CURTAIN WALL SYSTEMS

High performance curtain wall solutions for new and refurbished buildings
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.
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.
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 mainland 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.
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

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
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
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

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.

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

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.
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 | Health
The Venture Building
Glasgow
Hybrid Series 3 Curtain Wall
Hybrid Series 1 Flush Casement Windows

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.
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.
Management
Health & Well-Being
Energy
Transport
Water
Materials
Waste
Land Use & Ecology
Pollution
Innovation

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