

LIBERTY STEEL TREDEGAR.

Pioneers in the production of ERW
mechanical steel tubes and cold formed
structural hollow sections



LIBERTY

FROM BUILDINGS TO BRIDGES... STEEL IS ALL AROUND US.



TABLE OF CONTENTS

03.

LIBERTY Steel Group

04.

LIBERTY Steel Tredegar

06.

Standard Product Range

08.

Transportation and Delivery

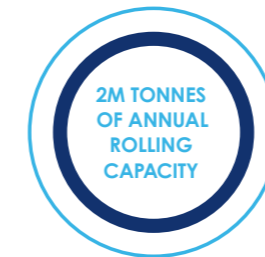
09.

Dimensional Tolerances EN10219

10.

LIBERTY and the Environment

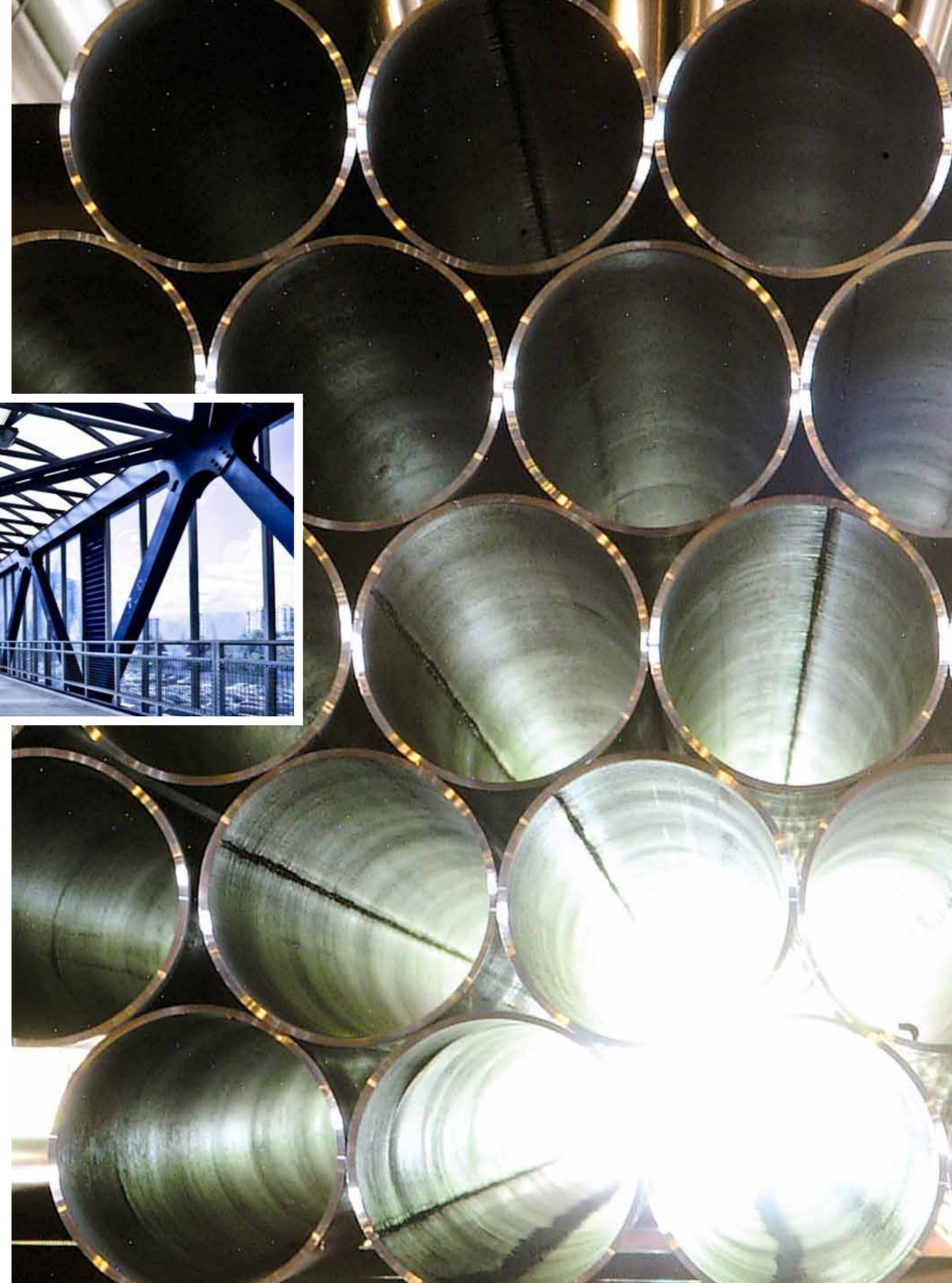
LIBERTY's United Kingdom business is the third largest steel manufacturer in the country, with a footprint that covers eleven sites across England, Scotland and Wales. It has an annual liquid steel capacity of over 1 million tonnes per annum and a rolling capacity exceeding 2 million tonnes per annum.



LIBERTY Steel UK has a wealth of expertise thanks to our team of metallurgists, steelmakers, engineers and technicians.

Capabilities include electric arc steel making, vacuum induction remelting, mill processing and value added services. The business manufactures and distributes products supplied into the aerospace, construction, automotive, oil and gas and energy industries domestically and overseas to over 60 countries.

Pioneers in the production of ERW mechanical steel tubes, and cold formed structural hollow sections. LIBERTY Steel Tredegar specialises in the production of ERW mechanical steel tubes and sections, cold formed structural hollow sections and tubes for low-pressure applications.



The plant's two mills manufacture a range of sizes and qualities designed to provide customers with a product specific to their unique requirements.

Dedicated hot rolled coil supply enables LIBERTY Steel Tredegar to supply flexible quantities on short lead times, with tailored lengths to enable customers to minimise yield loss and maximise stock turnover, responding quickly to project demands.

The UK manufacturing process of Liberty Steel Tredegar offers customers the opportunity to avoid the risk associated with international supply chains which include volatile import tariffs, changing quotas, delays in product delivery and transport damage.

- LIBERTY Steel Tredegar tubes are manufactured in the UK to high quality standards, from in-house hot rolled coil
- Product Range includes minimum mechanical strength of 235 MPa, 275 MPa and 355 MPa
- Tubes are formable and, because the steel is fully-killed, have excellent weldability
- Products are supplied with standard mechanical property information. Non-standard inspection and testing is available by request

- Excellent consistent dimensional tolerances
 - Suitable for galvanising and other surface treatments
- With a wide range of additional finishing services, the business is able to successfully meet the demands of a number of industries, such as construction & mining, agriculture, materials handling, fabrication, street furniture, security & fencing and leisure equipment manufacture.

STANDARD PRODUCT RANGE

LIBERTY Steel Tredegar manufacture a range of sizes and qualities dedicated to providing customers with a product specific to their needs, together with high levels of support to meet their unique requirements. LIBERTY Steel Tredegar supplies flexible quantities and lengths to enable customers to minimise yield loss and maximise stock turnover.

kg/m Size range available using grades S235 and S275 grades

kg/m Size range available using grades S235, S275 and S355

CIRCULAR PROFILE OUTSIDE DIAMETER (mm)	TUBE LENGTH (m)		GAUGE (mm)**							
	Min	Max	2.0	2.5	3.0	3.2	3.6	4.0	5.0	6.0
26.9	4	7.5	1.23	1.50	1.77					
33.7	4	12	1.56	1.92	2.27					
42.4	4	12	1.99	2.46	2.91	3.09	3.44	3.79		
48.3	4	12	2.28	2.82	3.35	3.56	3.97	4.37		
60.3	4	12	2.88	3.56	4.24	4.51	5.03	5.55		
76.1	4	14	3.65	4.54	5.41	5.75	6.44	7.11	8.77	10.37
88.9	4	14		5.33	6.36	6.76	7.57	8.38	10.35	12.27
101.6	4	14			7.29	7.77	8.70	9.63	11.91	14.15
114.3	4	14			8.23	8.77	9.83	10.88	13.48	16.03
127.0	4	14			9.17	9.77	10.96	12.13	15.04	17.90
139.7	4	14				10.77	12.08	13.39	16.61	19.78
152.4	4	14				11.77	13.21	14.64	18.18	21.66
168.3	4	14							20.14	24.02
190.5	4	14							22.87	27.30

SQUARE PROFILE LENGTH x LENGTH (mm)	TUBE LENGTH (m)		GAUGE (mm)**							
	Min	Max	2.0	2.5	3.0	3.2	3.6	4.0	5.0	6.0
25 x 25	4	12	1.36	1.64	1.89					
30 x 30	4	12	1.68	2.03	2.36					
40 x 40	4	12	2.31	2.82	3.30	3.49	3.85	4.20		
50 x 50	4	12	2.93	3.60	4.25	4.50	4.98	5.45		
60 x 60	4	14	3.56	4.39	5.19	5.50	6.11	6.71	8.13	
70 x 70	4	14		5.17	6.13	6.51	7.24	7.97	9.70	11.33
80 x 80	4	14		5.96	7.07	7.51	8.37	9.22	11.27	13.21
90 x 90	4	14			8.01	8.51	9.50	10.48	12.84	15.10
100 x 100	4	14			8.96	9.52	10.64	11.73	14.41	16.98
120 x 120	4	14						14.25	17.55	20.75
150 x 150	4	14							22.26	26.40

RECTANGULAR PROFILE OUTSIDE DIAMETER (mm)	TUBE LENGTH (m)		GAUGE (mm)**							
	Min	Max	2.0	2.5	3.0	3.2	3.6	4.0	5.0	6.0
50 x 25	4	12	2.15	2.62	3.07	3.24	3.57	3.88		
50 x 30	4	12	2.31	2.82	3.30	3.49	3.85	4.20		
60 x 40	4	12	2.93	3.60	4.25	4.50	4.98	5.45		
80 x 40	4	14	3.56	4.39	5.19	5.50	6.11	6.71	8.13	
80 x 60	4	14		5.17	6.13	6.51	7.24	7.97	9.70	11.33
90 x 50	4	14		5.17	6.13	6.51	7.24	7.97	9.70	11.33
90 x 60	4	14		5.56	6.60	7.01	7.81	8.59	10.48	12.27
100 x 50	4	14		5.56	6.60	7.01	7.81	8.59	10.48	12.27
100 x 60	4	14		5.96	7.07	7.51	8.37	9.22	11.27	13.21
100 x 80	4	14			8.01	8.51	9.50	10.48	12.84	15.10
120 x 60	4	14			8.01	8.51	9.50	10.48	12.84	15.10
120 x 80	4	14			8.96	9.52	10.64	11.73	14.41	16.98
120 x 100	4	14					11.77	12.99	15.98	18.87
140 x 60	4	14			8.96	9.52	10.64	11.73	14.41	16.98
150 x 50	4	14			8.96	9.52	10.64	11.73	14.41	16.98
150 x 100 *	4	14						14.87	18.33	21.69
160 x 80	4	14						14.25	17.55	20.75
200 x 100	4	14							22.26	26.40

NOTES

* This product is supplied with a corner radius greater than the EN10219 specification. The maximum corner radius can be provided on request.

** Additional gauges up to 6.3mm are available on request.

LIBERTY Steel Tredegar provide their products lightly oiled unless otherwise specified by the customer.

All tube products are sold by theoretical weight as described in EN10219. The bundle weight is calculated from the following formula.

Bundle Weight (kg) = Number of Tubes x Length of tube x kg/m (see above product tables)

TRANSPORTATION AND DELIVERY

All material will be loaded by the trained and experienced team at LIBERTY Steel Tredegar to stringent loading standards that reduce the potential for load shifting during transportation, and improve the safety of the off loading operation at the customer's premises.

Material may be collected from site by a customer's own transport, or can be delivered by one of the LIBERTY trusted logistics partners.

LIBERTY Steel Tredegar aim to provide an efficient delivery service by focusing on clearly communicated schedules, maximising the lorry load weights and providing a fast turn around in the loading operation.

Specific customer requirements can be supported and the service modified to meet customer demands.

The table below shows typical bundle quantities for standard products.

CIRCULAR PROFILE			SQUARE PROFILE			RECTANGULAR PROFILE		
Outside Diameter (mm)	Bundle Quantity (Number)		Height x Breadth (mm)	Bundle Quantity (Number)		Height x Breadth (mm)	Bundle Quantity (Number)	
	<= 10m	>10m		<= 10m	>10m		<= 10m	>10m
26.9	102		25 x 25	80	80	50 x 25	45	45
33.7	102	102	30 x 30	80	80	50 x 30	54	54
42.4	61	61	40 x 40	63	63	60 x 40	35	28
48.3	61	61	50 x 50	48	48	80 x 40	32	32
60.3	44	44	60 x 60	48	20	80 x 60	30	20
76.1	37	24	70 x 70	35	16	90 x 50	40	20
88.9	24	19	80 x 80	25	16	90 x 60	25	25
101.6	24	19	90 x 90	20	16	100 x 50	28	20
114.3	24	10	100 x 100	16	12	100 x 60	24	20
127.0	19	13	120 x 120	12	9	100 x 80	20	16
139.7	10	10	150 x 150	9	9	120 x 60	24	16
152.4	10	10				120 x 80	20	16
168.3	10	10				120 x 100	20	12
190.5	10	10				140 x 60	18	15
						150 x 50	12	12
						150 x 100	12	12
						160 x 80	12	12
						200 x 100	8	8

DIMENSIONAL TOLERANCES EN10219: PART 2

The product will be supplied with the standard dimensional tolerances shown in the table below, unless specific dimensional tolerances have been agreed with the customer prior to receiving the customer order.

	CIRCULAR	SQUARE / RECTANGULAR
Outside dimension	±1% Min +/- 0.5mm Max +/-10mm	H,B < 100: ±1% with a min of ±0.5mm 100 ≤ H,B ≤ 200: ±0.8% H,B > 200: ±0.6%
Thickness	T ≤ 5mm: ±10% T > 5mm: ±0.50mm	T ≤ 5mm: ±10% T > 5mm: ±0.50mm
Out of roundness	D/T < 100: 2% D/T ≥ 100: Tolerance to be agreed	
Concavity/Convexity (independent tolerance on outside dimensions)		Max 0.8% Min 0.5mm
Squareness of side		90° ± 1°
External corner profile* (radius need not be tangential to the sides)		T ≤ 6.0: 1.6T to 2.4T 6.0 < T ≤ 10.0: 2.0T to 3.0T
Twist		2.0mm + 0.5L
Straightness	0.20% of total length 3mm over any 1m length	0.15% of total length 3mm over any 1m length
Mass	±6% on individual lengths	±6% on individual lengths
Length	-0 +50mm	-0 +50mm

KEY DEFINITIONS

- D (mm) Specified diameter of a circular hollow section
- H (mm) Specified dimension of the longest side of a rectangular hollow section, or the specified dimension of one of the sides of a square hollow section
- B (mm) Specified dimension of the shortest side of a rectangular hollow section, or the specified dimension of one of the sides of a square hollow section
- T (mm) Specified thickness
- L (m) Specified length of the tube

NOTES

* The 150mm x 100mm rectangular hollow section product is provided with a corner radius greater than the EN10219 specification. The maximum corner radius for this product can be provided on request.

WE HAVE THE RIGHT PURPOSE & STRATEGY.

- Our **PURPOSE** is to create a sustainable future for industry and society
- Our **STRATEGY** is to create an economically viable business model for our industries which is profitable for the long term, allows for socially sustainable development in our local communities and is carbon neutral.

Reinventing Steel for a Sustainable Future

LIBERTY is a global steel and mining business with a rolling capacity of over 20 million tonnes per annum (mtpa), a liquid steel capacity of over 14mtpa and around 30,000 employees and contractors based in more than 200 locations worldwide.

Since 2015, LIBERTY has embarked on a series of acquisitions and development programmes that have transformed the business and created a global force in steel. LIBERTY is now the

8th largest steel manufacturer globally (excluding China).

LIBERTY is part of GFG Alliance, a collection of global businesses and investments focused on the metals and renewable energy sectors owned by Sanjeev Gupta and his immediate family.

GFG Alliance is a leader in sustainable industry with a mission to become Carbon Neutral by 2030 (CN30).

GREENSTEEL Strategies

Combining steel scrap recycling with renewable power, most suited to mature economies with abundant scrap arisings

Introducing breakthrough technology to address emissions from primary steel making –this includes hydrogen steel making and DRI.



DISCLAIMER

The material and information in this brochure (the Brochure) has been prepared by the Gupta Family Group Alliance (GFG), an international group of companies comprising LIBERTY Steel Group, ALVANCE Aluminium Group, SIMEC Group, JAHAMA Group and Wyelands Capital and has been prepared solely for informational purposes. Any information about GFG should only be regarded as background information as at the date of the Brochure and not as investment advice. The existence of this Brochure and the content of the Brochure must be kept strictly confidential by you and your affiliates and each of your and their respective advisors and consultants.

The information contained in this Brochure is in summary form and should not be regarded as complete. The contents of this Brochure are not, and you should not consider or construe the contents of this Brochure to be, legal, tax, accounting, investment, or any other advice or a recommendation. Any information contained in this Brochure, including any forecasted financial information, should not be considered as advice or a recommendation and has not considered or taken into account any objectives you might have nor your situation or individual requirements.

You must make your own independent investigation and analysis of any securities or other transaction and your own determination of the suitability of any potential investment, with particular reference to your own objectives and experience and any other factors that may be relevant to you, and you are urged to conduct an independent evaluation and consult your own independent counsel, tax and financial advisors as to any legal, financial, tax, investment, accounting-related matters concerning any transaction. If you choose to act on any information contained in this Brochure, you do so at your own risk and with no reliance on GFG. All investments, including securities and financial products or instruments involve risk, including but not limited to the risk of adverse or unanticipated markets, adverse financial or political developments and foreign exchange risk.

Whilst reasonable care has been used in the preparation of any forecast information contained in the Brochure, actual financial results may vary in a materially positive or negative manner. The information contained in this Brochure has not been independently verified and no representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information contained herein, and no reliance should be placed on it nor on any forward looking statements regarding intent, belief or current expectation with respect to GFG's businesses and operations, market conditions, results of operation and financial condition, capital adequacy, specific provisions and risk management practices.

Neither GFG or any of its affiliates, advisers, connected persons, or any other person involved in the creation of this Brochure accepts any liability for any loss arising (in negligence or otherwise), directly or indirectly from this Brochure or its contents or arising in connection with this Brochure and GFG disclaims any and all liability for any representations (express or implied), information or for any omissions in or for any other communications with or to you.

Any forecast and hypothetical examples contained in this Brochure are subject to uncertainty and contingencies outside GFG's control. Past performance is not a reliable indication of future performance. The information contained in this Brochure is provided as of the date of this Brochure and is subject to change without notice or any obligation to be updated.

This Brochure and all non-contractual obligations arising out of or in connection with this Brochure shall be governed by the laws of England and Wales. The courts of England and Wales shall have exclusive jurisdiction over any claim or matter arising under or in connection with this Brochure.

Acceptance of delivery of this Brochure by a recipient constitutes acceptance of the terms and conditions set out in this Brochure.

LIBERTY STEEL TREDEGAR

Plot 3, Tafarnabach Industrial Estate,
Tafarnabach, Tredegar NP22 3AA

E: lst.sales@libertysteelgroup.com

T: 01495 718922



For further information visit libertysteelgroup.com

© 2022 LIBERTY Steel Group. All Rights Reserved.

MEMBER OF

