

NVELOPE Installation Guide NH3

NH3

NVELOPE brackets and framework are designed to provide a horizontal support for most façade types. NVELOPE brackets are anchored to the building using a primary fixing. The bracket allows for final alignment and adjustment.

For further information – please see:

www.nvelope.com

Also download/refer to:

NH3



NVELOPE Brackets

NVELOPE horizontal brackets are supplied in different sizes ranging from 75mm to 300mm (see table for cavity depths that can be formed) with the NH3 system.

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

The NH3 system allows a horizontal rail profile to be fixed directly into the bracket. Fixed and sliding points are determined by the rail fixing position.

Min – Max Adjustment 60 x 40 x 2.2 With Isolator

Bracket Size (mm)	Min (mm)	Max (mm)
NVELOPE 75	77	117
NVELOPE 90	92	132
NVELOPE 120	122	162
NVELOPE 150	152	192
NVELOPE 180	182	222
NVELOPE 210	212	252
NVELOPE 240	242	282
NVELOPE 270	272	312
NVELOPE 300	302	342

Min – Max Adjustment 60 x 40 x 12.5 With Isolator

Bracket Size (mm)	Min (mm)	Max (mm)
NVELOPE 75	87	115
NVELOPE 90	102	130
NVELOPE 120	132	160
NVELOPE 150	162	190
NVELOPE 180	192	220
NVELOPE 210	222	250
NVELOPE 240	252	280
NVELOPE 270	282	310
NVELOPE 300	312	340

NVELOPE

Brackets & 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 preferred NVELOPE primary fixing supplier regarding pull-out data.

In addition, if there is no sheathing board, the isolation of two different metals must be considered for two reasons; 1: bimetallic corrosion 2: thermal bridging. The use of NVELOPE isolator pad will achieve this.

Please liaise with NVELOPE Technical Department: project@nvelope.com

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.

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 – please liaise with primary fixing supplier.

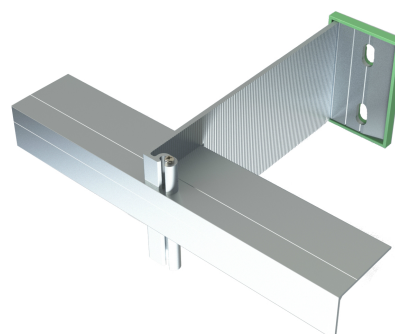
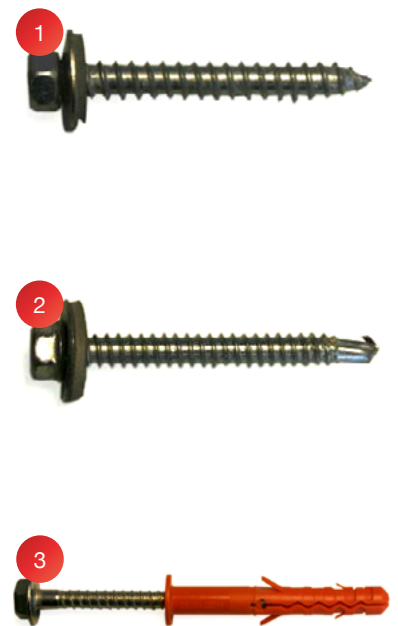
Primary Fixings

- 1 TDA or equivalent – timber substrate.
- 2 SX5 or equivalent – steel substrate.
- 3 MBRK or equivalent – concrete/block work substrate.

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. Please liaise directly with preferred primary fixing supplier and/or panel manufacturer re pull-out. NVELOPE can assist here.

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.



NVELOPE Horizontal Rails.



Horizontal Rails

Once a line of horizontal brackets is installed, standard 60 x 40 x 2.2 or a special horizontal 60 x 40 x 2.5mm 'L' Profile can be attached using the helping hand at each bracket position (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' slot.
- Move the profile into its horizontal 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 down through the securing hole located on the horizontal bracket - please refer to Project Builder output for correct bracket positioning, fixed and sliding point positions (see www.nvelope.com)

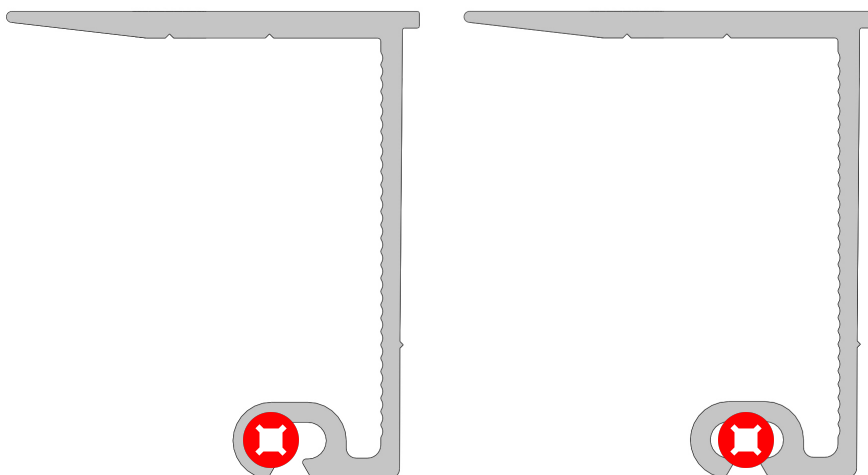
For further information please speak to NVELOPE Technical: project@nvelope.com

FIXED POINT

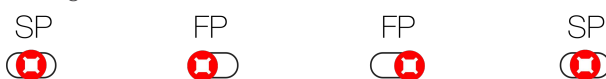
Absorbs dead loads.

FLOATING POINT

Absorbs dynamic loads & expansion.



Typical Rail Arrangement



Important

Typically, profiles are cut so that the panel(s) are located on one set of horizontal profiles and do 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 in the Fixed Point position. All other brackets should then be fixed in the Sliding Point position.

For precise fixed point and sliding points – speak to NVELOPE for a project specific static calculation to be prepared.

NVELOPE Installation.



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 NVELOPE profiles in relation to each other.
 - To the position of screws in each NVELOPE bracket.

NVELOPE Rainscreen Systems Ltd

Unit A City Park Watchmead
 Welwyn Garden City
 Herts
 AL7 1LT

T: +44 (0)1707 333 396

www.nvelope.com

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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 positions and joints.
- Raise the panel and support in horizontal position.
- Adjust level and height of panel before fitting next panel above.
- Repeated on next panels.
- Panel joints should follow the manufactures recommendations re joint gaps horizontal and vertical.

Site Checklist

To help with a smooth installation of our rainscreen support systems there are a few things to be taken into account.

Please see check list below:



Has a project specific project builder been completed?

➤ www.nvelope.com/project-builder-landing



If you or colleagues are new to our system, have you requested a tool box talk?

➤ www.nvelope.com/nvelope-contact-us



Have you referred to our data sheets and installation guides available on our website?

➤ www.nvelope.com/nvelope-our-downloads-system-guide



Has a successful pull out test been completed?

➤ www.nvelope.com



Once these tasks have been completed and installation starts you can send our team a photo of a selection of brackets for technical to sign off or advise.

➤ sitesupport@nvelope.com

➤ 01707 333 396