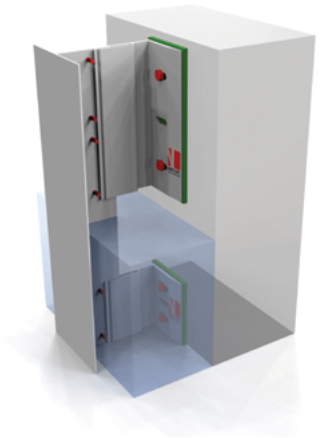
NVELOPE Installation Guide NV1.

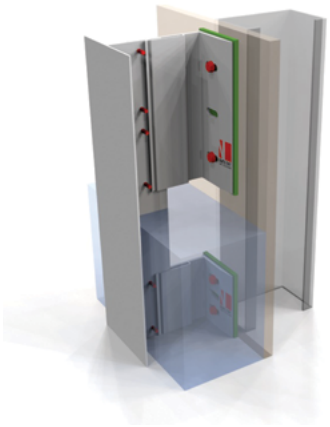
NV1

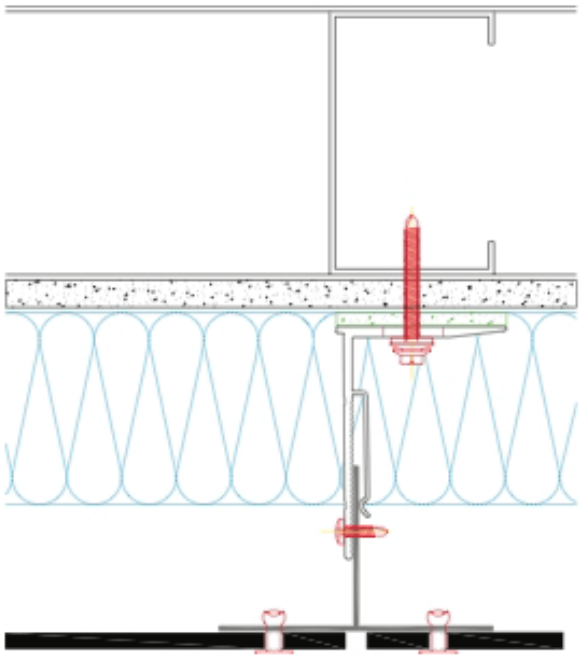
General Description

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

NV1 is a 'back frame' system (bracket and vertical 'L' and 'T' rail) suitable for supporting façade panels that require face fixing applications.







For further information, please see: www.nvelope.com.au/cladding-systems-NV1-vertical-cladding

NVELOPE MAKING CLADDING HAPPEN

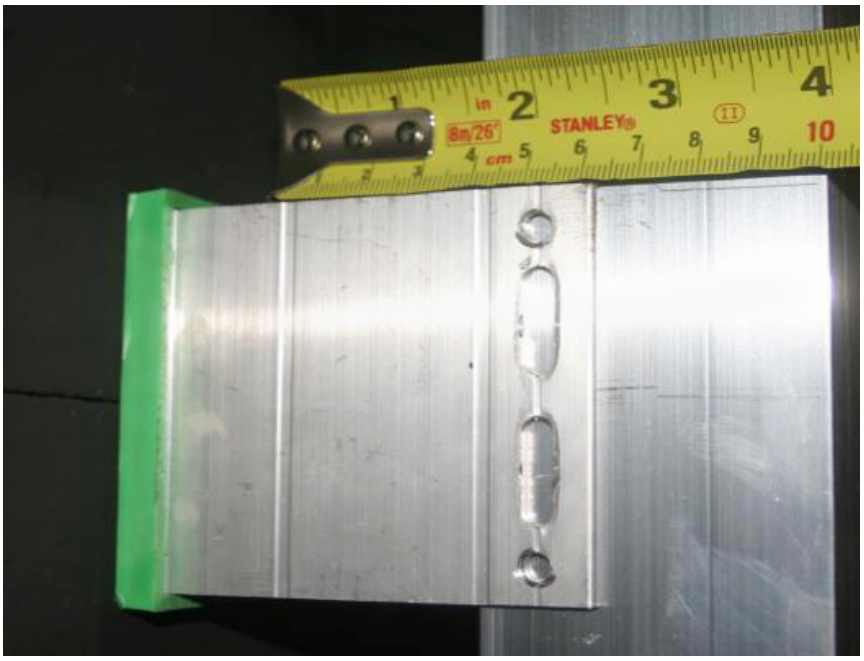
NVELOPE Brackets.

NV1

NVELOPE brackets are supplied in different sizes ranging from 40mm to 300mm (see table for cavity depths/cladding zones that can be formed with the NV1 system) NVELOPE also stock 60mm extension pieces.

Range of Adjustment

40mm adjustment markings on brackets (60 – 300mm). 40mm bracket has 20mm of adjustment.



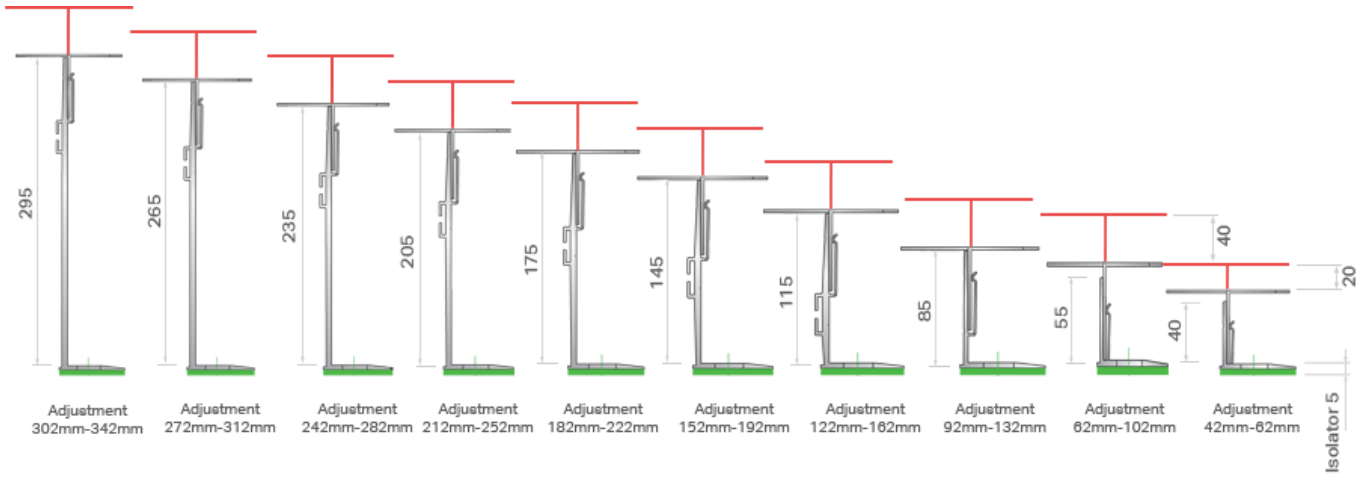
Min – Max Adjustment – With Isolator		
Bracket Size (mm)	Min (mm)	Max (mm)
NVELOPE 40	47	67
NVELOPE 60	62	102
NVELOPE 90	92	132
NVELOPE 120	122	162
NVELOPE 150	152	192
NVELOPE 180	182	222
NVELOPE 210	212	252
NVELOPE 240	242	282
NVELOPE 270	272	312
NVELOPE 300	302	342

Min – Max Adjustment – Without Isolator		
Bracket Size (mm)	Min (mm)	Max (mm)
NVELOPE 40	42	62
NVELOPE 60	57	97
NVELOPE 90	87	127
NVELOPE 120	117	157
NVELOPE 150	147	187
NVELOPE 180	177	217
NVELOPE 210	207	247
NVELOPE 240	237	277
NVELOPE 270	267	307
NVELOPE 300	297	337

NVELOPE
MAKING CLADDING HAPPEN

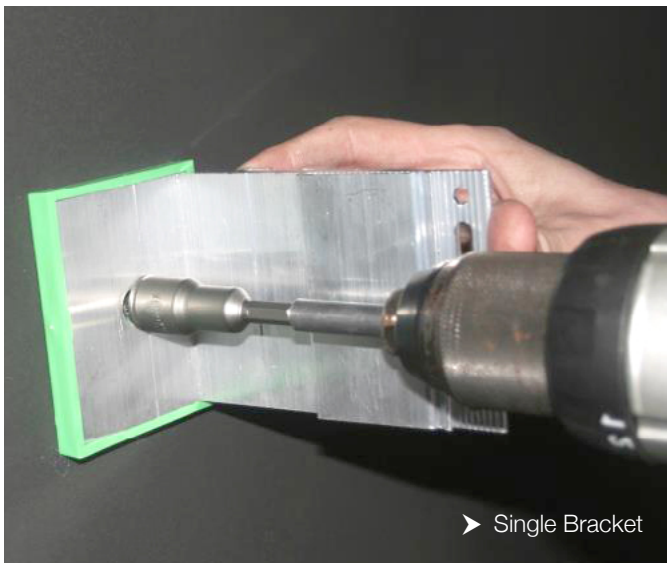
NVELOPE Brackets.

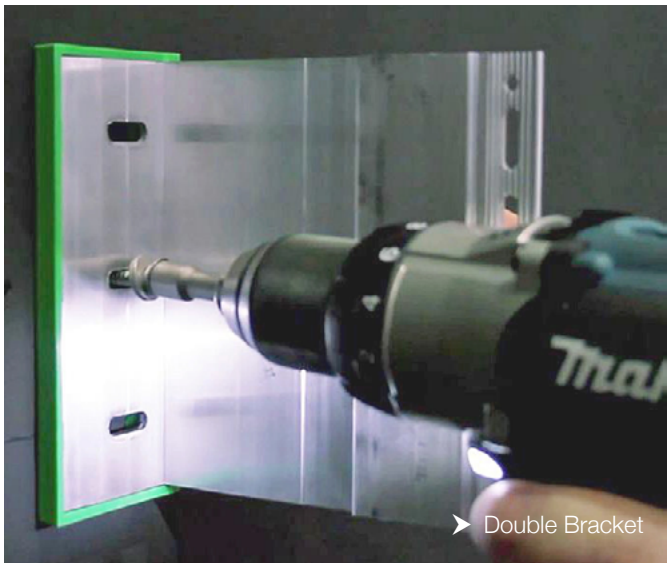
NV1



Brackets

NVELOPE brackets are available with 11mm or 6.5mm slots, depending on the diameter of the required primary anchor (11mm – Block\Masonry and 6.5mm – Steel/Timber). These are available as singles and doubles.


➤ Single Bracket


➤ Double Bracket

NVELOPE
MAKING CLADDING HAPPEN

NVELOPE Primary Fixings.

NV1

NVELOPE brackets are secured directly to a new or existing substrate of; concrete, brickwork or blockwork, steel, timber frames or SIPS. Stainless steel fixings are recommended by NVELOPE to prevent bimetallic corrosion.

Primary Fixings

1. Timber substrate.
2. Steel substrate.
3. Concrete/block work substrate.

Suitable primary anchors are designed to fix the brackets to a pre-determined grid to suit the cladding panel layout. 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.

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

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

Please see:
www.nvelope.com.au/documents/Nvelope_Isolator_M

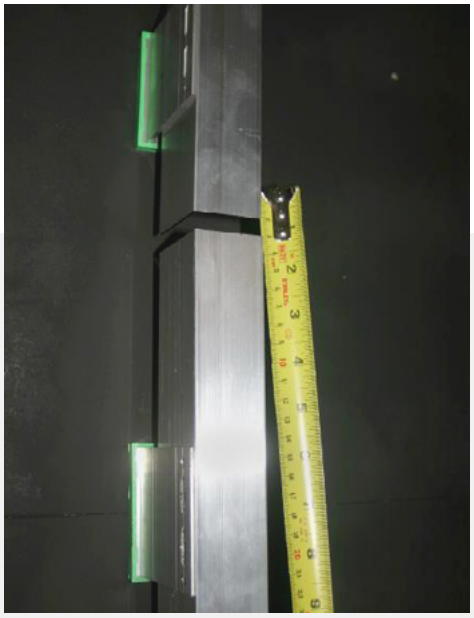
NVELOPE Vertical Rails.

NV1

Vertical Rails

Once a line of vertical brackets is installed, 'L' rail/'T' rail can be attached using the 'helping hand' at each bracket position. As the panels will follow any irregularity or miss-alignment of rails, it is important that time is taken to align and level the framework to a high standard.

NVELOPE Rails		
L60-40-2.2-3000		60 x 40 x 2.2mm L 3000 = 3 metre length (also comes in 6 metre and 4.85 metre)
T40-100-2.2-3000		40 x 100 x 2.2mm T 3000 = 3 metre length (also comes in 6 metre and 4.85 metre)
T60-80-2.2-3000		60 x 80 x 2.2mm T 3000 = 3 metre length (also comes in 6 metre)
T60-100-2.2-3000		60 x 100 x 2.2mm T 3000 = 3 metre length (also comes in 6 metre and 4.85 metre)
T60-120-2.2-3000		60 x 120 x 2.2mm T 3000 = 3 metre length (also comes in 6 metre and 4.85 metre)
T60-140-2.2-3000		60 x 140 x 2.2mm T 3000 = 3 metre length (also comes in 6 metre)
HBL60-40-2.5		60 x 40 x 2.5mm L 3000 = 3 metre length for horizontal use



- Each 'L' or 'T' rail should be cut to the required length, from standard length rails (please see table above).
- Place the rail in each of the brackets using the helping hand to support the rail.
- Move the rail into its vertical position – allowing 10mm expansion gaps between rails.

Important

Generally, profiles are cut to lengths that reflect the storey height. Typically storey-height profiles are cut so that the panel(s) are located on one set of vertical profiles and does not 'bridge' the 10mm 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).

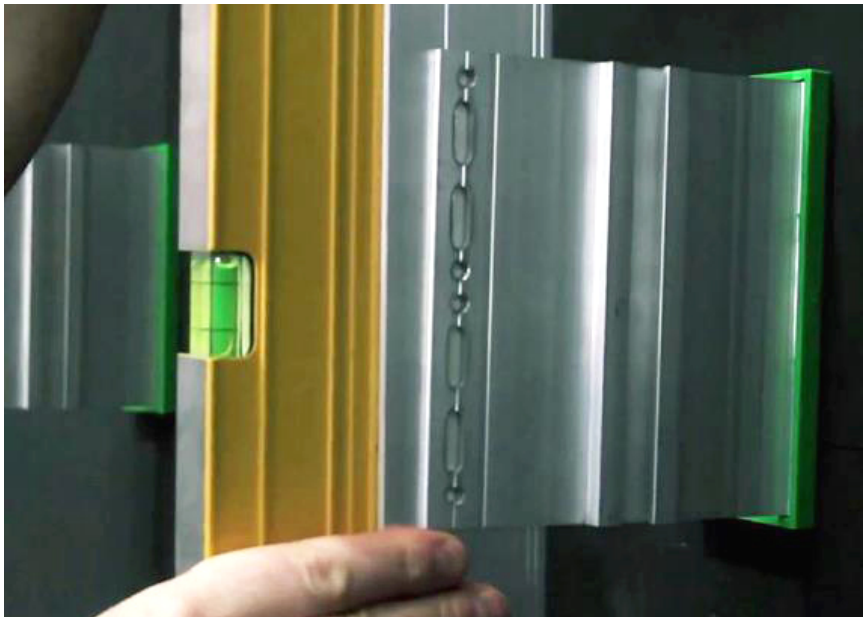
For precise fixed point and sliding points – speak to NVELOPE for a project specific static calculation to be prepared.

NVELOPE MAKING CLADDING HAPPEN

NVELOPE Vertical Rails.

NV1

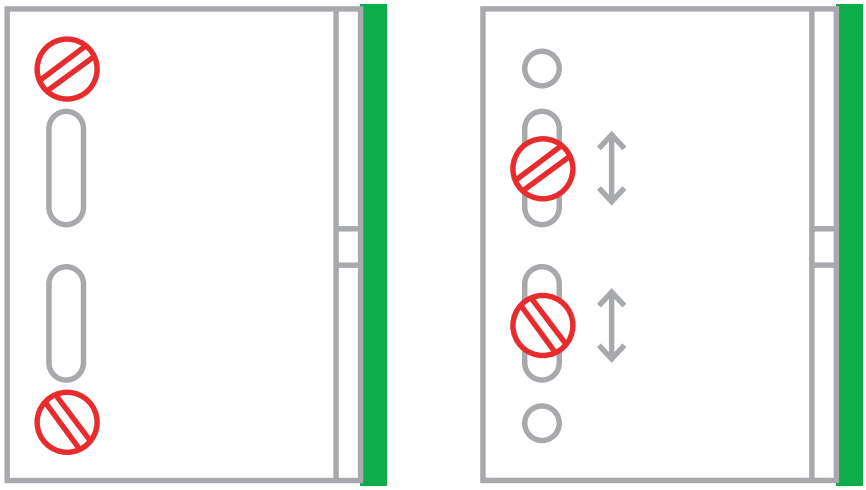
- The profile can then be eased outwards to form the specified cavity depth.
- Check for line and level.



- Secure the rail using stainless steel screws to the fixed or sliding points.

FIXED POINT
Absorbs dead loads.

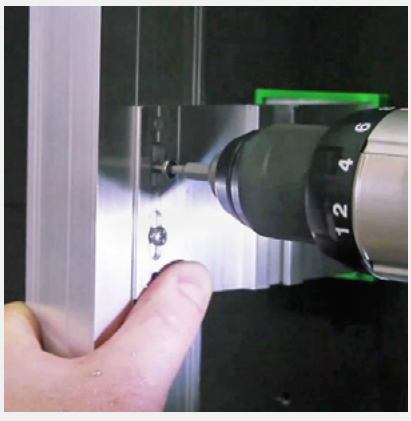
SLIDING POINT
Absorbs dynamic loads & expansion.



Please note: Please note: the correct fixed and sliding points on the helping hand bracket must be used. After adjustments are made for line and level, they are fixed using self-drilling stainless steel screws, SR2 (4.2 X16).

The correct combination of single brackets/double brackets, fixed and sliding points can be determined by completing a ‘Project Builder’.

Please see: www.nvelope.com.au/project-builder-landing



NVELOPE
MAKING CLADDING HAPPEN

NVELOPE Installation.

NV1

Once all brackets and rails 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 number of screws and their position in each NVELOPE bracket.

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 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 check list been completed?

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

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

➤ www.nvelope.com.au/nvelope-contact-us

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

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

Has a successful pull out test been completed?

➤ www.nvelope.com.au

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.

➤ info@nvelope.com.au
➤ 1800 051 100

A brand of SFS