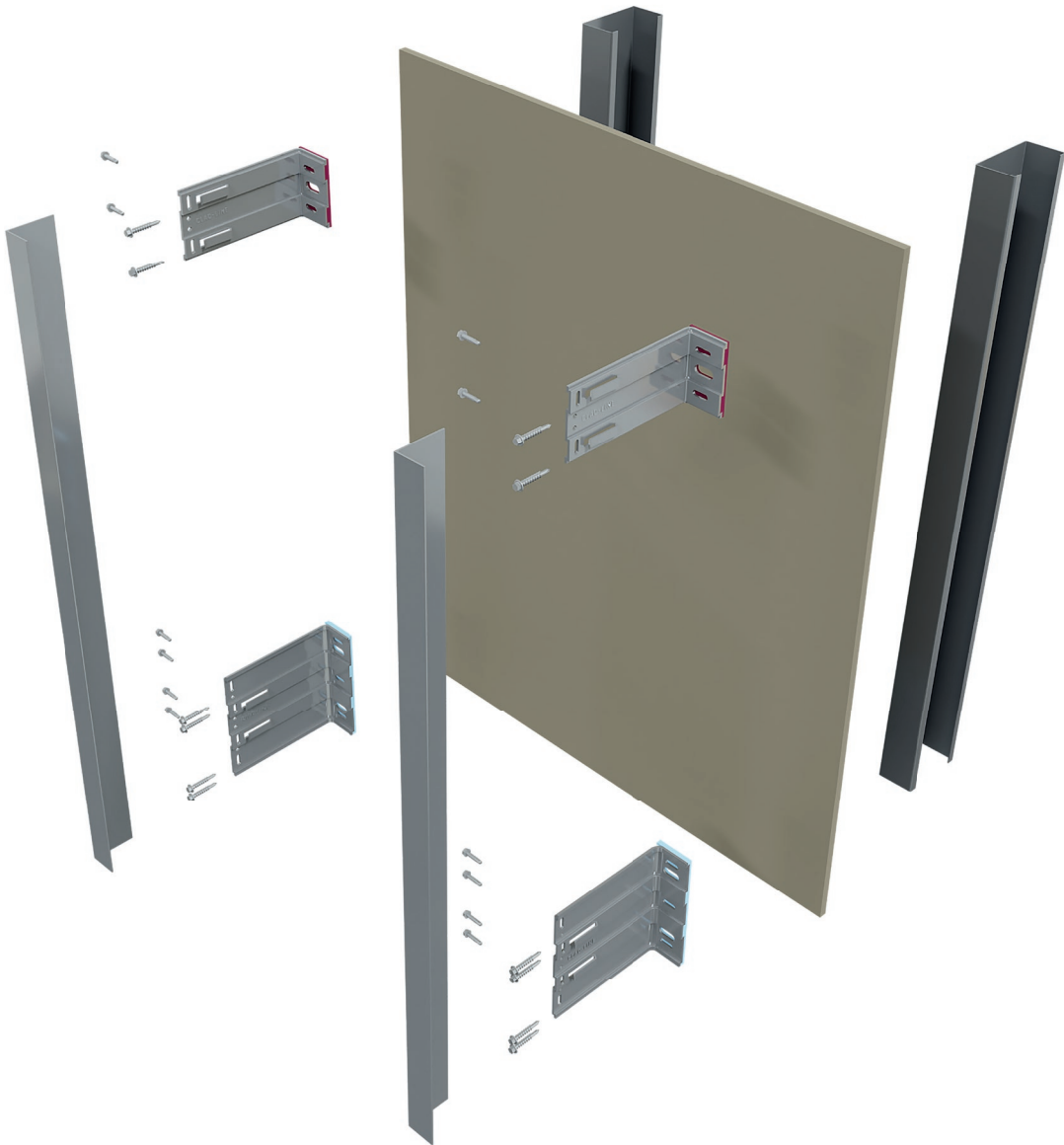
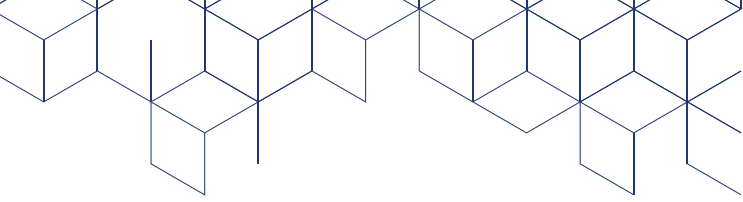


CL1

Subframe System

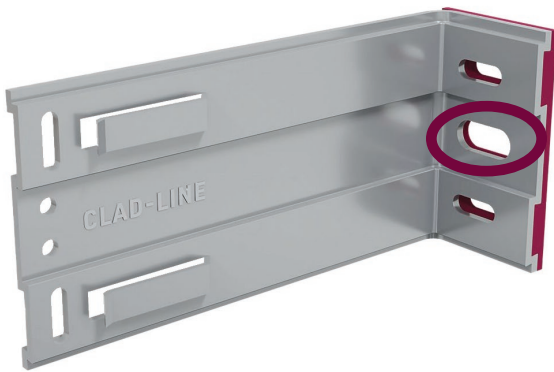


CL1 Subframe System Installation Guidelines



SUBSTRATES

For concrete or masonry substrates ensure fixings are fitted through the **25mm x 11mm diameter slots**. 1 per CL-SB bracket and 2 per CL-DB bracket.

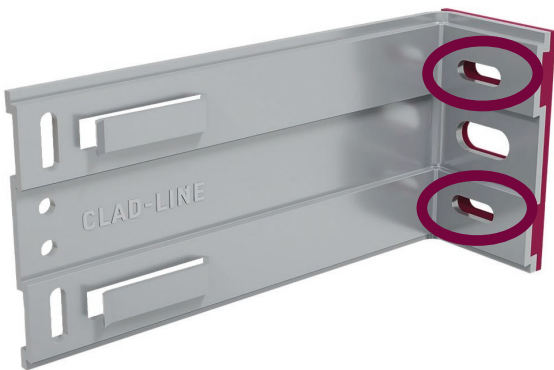


CL-SB bracket



CL-DB bracket

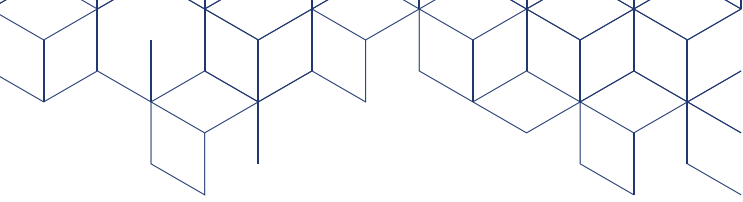
For steel or timber substrates ensure fixings are fitted through the **20mm x 7mm diameter slots**. 2 per CL-SB bracket and 3 per CL-DB bracket.



CL-SB bracket



CL-DB bracket



FIXED & SLIDING POINTS

Fixed point brackets absorb a system's dead load. The vertical rails should be secured to the brackets through the **5.5mm diameter holes**. 2 per CL-SB bracket and 4 per CL-DB bracket.



CL-SB bracket



CL-DB bracket

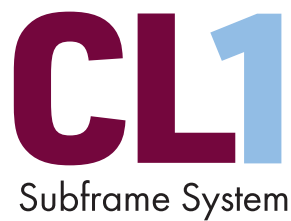
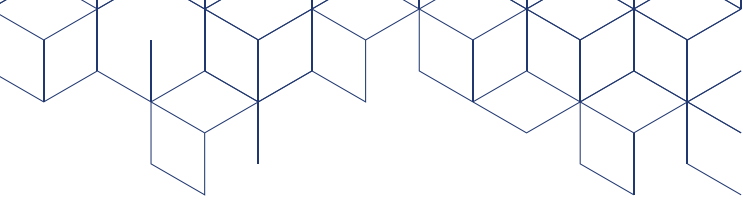
Sliding point brackets absorb a system's live load and allow for rail expansion. The vertical rails should be secured to the brackets through the **18mm x 5.5mm diameter slots**. 2 per CL-SB bracket and 4 per CL-DB bracket.



CL-SB bracket



CL-DB bracket



PROJECT SPECIFIC STATIC CALCULATIONS

Please refer to project specific static calculations for the correct arrangement of fixed and sliding point brackets and the quantity required for each rail. Typically, a fixed point bracket will be used at either the top or bottom of a vertical cladding support rail with the remaining being sliding point brackets.



FACADE ENGINE[®]
SPECIFICATION BUILDER

CLAD-LINE'S web app Facade Engine can be used to generate a comprehensive set of project specific static calculations.

Facade Engine is a state-of-the-art analysis tool for all of your rainscreen subframe requirements. This free to use software provides comprehensive static calculations to help our customers generate the optimum framing design.

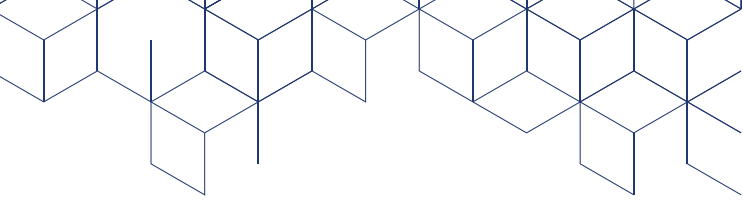
- ANALYSE internal forces, support reactions and system deflections
- VERIFY the analysed forces and deflections are lower than the system resistance
- OPTIMISE your framing design by iterating system variables

Facade Engine also includes the following:

- Integrated wind load calculator
- Fixing analysis and specification
- Secondary support top hat analysis

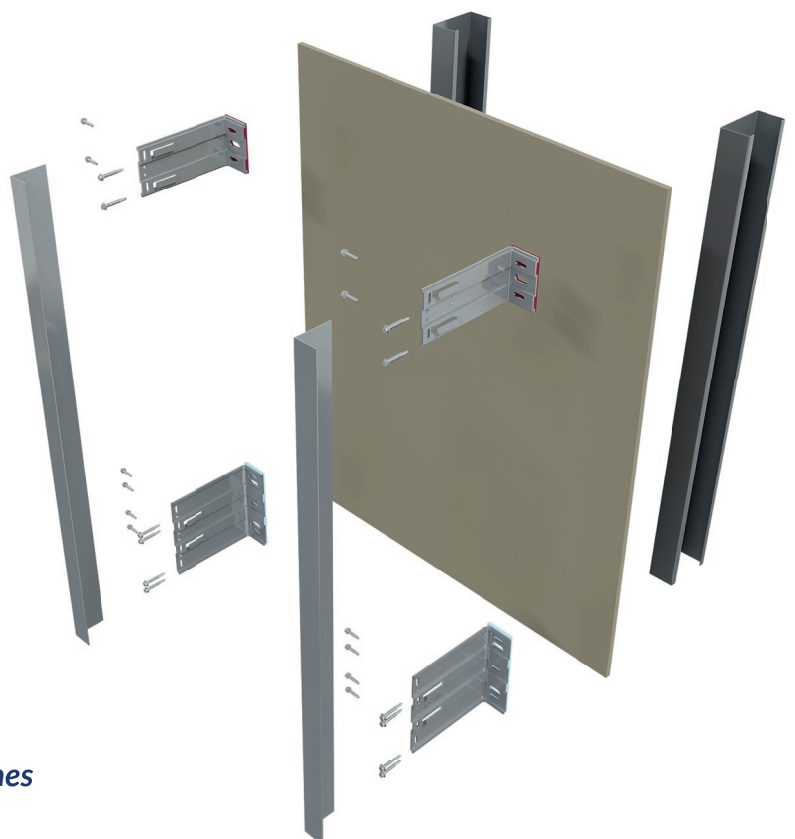
Comprehensive analysis of the CL1, CL2 and CL3 bracket and rail systems as well as the unique Floor 2 Floor solution.

Access Facade Engine at www.clad-line.com or call **01543 222500** for assistance.



INSTALLATION GUIDELINES

- 1** Mark the location of CLAD-LINE brackets ensuring that single and double brackets are positioned correctly for the fixed and sliding points. Check for line and level and ensure the orientation of the bracket is correct. **Please note: The isolation pad comes pre-fitted to the rear of the bracket. If the pad has been removed it can be re-installed by pressing it into the bracket profile. The pad/bracket connection is designed to be an interference fit.**
- 2** Secure the brackets to the building substrate using the appropriate anchors/fixings (determined through project specific calculations). Ensure the fixings are fitted through the correct fixing hole/slot and the correct number of fixings are used.
- 3** Insert the vertical rails into the brackets support fingers. There should be a minimum of 20mm of the vertical rail inserted into the support fingers.
- 4** Check the setting out and alignment of the rail face using a laser level or string line.
- 5** Fix the vertical rails to the brackets using 4.8mm x 19mm TEK screws. Ensure the fixings are fitted in the correct position for the fixed and sliding point brackets and that the correct amount of fixings are used.
- 6** Proceed with the installation of the remainder of the CLAD-LINE framing system.
- 7** Before commencing the installation of the cladding panels check the line and level of the vertical rails, check the bracket to rail fixings are fitted into the correct holes or slots and the correct number of fixings have been used. Check the fixed point and sliding point brackets have been correctly positioned and finally ensure the primary fixings/anchors have been fitted as per the manufacturer's recommendations.
- 8** Proceed with the installation of the cladding panels.



Please note: These are installation guidelines only. The correct installation of the system remains the responsibility of the installer.