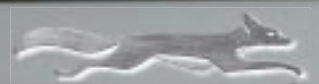


# A structured approach to facades



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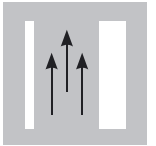
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# Advantages of ventilated facades

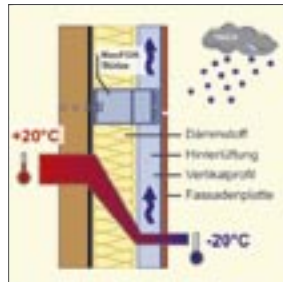


## Building physics

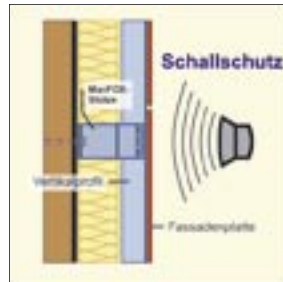
Rain protector / humidity / dew protector



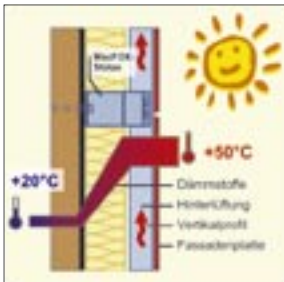
Thermal insulation-Cold



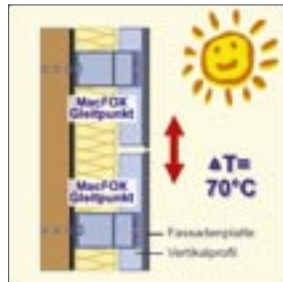
Sound insulation



Thermal insulation-Heat



Thermal expansion



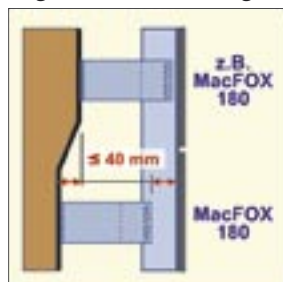
Fire safety / lighting arrester



Versatile facade design



Alignment and levelling



Large tolerances



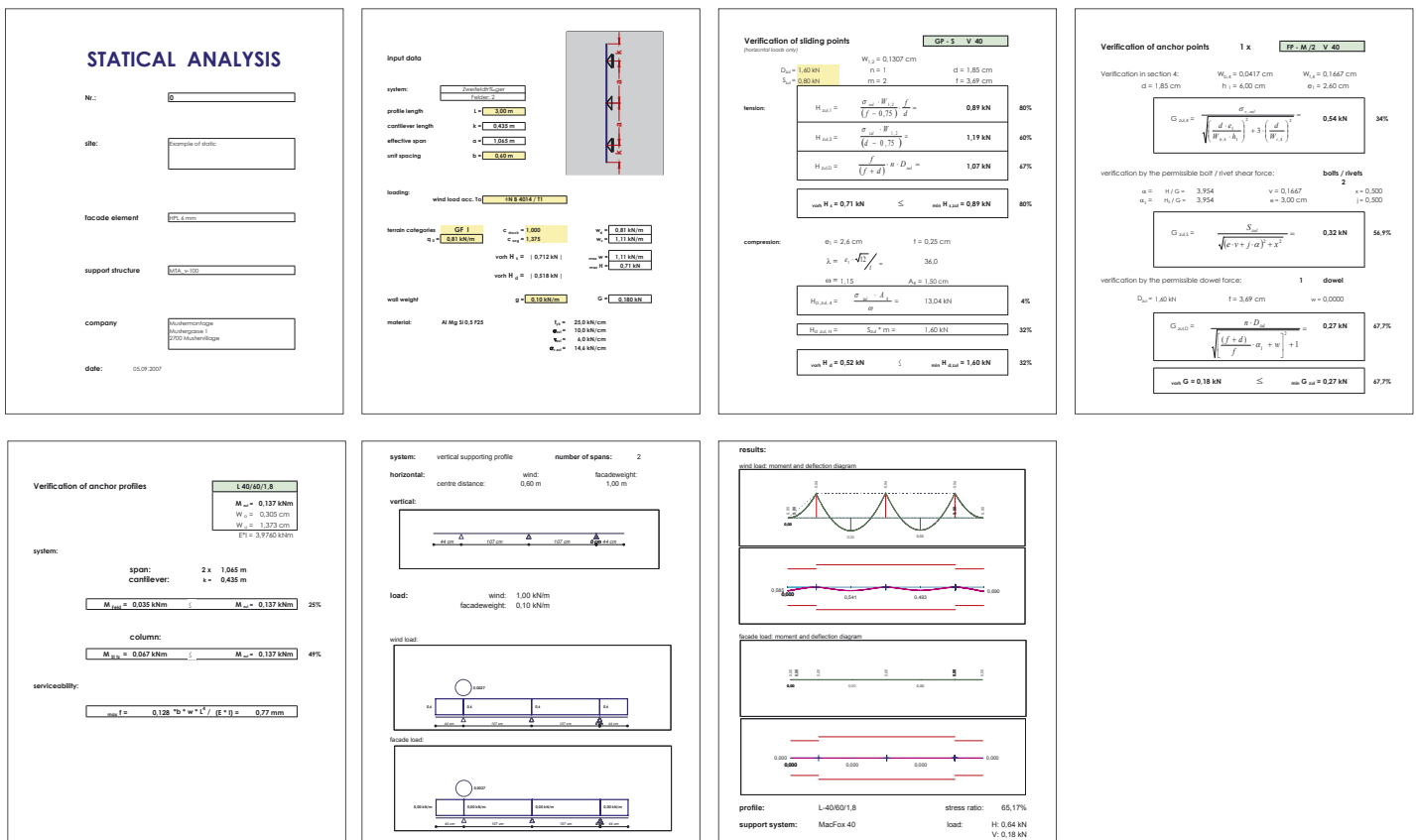
# Service package

## EUROFOX project specific assesment with installation drawing

We can create a “project specific” assessment for your scheme – including static calculations.  
We can provide an installation plan and a EUROFOX components schedule.

## EUROFOX static analysis

- Primary fixing dimensions in accordance with local authority regulations and local pull out testing (primary fixing)
- Verification of flexible points (dynamic load / pressure) and fixed points (deadload, cladding and windloads)
- Verification of profiles



## EUROFOX installation training

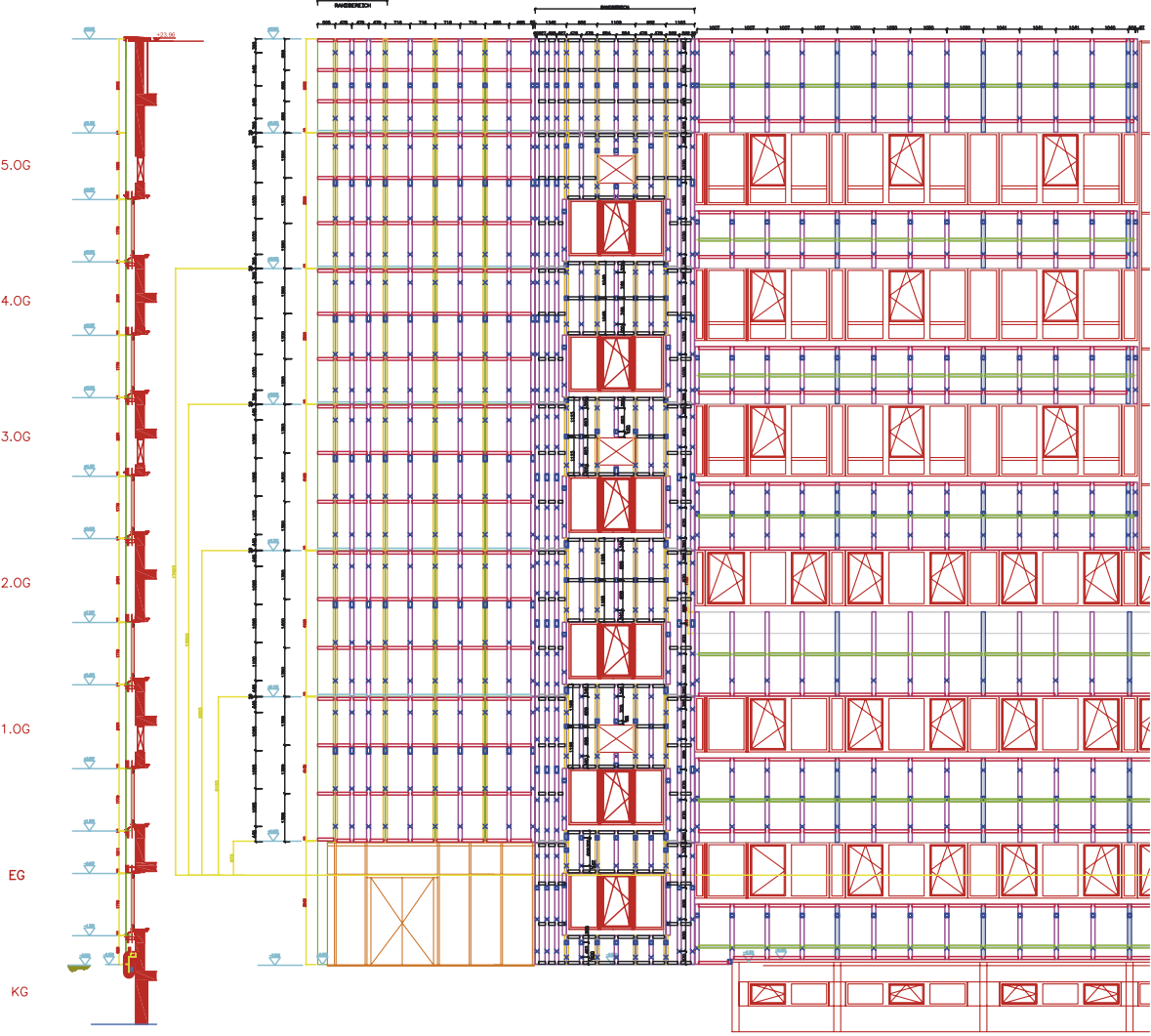
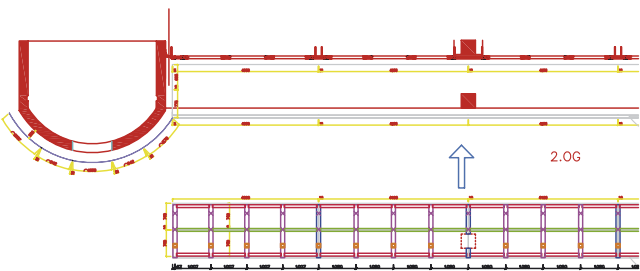
- We can provide your installation personnel with on-site instruction



# EUROFOX installation plans

## LEGENDE:

- MAC FOX 240 L (FIXPUNKT)
- × MAC FOX 240 L (GLEITPUNKT)
- × MAC FOX 240 M (GLEITPUNKT)
- MAC FOX 240 M (FIXPUNKT)
- × MAC FOX 180 M (GLEITPUNKT) 6,5mm Loch
- MAC FOX 180 M (FIXPUNKT) 6,5mm Loch
- × MAC FOX 180 M (GLEITPUNKT)
- MAC FOX 60 M (FIXPUNKT) MAC T 330
- × MAC FOX 60 M (GLEITPUNKT) 6,5mm Loch + MAC T 330
- T-PROFIL VERTIKAL Beschichtet RAL 7016 matt
- T-PROFIL VERTIKAL Beschichtet RAL 7035 matt
- T-PROFIL VERTIKAL
- U-PROFIL HORIZONTAL Beschichtet RAL 7016 matt
- U-PROFIL HORIZONTAL Beschichtet RAL 7035 matt
- U-PROFIL HORIZONTAL
- FLACHALUMINIUM (Fa. Federer) Beschichtet RAL 7016 matt
- FLACHALUMINIUM (Fa. Federer)



# Brackets

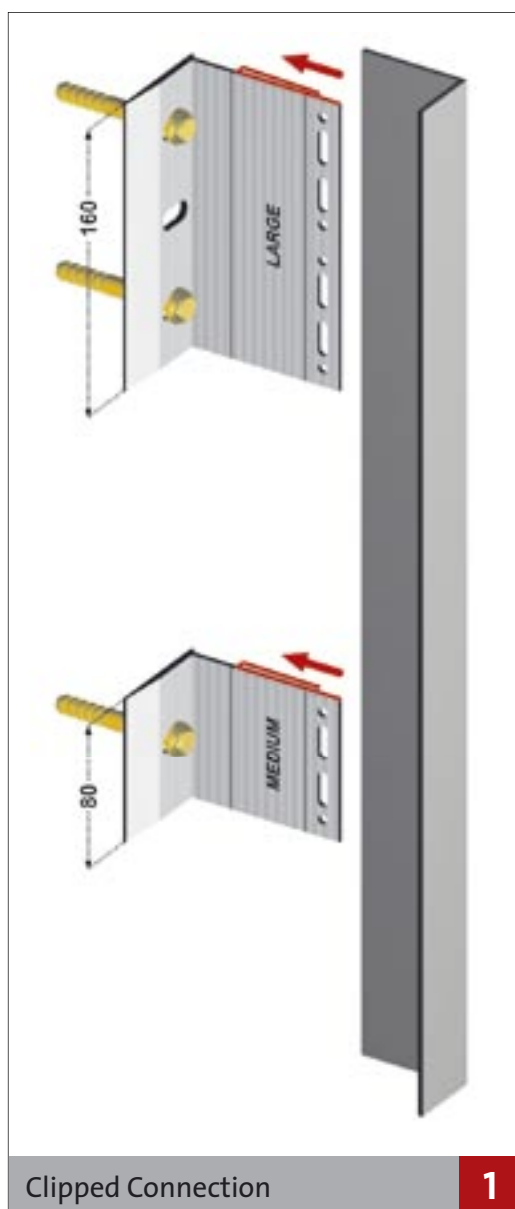
## MacFOX

### Installation | vertical fixing

MacFOX Bracket sizes	V
	40
	60
	90
	120
	150
	180
	210
	240
	270
	300

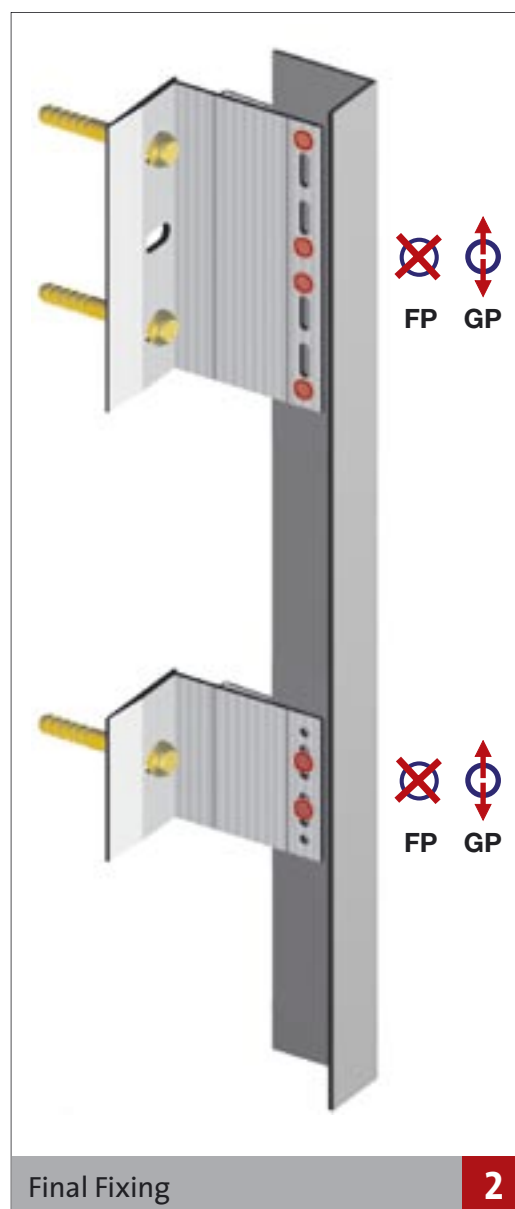
#### 1 Clipped Connection, adjust

For initial line and level adjustment the EUROFOX profiles are clipped into the MacFOX-brackets.



#### 2 Final Fixing

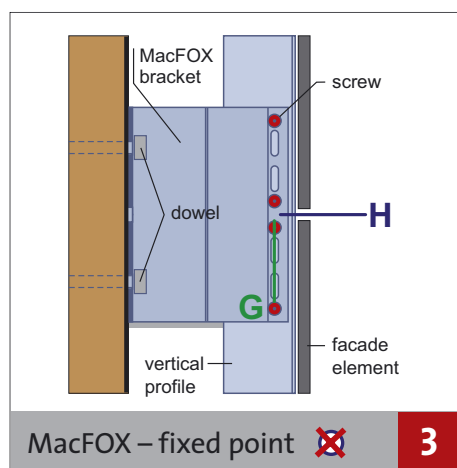
After adjustment the EUROFOX profiles are fixed to the MacFOX-brackets with screws (or rivets). Round holes and elongated holes in the MacFOX-brackets allow for the creation of both, fixed points (FP) and flexible points (GP).



## Structural system

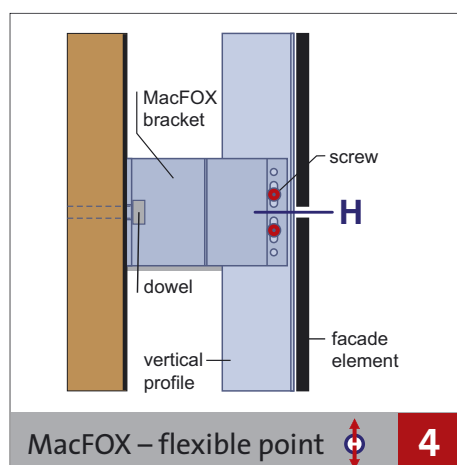
### 3 MacFOX – fixed point

The vertical profile is fixed to the MacFOX support bracket by screws (rivets) through the round holes. The MacFOX bracket absorbs both vertical dead loads and horizontal wind loads.



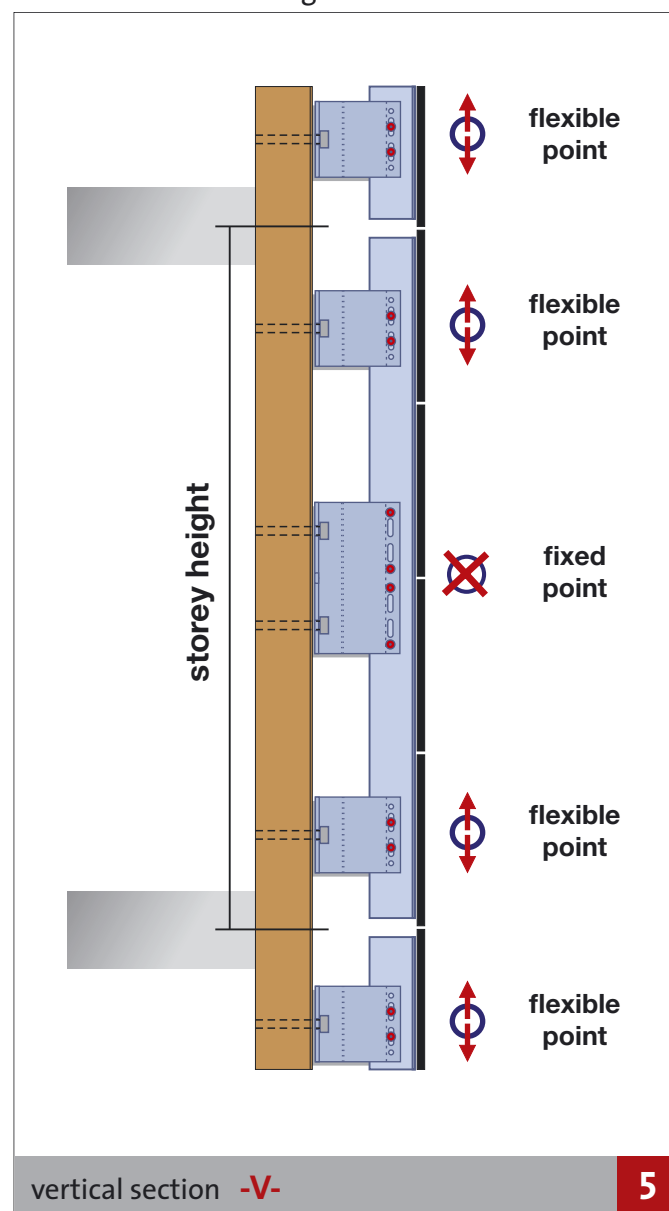
### 4 MacFOX – flexible point

Screws (rivets) fixed through the elongated holes connect the vertical profile to the MacFOX bracket. Consequently, thermal expansion is not constrained by the support system. The MacFOX flexible point bracket absorbs windloads only.



### 5 Structural system vertical fixing

Each vertical profile is fixed to one MacFOX fixed point and a number of MacFOX flexible point brackets. As a consequence of thermal expansion, the length of the profiles normally does not exceed the storey height. The bracket spacing is determined by cladding options such as the dimensions and weight of the facade cladding, wind loads and cladding zone.





# Brackets

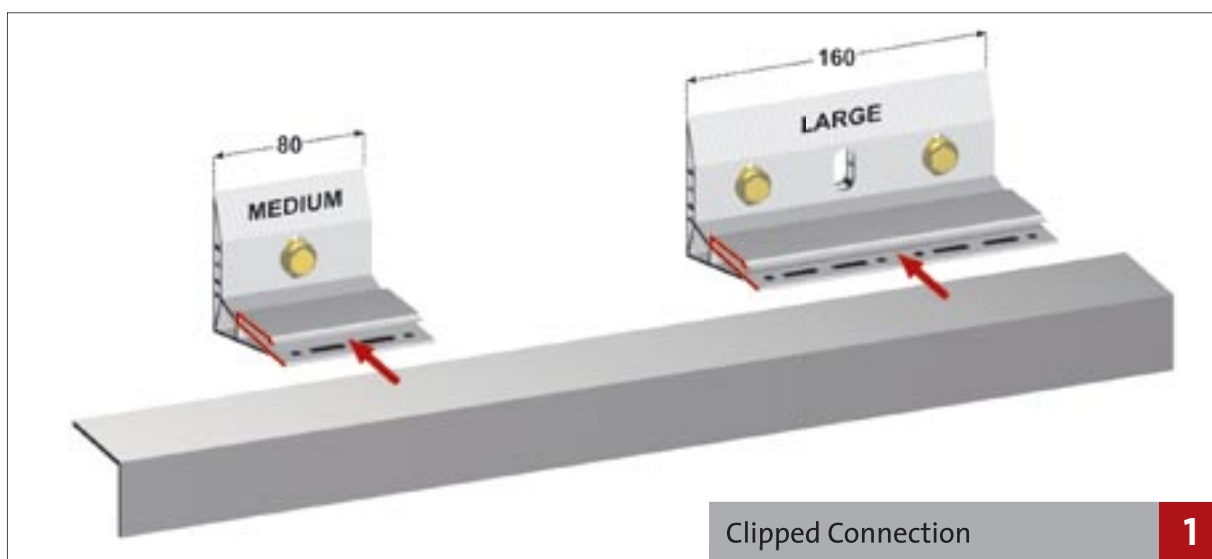
## XFOX

### Installation | horizontal fixing

XFOX Bracket sizes	V
	70
	90
	120
	150
	180

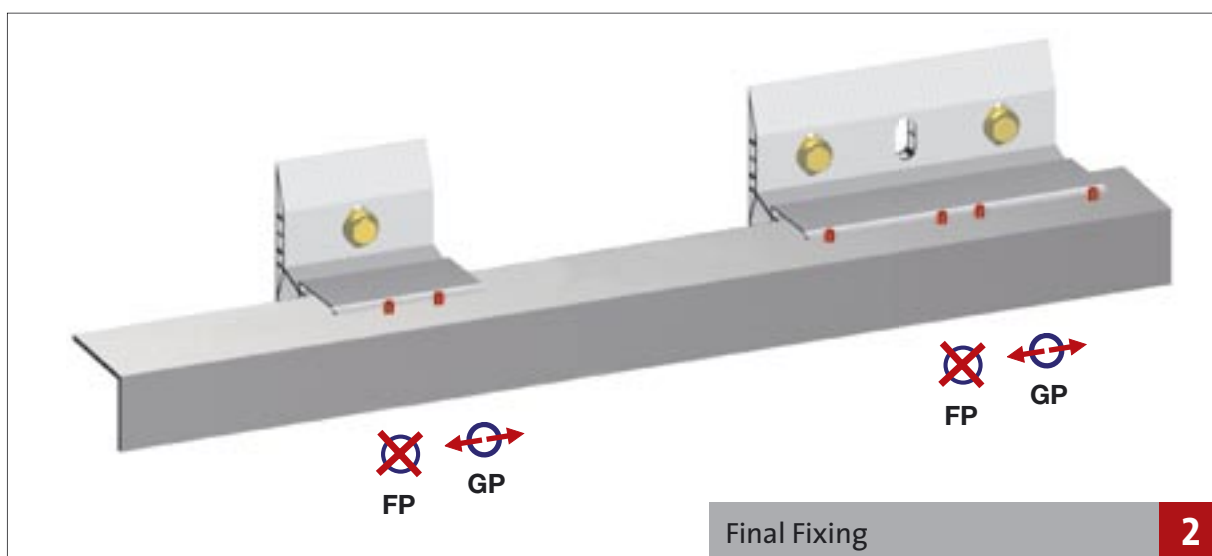
#### 1 Clipped Connection, adjust

For initial line and level adjustment the EUROFOX profiles are clipped into the XFOX-brackets.



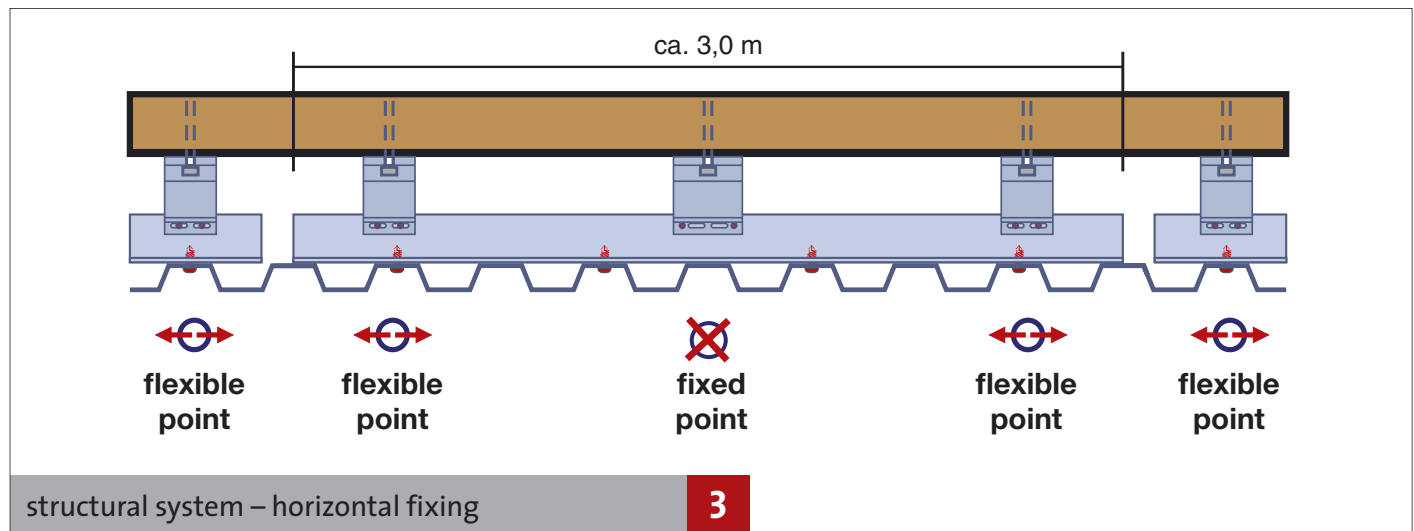
#### 2 Final Fixing

After adjustment the profiles are fixed to the XFOX-brackets with screws (or rivets). Round holes and elongated holes in the XFOX-brackets allow for the creation of both, fixed points (FP) and flexible points (GP).





## Structural system



### 3 Horizontal section

To enable thermal movements, the horizontal L-profiles are fixed by one XFOX fixed point and a number of XFOX flexible points.

### 4 Vertical section

#### Vertical profiles

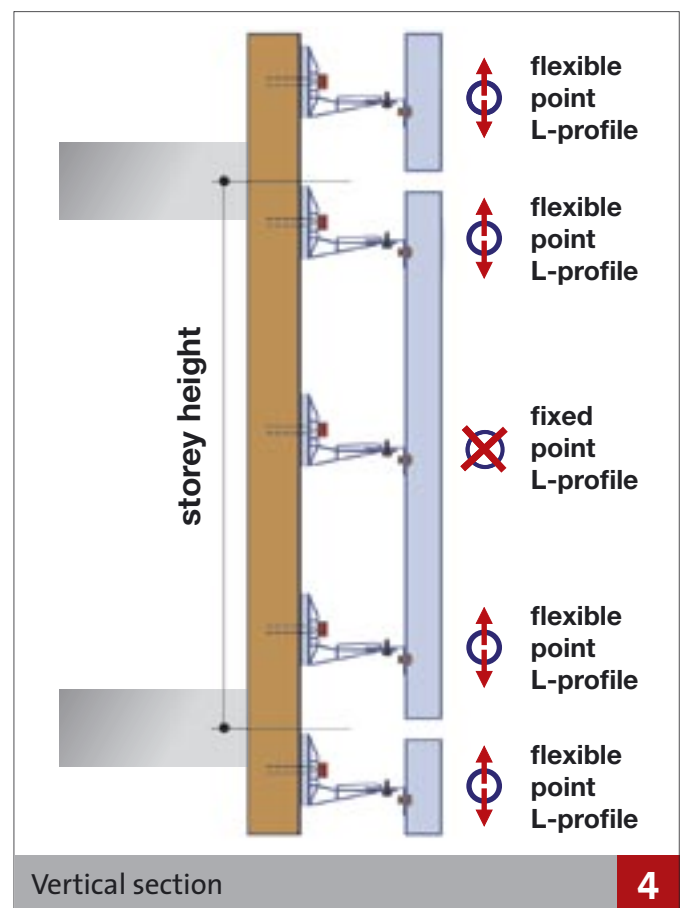
Each vertical profile is fixed to one horizontal fixed point L-profile and flexible jointed to a number of flexible point L-profiles. The length of vertical profiles should not exceed the storey height. Consequently, thermal expansion is not constrained by the support system.

#### Fixpoint L-profiles

Due to the rigid connection, fixed point L-profiles are able to absorb both, vertical dead loads and horizontal wind loads.

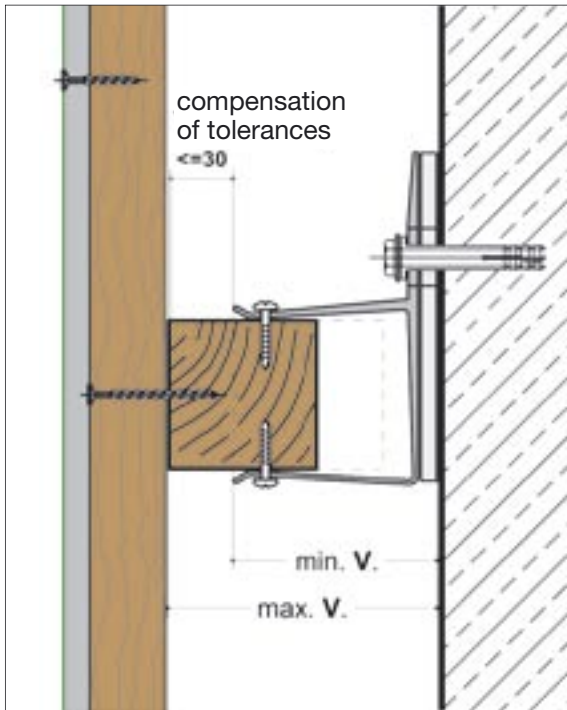
#### Flexible point L-profiles

Flexible point L-profiles take wind loads only.



# Brackets

## MacWUDI



### MacWUDI

is an ideal solution for the support of timber battens used for timber cladding (soft and hardwood). For smaller cladding zones, the design easily accommodates any unevenness in the timber and allows the battens to be quickly and accurately lined, levelled and secured.

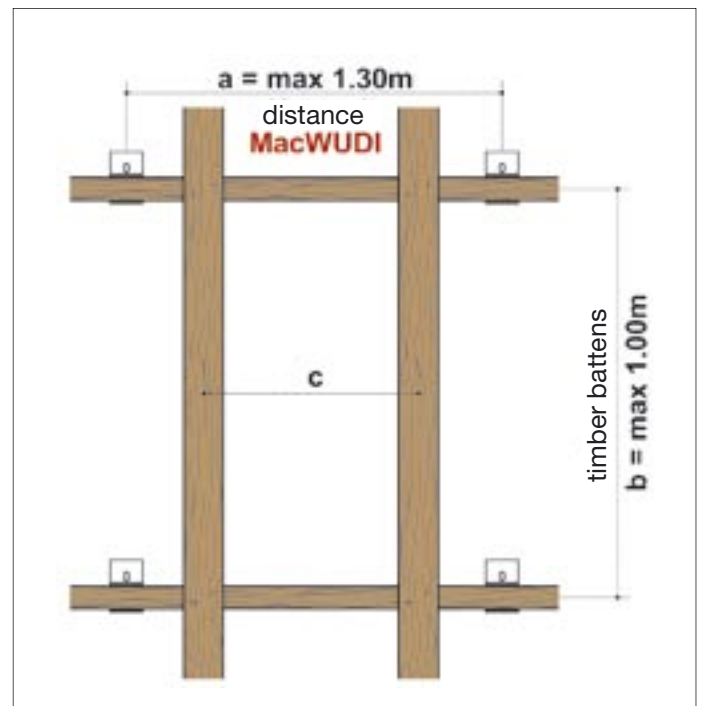
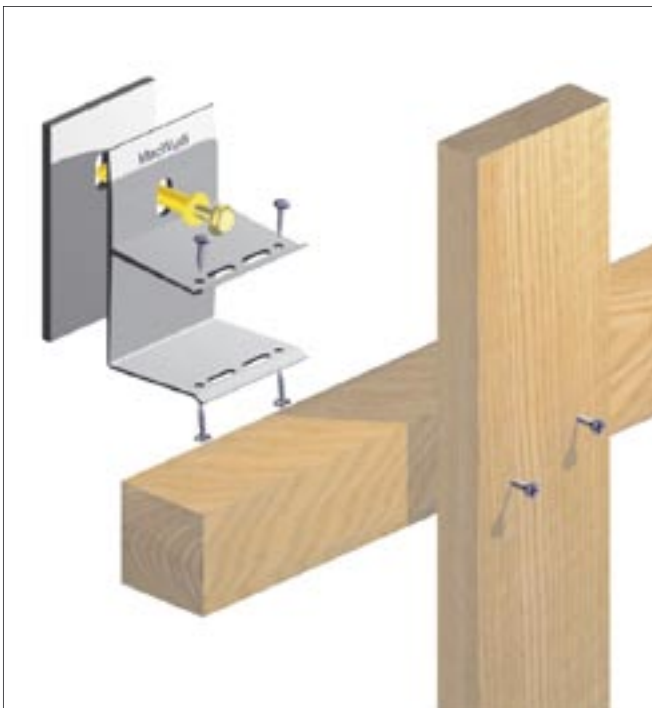
**Distance of fixing (a)** depends usually on:

- allowed pulling test of the dowel (substrate)
- weight / m<sup>2</sup>
- distance from wall = V max.

Number of MacFOX/dowels in case of buildings up to 20 m are normaly (windloads acc. DIN) app./m<sup>2</sup>.

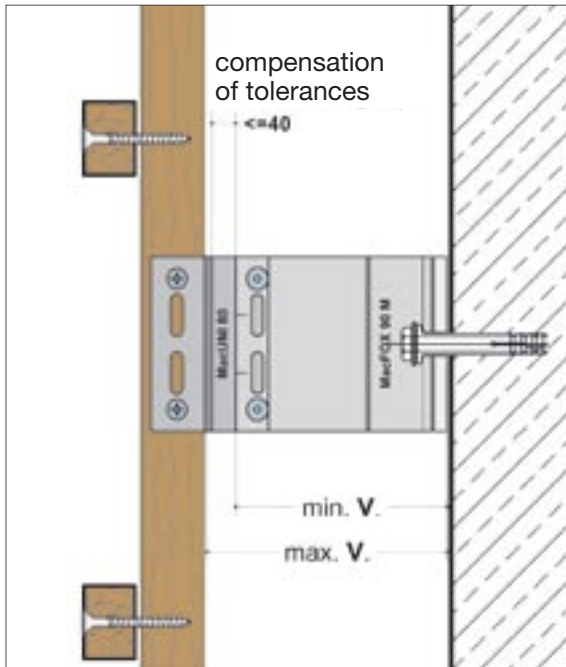
(b) = static requirement

(c) = panel dimension / grid



# Brackets

## MacUNI



### MacUNI

The assembly of MacUNI to MacFOX or XFOX brackets provides an ideal element for the fixing of timber battens where medium to large cladding zones are required.

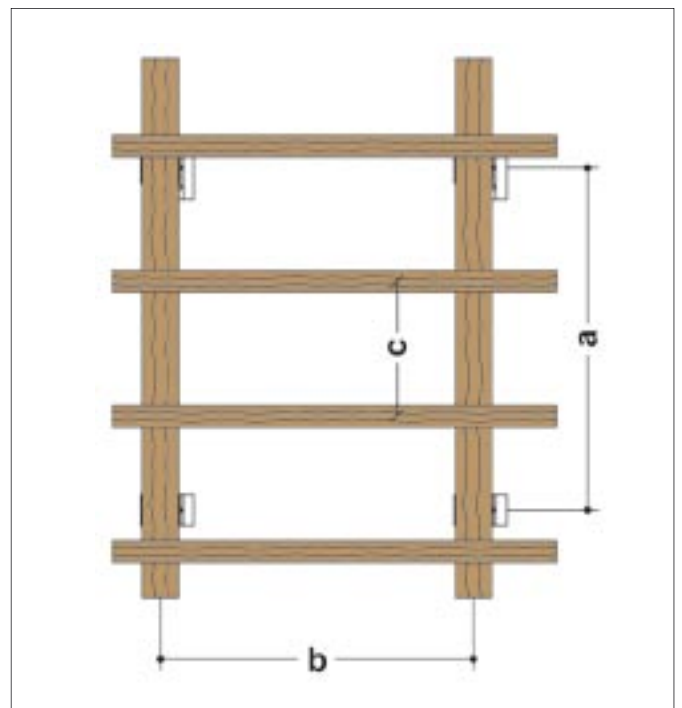
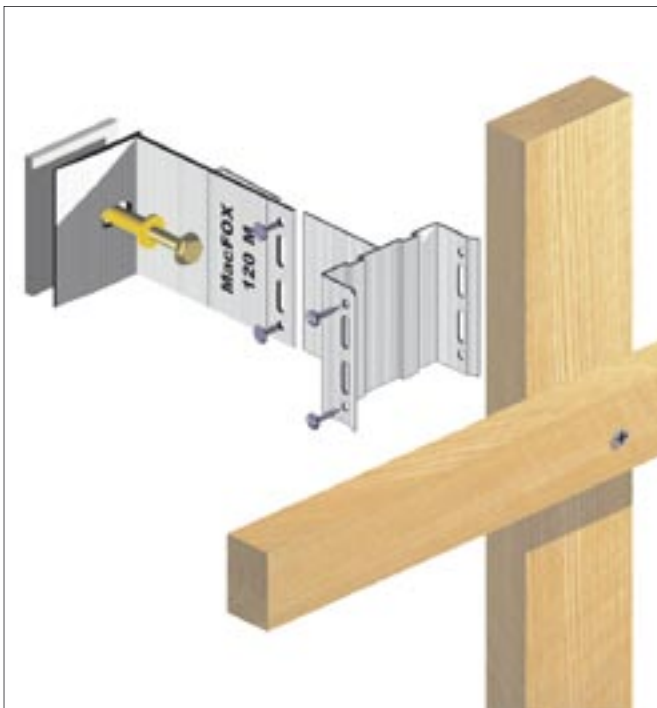
**Distance of fixing (a)** depends usually on:

- allowed pulling test of the dowel (substrate)
- weight /  $\text{m}^2$
- distance from wall = V max.

Number of MacFOX/dowels in case of buildings up to 20 m are normally (windloads acc. DIN) app. 2 piece/ $\text{m}^2$ .

(b) = static requirement

(c) = panel dimension / grid





# Project-Checklist

Info from \_\_\_\_\_ Date \_\_\_\_\_

Project name \_\_\_\_\_ Project address \_\_\_\_\_

Area \_\_\_\_\_ m<sup>2</sup>

☐ New building

☐ Renovation

## Facade Element

☐ Metal

☐ Ceramic

Fabricate \_\_\_\_\_

☐ Compound/ACM

☐ Brick

Dimension \_\_\_\_\_ mm

☐ HPL

☐ Render

Weight \_\_\_\_\_ kg/m<sup>2</sup>

☐ Fibrecement

☐ \_\_\_\_\_

Thickness \_\_\_\_\_ mm

## Fixing method

EUROFOX-system \_\_\_\_\_

### Visible

☐ Rivets

☐ Screws

### Invisible

☐ Mechanical

☐ Adhesive

### Panel

☐ Portrait

☐ Landscape

## Project data

Building Height \_\_\_\_\_ m<sup>1</sup>

### Windloads

Storey Height \_\_\_\_\_ m<sup>1</sup>

General \_\_\_\_\_ kN/m<sup>2</sup>

Window Height \_\_\_\_\_ m<sup>1</sup>

Special \_\_\_\_\_ kN/m<sup>2</sup>

Other \_\_\_\_\_

## Wall condition

☐ Concrete

Other \_\_\_\_\_

☐ Brick

☐ Steel

Certified pullout of anchor \_\_\_\_\_ kN

Insulation \_\_\_\_\_ mm

Cavity depth \_\_\_\_\_ mm

## CAD-Plans

☐ View of claddings

☐ Plan view

☐ Arrangement of sheets

☐ Details

## Client/Architect

Name \_\_\_\_\_

Address \_\_\_\_\_

E-Mail \_\_\_\_\_

## Installation company

Name \_\_\_\_\_

Address \_\_\_\_\_

E-Mail \_\_\_\_\_

## Dates

Planning \_\_\_\_\_

Offer \_\_\_\_\_

Installation \_\_\_\_\_

To provide you with an offer please complete and submit a project checklist, ideally accompanied with elevation and plan AutoCAD drawings, indicating your proposed cladding requirements. This will allow us to prepare a project specific cladding solution, including static calculations, setting out information and overlay drawings for the system and panels.



# Reference projects



Leatherhead House | Surrey, UK

application: Compound  
material: Etalbond 1500 m<sup>2</sup>  
designed: 2003



Towson University | USA

application: Keramik  
material: Mirage 2000 m<sup>2</sup>  
designed: 2005



Vardo Headquarter | Rumänien

application: HPL  
material: Trespa Meteon 800 m<sup>2</sup>  
designed: 2002



Terrington House  
Cambridge, UK

application: Compound  
material: Aluminium 500 m<sup>2</sup>  
designed: 2003



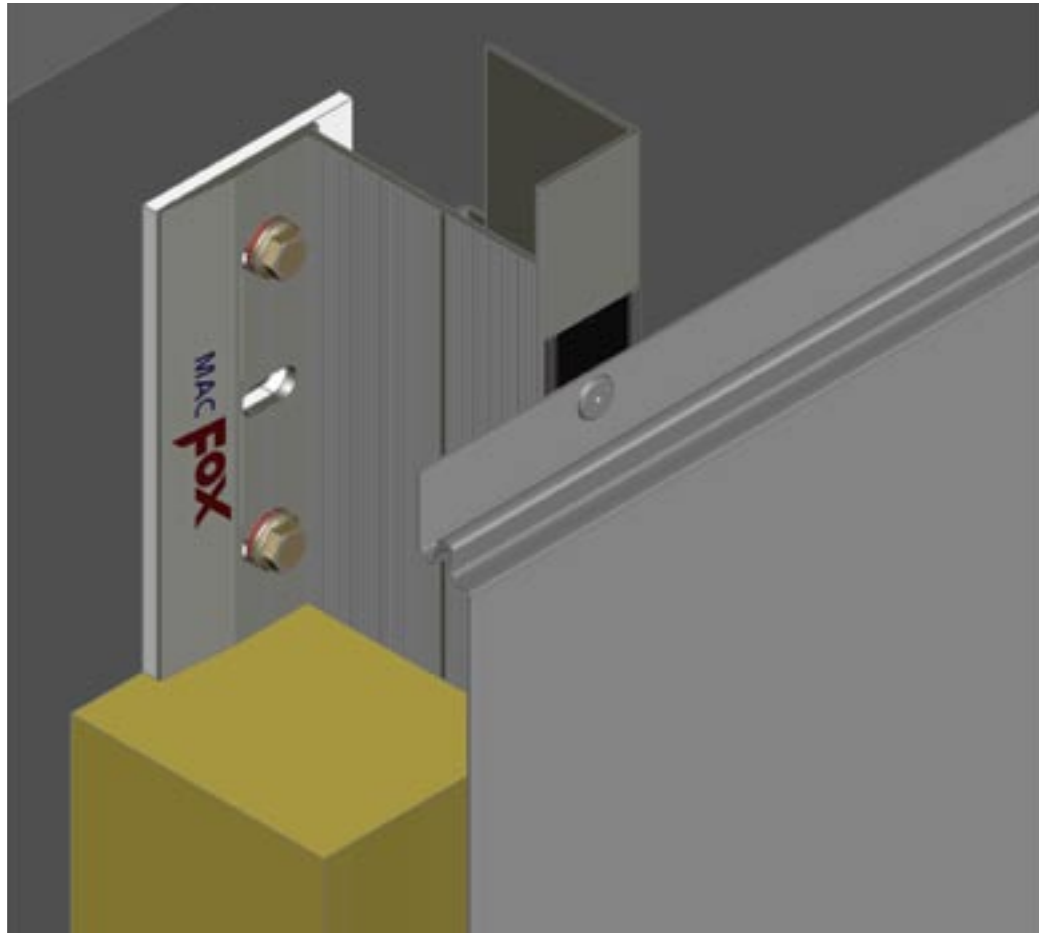
LBS Fürstenfeld  
Österreich

application: Glasfaserbeton  
material: FibreC 700 m<sup>2</sup>  
designed: 2005

# Fixing systems

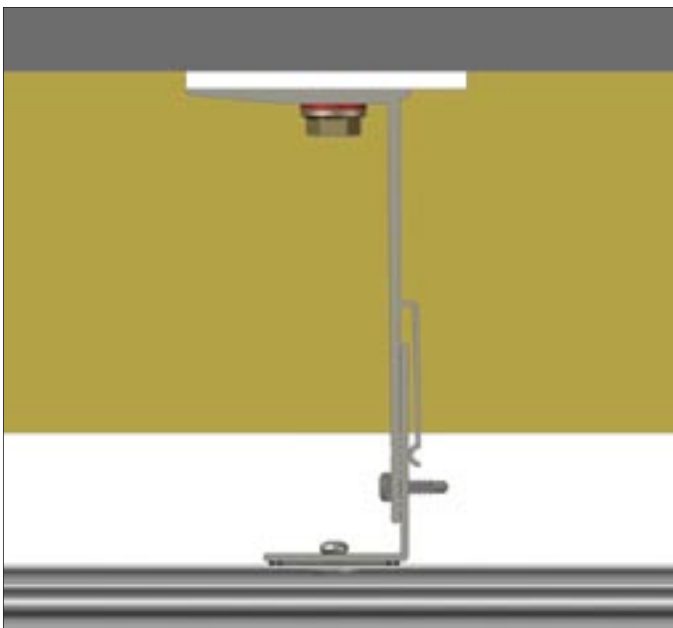
## Metal

### System MLA-v-100

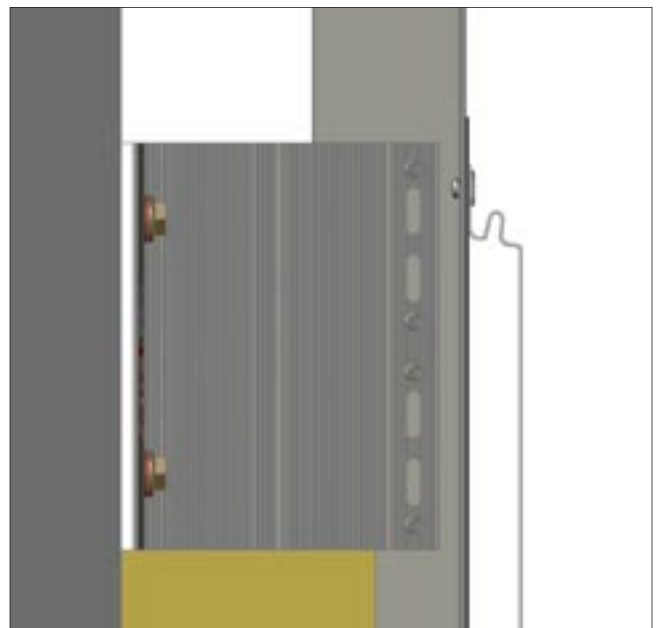


visible fixing with  
rivets / screws

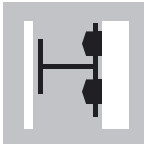
#### horizontal section



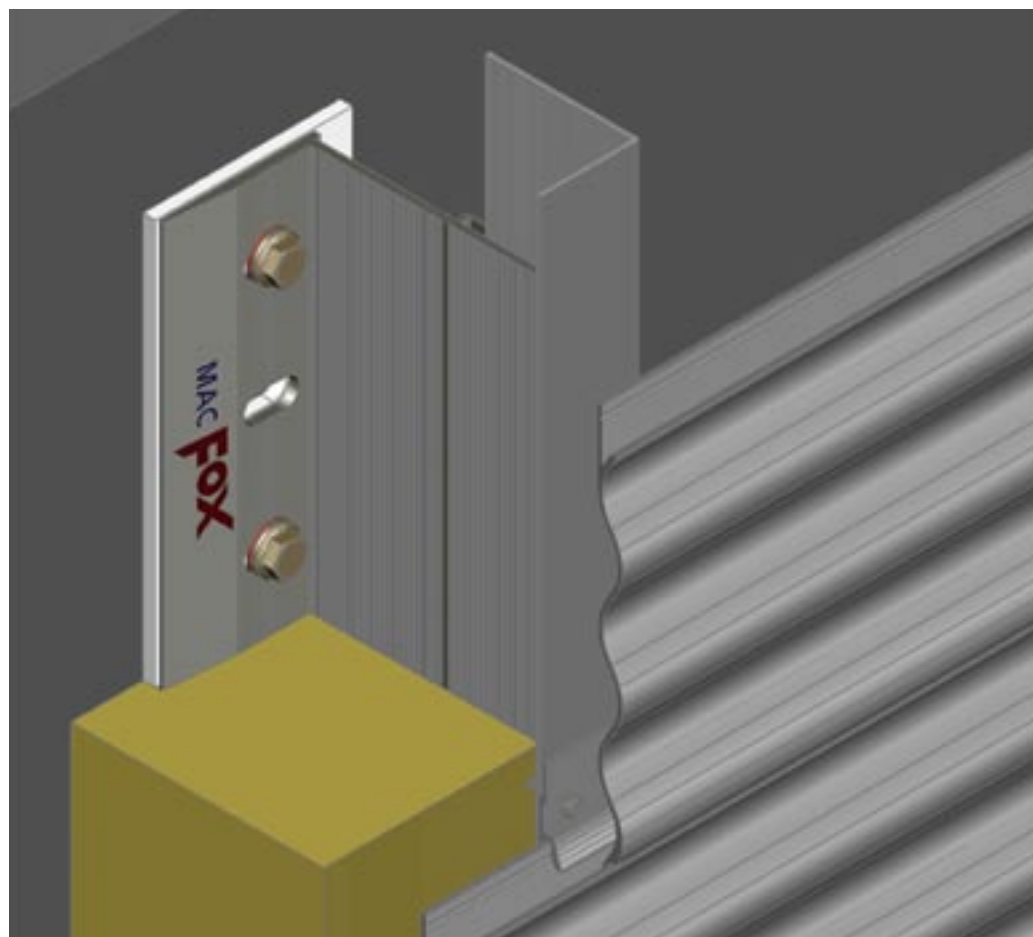
#### vertical section





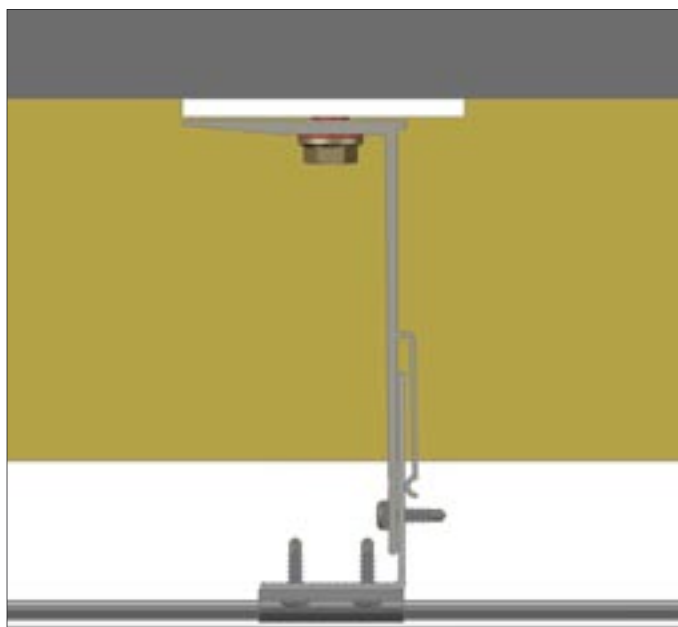


## System MLA-v-570

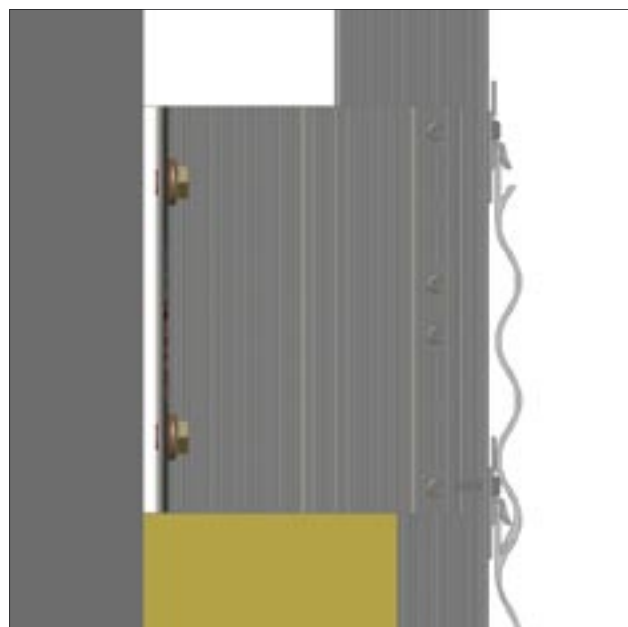


secret fixing with  
aluminium clamps

horizontal section



vertical section

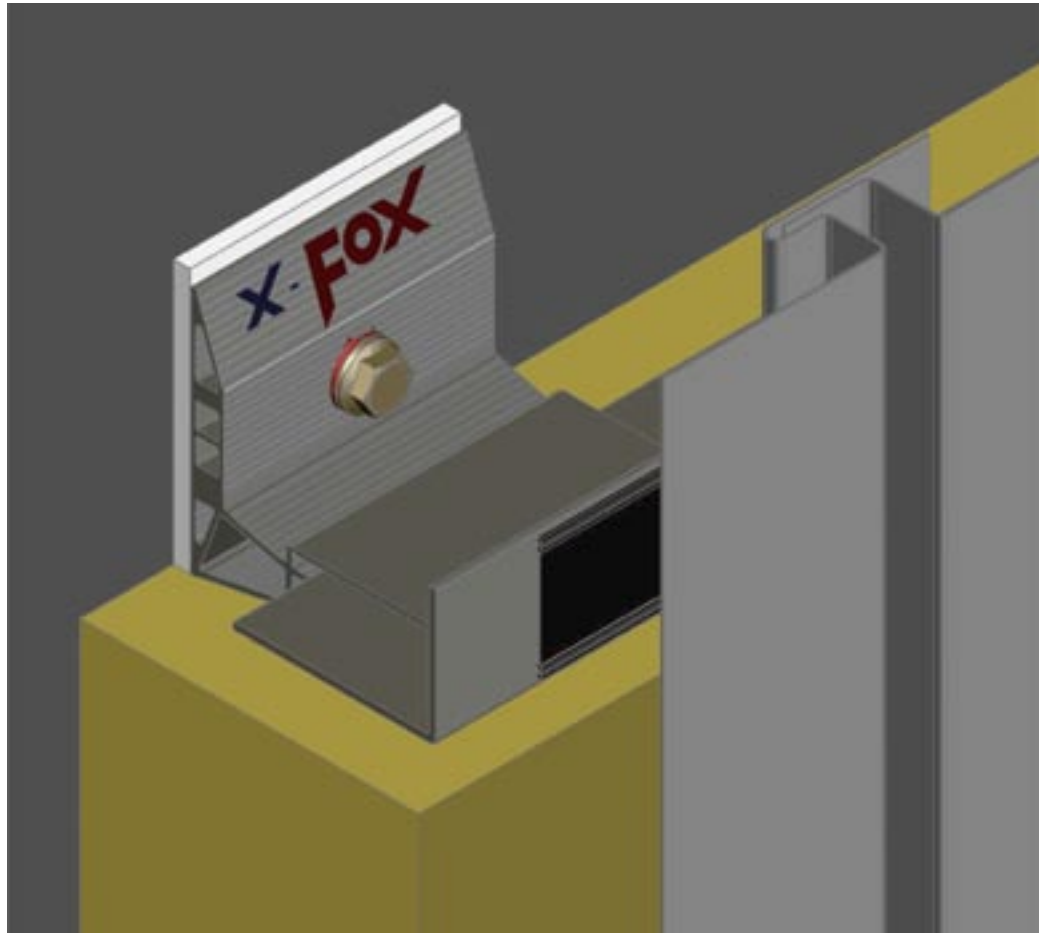




# Fixing systems

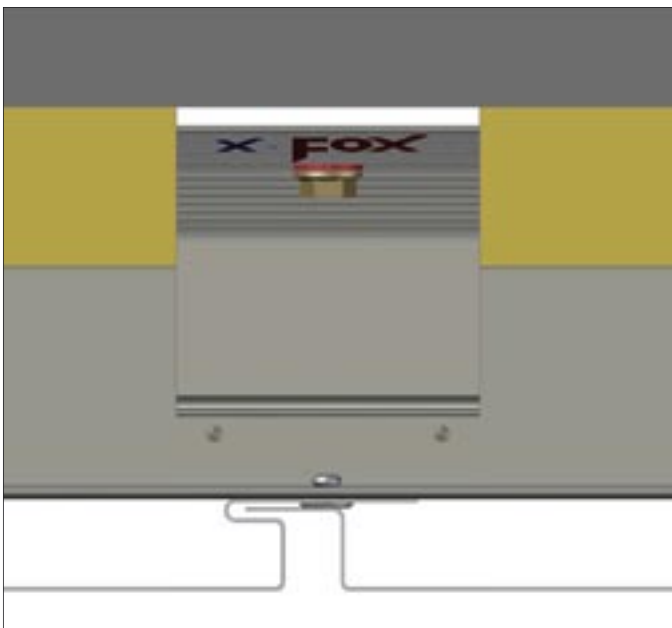
## Metal

### System XLA-h-100

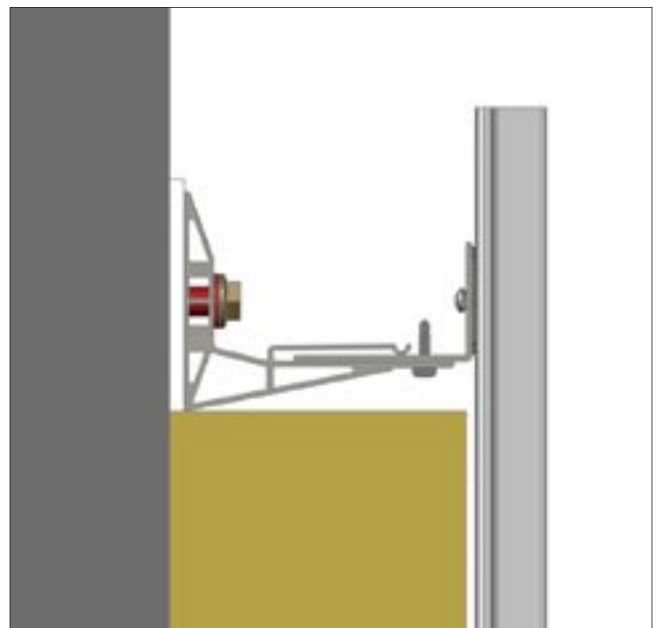


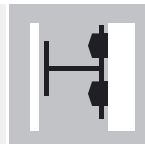
visible fixing with  
rivets / screws

horizontal section

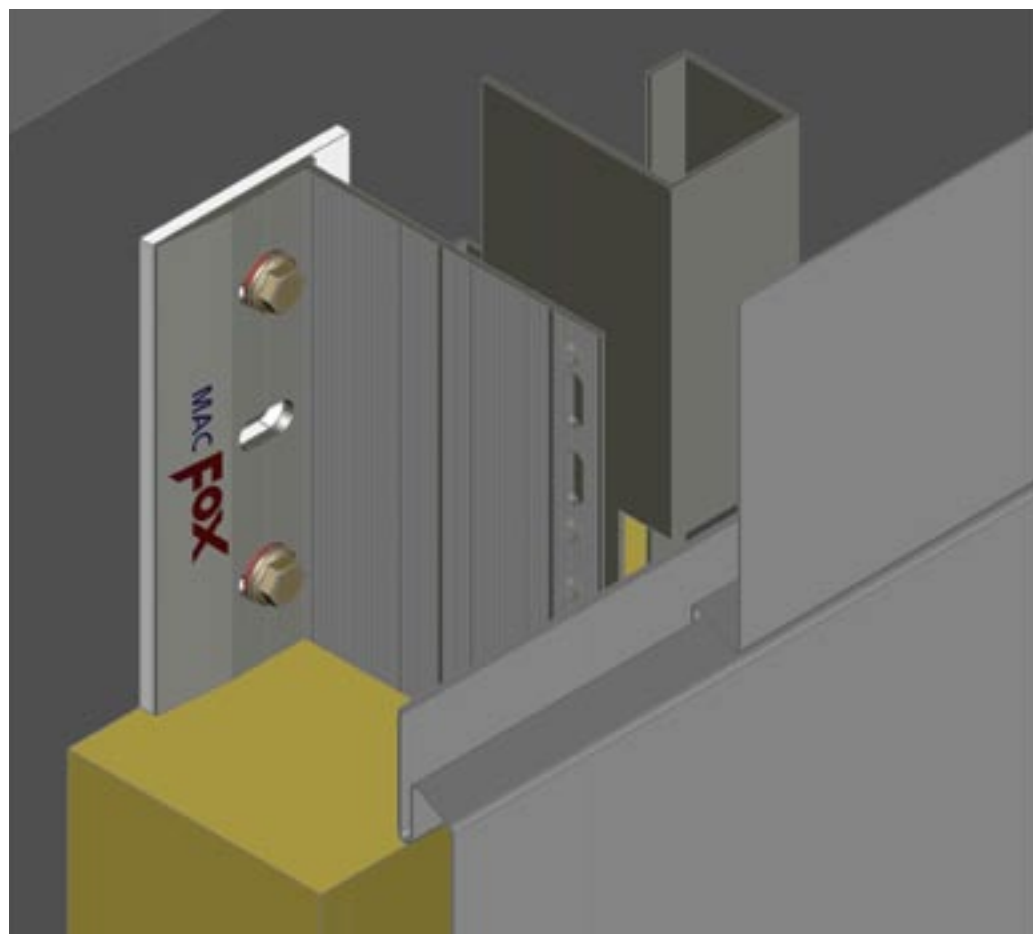


vertical section



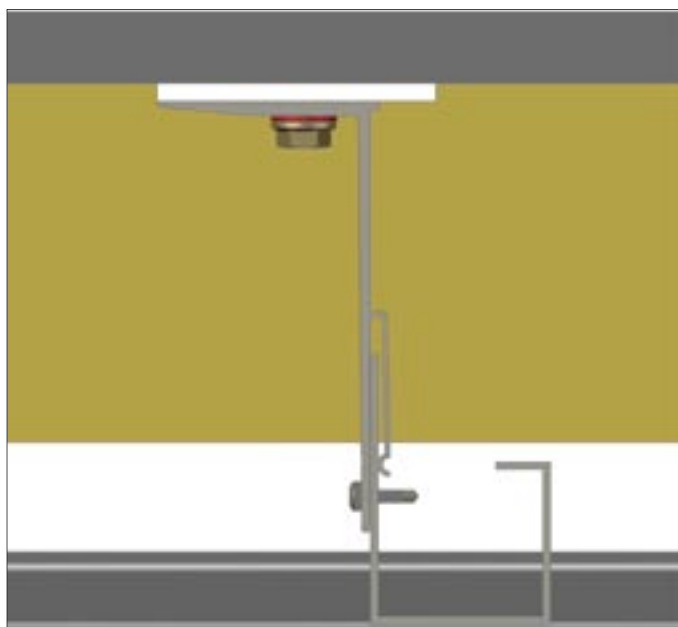


## System MLA-v-400

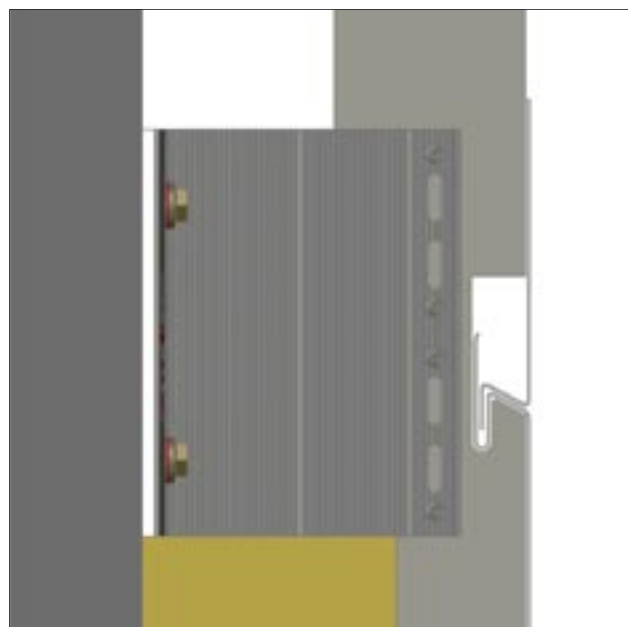


secret fixing with  
special profile

horizontal section



vertical section



# Fixing systems

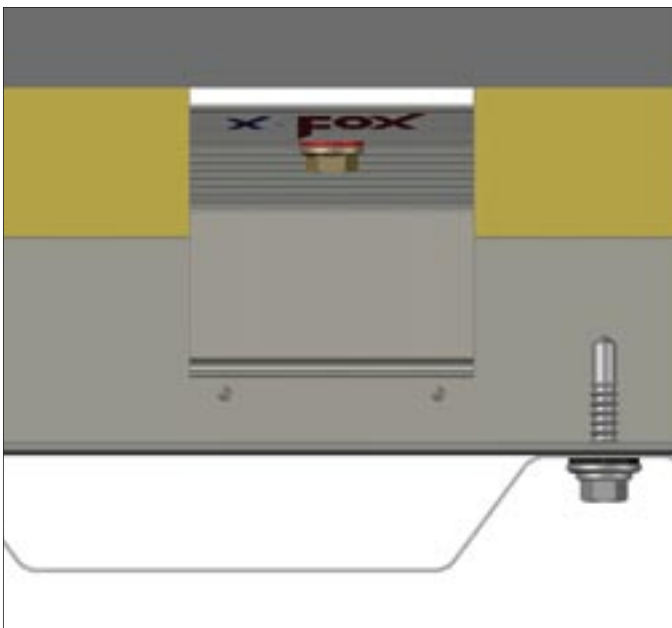
## Metal

### System XLA-h-100

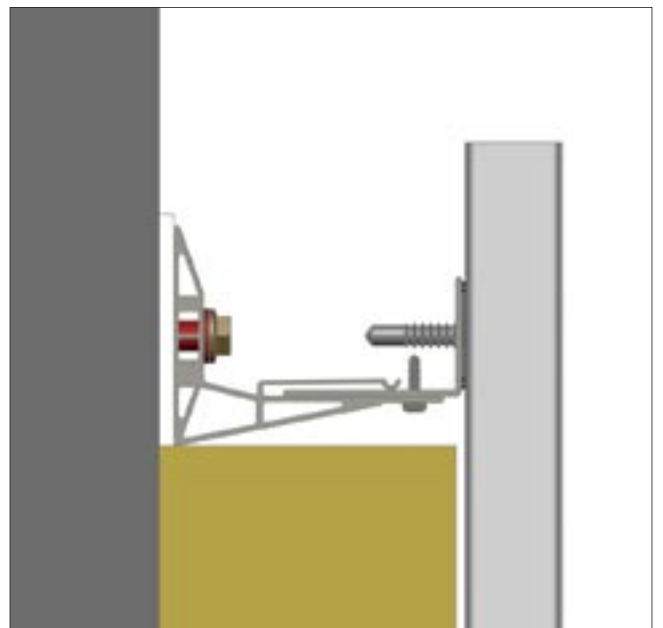


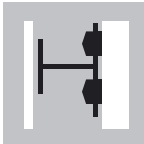
secret fixing with  
rivets / screws

#### horizontal section

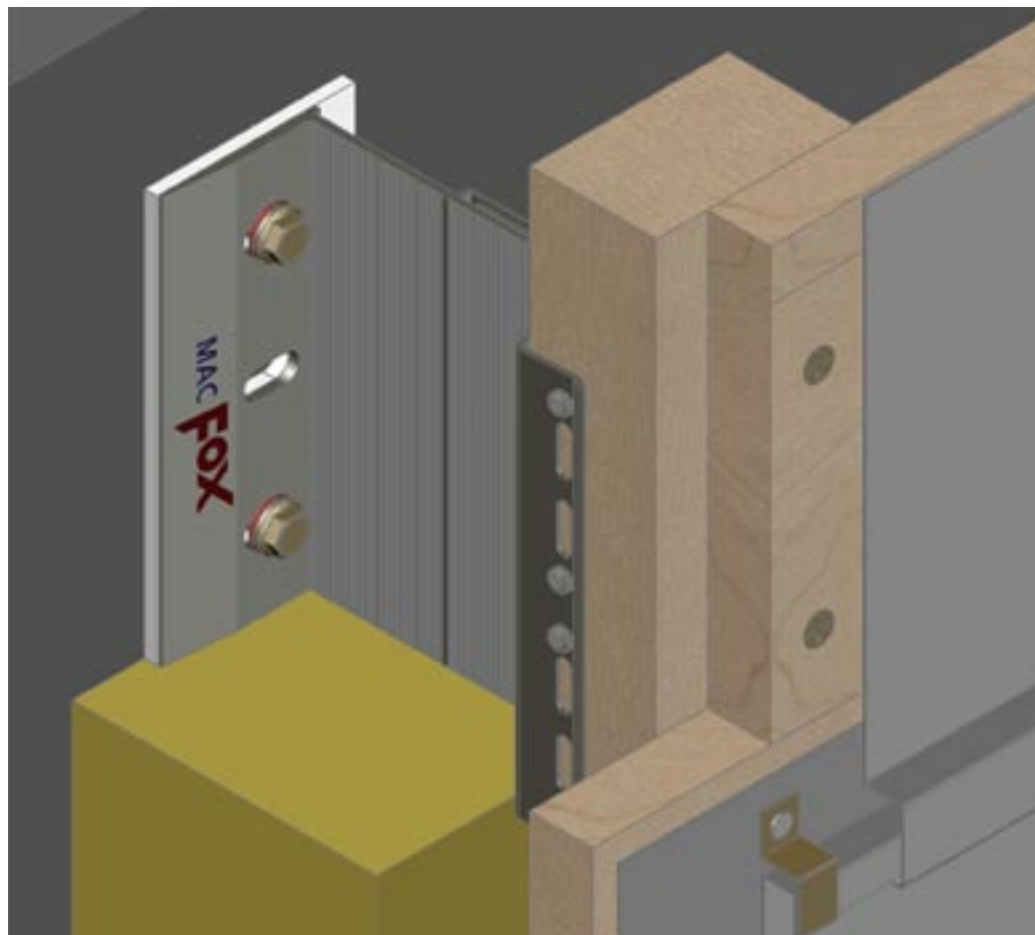


#### vertical section



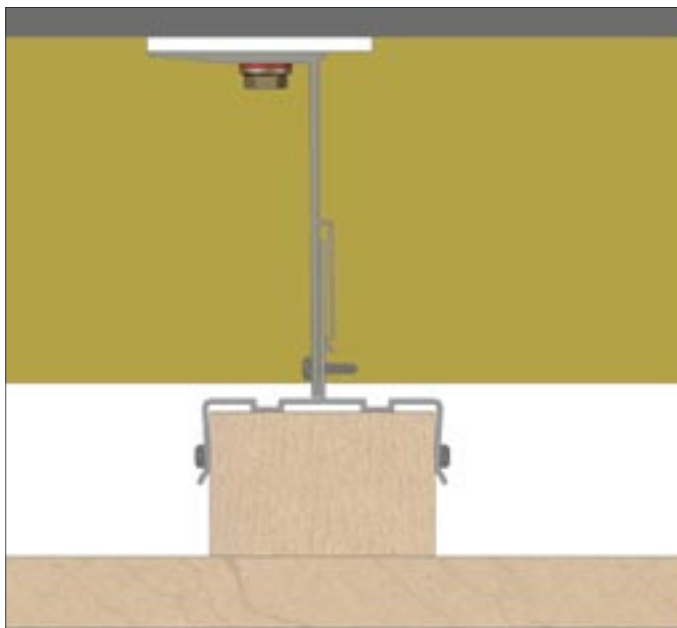


## System MUH-v-200

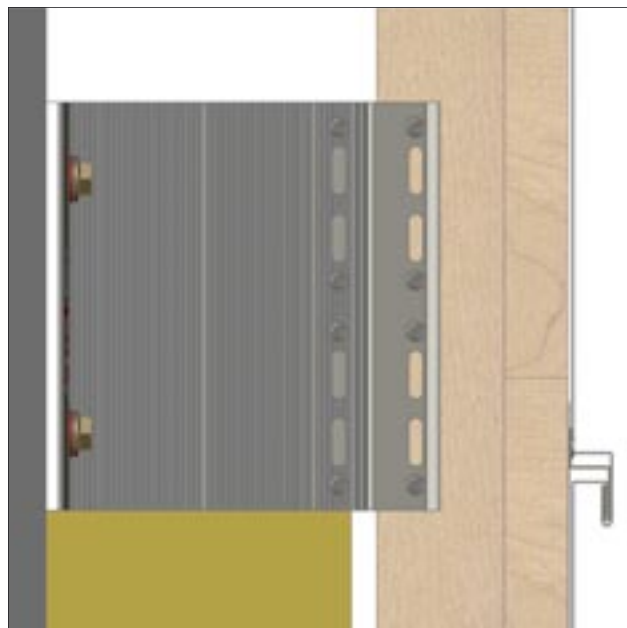


secret fixing with  
rivets / screws

horizontal section



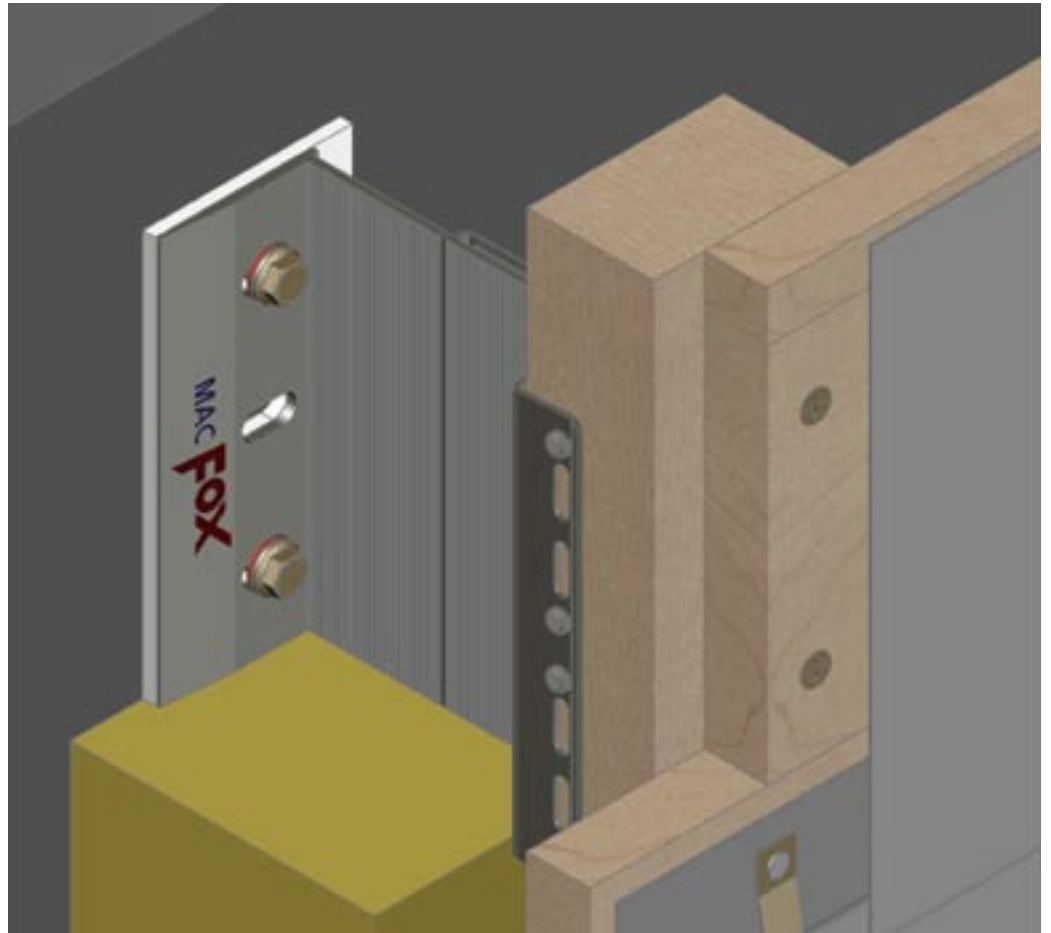
vertical section



# Fixing systems

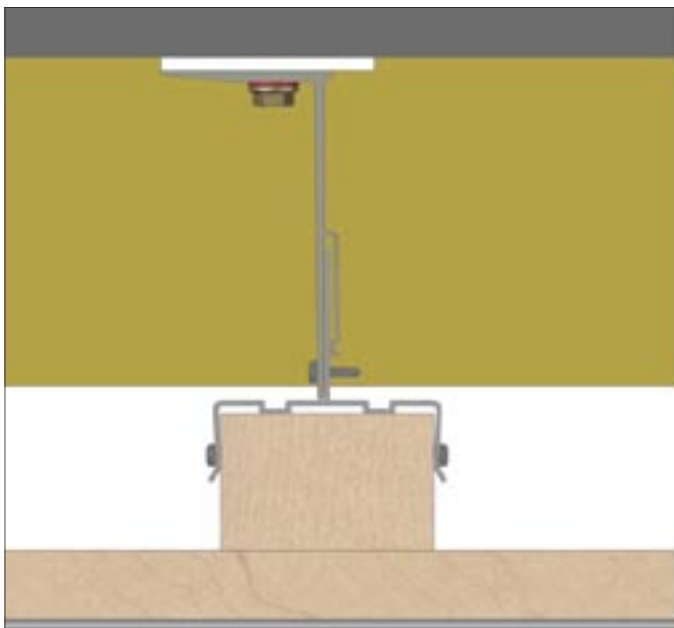
## Metal

### System MUH-v-200



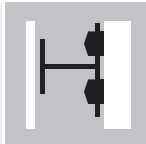
secret fixing with  
nails / screws

horizontal section

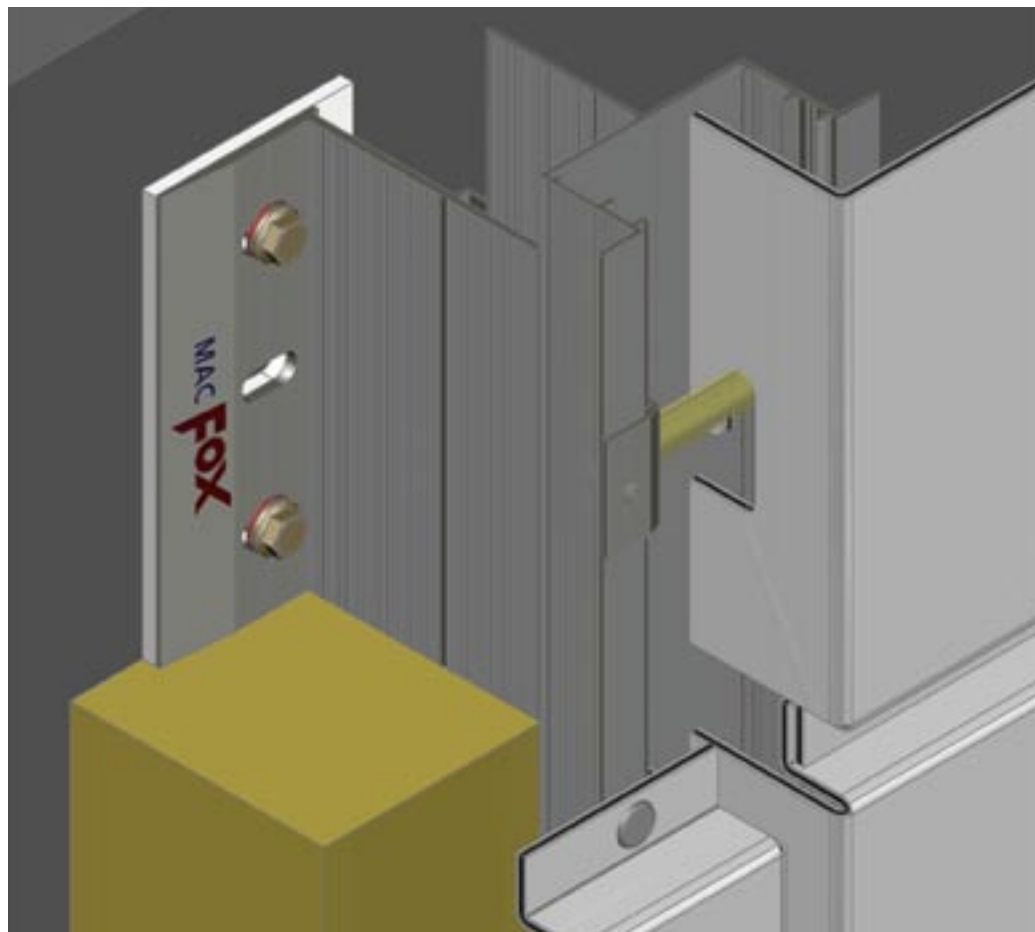


vertical section



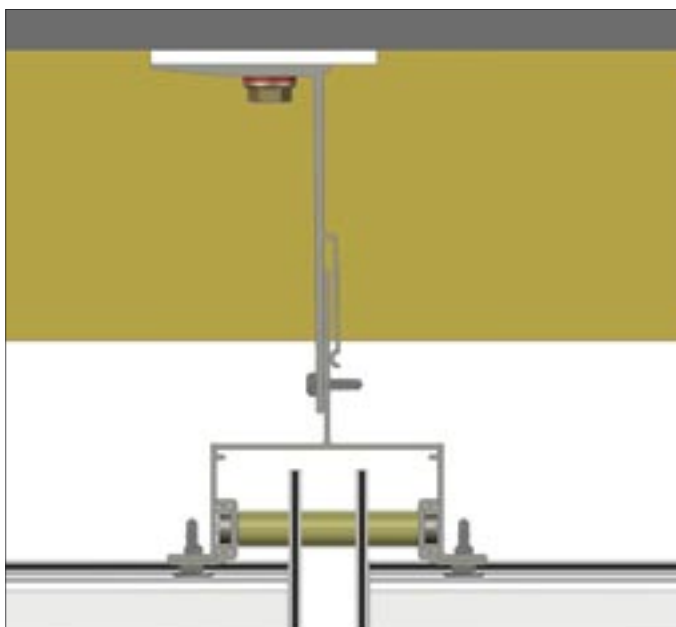


## System MUK-va-100

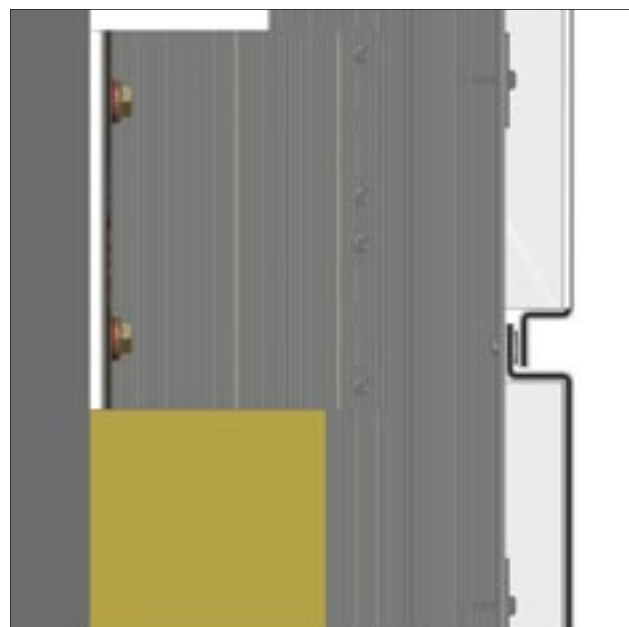


visible fixing with  
aluminium bolts /  
rivets (screws)

### horizontal section



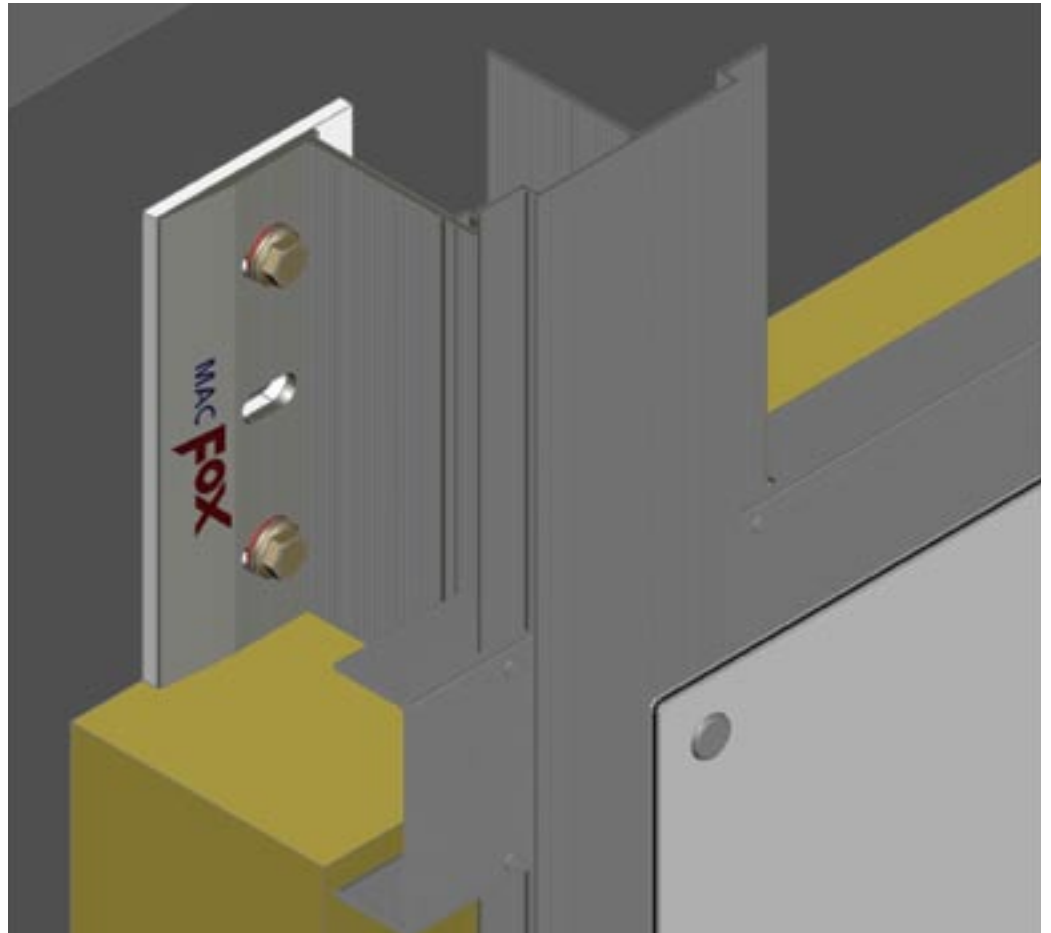
### vertical section



# Fixing systems

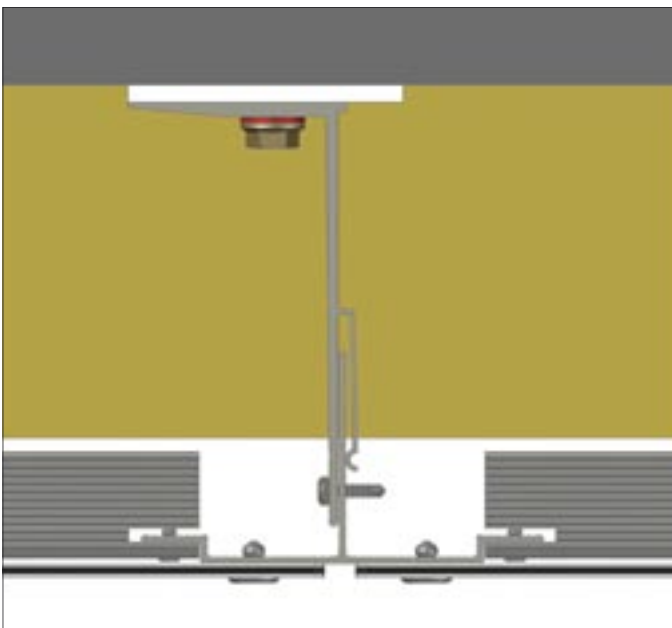
## ACM

### System MTA-v-400



visible fixing  
with rivets

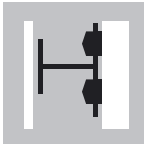
#### horizontal section



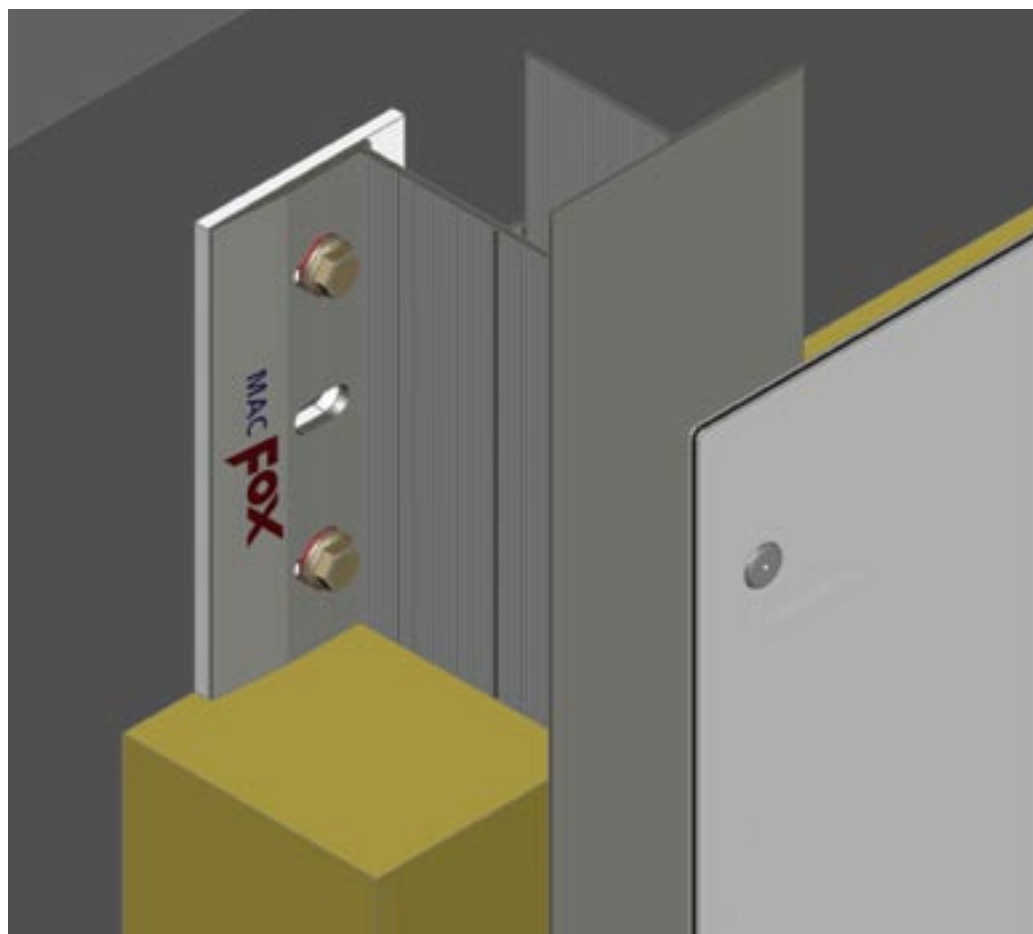
#### vertical section







## System MTA-v-900

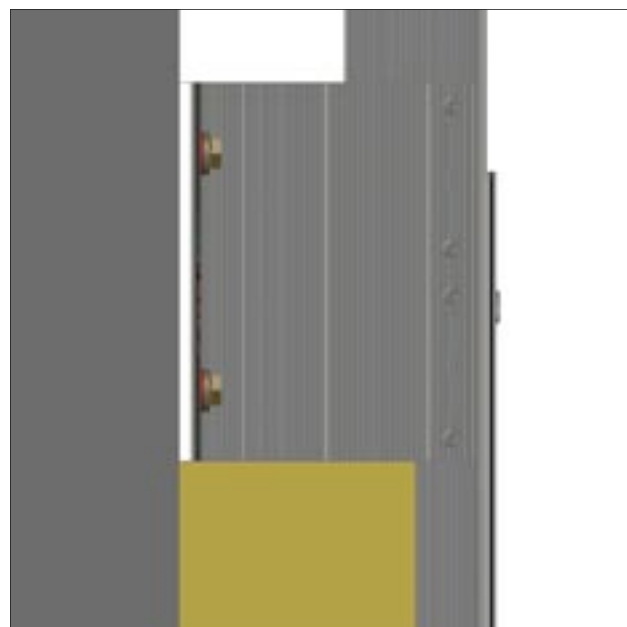


visible fixing  
with rivets

horizontal section



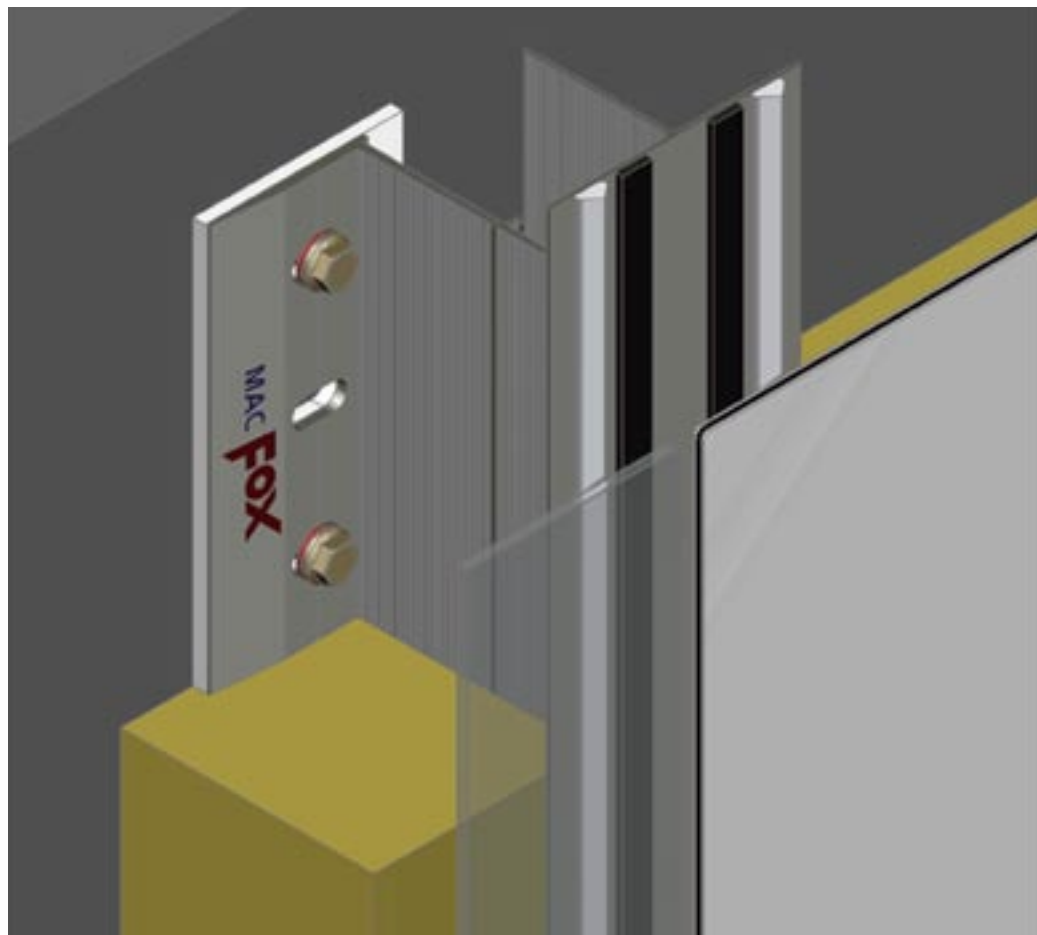
vertical section



# Fixing systems

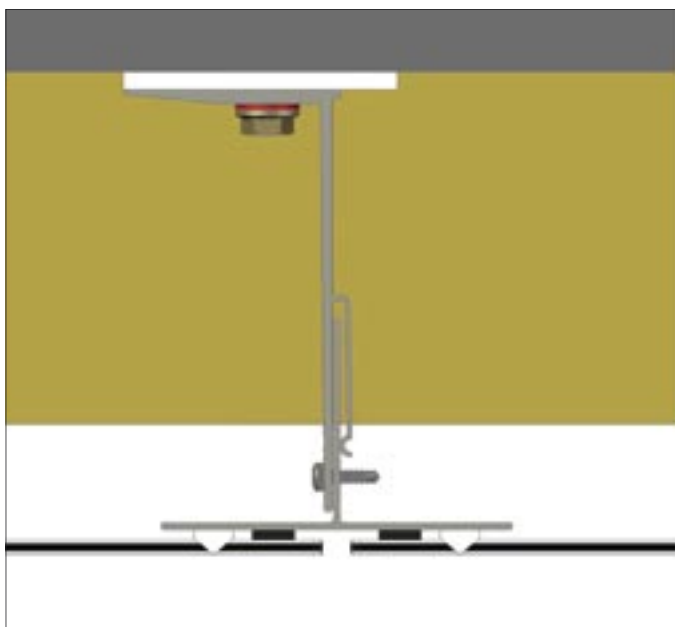
## ACM

### System MTK-v-900

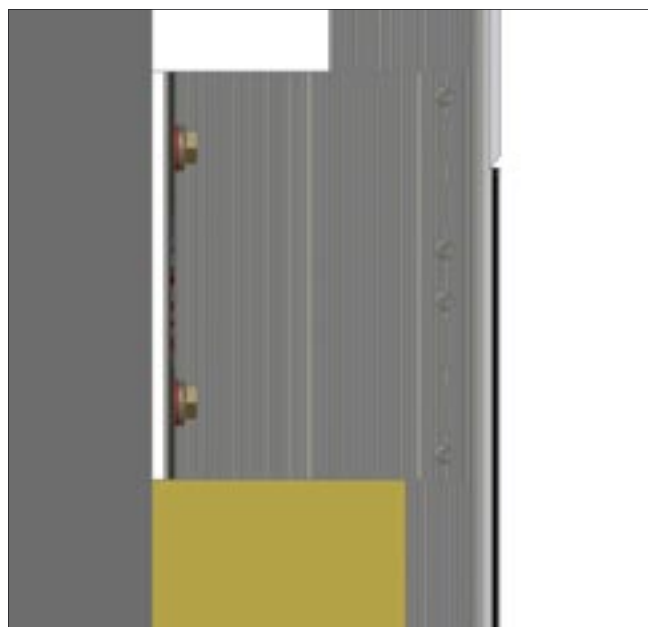


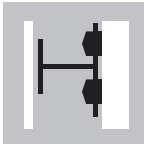
secret fixing with  
adhesive system

horizontal section

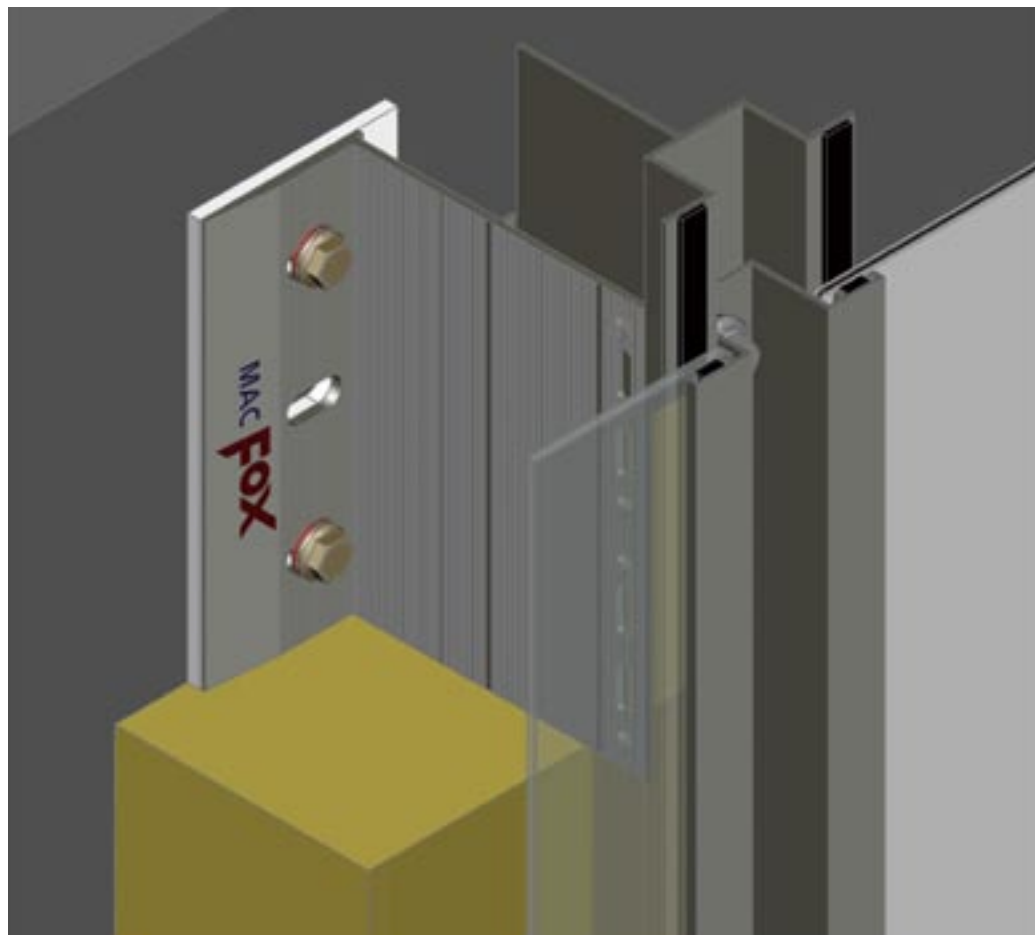


vertical section



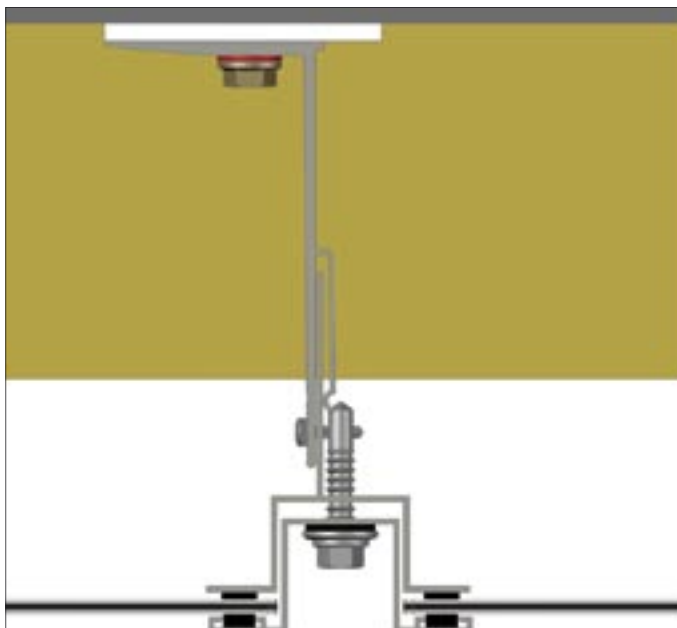


## System MYH-v-900

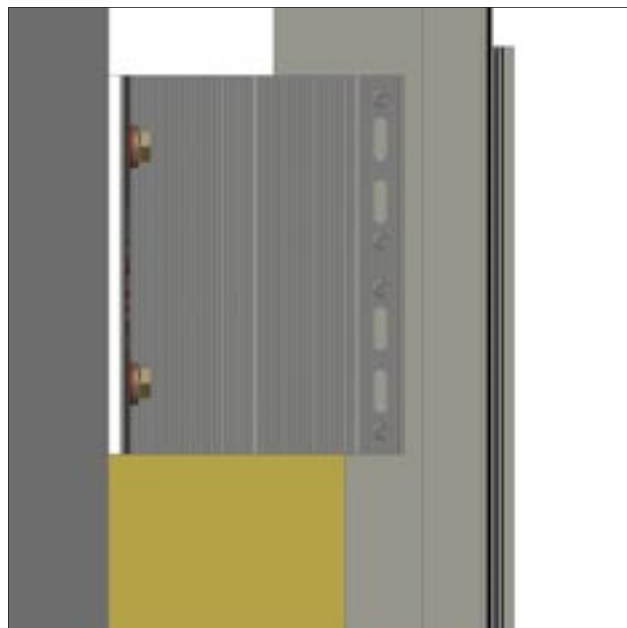


visible fixing with  
special profile

horizontal section



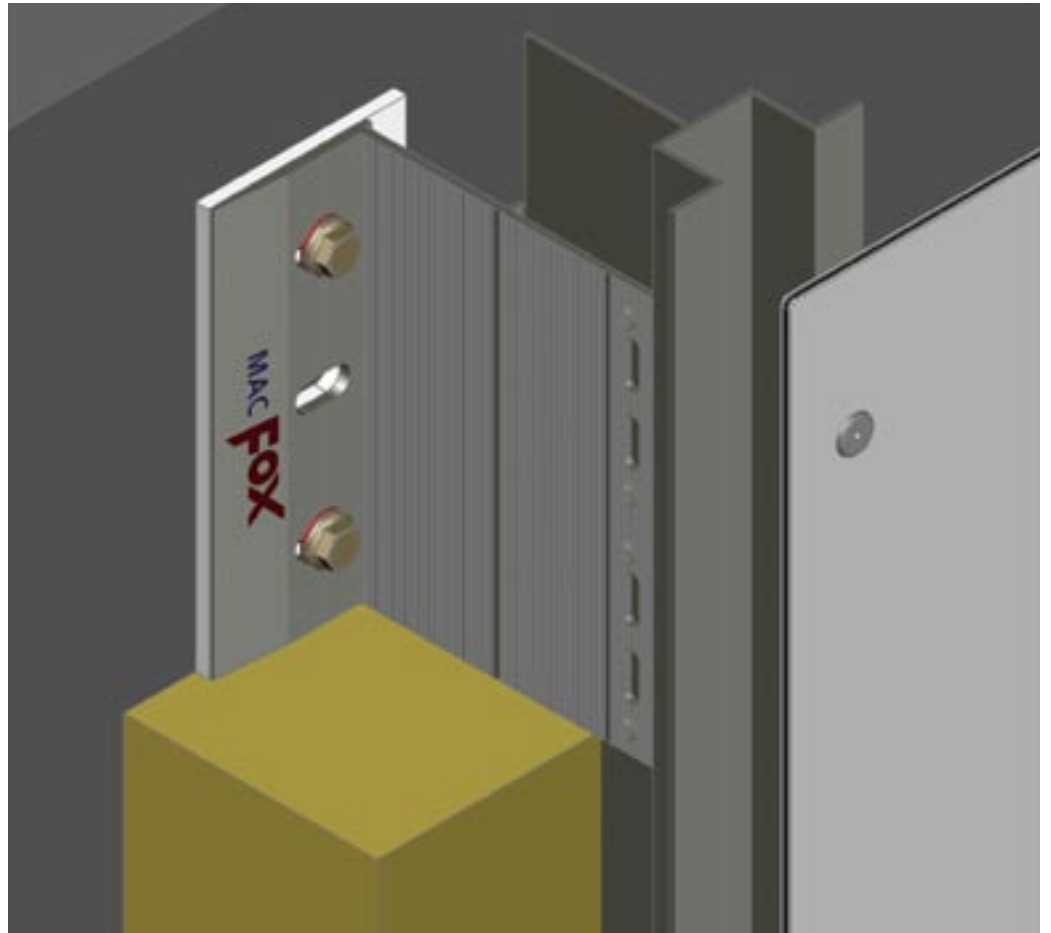
vertical section



# Fixing systems

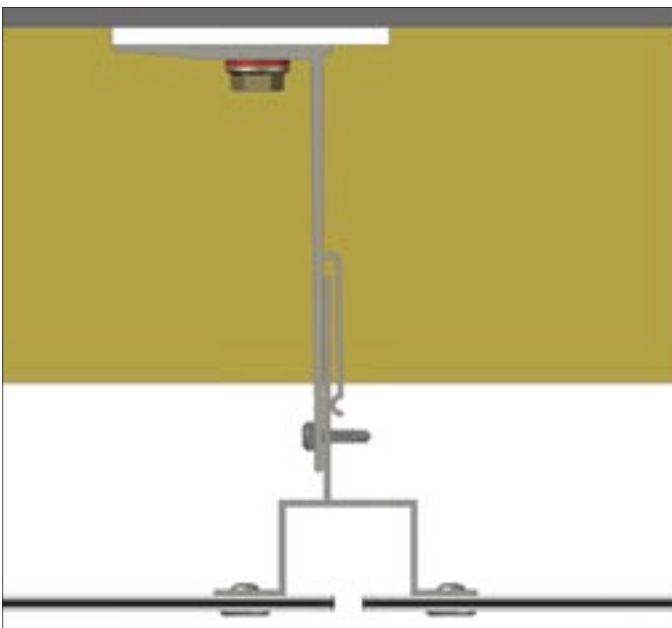
## ACM

### System MYA-v-900

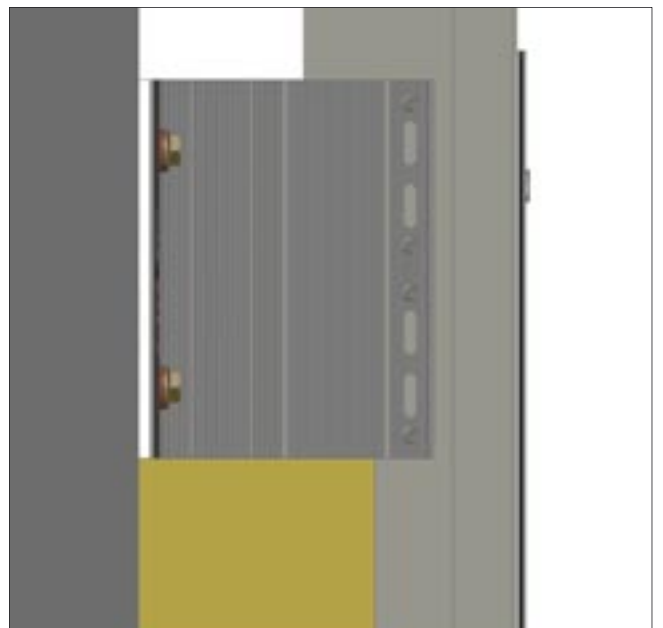


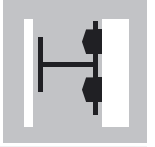
visible fixing  
with rivets

#### horizontal section



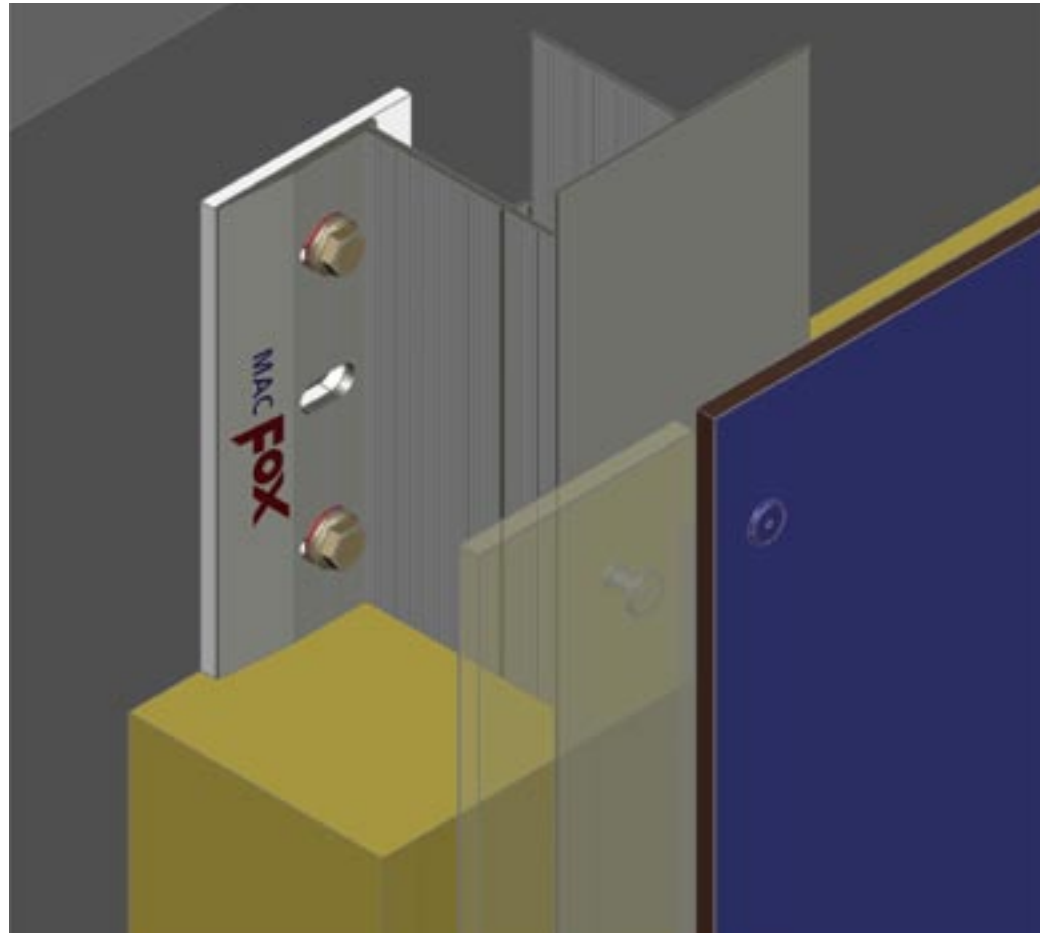
#### vertical section





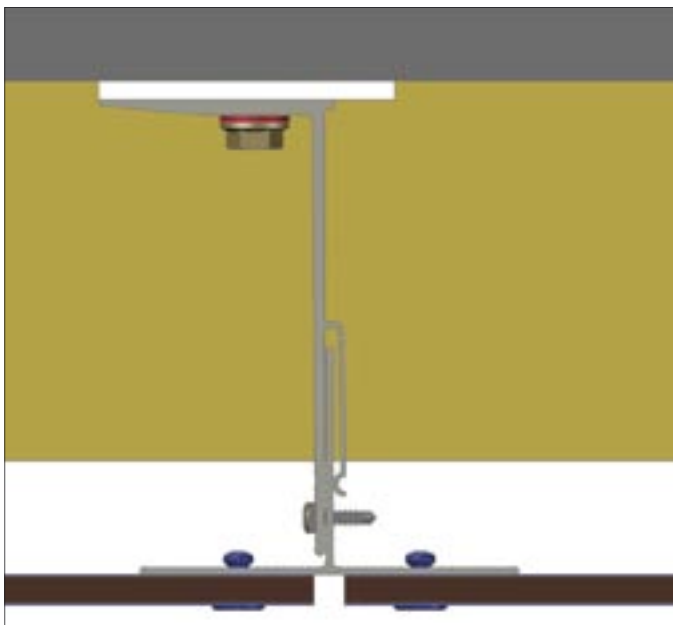
# Fibreceement / HPL

System  
MTA-v-100

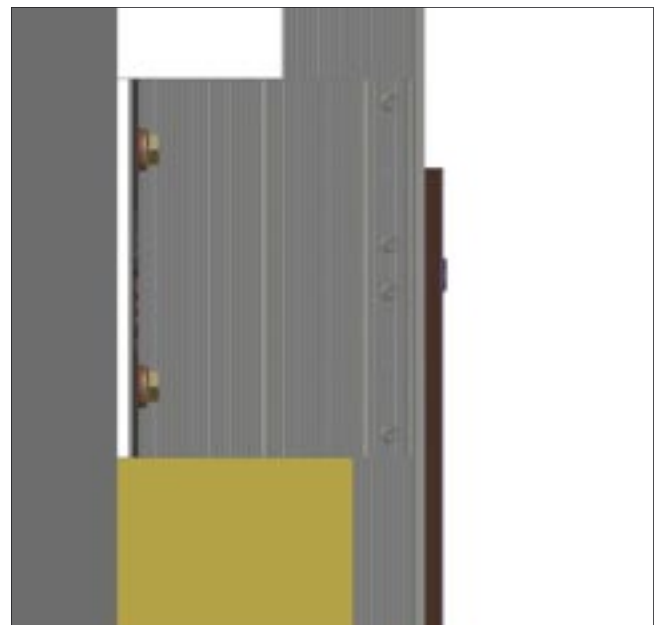


visible fixing with  
rivets / screws

horizontal section



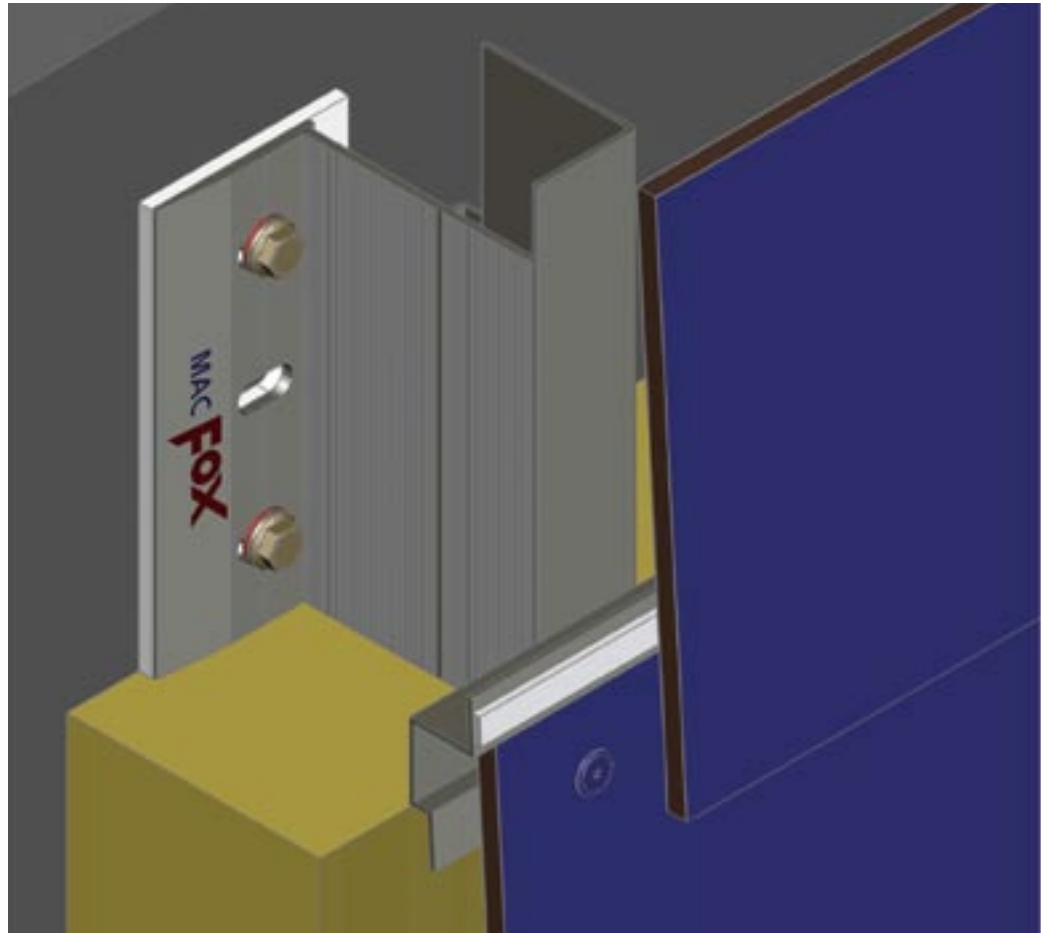
vertical section



# Fixing systems

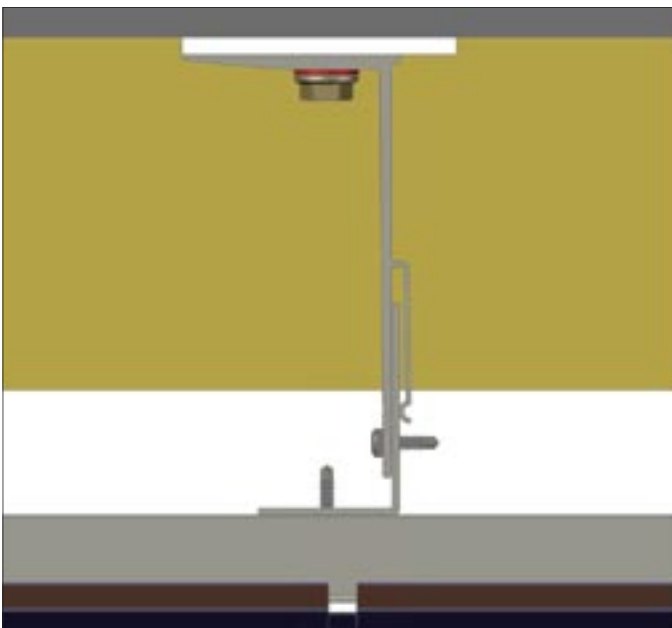
## Fibreceement / HPL

### System MLZ-v-500

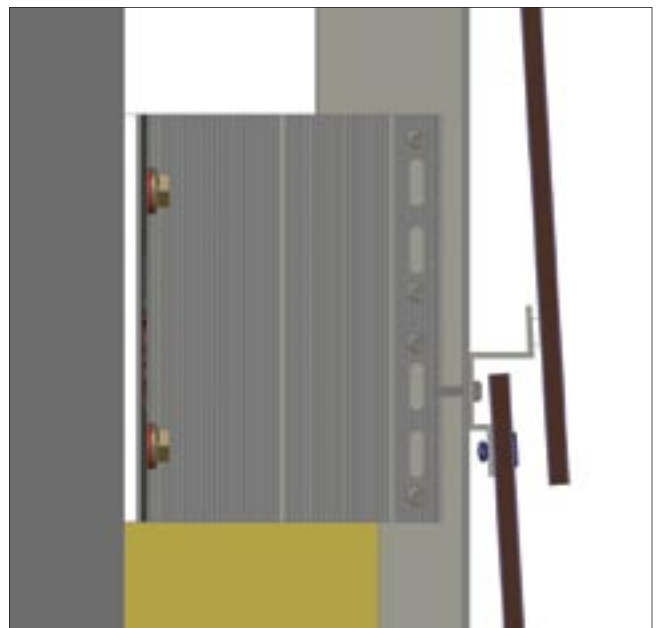


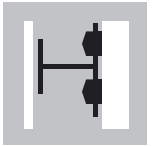
visible fixing with  
rivets / screws

#### horizontal section

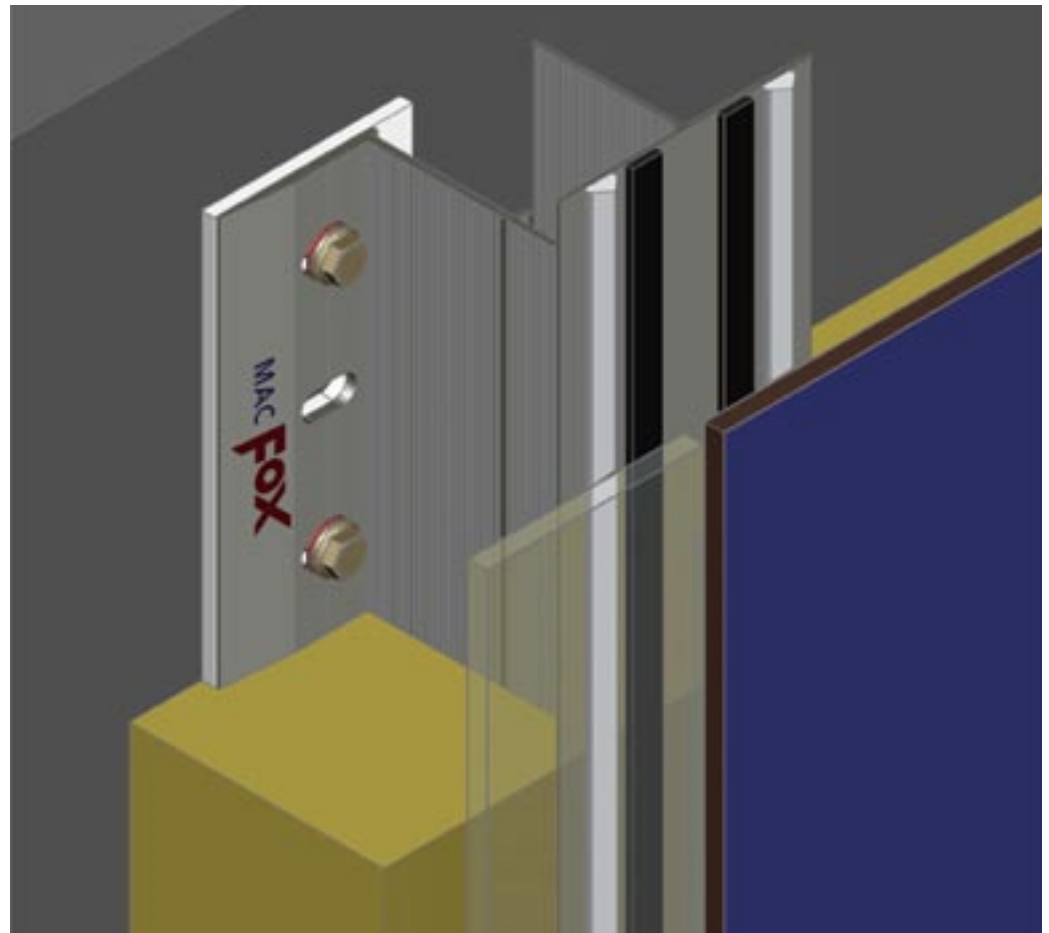


#### vertical section





## System MTK-v-100

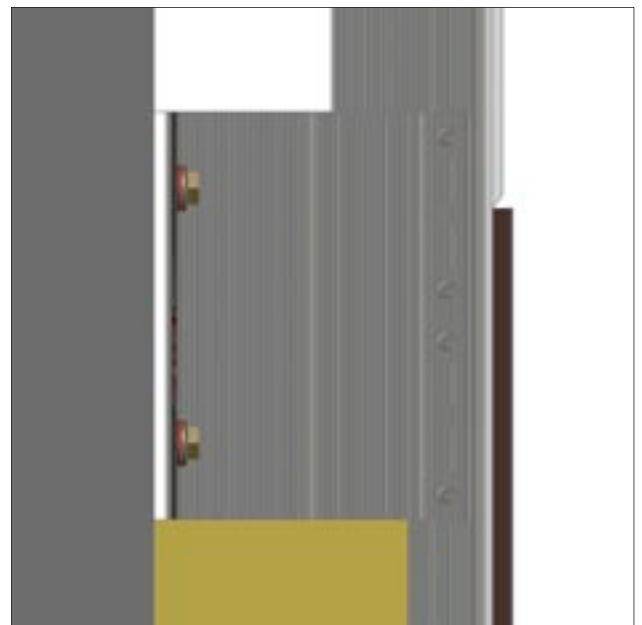


secret fixing with  
adhesive system

horizontal section



vertical section

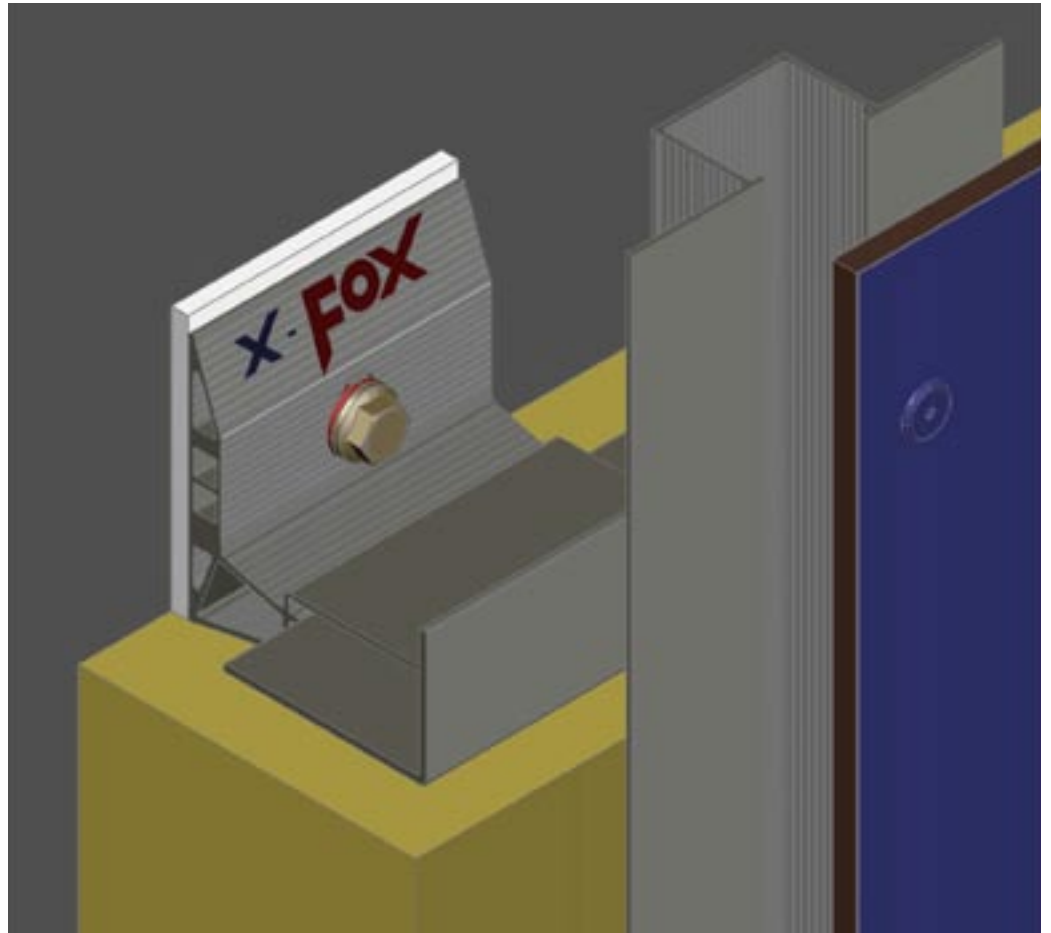




# Fixing systems

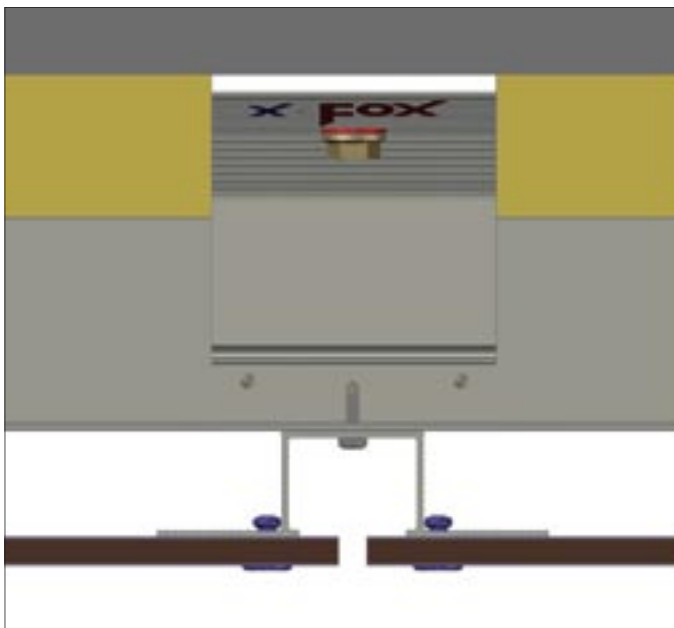
## Fibreceement / HPL

### System XLZ-h-100

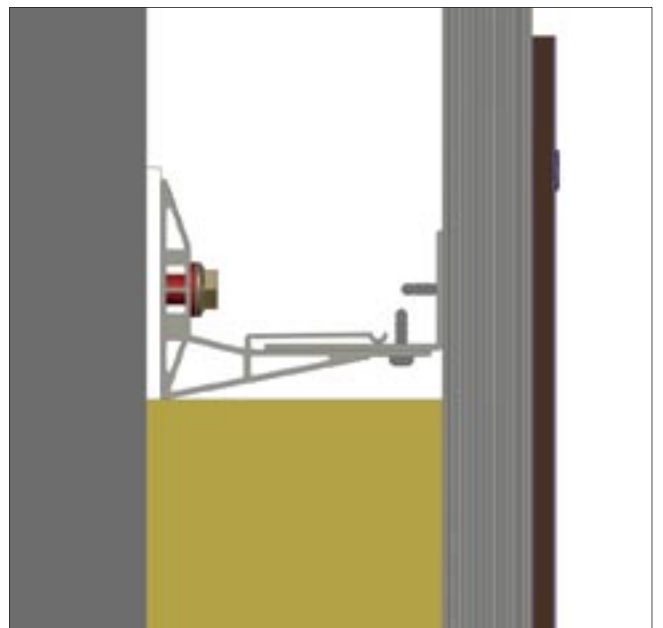


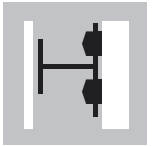
visible fixing with  
rivets / screws

#### horizontal section

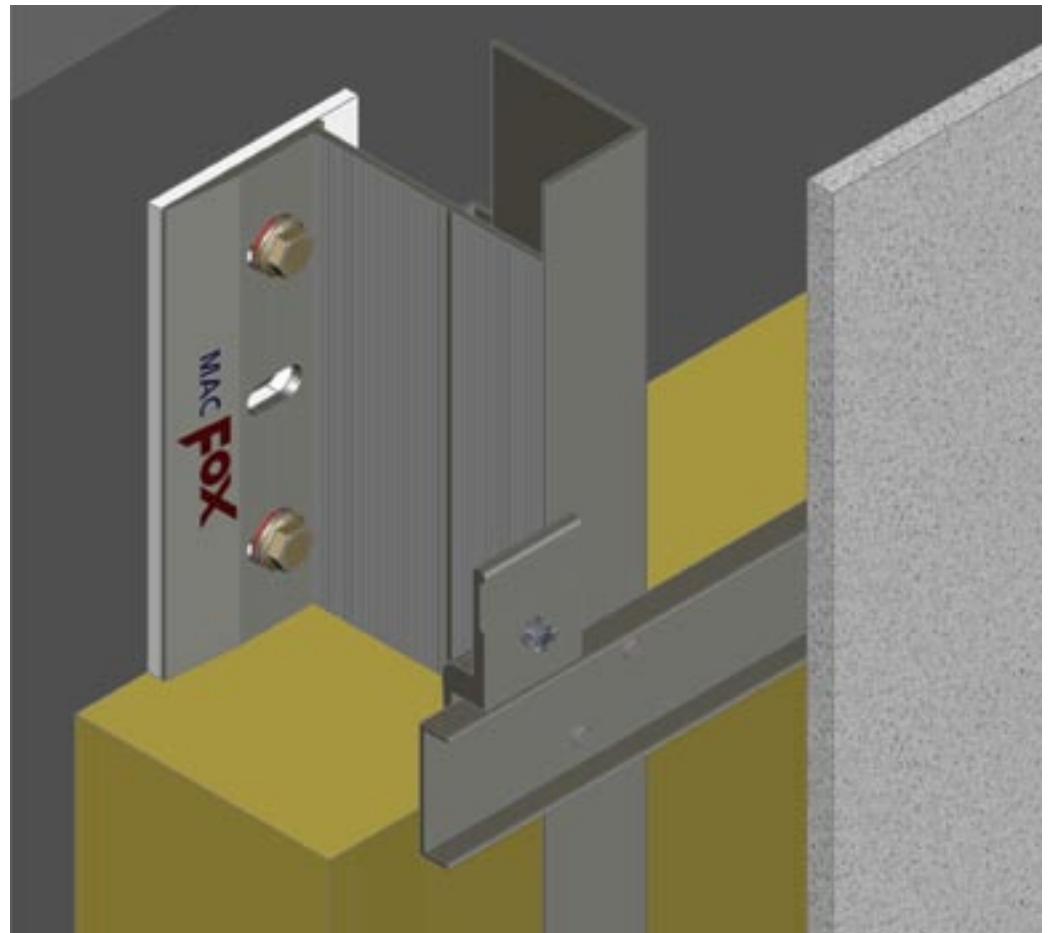


#### vertical section



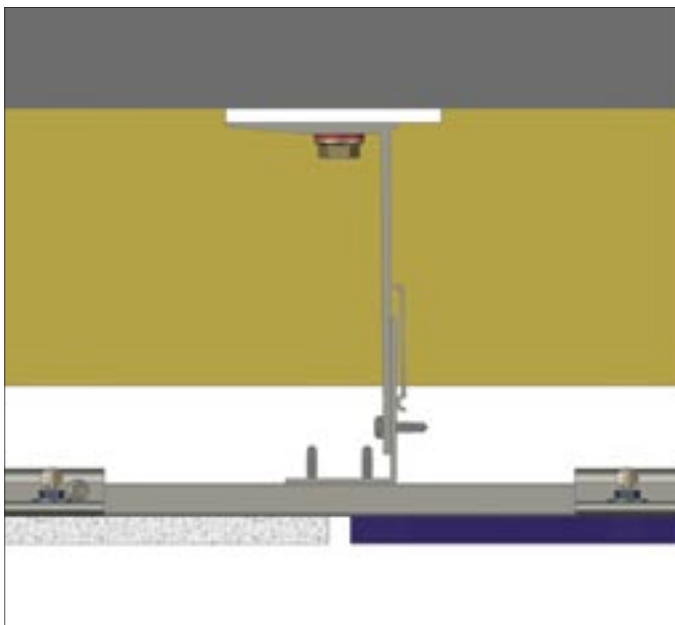


## System MLV/k-v-20

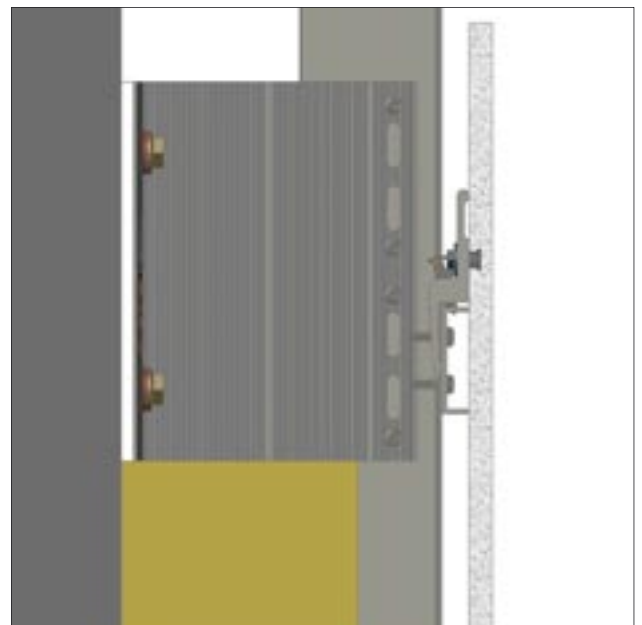


secret fixing  
with hangers /  
stud anchors

horizontal section



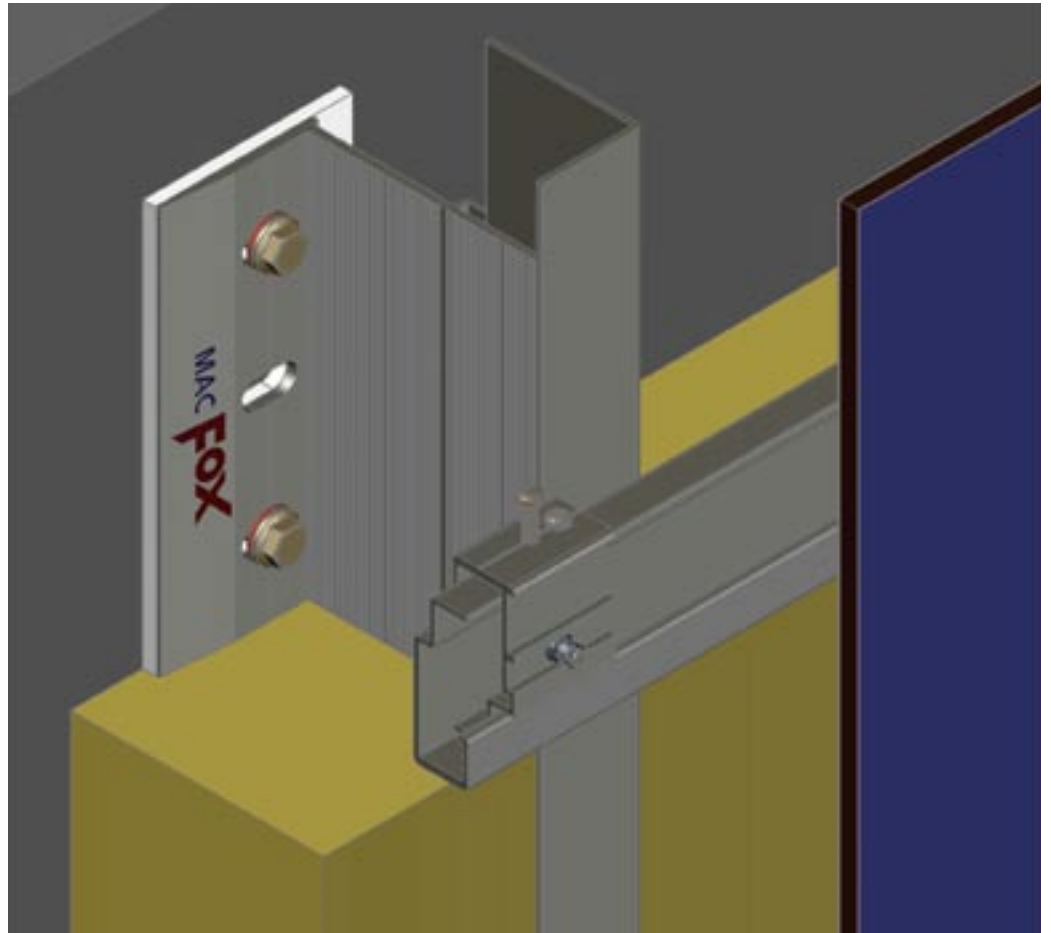
vertical section



# Fixing systems

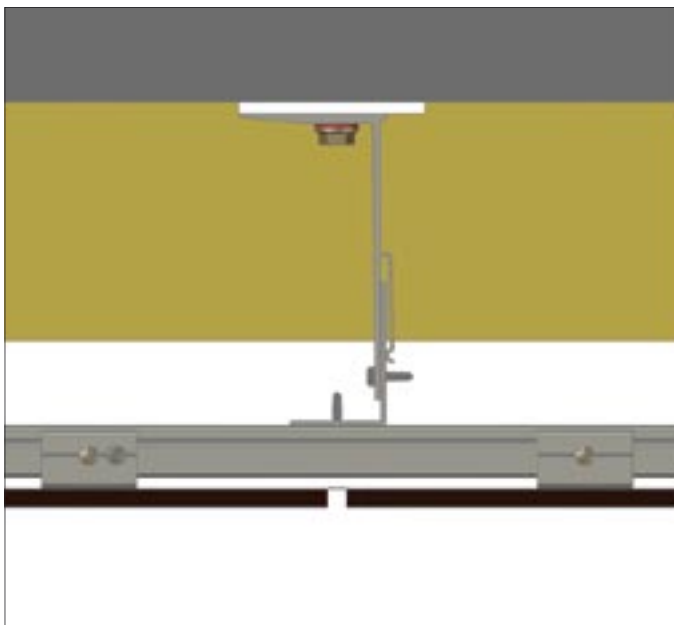
## Fibreceement / HPL

System  
MLZ/k-v-00

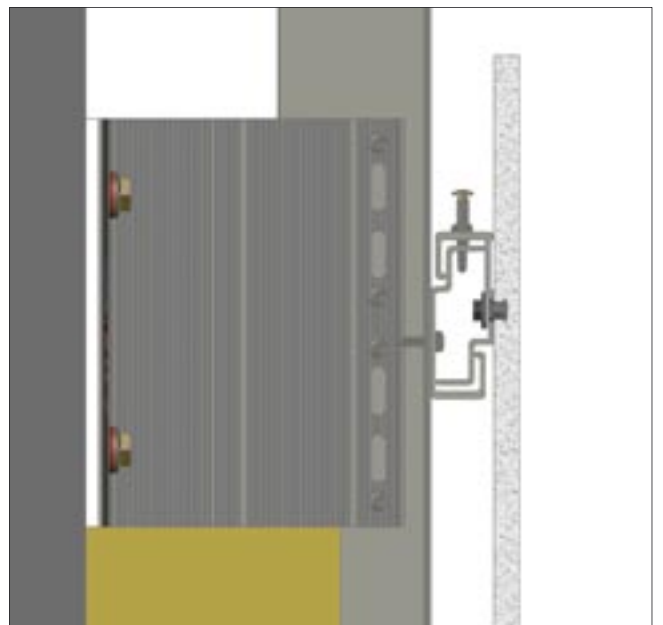


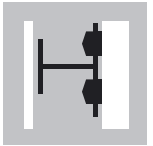
secret fixing  
with hangers /  
stud anchors

horizontal section

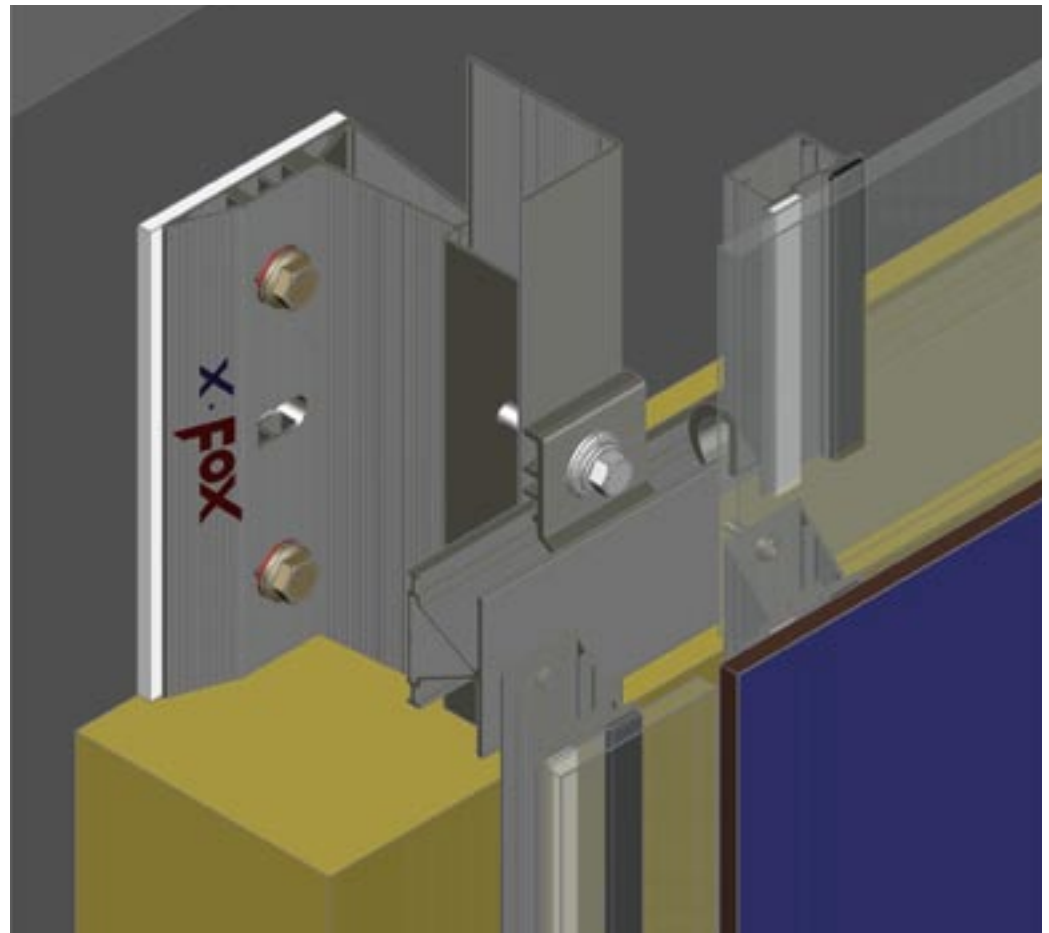


vertical section





## System XLP-v-300

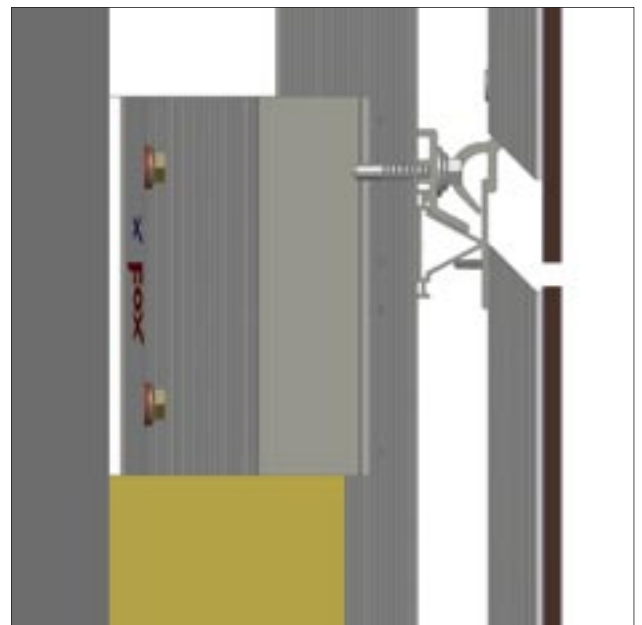


secret fixing  
with stud anchors /  
adhesive system

horizontal section



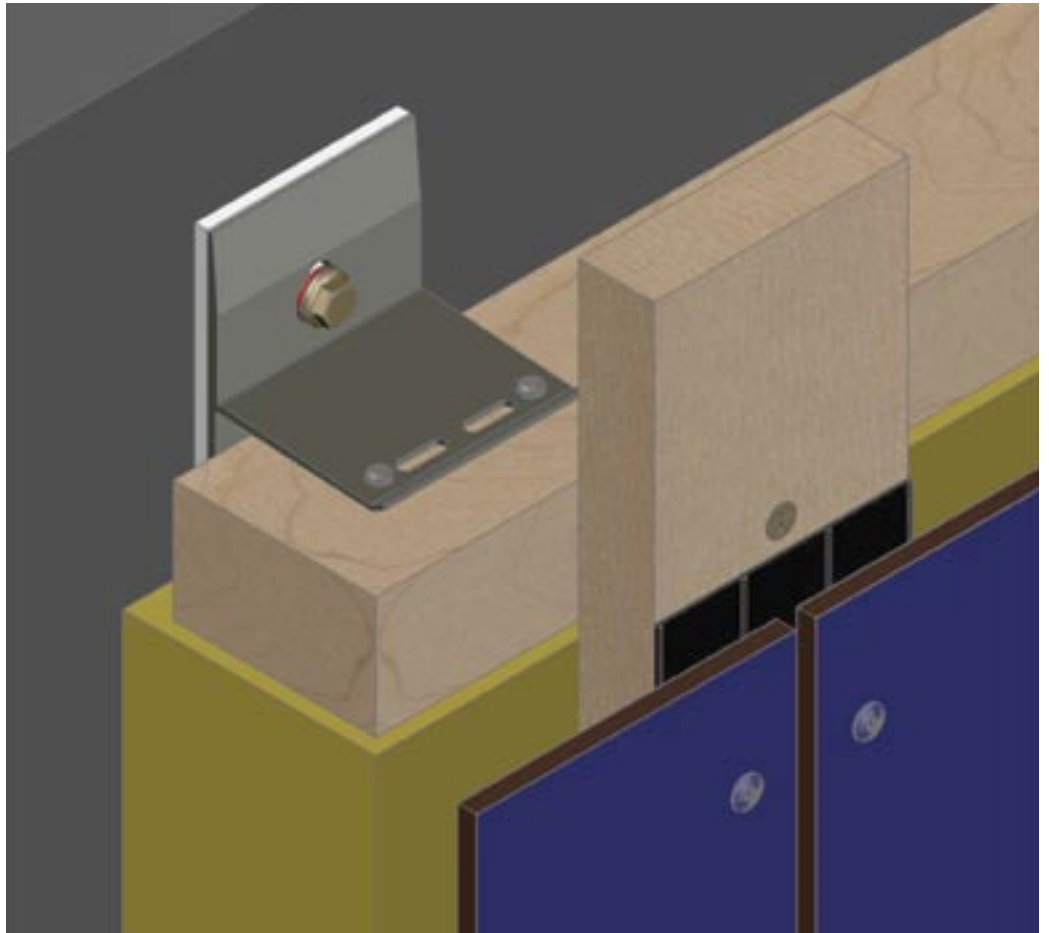
vertical section



# Fixing systems

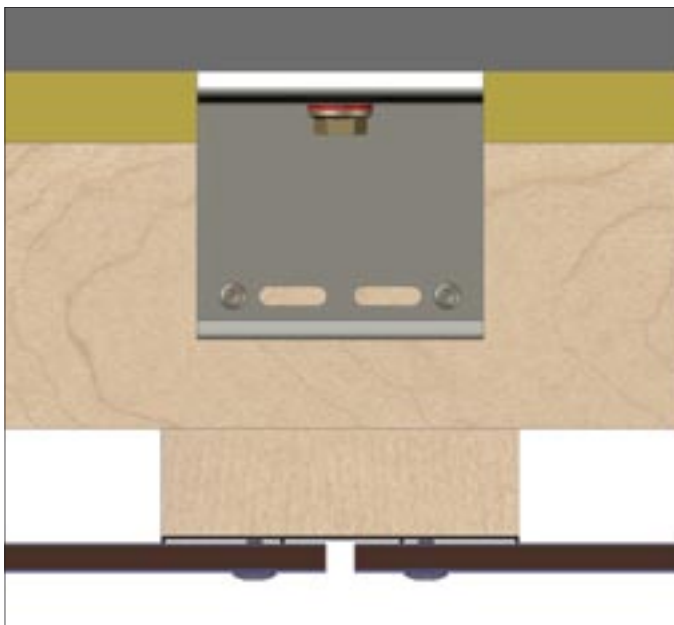
## Fibre cement / HPL

System  
MWH-h-100

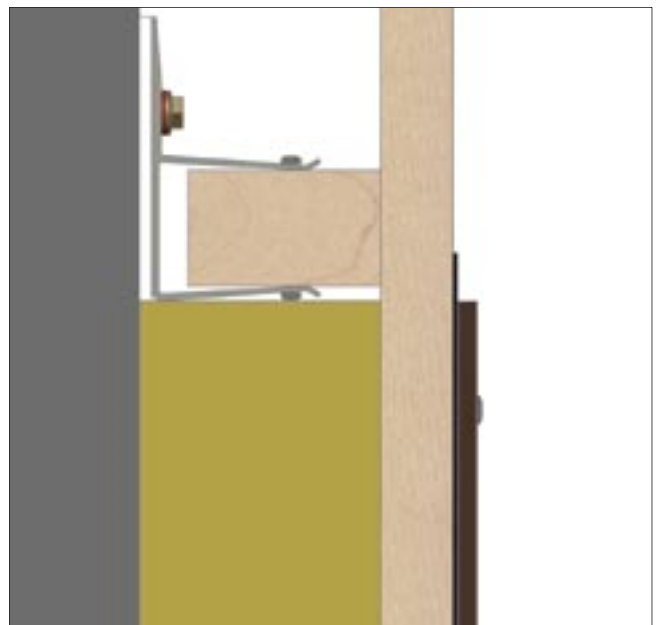


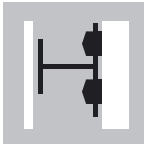
visible fixing  
with screws

horizontal section



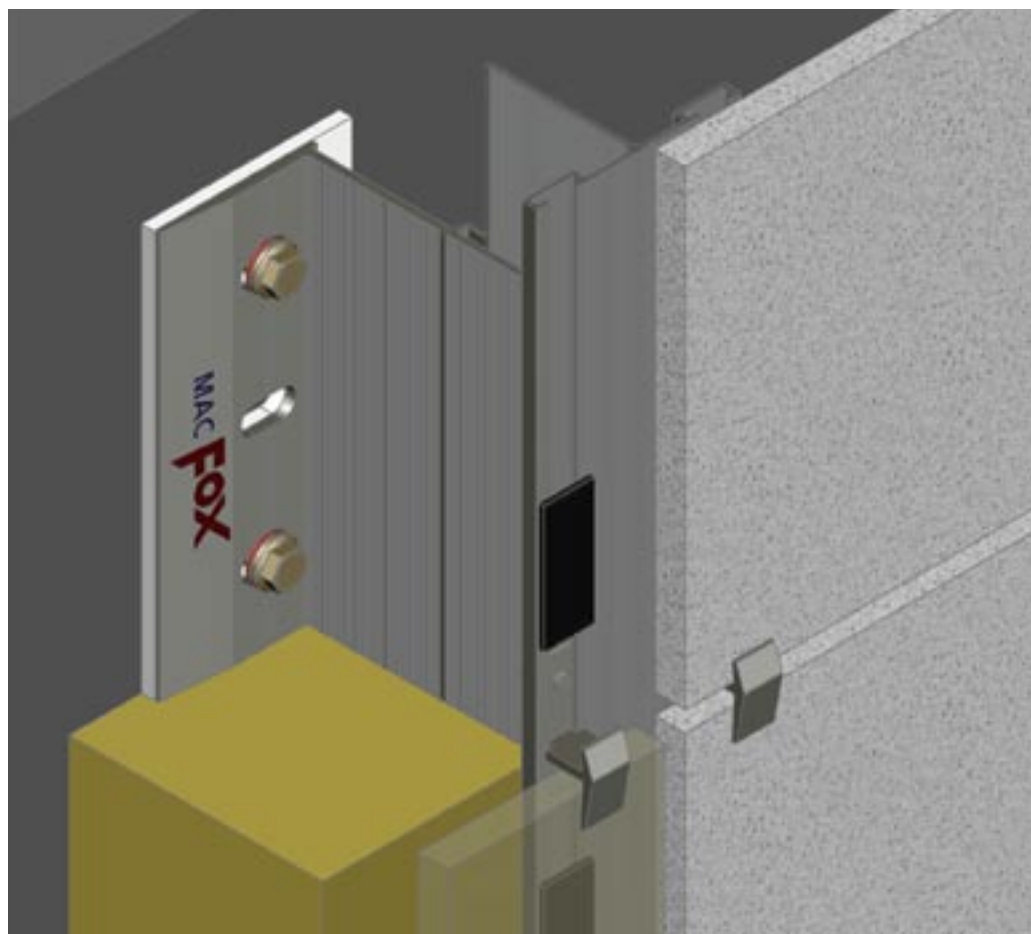
vertical section





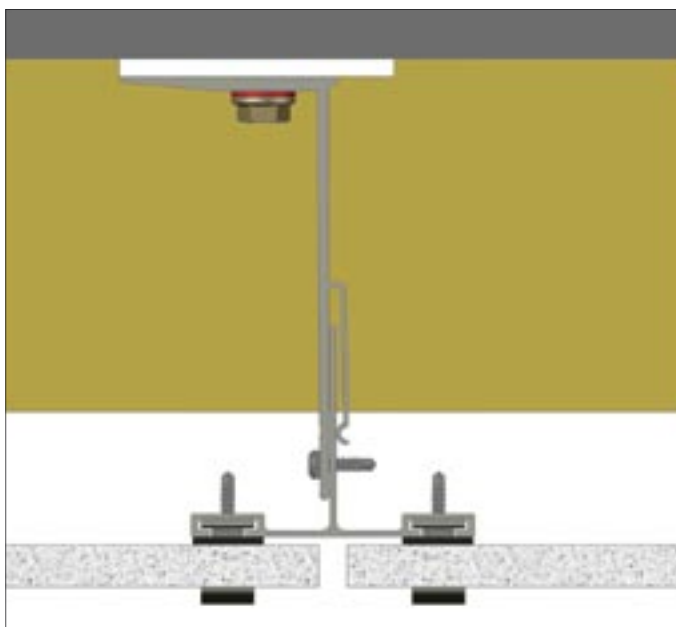
# Ceramic / Thin Stone

System  
MTC-v-300



visible fixing with  
aluminium clamps

horizontal section



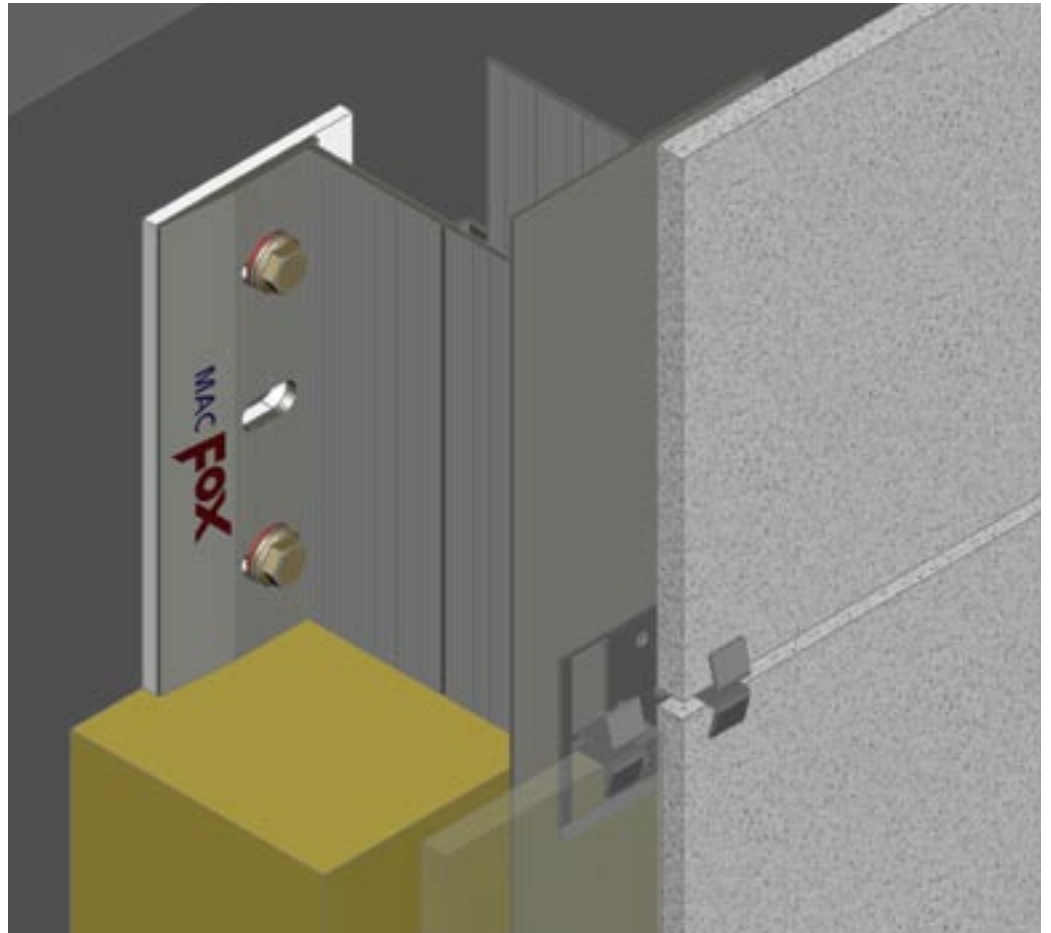
vertical section



# Fixing systems

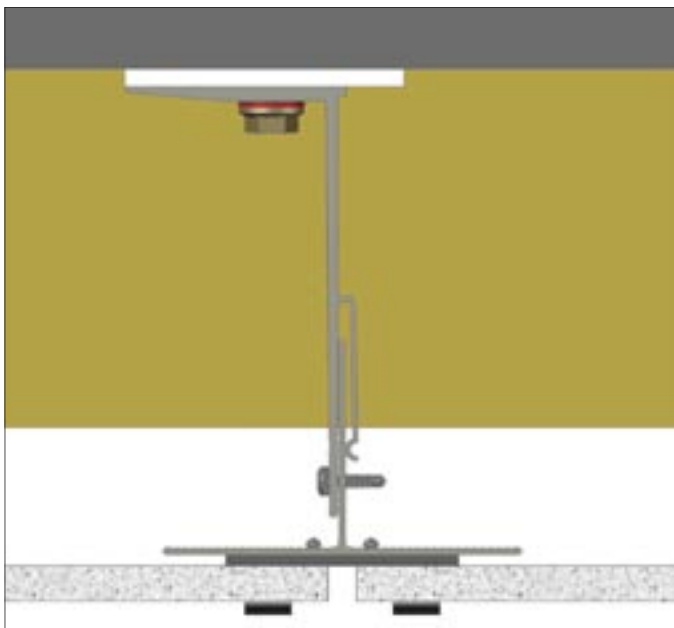
## Ceramic / Thin Stone

### System MTC-v-100

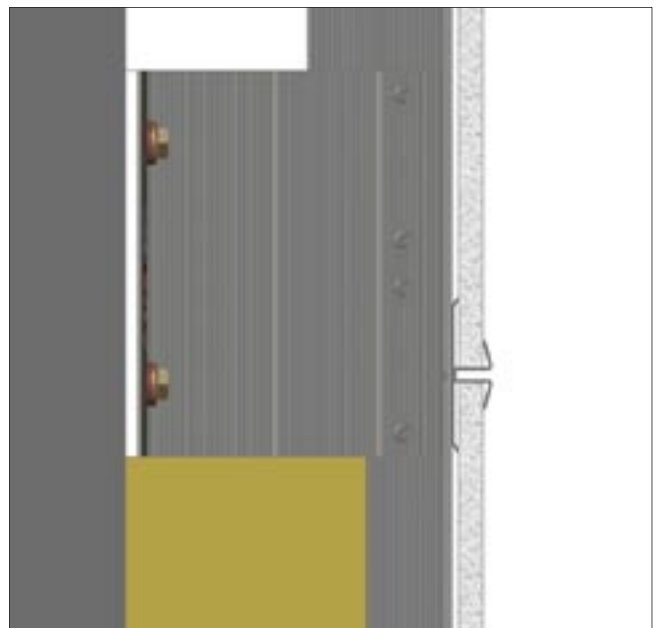


visible fixing with  
stainless steel clamps

#### horizontal section



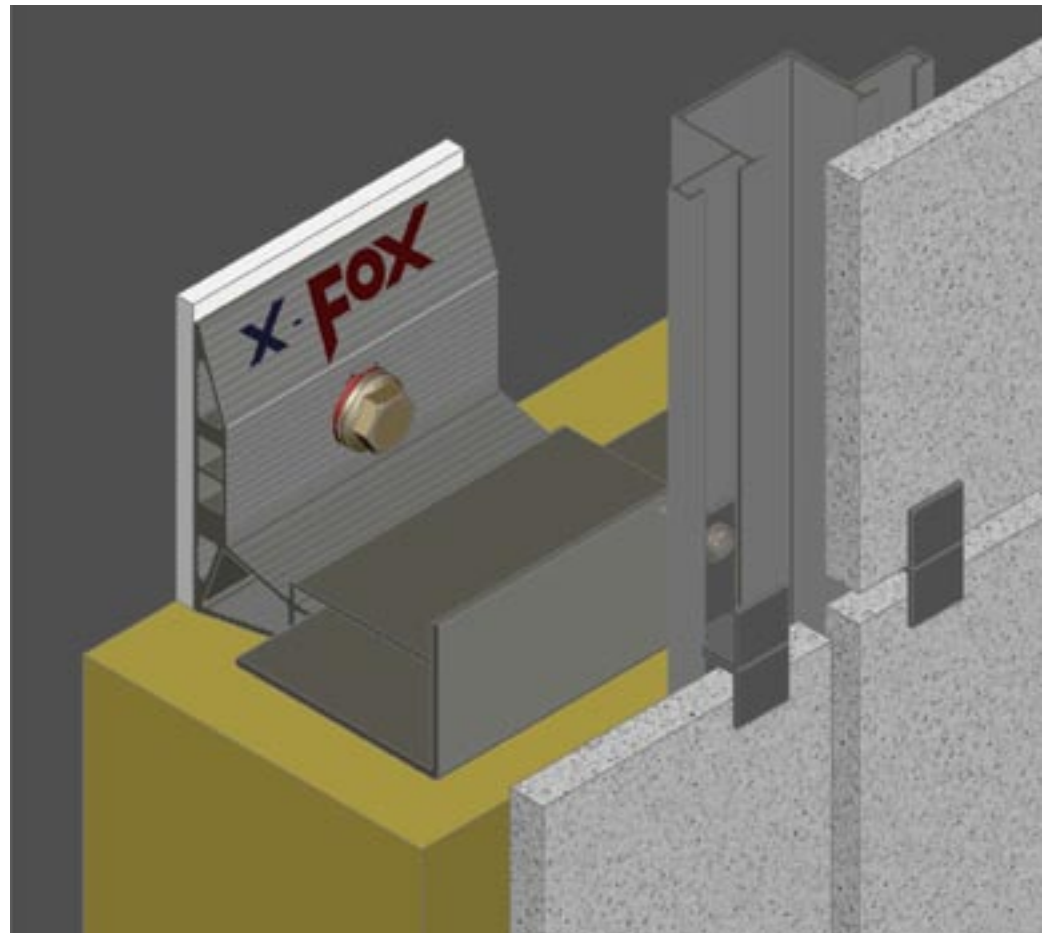
#### vertical section





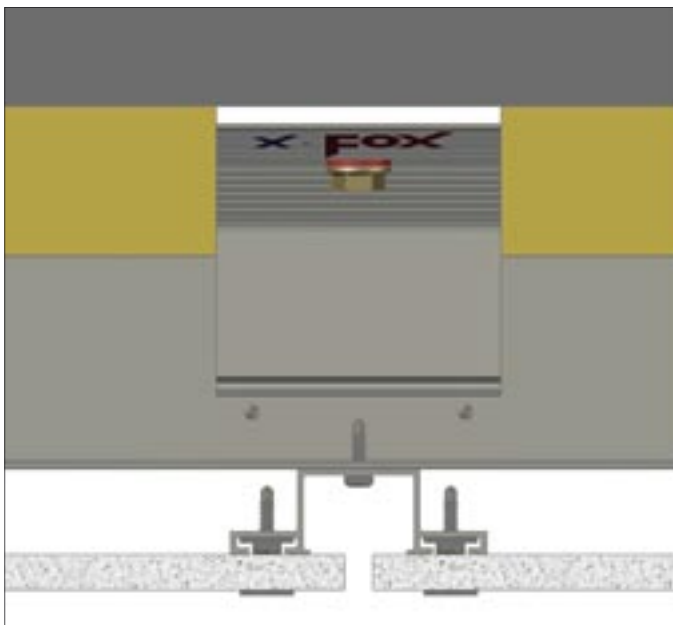


## System XLC-h-350

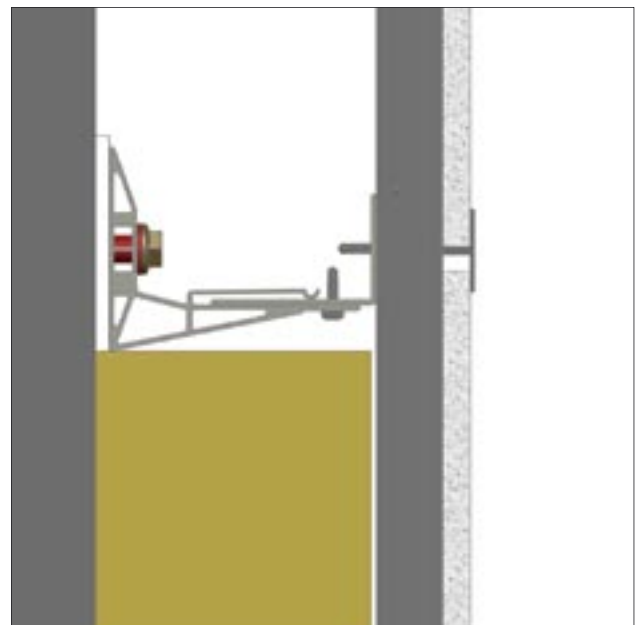


visible fixing with  
aluminium clamps

horizontal section



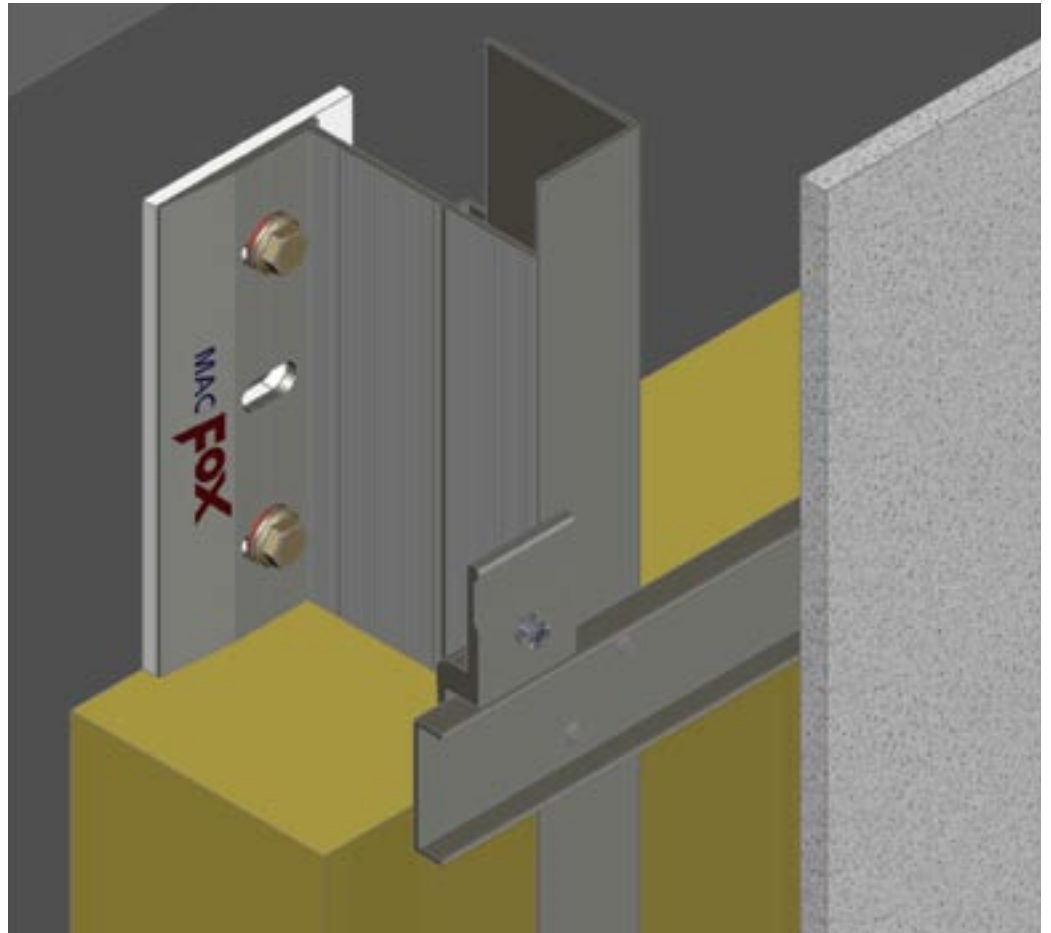
vertical section



# Fixing systems

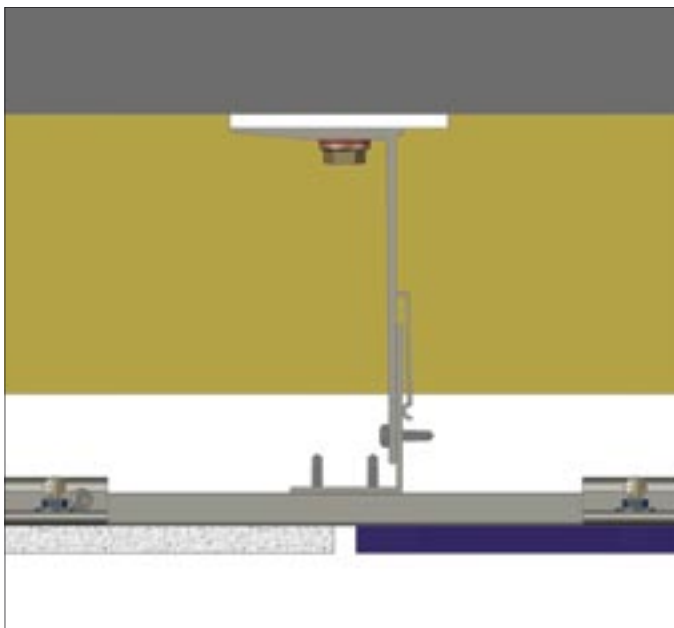
## Ceramic / Thin Stone

System  
MLV/k-v-20



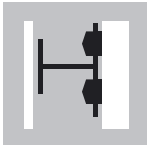
secret fixing  
with hangers /  
stud anchors

horizontal section

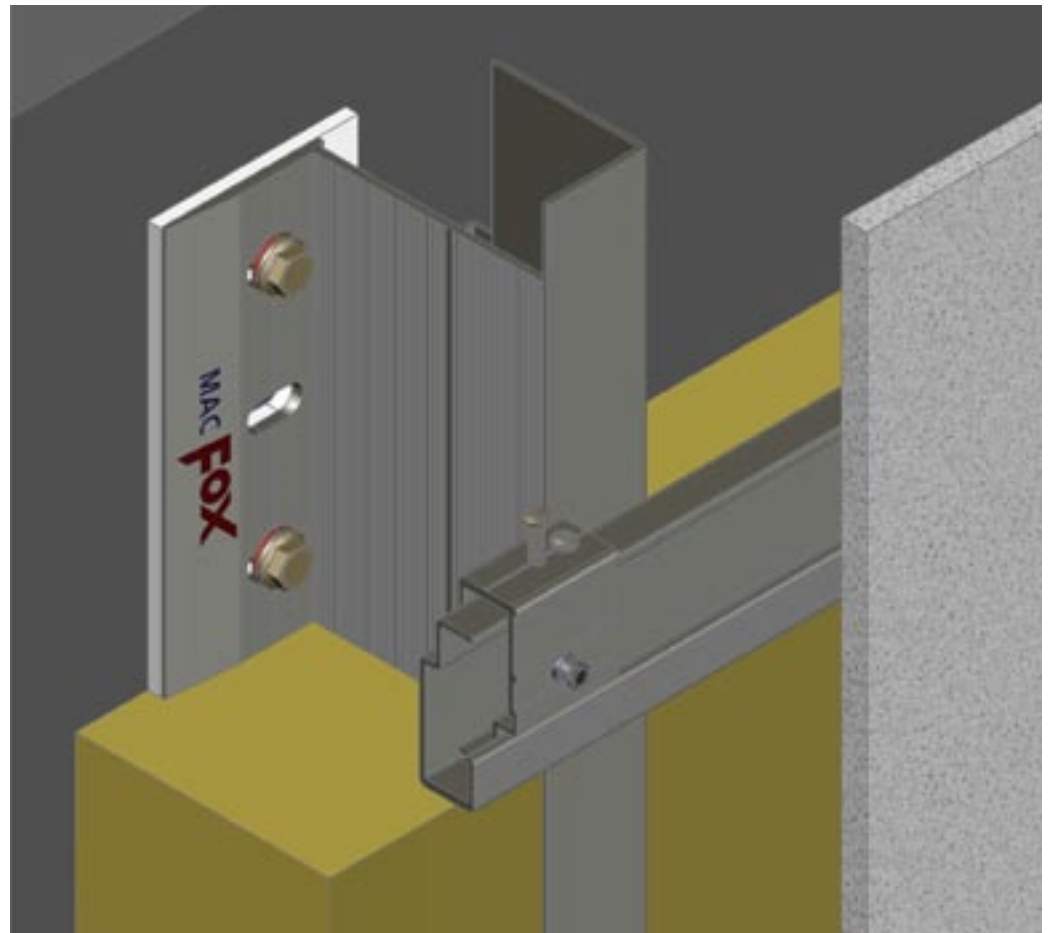


vertical section



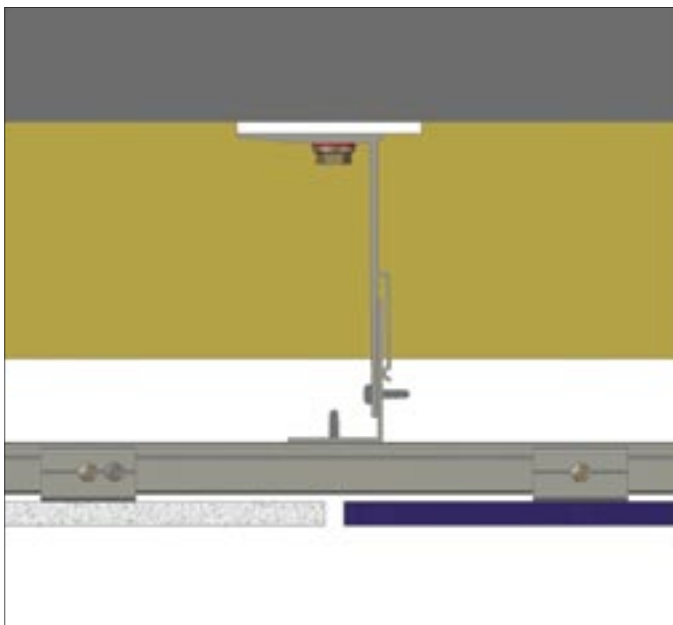


## System MLZ/k-v-00



secret fixing  
with hangers /  
stud anchors

horizontal section



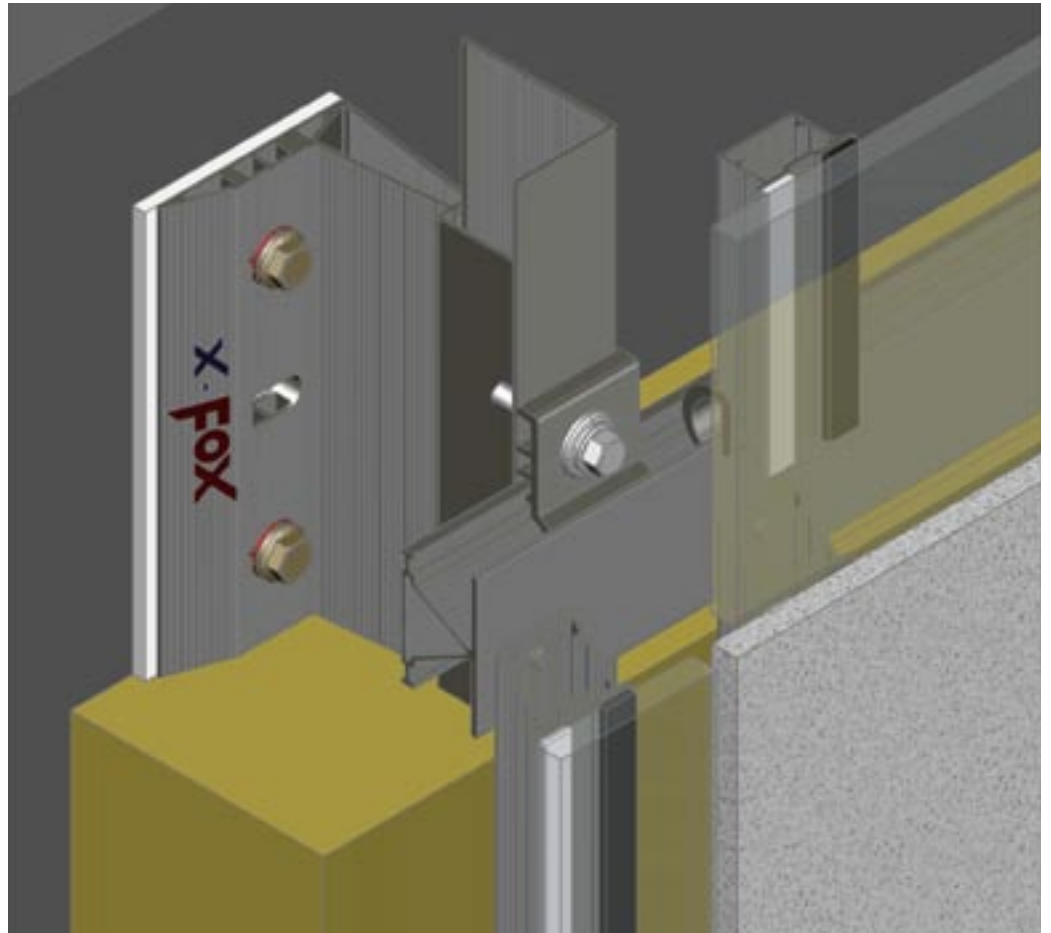
vertical section



# Fixing systems

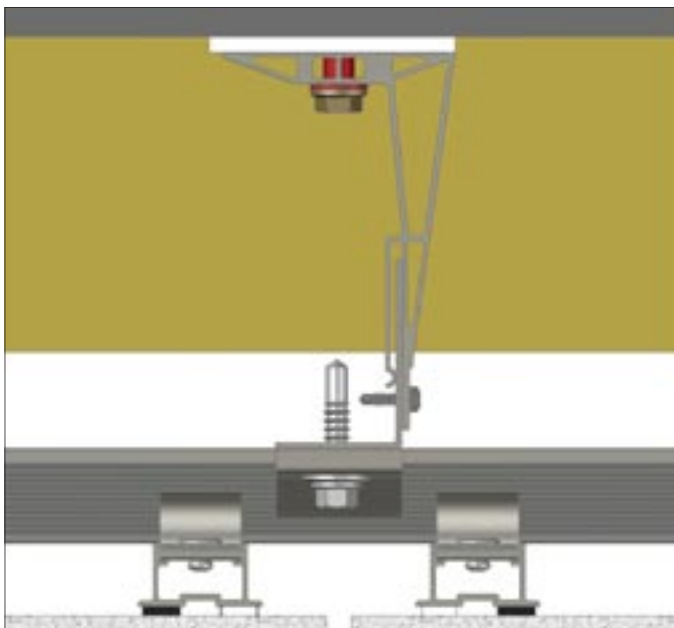
## Ceramic / Thin Stone

### System XLP-v-300

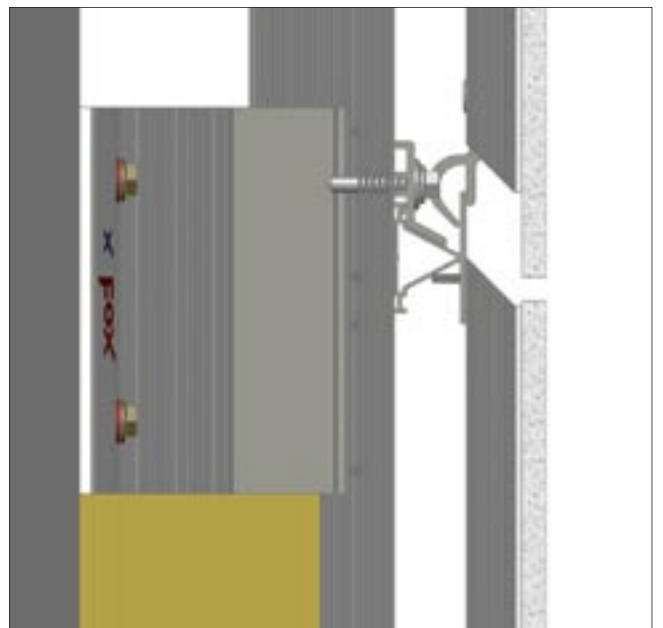


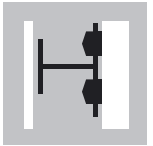
secret fixing with  
stud anchors

horizontal section

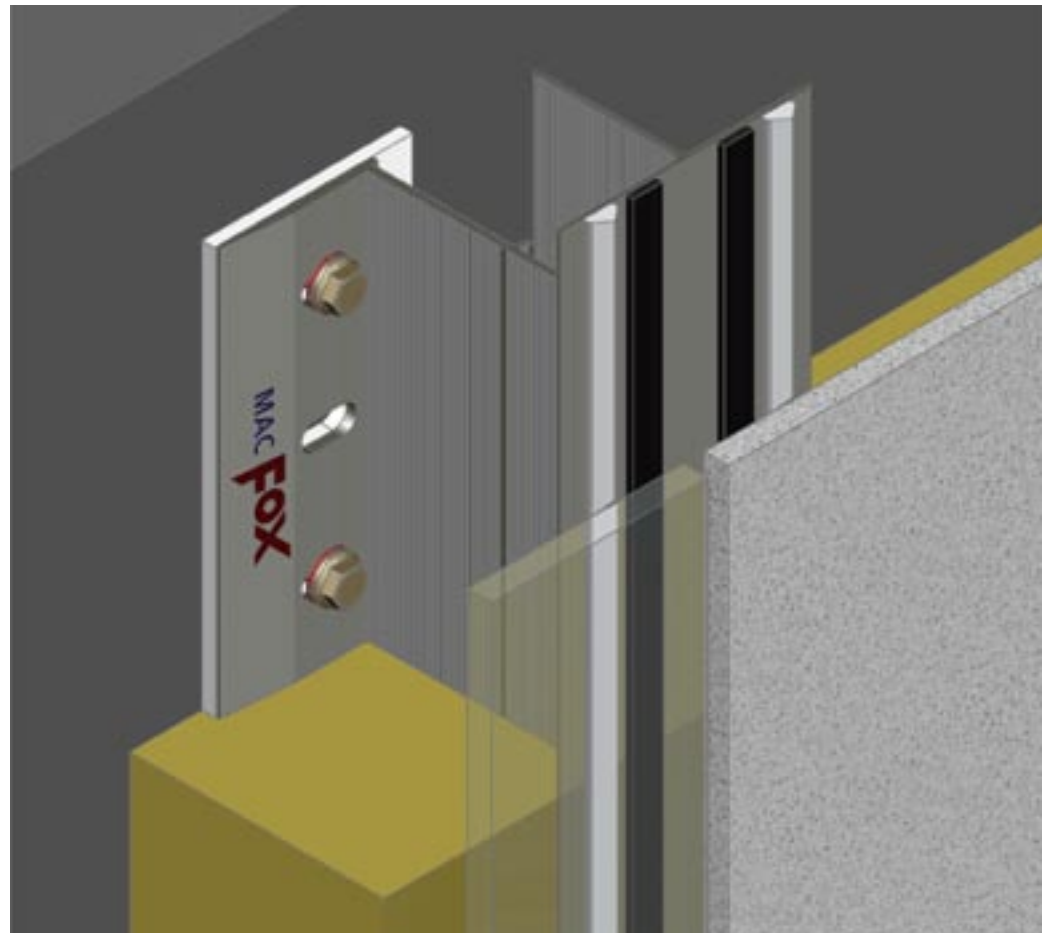


vertical section



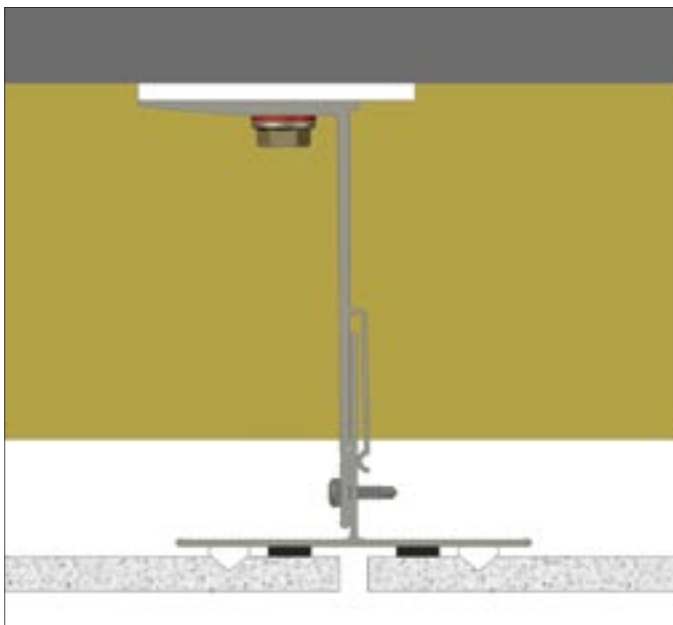


## System MTK-v-100



secret fixing with  
adhesive system

horizontal section



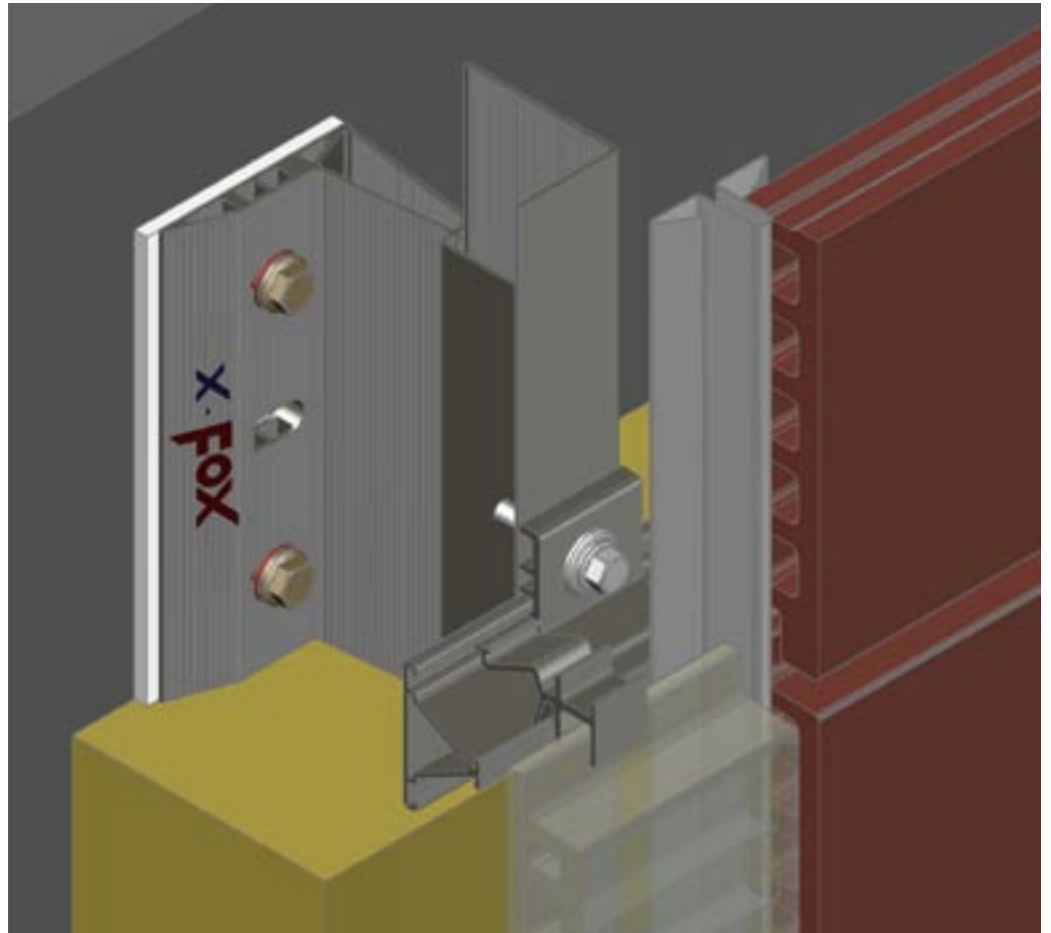
vertical section



# Fixing systems

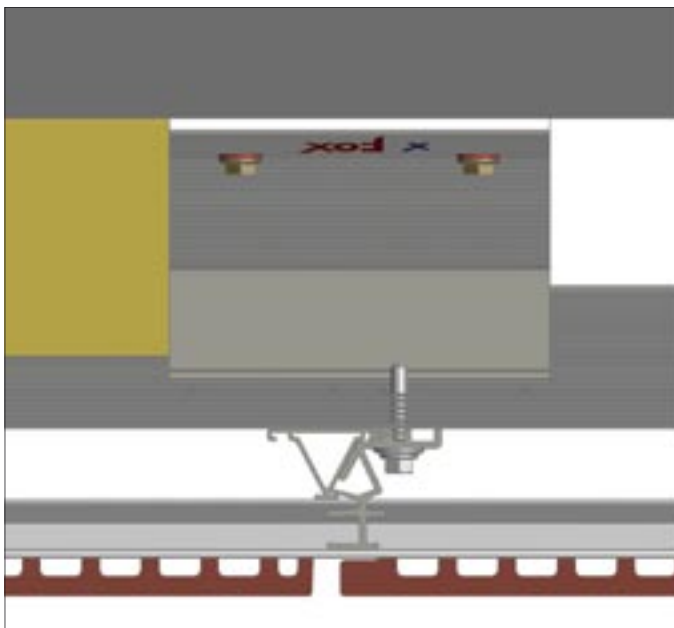
## Terracotta

### System XLP-v-400

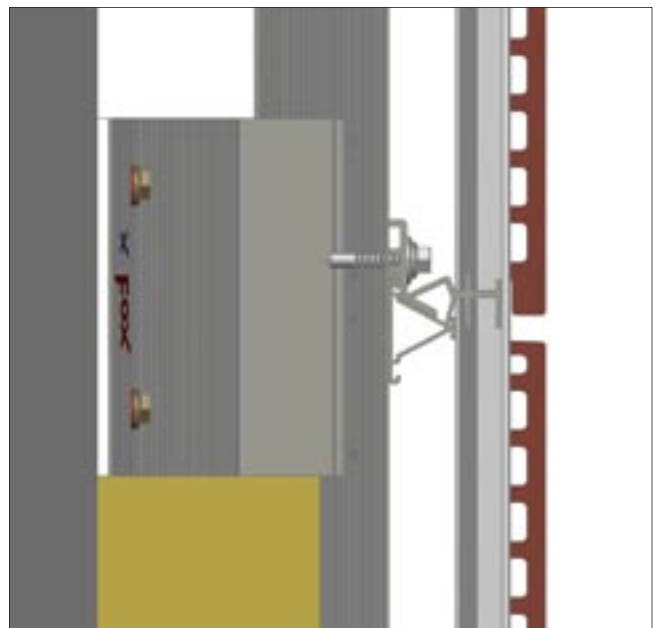


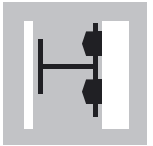
secret fixing with  
aluminium clamps

#### horizontal section

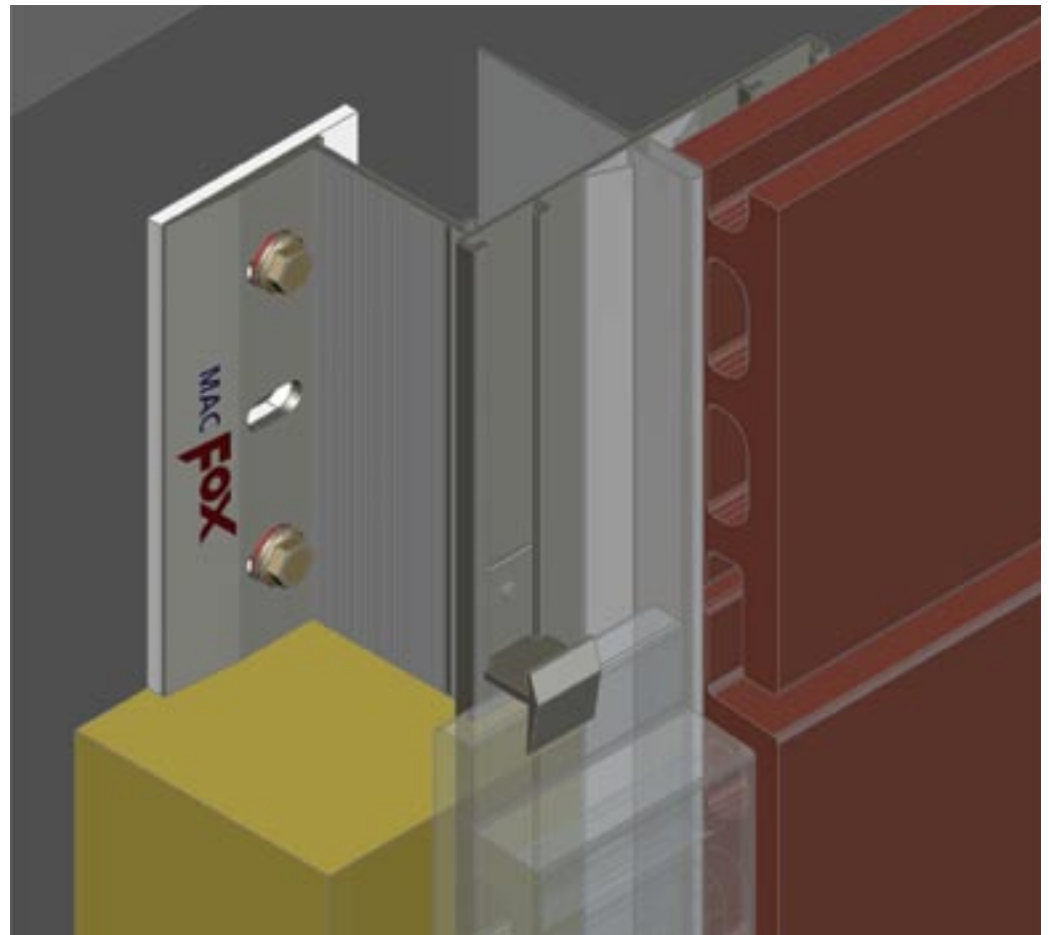


#### vertical section



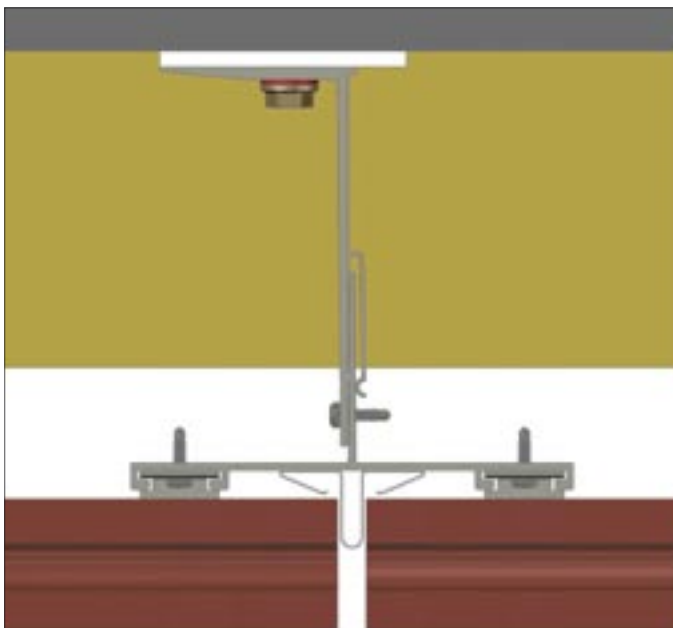


## System MTS-v-400

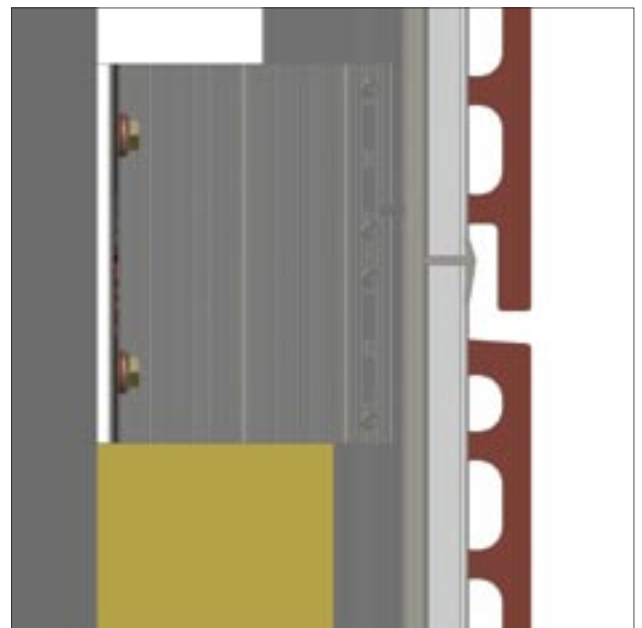


secret fixing with  
aluminium clamps

horizontal section



vertical section

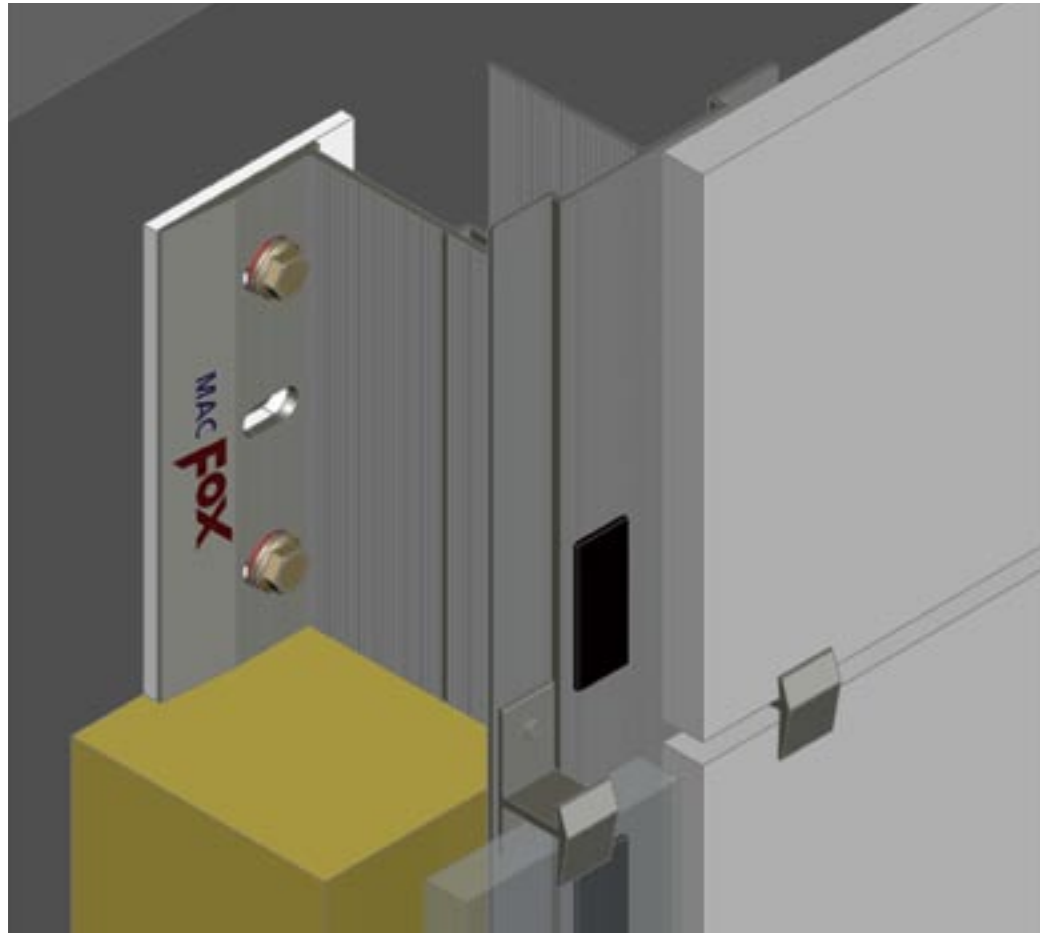




# Fixing systems

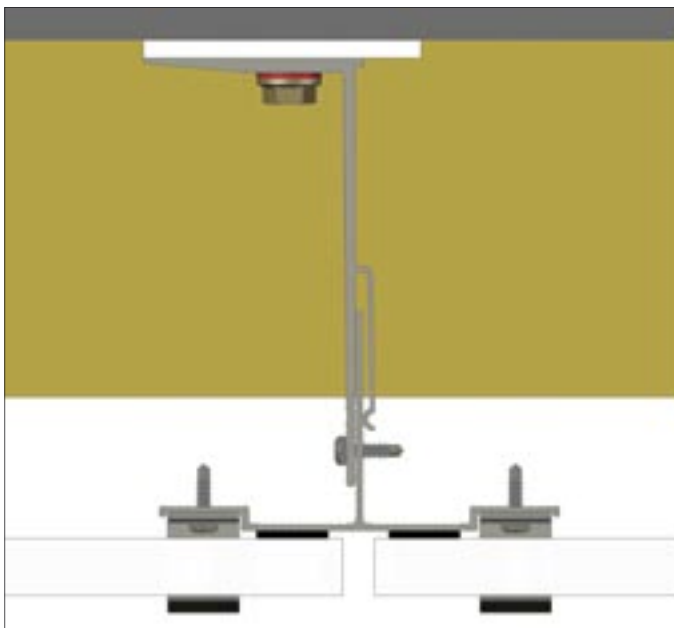
## Terracotta

### System MTS-v-500

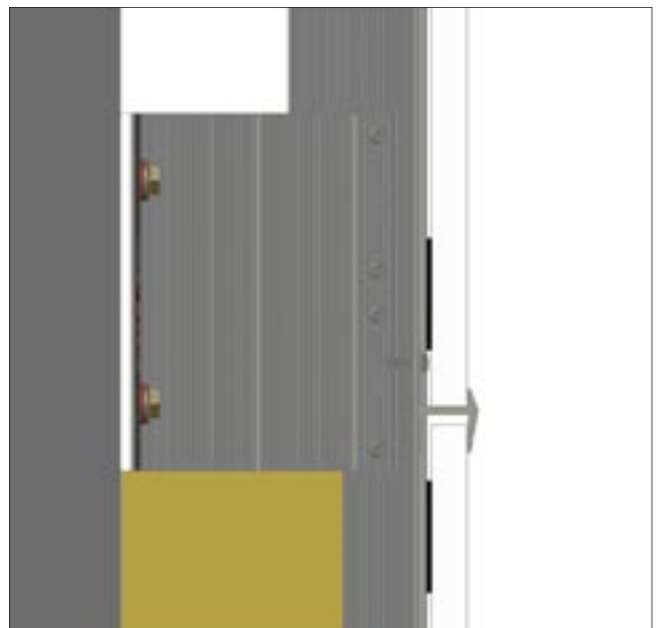


secret fixing with  
aluminium clamps

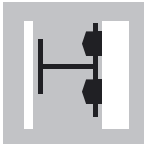
#### horizontal section



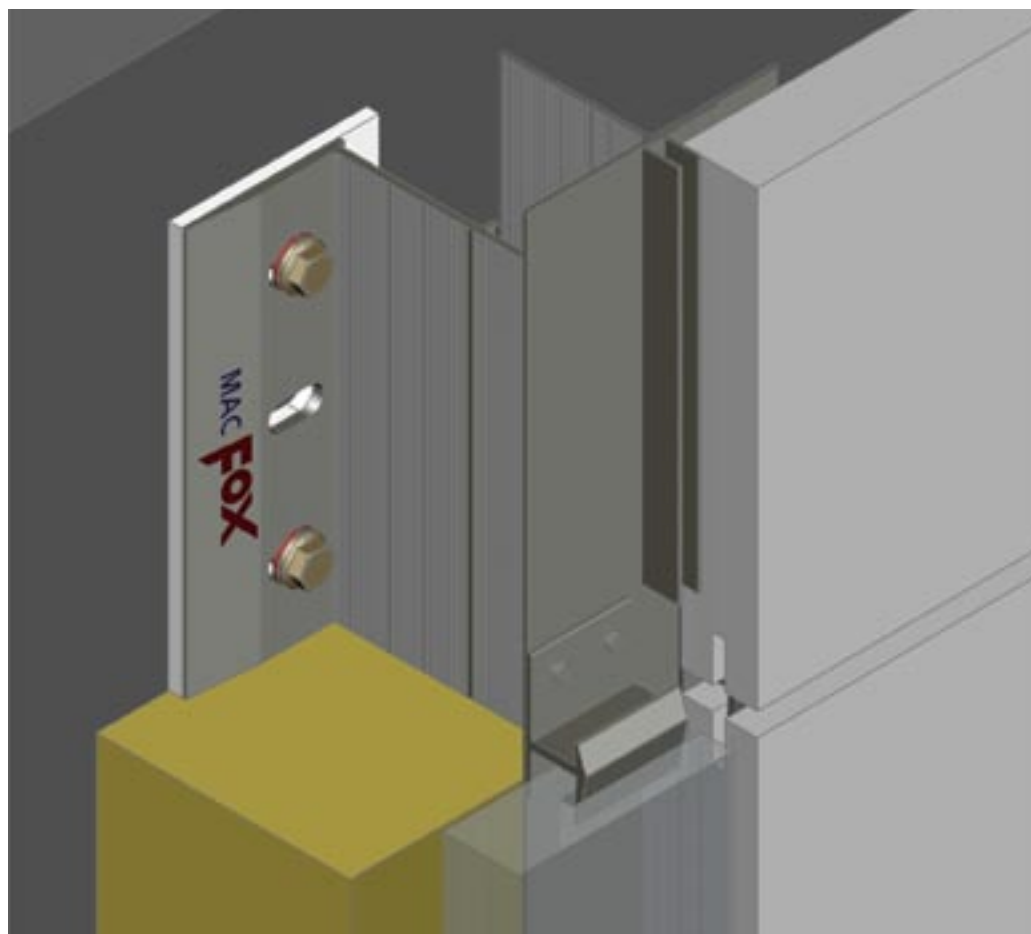
#### vertical section





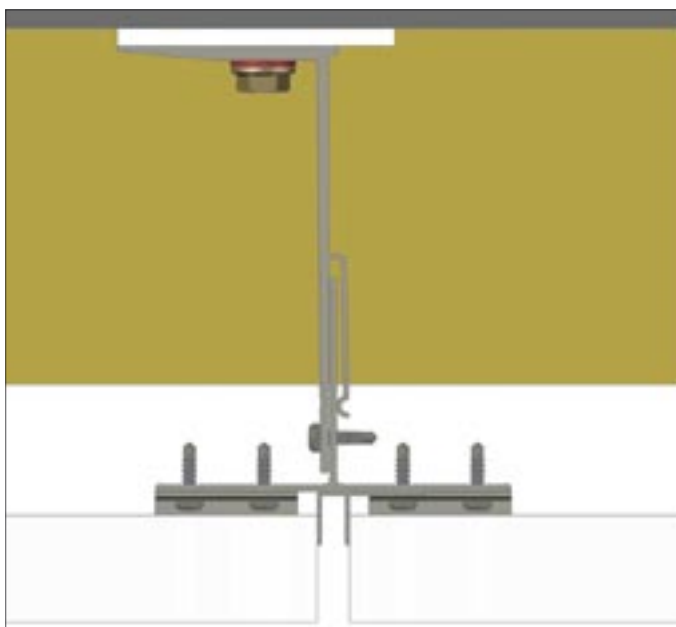


## System MTS-v-700



secret fixing with  
aluminium clamps

horizontal section



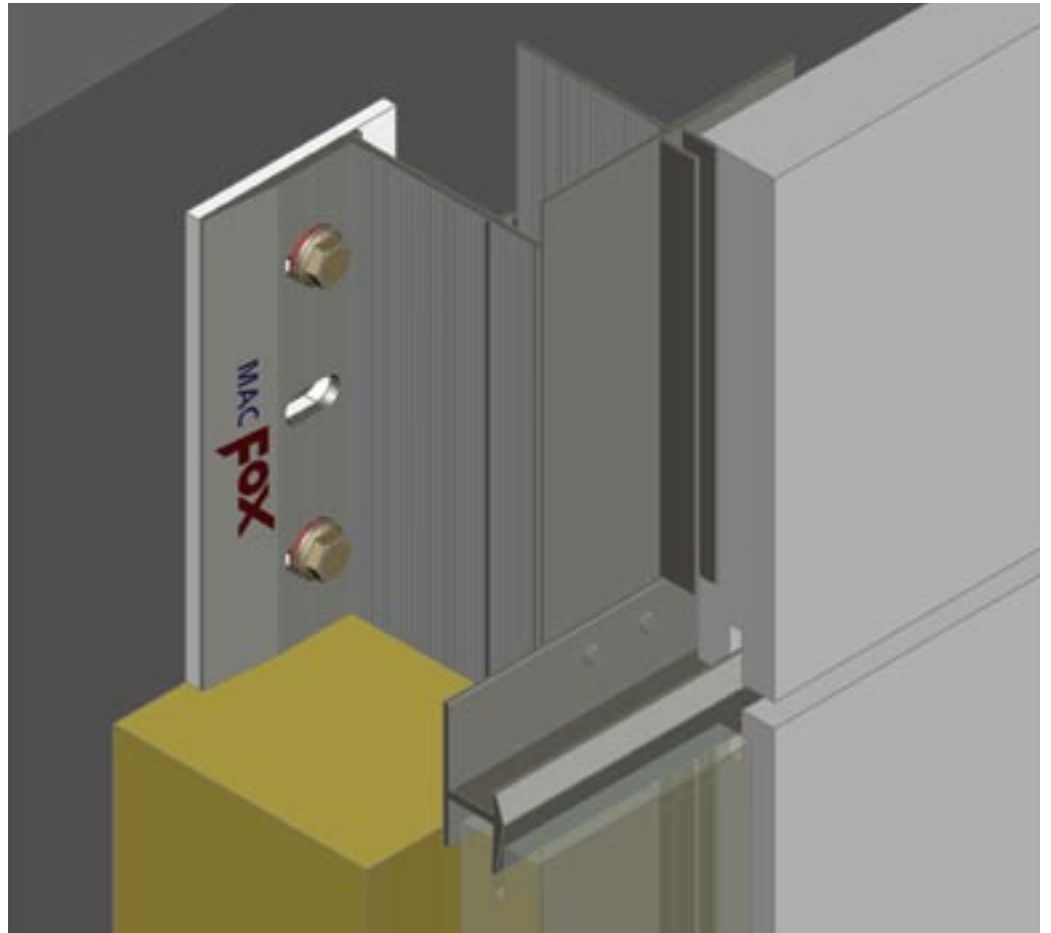
vertical section



# Fixing systems

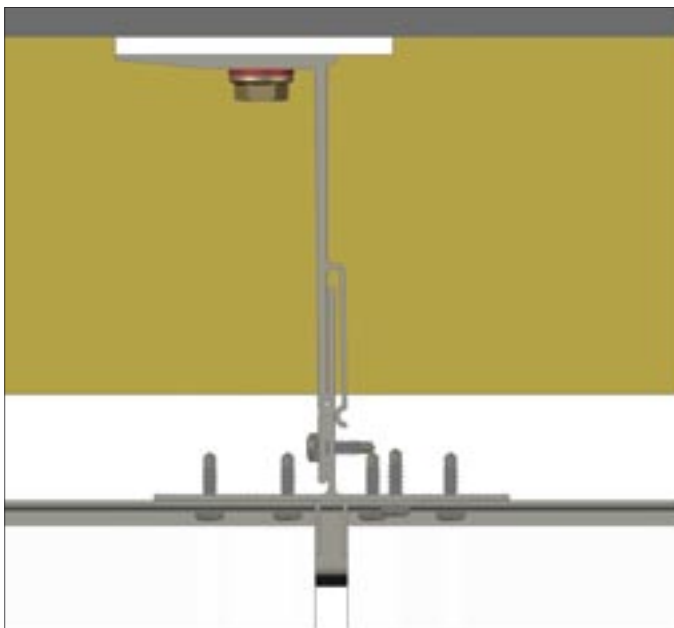
## Terracotta

### System MTS-v-710



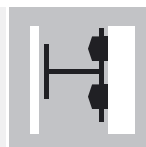
secret fixing with  
aluminium clamps

#### horizontal section

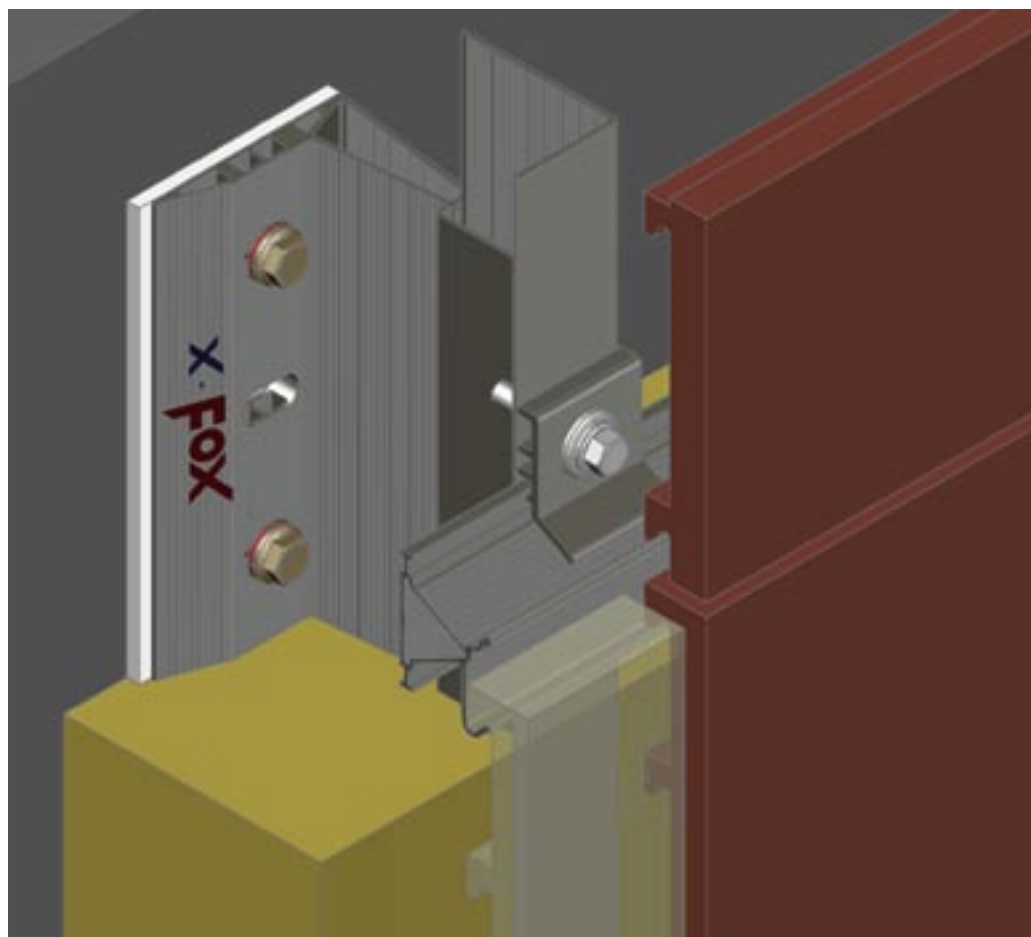


#### vertical section



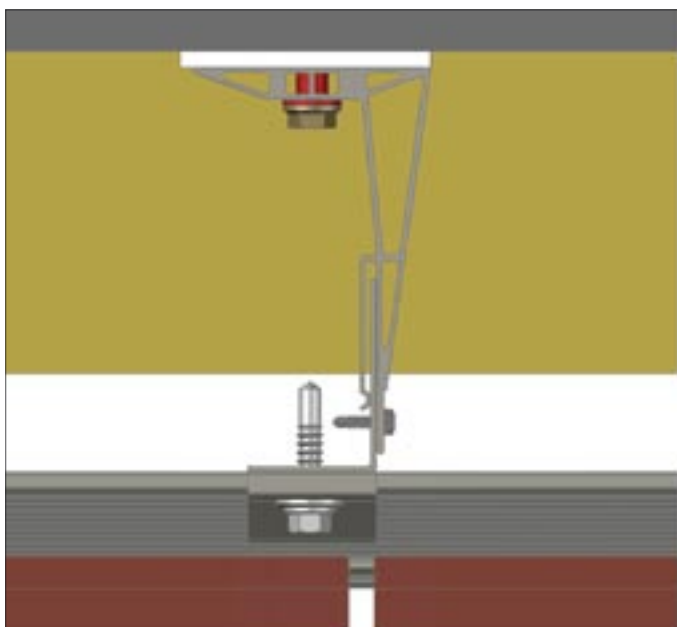


## System XLT-v-100

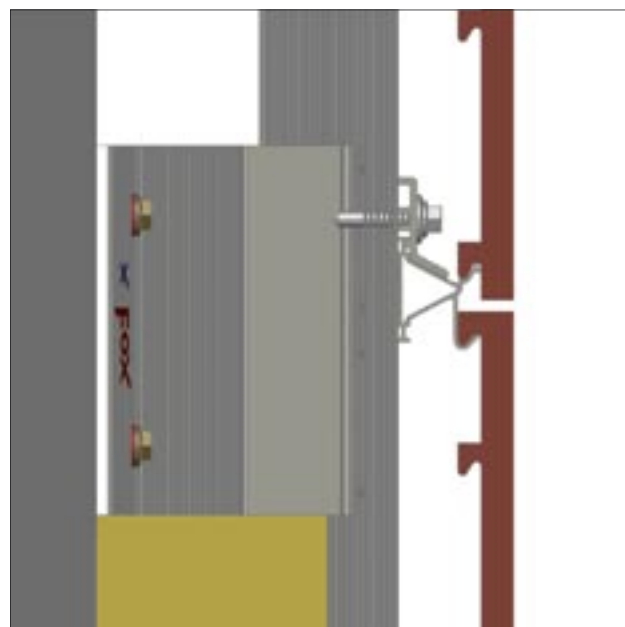


secret fixing with  
special profile

horizontal section



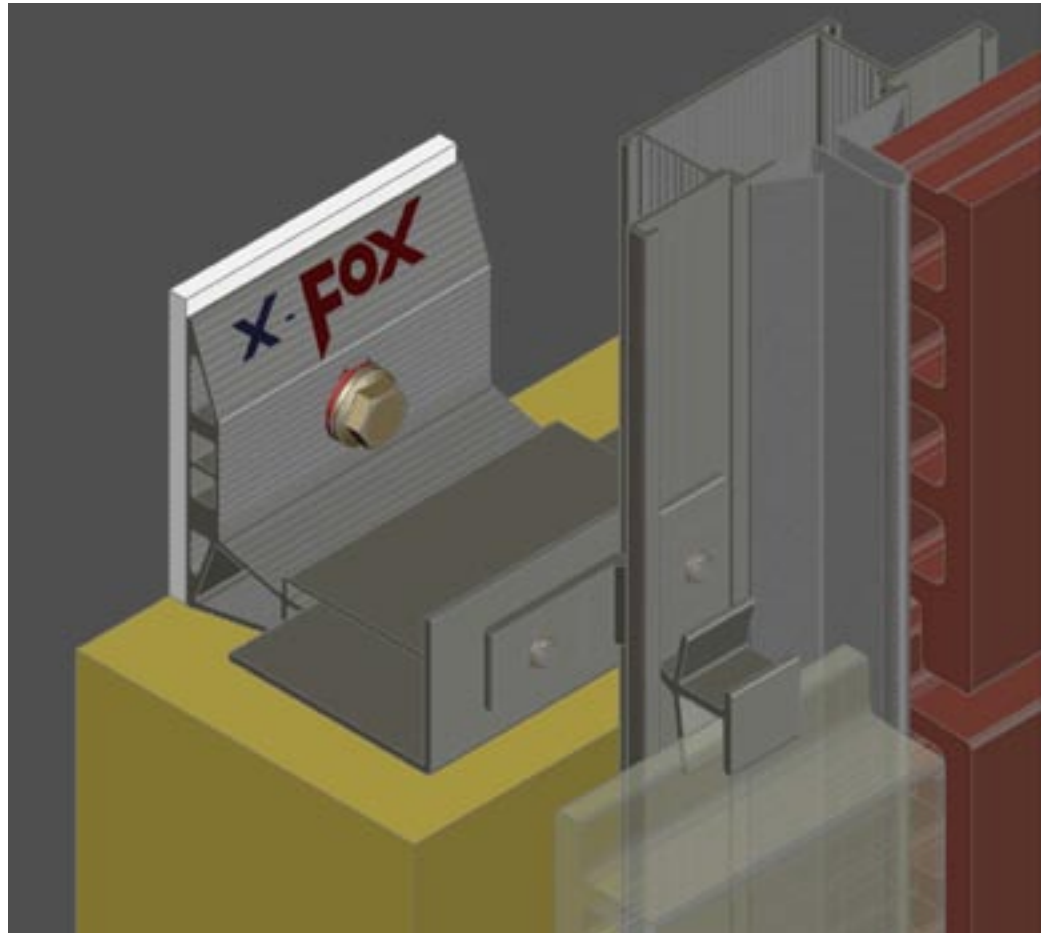
vertical section



# Fixing systems

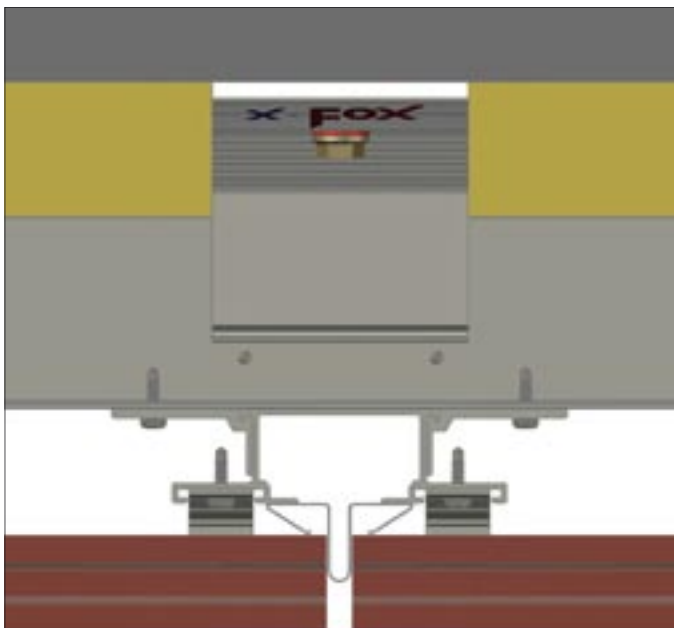
## Terracotta

### System XLS-h-400

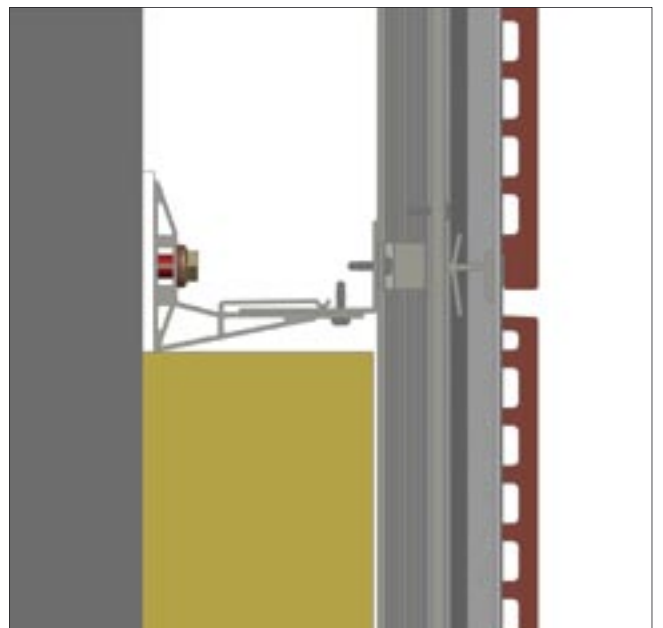


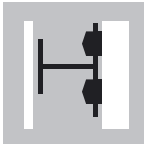
secret fixing with  
aluminium clamps

horizontal section

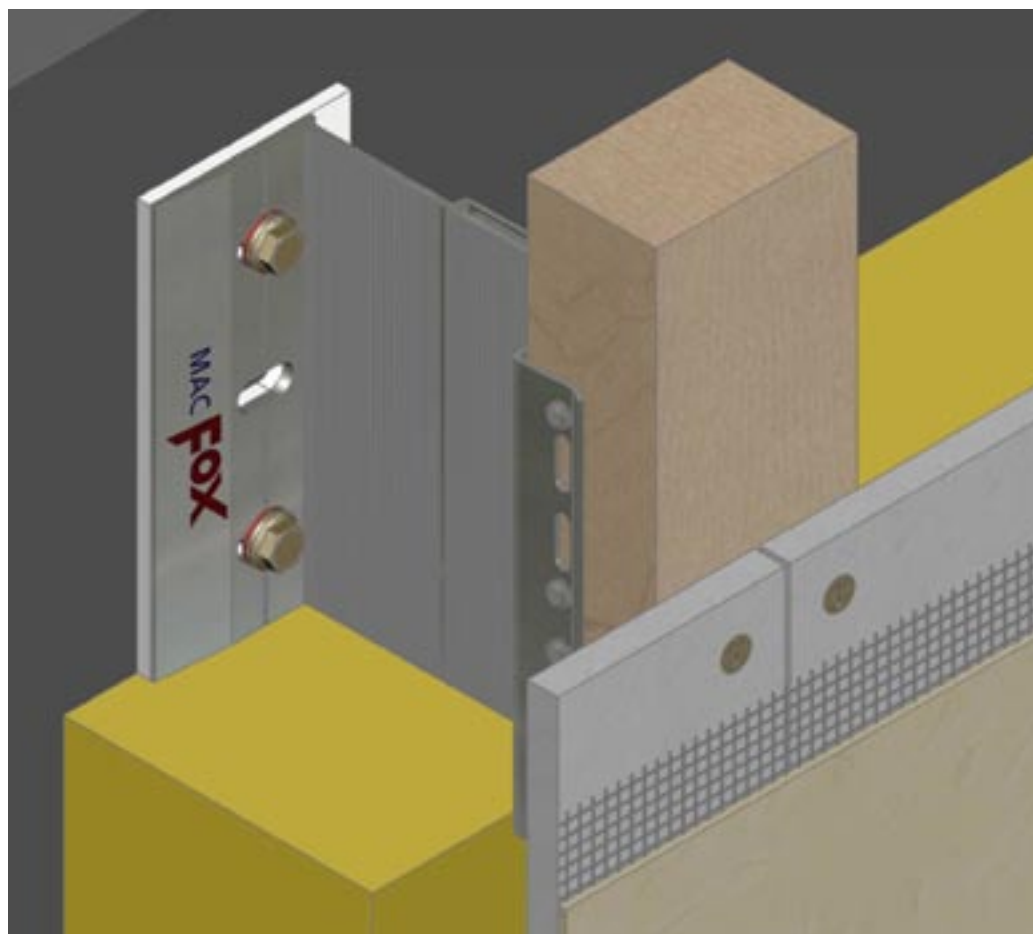


vertical section





## System MUH-v-600



secret fixing  
with screws

horizontal section

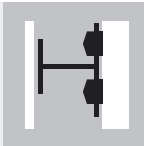


vertical section

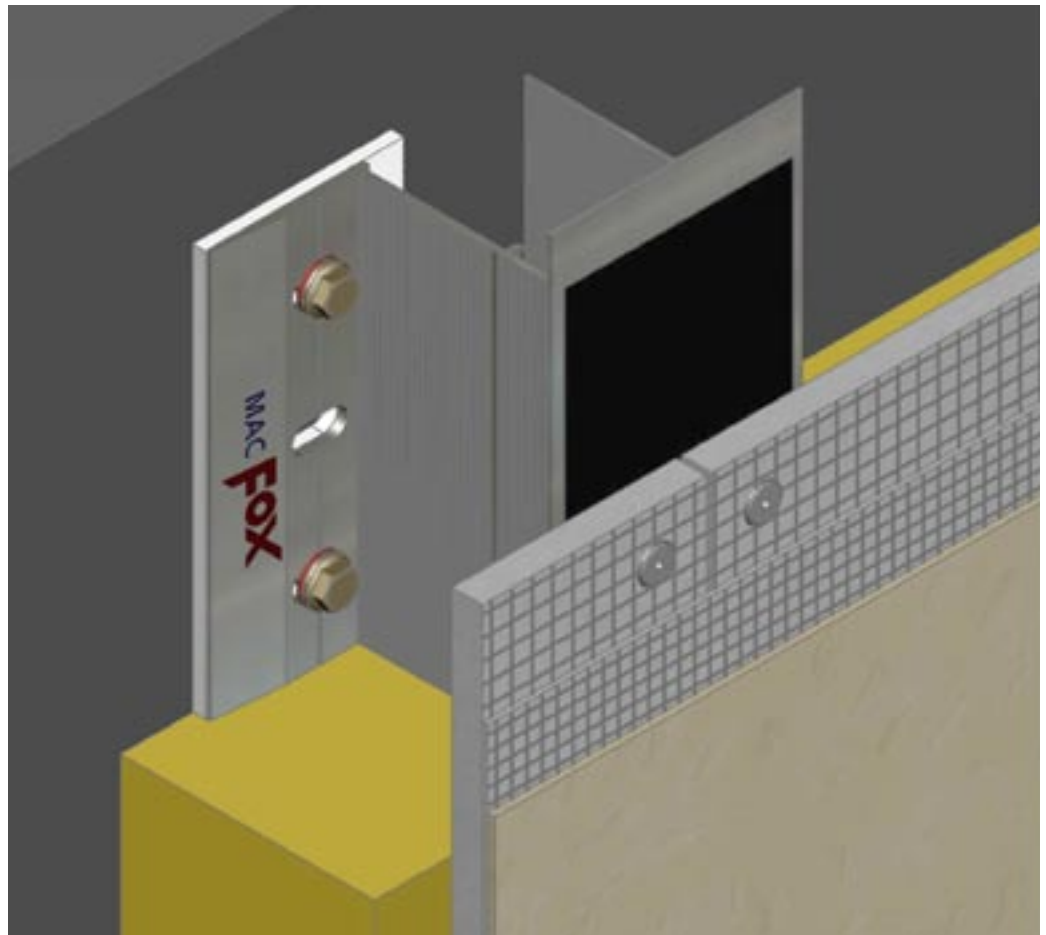


# Fixing systems

## Render



### System MTA-v-300



secret fixing  
with rivets

horizontal section



vertical section









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