm louvred grill and internal geometry is designed to maintain airflow whilst channelling any water ingress out of the vent and on to the roof covering. Product available in black and grey to blend in with various slate colours.

- Can be installed on a minimum roof pitch of 22.5°
- Can be laid with a max batten gauge of 195mm

Specification Guide

Product Code	Free Vent Area	Size Format (mm)	Box Qty
GILSV25-20	6,000mm²	500 x 250*	10

* Vent can also be used with slates down to 400 x 200mm in size.

GRSV30-25 / 45

Hooded slate vent

Product Features

- Slim hooded slate vent design with a fine textured finish
- Provides 10,000mm² of free airflow per slate ventilator
- Space saving oval outlet feeds directly into the roof space
- Bases can be trimmed to suit various sizes of slates
- Can be fitted with a GRPA flexi pipe for extraction needs

The GRSV30-25 and GRSV45 hooded slate vents are an unobtrusive, economical roofspace ventilator providing 10,000mm² of airflow per unit. Alternatively, they can be used as an outlet terminal for extraction fans and soil pipe ventilation when used in conjunction with a Manthorpe GRPA Flexible Pipe.

The vent, which has proven outstanding in independent performance tests, can be used for both high and low level roof ventilation. They are manufactured from a UV stabilised, durable polypropylene, and have an integrated insect grill and spigot.

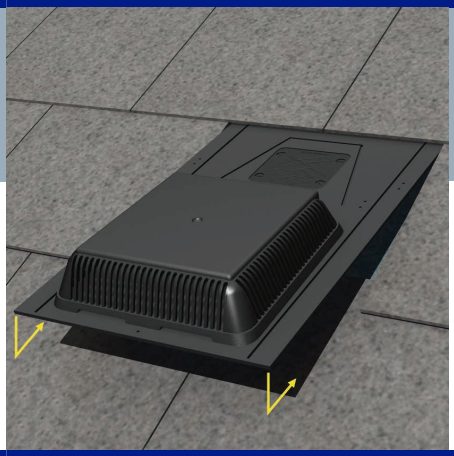
They are designed to replace a single slate in a roofline, with the larger format GRSV45 vent also providing a larger base format for use with random slating.

Specification Guide

Product Code	Free Vent Area	Size Format (mm)	Min Pitch	Box Qty
GRSV30-25	10,000mm²	600 x 300	15°	10
GRSV45	10,000mm²	600 x 450	15°	5

* Both vents can be used with 500 x 250mm slates by trimming down the marked cut lines

GRSV30-25R / 45R



Refurb slate vent

Product Features

- Slim hooded slate vent design with a fine textured finish
- Flush back makes retrofitting into existing roofs easier
- Ideal for providing additional ventilation into the loft space
- Provides 10,000mm² of free airflow per slate ventilator
- Bases can be trimmed to suit various sizes of slates

The GRSV30-25R and GRSV45R fast fit refurb slate vents, without the original vent spigot mounting on the base, make retro-fitting into existing surrounding slates easier. It is simply slid between natural or man-made slates already in position with no need to cut battens.

With the removal of the outlet spigot, the refurb slates can not be used for mechanical extraction.

The vent, which has proven outstanding in independent performance tests, can be used for both high and low level roof ventilation. They are manufactured from a UV stabilised, durable polypropylene, and have an integrated insect grill, with the GRSV45R offering a larger base format.

Specification Guide

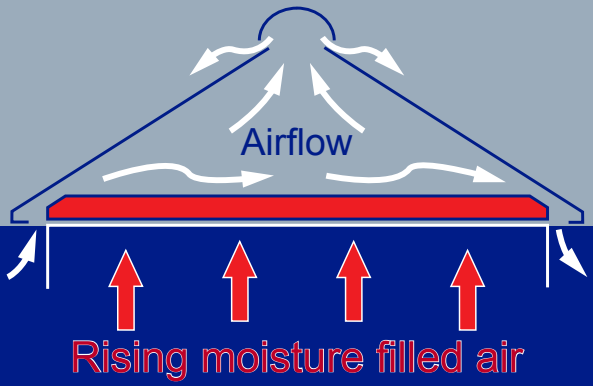
Product Code	Free Vent Area	Size Format (mm)	Min Pitch	Box Qty
GRSV30-25R	10,000mm²	600 x 300	15°	20
GRSV45R	10,000mm²	600 x 450	15°	10

* Both vents can be used with 500 x 250mm slates by trimming down the marked cut lines

Roofspace ventilation

Combating condensation with roofspace ventilation solutions

The build up of condensation within the roof space remains an issue as the industry moves towards more energy efficient buildings. This problem is caused by the lack of adequate ventilation.



Moisture filled air entering the loft will condensate on cold surfaces unless removed by a cross flow of air movement

Condensation problems

Condensation is encouraged by the widespread use of insulating materials, central heating and double glazing. Along with the reduction in natural ventilation, the temperature differential between the living areas and the cold space is increased. This warm air carrying high levels of water vapour is naturally drawn to the cold areas of the building most notably the roof void.

In these areas, if there is insufficient ventilation, condensation occurs causing rotting timbers, rusting and weakening of metal fixings, felt damage and mould growth. Items stored in the loft are often rendered useless. The outcome involves significant expenditure to rectify the problems.

To eliminate this unnecessary cost, Manthorpe manufactures a range of quality roof ventilation products which are suitable for new build and refurbishment situations.

The control of condensation

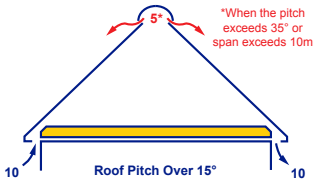
The British Standard BS 5250 'Code of practice for control of condensation in buildings' is now cited as the industry standard regulation throughout the UK and Ireland concerning roofing ventilation, detailing specific requirements for various roof types.

The diagrams opposite provide some quick guides to the amount of ventilation required for different roof constructions depending on pitch, span and whether there is a traditional cold or "room in a roof" style warm loft space.

Recommended ventilation amounts

For roof pitches of more than 15°

10,000mm²/m is needed at the eaves. Pitches above 35° or with span exceeding 10m, allow an additional 5,000mm²/m at the ridge.



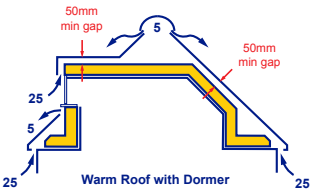
For flat roofs & pitches of 15° or less

25,000mm²/m is required at the eaves or low level to ensure a cross flow of ventilation.

For warm roof details

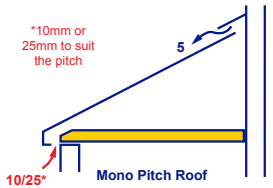
25,000mm²/m is required at the eaves, with 5,000mm²/m at high level and a continuous 50mm gap between the insulation & membrane.

Dormer windows, fire barriers and pitch changes etc., create separate voids within the roof space, ventilation must be maintained to these areas at high and low level.



Mono-pitch roof details

5,000mm²/m ventilation gap at high level, with a 10mm or 25mm gap at low level depending on the roof pitch.



For further information on the ventilation requirements for the control of condensation in buildings, refer to BS 5250.

G1200N / G2500N

Over fascia vents

Product Features

- Provides 10,000mm² or 25,000mm² airflow per metre
- The easy to handle products come in 1 metre lengths
- The vents will fit with all types of roofing tiles and slates
- Fixes simply and easily into the top of the fascia board
- The discreet design is completely hidden once installed

The G1200N and G2500N over fascia ventilators are designed as a discreet entry point for airflow into the eaves of a property. Mounted to the top of the fascia board and sandwiched below the eaves course of tiles, the vents provide 10mm (G1200N) or 25mm (G2500N) of continuous airflow along the length of the eaves.

Both the vents are produced in 1 metre lengths and are robust enough to be used with all types of roof tiles from large format profiled tiles, to small plain tiles or even slates. Designed with clear fixing points both come complete with a built in flyscreen.

The versatile products can be placed between rafter bays to ventilate an open eaves detail and are also suitable for use in flat roof abutment situations.

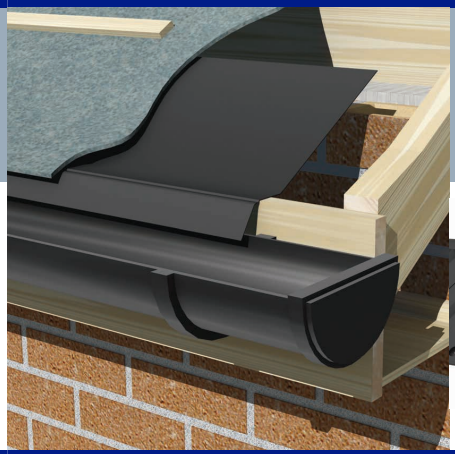
Specification Guide

Product Code	Airflow	Flyscreen	Length	Box Qty
G1200N	10,000mm²/m	Yes	1m	20
G2500N	25,000mm²/m	Yes	1m	20

Products are only available in black.

G1280 / G1281

Felt support trays



G1280 (above), G1281 (left)

Product Features

- Supports the roofing felt or membrane down at the eaves
- Prevents sagging which can lead to the pooling of water
- Made from UV stable PVC
- Available in designs to suit new build and refurb details

The G1280 and G1281 felt support trays help to prevent the roofing felt sagging at the eaves, supporting the area where water could otherwise collect, causing the felt to rot and split, leading to damage to the fascia / soffit area.

The G1280 is quick and simple to fit in new build applications, with the slimmer G1281 suitable for both new build and refurbishment situations where it eliminates the need to strip a large section of the roof to replace old felt.

The support trays should be positioned on top of the fascia boards and secured to the roof trusses, overlapped to weather the joint. It should be pushed under existing felt in refurbishment situations or in new build situations felt should be dressed over the tray.

Specification Guide

Product Code	Length	Suitable for Refurb	Box Qty
G1280	625mm	No	50
G1281	1500mm	Yes	10

Products are only available in black.

G800

10mm Continuous soffit strip

Product Features

- Continuous soffit strip ventilating through the soffit board
- Provides 10,000mm^2 of airflow per metre of the product
- Screws to the fascia board through the holes provided
- Adjustable mouth accommodates various soffit depths
- Available in a variety of colours to match the soffit board

The G800 continuous soffit ventilator is designed for use with a traditional soffit and fascia board construction to provide a measured amount of ventilation through into the roof space.

The G800 offers 10,000mm^2/m of airflow into the eaves, which is ideally suited for venting traditional cold loft spaces.

The airflow passage consists of evenly spaced slots specifically sized to prohibit large insects gaining access but wide enough not to be blocked by debris, paint or water droplets. The uPVC strip is screwed into the back of the fascia and securely supports the soffit board which slots into the self adjustable retaining mouth and is then fixed to the brick course as normal.

Use in conjunction with other products from the Manthorpe range to provide a complete roof ventilation system.

Specification Guide

Product Code	Airflow	Length	For Soffit Thickness	Box Qty
G800	10,000mm^2/m	2.44m	4 to 12mm	10

G800 soffit strips are available in white, brown and black.

G825

25mm Continuous soffit strip

Product Features

- Continuous soffit strip ventilating through the soffit board
- Provides 25,000mm^2 of airflow per metre of the product
- Screws to the fascia board through the holes provided
- Adjustable mouth can accommodate various soffit depths
- Available in a variety of colours to match the soffit board

The G825 continuous soffit ventilator is designed for use with a traditional soffit and fascia board construction to provide a measured amount of ventilation through into the roof space.

The G825 offers 25,000mm^2/m of airflow into the eaves, which is ideally suited for venting warm roof constructions.

The airflow passage consists of evenly spaced slots specifically sized to prohibit large insects gaining access but wide enough not to be blocked by debris, paint or water droplets. The uPVC strip is screwed into the back of the fascia and securely supports the soffit board which slots into the self adjustable retaining mouth and is then fixed to the brick course as normal.

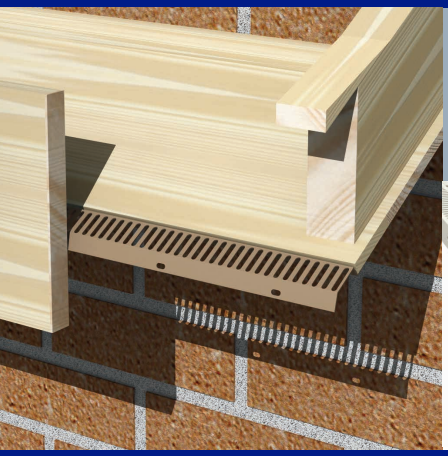
Use in conjunction with other products from the Manthorpe range to provide a complete roof ventilation system.

Specification Guide

Product Code	Airflow	Length	For Soffit Thickness	Box Qty
G825	25,000mm^2/m	2.44m	4 to 12mm	10

G825 soffit strips are available in white and brown.

G821



10mm Sloping soffit strip

Product Features

- Continuous soffit strip for ventilating an open eaves detail
- Provides 10,000mm^2 of airflow per metre of the product
- Screws to the fascia board through the holes provided
- The adjustable back can be adapted for different angles
- Available in a variety of colours to match the soffit board

The G821 sloping soffit ventilator is designed to provide the solution to ventilation for sloping eaves. The angled section ensures a positive fixing to the soffit board and prevents blocking of the ventilation. The vent strip offers 10,000mm^2/m of airflow into the eaves, which is ideally suited for ventilating traditional cold loft spaces.

The airflow passage consists of a series of evenly spaced slots specifically sized to prohibit large insects gaining access but wide enough not to be blocked by debris, paint or water droplets.

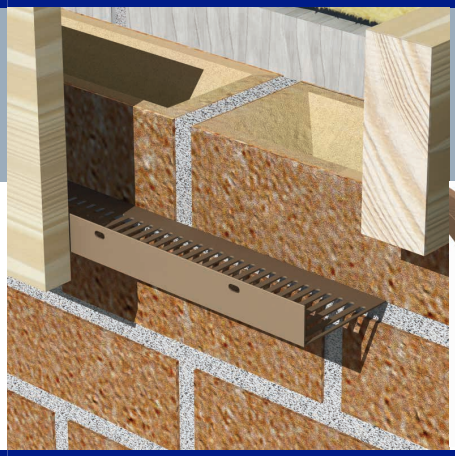
The soffit board should be cut 32mm short of the fascia board and fixed in place as normal. The sloping soffit vent should be securely screwed to the soffit board through the holes in the stepped mouth, and onto the fascia board using the fixing holes provided.

Specification Guide

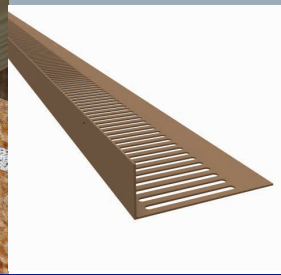
Product Code	Airflow	Length	Angled Range	Box Qty
G821	10,000mm^2/m	2.44m	30° - 55°	10

G821 soffit strips are available in white and brown.

G826 / G827



25mm Flat roof soffit strip



Product Features

- Continuous soffit strips for ventilating low pitch and flat roofs
- Provides 25,000mm^2 of airflow per metre of the product
- Mounts onto the structure through the holes provided
- Strips available to work with a slotted fascia board detail
- Available in a variety of colours to match the soffit board

The G826 flat roof soffit ventilator is designed for flat roof applications where there is no soffit board to attach to and an upright fixing is required into the back of the fascia board.

The G827 low pitch vent strip is designed for a wide range of applications where a thicker section soffit board is used in either a horizontal or sloping position.

Both the G826 and G827 offer 25,000mm^2/m of airflow into the eaves, which is ideally suited for ventilating low pitch, flat roof and warm roof constructions.

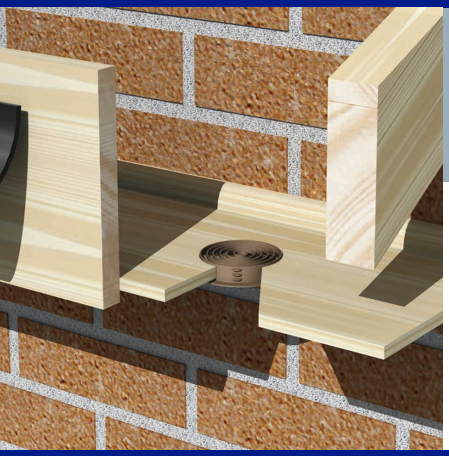
The airflow passage consists of evenly spaced slots specifically sized to prohibit large insects gaining access to the roof space, but wide enough not to be blocked by debris, paint or water droplets.

Specification Guide

Product Code	Airflow	Length	Width	Box Qty
G826	25,000mm^2/m	3.1m	79.5mm	10
G827	25,000mm^2/m	2.44m	76mm	10

G827 soffit strips are available in white and brown, the G826 is only in brown.

G700



Circular soffit vent

Product Features

- Circular opening for periodical ventilation through the soffit
- Simple to install, and is ideal for refurbishment applications
- A simple push fit up into a 70mm diameter hole in the soffit
- Provides 2,150mm² of airflow per circular soffit ventilator
- Available in a variety of colours to match the soffit board

Circular soffit vents can be slotted into the soffit board prior its installation for new build situations or just as easily retro-fitted into existing soffit details for refurbishment work. Each vent will provide airflow through the soffit and into the void beyond to help ventilate the roof space.

Standard fixing for this product is a simple push twist action into a 70mm diameter hole cut in the soffit board with a hole saw. The vent features evenly spaced slots small enough to prohibit large insects gaining access but wide enough not to be blocked by debris, paint or water droplets.

Each vent provides 2,150mm² of airflow, so to achieve 10,000mm²/m of airflow for traditional cold loft spaces, the G700 should be fitted at 200mm centres.

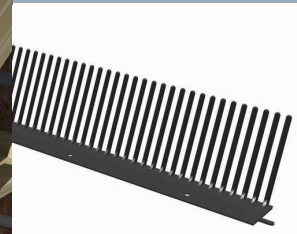
Specification Guide

Product Code	Airflow	Fitting Hole	Flyscreen	Box Qty
G700	2,150mm²	ø 70mm	Yes	50

G700 circular soffit vents are available in white, brown, black and golden oak.

G1275

Eaves comb filler



Product Features

- Flexible comb fingers fill in the gaps below profiled tiles
- Prevents the ingress of birds and insects into the roof
- Universal design works with any style of profiled roof tile
- Fast and simple to install, mounts easily onto the fascia

The G1275 eaves comb filler mounts to the top of the fascia board and is designed with a series of flexible fingers that adjust to fill the gaps left when using profiled tiles, thus preventing entry of birds and large insects beneath the front edge of the tiles.

The use of the universal, flexible eaves comb filler units eliminates the need to fabricate up or source and buy in expensive purpose made profiled fillers which are difficult to align and install below the tiles.

The filler units should be nailed to the top of the fascia board through the fixing holes provided along the full length of the eaves and joined where necessary. Manufactured in 1 metre lengths, multiple fillers can be joined together using the location tab to create a run of any length, similarly the fillers can be easily trimmed down to size as required.

Specification Guide

Product Code	Length	Finger Length	Fixing Centres	Box Qty
G1275	1m	62mm	100mm	50

The G1275 eaves comb filler is only available in black.

G500 / G502 / G503

Roll panel vents

Product Features

- The roll out nature of the product is ideal for new builds
- Can compress to align with various truss rafter centres
- Provides 25,000mm^2 of airflow per metre of the product
- Available in various widths to suit different insulation levels
- Fast and easy to fit, 1 roll will cover 6 metres of the eaves

The G500, G502 and G503 roll panel vents are designed to space off and maintain a constant air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves, providing a continuous flow of air through into the roof space.

The castellated profile of the vent panel is highly versatile and is suitable for either 400mm, 450mm, or 600mm rafter centres. The rolls are ideal for new build applications owing to the ease and speed of installation, but is also useful in refurbishment details where rafter centres are not consistent or unknown.

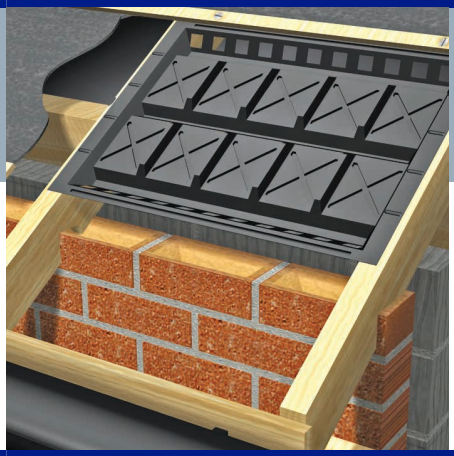
The extra width of the G502 and G503 panels allows for better coverage when low pitch roofs and deep insulation details are encountered.

Specification Guide

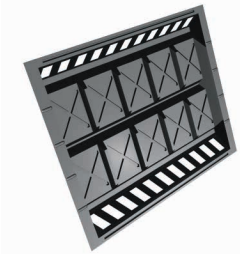
Product Code	Airflow	Roll Width	Materials	Box Qty*
G500	25,000mm^2/m	325mm	PET	12m
G502	25,000mm^2/m	650mm	PET	12m
G503	25,000mm^2/m	800mm	PET	12m

Each full box contains 2 individual rolls of 6 metres in length.

G400 / G450 / G600 / G620



Cross flow eaves panel vents



Product Features

- Panels available to offer 10mm and 25mm of free airflow
- Spaces a gap to the insulation layer to allow a flow of air
- Trays available to suit 400, 450 and 600mm rafter centres
- Manufactured from a lightweight, robust PVC material
- Multiple trays can be used in each bay for low pitch details

The range of cross flow eaves panel vents are designed to space and maintain a constant air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves, providing a continuous flow of air into the roof space.

Each tray spans the gap between individual rafter bays, cross flow panels are available to suit rafter centres of 400mm, 450mm and 600mm.

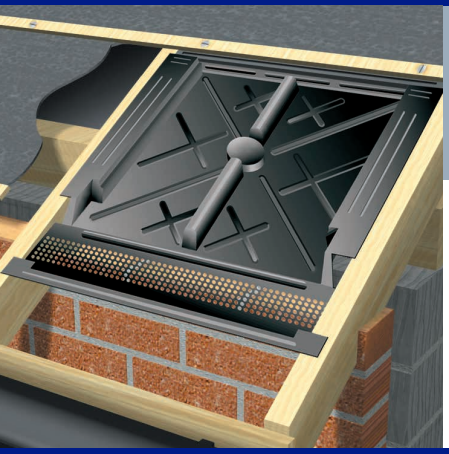
In certain low pitch situations two eaves panels will be required to ensure a clear air path over the insulation into the roof space.

Specification Guide

Product Code	Airflow	Rafter Width	Material	Box Qty
G400	10,000mm^2/m	400mm	PVC	50
G450	10,000mm^2/m	450mm	PVC	50
G600	10,000mm^2/m	600mm	PVC	50
G620	25,000mm^2/m	600mm	PVC	50

Design of the G600 (shown above) differs from that of the G400 & G450 panels.

G405 / G455 / G605 / G625



Flyscreen eaves panel vents

Product Features

- Panels available to offer 10mm and 25mm of free airflow
- Spaces a gap to the insulation layer to allow a flow of air
- Trays available to suit 400, 450 and 600mm rafter centres
- Includes an integral flysceen for use in open eaves details
- Can be used with non-flyscreen trays in low pitch details

The cross flow flyscreen eaves panels are designed for open eaves or cottage style situations to space and maintain a constant air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves, providing a continuous flow of air into the roof space.

As open or cottage style eaves have no soffit detail, the trays also include an integral flyscreen grille to prevent the ingress of insects into the roof space.

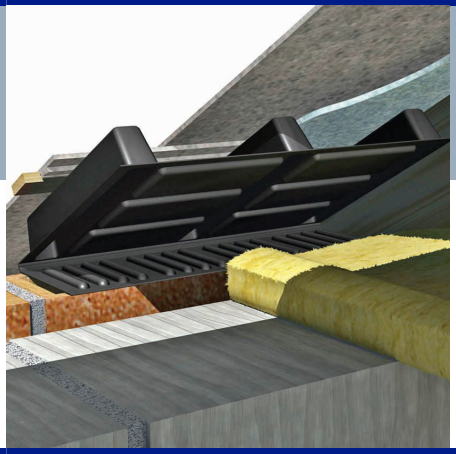
Each tray spans the gap between individual rafter bays, cross flow panels are available to suit rafter centres of 400mm, 450mm and 600mm.

Specification Guide

Product Code	Airflow	Rafter Width	Material	Box Qty
G405	10,000mm²/m	400mm	PVC	50
G455	10,000mm²/m	450mm	PVC	50
G605	10,000mm²/m	600mm	PVC	50
G625	25,000mm²/m	600mm	PVC	50

Design of the G605 & G625 differs from that of the G405 & G455 panels.

G435 / G645



Refurb eaves panel vents

Product Features

- Can be installed retrospectively from inside the roof space
- The panels can offer 25,000mm² per metre free airflow
- Trays available to suit 400mm and 600mm rafter centres
- Flexible base tab can bend to suit various roof pitches
- Manufactured from a lightweight, robust PVC material

The G435 and G645 refurbishment eaves panel ventilators are designed to be used in retrofitting situations and are installed from inside the roof space to create a clear air gap between the loft insulation and felt to allow airflow from the eaves into the loft space.

The base of the panel has a flexible hinge which enables it to bend to achieve any roof pitch. Each tray spans the gap between individual rafter bays and refurbishment cross flow panels are available to suit rafter centres of both 400mm and 600mm.

The refurb panel should be folded to achieve the desired roof pitch and pushed into the eaves detail. The loft insulation should be firmly tucked into the back of the panel, pinning it in position.

Specification Guide

Product Code	Airflow	Rafter Width	Material	Box Qty
G435	25,000mm²/m	400mm	PVC	50
G645	25,000mm²/m	600mm	PVC	50

At an average pitch of 35°, a single panel will accommodate 150mm of insulation.

G1290 / G1292

Eaves ventilation packs

10 or 25mm Over fascia ventilators

Felt support trays

Roll panel vent

10mm & 25mm airlfow kit of parts available:

Product Features

- Provides 10,000mm² or 25,000mm² airflow per metre
- The kit of products can service a 6 metre run of the eaves
- The vents will fit with all types of roofing tiles and slates
- Fixes simply and easily to various truss rafter spacings
- The discreet design is completely hidden once installed

System Quantities

6	1m over fascia ventilators
10	625mm felt support trays
1	6m roll panel ventilator

The G1290 and G1292 6 metre eaves ventilation packs provide a practical and cost effective solution for roof ventilation requirements.

The pack consists of a number of over fascia ventilators, felt support trays and a roll panel ventilator and are available for 10mm (G1290) and 25mm (G1292) roof space ventilation situations at the eaves.

Over Fascia Vent

The over fascia ventilators are designed as a discreet entry point for airflow into the eaves of a property. Mounted to the top of the fascia board and sandwiched below the eaves course of tiles, the vents provide 10mm (G1200N) or 25mm (G2500N) of continuous airflow along the length of the eaves.

Both the vents are produced in 1 metre lengths and are robust enough to be used with all types of roof tiles from large format profiled tiles, to small plain tiles or even slates. Designed with clear fixing points both come complete with a built in flyscreen.

Felt Support Tray

The felt support trays help to prevent the roofing felt sagging at the eaves, supporting the area where water could otherwise collect, causing the felt to rot and split, leading to damage to the fascia / soffit area.

Roll Panel Vent

The roll panel vents are designed to offset and maintain a constant air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves, providing a continuous flow of air through into the loft space.

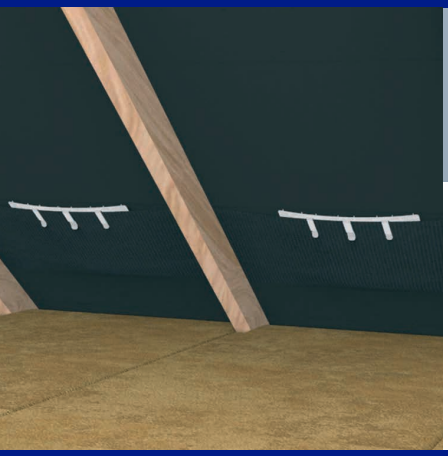
The castellated profile is highly versatile and is suitable for either 400mm, 450mm, or 600mm rafter centres.

Specification Guide

Product Code	Airlfow	Box Qty
G1290	10,000mm²/m	6 linear metres
G1292	25,000mm²/m	6 linear metres

Products are only available in black.

G630



Felt lap vent

Product Features

- Provides extra airflow into lofts with condensation issues
- Each lap vent provides 3,000mm² of free area to the roof
- Easily installed into rafter openings from 350 to 600mm
- Tapered lead in helps to slot the vent between the laps
- 3 clips secure the vent in place, even if the felt is degraded

The G630 felt lap ventilator is a refurbishment product which has been designed to increase the amount of ventilation through the felt laps into existing roof spaces that are suffering with condensation problems.

The felt lap vents are usually fitted retrospectively to properties with additional loft insulation recently installed, this increases the condensation levels to the point where the existing ventilation is insufficient. The vents will help to combat the problem of condensation build up in any roof space with a lapped felt/membrane construction.

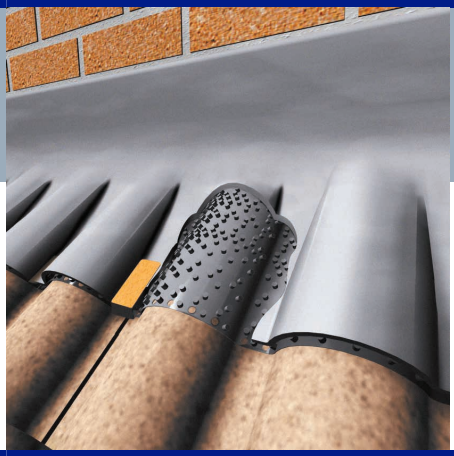
The product can be easily installed by one person in rafter openings from 350mm to 600mm wide to provide 3,000mm² of airflow per unit. Please see fitting instructions and technical sheets regarding the specific roof ventilation requirements for the product.

Specification Guide

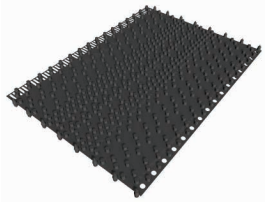
Product Code	Free Vent Area	Min Rafter Bay	Box Qty
G630	3,000mm²	350mm	50

The felt lap vent is only available in white.

G1105



Abutment flash vent



Product Features

- A versatile ventilator for use above a pitch roof abutment
- Provides 5,000mm²/m at the high level of an abutting roof
- Flexible design contours to both flat & profile tile coverings
- Works down to 15° (2nd roll needed for pitches below 20°)
- Practically invisible below the leadwork once installed

Manthorpe designers have developed a revolutionary method for venting abutment roof details which takes the fuss out of fixing. The G1105 flash vent is a simple roll-out flexible sheet system which provides a weather-tight solution to the need for a continuous 5,000mm²/m of airflow at roof abutment details.

The flexible nature of the design allows it to work on any slate or profile without the need for profile fillers.

The G1105 flash vent is economical and easy to install as it is formed from just one main component. It is supplied in a handy box dispenser with no need for specialist fixing tools.

Specification Guide

Product Code	Airflow	Roll Width	Min Pitch	Box Qty
G1105	5,000mm²/m	235mm	15°	3m

Rolls can be joined together to suit longer lead laps for roof pitches below 20°.

Notes

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