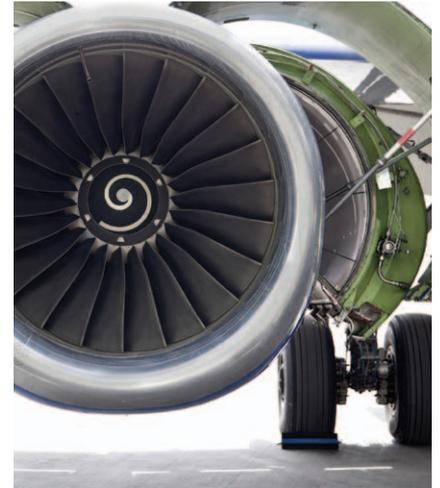
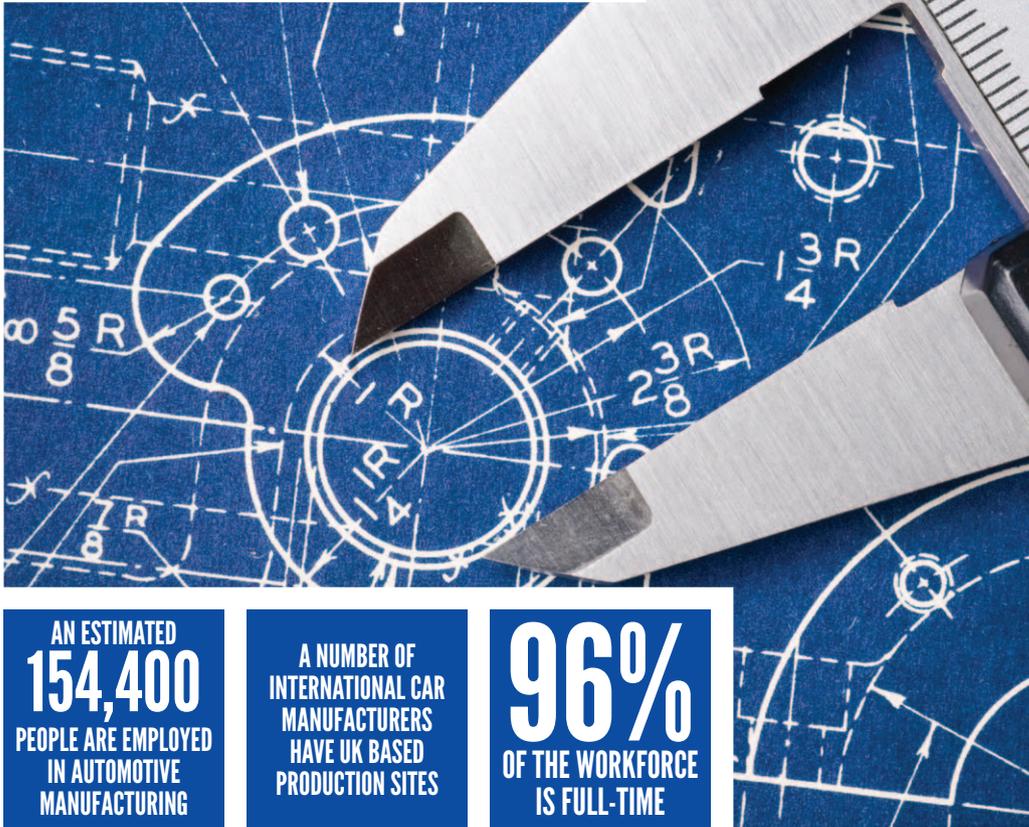


Engineering



AN ESTIMATED
154,400
PEOPLE ARE EMPLOYED
IN AUTOMOTIVE
MANUFACTURING

A NUMBER OF
INTERNATIONAL CAR
MANUFACTURERS
HAVE UK BASED
PRODUCTION SITES

96%
OF THE WORKFORCE
IS FULL-TIME

You can engineer pretty much anything these days and it's a sector that we rely on heavily to produce some important stuff! Aeroplanes, toxic chemicals, skyscrapers, cruise liners and tanks are all a result of an engineer's thoughts. Read on to find out how you can get into this sector...

You ask us...

WHAT'S THE ENGINEERING SECTOR ALL ABOUT?

Well, it certainly covers a lot of ground. Engineering is so diverse that pretty much everything you see around you is the product of engineering. It's about creating technology to help us advance as people; engineers were behind the first aeroplane, the first cannon, the first microwave and even the first tin of beans. But it's not just about creation, it's also about improving; F1 teams use engineers to make their cars faster and lighter and car manufacturers always need new designs to keep ahead in the market.

WHAT KIND OF SALARY CAN I EXPECT TO EARN?

This is a very big sector, so you can expect a very big salary as you become more qualified. Starting salaries are around **£17,000** and the average, fully qualified engineer can expect to earn **£43,000** a year. Of course, the more specialised you go, the more you will get!

WHAT KIND OF ENVIRONMENT WOULD I BE WORKING IN?

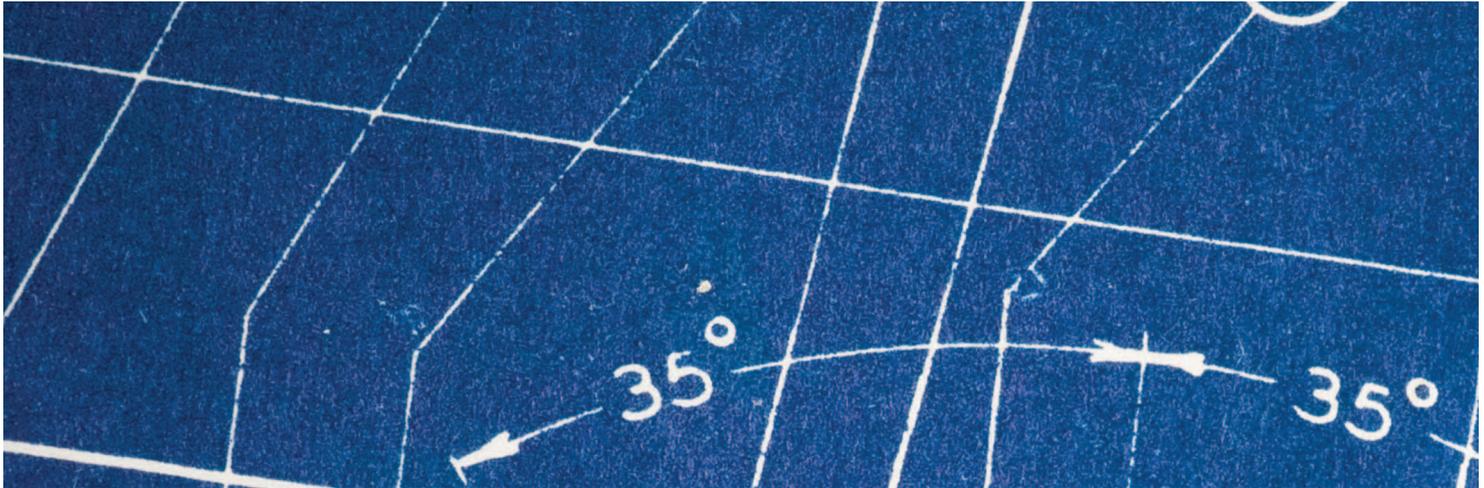
Most engineers work in factories, but some fields such as chemical engineering might require you to work in a laboratory with complex equipment or in the case of Marine Engineers, on a boat in the middle of the ocean!

HOW DOES THIS SECTOR COMPARE TO OTHERS ACROSS THE COUNTRY?

As we've mentioned a billion times already, engineering is a huge part of the UK economy. In fact, it comprises one fifth of it. Over half the people who work in Engineering are in managerial and professional roles, so there is an obvious route to progression in this sector.

WHERE IS THE WORK MOST CONCENTRATED?

The North of England is one of the leading areas in the world for this sector; there's aerospace, automotive, chemical and marine engineering in that region, but speaking more locally, most factories and plants are where the action is. Naturally, most work is on industrial estates so be prepared to look around to find the type of engineering you would like to work with.



Careers Choices

Engineering is behind the creation of pretty much everything in the world. That's a bold statement, but everything you see around you was at some point in time a thought in the mind of an engineer. You need a logical thought process, patience and a willingness to improve on what you've already done. No project is ever quite finished and there is always a little more to tweak and make better, faster or stronger. Here are the main areas of the Engineering industry.

CHEMICAL ENGINEERING

This sounds pretty complicated and it kind of is, as it deals with combining complex chemicals to produce products. However, it's behind the advancement of some of our best medical cures and vaccinations, as well as creating new materials that are used in other areas of Engineering.

METALS ENGINEERING

Everything you see that's made from a metal was engineered by this industry. Metal production is vitally important and it contributes £15 billion a year to our economy. Plus with recycling on the increase, the industry will continue to grow and grow.

ELECTRICAL ENGINEERING

Electrical Engineering covers everything from the smallest microchips to ensuring the national grid (responsible for the power flowing into our homes) is running smoothly. It covers maintenance and creation, as well as evaluating systems for improvement.

AEROSPACE ENGINEERING

Did you know that the UK is the second largest manufacturer of space vehicles in the world? Aerospace covers satellites, commercial and military aircraft, space shuttles and all the bits that make them up.

MARINE ENGINEERING

Marine Engineering covers all things oceanic. You could be designing cruise liners, fishing boats and other aquatic vehicles. It also covers offshore oil rigs and wind farms. As the UK is an island, there's plenty of business to be had in this sector!

DEFENCE ENGINEERING

Although most engineers that work in defence would probably fall into one of the above categories, there are projects (such as missiles, aircraft, satellites, advanced technology) that fall into a separate category. Some projects are kept top secret and require specialists to work on, so if you choose to follow this path, keep it on the low down.....

WHAT CAN I EXPECT TO EARN?

Engineering pays very well, as there is a large demand for it. Starting salaries are around **£20,000** and can go well over **£40,000** with training and experience.

Where to begin

APPRENTICESHIPS

As you can see, there are a lot of choices to make regarding this sector. It's one of those careers where you specialise and stay on a particular path, so make sure you choose the right job for you. Here are the frameworks you can expect to see in this industry and all Apprenticeships result in a Level 2 BTEC, Diploma or NVQ.

Engineering • Engineering Construction • Heating, Ventilating, Air Conditioning and Refrigeration • Industrial Applications • Marine Industry

ADVANCED APPRENTICESHIPS

These are the equivalent to A-Levels and can usually be joined after completing the associated Intermediate Apprenticeship. They are ideal for people who want a practical role as they learn while gaining valuable employment experience. Engineers with Advanced Apprenticeships tend to progress to management a lot quicker than those without, as the skills they learn help them progress. Here are some of the Apprenticeship Frameworks for this sector and all of these will result in a Level 3 qualification such as a BTEC, a Diploma or an NVQ.

Engineering • Engineering Construction • Heating, Ventilating, Air Conditioning and Refrigeration • Marine Industry

A higher Apprenticeship (NVQ Level 4) is also available in **Engineering Technology**.

A-LEVELS

A-Levels are the most popular gateway into university and are sought after by employers. Here are some of the relevant A-Levels for this sector:

Biology • Chemistry • Design and Technology • Maths • Marine Science • Physics

FOUNDATION DEGREES

A Foundation Degree combines university lifestyle with practical, hands on work. It's sort of like a cross between an Apprenticeship and an Honours Degree. They are often used as gateway qualifications to a full time Degree as they count towards the first two years of an Honours Degree. They usually take two years to complete and you'll be both in the work place and on the university campus. They are available in a range of engineering subjects, including marine, aircraft and chemical.

COLLEGE COURSES

College courses are also a great way to get into this sector. To check which colleges do courses relevant to you, head to www.careersworld.co.uk. **CW**