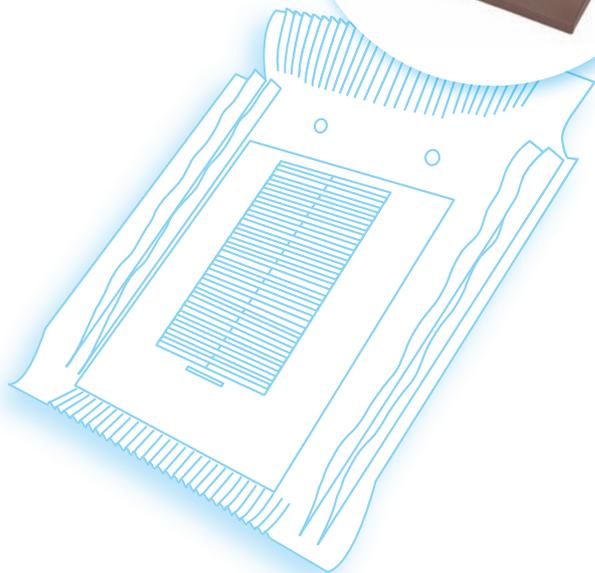


Venduct® tile & slate vents

KLOBER



Overview of Klober	Page 2
Contact details & product range	Page 3
Introduction to Venduct®	Pages 4-5
The Ventilation Process	Pages 6-7
Uni-line® Tile Vent	Page 8
Universal Tile Vent	Page 9
Profile-Line® Tile Vent	Page 10-11
Clay Plain Tile Vent	Page 12
Uni-Plain Tile Vent	Page 13
Small Slate Vent	Page 14
10K Slate Vent	Page 15
Uni-Line Slate Vent	Page 16
Mini Uni-Line Slate Vent	Page 17
Large Slate Vent	Page 18
Soil/Mechanical Adaptors, Flexipipes	Page 19
Solar Cable Outlet Kit	Page 20
Solar Thermal Outlet Kit	Page 21
Pipe Sealing collar	Page 22
Permo® TR tape	Page 23
Butylon® tape	Page 24
Easy-Form® tape	Page 25

History

Klobert was founded in 1960 in Schwelm, Germany. The philosophy of the company was to manufacture ventilation pipes on an industrial scale which could be installed on any roof – no matter what the pitch. During the seventies, the product range grew to include safety and support products as well as walkway systems and roof windows. By the start of the 1990's Klobert entered the market with vapour permeable membranes which strongly influenced the way roofs were constructed.

The development of a ridge and hip solution also changed the installation methods within the whole industry. In 1997, Klobert completed its offer for permeable underlays with the introduction of vapour control layers.

Its first overseas venture took place in 1985 when Klobert established itself in the UK. Since then the company has continued to strengthen its position as a leading player in the European market by opening more subsidiaries in Austria, France, Italy, Poland and Belgium. Finally, in order to improve direct contact with its clients, Klobert has recently set up sales organisations in Slovakia and the Czech Republic.

Technical support

Klobert offers technical advice and design support on how best to incorporate its products into specific building types or particular forms and techniques of construction, whether for refurbishment or new-build projects. The service includes:

- Telephone helpline
+44 (0)1332 813 050
- CPD approved seminars
- Computerised U-value calculations
- Condensation risk analyses
- Site visits by technical staff
- Copies of relevant test reports and certification
- Product samples
- Technical literature
- Help and advice on roof detailing and on meeting the requirements of Building Regulations

Klobert is a leading manufacturer of high-quality universal roofing ventilation and accessory products.

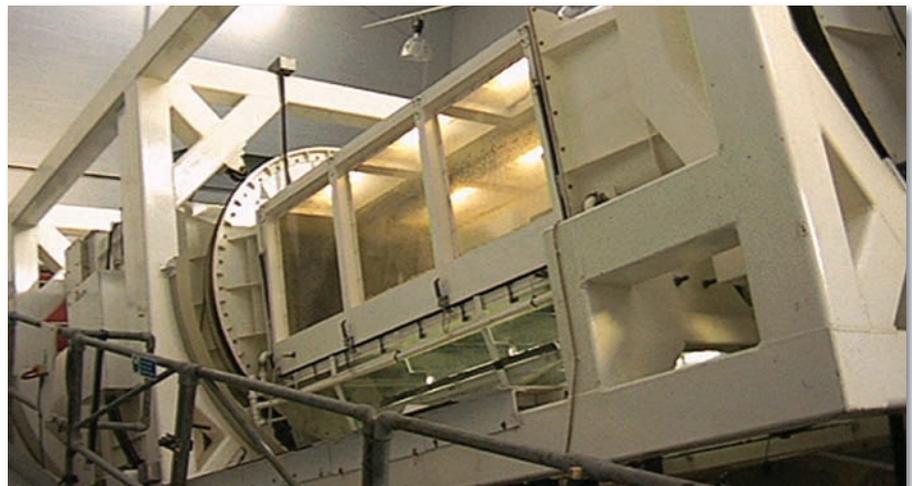
With offices in 7 countries and sales European wide, Klobert is truly a European company.

Its strategy is to supply the market with universal products, making specifying, ordering and installing both easy and fast.

Its product range is unrivalled and covers the following areas:

- Roofing underlays, wall membranes, vapour control layers and tapes
- Dry fix, eaves and valleys
- Prisma[®] daylight roofing
- Trapac[®] snow and safety
- Venduct[®] tile and slate vents
- Flavent[®] flat roofing

Klobert is dedicated to building long-term relationships with its customers and partners, working together to understand market requirements to help design and develop new, fit-for purpose products whilst continuing to improve its existing range.



Quality

Klobert uses performance and wind tunnel testing to ensure that its products are fully fit for purpose. Fire, abrasion, weather tightness and tear tests are just a few of the areas which are used to ensure safety, longevity and durability. Strict quality measures are in place throughout the entire lifecycle of a product - from the initial development of a prototype to the full production roll-out. Later, during the main production run, quality checks are carried out on a daily basis. As a result, Klobert continues to improve the quality of its products and production methods.

Environment

Looking after the environment is not just a phrase for Klobert. Even at the first stage of sourcing raw materials, Klobert considers the impact on the environment. Valuable raw materials are conserved and as such the environment is protected.

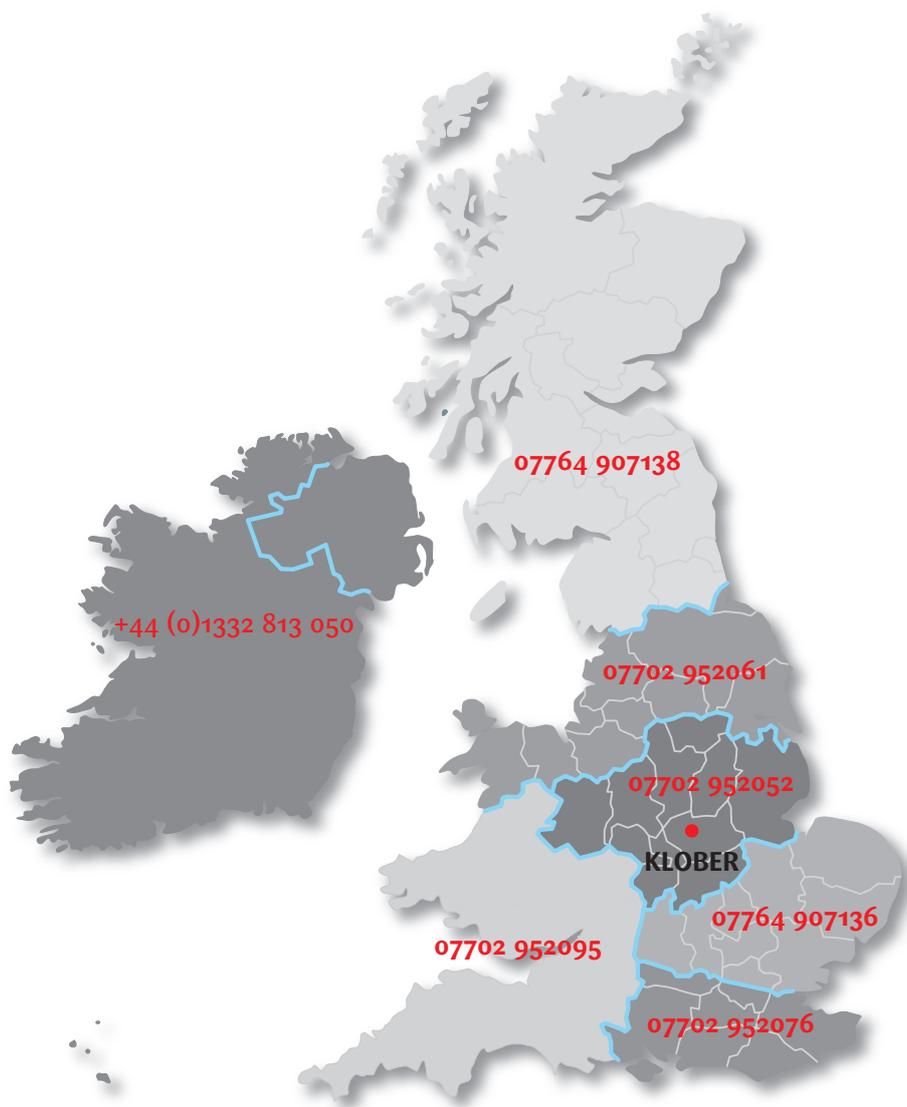
Klobert's Permo[®] air-open and vapour-permeable underlays, for example, are a pure polyolefin product that can easily be recycled and can even be categorised as a normal household waste.

Certification

All of Klobert's products conform to the relevant Building Regulations and British Standards and, where appropriate, are BBA, BRE, IAB and CE certified.



Contact details & product range



KLOBER

You can contact us by:

Phone

Sales: 0800 783 3216
Switchboard/
Technical: +44 (0)1332 813 050

Email

General: info@klober.co.uk
Technical: technical@klober.co.uk

Website

For information on Klobber products, how to find your nearest stockist, literature downloads, training days, useful industry links, regulations and Klobber's product certifications visit: www.klober.co.uk

Area account manager

See map opposite

Fax

General: +44 (0)1332 814 033

Post

Klobber Ltd.
Unit 6F
East Midlands Distribution Centre
Short Lane
Castle Donington
Derbyshire
DE74 2HA
UK

Guarantee

All products supplied by Klobber Ltd are covered by a 10 year guarantee against manufacturing defect. Products are not covered for colour stability, poor workmanship or incorrect installation.

All products should be installed as per our literature/fixing instructions and/or guidelines set out in BS5534, BS5250 and our BBA/BRE/IAB certificates.



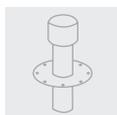
Venduct®
tile & slate vents



Dry fix roofing,
eaves & valleys



Trapac®
snow & safety



Flavent®
flat roofing



Prismax®
daylight roofing



Underlays & sealing
products

Ventilation for cold and warm pitched roofs

Whenever non-breather underlays are used on pitched roofs, it is essential to provide cross ventilation of the roof voids in order to avoid condensation. For some more complex roof shapes and mono-pitched roofs, tile ventilators may be needed to ensure there are no stagnant air pockets in any part of the roof.

Klober provides a wide range of ventilation options to enable those involved in the roofing to select the most appropriate solution for providing ventilation for a particular design.

Klober's strength lies in its ability to supply the market with high-quality universal vents, simplifying specifying, stocking and installation.



In-line universal vents

Klober provides an extensive range of ventilating tiles suitable for different design and ventilation requirements. This includes both universal and in-line vents which have been designed to facilitate specifying, stocking and installation. Available in four colours, they blend in with the roof-line.



Slate Vents

Klober offers a wide range of Slate vents, in a range of ventilating capacities as well as in-line vents to blend in with the roofline.

Introduction to Venduct®



KLOBER

Klober offer a wide range of flexipipes and adaptors in order that its tile vent range can be used in conjunction with mechanical/soil extraction.

Klober offers a range of high-quality, high performing vents which, when used in conjunction with its adhesive tapes, help reduce heat loss through the roof while providing roof space ventilation.

Klober is happy to offer advice on how best to combine and incorporate its products to ensure energy loss through the roof is kept to a minimum.



Flexipipes & mechanical adaptors

These provide a quick and simple connection to internal pipework. They are an unobtrusive method of venting soil/mechanical systems. No tile cutting or lead flashing is required. In addition everything comes in one convenient pack and are lightweight and durable.



Adhesive tapes

Klober provide a range of adhesive tapes - single and double-sided - for securely sealing connections around vents as well as repairing air-open, vapour-permeable and non-breather membranes.

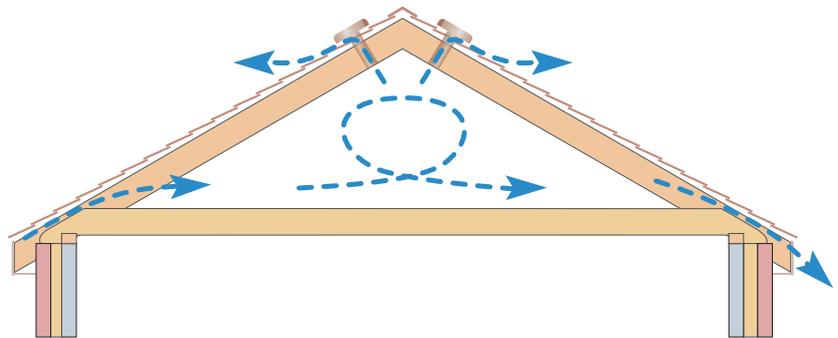
Condensation - a rising problem

Condensation is a symptom of modern living and of today's preoccupation with saving energy by minimising heat loss. The increased presence of central heating, showers and modern domestic appliances produces greater amounts of water vapour in the home. An unvented tumble drier alone can emit as much as 7.5 litres per day. Matters are made worse by the fact that these moisture-producing activities are often concentrated at certain times of the day, followed by long periods when the house is either unoccupied or unheated.

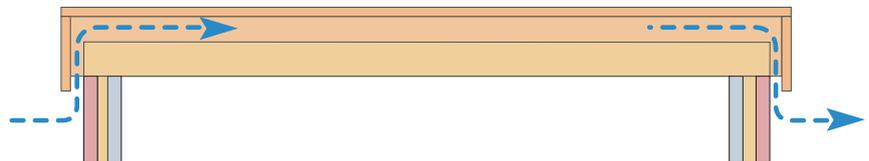
In addition, through greater draught proofing, double glazing and fewer open fire places, ventilation is reduced throughout the home - encouraging this moistureladen air to rise into the roof space. Here too, natural ventilation is virtually eliminated through the use of underlays. The traditional roof void is also cold because of the presence of thicker insulation material. So as the warm, moisture-laden air rises from below, it cools, reaches dewpoint, and condenses on cold surfaces.

If left unchecked, this condensation can cause severe damage to the fabric of the building. Timber can rot, weakening the structure. Wetting will cause timber and timber-based materials to swell and distort, permanently damaging sarking boards and wall plates. Metal corrosion can occur on components such as roof truss nail plates. Insulation materials will absorb dripping water and lose their thermal effectiveness. Ceilings could be damaged by condensation soaking through. Electrical circuits could be affected. Mould growth will form, and anything stored in the loft could be permanently damaged.

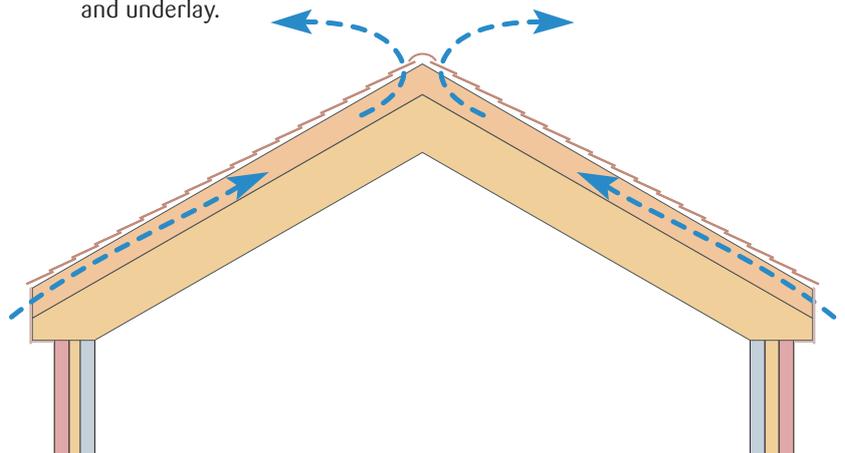
- A Standard duo-pitch roof 15° pitch and above**
10mm continuous opening at eaves, with additional high level ventilation of 5mm particularly for pitches over 35° and spans greater than 10m.



- C Flat roof - cold deck or pitched roof less than 15°**
25mm continuous opening on opposite sides.



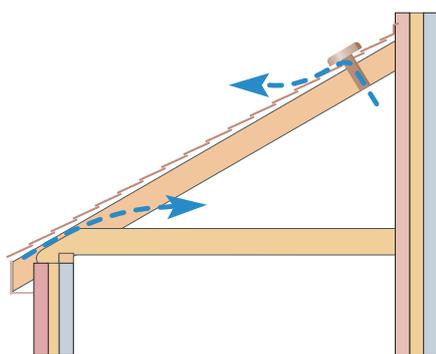
- E Duo-pitch roof, with ceiling and insulation inclined**
25mm continuous opening at eaves, with additional high level ventilation of 5mm either side or 5mm at the ridge. 50mm gap between insulation and underlay.



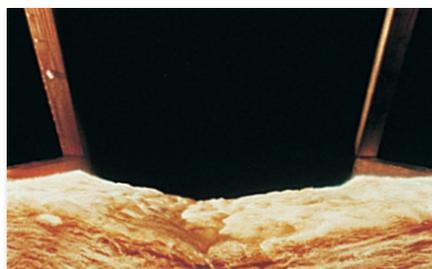
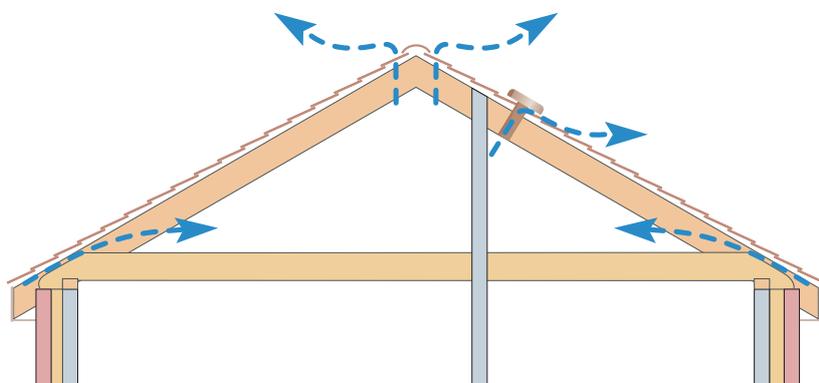
The Ventilation Process



B Lean-to or mono-pitch roof 15° pitch and above
10mm continuous opening at eaves, with additional high level ventilation of 5mm. Below 15°, the opening at the eaves should be increased to 25mm.



D Duo-pitch roof 15° pitch and above, with division walls
10mm continuous opening at eaves, with 5mm continuous opening immediately below and 10mm continuous opening immediately above each division wall.



Solution

There are two solutions to prevent excessive condensation forming in a roof void, one is to ventilate in the traditional way and the other is to use an air open or vapour permeable underlay that allows the roof structure to breathe.

Klober can offer both, providing a wide range of eaves ventilation systems, slate ventilators and tile ventilators along with a range of air open and vapour permeable underlays that all have BBA, BRE or IAB certification.

The Klober roof ventilation products featured on the following pages have been specifically designed to provide the most simple and cost-effective solution to Condensation. They can be used in new build, re-roofing and refurbishment situations, and through their universal nature will simplify specifications and speed up installation.

Making the right choice of ventilation

The diagrams are designed to provide an at-a-glance guide to ventilation requirements for the most common roof types and the Klober products that can be used for them. In many cases, there is a choice of suitable products.

Product selection will depend on several factors - such as whether it is new build, re-roofing or refurbishment work and whether ventilation is preferred through the soffit or over the fascia. The ventilation requirements are the minimum levels set out in the Building Regulations and BS 5250. There may well be instances where additional ventilation is thought advisable.

Unusual roof types will demand special consideration.

Product features & benefits

- In-line design
- Choice of four colours
- Fully wind tunnel tested
- Built in downpipe allows direct ventilation to roof space
- No mechanical adaptor required

Area of application

Suitable for:

- Most popular interlocking and plain tile roofs with a pitch over 20°
- Roof space ventilation or soil ventilation and mechanical extraction
- High or low level roof ventilation

Material

Soft and rigid UPVC

Colours

Antique red
Brown
Slate grey
Terracotta

Dimensions

455 mm long x 440 mm wide x 33 mm deep (excluding downpipe)

Weight (per carton)

2.2kg

Packaging

1 vent per carton
44 cartons per pallet

Product Codes

Antique red	KG9853-0116
Brown	KG9853-0247
Slate grey	KG9853-0429
Terracotta	KG9853-0152

Flexipipe	
100/100mm	KG979900
Underlay seal	KG973100

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klobber Eaves Ventilation products.

Note: The Uni-Line Tile Vent does not suit the following tile profiles: Redland Delta, Cambrian, Saxon, Richmond; Anchor Centurion, Slate; Marley Monarch; Clay Pantiles; Landmark Slates



A low profile universal Tile Vent that can provide roof space ventilation or act as a terminal for soil ventilation or mechanical extraction.



Installation

The Tile Vent is positioned in-line with the tile below and an opening is cut in the underlay using the template provided. Once the opening has been made in the underlay the back box is inserted through the opening until the Tile Vent nubs are located over the top of the batten. The Tile Vent is then fixed into the batten through the nail hole within the vent and with the wire clip provided. The front skirt is then dressed onto a clean dry tile surface. The roof tiles either side of the vent are laid. Prior to the tile above the Tile Vent being laid the upper skirt needs to be pushed down.

Performance

Provides 24,000mm² ventilation area (10,000mm² effective ventilation area)

Vent spacing	5,000mm ² /m	install at 2.0m centres
	10,000mm ² /m	install at 1.0m centres
	25,000mm ² /m	install at 0.4m centres
Airflow resistance	15 litres/sec	3.5 Pascals
	30 litres/sec	14 Pascals
	60 litres/sec	56 Pascals

Universal Tile Vent



A universal Tile Vent that suits most concrete interlocking roof tiles that can be used to ventilate roof voids or as a terminal for soil and ventilation pipes and mechanical extraction systems.

Installation

The Tile Vent is positioned in-line with the tile below and an opening is cut in the underlay using the template provided. Once the opening has been made in the underlay the back box is inserted through the opening until the Tile Vent nibs are located over the top of the batten. The Tile Vent is then fixed into the batten through the nail hole within the Tile Vent and with the wire clip provided. The front skirt is dressed onto a clean dry tile surface. The roof tiles either side of the vent are then laid. Prior to the tile above the vent being laid the upper skirt needs to be pushed down. Tile battens would need to be cut if plain tiles are being used.

Note: The Universal Tile Vent does not suit the following tile profiles: Redland Delta, Cambrian, Saxon, Richmond; Anchor Centurion, Slate; Marley Monarch; Clay Pantiles; Landmark Slates

Performance

Performance	Provides 30,000mm ² ventilation area (15,000mm ² effective ventilation area)	
Vent spacing	5,000mm ² /m	install at 3.0m centres
	10,000mm ² /m	install at 1.5m centres
	25,000mm ² /m	install at 0.6m centres
Airflow resistance	15 litres/sec	3.5 Pascals
	30 litres/sec	14 Pascals
	60 litres/sec	56 Pascals

Product features & benefits

- Low profile design
- Choice of five colours
- Fully wind tunnel tested
- Built in downpipe allows direct ventilation to roof space
- Adaptor available for soil ventilation or mechanical extraction
- Adaptor available for 125 mm diameter ducting

Area of application

Suitable for:

- Most popular interlocking and plain tile roofs with a pitch over 17.5°
- Roof space ventilation or for soil ventilation or mechanical extraction when used with the soil/mechanical adaptor
- High or low level roof ventilation

Material

Soft and rigid UPVC

Colours

- Antique red
- Brown
- Slate grey
- Terracotta
- Black

Dimensions

455 mm long x 440 mm wide x 91 mm deep (excluding downpipe)

Weight (per carton)

18.9kg

Packaging

10 vents per carton
8 cartons per pallet

Product codes

Antique red	KG985403
Brown	KG985436
Slate grey	KG985430
Terracotta	KG985434
Black	KG985476
100mm Soil/mech Adaptor & Flexi	KG979800
Flexipipe 100/100mm	KG979900
Flexipipe 125/100mm	KE8047
Adaptor 100mm	KG968300
Adaptor 125mm	KG979000
Underlay Seal	KG973100

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klobber Eaves Ventilation products.

Product features & benefits

- In-line design - virtually invisible from the ground
- Universally designed
- 7 profiles
- Choice of four colours
- Fully wind tunnel tested
- Built in downpipe allows direct ventilation to roof space
- Adaptor available for soil ventilation or mechanical extraction
- Robust construction

Area of application

Suitable for:

- High and low level ventilation
- Mechanical extraction when used with the soil/mechanical adaptor
- Roof pitches over 17.5° (Double Roman, Double Pantile & Limarech) & 20° (15 x 9, Flat Vent & Single Pantile), & 22.5° (Twin Plain)

Material

UPVC

Polypropylene (15 x 9 & Single Pantile only)

Colours

Antique red
Brown
Grey
Terracotta

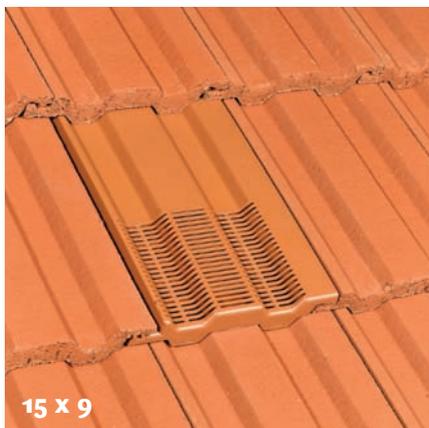
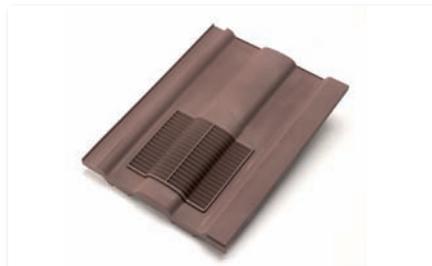
Dimensions

15x9/Single Pantile	384 x 229mm
Double Roman/Flat	418 x 330mm
Double Pantile/Limarech	418 x 332mm
Twin Plain	273 x 330mm



Limarech

- Sandtoft Lindum
- Marley Ludlow Major
- Redland Renown
- Russell Cheviot



15 x 9

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



Double Roman

- Sandtoft
- Russell
- Redland
- Marley Double Romans



Performance

Provides 10,000 mm² effective ventilation area (Twin Plain: 7,850mm²)

Vent spacing	5,000 mm ² /m	install at 2.0 m centres (Twin Plain: 1.57m)		
	10,000 mm ² /m	install at 1.0 m centres (Twin Plain: 0.78m)		
	25,000 mm ² /m	install at 0.4 m centres (Twin Plain: 0.31m)		
Air flow resistance	Flat Vent, D Roman, Limarech	Double Pantile	15 x 9 & Single Pan	Twin Plain
15 litres/sec	7 Pascals	4 Pascals	12 Pascals	35 Pascals
30 litres/sec	29 Pascals	16 Pascals	48 Pascals	140 Pascals
60 litres/sec	115 Pascals	64 Pascals	192 Pascals	560 Pascals

Profile-Line® Tile Vent



Single Pantile

Suitable for:

- Marley Anglia (concrete)
- Redland Norfolk Pantile (concrete)
- Forticrete Centurion (concrete)
- Sandtoft Shire Pantile (concrete)



Double Pantile

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



Flat Vent

- Sandtoft Calderdale
- Marley Modern
- Russell Grampian
- Redland Mini Stonewold



Twin Plain

- Redland Duo Plain
- Forticrete Gemini
- Marley Ashmore



KLOBER

Weight (per carton)

15 x 9 Vent	5.5kg
Double Pantile	12.3kg
Double Roman	12.2kg
Flat	9.0kg
Limarech	11.4kg
Single Pantile	5.5kg
Twin Plain	8.3kg
Flexipipe	12.9kg

Packaging

10 vents per carton
12 cartons per pallet
18 cartons per pallet (15x9 & Single Pan)

Product codes

15 x 9 Vent	KG9690
Double Pantile	KG9858
Double Roman	KG9857
Flat Vent	KG9856
Limarech	KG9859
Single Pantile	KG9860
Twin Plain	KG9861
Flexipipe	KG979900
Profile-Line Adaptor	KG979100
Profile-Line Adaptor & flexi	KG979200

Colour codes

Antique red	0116
Brown	0247
Grey	0429
Terracotta	0152
For Flat Vent only:	
Slate black	0450

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klobber Eaves Ventilation products.

Installation

Determine the location of the position of the Tile Vent on the underlay and cut open the underlay using a star cut the size of the downpipe. After folding back the underlay tabs insert the Vent in through the underlay and fix to the batten, making sure the fixing lug is under the adjacent roof tile. When using the Limarech with Redland Renowns or the Single Pantile with Forticrete Centurions the score lines should be cut/snapped off on the inside edge of the leading face. Then proceed with the tiling in the normal manner.

NB When using for ventilation at high level the vent must not be placed directly under the ridge tile.

Product features & benefits

- In-line design makes the vent virtually invisible in the roof line
- Can also be used with concrete plain tiles
- Adaptor and Flexipipe available for soil/mechanical extraction

Area of application

Suitable for:

- Most clay and concrete plain tiles on roof pitches 30° and above
- High or low level roof space ventilation

Material

UPVC

Colours

Brown
Terracotta

Dimensions

The size of 5 plain tiles

Weight (per carton)

8.7kg

Packaging

10 vents per carton
8 cartons per pallet

Product codes

Brown KG4321-0200
Terracotta KG4321-0100
Flexipipe KG979900
100/100mm
Soil/Mechanical KG8003
Adaptor

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klober Eaves Ventilation products.



A discreet ventilating tile suitable for clay and concrete plain tiles that provides 9,000mm² effective ventilation area.



Installation

The Clay Plain Tile Vent is positioned on the battens above the course below in broken bond format. An inverted T is cut into the underlay to provide a ventilation opening. If the mechanical adaptor is being used the underlay opening must be large enough to accommodate the spigot. Once the opening has been made the Tile Vent is placed over the opening and fixed into the batten through the two fixing points on each side of the vent.

Performance

Provides 9,000 mm² effective ventilation area

Vent spacing	5,000 mm ² /m	install at 1.8 m centres
	10,000 mm ² /m	install at 0.9 m centres
	25,000 mm ² /m	install at 0.36 m centres

Uni-Plain Tile Vent



A discreet ventilating tile suitable for clay and concrete plain tiles that provides 6,000 mm² effective ventilation area.

Installation

The Uni-Plain Tile Vent is positioned in broken bond format, above the course below and the underlay is marked and cut to accommodate the downpipe. The Tile Vent is then positioned adjacent to the next tile, nailed in place and tiling continued as normal.

Performance

Provides 6,000 mm² effective ventilation area

Vent spacing	5,000 mm ² /m	install at 1.0 m centres
	10,000 mm ² /m	install at 0.6 m centres
	25,000 mm ² /m	install at 0.24 m centres
Airflow resistance	15 litres/sec	12 Pascals
	30 litres/sec	48 Pascals
	60 litres/sec	191 Pascals

KLOBER

Product features & benefits

- No batten cutting necessary
- In-line design
- Built in downpipe allows direct ventilation to roof space
- Adaptor available for soil ventilation or mechanical extraction
- Prevents the entry of birds and large insects

Area of application

Suitable for:

- Most concrete and clay plain tiles at a roof pitch at or over 35°
- High or low level roof space ventilation

Material

Polypropylene/PVC

Colours

See Product Codes below

Dimensions

300mm long x 330mm wide

Weight (per carton)

8.5kg

Packaging

10 vents per carton
20 cartons per pallet
10 Soil/Mechanical Adaptors and Flexipipes per carton

Product codes

Antique red	KG991803
Autumn	KG991823
Brown	KG991836
Brown granular	KG991802
Cotswold	KG991812
Hedgerow brown	KG991818
Red granular	KG991805
Rustic red	KG991878
Slate grey	KG991830
Terracotta	KG991834

Soil/Mechanical Adaptor	KG990500
Adaptor and flexipipe	KG992800
Flexipipe only	KG997900

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klobber Eaves Ventilation products.

Product features & benefits

- Available with an integral downpipe
- Low profile design to blend with the roof line
- Slate Grey cap blends with most man-made or natural slates
- Designed to avoid any build up of debris inside the vent
- Clearly marked for cutting to various slate sizes
- Prevents entry of birds and large insects
- No adaptor required to convert to soil ventilation or mechanical extraction using Klover 75/100mm flexipipe

Area of application

Suitable for:

- 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates
- Man-made or natural slate
- For roofs with a pitch of 20°- 70°
- New build or re-roofing situations
- High or low level ventilation

Material

Rigid PVC

Colours

Slate grey, matt finish
Black

Dimensions

600mm long x 300mm wide x 75mm deep (including downpipe)

Weight (per carton)

11.3kg

Packaging

10 vents per carton
10 cartons per pallet

Product codes

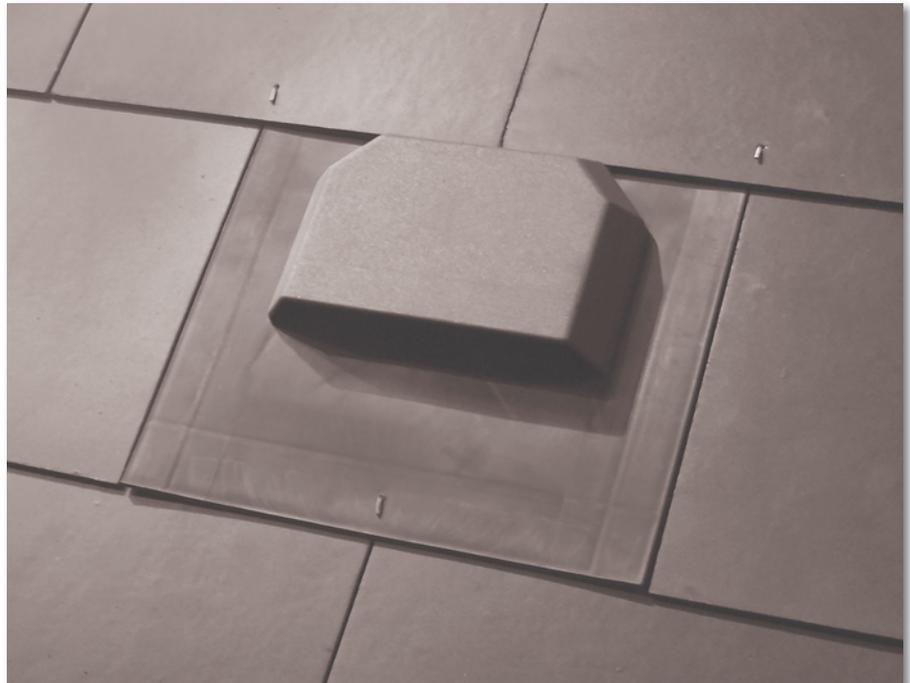
Small Slate Vent/black KG972276
Small Slate Vent/slate grey KG972200
Flexipipe only KG972400

Regulations and certifications

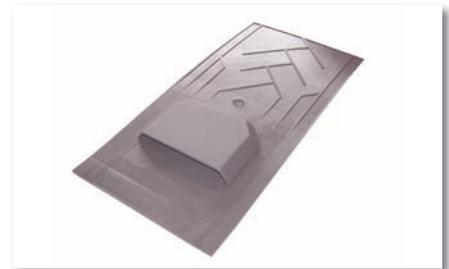
Complies fully with relevant Building Regulations and British Standards.

Related products

When used as high level ventilation, this product should be used in conjunction with Klover eaves ventilation products such as Easy-Fit Soffit Strips, Soffit Vents or Fascia Vents



The Small Slate Vent, with the integral downpipe, can also be used for soil ventilation or mechanical extraction when used with a 75/100mm Flexipipe.



Installation

The Slate Vent is positioned as standard and a hole is cut in the roofing underlay directly below the vent cap position. The two lower slates are trimmed to allow the pipe to pass through between them and centre nailed in position. The Slate Vent is positioned through the hole in the slates and centre nailed. NB. If using 500 x 250mm slates cut away the side sections of the Slate Vent shown by guidelines on the underside. For headlaps in excess of 100mm cut off the front section shown by the guideline on the underside. Slating is continued as normal.

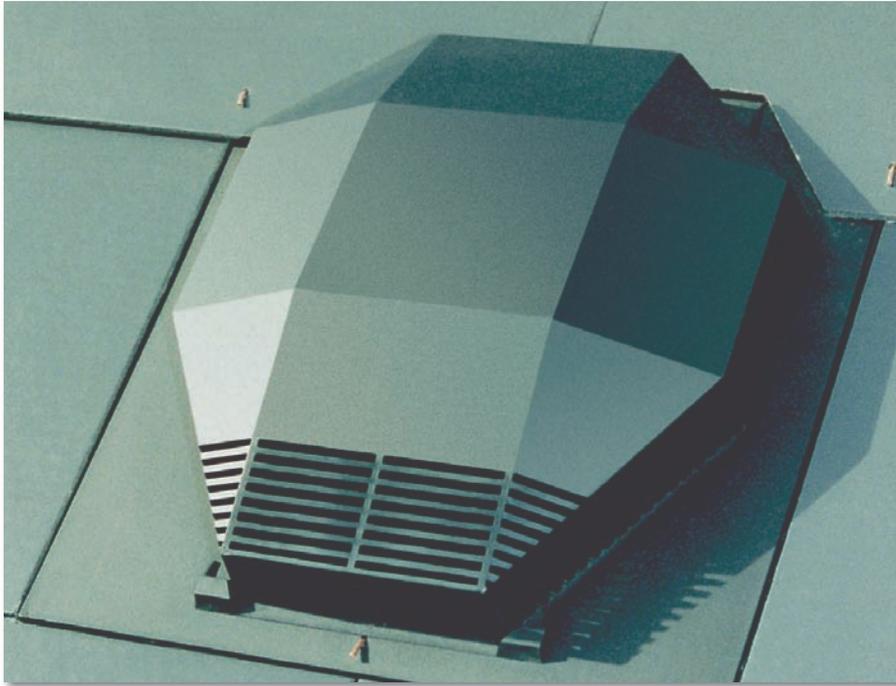
Full instructions are provided with each product.

Performance

Provides 4,500 mm² effective ventilation area

Vent spacing	5,000 mm ² /m	install at 0.9 m centres
	10,000 mm ² /m	install at 0.45 m centres
Airflow resistance	15 litres/sec	22 Pascals
	30 litres/sec	88 Pascals
	60 litres/sec	352 Pascals

10K Slate Vent



In addition to roof space ventilation at high or low level, with an adaptor pack, the UV resistant polypropylene 10K Slate Vent can also be used for soil ventilation or mechanical extraction.

Installation

The Slate Vent is positioned as standard and a hole is cut in the roofing underlay directly below the vent cap position. The two lower slates are trimmed to allow the pipe to pass through between them and centre nailed in position. The Slate Vent is positioned through the hole in the slates and centre nailed. NB. if using 500mm x 250mm slates cut away the side sections of the Slate Vent shown by guidelines on the underside. For headlaps in excess of 100mm cut off the front section shown on the underside. Slating is continued as normal.

Performance

Provides 10,000 mm² effective ventilation area

Vent spacing	5,000 mm ² /m	install at 2.0 m centres
	10,000 mm ² /m	install at 1.0 m centres

KLOBER

Product features & benefits

- Low profile design to blend with the roof line
- Slate Grey cap blends with most man-made or natural slates
- Designed to avoid any build up of debris inside the vent
- Clearly marked for cutting to various slate sizes
- Prevents entry of birds and large insects
- Adaptor required to convert to soil ventilation or mechanical extraction using Klobber 100/100mm flexpipe

Area of application

Suitable for:

- 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates
- Man-made or natural slates
- Pitch between 20°- 70°
- High or low level ventilation
- New build or re-roofing situations

Material

UV resistant polypropylene

Colour

Slate grey, matt finish

Dimensions

600mm long x 300mm wide x 60mm deep (excluding downpipe)

Weight (per carton)

8kg

Packaging

10 vents per carton
18 cartons per pallet

Product codes

10K Slate Vent	KG968900
10K Adaptor only	KG979100
Flexipipe only	KG979900
Adaptor & pipe	KG979200

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high level ventilation, this product should be used in conjunction with Klobber eaves ventilation products such as Easy-Fit Soffit Strips, Soffit Vents or Fascia Vents.

Product features & benefits

- In-line design
- Choice of three colours
- Fully wind tunnel tested
- Built in downpipe allows direct ventilation to roof space
- No soil/mechanical adaptor required

Area of application

Suitable for:

- 600 x 300mm (24" x 12") and 500mm x 250mm (20" x 10") fibre and natural double lap slates
- High or low level roof space ventilation
- Roof pitches over 22.5°
- Most natural and fibre cement slates

Material

UV resistant Polypropylene

Colours

Dark slate
Slate blue
Slate grey

Dimensions

600mm long x 300mm wide x 141mm deep

Weight (per carton)

11.5kg

Packaging

10 vents per carton
9 cartons per pallet

Product code

Dark slate KG963007
Slate blue KG963060
Slate grey KG963030

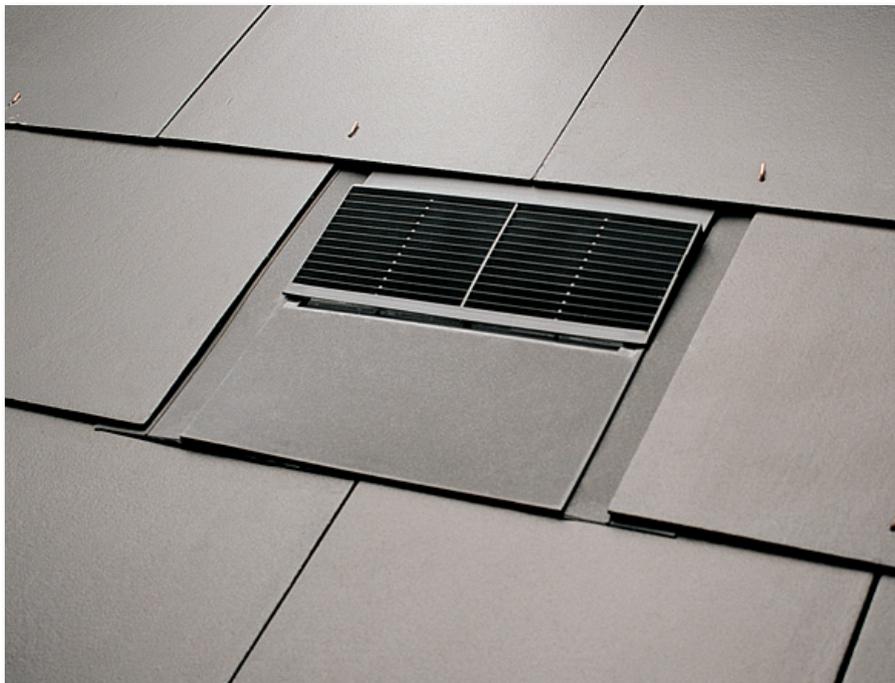
Flexipipe KG979900

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klober Eaves Ventilation products.



A universal In-line Slate Vent that suits most man-made and natural slates.



Installation

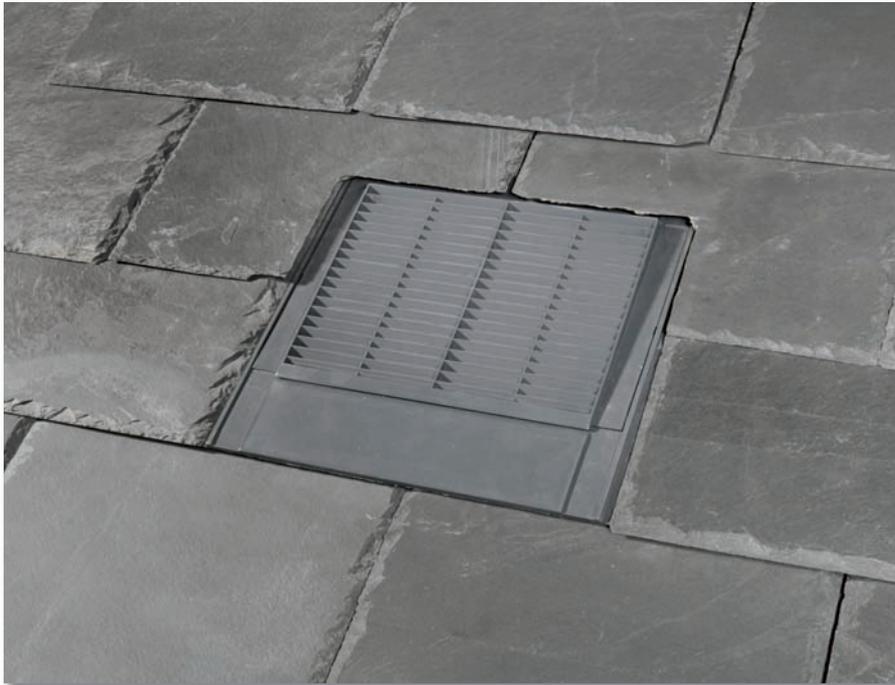
The vent is positioned directly in-line with the tile below, and an inverted T opening is cut within the underlay to accommodate the downpipe. To ensure the integrity of the underlay a Klober Underlay Seal is strongly recommended. Once the downpipe has been located through the underlay opening, the vent tile base is located on and fixed to the tiling batten. The front skirt is then dressed onto the top of the tile below, which should be clean, dry and free from dust. The roof tiles either side of the vent are laid and prior to the tile above being laid the upper skirt needs to be pushed down. Tile battens would need to be cut if plain tiles are being used.

Performance

Provides 12,000mm² ventilation area (6,500 mm² effective ventilation area)

Vent spacing	5,000 mm ² /m	install at 1.2 m centres
	10,000 mm ² /m	install at 0.6 m centres
Airflow resistance	15 litres/sec	24 Pascals
	30 litres/sec	96 Pascals
	60 litres/sec	384 Pascals

Mini Uni-Line Slate Vent



A universal In-line Slate Vent that suits most small natural slates.

Installation

The vent is positioned directly in-line with the slates below, and an inverted T opening is cut within the underlay to accommodate the downpipe. To ensure the integrity of the underlay a Klobber Underlay Seal is strongly recommended. Once the downpipe has been located through the underlay opening, the slate vent is located on and fixed to the slate batten. The slates either side of the vent are laid and trimmed if necessary.

Performance

Provides 12,000mm² ventilation area (6,500 mm² effective ventilation area)

Vent spacing	5,000 mm ² /m	install at 1.2 m centres
	10,000 mm ² /m	install at 0.6 m centres
Airflow resistance	15 litres/sec	24 Pascals
	30 litres/sec	96 Pascals
	60 litres/sec	384 Pascals

KLOBER

Product features & benefits

- In-line design
- Choice of three colours
- Built in downpipe allows direct ventilation to roof space
- No soil/mechanical adaptor required

Area of application

Suitable for:

- 400mm x 250mm (16 x 10") and below natural double-lap slates
- High or low level roof space ventilation
- Roof pitches over 22.5°
- Small natural and fibre cement slates

Material

UV resistant Polypropylene

Colours

Dark slate
Slate blue (to order)
Slate grey

Dimensions

450mm long x 300mm wide x 147.5mm deep

Weight (per carton)

7.8kg

Packaging

10 vents per carton
12 cartons per pallet

Product code

KG9631

Colour codes

Dark slate	0403
Slate blue	0433
Slate grey	0429

Flexipipe	KG979900
-----------	----------

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klobber Eaves Ventilation products.

Product features & benefits

- Low profile design makes it unobtrusive on the roof line
- Fits perfectly with adjacent slates
- Slate grey cap blends in with most man-made or natural slates
- Built-in downpipe to ensure direct ventilation path into the roof space
- Fully wind tunnel tested
- Adaptor and flexipipe available for soil ventilation or mechanical extraction
- Prevents entry of birds and large insects

Area of application

Suitable for:

- 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates
- Man-made or natural slates
- Roofs with a pitch over 20°

Material

Rigid PVC

Colour

Slate grey, matt finish

Dimensions

600mm long x 300mm wide x 85mm deep (excluding downpipe)

Weight (per carton)

14.5kg

Packaging

10 bases per carton
10 cartons per pallet
20 caps of a single colour per carton
10 underlay seals per carton

Product codes

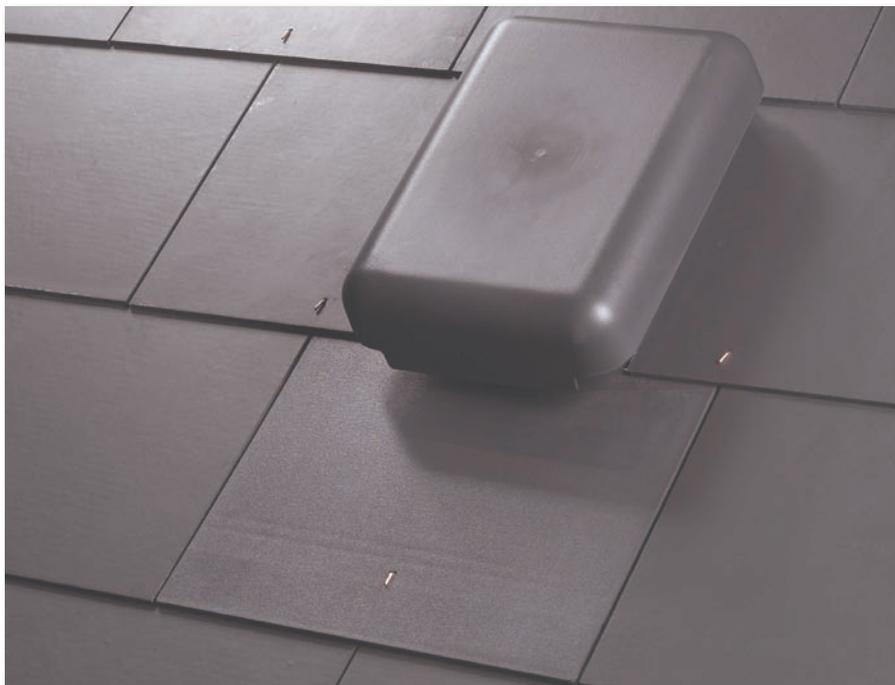
Slate Vent base	KG979400
Slate grey cap	KG979630
100mm Soil/mech	KG 979800
Adaptor & Flexi	
Flexipipe	KG979900
Adaptor 100mm	KG968300
Adaptor 125mm	KG979000

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high level ventilation, this product should be used in conjunction with Klover eaves ventilation products such as Easy-Fit Soffit Strips, Soffit Vents or Fascia Vents



A large capacity ventilating slate to suit 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural, for roofs with a pitch over 20°.



Installation

The Slate Vent is positioned as a standard slate and a hole is cut in roofing underlay to accommodate the downpipe. To ensure the integrity of the underlay the use of the Klover underlay seal is strongly recommended. The rigid base is nailed at either side of the batten. The two slates on the course immediately above the Slate Vent are cut to fit the profile of the vent body. NB. if using 500mm x 250mm (20" x 10") slates, the front section of the Slate Vent base is detached, as shown by guidelines on the underside, so that the slate course is flush. The adjacent slates on the same course and the slate directly behind the Slate Vent itself are also cut to fit. The tail of Slate Vent base is clipped with the slate rivet. The cap is clipped securely to the base and slating continued as normal.

Full instructions are provided with each product.

Performance

Provides 28,000mm² ventilation area (14,000 mm² effective ventilation area)

Vent spacing	5,000 mm ² /m	install at 2.8 m centres
	10,000 mm ² /m	install at 1.4 m centres
	25,000 mm ² /m	install at 0.56 m centres
Airflow resistance	15 litres/sec	3.5 Pascals
	30 litres/sec	14 Pascals
	60 litres/sec	56 Pascals

Soil/Mechanical Adaptors, Flexipipes

KLOBER



Packs consist of an adaptor, for use with the Universal Vent Tile, Uni-Plain Tile Vent, Profile-Line vents, Large Slate Vent and 10K Slate Vent, together with a high quality Flexipipe with quick push fit for connecting to 100mm (4") internal ducting. The 75/100mm flexipipe is for use with the Small Slate Vent with downpipe.

Installation

Universal Vent Tile/Large Slate/10K Slate Vent/Profile-Line® Vent Tile/Uni-Plain Tile Vent

Adaptor is clipped onto the downpipe of the Universal Vent Tile, Profile-Line® Vent Tile, Slate Vent or 10K Slate Vent ideally before installation. Flexipipe is secured to adaptor with a unique push fit connector. Full fixing instructions are provided with the product.

Uni-Flexipipes - 75/100mm & 100/100mm

The 75/100mm Flexipipe is secured to the integral downpipe of the Small Slate Vent with stainless steel clip and a second clip is used to connect it to internal pipework. The 100/100mm is secured to the adaptor or downpipe with a unique push fit connector. Full fixing instructions are supplied with each product.

Regulations and certifications

Pressure tested to comply with relevant Building Regulations and British Standards

Related products

Underlay seals KG973100

Performance

Provides 8,500 mm² effective ventilation area

Product features & benefits

- Quick & simple connection to internal pipework
- No tile cutting or lead flashing required
- 1 convenient pack
- Lightweight & durable

Area of application

Suitable for connection to soil pipes/ extractor fans

Material

Adaptors: rigid PVC
 10k Slate Vent Adaptor: polypropylene
 Flexipipe: encapsulated galvanised spring steel wire helix within double ply PVC wall
 Clips: stainless steel

Colours

Adaptors- dark grey
 Flexipipe- dark grey & light grey

Dimensions

Adaptor for Universal Tile Vent/ Large Slate Vent

L 170mm x W 120mm x D 90mm,
 105mm internal diameter

Adaptor for Uni Plain Tile Vent

L 273mm x W 44mm x D 200mm
 105mm internal diameter

Adaptor for Profile-Line Vents & 10k Slate Vents

L 76mm x W 86mm x D 120mm
 105mm internal diameter

Flexipipe for Universal-, Uni-Plain- & Profile-Line Tile vents/Large & 10K Slate Vents

540mm overall length (unpacked)
 100mm diameter

Flexipipe -Small Slate Vent

75mm to 100mm diameter

Packaging

10 units per carton
 16 cartons per pallet (100/100mm)
 20 cartons per pallet (100/75mm)

Product codes

Adaptor & Flexi (Universal Tile Vent & Large Slate Vent)	KG979800
Adaptor & Flexi (Uni-Plain)	KG992800
Adaptor & Flexi (Profile-Line & 10K Slate)	KG979200
Adaptor (Plain Tile)	KG990500
Adaptor (Universal Tile Vent)	KG968300
Adaptor (Profile-Line & 10K Slate Vent)	KG979100
Flexipipe 75/100mm	KG972400
Flexipipe 100/100mm	KG979900
Flexipipe 100/125mm	KE8047

Product features & benefits

- Provides watertight lead-through for cables which pass through the roof
- 8 Cable Insert allows additional cables to be added
- Foam strip and sealing bar provide perfect barrier against driving rain
- Fully wind-tunnel tested
- Available in 3 colours to match the roof
- Slate Cable Kit also available
- Sealing Collar creates airtight seal around cables passing through the roof

Application area

Suitable for:

- Various types of cables eg PV-systems, sensor cables, antenna cables, lights, security cameras
- Cables with a diameter 4mm-8mm
- Roof pitches between 20°-50°
- Most popular concrete interlocking & plain roof tiles
- Slates
- Sealing Collar: suitable diameters 8-12mm, 15-22mm, 25-32mm, 42-55mm & 50-70mm

Material

UV resistant soft & rigid PVC

Sealing bar: polypropylene

Sealing Collar: with silicon release paper & EPDM Collar

Product codes

Tile Cable Kit	KE8073
Slate Cable Kit	KE8075
Cable Insert	KE8082
Sealing Collar 8-12mm	KE8092
Sealing Collar 15-22mm	KE8093
Sealing Collar 25-32mm	KE8094
Sealing Collar 42-55mm	KE8090
Sealing Collar 50-70mm	KE8091

Colour codes

Brown	-0247
Red	-0100
Slate grey	-0429
Slate version	-0450

Dimensions (mm)

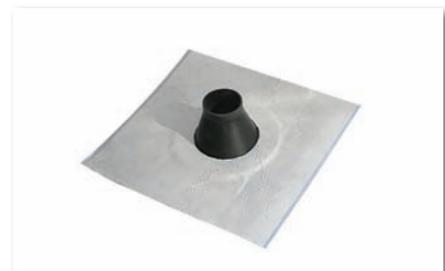
Tile Cable Kit:	248 L x 150 W x 73 D
Slate Cable Kit:	600 L x 290 W x 420 D
Universal Base Tile:	425 x 450 (incl skirt)
Sealing Collar:	228 x 228 x 60

Packaging

Tile Cable Kit	1 per carton, 20 per pallet
Slate Cable Kit	10 per carton, 80 per pallet
Sealing Collars	2 per carton, 126 per pallet

Weight (per carton)

Cable Kit	1.2kg
Slate Kit	12.5kg



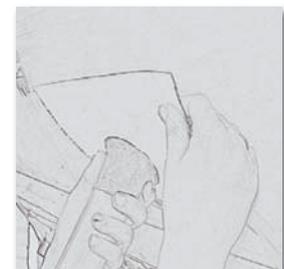
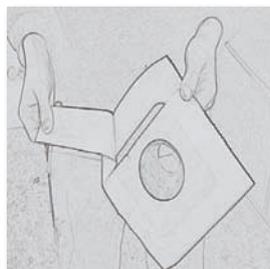
Klober's Solar Cable Outlet Kit creates a watertight seal around cables which pass through the roof. Use in conjunction with Klober's Sealing Collar to create a wind and airtight seal around the penetration.

Installation

Cable Kit

Full instructions are provided with each carton.

Sealing Collar



1. Peel off the protective backing paper section shown in diagram 1
2. Place the collar over the pipe
3. Press and stick on to the material
4. Peel back the second section of the backing paper and apply
5. To ensure good adhesion, press firmly all around

Venduct®

Solar Thermal Outlet Kit & Sealing Collar

KLOBER



The Solar Pipe Outlet allows cables and water pipes for solar panels to pass through the roof without compromising the watertightness of roof coverings. The Sealing Collar creates an airtight seal around pipes which pass through the roof via the Solar Pipe Outlet.

Installation

Solar Pipe Outlet

Full instructions are provided with each carton. NB When using with Thermo Solar panels, **the insulation must not be removed**. This will avoid the hot pipe coming in to direct contact with the collar and the heat sensor cable coming into contact with the pipe.

Sealing Collar



1. Peel off the protective backing paper section shown in diagram 1
2. Place the collar over the pipe
3. Press and stick on to the material
4. Peel back the second section of the backing paper and apply
5. To ensure good adhesion, press firmly all around

Product features & benefits

- Watertight seal can be formed by cutting the nozzle to the appropriate size
- Easy to install
- Available in two colours to match the roof
- Universal Tile Base suits most concrete interlocking tiles
- Slate Base also available
- Minimum roof pitch Uni Base Tile 17.5°, Slate Base 20°
- Sealing Collar creates airtight seal around pipes passing through the roof
- Kit contains base tile, adaptor & nozzle

Area of application

Nozzle can accommodate pipe/cables with diameters between 10mm and 70mm
Sealing Collar: suitable for pipes with diameters 8-12mm, 15-22mm, 25-32mm, 42-55mm & 50-70mm

Material

UV resistant PVC
Nozzle: EPDM
Sealing Collar: with silicon release paper & EPDM Collar

Weight (per carton)

Universal base Kit	2.20kg
Slate base Kit	1.95kg
Sealing Collar 42-55mm	0.14kg
Sealing Collar 50-70mm	0.16kg

Dimensions

Nozzle & Collar: 120mm high x 350mm long x 120mm wide
Universal Base Tile: 425 x 450mm (including skirt)
Slate Base: 400 x 400mm
Sealing Collar: 228 x 228 x 60mm

Packaging

Per carton

Kit	1
Sealing Collars	2

Per pallet

Kits	18
Sealing Collars	126

Product code

Universal base Kit	KE8070
Slate base Kit	KE8071-0450
Sealing Collar 8-12mm	KE8092
Sealing Collar 15-22mm	KE8093
Sealing Collar 25-32mm	KE8094
Sealing Collar 42-55mm	KE8090
Sealing Collar 50-70mm	KE8091

Colour codes for Universal Kit

Red	0100
Slate grey	0429

Product features & benefits

- For use both inside and outside
- Use with Klover sealing tape to create fully wind and airtight seals between the underlay/vcl and pipes which penetrate the roof
- Suitable for areas with adverse weather conditions. High quality EPDM collar is highly durable for use inside where heat builds up and outside in very cold conditions
- UV stable
- Flexible material allows pipes from 100mm diameter + to pass through the roof
- Suits nearly all roof pitches due to the highly flexible ridges in the collar
- Easy to install
- Suitable for both rigid & flexi-pipes

Area of application

Suitable for:

- Inside & outside
- Roof pitches between 10 - 70°
- Pipes with a diameter from 100mm
- Sealing to any underlay/vapour control layer

Material

EPDM

Weight (per carton)

3.1kg

Dimensions

310mm long x 235mm wide x 115mm high
Inside diameter: 95mm

Packaging

20 pieces per carton
48 cartons per pallet

Product code

KU8001

Colour

Black

Related products

- Permo® underlays
- Wallint® air barriers & vapour control layers
- Adhesive tapes
- Flexi-pipes



Klover's Pipe Sealing Collar is the ideal solution for creating air- and windtight seals around pipes which pass through the roof.

Installation

1. Cut hole in underlay/vapour control layer according to diameter of pipe
2. Place sealing collar in position
3. Tape the bottom edge of the flange to the underlay/vcl using Klover tape
4. Tape both sides of flange, overlapping them with tape along the bottom edge
5. Tape top edge so that it overlaps both side tapes
6. Push pipe through collar into place

Permo® TR tape



Permo® TR is an essential product for reducing energy loss through the roof. It is a multi-functional adhesive tape, ideal for creating airtight seals between laps in underlays or vapour control layers/air barriers, repairing holes in underlays/vcls and sealing around pipe sealing collars, as shown above.

Technical data

Adhesive	Acrylic
Solvent	None
Installation temperature	>-10°C
Temperature stability	-40 to +80°C
UV resistance	3 months
Resistance to ageing	Acrylic adhesive does not dry out or become brittle. It remains permanently elastic & adhesive.
Shelf life	12 months at <30°C

KLOBER

Product features & benefits

- Single-sided
- Includes a reinforcement mesh for strength
- Multi-functional tape, used for joining, repairing and creating airtight seals
- Ideal for use with Wallint® solar since it maintains its low emissivity properties
- Stretchable
- Extremely durable

Area of application

Suitable for:

- Repairing holes/tears in underlays or vapour control layers/air barriers
- Sealing laps between underlays or vapour control layers/air barriers
- Creating a seal around sealing collars
- Around roof penetrations
- Butt joints
- Irregular surfaces
- Timber frame: planed/finished or stained
- Synthetic materials: paper, fleece or similar, PE, PP or hard PVC
- Other surfaces: metal, glass, PUR-foam/styrofoam
- Use both internally & externally
- All pitches of roof

Material

Acrylic adhesive with PE release paper

Colour

Transparent

Dimensions

25m x 60mm wide

Weight (per carton)

3.8kg

Packaging

10 rolls per carton

Product code

KU 0121

Related products

- Any Klober underlay
- Wallint® or Wallint® solar vapour control layers/air barriers
- Pipe sealing collar

Product features & benefits

- Double-sided tape
- Ideal for creating airtight seals around nail penetrations through underlays/AVCL's or adhering underlays/AVCL's to both smooth & rough surfaces
- Highly durable
- Watertight

Application area

Suitable for:

- Adhering underlays & vapour control layers/air barriers to smooth & rough surfaces
- Use below tile battens or counter-battens to seal nail penetrations through the underlay
- Both internal & external use

Material

Double-sided butylon-rubber adhesive

Dimensions

20mm x 25m

50mm x 25m

Weight (per carton)

20mm x 25m: 3kg

50mm x 25m: 4.3kg

Packaging (rolls/carton)

20mm x 25m: 4

50mm x 25m: 2

Product codes

20mm x 25m: KU0103

50mm x 25m: KU0104

Related products

Any Klover underlay

Wallint® 50 or Wallint® solar vapour control layers/air barriers



Butylon is a double-sided tape for sealing nail penetrations through underlays as well as sealing underlays, air barriers or vapour control layers (AVCL's) to both smooth and rough surfaces.

Technical data

Adhesive	Butylon®
Solvent	Solvent free
Installation temperature	>+5°C
Temperature stability	-40 to +80°C
UV stability	4 months
Shelf life	2 years at 20°C or less

Easy-Form® tape



Easy-Form® tape is a multi-functional highly flexible tape. It can be used both inside and outside, creating watertight and airtight seals around penetrations, corners of roof windows or tears in underlays.

Installation

- Measure and cut the appropriate length of tape. Fold in half and crease lengthways down the centre of the tape.
- Peel back one section of the release paper
- Apply this section before peeling back the second section of the release paper
- Shape the Easy-form around the contours

Technical data

Adhesive	Butylon
Exterior surface	Aluminium
Thickness	0.8mm
Installation temperature	+5 to +40°C
Storage temperature	-20 to +30°C
Storage	Store in upright position

KLÖBER

Product features & benefits

- Full butylon backing offers excellent adhesion & is highly resistant to ageing
- Can be used for a multitude of applications on the roof
- Quick and easy to use
- Can stretch up to 70% lengthways, allowing tight seals to be created around traditionally difficult areas eg roof windows, pipe penetrations
- Two widths: 60 & 90mm

Area of application

Suitable for use:

- Both inside and outside
- Around roof penetrations eg TV antennae, cables, pipes
- Repairing roofing underlays
- Around corners of skylights

Material

Crepped coated aluminium, PET fleece, complete coating with self-adhesive butylon

Dimensions

60mm wide x 10m long
90mm wide x 10m long

Packaging

6 rolls per carton
49 cartons per pallet

Product codes

60mm x 10m KW0060
90mm x 10m KW0090

Colour

Anthracite

Related products

- Permo® air-open and vapour-permeable underlays
- Venduct® tile and slate vents
- Prismax® skylights

KLOBER

Klober Ltd.
Unit 6F
East Midlands Distribution Centre
Short Lane
Castle Donington
Derbyshire, DE74 2HA
UK
Tel. +44 (0)1332 813 050
Fax +44 (0)1332 814 033
www.klober.co.uk
info@klober.co.uk

Klöber Benelux SPRL
Rue Mitoyenne 23
4837 Baelen
Belgium
Tel. +32 (0)87 56 10 56
Fax +32 (0)87 56 12 56
www.kloeber.be
info@kloeber.be

HPI - CZ spol. s r.o.,
Kotrčova 306
503 01 Hradec Králové
Czech Republic
Tel. +420 (0)495 800 912
Fax +420 (0)495 217 290
www.hpi-cz.cz
info@hpi-cz.cz

Klöber GmbH
Scharpenberger Str. 72-90
58256 Ennepetal
Germany
Tel. +49 (0)23 33 98 77-0
Fax +49 (0)23 33 98 77-199
Hotline +49 (0)23 33 98 77-164
www.kloeber.de
info@kloeber.de

Klöber - HPI France Sàrl
6, rue de l'Energie
67720 Hoerdts
France
Tel.: +33 (0)3 88 68 20 60
Fax: +33 (0)3 88 68 18 10
www.kloeber-hpi.fr
info@kloeber-hpi.fr

Klöber Italia S.r.l.
Via Miles 9/10
20873 Cavenago di Brianza (MB)
Italy
Tel. +39 (0)2 95 33 53 01
Fax +39 (0)2 95 33 53 00
www.kloeber.it
info@kloeber.it

Klöber - HPI Polska Sp. z o.o.
ul. 17 Stycznia 45b
02-146 Warszawa
Poland
Tel. +48 (0)22 35 12 900
Fax +48 (0)22 35 12 901
www.kloeber-hpi.pl
info@kloeber-hpi.pl

