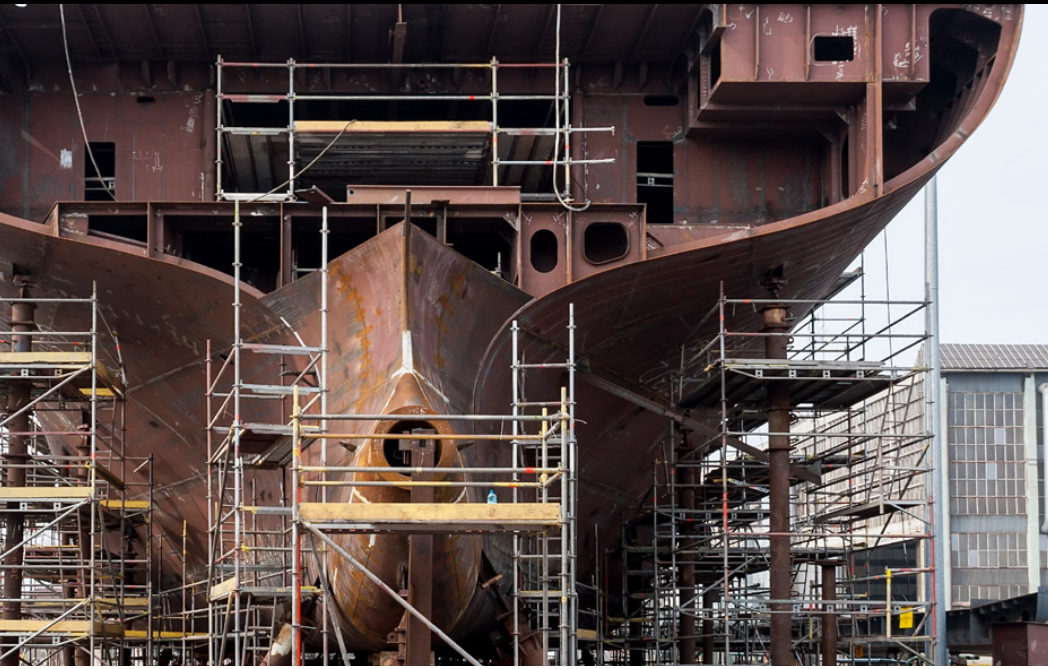




Nationwide Coverage Provided by 12 Enigma Service Centres around the UK



Defence Sector

Enigma supports our clients in the Defence Sector by providing a full range of cost-effective solutions that can be delivered individually or seamlessly integrated as multi-disciplined packages for new build, refurbishment, project, outage, maintenance, or facilities management contracts.

Enigma's expertise across a range of services combined with strategic locations provides the UK defence markets with a trusted supplier option.

Expertise



Our personnel are suitably qualified and experienced to deliver the whole project/contract cycle from early contractor engagement, through to design and service delivery.

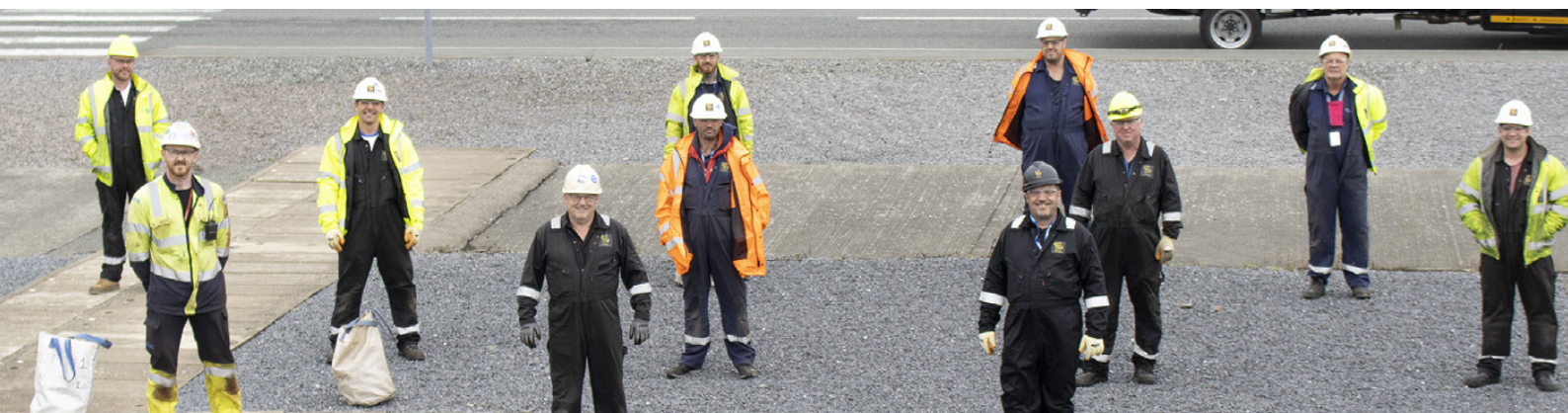
The experience we have gained from working in the sector, and the transferable skills from other specialised market sectors, enable Enigma to provide innovative and cost-effective solutions to meet the high demands expected of our clients within the defence sector.

Security



At Enigma, we understand the strict security compliance requirements of working in the sector and have vast experience with the protocols and security vetting procedures to allow access to a defence location. All our employees who recently worked onsite at RAF Northolt or currently supporting our clients at Sellafield and Hinkley Point C undergo clearance checks to ensure the requirements are adhered to when working in sensitive locations.

Additionally, all new and existing employees placed on client sites are subjected to rigorous internal screening and background checks.





Our history working in the defence sector

Enigma Industrial Services (formerly a subsidiary of Interserve Plc) has a long-standing history of working with clients operating within the Government & Defence sector by successfully delivering on facility management and industrial service contracts for many years.

We have previously serviced DE (Defence Estates) contracts and greatly enhanced the service offering throughout the portfolio during this period by adding MOD (Ministry of Defence) property maintenance and refurbishment services.

Throughout our history, we have provided services to most UK shipyards and military sites around the UK and abroad, including;

The provision of SIP (Scaffolding, Insulation, and Protective Coating) services for UK military bases on Cyprus, Falklands Islands, and Ascension Island.

The provision of facilities management services onsite at the Rolls Royce - Jet Engine Factory, located in Derby.

An extensive range of facilities management and SIP services at numerous BAE Systems sites including; the Govan Shipyard, Glasgow. This incorporated providing; temporary access solutions, protective coatings, and grit blasting services for six new advanced Type 45 Anti-Air Warfare Destroyers commissioned by the Ministry of Defence and built by BAE Systems:

- HMS Daring;
- HMS Dauntless;
- HMS Diamond;
- HMS Dragon;
- HMS Duncan;
- HMS Defender.

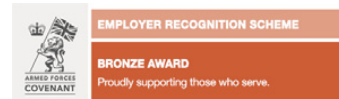


Supporting ex-service personnel

We recognise the value serving personnel, both regular and reservists, veterans and military families contribute to our business and our country by being a forces-friendly employer and proactively seeking to recruit ex-military personnel.

Enigma has pledged to honour the Armed Forces Covenant and support the Armed Forces Community. The Employer Recognition Scheme recognises commitment and support from UK employers for defence personnel who serve or have served in the Armed Forces, and their families.

Additionally, to support people who are leaving or have already left the armed forces, we attend (BFRS) British Forces Resettlement Services National Employment Fair events throughout the UK to showcase the exciting career opportunities available at Enigma.



Wellbeing

We recognise that the health and wellbeing of all our employees is critical to the long-term success of our business; and given the challenging environments in which we work, it's simply the right thing to do. Enigma provides employee Assistance Programmes including counselling services and provide additional support with mental health first aiders. We also encourage continuous training and development.



Apprenticeships & Training

At Enigma we proactively recruit apprentices for numerous roles throughout the organisation and are committed to providing our employees with a stable work environment with equal opportunity for learning and personal growth. We support our business units with skills training and professional development to help source and on-board new apprentices and also, assist existing employees with any training requirements.



Temporary Shelters, Roof Systems & Encapsulation Solutions

Protect your site from rain, snow, cold or wind and retain productivity to ensure your work remains profitable and on schedule by stopping the negative impact of adverse weather conditions preventing work to continue.

Our weather protection solutions can be quickly erected on-site or craned into position for greater flexibility and will help avoid the risk of trapping moisture in the structure resulting in damage that can become extremely expensive to rectify once the project has been completed. Encapsulated workspaces provide workers with a dry, comfortable environment, improve wellbeing and help boost productivity.

The temporary roof solutions can be fitted with wheels for added mobility to provide mobile protection when carrying out on-site operations in a continually changing environment. It's possible to accommodate openings in the structures to enable safe material loading access.



HAKITEC 750

Utilising 750mm deep lattice beams, they are available in various lengths and angles to provide flexibility and help tailor the roof trusses to the required span. The temporary roof system has been specially designed for wide spans and high loads to provide weather protection. HAKITEC 750 temporary roof structures can be covered with HAKITEC sheeting on braced guardrail frames with the aid of fixing beams. Also, for peace of mind, the sheeting is manufactured from durable heavy reinforced LD polythene.

Alternatively, the HAKITEC 750 with HAKI Trak system has the same framework but benefits from utilising more hard-wearing sheet covering that's very easy to install. This system consists of Keder beading and aluminium tracks.

HAKITEC 450

The HAKITEC 450 system utilises 450mm deep lattice beams and is ideal for smaller coverings with shorter spans and can be erected to create a mono-pitch roof or gable pitch roof solutions before being covered with HAKITEC protective sheeting. The HAKITEC 450 Shelter has the additional benefit of being fitted with shelter legs and wheels to provide mobility, this feature is ideal for providing mobile protection when carrying out on-site operations such as pouring concrete.

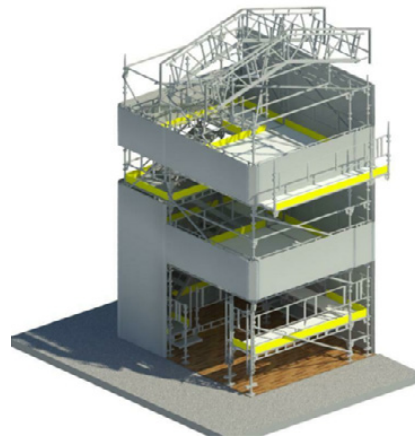
HAKITEC is available as a total covering, fixed or wheeled roof, wheeled roof section over an opening for material access, temporary storage unit or field workshop.



Cladding System

HAKI cladding system is the ideal site hoarding solution for stairs or bridges to reduce noise and improve public safety. By preventing falling objects from temporary stairs, bridges or working platforms. The lightweight toughened plastic fire-resistant panels are compatible with both scaffolding systems and traditional tube & fitting scaffolding.

The cladding system can be utilised to create swing doors for stair towers, to provide security when not in use. Also, a single person can install it when using the specifically designed HAKI cladding track.



Bespoke Solutions

Enigma's in-house design & engineering team collaborate with clients to provide the most cost-effective solution based on their individual project requirements. We have previously installed UBIX temporary roof systems to reinstate a fire-damaged city centre tenement building and enable a roof replacement project at Edinburgh High Court.

Additionally, we have provided encapsulation to refurbish old buildings and demolish multi-storey blocks of flats. We've also encapsulated a HAKI PAS (Public Access Staircase) at Christie Hospital, Manchester, to provide an emergency escape route for hospital visitors whilst construction works are being conducted on-site.



Defence & Aviation Experience

The following pages feature a selection of defence sector and aviation industry case studies to represent Enigma's capabilities and experience.

Specialist Aerospace Project Design Expertise

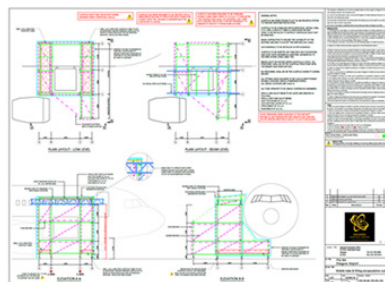
Many of our projects require innovative specialist designs to minimise the risks of incurring any potential damage. The Enigma in-house design team have extensive experience creating and implementing bespoke designs, by delivering safety-first simple, economical solutions. For example, our project at Glasgow Airport presented many complex engineering challenges, apart from a short programme, the other ones being:

- Erecting a temporary structure large enough to accommodate passenger aircraft and capable of withstanding high wind loads during winter months. This presented an additional challenge due to a dominating opening in the structure significantly increasing these loads.
- Providing a roof structure that was not only completely watertight but also able to support the weight of significant snow loading.
- The structure was located within the aircraft parking area outside of the hanger, therefore it had to be completely free-standing utilising high volumes of kentledge to prevent the temporary structure from overturning during high winds. Additionally, engineers utilised extremely strong Mills scaffold fittings to transfer the high loads.
- The weather protection solution had to suit all three aircraft types however, this posed a problem due to the A319 engines not being compatible with the structure. To solve this problem engineers designed a cantilevered section within the access hanger to provide weather protection over the engines.
- Stair access and a walkway platform were required to both the front aircraft cabin door and the top of the fuselage.
- Cabin door access had to be carefully designed to enable the door to open outwards over the platform area while avoiding any potential clashes. The platform also had to telescopically extend into the side of the aeroplane once in position with a compatible solution for all three types of aircraft.
- Access to the top of the fuselage was designed as a suspended platform from beams. This platform also had to be telescopic to enable safe access once the aircraft was in position.
- Both the roof and suspended access platform had to carefully account for the overall heights of all three aircraft, including the increased lifting height from the Mototok tug during the positioning of the aeroplane.
- An additional late project specification requirement was to extend the structure allowing enough clearance for the cargo hold door to fully open and a mobile door to close, giving weather protection.



Bespoke Solutions

Many amendments and revised solutions were required to accommodate site constraints. However, this was made possible in extremely short time scales by collaboration between our in-house design team and the client's operational teams and representatives. The project was delivered on programme.



Case Study

Royal Navy – Type 45 Anti-Air Warfare Destroyer's - BAE Systems - Glasgow

Provision of temporary access solutions and protective coatings incorporating grit blasting services for six new advanced warships commissioned by the Ministry of Defence and built by BAE Systems.

The Type 45 Anti-Air Warfare Destroyers built and launched in Glasgow by BAE Systems will equip the Royal Navy in providing air defences for much of the first half of the 21st century. All six warships HMS Daring, Dauntless, Diamond, Dragon, Duncan and Defender, cost £6 billion to build. Every vessel has a weight displacement of 7,500 tons and is over 150m in length. The advanced warships designed for multi-threat environments have specialist anti-air warfare (AAW) capability. To help protect national, allied or coalition forces against enemy aircraft and missiles.

Enigma was awarded a £20m contract by BAE Systems to assist with the warship construction throughout the 7-year project by providing temporary access solutions. Including the provision of specialist protective coatings, grit blasting and cleaning services at there Glasgow shipyard. Also, to deliver programme time-savings with the construction of HMS Diamond. The dry dock was loaded with scaffold materials before flooding, enabling work to commence quickly once the warship settled on dock blocks.

The bow to bridge block, masts and funnels were built at the BAE Systems Portsmouth site, whilst the stern and mid sections of the warships were manufactured at the Glasgow shipyard, where engineers also undertook final systems integration, outfitting, testing and commissioning of the Type 45 class destroyers.

To assist with the launch of HMS Daring, HMS Dauntless and HMS Diamond by HRH the Countess of Wessex. Enigma constructed bandstand and press gallery structures at the BAE Systems shipyard on the River Clyde on all three launch days. Also, after completion of the project, Enigma was the only subcontractor recognised in the Construction Industry News BAE Systems' RoSPA Gold Safety Award article feature.



Case Study

Facilities Management Contract - BAE Systems - Brough

Provision of facility management services at BAE Systems, Brough, East Yorkshire, the home of the world's most capable and cost-effective trainer jet - The Hawk. The site located on the banks of the Humber is Britain's oldest remaining aircraft factory and the engineering centre for the BAe Hawk trainer, with many fighters still in service with air forces throughout the world today. BAE Systems, Brough, is the UK Centre for Military Aircraft Structural Testing.

Throughout the duration of the facilities management contract, Enigma provided the following services on-site; catering, cleaning, mechanical and electrical PAT testing, building maintenance, grounds maintenance, administration, helpdesk and post room services. The working partnership delivered significant improvements on-site in the way facilities services was provided and include the following:

- Improved quality of catering offer supported by a shop refit and overhauled service rebranding.
- Supply and installation of new access & IT equipment.
- Introduction of a deli bar, new vending machines, and a retail facility.
- Supporting the surrounding community by using local bakeries and sourcing produce from meat and vegetable suppliers.
- Implementation of cross-site team structure and enhanced management systems.
- Introduction of health & safety training and robust programmes to improve the general skill levels of all employees providing facility management services on-site.

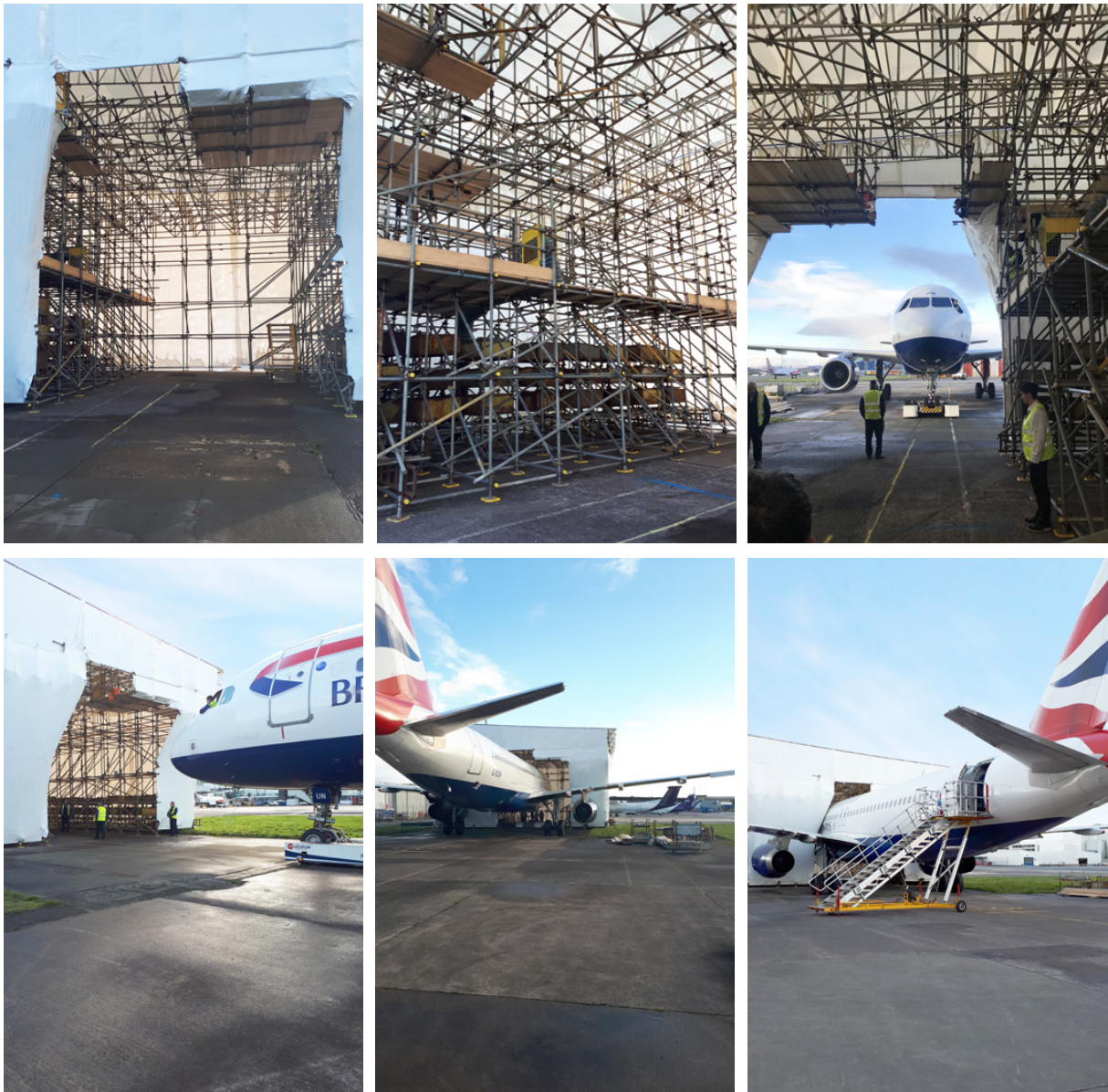


**Above pictures shown for illustrative purposes only.*

Case Study

Airbus Wi-Fi System Installation - Glasgow Airport

Enigma were engaged to provide encapsulation and access services to the front of Airbus A319, A320 and A321 models, enabling the installation of a new aircraft Wi-Fi system. Our works needed to be carried out during a short period, ensuring the client could maximise the time available to undertake their flight operations. Seasonal timing of the project presented additional challenges for the design team with the requirement to consider increased wind and snow loads. The design also incorporated beam-work support to house bins of scaffold fittings to act as kentledge and stabilise the structure.



Enigma designed and provided a free-standing scaffold structure incorporating safe access to the top of the fuselage area and cabin door, complete with weatherproof encapsulation to protect the front of the aircraft. The design included many critical dimensions, ensuring the aircraft could manoeuvre safely in and out of the temporary enclosure whilst maintaining unobstructed access to the cargo doors. Also, due to the Wi-Fi installation position on the aircraft, the scaffold had to be cantilevered over the engine areas to provide suitable working platforms.

Case Study

1st Class Cabin Refurbishment Project - Cardiff Airport

Enigma was engaged to design, supply and construct a purpose-built temporary scaffold enclosure. The structure needed to provide access to Boeing 747 & 777 aircraft to aid the refurbishment of the 1st class cabins.

A fully-equipped workshop space was built in front of the temporary aircraft nose docking station with a 50-metre mezzanine floor to provide designated access into the British Airways storage area. This enabled seating, instruments, tools and equipment to be transported around the temporary site without disrupting the three permanent service bays within the main British Airways aircraft hanger.

The structure also had to provide a total envelope effect around the aircraft and incorporate adequate waterproof sealing protection from the external environment.



The free-standing scaffold structure was held in place by 120 x 1-tonne bags of 75/45mm stones and erected using tube & fitting scaffold with a Cassette Roof System. Tec-bolts were used to secure the internal and external sheeting.

The scaffold included two working levels for access, dependent on the aircraft type currently docked. Once the aircraft docks, an inflatable 'ring' seals around the fuselage, providing a 'clean' environment for working on the nose section. Sliding platforms are then extended out to gain access to the aircraft in 4 locations.

Case Study

Building Encapsulation & Temporary Roof - Sandhurst Military Academy



To support the £18 million refurbishment project of Sandhurst Royal Military Academy in Berkshire. We were engaged in supplying and erecting scaffolding to the full perimeter of the military academy, including full temporary roof coverage and encapsulated elevations. Over 1700 tonnes of traditional tube and fitting was installed all around the building including 58 chimney stacks, as well as protection to 305 windows. Roof sections were prefabricated at ground level using the HAKI roof system before being lifted into place using a mobile crane and once complete they provided a fully watertight work area. The onsite team were also involved in the scaffold protection and encapsulation of the chapel organ, no scaffolding was to touch the delicate interior and structure of the building. Due to this reason scaffold tube caps and foams were used for protection throughout the project.

The Enigma In-House Design Team were an essential element of the planning and execution of the refurbishment, designing complex engineering design drawings to cater for the installation of the HAKI temporary roof system. The service delivery of this projects was critical as Royal Military Academy remained operational enabling minimal disruption to Royal visits and Officer cadets graduating from the Royal Military Academy Sandhurst Sovereign's parade. A specialist protective wrap printed with an image of the academy was attached to the scaffold exterior.



Case Study

Building Encapsulation & Temporary Roof - Cameron House



Primary contractor ISG was appointed to restore Cameron House due to extensive fire damage in December 2017. The Luxury Scottish five-star resort is located on the idyllic Loch Lomond, formerly a 17th-century mansion.

The complex restoration project required meticulous craftsmanship and attention to detail, firstly repairing the structure of the building and then the refurbishment involved in reinstating the rooms. Also, to support the hotel's grand re-opening, a new extension has been constructed containing 208 bedrooms and a 7,345 square foot loch-facing ballroom and conference facilities.

To ensure the primary contractor ISG could maintain their construction programme whilst conducting the interior refurbishment. Enigma provided a fully encapsulated scaffold structure, including a temporary roof providing protection against adverse weather conditions, ensuring continuity throughout the winter months without disruption.

Enigma's engineering team utilised the existing façade retention scaffold to provide roof support, enabling the installation of a series of temporary roofs with clear spans of up to 30 metres removing the need for central supports. The design also limited the required tie positions leaving minimal trace of the temporary access upon completion of the works.

To construct the hotel's extension, ISG required a fully enclosed structure with a temporary roof to avoid potential project delays caused by adverse weather conditions. The client stated they needed unrestricted access to all elevations; the Enigma Design & Engineering team provided a solution with limited ties to the building. A twin mast hoist and loading bays were integrated into the scaffold structure to facilitate the fast, efficient delivery of materials to all 4-levels during the construction and internal fit-out phase.





Contract Scaffolding



Insulation



Protective Coating



Scaffold Hire & Sales



Industrial Cleaning



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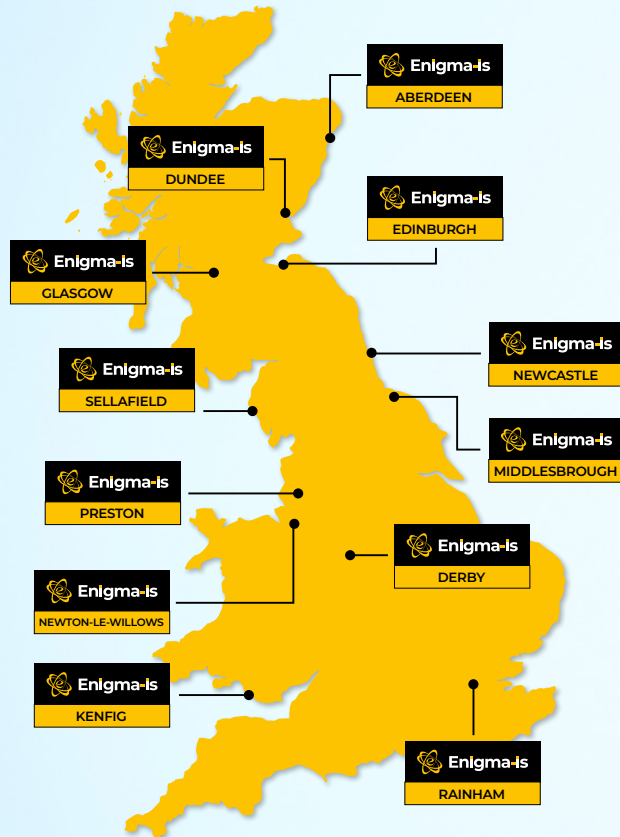
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UK DISTRIBUTION PARTNERSHIP

Nationwide Coverage

Provided by 12 Enigma Service Centres around the UK



STOCK

Enigma operates one of the UK's largest scaffolding asset bases with over 2,000 scaffolding and related products available to purchase or hire.

SERVICE

With over 85 year's industry knowledge & experience, Enigma provides an accredited safety first professional service. Ensuring clients benefit from convenient access to simpler and safer systemised solutions and reduced lead times for projects nationwide.

SUPPORT

The In-house QSHE and design & engineering teams provide clients with economical solutions for complex challenges. Including ongoing training, and technical support services through knowledge and resource-sharing practices.

DELIVERY & COLLECTION

Collect stock, or have it delivered, from Enigma Industrial Services depots strategically located around the UK.