MAPLE

ASPECT FAÇADE SYSTEM

Designed for strength, performance and increased thermal efficiency

// PATENTED DESIGN // BS8414:2 2020 // FIRE-TESTED // CWCT CERTIFIED // VINCI LAB-TESTED

CLASS-LEADING RAINSCREEN CLADDING

The Aspect façade system combines unrivalled aesthetics with increased thermal efficiency, thanks to a superior eClips support system and patented insulation-fix technology. Designed and manufactured by Maple and installed by Maple-approved fitters – with technical support every step of the way – the Aspect façade system helps deliver projects on time and on budget.

Performance tested

The system is tested to and compliant with BS8414-2:2020 fire performance of external cladding standards, and is designed around non-combustible materials such as aluminium, stainless steel and terracotta. In addition to its fire testing, the system has been performance-tested at VINCI and CWCT laboratories.

Thermally efficient stainless-steel brackets

Positioning fewer, higher thermal specification and better load-bearing brackets at significantly larger centres reduces overall costs and cuts installation time, as well as reducing the thermal conductivity of the sub-frame. Weather seals are incorporated into the base of the brackets and the fixings to eliminate the risk of moisture ingress behind the weather membrane.

Sustainable helping-hand clips

Helping-hand clips can be reused or recycled after the support structure is fixed permanently, helping BREEAM projects achieve their sustainability goals. The design of the bracket allows the smallest possible footprint when installing the insulation, allowing fitters to ensure there are no air pockets (critical for thermal efficiency and fire protection).

Patented insulation-fix technology

Maple insulation clips improve U-values and weather-sealing performance by reducing the number of penetrations into the fixing grounds – vertical insulation clips connect to the mullion and horizontal clips connect to the C-rail transom to securely hold the insulation.

System flexibility

All parts of Maple's rainscreen systems can also be used as individual components – interconnecting with industry-leading materials, such as cavity barriers, stone wool insulation and breather/weather membranes.

INDUSTRY STANDARDS

- BS8414-2:2020 Fire performance of external cladding
- CWCT Standard test methods for building envelopes, 2005
- Vinci third-party load-testing for bracket strength
- BS EN ISO 10211:2007 Thermal bridges in building construction – Heat flows and surface temperatures – Detailed calculation
- BS EN ISO 6946:2007 Building components and building elements – Thermal resistance and thermal transmittance – Calculation method
- EN ISO 10077-2:2012 Thermal performance of windows, doors and shutters – Calculation of thermal transmittance
- BS EN 12524:2000 Building materials and products – Hygrothermal properties
- BS 5250:2002 Code of practice for control of condensation in buildings
- BS EN ISO 13788:2012 Hygrothermal performance of building components and building elements – Internal surface temperature to avoid critical surface humidity and interstitial condensation – Calculation methods
- BS EN 12631:2012 Thermal performance of curtain walling – Calculation of thermal transmittance

ASPECT CTH DETAILS

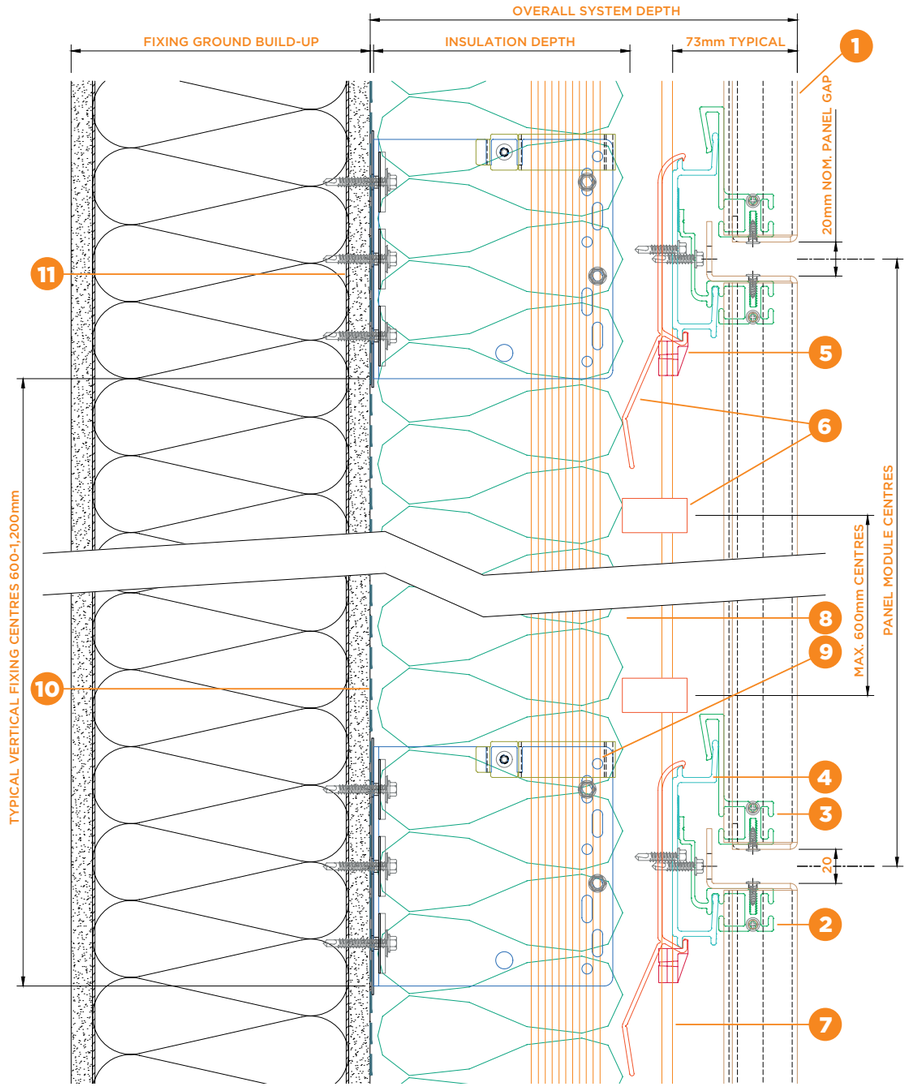
The Aspect rainscreen façade system is designed to perform well in many areas.

Firstly, as a rainscreen system, it must protect the exterior of buildings from the weather. It must also improve thermal performance (reducing heat loss and saving energy), meet fire and combustibility standards, and improve a building's appearance... all within a commercially viable solution for clients.

Aspect's CTH system (horizontal) is more commonly used for steel frame systems (SFS), where there is likely to be more tolerance in setting out the sub-frame. It is more suited to landscape panels but can also be used for portrait panels.

DRAWING LEGEND

1. MAPLE CASSETTE PANEL. MATERIAL AS REQUIRED (DETAIL INDICATES 3mm ALUMINIUM)
2. MAPLE PANEL TOP HOOK (6063 T6 ALUMINIUM, TYPICALLY MILL FINISH)
3. MAPLE PANEL BASE HOOK (6063 T6 ALUMINIUM, TYPICALLY MILL FINISH)
4. MAPLE C-RAIL TRANSOM (MILL FINISH 6063 T6 ALUMINIUM)
5. MAPLE TRANSOM SET-OUT CLIP
6. MAPLE INSULATION CLIP AT MAX. 600mm CTRS (PPC FINISH MAPLE ORANGE)
7. MAPLE T-RAIL MULLION (MILL FINISH 6063 T6 ALUMINIUM)
8. THERMAL INSULATION AS REQUIRED
9. MAPLE 304Gr STAINLESS STEEL BRACKET c/w HELPING HAND CLIP (REMOVABLE FOR REUSE)
10. BREATHER MEMBRANE (IF REQUIRED)
11. SUITABLE FIXING GROUNDS



SECTION VIEW

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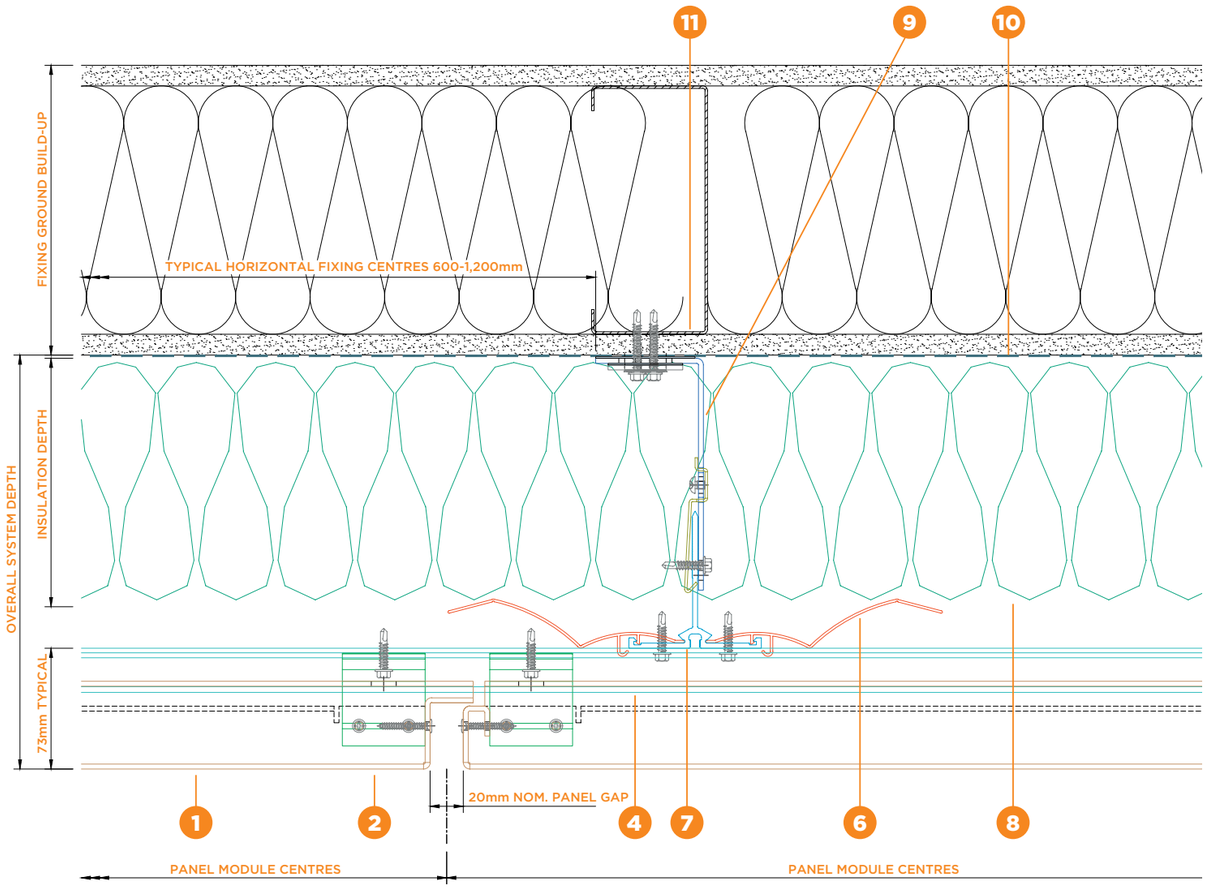


PLAN VIEW

ASPECT CTH KEY FEATURES

HORIZONTAL ORIENTATIONS

- For horizontally orientated or square cassette panels
- Flexible design accommodates tolerance challenges in fixing zone
- Hidden-fix panels
- Clean, continuous joint lines

Materials

- 3mm solid aluminium
- 3mm perforated aluminium
- 2mm solid stainless steel
- 2mm perforated stainless steel
- 2mm solid Corten steel
- 2mm perforated Corten steel

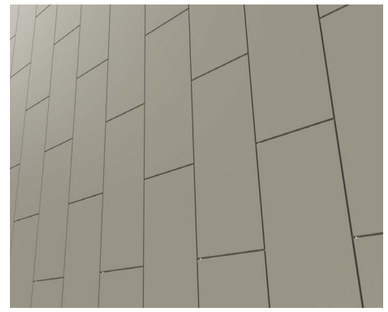
Panel sizes

- 3mm aluminium – maximum size 3,500mm (h) x 1,250mm (w)
- 2mm stainless steel – maximum size 2,800 mm (h) x 1,100 mm (w)

ASPECT CTV DETAILS

Aspect's CTV system (vertical) is suited for concrete stair cores and flat surface areas and particularly lends itself to portrait panels.

It has been designed to perform well in many areas. Firstly, as a rainscreen system, it must protect the exterior of buildings from the weather. It must also improve thermal performance (reducing heat loss and saving energy), meet fire and combustibility standards, and improve a building's appearance... all within a commercially viable solution for clients.



DRAWING LEGEND

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2. MAPLE PANEL SIDE HOOK (5000 SERIES ALUMINIUM, TYPICALLY MILL FINISH)
3. MAPLE INSULATION CLIP AT MAX. 600mm CTRS (PPC FINISH MAPLE ORANGE)
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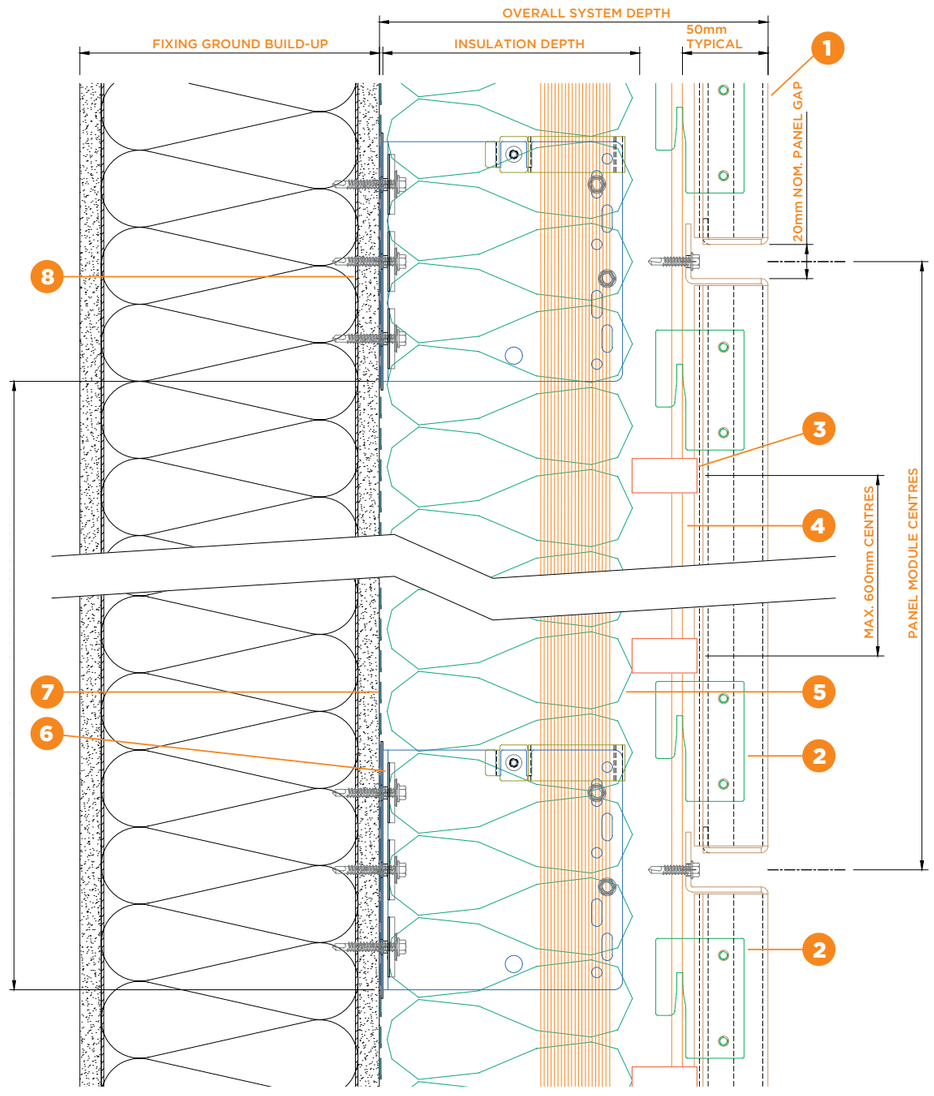

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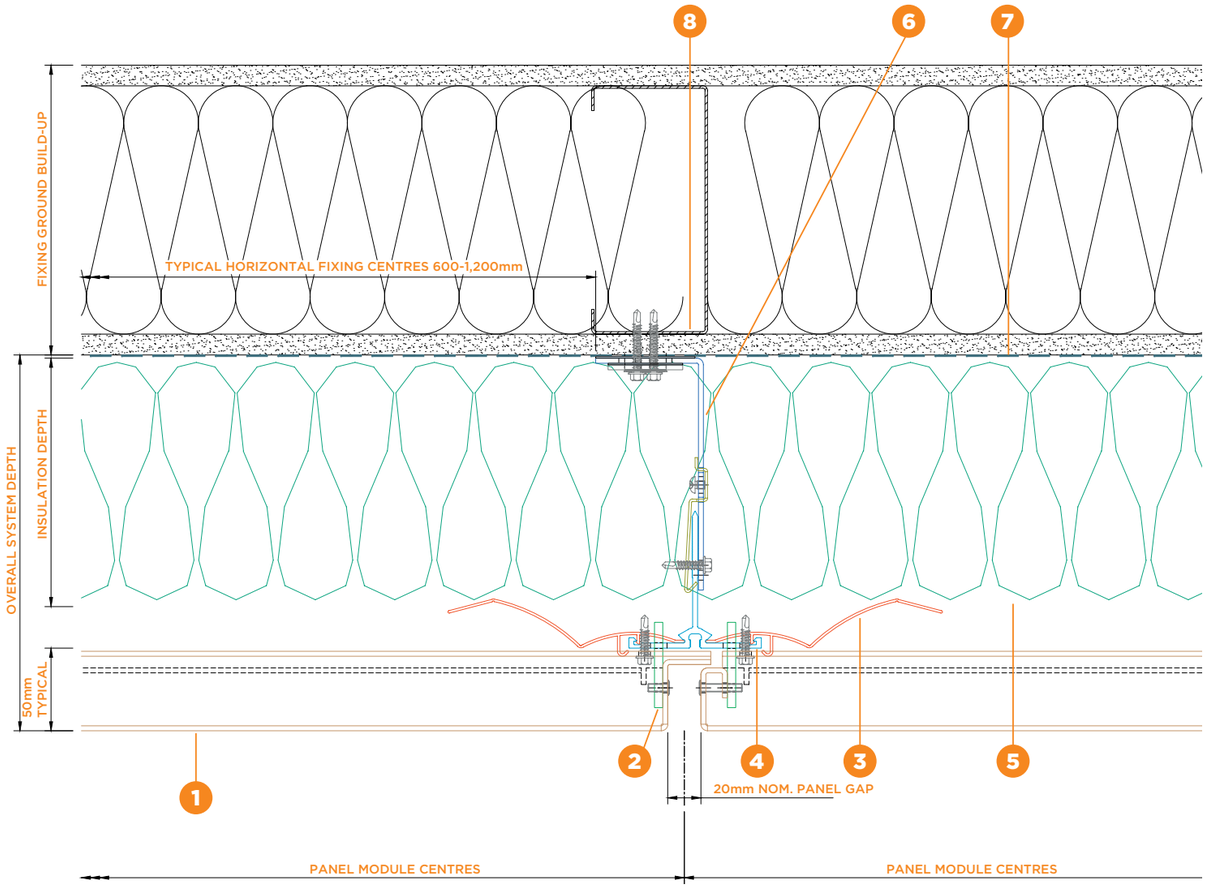


PLAN VIEW

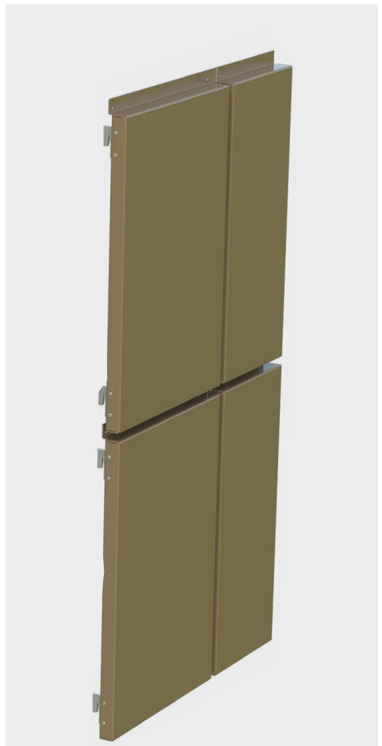
ASPECT CTV KEY FEATURES

VERTICAL ORIENTATIONS

- Used for vertically orientated panels
- Used mainly in areas of concrete or large, flat areas of fixing zones
- Hidden-fix, hook-on panels
- Clean, continuous joint lines

Materials
- 3mm solid aluminium
- 3mm perforated aluminium
- 2mm solid stainless steel
- 2mm perforated stainless steel
- 2mm solid Corten steel
- 2mm perforated Corten steel

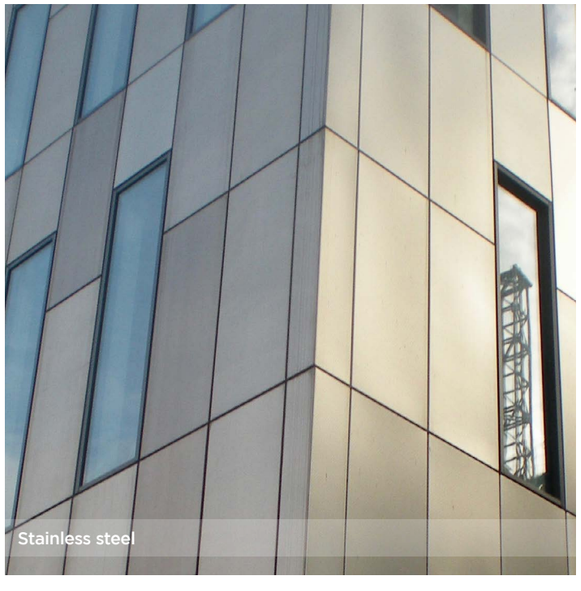
Panel sizes
- 3mm aluminium – maximum size 3,500mm (h) x 1,250mm (w)
- 2mm stainless steel – maximum size 2,800 mm (h) x 1,100 mm (w)

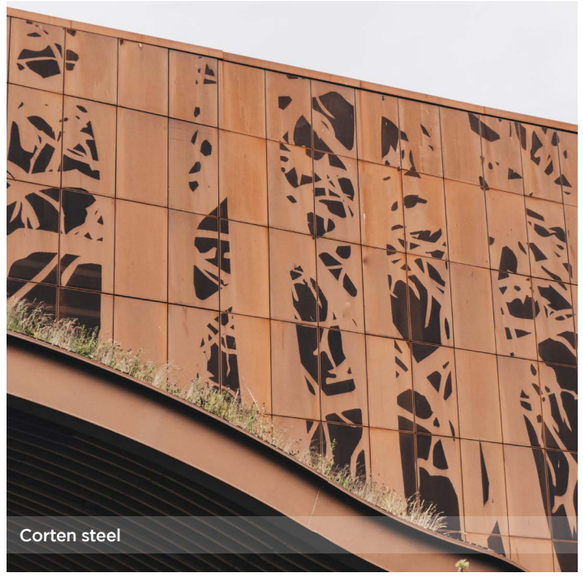


ASPECT SYSTEM PANEL OPTIONS

The Aspect system incorporates versatile panel sizes in various aesthetic options of finishes, panel types and orientation.


Aluminium


Stainless steel


Corten steel

Materials
- 3mm solid aluminium
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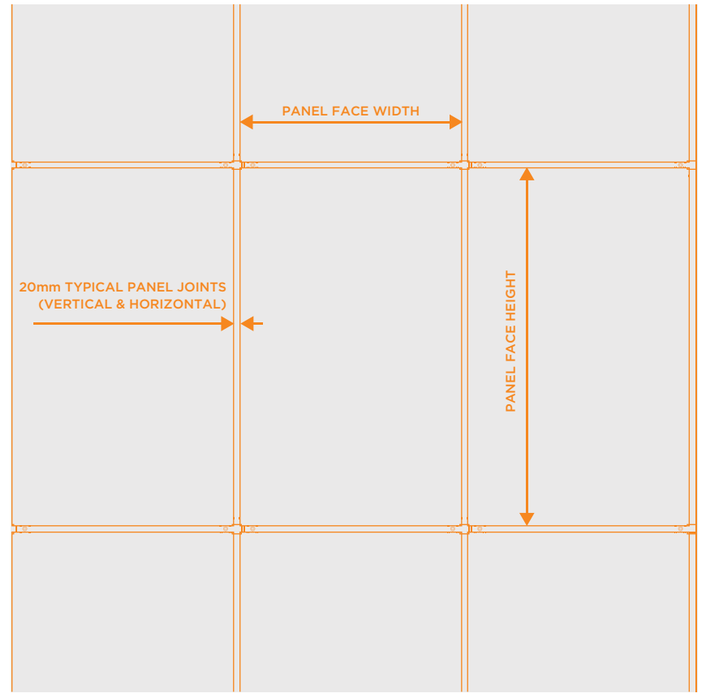
- 2mm solid stainless steel
- 2mm perforated stainless steel
- 2mm solid Corten steel
- 2mm perforated Corten steel

Panel sizes
- 3mm aluminium – maximum size 3,500mm (h) x 1,250mm (w)
- 2mm stainless steel – maximum size 2,800mm (h) x 1,100mm (w)
- Bespoke sizes available

Panel styles
- Embossed
- Solid tray
- Perforated
- Laser-cut

Finish options
- Anodised – A1 fire rated
- PVDF – A1 fire rated
- Polyester powder-coated (PPC)* – A2 fire rated

*PPC textured finishes include corten, stainless steel and woodgrain effect.



Panel face width	Panel face height	Vertical stiffener	Horizontal stiffener	Panel type
Up to 750mm	0 < 750mm	N	N	CTV & CTH
Up to 750mm	750mm-1,500mm	N	Y – 1 stiffener	CTV & CTH
Up to 750mm	1,500mm-2,250mm	N	Y – 2 stiffeners	CTV & CTH
Up to 750mm	2,250mm-3,000mm	N	Y – 3 stiffeners	CTV & CTH
750mm-1,500mm	Up to 750mm	N	N	CTV & CTH
750mm-1,500mm	750mm-1,500mm	N	Y – 1 stiffener	CTV & CTH
750mm-1,500mm	1,500mm-2,250mm	N	Y – 2 stiffeners	CTV & CTH
750mm-1,500mm	2,250mm-3,000mm	N	Y – 3 stiffeners	CTV & CTH
1,500mm-2,250mm	0 < 750mm	Y – 1 stiffener	N	CTH
1,500mm-2,250mm	750mm-1,500mm	Y – 1 stiffener	Y – 1 stiffener	CTH

What materials can be used on rainscreen cladding systems?

Find this answer and more in Maple's Knowledge Centre, a source of unbiased information about the architectural façade and solar shading industry.

www.maplesunscreening.co.uk/knowledge

NBS SPECIFICATION

NBS Source PARTNER

MAPLE ASPECT CTH RAINSCREEN FAÇADE

Manufacturer
Maple Sunscreening.
Contact No. 0161 456 6644

Website
www.maplesunscreening.co.uk

Product Reference
Aspect CTH Rainscreen Façade System.

Warranty
Dependent on specified finish and project location, consult manufacturer.

Support System Construction
Maple eClips HL comprises laser cut and folded brackets, manufactured from 304Gr (or superior) stainless steel, lengths ranging from 90-290mm to form a façade range of 180-430mm. These are fixed directly to suitable fixings grounds, mainly SFS and concrete.

Maple's T/L mullions of 6063 T6 aluminium are fixed to these forming the vertical element of the support system. Onto the face of the T/L mullions are Maple's C-rail transoms of 6063 T6 aluminium. Clipped into the mullions and C-rail transoms are Maple's patented insulation clips, which pin the insulation back to the structure.

Panel Construction
The exterior façade is made from 2/3mm aluminium, or 2mm stainless steel facing panels, hooked onto the support system, fixed through the top of the panel to prevent them being removed. This creates a concealed fix panel solution that allows for bespoke designs, and producing clean horizontal and vertical joint lines from 10-20mm.

This system is best used for landscape applications where there may be tolerance challenges at the fixing zone. There is flexibility through Maple's design of the front rail to allow horizontal movement.

Facing Panel Colour/Finish
Consult Maple – polyester powder coated 60µm or anodised 25µm.

Support System Colour/Finish
Mill Finish Aluminium.

Bracket Colour/Finish
Mill finish Stainless Steel.

+ Add to spec



MAPLE ASPECT CTV RAINSCREEN FAÇADE

Manufacturer
Maple Sunscreening.
Contact No. 0161 456 6644

Website
www.maplesunscreening.co.uk

Product Reference
Aspect CTV Rainscreen Façade System.

Warranty
Dependent on specified finish and project location, consult manufacturer.

Support System Construction
Maple eClips VL comprises laser cut and folded brackets, manufactured from 304Gr (or superior) stainless steel, lengths ranging from 90-290mm to form a façade range of 180-430mm. These are fixed directly to suitable fixings grounds, mainly SFS and concrete.

Maple's T/L mullions of 6063 T6 aluminium are fixed to these forming the vertical element of the support system. Clipped into the mullions are Maple's patented insulation clips, which pin the insulation back to the structure.

Panel Construction
The exterior façade is made from 2/3mm aluminium, or 2mm stainless steel facing panels, hooked onto the support system, fixed through the top of the panel to prevent them being removed. This creates a concealed fix panel solution that allows for bespoke designs, and producing clean horizontal and vertical joint lines from 10-20mm.

This system is best used for vertical applications where there are large flat areas of fixing zones (e.g. cladding panels onto a pre-cast concrete stair core).

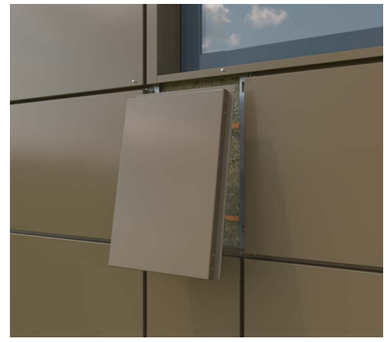
Facing Panel Colour/Finish
Consult Maple – polyester powder coated 60µm or anodised 25µm.

Support System Colour/Finish
Mill Finish Aluminium.

Bracket Colour/Finish
Mill finish Stainless Steel.

+ Add to spec





PRE-CONSTRUCTION SUPPORT

Maple's in-house design and pre-construction team combines experience and technical know-how with a deep understanding of the façade industry to help clients turn concepts into cost-effective and buildable reality.

For the best results, they get involved long before a rainscreen cladding project gets to site – often at pre-tender stage.

Our experienced pre-construction team can answer **technical queries** on everything from the front face of the rainscreen façade to the breather membrane.

We have a **library of standard details** in PDF and DWG format for use in drawings or presentations. Details include standard junctions at the head, jambs and base of windows, as well as coping flashing details and corner arrangements.

Value engineering is a disciplined process to improve the design of a façade to reduce waste and cost, and create efficiencies in manufacture and installation. We look at the materials, manufacturing and installation methods, logistics, planning constraints and other challenges to find the best solution.

Finite element analysis is a computerised method for predicting how products or components are going to perform in real-life situations. It's an important stage in the design process of architectural façades and solar screening products as it tests how the system will react to forces such as heat, motion, vibration or wind.

Detailed drawings and advanced 3D modelling aid visualisation, accommodate changes and give architects and contractors confidence in the proposed design. Maple will also host **design reviews and workshops** with clients and architects to get under the skin of a project and optimise the system or product design.

Despite advances in visualisation technology, there's often no substitute for seeing the real thing. We can provide everything from material **samples** to full-size **mock-ups**, along with powder-coating or anodising examples.

ASPECT CERTIFICATIONS

Quality assurance
All our products are manufactured to the highest standards, including BS EN ISO 9001:2015. As our products are designed in-house, we're able to offer bespoke solutions as well as standard systems. Continuous innovation and value engineering ensure the quality of our systems is always improving.

CWCT testing
Maple's systems and design principles have been thoroughly tested to Centre for Window & Cladding Technology standards.

Fire certification
The Aspect rainscreen system has been tested by Efectis in accordance with BS8414-2:2020, and according to the criteria set out in BR135, 3rd edition:2013

VINCI lab-tested
The Aspect rainscreen system has been through rigorous testing at the VINCI Technology Centre, including tests for weather-tightness and impact resistance.

MAPLE

ABOUT MAPLE

Maple is a leading designer, manufacturer and installer of solar shading, weather protection and screening for building exteriors and interiors. Since 1983, we've been combining innovation, technical excellence and exceptional customer service to deliver projects that save energy, create visual impact and make buildings more comfortable for their occupants.

Based in the UK, we're best known for our architectural façades, louvres and brise soleil — so rainscreen cladding systems were a natural extension to our range. Using our design expertise and unrivalled understanding of the sector, we've created a class-leading, commercially viable system that's high-performing, strong and easy to install.

Today, we work with construction companies on individual projects and large developments, while many of the UK's leading architects trust us to turn their visions into practical, beautiful and award-winning reality.

Aspect is a registered trademark of Maple Sunscreening Ltd.

Maple Sunscreening Ltd

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/maplesunscreening