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(54) **ROOF EDGE WITH CLAMPING SYSTEM WITH LEAF SPRING**

(57) The invention comprises a clamping system for roof edges and a related kit comprising components. The invention also relates to a method for clamping a roof edge.

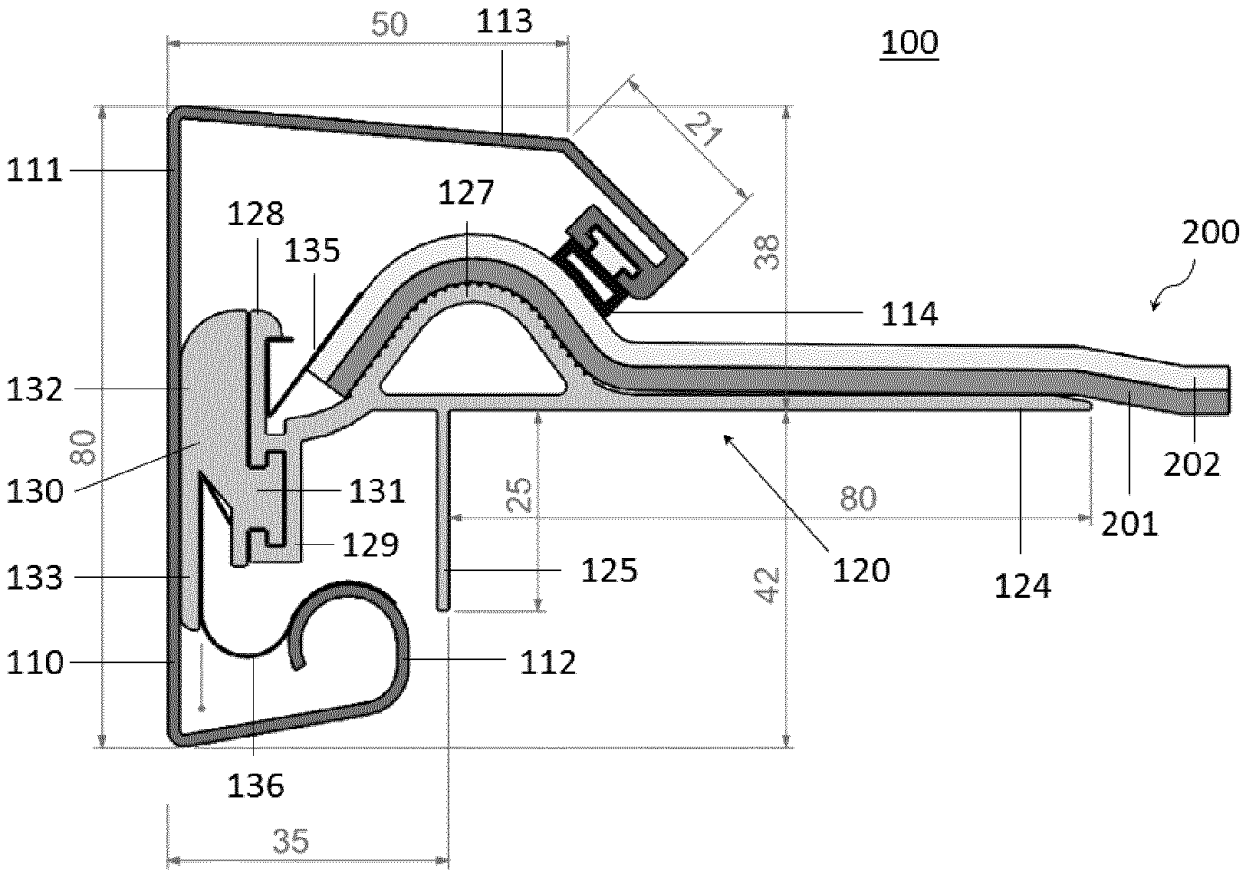


FIG. 2

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Description

TECHNICAL FIELD

[0001] The invention relates to a clamping system for roof edges and a related kit comprising components. The invention also relates to a method for clamping a roof edge.

TECHNOLOGICAL BACKGROUND OF THE INVENTION

[0002] Roof edges are a very common construction element. They are used, inter alia, to protect walls from rainwater. Some existing roof edges comprise a bottom profile and a decorative panel which can be fastened to each other. The bottom profile ensures that the decorative panel is fastened to the roof and the decorative panel determines the appearance of the roof edge. Such roof edges can be produced in a simple manner.

[0003] However, with existing roof edges, the bottom profile and the decorative panel are not always easily connectable to each other. There is also a trade-off between the simplicity with which the bottom profile and the decorative panel can be connected to each other and the strength of the connection between the bottom profile and the decorative panel.

[0004] In addition, the roof covering may consist of various thicknesses. Sometimes several layers of roof covering are attached, sometimes only one layer of roof covering. Certain types of roof covering are attached in a thick layer. However, current roof edges are only usable for a limited range of thickness of the roof covering. If the roof covering is too thick or too thin, the roof edge will either not be able to be fitted or the connection will have insufficient water-tightness.

[0005] DE2800003A1 relates to a directly fastened joint profile unit in the edge cladding for a flat roof, said joint profile unit being firmly retained by clamps and comprising spaced-apart holders which are fastened by way of their top anchoring means to the inwardly directed edge. A bent projection protrudes between the two ends of each clamp, as a result of which the interval between the clamps can be varied. Located between the lower end of each clamp and the lower end of the cladding profile is a spring element which fixes the last position. The clamps may be made of plastic.

[0006] DE3119231A1 relates to a roof edge cladding comprising gravel stop, retaining means and a carrier profile on which the roof membrane rests. The fastening means consist of a supporting part comprising an oblique limb and a supporting part which is vertically adjustable thereon and which comprises a web part at the top and a clamping spring at the bottom. A U-shaped clamping profile that rests in the form of a cap on the roof membrane and that is retained in this way by the track parts runs under the track parts and above the carrier profile. The base profile on the carrier profile has, at the top side and bottom side, continuous guide channels in which the retaining means, which are simultaneously butt joints, engage on the edge side in a slidable manner. The non-clamped roof membrane as well as the other parts of the roof edge covering can function freely. Adaptation to various cross-sectional thicknesses and layers of roof covering is possible by adapting the fastening means. The roof membrane is firmly retained, even if the gravel stop has not yet been fitted.

[0007] DE4231701A1 relates to the covering for the edge of a roof of a building, in particular next to a passageway or a footpath. The profile of the outer covering is C-shaped and is supported by supporting elements which engage in the edge of the roof of the building. The edge of the water-tight roof membrane is raised on a supporting element with a bent edge. Another element has an edge which fits into this bent edge. It is connected to members which grasp and retain the outer covering.

[0008] DE1659340A1 relates to a covering for the edges of flat and pitched roofs, terrace flooring, and the like.

[0009] There is thus a need for roof edges in which the bottom profile and the decorative panel are easily connectable to each other. There is also a need for roof edges in which the connection between the bottom profile and the decorative panel is very strong. There is also a need for a roof edge in which the bottom profile and the decorative panel can be fitted for a wider range of roof covering thicknesses. There is also a need for a roof edge in which the bottom profile and the decorative panel can be fitted in a tightly adjoining manner for a wider range of roof covering thicknesses. Furthermore, there is a need for roof edges which can be fitted easily, quickly, and efficiently. There is also a need for roof edges in which the seal can be clamped sufficiently without being connected in an inseparable manner.

SUMMARY

[0010] The invention and embodiments thereof provide a solution to the aforementioned needs.

[0011] The present invention comprises a roof edge comprising a decorative panel, a bottom profile and a clamping system between the decorative panel and the bottom profile. The clamping system comprises a clamping spring holder and a clamping spring. The clamping spring holder is coupled to the bottom profile; and the decorative panel is tightened against the clamping spring holder by means of the clamping spring.

[0012] In some preferred embodiments, the roof edge comprises a seal between the decorative panel and the bottom profile.

[0013] In some preferred embodiments, the bottom profile comprises a clamping spring holder rail, configured to couple to the clamping spring holder.

[0014] In some preferred embodiments, the clamping spring holder comprises a rail element, configured to couple to the clamping spring holder rail.

[0015] In some preferred embodiments, the clamping

spring holder comprises a downwardly directed clamping spring wall, wherein the downwardly directed clamping spring wall is configured to couple the clamping spring holder to the decorative panel by means of the clamping spring.

[0016] In some preferred embodiments, the clamping spring holder comprises a recess, suitable for receiving the clamping spring.

[0017] In some preferred embodiments, the bottom profile comprises an upright profile wall, and the clamping spring holder comprises an upright holder wall, wherein the upright holder wall and the upright profile wall are configured to adjoin each other under tension from the clamping spring.

[0018] In some preferred embodiments, the roof edge comprises a temporary clamping spring, configured to support the upright profile wall.

[0019] In some preferred embodiments, the clamping spring holder is produced from one solid piece.

[0020] In some preferred embodiments, the clamping spring comprises a bent part, suitable for coupling to the decorative panel.

[0021] In some preferred embodiments, the clamping spring comprises a hook-shaped part, suitable for coupling to the clamping spring holder.

[0022] The present invention also comprises a method for assembling a roof edge as described herein. Embodiments of the roof edge are also embodiments of the method and vice versa. The method preferably comprises the following steps:

a) providing a base surface;

b) placing a bottom profile on the base surface;

c) fastening the bottom profile to the base surface;

d) fitting roof covering to the bottom profile; and

e) fastening a decorative panel to the bottom profile by means of the clamping spring.

[0023] In some preferred embodiments, the method comprises the following steps:

e1) coupling the clamping spring holder to the bottom profile; and/or

e2) coupling the decorative panel to the clamping spring holder by means of the clamping spring.

[0024] In some preferred embodiments, step e1) comprises sliding the clamping spring holder into a clamping spring holder rail, preferably by means of a rail element of the clamping spring holder.

[0025] In some preferred embodiments, step e1) comprises placing a clamping spring holder at regular intervals in the clamping spring holder rail.

[0026] In some preferred embodiments, step e1) comprises tightening the clamping spring holder by means of a temporary clamping spring.

[0027] In some preferred embodiments, step e2) involves first clamping the decorative panel under the clamping spring and then pulling it over the bottom profile.

[0028] The present invention also comprises a bottom profile for a roof edge as described herein. Embodiments of the roof edge and/or the method are also embodiments of the bottom profile and vice versa. Preferably, the bottom profile comprises a clamping spring holder rail, configured to couple to a clamping spring holder.

[0029] The present invention also comprises a kit of components comprising a bottom profile as described herein, a decorative panel, a clamping spring holder and a clamping spring.

[0030] In some preferred embodiments, the kit comprises instructions for carrying out a method as described herein for assembling a roof edge as described herein.

[0031] With such a roof edge, the use of adhesive or the welding of the seal to the roof edge is no longer necessary. Disassembly is thus very simple and can take place without the roof edge and the seal having been connected in an inseparable manner. The roof edge can also be assembled quickly and efficiently. The roof edge is usable for a plurality of roof covering thicknesses. The roof edge produces an aesthetically pleasing result. The roof edge is also water-tight in case of pouring rain.

DESCRIPTION OF THE FIGURES

[0032]

FIG. 1 illustrates a 3D view of a roof edge (100) according to a preferred embodiment of the invention.

Fig. 2 illustrates a lateral cross section of a roof edge (100) according to a preferred embodiment of the invention.

FIG. 3A illustrates a 3D view of a roof edge (100) according to a preferred embodiment of the invention, which is used for a single roof covering.

FIG. 3B illustrates a 3D view of a roof edge (100) according to a preferred embodiment of the invention, which is used for a double roof covering.

[0033] The following numbering is used throughout the figures: 100 - roof edge; 110 - decorative panel; 111 - outer part; 112 - bottom part; 113 - top part; 114 - seal; 120-bottom profile; 124 - horizontal bearing surface; 125 - impact lip/vertical support surface; 127 - serrated top side of top end of bottom profile; 128 - upright profile wall; 129 - clamping spring holder rail; 130 - clamping spring holder; 131 - rail element; 132 - upright holder wall; 133 - downwardly directed clamping spring wall; 135 - temporary clamping spring; 136 - clamping spring; 200 - roof

covering; 201 - bituminous roof covering; 202 - overlap.

DETAILED DESCRIPTION

[0034] As used hereinbelow in this text, the singular forms "a", "an" and "the" comprise both the singular and the plural, unless the context clearly denotes otherwise.

[0035] The terms "comprise", "comprises" as used herein are synonymous with "inclusive", "include" or "contain", "contains" and are inclusive or open, and do not exclude additional items, elements or method steps which have not been mentioned. The terms "comprise", "comprises" are inclusive of the term "contain".

[0036] The enumeration of numerical values by means of ranges of figures comprises all values and fractions included in these ranges as well as the cited end points.

[0037] The term "approximately" as used when referring to a measurable value, such as a parameter, a quantity, a time period and so on, is intended to include variations of +/-10% or less, preferably +/-5% or less, more preferably +/-1% or less, and still more preferably +/-0.1% or less, of and from the specified value, in so far as the variations are applicable in order to function in the disclosed invention. It should be understood that the value to which the term "approximately" refers per se has also been disclosed.

[0038] All documents which are cited in the present specification are incorporated herein in full by way of reference.

[0039] Unless otherwise defined, all terms disclosed in the invention, including technical and scientific terms, have the meanings which those skilled in the art usually give them. As a further guide, definitions have been incorporated in order to further explain terms which are used in the description of the invention.

[0040] The present invention provides a roof edge which comprises a decorative panel and a bottom profile. The roof edge also comprises a clamping system between the decorative panel and the bottom profile. The clamping system comprises a clamping spring holder and a clamping spring, wherein the clamping spring holder is coupled to the bottom profile; and wherein the decorative panel is tightened against the clamping spring holder by means of the clamping spring.

[0041] Such roof edges can be fitted quickly and easily. Such roof edges are strong, robust, and are very easy to assemble. Thus, it suffices to simply slide the decorative panel along at the bottom into the clamping spring and click-fit it at the top, so that the decorative panel is positioned so as to be clamped over the bottom profile.

[0042] In addition, such a roof edge is usable for a wide range of roof covering thicknesses. Owing to the clamping, such a roof edge moreover ensures the water-tightness, even if the thickness of the roof covering decreases over time.

[0043] This manner of clamping affords a very high clamping force. The clamping spring may be made of steel, which allows for an extremely high clamping force. The high clamping force allows for assembly without adhesive or welding. This is in keeping with the concept of circular economy. This also makes the roof edge reusable.

[0044] In some embodiments, the roof covering comprises a single layer. In some embodiments, the roof covering comprises a plurality of layers. The roof covering preferably comprises a bituminous roof covering. The roof covering preferably comprises a plastic roof covering. In some embodiments, the roof covering comprises a bituminous roof covering and an overlap.

[0045] The overlap or seam is the zone where two strips of seal overlap each other. The seal is preferably fitted in rolls of a defined width on the roof. Preferably, the seams should overlap by a width that is predetermined by the manufacturer and be bonded to each other to ensure water-tightness.

[0046] The present roof edge is suitable for a wide range of thicknesses. In some embodiments, the roof covering has a thickness of at least 1 mm to at most 20 mm, for example of at least 2 mm to at most 18 mm, for example of at least 4 mm to at most 16 mm, for example of at least 5 mm to at most 15 mm.

[0047] Due to the clamping spring which combines a high clamping force with a large reach, this roof edge makes it possible to use seals of up to 5.0 mm, for example. In this respect, a bituminous seal is in particular ideally suited for the present roof edge. However, plastic is also possible. It is an advantage of the present invention that it concerns an all-round roof edge system.

[0048] In some embodiments, the bottom profile and/or the decorative panel are painted. If both the bottom profile and the decorative panel are painted, they may have identical or different colours. Thus, a desired appearance may be achieved. The colours of the decorative panel and the bottom profile may be chosen in a simple manner and independently of each other. Thus, for example, the bottom profile may be produced in the colour of the facade to which it is fitted.

[0049] In some embodiments, the decorative panel and/or the bottom profile comprise aluminium. Preferably, the decorative panel and/or the bottom profile are produced from aluminium, which results in a roof edge having excellent weatherproof properties. Compared to prior-art roof edges, for example roof edges produced from zinc, aluminium roof edges according to the present invention can be fitted very quickly and easily. In addition, the present aluminium roof edges provide excellent resistance to deformation. This applies in particular when the roof edges are produced from extruded aluminium.

[0050] As used herein, the term "bottom profile" also comprises the term "base profile".

[0051] In some embodiments, the bottom profile comprises a horizontal bearing surface and a vertical support surface or impact lip. In normal use, the bearing surface rests on the wall to which the roof edge is fitted. In normal use, the support surface is oriented vertically and is positioned against the wall on which the roof edge rests.

[0052] In normal use, the bottom profile rests on a wall.

[0053] In some embodiments, the bottom profile is pre-punched. In this way, a roofer does not have to drill through the aluminium himself during installation. Preferably, the bottom profile is produced from aluminium and the bottom profile is pre-punched.

[0054] In some embodiments, the top side of the top end of the bottom profile is serrated. It thus cooperates with the seal and the underside of the top part of the decorative panel in order to secure roof coverings efficiently.

[0055] The expression "serrated surface", as used herein, refers to a surface which comprises alternating ribs and grooves. An alternative expression for the expression "serrated surface" is "ridged surface". In some embodiments, the serrated surface comprises successive ribs with a triangular cross section, wherein the cross section of each rib has a base which is between 0.0 mm and 2.0 mm, or between 0.1 mm and 1.9 mm, or between 0.5 mm and 1.5 mm long, and wherein the cross section of each rib has a height which is between 0.0 mm and 2.0 mm, or between 0.1 mm and 1.9 mm, or between 0.5 mm and 1.5 mm high. In some embodiments, the corners of the triangular cross sections of the ribs are rounded, for example the rounding of the corners of the ribs describes a sector of a circle over an angle between 0.0° and 3.0°, or between 0.1° and 2.9°, or between 0.5° and 2.5°, or between 1.0° and 2.0°. By roughening the surface, the coefficient of friction increases. Thus, it is possible to form a strong connection between the decorative panel and the bottom profile in an efficient manner. Serrations are easy to produce, for example by means of extrusion, and make it possible to produce an excellent mechanical connection between the decorative panel and the bottom profile.

[0056] In some embodiments, the roof edge comprises several bottom profiles and clearance is preferably left between two bottom profiles which have been fitted next to each other in order to allow for thermal expansion of the profiled sections. In some embodiments, the bottom profiles have a length of between 1.0 and 5.0 m, or 2.0 and 4.0 m, or 2.5 and 3.5 m, or 3.0 m. In some embodiments, a clearance is left between adjacent bottom profiles of between 1.0 and 10.0 mm, or between 2.0 and 9.0 mm, between 3.0 and 8.0 mm, between 4.0 and 7.0 mm, or between 5.0 and 6.0 mm. Preferably, a clearance of at least 5.0 mm is left for every 3.0 m of bottom profile.

[0057] As used herein, the term "decorative panel" also comprises the term "decorative mould".

[0058] The decorative panel determines the appearance of the roof edge for passers-by and preferably comprises an outer part, a bottom part, and a top part. The decorative panel preferably has the properties described herein. Such a decorative panel can be fitted to a bottom profile very efficiently, which makes the installation of roof edges easier.

[0059] In some embodiments, the roof edge comprises several decorative panels which have joints between them. In these embodiments, the joints between two adjacent decorative panels are preferably sealed by means of one or more joint clips.

[0060] In some embodiments, the decorative panels have a length of between 1.0 and 5.0 m, or 2.0 and 4.0 m, or 2.5 and 3.5 m, or 3.0 m. In some embodiments, a clearance is left between adjacent decorative panels of between 1.0 and 10.0 mm, or between 2.0 and 9.0 mm, between 3.0 and 8.0 mm, between 4.0 and 7.0 mm, or between 5.0 and 6.0 mm. Preferably, a clearance of at least 5.0 mm is left for every 3.0 m of decorative panel.

[0061] In some embodiments, the decorative mould comprises one or more inner joint pieces. These are preferably fitted at the location of the clearance between two decorative moulds. The inner joint pieces ensure that the decorative moulds are aligned seamlessly with each other and guarantee water-tightness at the location of the clearance in case of pouring rain. Moreover, they lie on the inner side under the decorative mould, for the visual and sleek aspect of the roof edge.

[0062] In some preferred embodiments, the roof edge comprises a seal between the decorative panel and the bottom profile. The top part preferably comprises the seal between the roof covering and the top part. This ensures good sealing.

[0063] This seal preferably comprises a rubber strip. This seal is preferably fitted over the entire length of the roof edge. The roof covering is preferably fitted on top of the bottom profile, as a result of which the seal is fitted between the decorative panel (preferably the top part of the decorative panel) and the roof covering. The seal ensures a tight connection between the decorative panel and the roof covering.

[0064] This seal does not necessarily have to be made of rubber. It may also be made of PVC foam or another material. The seal is preferably durable, rot-resistant, moisture-resistant, and stiff enough to withstand the clamping force.

[0065] In some embodiments, the top side of the top end of the bottom profile is serrated, as described above. It thus cooperates with the seal and the underside of the top part of the decorative panel in order to secure roof coverings efficiently.

[0066] In some preferred embodiments, the bottom profile comprises a clamping spring holder rail, configured to couple to the clamping spring holder. This clamping spring holder rail is preferably positioned parallel to the vertical support surface, but preferably at a distance from the wall. The clamping spring holder rail is preferably formed in one piece with the rest of the bottom profile.

[0067] In order to establish the connection, a clamping spring holder can be placed at regular intervals in the clamping spring holder rail. In some preferred embodiments, the clamping spring holder comprises a rail element, configured to couple to the clamping spring holder rail.

[0068] The advantage of the rail is that it is possible to position the clamping spring holder. The holders are pref-

erably pre-assembled in the factory. The fitter receives the base profile with pre-assembled holders (for example 1 per metre) which he or she can position himself/herself. Preferably, the holder is never at the location of a clearance in the decorative mould because an inner joint piece is preferably located there. An additional advantage is that the fitter themselves can choose to provide extra clamping spring holders. This may be necessary in zones with high wind speeds where standards prescribe this.

[0069] In some preferred embodiments, the clamping spring holder comprises a downwardly directed clamping spring wall, wherein the downwardly directed clamping spring wall is configured to couple the clamping spring holder to the decorative panel by means of the clamping spring.

[0070] In some embodiments, the clamping spring holder comprises a recess, suitable for receiving the clamping spring. The recess preferably lies between the rail element and the downwardly directed clamping spring wall. This ensures a space for tightening of the clamping spring. The clamping spring is preferably bent in such a way that it pulls the bottom part of the decorative panel towards the top and tightens it against the clamping spring holder.

[0071] In some preferred embodiments, the bottom profile comprises an upright profile wall, and the clamping spring holder comprises an upright holder wall, wherein the upright holder wall and the upright profile wall are configured to adjoin each other under tension from the clamping spring. In this way, the clamping spring holder can be readily held in place.

[0072] In some preferred embodiments, the roof edge comprises a temporary clamping spring, configured to support the upright profile wall. This temporary clamping spring presses, on the one hand, against the upright wall and, on the other hand, against the bottom profile and/or the roof covering.

[0073] In some embodiments, the temporary clamping spring comprises steel or stainless steel.

[0074] The temporary clamping spring does not have to be removed, but does ensure temporary clamping during the installation. The temporary clamping spring is used to temporarily provisionally secure the seal until the decorative mould is fitted. The temporary clamping spring makes it possible to work in two phases. A first phase comprises fitting the seal, which rests on the base profile without requiring adhesive bonding or welding. The temporary clamping spring prevents the displacement of the seal. The second phase comprises fitting the decorative mould. Once fitted, the final clamping action is produced.

[0075] In some preferred embodiments, the clamping spring holder is produced from one solid piece. The clamping spring holder is preferably produced from aluminium because this is able to absorb the tension most effectively.

[0076] The clamping spring holder is preferably placed at regular intervals, the interval for example being at least 20 cm and at most 300 cm, preferably at least 40 cm and at most 200 cm, preferably at least 60 cm and at most 150 cm, preferably at least 80 cm and at most 120 cm, for example approximately 100 cm.

[0077] The clamping spring is preferably placed at regular intervals, preferably just like the clamping spring holder.

[0078] The temporary clamping spring is preferably placed at regular intervals, preferably just like the clamping spring holder.

[0079] By fitting more or fewer clamping springs, it is possible to increase or decrease the tension.

[0080] The clamping spring holder preferably has a width of at least 10 mm and at most 100 mm, preferably at least 20 mm and at most 80 mm, preferably at least 30 mm and at most 70 mm, preferably at least 40 mm and at most 60 mm, for example approximately 50 mm.

[0081] The clamping spring and/or temporary clamping spring preferably have a width as described for the clamping spring holder.

[0082] As used herein, the term "clamping spring" also comprises the term "leaf spring". In some embodiments, the clamping spring comprises steel or stainless steel.

[0083] In some preferred embodiments, the clamping spring comprises a bent part, suitable for coupling to the decorative panel. In some embodiments, the decorative panel, preferably the bottom part of the decorative panel, comprises a bent part that adjoins the bent part of the clamping spring. The shape of the clamping spring, more specifically the rounding in the bent part of the clamping spring, ensures that the decorative panel can be fitted and rotated smoothly.

[0084] In some preferred embodiments, the clamping spring comprises a hook-shaped part, suitable for coupling to the clamping spring holder, preferably in the recess.

[0085] The clamping can be controlled by means of the strength and thickness of the clamping spring, not by the dimensions per se.

[0086] The present invention also comprises a method for installing and/or assembling a roof edge as described herein. The method preferably comprises the steps:

a) providing a base surface;

b) placing a bottom profile on the base surface;

c) fastening the bottom profile to the base surface;

d) fitting roof covering to the bottom profile; and

e) fastening a decorative panel to the bottom profile by means of the clamping spring.

[0087] Preferably, the clamping spring and clamping spring holder have already been assembled on the bottom profile in advance, for example in the factory. The fitter then only has to clamp the decorative mould over the base profile by means of the clamping spring holder

and the clamping spring in step e).

[0088] The base surface preferably comprises a roof, for example a flat roof or a pitched roof. In some embodiments, the base surface is made of wood.

[0089] In some embodiments, joints between two adjacent decorative panels are sealed by means of one or more subjacent joint clips.

[0090] In some embodiments, the bottom profile is fastened to the base surface with the aid of screws.

[0091] In some embodiments, the bottom profile is pre-punched. This makes fitting easier. In fact, if pre-punched bottom profiles are used, a roofer does not have to drill through the bottom profile during installation.

[0092] In some embodiments, the roof edge comprises several bottom profiles which are fitted next to each other on the base surface. In these embodiments, clearance is preferably left between two bottom profiles which have been fitted next to each other in order to allow for thermal expansion of the profiled sections, as described above.

[0093] In some embodiments, in step d), the roof covering is adhesively bonded or welded (for example in the case of a bituminous roof covering) to the bottom profile. This has the advantage that a roofer can seal a roof using only one single layer of roof covering.

[0094] In some preferred embodiments, the method comprises the following steps:

e1) coupling the clamping spring holder to the bottom profile; and/or

e2) coupling the decorative panel to the clamping spring holder by means of the clamping spring.

[0095] In some preferred embodiments, step e1) comprises sliding the clamping spring holder into a clamping spring holder rail, preferably by means of a rail element of the clamping spring holder. Said step e1) is preferably carried out in advance, for example as pre-assembly in the factory. The fitter then receives a ready-made set comprising base profile and decorative mould.

[0096] In some preferred embodiments, step e1) comprises placing a clamping spring holder at regular intervals in the clamping spring holder rail.

[0097] In some preferred embodiments, step e1) comprises tightening the clamping spring holder by means of a temporary clamping spring.

[0098] The fitter preferably inserts the temporary clamping spring after the base profile has been mounted as soon as the seal is temporarily clamped in the base profile. The temporary clamping spring and the clamping spring are thus not fitted together, as shown in step e2) below.

[0099] In some preferred embodiments, step e2) involves first clamping the decorative panel under the clamping spring and then pulling it over the bottom profile.

[0100] The clamping spring thus builds up tension and produces the clamping action with the bottom profile.

[0101] The present invention also comprises a bottom profile for a roof edge as described herein. The bottom profile preferably comprises the characteristics described above. A decorative panel as described above can be fitted efficiently on such a bottom profile.

[0102] Preferably, the bottom profile comprises a clamping spring holder rail, configured to couple to a clamping spring holder.

[0103] The present invention also comprises a kit of components comprising a bottom profile, preferably as described herein, a decorative panel, a clamping spring holder and a clamping spring. Such a kit makes it possible to assemble roof edges very efficiently.

[0104] In some preferred embodiments, the kit comprises instructions for carrying out a method as described herein for assembling a roof edge as described herein.

EXAMPLES

[0105] By way of example, reference is made to the figures.

Example 1

[0106] **FIG. 1** and **FIG. 2** show a roof edge (100) which comprises a decorative panel (110) and a bottom profile (120). **FIG. 1** illustrates a 3D view, while **FIG. 2** illustrates a cross section of the same roof edge.

[0107] The roof covering (200) in **FIG. 1** in this case comprises two layers: a bituminous roof covering (201) and an overlap (202).

[0108] The decorative panel (110) determines the appearance of the roof edge (100) for passers-by and comprises an outer part (111), a bottom part (112) and a top part (113). The top part (113) comprises a seal (114), for example a rubber strip, over the entire length between the roof covering (200) and the top part (113). This ensures good sealing.

[0109] The bottom profile (120) comprises a horizontal bearing surface (124) and a vertical support surface (125). In normal use, the bearing surface (124) rests on the wall to which the roof edge is fitted. In normal use, the support surface (125) is oriented vertically and is positioned against the wall on which the roof edge rests.

[0110] In normal use, the bottom profile (120) of the roof edge (100) rests on a wall. The top side (127) of the top end of the bottom profile (120) is serrated and cooperates with the seal (114) and the underside of the top part (113) of the decorative panel (110) in order to secure roof coverings (200) efficiently.

[0111] The decorative panel (110) and the bottom profile (120) are connected to each other with the aid of a clamping system according to an embodiment of the invention.

[0112] The bottom profile (120) comprises a clamping spring holder rail (129) which is present over the entire length of the bottom profile (120). This clamping spring holder rail is positioned parallel to the vertical support surface (125), but at a distance from the wall. The clamp-

ing spring holder rail (129) is formed in one piece with the rest of the bottom profile (120).

[0113] In order to establish the connection, a clamping spring holder (130) is placed at regular intervals in the clamping spring holder rail (129). The clamping spring holder rail (129) may comprise an upright profile wall (128) in order to readily hold the clamping spring holder (130) in place. It is optionally possible to place a temporary clamping spring (135) against the upright profile wall (128). This temporary clamping spring (135) presses, on the one hand, against the upright wall (128) and, on the other hand, against the bottom profile (120) and/or the roof covering (200). The temporary clamping spring (135) thus temporarily clamps the seal (114) on the bottom profile (120).

[0114] The clamping spring holder (130) comprises a rail element (131) which is suitable for coupling to the clamping spring holder rial (129). The clamping spring holder (130) also comprises an upright holder wall (132) which presses against the upright profile wall (128). The clamping spring holder (130) also comprises a downwardly directed clamping spring wall (133) and a recess between the downwardly directed clamping spring wall (133) and the rail element (131). This ensures a space for tightening of the clamping spring (136). This clamping spring (136) is bent in such a way that it pulls the bottom part (112) of the decorative panel (110) towards the top and tightens it against the clamping spring holder (130). The clamping spring holder (130) is in turn tightened via the upright holder wall (132) and the upright profile wall (128) against the bottom profile (120). Since the decorative panel (110) consists of one unit, the seal (114) is tightly closed by the tightened clamping spring (136).

[0115] The shape of the clamping spring (136), more specifically the rounding in the clamping spring (136), ensures that the decorative panel (110) can be fitted and rotated smoothly.

[0116] The cross section in **FIG. 2** illustrates the same components, typical dimensions being indicated (in mm).

Example 2

[0117] By way of further example, reference is made to **FIG. 3** and **FIG. 4. FIG. 3** shows a single layer of roof covering (200), while **FIG. 4** shows a double layer of roof covering (200). The present invention makes it possible to readily connect the decorative panel (110) to the roof covering (200) for a wider range of thicknesses. The seal (114) is tightly closed by the tightened clamping spring (136) both in the case of a thick roof covering (200) (made up of a single thick layer or several thin layers) and in the case of a thin roof covering (200).

Claims

1. Roof edge (100) comprising a decorative panel (110), a bottom profile (120) and a clamping system between the decorative panel (110) and the bottom profile (120), wherein the clamping system comprises a clamping spring holder (130) and a clamping spring (136);

   wherein the clamping spring holder (130) is coupled to the bottom profile (120); wherein the decorative panel (110) is tightened against the clamping spring holder (130) by means of the clamping spring (136);
   wherein the bottom profile (120) comprises an upright profile wall (128), wherein the clamping spring holder (130) comprises an upright holder wall (132), wherein the upright holder wall (132) and the upright profile wall (128) are configured to adjoin each other under tension from the clamping spring (136); and wherein the roof edge (100) further comprises a temporary clamping spring (135), configured to support the upright profile wall (128).

2. Roof edge (100) according to Claim 1, further comprising a seal (114) between the decorative panel (110) and the bottom profile (120).

3. Roof edge (100) according to Claim 1 or 2, wherein the bottom profile (120) comprises a clamping spring holder rail (129), configured to couple to the clamping spring holder (130).

4. Roof edge (100) according to Claim 3, wherein the clamping spring holder (130) comprises a rail element (131), configured to couple to the clamping spring holder rail (129).

5. Roof edge (100) according to one of the preceding claims, wherein the clamping spring holder (130) comprises a downwardly directed clamping spring wall (133), wherein the downwardly directed clamping spring wall (133) is configured to couple the clamping spring holder (130) to the decorative panel (110) by means of the clamping spring (136).

6. Roof edge (100) according to one of the preceding claims, wherein the clamping spring holder (130) comprises a recess, suitable for receiving the clamping spring (136).

7. Roof edge (100) according to one of the preceding claims, wherein the clamping spring holder (130) is produced from one solid piece.

8. Roof edge (100) according to one of the preceding claims, wherein the clamping spring (136) comprises a bent part, suitable for coupling to the decorative panel (110).

9. Roof edge (100) according to one of the preceding

claims, wherein the clamping spring (136) comprises a hook-shaped part, suitable for coupling to the clamping spring holder (130).

10. Method for assembling a roof edge (100) according to any one of Claims 1 to 9, the method comprising the following steps:

a) providing a base surface;
b) placing a bottom profile (120) on the base surface;
c) fastening the bottom profile (120) to the base surface;
d) fitting roof covering (200) to the bottom profile (120); and
e) fastening a decorative panel (110) to the bottom profile (120) by means of the clamping spring (136).

11. Method according to Claim 10, comprising the following steps:

e1) coupling the clamping spring holder (130) to the bottom profile (120); and
e2) coupling the decorative panel (110) to the clamping spring holder (130) by means of the clamping spring (136).

12. Method according to Claim 11, wherein step e1) comprises sliding the clamping spring holder (130) into a clamping spring holder rail (129), preferably by means of a rail element (131) of the clamping spring holder (130).

13. Method according to Claim 11 or 12, wherein step e1) comprises placing a clamping spring holder (130) at regular intervals in the clamping spring holder rail (129).

14. Method according to one of Claims 11 to 13, wherein step e1) comprises tightening the clamping spring holder (130) by means of a temporary clamping spring (135).

15. Method according to one of Claims 11 to 14, wherein step e2) involves first clamping the decorative panel (110) under the clamping spring and then pulling it over the bottom profile (120).

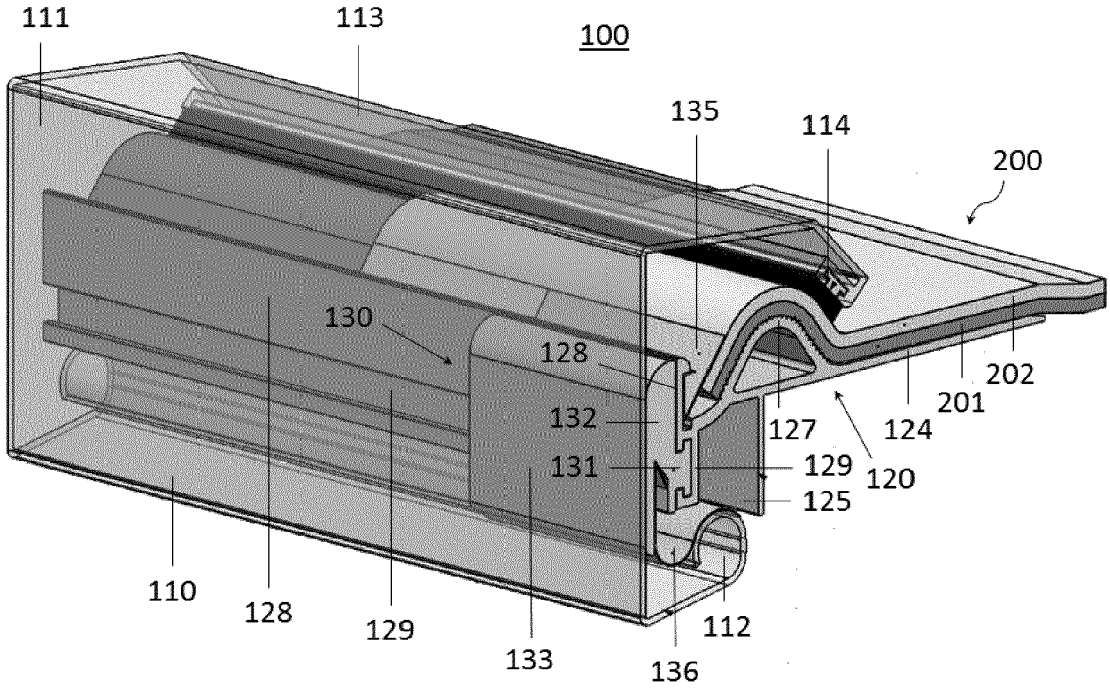

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FIG. 1

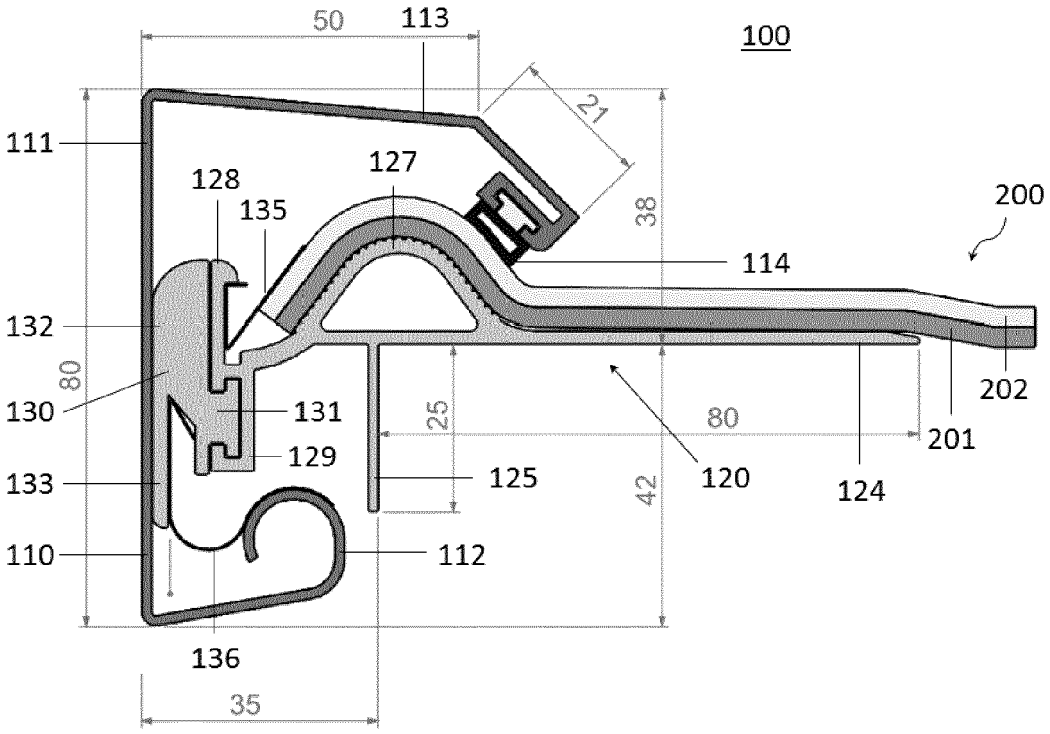

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FIG. 2

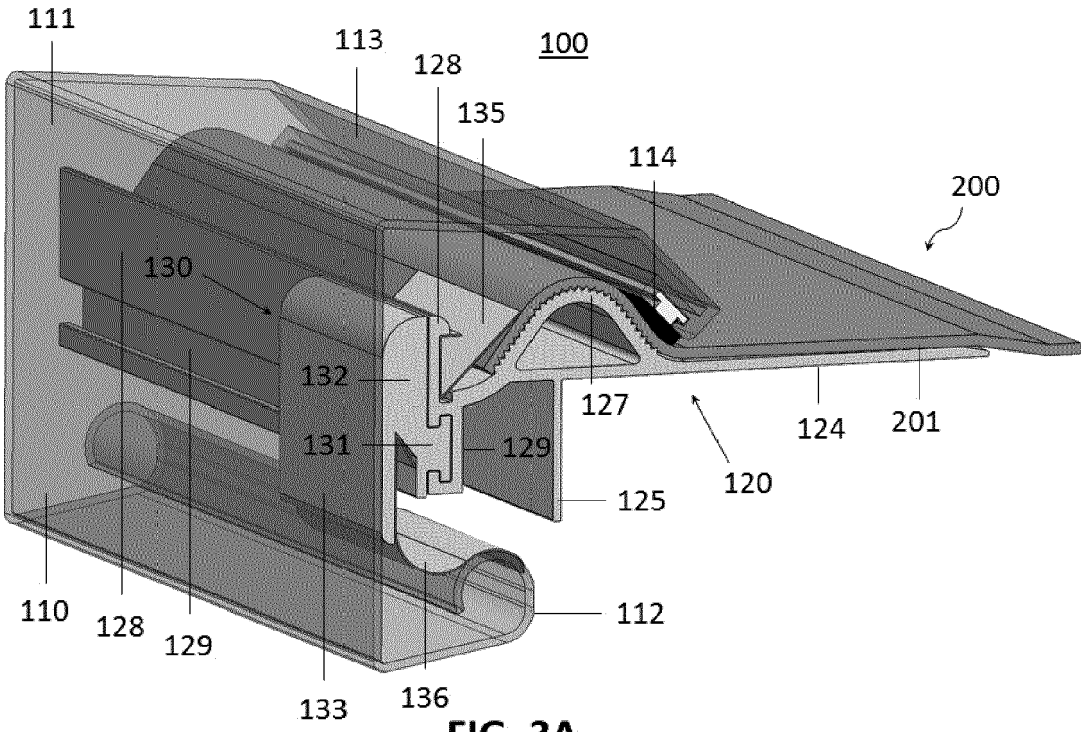

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FIG. 3A

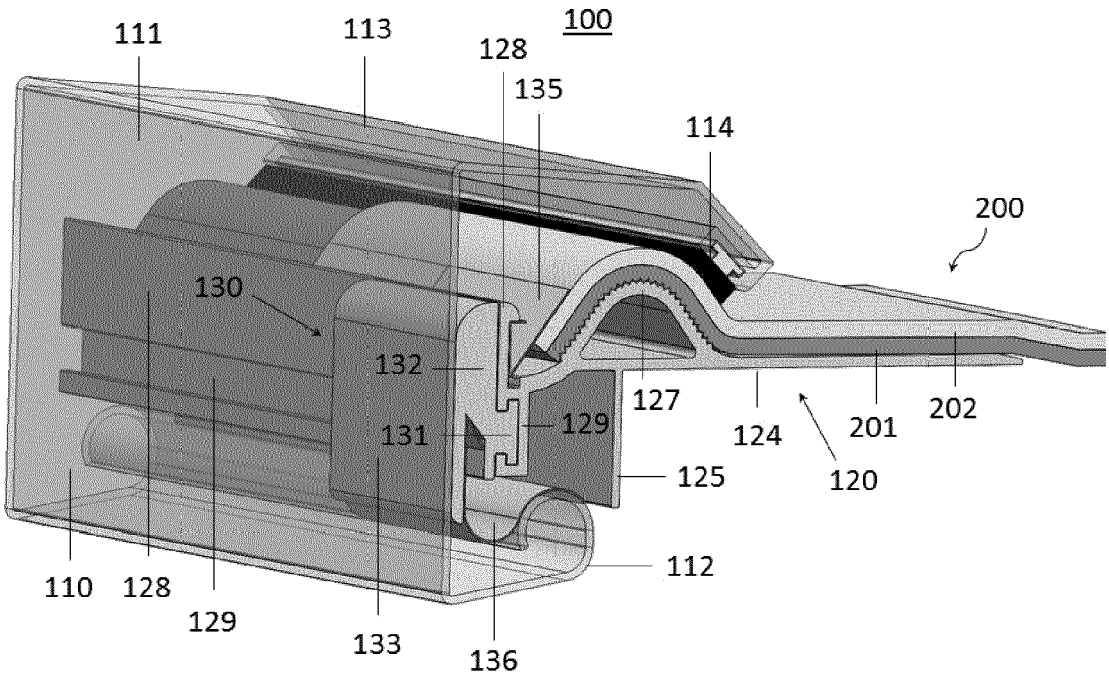

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FIG. 3B

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EUROPEAN SEARCH REPORT

Application Number
EP 21 21 1857

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	25 March 2022	Leroux, Corentine

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25-03-2022

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REFERENCES CITED IN THE DESCRIPTION

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