

Off-Site Manufacturing & Fabrication

Engineering Services and Solutions



Fully equipped with our complete specialized solutions range



Engineering Specialized expertise

Increase the efficiency of your project with the tailor-made analysis packages from GF Piping Systems and decide which offer is right for you according to your needs. You have the choice between Project Analysis and Advanced Engineering, thus always receiving the appropriate support in every phase of your project. Established knowledge, guiding you through.



Custom Product Design and Prefabrication Specialized ideas

Having your individual needs and application in focus, our customizing teams forge the solution that fits you best, developing custom-made parts to complete systems or special solutions produced in small series, individual consulting and off-site manufacturing. Through our global network of flexible locations, we offer a wide range of comprehensive solutions. Tailored innovation, inspired by you.



CONNECT conrivo Specialized visibility

CONNECT conrivo is a cloud-based field data collector for piping systems, supporting you with a wide range of online functionality and information. GF Piping Systems helps you streamline your decision-making processes and provide your team with product and process data, registering the precise position of all your components and monitoring the installation progress and quality in real time. Field data collection, keeping you on track.



Condition Analysis Specialized insight

Integrity of a piping system is essential for owner/operators of water, gas and chemical process plants. GF Piping Systems specialists inspect samples in our state of the art accredited materials testing laboratory offering a 'Fit for Service' certification via microscopic analysis, visual inspections and practical testing. This attention to detail enables informed decisions throughout a project's operation. Performance assured, for your peace of mind.



ProSite Specialized resources

ProSite from GF Piping Systems is the logistics solution that reduces the administration effort of ordering, reordering, and accounting of piping system components. It simplifies the stock management of installation projects, reducing necessary workforce and related costs, supporting your team and project design process from the outset to ensure that a sustainable and efficient solution is achieved. Material flow, ready when you are.



Training Specialized education

GF Piping Systems instructional courses to help you teach your customers and their installers essential knowledge for the welding of pipes and piping components, as well as in-depth knowledge of butt and electrofusion connections. With Specialized education from GF Piping Systems, we help prevent damage before it occurs, with well-trained and qualified installers. Trusted training, empowering you.



Digital Libraries Specialized models

Our libraries cover three key areas for the design, creation and maintenance of a project: Building Information Modeling, the Plant Design Software and the CAD Library, helping you reduce costs and construction times. Unlimited collaboration, unleash your creativity.



Design Assistance Specialized planning

Our Design Assistance including in house CAD services in the UK and also providing technical manuals on a multitude of topics and an extensive CAD library. From detailed information on products, systems and materials to practical online calculation tools and personal assistance, we back you with our expertise. Valuable insight, the tools you need.

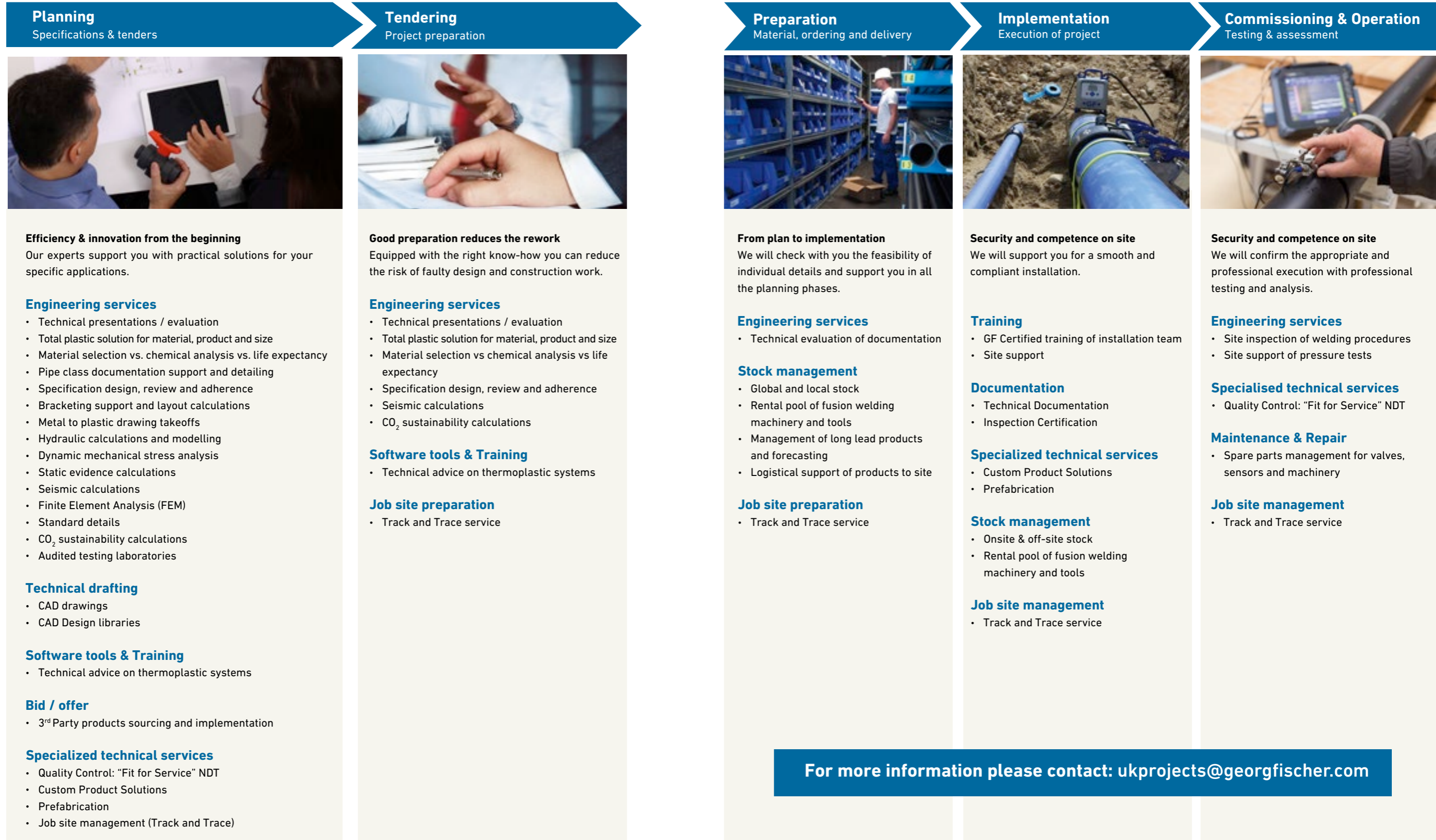


Technical Hotline Specialized support

Our customer support comprises of an international team of experts, which work closely with local sales companies. This pool of highly trained individuals are available to resolve any questions or problems that may arise as your project comes to life. Superior help, when you need it.

Services & solutions in all project phases

When moving from metal to plastics and increasing the use of plastics in your applications, the benefits of plastic piping systems vs metal are clear; corrosion free, low material weight, chemical resistance, low total cost of installation and long life expectancy are just a few.
At GF, we have over 60 years of plastics know-how and can offer you full support to meet your needs in designing, installing and commissioning plastic systems.



For more information please contact: ukprojects@georgfischer.com

Taking care of your needs

With Specialized Solutions, GF Piping Systems supports the design and installation of state of the art plastic piping systems, so that owners and planners can concentrate on their daily business without interruption. GF Piping Systems are on hand every step of the way, from providing planning support on new projects to testing the condition of old systems.

The transition to the use of plastic piping systems is an inevitable process for any company aiming to position themselves at the forefront of their field. Outperforming metal or concrete in every way, plastic provides results that mean installations perform with maximum quality and efficiency, but also remain robust and reliable. By employing plastic piping systems, customers make a step ahead of their competition, into a more prosperous future thanks to lighter and safer materials.

With over 60 years of experience with plastic, GF Piping Systems provides all the expertise and equipment necessary for a smooth installation and operation. Our range of Specialized Solutions cover every aspect of a project's process, from the design phase all the way through to installation and maintenance. Construction projects come with a number of challenges. By trusting GF Piping Systems as a partner, you can avoid costly interruptions or even failure of your operation.

From the outset, the GF Piping Systems design offering ensures planners have a clear, intelligent overview, with integrated plastic expertise provided by state of the art programmes and an expert team. Excellent training and documentation technology ensures installers can perform at their best, implementing a reliable system with a monitored workflow eradicating any potential for failure. In order to ascertain the state of piping systems and welds, high-precision testing and analysis eliminates any doubt about the condition of a system and provides the necessary information to decide on replacement for optimum economic performance. Specialized Solutions simply provides the all-round package for worry-free installation and operation.

At GF we always aim to "Add Value". One of the most powerful ways for us to deliver this is through our off-site manufacturing & fabrication services.



Ready when you are

With Specialized Solutions, the global leader GF Piping Systems provides project support every step of the way to achieve construction excellence. Allowing owners and planners to concentrate on their daily business without interruption.



A premium partner you can count on

Established in 1802, GF Piping Systems is the global expert for the safe and reliable transportation of water, chemicals and gas. While its headquarters are based in Switzerland, customers receive only the highest quality support wherever they are, with worldwide sales offices in 34 countries and over 6'500 employees. The combination of maintenance-free piping systems that last for over 25 years and global expert support throughout all project phases ensures customers can operate at the highest level.

Trust the leaders

Taking care of your needs globally



GF Piping Systems has a network of 13 fabrication workshops worldwide

GF UK (Coventry)

- + Prefabrication
- + Skids and modules
- + Clean room



GF US (Irvine)

- + Custom products
- + Prefabrication
- + Skids and modules



GF CPC (Shawnee)

- + Prefabrication

GF CPC (Dallas)

- + Prefabrication

GF Switzerland (Schaffhausen)

- + Custom products
- + Prefabrication



GF Sweden (Avesta)

- + Prefabrication

GF China (Tangzhou)

- + Prefabrication
- + Custom products
- + Skids and modules

GF Deka (Dastghel)

- + Prefabrication

GF CORYS (Abu Dhabi)

- + Prefabrication

GF India (Ratanjiri)

- + Prefabrication
- + Skids and modules

GF Malaysia (Klang)

- + Prefabrication
- + Skids and modules

GF Indonesia (Karawang)

- + Prefabrication

GF Australia (Brisbane)

- + Prefabrication



Ultimate integration partner

With increasingly shorter project lead times for construction projects, our highly skilled project managers, engineering services, state-of-the-art welding technology, and advanced stock management can ensure we meet your tight deadlines on time, every time.

Nowadays, GF Piping Systems has a network of 13 fabrication workshops worldwide. Those locations can coordinate when required by projects, sharing expertise and capabilities to deliver best-in-class solutions, on time, everywhere in the world.



Your preferred global partner

There are many challenges to completing construction projects in today's accelerating business world, including shortages of skilled labor, time constraints, cost overruns, quality concerns, and physical space limitations on job sites. GF Piping Systems can help you meet these challenges, no matter where in the world your construction project happens to be.



Taking care of your needs

Efficiency gain for customer projects

Engaging with GF Piping Systems early enables collaboration and integration that ultimately brings value to your project. And with off-site fabrication increased levels of accuracy are provided and defect variability is reduced, leading to a reduction in lifetime system costs. To be even more cost efficient, an early engagement with contractors can minimise out risk allocations.

GF Piping Systems is a leading supplier of plastic and metal piping systems with global market presence. For the treatment and distribution of water and chemicals, as well as the safe transport of liquids and gases in industry, we have the corresponding jointing technologies, fittings, valves, automation products and pipes in our portfolio.

At GF, we always aim to "Add Value". One of the most powerful ways for us to deliver this is through our custom prefabrication services.

GF have invested in a dedicated workshop for the assembly of custom off-site fabrications.

Our highly trained staff can assemble customised systems in any of our materials, using any of the available jointing methods with our extensive range of GF equipment and machines.

This service offers many benefits;

GF can significantly speed up the installation timescales of a project by prefabricating pipe-runs, spools, manifolds and headers to any required configuration and modularity. Pre-assembled systems can be delivered to site to suit the program of works.

These customised pre-assembled systems can be installed quickly and easily, with peace-of-mind. GF offer you the highest level of Quality Assurance by directly controlling the assembly methods and transportation to site.

All joints executed by our specialist engineers are recorded with a unique code, ensuring full traceability.

All of our welds comply with the GERMAN DVS and WIS 4-32-08 standard which is the most comprehensive for plastic piping.

No more worrying about having joints executed correctly on sites just let our experts provide you with quality and peace-of-mind!

There are so many opportunities for GF Off-Site Fabrication and Manufacturing for various market segments

- Industrial
- Data Centers
- Marine
- Process Automation
- Chemical Process Industry
- Water & Gas Industry
- Food & Beverage
- Energy
- Micro Electronic Industry
- Battery



8 reasons for choosing Off-Site Fabrication

Fabricated in Coventry

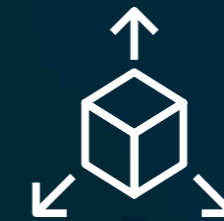
What does it mean for you?



Reduce health and safety risk



Overcome skilled labour shortage



BIM supported products



Reduce time on site



Reduce waste



Reduce transport



Reduce overall costs



Quality control

One stop shop facility to handle your needs

GF Piping Systems UK is part of the Georg Fischer global organisation with its headquarters in Schaffhausen, Switzerland. Our UK operation comprises off-site fabrication and manufacturing facility, warehousing, logistics, sales, and marketing combining extensive experience, visionary thinking, and a collective commitment to high-quality, innovative solutions with a clear market and customer focus.

+ 25% improved energy efficiency

The piping solutions of GF Piping Systems help reduce energy costs - on average by 25 % compared to conventional metal systems.

+ 100% maintenance-free

Our piping systems are generally maintenance-free for at least 25 years and resistant to the adverse effects of weather and UV radiation when installed outdoors.

+ Corrosion-free

With the use of plastic instead of metal systems, you can rely on completely corrosion-free material.

+ 50% faster installation

By opting for a plastic system, installation can be accelerated by up to 50 percent.

+ High environmental contribution

Over their entire service life, plastic systems have a carbon dioxide balance that is 80% lower than that of metal systems and are fully recyclable.

In addition there is so many advantages, of using GF off-site fabrication and manufacturing service

Fabrication services include

- Modules
- Plant rooms
- Manifolds
- Pre-insulated pipework
- Spooled pipework
- Water treatment skids
- Clean room fabrications



Fabricated in Coventry for the unique requirements of the UK market.

GF Coventry facilities

- 12 acre site
- Warehousing
- Fabrication facility
- Clean room
- Pipe storage
- NDT testing
- Training

Modular solutions for every need



Increase the efficiency of your project with the tailor-made analysis packages from GF Piping Systems and decide which offer is right for you according to your needs. You have the choice between Project Analysis, Advanced Engineering, as well as Custom product design and Prefabrication and thus always receive the appropriate support in every phase of your project.



Project Analysis



Package description

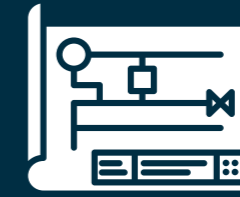
Basic analysis of the piping system and recommendations based on the technical manuals for up to four hours per project.

Recommended for:

Customers with little or no experience with plastic systems and insufficient resources in their own company.

- Material selection (metal to plastic conversion, system selection)
- Basic expansion & contraction (based on received operating parameters)
- Bill of Material (BOM)
- Material Take Off Service (MTO)

Advanced Engineering



Package description

Comprehensive analysis and planning support for applications with particularly challenging media and demanding environments.

Special planning challenges or operating situations, such as great variations in medium and ambient temperatures or aggressive media with possible influence on the material

- Pipe class documentation support
- Pipe class detailing
- Specification design, review & adherence
- Technical details
- Static evidence
- Pipe support & spacing for networks
- Heat loss calculations
- Bracketing support & layout for network
- Hydraulic calculations & modelling
- Dynamic mechanical stress analysis
- Seismic calculations for networks
- Buried pipe load calculations
- Finite Element Analysis (FEM)
- Water hammer

Custom product design and Prefabrication



Package description

Custom product design, prefabricated solution consulting and premium analysis for your project.

Recommended for:

Technical challenges, in particular in the implementation of the piping system, such as spatial or structural limitations.

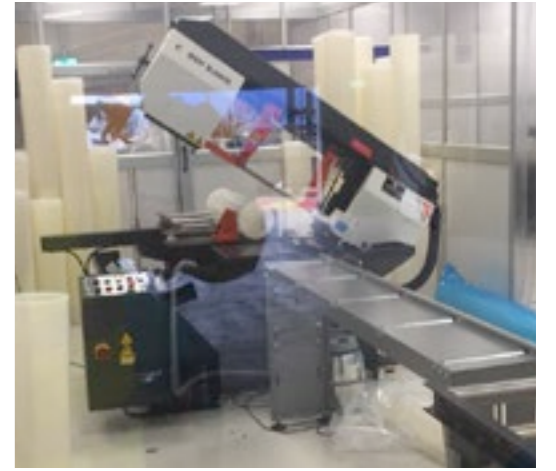
- Engineering analysis
- Custom product design
- Prototyping
- Testing (Accredited Lab)
- Off-site and prefabrication
- Custom product assembly and manufacturing
- Global network on fabrication capabilities & custom product workshops
- GF quality

Clean Room Facility



Taking care of your needs

Controlled environment for customer projects



GF UK operates a Class 10000 / ISO 7 cleanroom off-site manufacturing facility at its facility in Coventry, supplying to fabricated pipework across multiple projects in the UK, EU and further afield. Inside the cleanroom, the team of experienced fabricators perform high-purity welding from d20 up to d315 utilising the latest in Infrared (IR) Welding Technology, ending with a high-quality bead weld that is guaranteed to be clean, secure and durable. The team can fabricate anything from small pipework assemblies to larger assemblies and skid mounted products for the safe and clean transportation of fluids within the semi-conductor, water treatment, and pharmaceutical / life science market.



Delivering excellence directly to site

Customisation & Fabrication



Pre-assembled frames



Run-outs



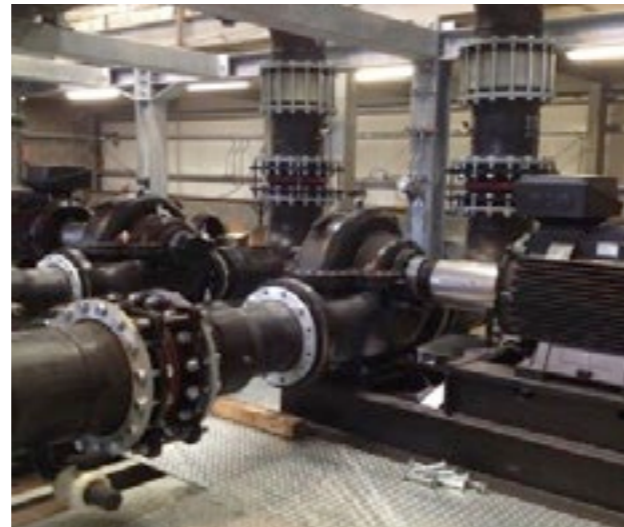
Skids



Pre-assembled frames



Run-outs



Manifolds



Modules



Headers



Run-outs



Plant Rooms



Spooling



Spooling

Trust the leaders

UK Landmark project references

Wembley Stadium | London

ecoFIT ELGEF : Polyethylene

GF Piping Systems case study projects showcase different aspects of building construction. Each project demonstrates unique challenges and innovative solutions that have made a significant impact in their respective locations using off-site fabrication services from the UK projects team.



Highbury Apartments | London

INSTAFLEX: Polybutene



Beetham Tower | Manchester

INSTAFLEX: Polybutene



Greater London Authority Building

INSTAFLEX: Polybutene



Queen Alexandra Hospital

ecoFIT ELGEF : Polyethylene



Royal Albert Hall | London

INSTAFLEX: Polybutene



Corinthian Hotel | London

Aquasystem: Polypropylene-random



Edinburgh County Council

INSTAFLEX: Polybutene



O2 Building | London

INSTAFLEX: Polybutene



The benefits of plastic



Professional support for plastic systems

Engineering and design pose an exceptional challenge for companies that have never or seldom work with plastic systems. Existing processes, experiences, data and digital models are based on metal systems. Simple transfer is problematic and increases the risk of delays, damage, and failures.

GF Piping Systems supports the conception and design process of a project from the outset to ensure that a sustainable and efficient solution is achieved. Whether in the selection of the right plastic solution from our extensive portfolio, the management of complex sub-projects, or quality control based on recognized international standards – you can benefit from our Engineering Services for all application areas and references from a wide range of industries across the entire product range.

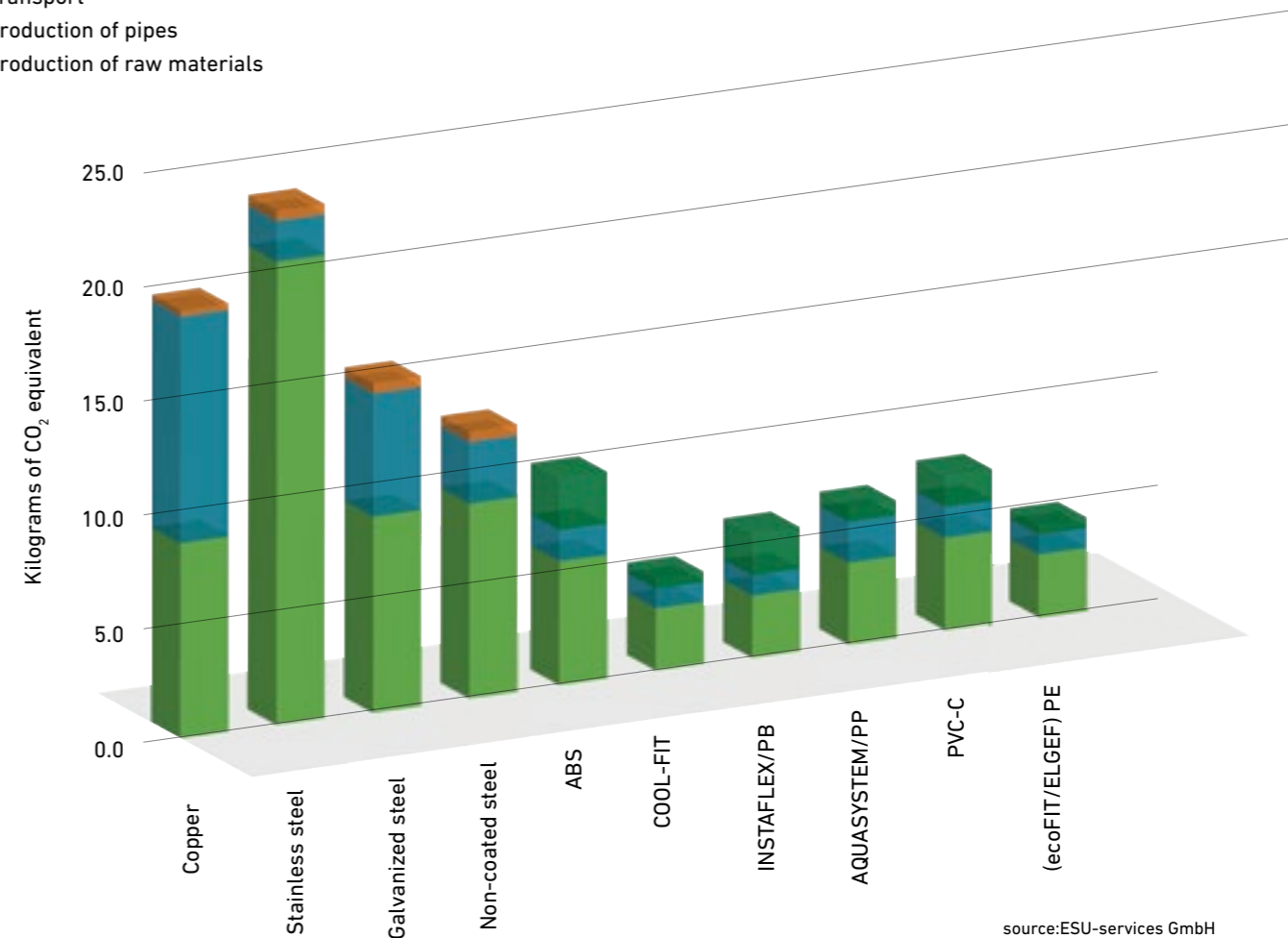
+ Lifecycle analysis

The carbon footprint is the total of all greenhouse gases emitted into the atmosphere throughout the lifetime of a product, from extraction to refining, plus production, transport, use and disposal.

The quality of the environmental performance of piping systems in thermoplastics has been shown by assessing the lifecycle of the pipes for applications in the building technology, industry and water and gas distribution sectors.

The analysis compares the environmental impact of a one metre pipe for each of the commonly used plastics with the main competitor materials (for DN25, 80, 150 and 400). The study was conducted by an independent Swiss company specialising in the analysis of environmental performance and is based on Ecoinvent, the world's leading life cycle inventory database. The graphic shows the results as follows.

- Disposal
- Transport
- Production of pipes
- Production of raw materials



source:ESU-services GmbH

Professional support for plastic systems

The main conclusions of this study are that plastic piping systems offer better performance than metal systems, a result which has also been confirmed by various other studies in this area. Thermoplastics score particularly highly because of the reduced weight, which pays off in the transport and installation areas. Fully plastic solutions are lighter than other piping systems using conventional materials and this has a positive impact on the carbon footprint.

The conclusions reached by these studies and by other simulations available have been brought together in GF's innovative tool www.gfps.com/onlinetools for calculating the savings in carbon dioxide emissions by using plastics rather than the more common metals.



Ultrasonic NDT: Fast, safe and proven

Until now, it was impossible to measure weld quality in plastic piping systems without destroying the welding. Owners face the decision to replace welds that may actually be fine or accept the risk of failure. NDT uses ultrasound scans to detect any potential defects and an advanced algorithm based on long-term data (25-year simulation) to evaluate the risk.

Fit for service

Along the journey that goes from finalizing the installation to the commissioning of a project, uncertainty about the final performance of the installation generates severe stress for contractors, due to the vast economic and reputational impact the appearance of leakages in a brand new installation might have on their organization or company.

Previously, providing an assertive and reliable quality check for a plastic piping installation was no easy task. A typical pressure test does not provide any information on the long-term performance of the installation, while destructive testing, does not add any certainty about the quality of other welds that are not tested. In our approach to total quality management, we have developed the first Ultrasonic NDT solution for plastics, with a 'pass' or 'fail' statement, regardless of material (HDPE 100, RC, PP) and type of fusion (Butt Fusion, Electro Fusion, Infrared). A solution that enables you the certainty you deserve, when closing a trench or installing a pipe in your plant.

Machines & Tools



For rapid, reliable and high-quality machines and tools look no further than the GF range of innovative, easy-to-use solutions

+ Machines and Tools

Butt Fusion Machines

Butt fusion can be a sensitive process, which is why all fusion parameters have to be coordinated to create a homogenous joint with consistently high welding quality. GF Piping Systems butt fusion machines minimize distortion, maintain a high level of stability and keep the butt fusion process as short as possible. All heating elements are exceptionally reliable and the units are easy to operate via an intuitive control panel.

Bead Crevice Free Machines

The BCF fusion machines made by GF Piping Systems stand up to the highest requirements in terms of quality and purity for fusion joints. The machines are ideal for high-purity applications in the pharmaceuticals, biotech, food-stuffs, process and microelectronics industries.

Electro Fusion Machines

Simple to operate and with an extensive memory, the GF Piping Systems range of electrofusion machines are an extremely reliable addition to any job site.

Infrared (IR) Fusion Machines

IR fusion machines, designed and produced by GF Piping Systems, meet the highest demands of mechanical stability, reproducibility and quality of fusion jointing. Typical application areas include the process and microelectronic industry.

Socket Fusion Machines

Compact, reliable, efficient and extremely versatile, GF Piping Systems socket fusion machines are the result of decades of experience in socket fusion

Tooling Available

Bending Tools
Cleaning Tools
Clamping and Installation Tools
Cutting Tools
Drilling, Tapping and Testing Tools
Expansion Tools
Peeling and Chamfering Tools
Press Tools
Squeeze-off and Re-rounding Tools

Help around the world

Making our global footprint sustainable

Our sustainability framework 2025 consists of focus areas with long-term ambitions and targets covering economic, environmental, and social aspects.

They include a science-based target (SBT) for reducing CO₂e emissions by 21% by 2025.

Sustainable operations

GF Piping Systems is making flow sustainable: Environmental regulations, water scarcity and an increasing demand of consumers and society for greener and more sustainable solutions is an important set of trends shaping customer behavior. Saving energy in high-consumption areas such as the cooling of data centers or food storage, reducing the carbon footprint of cruise ships or decreasing the levels of chemicals in industrial wastewater treatment are examples of some of the areas where GF Piping Systems can provide attractive solutions.

Peace of mind when it comes to the safety and hygiene of water, gas or chemical flows is important in our field of expertise. Our mission at GF Piping Systems is to make sure that customers enjoy sustainable flows of water, gas or chemicals, without safety issues, leakages and other environmentally challenging consequences. Our solutions improve our customers' sustainability in terms of energy use and the resulting CO₂ footprint, while GF Piping Systems supports the sustainable success of its customers by increasing their efficiency during processes such as installation and operation.

More information contact
gfps.com/uk

Sustainability

We at GF Piping Systems understand that everything is connected – what we do inevitably always affects someone, somewhere. Environmental impacts of human activity are apparent on a daily basis, and every stakeholder must take responsibility for their part. As a company that is active worldwide, it is our mission to show our commitment, by supporting our customers' success with innovative, energy saving solutions making the collective global footprint more sustainable.




Good health and well-being


Clean water and sanitation


Industry, innovation and infrastructure


Sustainable cities and communities


Responsible consumption and production


Climate action

An integral part of the GF Strategy 2025, the Sustainability Framework defines eight clear targets to achieve across the company's operations as part of its roadmap to become a sustainability and innovation leader providing superior customer value. Reflecting the company's commitment to transparency, this report discloses the progress made in the second of this five-year journey.

Scan QR code for
GF Sustainability Report



Next steps

This brochure has provided important information about the Specialized Solutions we offer. But nothing replaces a personal conversation with an expert from GF Piping Systems. It is all about your needs and how we can support you with your specific projects. If you have not already done so, make an appointment today.

Get your appointment with an expert from GF Piping Systems to tailor a solution to your needs.

More information at:
gfps.com/specialized-solutions

Get in touch with us:
ukprojects@georgfischer.com

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