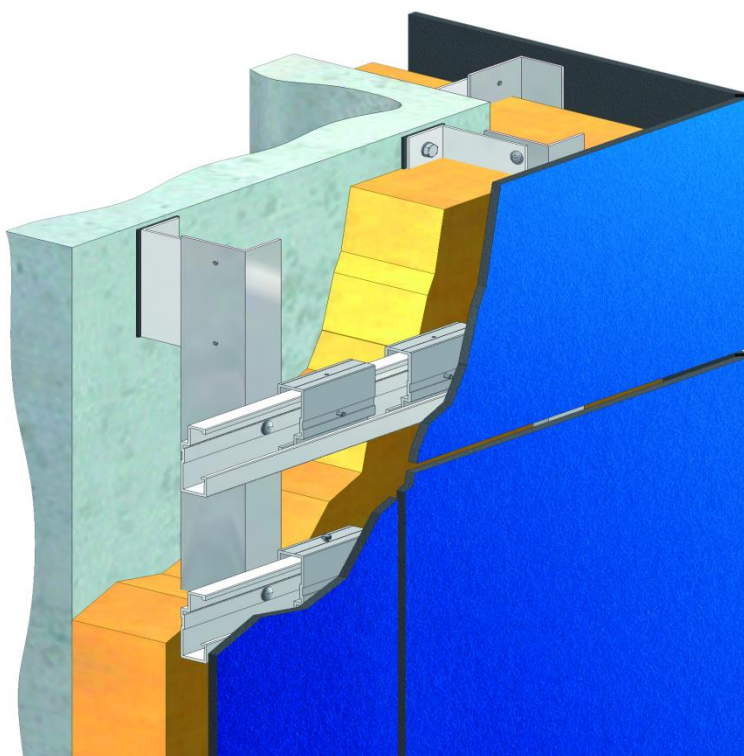


# TS200 INVISIBLE (CONCEALED) FIXING WITH BRACKETS ON RAILS

**This system offers large flexibility for installing Trespa® Meteor® panels. The use of adjustable brackets allow for precise joints and an optimal façade grid.**

**Trespa® Meteor® panels with a minimum thickness of 10 mm may be fixed invisibly on an aluminium sub-frame comprising horizontal rails and hanging brackets fixed with inserts or screws to the back of the panel.**



Trespa provides these guidelines and all testing, code and design data for informational purposes only and advises that the customer, project owner, designer, architect and/or installer, seeks advice from independent (construction) professional and/or engineers regarding design, application and installation as well as compliance with design requirements, applicable codes, laws, regulations and test standards.

Local codes, standards and applicable design requirements are to be consulted for proper use.

# GENERAL INSTALLATION DETAILS

## Cavity depth and ventilation

For a continuous ventilation behind the panel, Trespa recommends the free air cavity depth between the rainscreen cladding and the insulation or wall construction to be between 20 and 50 mm, in order to allow for ambient air to flow through from the ventilation inlets and outlets.

Ventilation inlets and outlets must be the equivalent of minimum 50 square cm per linear meter over the whole façade. Cavity depth as well as ventilation inlets and outlets must be in accordance with applicable building standards, regulations and certificates.

## Sub-frame

The horizontal aluminium rails can be fixed on a vertical timber or aluminium sub-frame.

Trespa® Meteon® panels must be installed on a sub-frame of sufficient strength and permanent durability. Quality and/or treatment of the sub-frame must be in accordance with applicable building standards, regulations and certificates. Some countries may allow the use of a stainless/galvanized steel sub-frame. Please consult the certificate or contact your local Trespa representative.

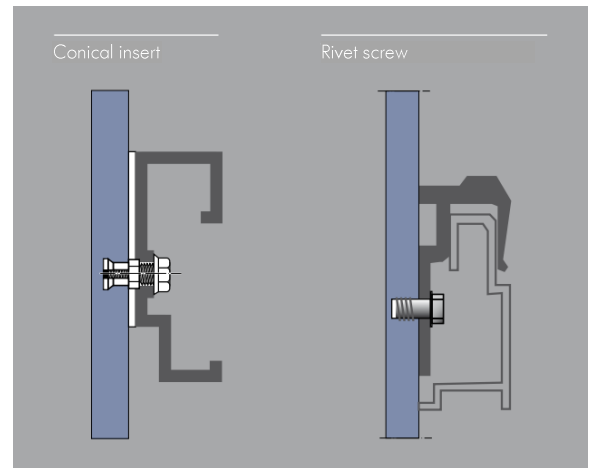
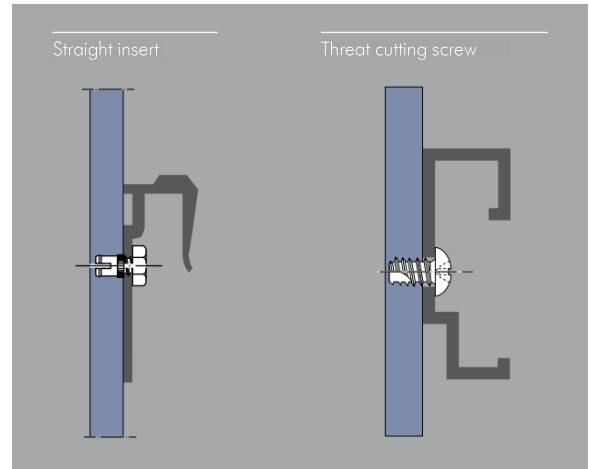
## Fixing detail

Panel brackets are attached to the Trespa® Meteon® panels using stainless steel inserts or screws as specified by the sub-frame manufacturer.

Each panel has 2 adjusting points. To retain panel position the panel must have 1 fixed point at the top by inserting a self-drilling screw (or similar) through the hanging bracket and into the rail. Alternatively, where access is impossible, each panel must have one glued fixed point (with proprietary adhesive system e.g. polyurethane).

Fixing method:

- Straight insert
- Thread cutting screw
- Conical insert
- Rivet screw



Remaining panel thickness: at least 2.5 mm.

Anchoring depth: total panel thickness minus 3 mm.

Due to aesthetics, the use of Specular finishes is not recommended for this system.

# TECHNICAL INSTALLATION DETAILS

The following tables give an overview of some of the most significant technical design and installation details:

In certain countries specific (certification) requirements may apply. Please refer to [www.trespa.info](http://www.trespa.info) for an overview of available certificates. For countries in which no certificate for such fixing system is available and/or required, the information given in this document is to be considered as a general guidance.

## Minimum dimensions sub-frame

Any vertical timber, aluminium or stainless/galvanized steel sub-frame must be designed in accordance with applicable local standards, regulations and certificates.

Panel thickness (in mm) <sup>A</sup>
10 or 13

<sup>A</sup> For other panel thicknesses, please consult the certificate.

Maximum panel dimensions (in mm) <sup>B</sup>
Max. height 3050 Max. length 3650

<sup>B</sup> For other panel dimensions, please consult the certificate.

Joint width (in mm) <sup>C</sup>
10

<sup>C</sup> For other joint width, please consult the certificate.

Based on applicable building standards, regulations or certificates, wider joints may be permissible.

Edge clearance (in mm)	applicable for following country:
Vertical and horizontal edge distance minimum 65 mm and maximum 10 x panel thickness, counted from the center of the 1 <sup>st</sup> fixing	all countries except Belgium (BE), Germany (DE), Spain (ES), France (FR), the Netherlands (NL)
Please consult the certificate for the edge clearances	BE, DE, ES, FR, NL

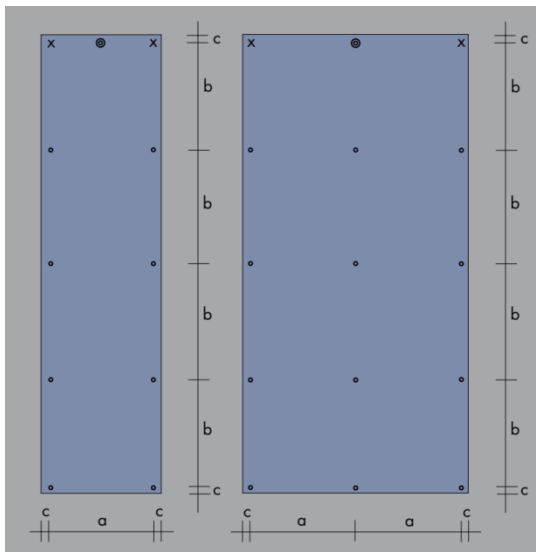
# TECHNICAL INSTALLATION DETAILS

Maximum fixing distances (in mm) <sup>D, E</sup>			
for	for all finishes except Specular		applicable for following countries:
	panel thickness		
	10	13	
2 fixings in 1 direction	750	950	all countries except Belgium (BE), Germany (DE), Spain (ES), France (FR), the Netherlands (NL)
3 or more fixings in 1 direction	900	1200	
2 fixings in 1 direction	Please consult the certificate		BE, DE, ES, FR, NL
3 or more fixings in 1 direction			

<sup>D</sup> **Fixing distances for soffit application must be multiplied by 0,75.**

<sup>E</sup> *The maximum permitted fixing distances shown have been designed with a maximum (wind-)load of 600 N/m<sup>2</sup> and a maximum deflection of L/200.*

Fixing distances must be calculated in accordance with applicable local standards, regulations and certificates and should be verified by a structural engineer. For more information about deflection and wind loads, please visit [www.trespa.info](http://www.trespa.info).



Fixing and edge clearances

a = Horizontal fixing distance

b = Vertical fixing distance

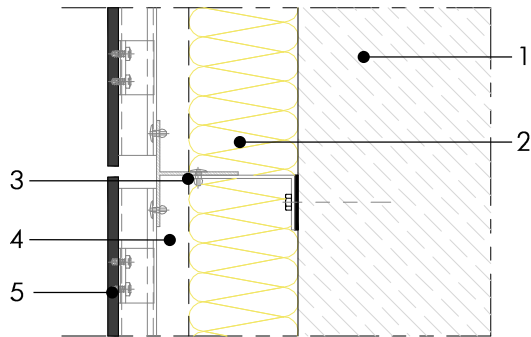
c = Edge clearance

⊙ = Fixed point

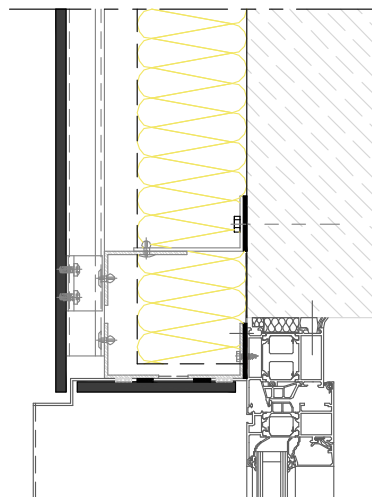
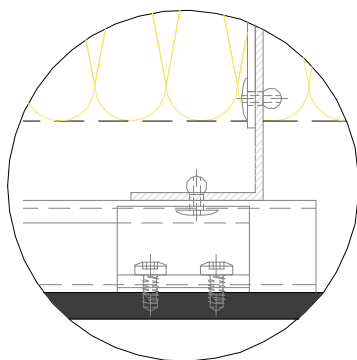
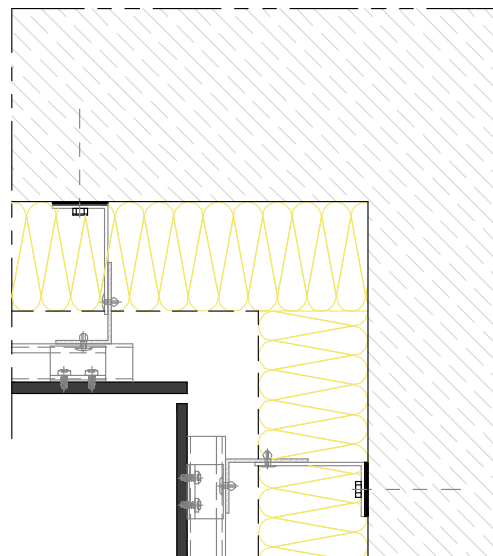
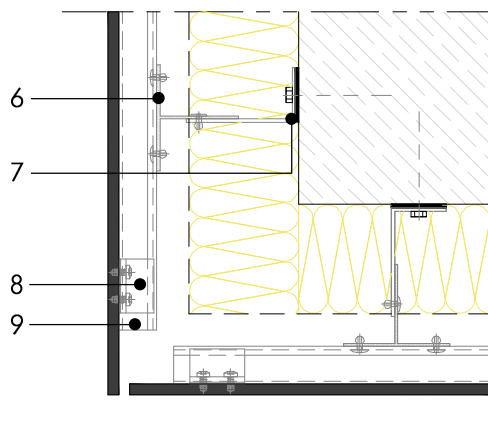
x = Adjusting point

○ = Sliding point:  
Lower brackets fixed higher at such a level as to facilitate downward panel movement (2.5 mm/m<sup>1</sup>)

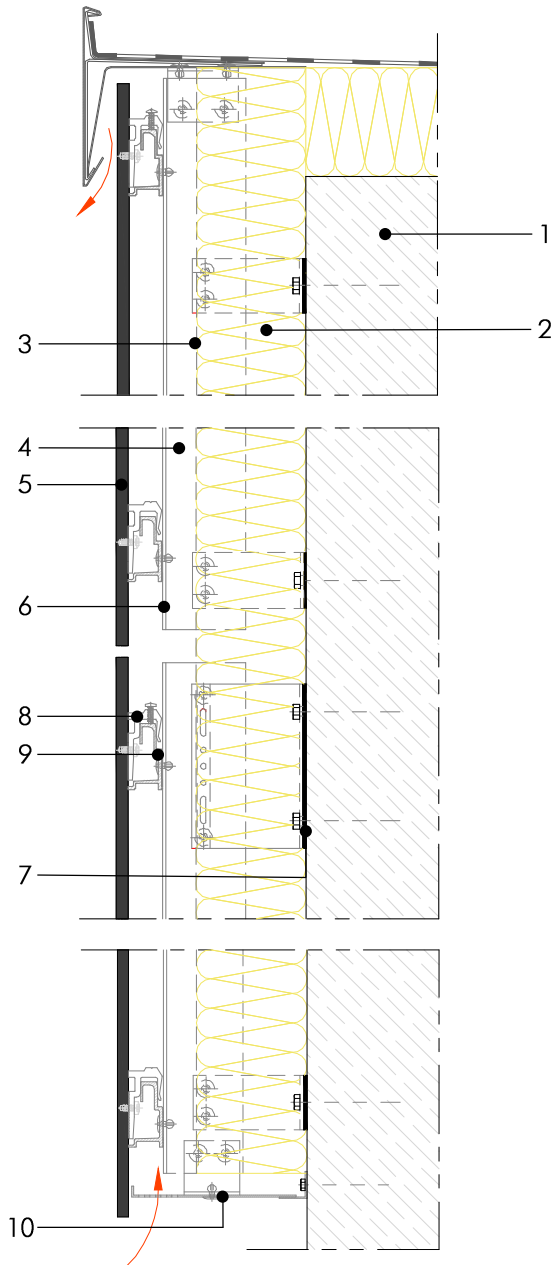
## Horizontal cross-section



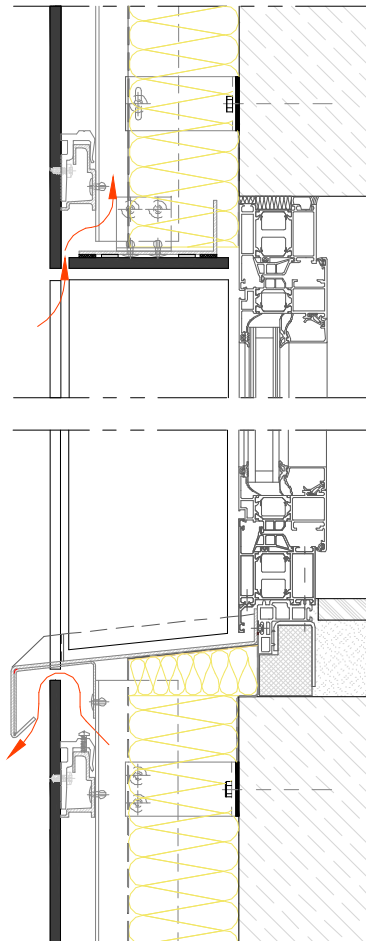
1. Load bearing wall (concrete, masonry)
  2. Thermal insulation
  3. Weather barrier (vapour permeable) \*
  4. Ventilated cavity
  5. Trespa® Meteon® panel
  6. Vertical aluminium rail
  7. Wall bracket
  8. Aluminium hanging bracket
  9. Horizontal aluminium rail
- \* optional



## Vertical cross-section



1. Load bearing wall (concrete, masonry)
  2. Thermal insulation
  3. Weather barrier (vapour permeable) \*
  4. Ventilating cavity
  5. Trespa® Meteor® panel
  6. Vertical aluminium rail
  7. Wall bracket
  8. Aluminium hanging bracket
  9. Horizontal aluminium rail
  10. Ventilation profile
- \* optional



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