Renovation & Refurb

2024 Brochure

Contents

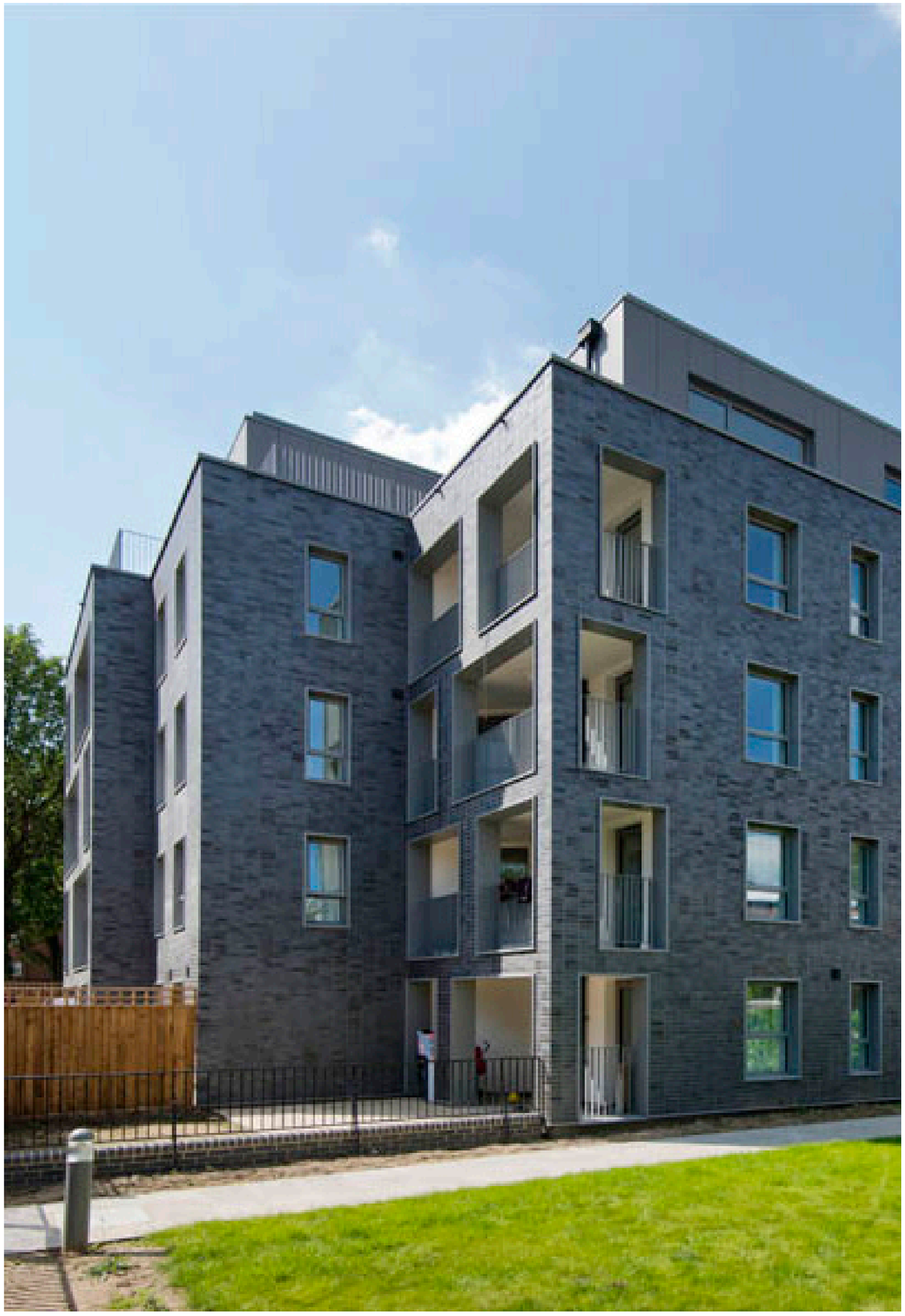
An introduction to SFS
The building envelope specialist

Whether on the roof or on the wall, for doors or windows – SFS is the specialist for fastening solutions in the building envelope.

With the invention of the world's first stainless drilling screw, SFS laid the foundation for modern fastening technology over 30 years ago. Since this pioneering achievement, the development and production of fastening systems for the construction industry has been one of our core competencies.

In addition to fastening solutions, SFS is also known for our award-winning Fall Protection range, innovative Rainscreen Subframe Systems, and high-quality Hinge Technology for windows and doors. Catering to architects, designers, consulting engineers, and contractors. We provide extensive options and a commitment to product quality, innovation, bespoke technical solutions, and exceptional service.

Inventing success together



Working in partnership with OEMs

At SFS, we believe that true innovation is born from collaboration. That's why we take pride in our strong partnerships with Original Equipment Manufacturers (OEMs) in the construction industry.

By working closely with our OEM partners, we are able to provide cutting-edge solutions that meet their exact specifications and deliver exceptional performance. Our dedication to quality and sustainability has led us to secure various OEM approvals, ensuring that our products are not only fully compatible with their systems but also backed by reliable warranties. This level of trust and cooperation forms the foundation of our shared success.

Understanding Your Systems and Products
At SFS, we understand that each OEM operates within a unique set of requirements and demands. That's why our OEM partners find value in our commitment to understanding their systems and products. We actively collaborate with them to gain deep insights into their specific needs and challenges. This enables us to tailor our solutions to their exact requirements, ensuring seamless integration and optimised performance. By delving into the intricacies of their systems, we are able to deliver innovative fastening solutions that offer unparalleled reliability and efficiency, setting our OEM partners and their customers up for a secure future.

Certifications: Demonstrating Excellence
When it comes to certifications, SFS goes above and beyond industry standards. We recognize that our OEM partners value the certifications we gain for our products, as these certifications serve as a testament to the exceptional quality and performance of our fastening solutions. Our products hold prestigious certifications such as the British Board of Agrément (BBA), FM Approval, and European Technical Assessments (ETAs). These certifications demonstrate our unwavering commitment to meeting strict industry standards, allowing our OEM partners and their customers to have confidence in the durability and longevity of our products.

On-Site Technical Support: The Power of Partnership
At SFS, we firmly believe that true partnership goes beyond just providing top-quality products. That's why we offer comprehensive on-site technical advice to our OEM partners. From wind load calculations to pull out tests, our team of experts is ready to assist our OEM partners in every step of the way. We understand the importance of considering all relevant factors, such as environmental conditions and specific project requirements. Our on-site technical support, including toolbox talks and training sessions, provides valuable guidance to ensure a seamless installation process and the optimal performance of our fastening solutions.

ALUMASC ROOFING
ArcelorMittal
APL
Bailey
BAUDER
CA Group Limited
danosa Building together
DERBIGUM® MAKING BUILDINGS SMART
euroclad group
fatra®
FDT FLACHDACH·TECHNOLOGIE
FirthSteels Innovators in Profiled Steel
Owens Corning FOAMGLAS®
ICB WATERPROOFING
IKO
KME
PROTAN
Radmat® building products
RENOLIT
RHEINZINK®
ROCKWOOL®
Sika®
SILTEC Waterproofing Solutions
TATA
Triflex
VM BUILDING SOLUTIONS

Key areas for refurbishment & renovation

At SFS, we understand that renovation and refurbishment projects require careful consideration and a focus on key areas to achieve success. In this next section, we will explore the various aspects that deserve attention in order to create spaces that are not only visually appealing but also functional and sustainable.

Aesthetics
Aesthetics play a significant role in refurbishment, as they greatly influence the social built environment. By enhancing the visual appeal and functionality of spaces, we can create environments that foster social interaction and productivity. It is important to pay attention to creating inclusive and diverse areas that encourage collaboration and promote wellness. At SFS, we offer a range of architectural solutions that can help achieve this, from hidden fixings for cladding and panels to materials and finishes that resist corrosion and staining, ensuring that your building looks its best for years to come.

Maintenance
Maintenance is a critical consideration in any refurbishment project. By selecting materials and systems with Original Equipment Manufacturer (OEM) approvals and warranties, you can safeguard against future faults and reduce maintenance costs. Additionally, designing for easy access to critical areas and systems simplifies maintenance tasks and inspections, prolonging the lifespan of your building. The location of your building matters too, as different geographical conditions require tailored maintenance strategies to protect against weather elements and address specific environmental challenges.

Energy/Sustainability Improvements
Energy efficiency and sustainability improvements are essential in today's construction industry. With our innovative thermal calculators, you can accurately plan insulation needs and optimize energy performance, leading to reduced heating and cooling costs. Consider incorporating PV (Photovoltaic) panels into your refurbishment to generate renewable energy on-site, contributing to a sustainable future. Thicker insulation in roofs and walls is a growing trend that enhances energy efficiency by maintaining optimal interior temperatures. Additionally, selecting materials with clear Environmental Product Declarations (EPDs) and choosing sustainable and durable materials can further reduce your building's environmental footprint and improve energy efficiency.

Change of Use/Extension
A change of use or extension is a critical aspect to consider in any renovation or refurbishment project because it presents unique challenges and opportunities. Refurbishment projects that involve changing the use of a space or adding an extension require careful consideration to ensure the design is future-proofed, and the materials and products used can adapt to the changing needs of the building. When considering a change of use, it is essential to evaluate the structural integrity of the building and determine if any modifications are necessary to ensure the safety of occupants. Additionally, the building regulations will play a critical role in determining how the building can be repurposed and the materials that can be used.

Building Regulation Changes/Fire Safety
Compliance with fire safety regulations is of utmost importance, and the use of A2 fire-rated products is critical to ensure occupant safety and meet legal requirements. We understand the significance of building regulations, such as the UK's Part L of the Building Regulations, which focuses on fuel and power conservation. Our expertise can assist you in improving energy efficiency throughout your refurbishment, including upgrading insulation, heating, and lighting systems to comply with these regulations.

Challenges for refurbishment & renovation projects

Refurbishment and renovation projects can present significant challenges that must be carefully considered to ensure successful outcomes. Here are some of the most important challenges associated with these projects:

Type	Challenge
Condition and Type of the Primary Structre	Understanding the condition and type of the primary structure is a crucial consideration for any renovation or refurbishment project. This information is necessary to determine the capacity of the building to support new loads and materials and to ensure compatibility between the new and existing structural components.
Fixing New to Old Materials	Joining new and existing materials can be challenging, and it is essential to use the correct fixings and techniques to avoid creating weak points or causing damage. Factors such as thermal expansion, moisture, and chemical reactions between different materials must be carefully considered.
Unintended Consequences of External Wall Insulation	Installing external wall insulation can impact other aspects of the building envelope, such as requiring adjustments to the roof overhang, windows and doors, and rainwater goods to accommodate the additional thickness of the insulated walls.
Building Movement and Expansion Joints	Structures naturally expand and contract, and any refurbishment should allow for this movement to prevent cracking or structural damage, especially when different materials with varying expansion rates are used.
Drainage and Waterproofing	Refurbishment projects can affect a building's existing drainage systems, so adequate waterproofing is crucial to prevent water damage.
Load Path Continuity	Structural modifications should maintain or improve the continuous load path for gravity, wind, and seismic forces to ensure the building remains stable and safe.
Airtightness	Improving airtightness is crucial for energy efficiency, but proper ventilation is also crucial to prevent condensation and indoor air quality issues.
Heritage and Preservation Concerns	For historic or protected buildings, any modifications must respect preservation standards and possibly require approvals from heritage conservation authorities.
Fire Safety and Egress	Refurbishment projects should consider the impact on fire safety, including materials' fire rating, the compartmentalisation of spaces, and clear egress paths in case of an emergency.
Acoustic Performance	Changes to a building›s envelope and interior spaces can affect its sound insulation properties. New materials and designs should consider noise control to ensure a comfortable environment for occupants.
Future Maintenance	Future maintenance requirements must be considered, including the access required and the working with unknown variables.

Refurbishment & renovation of the building envelope

Highfix Solar Support System

Fall Protection Systems

isoweld® Flat Roofing

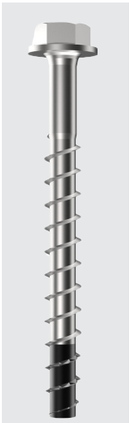
JB-D Bracket System

NVELOPE® Rainscreen Subframe Systems

*Graphic not to scale

Refurbishment & renovation of the building envelope

Walls



MULTI-MONTI®

Powerful fasteners for concrete and masonry.

The MULTI-MONTI® product range offers a wide selection of carbon steel and stainless steel solutions for safe installation of steel, metal and timber elements into concrete and masonry.

Features & Benefits
- approved for multiple use in young concrete
- different load classes per diameter
- fast and easy installation
- easy disassembly
- extensive range
- optimal thread geometry for a durable secure connection

Download the brochure...

Find out more →

Facades

Center Point System

Perfectly set without pre-drilling

With the new Center Point System, the installation of rainscreen facades is super easy. The pre-fitted centring sleeve, drill tip and special thread geometry ensure perfect positioning of the fastener to the façade panel.

Features & Benefits
- Optimised bit that engages better with fastener
- Reduced thread allows for deliberate overdriving
- Double-start thread ensures ideal alignment of the fastener to the panel
- Drill tip bites immediately and drills through substrucutre effortlessly
- Centering sleeve centres the fastener perfectly in the panel hole

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NVELOPE® Thermal Solutions

Optimise solutions, superior performance.

Utilising our UK patented technology SFS have been able to create a high performing solution that guards against thermal degradation due to compression of the thermal pad, ensuring no loss in thermal performance. This combined with the bracket material choice of Aluminium or Stainless Steel ensures that a full range of tailored solutions can be created for any project.

Features & Benefits
- 4 ranges across many NVELOPE® Rainscreen sub-frame systems
- Range includes Aluminium and Stainless steel brackets
- Non-compressible thermal pad reduces thermal performance gap
- Thermal insulation bonded to the bracket to save on installation time
- Good to exceptional thermal performance
- Part of Project Builder software

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Flat Roofs

isoweld®

Field fixing system.

The isoweld® fastening system uses induction technology to weld single ply membrane to dedicated stress plates, securing it to the roof deck. The innovative system increases efficiency, ensures security, and saves on cost.

Features & Benefits
- No penetration of the roofing membrane
- Fastening independent of the membrane seam
- Up to 50% fewer fasteners are required
- One membrane width is required for the complete roof
- No membrane cover strip requirement

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Find out more →

SOTER® Horizontal Lifeline Systems

The industry-leading horizontal lifeline system

Fitted to the outer roof skin, the system uses innovative shock-absorbing technology to spread and dissipate the shock load of a multi- or single-user fall, protecting both users and the roof structure.

Features & Benefits
- Independently certified system meeting European, Australian, and New Zealand standards
- Full-traversable continuous fall protection for up to 4 users with versatile applications
- Unique patented energy absorber with high grade stainless steel components for longevity and corrosion resistance
- Post yield force of 4kN and extended warranty for peace of mind
- Technical assistance from Building Envelope Specialists and UK manufacture for quick turn around
- Innovative fastening solutions, aesthetic design, and fool-proof installation system

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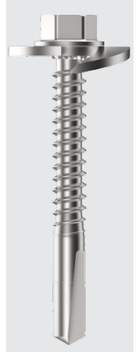
Find out more →



SXP Range

Ensuring minimal damage is caused to the panel at every stage of the installation process.

The SXP range consists of three variants and feature a unique, self-coring washer design. The 19mm fully stainless self-coring washer, corkscrew's it's way through the insulation layer, avoiding unnecessary damage which maintains the thermal integrity of the panel.

Features & Benefits
- The SXP range has an unthreaded section below the fastener head which is a ‹thread free zone›
- The 19mm self-coring washers are designed to cut through the single-ply membrane with ease
- SXP range has both a HEX and Torx drive, allowing installation with either drive. This flexbility, allows for a more confident and controlled installation method.

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Find out more →

Refurbishment & renovation of the building envelope

Sloping Roofs

BSA Fastening System

One combination for various application thicknesses.

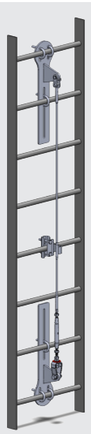
The new innovative and unique BSA fastening system builds on existing fastener technology and offers a self-drilling adjustable fastener to provide the installer with a simple and cost effective solution for tapered insulation on steel decks. The BSA fastening system can be used for seam or field fastening membrane applications, with a maximum setting depth of only 20mm, below the substrate.

Features & Benefits

- Stable telescopic fastening system for increased weight, returning to original position.
- Only 20mm deck crown penetration for improved security.
- Up to 85mm adjustability per fastener for flexible and easy installation.
- Versatile system for insulation and membrane attachment in various applications.
- Installer friendly design for fast and simplified installation process.

Find out more →

Download the brochure...



Vertical Lifeline Systems

A fully stainless steel vertical safety line.

The wire rope system enables users to safely traverse the extent of installations such as ladders, towers and wind turbines, providing them with hands-free protection.

Features & Benefits

- Free movement safety solution allowing unrestricted vertical mobility for the user.
- Versatile installation with adjustable mounting brackets and innovative helix intermediate brackets for quicker and safer setup, reducing wind buffeting.
- Meets latest standards with independent certification for EN353-1:2014, EN353-2:2002, and EN365 PPE directive, ensuring maximum force to body does not exceed 6kN.
- Compact design with shock-absorbing element built into traveller device for quicker, easier installation.
- Fool-proof design preventing incorrect installation, ensuring user safety.

Find out more →

Download the brochure...

SFS Services

At SFS, we offer a comprehensive range of services to meet your needs. From ensuring crucial specification issues are addressed to empowering our Installer Network, we are here to support you throughout the project lifecycle. Whether it's specification, technical support, or our ConnectSuite tools, we provide the expertise and assistance you need to succeed.

SFS ConnectSuite®

One Platform For All Your Digital Tools - Designed to support you through the lifecycle of designing a project.

Project Builder

The NVELOPE® Project Builder tool, a free online service that allows visitors to our portal to submit their rainscreen building project requirements. Now even faster and easier, each project builder output is hand tailored by our expert technical team.

Find out more... →

Fall Protection Visualizer

Maximising efficiency and precision is crucial when creating horizontal lifeline systems for your project. This innovative tool will streamline the process and provide accurate and reliable results, a customised and project-specific solution that meets your unique requirements.

Find out more... →

Technical Services

Whatever the phase of your project, SFS can offer assistance to determine the appropriate specification. Solutions will be to the individual product requirements and provide for long term security, functionality and real aesthetic appeal.

On-site Technical Support

Whatever the phase of your project, SFS can offer assistance to determine the appropriate specification. Solutions will be to the individual product requirements and provide for long term security, functionality and real aesthetic appeal. Use our expertise to ensure that important specification issues such as corrosion risk and airtightness are fully addressed. Also to make certain that your fasteners have a meaningful warranty.

Find out more... →

Wind Load Calculations

SFS offers a wind load calculation service that provides guidance on fastener spacings and the numbers required for the project being installed. This is typically for the mechanical connection of insulations (flat or tapered) and or single ply membranes to various deck substrates.

Find out more... →

Pull-out Tests

Our Technical Services at SFS includes a wide range of support provided by our in-house team of experts. When it comes to ensuring the strength and reliability of fasteners, our team performs pull-out tests for clients. These tests are crucial in determining the appropriate specification for each project, taking into account factors such as corrosion risk and airtightness.

Find out more... →

Specification

As a leading manufacturer of systems and products across the entire building envelope, SFS has a dedicated Specification Team, covering the UK & Ireland. The team is on hand to support Designers, Engineers & Architects with assistance and advice on the correct specification of our products and the applications they are required for.

CPDs

SFS are a RIBA-accredited training provider. We hold CPDs across the country for architects and specifiers on key issues within the construction sector. CPDs are delivered by our experienced Specification team, can take place at the Academy in Leeds or Welwyn Garden City, or similarly if you prefer at your chosen premises or virtually via our online sessions, whichever suits you best. The CPDs have been designed by specialists to develop your knowledge on key topics happening within the construction industry.

Our CPDs include:

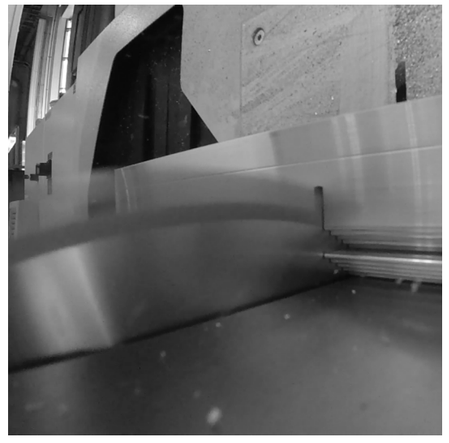
- Airtightness & Thermal Efficiency
- Rainscreen Cladding Systems
- Designing the Correct Roof Safety System
- Evolution to Innovation: Fixing of Warm Roofs
- Hinge Technology: Design, Function & Compliance

Find out more... →

Profile Cutting Service

Reduce waste, install quicker and smarter all around.

The optimised cutting service is now part of our hugely successful NVELOPE offering. This new service will speed up installation on site, save time and money as well as minimising waste; it's the smarter way to operate.



Key Benefits

- Optimised material outlay. Providing predictable cost
- No offcuts to dispose of on site. Dramatically reducing waste
- Staged deliveries available at request. For a leaner construction process
- On site health and safety. No cutting on site, reducing the chance of accidents
- Optimised installation. Quicker installation due to product delivered pre-cut to size, ready for installation
- Minimise noise from site. Benefit for construction in densely populated areas

Find out more... →

Exploring real world applications

Look through our extensive range of case studies that demonstrate our products in use across a wide range of building projects. From high rise residential to huge logistical distribution centres, our range of innovative products and services have been used in a wide range of situations.

Chester University

Situation: The refurbishment project involved a flat roof with multiple layers. A mechanically fastened solution was required due to location and existing bonding. Wind load calculations determined only corner and perimeter zones could be used, necessitating a high density of fasteners in these areas.

Solution: SFS provided a solution using TIA adjustable fasteners and the isoweld® 3000 welding system. Specially coated isoweld® stress plates, along with FI-R-20 sleeves and TIA fasteners, were mechanically fastened into the concrete substrate through the insulation and screed layers. The Protan SE single ply waterproofing membrane was then directly welded onto the isoweld® stress plates, providing a secure fix without the need for duplicate fasteners or membrane penetration.

Project Highlights

Client	University of Chester
Main Contractor	Willmott Dixon
Sub-Contractor	Range Roofing Ltd
Location	Chester
Solution	isoweld® system, TIA Adjustable Fasteners, FI-R-20 Sleeves

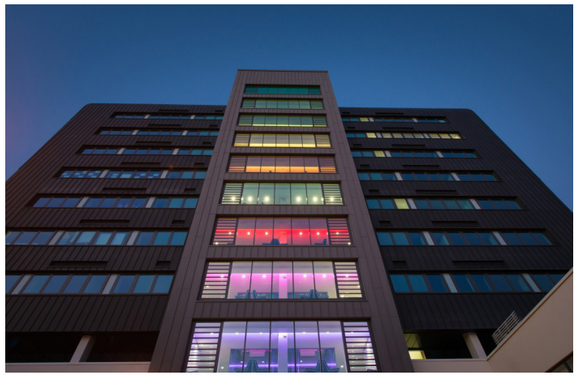
Crest Girls Academy

Situation: Crest Girls' Academy needed a modernisation project for its buildings, including sports halls, classrooms, and studios. Capita Symonds, the architect, specified NVELOPE® horizontal and vertical cladding support systems, which were installed by sub-contractor Horohoe Construction. These systems supported approximately 6000m2 of timber and cedar cladding throughout the £40 million refurbishment.

Solution: Horohoe Construction used the NV1 and NV6 systems from NVELOPE®. These systems were chosen for their quality, price, and ability to accommodate cladding expansion and contraction in different weather conditions. The systems were easy to install, and the brackets were fitted in about four weeks. NVELOPE® products are manufactured in the UK using high-quality alloys and are BBA certified.

Project Highlights

Client	Brent Council
Architect	Capita Symonds
Main Contractor	Wates Construction
Sub-Contractor	Horohoe Construction
Location	Neasden, London
Solution	NVELOPE® NV1 and NV6



Parsons Tower

Situation: The Parsons Tower at Newcastle College underwent a major redevelopment project to update the façade and interior for nearly 2000 students. The project included zinc roofing and cladding, composite panels, and flat roofing elements.

Solution: Longworth provided the aesthetic for the building envelope, and SFS supplied fastening solutions for the zinc and copper cladding, using the low profile, high grade stainless steel SX2/8-D9 self-drilling fastener in A4 316 austenitic stainless steel. The austenitic stainless steel fastener ensures buildings won›t fail due to corrosion. For the roof, the isotak® TIA adjustable fastener system reduced drilling times and fastener and polypropylene sleeve combinations by 50%.

Project Highlights

Client	Newcastle College
Architect	Red Box Design Ltd
Main Contractor	BAM Construction
Sub-Contractor	Longworth
Location	Newcastle
Solution	TIA Adjustable Fastener system: SX2/8-D9 in A4 Stainless Steel

White Rose Shopping Centre

Situation: Morgan Sindall completed a £13.7m project for Land Securities, expanding a popular shopping center with an additional 65,000 sq ft. This included the addition of an 11 screen Cineworld cinema, restaurants, and an extension of existing stores.

Solution: Roofdec used SFS fasteners to meet the color consistency and long-term performance requirements of the contemporary façade. SFS provided 40 variations of fasteners, many of which were powder coated in-house to match the different forms and colors of the rainscreen exterior. With SFS›s excellent quality, technical support, and unbeatable warranty, Roofdec had confidence in the project›s success and the long-term sustainability of the building. SFS›s stainless steel fasteners ensured the integrity of the façade over a long service life.

Project Highlights

Client	Land Securities
Architect	The Harris Partnership
Main Contractor	Morgan Sindall
Sub-Contractor	Roofdec
Location	Leeds
Solution	Powder-coated A2 (grade 304) and A4 (grade 316) stainless steel fasteners

Exploring real world applications

Edgeware Road Station

Situation: Transport for London (TFL) wanted to create a durable and graffiti-resistant cladding using strongly patterned panels designed by Jacqueline Poncelet. The project required 1,529m² of cladding panels, each weighing 45kg, and faced challenges with access and deviating walls.

Solution: Façade Concepts specified the NV3 system to support the panels, but stiffeners were added due to the unconventional use of vitreous panels. A bespoke clip was developed to attach the panels to the supporting system. To accommodate the wall deviation, a range of brackets from 60-120mm were used, with an additional 650 brackets utilized. NVELOPE® provided the full range of brackets, rails, and clips for the project's challenges. Façade Concepts praised NVELOPE® for their support, good service, and prompt order delivery.

Project Highlights

Client	Transport for London
Artist	Jacqueline Poncelet
Sub-Contractor	Facade Concepts
Location	London
Project Size	1500m²
Solution	NVELOPE® NV3 with bespoke clip

Packington Housing Estate

Situation: The Packington Housing Estate in Islington underwent a regeneration project, requiring structural support for approximately 1200m² of timber cladding. The project involved replacing 538 unsound flats with 791 new houses and flats in multiple phases.

Solution: NVELOPE® provided effective structural support with their vertical helping hand system and timber rails. Cladding contractor Roles Broderick installed the NVELOPE® system, which offered flexibility to overcome building substrate tolerances. Timber rails were used and fixed to the brackets with self-drilling stainless steel screws. All NVELOPE® products and systems are BBA certified and manufactured in the UK.

Project Highlights

Client	Islington Council
Architect	PTEA
Main Contractor	Rydon
Sub-Contractor	Roles Broderick
Location	London
Solution	NVELOPE® helping hand system with timber rails

Shakespeare House

Situation: NVELOPE® NV1 vertical cladding support systems were installed on a refurbished apartment block in Hackney to improve the building›s appearance and provide a modern external envelope.

Solution: Paneltec Services Ltd, the specialist envelope contractor, chose the NV1 system for this 800m² building. The versatile cladding support system allowed for the expansion and contraction of the cladding under different weather conditions. The installation proceeded smoothly, and the project was completed within the required time frame. The technical design support service provided by NVELOPE® was crucial in ensuring a successful outcome.

Project Highlights

Client	Islington and Shoreditch HA
Architect	BPTW Architectture
Sub-Contractor	Paneltec Services Ltd
Location	Hackney, London
Solution	NVELOPE® NV1 system

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