

Installation instructions Roof edge trim profiles

T plus TW plus TA TA 4F TAG art-line 1



Installation basics

Profiles and preformed details are to be checked upon receipt, noticeable transport damages are to be reported immediately or stated on the consignment note upon receipt.

Aluminium profiles must be stored in a weather-protected place. Dry storage is especially required to prevent irreparable corrosion damage of visible mill and plate finish surfaces. If the packaging has become moist, the material needs to be dried or processed the same day. For drying, keep the profiles separately to ensure sufficient air circulation.

During installation, make sure not to damage the visible profile surfaces. Aluminium profiles must be protected against adverse impacts of both other metals and acids and alkaline substances (e.g. cement plaster, chalk).

Natural aluminium

When working with mill-finished profiles it is recommended to wear gloves to avoid fingerprints on the visible surface while handling.

As regards preformed details and corners made of natural aluminium (without secondary surface treatment), handling marks cannot be completely excluded and are not considered defects.

Remove the protective film (if any) from profiles directly after installation!

After installation of the profiles, natural aluminium will generate a protective oxide coating. This greyish patina with different patterns does not always meet aesthetic requirements. The colour coating provides the aluminium profiles with a permanently decorative smooth surface.

Colour-coated and surface-treated products

If colour-coated profiles need to be cut to size on site, first **carefully mask** the surface in order to avoid scratches, then use e.g. a jigsaw, circular saw (saw blade for NF metals) or angle grinder (**! thin !** cut-off wheel approx. 1 mm for **thin-gauge** NF metals < 3 mm). Please note that excessive heat impact may damage the colour coating! Subsequently deburr the raw edge using a flat fine file and coat with supplied lacquer (brush or piece of fleece fabric).

With anodised surfaces and special effect coating (metallic, pearlescent finish), visually noticeable irregularities cannot be excluded.

Fasteners and substrate

Generally, delivery does not include any fastening materials. Suitable fastening materials (screws / plugs / washers) are to be selected according to the substrate. Responsibility lies with the installer.

The installer or the site manager is responsible for checking the load-bearing capacity of the substrate.

Joint width

When installing aluminium edge trim profiles, wall capping profiles and wall flashing profiles, possible temperature-induced changes of the profile length must be considered; connections and fixings must be carried out so as to allow the details to expand, to contract or to shift as the temperature changes, without causing any damage. In this case, a temperature difference of 100 K – at a range of -20 °C to +80 °C – shall be assumed.

Joint width between alwitra roof edge trim profiles or top caps as well as wall flashing profiles depending on the profile temperature at the time of installation:

. m

Table 1: Joint width depending on profile length and installation temperature

Installation plans

Installation plans will be drawn up for the client / installer by the alwitra Technical Department following a quantity survey for ordering profiles. Material requirements will be determined and optimised in the process of plan development, fixing bracket centres will be indicated in accordance with the individual object.

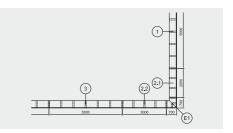
Installation plans may include the following information:

- positioning and distribution of profile sections,
- execution and positioning of corners, preformed details and end sections,
- layout of fixing brackets / joint connections,
- profile cross-sections including description,
- the specified material requirements,
- information on the surface as well as further notes on fabrication and installation.

Drawing up of installation plans is a free-of-charge service from alwitra. However, control responsibility lies with the client / installer. In case of any queries, the consecutive plan number in the text field provides for unmistakable identification. A weatherproof installation plan for the site will be included in the delivery.

In general, profile sections will be supplied in corresponding standard lengths. They are to be installed on site according to the installation plan. Standard length profile sections, which need to be cut to length on site, will be marked with an additional part number separated by a dot, e. g. 2.1, 2.2, following the section number ...

In the example, the 5.00 m standard length profiles pos. (1) and pos. (3) are installed as full-length sections, whereas the profiles pos. (21) and (22) must be cut to length from a standard length profile pos. (2) and then installed.



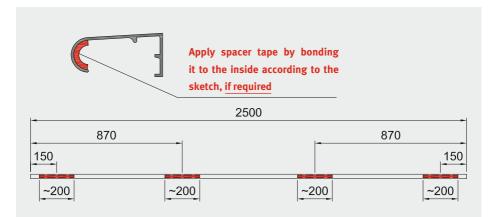
Top caps

In the case of roof edge trim profiles, top caps must be used according to the tape thickness.



Large top cap

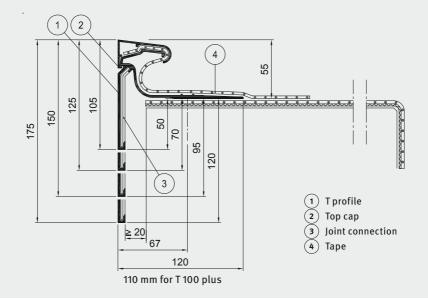
The large top cap can be used with waterproofing membranes with a material thickness up to 2.5 mm. For thinner waterproofing membranes (e.g. membrane thickness 1.8 mm) the included spacer tape needs to be applied by bonding it to the inside of the top cap, if required.





Roof edge trim profile T plus

- two-piece extruded aluminium profile
- front face height: 105 175 mm
- time-saving and easy installation
- for roof slopes > 5° or with parapet





Scope of delivery

- 5.00 m long T profile sections with punched holes e = 25 cm
- 2.50 m long top cap sections
- Joint connections
- Welded corners and end caps

Installation instructions for roof edge trim profiles T plus

Installation and flashing against the waterproofing

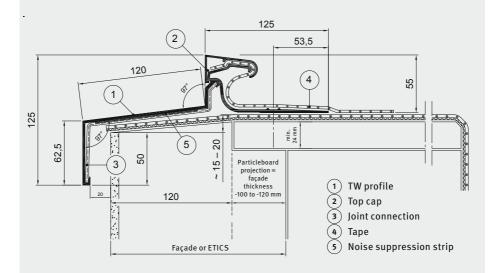
- Align and fasten the T edge trim profile, starting from the corners
- Position the tape (25 cm) and snap over the top cap
- Adjust the tape to the profile in an S-shape and weld it to the waterproofing membrane

Installation description

Installation on the waterproofing installed right to the outer edge starts at one corner and is done all along the perimeter.

- Connect the T profile corner and section by inserting joint connections, place them on the roof edge and align them at a distance of at least 2 cm to the dripping edge.
- Fasten the horizontal leg in the pre-punched holes (25 cm spacing) using corrosionresistant countersunk screws (Ø 5 mm) through the waterproofing membrane at the roof perimeter. The horizontal leg provides in-line fastening of the waterproofing for taking up horizontal forces originating from the waterproofing membrane.
- Connect the following T profile section by inserting a joint connection, position, align and fasten it, observing sufficient joint width (see page 4, table 1).
- If necessary, cut to length the last T profile section before a corner (observe sufficient joint width) and fasten it as described above.
- Place the tape including preformed corner details made of membrane material right to the outer edge on the T profile. Starting from one corner, snap over the top cap from the inside to the outside. Joints of edge trim profiles and top caps must be installed in a staggered pattern.
- The flashing tape is then homogeneously welded to the waterproofing membrane.

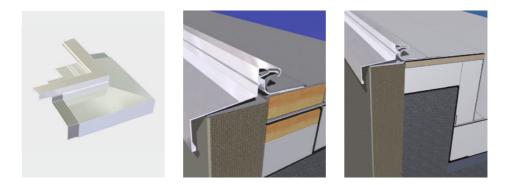




Scope of delivery

- 2.50 m long TW edge trim profile sections with punched holes e = 25 cm
- 2.50 m long top cap sections
- Joint connections
- Welded corners, end caps and upstands

Installation instructions for roof edge trim profiles TW 125 plus



Installation and flashing against the waterproofing

- Affix the noise suppression strip
- Align and fasten the TW edge trim profile, starting from the corners
- Position the tape (25 cm) and snap over the top cap
- Adjust the tape to the profile in an S-shape and weld it to the waterproofing membrane

Installation description

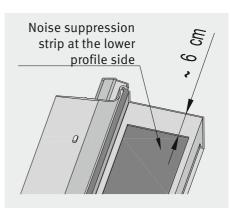
Installation on the waterproofing installed right to the outer edge starts at one corner and is done all along the perimeter.

- Prior to installation, affix the 10 cm wide noise suppression strips to the lower side of the profile after fitting in the sections or corners. The areas for the joint connections (approx. 6 cm) must not be covered.
- Connect the T profile corner and section by inserting joint connections, place them on the roof edge and align them at a distance of at least 2 cm to the dripping edge.
- Fasten the horizontal leg in the pre-punched holes (25 cm spacing) using corrosionresistant countersunk screws (Ø 5 mm) through the waterproofing membrane at the roof perimeter. Use screws that will screw into derived wooden materials to a depth of at least 24 mm. The horizontal leg provides in-line fastening of the waterproofing for taking up horizontal forces originating from the waterproofing membrane.

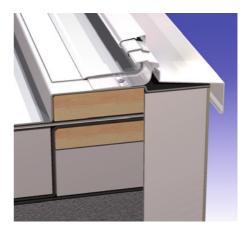
Installation instructions for roof edge trim profiles TW 125 plus

- Connect the following TW profile section by inserting a joint connection, position, align and fasten it, observing sufficient joint width (see page 4, table 1).
- Cut to length the last TW profile section before a corner (observe sufficient joint width) and fasten it to the corner as described above.
- Place the tape including preformed corner details made of membrane material right to the outer edge on the TW profile. Starting from one corner, snap over the top cap from the inside to the outside. Joints of edge trim profiles and top caps must be installed in a staggered pattern.
- The tape is then homogeneously welded to the waterproofing membrane.





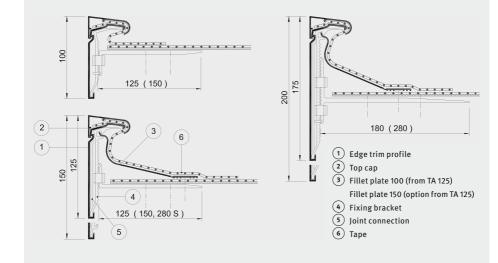


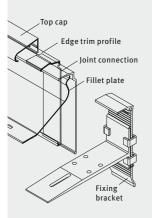




Roof edge trim profile TA

- multi-piece extruded aluminium profile
- front face height series TA: 100 200 mm
- with height adjustable, horizontally moveable fixing brackets





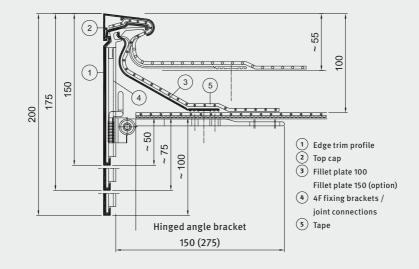
Scope of delivery

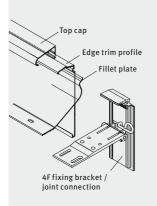
- 5.00 m long cover TA edge trim profile sections
- 2.50 m long top cap sections
- 2.50 m long fillet plate sections
- Joint connections
- Fixing brackets
- Welded corners and end caps



Roof edge trim profile TA-4F

- multi-piece extruded aluminium profile
- front face height series TA-4F: 150 200 mm
- with patented 4F mounting fixing brackets
 - horizontally moveable, infinitely height adjustable, infinitely rotatable, infinitely adjustable angle





Scope of delivery

- 5.00 m long cover TA edge trim profile sections
- 2.50 m long top cap sections
- 5.00 m long fillet plate sections
- 4F fixing brackets / joint connections with
 175 mm hinged angle bracket, optional 275 mm
 hinged angle bracket
- Welded corners and end caps

System components and installation

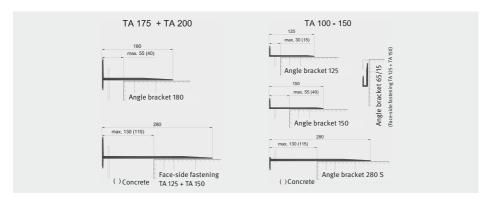
- Fixing brackets (page 14, 15)
- Fillet plate, nominal height ≥ 125 mm (page 18)
- Edge trim profile (page 18)
- Top cap (page 20)
- Installation description (page 19)

Fixing brackets TA

The fixing brackets for the **roof edge trim profiles TA** consist of angle bracket, profile support and clamping ring(s).

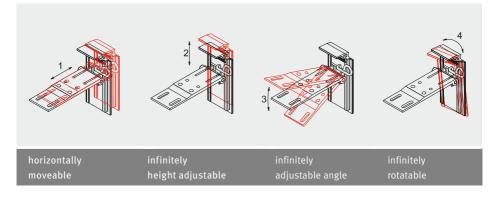


The profile supports are bearing the edge trim profiles and the top caps. Profile supports and angle brackets are height adjustable by interlocking serrated contact surfaces and connected in a form-fitting manner by means of clamping rings. The angle brackets are mechanically fastened to the roof edge. Angle brackets have to be selected according to the fascia board height and the installation conditions. Fixing brackets are available in lengths of 125, 150, 180 or 280 mm.



Fixing bracket layout TA-4F

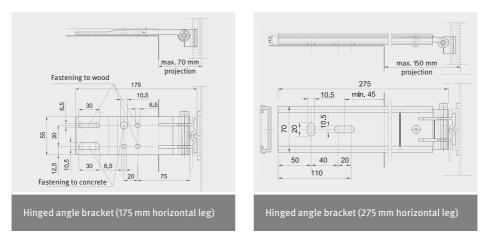
The **roof edge trim profiles TA-4F** come with patented 4F fixing brackets. By means of 4F fixing brackets, the profiles can be particularly easy installed at slightly sloped or curved roof edges, they are horizontally moveable, infinitely height adjustable, with infinitely adjustable angle and infinitely rotatable.



4F fixing brackets / joint connections consist of hinged angle brackets, profile support with gasket and eccentric clamp.

The profile supports are bearing the edge trim profiles and the top caps. Profile support and hinged angle bracket are inserted into each other and positively connected by means of the included eccentric clamp. The integrated rubber lip seal of the profile support ensures forming of rain-resistant joints.

Hinged angle brackets have to be selected according to installation conditions. They are available in two lengths (175 and 275 mm) and must be mechanically fastened in the roof edge.



Fixing bracket centres

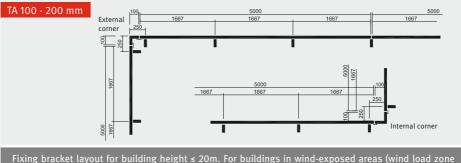
The fixing bracket centres of the alwitra roof edge trim profiles result from the wind loads. The layout (installation spacing) and the fastening of the fixing brackets as load transferring constructional elements of the roof edge trim is designed according to the profile height and its permissible projection. Relevant parameters are the wind loads pursuant to DIN EN 1991-1-4.

Fixing bracket centres will be reduced for building heights over 20 m or for buildings in exposed areas (wind zones 2 and 4, exposed location) according to requirements. The reduced fixing bracket centre can be found in the installation plan, if any, or has to be determined depending on the object.

The fixing brackets / joint connections are to be fastened according to the fixing bracket layout.

Fixing bracket layout TA 100 - 200 mm

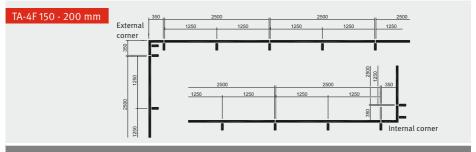
At a standard section length of 5.00 m and a front face height of 100 - 200 mm, the max. fixing bracket centre is 1.25 m (see fig. below). According to the layout, at the corners additional fixing brackets are required. Ready-to-install internal and external corners with a leg length of 100 / 100 mm and welded-on joint connections can be supplied.



3 and 4, exposed locations, building height > 20 m) additional fixing brackets are required

Fixing bracket layout TA-4F 150 - 200 mm

At a standard section length of 5.00 m and a front face height of 150 - 200 mm, the max. fixing bracket centre is 1.67 m (see fig. below). In case of short cut-to-size sections > 1.25 m an additional fixing bracket in the middle of the section is required. Ready-to-install internal and external corners with a leg length of 100 / 100 mm and welded-on joint connections can be supplied.

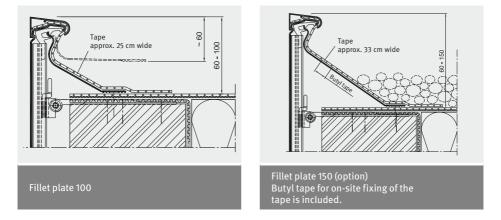


Fixing bracket layout for building height ≤ 20m. For buildings in wind-exposed areas (wind load zone 3 and 4, exposed locations, building height > 20 m) additional fixing brackets are required

Fillet plate

The 2.50 m (5.00 m for TA-4F) long inclined fillet plate sections installed between the roof area and the fixing bracket head serve as a support for the tape, for in-line fastening of the waterproofing membrane as well as for protecting the roof waterproofing against wind uplift along the roof edge.

It is available as "fillet plate 100" (standard) for flashing heights up to 100 mm and as "fillet plate 150" (option) for flashing heights up to 150 mm.



Edge trim profile

The extruded edge trim profile sections for the roof edge trim profiles **TA** are interconnected with joint connections. The joint connections having full contact with edge trim profiles at the inner side ensure rain resistance and a height adjusted and aligned connection of edge trim profiles at joints.

The extruded edge trim profile sections for the roof edge trim profiles **TA-4F** do not require any additional joint connections, as the 4F fixing brackets at the same time are used as joint connections.

Ready-to-install internal and external corners with a leg length of 100 / 100 mm and weldedon joint connections can be supplied.

Fixing brackets for roof edge trim profiles TA

Starting from the corners, the angle brackets of the pre-assembled fixing brackets are aligned flush and at a right angle to the roof edge and fastened under the roof waterproofing according to the fixing bracket layout or installation plan with **3 or 5 approved fasteners** (Ø min. 4.5 mm). For non-exposed buildings up to 20 m height, standard fixing bracket centre is 1.25 m. Profile supports without the usual screw fastening can be adjusted to the millimetre at the required height above the finished roof surface. Height differences at the roof perimeter are compensated as follows: Lift the clamping rings, place the profile support at the angle bracket at the required height and reposition the clamping rings. Clamping rings slipped over from below must be secured with a locking pin against sliding off!

Fixing brackets for roof edge trim profiles TA-4F

Starting from the corners, the pre-assembled 4F fixing brackets are aligned flush and at a right angle to the roof edge and fastened under the roof waterproofing according to the fixing bracket layout or installation plan with **3 approved fasteners (Ø min. 5 mm)**. For non-exposed buildings up to 20 m height, **standard fixing bracket centre** is **1.67 m**. The 4F fixing brackets can be set to the millimetre at the required height above the finished roof surface and adjusted to the roof slope. Height differences and unevenness of the roof edge are compensated through variable adjustment options.

Fillet plate

The 2.50 m (5.00 m for TA-4F) long fillet plate sections serve for in-line fastening of the waterproofing membrane as well as for protecting the roof waterproofing against wind uplift along the roof perimeter. Therefore, the fillet plate sections are hooked into the catches of the profile supports, positioned on the roof edge and fastened with screws (\emptyset 4.5 mm) in the pre-punched holes at centres of 25 cm.

Edge trim profile

Again starting from the corners, the 5.00 m long edge trim profile sections are installed on the aligned fixing brackets. Hook in at the base of the fixing bracket and snap it over on top. Prior to installing a roof edge trim profile TA section a joint connection is snapped on at its end. The roof edge trim profile TA-4F fixing brackets at the same time serve as section joint connections.

For exact positioning, one corner element is inserted into the section. The last section is fitted to the space between the already installed sections. At roof edge ends without profile corner, if required, end caps are inserted from the side into the end of the edge trim profile.

Flashing tape and top cap

After installing edge trim profiles all along the roof perimeter, flashing against the waterproofing is carried out. The tape including preformed corner details made of membrane material is placed over the fillet plate right to the outer edge of the edge trim profile. When using the fillet plate 150, the tape needs to be fixed on site at the centre of the fillet plate using the included adhesive strip. Then snap over the top cap sections from the inside to the outside.

The top cap together with the fillet plate will force the tape into an S-shaped form.

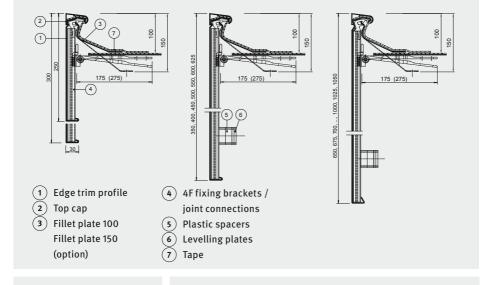
Start working at the corners, installing the mitred top cap sections. Joints of edge trim profiles and top caps must be installed in a staggered pattern. The staggered pattern results from the different lengths of corner legs and mitred profiles.

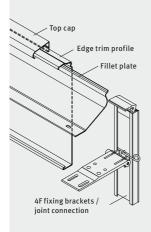
Finally, the tape is welded to the waterproofing membrane according to the manufacturer's instruction.



Roof edge trim profile TAG

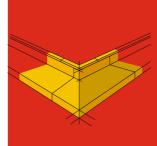
- multi-piece aluminium profile
- front face height: 250 1,050 mm
- supplied with patented 4F fixing brackets as standard
- horizontally moveable, infinitely height adjustable, infinitely rotatable, infinitely adjustable angle





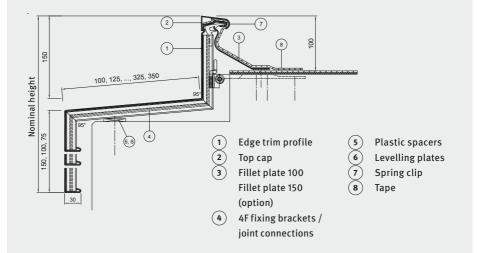
Scope of delivery

- 5.00 m long TAG roof edge trim profile sections up to TAG 625
- 2.50 m long TAG roof edge trim profiles from TAG 650
- 2.50 m long top cap sections
- 5.00 m long fillet plate sections up to TAG 625
- 2.50 m long fillet plate sections from TAG 650
- 4F fixing brackets / joint connections with
 175 mm hinged angle bracket, optional 275 mm
 hinged angle bracket
- Welded corners and end caps
- Plastic spacers and levelling plates from TAG 350



Roof edge trim profile art-line 1

- multi-piece rolled and additionally bent aluminium profile
- for roof edges with a sophisticated design
- numerous varieties with a front face height from 75 to 150 mm
- supplied with patented 4F fixing brackets as standard
 - horizontally moveable, infinitely height adjustable, infinitely rotatable, infinitely adjustable angle



Scope of delivery

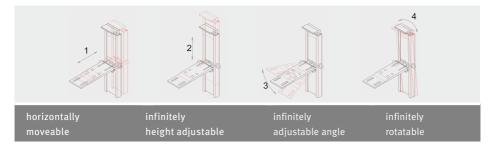
- 2.50 m long art-line 1 edge trim profile sections
- 2.50 m long top cap sections
- 2.50 m long fillet plate sections
- 4F fixing brackets / joint connections with 175 mm hinged angle bracket, optional 275 mm hinged angle bracket
- Welded corners, end caps and upstands
- Plastic spacers and levelling plates
- Spring clips

System components and installation

- Fixing brackets (page 23)
- Fillet plate (page 27)
- Edge trim profile TAG, art-line 1 (page 27)
- Top cap (page 29)
- Installation description (page 28)

Fixing brackets

The roof edge trim profiles TAG and art-line 1 come with patented 4F fixing brackets. By means of 4F fixing brackets, the profiles can be particularly easy installed at slightly sloped or curved roof edges, they are horizontally moveable, infinitely height adjustable, with infinitely adjustable angle and infinitely rotatable.

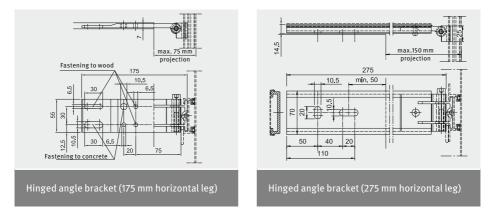


4F fixing brackets / joint connections consist of hinged angle brackets, profile support (welded profile support for art-line 1) with gasket and eccentric clamp.

The layout (installation spacing) and the fastening of the fixing brackets as load transferring constructional elements of the roof edge trim is designed according to the profile height and its permissible projection. Relevant parameters are the wind loads pursuant to DIN EN 1991-1-4.

The profile supports are bearing the edge trim profiles and the top caps. Profile support and hinged angle bracket are inserted into each other and positively connected by means of the included eccentric clamp. The integrated rubber lip seal of the profile support ensures forming of rain-resistant joints.

Hinged angle brackets have to be selected according to installation conditions. They are available in two lengths (175 and 275 mm) and must be mechanically fastened in the roof edge.

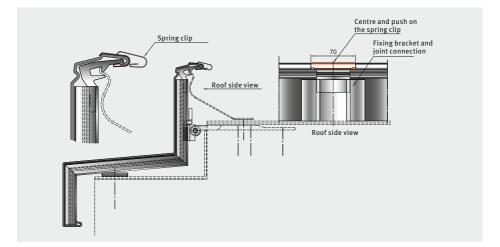


Fastening to the façade for fascia boards ≥ 350 mm

With TAG, for fascia board height \ge 350 mm additional fastening to the façade is necessary; to this end, additional plastic spacers and levelling plates are included.

Installation instructions for spring clips (art-line 1 only)

Edge trim profiles and corners must be secured immediately after snapping on with spring clips at all fixing brackets and joint connections.



Fixing bracket centres

The fixing bracket centres of the alwitra roof edge trim profiles result from the wind loads according to DIN EN 1991-1-4.

Fixing bracket centres will be reduced for building heights over 20 m or for buildings in exposed areas (wind zones 2 and 4, exposed location) according to requirements. The reduced fixing bracket centre can be found in the installation plan, if any, or has to be determined depending on the object.

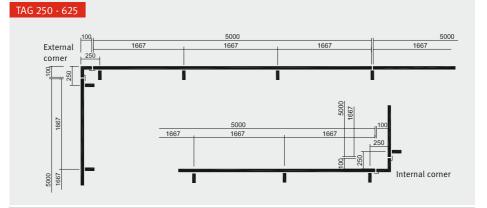
The fixing brackets / joint connections are to be fastened according to the fixing bracket layout.

Fixing bracket layout TAG 250 - 625 mm

At a standard section length of 5.00 m and a front face height of 250 - 625 mm, the max. fixing bracket centre is 1.67 m (see fig. below).

In case of short cut-to-size sections > 1.25 m an additional fixing bracket in the middle of the section is required.

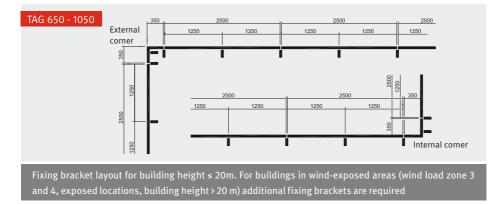
Ready-to-install internal and external corners with a leg length of 100 / 100 mm and welded-on joint connections can be supplied.



Fixing bracket layout for building height ≤ 20m. For buildings in wind-exposed areas (wind load zone 3 and 4, exposed locations, building height > 20 m) additional fixing brackets are required

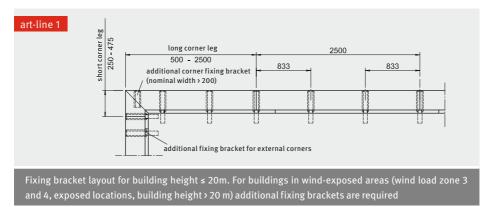
Fixing bracket layout TAG 650 - 1050 mm

At a standard section length of 2.50 m and a front face height of 650 - 1050 mm, the max. fixing bracket centre is 1.25 m (see fig. below). The corner leg length is 350 / 350 mm, welded-in joint connections are not included; the 4F fixing brackets have to be installed as fixing brackets and joint connections accordingly.



Fixing bracket layout art-line 1

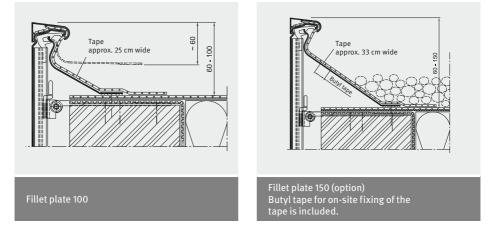
At a standard section length of 2.50, the fixing bracket centre is 0.833 m (see fig. below). For the external corner area additional corner fixing brackets are required (see fig. below). Ready-to-install internal and external corners with variable leg lengths, upstands and end caps can be supplied.



Fillet plate

The 2.50 m (5.00 m up to TAG 625) long inclined fillet plate sections installed between the roof area and the fixing bracket head serve as a support for the tape, for in-line fastening of the waterproofing membrane as well as for protecting the roof waterproofing against wind uplift along the roof edge.

It is available as "fillet plate 100" (standard) for flashing heights up to 100 mm and as "fillet plate 150" (option) for flashing heights up to 150 mm.



Edge trim profile

The edge trim profile sections for the roof edge trim profiles:

- TAG 250 up to TAG 625 rolled, 5.00 m long
- TAG 650 up to TAG 1050 bent, 2.50 m long
- art-line 1 rolled and additionally bent, 2.50 m long

The joints of the edge trim profile (with TAG, with bent section ends, if applicable) are covered with a 4F fixing brackets / joint connection.

The rolled and additionally bent edge trim profile sections of the roof edge trim profiles artline 1 are secured with included spring clips.

Ready-to-install internal and external corners, upstands and end caps can be supplied.

Fixing brackets

Starting from the corners, the pre-assembled 4F fixing brackets are aligned flush and at right angles to the roof edge according to the fixing bracket layout or installation plan and screwed on with 3 corrosion-resistant screws (Ø 6 mm) in wood or 2 frame plugs (Ø 10 mm) with corrosionresistant screws (Ø 7 mm) in concrete.

The 4F fixing brackets can be set to the millimetre at the required height above the finished roof surface and adjusted to the roof slope. Height differences and unevenness of the roof edge are compensated through variable adjustment options.

For front face height \ge 350 mm, fastening to the façade is necessary. Additionally, with art-line 1, at the contact area the fixing brackets / joint connection needs to be aligned with levelling plates and fastened.

Fillet plate

The 2.50 m long fillet plate sections (5.00 m up to TAG 625) are hooked into the catches of the profile supports, positioned on the roof edge and fastened with screws (\emptyset 4.5 mm) in the prepunched holes at centres of 25 cm.

Edge trim profile

Again starting from the corners, the 2.50 m long edge trim profile sections (5.00 m up to TAG 625) are installed on the aligned fixing brackets. Hook in at the base of the fixing bracket and snap it over on top.

With TAG 250 - 625 mm, for exact positioning, one corner element with welded-in joint connection is inserted into the section. The fixing brackets of larger corners as well as of edge trim profile sections at the same time serve as joint connections (no welded-in joint connections).

With art-line 1, edge trim profiles and corners must be secured immediately after snapping on with spring clips at all fixing brackets and joint connections.

The last section is fitted to the space between the already installed sections. At roof edge ends without profile corner, end caps or upstands are inserted from the side into the end of the edge trim profile.

Tape and top cap

After installing edge trim profiles all along the roof perimeter, flashing against the waterproofing is carried out. The tape including preformed corner details made of membrane material is placed over the fillet plate right to the outer edge of the edge trim profile. When using the fillet plate 150, the tape needs to be fixed on site at the centre of the fillet plate using the included adhesive strip. Then snap over the top cap sections from the inside to the outside.

The top cap together with the fillet plate will force the tape into an S-shaped form.

Start working at the corners, installing the mitred top cap sections. Joints of edge trim profiles and top caps must be installed in a staggered pattern. The staggered pattern results from the different lengths of corner legs and mitred profiles.

Finally, the tape is welded to the waterproofing membrane according to the manufacturer's instruction.

Notes

Notes







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