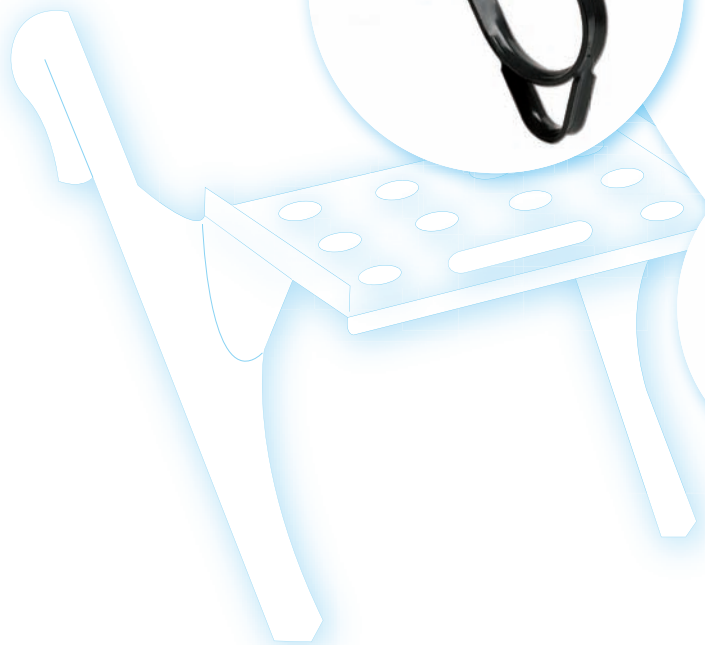


Trapac® Snow & Safety

KLOBER



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History

Klover 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 Klover 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, Klover completed its offer for permeable underlays with the introduction of vapour control layers.

Its first overseas venture took place in 1985 when Klover 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, Klover has recently set up sales organisations in Slovakia and the Czech Republic.

Technical support

Klover 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

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

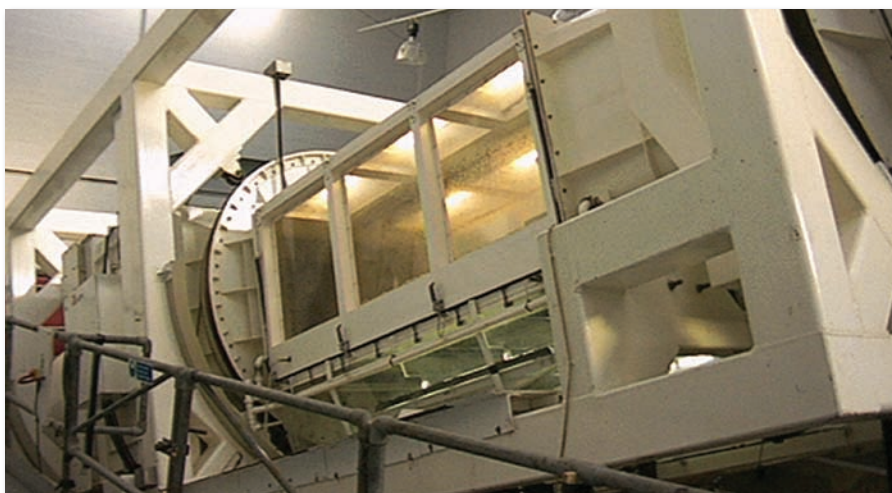
With offices in 9 countries and sales worldwide, Klover is truly an international company.

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
- Prismax® daylight roofing
- Trapac® snow and safety
- Venduct® tile and slate vents
- Flavent® flat roofing

Klover 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

Klover 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, Klover continues to improve the quality of its products and production methods.

Environment

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

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



FM95146

Contact details & product range



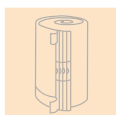
Venduct®
tile & slate vents



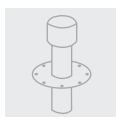
Trapac®
snow & safety



Prismax®
daylight roofing



Dry fix roofing,
eaves & valleys



Flavent®
flat roofing



Underlays,
wall membranes &
sealing products

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

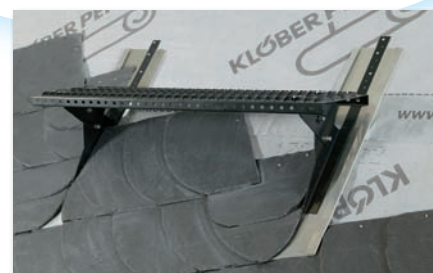
All products supplied by Klobber Ltd are covered by a 10 year guarantee against manufacturing defect. Products are not covered for colour stability, poor workmanship or incorrect installation.

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.

Falls from height accounted for 45 fatalities and around 3,400 major injuries in the year 2006/7 (HSE figures). Some of these were falls from height during maintenance.

While Klover's robust roofing underlays can help prevent falls through the roof during construction, its range of Trapac® safety products can make access around the roof safer after construction is complete.

They are a simple to install, cost-effective means of providing permanent external roof maintenance access and an alternative means of escape in the event of fire.



Trapac® Universal Single Step

Klover's easily adjustable Trapac® Universal Single Step is suitable for clay and concrete interlocking tiles on roof pitches from 14-56° with no need to fix additional support battens.

Made from galvanised flat steel and powder-coated, they are coloured to match most roof finishes. The durable non-slip foot step surfaces are available in two generous widths of 180 and 280mm.

Trapac® Universal Walkway

Klover's Trapac® Universal Walkway allows work to be carried out more safely on the roof. Available in 4 colours to blend in with the roof, it suits any pitch of concrete, clay, slate or fibre cement roof. Lengths can also be joined to make longer walkways.

Introduction to Trapac®

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Trapac® Tile & Snow Guard

Trapac® Tile and Snow Guards are the universal answer to preventing injury and damage from slipping snow, damaged or loose tiles and slates on pitched roofs.

Manufactured from galvanised flat steel and powder coated, the Guards are suitable for installation with flat and profiled concrete interlocking tiles. They are lightweight and easy to fit without the need for an additional support batten.



Trapac® Safety Hook

Trapac® Safety Hooks are for fixing loads such as roofers' ladders in place while work is being carried out on the roof. They are available in two versions to suit slate and profiled concrete and clay tiles. Safety equipment can also be hung on the eyelet.

Product features & benefits

- Quick & easy to install
- Galvanised & powder coated
- Universal application suits clay & concrete interlocking tiles
- Adjustable to suit roof pitch
- 2 widths: 18 & 28cm
- Lightweight
- No need to fix additional support battens
- Additional hand opening within the tread provides added safety for the roofer when walking up the roof
- Alignment of the tread area makes the step suitable for roof pitches from 14° to 56°
- Left/right brackets are interchangeable to allow them to fit within the trough/pan of the tile

Area of application

Suitable for:

- New build & refurbishment
- Clay & concrete interlocking tiles with a batten depth between 24mm – 40mm. The complete thickness of the tile and batten must not exceed 57mm
- Roof pitches between 14° & 56°

Material

Safety Step: galvanised flat steel
DX51D-Z275 to EN10142

Overcoating: galvanized and powder coated

Colours

Black

Brown - available on request

Galvanized - available on request

Terracotta - available on request

Dimensions

Size of the Tread Area

18cm: 182mm width x 170mm length

28cm: 282mm width x 154mm length

Weight

18cm

2.0kg per piece

20kg per carton

28cm

2.2kg per piece

22kg per carton

Packaging (per carton)

10 pcs

Product codes

18cm Single Safety Step KS9100

28cm Single Safety Step KS9110



Trapac® Universal Single Safety Steps are a universal, adjustable galvanised metal step that provides easy access on pitched roofs.



Installation

Determine the location of the steps which must be fitted on undamaged tiles with both nibs in good condition. The load bearing battens where the step hooks over must also not be defective. If the brackets are not fully resting on the lower tiling batten, an additional batten must be fixed. Hook step over the batten and the tile within the trough/pan of the tile making sure that the underside of the hook is up against the top of the tile. Once the step has been secured to the batten, align and level the tread according to the pitch of the roof.

Full fixing instructions are supplied with the product.

Regulations

In accordance with DIN EN 516 class 1
and DIN 18160-5 and Ö Standard
B 8207

Related products

- Trapac® Walkway
- Trapac® Tile & Snow Guard
- Trapac® Safety Hook



Klober's Trapac® Walkway allows work to be carried out more safely on the roof. Available in 4 colours to blend in with the roof, it suits concrete, clay, slate or fibre cement roofs.

Installation

Walkway should not exceed edge of Support Bracket by more than 10cm. To fit Walkway to Support Bracket two fixings per Support are required. The Support Brackets allow for 3 degrees of horizontal adjustment.

Profiled Tiles with load-bearing battens: Support Bracket is hung onto load-bearing batten. Additional battens are not required. With large format clay tiles an additional batten may be necessary if the distance between the battens is greater than 37cm.

Flat Tiles: For flat tiles an additional batten is required so that the Support Bracket can be secured through three holes in the metal strip. Maximum distance between Support Brackets is 90cm.

Product codes

42cm	KS9130
60cm	KS9131
84cm	KS9132
102cm	KS9133
120cm	KS9134
150cm	KS9135
204cm	KS9136
252cm	KS9137
300cm	KS9138
Connector	KS9140
Support bracket clay/concrete	KS9120
Support bracket slate/flat/ fibre cement	KS9121
Fixings	KS9141

Related products

- Trapac® Safety Step
- Trapac® Tile & Snow Guard
- Trapac® Safety Hook

Product features & benefits

- Allows work to be carried out on the roof more safely, giving access to large areas of the roof
- 9 lengths available
- Lengths can easily be joined together using Connectors
- Available in 4 colours to blend in with the roof
- Universal for all roof types
- Solid and safe
- Adjustable for roof pitches
- Support brackets are adjustable in height & length for use with different profiles

Area of application

Suitable for:

- different tile profiles
- concrete, clay, slate & fibre cement
- different roof pitches using adjustable Support Bracket: clay/concrete: 20-56°, slate: 22-66°, flat/fibre cement: 19-58°

Material

Walkway

Galvanised steel DX52 D+AZ 150 NA-C, powder coated

Connectors & Support Brackets

Galvanised steel DX51D/S235 JRG2 to EN1461

Fixings for Walkway to Support Bracket

Galvanised steel

Colours

Black
Dark brown
Galvanised
Terracotta

Dimensions

Please contact our Sales Office for details on dimensions

Weight

Please contact our Sales Office for details on weights

Packaging

Connectors 1 bag contains 2 connectors, 8 screws, washers and nut bolts

Fixings for Walkway to Support

Bracket 1 bag consists of 48 fixings of screws, washers & nut bolts

Support bracket

10 pcs per carton

Product features & benefits

- Quick & easy to install
- Galvanised and powder coated
- Prevents slipping tiles and snow from falling
- Lightweight and easy to fit without need for an additional support batten

Area of application

Suitable for:

- New build & refurbishment projects
- Flat & profiled clay & concrete interlocking tiles with battens between 24-40mm deep. The complete thickness of the tile and the tile batten must not exceed 57mm.

Material

Tile & Snow Guard: galvanised flat steel DX51D-Z275 to EN10142
Overcoating: galvanized & powder coated

Colours

Black
Dark brown available on request
Galvanized available on request
Red available on request

Dimensions

Tile & Snow Guard: length 3m, height/steel format of corner: 200/17 x 15 x 2mm

Weight

Tile & Snow Guard

3.75kg per piece

37.5kg per carton

Support Bracket

0.9kg per piece

8kg per carton

Connector

0.24kg per piece

12kg per carton



Trapac® Tile & Snow Guard is the universal answer for preventing slipping snow and tiles on pitched roofs. The support brackets are suitable for installation with flat and profiled concrete interlocking tiles. They are lightweight and easy to fit, without the need for an additional support batten. The Guard can be connected together using Connectors.



Installation

Determine the location of the Tile & Snow Guard Support Brackets, usually within the first or second course of tiles up from the eaves. Lay the tiles to the course the brackets are being fixed. Hook the Support Brackets over the tile and tiling batten and pull down over the batten and the tile. Fix into the tile batten with a 50mm ring shank nail. If the brackets are being installed within a profile tile, the brackets must be installed within the pan of the tile. The Support Brackets are fixed at 600mm centres.

Packaging

Tile & Snow Guard

10 per carton

10 cartons per pallet

Support brackets*

20 per carton

14 cartons per pallet

* 5 brackets required per 3m Guard

Connector

50 pieces per carton

Product codes

Tile & Snow Guard	KS9210
Tile Support Bracket	KS9220
Slate Support Bracket	KS9221
Connector	KS9215

Related products

- Trapac® Safety Hook
- Trapac® Safety Step
- Trapac® Walkway Step

Trapac® Safety Hook



Trapac® Safety Hooks are for fixing loads such as roofers' ladders in place while work is being carried out on the roof. They are available in three versions to suit slate and profiled concrete and clay tiles and plain tiles. Safety equipment can also be hung on the eyelet.

Installation

The Safety Hooks should be fixed in the centre of the rafter using the nails supplied. Minimum rafter cross section should be 50x80mm. The nails must be at least 25mm away from the rafter edge. If the safety hooks are not fixed directly to the rafters, but fixed through counterbattens or boarding, care must be taken to avoid the timber splitting on the account of its insufficient thickness. We recommend that when fixing the safety hooks into counterbattens or boarding, holes should be pre-drilled prior to nailing. To conform to Euro Code 5-1-1, fixings must be driven in to a minimum depth of 36mm into the load-bearing roof construction (rafters). After any dynamic loading of a safety hook (occurrence of a safety critical event) the hook must be replaced, along with all the relevant fittings.

Klober's installation instructions should be followed closely when fitting this product.

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Product features & benefits

- Available in antique red, anthracite or galvanised
- Quick & easy to install
- Corrosion-resistant - galvanised and powder coated
- The hook's 45mm offset for concrete and clay tiles allows it to be easily fitted to the rafter.
- Safety equipment can also be hung on the eyelet
- Suitable to carry loads in the direction of the roof's fall line

Area of application

Suitable for:

- Most clay & concrete interlocking tiles & slates
- New build & refurbishment

Material

Galvanised steel 30x6mm; S 235 J2 G3C according to DIN EN 10025

Colours

Tile	anthracite & galvanised
Slate	galvanised
Plain tile	antique red

Weight

Tile Safety Hook

1.18kg per piece

11.8kg per carton

Slate Safety Hook

1kg per piece

10kg per carton

Packaging

10 pieces per carton including 32 nails

Product Codes

Tile Safety Hook	KS9000
Slate Safety Hook	KS9001
Plain tile	KS9002

Colour codes

Anthracite	0430
Galvanised	0370
Antique red	0100

Regulations

Complies with DIN EN 517 - Type A for loads in the direction of the roof's fall-line

Related products

Trapac® Safety Step
Trapac® Walkway
Trapac® Tile & Snow Guard



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 PGmbH
Herbesthaler Str. 36
4700 Eupen
Benelux
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 & Co. KG
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 Hoerd
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

