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Smart Fixing Systems

INSTALLATION MANUAL

TV800 SYSTEM

For Trespa® TopLab® VERTICAL

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1. Foreword

This document describes how to install Trespa® TopLab® VERTICAL with the TV800 system developed by Allface. The diagrams and instructions outlined in this guide are for illustration purposes only and are not meant or implied to replace a licensed professional.

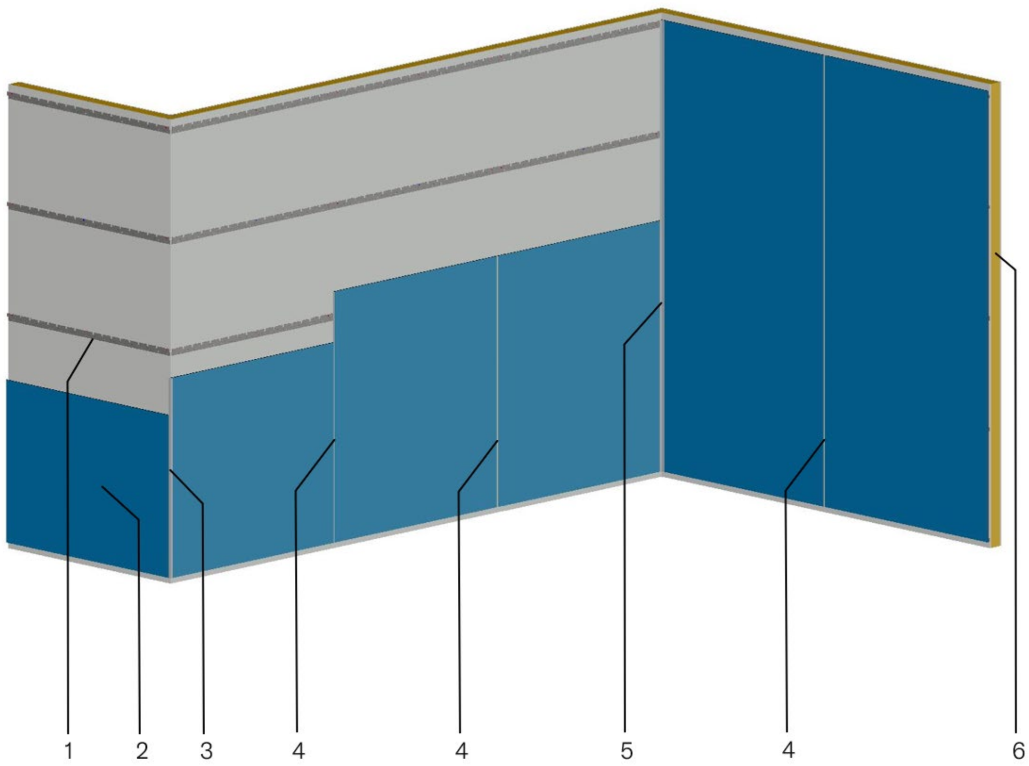
Please read all the instructions prior to starting the installation of your wall cladding. Understanding the process correctly will be the difference between a good and a great result. The recommendations detailed in this guide produced by Allface are formulated along the lines of good building practice. They are not intended to be an exhaustive statement of all the relevant data. Further, as the success of projects depend on factors outside the control of Allface (e.g. quality of workmanship, particular design, detail requirements, etc). Allface accepts no responsibility for, or in connection with, the quality of the projects or their suitability when completed.

1.1 Intended use

The Allface TV800 system has been specifically developed to install Trespa® TopLab® VERTICAL for the cladding of interior walls.

Trespa® TopLab® VERTICAL is commonly used to clad walls in high-traffic areas, educational institutions and demanding environments such as laboratories, healthcare and cleanrooms.

2. General information



1	TV800 horizontal carrier rail	4	Joint rubber or silicon joint
2	Trespa® TopLab® VERTICAL panel	5	Internal corner profile
3	External corner profile	6	Load-bearing wall

Figure. 1

3. Safety

When dealing with any type of construction project, it is necessary to wear appropriate safety equipment to reduce risk of severe injury. When handling, cutting, and installing, the following safety equipment is recommended at the very least: gloves, a respiratory protection mask, long sleeves, long trousers, and safety glasses.

3.1 Personal protective equipment

			
Wear a helmet or bump cap, as required by local laws and regulations	Wear safety glasses	Wear protective gloves	Wear safety shoes of at least safety standard S3

Figure. 2

3.2 Safety instructions

General safety requirements

- Observe local laws and regulations when assembling the product.
- Please refer to the locally applicable health and safety regulations.

Safety of your working environment

- Risk of accidents. Keep your workplace clean, tidy and well lit.
- Risk of fire when using power tools. Do not use power tools in environments with a risk of explosion where there are flammable liquids, gases or dusts. Power tools cause sparks which may ignite the dust or fumes.
- Risk of personal and serious injury. Keep children and other persons at a distance when using power tools. Distractions can cause loss of control over the tool.
- Risk of fire and risk of electric shock. Only use earthed power tools. Place the plug firmly in the socket so that is cannot move.
- Risk of accidents. Always clamp workpieces securely before processing.

Safety of individuals

- Risk of injuries. Always wear a helmet or bump cap, safety goggles, protective gloves and S3 safety shoes. Wear personal protective equipment depending on the type and use of the power tool.
- Risk of injuries. Wear appropriate clothing. Do not wear loose-fitting clothing or jewellery. Keep hair, clothing and gloves away from moving parts.

4. Material list

4.1 Trespa® TopLab® VERTICAL TV800 system components

The main components of the TV800 fixing system are:

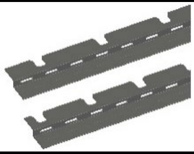
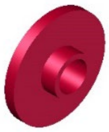
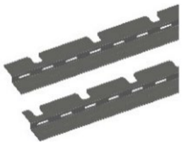
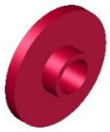
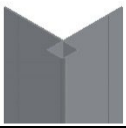
			
TV800 carrier rail	TUF-S anchor	Positioning sleeve	Sliding sleeve

Figure. 3

4.2 Required and optional materials

REQUIRED			
			
TV800 carrier rail	TUF-S anchor	Positioning sleeve	Sliding sleeve
OPTIONAL*			
			
Fixing screw into steel stud wall	Fixing screw into wooden stud wall	Fixing into brickwork or concrete	Fixing into concrete
			
Joint rubber (if necessary)**	Silicon (if necessary)**	External - corner profiles (if necessary)**	Internal - corner profiles (if necessary)**

* The shown images are just examples
**The chemical resistance of the joint and corner profiles solutions depends on supplier and may differ from the TopLab® VERTICAL panels.

Figure. 4

The required materials are necessary for each application of the TV800 system. Without them, the system cannot be executed. Additional materials and profiles (e.g. screws, silicon or corner profiles) to be decided by type of installation and application.

4.3 Required and optional tools

Standard woodworking tools may be used. It is recommended that all circular saw blades have carbide tips and that al fixings are stainless steel.

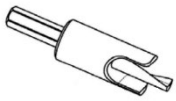
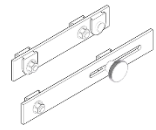
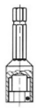
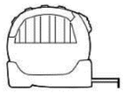
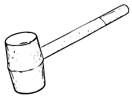
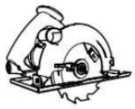
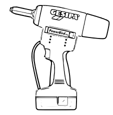
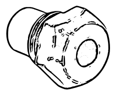
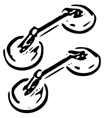
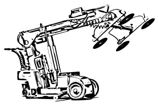
			
Cordless screwdriver	6mm special drill bit	Depth locator for blind hole drill	Assembly spacer
			
¼ Inch hexagon socket	Measuring tape	Spirit level / construction laser	Pencil
			
Rubber hammer	Circular saw or hand-held circular saw	Battery riveting tool	TUF-S mouthpiece for riveting tool
			
Hand vacuum lifter	Optional: large size vacuum lifter		

Figure. 5

5. Preparations

5.1 Measure the wall

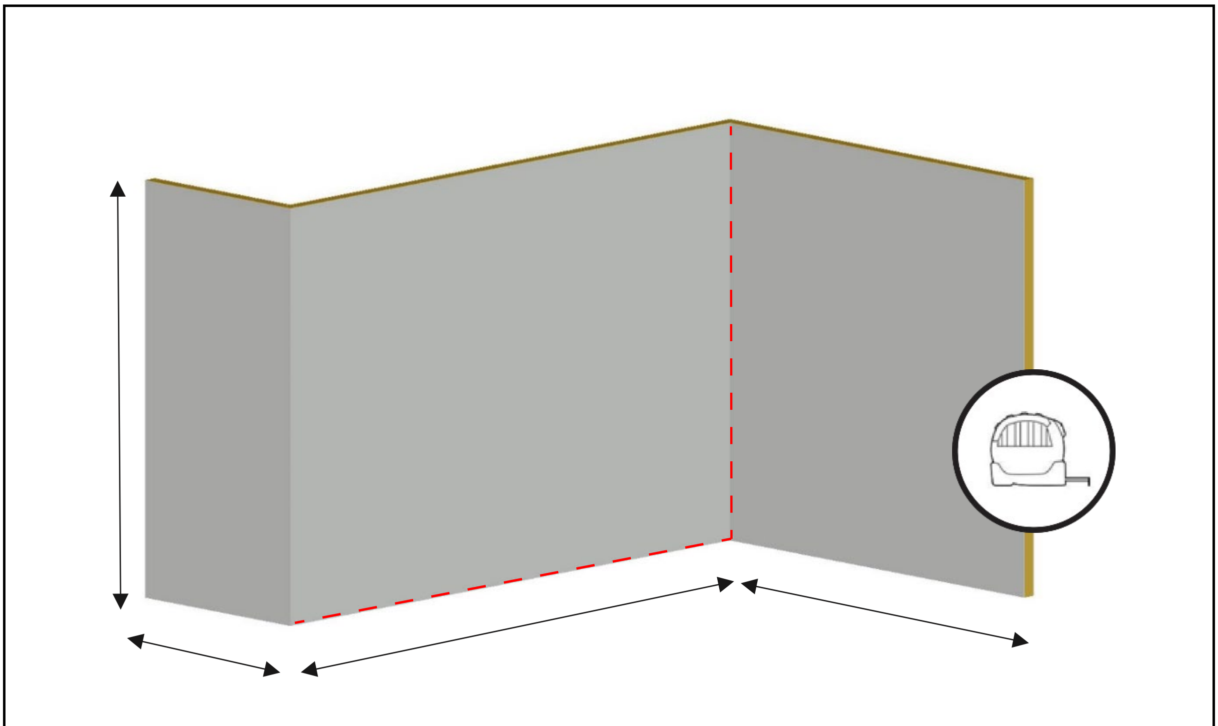


Figure. 6

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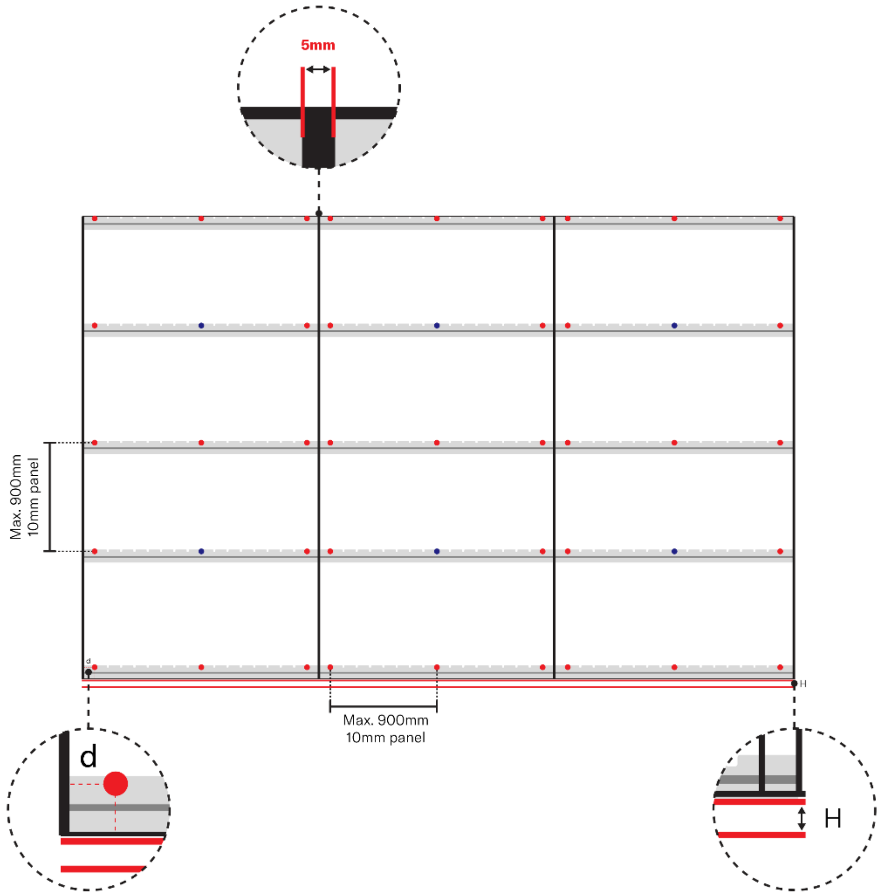
5.2 Making a technical drawing

Careful layout planning and preparation is required before starting installation to ensure the best possible cladding effect of your project. Consideration for how the boards will finish at corners, window & door reveals can ensure a better finish, reduce wastage, reduce rip cuts or additional joints. We recommend drawing out a site plan of your proposed project to minimize errors.

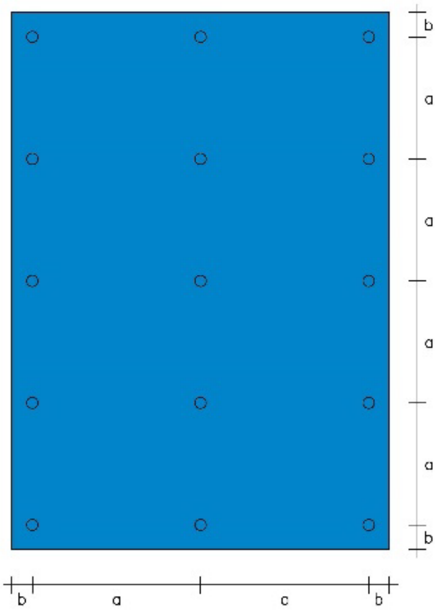
Make a technical drawing based on the dimensions in chapter 5.1. Draw the horizontal profiles and panels according to the Trespa® TopLab® *VERTICAL* fixing information.



- Bottom distance (H) according to project specifications
- Distance between fixings in corner and the edge (d) according to Trespa recommendations: min. 20mm / max. 10 times panel thickness
- The standard joint width is 5mm
- The distance between profiles is max. 900mm for 10mm panels (according to Trespa® TopLab® *VERTICAL* recommendations). See figure 8
- If possible, the load-bearing profile should be planned at head height, as this facilitates assembly
- We recommend using a vertical distance between the profiles of a multiple of the punching grid of the profile, as this can be used as a template during assembly
- Notice that the length of the TV800 horizontal carrier rail is 2995mm

Figure. 7

Max. fixing centres according to Trespa® TopLab® *VERTICAL* recommendations:



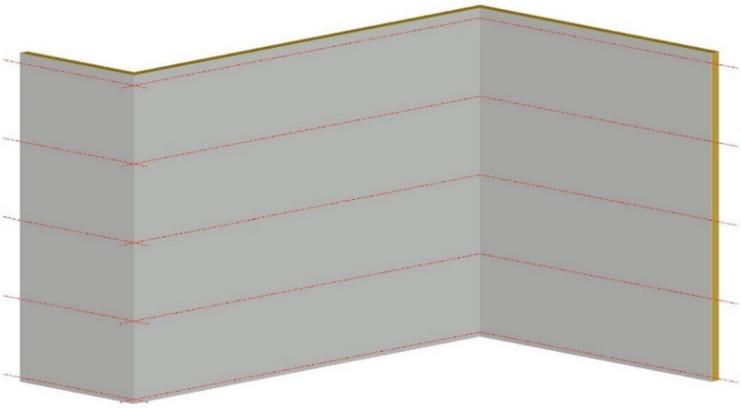
Maximum fixing centres (mm)	Panel thicknesses (mm)	
	8	10
2 fixings in one direction	600	750
3 or more fixings in one direction	750	900

Figure. 8

- For the max. fixing distance 'a', the max. distances from Trespa shown in the table above must be observed.
- For the distance 'b', min. 20mm and max. 10 times the panel thickness in mm must be observed (8mm=80mm and 10mm=100mm).
- The drilling is always in a 90°-angle to the panel´s surface.
- The horizontal TV800 carrier rail is available with hook spacing 80mm and 100mm as standard.
- The 80mm spacing may be required to maintain the max. spacing 'b' for a 750mm panel width and 8mm thickness. However, in most cases the 100mm hook spacing is applicable.
- Drill holes in the panel must be multiples of 80mm/100mm according to the selected hook spacing of the profiles.
- The maximum possible sizes are
    - 2550 x 1860 (SF)
    - 3050 x 1530 (IF)
    - Other formats to be consulted at Trespa

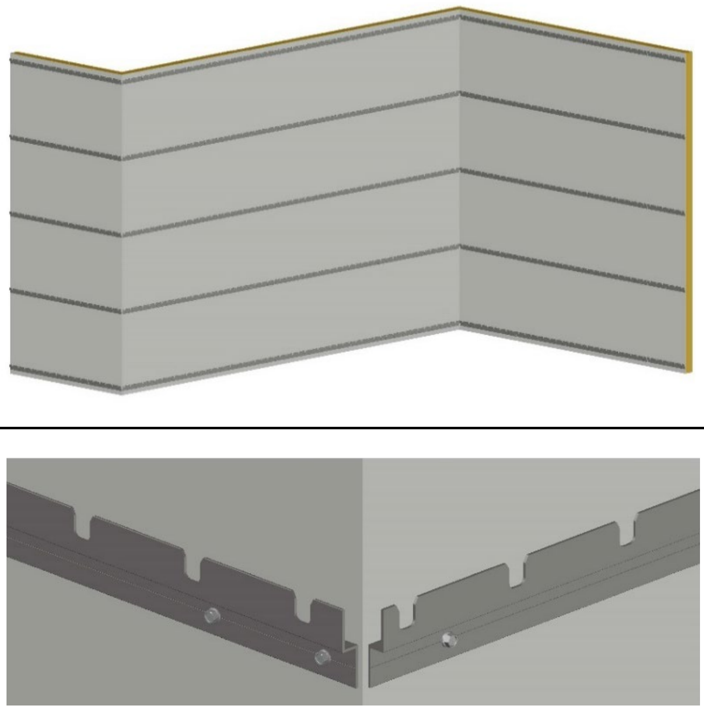
6. Installation

6.1 Basic construction



Mark the fixing lines and starting positions according to the installation drawings. The marked line should be always the bottom of the horizontal TV800 carrier rail.

Figure. 9

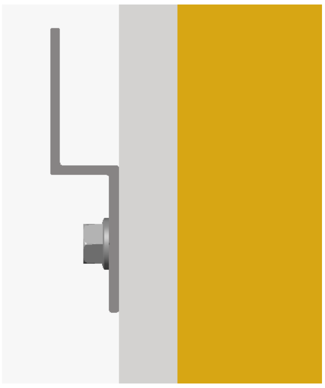


Fix the horizontal carrier rails with sufficient fasteners according to the structural calculation.

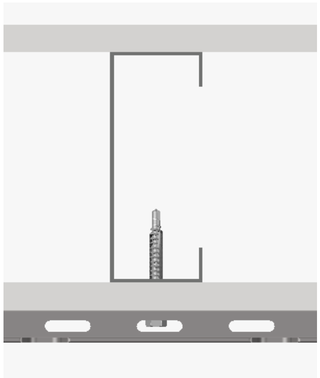
Take corner profiles into consideration in case they are intended to be installed.

Figure. 10

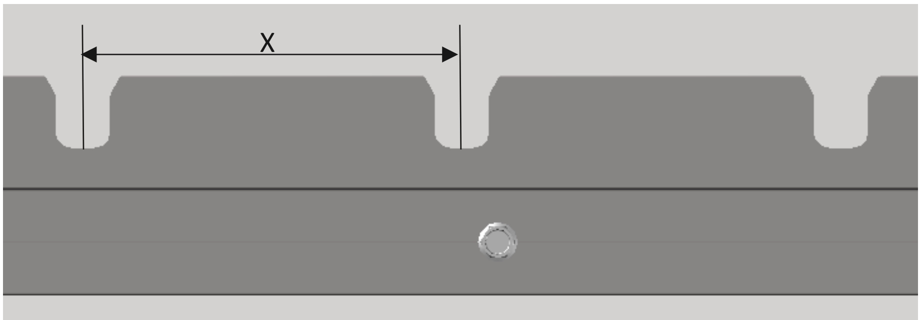
For uneven surfaces, omega or rectangular profiles can be positioned behind the horizontal TV800 carrier rail. Alternatively, Trespa strips can be used to level out uneven areas on concrete or brick. Use assembly spacers to maintain the grid spacing at profile joints.



Vertical section – dry wall.



Horizontal section top view – dry wall.

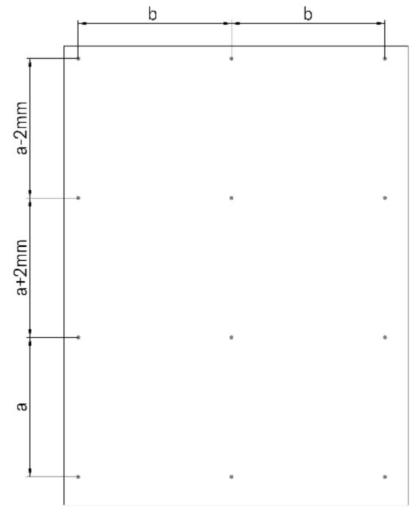


Hook distances X of the TV800 carrier rail are 80mm or 100mm.

Figure. 11

6.2 Panel preparation

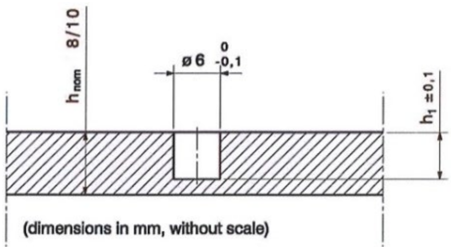
Panel drilling according to technical drawings in chapter 5.2
a. panels are predrilled
b. panels drilled on site

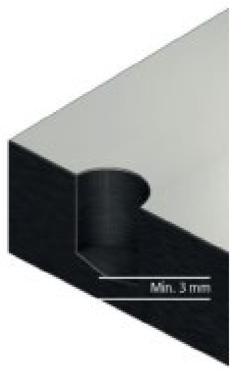


As already stated in chapter 5.2 and also visible in chapter 6.1 the position of the drilled holes has to be according to the chosen hook distances of the used carrier rail with 80mm or 100mm.

h_{nom}	8 / 10		10	
h_1	5	5,5	7	7,5
h_s	5		7	

h_{nom} = panel nominal thickness
h_s =anchorage depth
h_1 = depth of drill hole

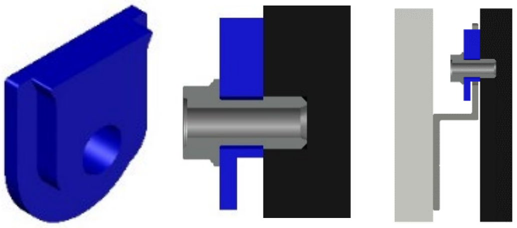




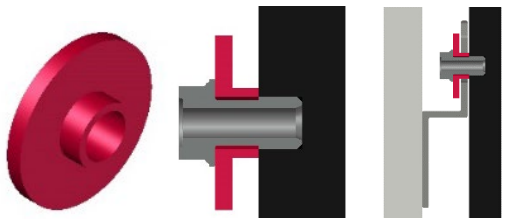
The drilling of the panels is done with a 6mm special drill bit and the required depth locator. This depth locator is to ensure that the required residual thickness of the panel of 2.5-3mm is kept.

Figure. 12

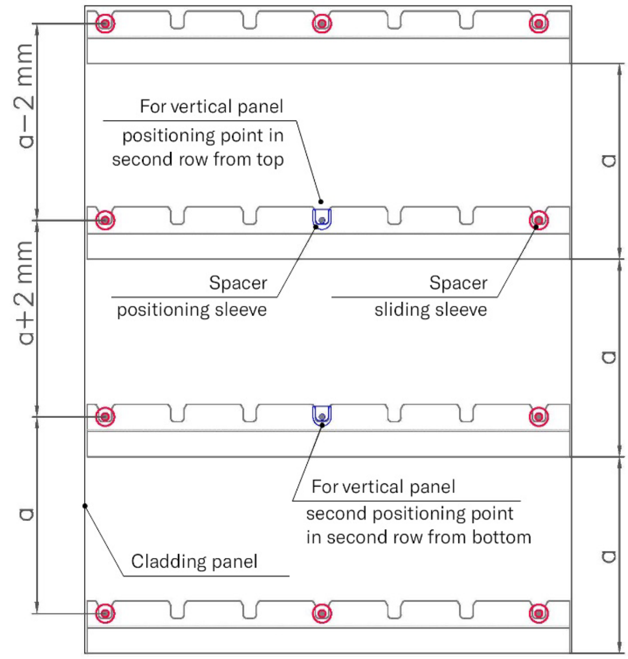
Fixing the sleeves according to position in technical drawings according to chapter 5.2
Important tip - the smaller side of the sleeve is always facing the panel.

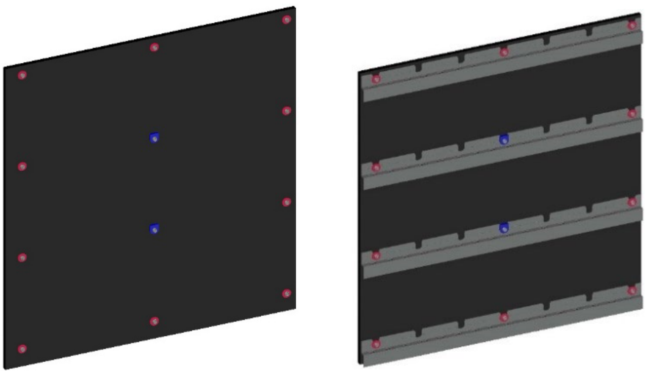


a. positioning sleeves (blue)



b. sliding sleeves (red)





The second row from the top should always be used as the load-bearing row. The second fixed point is only used for correct vertical alignment.

Figure. 13

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6.3 Panel mounting

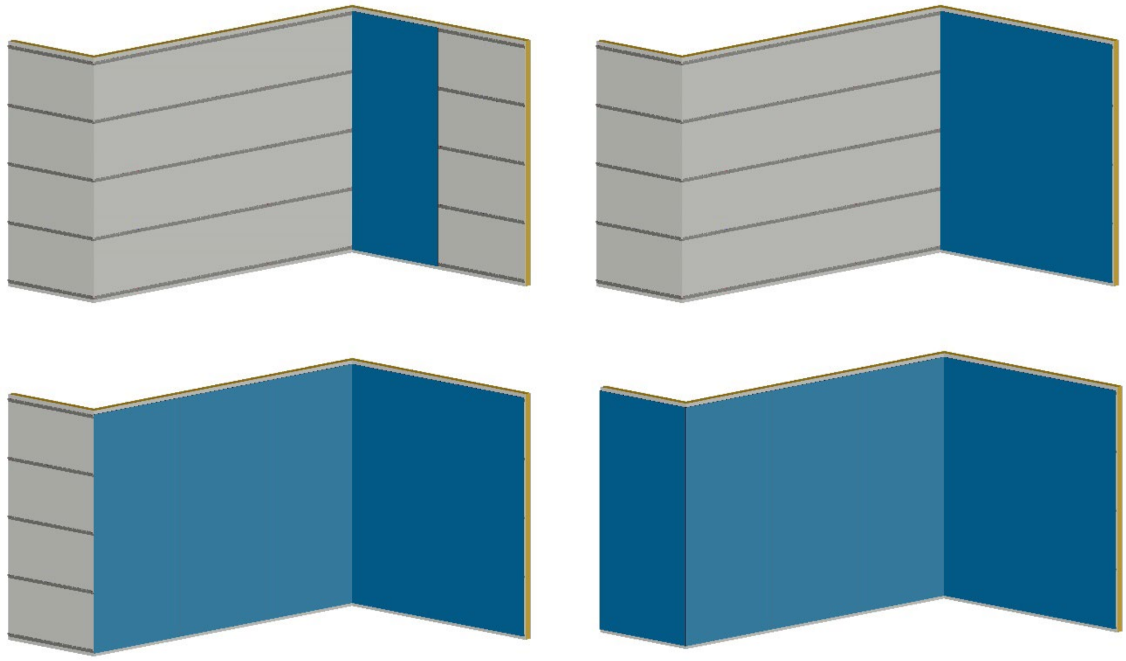
After preparing panels with drilling and applying the hook sleeves in the correct manner you start with mounting panels.

Hang in the panels according to the panel position plan.

Figure. 14

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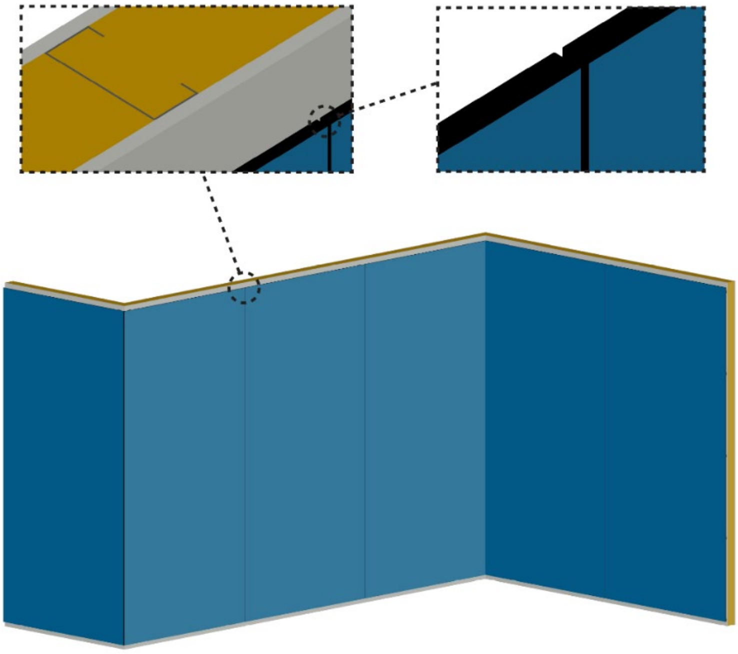
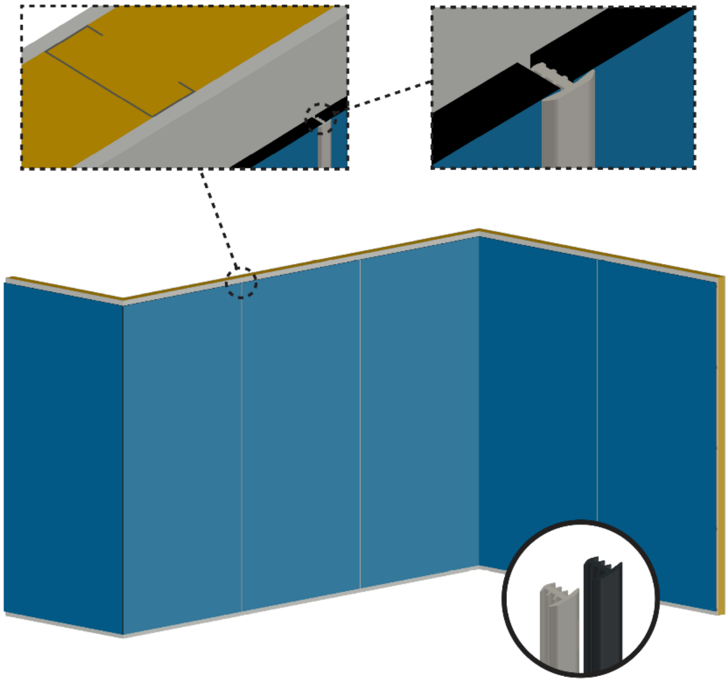
Joint sealing

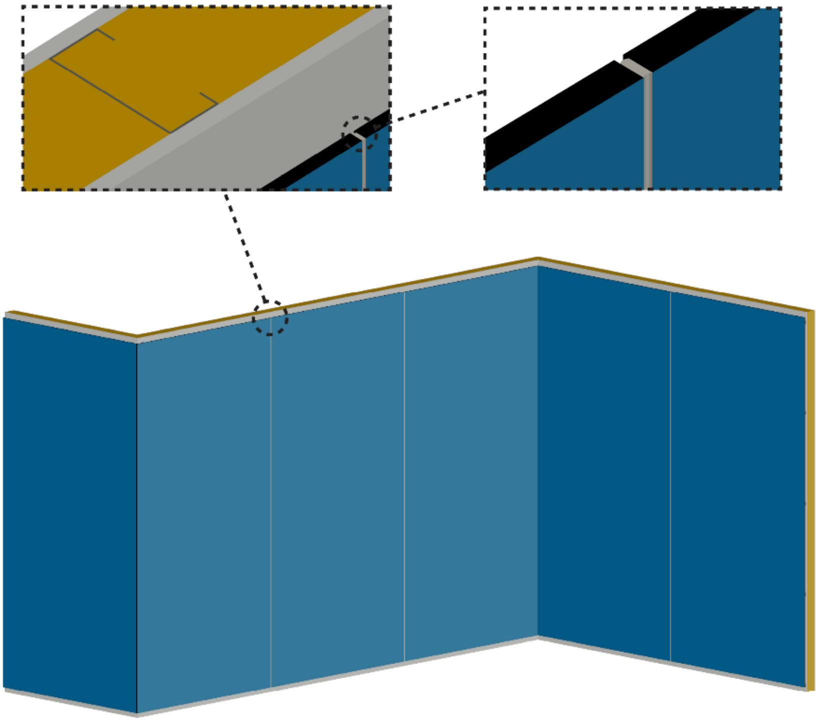
A. Open joints



B. Rubber



C. Silicon or other sealing



Joint profiles examples for external and internal corners

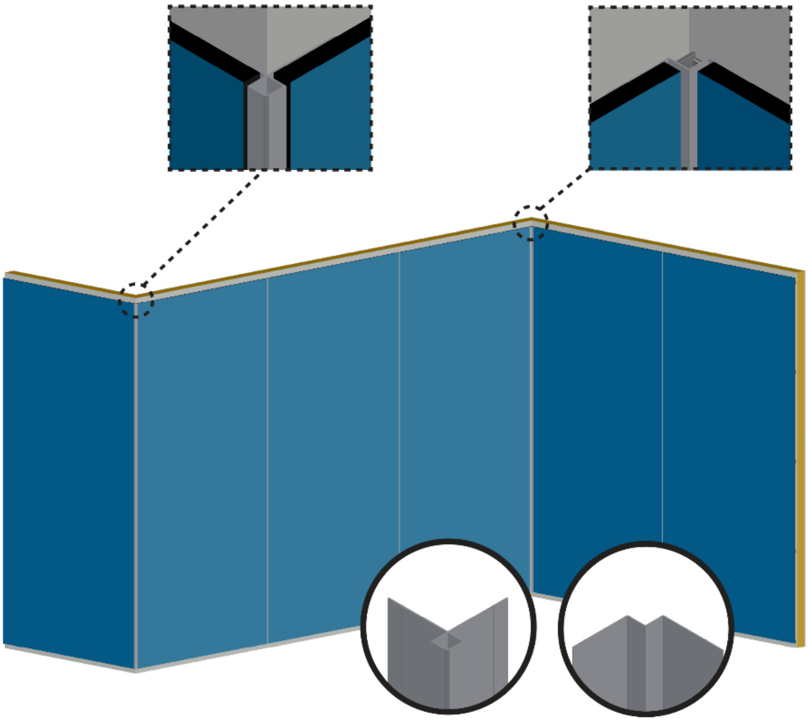
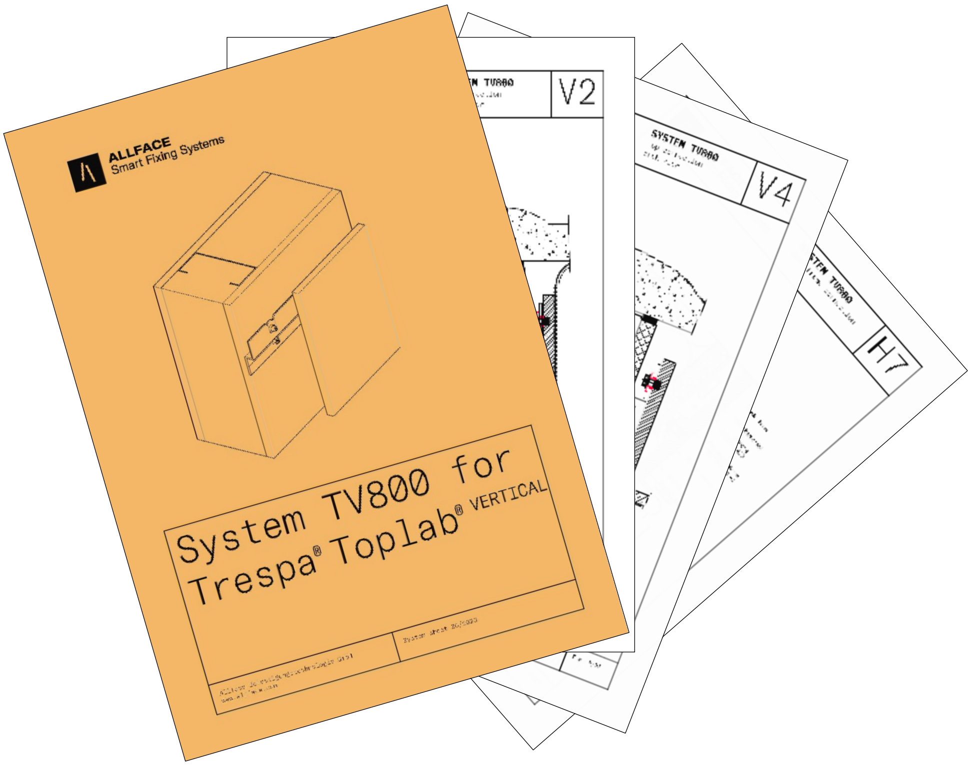


Figure. 15

The time for installing the corner profiles depends on the type of corner profile used and takes place either directly before/during the installation of the corner panels or afterwards when the joint rubber is installed.

Further details can be found in the system drawings of the TV800 system.



7. Packaging

The following packaging sizes are available as a minimum per order process:

- TV800 carrier rail
  3m rail - min. quantity 5 rails – lenght 2995 mm
- Positioning sleeve
  400 pcs per box – min. quantity 1 box
- Sliding sleeve
  400 pcs per box – min. quantity 1 box
- TUF-S anchor
  250 pcs per box – min. quantity 1 box

Screws and other items - min. quantities on demand

8. Project datasheet

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1. Project data

Name of project: .... street: ....
Location: .... country: ....

Project area .... m^2
Storey height .... m

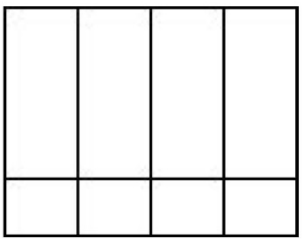
Application ☐ high traffic area ☐ clean room
☐ .... ☐ ....

Offer until ....

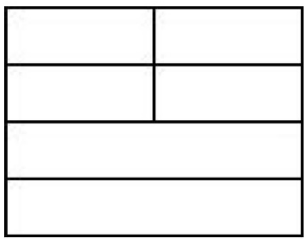
2. Panel information

Panel format .... mm
Panel thickness .... mm

laying system



☐ vertical



☐ horizontal

3. Building structure

☐ steel frame studs ☐ timber studs ☐ concrete
☐ aerated concr. ☐ perforated brick ☐ timber
☐ solid concrete blockwork ☐ pull out value: ....

4. Inquirer

name .... street ....
location .... tel. ....
country .... e-Mail ....
fax ....
comments ....

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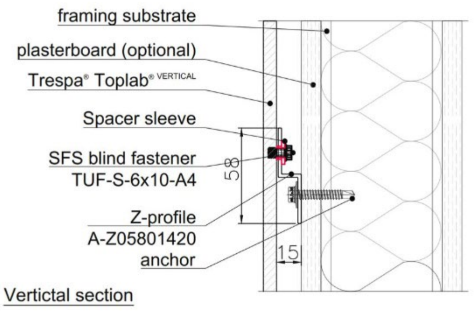
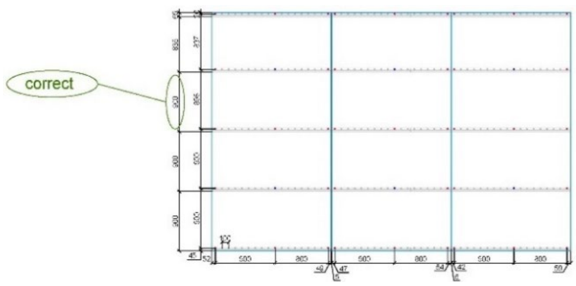
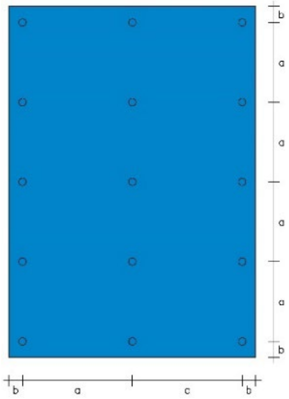
9. Construction site log

☐ Mounting the rails and corner profiles to the ground is done correctly	☐ Installing rail distance is done correctly

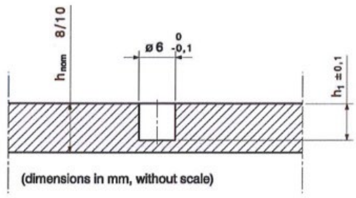




☐ Panel drilling is done correctly



MAXIMUM FIXING CENTERS (MM)	PANEL THICKNESSES (MM)	
	8	10
2 fixing in one direction	600	750
3 or more fixings in one direction	750	900



h_{nom}	8 / 10		10	
h_1	5	5,5	7	7,5
h_s	5		7	

h_{nom} = panel nominal thickness
h_s = anchorage depth
h_1 = depth of drill hole

☐ Sliding and positioning sleeves are mounted correctly

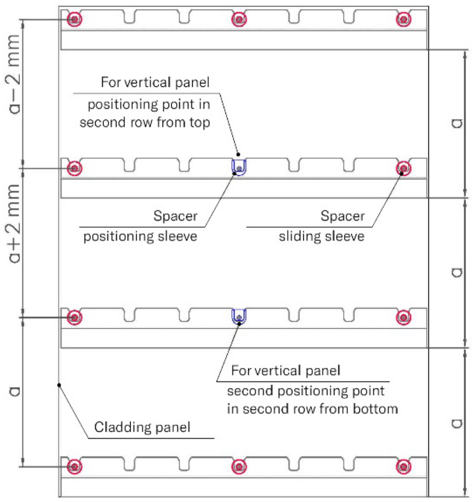


Figure. 16

Date ____________________ signature ____________________