

Product Brochure 2024



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About Us

Manufacturers of roofing and cladding solutions, including flat-to-pitch systems, Aluminium Rainscreen Facades, Structural Framing Systems (SFS), and Rainwater Management.

Based in the heart of the black country in the West Midlands, our precision engineering uses state of the art machinery to exceed industry standards.

Our expert team delivers unmatched support and collaboration for your project, ensuring superior expertise and professionalism tailored to suit the needs and demands of each project.

Steel and aluminium in construction offer key environmental benefits

Recyclability:

Both materials are highly recyclable, reducing the need for raw materials.

Durability:

Longer lifespan reduces the frequency of replacements and renovations.

Energy Efficiency:

Modern manufacturing processes make production more energy-efficient

Reduced Construction Waste: Precision manufacturing minimizes on-site waste, decreasing the environmental impact during construction.



Our Services

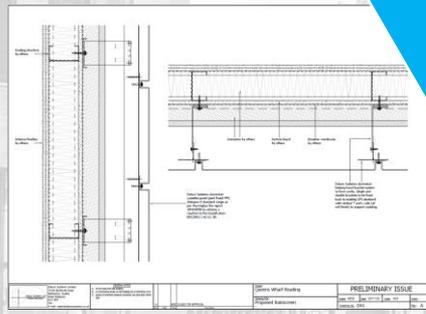
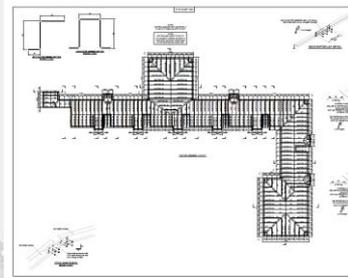
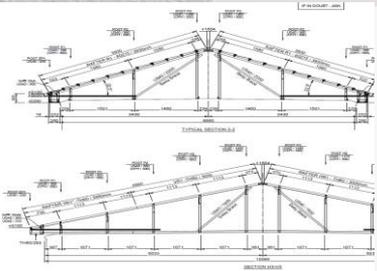
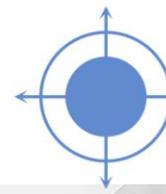
At Datum Systems, we pride ourselves on creating the best designs and products that go above and beyond customer's visualisations.

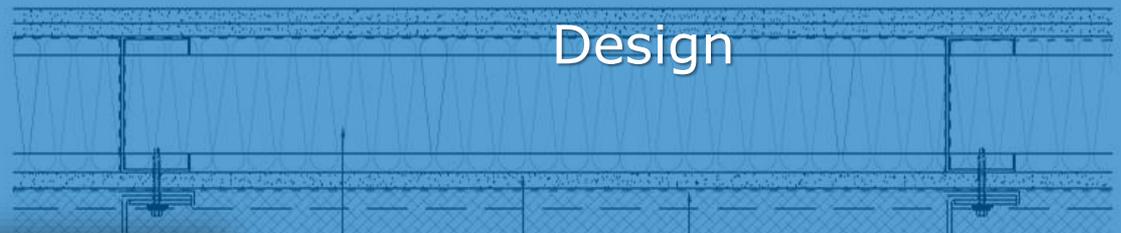
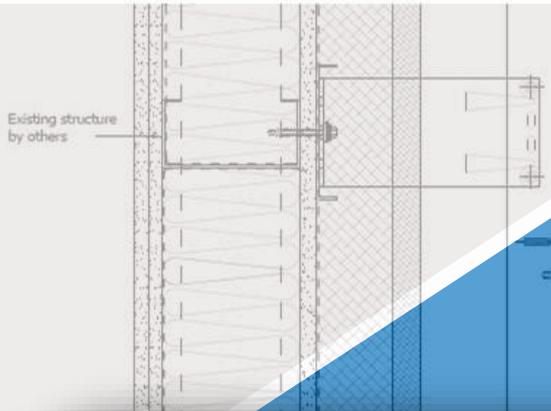
Our company's aim is to design top of the line rainscreen cladding and roof conversion systems that leave buildings both secure and aesthetically pleasing.

All projects are designed in house with technical expertise and a user-friendly finish to make maintenance simple.

We are dedicated to offering our customers cost-effective, long-term solutions that fit the ideas they have in mind.

The team at Datum use their decades of experience and knowledge to develop a solution that matches exactly what a customer needs.

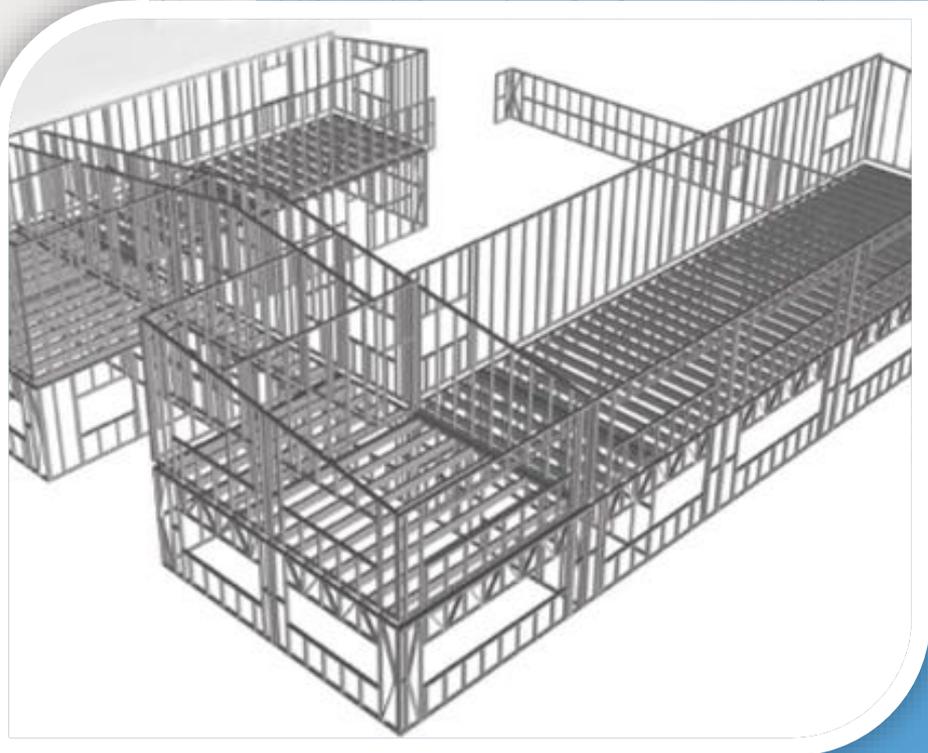




Design

Each project is designed on an individual basis and carefully reviewed

We guarantee that every step of the job is covered by us, no third parties will be involved.



Insulation by others

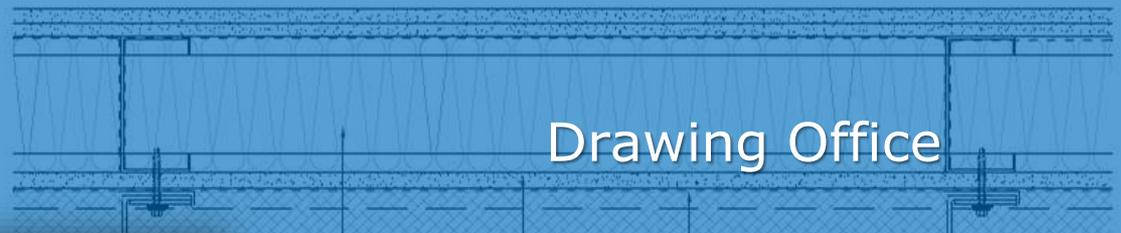
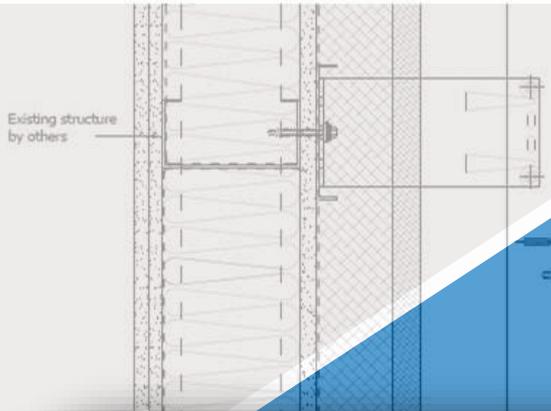
Particle board by others

Breather membrane by others

aluminium (fixed) PPC range as part of specification

Datum Systems aluminium helping hand bracket system to form cavity. Single and double brackets to be fixed back to existing SFS studwork with vertical T and L rails (all mill finish) to support cladding.

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Drawing Office

Our in-house drawing office considers all customer demands to create the most functional, appealing products. At Datum Systems, our team go beyond standard provisional scheme drawings, and use the company values to provide high quality, inspired visualisations of customer designs.



Knowledge of how the systems work is effectively used to enhance existing products or create entirely new ones without the usual tired looks of building systems. We specialise in making our company's products more attractive to any visitors or residents, creating atmosphere while maintaining the level of excellence needed for first-rate performance.

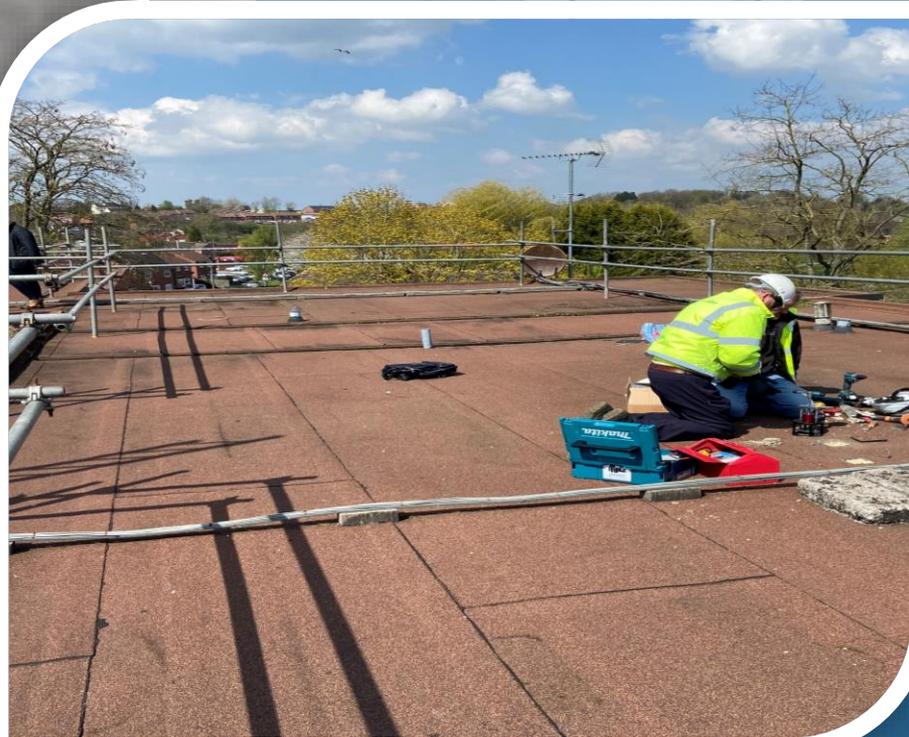
Site Surveys

Our experienced team are on hand to carry out precise surveys on every project.

- Core holes
- Pull out tests
- Laser levels
- Condition reports
- Digital Surveys
- Firewall layouts

All our site surveys are tailored to suit your projects unique needs and requirements

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Structural Calculations

Using our team of structural engineers we are able to offer structural calculations as part of our service. Tailored to suit the requirements of each project

- Wind Load Calculations
- Holding down Calculations



Site Audit Reports

- Our on site auditing follows a five-step procedure that gives customers complete confidence that all appropriate safety measures are being taken throughout the building process, and that their created designs are being followed as closely as possible while implementing the new system.
- We care for our customers, so to ease any worries even further, we support our audits with photographic evidence and detailed reports about the process.

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PI Insurance

- Professional indemnity insurance is rare in the construction industry, but we want to go beyond regular contractor services to provide our customers with peace of mind and full cover- just in case. We know it's worth going the extra mile to be properly insured, so at Datum Systems, our professional indemnity insurance is applied to all projects and customer designs. In the rare case that after a construction job, a property suffers due to design error or negligence, funds will be made available to cover any costs or issues that may have impacted the building owner, without employing a third party. Everything is handled by us for maximum customer ease

Rainscreen Cladding Systems

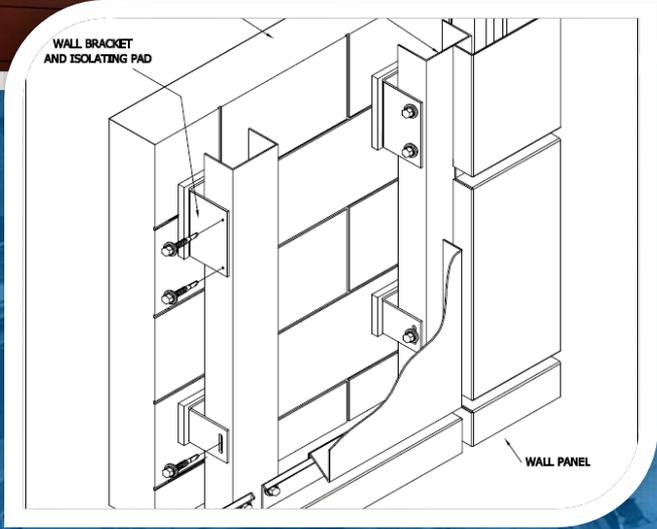
Explore the subtle elegance of our Rainscreen Cladding Systems, designed to enhance both new constructions and refurbishments. With a focus on seamless integration and functionality, our systems bring a balance of aesthetic appeal and structural reliability.

Material Versatility: Choose from our wide facade range of solid Aluminium Rainscreen systems Tailored to suit various project applications, our offerings are supported by fully adjustable systems to meet different wind loads and spanning criteria.

Comprehensive Design Support: Datum Systems goes beyond conventional services, covering every aspect of your facade. From structural steel framing to cladding design, our integrated approach minimizes on-site challenges during the design stage.

- Seamless coordination between interfaces.
- Streamlined process with a single design submission.
- In-house engineering service for expertise.
- Practical and buildable design solutions by experienced designers.
- Fully warranted through-wall design.
- A1 or A2 rated systems compliant with EN13501-1.





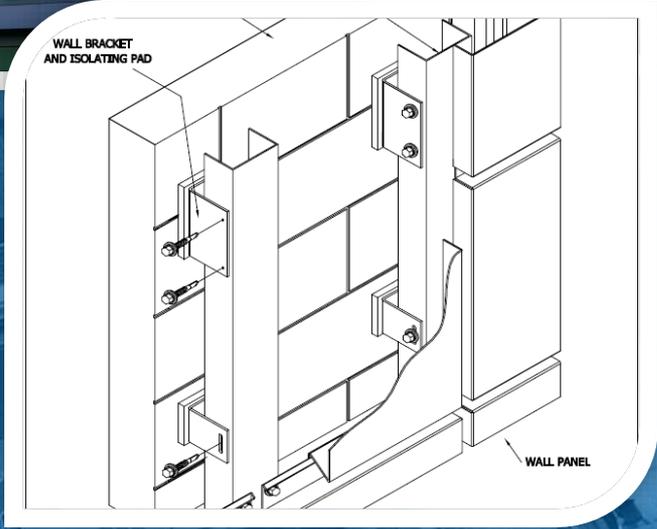
DTM-01 Concealed Fix Rainscreen System

Introducing DTM-01, an advanced aluminum rainscreen system meticulously engineered to provide robust support for large-format horizontal modules with a focus on cost-effectiveness.

Featuring fully fabricated, highly adjustable curved, and corner panels, DTM-01 ensures rapid erection times. The system's flexibility allows for the demounting of individual flat panels in the event of site damage, provided a 20mm joint specification is adhered to.

DTM-01 excels in diverse applications such as soffits, fascias, verges, and 'goalpost' details, seamlessly complementing other systems.

Tailored to meet the specific requirements of various projects, DTM-01 offers variable joint sizes with a diverse range of profile details and treatment options. The meticulously color-coated joint fixings seamlessly match the panels, ensuring minimal disruption to the overall aesthetics. Warringtonfire has subjected DTM-01 to rigorous fire testing, resulting in its classification as A1 to EN 13501-1 for 3mm Aluminum with no coating or with an applied anodized coating. Additionally, DTM-01 achieves a classification of A2-s1, d0 to EN 13501-1 for 3mm Aluminum with PPC coating.¹⁵



DTM-02 Interlocking Plank Cassette system

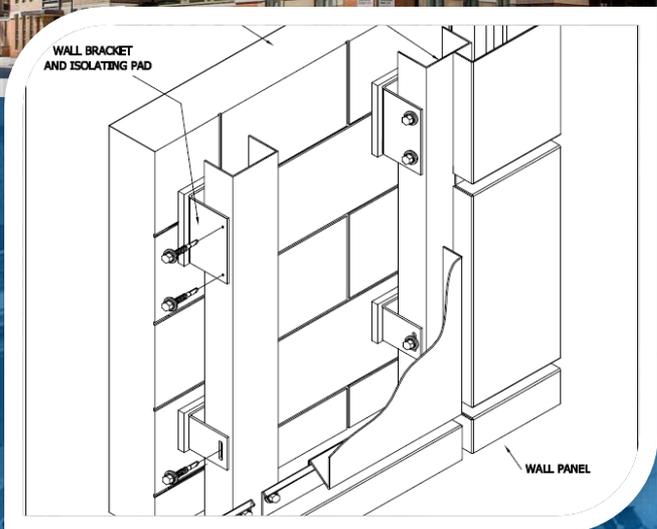
Introducing a highly cost-effective concealed-fix aluminium plank system meticulously engineered for advanced applications in linear module facades. Specifically designed to accommodate face modules spanning from 200mm to 400mm and panel lengths reaching up to 3000mm, this system is a sophisticated solution for architectural projects demanding precision and efficiency.

Crafted to seamlessly integrate with various building facade components, including windows, doors, and louvres, the system ensures a harmonious and cohesive architectural aesthetic.

The panels offer unparalleled versatility with the capability to be oriented both vertically and horizontally, providing architects and designers with the flexibility to meet intricate design specifications while adhering to budget constraints. To facilitate ease of installation and maintain consistency, a range of fully fabricated cranked or trimmed corner panels are readily available. For optimal functionality and design adaptability, the system presents variable joint arrangement options, allowing for precise ventilation control and enabling a broad spectrum of design possibilities.

Further enhancing its appeal, the system boasts an extensive selection of colors and finishes, encompassing anodized shades and specialized powder coatings. This ensures architects have a rich palette to translate their creative vision into tangible, aesthetically pleasing structures.

In terms of fire performance, extensive testing by Warrington fire has resulted in a robust classification of A1 to EN 13501-1 for solid aluminium panels with no applied coating or with an anodized coating. Additionally, the system achieves a classification of A2-s1, d0 to EN 13501-1 for solid aluminium with a PPC coating applied, demonstrating its commitment to safety and compliance with stringent industry standards.



DTM-03 Hook on cassette system

Introducing a state-of-the-art fully secret-fixed system that achieves an impeccably flat and precise aesthetic, characterized by the absence of visible fixings. This system is designed to accommodate a diverse range of panel shapes and configurations, providing unparalleled flexibility in executing intricate aesthetic design techniques.

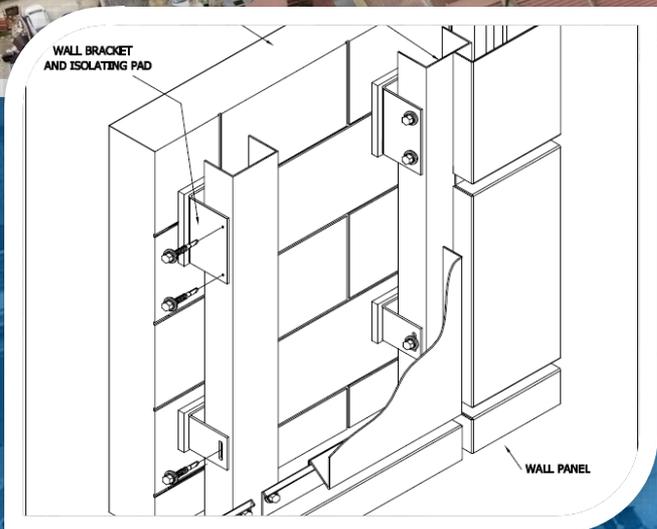
Delivered as a comprehensive system in component form, the need for on-site fabrication is eliminated, streamlining the installation process.

The autonomy of individual panels allows for efficient installation around service areas, while the capability for individual demounting enhances ease of maintenance and repair.

Highlighting adaptability, the system features variable joint sizes, offering a spectrum of joint profile details and treatment options to align with specific project requirements. Comprising five fundamental mullions ranging from 50mm to 150mm in depth, these mullions can be seamlessly installed on virtually any sub-structure or frame, with the potential to span from floor to floor as necessary.

An exceptional feature of this system is its lack of a specific installation start point. Panels can be fitted at random, if desired, owing to the unique panel carrier, which is fully adjustable and easily lockable and unlockable.

In terms of fire performance, rigorous testing by Warringtonfire has resulted in a classification of A1 to EN 13501-1 for 3mm Aluminum with no applied coating or with an anodized coating. Additionally, the system achieves a classification of A2-s1, d0 to EN 13501-1 for 3mm Aluminum with a PPC coating, underscoring its dedication to safety and adherence to industry standards.



DTM-04 Direct Fix System

Introducing a cost-effective through-fix system, offering customizable options such as color-coded rivet fixings or adhesive structural bonding. This system provides versatile panel orientation, accommodating both vertical and horizontal configurations to meet specific design and budgetary considerations.

Enhancing efficiency, the system offers fully fabricated and fully adjustable curved and corner panels, ensuring rapid erection times. It incorporates variable joint sizes, complemented by a diverse range of joint profile and flashing details, catering to individual project requirements with precision.

In terms of fire performance, rigorous testing by Warrington fire has resulted in a classification of A1 to EN 13501-1 for 3mm Aluminium with no applied coating or with an anodized coating. Additionally, the system achieves a classification of A2-s1, d0 to EN 13501-1 for 3mm Aluminium with a PPC coating, underscoring its commitment to safety and compliance with stringent industry standards.

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Flat to pitch Conversions

Lightweight steel frame roof conversion systems were first developed in the late 1980's and have been used extensively throughout the public and private sector as a permanent refurbishment solution for failed or failing flat roofs.

Datum Systems leads the way in lightweight steel frame roof conversion systems.

Our bespoke flat to pitch conversion is tailored for failed or poorly designed flat roofs.

- Increase thermal performance
- Increase asset value
- 60+ year lifespan
- Low maintenance

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Full Spanning System

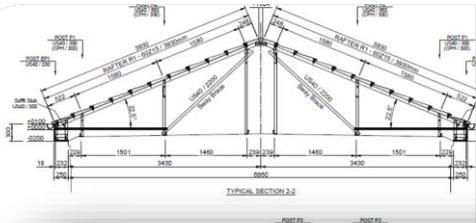
Spanning trusses or spanning base beams are manufactured to suit all roof scapes, sizes and profiles, available in fully manufactured trusses, or easily handle able sections or flat packed to suit site logistic requirements.

Two types of truss systems:

- Point load Truss - Fully assembled truss requiring certain point load areas on existing deck for support.
- Free Spanning Truss- Clear spanning wall to wall (max 12m)

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Flat to pitch Conversions

Elevate

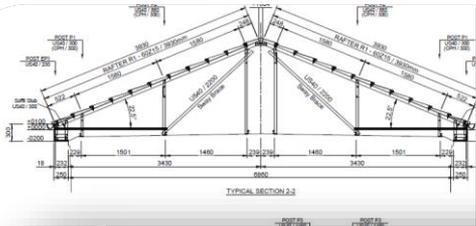
The propped rafter system is a factory manufactured system that can be supplied to site in kit form.

Propped rafter systems are designed to transfer new loads via the existing deck directly to existing primary support structures; typically fixed at centres from 1200mm to 3000mm, and provide a maximum roof pitch of up to 35°

Our curved propped rafter system is a variation of the propped rafter system, and provides a support system for curved roof scapes. This system is ideal for creating a curved radius utilising a new standing seam type roof sheet.

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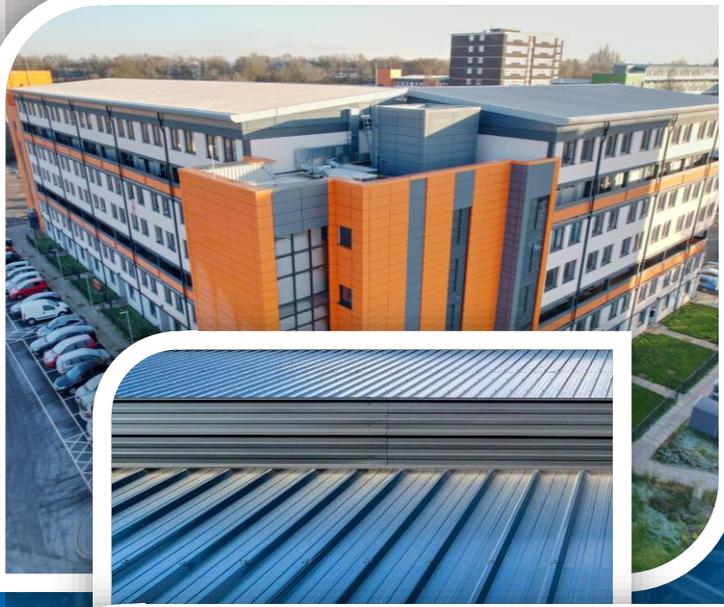


Flat to pitch Conversions

Roofguard An over roofing system in the form of a bar and bracket or purlin configuration designed to suit each individual project. Ideal for over cladding of asbestos, profiled metal sheets and pitched felt roofs.

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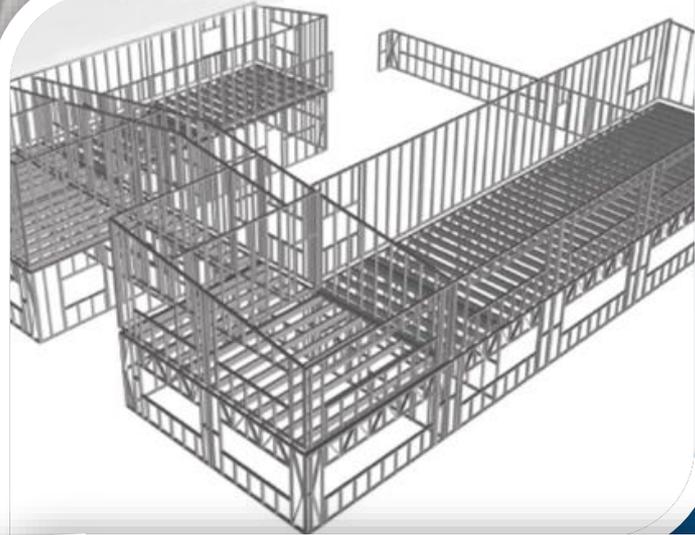
Flat to pitch Conversions

Lightweight metal roofing systems

Depending on the desired appearance, location, budget and roof design we have a wide range of systems to suit each project, our design team are on hand to assist selecting the correct system for you.

- Lightweight Metal Tiles
- Standing Seam
- Profiled metal sheet

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Steel Frame Systems (SFS)

Our Steel Frame System (SFS) range, offering a structurally robust and dimensionally stable solution for warm spaced wall construction. Compatible with the majority of external finishes across diverse applications, Datum Systems presents a component supply featuring a structural stud and track system. Our system, designed for both infill and over sail steel frame applications, provides early weather protection capabilities to buildings, surpassing traditional construction methods.

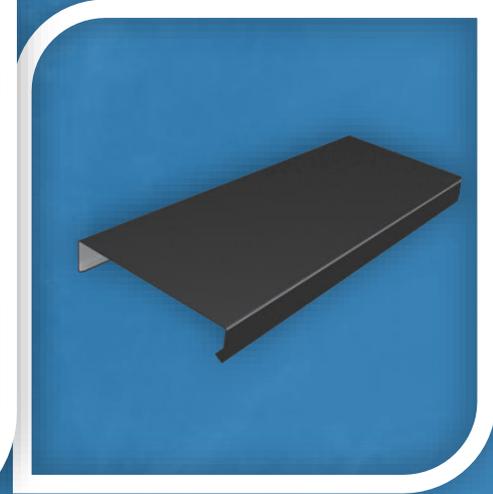
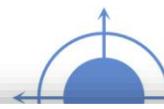
At Datum Systems, our state-of-the-art, custom-built, in-house manufacturing facilities ensure flexibility to meet specific requirements and restrictions. Our components can be precision-cut to length or provided in standard stock lengths, each individually marked for easy identification, resulting in faster installation.

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Steel Frame System Features:

- **Lighter than Blockwork:** Reducing foundation mass and costs.
- **Compatibility:** With reinforced concrete, hot rolled steel frames, traditional, pre-cast, and tensioned slab designs.
- **Sustainability:** 100% recyclable from the point of demolition, retaining structural strength throughout the recycling process.
- **Efficiency:** Reduced storage areas required, rapid on-site delivery from the point of order, and installation possible in any weather conditions.
- **Adaptability:** Easily adapted on-site to suit evolving project needs.
- **Expert Support:** Offering advice and guidance to architects and engineers during development stages, supporting main contractors in value engineering, and assisting installers during the tender process.
- **On-Site Assistance:** Continued on-site support to address potential remedial details, backed by an experienced team of design and engineering staff.
- **End-to-End Support:** Design and engineering support throughout the feasibility, enquiry, and detailed design stages. Datum Systems engineers can also conduct site visits to monitor product use and installation compliance.



Aluminium fascia and soffits enhance the exterior of any structure, catering to both residential and commercial settings. This durable solution not only demands minimal maintenance but also ensures long-lasting performance. The array of components is crafted to harmonize with various architectural styles, accentuating a building's visual appeal while contributing to its prolonged functionality.

Various options and a wide range of colours to suit every project.

Aluminium wall copings play a crucial role in safeguarding the structural integrity of buildings. Extending beyond the edges of parapet walls, they serve as a protective barrier against rain, preventing unsightly stains on the exterior wall. In contrast to conventional stone wall copings, aluminium copings stand out for their remarkable lightweight nature, strength, and ease of installation. Additionally, the aluminium copings can be polyester powder coated, allowing it to seamlessly blend with any desired colour scheme.



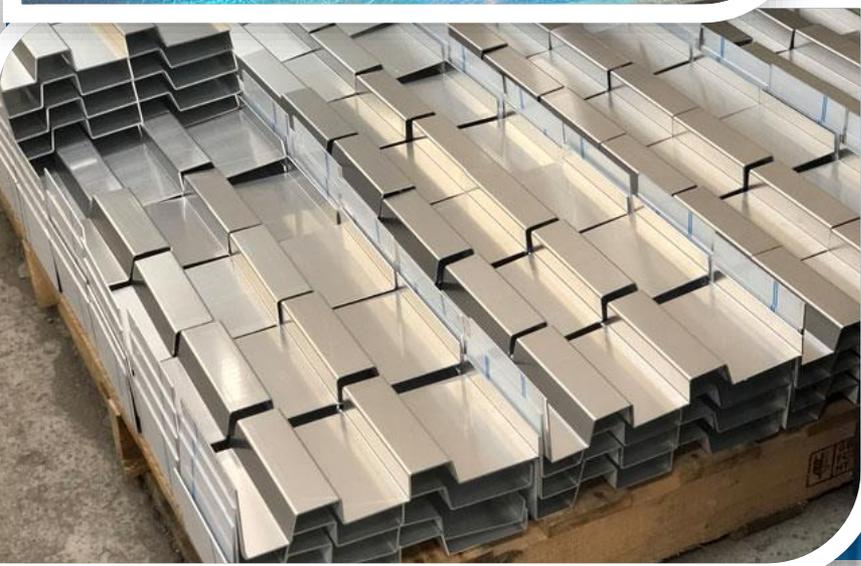
Pressed aluminium gutters and downpipes come in a range of sizes and include a comprehensive set of accessories, including angles, outlets, stop ends, and various brackets.

Composition and Manufacturing:

- Crafted from High-Strength Aluminium Sheet 1050AH14
- Fittings created through cutting, mitering, and welding techniques
- 100% recyclable material
- Radius and special fittings available upon request
- Options for mill finish or powder coating in specific RAL/BS colours
- Notably lightweight

These features collectively make them a versatile and environmentally friendly choice for managing rainwater on buildings.

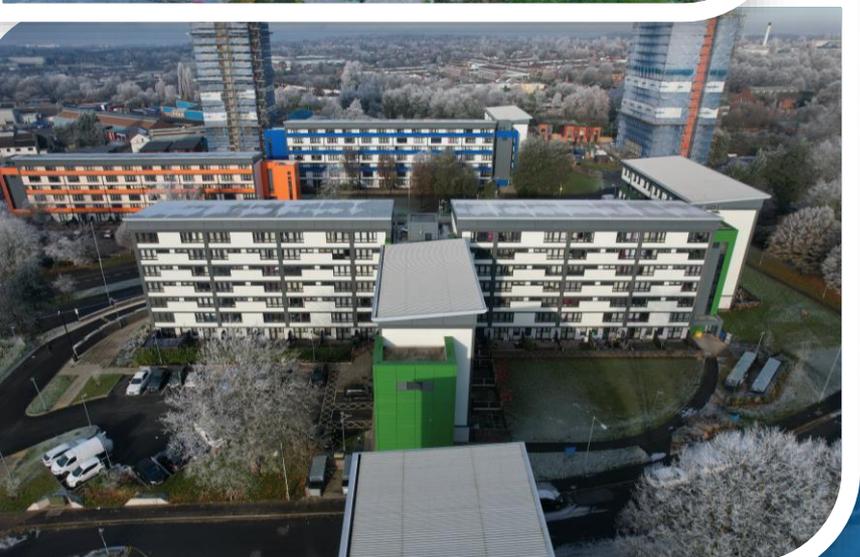
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Aluminium/steel Bespoke Fabrication –

the tailored solution for roofing and cladding projects! Elevate your construction with precision-crafted flashings designed to seamlessly integrate into your unique architectural vision. Our high-quality material ensures durability and resistance against the elements, providing a long-lasting and low-maintenance solution. With a variety of customization options, including sizes, finishes, and configurations, our bespoke flashings add both style and functionality to your project. Trust in quality, elevate your design.

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Case Study

Wolverhampton Homes, Heathtown regeneration project.

System DM-0 Aluminium rainscreen
Datum systems SFS
Flat to pitch elevate system
Bull nose soffit/ fascia
Rainwater goods

Installer
Construction Profiles
Size 12000m²
Main contractor
United Living

Working with United Living Group and Wolverhampton Homes, we provided a range of systems to help deliver an external refurbishment programme as part of the Heath Town Regeneration project. Our designs included measures to improve thermal efficiency, building safety and fire safety, as well as improved security, lighting and additional parking to 18 residential flat blocks of varying heights. Colour coding of the blocks was agreed through consultation with the residents. The Regeneration project was part of a 120 million pound scheme and recently shortlisted for a UK Housing Award for best neighbourhood transformation.

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Case Study

Ropeworks London
System DM-0 Aluminium rainscreen
Datum systems SFS

Installer
Guildmore
Size

Improving fire safety and comfort for residents

The Ropeworks development in central London is a major residential focal point embedded within a bustling community of schools, businesses, popular public buildings and landmarks. The building was eligible for fire remediation works through the Building Safety Fund. Industry leading contractors Guildmore were challenged with the task of implementing full fire remediation works on the entire structure.

Case Study

Westminster Green

Project Details

Westminster Green is a prestigious residential development located in the heart of Westminster London.

- **Project Type:** Rainscreen Cladding replacement
- **Client:** Guildmore
- **Location:** Westminster London

Brief:

To replace the existing non-conforming Aluminium cladding to a Datum Systems non-combustible Aluminium Rainscreen system.

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Case Study

Gainsborough Studios Balcony plank system

THE BUILDING SAFETY FUND IN ACTION

Building for safety remains a top priority in the UK. So much so, hundreds of millions in funding has been allocated to the remediation of buildings across the nation, provided they can demonstrate significant levelling up of safety for building occupants.

As a result of successful applications and tenders to the Building Safety Fund, construction and retrofit works are now happening up and down the United Kingdom, creating safer places to live and work.

Our latest example comes from Gainsborough Studios where, together with Guildmore have not only restored an iconic British residence which is steeped in cultural history, but they have also improved fire safety in the building

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Case Study

Bromford Dell flat to pitch conversion

Housing- Flats

Size- 900m²

The existing bitumen membrane had reached the end of its intended life with numerous defects the building was suffering from water ingress.

Using the Datum elevate conversion system a new pitched roof was designed and installed which removed internal outlets making the building watertight with less future maintenance required.

New insulation was introduced to the existing deck improving the buildings thermal performance and a lightweight metal tile improving the aesthetics and matching surrounding residential properties.

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