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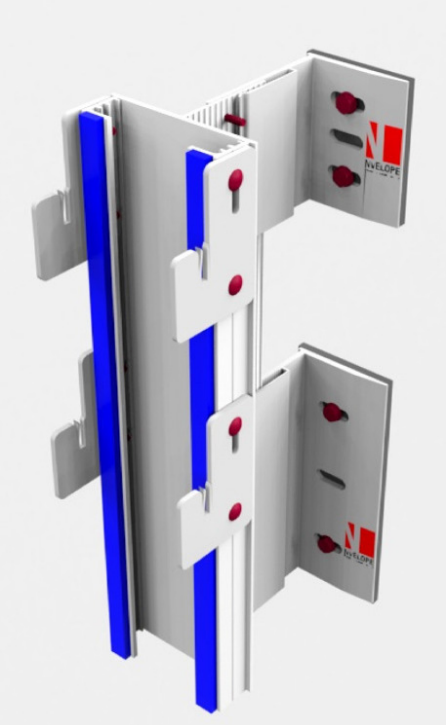
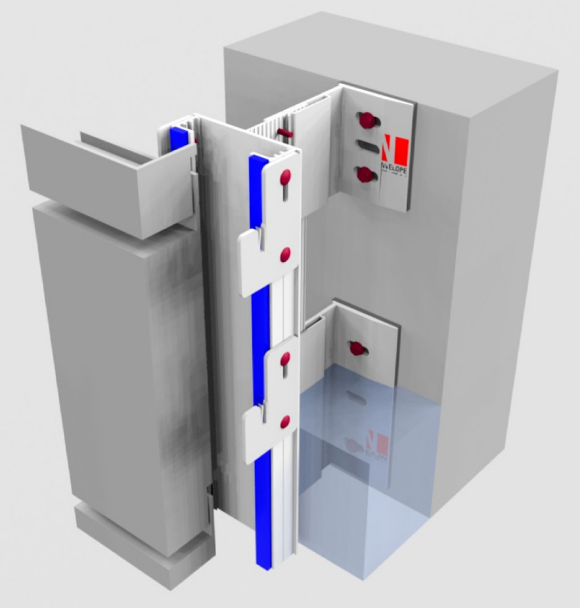
NVELOPE
MAKING CLADDING HAPPEN

Method Statement - Installation Guide
NV7 - Cassette

General Description

Nvelope NV7 Profiles and Components are designed to provide a vertical support framework to 'hook' 3mm or 4mm thick Cassette Panels to any suitable building facade. These profiles are anchored to the building using a purpose designed bracket that allows final alignment and adjustment.





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Components

One vertical Cassette Profile is supplied. The profile is supplied without the foam tape fitted and this should be fitted in position after cutting profiles to length.

Nvelope brackets are supplied in different sizes ranging from 60 - 300mm [see table below for cavity depths that can be formed.]

Nvelope brackets are available with hole-sizes 11 or 6.5 depending on the diameter of the primary anchor / substrate type. If in doubt please contact technical.

Horizontal Hangers for the Cassette Panels are secured in position with two 4.8mm x 19mm self-drilling self-tapping screws.

Table of Bracket Sizes

Bracket Size	Minimum System [mm]	Maximum System [mm]
60mm	140	180
90mm	170	210
120mm	200	240
150mm	230	270
180mm	260	300
210mm	290	330
240mm	320	360
270mm	350	390
300mm	380	420

Primary Fixings

The system 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 Cassette Panel layout.

If lightweight steel framing systems like Purlins or a Track / Stud frameworks are 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 an Nvelope insulation pad will achieve this.

Important: the size and type of primary fixing for the Connectors will **always** be determined by the dynamic and dead loads they have to resist and substrate type

Vertical Rails

Once a column of vertical Brackets is installed, the Cassette Profile can be attached at each bracket position. [As the Cassette 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 Cassette Profile should be cut to the required length.
- Secure the Profile using screws in the 'hole' or 'slots' in the Nvelope bracket**
- 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 - then fix with screws.

Important.

Generally, Cassette 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 Cassette Panel(s) are located on one set of vertical profiles and do not bridge an expansion gap between two profiles.

As each Cassette Profile is secured to the Nvelope bracket ONE connection, near the centre of the profile, MUST be connected with TWO SR2 4.2mm x 16mm stainless steel fixings going through the round HOLES. [Fixed Point**] ALL other bracket connections for the profile should then be made in the TWO SLOTS. [**Sliding point**]

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 screws and their position in each Nvelope Bracket.

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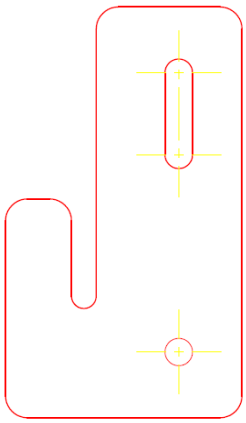
Cassette Hangers

The position of the cassette hangers should align with the fabricated 'hook' cut out slots in the back of the Cassette Panel.

Horizontal datum lines should be projected across the elevation and the position of the hangers should be marked on both flanges of each Vertical Cassette Profile.

Hangers are then placed in position on the Profile and slid to their required position.

A SR2 4.8mm x 19mm screw is used though the hanger through the slot then final alignment can be made with the final screw fixed through the hole to lock the hanger in position.



HANGER PLATE

Cassette Panels

Cassettes should be fabricated to suit the Nvelope NV7 system Designs see Nvelope drawings for details. Importantly the punched 'hanger' cut out and the top and bottom folds are critical to the installation of these Cassettes on to Nvelope NV7 system.

The number of hangers and their vertical position will be specified to suit the size of the Cassette Panels and the Dynamic Wind Pressures [Positive and Negative].

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.

Cassette Panel Installation [General]

Note: - Fold back any protective cover along the four edges of the cassette panel just prior to installing - where possible this protection should remain on the Cassette Panel surface until an area of panelling has been completed and the possibility of accidental damage is reduced.

- Check Profile and hanger positions in relation to actual Cassette Panel.
- Raise Cassette Panel and support in vertical position.
- Lower on to hanger plate and check that all 'hook' cut outs have engaged.
- Drill rivet / screw hole in top corners and secure panel in final position.
- Check that the 'hook' cut outs are still engaged on the cassette panel.

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