



# Stephenson Engineering

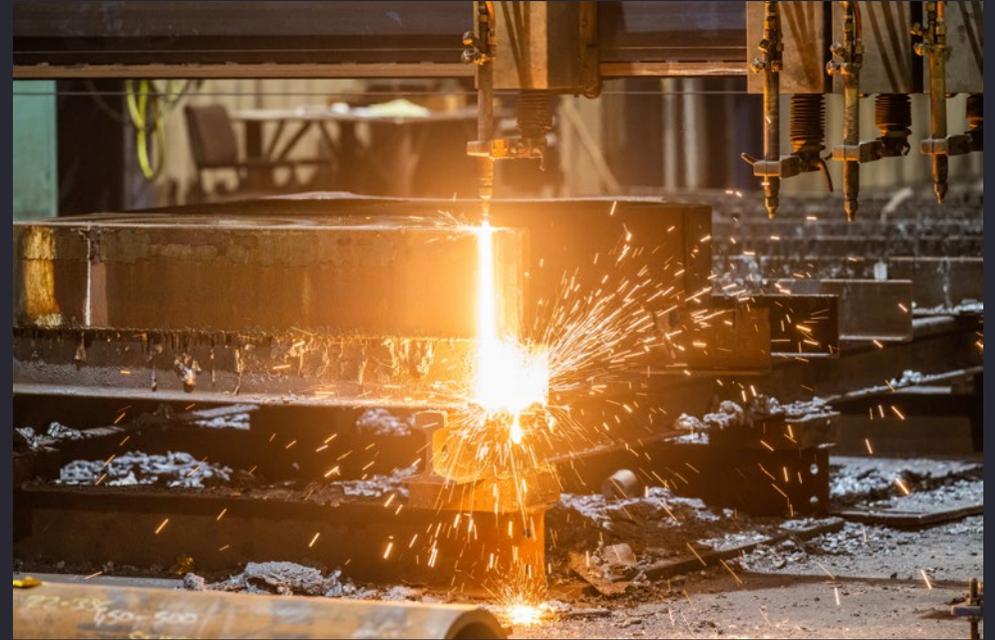
Precision meets pedigree



**Stephenson Engineering** offers a full range of general and specialist engineering services, ranging from flame cutting, fabrication and welding, to machining, coating and testing. All services are delivered by our in-house team from our seven-acre site in Atherton, Manchester.

# Services

We offer a wide variety of engineering services to both domestic and international customers. Our unique manufacturing facilities are geared towards medium to heavy engineering, and are equally suited to small quantities or batch production.



## Flame Cutting

Many fabrications or machined components will start life as a flame cut plate profile. We carry out this process in-house, using CNC-controlled machines that are programmed offline from our design office.

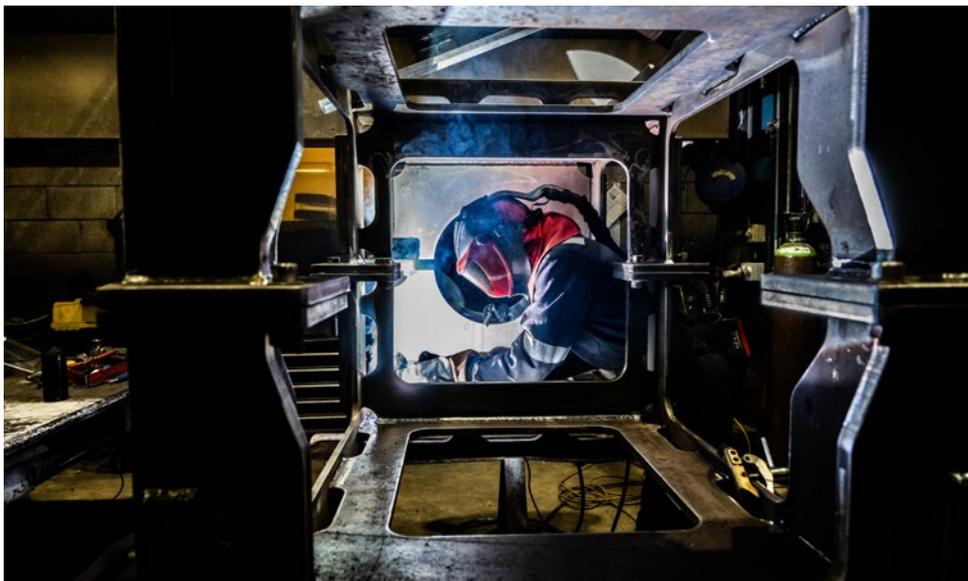
# Steel Flame Cutting

Our six multi-head CNC machines can accommodate plates up to 20m x 4m, with a 20-tonne maximum plate weight. The maximum cutting thickness is 280mm.

The materials we stock include:

Specification	Grade	Uses	mm min	mm max
BS:EN10025	S355 JO	General applications	3	250
BS:EN10025	S355 J2 G3	Structural steel	5	250
BS:EN10025	S355 K2 G3	Structural steel	5	250
BS:1501	161-430 A/B	Boiler making	6	180
BS:1501	224-490B LT50	Low temp service	6	180
BS:1501	621	High temp service	6	150
BS:1501	622	High temp service	6	100
ASTM A516	60	Boiler making	6	180
ASTM A516	70	Boiler making	6	180
ASTM A387	11 C1 2	High temp service	6	150
ASTM A387	22 C1 2	High temp service	6	100
ASTM A387	5 C1 2	High temp service	6	60
BS:2772 Pt2 1989	150M12	Colliery haulage	various	
BS:2772 Pt2 1989	150M19	Colliery haulage	various	
Branded Steel	RQT 501	Weldable structural steel	10	100
Branded Steel	RQT 701	Weldable structural steel	10	100
Branded Steel	SUPRALSIM 690	Weldable structural steel	10	100





## Fabrication & Welding

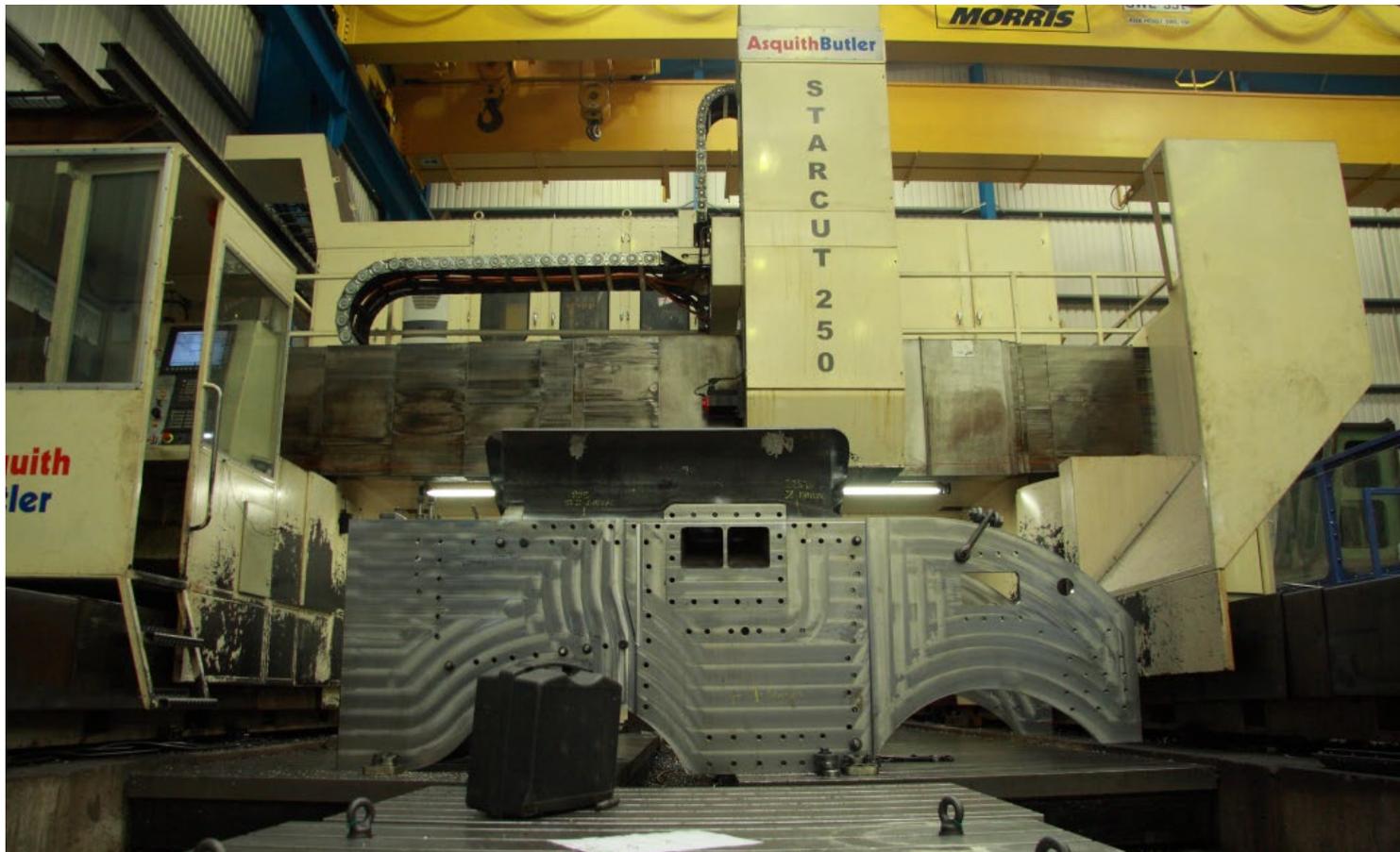
Core to our business is the manufacture of high-integrity welded steel fabrications in various section sizes from 8mm through to 350mm. We manufacture a wide variety of fabrications for various industries, often working to our client specification, under the supervision of our Welding Engineer and fabrication team. All fabrication and welding activities are controlled by our TWI 3834 Pt 2 accreditation.

Our welding team oversees every aspect of the process, from liaising with the customer, through designing the weld preps, weld procedure specifications and qualifications, and heat-treatment, to weld surveillance on the shop floor throughout production. We use the primary welding processes, namely: GMAW, SMAW, GTAW, SAW.



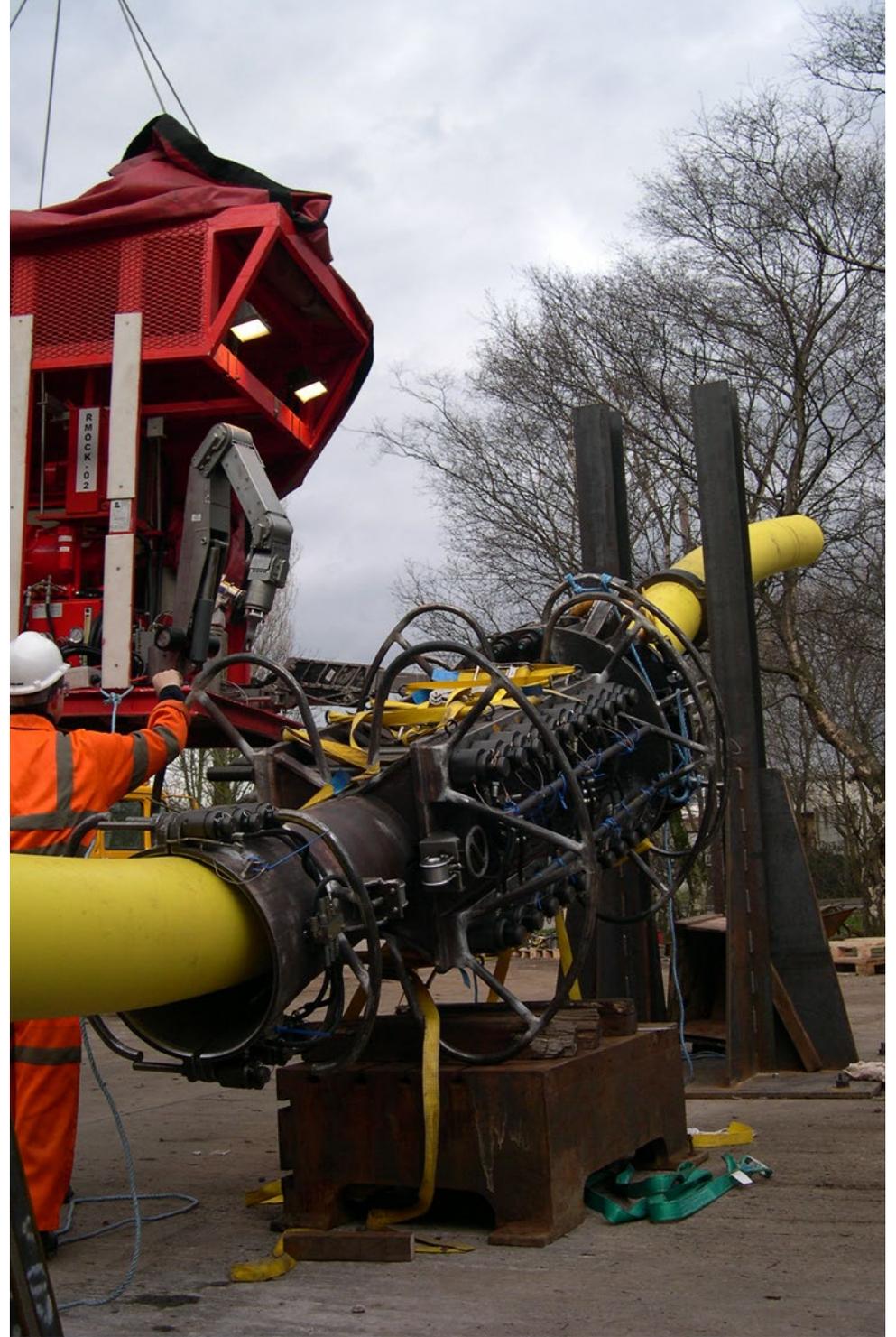
# Machining

Stephenson Engineering has extensive large-capacity CNC machining facilities for components up to 14m x 4m and 35 tonnes in weight. Machine programming is performed offline using CAD-CAM, enabling complex toolpaths to be generated. Our range of machines covers milling, drilling, boring, and vertical and horizontal turning.



## Proof-load testing / Site integrity testing

Many of the components we manufacture are designed specifically to be used in single-line, safety-critical applications, and require proof-load testing to prove both the design and manufacture of the finished product. Our in-house Testing Department can perform proof-load testing up to 300 tonnes in various load configurations, including angled pulls and slip testing of clamp to umbilical/ risers or wire ropes, etc. We regularly design customised equipment for bespoke, unusual applications, and can work with your engineering team to design suitable tests for your products.





## Non-destructive examination

We have extensive in-house inspection and testing facilities, as well as employing external sub-contractors where required. All testing can be witnessed by a customer representative or third party. NDE is used extensively to assess raw materials, in-process inspection of welds, and pre- and post-inspection following proof-load testing or heat-treatment. Our NDE Department covers ultrasonic examination, magnetic-particle inspection, dye penetrant inspection and visual examination. Components are often subjected to a site-integrity test to ensure fit-up and compliance before delivery; we perform all these tests onsite.



## Coatings

The majority of our painting is carried out to the NORSOK standard M501, using a wide range of different paint systems. Paint procedures are written in-house, and overseen by our NACE Lv 3 Inspector. All our applicators are qualified under NORSOK M501, and painting is fully supported with documentation required by the relevant painting procedure, covering environmental conditions, paint thickness, pull-off tests and holiday tests.

# Sectors

Over the past 60 years, we've gained invaluable experience in a number of market sectors, developing bespoke solutions tailored to each customer. We're proud to serve major players across the oil & gas, renewables, nuclear, rail, defence, civil, mining and marine industries.



## Sub-sea oil & gas

Stephenson Engineering has supported the subsea oil & gas sectors for the past 35 years, working with all the oil majors and service companies. We produce high-integrity customer-designed products to customer-designed specifications.

We are intimately acquainted with the process, specifications, project requirements and documentation, and have built our business on outstanding customer service. Our oil & gas work spans numerous disciplines, including precision cutting, fabrication, welding, machining and painting, all of which we undertake onsite to give us full control over quality and project management – and on-time delivery.



## Renewables

Keen to play our role in ensuring a sustainable future, Stephenson Engineering is increasingly active in the renewable energy sector. We've been manufacturing components for offshore wind platforms for many years, including heavy-lifting equipment and sub-sea clamping and termination equipment.

Elsewhere, we're involved in numerous other renewable energy projects that call for innovative, multi-step solutions – all project managed in-house, from design to delivery.



## Nuclear

Stephenson Engineering works across both the civil and defence nuclear sectors, producing machined steel fabrications including Class 1 nuclear components.

Our manufacturing facilities are ideally suited to producing large, machined steel fabrications, and our project management and QA departments are equally familiar with the exacting demands of the nuclear industry.



## Rail

Stephenson Engineering has worked within the rail industry for many years, producing a variety of components, from bridge bearings and shear plates to steam locomotive motion.

We have unique facilities capable of manufacturing complex rail components, including the CNC machining of bogies. Many of our customers have been with us for decades, thanks to the quality of our client service and our understanding of the complexity of rolling stock manufacture. We currently hold the rail welding accreditation to 15085.

## Defence

Our engineering facilities are ideally suited to manufacturing large steel machined fabrications, and in this respect, we deliver a variety of components to the defence sector.

For the many important defence contracts entrusted to Stephenson Engineering, we are proud to have delivered world-class solutions across every phase of the product life cycle.





## Civil engineering

Civil engineering projects have always formed an interesting and challenging part of our work. We have manufactured components for many UK and overseas projects, concentrating mainly on large and complex engineered nodes and fittings.

Our facilities are ideally suited for the batch production of similar parts, and in this capacity, we have worked on projects ranging from Hong Kong Airport, to Heathrow Terminal 5; the Thames Barrier, to the sliding roofs at Wimbledon.

## Mining

We have worked in the mining industry since we first opened our doors in 1908, and have been designing and manufacturing mine cage suspension gear under Edward Ormerod & Co since 1867. This unparalleled sector knowledge and experience is combined with modern engineering techniques and processes to produce an unbeatable range of products and specialist services.

Stephenson Engineering specialises in the design and manufacture of safety-critical mine cage suspension equipment for deep mine shafts. Over the past 156 years, we have produced over 13,500 sets of cage suspension equipment for mines all over the world, and continue to provide this service today.

## Mine cage suspension equipment

### Cage suspension gear

- Ormerod safety detaching hooks
- Fork links, plate links & pins
- Winding rope sockets
- Shackles
- Hydraulic adjusting links for multi-rope friction wind

### Balance rope suspension gear

- Fork links, plate links & pins
- Totally enclosed swivels
- Guide rope suspension gear
- Forged weight rods & weights
- Rope clamps
- Fork links, plate links & pins

# About Us

Stephenson Engineering is a long-established engineering company, specialising in the batch production of machined components and fabrications. We serve both domestic and international customers from a seven-acre site in Atherton near Manchester, where our extensive facilities range from the conventional to the state of the art.

Over the past 60 years, we've developed a broad and loyal customer base, through offering general engineering services and specialist support to power-generation, mining, civil, and oil & gas companies.

We offer a 'build to print' subcontract service, or a full turnkey package depending on customer needs, and our obsession with engineering quality is matched only by our reputation for flawless customer service.



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