

NV2 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

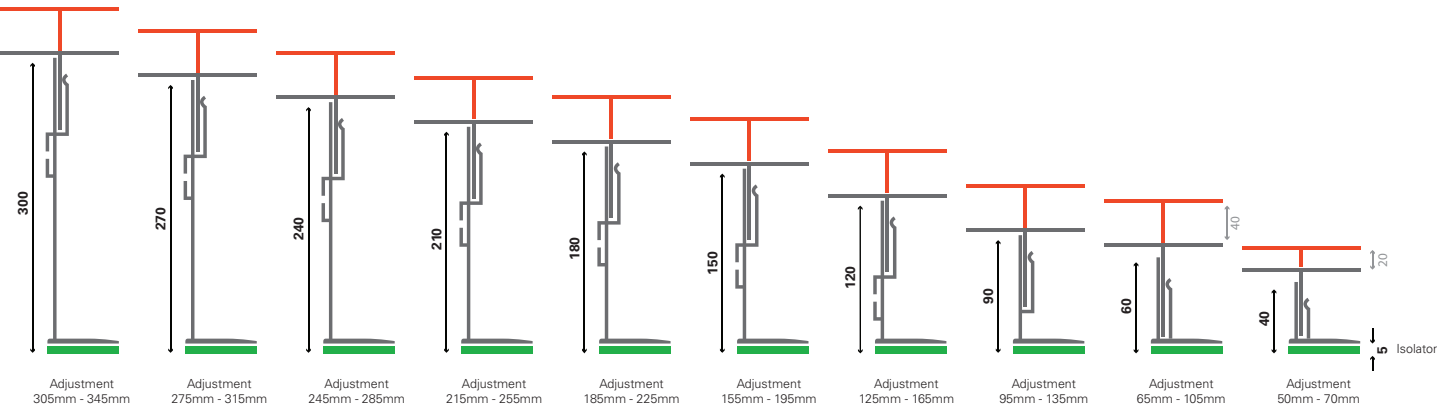
The NVELOPE® bracket range includes single and double variations of each bracket size, the difference being the depth of the bracket (75mm single, 150mm double). A double bracket is capable of supporting higher cladding loads, and is used in the fixed point location for projects that feature more demanding 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	50	70	1582505	1521239	1521238
60	65	105	1582506	1521247	1521246
90	95	135	1582508	1521255	1521254
120	125	165	1582509	1521263	1521262
150	155	195	1582510	1521273	1521272
180	185	225	1582511	1521282	1521281
210	215	255	1582512	1521291	1521290
240	245	285	1582514	1521300	1521299
270	275	315	1582517	1521309	1521308
300	305	345	1582520	1521317	1521316
270 (+extension)*	335	375	1582517 (+1521188)	1521309 (+1521187)	1521308 (+1521187)
300 (+extension)*	365	405	1582520 (+1521188)	1521317 (+1521187)	1521316 (+1521187)

*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



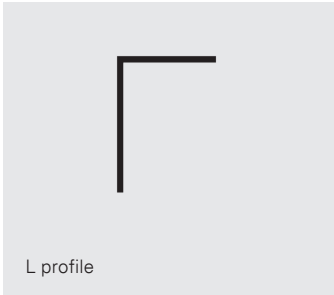
Component guide

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
T Profile	40 x 100 x 2.2 x 3000	1521413
T Profile	40 x 100 x 2.2 x 6000	1521417
T Profile	60 x 100 x 2.2 x 3000	1521423
T Profile	60 x 100 x 2.2 x 4850	1521431
T Profile	60 x 100 x 2.2 x 6000	1521434
T Profile	60 x 140 x 2.2 x 3000	1521445
T Profile	60 x 140 x 2.2 x 6000	1521447

Primary fixings

SX3/28-S16-6.0x48
1575777



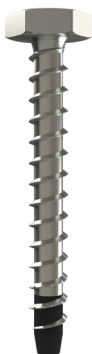
TDA-S-S16-6.5x60
1526326



SXR-10-80-FUS-A
1551174



MULTI-MONTI-10x85
1480024



Secondary fixings

SDA5/5.5x22
1507572



Sika Adhesive 300 and 600cc
0000000

Sika Tape
0000000

Sika Activator
0000000

Sika Primer
0000000

*fixing images not to scale

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.

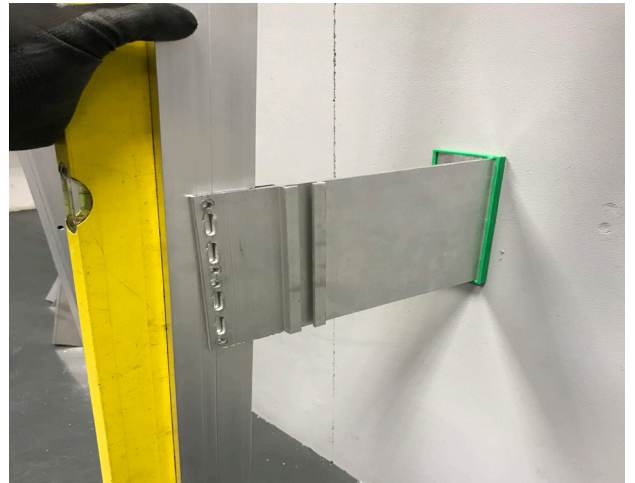


2. Insert profiles into brackets

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 brackets helping hand and adjust for line and level.

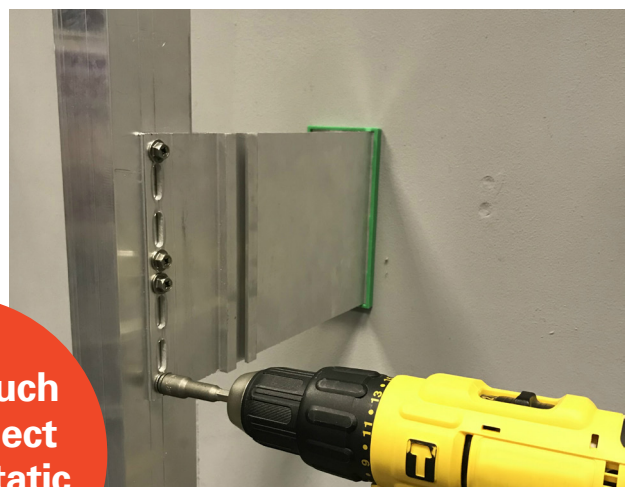
2.3 Check for line and level, ensuring a 10-12mm gap between the ends of rails to allow for expansion.



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.

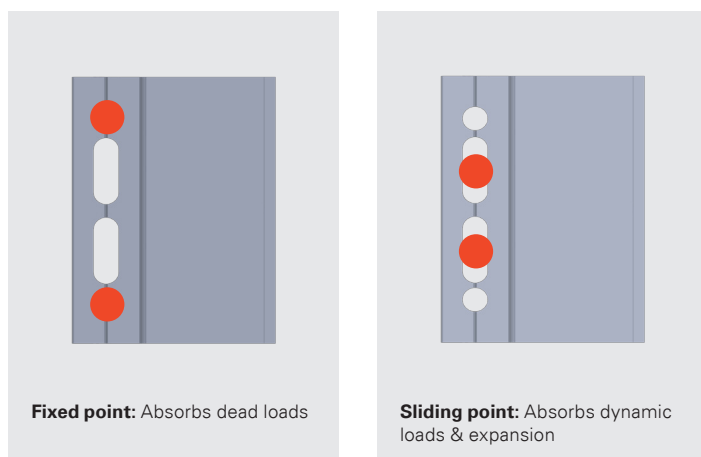
Note: Only one bracket per profile should have fixings in the fixed points (round holes), all subsequent brackets should have fixings in the sliding points (slots). See Figure 1.



Get in touch
for a project
specific static
calculation

Installation guide

Figure 1



Contact our
technical team:
01707 333396

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 panels

5.1 SikaTack® panel adhesive needs to be applied in accordance with Sika Limited BBA certificate 05/4218. For more information please talk to Sika Limited and refer to their installation documentation.

5.2 Check profile positions in relation to actual panel positions and joints.

5.3 Raise the panel and support in horizontal position.

5.4 Adjust level and height of panel before fitting next panel above.

5.5 Repeat on next panels.

5.6 Panel joints should follow the manufacturers recommendations on horizontal and vertical joint gaps.

Note: Typically, profiles are cut so that the panel(s) are located on one set of vertical profiles and do not bridge an expansion gap between two profiles.

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.



SFS Group Fastening Technology Ltd.
Division Construction
153 Kirkstall Road
Leeds, LS4 2AT

0330 0555 888
uk.info@sfsintec.biz
www.sfsintec.co.uk

SFS Group Fastening Technology Ltd.
Division Construction
Unit A, City Park, Watchmead
Welwyn Garden City, AL7 1LT