TECHNICAL GUIDE

DCS034 SOFFIT SYSTEM

DOWNER®
ORIGINAL HELPING HAND SYSTEM

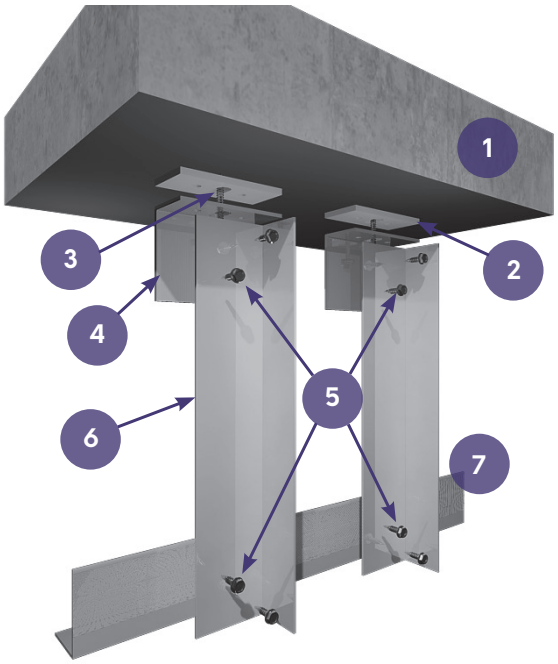
DCS034 SYSTEM OVERVIEW

Downer DCS034 Soffit framing system is designed to provide support to cladding panels on a soffit application using the principle of a ventilated façade.

Downer DCS034 Soffit brackets and extruded aluminium L & T profiles provide the installer with an adjustable system allowing for thermal and structural movement and variation in cavity depth to suit project specific requirements.

Maximum cavity 1000mm.

COMPONENTS

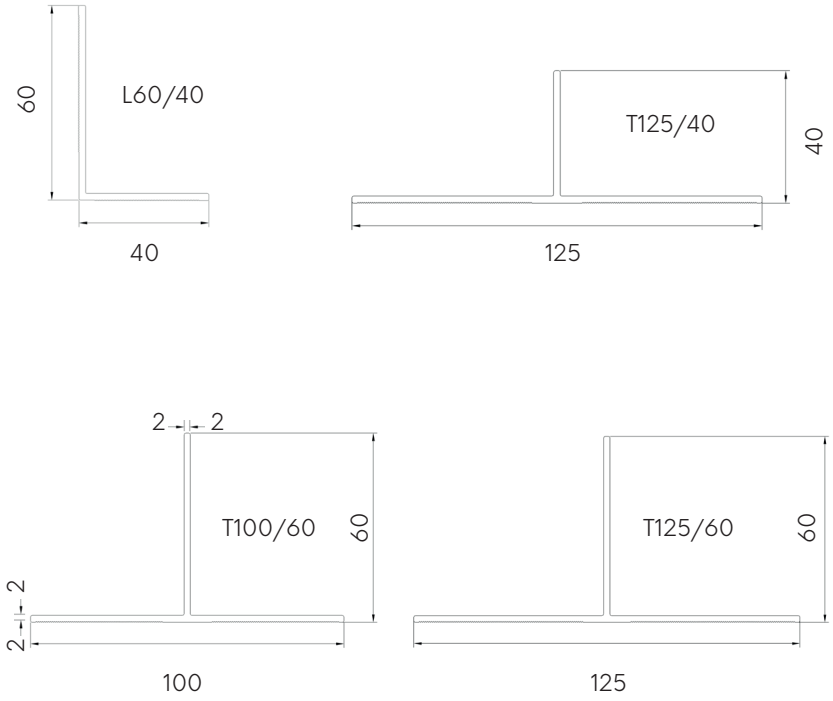


1. Primary Structure (Concrete, Masonry, SFS or Timber)
2. DCS034 Isolator Pad
3. Primary Fixing (varies dependent on Primary Structure)
4. DCS034 Single Bracket
5. FDS 4.8x19mm
6. DCS031 60x40 L 'drop' rail
7. DCS031 'L' or 'T' Rails

DCS034 Soffit brackets are available as standard with Ø6.5mm holes (SFS / Timber) and 22xØ11mm slots (Masonry / Concrete) to suit project specific primary anchors.

Note: All illustrations included in the brochure are representations of the system and structural design analysis must be sought on a project basis. Technical guide to be read in conjunction with typical CAD details and, if applicable, with technical guide relevant to other Downer systems.

DCS034 RAILS



Extruded Alloy Grade 6063 T6		
DCS031 Rail Ref.	**Description**	**Length (mm)**
T100/60-3	'T' carrier rail	3000
T100/60-4.85	'T' carrier rail	4850
T100/60-6	'T' carrier rail	6000
T125/60-3	'T' carrier rail	3000
T125/60-6	'T' carrier rail	6000
T140/60-3 *	'T' carrier rail	3000
T140/60-6 *	'T' carrier rail	6000
L60/40-3	'L' carrier rail	3000
L60/40-4.85	'L' carrier rail	4850
L60/40-6	'L' carrier rail	6000

* Special order, minimum quantity applies.

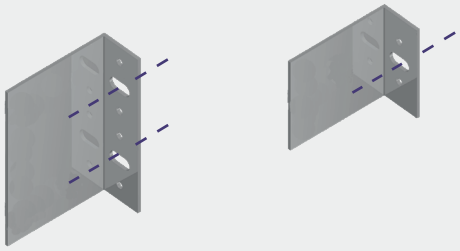
DCS034 BRACKETS

SUBSTRATES

All our brackets are available with both Ø6.5mm holes and 22xØ11mm slots to suit primary anchors specified by project specific static calculations and/or on-site pull out tests.

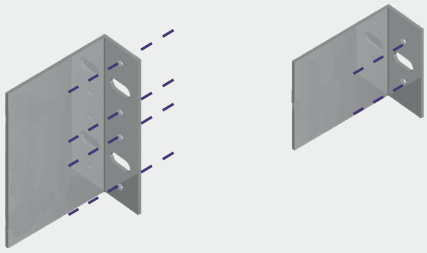
Concrete or masonry substrates

Ensure fixings are fitted through the 22xØ11mm slots.
2no. per double and 1no. per single bracket.



Steel or timber substrates

Ensure fixings are fitted through the Ø6.5mm holes.
4no. per double and 2no. per single bracket.



SITE CHECKLIST

Before commencing installation of DCS034 Soffit framing system please make sure you have received the following information:

- Project specific static calculations from your Downer Designer portal. Or get in touch with the team direct - info@downerdesigner.com. These will dictate maximum rail & bracket centres and size / type of primary fixing based on project specific dynamic and dead loads.
- DCS034 brackets and rails set out drawings showing location brackets and rails spacing.

APPROVALS

Downer DCS034 components have been BBA approved under certificate no. **20/5792**.

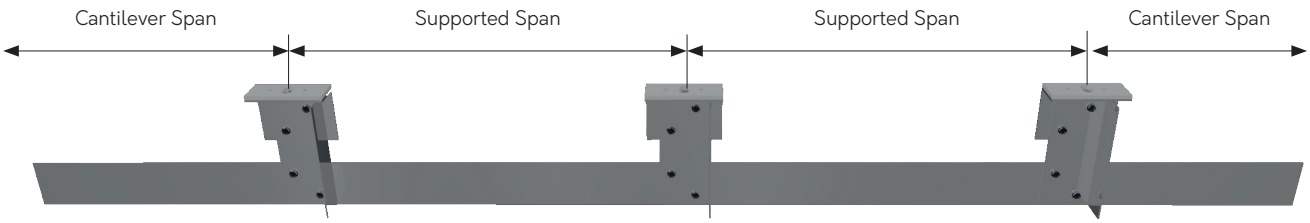
BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Get project specific stats direct via Downer Designer - your dedicated portal.

Just provide us with your project info and we'll prepare your optimised project pack.

Scan here to access your Design Designer portal

TYPICAL RAIL SET OUT



DESIGN CONSIDERATIONS

Rails and brackets should be set out in accordance with the structural engineers calculations or necessary building regulation.

Typically, rails are installed in lengths to suit panel width and/or height module. T rail sections generally provide support at panel joints and L rail sections provide support for intermediate fixing.

Rainscreen cladding fixings should be positioned close to the centre line of the front face of the R rail, note the orientation of the bracket/rail leg.

There must be a minimum 10mm gap between the ends of adjacent rails to allow for expansion and cladding panels should never be fixed to two adjacent rails across the expansion gap.

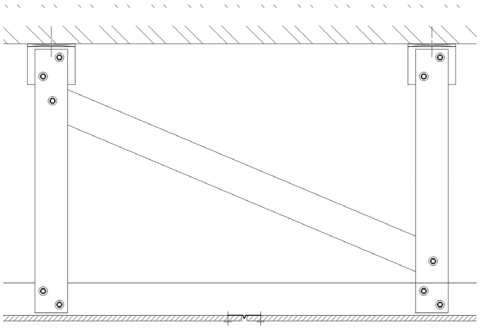
Cladding panels must not span across and be fixed to the other side of a rail joint. Rails must not span across and be fixed to the other side of an expansion joint.

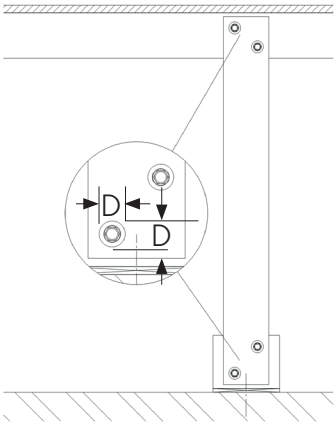
DCS034 bracket to soffit drop rail and soffit drop rail to rail fixings must be set at minimum 15mm from edges (‘D’).

Bracing might be required on large cavities. Please contact the APS Technical team info@downerframing.com

For ease of lining and levelling rails start from a predetermined datum line corner/opening or return.

DCS034 bracket Isolator pads must be used when there is risk of bimetallic corrosion or thermal bridging.





INSTALLATION PROCEDURE

1. Mark up location of DCS034 brackets. Check for line and level and note the orientation of the bracket projected leg.

2. Install DCS034 brackets with isolator pads positioned between the rear of the brackets and the building substrate. Use the appropriate primary anchors as dictated by project specific static calculations.

   Brackets are supplied with both Ø6.5mm holes (SFS / Timber) and 22xØ11mm slots (masonry / concrete) to suit project specific primary anchors.

3. Soffit drop rail can be either pre-fitted on site to the DCS034 brackets or fitted after installing the brackets. Soffit drop rail should be installed using 2no. S/S 4.8x19 TEK screws with a min. 15mm distance to edges ('D').

4. Install the horizontal 'L" or 'T' profiles. Check the inserted depth and face alignment with a laser level or string line before securing these using 2no. S/S 4.8x19 TEK screws with a min. 15mm distance to edges('D').

5. Proceed with the installation of the remainder of the rainscreen soffit support framing system.

6. When completed and before commencing cladding panel installation, final checks should be carried out on:

   a. Level and plumb of horizontal rails.

   b. Correct location of brackets.

   c. Correct torque load applied to primary anchors as recommended by fixing manufacturer.

7. Proceed with cladding panel installation following cladding manufacturer guidelines.

DELIVERY AND PACKAGING

Most deliveries are made by standard courier unless specific vehicles are requested (For 6m lengths a rigid sided or larger lorry may be required).

All products leaving our factory are packed in a manner to ensure safe delivery to site. This entails protection by shrink-wrapping and strapping, and with delivery on suitably sized pallets, frames, crates, bundles, or boxes. These normally contain a maximum of 1200kg for pallets and 35kg for non-palletized items for safe handling on site. It should be noted that it is the customer's responsibility to ensure safe unloading of delivery vehicles.

Pallets are made suitable for forklift off-load only as standard. If pallets are required for craning off-load, maximum loading and size must be advised at the time of ordering.

SITE HANDLING

Components must be handled with care in order to not cause loss or damage. Should it be necessary to store the material on site for any length of time, it should be protected from the elements and the environment. A suitable storage area will need to be set aside, storage should be as near as practicable to the areas of working to minimise handling, damage, and waste.

MAINTENANCE INSTRUCTIONS

Aluminium profiles and façade accessories subjected to normal circumstances and proper cleaning and maintenance, are guaranteed a long-life span in excess of 35 years as stated in Downer BBA certificate 20/5792.

Contamination by concrete, mortar, cement and such, is extremely harmful and needs to be rinsed immediately with pure water.

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For project specific samples and technical assistance please contact our technical department on claddings@architecturalpanelsolutions.com

All information is correct as of the date of this document created August 2023.