

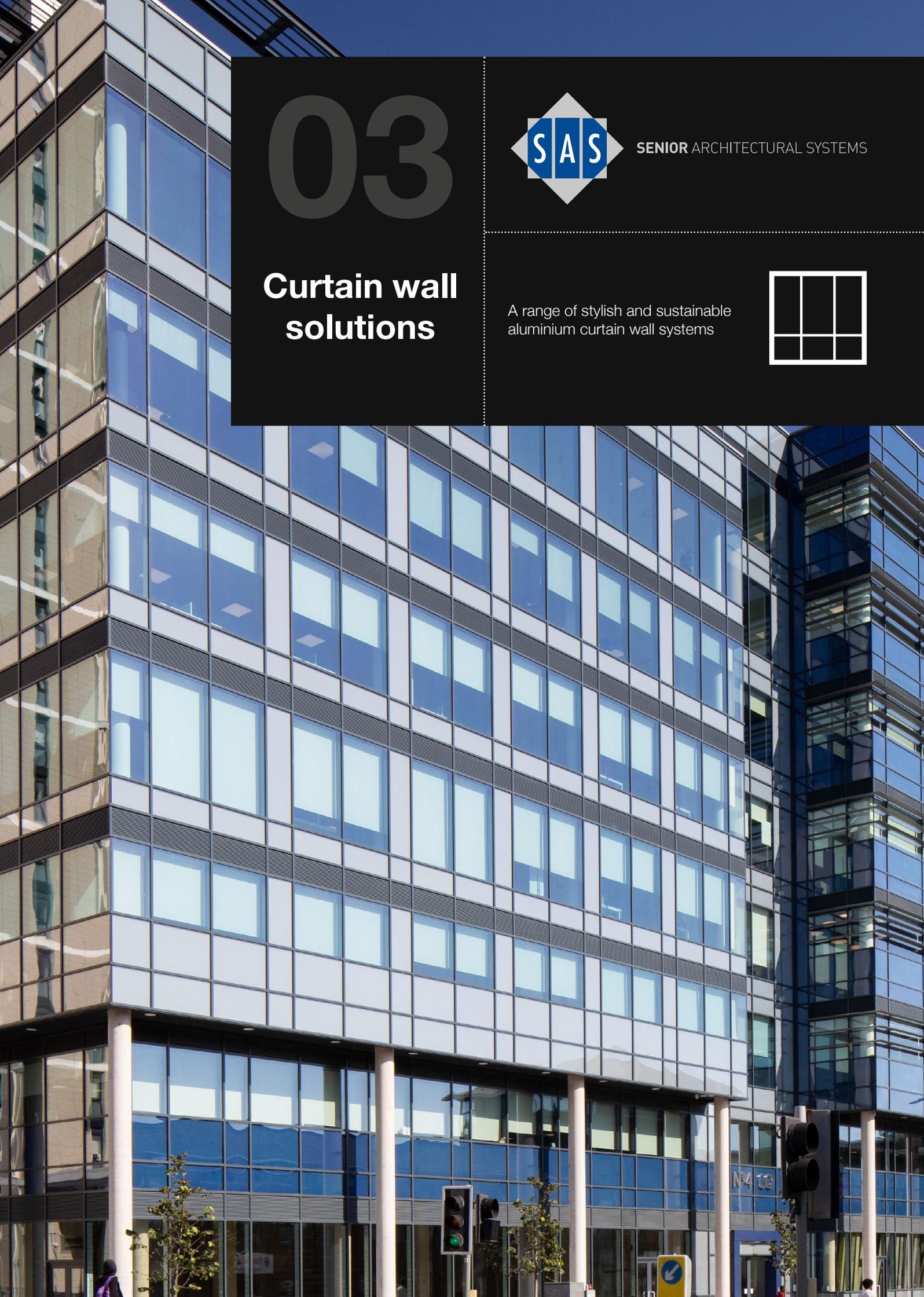
03

Curtain wall solutions



SENIOR ARCHITECTURAL SYSTEMS

A range of stylish and sustainable aluminium curtain wall systems







Welcome to Senior

From thermally efficient aluminium windows to slimline curtain wall systems and robust commercial doors, Senior offers a stylish suite of products designed to meet the requirements of a wide range of projects. At Senior we have the products and the technical expertise to bring even the most challenging design briefs clearly into view.

03	Contents	
Senior Curtain wall solutions	Introduction	04
	Built around you	06
	Why specify Senior?	08
	Behind the curtain	10
	Keeping it green	12
	Our products	15
	Case studies	29
 SENIOR ARCHITECTURAL SYSTEMS		

Care has been taken to ensure that the contents of this publication are accurate. Due to our continual process of development and innovation we retain the right to change specifications without prior notice. Please speak to us to discuss your specific project requirements ahead of placing an order.

Introduction



As the largest privately owned aluminium fenestration systems house in the UK, we design, manufacture and supply innovative and high-performance aluminium windows, doors and curtain wall systems for use on projects across the sectors. With a strong focus on supply chain collaboration, we recognise the value of relationships and work closely with fabricators, contractors and architects to deliver fenestration solutions that perform as well as they look.

Our state-of-the-art facilities in South Yorkshire include our main manufacturing base in Denaby, which is home to our in-house powder coating paint line, and our new thermal improvement facility in Rotherham. Our dedicated distribution centre in Scotland further supports our work on projects across the UK.



Built around you

Our innovative products speak for themselves but we believe the specification process should be a conversation and through early engagement, we can bring valuable solutions to the table. From help with product choice and thermal calculations right through to guidance during the fabrication and installation process, we have the expertise and resources to support you every step of the way.



BES 6001: Issue 3.1
Cert/Ref No. RS0054



Council for Aluminium
in Building
Member





Why specify Senior?

We've worked with some of the biggest names in construction on a variety of projects across the sectors including education, healthcare, stadia and leisure, commercial mixed-used developments and high-rise residential schemes. Our portfolio may be

varied but one thing that remains consistent is the way we work and that's why we have established strong supply chain agreements and enjoy regular repeat business.



Sustainable manufacturing



From offering **energy-efficient and fully recyclable** aluminium fenestration products, to implementing various **low carbon initiatives** throughout our manufacturing facility, we're committed to reducing carbon emissions both on and off site. We're also fully **accredited to BRE Global's BES 6001 standard and ISO 14001**.

Complete product range



All our products are **designed to perform** as well as they look, from the patented **thermal-efficiency** of our PURE® windows and doors, to our **slimline** curtain wall systems, and **robust** commercial door range. With solutions for both **commercial and residential** settings, we can offer the full package.

Expert design and technical support



Our **knowledgeable team** of architectural advisors are regionally based so they can work closely with you to help deliver **the most effective fenestration package** for your project. Through early engagement, we can **assist with everything** from product choice, technical design detailing and U-values, to help with carbon calculations and BREEAM ratings.

In-house powder coating facility



Our **state-of-the-art powder coating facility** not only significantly **reduces the amount of waste** product sent to landfill each year but also **reduces the risk of outsourcing** to another supplier. We can **manage the process completely in-house**, offering a **large choice of colours and protective finishes** for all our aluminium fenestration systems.

UK designed and manufactured



With two main manufacturing sites in **South Yorkshire**, including our new thermal improvement facility in **Rotherham**, and our distribution centre strategically located in Livingston, Scotland, we can supply aluminium fenestration solutions for projects nationwide. As the UK's largest privately owned aluminium fenestration systems house, we also have the autonomy to offer a **flexible and friendly service** that meets the individual needs of all our customers.

Secure and reliable supply chains



We believe in the power of supply chain collaboration which is why we're committed to maintaining positive relationships with our fabricator and installer base by offering **technical advice, product training and on-site support**. We have a number of **trusted and experienced partners** and together, have a **proven track record** of delivering projects across the sectors.



Behind the curtain

Offering a wide range of high-performance aluminium curtain wall systems, windows and doors suitable for a variety of different applications. All of Senior Architectural Systems' high-performance fenestration solutions are manufactured here in the UK.

Senior's SF52 aluminium curtain wall has become the company's most widely specified system and has been used extensively across a range of sectors including education, healthcare, stadia, leisure and both mixed-use residential and commercial developments. The system's slim sightlines appeal to architects, with its enhanced thermal performance and ease of fabrication satisfying the needs of both main contractors and specialist installers alike. With high-rise developments continually

on the rise, Senior has also developed an aluminium curtain wall solution for use on buildings where structural movement is a challenge – the SF62 system. Combining an attractive robust aluminium frame with a wider 62mm box, the increased rebate size means that it is possible to provide either additional clearance between the section and infill, so that the system can accommodate greater building movement, or greater edge cover if required.





Key Features



Available in an unlimited choice of colours and finishes, inside and out



Can be specified as either mullion drained or zone drained



Fully compatible with our aluminium window and door systems



Extensive range of profile depths to suit various structural requirements



Frameless vent options available



High thermal performance



Keeping it green

Sustainability isn't just a key part of our product offering, it's a fundamental part of our company ethos.

From our commitment to ensuring our manufacturing techniques are as carbon-neutral as possible to developing an energy-efficient product range that offers 'cradle-to-cradle' recyclability, we strive to limit the environmental impact of all our business operations at every stage.

Our products maximise the unique properties of aluminium, which combines exceptional strength with the ability to be endlessly recycled with no detriment to its quality. The durability of the material and closed-loop recycling process make aluminium fenestration systems a truly sustainable choice.

One of our flagship initiatives has been the investment in our in-house powder coating facility which is one of the most efficient of its kind and has helped significantly reduce the amount of waste generated. We also hold accreditation to the BRE Global's BES 6001 standard which confirms that all our products are manufactured using sustainably and ethically sourced recycled aluminium.

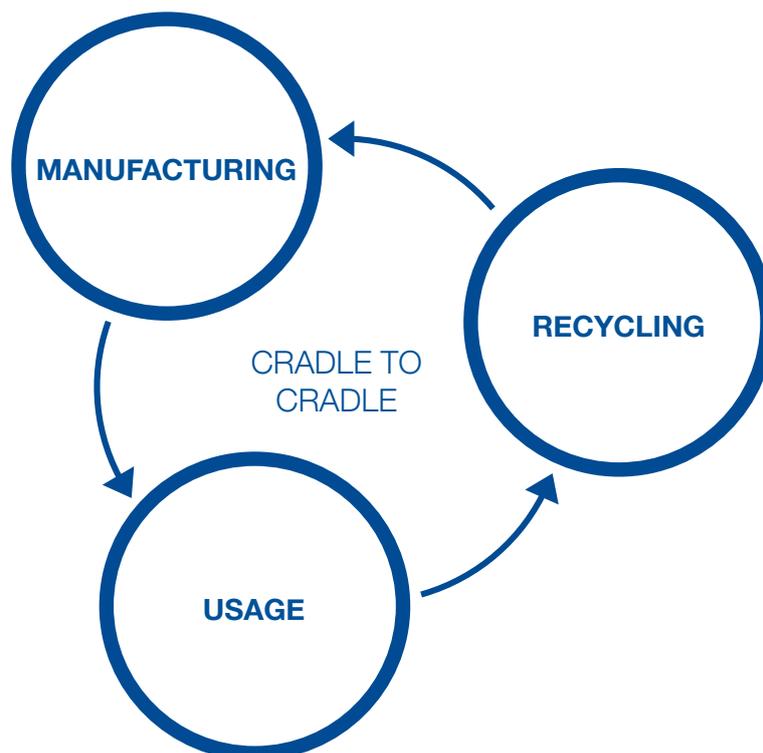
We're also reducing our carbon-footprint in the following ways:

- In-house PUR processing line for the sustainable manufacture of the PURe® system.
- Efficient grey-water recovery system in our factory recycles water used in the manufacturing process.
- A biomass boiler heats our warehouse and is fuelled by waste timber from wooden packaging.
- We've invested in a five-star eco delivery fleet and on-site electric car charging points for staff and visitors.





Closed-loop recyclability





OUR PRODUCTS

**A collection of creative aluminium
curtain wall solutions.**

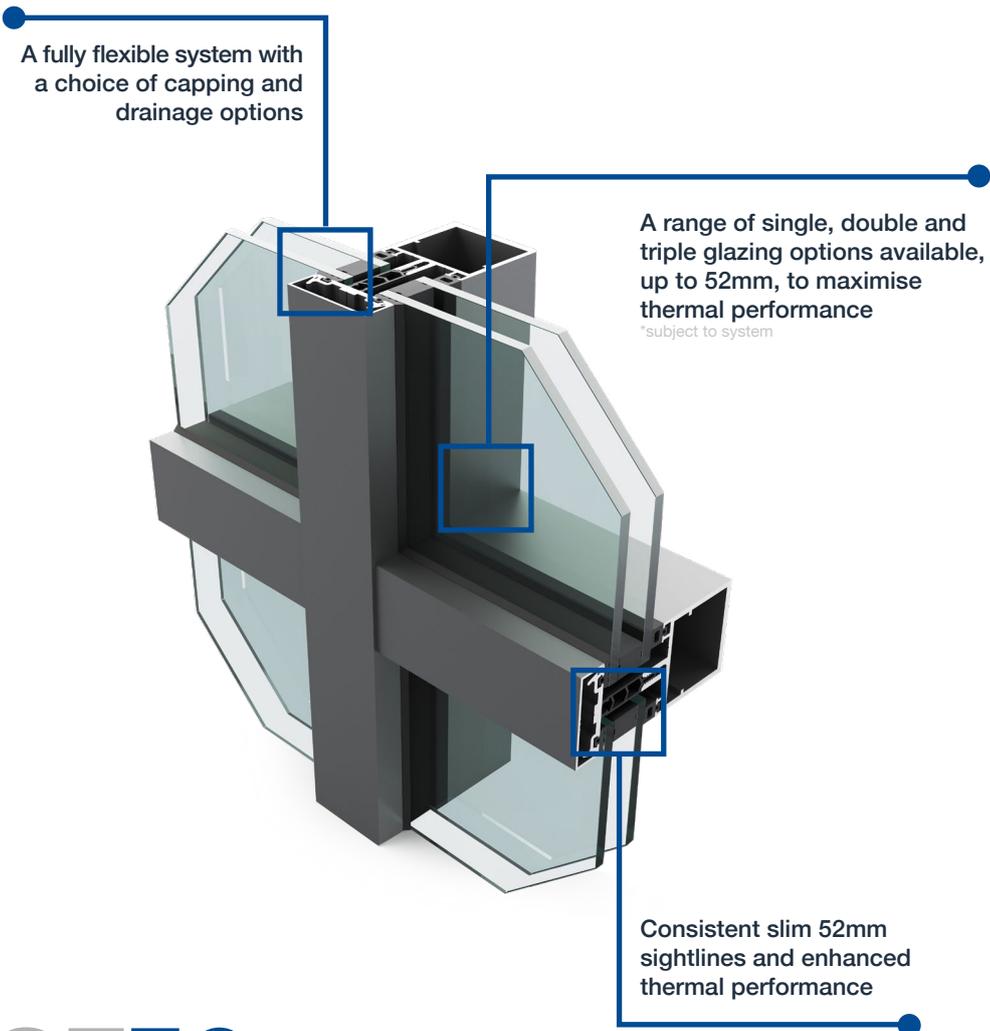


SF52:

Our most popular and versatile aluminium curtain wall system.

SF52 curtain wall system

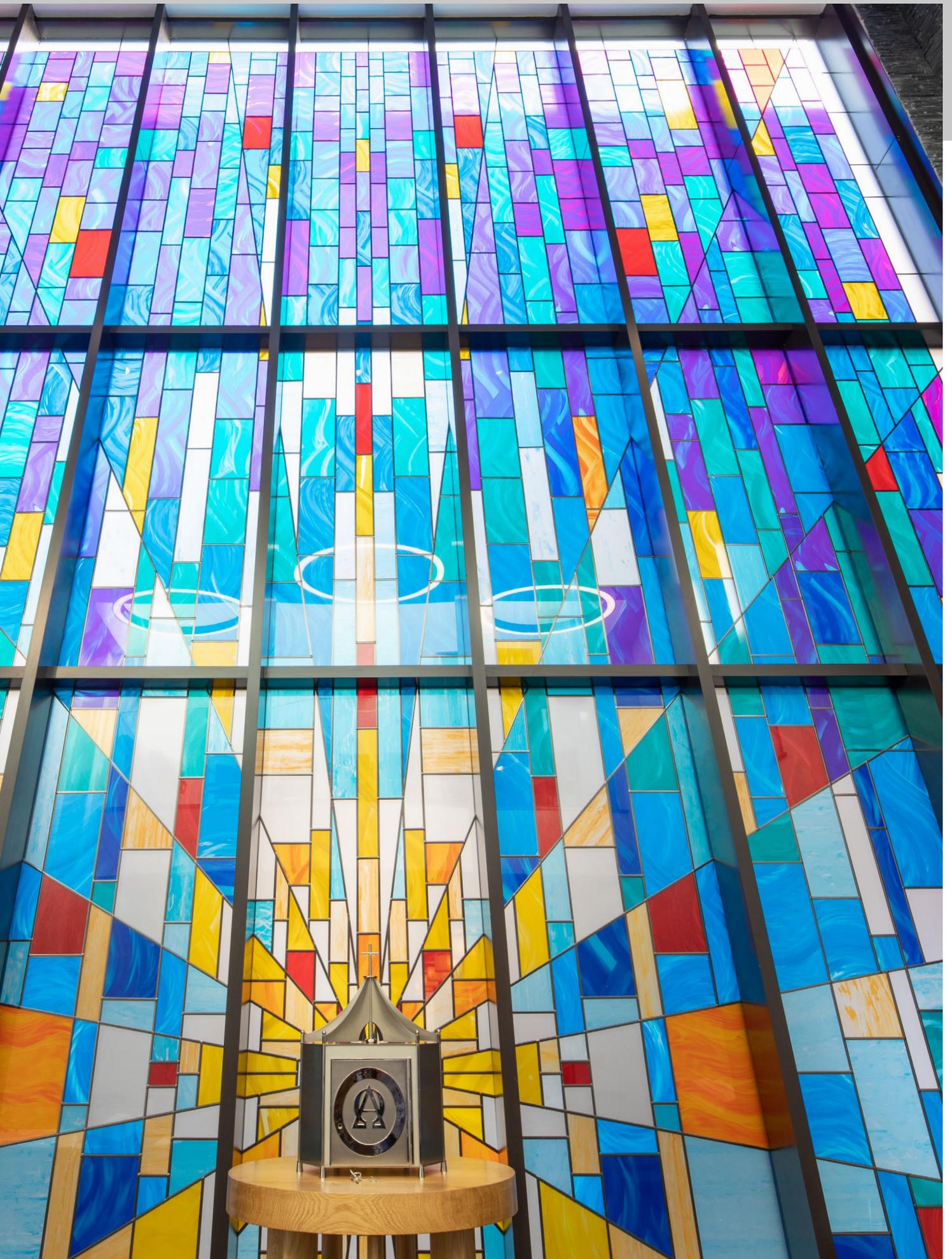
Combining consistently slim sightlines with enhanced thermal performance and a wide range of design options, our SF52 aluminium curtain wall system is ideally suited for use across the sectors. This innovative system has been designed to exceed current building regulation requirements and provides a stylish solution for both ground floor and high-rise projects.



SF52
CURTAIN WALL SYSTEMS

*Shown:
Zone drained option*





SF52 key features

Our SF52 aluminium curtain wall system has been designed to offer exceptional design flexibility and meet a wide variety of requirements. Sleek and stylish, the system has been fully weather tested

and can be adapted to meet specific thermal targets and glazing requirements. A truly sustainable choice, the SF52 system is also fully recyclable.



Thermal performance

Featuring a high quality thermal barrier to offer low U-values.

Due to the variety of profiles, mullion and transom spacings, glass and panel specifications on each project; a specific U-value calculation will be required. Please contact our technical sales managers or architectural advisors.

BREEAM[®]

Contributes to a positive BREEAM rating*

*dependent on specific product and configurations.



Technical

All configurations have excellent weather performance being fully CWCT and EN13830 tested, offering reliable performance and design flexibility.

Testing: weather rating

CWCT Sequence B, EN13830

Contact us to discuss your specific project requirements

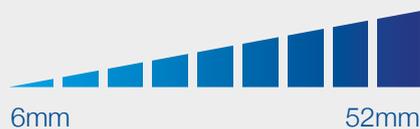
Acoustic performance

A 46dB reduction is achievable*



*IGU dependant is achievable. System dependent.

Flexible glazing sizes available



Average U-values

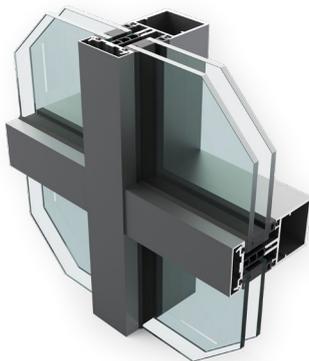
Please contact our technical sales managers or architectural advisors.

Please contact us to discuss your specific requirements



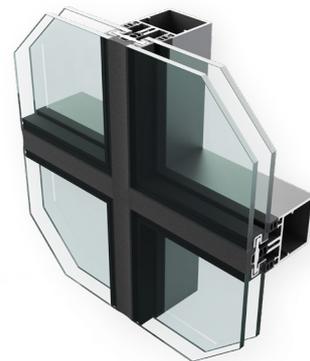
SF52 options and sizing

With a wide range of capping and drainage options available, our SF52 aluminium curtain wall system can be adapted to meet even the most challenging design briefs, all while being easy to fabricate, install and maintain.



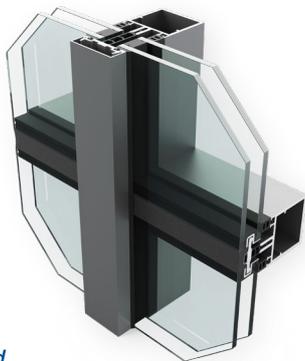
SF52 fully capped

A traditional zone drained, fully capped, aluminium curtain walling system with uniform slim 52mm sightlines.



SF52 silicone glazed

A silicone glazed aluminium curtain walling system with uniform slim 52mm sightlines, featuring a specially designed toggle system to allow externally frameless façades.



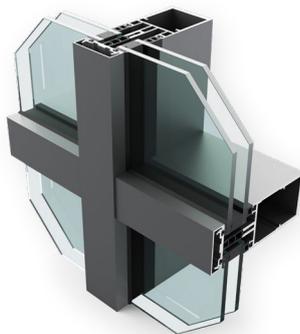
SF52 vertical capped

A vertically capped aluminium curtain wall system with uniform slim 52mm sightlines, featuring a specially designed toggle system used horizontally to allow externally frameless transoms.



SF52 horizontal capped

A horizontally capped aluminium curtain wall system with uniform slim 52mm sightlines, featuring a specially designed toggle system used vertically to allow externally frameless mullions.



SF52 mullion drained

A traditional fully capped mullion drained aluminium curtain walling system with uniform slim 52mm sightlines with different mullion and transom profiles.

Images are indicative only, speak to us about your specific project.





SF52 sloped:
Create stunning sloping walls and stylish
roof atriums with our flexible system.

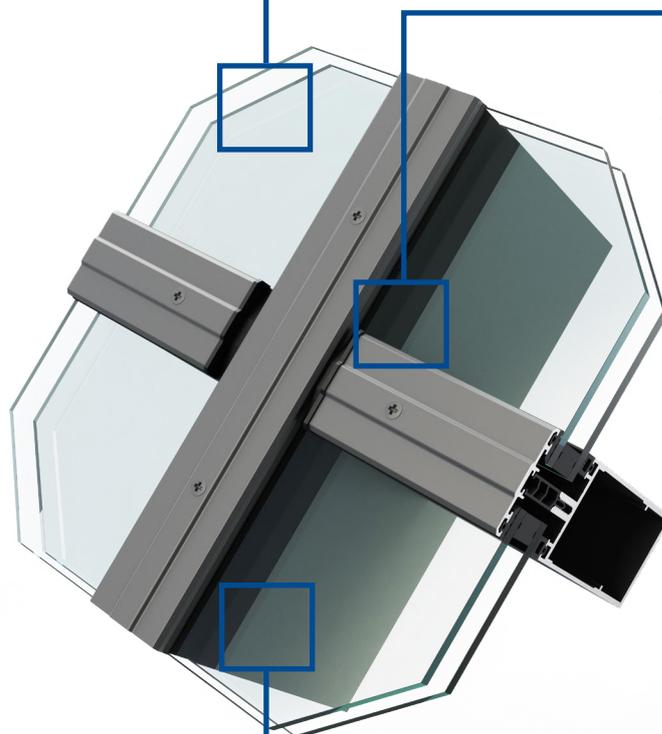
SF52 sloped system

Fully compatible with our SF52 mullion drained aluminium curtain wall system and sharing many of the same aesthetic and performance characteristics, our sloped glazing system is a stick type front loaded system using spring pins and a specially designed step cut transom joint. It is ideally suited for creating 15 degrees and sloping vertical walls, and stunning roof atriums.

Suitable for creating varied
pitches from 15 degrees
from horizontal to 15
degrees from vertical

A range of double
and triple glazing
options available,
up to 52mm, to
maximise thermal
performance

Designed to integrate
seamlessly with the SF52
mullion drained system to
create a smooth connection
between a sloped screen
and a vertical curtain wall



SF52
CURTAIN WALL SYSTEMS

SF52 sloped system key features

Developed to the same high standards as our popular SF52 aluminium curtain wall system, our sloped glazing option also offers stylish

slim sightlines, enhanced thermal efficiency and cradle-to-cradle recyclability.



Thermal performance

Featuring a high quality thermal barrier to offer low U-values.

Due to the variety of profiles, mullion and transom spacings, glass and panel specifications on each project; a specific U-value calculation will be required. Please contact our technical sales managers or architectural advisors.

BREEAM[®]

Contributes to a positive BREEAM rating*

*dependent on specific product and configurations.



Technical

Fully weather tested, offering reliable performance and design flexibility.

Testing: weather rating

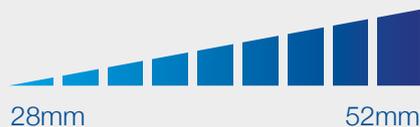
CWCT Sequence B, EN13830

Contact us to discuss your specific project requirements

Average U-values

Please contact our technical sales managers or architectural advisors.

Flexible glazing sizes available

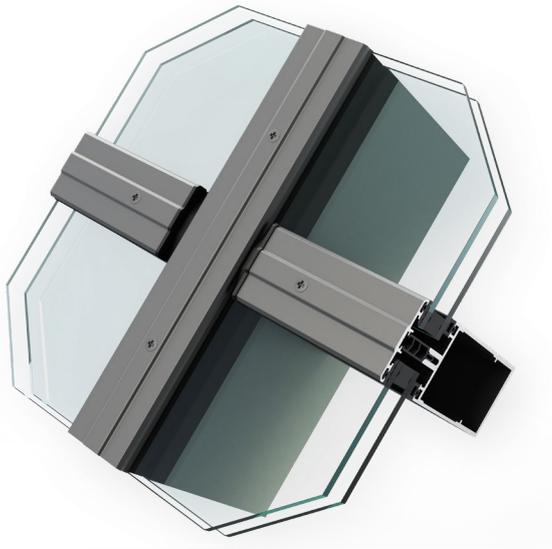


Please contact us to discuss your specific requirements



SF52 sloped system options and sizing

A flexible and versatile system that can be used for a variety of applications and can be easily adapted to suit specific project requirements.



Glazing

The system can accommodate glass and infill panels from 28 to 52mm thick.

Pitches

Perfect for creating a sloped screen and for use as roof glazing in atriums, the system can create varied pitches from 15 degrees from horizontal to 15 degrees from vertical.

Profiles

Available with a wide range of different purlin (transom) and rafter (mullion) sizes, specific profiles can also be incorporated to offer further design flexibility.

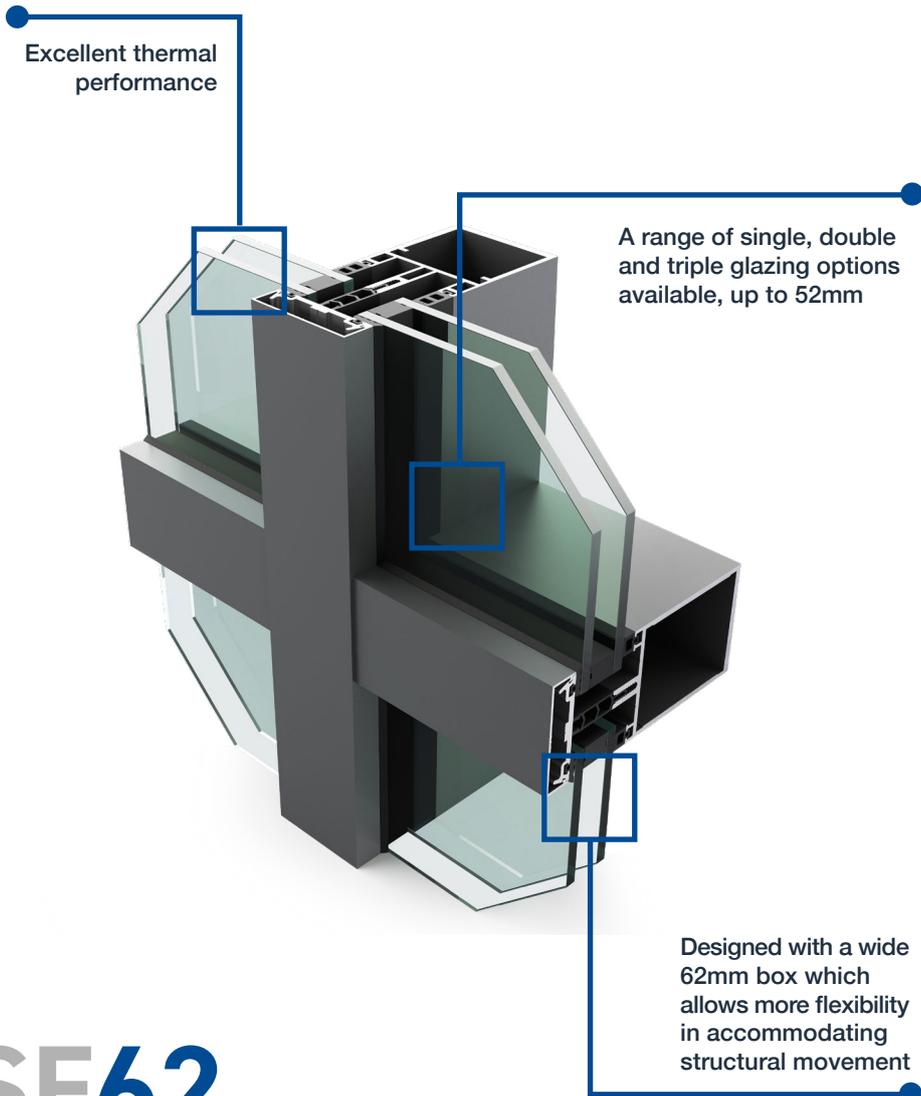
Images are indicative only, speak to us about your specific project.

SF62:

A high-performance aluminium curtain wall system, ideal for high-rise projects.

SF62 curtain wall system

SF62 is a stick type front loaded system using spring pins or a shear block and a lap cut transom. The system is very similar in design to our popular SF52 system, but has a wider 62mm box which allows more flexibility in accommodating structural movement. This makes it ideal for ultra-high-rise projects and those where structural movement is a challenge.



SF62
CURTAIN WALL SYSTEMS

*Shown: SF62
mullion drained*





SF62 key features

The SF62 system has been specifically developed for projects where structural movement would be too great using our SF52 curtain wall system. With an enhanced thermal performance and slim profile

design, the system has been rigorously tested for safety, weather, impact, and transom loads up to 750kg[†] giving you peace of mind for every application.



Thermal performance

Featuring a high quality thermal barrier to offer low U-values.

Due to the variety of profiles, mullion spacings, glass and panel specifications on each project; a specific U-value calculation will be required. Please contact our technical department or architectural advisors.

BREEAM[®]

Contributes to a positive BREEAM rating*

*dependent on specific product and configurations.



Technical

Fully weather tested, offering reliable performance and design flexibility.

Testing: weather rating

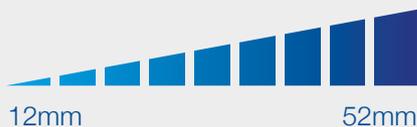
CWCT Sequence B, EN13830

Contact us to discuss your specific project requirements

Average U-values

Please contact our technical sales managers or architectural advisors.

Flexible glazing sizes available



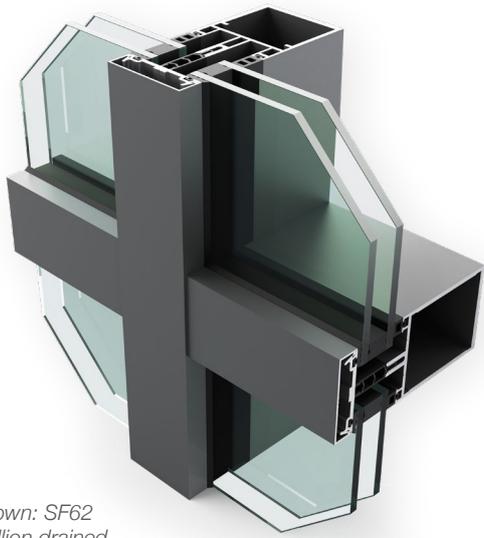
[†]Dependent on specific sections, accessories and deflection checks.

Please contact us to discuss your specific requirements



SF62 options and sizing

An innovative and bespoke solution that is extruded to order, our SF62 aluminium curtain wall system is available in a wide range of options to meet individual design and performance targets.



Shown: SF62
mullion drained

Wide box size

The system's wider 62mm box means that it is possible to provide either additional clearance between the section and infill, so that the system is able to allow the glass to move more if there is structural movement, or greater edge cover for issues such as guarding.

Capping options

The SF62 system is mullion drained and can be specified as fully, vertical and horizontally capped, or fully silicone glazed.

Bespoke profile

Various section sizes are available with transoms from 80mm to 250mm and mullions from 72mm to 242mm. Specific profiles can be incorporated offering design flexibility.

Facets

The system can be faceted up to 20 degrees per mullion, both concave and convex without the use of wing adaptors, and it has been fully tested.

Images are indicative only, speak to us about your specific project.



CASE STUDIES

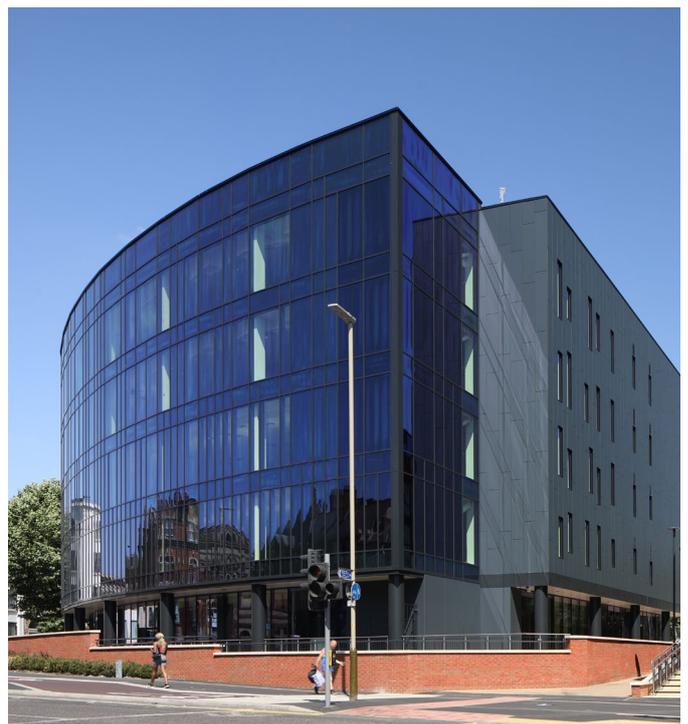
**Senior's curtain wall systems
have been used to create
breathtaking façades on
projects across the country.**



New Walk, Leicester

This new mixed-use building in the New Walk area of Leicester is located on the site of the former council offices and a key feature of the scheme is the striking faceted façade which has been created using the SF52 aluminium curtain walling system.

Owing to the faceting of the curtain wall frames and the irregular formation of the mullions and transoms, each aluminium bar was manually drawn to enable them to be accurately fabricated.



Danum Gallery Library and Museum, Doncaster

Doncaster's new cultural and learning hub has been created following the sensitive restoration of four existing buildings. A key focal point of the scheme, and one that looks even more dramatic at dusk,

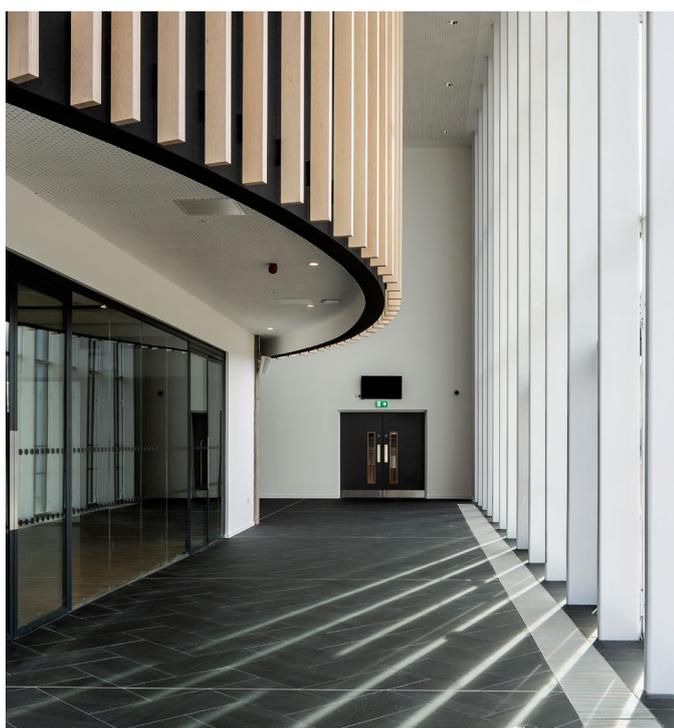
is the restored frontage of a former Edwardian school which has been framed by the slim sightlines of the SF52 aluminium curtain wall system and showcased within a new steel-frame building.



Sports Centre, University of Stirling

The new state-of-the-art sports centre at the University of Stirling has been constructed over three levels to complement the existing landscape and maximise the links with the established national swimming and tennis centres which are located on the same site. The SF52 aluminium curtain wall

system has been used on three of the building's elevations, including the striking main entrance. The extensive use of glazing creates a focal point within the new sports centre and provides panoramic views of the surrounding area.



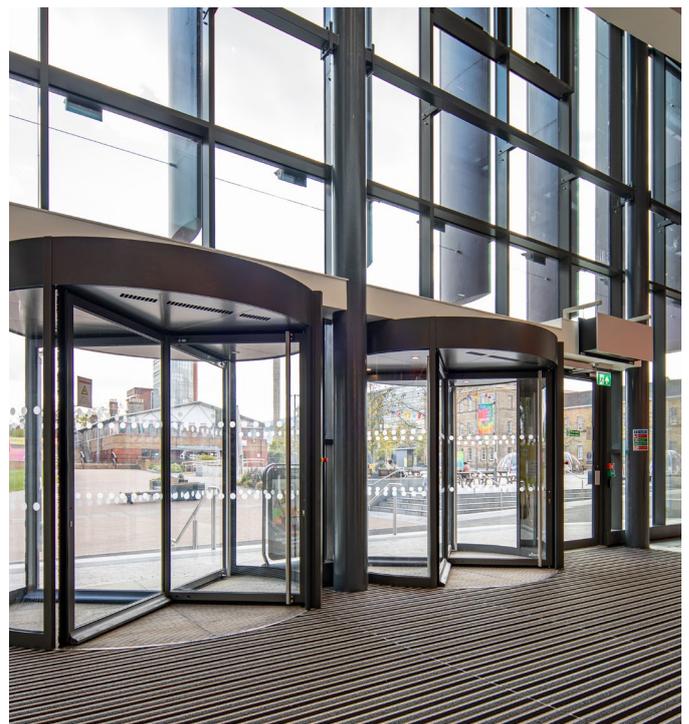
Photography by: Keith hunter



Percy Gee Building, Leicester

The redevelopment of the East Wing marks the final stage in the transformation of the University of Leicester's Percy Gee building. The new four-storey extension has embraced the use of daylighting with the SF52 aluminium curtain wall system

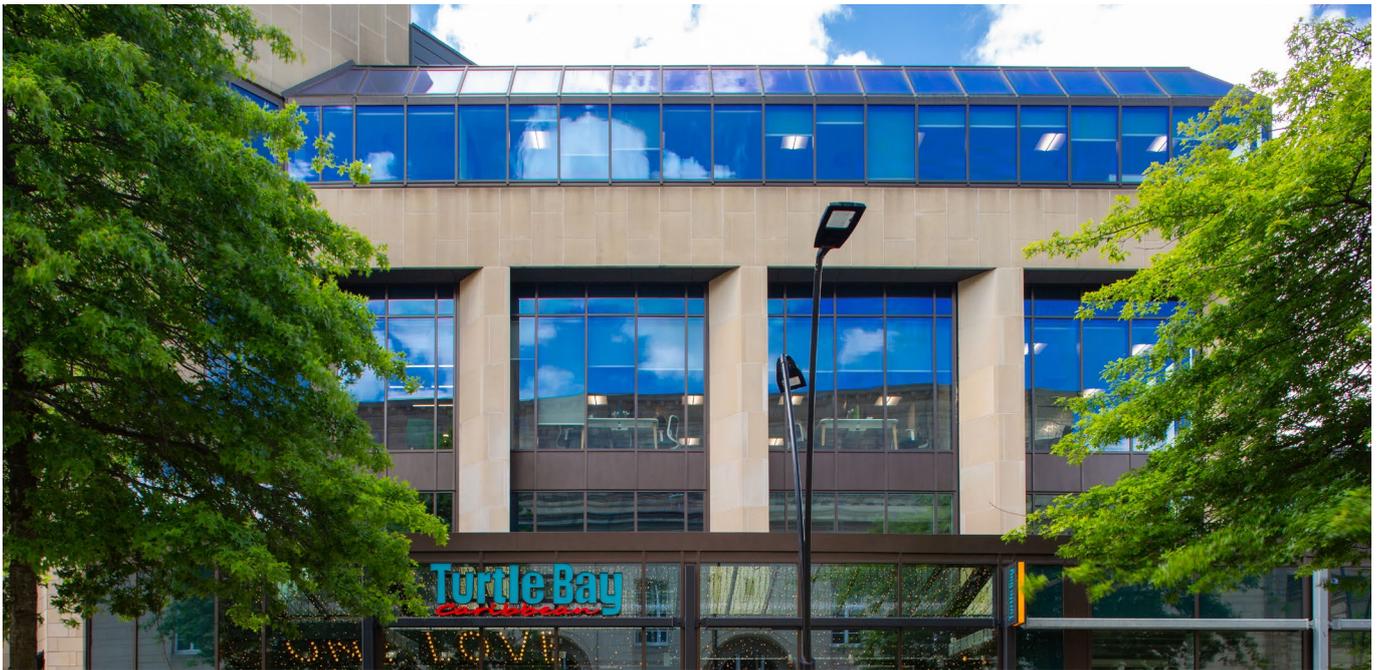
helping to improve the thermal-efficiency of the building. The slim and stylish aluminium frames also perfectly complement the vertical brise soleil fins that project one metre from the glazed façade.



Redeveloped NUM Building, Sheffield

Located in the heart of Sheffield, the former headquarters of the National Union for Mineworkers (NUM) had been vacant for decades before being transformed into this vibrant leisure and retail destination. Following an extensive refurbishment programme, the building now features a combination

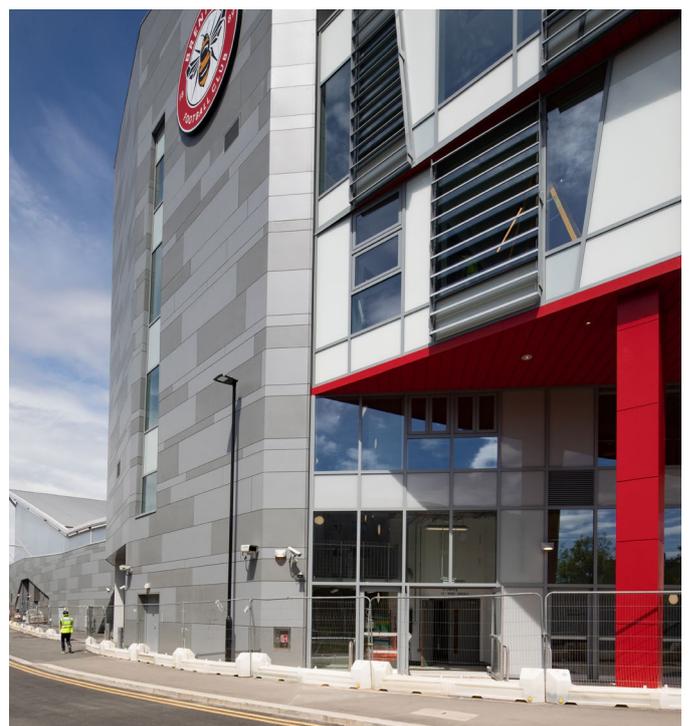
of bars and restaurants on the lower levels and high-quality office space. The building's fenestration package features various products from Senior including the slimline SF52 aluminium curtain wall system, with sloped curtain wall elements to the roof space.



Brentford Stadium, London

The new home for Brentford FC and London Irish rugby club in West London features an impressive façade created using the SF62 curtain wall system. Installed to the main entrance, the system was specifically designed

to meet specific project requirements. Prior to installation on site, the curtain wall solution was subjected to tests to ensure that the developed profiles and connections were suitable for use on the stadium.



03



**PROUD TO BE
UK OWNED**

Curtain wall solutions

01709 772 600 | info@sasmail.co.uk
www.seniorarchitectural.co.uk

Senior Architectural Systems Ltd
Eland Road, Denaby Main
Doncaster, DN12 4HA

