Dura Composites is a leading supplier and installer of bespoke first-class safety, riser solutions on new builds or refurbishments. Our services include:

- Purpose-designed Dura RiserSecure GRP Floor Grating
- A unique steel perimeter support system (Patent Pending)
- Full design capabilities with PI insurance for design
- Installation Service by Qualified Professionals
- Site Inspections & Service Cut Outs
- In-house Structural Engineer and CAD team
- Consultation and project advice
The **Ultimate Safety Solution** for Service Riser and Lift Shaft Voids

Riser voids (the openings which are left to accommodate mechanical and electrical services on multiple floors of a building) can provide real safety challenges for contractors. In 2017-2018 fatal injuries to workers due to falls from height increased by 26% since the previous year and accounted for the main cause of fatalities for workers in Great Britain.  
Data source RIDDOR (Health and Safety Executive).

Something as innocuous as a tape measure dropped from height in a riser shaft can tragically kill, and statistics show that a 500g object dropped from 15m has the same impact energy as a 75kg washing machine.

Dura Composites offers a comprehensive Riser supply and install service utilising our purpose-designed Dura RiserSecure GRP Grating products and galvanised steel framework to help reduce the risk of death or serious injury on construction sites.

Our RiserSecure solutions can eliminate the need for scaffold handrails, netting or timber shuttering and can be ‘Post-fixed’ or ‘Cast-in’ to concrete as a fully structural solution. We offer GRP grating that meets the requirements of the 20mm Ball Falling Test, and versions with a completely solid surface for maximum debris defence.

Did You Know?
Dura Composites’ highly experienced team offer a tried and tested one-stop-shop for Riser safety - including, design, supply & install.

Applications
- Service Risers
- Lift Shafts
- Smoke Risers
- Builders Work Holes

Understanding Composites: **Safer at the point of need**

Although the word “composite” may sound technical, it’s really just an umbrella term to describe materials that have been put together to make something that is superior than the original form in some way - making it stronger, easier to handle or corrosion resistant for example.

Composites that you will have heard of, but perhaps didn’t realise were composites include steel (commonly known as an alloy), which is made by combining iron and carbon. It has been in use as a building material since the late 1800s and first became popular for building skyscrapers thanks to its strength and durability.

One of the most popular emerging composites of the past 40 years has been Glass Reinforced Polymer (or GRP), which is a resin-based composite that’s reinforced with a glass fibre, and is sometimes also known as fibreglass. The combination of the high-strength glass fibre and highly-resilient plastic ensures that it’s strong, lightweight and both chemical and corrosion resistant. It can also be produced with phenolic properties for use in high risk areas and does not conduct electricity or necessitate the use of hot works permits – making it suitable for a vast range of construction applications.

Our Dura RiserSecure d2 grating boasts a bonded coating of refined aluminium oxide which greatly enhances the anti-slip properties & durability of the product and offers incredible slip-resistance in all directions and conditions.

The result of 23 years experience in the composites marketplace, Dura Composites RiserSecure products are available exclusively from us, and can be installed by our highly qualified team.
Defining Your Riser Strategy

As a construction project progresses from a client’s statement of need, through design and construction and into operation and use, project teams seek increased certainty regarding criteria such as a layout, fit, cost and performance.

This means that building services design must be integrated into the overall building design from an early stage, particularly on complex building projects.

The detection of clashes between Mechanical and Electrical services and other building components can be a significant cause of delays and variations on site, not just in terms of the physical placement of the services themselves, but also in terms of ensuring safe access to allow the M&E contractor to connect those services.

This is the reason that you’ll often hear our competitors championing how their solutions force M&E design to early completion as they simply aren’t flexible enough to be modified on site as requirements change.

But in truth, even the best planned projects are subject to last minute M&E changes, and when it comes to making your riser voids secure, you need a solution that can accommodate these changes on-site without the fear of ballooning cost.

The Dura Composites RiserSecure Strategy is simple:

1. Design for all stages of the building lifecycle
   Our galvanised steel framework and GRP grating covers offer the perfect combination of strength, safety and adaptability on site. Unlike competitor solutions, there is no need to cut service holes ahead of time or to crane heavy steel framework into position. All components of the Dura RiserSecure system are also suited to manual handling and can be adapted for use with unusual substrates such as hollow or clay pot.

2. Reduce the risk wherever possible
   Whilst no standard exists specifically for riser void protection, our RiserSecure system is designed to comply with the rigorous standards set out in BS 4592-0:2006 + A1:2012, achieving a 1.5kN point load. Service cut outs can be made “just in time” to minimise the risk for on-site personnel, and our RiserSecure grating complies with the European Ball Falling test requirements.

3. Keep it simple
   Our standard RiserSecure steel framework comprises just four innovative patent pending components that can be used in a wide range of scenarios for risers with a span of up to 3 metres. We offer both a supply-only and a fully-installed solution. Where service penetrations are required, additional supports may be needed, and our experienced team can also create and install bespoke solutions for complex riser voids. No hot works permits are required for cutting service holes on site, thanks to the non-conductive and non-sparking properties of the RiserSecure grating.

4. Safer at the point of need - for less money
   Dura’s RiserSecure solutions are a safer option than corrugated plastic, plywood and netting and prove more cost-effective in the long run as they offer much needed flexibility to construction teams. There’s no need to remove and replace heavy cover plates, and no significant contribution to construction waste. Using Dura RiserSecure 41mm Solid Top grating eliminates the need for additional coverings such as a corrugated plastic, netting or plywood, saving even more cost.

Why are steel supports plus GRP grating the perfect combination?

With its innovative RiserSecure product range, Dura Composites has created the perfect marriage between a strong steel framework system and a safe and durable GRP floor covering. Our patent pending RiserSecure system provides collective protection which actually eliminates the risk of falling from height because the void is covered at the exact moment of installation and services can be cut in situ without the need for costly removal of cover plates or alteration to the supports.

www.duracomposites.com
**Riser Void Framework Solutions**

**Patent Pending RiserSecure Framework:**

Dura Composites’ Post-Fix galvanised steel framework system is ideal for use in situations where the riser void covering needs to be fixed to an existing structure such as a lift shaft or core wall. Designed to work seamlessly with our RiserSecure GRP flooring products, the Patent Pending framework is supplied in sections for easy handling on site and can be assembled by our highly qualified install team for immediate protection. Supports can be added retrospectively to suit the changing requirements of the Mechanical and Engineering Design and the perforation within the framework means that it’s more likely that rebar will be avoided during installation.

Extra supports can be added at a *later stage* to suit M&E design.

Our RiserSecure framework and grating solutions are installed as part of the ‘second fix’ processes. As experts in innovation our testing and experience has led us to develop a patent pending solution that’s unique in the marketplace. The perforations in the steel allow for easy drilling and help to avoid rebar within the concrete during installation, whilst retaining strength.

For scenarios where major weight savings need to be made or a non-conductive framework material is mandatory, Dura Composites’ GRP angle and profile may be suitable for use in place of the RiserSecure framework. Your Dura representative would be happy to advise on your specific site conditions.

Making a service riser secure depends on multiple variables such as span, load & environment.

Dura Composites can help support you at every stage of your construction project.
Riser Void Framework Solutions

The RiserSecure Dura Box:

The RiserSecure Dura Box is a galvanised steel permanent shutter for reinforced concrete slabs, designed specifically for use in Riser floor building construction for complete peace of mind and a stress free scope of works. The Dura Box provides an opening in concrete floors through which the pipes and services are installed at a later stage, for maximum flexibility.

Key Benefits

- A safer, leave-in-place alternative to post-pour fixing
- No need to break out timber shuttering at a later stage
- Labour saving solution, no post fix anchors required*
- Less onerous management with no need for a daily riser inspection register
- Component supply site assembly – no heavy lifting equipment required
- Savings on site labour management, and timber wastage
- Reduction of FSC admin documentation and material purchasing
- Protects GRP grating from being corroded by uncured cement

*Post fix anchors may be required for installations with core walls

Use of the Dura Box can result in cost savings of over 36% versus timber!

Suited to Offsite & Modular Construction

The Construction industry’s strategy (Construction 2025 published by the BIS) set the goal of reducing the time from inception to completion of a project by 50% and reducing costs by a third. This will require a much greater degree of off-site manufacturing in factory environments and the reduction of labour.

The RiserSecure Dura Box can be delivered flat-packed for assembly on-site, or completely pre-built for lifting into place with maximum speed and minimum risk. Opting for pre-built units can help on projects with shorter construction schedules where safety, quality, time and cost parameters still need to be met.

Key Benefits of Pre-Assembled Units:

- Quality Checked product delivered ready to install for peace of mind
- Improvements in speed of installation
- Increased efficiency
- Improvements to systems/processes on-site
- Removes element of risk during assembly (one less operation on site)
- Reduced material wastage

Riser System Cost example

Cost comparison based on the following detail:

- Based on 1 No. typical Riser - dimension 1m x 1m x 250mm
- DuraBox cost subject to volume and yield
- TimberBox subject to volume and yield
- Post Fix Frame includes TimberBox cost, frame and anchors
- DuraBox and TimberBox both assembled

<table>
<thead>
<tr>
<th></th>
<th>DuraBox (1x1x0.25m)</th>
<th>TimberBox (1x1x0.25m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to Install</td>
<td>£100</td>
<td>£80</td>
</tr>
<tr>
<td>Cost</td>
<td>£80</td>
<td>£60</td>
</tr>
<tr>
<td>£40</td>
<td>£40</td>
<td>£40</td>
</tr>
<tr>
<td>£20</td>
<td>£20</td>
<td>£20</td>
</tr>
<tr>
<td>£0</td>
<td>£0</td>
<td>£0</td>
</tr>
</tbody>
</table>
Dura RiserSecure Grating Products:

Our innovative d² grating products are specifically designed for the Construction industry for use as Riser void coverings. Each variant is compliant with British Standards and offers superb efficiencies versus traditional materials. Our 38mm standard mesh d² grating features an open hole size of 32mm x 32mm. Whilst this does not meet the requirements of the European Ball Falling test, it offers our most cost effective Riser void covering option for situations where the grating will be further covered with netting or plywood. It is available in Dark Grey and provides excellent bidirectional mechanical properties.

It is light, strong and non-corrosive and can be supplied with a full range of galvanised steel clips, clamps and hold down fixings to suit all situations. Patent Pending Patent Application No: GB 19 03941.1

The 45mm Mini Mesh d² grating has all the benefits of our standard d² grating but with a smaller 19mm x 19mm open mesh area. The smaller opening prevents little objects from falling through, and complies with BS4592 and the European 20mm ball falling test requirement. Dura RiserSecure 45mm Mini Mesh d² is available in Dark Grey as standard. Other options may be available on request. Patent Pending Patent Application No GB 19 04928.7

Dura RiserSecure 41mm Solid Top d² grating is a great choice for riser voids where no light transmittance or visual inspection of the void is required. Its gritted, anti-slip properties and uprated surface provides higher opacity values than open mesh grating and the solid surface prevents all objects and debris from falling through. There is no need to add Corex®, netting or plywood, further saving on cost. Patent Pending Patent Application No GB 19 04928.7

Dura Composites has invested significantly in the latest technology to help scientifically test our solutions to mirror real construction environments, so our customers can have confidence in their riser protection.

Dura Grating Load and Deflection Data

A Point Load is any static load considered to act over a small or concentrated area when compared to the extent of the surface to which the load is applied. A Uniformly Distributed Load or UDL is one where the load is considered evenly distributed across a defined area. Determining the correct load rating for your riser flooring platform is dependent on the intended use and types of equipment placed on it.

Meeting the needs of British Standards: Our 45mm Mini Mesh d² grating meets the needs of the 20mm Ball Falling Test BS4592-0:2006+A1:2012, states:

“The maximum openings within a working platform or walkway shall not permit the passage of a 35mm diameter sphere, except where the working platform or walkway is above a place where people are working, as opposed to passing occasionally, then the maximum openings shall not permit the passage of a 20mm diameter sphere.”
**RiserSecure Installation Steps**

1. **COLLECT INFORMATION**

   Information on voids and location services will be collected by issued drawings or by measure via a site survey where safety, access and equipment requirements will also be identified.

2. **INSTALLATION DRAWINGS**

   Install drawings will be drafted to identify the voids to be covered, the finished height and the placement of supports required to ensure the flooring is adequately reinforced.

The Dura RiserSecure system can be installed without delay - offering immediate riser protection and enabling the site to be fully operational instantly. Our experienced team can help ensure that your M&E requirements are factored into the build at the specification stage to help save you time and money.

**VALUE ADDED SERVICES:**

Dura Composites offers a structural design engineering service, both as a stand-alone design or as part of a larger integrated design scheme. Our RiserSecure design package includes layout drawings with secondary supports, and the option of FEA simulations and service cut out reports. All covered under Dura Composites Public Liability Insurance.

3. **SETTING OUT**

   The void will be measured from corresponding datums or gridlines, and then carefully marked to enable an accurate installation.

4. **INSTALL SUPPORTS**

   The RiserSecure Framework is installed into the substrate of the void using approved fixings. Support will be offset by the thickness of the grating to allow the correct finished height.

5. **INSTALL GRATING**

   The RiserSecure grating will be cut to size and rested upon the supports, then clipped down to prevent uplift.

6. **CUT OUT FOR SERVICES**

   If your installed RiserSecure flooring solution has reached the next project stage, our experienced team are on hand to assist and ensure the structural integrity of your riser solution isn’t compromised when the mechanical and electrical services are added.

With over 20 years’ combined experience, our Riser Installation Team are fully equipped and trained to install our bespoke patent pending riser safety solutions on high-rise new builds and refurbishments.
Unlocking the power of composites for the construction industry

**Low Cost and Easy to Handle**

Our specially designed Dura RiserSecure d² grating has lower installation costs than steel and can be up to 80% lighter. The material can be easily transported throughout the site and manually handled into position, eliminating the requirement for heavy lifting equipment.

**Application Specific Product Design**

We have used our state-of-the-art design software and structural engineering expertise to create our RiserSecure grating and framework products. As the experts in the field, Dura Composites considers all aspects as part of our design, including aesthetics, usability, lifecycle, cost and efficiency.

**Faster Install by Qualified Professionals**

Our systems are installed considerably faster than traditional steel systems, reducing labour time and costs. Dura RiserSecure has a high deflection memory and extremely high ultimate loading, providing a first-class safety solution with the option to be installed by our highly experienced site teams.

**Proven Safety with Live Testing & Analysis**

We’ve invested heavily in real-world testing for your peace of mind. We believe that decisions on which Riser products to use for specific scenarios should be based on facts, not guesses or theories. Our live load testing data is available to help you make decisions on real data to ensure maximum safety for your project.

**Fire Stopping & Phenolic Solutions**

With composites usage in demanding applications increasing, an understanding of their fire performance has become a safety-critical issue. Poorly protected service penetrations can put buildings at risk of fire spread, but with the appropriate choice of resin, additive and fillers, GRP materials can be used to make riser flooring that offers clear fire performance benefits over many other materials. As GRP composites are good thermal insulators, they can significantly limit the heat of a fire spreading in the way that can occur with metals.

**Fire Rated GRP RiserSecure Grating**

The most commonly used test for GRP materials in the UK is BS 476, in particular Parts 6 and 7 of the standard which test for flammability and flame spread. The test measures the rate of spread of a flame front across a material surface, but does not consider emission of toxic smoke and gas. Our standard stacked d² grating products achieve a Class 2 rating as standard.

Many EU member countries have now adopted the Euroclass system to classify and compare the reaction to fire performance of building products. Our d² grating can also achieve a Fire Rating of Class B s1 d0 in accordance with EN 13501 or Class 1 in accordance with BS 476 by special order (subject to extended lead times and minimum order quantities).

**Intumescent Coating for the RiserSecure Steel Framework**

We can offer an intumescent paint coating for our RiserSecure galvanised steel framework. Intumescent paint reacts to heat by swelling in a controlled manner to many times its original thickness, producing a carbonaceous charring which acts as an insulating layer to protect the substrate, thus helping achieve specified fire resistance levels in terms of time.

**Fire Stopping Compound**

We can work with providers of market-leading fire stopping compound products that ensure that the effective seal within fire rated walls and floors can offer critical fire stopping protection.

**Phenolic Grating**

We also offer Dura Composites Phenolic fire-resistant GRP grating by special order which is engineered to withstand prolonged fire exposure without sustaining structural damage. Phenolic grating can achieve maximum fire resistance, low smoke and low toxic fume emissions and is ideal for use in high fire risk areas of buildings. It is available in a dark russet colour for easy identification on-site.

For more information on our fire safety and fire stopping products, please contact your Dura Composites representative on +44 1255 446830.
Dura Composites products were selected for 27 Commercial Road by Ardmore, one of the largest family-owned construction groups in the UK. Ardmore are responsible for delivering hundreds of major projects and specialise in London-based multiphase regeneration schemes, high-rise developments, luxury residential projects and bespoke hotels.

Commenting on the installation of the Dura RiserSecure, Danut Bojian, Construction Manager at Ardmore Construction said;

“The Cast-In Dura Boxes and Dura RiserSecure were easy to install on this project and were delivered to site in numbered kit format already made to size, so it was simple for us to fit each one as the concrete was poured. The durable anti-slip grating prevents objects and debris falling through and has a strong, anti-slip surface, so follow on trades will benefit from a great safety solution that’s easy to work with when it comes to installing the services. From our point of view, it was great that hot works permits weren’t required and that the Dura team gave us all the advice and support we needed to make the risers safe in an efficient and cost-effective way.”

Elephant Park, London

Elephant Park is a new mixed-use development in Elephant & Castle, London SE17 and is one of London’s largest regeneration schemes. The project is being completed in multiple phases and is a partnership between Lendlease and Southwark Council.

Dura Composites products were selected for this phase of Elephant Park by AJ Morrisroe & Sons, specialists in civil engineering, groundworks and sub and superstructure RC frame construction.

Commenting on the installation of Dura RiserSecure, James Wibberley, project Engineer at Morrisroe said;

“Dura’s RiserSecure proved ideal for the project as they were delivered to site ready-made for quick installation. Dura RiserSecure negates the requirement for heavy lifting equipment and significantly reduce installation costs, as service holes can be cut in situ without the need for post fixing or hot works permits. The team at Dura Composites offer superb technical and CAD support, and we look forward to working with them on future phases of Elephant Park and other projects.”
### Embassy Gardens, London

Embassy Gardens is a 15-acre mixed-use development in Nine Elms, London. The development includes nine apartment buildings along with office, retail and community spaces. The project is a joint venture between EcoWorld and Ballymore, and the master plan was developed by Terry Farrell and Partners. Phase 1 is now complete, with Phases 2 and 3 under construction.

Building Services Company Briggs and Forrester were appointed as the M&E contractor and chose Dura Composites for the complex job of installing secondary supports to allow cut outs to be made to the various GRP grating riser platforms already in situ. Prior Dura Composites surveying the site and making their recommendations, no provision has been made for the service supports needed for mechanical and electrical services to pass through on various floor levels whilst still maintaining the integrity of the riser. The Dura RiserSecure Team carried out the required work quickly, proficiently and to a high standard and in accordance with all required Health and Safety criteria.

Paul Petrilli, Quantity Surveyor at Briggs & Forrester Engineering Services Ltd;

“Due to the nature and intricacy of the requirements to stabilise and re-enforce the platform steel in our services riser on all ten levels, we had to investigate the market to find an appropriate specialist that we could trust, to ensure the works were carried out correctly and properly.

The comprehensive and detailed proposal we received from Dura Composites which identified the weak points in the platform structure and how to overcome them was both commercially and structurally viable, leading Dura Composites to be our preferred bidder during the tender process.

Once the contract was awarded and the Scope of Works was finalised Dura Composites mobilised within days, kept us continuously informed of their progress, and also identified any Health and Safety risks during the installation. Once the works were completed, they also identified how the additional structural supports would be monitored and maintained.

In the view of the proficiency of their installed works, Dura Composites are now a valued part of our Supply Chain and I wouldn’t hesitate to recommend them for Riser Installation works”.

### Shard Place, London

Shard Place is in the third phase of the £3.5 billion redevelopment of the estate next to London Bridge station, known as Shard Quarter. When completed in late 2020, Shard Place will provide a range of flats alongside amenities including a cinema, spa, and private roof garden. The building will appear to ‘float’ nine metres above ground providing 13,000 sq ft of public space and 12,000 sq ft of retail space.

Reinforced concrete frame and groundwork specialists Getjar were appointed as the formwork contractor by the principal contractor Mace and chased the Dura RiserSecure install team to take on some of the complex install challenges for the service risers. Prior to the appointment of Dura Composites, Getjar had been installing GRP into a number of voids, but selected Dura to provide specialist installation support to address the service cut outs required for the M&E phase of construction. Dura’s unrivalled expertise and full install capabilities meant they could deliver a bespoke solution for a large triangular shaped riser on all 26 storeys that required the use of galvanised steel supports and bracketing in conjunction with Dura RiserSecure to allow for cut outs to be performed whilst maintaining the integrity of the riser.

Paul McNamara, Contracts Manager at MH Getjar Ltd;

“We have found Dura Composites to be extremely knowledgeable, informative, accommodating and professional throughout our engagement with them, on this and a number of other projects. Their design service is quick and offers good advice and an efficient scheme, which is then followed up by a professional installation team who are flexible to the changing needs of site conditions on a daily basis and most importantly are willing to work with us to deal with variations and challenges along the way.

Our end clients are also complimentary of the services Dura Composites offers from a management and Health and Safety perspective.

It’s pleasing to see a forward-looking and innovative company who are investing in Research and Development to provide a service tailored to the construction industry for everyone’s benefit by reducing installation time and material costs”.

Embassy Gardens is a 15-acre mixed-use development in Nine Elms, London. The development includes nine apartment buildings along with office, retail and community spaces. The project is a joint venture between EcoWorld and Ballymore, and the master plan was developed by Terry Farrell and Partners. Phase 1 is now complete, with Phases 2 and 3 under construction.

Building Services Company Briggs and Forrester were appointed as the M&E contractor and chose Dura Composites for the complex job of installing secondary supports to allow cut outs to be made to the various GRP grating riser platforms already in situ. Prior Dura Composites surveying the site and making their recommendations, no provision has been made for the service supports needed for mechanical and electrical services to pass through on various floor levels whilst still maintaining the integrity of the riser. The Dura RiserSecure Team carried out the required work quickly, proficiently and to a high standard and in accordance with all required Health and Safety criteria.

Paul Petrilli, Quantity Surveyor at Briggs & Forrester Engineering Services Ltd;

“Due to the nature and intricacy of the requirements to stabilise and re-enforce the platform steel in our services riser on all ten levels, we had to investigate the market to find an appropriate specialist that we could trust, to ensure the works were carried out correctly and properly.

The comprehensive and detailed proposal we received from Dura Composites which identified the weak points in the platform structure and how to overcome them was both commercially and structurally viable, leading Dura Composites to be our preferred bidder during the tender process.

Once the contract was awarded and the Scope of Works was finalised Dura Composites mobilised within days, kept us continuously informed of their progress, and also identified any Health and Safety risks during the installation. Once the works were completed, they also identified how the additional structural supports would be monitored and maintained.

In the view of the proficiency of their installed works, Dura Composites are now a valued part of our Supply Chain and I wouldn’t hesitate to recommend them for Riser Installation works”.

Shard Place is in the third phase of the £3.5 billion redevelopment of the estate next to London Bridge station, known as Shard Quarter. When completed in late 2020, Shard Place will provide a range of flats alongside amenities including a cinema, spa, and private roof garden. The building will appear to ‘float’ nine metres above ground providing 13,000 sq ft of public space and 12,000 sq ft of retail space.

Reinforced concrete frame and groundwork specialists Getjar were appointed as the formwork contractor by the principal contractor Mace and chased the Dura RiserSecure install team to take on some of the complex install challenges for the service risers. Prior to the appointment of Dura Composites, Getjar had been installing GRP into a number of voids, but selected Dura to provide specialist installation support to address the service cut outs required for the M&E phase of construction. Dura’s unrivalled expertise and full install capabilities meant they could deliver a bespoke solution for a large triangular shaped riser on all 26 storeys that required the use of galvanised steel supports and bracketing in conjunction with Dura RiserSecure to allow for cut outs to be performed whilst maintaining the integrity of the riser.

Paul McNamara, Contracts Manager at MH Getjar Ltd;

“We have found Dura Composites to be extremely knowledgeable, informative, accommodating and professional throughout our engagement with them, on this and a number of other projects. Their design service is quick and offers good advice and an efficient scheme, which is then followed up by a professional installation team who are flexible to the changing needs of site conditions on a daily basis and most importantly are willing to work with us to deal with variations and challenges along the way.

Our end clients are also complimentary of the services Dura Composites offers from a management and Health and Safety perspective.

It’s pleasing to see a forward-looking and innovative company who are investing in Research and Development to provide a service tailored to the construction industry for everyone’s benefit by reducing installation time and material costs”. 
Cost Saving GRP Access Solutions for the Construction Industry

Flexible, Lightweight & Non-Conductive Access Structures

Access platforms and structures are an important provision for keeping maintenance and engineering workers safe, and allow them to work in comfort around equipment without the risk of falling or injury.

The Construction Design and Management (CDM) Regulations of 2015 require designers to eliminate or reduce risks to those involved in maintenance as far as is reasonably practical and to design safe structures in accordance with the Eliminate-Reduce-Inform-Control (ERIC) framework. Core principles of ERIC include:

- Eliminating the need for maintenance as part of the design by using materials with suitable durability; or if that is not possible,
- Designing the structure so that future maintenance is reduced
- Designing the structure so that when maintenance is required it can be carried out safely

Dura Composites offers a range of Access Structures made from our non-corrosive, non-conductive and lightweight GRP which provide exceptional strength, toughness and consistency, making them a logical and cost-effective alternative to steel, aluminium, wood or other conventional materials.

Access Structures which can be produced from Dura Composites GRP profiles include:

- Fixed access ladders (also known as a hooped ladder)
- Ship’s staircases and companionway ladders
- Access gantries
- Stepovers (also known as Up and Overs)
- Edge protection with handrailings
- Fixed platforms
- Mobile Platforms
- Air Handling Unit inspection platforms
- Water equipment and electrical plant access platforms

Dura Composites’ fabrications can be delivered to site in complete form, or in manageable sections for final assembly on location. If open mesh walkways and treads are required, these can be selected from our anti-slip gritted GRP Dura Grating range in line with your load bearing and span requirements.

Access platforms and structures are an important provision for keeping maintenance and engineering workers safe, and allow them to work in comfort around equipment without the risk of falling or injury.
From Concept to Reality: The Dura Composites Method

Concept Design
We utilise our multi-disciplined team to produce innovative concept solutions that solve customer issues.

Design Optimisation
If you need it smaller, stronger or lighter, we can make it happen using verification and analysis tools such as a Finite Element Analysis (FEA).

Fabrication Drawings
To turn designs into reality once the detailed design is approved, we produce a set of detailed fabrication drawings. These ensure that each component part is assembled efficiently, cost effectively and to the required performance criteria.

Built-in Sustainability
It’s not just the initial outlay costs that you should consider when deciding on a material for your project. It’s important to consider the whole lifecycle of the material and all its associated costs, including installation, how long it will last and what kind of maintenance (if any) it will require to keep it functioning and looking its best.

Dura’s GRP products offer considerably low life cycle costs due to their maintenance free, corrosion resistant and impact resistant characteristics compared with traditional materials and have a design life in excess of 60 years and reassuring 25 year product warranty.

Even after the products have been used for their intended purpose and reach the end of their lifecycle in the original context, they can be up-cycled or repurposed in other ways. We are happy to advise all customers on their specific scenarios.

Our hugely experienced team works with our customers from initial concept, through to CAD design and fabrication to ensure that you benefit from a custom-fabricated system which meets your specific requirements. For advice and help with your planned design please contact us on +44 1255 446824.
Air Handling Unit Platform

Jamestown Road, London NW1

For this project, Dura Composites' client Capri Mechanical Ltd required an access platform to be erected along the side of an air handling unit (AHU) in order to safely access a set of fan filters at the top of the unit. Access to the side of the unit was also required for periodic inspection, cleaning and maintenance, but this posed a challenge due to restricted access. Based on a sketch from the client, Dura Composites' in-house CAD team devised a clever, safe and robust structure that "hugged" the unit and positioned supporting legs on the outside corners.

An access ladder with a step over was also constructed to allow entry from the roof onto the platform.

Critical Electrical Equipment Inspections – Case Study

Switchgear Unit Access

European Offshore Wind Deployment Centre, Aberdeen

The gas-insulated switchgear (GIS) at this windfarm protects the wind turbines from overloads and short circuits and is a critical piece of machinery. Instruments located on top of the switchgear must be regularly inspected and maintained, and safe access for on-site personnel is paramount – but site limitations in this instance presented complex challenges which Dura Composites were able to solve.

The shape and size of the unit made it impossible to use usual design methods, so following a consultation with their design team, Dura Composites’ engineers were able to perform an analysis which resulted in the selection of a single heavy-duty handrail and beam to connect two end frames and support the floor panels.

The finished design had several conflicts with the usual standards used to build plant access platforms, but with their significant design, fabrication and installation expertise, Dura Composites was confident that it would meet the client’s exacting requirements.

A design Risk Assessment was conducted to identify and mitigate any residual risk, and the design was altered to incorporate a self-closing door before being presented for approval.

With approval granted, fabrication could commence, with the Dura install team cutting the flooring panels in situ to allow them to fit around the tricky format of the switchgear.

Whilst the end client benefited from the elimination of residual risk when maintain the GIS, Dura Composites client J. Murphy & Sons also benefitted from a completely managed package that provided a hassle-free, safe and non-conductive bespoke solution to a complex problem.

“...the platform was delivered and installed as planned. We'd like to commend your installation team for a proactive approach and professional attitude.”

Andrew Galt MSc MIET MAPM
Project Manager, J. Murphy & Sons Limited
Health and Safety

Fully Certified and Accredited

We have a highly experienced workforce that embraces a “can-do” attitude. We are ISO 9001 certified – a quality management system that helps us continually monitor and manage quality in order to achieve, as well as benchmark, consistently high performance and service.

The Dura Composites GRP Riser Installation team is committed to maintaining health and safety standards across all of its working environments. We invest in specialist health and safety training for all our staff, and our GRP installation operatives are IPAF and PASMA qualified. We are pleased to have gained a SMAS Worksafe certificate which means that we have met the SSIP core criteria recognised by the HSE and other SSIP accreditation schemes. All installation teams are supervised by an SSSTS trained supervisor, and all operatives carry CSCS cards, so you can be confident that Dura Composites is committed to safe working practices on site.

BIM Objects

Free BIM Objects for Architects, Designers and Specifiers

Dura Composites is committed to providing architects, engineers and contractors with the information that they need to create data-rich digital buildings, leveraging Building Information Modelling (BIM).

Available free from the National Building Specification (NBS) National BIM Library, Dura Composites BIM Objects allow specifiers to see up-to-date, accurate data and to easily incorporate them into their overall design.

Authorised to the trusted NBS standard, each BIM Object details the various surface finishes, profiles, sizes and colour options for each product, and provides specifiers and end clients with detailed information on how the products will perform during their expected lifecycle.

Book our RIBA Approved CPD Seminar:

Designing for the Future: An Introduction to GRP Service Riser Flooring and Specification

Dura Composites’ RIBA CPD (Continuing Professional Development) is a seminar accredited by the Royal Institute of British Architects (RIBA) that seeks to educate architects and specifiers about Glass Reinforced Plastic (GRP) for service riser voids in multi-storey constructions.

This seminar aims to address riser void safety and design at the earliest possible stage, providing guidance on how to source and design safe and compliant systems for your building substructure.

Why not book our FREE approved RIBA CPD today and upskill your project teams on designing for riser void safety?

Get Double Points When Booking Dura’s CPD!

The Dura Composites CPD is part of the RIBA Core Curriculum in the category of Design, Construction and Technology.

The RIBA Core Curriculum has been created to ensure that key architectural skills are covered in learning activities. Chartered members are obliged to undertake a minimum of 20 of their yearly 35 hours CPD from this curriculum, with two hours of CPD time in each of ten key topics. RIBA certified CPD presentations, such as Dura Composites’ CPD earn double CPD points for those attending!

www.ribacpd.com/dura-composites-ltd/17218/overview/
Other applications for Dura Grating:

- Industrial Flooring
- Walkways
- Platforms
- Assembly Lines
- Wash Bays
- Work Stations
- Stairs
- Protective Screening
- Offshore Platforms