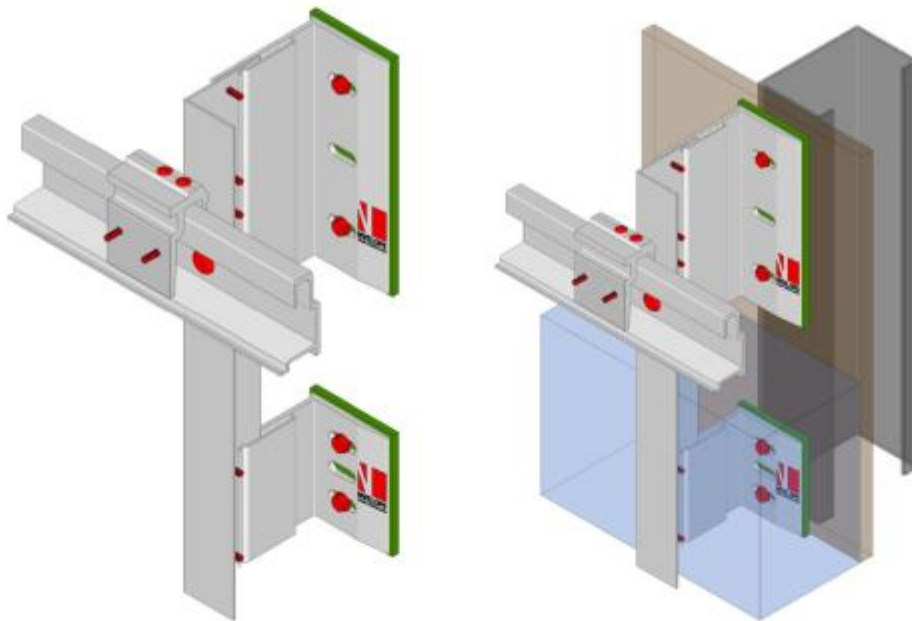


## Method Statement - Installation Guide NV4 ( Tespa TS200 ) - Hook on system

### General Description

Nvelope Profiles and Components are designed to provide a vertical support Framework for Trespa Meteon panels, to any suitable building façade.



These profiles are anchored to the building using a purpose-designed Nvelope bracket that allows final alignment and adjustment

For further information – Please see [www.nvelope.com](http://www.nvelope.com)

## Nvelope Brackets

Nvelope Brackets are supplied in different sizes ranging from 40mm - 300mm [see table for cavity depths that can be formed] with the NV4 ( TS200 ) system

The Brackets are available with hole-sizes 11mm or 6.5mm depending on the substrate diameter of the primary anchor (11 mm – Block / Masonry – 6.5 mm – Steel timber)

### Table of Bracket Sizes

Bracket Size	Minimum System [mm]	Maximum System [mm]	Bracket Size	Minimum System [mm]	Maximum System [mm]
40mm	74	94	40mm	42	62
60mm	94	134	60mm	57	97
90mm	124	164	90mm	87	127
120mm	154	194	120mm	117	157
150mm	184	224	150mm	147	187
180mm	214	254	180mm	177	217
210mm	244	284	210mm	207	247
240mm	274	314	240mm	237	277
270mm	304	354	270mm	267	307
300mm	334	384	300mm	297	337

NV4 ( TS200 ) Horizontal hanging Profile carrier profile and adjustable / fixed cleats

### Primary Fixings

Nvelope Brackets are secured directly to a new or existing substrate of concrete, brickwork or blockwork or steel frames. Suitable primary anchors are employed to position the Brackets to a pre-determined grid to suit the Panel layout – Please liaise directly with Nvelope Primary fixing supplier re pull-out.

If lightweight steel framing systems like Purlins or a Track / Stud framework is employed for this system, then it is important that this framework is erected to the same grid as the finished panel layout and that an engineered fixing device is used to fix the Brackets. In addition, if there is no sheathing board, the isolation of two different metals must be considered. The use of Nvelope insulation pad will achieve this – see [www.nvelope.com](http://www.nvelope.com)

**Important:** the size and type of primary fixing for the brackets will **always** be determined by the dynamic and dead loads they have to resist - Please liaise with Nvelope fixing supplier.

## Vertical Rails

Once a line of vertical Brackets is installed, a Nvelope 60 x 40 'L' Profile can be attached using the helping hand at each bracket position. [As the Panels will follow any irregularity or miss-alignment of profiles, it is important that time is taken to align / level the framework to a high standard].

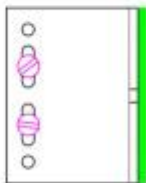
- Each 'L' Profile should be cut to the required length.
- Place the Profiles in each of the Brackets using the helping hand.
- Move the profile into its vertical position - allowing 10mm 'expansion' between profiles.
- The Profile can then be eased outwards to form the specified cavity depth.
- Check for line and level
- Secure the Profile using screws or rivets in the 'holes' or 'slots' \*\* - The correct combination or 'mix' of Single brackets / Double brackets may be determined – Our response to a completed 'Project Checklist' (see [www.nvelope.com](http://www.nvelope.com)) will differentiate between Single / Double brackets / Fixed point / Sliding point fixing and Horizontal / Vertical bracket positioning – Speak to Nvelope Technical

### Important

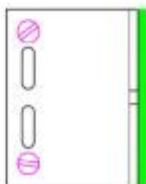
Generally, Profiles are cut to lengths that reflect the height of the panel(s) that are going to be hung on them. Typically storey-height profiles are cut so that the Panel(s) are located on one set of vertical profiles and does not 'bridge' an expansion gap between two profiles.

\*\*As each Profile is secured to the Brackets ONE, near the centre of the profile, MUST be connected with fixings going through the HOLES. [Fixed Point] ALL other brackets should then be fixed in the SLOTS [Sliding point]

For precise fixed point and sliding points – Speak to Nvelope for a project specific static calculation to be prepared



floating point



fixed point

Once Nvelope 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 screws and their position in each Bracket

### **NV4 ( TS200 ) horizontal rail**

The position of the horizontal rails should align with the 'hook' clip fitted to the rear face of the panel

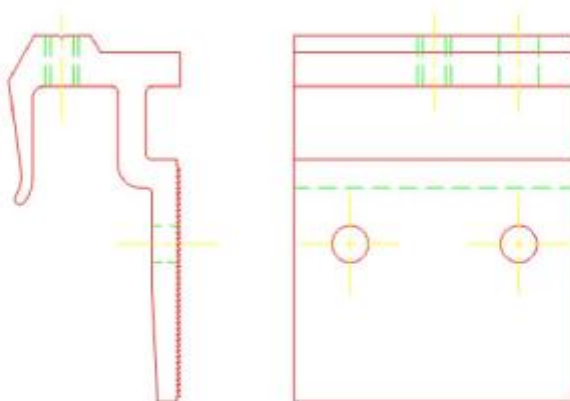
Horizontal datum lines should be projected across the elevation and the position of the profile should be marked on to the vertical rail

Then the Profile can be screwed / riveted to their required position

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

### **NV4 ( TS200 ) clips**

The clips come in adjustable with M6 adjusting screw and also have second plain hole to be used to lock a panel in the final position this should be in a central position or if only 2 cleats on a panel on a common side of the panel and fixed versions. Numbers of cleats are depending on panel thickness. Fixed cleats have no holes in the top face.





## Panels

The number of "hook" clips and their vertical position will be specified to suit the size and thickness of the Panels and the Dynamic Wind Pressures [Positive and Negative]. The top row of clips should be the adjustable type fitted with height adjustment screw and additional locking hole - this gives the ability to adjust the level and height of each panel individually the subsequent rows of clips are non adjustable.

## 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.

## Panel Installation [General]

- Check Profile positions in relation to actual Panel clips.
- Raise the Panel and support in vertical position.
- Lower on to rails and check that all 'hooks' have engaged.
- Adjust level and height of panel before fitting next panel above. If the screw adjustment raises the panel too high remove panel and adjust the main rail to suit. ( **max adjustment 12mm** ) initial setting nom 6mm
- Repeated on next panels
- Panel joints should follow the manufactures recommendations re joint gaps horizontal and vertical
- On final fixing top row of panels should have self drilling self tapping screw fixed through plain hole in central top clip to retain panel from being lifted off or sliding ( or common side if only 2 clips fitted )
- A 'lift' gap (see below) of no less than 20 mm needs to be left above the top panel for ease of removal / disengagement
- If the locking screw cannot be fitted Sika 11FC adhesive can be used on one clip to the same arrangement as above.

## Panel Removal [General]

- Working from top panel down – Undo self drilling self tapping screw / s
- Lift panel – A 'lift' of 15 mm will allow the NV4 ( TS200 ) clip to clear the NV4 ( TS200 ) rail – Therefore a 'lift' of c. 20 mm should be allowed for when disengaging the panel
- Repeated on next panels

We reserve the right to technical modifications no responsibility is taken for detail changes or printing mistakes of the details provided.

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NV4 (TS200) System

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