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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

MEMBER OF EOTA

European Technical Assessment ETA-21/1063 of 2024/09/18

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:	KOMPROMENT cladding kit type: ZAPPA Ceramic Arena 500/600 I - Atrium I ZAPPA Natural slate
Product family to which the above construction product belongs:	Kits for external wall claddings mechanically fixed
Manufacturer:	KOMPROMENT Danish Building Design Porsborgparken 21 DK-9530 Støvring Telephone +45 9652 0710 www.komproment.dk
Manufacturing plant:	KOMPROMENT Porsborgparken 21 DK-9530 Støvring
This European Technical Assessment contains:	39 pages including 16 annexes which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:	EAD 090062-01-0404 – Kits for external wall claddings mechanically fixed
This version replaces:	The ETA with the same number, issued on 2022-01-06

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

ZAPPA is a cladding kit for external wall claddings for new and existing buildings. The system is suspended on the subframe by means of a hook-on arrangement with slotted fixings and the cladding fixings are hook/slot profile and rails or other similar fixings

Subframe: Vertical aluminium subframe, alloy EN AW-6060 T6 in accordance with EN 573-3.
Horizontal aluminium subframe, alloy EN AW-5754 (AiMg3) in accordance with EN 573-3

Screws for fixing the horizontal aluminium subframe to the vertical aluminium subframe: 4,8 x 20 mm stainless steel A2 self-tapping screws.

Support clips for cladding elements: stainless steel clips. Grade 1.4462 in accordance with EN 10088-1 Ø2,2 mm, each ZAPPA cladding kit system has a special clip, more information in Annex 13.

Cladding element:
ZAPPA Ceramic; 100 % ceramic tiles.
CE marked in accordance with EN 14411.
Standard size: 300x600 mm.

Arena 500/600 I - Atrium I, 100 % ceramic tiles.
CE-marked in accordance with EN 1304.
Standard size: 500/600x210 mm.

ZAPPA Natural slate, 100 % Natural slate tiles:
CE-marked in accordance with EN 12326-1.
Standard sizes: 200x400 mm, 250x500 mm and 300x600.

Tile size [mm]	Horizontal subframe distance [mm]	Vertical subframe distance [mm]
300x600	270; -0/+3	Max c/c 600

Table 1: ZAPPA Ceramic: Vertical/horizontal subframe distance depending on tile size.

Tile size [mm]	Horizontal subframe distance [mm]	Vertical subframe distance [mm]
500/600x210	190; -0/+3	Max c/c 600

Table 2: Arena 500/600 I - Atrium I: Vertical/horizontal subframe distance depending on tile size.

Tile size [mm]	Horizontal subframe distance [mm]	Vertical subframe distance [mm]
300x600	270; -0/+3	Max c/c 600
250x500	220; -0/+3	Max c/c 600
200x400	170; -0/+3	Max c/c 600

Table 3: ZAPPA Natural slate: Vertical/horizontal subframe distance depending on tile size.

Dimensions and material parameters are specified in annex 1.

The metal fasteners for fixing the vertical subframe into the substrate is not a part of the kit

The face to which the system is fixed should be flat, vertical and capable of supporting appropriate loads. In a soffit situation the engineer should specify the sub-structure and number of fixings required based on the weight of the system and any other requirements e.g., wind loads, etc.

2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

The construction product ZAPPA cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I and ZAPPA Natural slate is intended for use as fastening of external wall claddings, in ventilated facades.

The cladding kits are fixed to external vertical walls made of masonry (clay, concrete, or stone), concrete (cast on site or as prefabricated panels), timber or metal frame in new or existing buildings (retrofit)

The façade kit is assessed as a kit family H in accordance with EAD 090062-01-0404.

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of 25 years, when installed in the works.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by the Technical Assessment Body issuing an ETA based on the EAD 090062-01-0404 but are regarded only as a means for expressing the expected economically reasonable working life of the product.

3 Performance of the product and references to the methods used for its assessment.

Characteristic	Assessment of characteristic
3.2 Safety in case of fire (BWR 2)	
Reaction to fire	The metal parts and the clay/Natural slate tiles of the KOMPROMENT Cladding kit type cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate are classified as **Euroclass A1** in accordance with EN 13501-1 and Delegated Regulation 2016/364
Façade fire performance	**No performance assessed**
Propensity to undergo continuous smoldering	Not relevant
3.3 Hygiene, health and the environment (BWR 3)	
Watertightness of joints (protection against driving rain)	**Not watertight**
Water absorption (for non-ventilated facades)	Not relevant
Water vapour permeability (for non-ventilated facades)	Not relevant
Drainability	**Drainable,** See figures in annex 2
Content, emission and/or release of dangerous substances	**No performance assessed**
3.4 Safety and accessibility in use (BWR 4)	
Wind load resistance	<table><tr><td>ZAPPA Ceramic</td><td>Arena 500/600 I - Atrium I</td><td>ZAPPA Natural slate</td></tr><tr><td>**Q > 500 m³/h Max. deformation 5 mm at 500 Pa**</td><td>**Q > 500 m³/h Max. deformation 4 mm at 500 Pa**</td><td>**Q > 300 m³/h Max. deformation 2 mm at 500 Pa**</td></tr></table> **No failure occurred. The joints in the tiles did not allow for obtaining higher pressure. The characteristic wind resistance of the kit is governed by the resistance of the metal clip – see below**
Resistance to horizontal point loads	**Passed**
Impact resistance	**No performance assessed**
Bending strength	**No performance assessed**
Resistance to long term or permanent dead load	**No performance assessed**
Resistance of grooved cladding element	Not relevant
Resistance at dowel hole	Not relevant
Pull-through resistance	**No performance assessed**
Pull-through resistance under shear loads	<table><tr><td>ZAPPA Ceramic</td><td>Arena 500/600 I - Atrium I</td><td>ZAPPA Natural slate</td></tr><tr><td>**F_C = 213 N**</td><td>**F_C = 411 N**</td><td>**F_C = 410N**</td></tr></table>
Axial tension resistance	Not relevant
Shear load resistance	Not relevant
Resistance of slot	Not relevant
Resistance to vertical load	Not relevant
Pull-through resistance of fixings from profile	Not relevant

Characteristic	Assessment of characteristic
Resistance of punctual cladding fixings	Not relevant
Combined tension and shear load resistance	Not relevant
Resistance of profiles	**No performance assessed**
Resistance of metal clip	<table><tr><th>ZAPPA Ceramic</th><th>Arena 500/600 I - Atrium I</th><th>ZAPPA Natural slate</th></tr><tr><td>F_C = 494 N F_{mean} = 687,1 N</td><td>F_C = 307 N F_{mean} = 367,5 N</td><td>F_C = 248 N F_{mean} = 288 N</td></tr></table> **Zappa Ceramic:** **Characteristic resistance of the clip: 6,1 kN/m² with 12,34 clips per m²** **Arena 500/600 I - Atrium I:** **Characteristic resistance of the clip: 6,3 kN/m² with 20,66 clips per m²** **Zappa Natural slate:** **300x600 mm: Characteristic resistance of the clip: 3,06 kN/m² with 12,34 clips per m²** **250x500 mm: Characteristic resistance of the clip: 4,50 kN/m² with 18,18 clips per m²** **200x400 mm: Characteristic resistance of the clip: 7,3 kN/m² with 29,4 clips per m²**
Resistance of profiles	**No performance assessed**
Subframe fixings, tension/pull-out resistance	The resistance of the clip is the determining factor and therefore the tension/pull out resistance equals the resistance of the clips.
Subframe fixings, shear load resistance	**No performance assessed**
Brackets resistance	**No performance assessed**
Resistance to seismic loads	**No performance assessed**
Out-of-plan acceleration	
Resistance to seismic loads	**No performance assessed**
In-plane displacement	
3.5 Protection against noise (BWR 5)	
Airborne sound insulation	**No performance assessed**
3.6 Energy economy and heat retention (BWR 6)	
Thermal insulation	**No performance assessed**
3.7 Durability	
Hygrothermal behavior	Not relevant. The cladding element is not known to be or suspected of being sensitive to hygrothermal variation
Behavior after pulsating load	**Passed**
Freeze-thaw resistance	**No performance assessed**
Behavior after immersion in water	Not relevant. The cladding element is not known to be or suspected of being sensitive to water
Dimensional stability – by humidity	Not relevant. The cladding element is not known to be or suspected of being sensitive to humidity

Characteristic	Assessment of characteristic
Linear thermal expansion	Not relevant. The cladding element is not known to be or suspected of being sensitive to humidity
Chemical and biological resistance	Not relevant. The cladding kit is made from inorganic materials
UV radiation resistance	Not relevant. The cladding kit does not contain polyester or other plastics
Corrosion	The **durability rating** of alloy AW 6060 & AW 5754 in accordance with EN 1999-1-1 is **B** Normally additional corrosion protection is not needed for atmospheric exposure in rural, industrial/urban and marine conditions according to table D.1 of EN 1999-1-1
Accelerated ageing behavior of kit when the cladding element is made of thin metallic composite panels (TMCP)	Not relevant

See additional information in section 3.8 – 3.9.

3.8 Methods of verification

The product is fully covered by EAD 090062-01-0404.
According to the Regulation (EU) No 305/2011.

3.9 General aspects related to the fitness for use of the product

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

The ZAPPA cladding kit are manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base.

4.1 AVCP system

According to the decision 2003/640/EC of the European Commission, as amended by 2001/596/EC, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is **2+**.

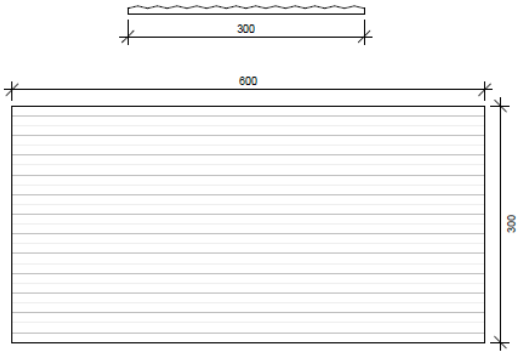
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD.

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark.

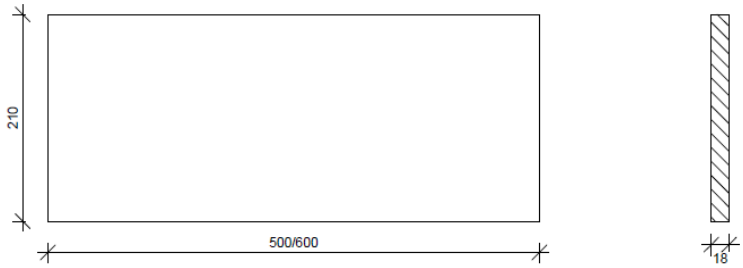
Issued in Copenhagen on 2024-09-18 by

Thomas Bruun
Managing Director, ETA-Danmark

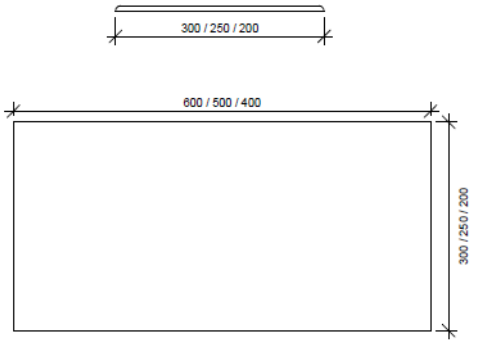
Zappa Ceramic



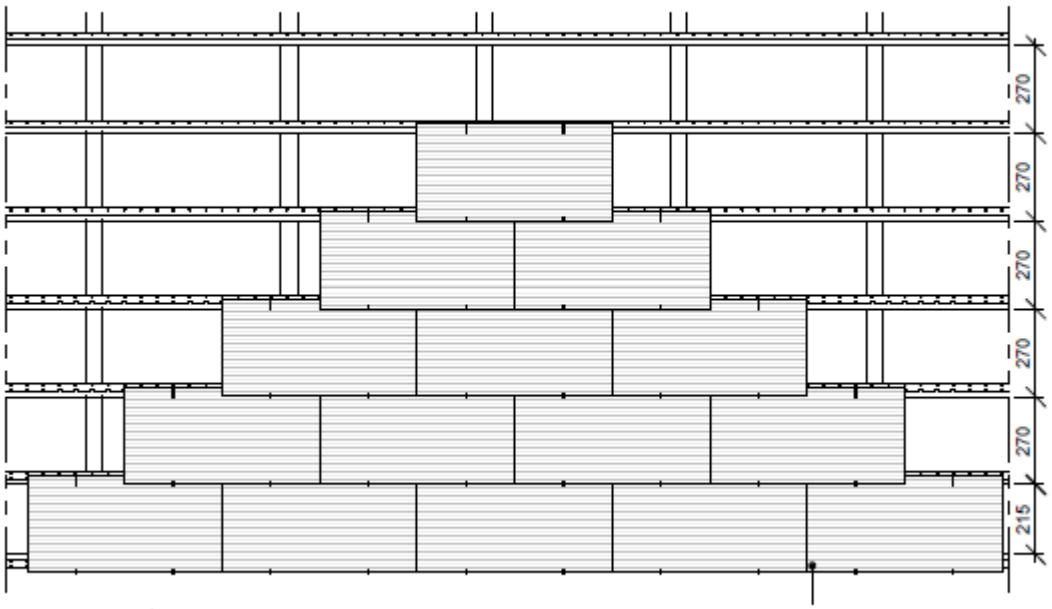
Arena 500/600 I - Atrium I



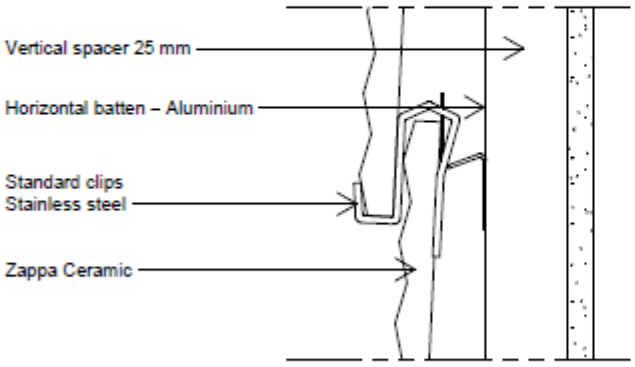
Zappa Natural slate



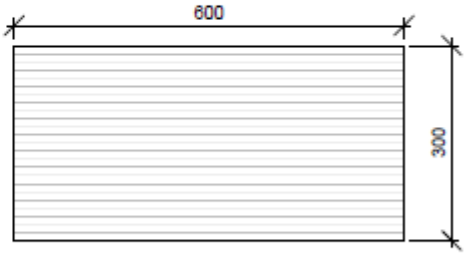
KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate	Annex 1
Cladding elements	



Elevation
1 : 20

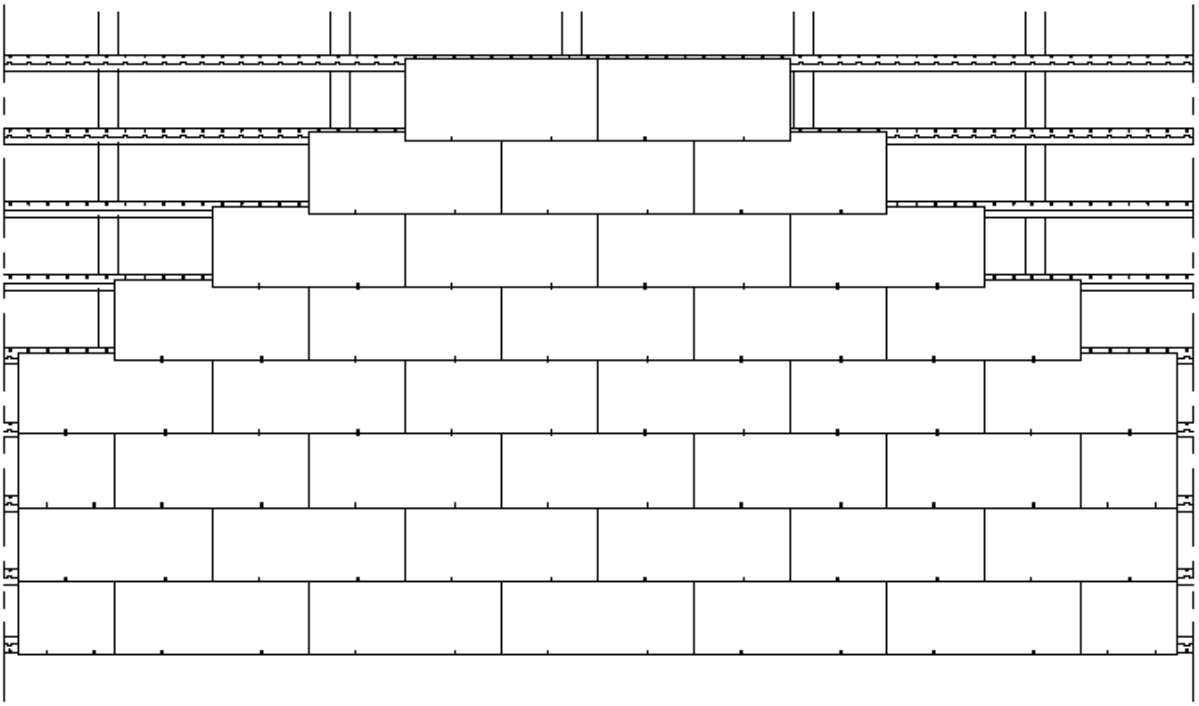


Vertical view
1 : 2



Zappa Ceramic
1 : 10

KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 2
Drainability	



Batten distance (X):
The batten distance is determined by measuring the average height of 15 tiles and subtracting 18 mm (measuring tiles are taken from different pallets). Measurement example =

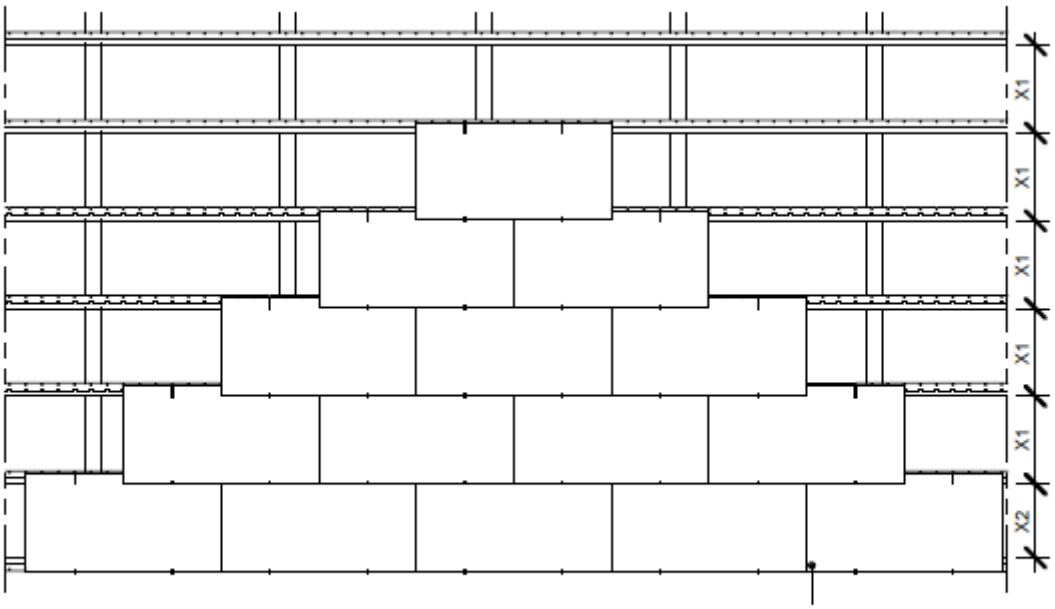
Average height 15 tiles = (208+208+208+206+210+207+209+209+207+208+206+210+208+207+209) / 15 = 208 mm

X (Batten distance) 208 mm - 18 mm = 190 mm

Repeat the above for each new tile delivery.

Do not mount any battens before deliveries are made, as tile must be measured for each new delivery. (Size of tile can vary from one batch to the next.)

KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex 3
Drainability	

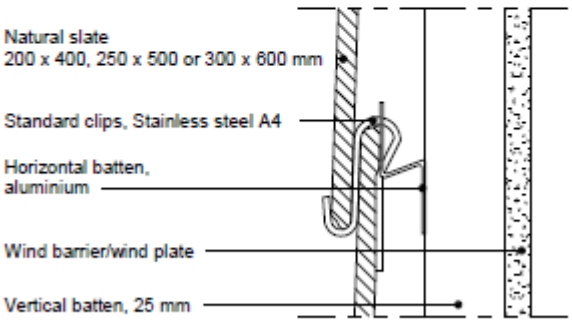


Z-0 - Elevation

1 : 20

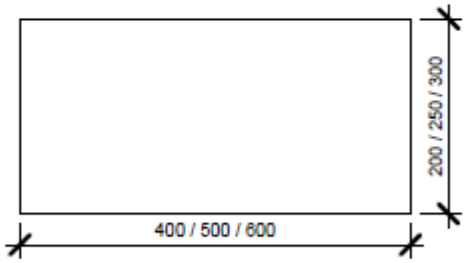
For the bottom, use the starter batten and starter clips

	300 x 600 mm	250 x 500 mm	200 x 400 mm
X1	270 mm	220 mm	170 mm
X2	215 mm	165 mm	115 mm



Z-0 - Cut

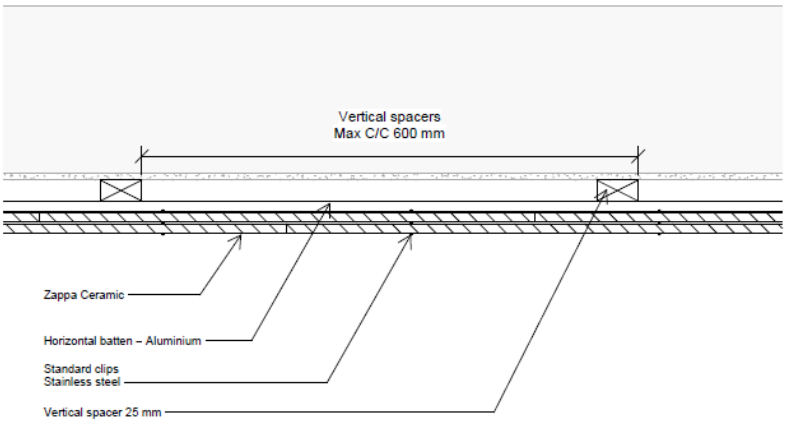
1 : 2

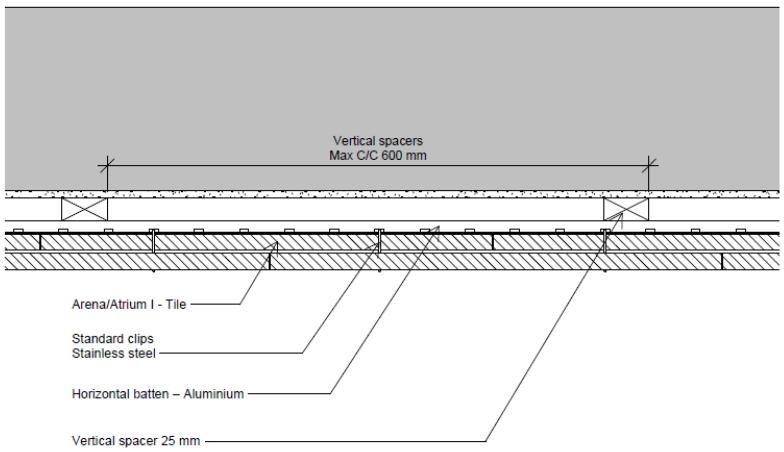


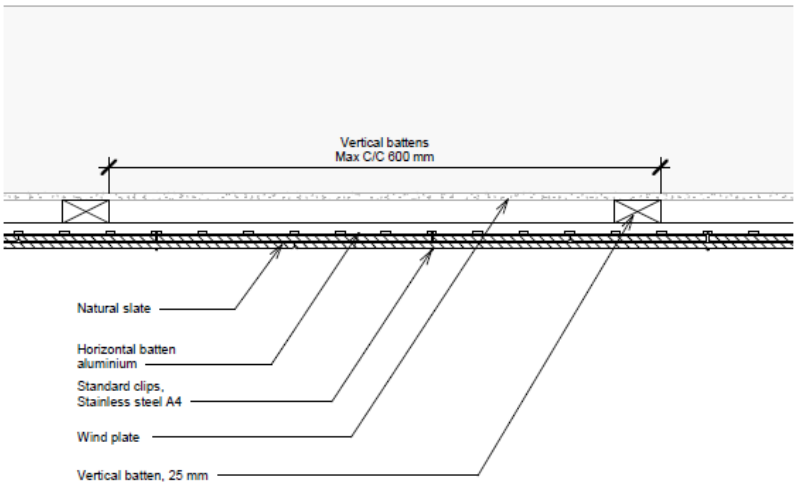
Z-0 - Natural slate

1 : 10

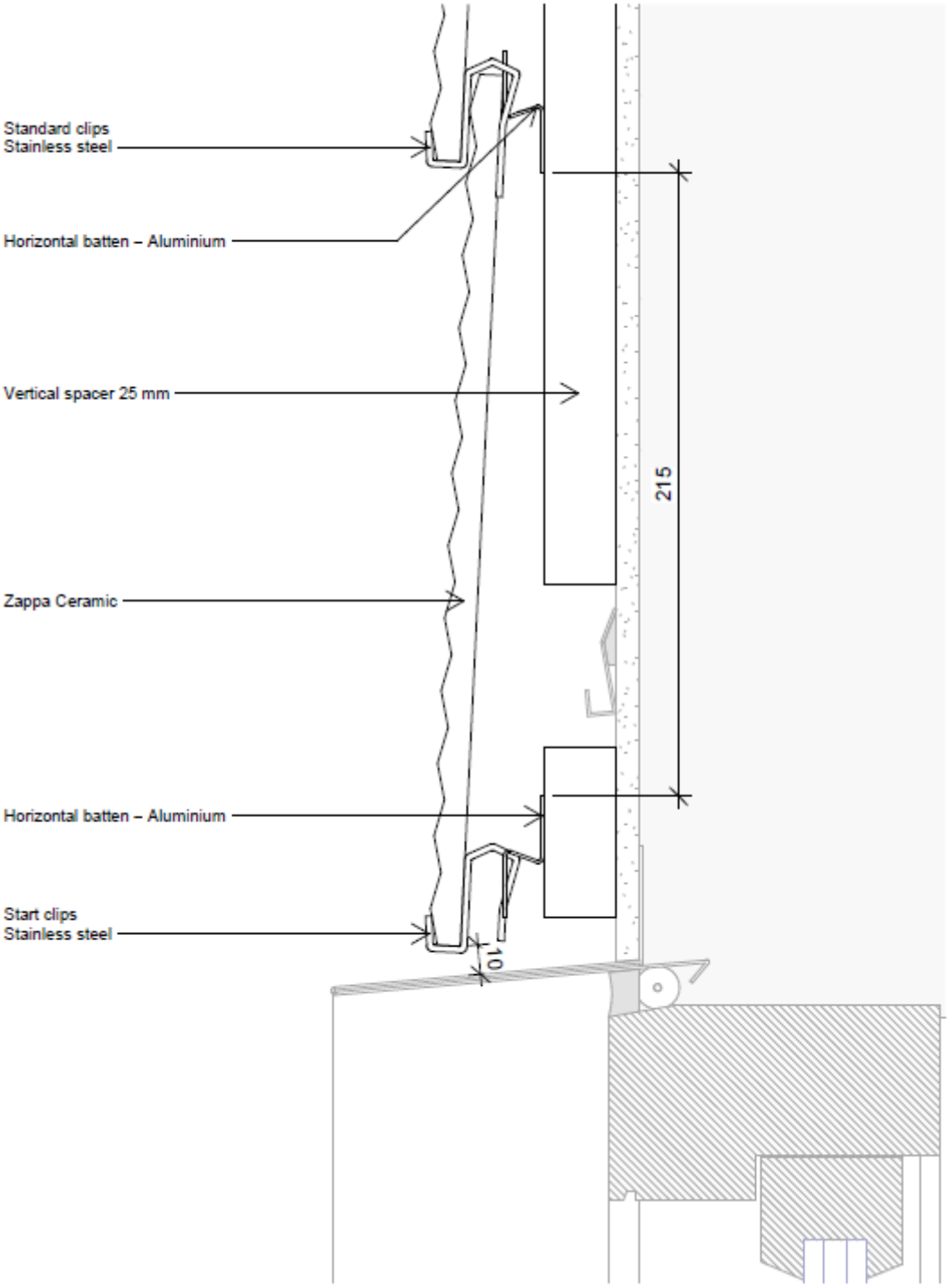
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 3
Drainability	



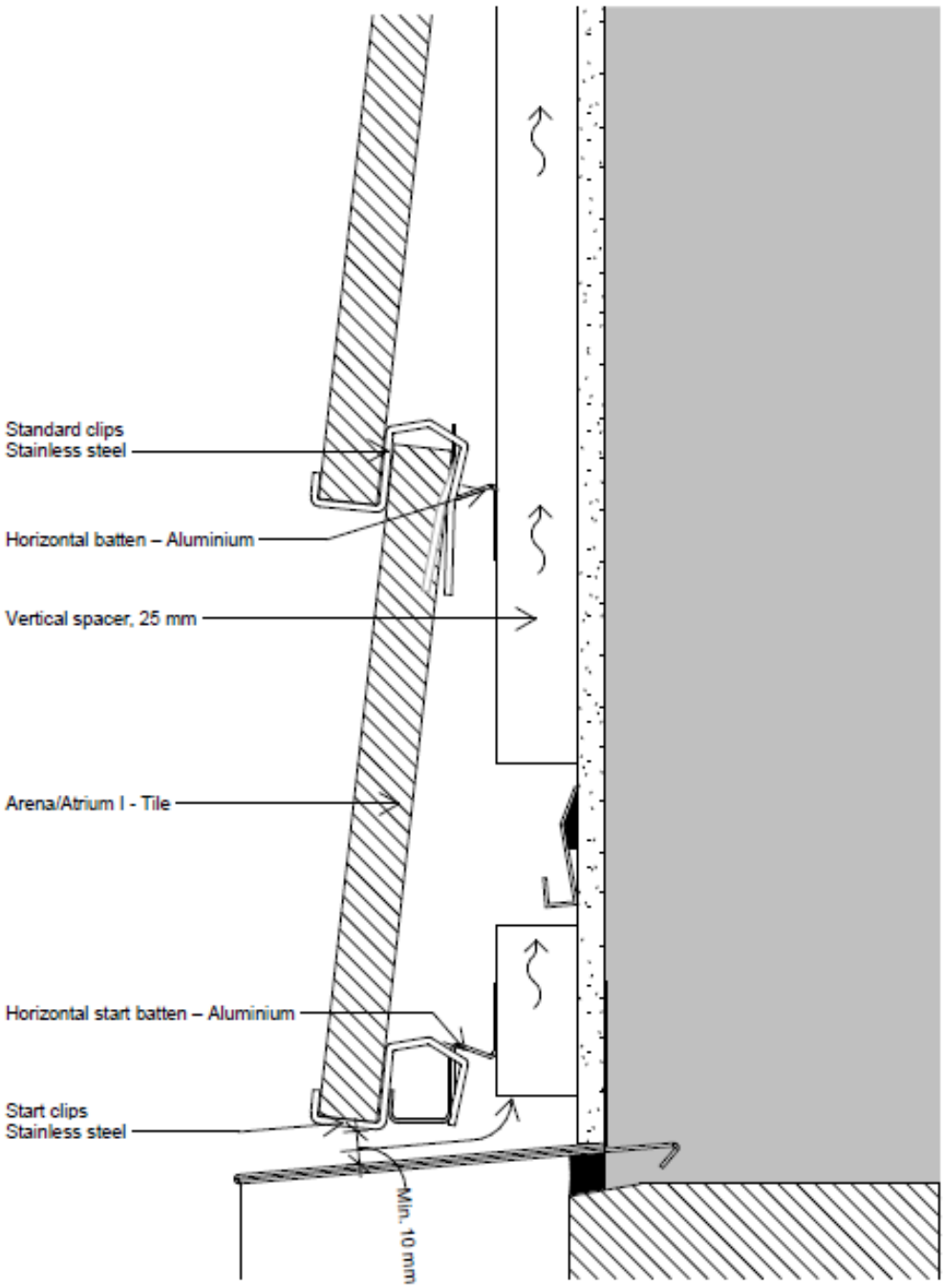




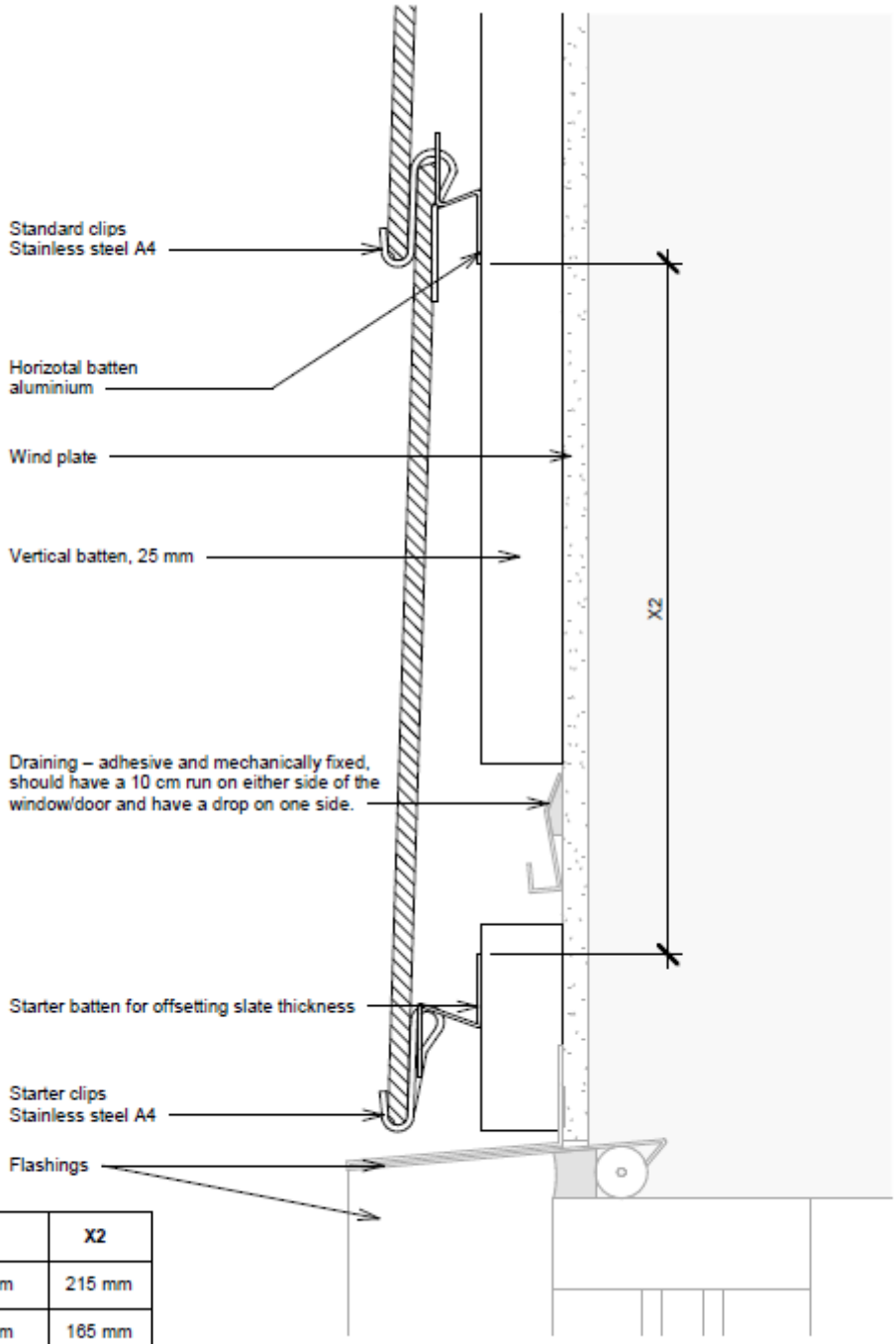
KOMPROMENT cladding kit type ZAPPA Ceramic; Arena 500/600 I - Atrium I & ZAPPA Natural slate	Annex 4
Installation examples Horizontal view	



KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 5
Installation examples Top window/door	

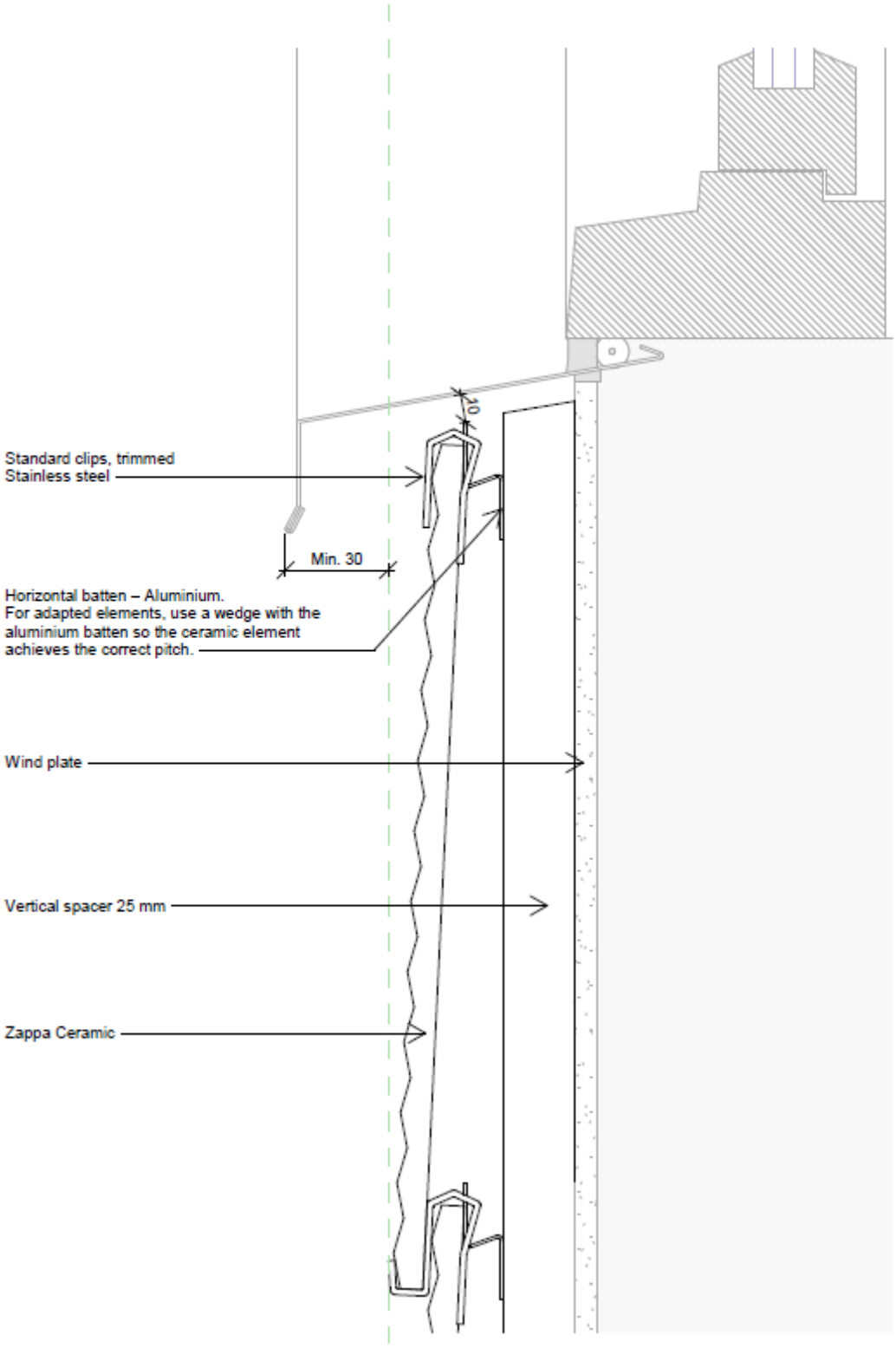


KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	
Installation examples Top window/door	Annex 5

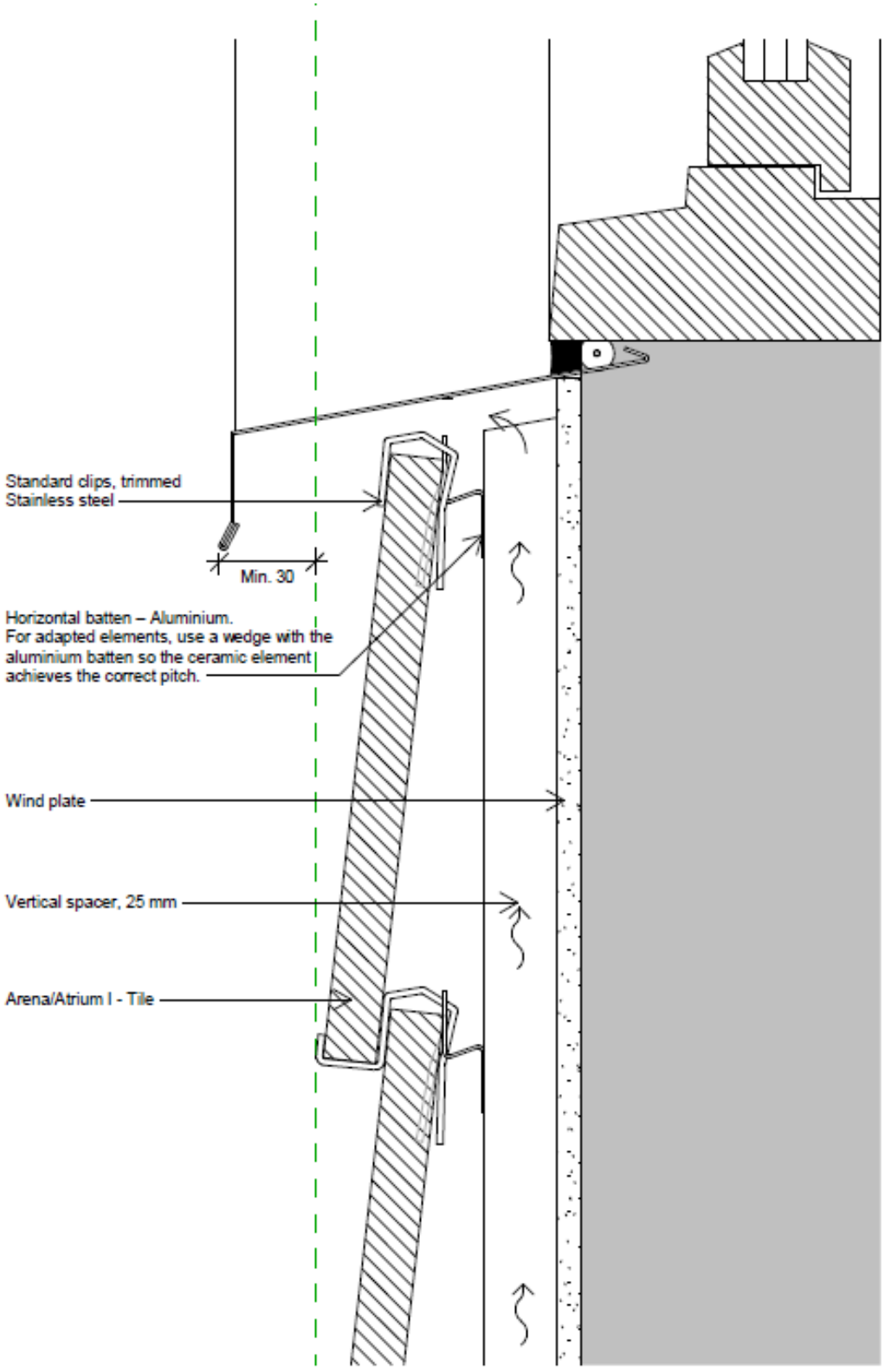


Slate size	X2
300 x 600 mm	215 mm
250 x 500 mm	165 mm
200 x 400 mm	115 mm

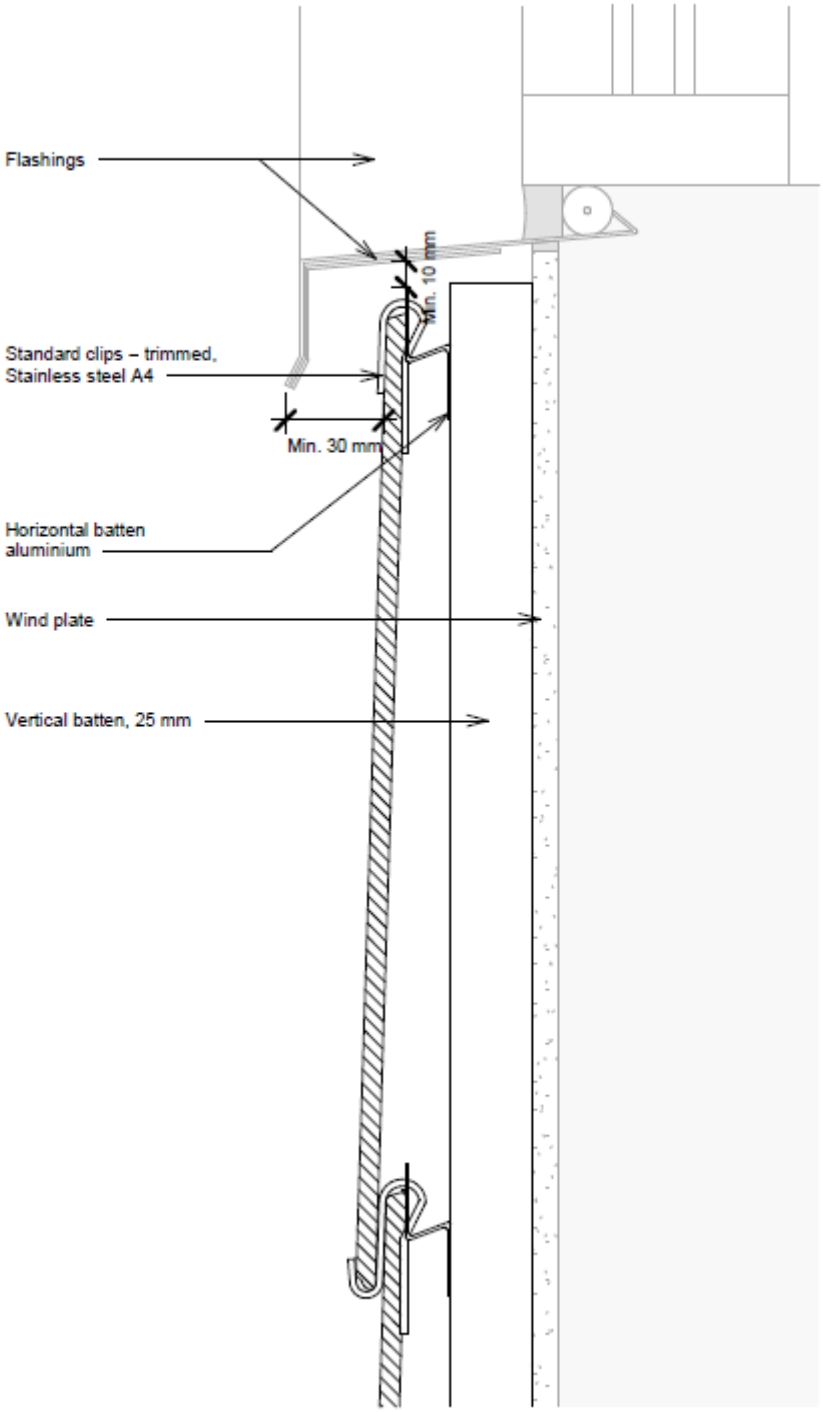
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 5
Installation examples Top window/door	



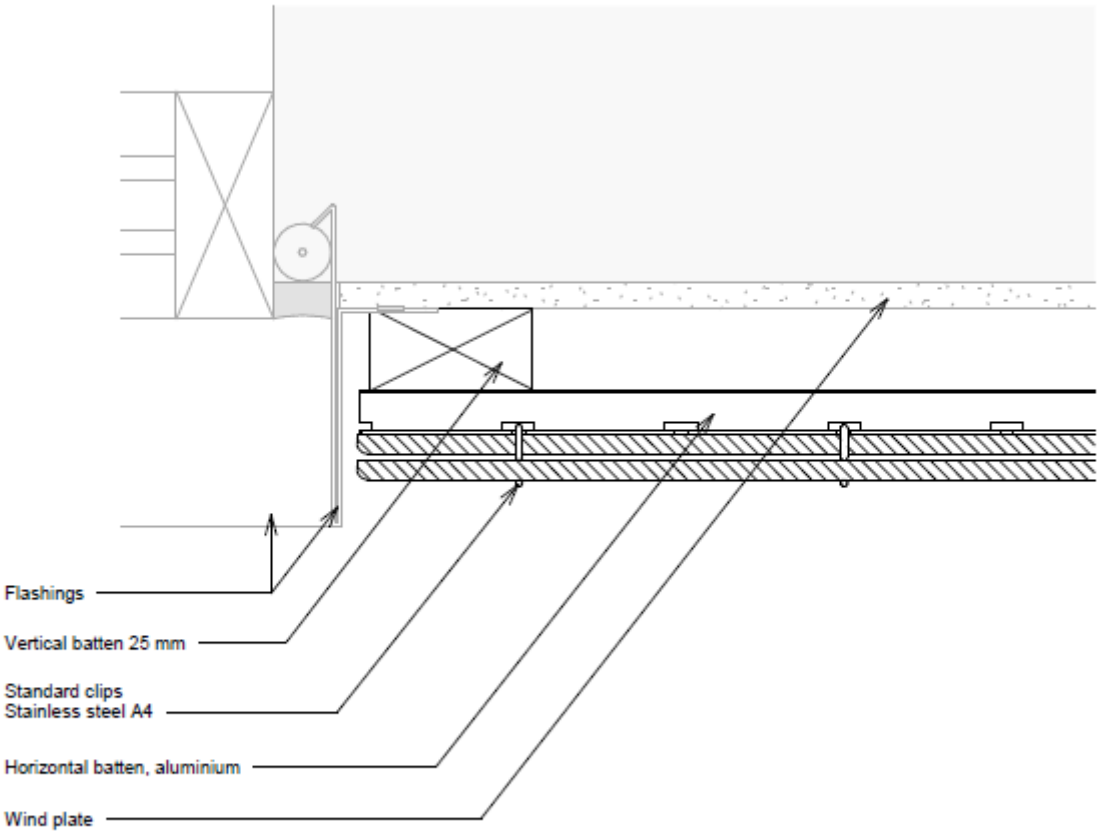
KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 6
Installation examples Under window	



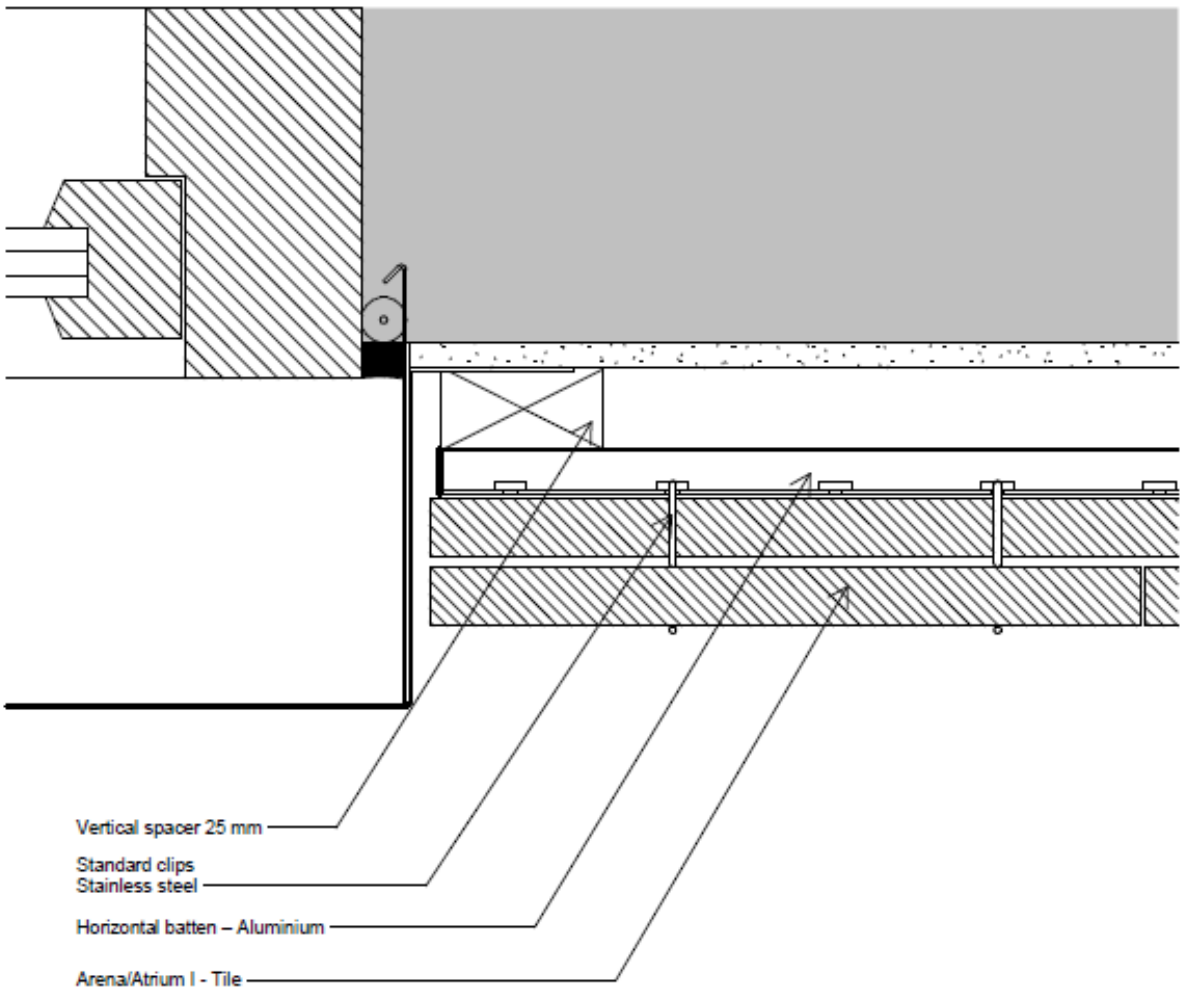
KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex 6
Installation examples Under window	



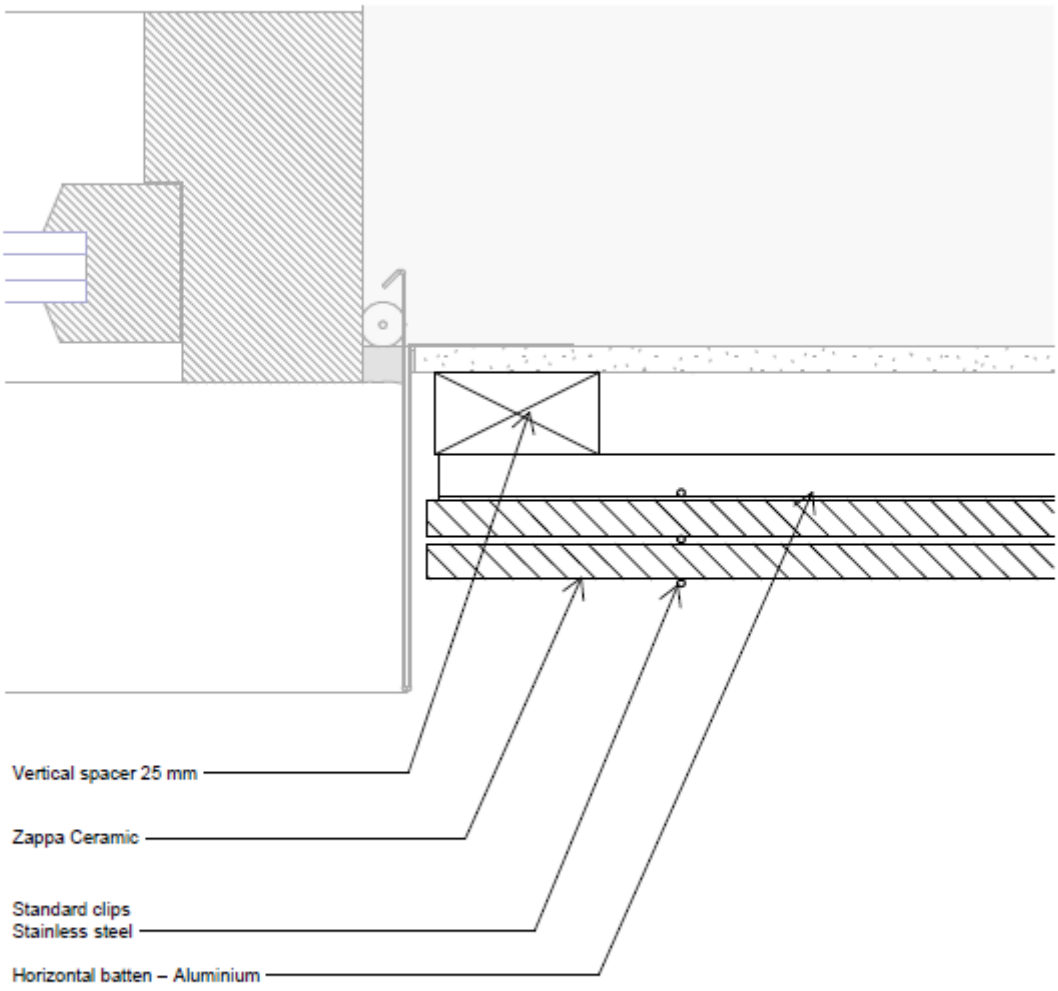
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 6
Installation examples Under window	



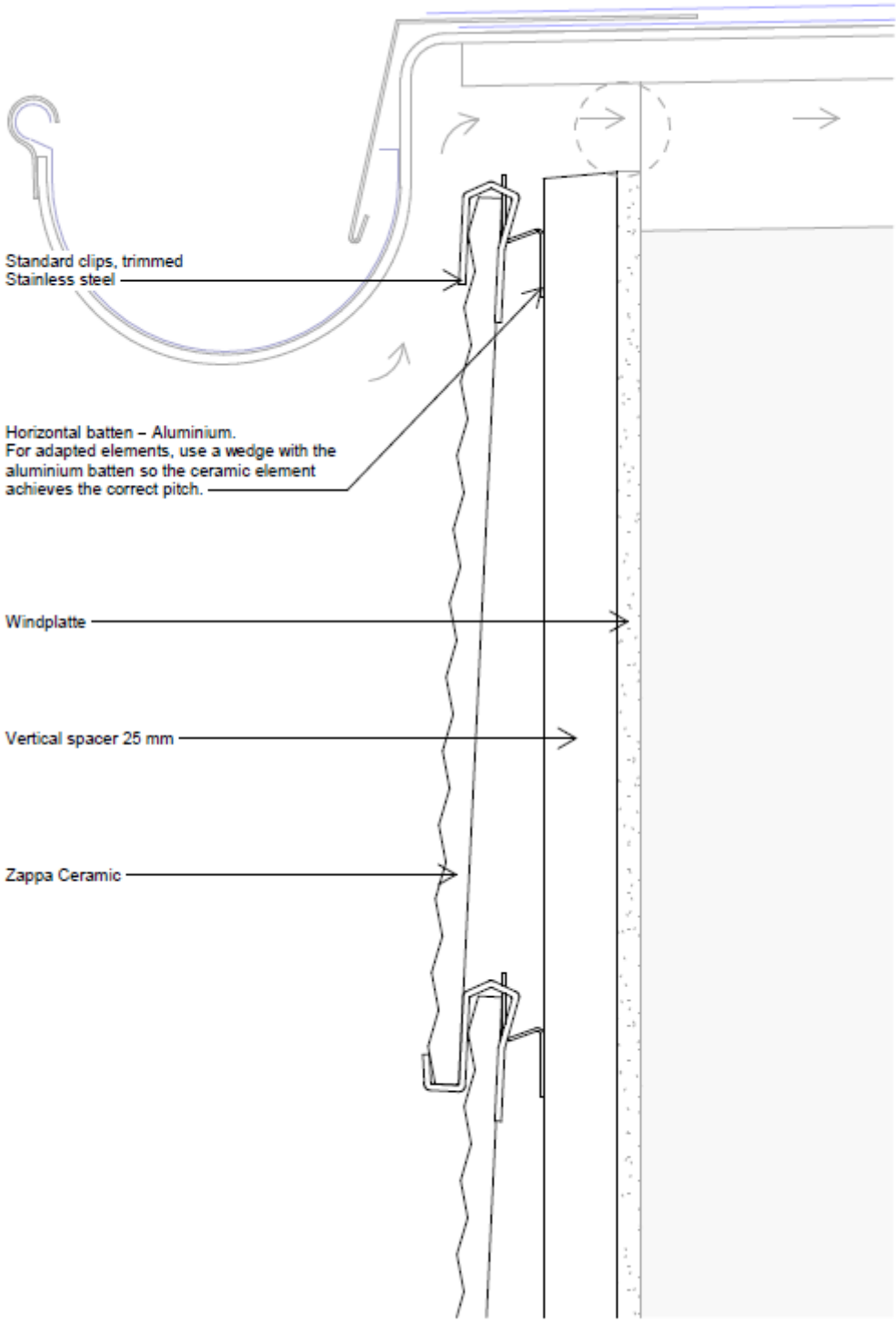
KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 7
Installation examples Window/door horizontal view	



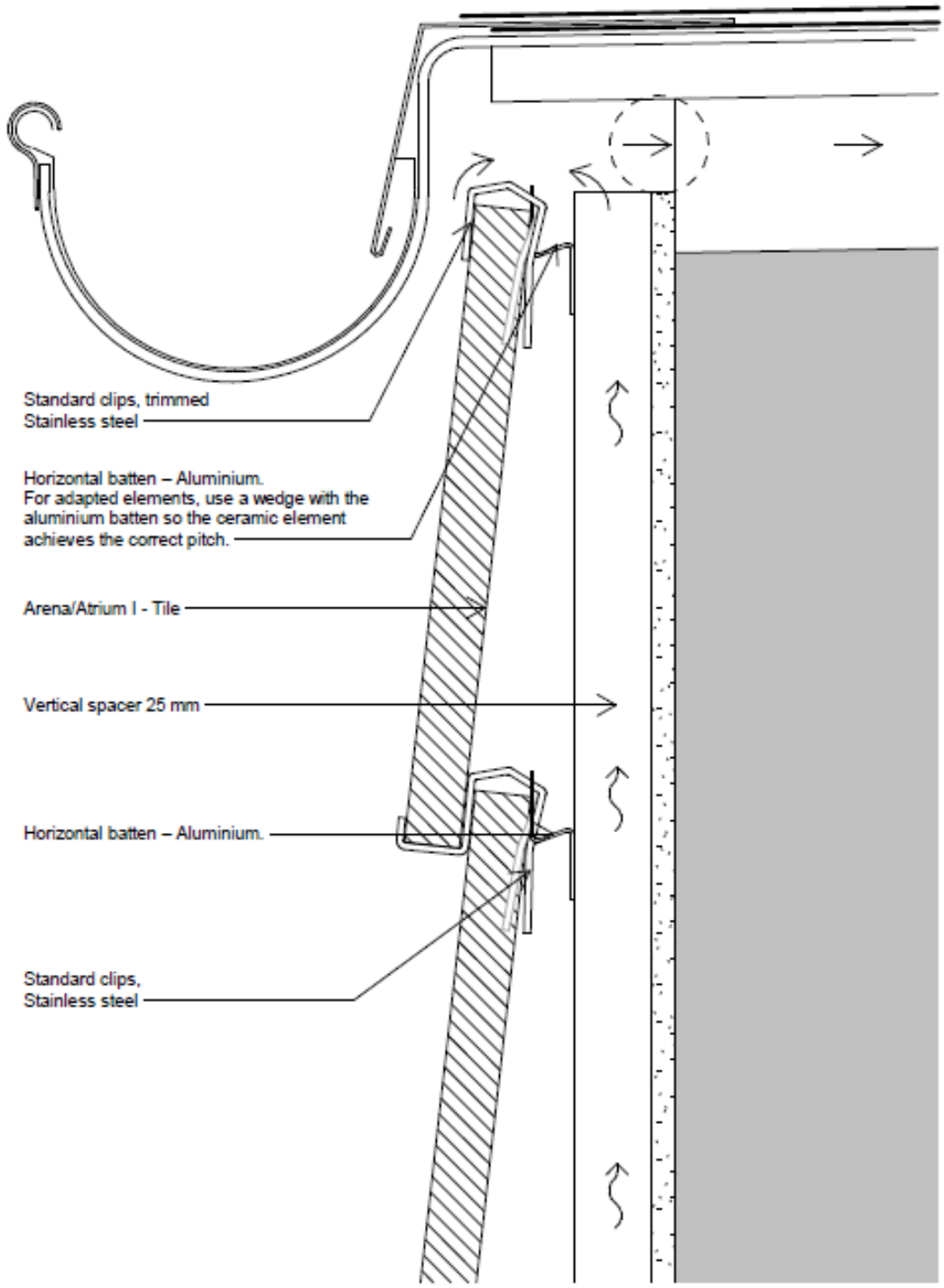
KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex7
Installation examples Window/door horizontal view	



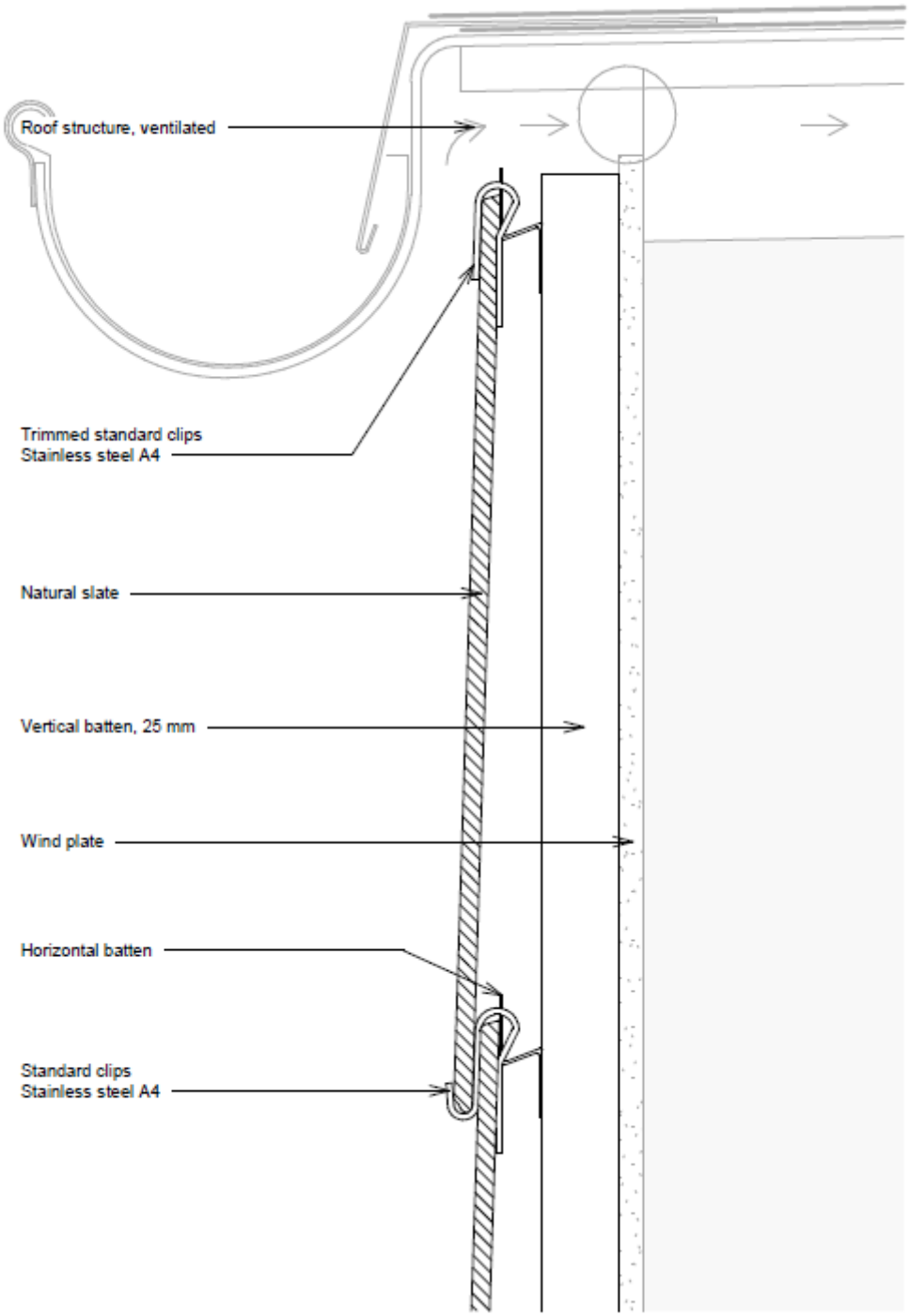
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 7
Installation examples Window/door horizontal view	



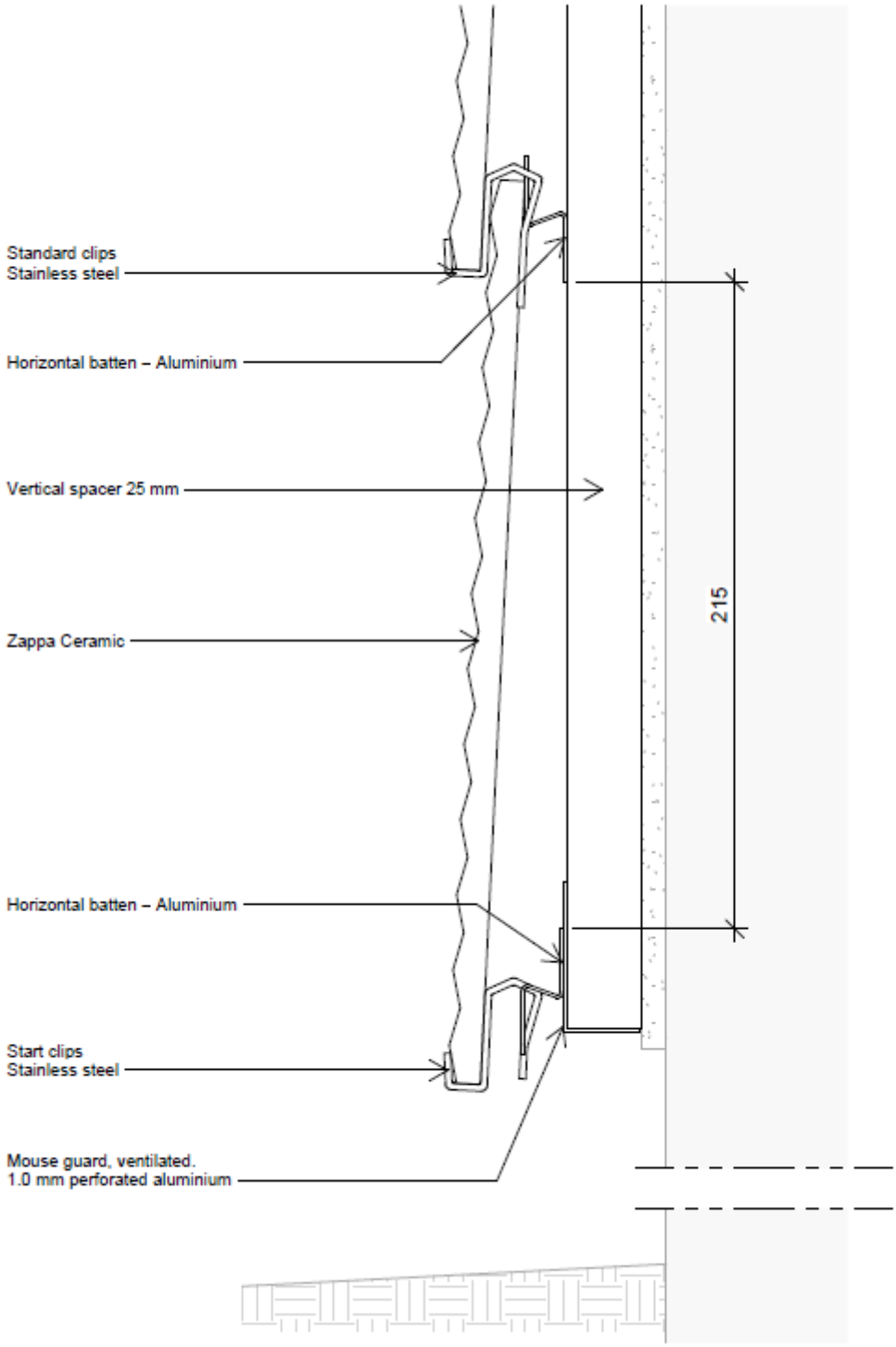
KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 8
Installation examples Finishing top/base of roof	



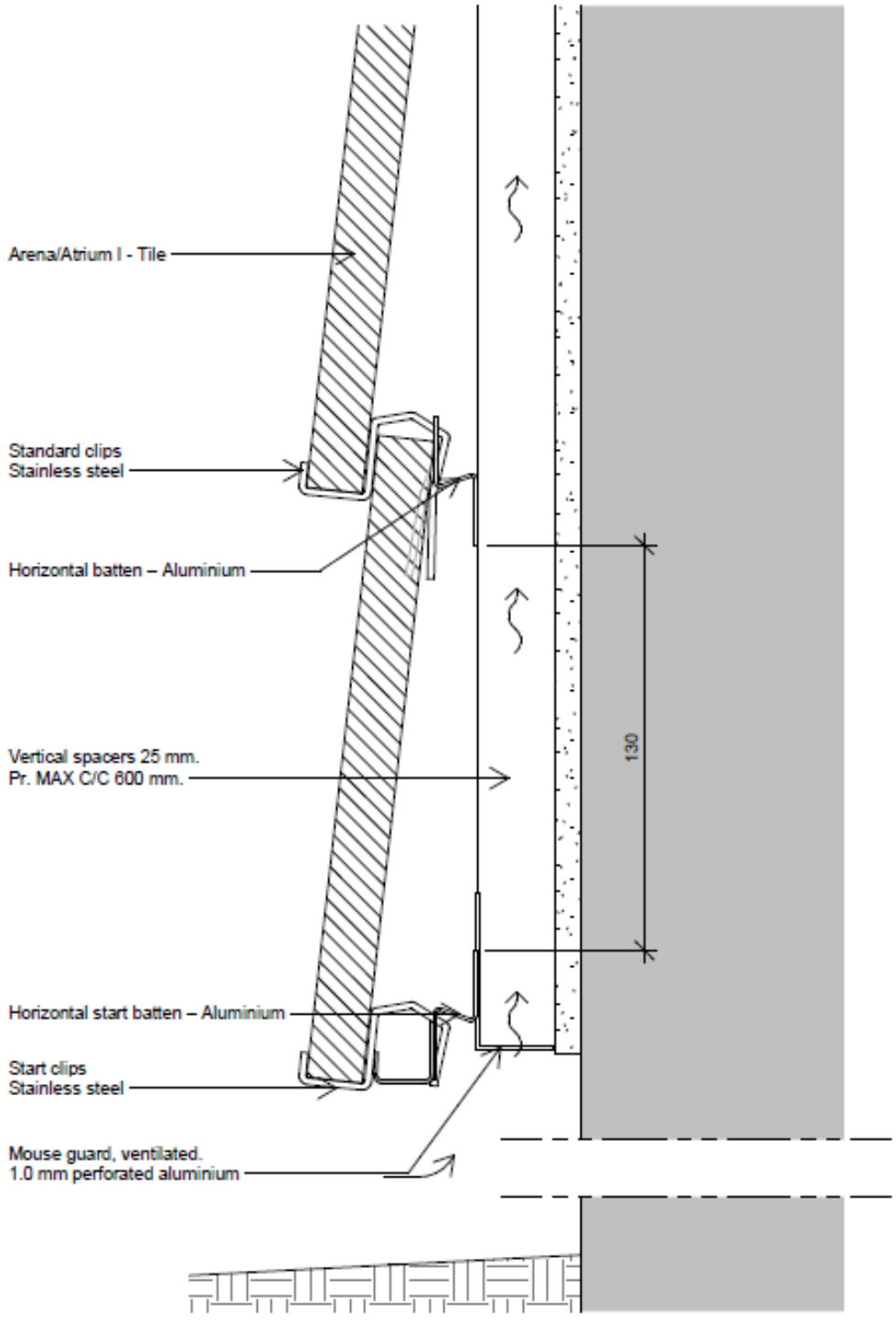
KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex 8
Installation examples Finishing top/base of roof	



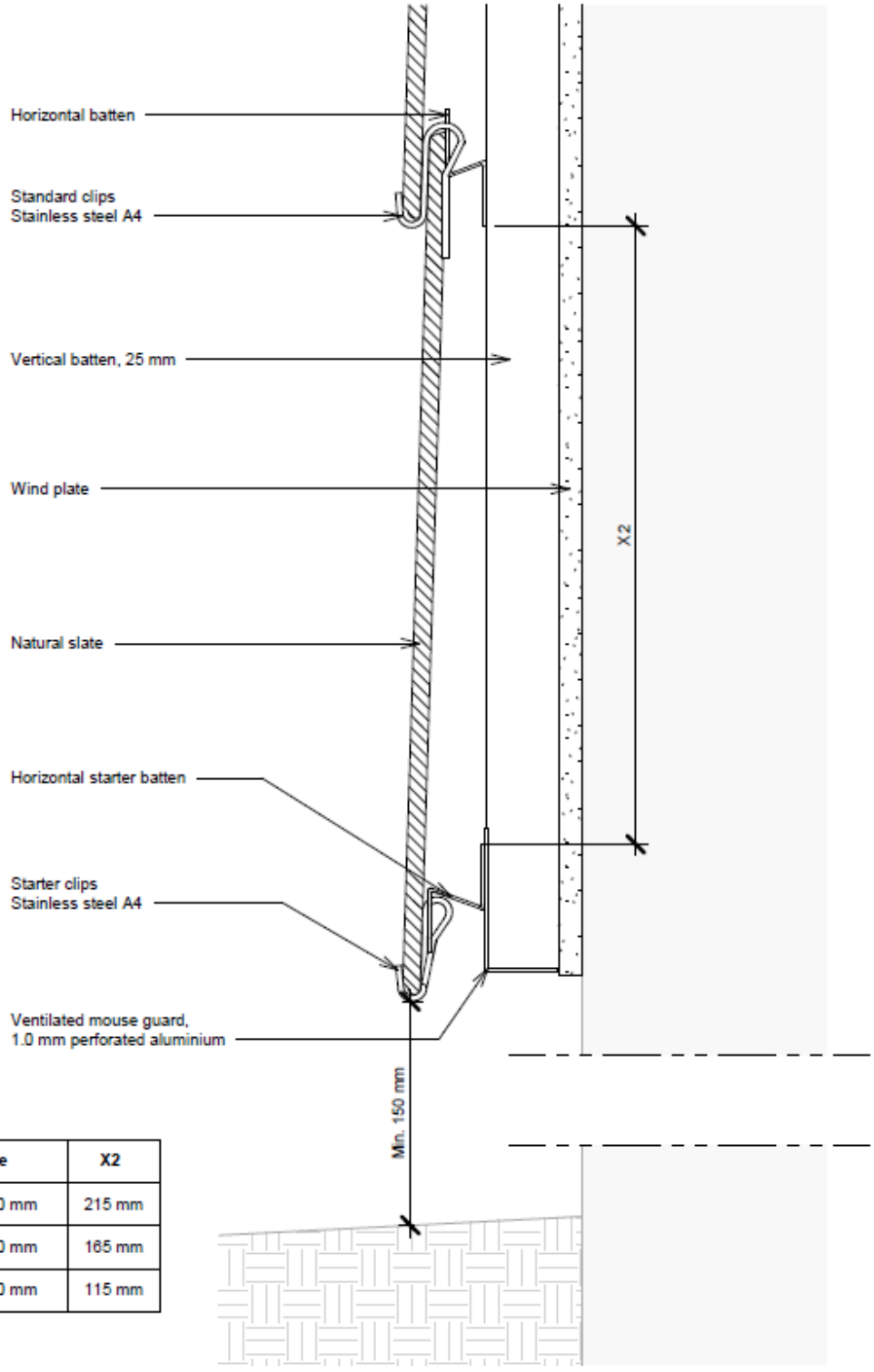
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 8
Installation examples Finishing top/base of roof	



KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 9
Installation examples Start façade	

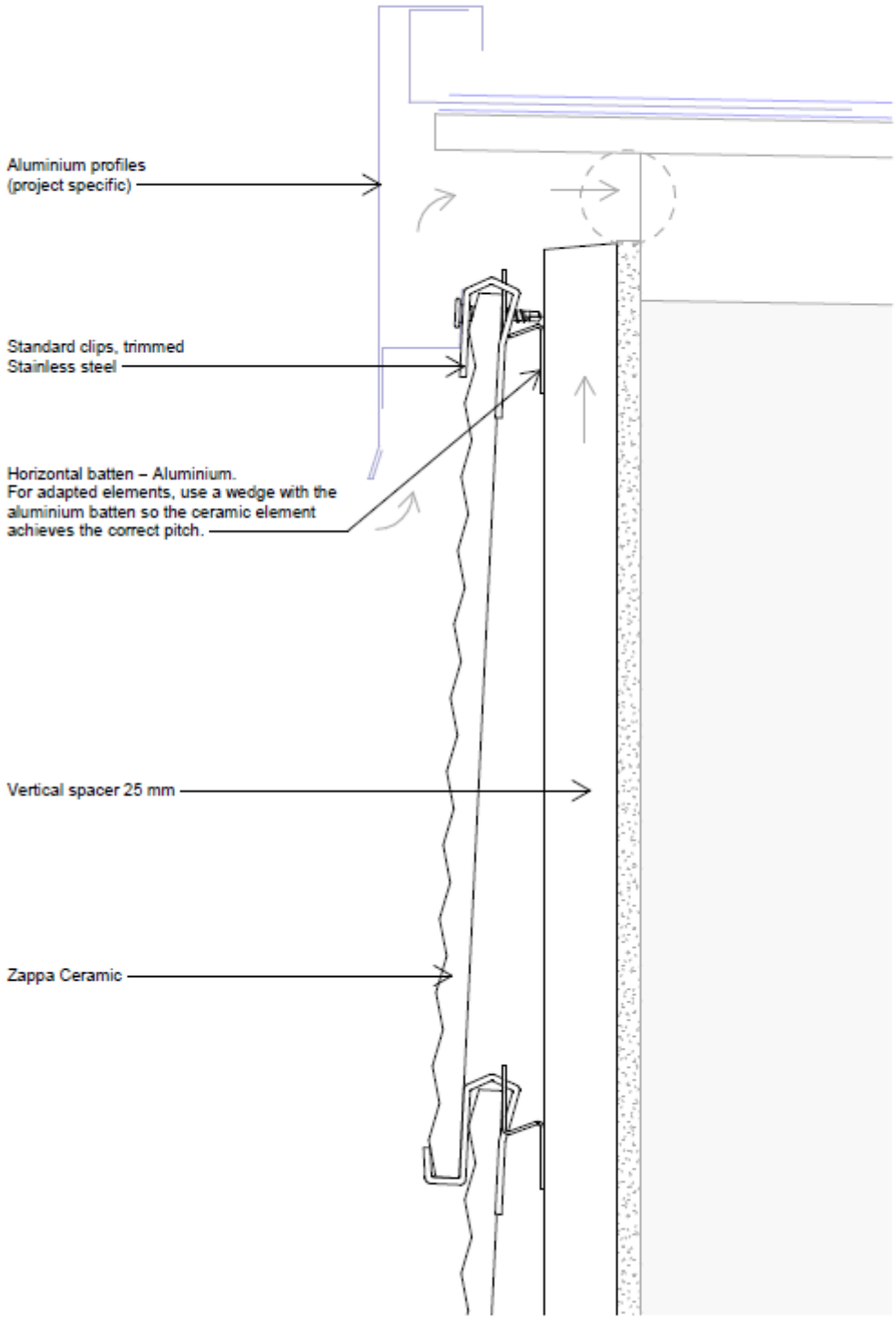


KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex 9
Installation examples Start façade	

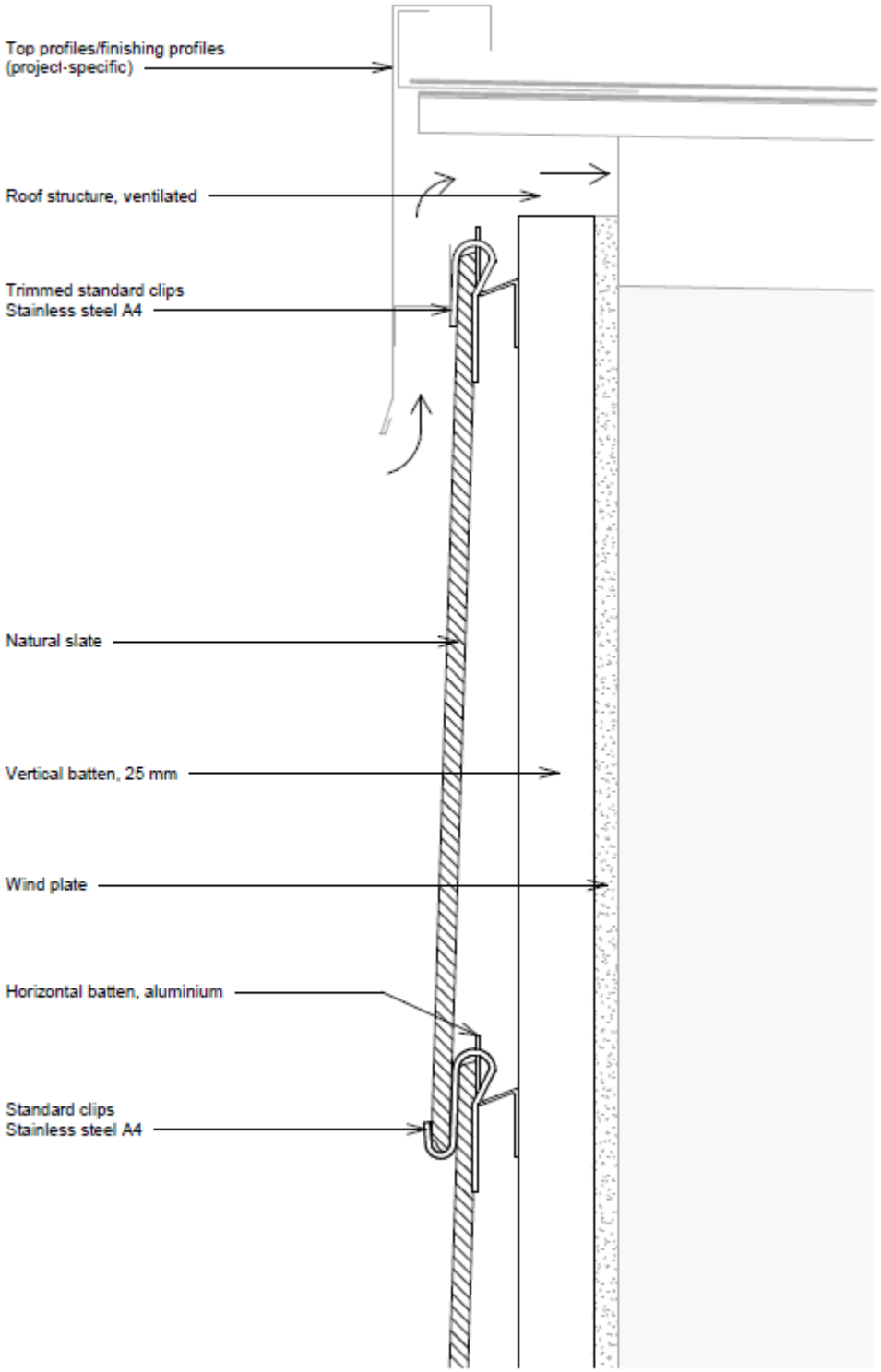


Slate size	X2
300 x 600 mm	215 mm
250 x 500 mm	165 mm
200 x 400 mm	115 mm

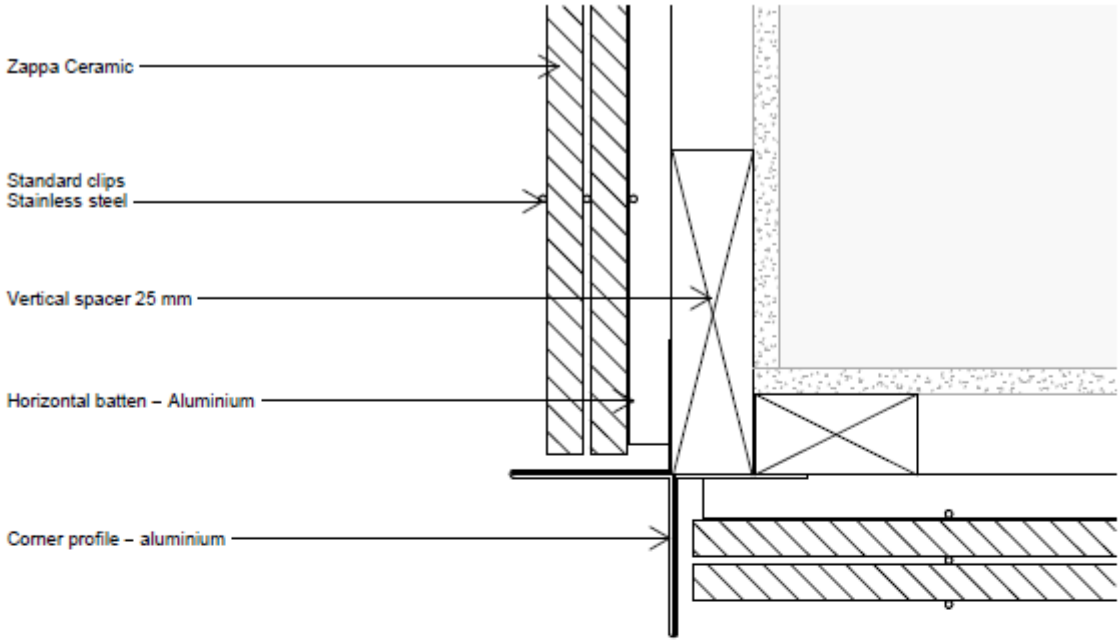
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 9
Installation examples Start façade	

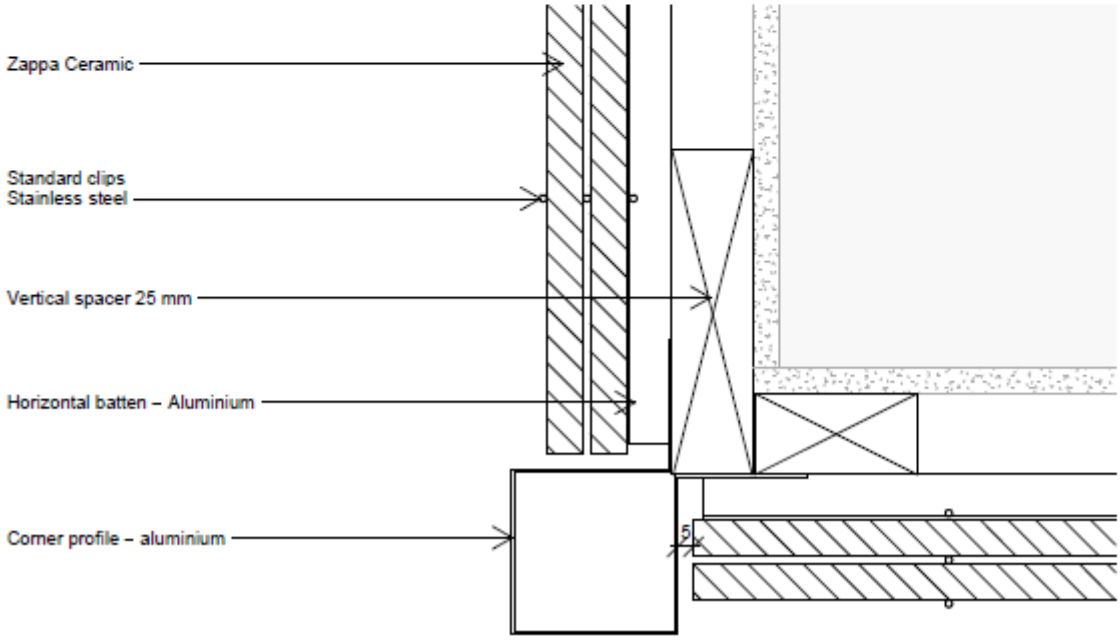


KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 10
Installation examples Finishing/top gable	

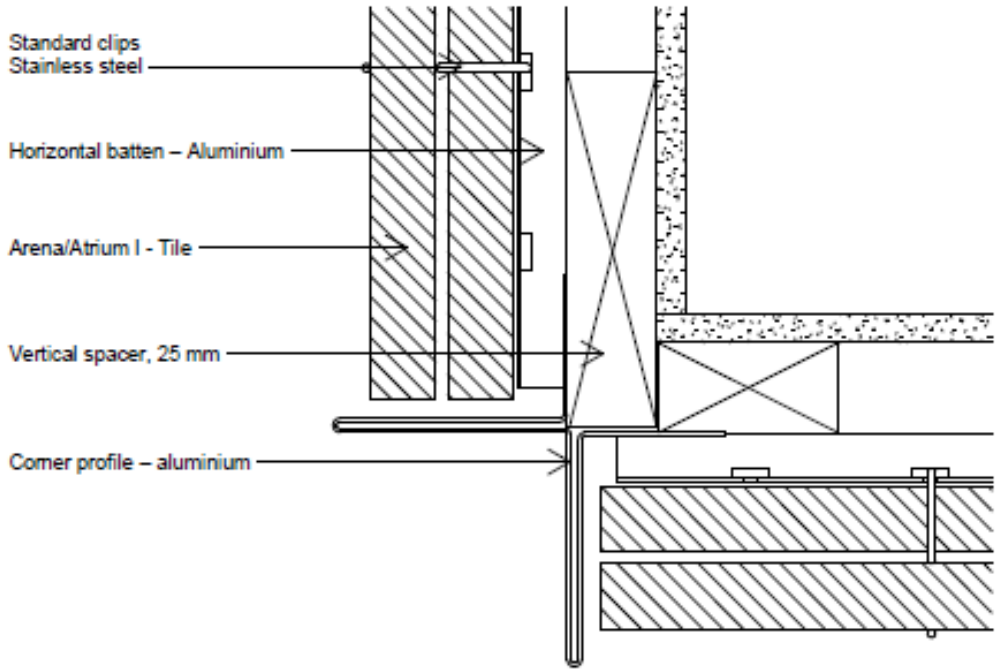


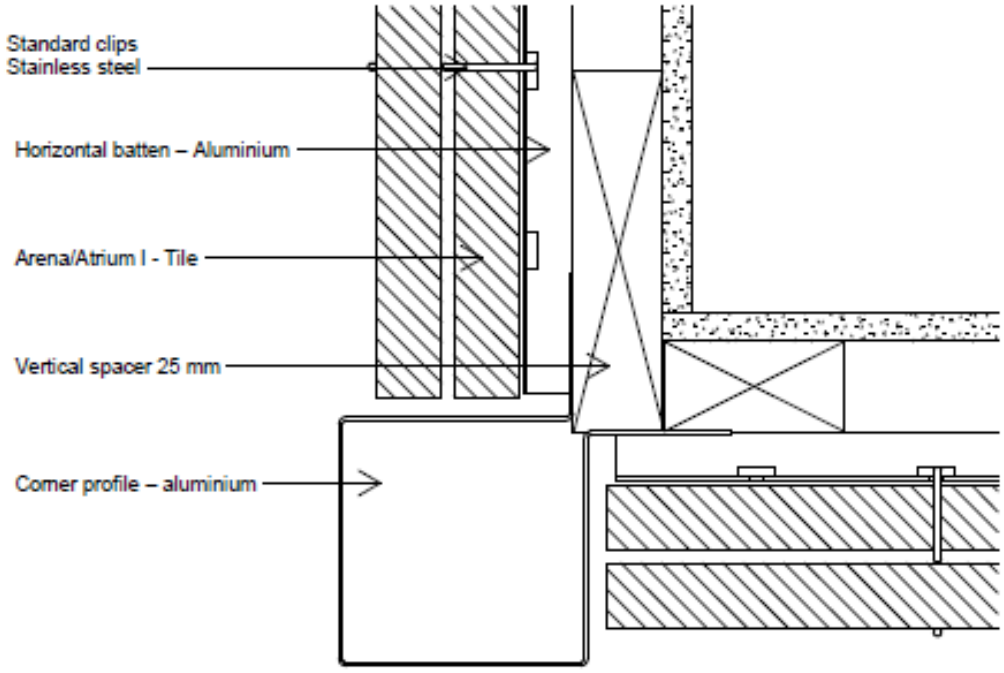
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 10
Installation examples Finishing/top gable	



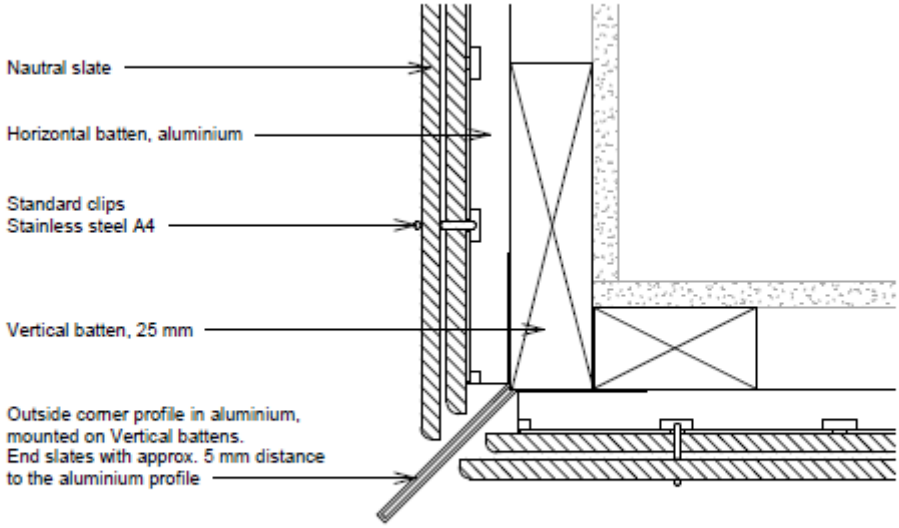


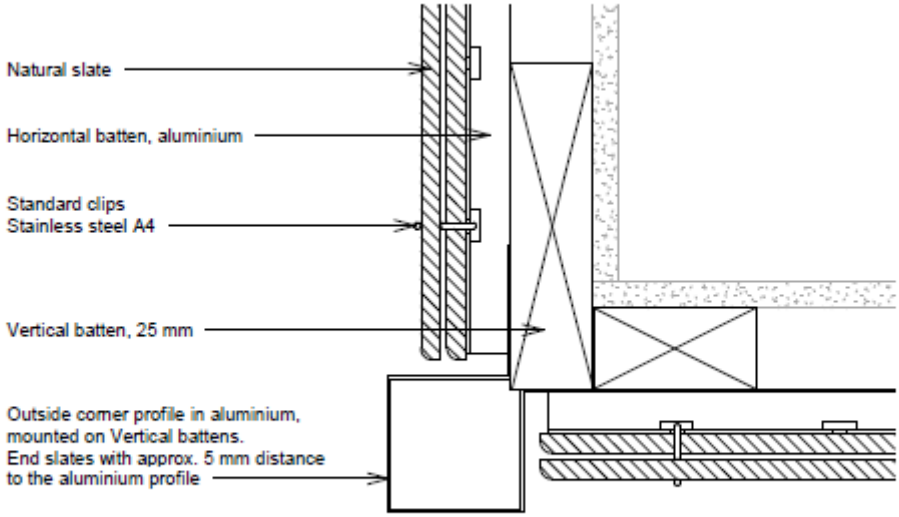
KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 11
Installation examples Outside corner	



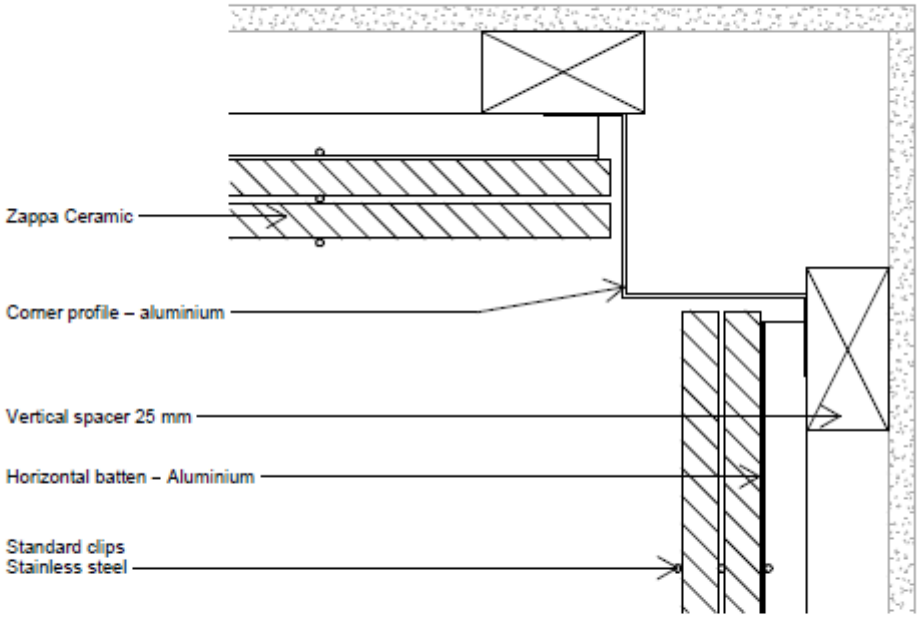


KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex 11
Installation examples Outside corner	

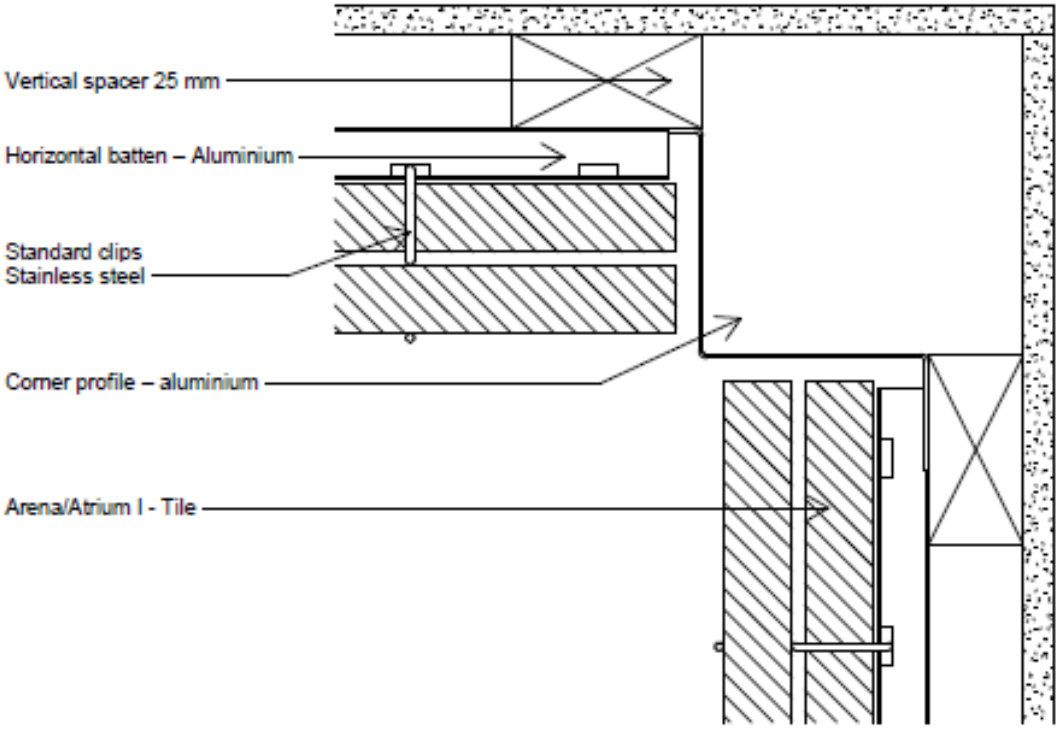




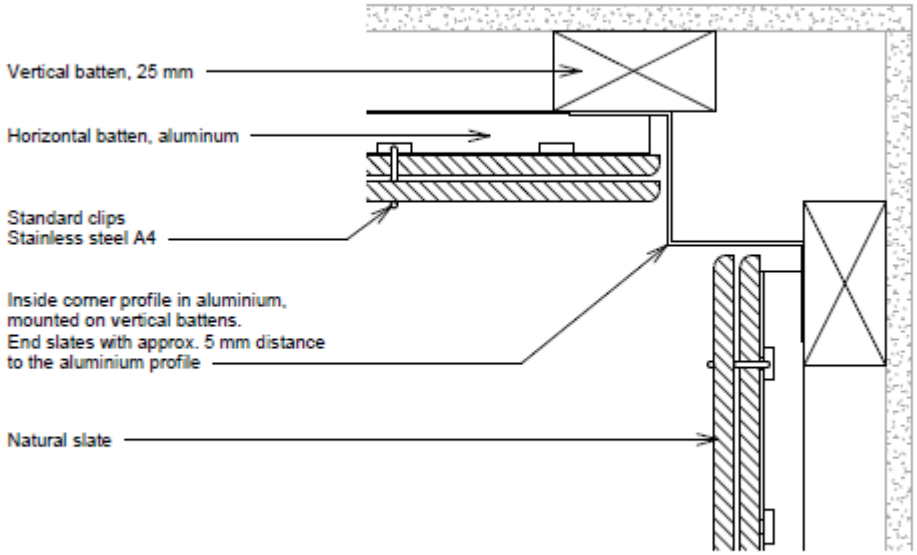
KOMPROMENT cladding kit type ZAPPA Natural slate	Annex11
Installation examples Outside corner	

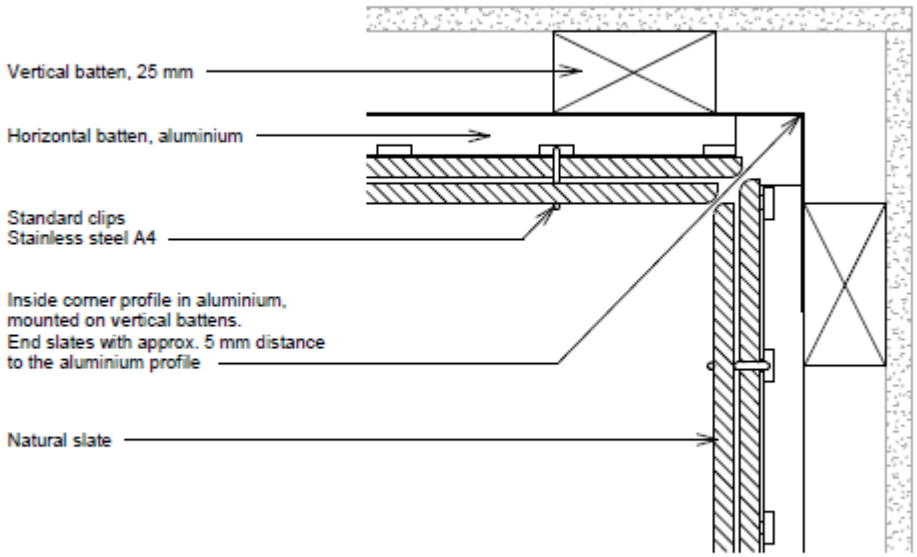


KOMPROMENT cladding kit type ZAPPA Ceramic	Annex 12
Installation examples Inside corner	



KOMPROMENT cladding kit type Arena 500/600 I - Atrium I	Annex 12
Installation examples Inside corner	



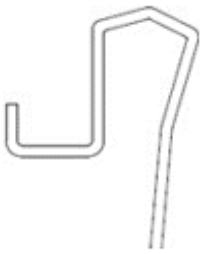


KOMPROMENT cladding kit type ZAPPA Natural slate	Annex 12
Installation examples Inside corner	

Clip for
Zappa natural slate

Stainless steel clips.
Grade 1.4462
02.2mm.

Clip for
Arena
500/600 I –
Atrium I

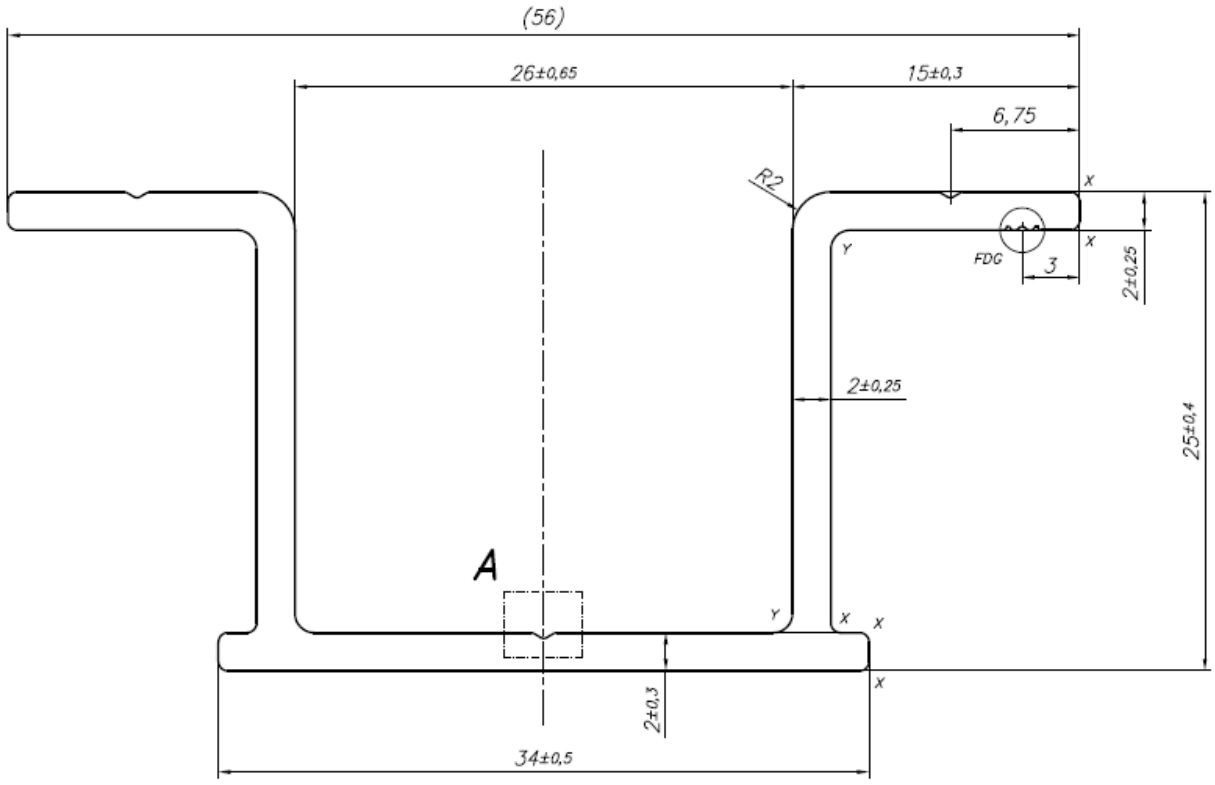


Stainless steel clips.
Grade 1.4462
02.2mm.

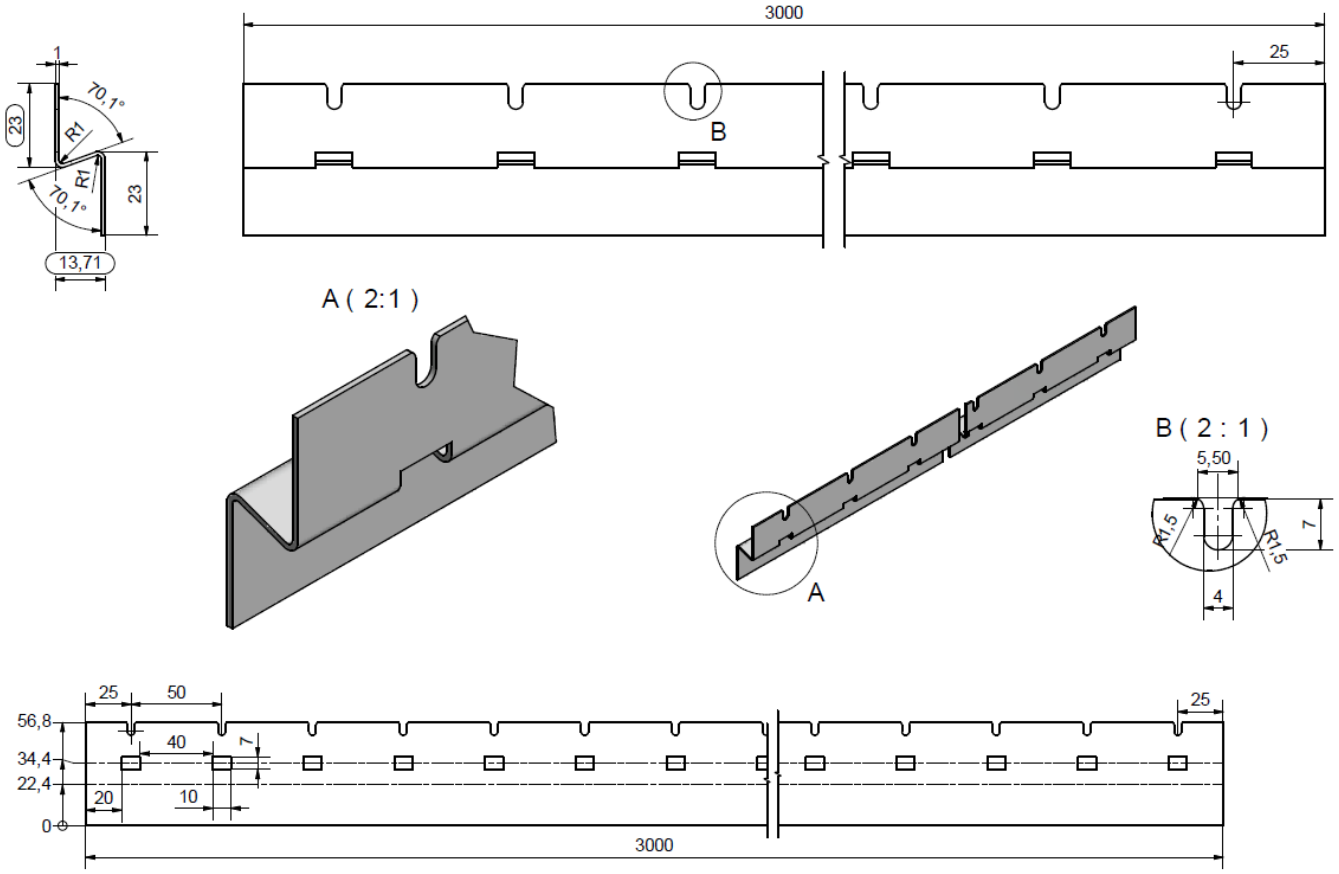
Clip for
Zappa Ceramic

Stainless steel clips.
Grade 1.4462
02.2mm.

KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate	Annex 13
Clip	



KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate	Annex 14
Vertical subframe	



KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate	Annex 15
Horizontal subframe	

Design

The design of the external wall claddings for ventilated facades using the KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate should consider:

- It is assumed that the substrate wall meets the necessary requirements regarding the mechanical strength (resistance to static and dynamic loads) and the airtightness, as well as the relevant resistance regarding watertightness and water vapour.
- The verification of the designed system by means of calculation, taking into account the mechanical characteristic value of the kit components in order to resist the actions (dead loads, wind loads etc.) applying on the specific works. National safety factors and other national provisions must be followed.
- The selectionand verification of the brackets which support the subframe vertical profiles considering compatible materials (e.g. aluminium alloy) and the mechanical resistance (vertical and horizontal resistance) according to the envisaged actions obtained from the mechanical calculation of the designed system.
- The selection and verification of the anchors between the brackets and the external walls (substrate), taking into account the substrate material and the minimum resistance required (pull-out and shear resistance) accordint to the envisaged actions obtained from the mechanical calculation of the designed system.
- The accommondation of the designed system movements to the substrate or structural movements.
- The execution of singular parts of the façade, some examples of construction details are indicated in annex 3.
- The corrosion protection of the designed system metallic components taking into account the category of corrosivity of the atmosphere of the works (e.g. according to ISO 9223).
- The drainability of the ventilated air space between the cladding elements and the insulation layer or the external wall accordingly.
- An insulation layer is usually fixed on the external wall and should be defined in accordance with an harmonized standard or an ETA and taking into account the section 3 of this ETA.
- Because the joints are not watertight, the first layer behing the ventilated air space (e.g. insulation layer) should be composed by materials with low water absorption.

Installation

Installation of the external wall claddings for ventilated facades using the KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate should be carried out:

- According to the specifications of the manufacturer and using the components specified in this ETA.
- In accordance with the design and drawings prepared for the specific works. The manufacturer shoud ensure that the information on these provision is given to those concerned.
- By appropriately qualified staff and under the supervision of the technical responsible of the specific works.

Maintenance and repair

Maintenance of the external wall claddings for ventilated facades using the cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate includes inspections on site, taking into account the following aspects:

- Regarding the cladding elements, the apperance of any damage souch as cracking, detachment, delamination and mould presence due to permanent moisture or permanent irreversible deformation.
- Regarding metallic componnets: The presence of corrosion or presence of water accumulation.

When necessary, any repair to localized damaged areas must be carried out with the same components and following the repair instructions given by the manufacturer.

KOMPROMENT cladding kit type ZAPPA Ceramic, Arena 500/600 I - Atrium I & ZAPPA Natural slate	Annex 16
Design, installation, maintenance, and repair criteria	