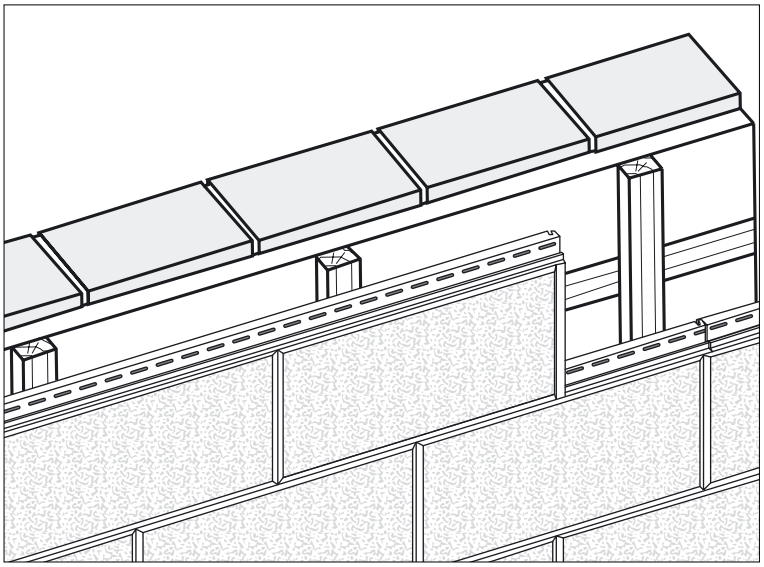
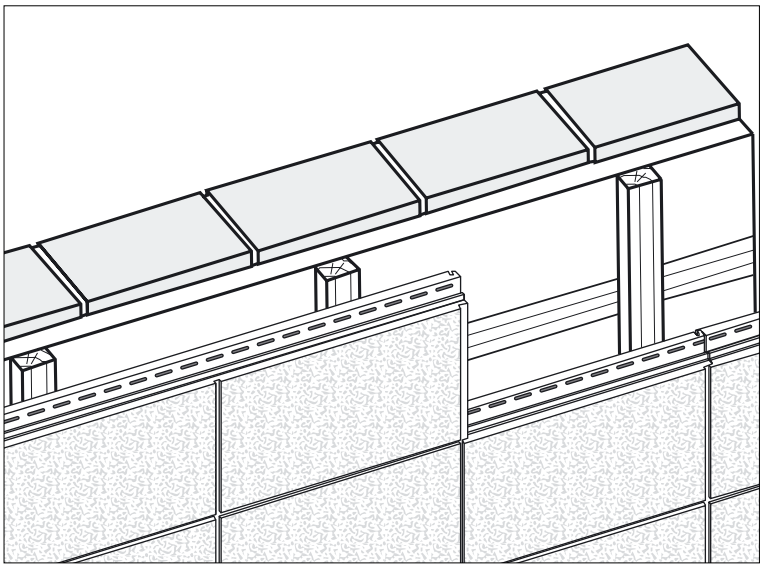
Installation Instructions



Brick-effect/
Ashlar cladding panels 1200

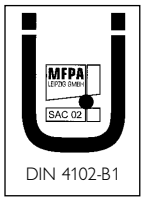


vinyCross cladding panels

Stand 9/2003 – Ri
Subject to change errors excepted

This installation instruction represents the manufacturers recommendation for installation only. Whilst all reasonable care is taken in compiling technical information, all recommendations regarding the use of products are made without guarantee since the conditions of use are beyond the control of Vinylit. It is the users responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it and that the actual conditions of use are suitable.

The installer is obliged to check regarding the latest installation instruction and to consider the accepted technology rules, the regulations for facade mounting and the national standards.



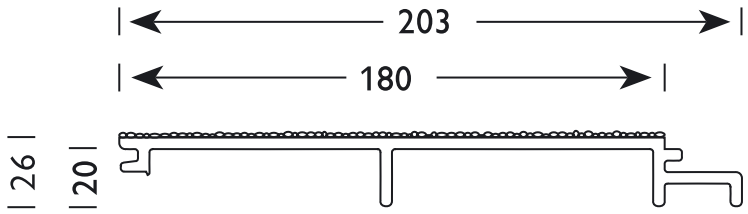


Figure 1a Brick-effect/Ashlar cladding panel

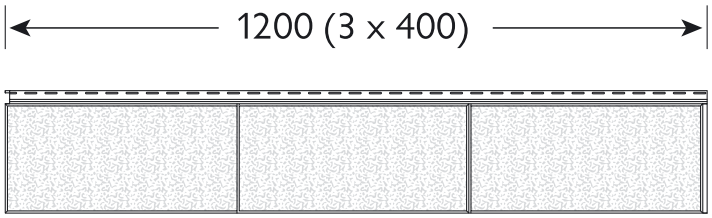
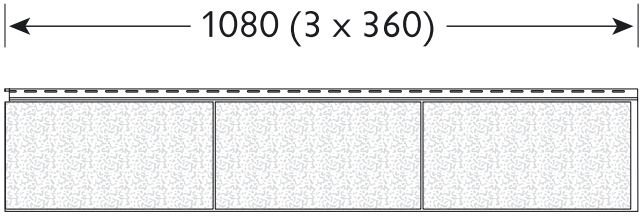
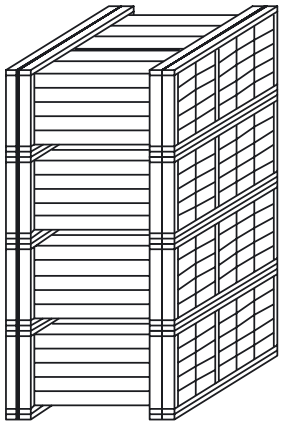


Figure 1b vinyCross cladding panel





Brick-effect/Ashlar 1200 and vinyCross stonechip cladding panels are extruded using cadmium-free foamed thermoplastics. During the production process natural stone chippings are embedded into the surface resulting in a durable bond. The manufacturing methods are state-of-the-art and include a strict procedure of continuous quality control.

Brick-effect/Ashlar 1200 and vinyCross cladding panels are manufactured to DIN 4102, part 1 of building materials class B1. They are subject to continuous quality tests by the association of the Construction Material Research and Testing Association (MFPA) in Leipzig.

1. General Guidelines

Each Brick-effect/Ashlar cladding panel is 180 mm wide, 1200 mm long and divided into 3 box segments of 400 mm (Figure 1a).

vinyCross cladding panels are 180 mm wide, 1080 mm long and divided into 3 segments of 360 mm (Figure 1b).

Brick-effect/Ashlar 1200 and vinyCross cladding panels are packed in bundles of 6 pieces. A standard pallet consists of 25 bundles.

Attention:

The pallets must be stacked with the vertical struts aligned. Pallets and individual bundles must be stored on level ground. Pallets can be stacked on the top of each other, but no more than four high.
Please ensure that during loading and offloading of the pallets, care is taken to ensure the panels are not damaged by the tines of the forklift truck. When storing the packs, it is necessary to protect them particularly against moisture and dirt. By observing these guidelines, it is possible to avoid damage during transportation and storage.

2. Colour Consistency of Panels

Panels incorporate a surface layer of stone chippings a natural material, which means that slight colour variations are inevitable from batch to batch. Each individual batch is given an identifying code number, and material used on any particular elevation should originate from one batch. Never mix batches on an elevation

Remainders of batches can be used on small projects such annexes, garages, porches etc. Panels showing obvious signs of transport damage, production faults or colour variations, should not be used, but segregated prior to assembly.

3. Ventilation

While assembling, please be aware of the need for continuous ventilation between cladding panel and wall. This guarantees a reduction in air humidity and capillary separation of the cladding and the insulation material or wall surface, and prohibits mould growth. In order to achieve through ventilation a vertical counter batten has to be installed. (Figure 2)

4. Assembly – Pre-planning

The accepted technology rules, the regulations for facade mounting, the relevant national standards (in Germany standards DIN 18516 and ATV DIN 18351 apply) as well as the supervisory construction specifications, static forces and fire protection have to be considered during planning and installation.
Before any panels are installed, we recommend that the building should be carefully measured.
Please note the exact positions of windows, doors, corners and bays. This should avoid unnecessary cutting and fitting, and thus a more attractive visual appearance all over can be achieved. Brick-effect/Ashlar panels and vinyCross are subject to expansion due to changes in temperature. Installation should therefore be carried out at outdoor temperatures higher than + 5° Celsius. (See "Important" on page 6)

5. Sub-Structure:

a) Installation of base batten

The base battens (Figure 3) are fixed horizontally to the wall with suitable approved fixings. For fixing into the wall DIN 1052 is to be observed. The battens should be treated with a suitable damp proofing and insect repellent. For a basic framework the battens can be varied according to insulation thickness. The distance between battens should not exceed 600 mm (but can be less), and should be 5 mm less than the width of the insulation. Unevenness is balanced out by inserting wedges (art.-no. 50.12.29) and other strips.

b) Fixing insulation material

Insulation material is to be layed into the space between the base battens. (Figure 4)

c) Installation of counter batten

Prior to the assembly of the counter batten a detailed installation plan has to be worked out in order to achieve a structured and eaven visual appearance at corner areas. (Figure 6a/6b)
The length of the segments at corner areas will be calculated acc. to the following examples:

Figure 2

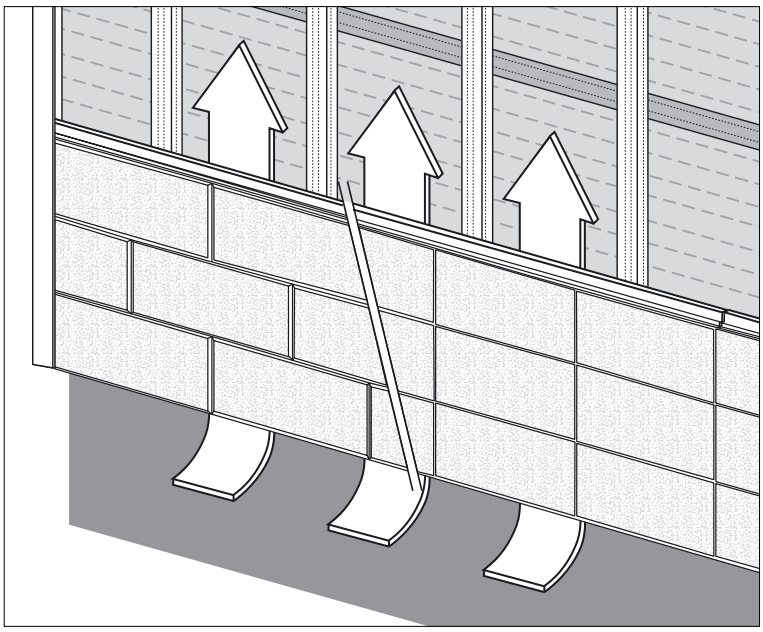


Figure 3

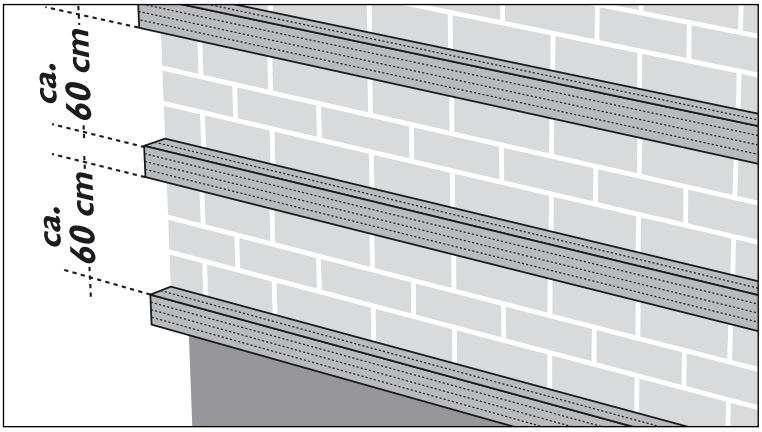


Figure 4

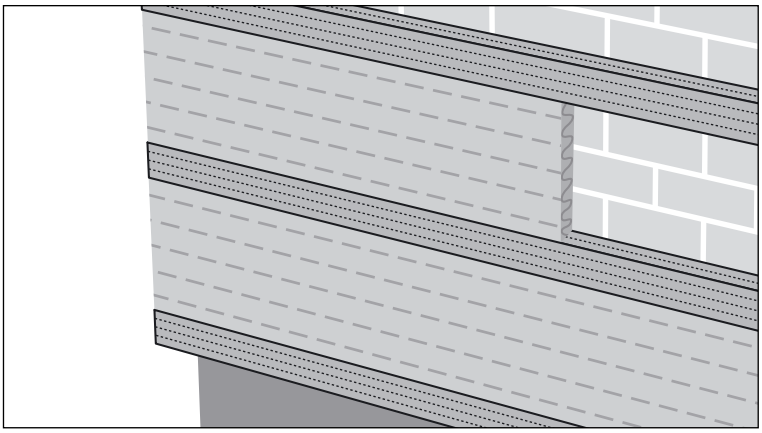
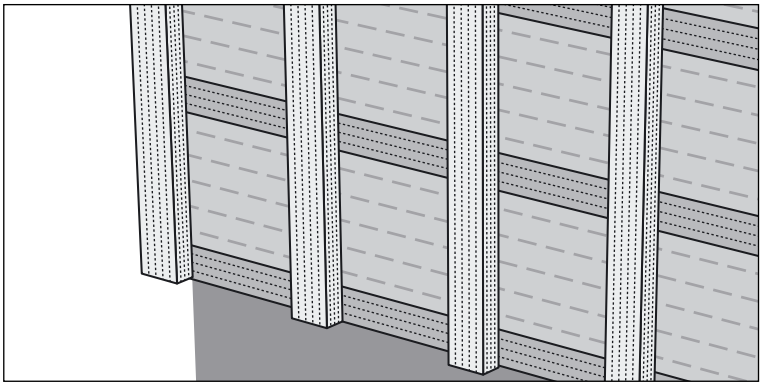


Figure 5

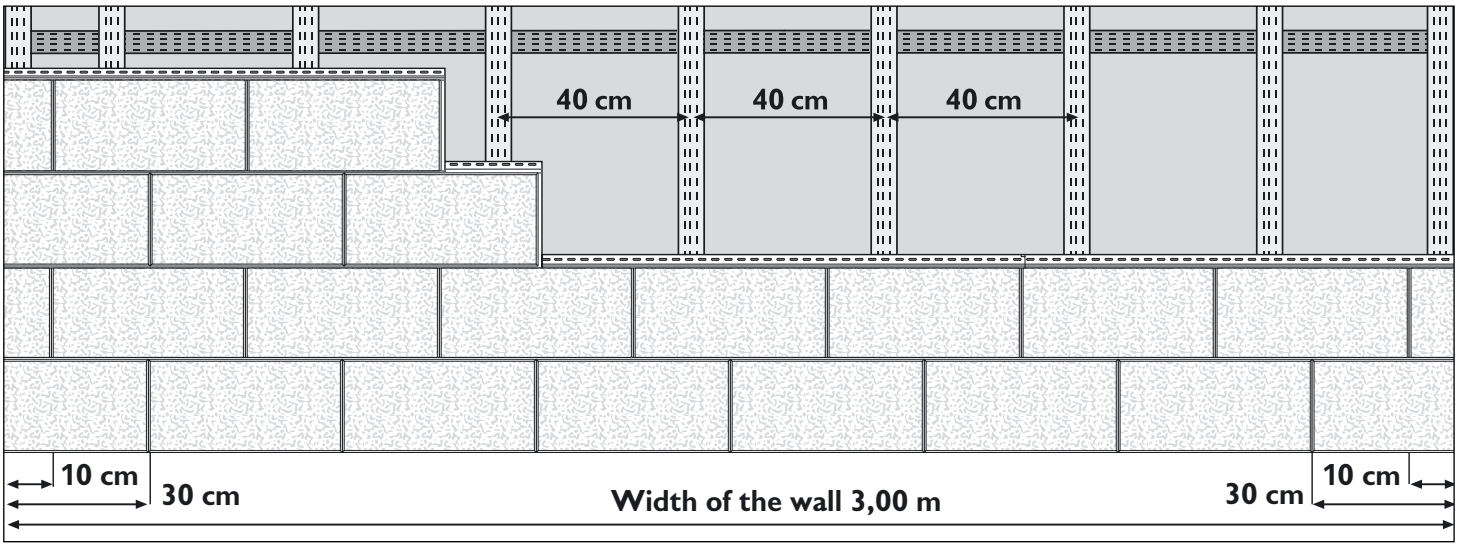


Example Brick-effect/Ashlar cladding panel:

Width of the wall 3 m = 7 complete segments of 400 mm (= 2.80 m) + 2 segments of 100 mm.
Length of the first segment of the starting row = 100 mm + 200 mm (half segment) = 300 mm.
Remainders from the end of a row can be used at the start of the next row or at window and door areas - (minimum waste).

After preparation of an installation plan the vertical counter batten is to be screwed onto the base batten at centers of 400 mm (Figure 5/6a). The battens are to be installed between the joints of the Brick-effect/ Ashlar cladding panels.

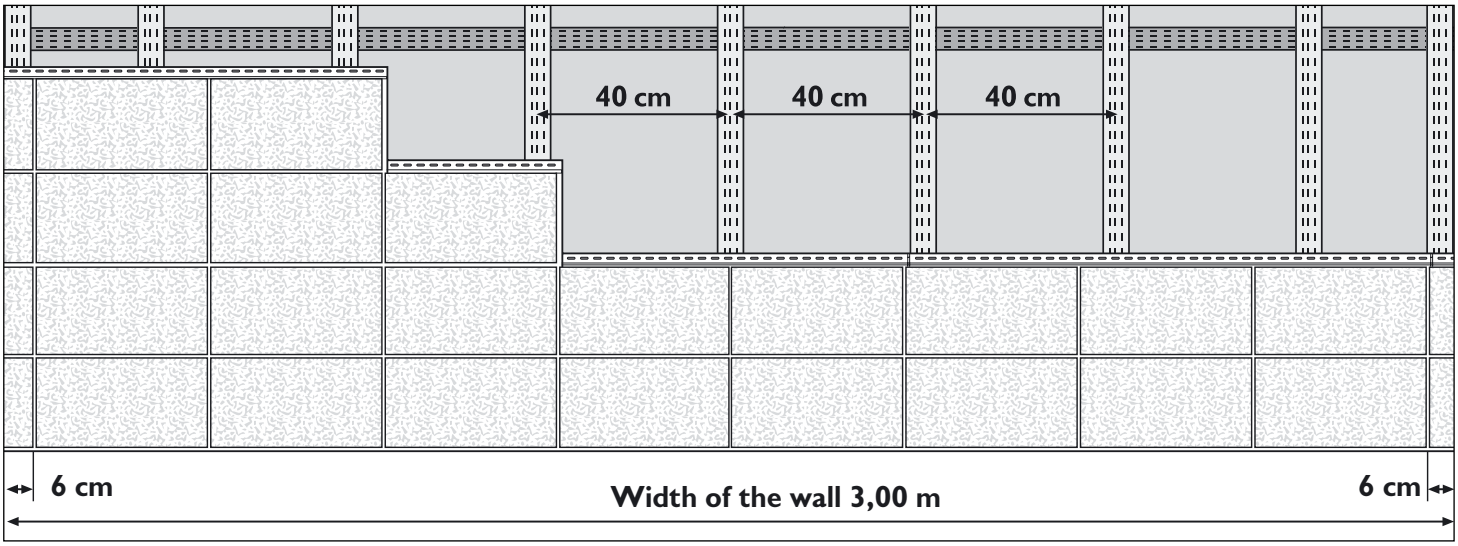
Figure 6a



Example vinyCross cladding panel:

Width of the wall 3 m = 8 complete segments of 360 mm (= 2.88 m) + 2 segments of 60 mm.
Remainders from the end of a row can be used at the start of the next row or at window and door areas - (minimum waste).
After preparation of an installation plan the vertical counter batten is to be screwed onto the base batten at centers of 400 mm (Figure 5/6b). The cladding panels are to be installed in a way that the vertical joints of neighbouring rows are staggered (see Figure 6b).

Figure 6b



6. Fabrication/Cutting

You will need the following tools to fabricate and install Brick-effect/Ashlar and vinyCross cladding panels: Chop-saw, jig saw, disk grinder and Stanley knife. For the installation of natural corners you should use a router.

7. Lower and Upper Panel Finishing

At the bottom and the top end of the facade the opening between base and counter batten is to be closed with a ventilation profile (Figure 7a/7b). Due to this ventilation is ensured and this also prevents mice or insects getting into the foundations.

By using the top vent profile 9/65 (art.-no. 50.08.21) ventilation is in accordance with requirements of DIN (Figure 7b).

8. Installation

Brick-effect/Ashlar 1200 or vinyCross cladding panels are installed horizontally, starting from the bottom.
A 20 mm offset batten is to be fitted at the bottom (Figure 8). During installation of the first row, please pay attention it has to be absolutely horizontally (see item 5c and Figure 6a + 6b). Additonal fixing onto the offset batten takes place by white facade nails (art.-no. 51.04.02). Further installation is very simple due to the horizontal tongue and groove and the vertical interlocking system (Figure 9). Please make sure appropriate ventilation between bottom cladding and soil (20 mm acc. to DIN).

Important:

At temperature changes the material is subject to thermal expansion. In order to avoid wave formation cladding panels have to be installed with a horizontal expansion joint of approx. 1 mm.

The very nature of the top-quality thermoplastic material used for the production of the panels will expand marginally when there is a change in temperature, even if the expansion cannot be seen by the naked eye. Therefore, the joints should be pressed only slightly together (especially when the installation is done in lower temperatures). This will guarantee that each panel can expand during a temperature rise without distorting.
Do not install at a temperature less than 5 degree Celsius, unless the panels can be conditioned, immediately prior to assembly, to a higher temperature.

Figure 7a

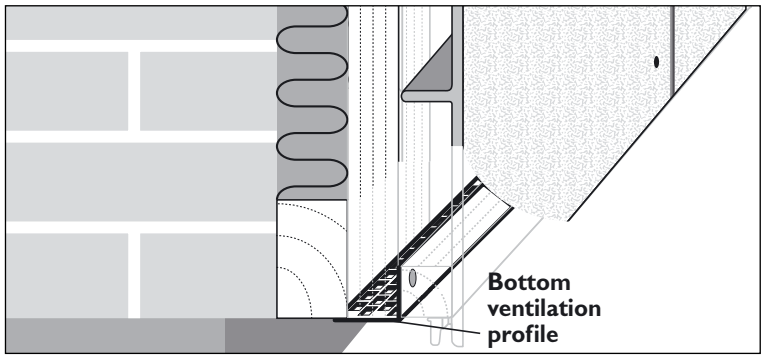


Figure 7b

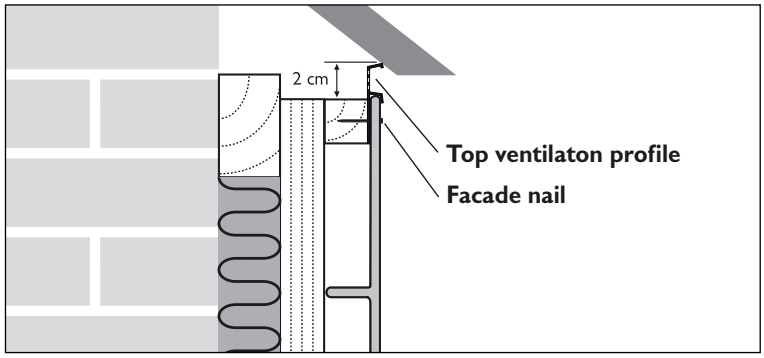


Figure 8

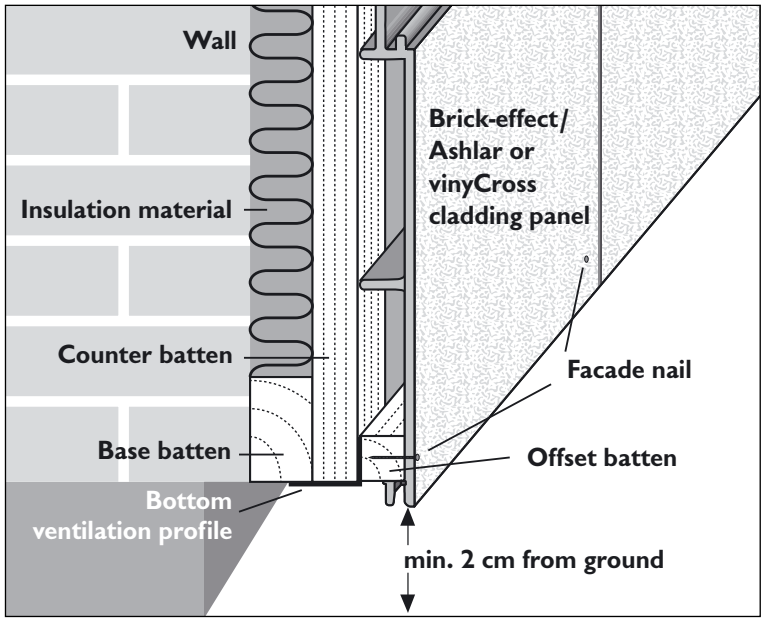


Figure 9

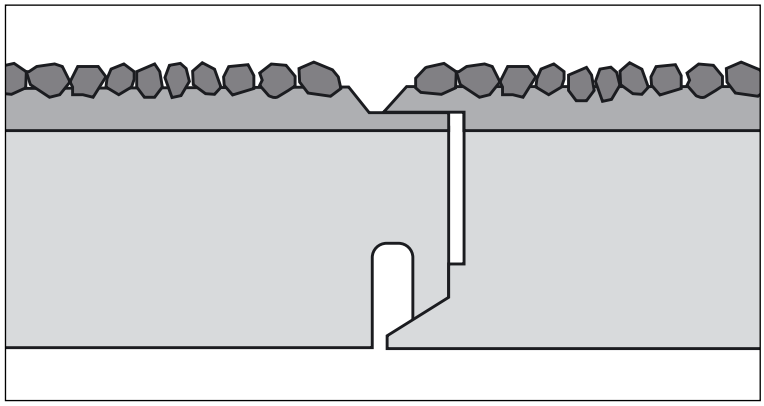
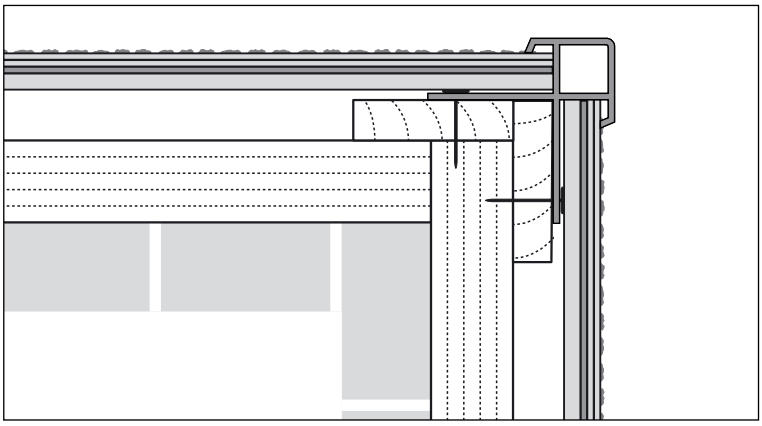


Figure 10a

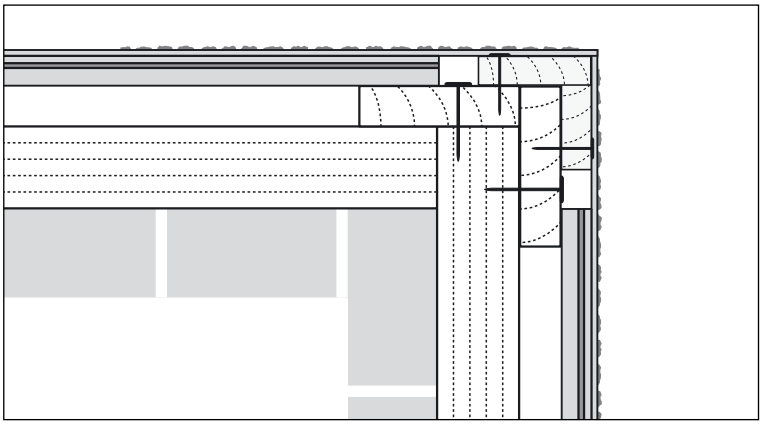


9. Corners

a) External corner using corner profile 29/15

To join cladding panels at an external corner (Figure 10a), use the corner profile 29/15 (art.-no. 50.04.21). Two vertical battens (30 x 20 mm) are screwed at right angles to each other. The corner profile is fixed to the base batten and Brick-effect/Ashlar or vinyCross cladding panels are layed into the receiving arms of the corner profile so that the cut edges are covered.

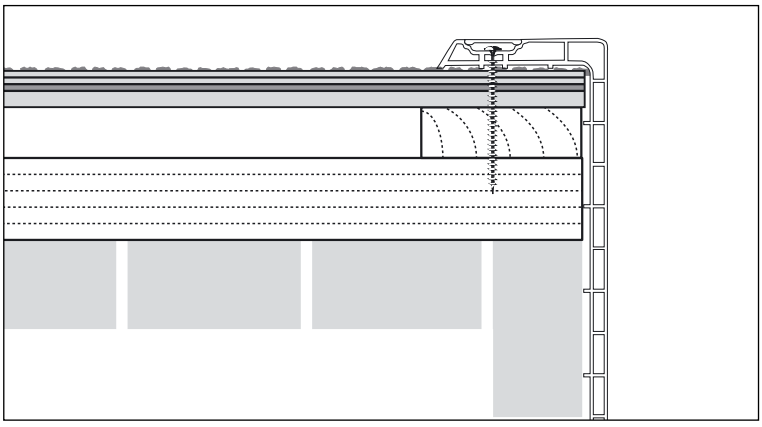
Figure 10b



b) Natural corner

Should you want to fabricate an external butt jointed corner, you will require two 20 mm thick supporting battens screwed vertically to the horizontal framework (Figure 10b). Trim off the groove from both cladding panels, and secure to the vertical battens with rust free facade nails 10 mm from the edge and at 75 mm intervals.

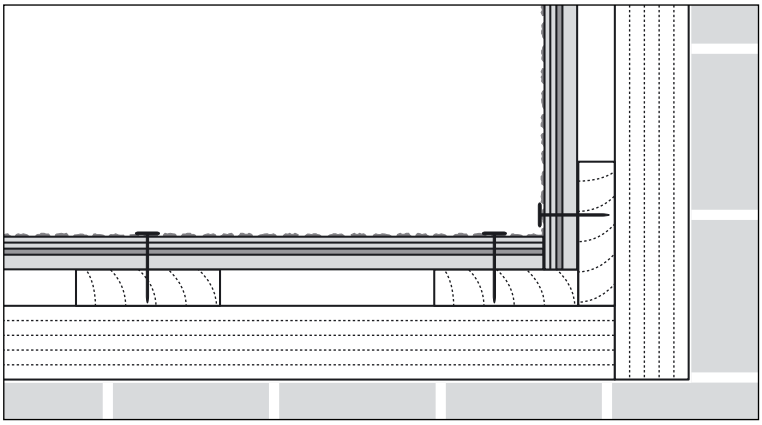
Figure 10c



c) Cladding one wall

Should you want to clad only one wall use the vinyCom window reveal profile (art.-no. 21.30.11) together with the vinyCom starter profile (art.-no. 25.60.11) and the vinyCom cover strip 20/2 (art.-no. 21.02.11) for outside corners (Figure 10c).

Figure 10d



d) Inside corner

To fabricate an internal corner the panels are butted up against each other supported by 20 mm x 30 mm thick vertically mounted battens (Figure 10d).

The fixing screws must be inserted at right angles to the panel (Figure 10d) otherwise the panel might buckle.

10. Fixing

Fixing should be done through the recesses formed as guides using rust free screws (e.g. fixing screw with semi domed head 4.0 x 40 mm, art.-no. 51.42.02). Screws should be sunk at right angles, and not over tightened to allow corrections in case of wave formations. You will require approx. 15 screws per square meter.

For the pull peak area (1–2 m wide marginal strip over 8 m high) of buildings of up to 20 m in height, the panels must be fixed with two screws to each fixing point.

For fixing through the cladding surface you should use rust free nails (facade nails with rough shaft, 1.9 x 27 mm, art.-no. 51.04.02). This refers also to the installation of natural corners (see figure 10b).

Semi domed rust free screw
for fixing of Brick-effect/Ashlar or vinyCross cladding panels

Chipboard screw with tallow drop head
for starter profile

Chipboard screw with tallow drop head
for window reveal

Facade nail
Stainless steel (for fixing of Brick-effect/Ashlar or vinyCross cladding panels onto offset batten and fabrication of natural corner)

11. Window and door borders

a) Sub construction

One offset batten 20 mm has to be arranged for each horizontal layer at the top and the bottom of the window openings for the fixing of the cladding panels as well as the window reveal profiles to the reveal edges.

In order to avoid dirt lines on the facade, we recommend the use of our windowsill end pieces.

Figure 11

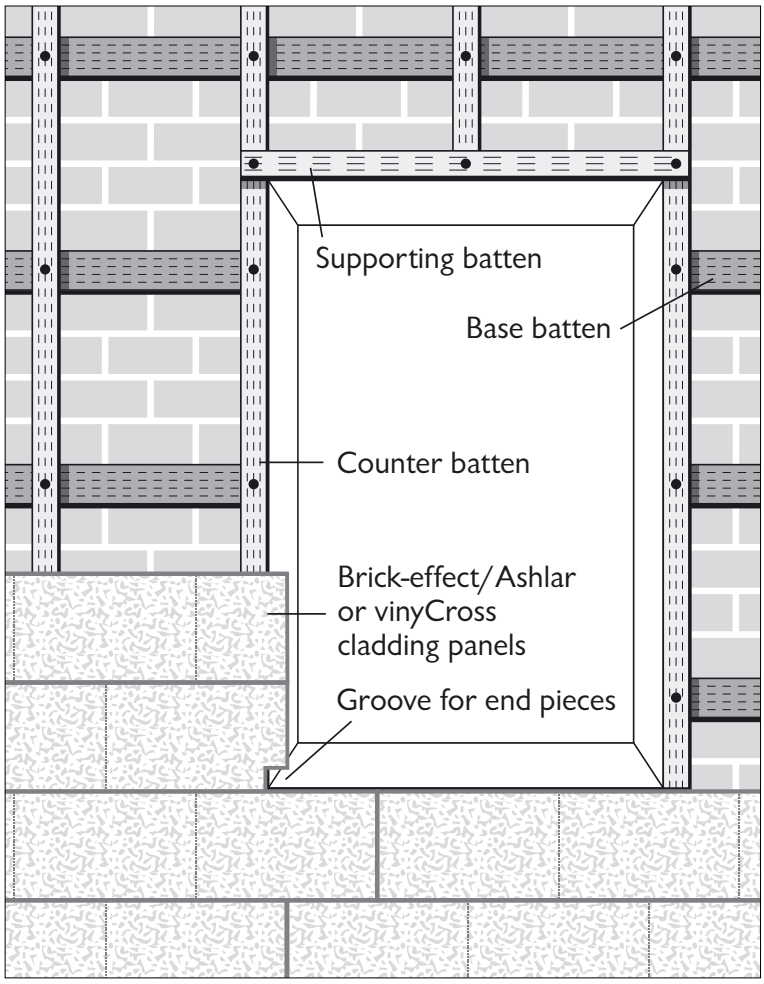
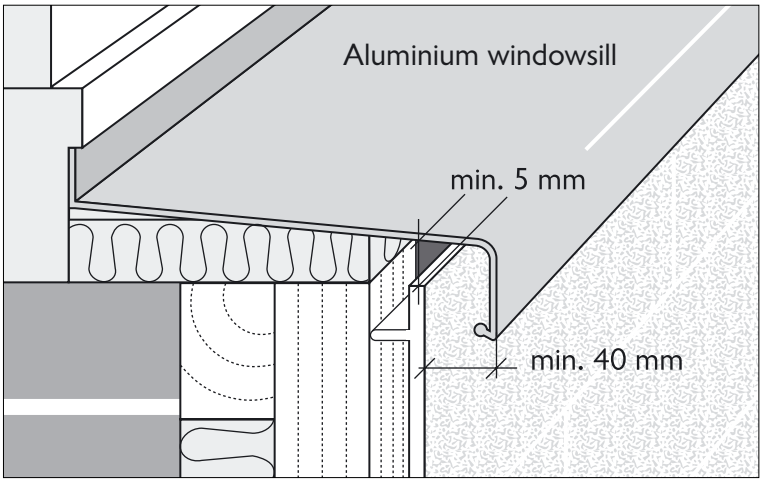


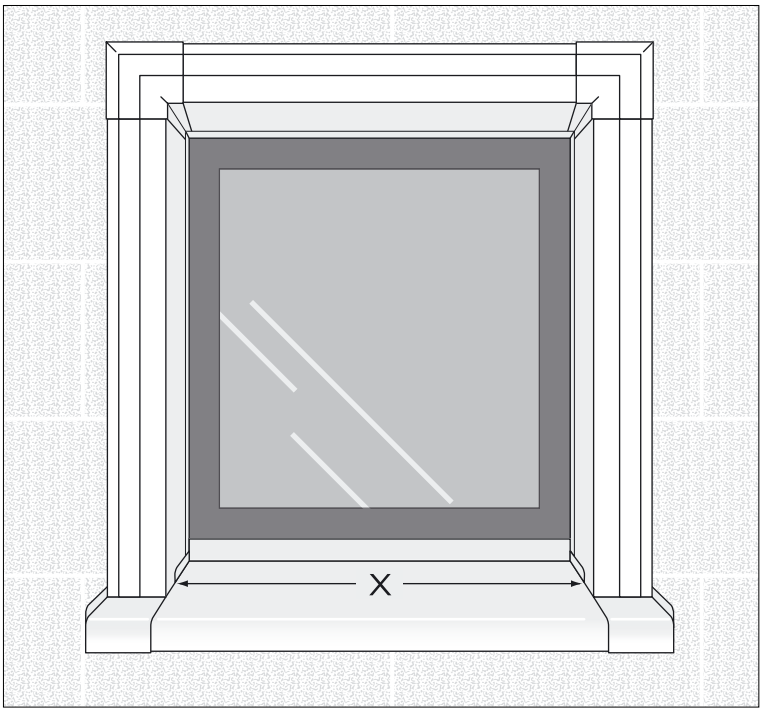
Figure 12



b) Windowsill

The windowsill has to be measured and attached so that the vertical reveal profiles are aligned above the end pieces (Figure 17). The end pieces have to be fitted into the cladding panels accordingly.
(Also see: Figure 11)

Figure 13



c) Cutting the Upper Window Reveal

The window reveal is measured and cut according to the present reveal depth: The measuring of the depth starts from the façade surface at the window frame, and approximately 5 mm is subtracted from this depth.

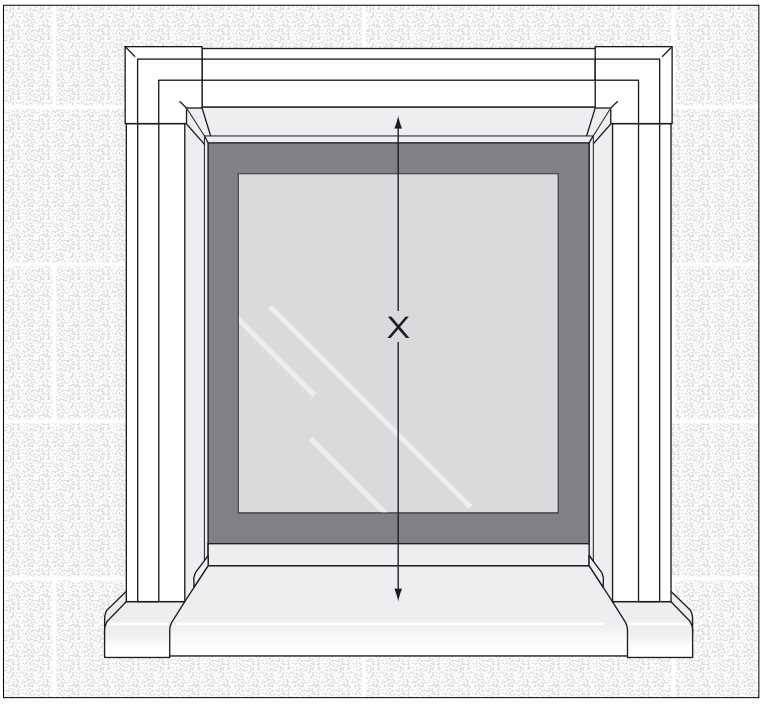
The length of the upper window reveal profile is calculated as follows (Figure 13):

Width between the windowsill end pieces of the fitted windowsill (X)

– 10 mm

= required measurement of the upper window reveal profile

Figure 14



d) Cutting the Side Window Reveal

The length of the side window reveal profile is calculated as follows (Figure 14):

The height between the windowsill and bottom edge of the upper window reveal profile (X)
in the area of the façade front

– 6 mm

= required measurement of the side reveal profile

According to the slope of the windowsill, the soffit profile has to be cut diagonally in the bottom area (resources: protractor or similar).

e) Cutting the Angle Connector

The length of the angle connector is measured from the façade surface to the short support of the cover and starter profile. The scaling of the angle connector gives the depth starting from the façade surface.

f) Mounting of the Reveal

The cover and starter profile should be used to connect and fasten to the upper and side window frame. The cut reveal profiles are joined with the angle connectors and attached to the reveal as a whole element. The fixing is done with chipboard screws with tallow-drop heads, 3 x 40 mm (Figure 15–17).
The fixing groove is covered with the cover strip 20/2, which again is held by the clamp effect. It can protrude a maximum 24 mm into the angle connectors.
In order to avoid displacement the cover strip should be glued to the bottom area of the groove of the reveal profile.

Finally, the system corners (which are of the same colour as the cover strip) are clicked into the depression of the angle connectors by light taps with a pin hammer or similar.

g) Enlargement

For reveal depths of more than 290 mm, the extension profile (150 mm, art.-no. 21.14.11) has to be stuck to the reveal profile 280/55 and the upper window reveal profile 280/55.

The installation procedure is the same as in the previous description.

h) Processing

– Circular or pad saw with a fine blade for plastics
– Angle grinder
– Fine saw with hardened teeth

Dark window reveals should not be used for visual reasons and because it obstructs the entrance of the light into the interior. The supplier does not accept any liability for the constancy of the colour of any brown accessory profiles.

Figure 15

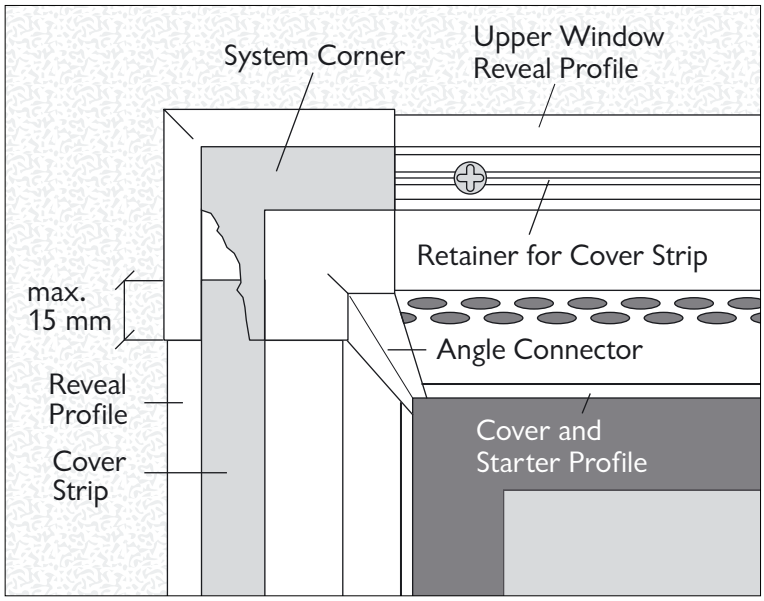


Figure 16

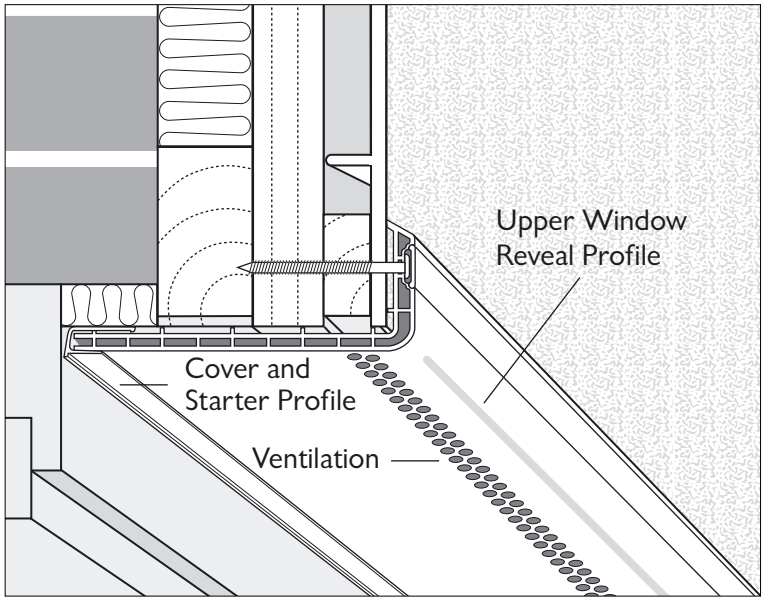


Figure 17

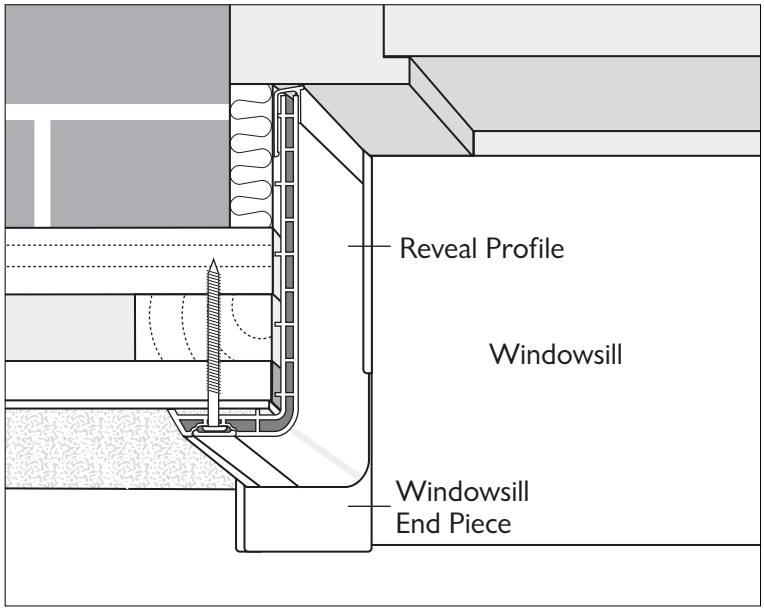


Figure 18

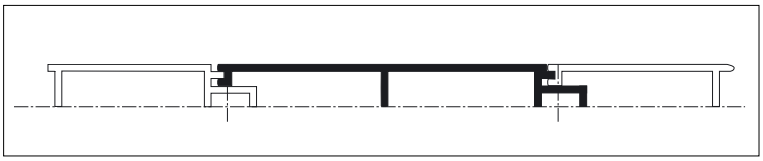


Figure 19

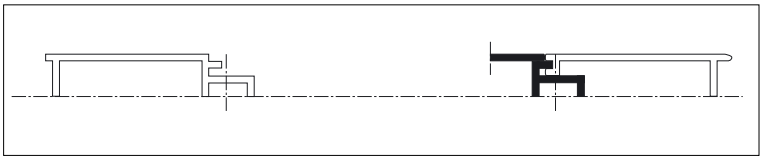


Figure 20

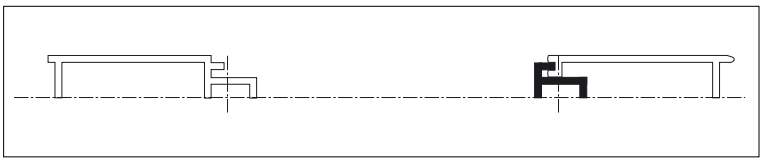


Figure 21

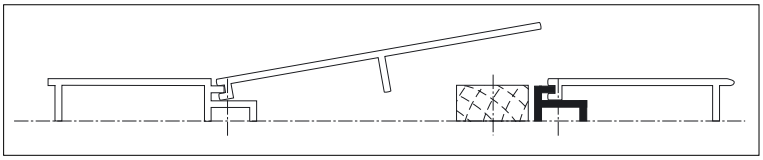
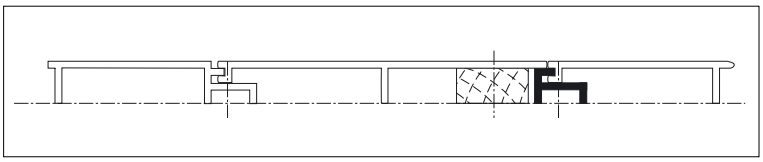


Figure 22



13. Replacing Individual Brick-effect/Ashlar or vinyCross Cladding Panels

Just as straight forward as the assembly is the changing of individual Brick-effect/Ashlar or vinyCross cladding panels. The panel to be changed is cut out with a disk grinder (Figures 18, 19).

The grooved side of the panel can be removed, but the tongued section serves as a support for the neighbouring section (Figure 20).

Cut away the tongued area from the new panel with a sharp knife. A 20 mm support batten should now be affixed to the tongued section of the removed panel. This will support the new panel.

Insert the groove of the new panel into the tongued area of the adjacent panel (Figure 21).
Final assembly (Figure 22) occurs by using rust free facade nails (1.9 x 27 mm, art.-no. 51.04.02).

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