



NV4 For Trespa TS200

Installation guide



Component guide

NVELOPE® rainscreen cladding brackets and framework simplify the complexity of installing façades. NVELOPE® systems are designed to provide a vertical support for most façade types. NVELOPE® purpose-designed brackets allow for final alignment and adjustment.

Brackets

The NVELOPE® bracket range includes single and double variations of each bracket size, the difference being the depth of the bracket (75mm single, 150mm double). A double bracket is capable of supporting higher cladding loads, and is used in the fixed point location for projects that feature more demanding wind or cladding loads.

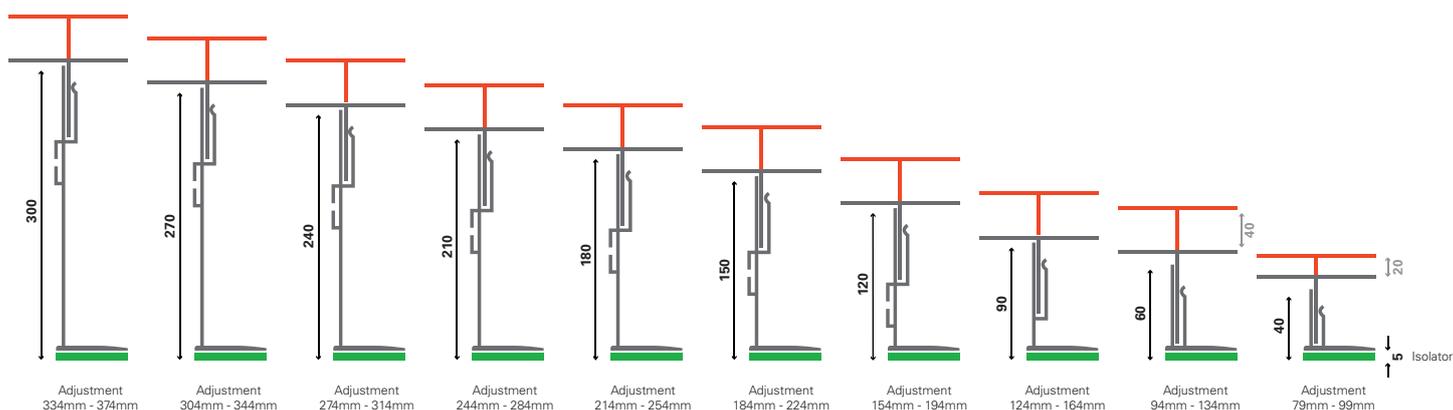
The substrate slot variations on NVELOPE® brackets are to suit a wide range of substrate materials. For steel and timber substrates 6.5mm slots are used; for brick, block and concrete, the 11mm slots are used. The single bracket includes both slot variations so is suitable for all substrates.

Size	Min system	Max system	Single (6.5/11mm slot)	Double (6.5mm slot)	Double (11mm slot)
40	79	99	1582505	1521239	1521238
60	94	134	1582506	1521247	1521246
90	124	164	1582508	1521255	1521254
120	154	194	1582509	1521263	1521262
150	184	224	1582510	1521273	1521272
180	214	254	1582511	1521282	1521281
210	244	284	1582512	1521291	1521290
240	274	314	1582514	1521300	1521299
270	304	344	1582517	1521309	1521308
300	334	374	1582520	1521317	1521316
270 (+extension)*	390	430	1582517 (+1521188)	1521309 (+1521187)	1521308 (+1521187)
300 (+extension)*	420	460	1582520 (+1521188)	1521317 (+1521187)	1521316 (+1521187)

Isolators are included as standard. If isolators are not required, reduce dimensions by 5mm.

*Example to show largest possible cladding zones. Extension piece is compatible with all bracket sizes, and is available as single (1521188) or double (1521187).

Cavity depths



Component guide

Profiles

Generally, profiles are cut to lengths that reflect the height of the panels that are going to be fixed to them. Typically storey-height profiles are cut so that the panels are located on one set of vertical profiles and do not 'bridge' the expansion gap between two profiles.

These are secured to the bracket using a secondary fixing.

SFS are able to offer an optimised solution, minimising wastage on site by cutting profiles to length in our factory and delivering pre-cut ready to install directly to the project.



Type	Dimensions	Material number
L Profile	60 x 40 x 2.2 x 3000	1521357
L Profile	60 x 40 x 2.2 x 3600	1521365
L Profile	60 x 40 x 2.2 x 4850	1521370
L Profile	60 x 40 x 2.2 x 6000	1521375

Primary fixings

SX3/28-S16-6.0x48
1575777



TDA-S-S16-6.5x60
1526326



SXR-10-80-FUS-A
1551174



MULTI-MONTI-10x85
1480024



Secondary fixings

SDA5/5.5x22
1507572



Third-level fixings

TUF-S

Speak to our technical team for specific codes.



*fixing images not to scale

Component guide

Hangers

Our hangers come in adjustable and fixed versions. They also have a second hole to lock panels into their final positions.

The number of hangers needed is determined by calculation, please contact our technical team for assistance.

NV4 hanger

Adjustable: 1521471 | Fixed: 1521472



Installation guide

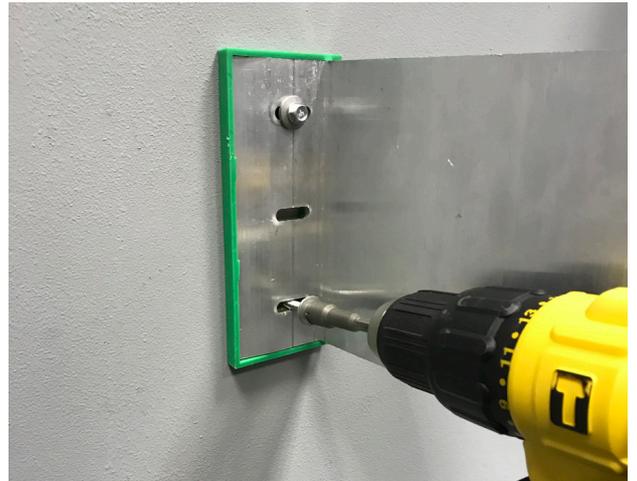
1. Secure NVELOPE® brackets to substrate

1.1 Position the brackets as per the NVELOPE® static calculation.

1.2 Secure using the recommended primary fixing.

Note: Recommended primary fixings vary dependent on the wall type. Please contact us for recommendations.

We recommend pull-out tests are carried out for fixings into blockwork and brick. These tests can be arranged with our technical department.



2. Insert profiles into brackets

2.1 Once the NVELOPE® brackets are aligned in correct positions, fit the cut length profiles into the helping hand of the bracket, following the static calculation.

2.2 Push the profile into the bracket's helping hand and adjust for line and level.

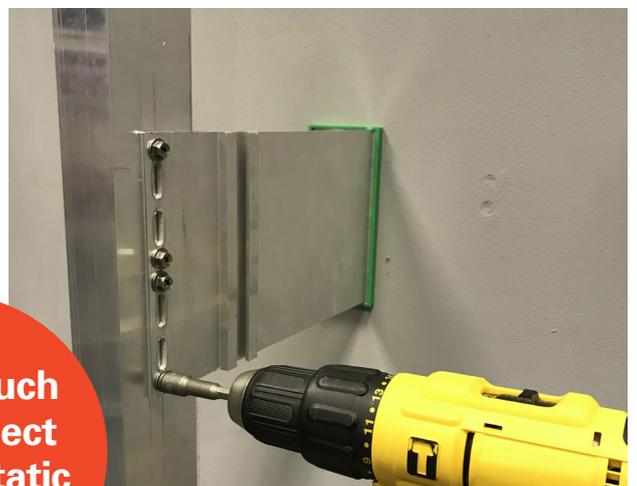
2.3 Check for line and level, ensuring a 10-12mm gap between the ends of rails to allow for expansion.



3. Fix the profiles to the brackets

3.1 Secure the profiles in the correct location using the SDA5/5.5x22 stainless steel fixing. Observe the correct number and fixing location as advised on the static calculation.

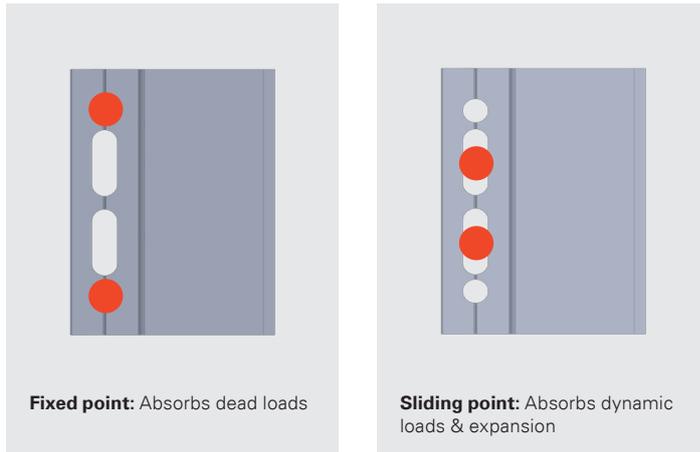
Note: Only one bracket per profile should have fixings in the fixed points (round holes), all subsequent brackets should have fixings in the sliding points (slots). See Figure 1.



Get in touch
for a project
specific static
calculation

Installation guide

Figure 1



4. Check over

4.1 Once all brackets and profiles are installed to an area of cladding, final checks should be carried out:

- On the primary anchor torque settings
- To the line and level of the profiles in relation to each other
- To the number of fixings and their position in each bracket



5. Install NV4 horizontal rail

5.1 Position the horizontal rail to align with the hanger fitted to the rear face of the panel.

5.2 Project horizontal datum lines across the elevation, and mark the position of the horizontal rail on to the vertical profile.

5.3 Affix each horizontal rail to the vertical profile using two SDA5/5.5x22 fixings.

Note: Rails can run past the last vertical support by a maximum distance of 300mm. If a rail needs jointing off, cuts of the rail (200mm length) can be used back to back. Please allow room for expansion.



Installation guide

6. Install panels

- 6.1** Once the NV4 hangers have been fixed to the rear of the panel (following panel manufacturers spacing recommendations), the panel can be offered up to the NV4 horizontal rail, ensuring all hangers align with the corresponding horizontal rail.
- 6.2** Position the panel into place and use M6 adjustment bolts to raise or lower the panel into the final position, checking panel gap distance. Adjustable hangers should be located on the top row of hangers only.
- 6.2** Once the panel has been adjusted, the locking screw can be fixed into an adjustable hanger, either in the central position or the furthest left or right hanger. Ensure that the chosen location is repeated for all panels.



Note: The number of hangers and their vertical position will be specified to suit the size and material of the panels, the dynamic wind pressures (positive and negative), and the cladding load.

For hanger installation guidance using the TUF-S fixing range, see our TUF-S Installation Guide.

Notes

Fixings

Suitable primary anchors are designed to fix the brackets to a pre-determined grid to suit the cladding panel layout. Stainless steel fixings also assist in preventing bimetallic corrosion.

The size and type of primary fixing for the connectors will always be determined by the dynamic and dead loads they have to resist. Please get in touch if you need further details.

Insulation

Where insulation is specified, it should be cut and tightly butted around the brackets and secured with the appropriate fixings. Sufficient insulation fixings should be provided to ensure that the insulation cannot block the ventilated cavity.



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