

DCT NVELOPE  
Thermally  
broken cladding  
support systems for  
**EQUITONE**  
fibre cement facade materials



Essential to architects and installers

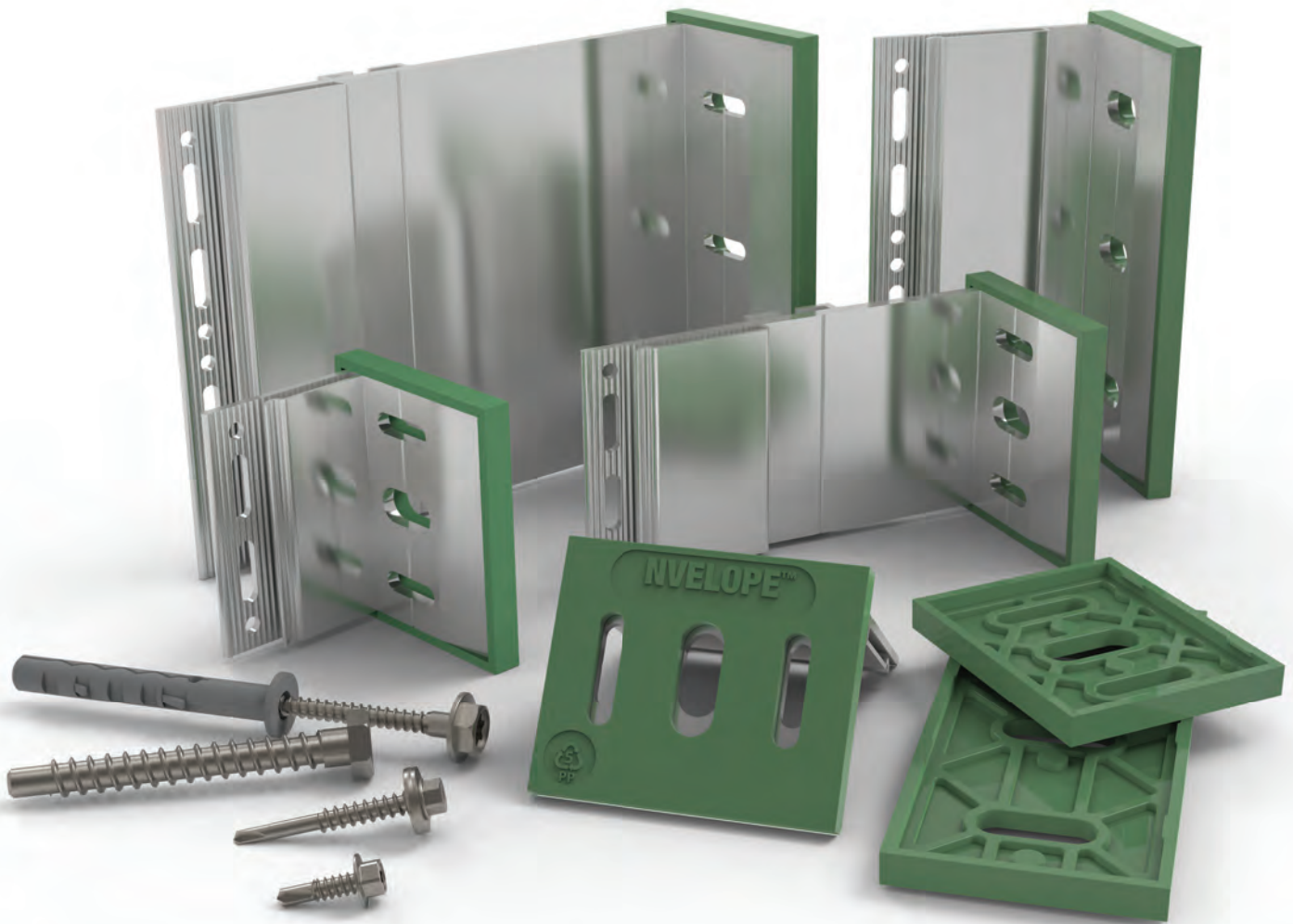
# NVELOPE

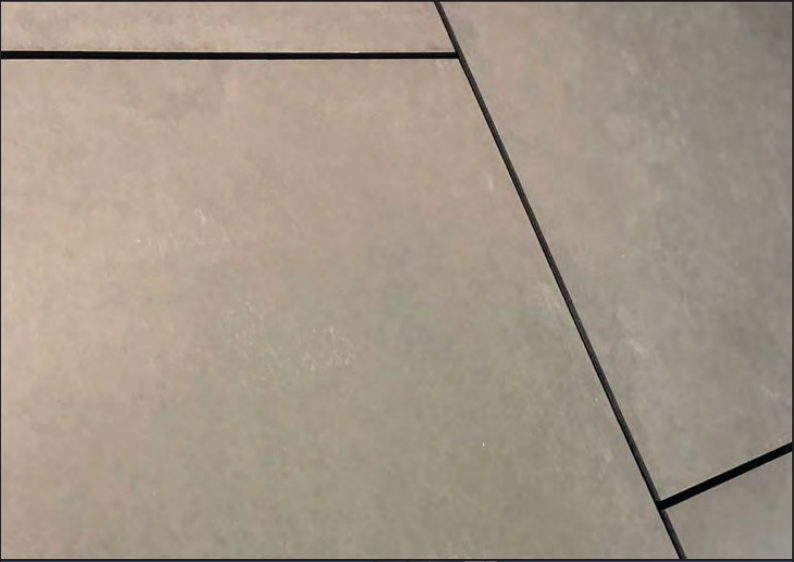
Thermally broken cladding support systems

There are many characteristics that any cladding support system must have to meet today's building requirements. Demanding energy standards and building codes that need to be met create design problems to overcome.

With Nvelope thermally broken cladding support systems:

- Structurally sound
- Thermally predictable
- Safe in a fire
- Suitable for most cladding types
- Easy to install / adjust
- Cost effective
- Wide range of cavity depths





# Sustainability

Our green credentials

## Bridging the thermal gap

Emphasis on the performance of the building details and additional losses through linear thermal bridging is paramount. Thermal bridging is the coupling of wall elements that work to transfer valuable energy into and out of the system. Since the attachment of ventilated cladding must go through the thermal insulation into the substrate, this cannot be avoided. Nvelope NV and NH brackets provide for the thermal decoupling of the substructure from the ventilated facade through thermal separation layers. The brackets are pre-assembled with thermal isolators which help reduce thermal bridging. In addition, Nvelope isolators prevent a chemical reaction from occurring between the aluminum brackets and the lime in the concrete frame as well as bimetallic corrosion between steel and aluminum.

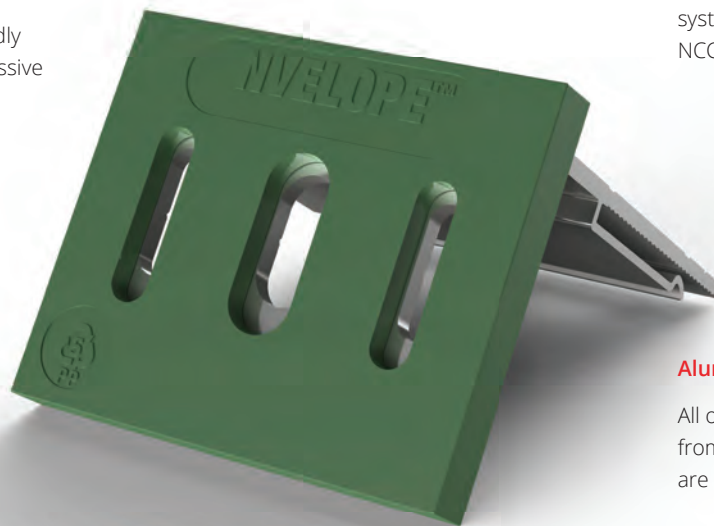
### Nvelope Isolator

- Featured as standard on all Nvelope brackets
- Pre-fastened isolators enable quick bracket assembly
- Flame retardant polypropylene copolymer
- Recyclable/ecologically friendly
- Low thermal conductivity passive house application

### Performance in fire

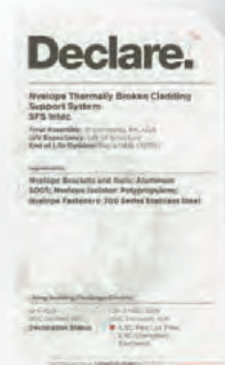
Nvelope cladding support brackets and rails are made of non-combustible, sustainable aluminum, which does not burn.

Nvelope cladding attachment systems comply to all relevant NCC and AS/NZS standards.



### Aluminum

All of our brackets are produced from sustainable aluminum and are fully traceable.



### Red List Free

Nvelope thermally broken cladding support system is Red List Free. Visit the International Living Future Institute (ILFI), for the complete Nvelope Declare label details.

# NVELOPE systems

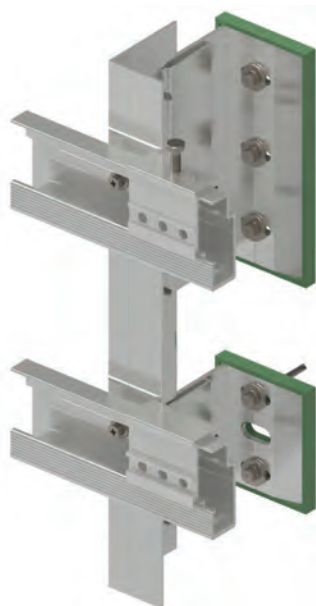
## NV1 - Face fastening system

Adjustable aluminium sub-framing system for mechanically face fastened cladding applications.



## NV3 - Concealed fixing system

Adjustable aluminium sub-framing system for mechanically concealed fastened cladding applications.



## NV9 - Top hat face fastening system

The NV9 Omega & Z profiles for mechanical face fastened panels. Can be used in C5 corrosive zones like all other Nvelope models.



## NH3 - Face fastening system

Adjustable aluminium sub-framing system to support mechanically face fastened narrow vertical panel applications.



## NVF2F - Face fastening system

Adjustable aluminium sub-framing system for floor to floor cladding applications.



# Brackets

## the system's backbone

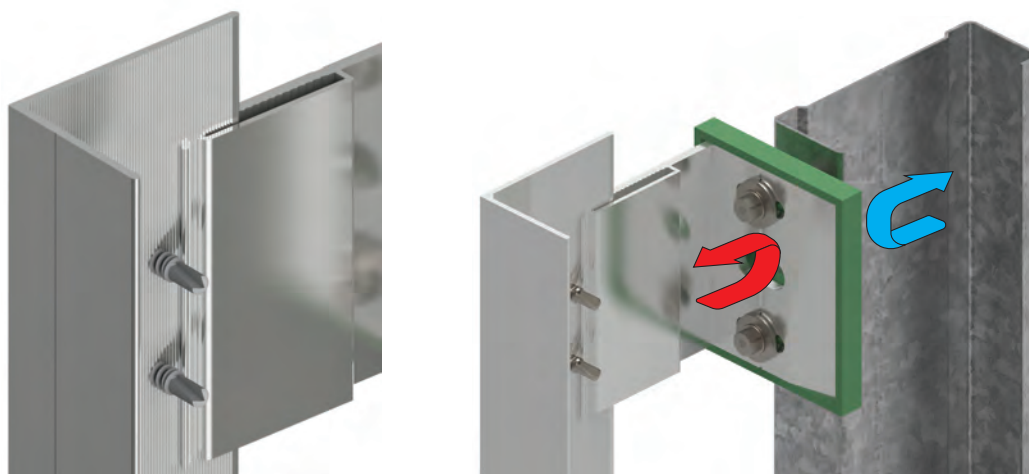
Nvelope® vertical brackets are the backbone of all Nvelope® cladding systems. Available in standard height dimensions of 40 - 300mm, there are two size categories single and double. Single brackets allow the facade to “float” on the subconstruction by absorbing wind load and allowing for expansion and contraction. Double brackets support both vertical weight loads and horizontal wind loads. Brackets are specifically designed for attachment to steel, masonry or timber substructures.



## Bracket Features

### Adjustability

Bracket “helping hand” allows for rail insertion depth up to 40mm max, which ensures that facade panels are plumb and true, thus eliminating the need for shims.



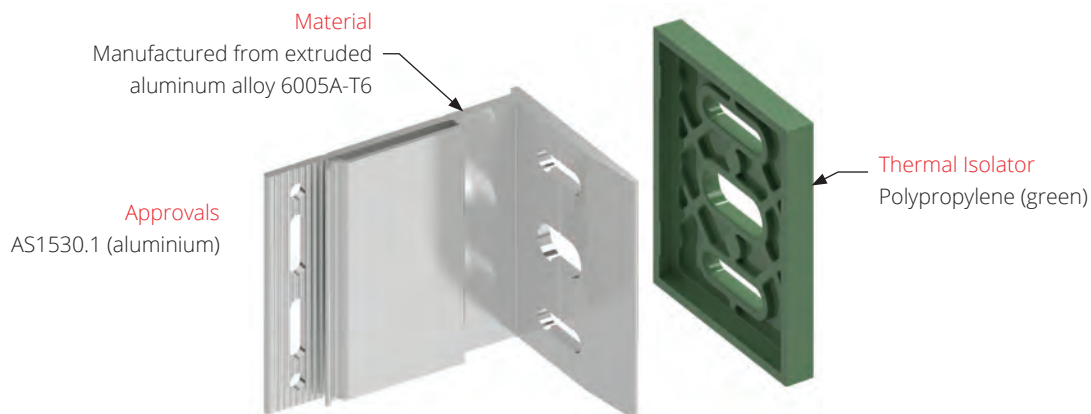
### Fast & Easy to Install

The “helping hand” bracket holds the rail in place to allow up to 50 % faster install.

### Thermal Efficient

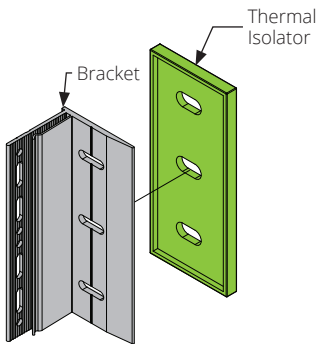
Thermal isolator provides thermal break to reduce energy loss through wall assembly.

## Basic Specs

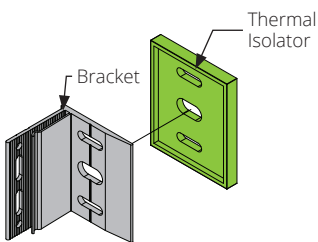


# NVELOPE NV1 NV2 NV3 Bracket Range

The base sub-framing for the Nvelope® NV1, NV2 and NV3 systems. Nvelope® 'T' and 'L' profiles are fixed using the support brackets, fixed through a series of fixed and sliding points.

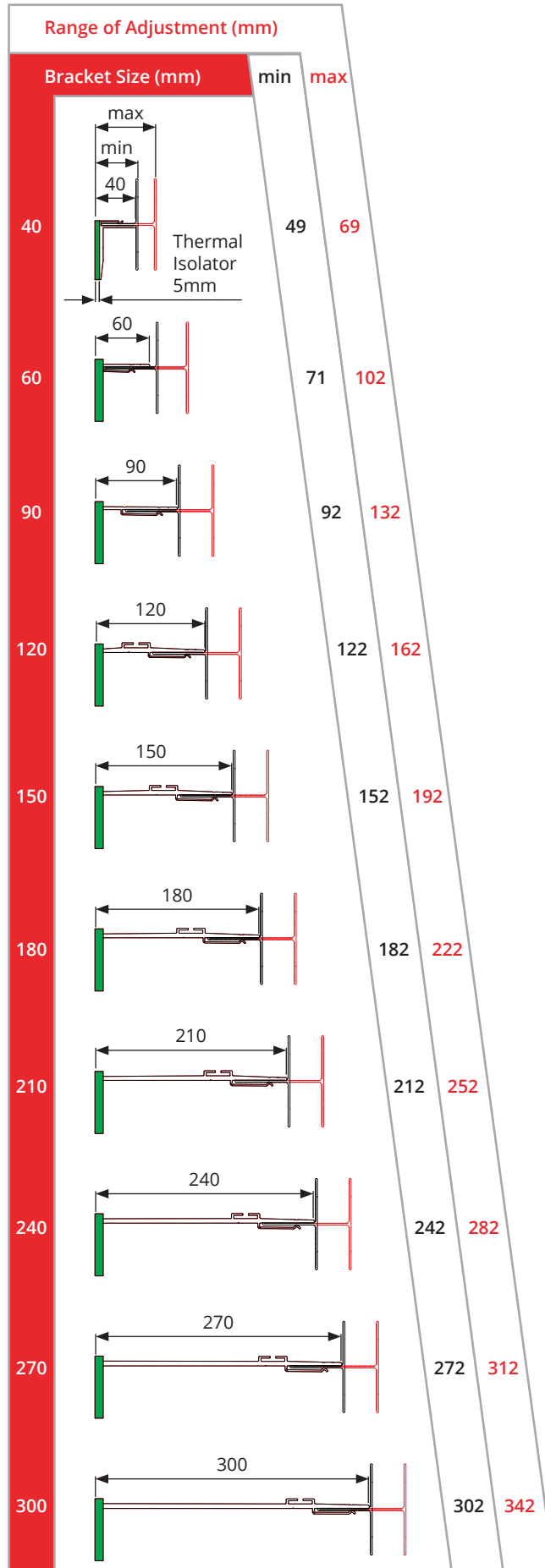


Fixed point double bracket



Sliding point single bracket

Isolators are included as standard. If isolators are not required, reduce dimensions by 5mm

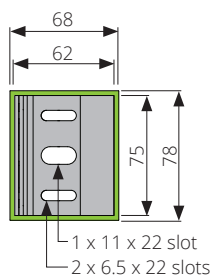
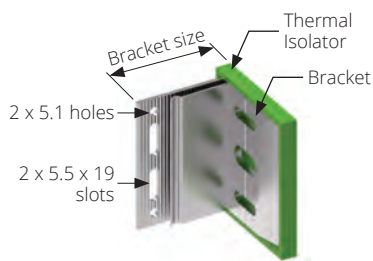




### Single Bracket - Universal

For steel, timber, concrete or filled CMU substrate  
2 x 6.5 mm slot, 1 x 11mm slot

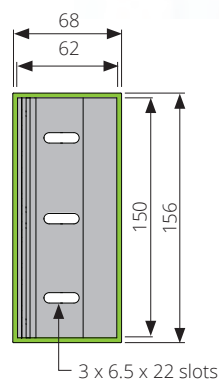
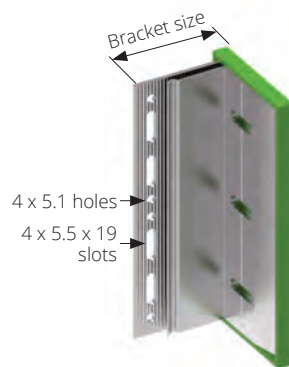
Product Code	Size
	(mm)
01/VB040S-11/6.5	40
01/VB060S-11/6.5	60
01/VB090S-11/6.5	90
01/VB120S-11/6.5	120
*01/VB150S/11-6.5	150
*01/VB180S/11-6.5	180
*01/VB210S/11-6.5	210
*01/VB240S/11-6.5	240
*01/VB270S/11-6.5	270
*01/VB300S/11-6.5	300



### Double Bracket - 6.5

For steel and timber substrates  
3 x 6.5 mm slot

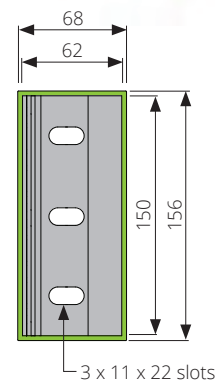
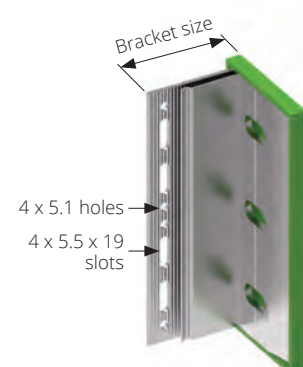
Product Code	Size
	(mm)
01/VB040D-6.5	40
01/VB060D-6.5	60
01/VB090D-6.5	90
01/VB120D-6.5	120
*01/VB150S-6.5	150
*01/VB180D-6.5	180
*01/VB210D-6.5	210
*01/VB240D-6.5	240
*01/VB270D-6.5	270
*01/VB300D-6.5	300



### Double Bracket - 11

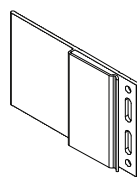
For concrete or filled CMU substrate  
3 x 11mm slot

Product Code	Size
	(mm)
01/VB040D-11	40
01/VB060D-11	60
01/VB090D-11	90
01/VB120D-11	120
*01/VB150D-11	150
*01/VB180D-11	180
*01/VB210D-11	210
*01/VB240D-11	240
*01/VB270D-11	270
*01/VB300D-11	300

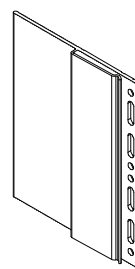


### Bracket Extensions

Product Code	Description
01/EX-PC-75	Bracket Extension piece single
01/EX-PC-150	Bracket Extension piece double



01/EX-PC-75



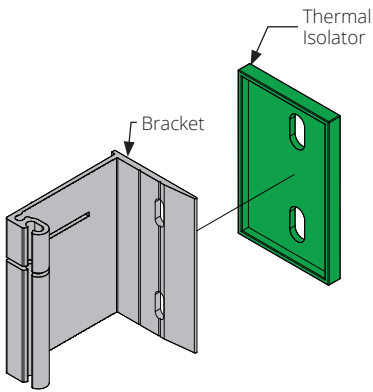
01/EX-PC-150

Bracket overall size (mm)	Range of Adjustment	
	Min	Max
270 + extension	384	424
300 + extension	414	454

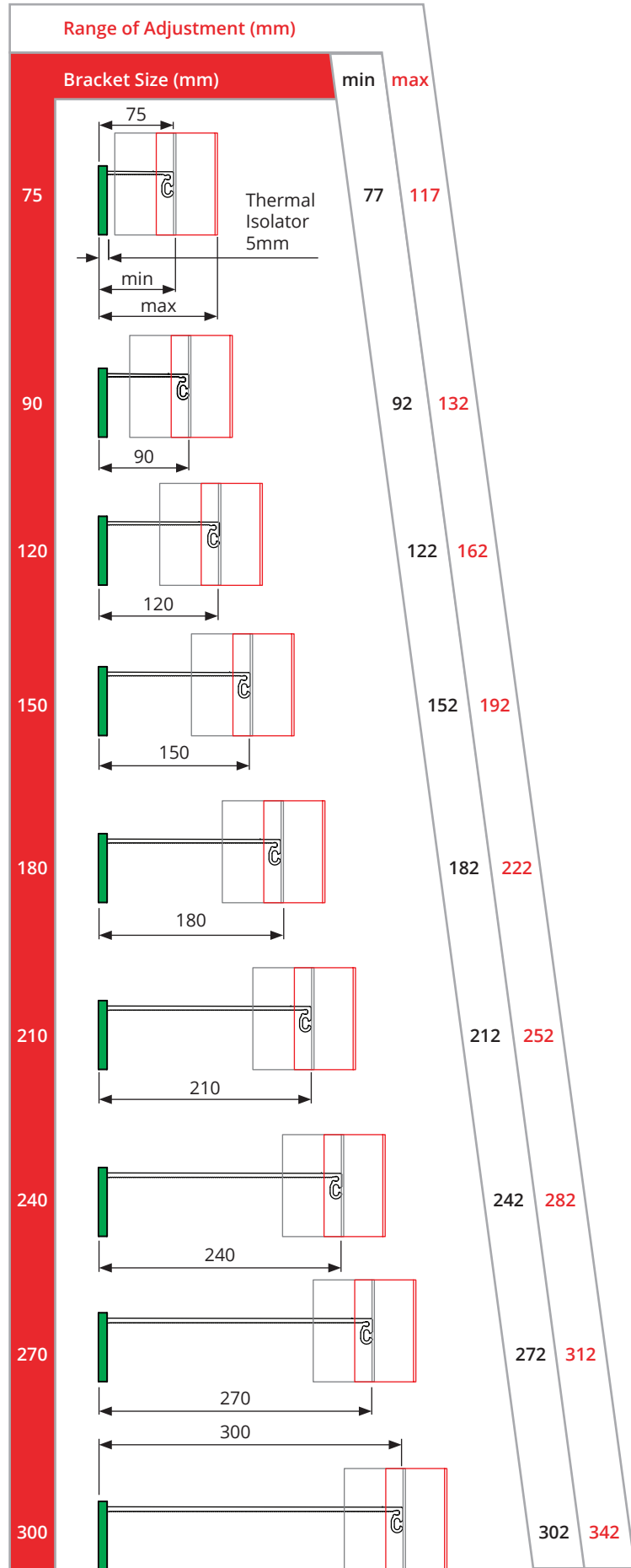
\* Brackets subject to availability. Contact DC Tech for further details

# NVELOPE NH3 Bracket Range

NH3 is the Nvelope® horizontal bracket system suited for face fixed narrow vertical panels.



Isolators are included as standard. If isolators are not required, reduce dimensions by 5mm



### Bracket - 6.5

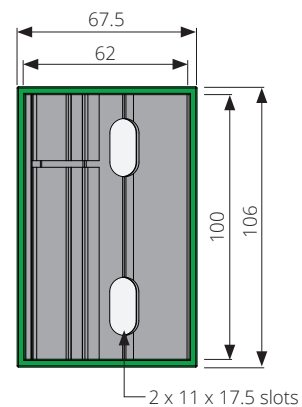
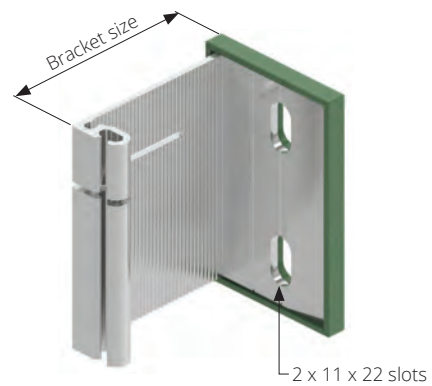
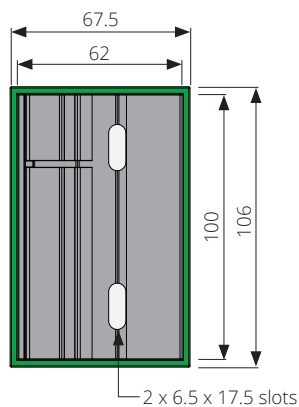
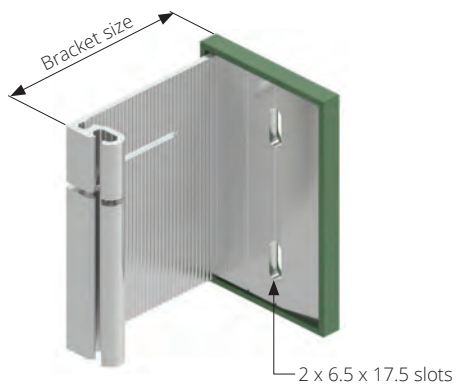
For steel and timber substrates  
2 x 6.5 mm slot

Product Code	Size
	(mm)
*01/NH3-075-6.5	75
*01/NH3-090-6.5	90
*01/NH3-120-6.5	120
*01/NH3-150-6.5	150
*01/NH3-180-6.5	180
*01/NH3-210-6.5	210
*01/NH3-240-6.5	240
*01/NH3-270-6.5	270
*01/NH3-300-6.5	300

### Bracket - 11

For concrete or filled CMU substrate  
2 x 11mm slot

Product Code	Size
	(mm)
*01/NH3-075-11	75
*01/NH3-090-11	90
*01/NH3-120-11	120
*01/NH3-150-11	150
*01/NH3-180-11	180
*01/NH3-210-11	210
*01/NH3-240-11	240
*01/NH3-270-11	270
*01/NH3-300-11	300

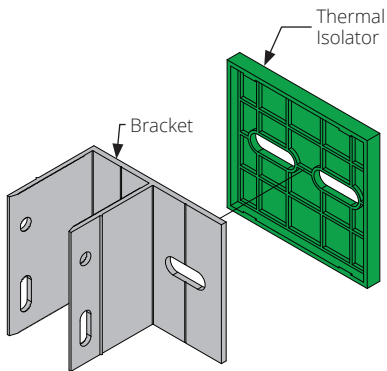


\* Brackets subject to availability. Contact DC Tech for further details

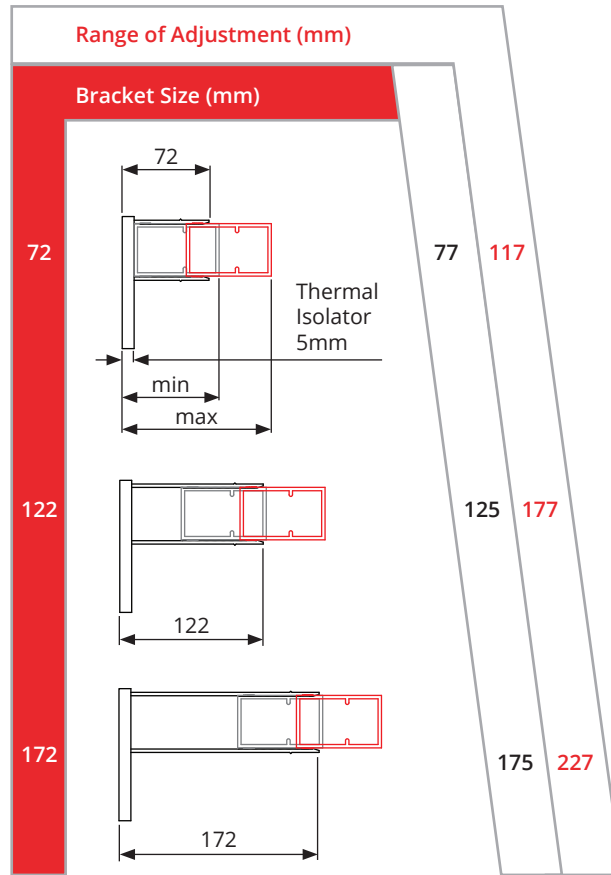
# NVELOPE NVF2F

## Bracket Range

NVF2F is the subframe system suitable for vertical floor to floor cladding applications. NVF2F can support the NV3 system.



Isolators are included as standard. If isolators are not required, reduce dimensions by 5mm

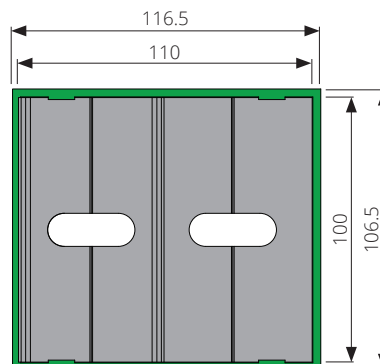
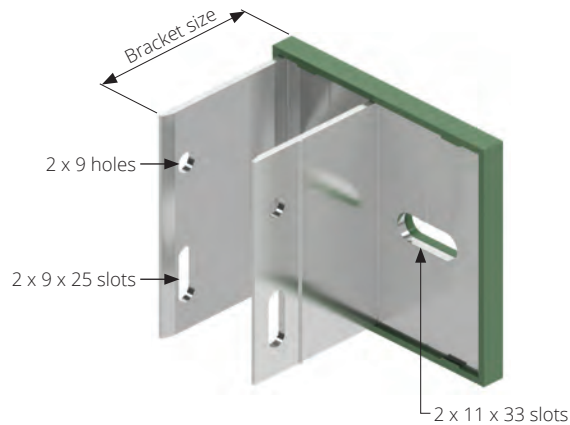


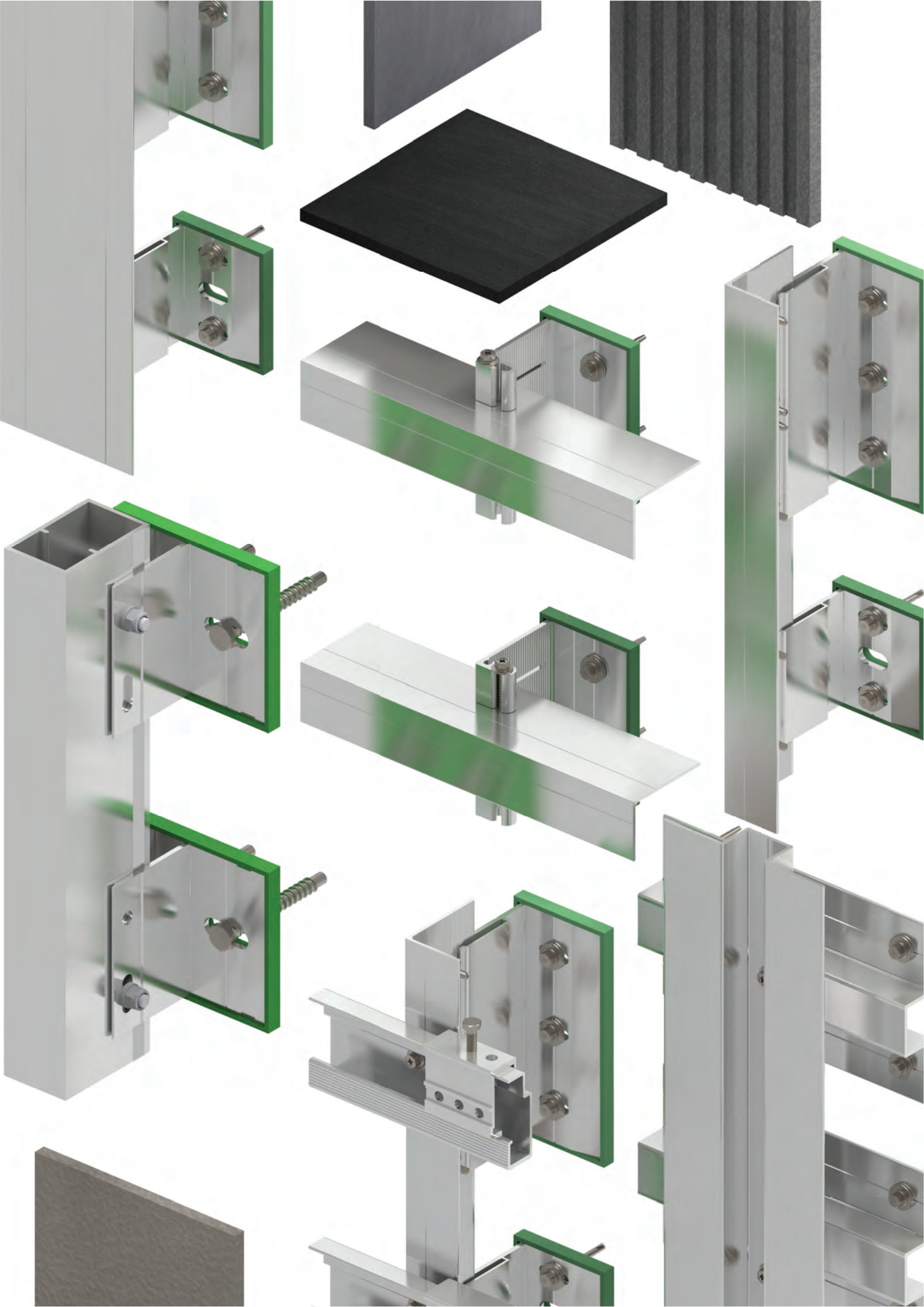
### Bracket - 11

For concrete or filled CMU substrate  
2 x 11mm slot

Product Code	Size
	(mm)
*01/NVF2F-072	72
*01/NVF2F-122	122
*01/NVF2F-172	172

\* Brackets subject to availability. Contact DC Tech for further details





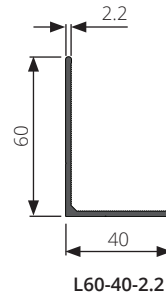
# Extrusions and cladding components

Generally, extrusions 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.

## L Rails

Product Code	Description
*02/L60-40-2.2-3000	L Profile 60 x 40 x 2.2 x 3000
02/L60-40-2.2-6000	L Profile 60 x 40 x 2.2 x 6000

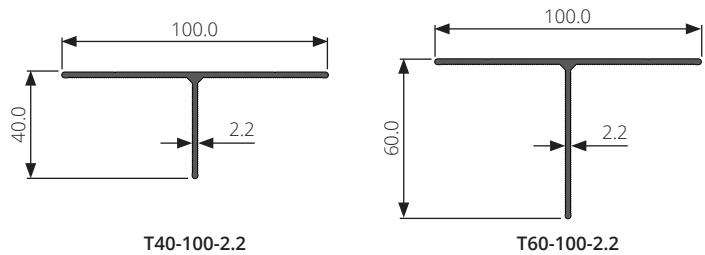
Powder coating or anodising available upon request  
\*Available upon request, lead time applies



## T Rails

Product Code	Description
*02/T40-100-2.2-3000	T Profile 40 x 100 x 2.2 x 3000
02/T40-100-2.2-6000	T Profile 60 x 40 x 2.2 x 6000
*02/T60-100-2.2-3000	T Profile 60 x 100 x 2.2 x 3000
02/T60-100-2.2-6000	T Profile 60 x 40 x 2.2 x 6000

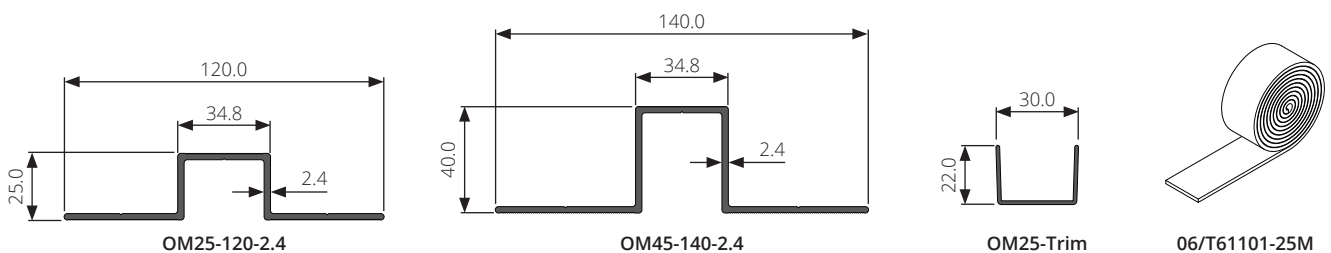
Powder coating or anodising available upon request  
\*Available upon request, lead time applies



## Omega Rails & Trim

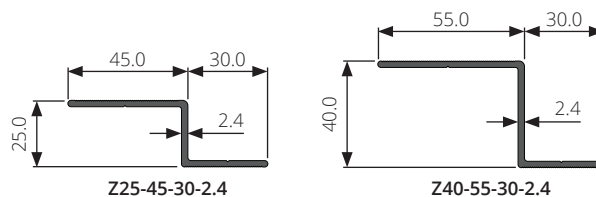
Product Code	Description
02/OM25-120-2.4-6000	25mm Omega - Mill Finish 6000
*02/OM25-120-2.4-6000-PC	25mm Omega - Powder Coat Finish 6000
*02/OM40-140-2.4-6000	40mm Omega - Mill Finish 6000
*02/OM40-140-2.4-6000-PC	40mm Omega - Powder Coat Finish 6000
02/OM25-Trim-3000	Omega 25 Centre Trim - Mill Finish 30 x 22 x3000
*02/OM25-Trim-3000-PCBK	Omega 25 Centre Trim - Black Powder Coat Finish 30 x 22 x3000
06/T61101-25M	24mm x 1.6mm thick single sided EPDM tape - 25m roll

Powder coating or anodising available upon request  
\*Available upon request, lead time applies



## Z Rails

Product Code	Description
02/Z25-45-30-2.4-6000	25mm Z - Mill Finish x 6000
*02/Z25-45-30-2.4-6000-PC	25mm Z - Powder Coat Finish x 6000
*02/Z40-55-30-2.4-6000	40mm Z - Mill Finish x 6000
*02/Z40-55-30-2.4-6000-PC	40mm Z - Powder Coat Finish x 6000



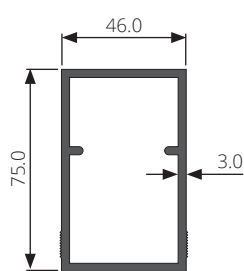
Powder coating or anodising available upon request

\*Available upon request, lead time applies

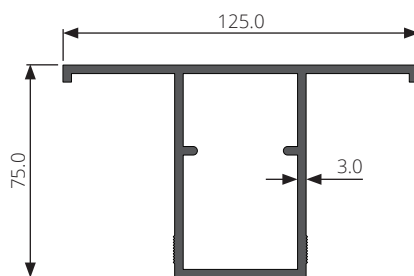
## Box Rails

Product Code	Description
02/B75-46-6000	NVF2F Box Profile 46 x 75 x 3.0 x 6000
02/TB75-125-6000	NVF2F T Box Profile 125 x 75 x 3.0 x 6000

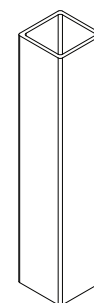
Powder coating or anodising available upon request



02/B75-46



02/TB75-125



01/NVF2F-SGT

## Spigot

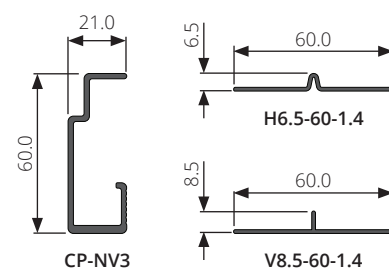
Product Code	Description
01/NVF2F-SGT	NVF2F Joining spigot

## NV3 Rails, Trim

Product Code	Description
02/CP-NV3-3000	Carrier Profile NV3 System x 3000
02/CP-NV3-6000	Carrier Profile NV3 System x 6000
02/V8.5-60-1.4-3000-PCBK	Vertical Express Joint Backing Trim - Black Powder Coat 8.5 x 60 x 3000
02/H6.5-60-1.4-3000-PCBK	Horizontal Express Joint Backing Trim - Black Powder Coat 6.5 x 60 x 3000
06/T61102-25M	12mm x 3.2mm thick single sided EPDM tape - 25m roll
06/T62936-25M	18mm x 1.6mm thick double sided PE foam tape - 25m roll

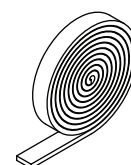
Powder coating or anodising available upon request

\*Available upon request, lead time applies

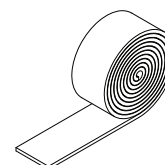


CP-NV3

V8.5-60-1.4



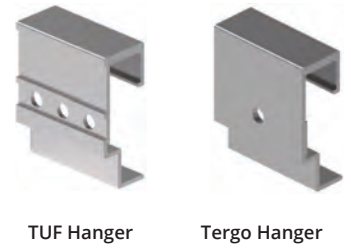
06/T61102-25M



06/T62936-25M

## NV3 Hangers

Product Code	Description
<b>Tergo Plus</b>	
03/NV3-TER-TEC-ADJF	NV3 Fixed/ Levelling Hanger 1 x Tergo plus (Tectiva Round Hole)
03/NV3-TER-TEC-STAT	NV3 Static Hanger 1 x Tergo plus (Tectiva Round Hole)
<b>TUF-S</b>	
03/NV3-TUF-S-ADJ-3.5-M6	NV3 Levelling Hanger 3.5mm thick for TUF - Inc adjust screw (3 holes)
03/NV3-TUF-S-STAT-3.5	NV3 Static Hanger 3.5mm thick for TUF - (3 holes)
03/NV3-TUF-S-ADJ-5-M6	NV3 Levelling Hanger 5mm thick for TUF - Inc adjust screw (3 holes)
03/NV3-TUF-S-STAT-5	NV3 Static Hanger 5mm thick for TUF - (3 holes)



# Fasteners for cladding attachment

### EQUITONE UNI Rivet

Equitone propriety colour coded UNI Rivet. Refer to EQUITONE ANZ for information, properties and available sizes of UNI Rivet.



### TUF-S

EQUITONE may be installed with TUF-S concealed fasteners. TUF-S can be applied to panels without requiring any special tools or CNC machinery.

TUF-S, excluding the mandrel, is made of 316 (A4) stainless steel. The mandrel is carbon steel zinced and is completely removed once TUF-S is applied.



#### TUF-S Concealed Fastener

Panel Thickness (mm)	Drill Depth (mm)	TUF-S anchor
8	5.5	04/TUF-S-6x09-A4
10	5.5	04/TUF-S-6x09-A4
12	8.5	04/TUF-S-6x12-A4

### Fischer Tergo+

Tergo+, a fixing system of Fischer, is an undercut anchor used for concealed fixing for EQUITONE panels. This fixing system requires special equipment or CNC machinery for drilling the undercut holes at the back of EQUITONE panels.

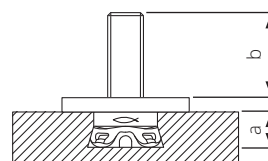
Tergo+ fixing solution is not available for the following materials, EQUITONE [natura], 8mm EQUITONE [natura] PRO, and 8mm EQUITONE [pictura].

Available for EQUITONE [tectica], EQUITONE [lines] and EQUITONE [lunara]



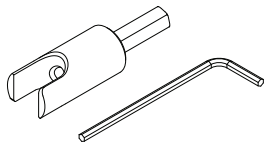
#### Tergo+ Concealed Fastener

Panel Thickness (mm)	Embedment Depth (a) (mm)	Tergo+ anchor	Thread length (b) (mm)
8	6	04/Tergo+ 11X6	13
10	8	04/Tergo+ 11X8	13
12	10	04/Tergo+ 11X10	13

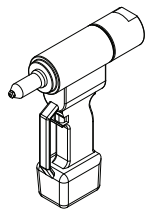




# Tools for cladding attachment



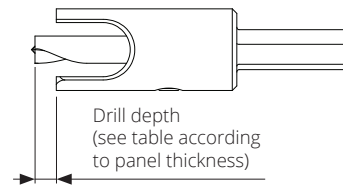
**05/TUx-S-UDL**  
Universal Depth Locator for  
TU-x-S VHM Drill Bits  
(drill bit sold separately)



**05/GT-PBPRO-L2**  
GESIPA Powerbird Pro  
battery rivet tool



**05/VHM-6,0xB**  
Drill Bit for  
TUx-S anchors  
(B - see table for length)



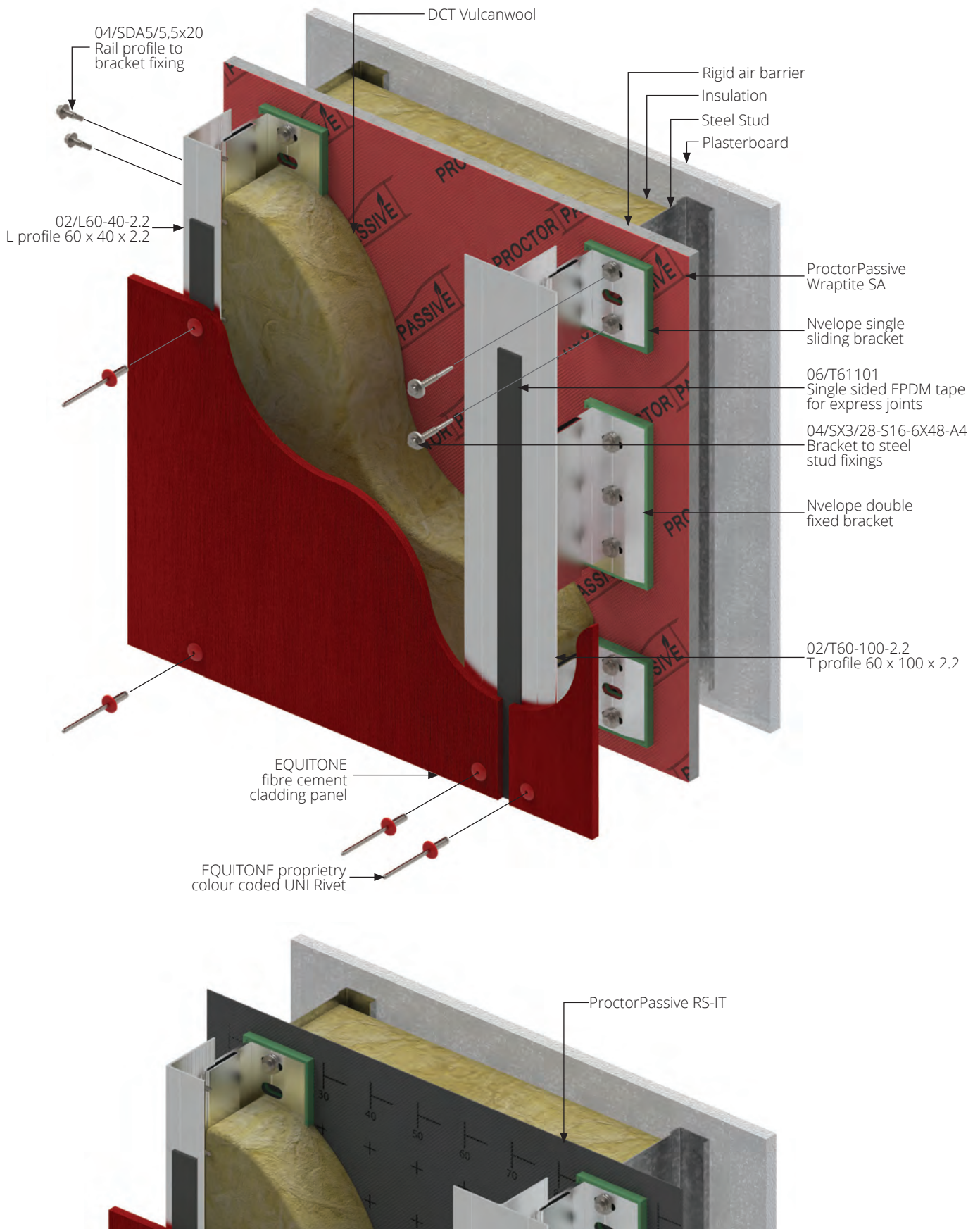
Panel Thickness (mm)	Drill Depth (mm)	Drill Bit
8	5.5	05/VHM-6,0x40.5
10	5.5	05/VHM-6,0x40.5
12	8.5	05/VHM-6,0x43.5

# Fasteners for NVELOPE® support systems

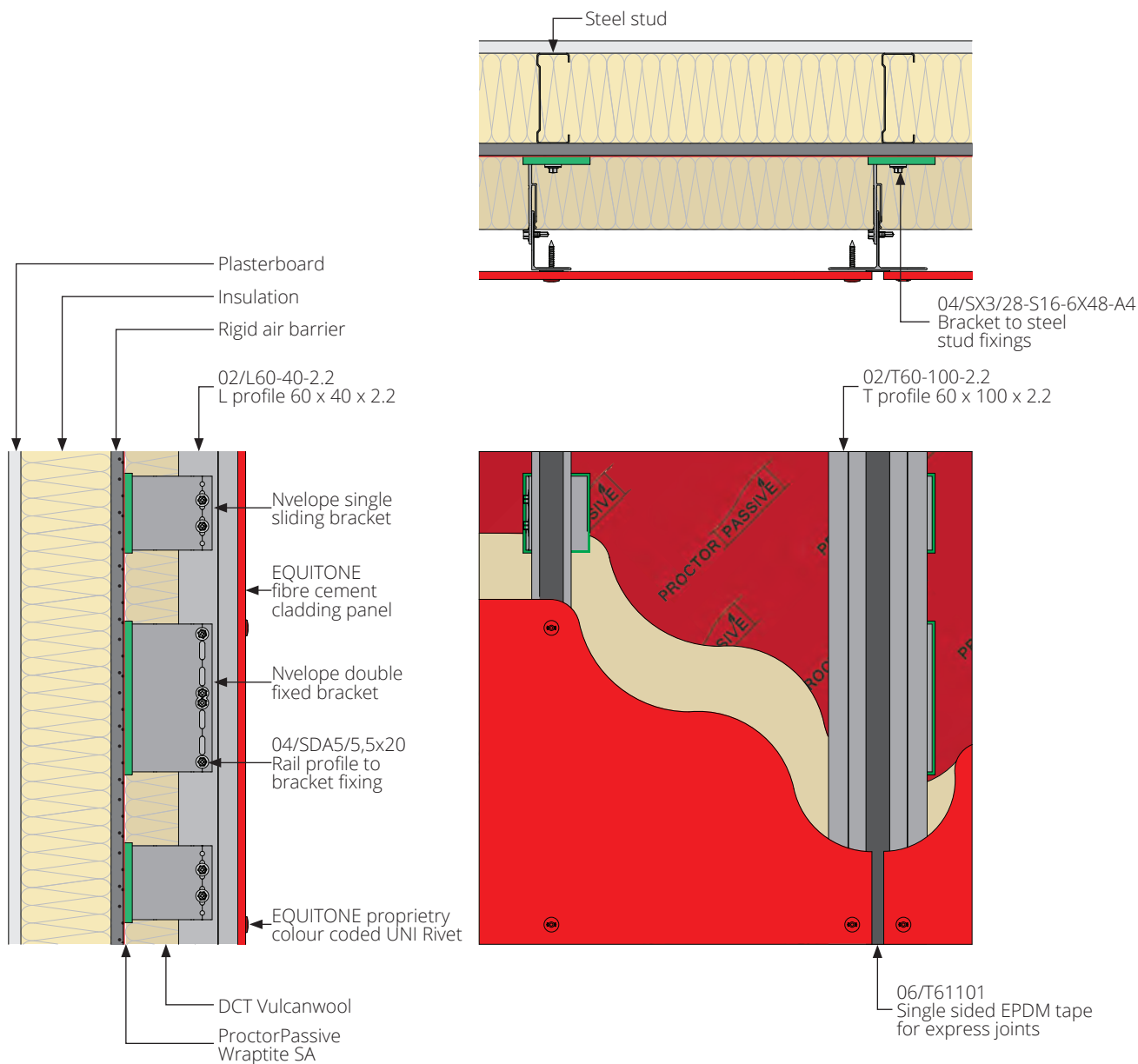
04/SDA5/5,5x20	04/SX3/28-S16-6X48-A4	04/TDA-S-S16-6,5X60	04/MULTI-MONTI-S-10X85	04/SXR-10X80-FUS
Bracket to Vertical Rail & Carrier profile to Vertical Rail Fixing	Bracket to Steel Stud fixing A4 (316) stainless steel self drilling fasteners	6.5mm x 60mm Timber Fixing with 16mm Washer	Stainless steel Primary Concrete Structural Anchor	10x80 A4 (316) Anchor with polyamide sleeve Bracket to Concrete/ Brick fixing
<b>Fastener material</b> A4 Stainless Steel with carbon drill tip	<b>Fastener material</b> A4 Stainless Steel with carbon drill tip	<b>Fastener material</b> A4 Stainless Steel with carbon drill tip	<b>Fastener material</b> A4 Stainless Steel bi-metallic	<b>Fastener material</b> A4 Stainless Steel with polyamide sleeve
<b>Diameter</b> 5.5mm	<b>Diameter</b> 6mm	<b>Diameter</b> 6mm	<b>Diameter</b> 10mm	<b>Diameter</b> 10mm
<b>Length</b> 19mm	<b>Length</b> 48mm	<b>Length</b> 64mm	<b>Length</b> 85mm	<b>Length</b> 80mm
<b>Max grip range</b> 8mm	<b>Max grip range</b> 28mm	<b>Max grip range</b> N/A	<b>Max grip range</b> N/A	<b>Max grip range</b> N/A
<b>Drill capacity</b> 8mm	<b>Drill capacity</b> 3mm	<b>Drill capacity</b> N/A	<b>Drill capacity</b> N/A	<b>Drill capacity</b> N/A
<b>Material</b> Aluminium	<b>Material</b> Steel	<b>Material</b> Timber	<b>Material</b> Masonry	<b>Material</b> Masonry

## NVELOPE® NV1 System

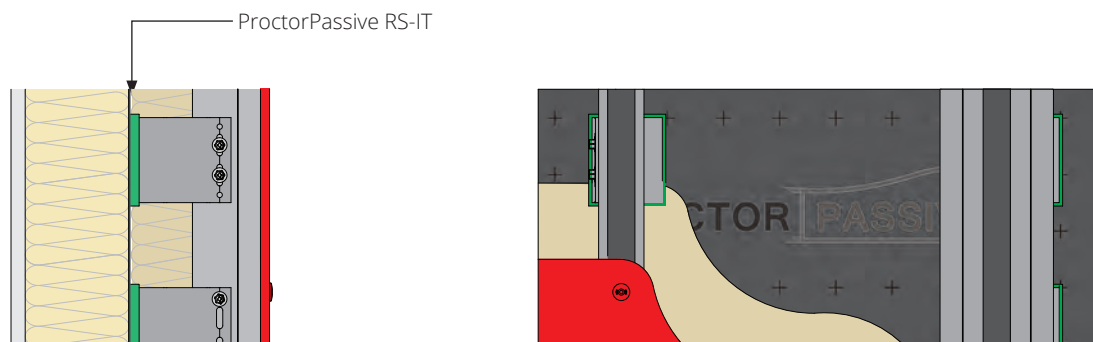
### Steel stud construction



## NVELOPE® NV1 system with Rigid air barrier with ProctorPassive Wraptite SA

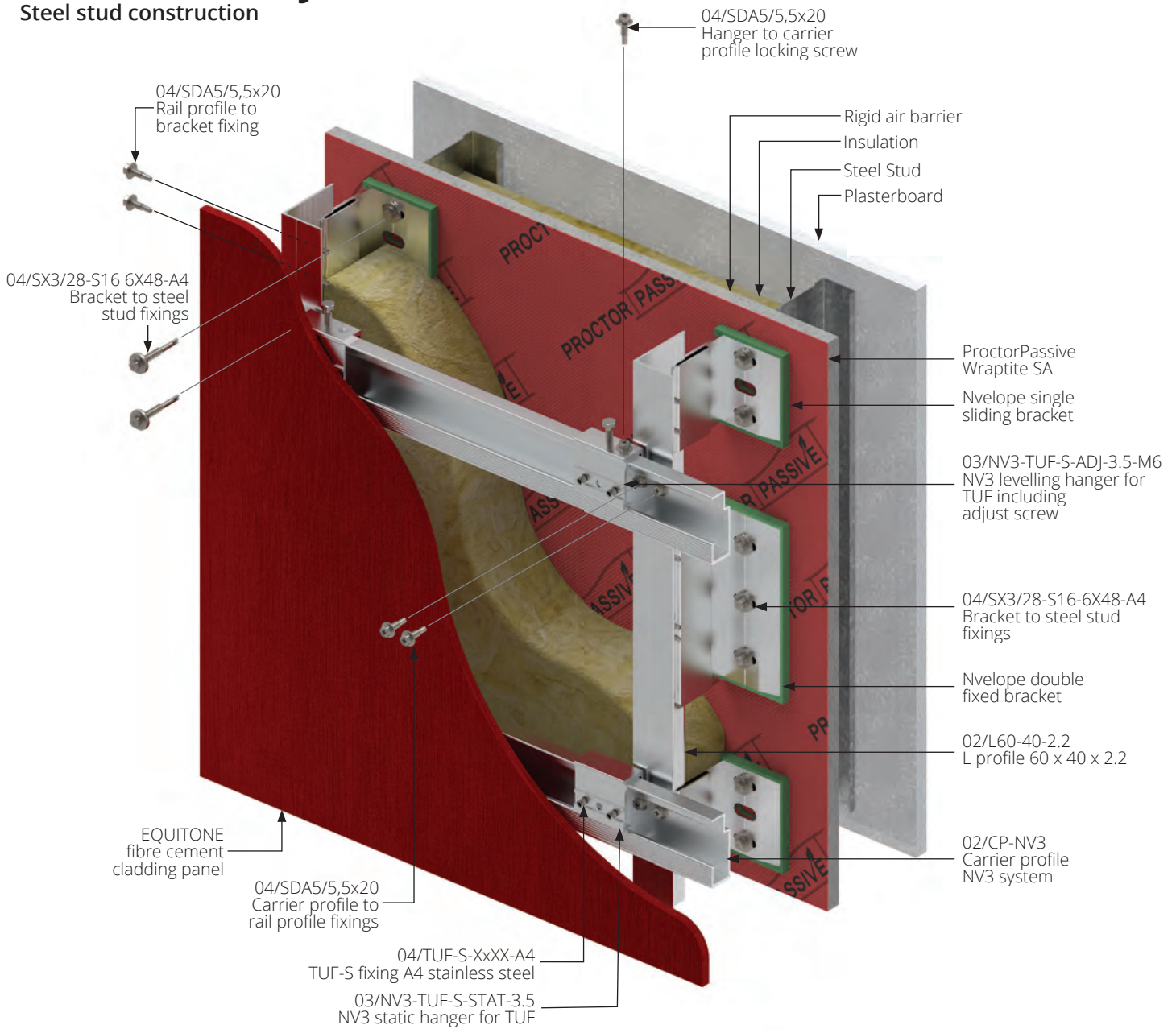


## NVELOPE® NV1 system with ProctorPassive RS-IT

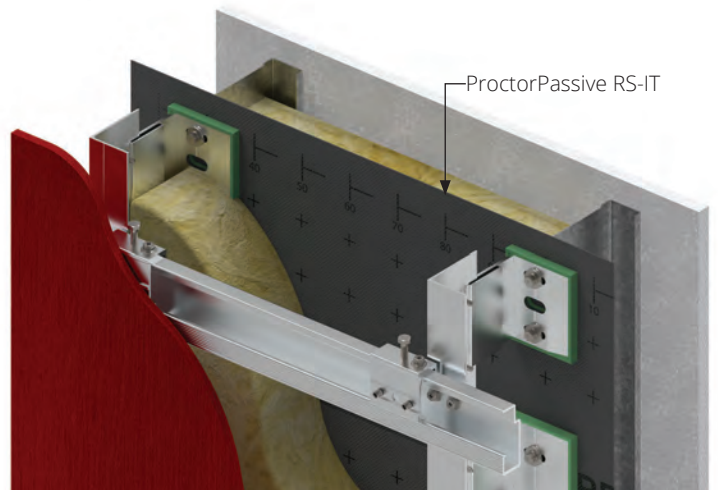
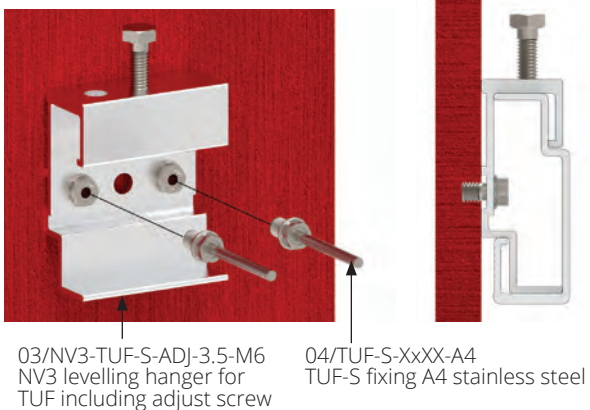


# NVELOPE® NV3 System

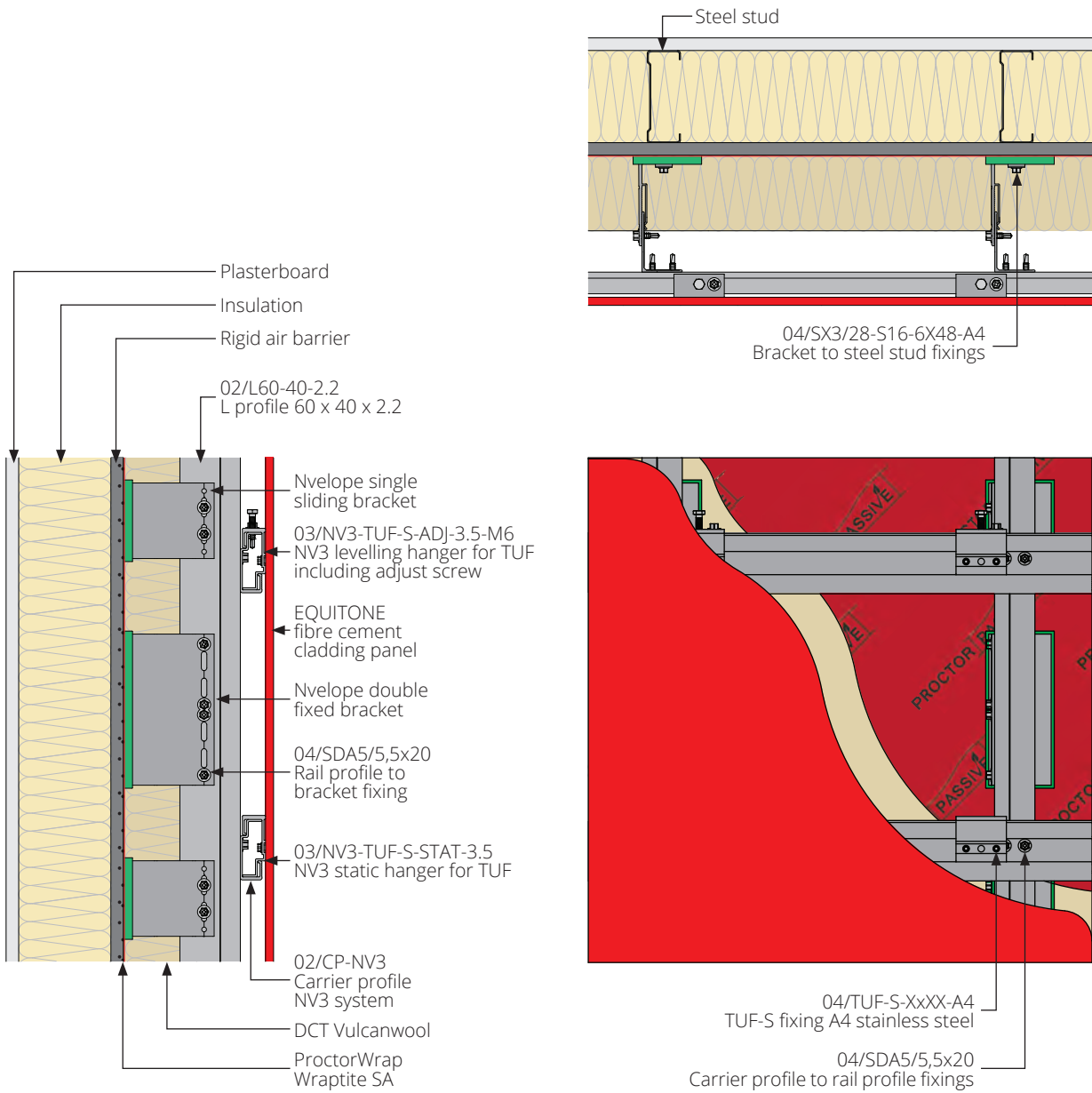
## Steel stud construction



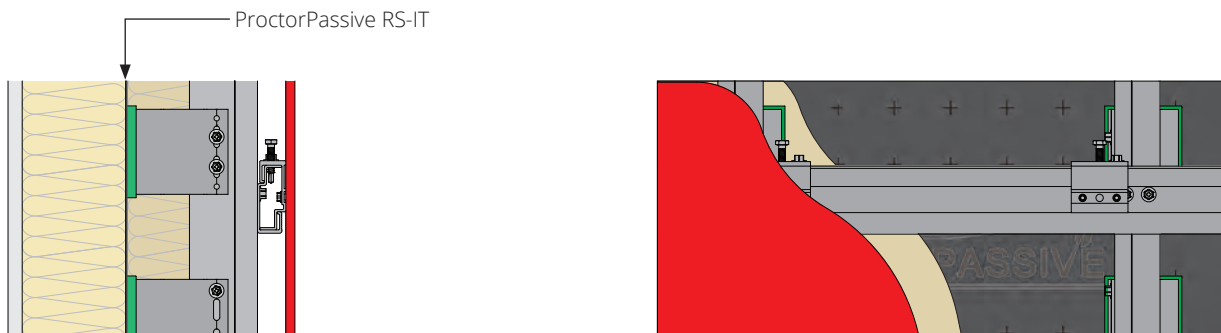
### Concealed fixings into EQUITONE



### NVELOPE® NV3 system with Rigid air barrier with ProctorPassive Wraptite SA

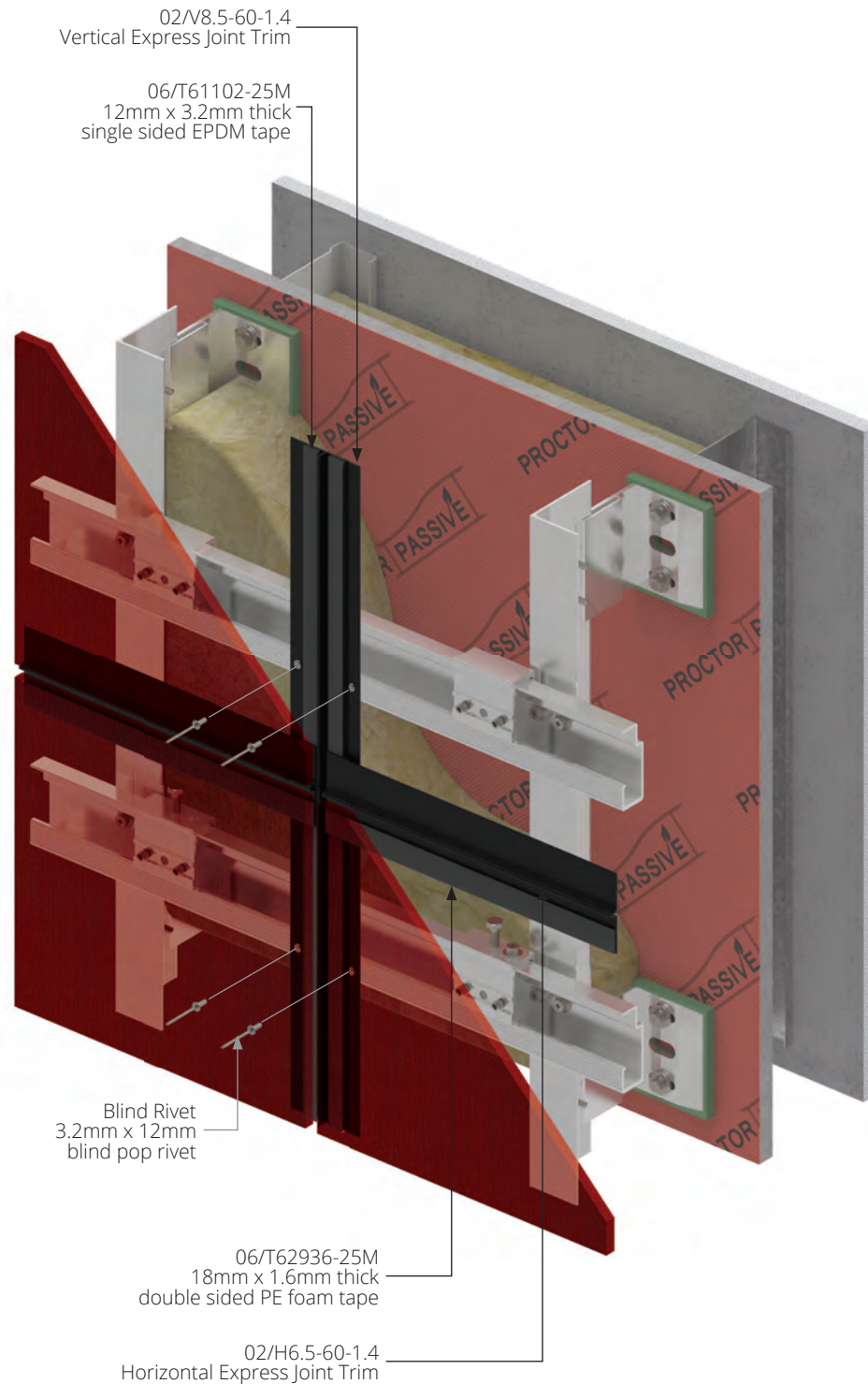


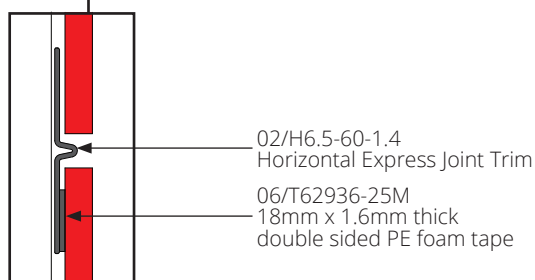
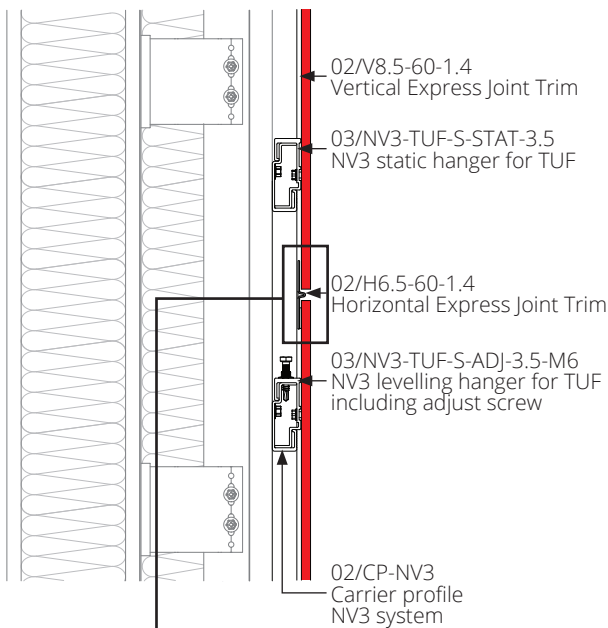
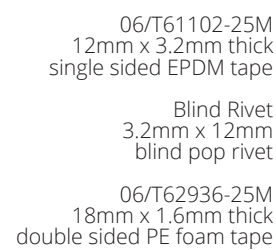
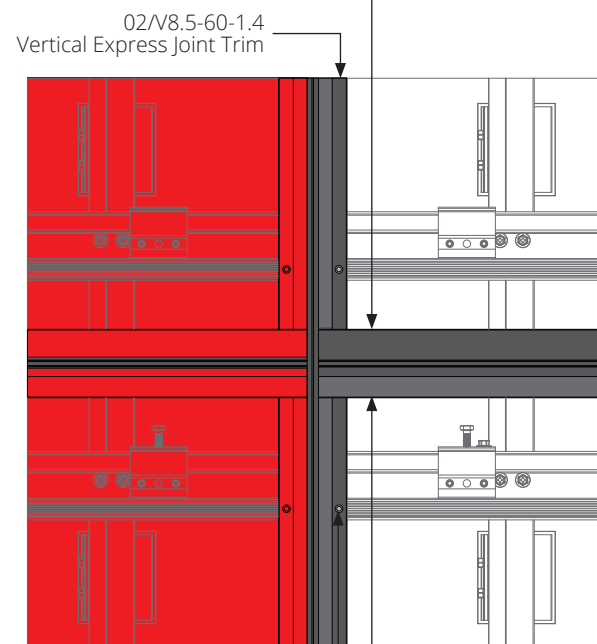
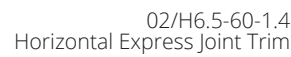
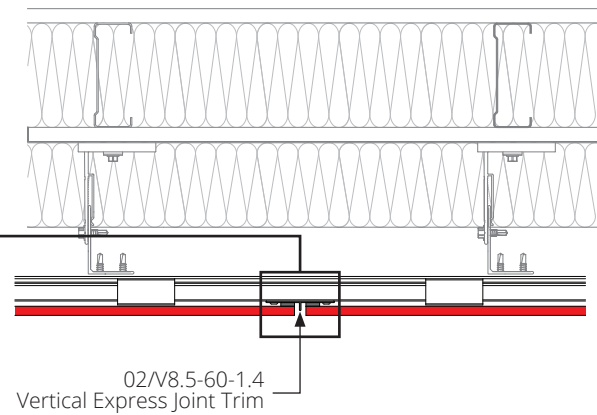
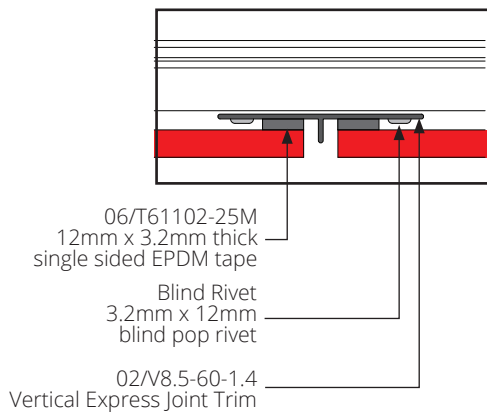
### NVELOPE® NV3 system with ProctorPassive RS-IT



# NVELOPE® NV3 System

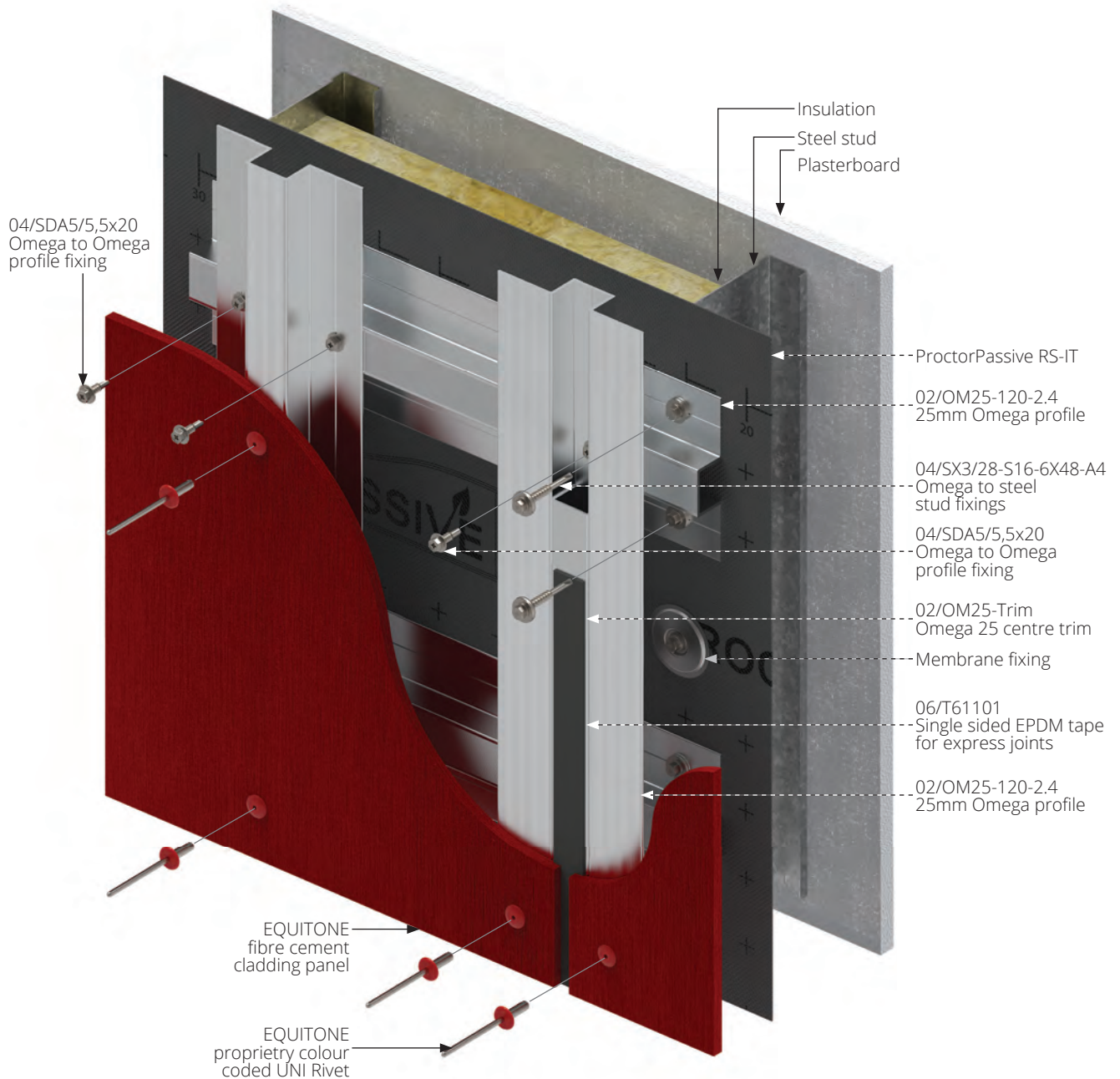
## Express Joint Closer





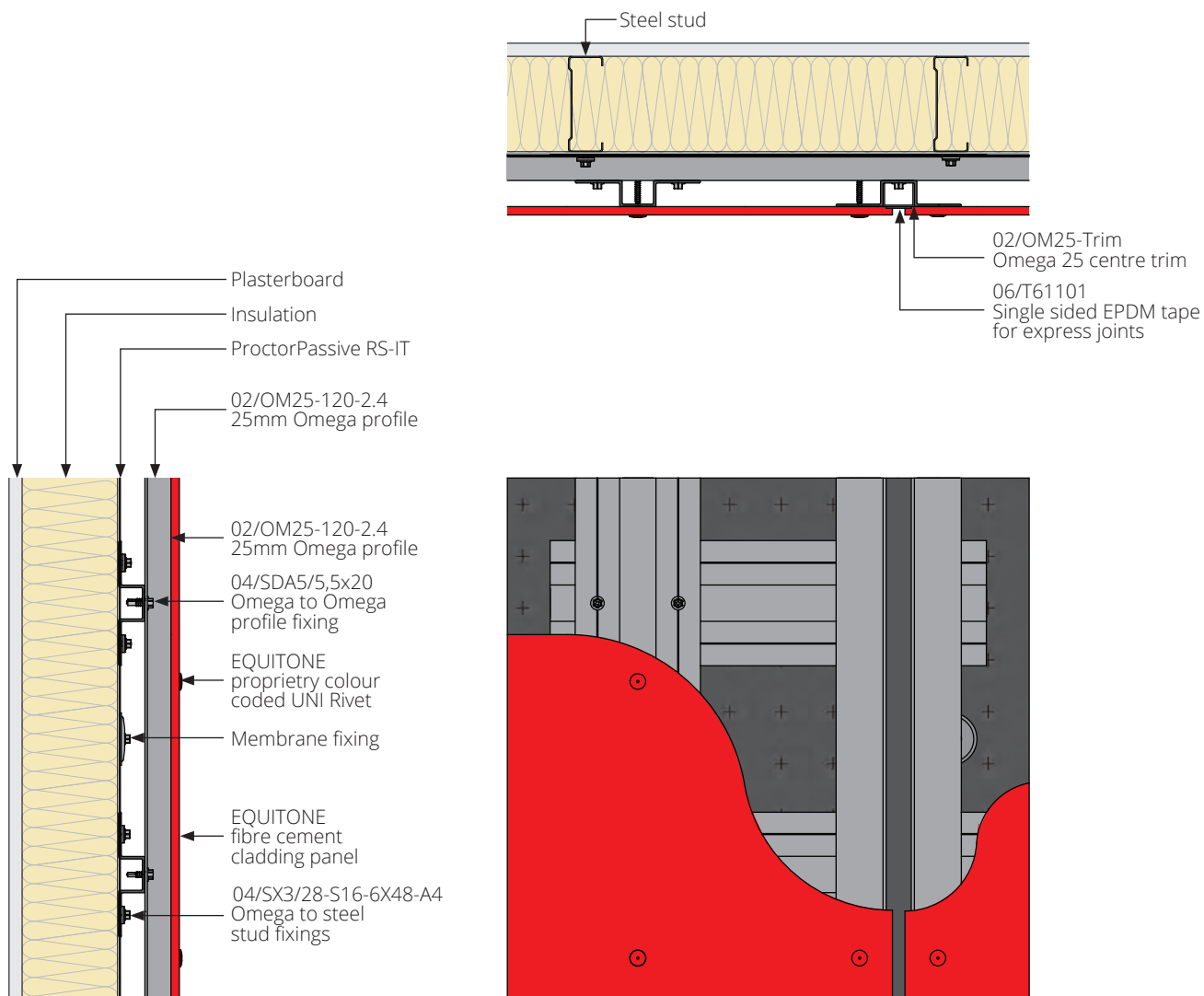
# NVELOPE® NV9 System

## Steel stud construction

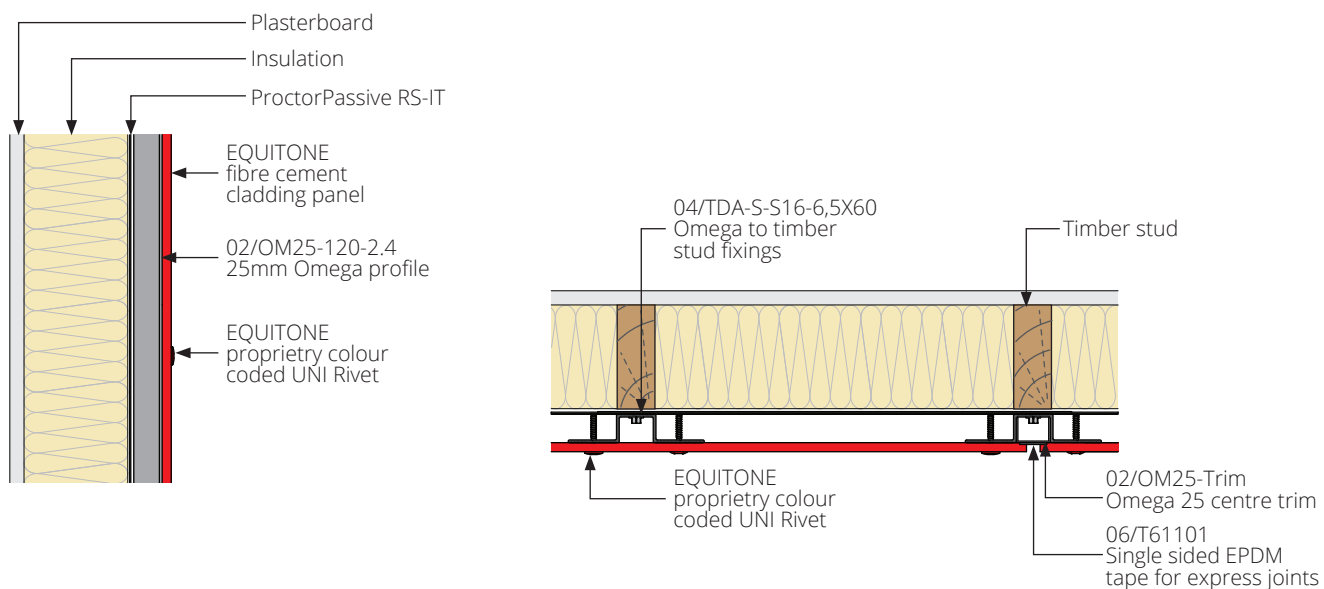




### NVELOPE® NV9 (Dual Layer - Omega to Omega) system with ProctorPassive RS-IT

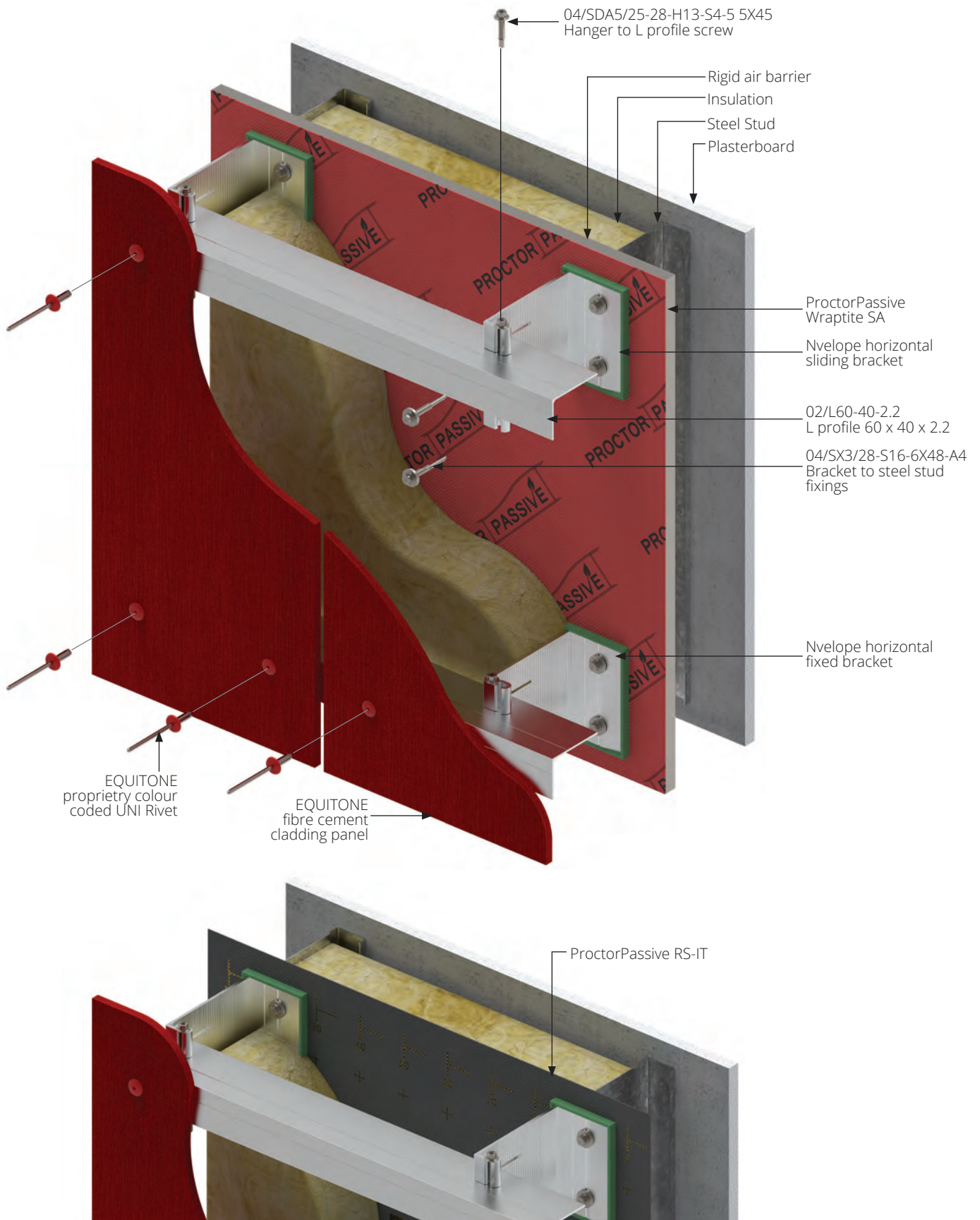


### NVELOPE® NV9 (Single Layer - Omega) system

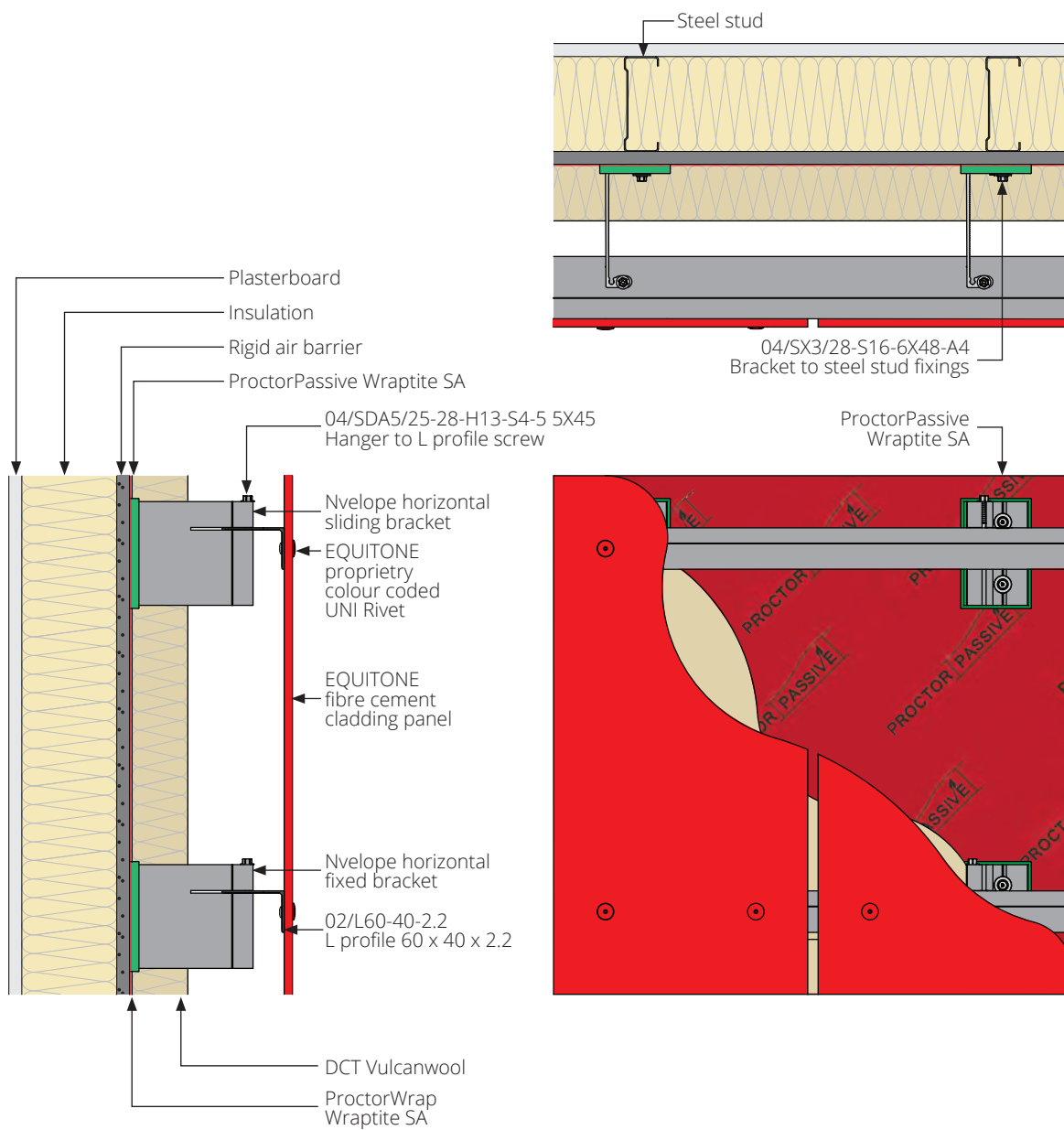


## NVELOPE® NH3 System

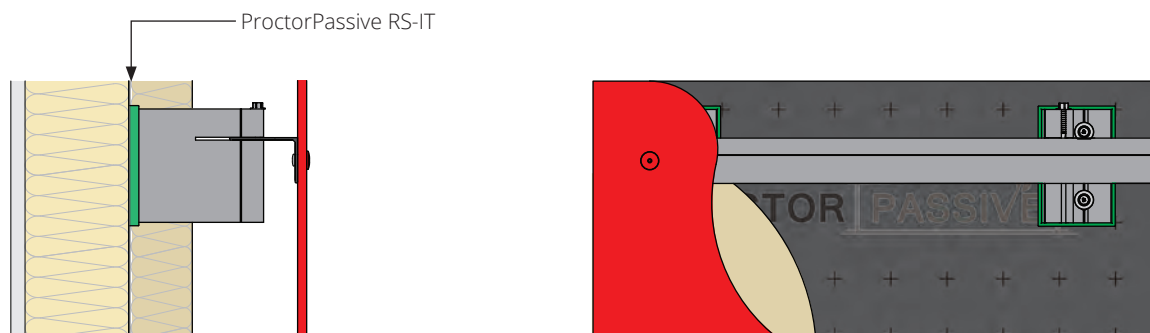
### Steel stud construction



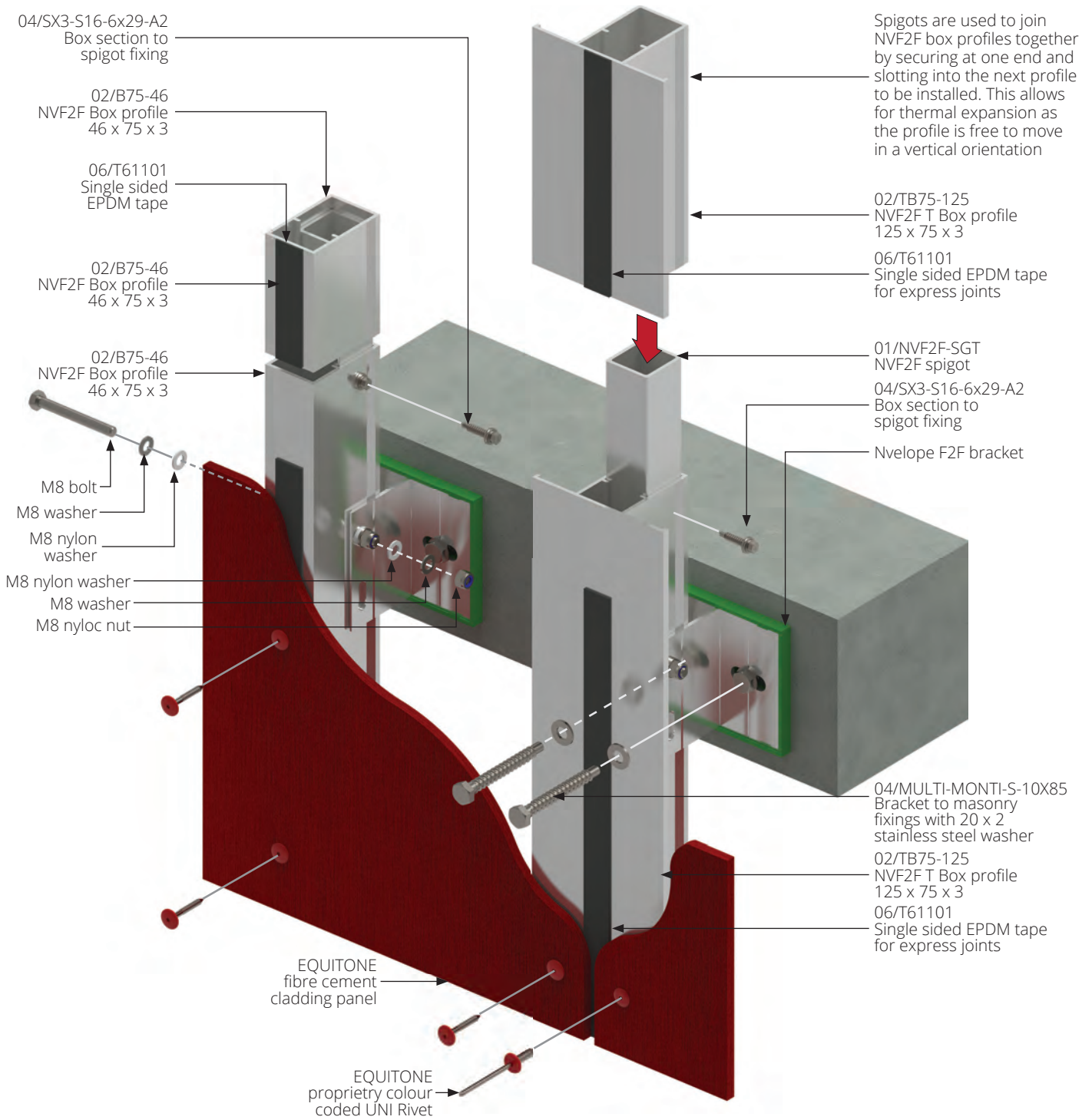
## NVELOPE® NH3 system with Rigid air barrier with ProctorPassive Wraptite SA

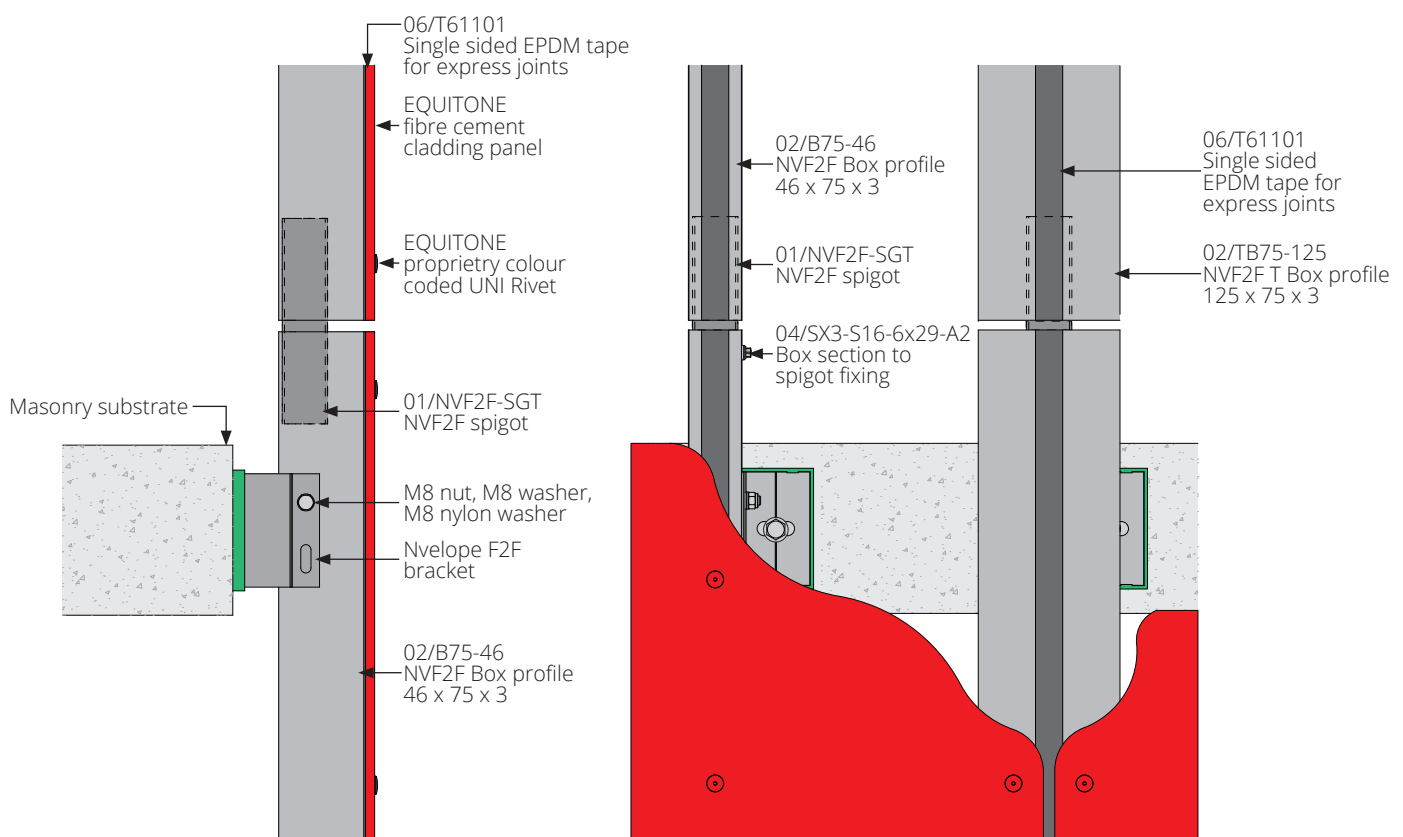
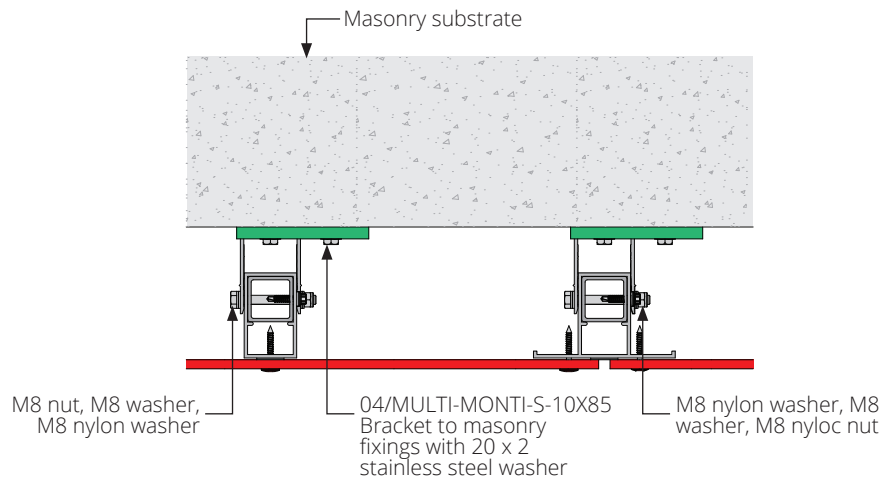


## NVELOPE® NH3 system with ProctorPassive RS-IT



# NVELOPE® NVF2F System







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