



CURTAIN WALL SYSTEMS

High performance curtain wall solutions
for new and refurbished buildings



SENIOR ARCHITECTURAL SYSTEMS



MICHAEL MARKS BUILDING
M&S COMPANY ARCHIVE

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curtain wall systems that bring environments to life

Senior Architectural Systems' family of glazing solutions, offers a comprehensive range of fenestration products for commercial and residential applications.

Senior Architectural Systems supplies innovative curtain wall systems to both commercial and residential construction markets. From our dedicated ISO 9000 quality accredited service centres in England, Wales and Scotland, Senior prides itself on providing a responsive and personal customer service with local availability, and on forming long term, mutually profitable relationships with specifiers and fabricators.

All our products are designed with meticulous attention to detail and are available either in aluminium or a hybrid timber/aluminium composite. Our aluminium sections can be thermally broken and powder coated in virtually any colour in our in-house powder coating facility, one of the largest and most technically advanced in the country.

Independently-owned, the ongoing mission at Senior Architectural Systems is to offer high performance aluminium glazing systems to meet the needs of each project so that the fabricator is competitive and the client is totally confident.

The Senior curtain wall difference

Senior's curtain wall systems have been developed and tested to suit most environments, including low, medium and high rise applications. Commercial and retail applications, transport terminals, health service buildings and educational establishments are just a few of the markets in which Senior Architectural Systems has a well earned reputation for service, quality, delivery and technical support.

The systems comprise six suites, with sightlines between 50mm and 52mm* and various mullion and transom depths, including components which can be constructed using stick build and ladder frame methods. The systems are zone drained and pressure equalised, and the SF52 system can also be mullion drained.

As with all Senior Architectural products, our curtain wall systems are manufactured to exacting standards, enabling economy to be combined with strength, achieving many years of aesthetic, low-maintenance performance.

*SF52 system. See page eight for details.

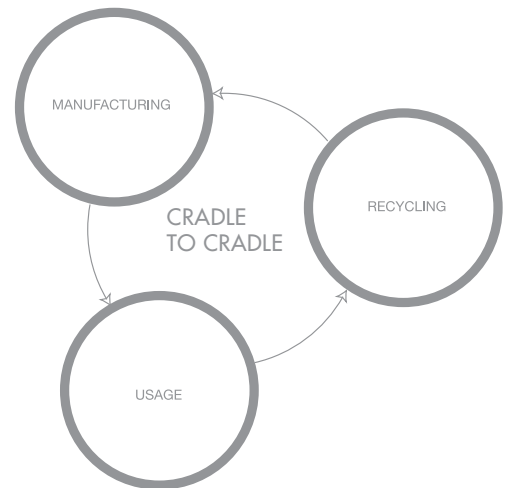




protecting your environment

After more than two decades in business we are well known for our down-to-earth cooperative approach. Fabricators, architects and contractors around the UK tell us that's why they choose to deal with Senior rather than anyone else.

As well as being totally committed to customer service, we actively work with a green agenda, demonstrating our commitment to the environment for now and future generations.



Sustainable systems

Our systems not only look good, but are sustainable too. Extended life spans, low maintenance, with maximum recyclability and outstanding thermal efficiency help to make the best use of the world's finite resources.

Responsible sourcing

Our materials are responsibly sourced from reliable suppliers who have good environmental credentials. And wherever possible we use local UK suppliers to reduce transport miles.

Aluminium systems are manufactured from recycled aluminium and timber is sourced from sustainable forests in main land Europe with full PEFC accreditation. For every tree felled four are planted to ensure no negative impact on the environment.

BREEAM

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's foremost environmental assessment method and rating system for new buildings, setting the standard for best practice in sustainable building design, construction and operation.

We help architects and specifiers to achieve up to 40 of the 119 BREEAM credits available for new buildings by careful specification of the fenestration material and glass choice from the Senior range of products. Enabling fabricators, installers and contractors to build more sustainable buildings for future generations.

Beyond Senior

Our environmental responsibilities don't end at the factory door. Our Fabricator training includes waste reduction programmes and training on product efficiency and insulation requirements in use, to make sure that current building regulations are met and exceeded where possible.

For specifiers we offer a RIBA approved CPD seminar on 'Designing Sustainable Fenestration Systems' which gives advice on how, with careful design and specification, a BREEAM excellent rating can be achieved.

A bright future

We don't rest on our laurels. Each year we review how we've done and set ourselves new environmental objectives and targets, so that we can continue to improve our environmental credentials year on year.

In addition we are investing heavily in innovative new products with improved U values with the aim of making the passive house a future reality.



Senior Aluminium Systems

SF52 curtain wall system





Developed by Senior Architectural Systems, one of the largest and most respected fenestration systems companies in the UK today, the SF52 curtain wall system is the next generation of evolved products, to exceed current and meet future building regulations.

The SF52 curtain wall system has been designed to enhance thermal performance meaning the system can exceed current building regulations.

It is a stick type front loaded system using spring pins and a specially designed cleat which allows square cutting throughout. The system can be either zone drained (via conventional pressure plate drainage or using a specially designed spout system) or it can be mullion drained.

The zone drained system can be assembled capped, uncapped (using the SAS toggles) or combination of the two.

Glazing ranges from 22mm to 50mm. Section sizes vary from 50mm to 250mm (50, 80, 100, 125, 150, 175, 200, 225, 250). Specific profiles can be incorporated offering design flexibility.

Construction

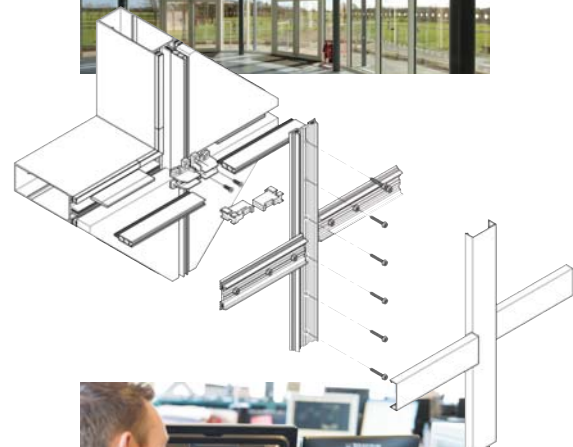
The SF52 curtain wall system utilises square cuts throughout and is joined using a specially designed cleat and spring pin within the zone drained system. The mullion drained system uses a 'lap' joint. A proprietary sealant is used on all metal to metal joints in line with good working practice. All internal gaskets are designed to mate with injection moulded corner pieces and are sealed at joints. Shear blocks and reinforcing sleeves are available.

Finishes

The SF52 system is available in three finishes: polyester powder coating from our specialist state-of-the-art facilities, anodised finishes in a range of colours, or mill finish.

Environmental

When used on projects involved in a BREEAM assessment, or within the Code for the Sustainable Built Environment and the Code for Sustainable Homes (which therefore involves the Green Guide to specification), the SF52 system can offer significant benefits.



Material information

All aluminium sections are extruded using Aluminium Alloy 6060, 6063 or 6083 (for improved strength) T6 to BS EN 755 part 9 2008 or BS EN 12020-2.

Thermal breaks are extruded to BS 7619. Gaskets are manufactured in accordance with BS 3734.

Independent testing

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001 and OHSAS 18001 Standards.

Weather tested to CWCT Sequence B and EN13830:2003

Technical support

For detailed information on weather ratings, U-values and any other technical matter, please contact our technical department:

info@sasmail.co.uk or call, +44 (0)1709 772 600

Senior Aluminium Systems

SCW+ curtain wall system





The SCW+ curtain wall system has been designed with enhanced thermal performance to meet current building regulations. It is semi-unitised, zone drained and pressure equalized and offers a slim 50mm sightline, with a choice of three mullion and four transom depths.

The system is capable of being fabricated into ladders for quick assembly on site and can accept a variety of glazing types. Project specific profiles can be incorporated giving flexibility of facade design.

SCW+ curtain wall is capable of spanning low to high, dependent on the manner of installation.

Construction

SCW+ framing is constructed using mechanical methods at butt joints, assembly utilises stainless steel self-tapping screws into integral screw ports extruded into the body of the sections, directly through square cut adjoining component parts. A proprietary sealant is used on all metal to metal joints and gasket-to-gasket joints during assembly, in line with good practice. Vertical sections are designed to run through, which enables individual panels to be made separately and assembled on site for large or multi-panel frames.

Optional shear blocks are available for joint and sectional re-inforcing, expansion joints and larger spans, over 1200mm

Finishes

SCW+ curtain wall sections are available typically in three finishes: polyester powder coating from our specialist state-of-the-art facilities, anodised in a range of colours in either satin or polished finish, or mill finish.

Environmental

When used on projects involved in a BREEAM assessment, or within the Code for the Sustainable Built Environment and the Code for Sustainable Homes (which therefore involves the Green Guide to specification), the SCW system can offer significant benefits.



Material information

All aluminium sections are extruded using Aluminium Alloy 6060 or 6063 T6 to BS EN 755 part 9 2008.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25. Gaskets are manufactured in accordance with BS3734.

Independent testing

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001 and OHSAS 18001 Standards.

Weather tested to CWCT Sequence B and EN13830:2003

Technical support

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Senior Aluminium Systems

SCW curtain wall system





SCW curtain wall has been designed to meet current building regulations. It is a semi-unitised, zone drained and pressure equalized system and offers a slim 50mm sightline, with a choice of three mullion and four transom depths.

The system is capable of being fabricated into ladders for quick assembly on site and of accepting glazing up to 34mm thick depending on weight. Project specific profiles can be incorporated giving flexibility of facade design.

SCW curtain wall is capable of spanning low to high, dependent on the manner of installation.

Construction

Constructed using mechanical methods at butt joints, assembly utilises stainless steel self-tapping screws into integral screw ports extruded into the body of the sections, directly through square cut adjoining component parts. Vertical sections are designed to run through which enables individual panels to be made separately and assembled on site for large or multi-panel frames.

Optional shear blocks are available for joint and sectional re-inforcing, expansion joints and larger spans, over 1200mm.

Finishes

SCW curtain wall sections are available typically in three finishes: polyester powder coating from our specialist state-of-the-art facilities, anodised in a range of colours in either satin or polished finish, or mill finish.

Environmental

When used on projects involved in a BREEAM assessment, or within the Code for the Sustainable Built Environment and the Code for Sustainable Homes (which therefore involves the Green Guide to specification), the SCW system can offer significant benefits.



Material information

All aluminium sections are extruded using Aluminium Alloy 6060 or 6063 T6 to BS EN 755 part 9 2008.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25. Gaskets are manufactured in accordance with BS3734.

Independent testing

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001 and OHSAS 18001 Standards.

Weather tested to BS6375.

Technical support

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Senior Aluminium Systems

SMR900 curtain wall system





The SMR900 curtain wall system has been designed with enhanced thermal and structural performance to meet current building regulations. It is a stick system, zone drained and pressure equalized and offers a 50mm sightline, with a standard choice of six mullion and six transom depths. The system is capable of being fabricated for quick assembly on site and to accept glazing up to 28mm thick, depending on weight. Project specific profiles can be incorporated offering flexibility of facade design.

SMR900 curtain wall is designed to span medium and high rise applications, dependent on the manner of installation.

Construction

SMR900 framing is constructed using mechanical methods at butt joints. A proprietary sealant is used on all metal-to-metal joints and gasket-to-gasket joints during assembly, in line with good practice.

Finishes

SMR900 curtain wall sections are available typically in three finishes: polyester powder coating from our specialist state-of-the-art facilities, anodised in a range of colours in either satin or polished finish, or mill finish.

Environmental

When used on projects involved in a BREEAM assessment, or within the Code for the Sustainable Built Environment and the Code for Sustainable Homes (which therefore involves the Green Guide to specification), the SCW system can offer significant benefits.



Material information

All aluminium sections are extruded using Aluminium Alloy 6060 or 6063 T6 to BS EN 755 part 9 2008.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25. Gaskets are manufactured in accordance with BS3734.

Independent testing

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001 and OHSAS 18001 Standards.

Weather tested to CWCT Sequence B and EN13830:2003

Technical support

For detailed information on weather ratings, U-values and any other technical matter, please contact our technical department:

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Senior Aluminium Systems

SMR800 curtain wall system





The SMR800 curtain wall system has been designed with enhanced thermal performance and to meet current building regulations. It is a stick system, zone drained and pressure equalized and offers a 50mm sightline, with a standard choice of six mullion and six transom depths. The system is designed for quick assembly on site and to accept glazing up to 28mm thick, depending on weight. Project specific profiles can be incorporated offering flexibility of facade design.

SMR800 curtain wall is designed to span medium and high rise applications, dependent on the manner of installation.

Construction

SMR800 framing is constructed using mechanical methods at butt joints. A proprietary sealant is used on all metal to metal joints and gasket to gasket joints during assembly, in line with good practice.

Vertical sections are designed to run through which enables individual panels to be made separately and assembled on site for large or multi-panel frames.

Finishes

SMR800 curtain wall sections are available typically in three finishes: polyester powder coating from our specialist state-of-the-art facilities, anodised in a range of colours in either satin or polished finish, or mill finish.

Environmental

When used on projects involved in a BREEAM assessment, or within the Code for the Sustainable Built Environment and the Code for Sustainable Homes (which therefore involves the Green Guide to specification), the SCW system can offer significant benefits.



Material information

All aluminium sections are extruded using Aluminium Alloy 6060 or 6063 T6 to BS EN 755 part 9 2008.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25. Gaskets are manufactured in accordance with BS3734.

Independent testing

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001 and OHSAS 18001 Standards.

Weather tested to CWCT Sequence B and EN13830:2003

Technical support

For detailed information on weather ratings, U-values and any other technical matter, please contact our technical department:

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Senior Hybrid Systems

Hybrid Series 3 composite curtain wall system





The Hybrid Series 3 curtain wall system boasts impressive thermal performance and has been designed to meet current and future building regulations.

Hybrid is a high insulation timber/aluminium composite system manufactured in the UK and comprises a selection of window, curtain wall and door options.

It combines the long life and low maintenance of aluminium externally with the high insulation, environmentally focused benefits of responsibly sourced engineered timber internally. Hybrid curtain wall framing is a traditional stick system, compartmentally drained, and is capable of accepting glazing up to 28mm thick, depending on weight.

Hybrid Series 3 curtain wall is designed to span low to high rise applications, dependent on the manner of installation. Project specific profiles can be incorporated offering flexibility of facade design.

Construction

Hybrid series 3 framing is constructed using mechanical methods at butt joints. A proprietary sealant is used on all metal to metal joints and gasket to gasket joints during assembly, in line with good practice.

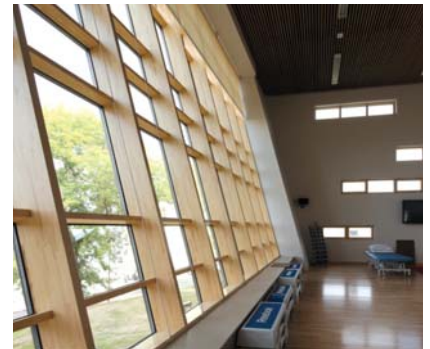
Vertical sections are designed to run through which enables individual panels to be made separately and assembled on site for large or multi-panel frames.

Finishes

Hybrid Series 3 curtain wall sections are available typically in four finishes: polyester powder coating via our specialist state-of-the-art facilities, anodised in a range of colours in either satin or polished finish, mill finish and, finally, clear lacquered or painted timber.

Environmental

When used on projects involved in a BREEAM assessment, or within the Code for the Sustainable Built Environment and the Code for Sustainable Homes (which therefore involves the Green Guide to specification), the SCW system can offer significant benefits.



Material information

All aluminium sections are extruded using Aluminium Alloy 6060 or 6063 T6 to BS EN 755 part 9 2008.

Polyamide thermal barriers are manufactured in accordance with PA66 GF25. Gaskets are manufactured in accordance with BS3734.

Timber profiles are certified by MPA Stuttgart with quality class BS11, laminated according to DIN1502 using weather proof and heat proof melamine glue.

Independent testing

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001 and OHSAS 18001 Standards.

Weather tested to CWCT Sequence B and EN13830:2003

Technical support

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Case study | Education
**Soar Valley School,
Leicester**

*SCW curtain wall
SPW300 windows
SD commercial door system*

Leicester's latest newly built school has been creatively designed and fitted with a suite of aluminium doors, windows and curtain wall from Senior Architectural Systems' high performance ranges, which collectively account for around 60% of the building's facade.

The building is simple and functional, yet the impressive result is a reflection of the school's aim to inspire and reflect the rich and diverse community it serves.



Case study | Research

Vestas, Isle of Wight

Hybrid curtain wall
Hybrid windows

A 28,000m² facility on the Isle of Wight for Vestas Blades UK Ltd features a striking, energy-efficient three-storey cedar clad office block incorporating Senior's high insulation, Hybrid curtain wall and composite windows. Hybrid features engineered timber internally and coated aluminium facings externally. The design is both aesthetically attractive and offers a high level of protection against the island's environment.





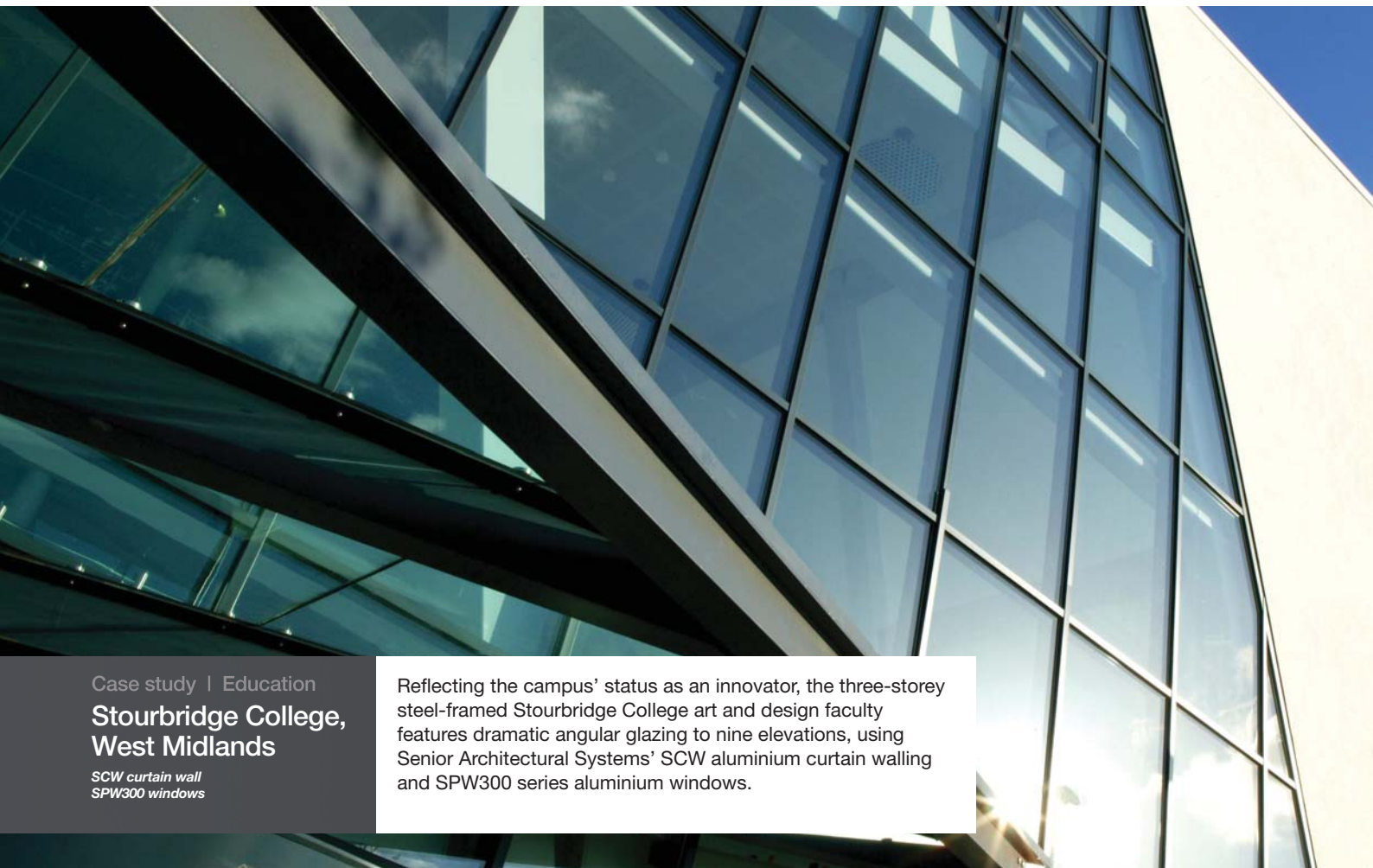


Case study | Commercial

Marks & Spencer Eco Store

Hybrid Series 3 Curtain Wall
SMRF Frameless Vents

Cheshire Oaks at Ellesmere Port is Marks & Spencer's most carbon efficient store to date. Named an 'Eco Store' and designed with a stunning wave effect roof line, this store is the retailer's second largest commercial premises and has been designed to minimise the environmental impact of business operations through every aspect of its design, construction and on-going use.



Case study | Education

Stourbridge College, West Midlands

SCW curtain wall
SPW300 windows

Reflecting the campus' status as an innovator, the three-storey steel-framed Stourbridge College art and design faculty features dramatic angular glazing to nine elevations, using Senior Architectural Systems' SCW aluminium curtain walling and SPW300 series aluminium windows.

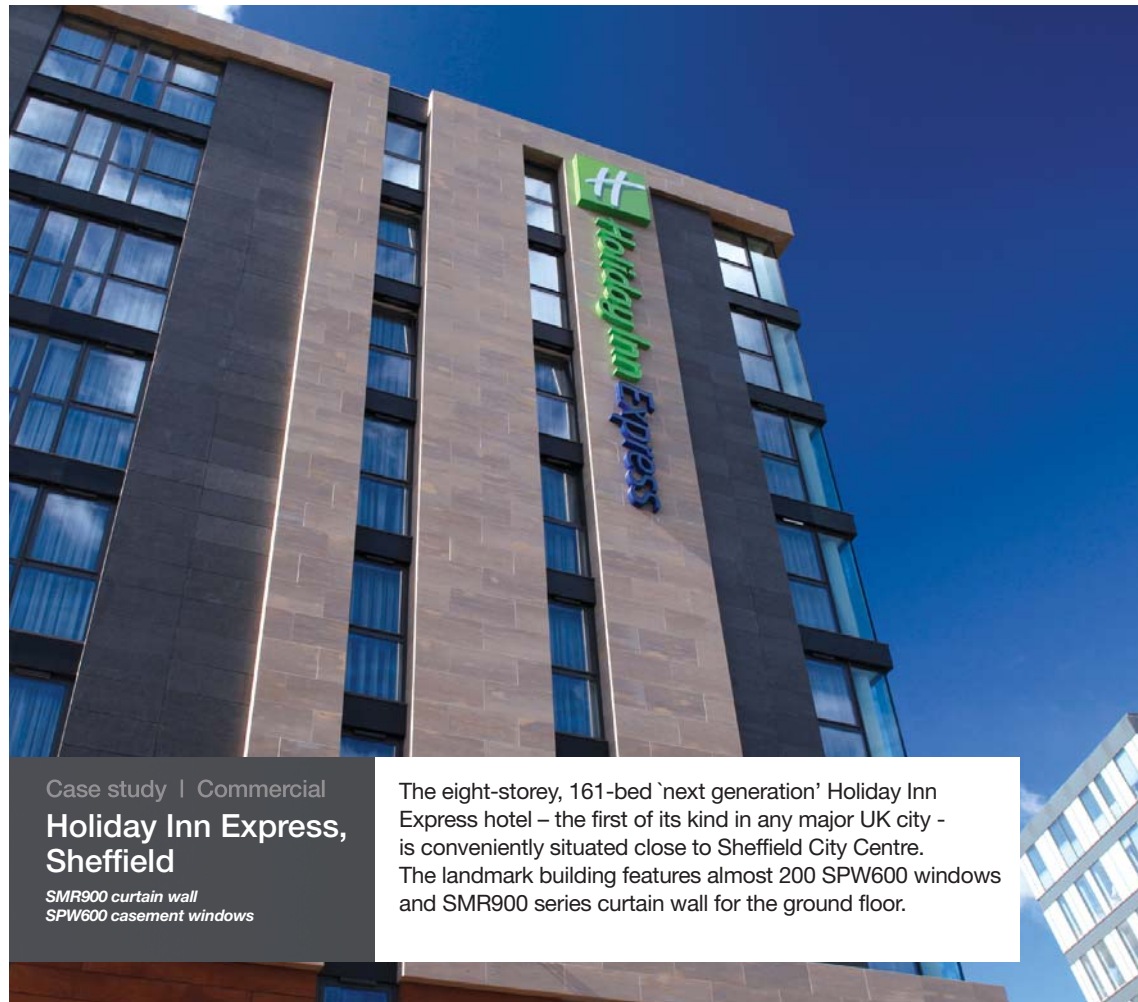


Case study | Health

The Venture Building Glasgow

*Hybrid Series 3 Curtain Wall
Hybrid Series 1 Flush Casement Windows*

The Venture Building was designed and constructed to a BREEAM 'Excellent' rating and provides flexible open plan office and laboratory accommodation with a stunning three-storey atrium with feature bridge link.



Case study | Commercial

Holiday Inn Express, Sheffield

*SMR900 curtain wall
SPW600 casement windows*

The eight-storey, 161-bed 'next generation' Holiday Inn Express hotel – the first of its kind in any major UK city – is conveniently situated close to Sheffield City Centre. The landmark building features almost 200 SPW600 windows and SMR900 series curtain wall for the ground floor.

helping you achieve **BREEAM[®] credits**

What is BREEAM?

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's foremost environmental assessment method and rating system for buildings, with 250,000 buildings with certified BREEAM assessment ratings and over a million registered for assessment since it was first launched in 1990. The system sets the standard for best practice in sustainable building design, construction and operation.

Ten categories for a sustainable building

A BREEAM assessment uses recognised measures of performance, set against established benchmarks, to evaluate a building's specification, design, construction and use.

Credits are awarded across ten categories based on the outcomes of the building assessed. The credits are then combined to provide a single score, achieving either a Pass, Good, Very Good, Excellent or Outstanding overall BREEAM rating.

Senior and BREEAM

Senior Architectural Systems product range has been developed with BREEAM at its centre. Our systems are proven to help you achieve a credible BREEAM rating. With many BREEAM rated projects already successfully utilising Senior products, we have a wealth of experience to assist the architect/designer in meeting their sustainability goals.



Categories	Credits Available	Senior Architectural products impact
Management	11	No
Health & Wellbeing	14	Yes
Energy	24	Yes
Transport	9	No
Water	9	No
Materials	13	Yes
Waste	7	Yes
Land Use & Ecology	10	No
Pollution	12	No
Innovation	10	Yes
Total	119	

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www.seniorarchitectural.co.uk



ALUMINIUM

HYBRID

GLASS



SENIOR ARCHITECTURAL SYSTEMS

Senior Architectural Systems is a major UK supplier of fenestration solutions, specialising in providing aluminium, timber and glass glazing systems to the highest standards. This brochure is intended to show what makes Senior's unique and how our products and services can make a difference to customers, clients, their projects and the environment.

Whilst every effort has been made to ensure the accuracy of this publication, no responsibility for content is taken by Senior Architectural Systems Ltd. We strongly recommend the specification for any given application is checked with Senior Architectural Systems before an order is placed. Senior Architectural Systems reserves the right to alter any of the specifications given in this publication without prior notice due to a process of continual development.