

# ASHTECH™

rainscreen cladding systems



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Rainscreen facades are cladding systems applied either during the initial construction of a building or as an over-cladding as part of refurbishment of an existing building. These provide an outer weather resistant decorative skin, fixed to a structure by means of a supporting grid, and maintain a cavity which is ventilated and drained, between itself and the supporting structure.

A ventilated rainscreen with insulation on the backing wall, will allow the building fabric to breathe, without the risk of interstitial condensation or structural degradation.

Rainscreen cladding allows the designer to create complex and interesting facades, with an economic load bearing structure. The need for complicated detailing and the risk of cold bridging is dramatically reduced.

The Ashcolit Suite adds a variety of finishes and panel options, such as stone and 'Aerolite' honeycomb panels, together with a variety of support systems, to suit various spanning requirements.



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# Introduction



Rainscreen cladding is a unique method of cladding or overcladding a building to provide weather protection for the building fabric and structure.

The Ashtech rainscreen cladding system creates a completely flat surface giving the specifier the opportunity to develop an aesthetically pleasing façade, whilst providing long term performance which is guaranteed. A multi-layered rainscreen cladding system will out perform alternative types of construction, at an economic whole life cost to the building owners.

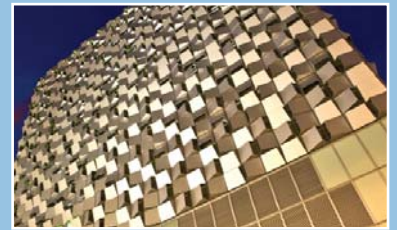
Ashtech rainscreen cladding systems provide a low maintenance, sustainable external ventilated 'cold' façade using aluminium sheet, aluminium composite material (ACM), and other metals such as steel and copper, which are formed into cassettes available in a variety of horizontal and vertical joint arrangements, including 3-D geometric designs.

## Features and benefits

- Superior aesthetics - a range of possibilities for building facades, including perfectly flat panels, which may be curved
- Panel designs easily integrate with building elements such as louvres, windows, doors and atriums to create a complete building façade
- Variety of jointing arrangements, giving total design freedom to achieve desired aesthetics
- Wide range of metal and stone materials
- Variety of finish in stone products - polished, natural, etc
- Excellent whole building lifecycle costs – durable and low maintenance system
- Sustainable construction solution
- Easily shaped and curved to create unique details for capping, copings, bullnoses and fascias
- Fabricated using latest CNC technology and fabrication skills
- Ideal for new build and refurbishment
- Flexibility - system can be fixed to any primary construction providing it is a rigid structure
- Thermal insulation easily incorporated to achieve desired 'U'-value
- Comprehensive design and technical support package
- Fully adjustable support systems and range of accessories available
- Available in a wide range of standard and non-standard colours
- Ash & Lacy drawing office services
- Ash & Lacy technical support, and full after sales service
- Ashure Warranty incorporates products and systems from Partner Companies
- In-house provision of NBS Specifications and Budget Costings
- Integrated architectural louvres

design limited only by imagination

# Introduction



ASHTECH Rainscreen is one of the most advanced method of preventing rain penetration. When applied correctly, it limits direct entry, prevents capillary action, manages cavity drainage efficiently and it arrests the ingress of wind driven rain. To achieve this, a rainscreen application involves more than a specialised cladding. Specifically, it must include a drained and vented cladding, a cavity behind the cladding together with an air barrier system in the backup wall, a compartmentalised cavity and suitable flashings for drainage from the cavity.

This construction is 'rear-ventilated' as it creates an equalisation of pressures both externally and inside the cavity causing any water to simply drain away down the rear face of the external panel. If the rainscreen system is required to perform thermally, insulation can be placed on the outside of the internal wall.

The ASHTECH' range of rainscreen products include the Ashcolit Suite, which is based on a linear grid, specifically designed to provide maximum flexibility in design.

There are many options for the outer face of the system, including aluminium, stone, steel and slate.

Other metals such as Copper and Zinc can be supplied, creating many possibilities for building facades. Other natural products can be used, as well as 'look-alike' panels.

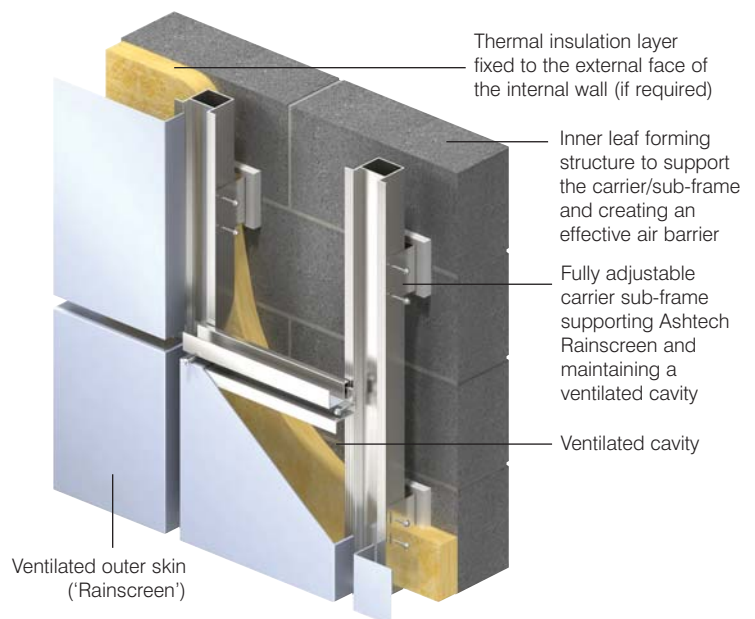
To complete the ASHTECH range of rainscreen cladding options, Ash & Lacy offer a bespoke fabrication service, to provide features which complement and enhance the façade systems supplied. These include bullnoses, transition flashings, column casings, louvres, and many other products such as fixings, providing the customer with a 'one-stop shop' for the building façade.

When a rainscreen cladding and wall system functions correctly, it will control the ingress of wind driven rain by separating the rain from the wind pressure and dealing with them separately. As the wind impinges on the cladding, it penetrates into the wall cavity through cladding vents to push on the backup wall air barrier system. If the air barrier is tight and well supported, the wind stagnates in the cavity to increase the cavity pressure until it rises to become about equal to the surface pressure on the cladding. When these two pressures equalise, the rain is no longer pushed or entrained into the wall cavity. This will allow the rain to flow downward over the internal surface of the cladding to the next flashing and drip cut. It is in this manner that the rainscreen separates the rain from the wind.

In addition, the rainscreen system must be able to prevent the wind cavity pressure from spilling around the corners or over the roof if the cavity pressure is to be equalised with the wind pressure during a storm. It is for this reason that the cavities of a rainscreen system are compartmentalised at or near the roof line and at or near building corners.

The addition of wall cavities, vents, drains and air barriers, can significantly reduce heating and cooling energy losses, minimise condensation problems in summer and winter, as well as minimising or eliminating the production of mould, keeping cladding maintenance to practically zero.

**This is a major environmental feature, contributing to the overall energy efficiency of the building.**

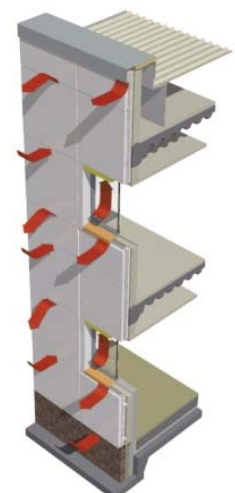


## Thickness to weight ratio

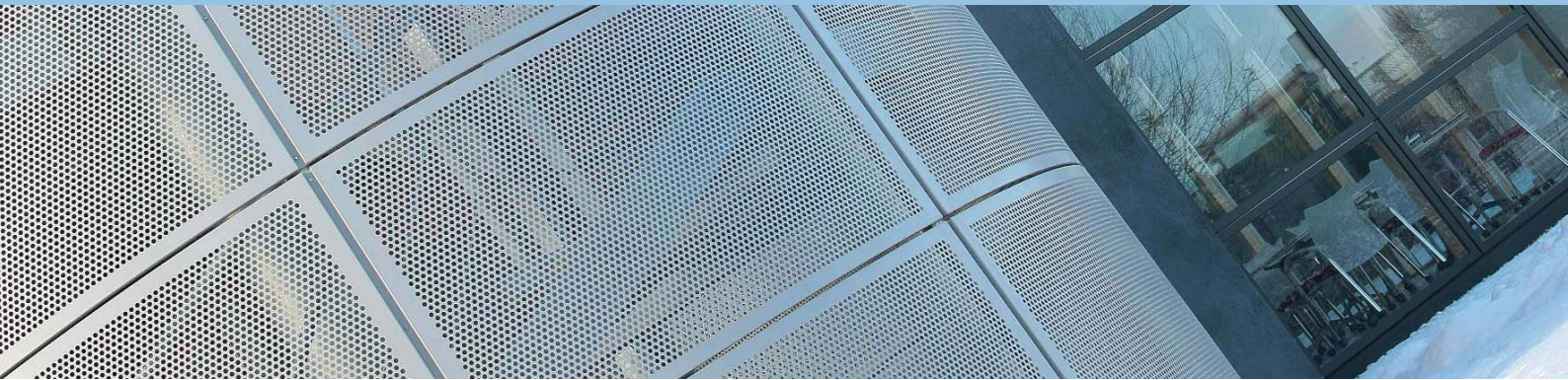
ACM		Aluminium		Steel	
4mm	5.5 kg/m <sup>2</sup>	3.3mm	8.9 kg/m <sup>2</sup>	2.4mm	18.7kg/m <sup>2</sup>

The rainscreen principle has been successfully applied to numerous types of cladding to include aluminium, copper, zinc, light-weight stone, curtain walling, various pre-cast wall systems, steel buildings, masonry walls and window designs.

The application of the rainscreen principle provides the best overall rain penetration resistance by comparison to front sealed cladding systems.



# Performance / Properties



There are a number of proprietary fully adjustable supporting aluminium sub-frames which can be used in conjunction with Ashtech cassettes and trays, allowing the panels to be mechanically fixed or hung in position. The supporting structure can be fixed to any external wall construction, providing it is a rigid structure, and generally comprises a range of adjustable wall brackets supporting vertical aluminium mullions, which create the cavity between the internal wall structure and the Ashtech façade panel.

The design and detailing of these sub-frames wholly depends on wind loading and the panel size and system being employed. For further information and advice regarding specific applications please contact the Ash & Lacy technical department.

Although not responsible for the structural adequacy of the internal wall, Ash & Lacy will however provide design and specification advice on all elements of the rainscreen cladding system.

## Structural Aspects

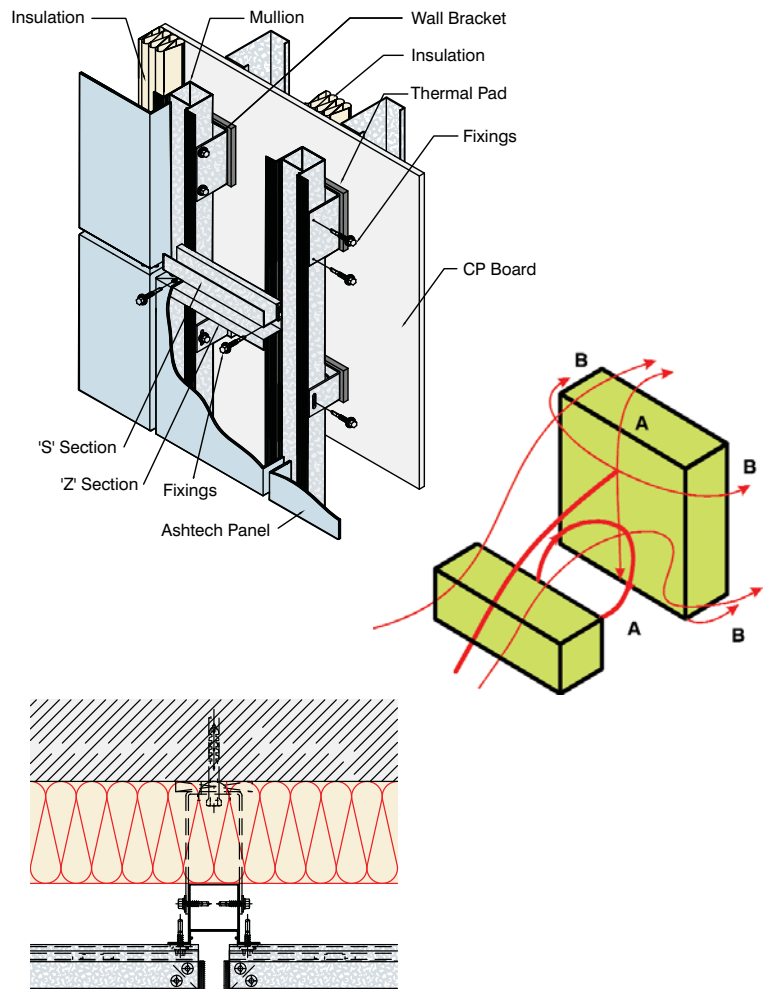
Knowledge of wind loadings is fundamental in the design of any project incorporating a rainscreen cladding system. Whilst it is acknowledged that Ashtech is a 'drained and ventilated' system it is nevertheless important to fully evaluate and understand (with the assistance of a qualified structural engineer) the effects of vortices, funnelling and separation pressures likely to be acting upon the cladding system in order to ensure post construction safety.

## Airtightness

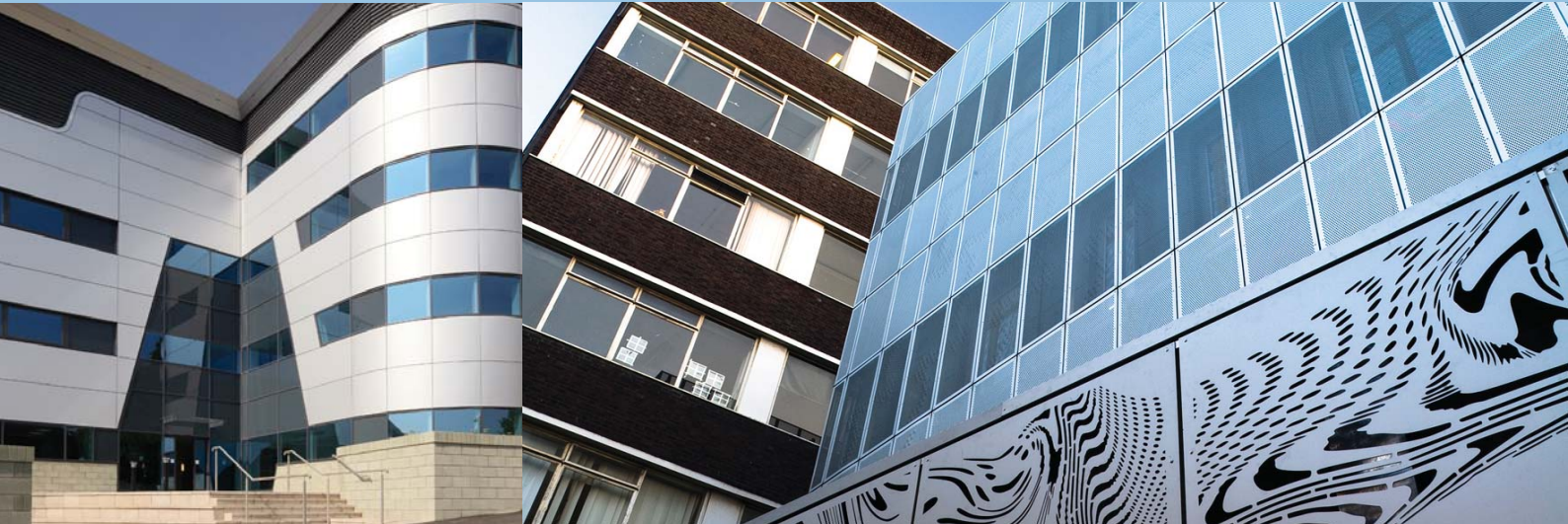
Unless the internal wall structure of a building is airtight, pressure equalisation cannot occur and the weather performance of the layered rainscreen cladding system will be seriously compromised. Therefore, if the cladding system is constructed correctly and the rainscreen principles observed, the internal wall structure will act as an air barrier.

## Thermal Performance

The thermal performance of a rainscreen cladding system is determined by the thickness of insulation included within the system itself or that of the internal wall structure. In refurbishment applications, the use of an Ashtech rainscreen cladding system provides an ideal opportunity to upgrade the thermal performance of the existing building. A breather membrane is often used to protect the insulation from any moisture crossing the cavity, which will evaporate through the rear ventilation action. The thickness of insulation required is dependent on the thermal performance of the insulation selected and required U-value.



# Performance / Properties



## Thermal Expansion

Lateral thermal movement is catered for within the Ashtech system by the inclusion of a fixed point and slotted/oversized holes. The inclusion of a fixed point along the panel top extrusion is to allow for uniform expansion and contraction thus maintaining a uniform joint. For large panels the fixed point can be either at a central support mullion location or at the end of the top extrusion. If the fixed point is central along the top extrusion then slotted/oversized holes are required at both ends. For fixed points at the end of the panel the slotted/oversized hole is required at the opposite end.

**The requirement for slotted/oversized holes in the top extrusion is a site operation.**

Slotted holes to cater for vertical movement are provided in the Ashtech wall bracket ready for use on site.

## Energy Efficiency

Ventilated rainscreen wall systems allow for a much greater flexibility in insulating a building based on the project specific needs in its specific environment. With a rainscreen cavity, insulation can be located outside of the air barrier and inside the cavity space, which can greatly improve a wall's 'U' value and significantly reduce energy consumption and subsequent running costs.

## Ventilated Wall Design 'A wall that breathes'

Air is allowed to circulate behind the exterior cladding material creating a ventilated facade that keeps the cavity free of moisture or mould and mildew. Any water that enters into the cavity quickly evaporates as a result of the ventilation and as always, the last line of moisture and air infiltration penetration defence is an appropriate vapour barrier system.

Unless the internal wall structure of a building is airtight, pressure equalisation cannot occur and the weather performance of the layered rainscreen cladding system will be seriously compromised. Therefore, if the cladding system is constructed correctly and the rainscreen principles observed, the internal wall structure will act as an air barrier.

## Sustainable Design

Rainscreen wall design often utilises 100% recyclable cladding materials with systems that offer life expectancies of somewhere in the region of 100 years. Rainscreen as a wall design offers a variety of benefits from Leadership in Energy & Environmental Design (LEED) accreditation perspective.

## Natural 'Green' Materials

Whether selecting terracotta, ceramic, natural stone, metal or wood cladding products, rainscreen design allows the designer to utilise the latest in natural, recyclable, 'green' building materials. All aluminium attachment substructures provide additional evidence for design with recyclable materials.

## Maintenance Free Systems

With rainscreen walls and ventilated cavity systems, the building can be kept dry by eliminating the propensity of water being allowed to penetrate the wall system. Simply, this means there is now no longer a need for caulking, grout or sealants. A wide variety of high quality exterior cladding products exist and these can be utilised with a rainscreen wall design, combining a technical wall design with a timeless aesthetic feature for long term sustainability.

## Year Round Installation of Systems

Unlike traditional closed cavity wall construction, rainscreen walls can be installed all year round, allowing for greater flexibility in project schedules and ultimately installation times. Installations are simple and straightforward, allowing for external cladding and internal works to proceed quickly and consecutively.

## New or Refurbish Construction

Ventilated rainscreen walls can be applied to a new or existing construction and offer the designer limitless options that at once empower the re-cladding of an existing structure giving it a new aesthetic feature. This has substantial benefits from both a design and sustainability perspective.

*For further advice or information on any of the above issues please contact our technical department.*

# Performance / Properties



## CWCT

Ash & Lacy are members of the renowned CWCT (Centre for Window and Cladding Technology), and the design of all Ashtech products including the Ashcolit Suite adhere to CWCT design principles.

## Quality

Ash & Lacy products are manufactured to the highest quality standards including BSEN ISO 9000: 2000. All products are designed to fulfil specific applications and have been engineered to precise standards and tolerances. Ash & Lacy have adopted a strict Environmental Policy for all products.

## Fire

ACM rainscreen cladding panels meet the requirements of BS476: Parts 6 & 7, therefore achieving a Class O rating as classified by Building Regulations. Any specified firebreaks would be installed by an Ashtech approved contractor. A non-standard A2 core is also available which meets the requirements of the London Underground Code of Practice. For further information, please contact our technical department.

## Panel dimensions

Ashtech ACM rainscreen cladding panels are manufactured to suit the requirements of each specific building. Maximum panel size is up to 2000mm x 6800mm, in increments of 1mm, depending on the system. For specific requirements, our technical department should be consulted to determine restrictions applicable to each product group.

## ACM - high performance coating

ACM rainscreen panels are available in a range of standard coil coated colours including PvdF or Duragloss 5000 finishes. These high performance coating systems are available in a standard range of opaque or metallic finishes, and special colours are available on request subject to order quantity. When planning a specific project careful consideration should be given to the quantity of material required to enable production from a single paint batch and coil run if possible.

## Durability of coatings

The durability of any metal coating is determined by geographical location, local environment and the colour selected. For further information please contact our technical department.

## PvdF

PvdF (Polyvinylidene fluoride) is a coating system that contains at least 70% of the Kynar 500 resin or equivalent which is famed for its quality and durability. PvdF coatings are renowned for their outstanding resistance to colour and gloss ageing, solar radiation, humidity and aggressive environments.

## Installation

ASHTECH rainscreen cladding systems are simple to install, but it is recommended that contractors attend training sessions at Ash & Lacy to ensure that all aspects of the systems are understood. A list of trained and approved contractors are available from Ash & Lacy's sales department, which would be tailored to suit individual project requirements.

## Delivery / panel protection

Ashtech rainscreen cladding panels are supplied fully formed with a protective film to the external face and arrows indicating the direction of lay. The protective film should only be removed once the panels are fixed in place, preferably at the end of each day's installation.



Properties	PvdF
Coating thickness	25 microns
Gloss level	20% - 30%
Adhesion after indentation	100%
Crack resistance	no cracking, no loss of adhesion
Salt spray resistance	1000hrs
Water immersion resistance	1000hrs
Colour fastness on natural weathering	5-10 units (maximum)

# Materials



Ashtech rainscreen cladding is supplied in a range of materials, providing the designer with the maximum choice in terms of material, finish, texture and colour. Aluminium, ACM, Mill Finish, Anodised or Pre-Coated Aluminium, Powder Coated Aluminium, Steel, Stainless Steel, Copper, Zinc or Corten Steel may all be specified for Ashtech rainscreen cladding. Stone and other natural products such as slate and marble are included in Ash & Lacy's Ashcolit range of materials and finishes.



## Aluminium

For the ultimate in panel flatness, **Aluminium Composite Material** (ACM) should be specified. This product consists of two skins of 0.5mm thick aluminium, autohesively bonded to a polyethylene or mineral core. The reverse of the sheet is routed to create crisp folds which enhance any building façade. It can be formed into a variety of shapes, including curves, and is available in a range of finishes which include natural metal, metallic and flat PVdF paint, copper look-alike, polyester powder coated and many more.

Alternatively, panels manufactured from 2mm or 3mm thick **Aluminium sheet** can be supplied, depending upon the application, and will provide good panel flatness. These are available in plain mill finish, or with a pre- or post-manufacture applied PVdF, Polyester Powder Coated or anodised finish to the desired colour.

## Steel

Stainless Steel is an extremely durable, low maintenance material with excellent damage resistance and a range of finishes, patterns and colours. This can be supplied as 1.5mm thick sheet, or as a composite panel with a polyethylene or mineral core.

Corten® Steel is a high strength alloy, which provides a weathered finish, giving the designer an alternative textured surface.

Other steel options are available, depending upon application, panel size and shape. For details, please consult Ash & Lacy's technical department.

## Copper

Copper lends itself to use on a cladding façade, due to its malleability giving it excellent formability, and being a natural product.

It enhances and extends design possibilities. It is a low maintenance product, where its visual appeal increases with age.

## Zinc

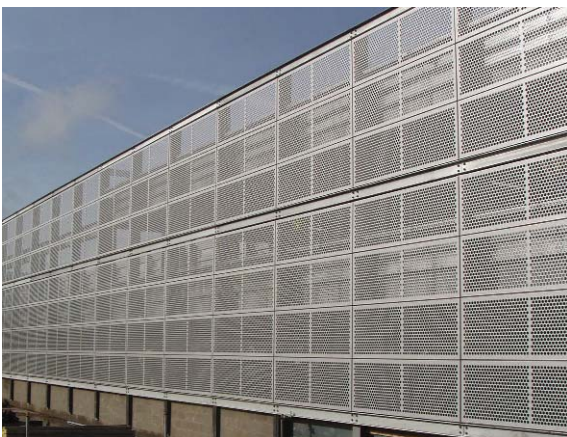
Zinc is naturally resistant to corrosion, and is extremely durable without excessive maintenance.

## Perforated and Expanded Mesh Ashscreen

Perforated and Expanded Mesh Ashscreen panels provide decorative veils or enclosures for car parks and similar buildings. The panels are supported on a grid system which for car parks in particular can be assembled from inside the building reducing or avoiding the need for external scaffolding.

## 3-D Geometric Designs

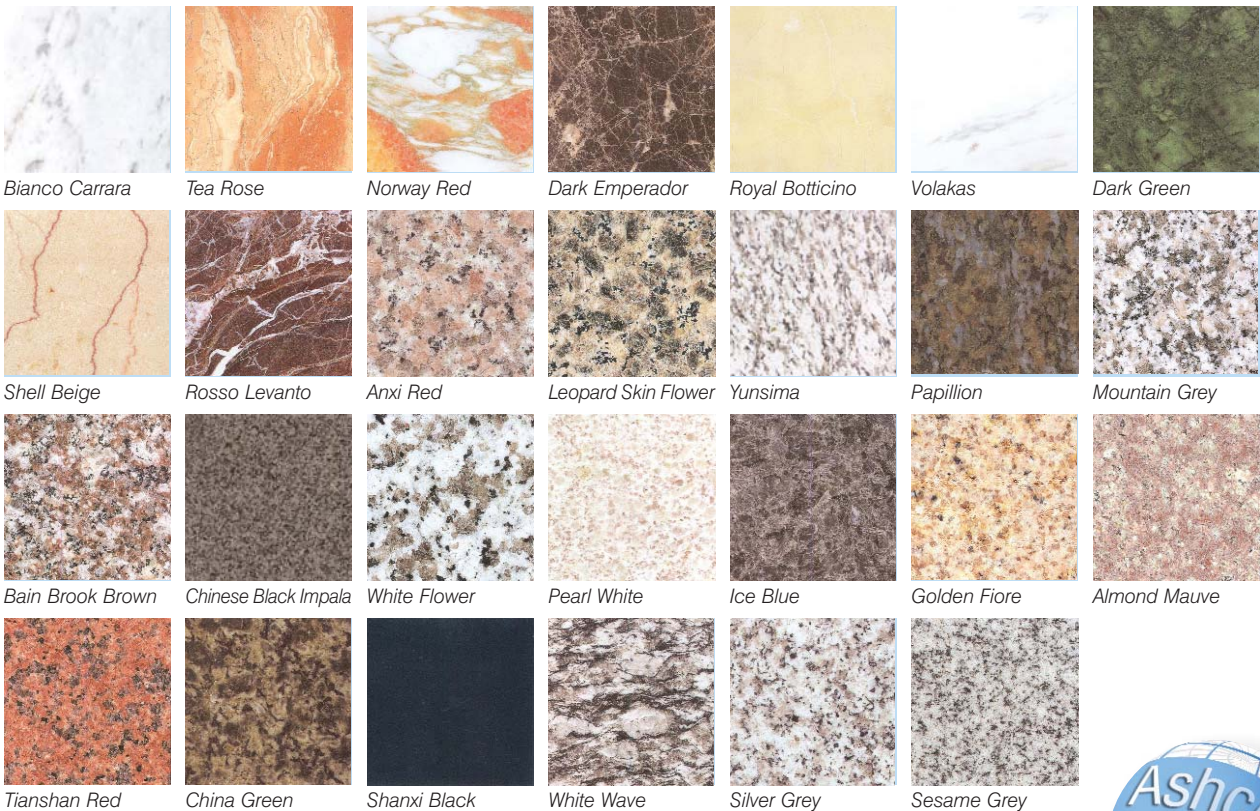
Box panels, set at various angles and projections, either as fully framed panels or individual sections.



# Materials



## Ashcolit Suite Natural Finishes



To minimise the load on the supporting structure, Aerostone aluminium honeycomb panels are bonded to the reverse of the panel, through which connection is made to the structure.

All finishes can be reproduced as 'lookalike' panels, presenting the appearance of a natural product, but on an aluminium sheet.

Terracotta and Vitreous enamel are also available, as are synthetic granular finishes.

For the full range of Ashtech panels, please contact our Technical Department.



# Systems



## Freedom

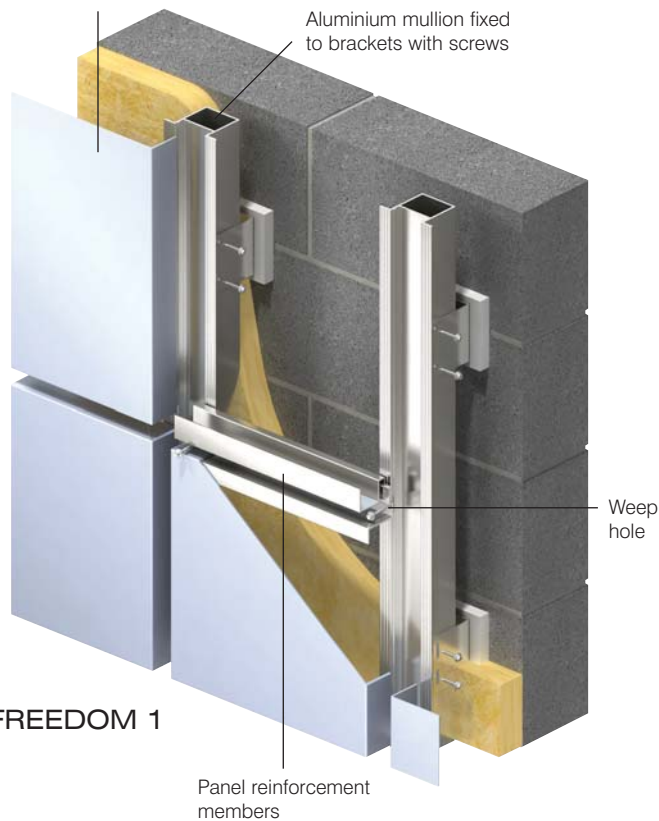
A concealed fix baffle jointed cassette rainscreen with a fully adjustable support system. Best suited to horizontal application on walls and for soffits.

## FREEDOM 2

Aluminium mullion fixed to brackets with screws

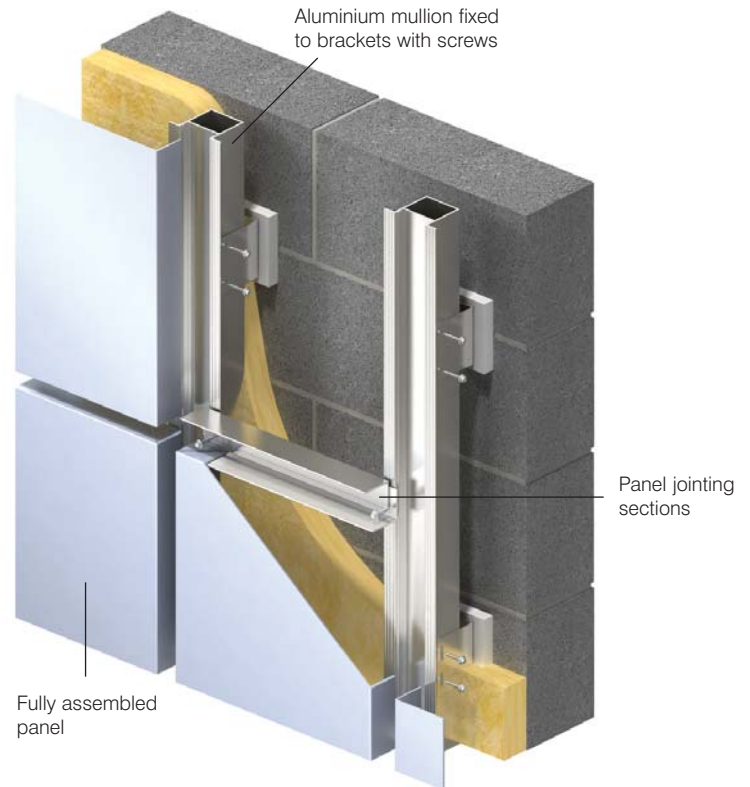
Fully assembled panel

Aluminium mullion fixed to brackets with screws



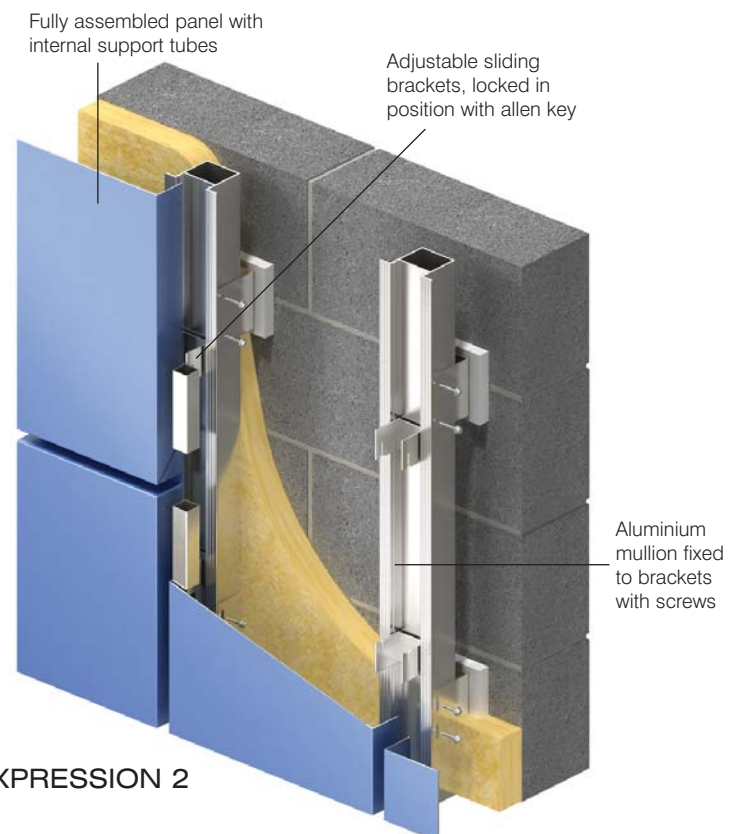
## FREEDOM 1

Panel reinforcement members



Fully assembled panel with internal support tubes

Adjustable sliding brackets, locked in position with allen key



## EXPRESSION 2

Aluminium mullion fixed to brackets with screws

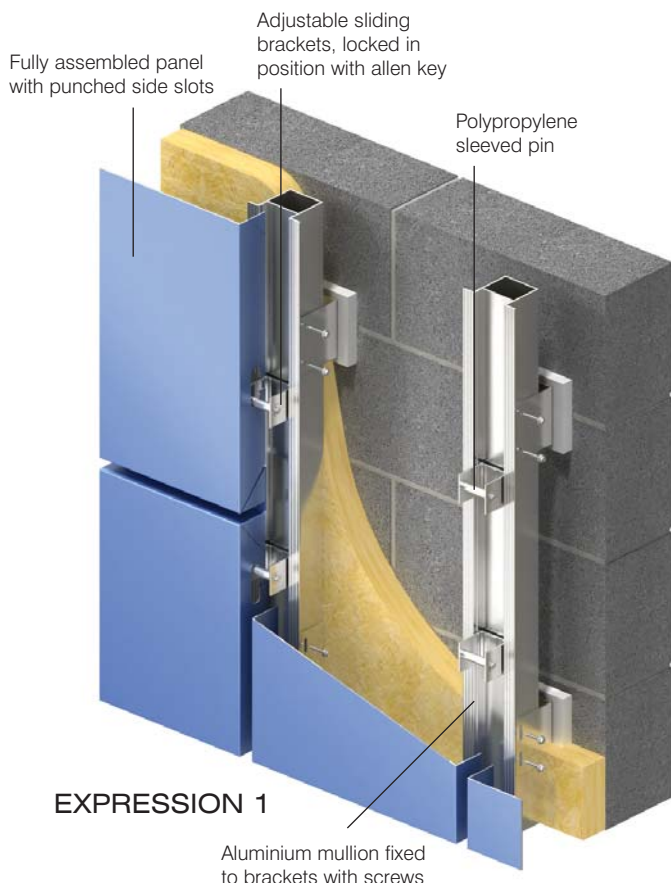
## Expression

A concealed fix baffle jointed hook-on cassette with a fully adjustable support system designed for vertical (portrait) application on vertical facades.

# Systems

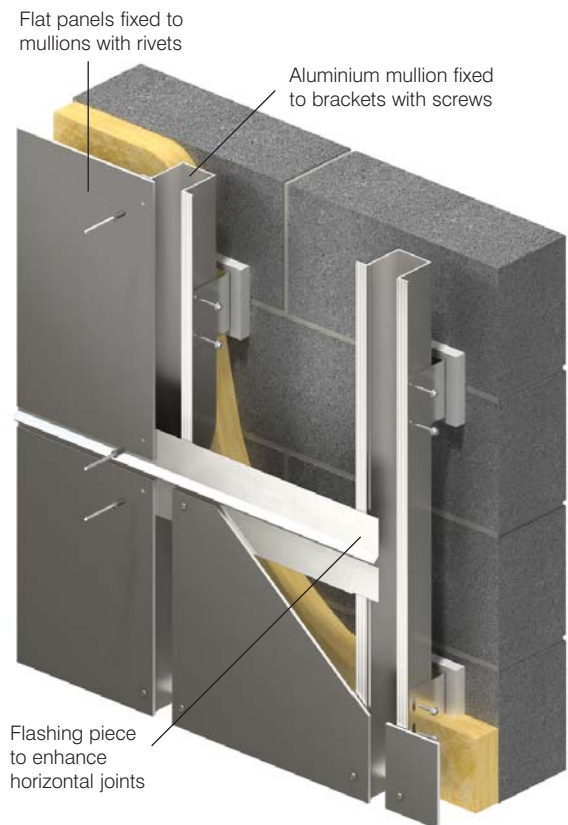


## HORIZON 1



## Horizon

A flat plate rainscreen system, clamp fixed with a feature top-hat extrusion and a fully adjustable support system. Suitable for façade and soffit applications.



## SIMPLICITY 1

*This system may also be structurally bonded for a secret fix option*

## Simplicity

A versatile flat plate rainscreen system that can be rivet fixed or structurally bonded to the adjustable support system. Panels can be vertical or horizontal with the option of open or baffled joints. Suitable for façade and soffit applications.

# Systems

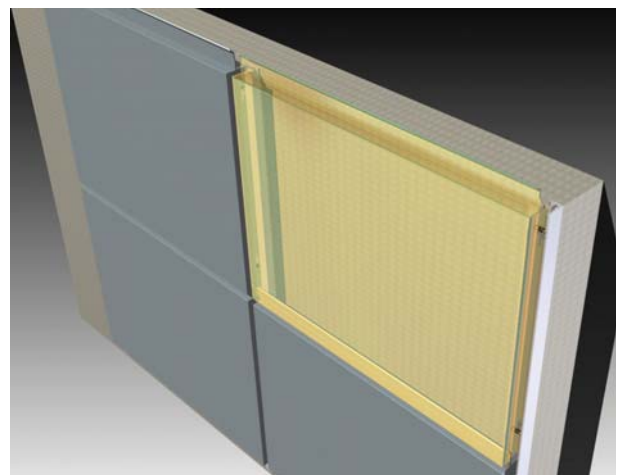
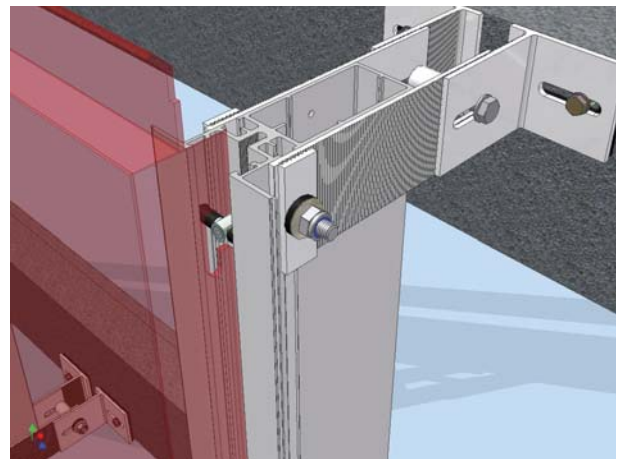


## Lingrid 1

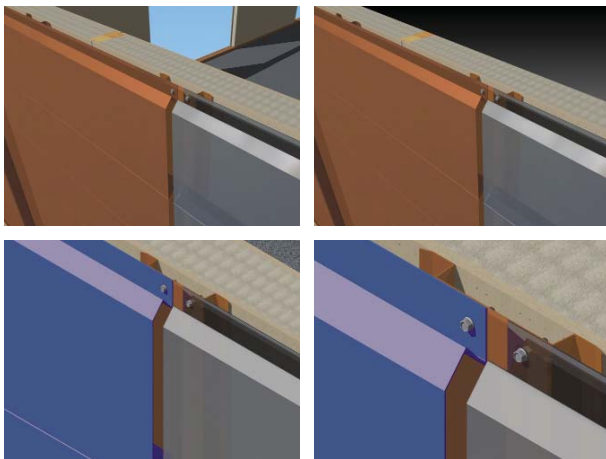
**Lingrid 1** is based on the traditional 'hook-on' system, and consists of 5 basic mullions ranging from 50mm to 175mm in depth. This means that the mullions can be installed on almost any form of sub-structure or frame, and can span from floor to floor if required.

**Floor to Floor** this is a major benefit to the designer, minimising support steelwork and providing maximum flexibility.

- Originally designed for new build, **Lingrid 1** is also ideally suited for renovation, where over-cladding is required. By virtue of its spanning capability, existing facades can be over-clad where they would normally be too fragile to fix a conventional system
- The need for on-site fabrication is removed, as the complete system is delivered in component form
- The only tools needed for installation of the rainscreen system are a 10mm socket spanner and a 4mm Allen key
- Any shape or size of panel (subject to base material availability) can be installed onto the support system
- There is no specific start point for an elevation. Panels can be fitted at random, if desired, due to the unique panel carrier, which is fully adjustable and can be locked and unlocked with ease
- Panels can be plumbed and lined independently without being removed
- The unique panel carrier system allows damaged panels to be removed and replaced quickly and efficiently without affecting surrounding panels
- The mullions may be self colour, or they may be anodised or painted if an open joint is required. Alternatively, there are a range of clip-in beads which hide the carrier system, and these are available painted or anodised to suit specific requirements. There is also a special insert which allows ACM strips to be bonded to match the profile. These inserts range from 12mm to 75mm wide, and can be recessed, flush or projecting, to suit individual designs
- Starter mullion vertical closures are mullion window reveals, are included in this range of clip-in beads



# Systems



## Lingrid 2

**Lingrid 2** has been designed as a lightweight rainscreen system to carry the range of **AshPlanks**.

- **Lingrid 2** is an efficient system for other products such as the Ashcolit Aerostone and Ashcolit look-a-like Terracotta tile system
- The **Lingrid 2** system consists of a series of clip cleats fitted back to the sub-structure at maximum 1000mm centres, to which is fitted a thermally broken offset structural 'T' section up to 4000mm long, with rivets or self tapping screws



## Lingrid 3

**Lingrid 3** is the support frame for the Ashcolit Aerostone lightweight stone system. It is generally based on the traditional method of fitting stone and lightweight stone panels with added features

- Two types of aluminium sections make up the system – Aerostone Stone Transom Type 1 and Type 2
- Transom Type 1 has a dual role and is fitted to the reverse of lightweight stone panels as the top rail. It also acts as the bottom structural support for the next panel above, thereby ensuring a more dimensionally accurate horizontal joint.
- Transom Type 1 allows for a range of joint closures, including mastic, gaskets and feature aluminium or UPVC extruded sections
- Transom Type 1 acts as the intermediate stiffener bonded to the panel and as the intermediate structural support
- Transom Types 1 and 2 are fitted to the reverse of honeycomb panels horizontally, with undercut anchors, which are bonded to both the stone and the honeycomb with spacing according to the design requirements
- Transoms Types 1 and 2 are bonded at approximately 800mm centres, subject to the type and thickness of the stone being used
- The **Lingrid 3** system can be fitted direct to a sub-frame system, or to specific types of board materials such as the Ashcolit 'Total Wall' SIPS System

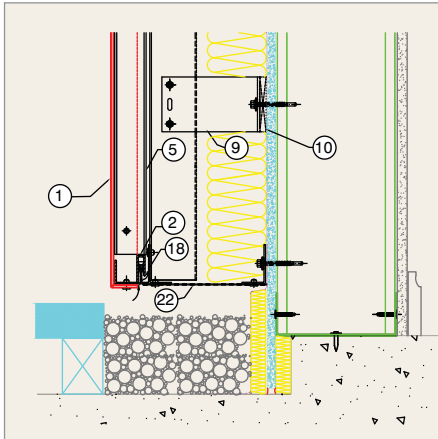
# Details



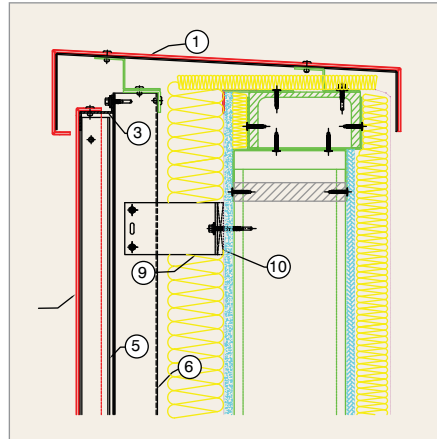
## Ashtech Systems provide a wide range of solutions to suit all requirements

A selection of typical details for the Freedom 1 system is shown. CAD details are available to suit specific requirements – for more information, please contact Ash & Lacy's technical department.

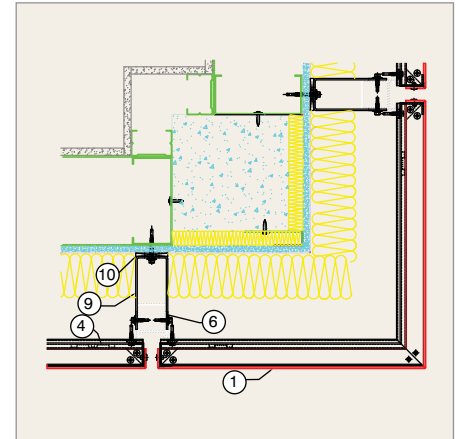
Details include options for support systems, as well as alternative arrangements for cappings, windows and other openings, corners and cill/base conditions.



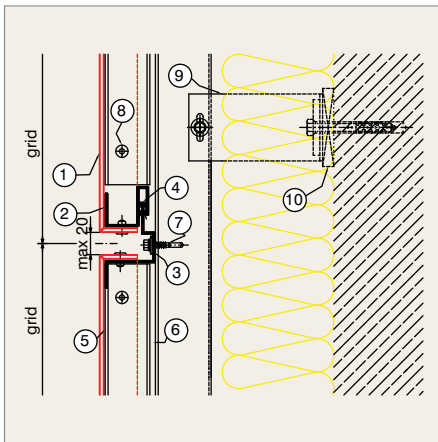
Base Detail A



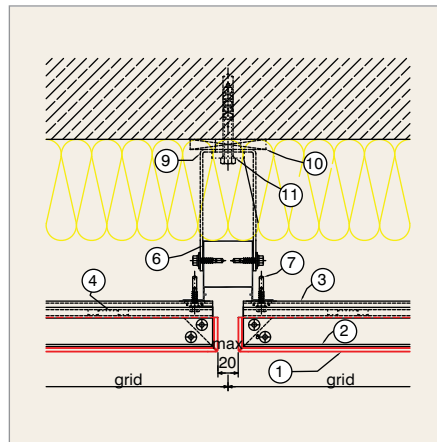
Capping



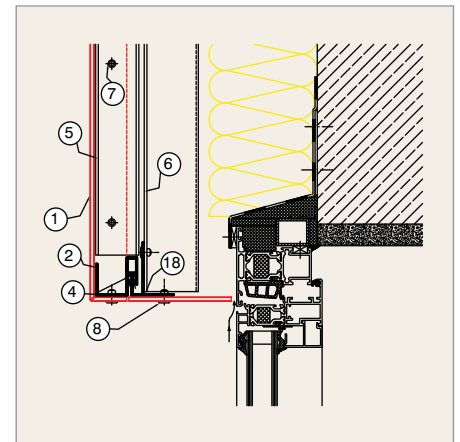
External Corner



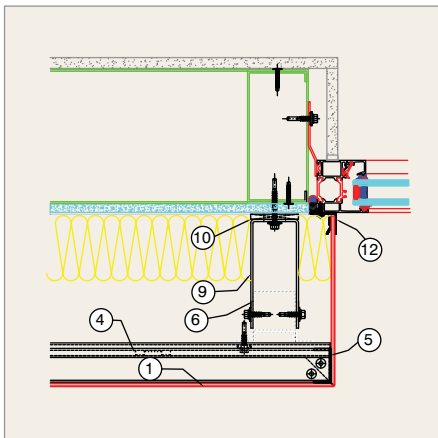
Parapet Return



Vertical Joint



Window Head 1



Window Jamb

- |                            |                              |                    |
|----------------------------|------------------------------|--------------------|
| 1 Ashtech panel            | 7 Fascia screw               | 18 Starter section |
| 2 Extruded S-section       | 8 Rivet                      | 22 Insect Mesh     |
| 3 Extruded Z-section       | 9 Wall bracket               |                    |
| 4 Anti-rattle clip         | 10 Thermal pad               |                    |
| 5 Extruded U-section       | 11 Washer & fixing           |                    |
| 6 Extruded mullion section | 12 Window connecting section |                    |

Details can be manipulated to suit various requirements, and Ash & Lacy's drawing office can provide special details on a project related basis to suit almost any cladding design.

In-plane louvres may be integrated within the panel modules, matching the finish and colour of the rainscreen panels themselves.

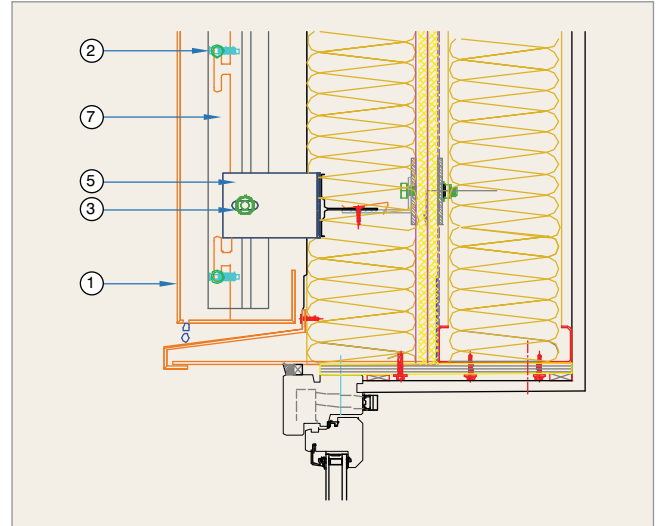
# Details



The Ashcolit Suite, based on a linear support system allows full flexibility of design and effect.

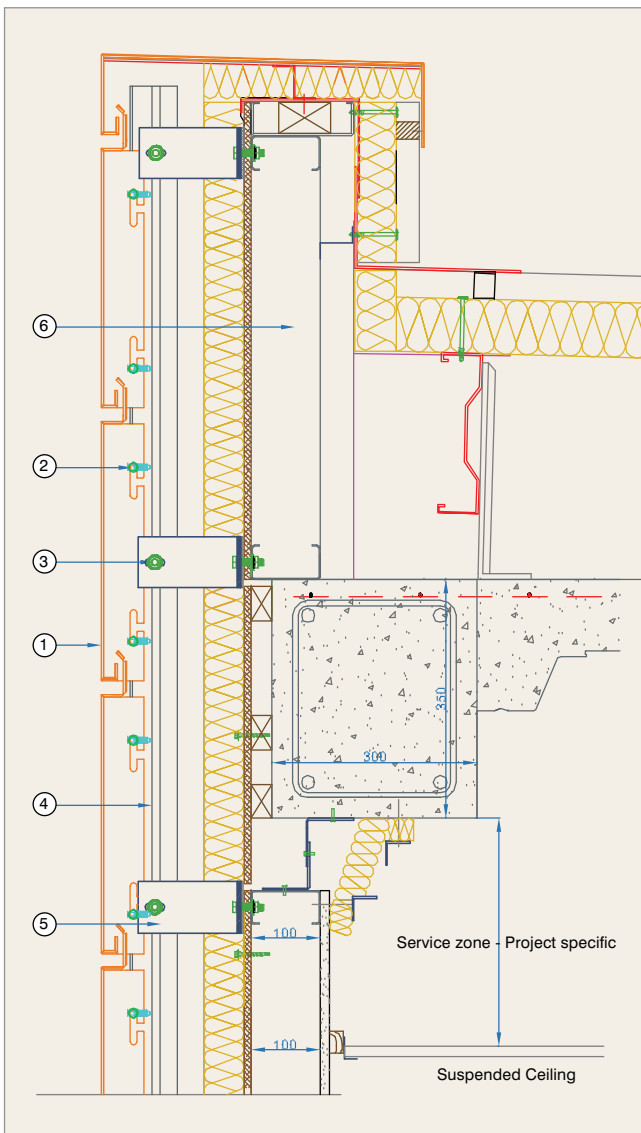
CAD details are available to assist the designer and further information is shown on the Ash & Lacy website at [www.ashandlacy.com](http://www.ashandlacy.com)

- 1 Ashcolit Panel
- 2 Support 'pin' (Carrier)
- 3 T Bolt
- 4 Extruded Mullion
- 5 Wall Bracket
- 6 SFS Frame
- 7 Panel returns (showing connection 'keyholes')
- 8 Insect mesh

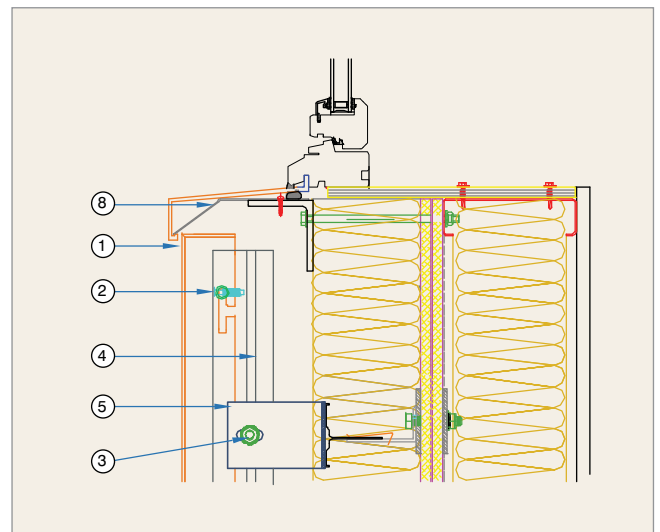


HD 150 or S150 Mullion  
A20-13: Window Head - Timber

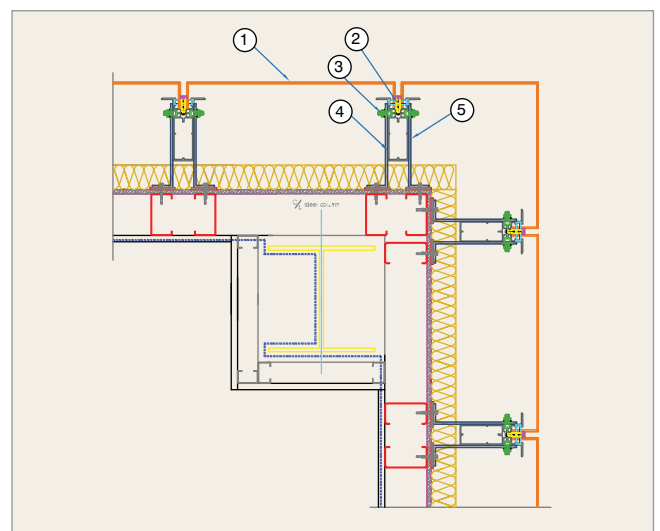
## Ashcolit Lingrid 1 panel



S70 Mullion concrete recessed parapet eaves with concrete deck



S70 Mullion  
A20 - 14: Window Cill - Aluminium



HD150 & S150 Mullion  
Plan Section through External Corner

# Projects



## Multi-Storey Car Park, Birmingham International Station

**Product** Ashtech Rainscreen  
Cladding System -  
Expression 1 in  
silver and yellow'

**Installer** Gable (UK) Ltd

**Sector** Transport

Approximately 2000 sq m  
of raked cassette and flat  
panel system, to the three  
stair towers and the front  
elevation feature cladding.

## SAS Radisson, Cardiff

**Product** Ashtech Rainscreen  
Cladding System -  
Expression 4 in  
white

**Installer** MIB Ltd

**Sector** Leisure

High rise (22 storey) hotel and  
student accommodation  
building involving  
approximately 5000 sq m of  
ACM cassette panels,  
including factory cranked  
corners, special shaped  
panels and column casings.



## Halesowen Bus Station

**Product** Ashtech Rainscreen  
Cladding System -  
Freedom 1 in silver  
metallic

**Architect** Jefferson Sheard  
Architects

**Installer** Marksman Roofing  
& Cladding

**Sector** Transport

Approximately 450 sq m of  
horizontal cassettes,  
including factory produced  
smooth curved panels.

# Projects



## The Huxley Building, University of Brighton

**Product** Silver anodised ACM  
AshTech™ panels

**Installer** Cladding & Roofing  
Systems Ltd

**Sector** Education

The 8,500 square metre building is generally 1.3M high and up to 6.4M long, that work together to wrap around the complex elevations. Each individual panel had to be purpose-made and pre-curved at Ash & Lacy's West Bromwich headquarters, to fit around and match the windows on the building.



## Kendal College, 'The Box'

**Product** Ashtech Rainscreen  
Cladding System

**Main** ISG Regions  
**Contractor** Building Ltd

**Architect** Taylor Young

**Sector** Leisure

The new Arts and Media Campus at the North side of Kendal known as 'The Box' will seat up to 120, providing performing arts and technical theatre students with a dedicated, professional theatre space.

## Metropolitan Works, London Metropolitan University

**Product** Ashtech Rainscreen  
Cladding System

**Architect** Cartwright Pickard

**Sector** Education

The building was conceived as a series of interlocking volumes unified with a perforated aluminium cladding.

On the ground floor a dramatic frieze by local artist Tom Price has been laser cut into the anodized aluminium panels.



# Through-Wall System



In association with our partners, we can offer a complete design and detailing package which includes structural steel framing, cladding and window design; in fact everything involved with the secondary elements of a building façade.

Through the design of both the supporting SFS system and the co-ordinated detailing of the Ash & Lacy clad facade, a robust, fast and cost effective approach can be achieved efficiently and aims to reduce costly on-site issues at controlled design stage.

- True co-ordination between interfaces
- Single design submissions, reducing co-ordination issues
- In-house engineering service
- Practical and buildable design solutions by commercially astute and experienced designers

## Services

**Steel Framing System Design & Engineering** - infill, oversail & loadbearing cold formed steel design

**Window Design** - details, interfaces, co-ordination & fabrication technical services

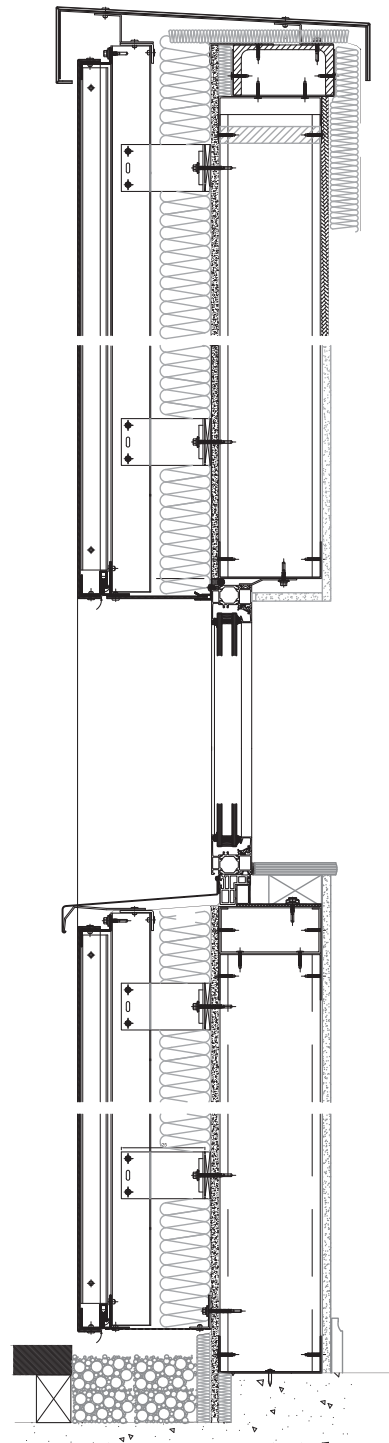
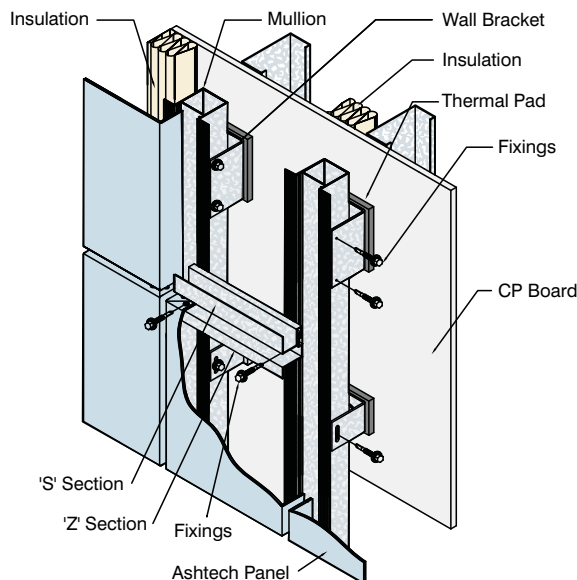
**Rainscreen Design** - details, interfaces, co-ordination & fabrication technical services

**Technical Project Management** - co-ordination with Architects, Structural Engineers, Main Contractors, Installers, and other Design Team members

**Tender Support** - Technical reviews of tender submissions highlighting possible issues with proposed cost effective solutions

**After Sales** - Remedial details and quality assurance inspections

All of the above are covered by Professional Indemnity Insurance



# Service



Ash & Lacy's in house design and drawing office provide a full service to the customer or specifier, and can work with the design team to develop the most economic panel arrangement within the specification design brief.

Ash & Lacy can provide the full service from an initial design brief and schematic arrangements.

The Ash & Lacy name has been associated with the metal industry since the mid 1800's. Ash & Lacy Building Systems was formed in 1989, having previously been involved with profiled metal cladding as Ash & Lacy Steel Products.

Our fabrication facilities provide the customer with the confidence to specify the Ashtech range of rainscreen systems. These are manufactured by a dedicated team using modern equipment at our West Bromwich facility. Folded and curved, including two-directional curves, can be supplied, in a range of materials and finishes. Ash & Lacy have invested in equipment and software to ensure the best possible product is supplied.

Technical support not only involves the development of schemes, but extends to training and CPD's to enhance Ash & Lacy's reputation as a true building envelope supplier.

Careful selection of our supply chain partners, ensure that only top quality materials are used for all Ash & Lacy products. All materials are fully traceable through the supplier to the source.

## Ash & Lacy's Technical Team

As an ISO9000 accredited business, quality is a major consideration at Ash & Lacy.

All products are designed to fulfil specific applications and are engineered to precise standards and tolerances.

Ashtech rainscreen cladding panels are supplied fully formed, with a protective film to the external face, which should only be removed once the panels have been fixed in place and preferably, at the end of each day's installation.

## Ashure and Auditing Workmanship & Materials

All Ash & Lacy products carry a warranty, either for the products supplied directly, or from the supply chain partners.



The Ash & Lacy **ASHURE WARRANTY SCHEME** gives total confidence in the materials and products supplied. All products are covered by the Warranty and the Approved Contractor Network provides surety that everything is correctly installed. All Approved Contractors undergo training by Ash & Lacy in the handling, use and installation of their products.

Ash & Lacy Building Systems are now offering an audited warranty for their Ashtech projects, at no cost to the customer.



In partnership with AWM – Alliance Warranty Management – Ash & Lacy can now provide the **PROTECTOR WARRANTY**, which ensures quality control of the workmanship and materials throughout the cladding operation. This not only gives the client and the building owner peace of mind, it guarantees that there are no hidden problems which could manifest themselves later.

Should the client or building owner require additional cover against latent defects, then the **AWM PIONEER WARRANTY** is available, at additional cost. This is a full insurance backed warranty, which provides exclusive 10 year insurance against latent defects. In addition, a long term assurance in excess of the **PIONEER WARRANTY** provides an additional 15 years warranty, making the total assured period 25 years.

Full details of the AWM Warranties are available from Ash & Lacy Building Systems Ltd.

Ash & Lacy Building Systems strive to provide the best possible product to the client, and the AWM Warranty scheme is further proof of the commitment to their quality and integrity.

Rainscreen Cladding Systems  
Standing Seam Roofing Systems  
Over-Roof Conversion Systems  
Fabrications and Flashings  
Spacer Support Systems  
Fasteners and Accessories

West Bromwich. Bromford Lane, West Bromwich, West Midlands B70 7JJ

Tel: 0121 525 1444 Fax: 0121 525 3444

also at: London. Gateway 3, Davis Road, Off Cox Lane, Chessington, Surrey KT9 1TD

Tel: 020 8391 9700 Fax: 020 8391 9701

Glasgow Unit 4b, Albion Trading Est, South Street, Whiteinch, Glasgow G14 0SY

Tel: 0141 950 6040 Fax: 0141 950 6080

E-mail enquiries to: [sales@ashandlacy.com](mailto:sales@ashandlacy.com)

Ash & Lacy reserve the right to amend product specifications without prior notice.  
The information, technical details and fixings advice are given in good faith but are intended  
as a guide only. For further information please contact Ash & Lacy Building Systems.  
All products are supplied in accordance with the Ash & Lacy Terms & Conditions of Sale.

[www.ashandlacy.com](http://www.ashandlacy.com)



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