



CAREERS IN STEEL CONSTRUCTION



Have you ever thought about
a career in steel construction?

There are many options to choose from.
Where you start doesn't really matter as
much as the many different directions that
you can take and how far you can go.



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A steel structure is the product of a highly professional team.

Like any successful sports team, every team member makes a vital contribution in achieving the right final result.

The steel construction team includes:

- Architects
- Design engineers
- Quantity surveyors
- Contractors
- Steelwork contractors
- Steel erectors
- Steel producers and
- Specialist suppliers

This brochure focuses on some of the different roles within the industry, briefly describing the kind of work that's done and the types of people who carry it out.

You'll see that there are fulfilling careers throughout the steel construction industry, with rich rewards for all. They share a "can do" attitude.

So if you enjoy the challenge of tackling tough assignments, if you are a team player who likes to deliver, you may have what it takes.



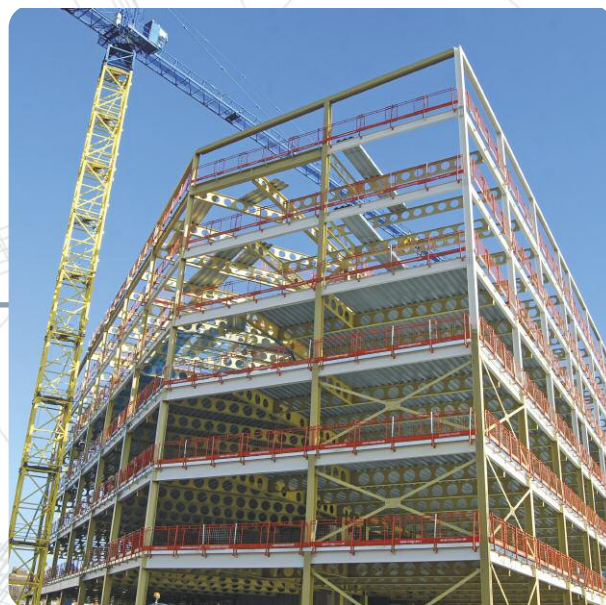
Estimator

The estimator prepares a schedule of quantities or "take off" for the steelwork, allocating material and labour costs specific to a particular project.

The estimator collates costs from various departments and where required analyses costs from the various sub-contract packages.

Whilst the costs are an estimate, it is essential the costs are accurate and vital to both the success and profitability of any company.

The ability to interpret the information received and communicate with the client or colleagues is paramount.



ENTRY REQUIREMENTS

Good level of English, maths and technology skills, with further technical education.



Design Engineer

Structural engineers shape the world we live in, and are responsible for the safety and economy of our built environment.

A career in structural engineering offers creative and technical challenges, and requires excellent problem solving skills.

Working as a structural engineer for a steelwork contractor offers an exciting, challenging and rewarding career, allowing you to develop the knowledge and skills to become a specialist in structural steelwork.

The steelwork contractor's structural engineer is often part of the project design team, offering specialist design and construction skills, working alongside the architect, consulting engineer, services engineer, and main contractor, to develop an efficient and practical structure.



ENTRY REQUIREMENTS

BEng or MEng in Civil Engineering or trade apprenticeship with high level of technical qualifications.



Steel Detailer

The steel detailer generates a package which includes detailed arrangement drawings, fabrication/assembly drawings and CNC data for the fabrication and erection of structural steelwork.

These drawings are used in the construction of multi-storey buildings, car parks, portal frames, stairs, platforms, handrails, bridges and other structures.

This package is created from a 3D computer generated model using specialised software. The model is created from design drawings received from the structural engineer. Although not responsible for the design of the main structure, the detailer is often responsible for the connection design using information received from the structural engineers.

Completed shop drawings show section sizes, dimensions, welding, bolting and painting requirements (if necessary), plus any other information the fabricator may need to fabricate each individual member.



With the powerful 3D CAD packages the detailer can develop a building, as it would appear once built on site

ENTRY REQUIREMENTS

Good level of English, maths and technology skills, with further technical education.



Responsible Welding Coordinator (RWC)

The RWC role is to implement a welding quality management system as part of the company factory production control.

A good understanding of welding technology is required along with the skills to implement and audit the management system.

This role is essential for the fabricated structural steelwork to be CE marked under the Construction Products Regulation.

Technical, practical and people skills are needed to be a Responsible Welding Coordinator.



ENTRY REQUIREMENTS

Many progress through trade apprenticeships and work up to this role with further technical education.



Project Manager

If you enjoy wide-ranging responsibilities, problem solving and seeing things through from start to finish, then a career as a project manager is worth aiming for.

Project managers have a good understanding of all the elements that make up a construction project - the various components that combine to form structures and how they are brought together on site and built in the most practical, safe and cost-efficient way.

People who become project managers are good organisers and communicators. Problem solving can be a big part of the job due to the number of issues that can arise on a construction project, and they have to be good decision makers and take accountability for their actions.



ENTRY REQUIREMENTS

Many progress through trade apprenticeships and work up to this role with further technical education.

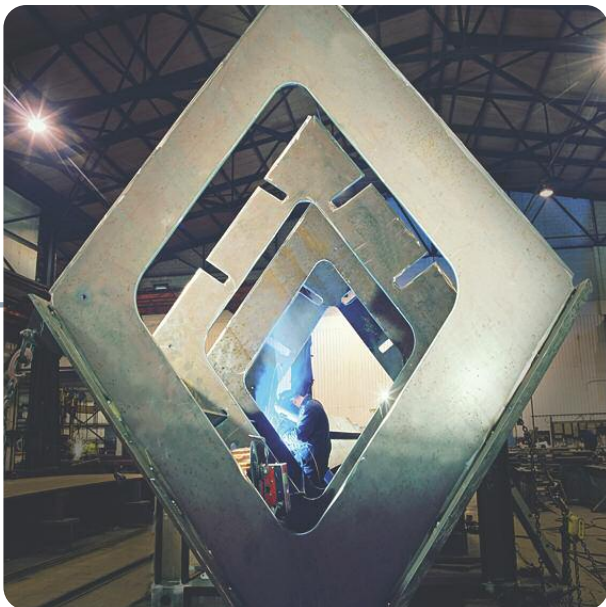


Fabricator Welder

Fabricator welders are highly skilled factory -based operators of automated heavy metalforming, punching, drilling, cutting and sawing equipment. Their skill enables large and often complex components to be manufactured accurately, efficiently and safely.

Sophisticated CNC (computer numerically controlled) equipment is often used. The individual steel components are cut, drilled, etc and are then moved through the workshop to a fabrication bay where they are fitted together in the positions shown on the shop drawings before being fully welded.

People who excel as fabricator welders are highly valued tradesmen and women. They have practical skills and are capable of a high level of concentration.



ENTRY REQUIREMENTS

Good level of English, maths and technology skills.



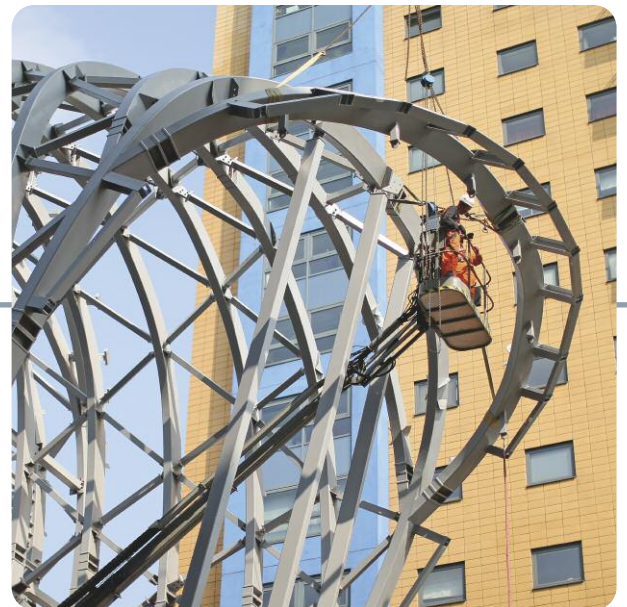
Steel Erector

Steel erection is a specialist trade that few people are able to do. The people that work within this industry have often had to overcome a natural fear of heights to enable them to carry out complex tasks safely to the highest standards required.

Steel erectors play a major role in producing the high-rise apartments and office blocks along with many other buildings that you see every day.

They work from mobile elevated work platforms and man riders to access higher sections of these large framed structures. From these platforms they safely align and level the steel components in position with tower cranes and secure them through bolting or welding techniques.

They also install and fix the prefabricated steel girders, pipework and sections which make up the framework of a building or structure.



ENTRY REQUIREMENTS

Be comfortable working at heights and have an aptitude for practical skills.

Other roles within the industry are:

- Management
- Marketing
- Human Resource
- Health & Safety
- Procurement
- Finance
- Information Technology (IT)
- Transport
- Protective Treatment



For more information about steelwork

Steelwork contractors are located across the country; detailed information about them and more information about the projects they build can be found at: www.steelconstruction.org

For more information about case studies and projects go to: www.newsteelconstruction.com

