

# Manufacturing & Processing



THERE ARE ALMOST  
**132,000**  
MANUFACTURERS  
IN THE UK

OVER  
**2.5 MILLION**  
PEOPLE ARE EMPLOYED  
IN THIS SECTOR

THIS SECTOR  
CONTRIBUTES OVER  
**£130**  
**BILLION**  
TO THE UK ECONOMY



**Nearly every product we use in our lives is a product of manufacturing; food, toasters, toilet seats, TV's, cars, t-shirts, perfume and even satellites are a result of this industry! If the thought of the creation process fascinates you, then you won't find a career in a better industry than Manufacturing!**

## You ask us...

### WHAT'S THE MANUFACTURING & PROCESSING SECTOR ALL ABOUT?

It's all about making stuff. Or more precisely, the process of how that stuff is made. This could start way back in research and development, or it could be on the factory floor actually making products. Because so many things come from manufacturing, it's a highly important industry that many other sectors rely on. The industry is generally broken down into seven sectors; **Automotive, Electronics, Aerospace and Defence, Metals, Chemical and Building.**

### WHAT KIND OF SALARY CAN I EXPECT TO EARN?

It's tricky to say; because of the sheer size of this industry, it's easier to talk about the job roles that you find in all areas of manufacturing. Jobs on the assembly line usually start out at around **£13,000**, while more technical positions like engineers and technicians start on a higher salary, usually around the **£16,000** mark. Because of the sheer size of this industry, advancement to supervisory positions is encouraged and training is usually provided by employers.

### WHAT KIND OF ENVIRONMENT WOULD I BE WORKING IN?

Much like the construction sector, it really does depend which area of manufacturing you go into. Those working in chemical, aerospace and pharmaceutical roles might find themselves in a laboratory, testing materials in a variety of different conditions. If you were to work in the process part of manufacturing, you'd be in a factory, working in a team assembling and sorting parts and products. The defence sector obviously has a lot of military applications, so don't be surprised to find yourself having to travel to a base of some kind to meet with potential contracts.

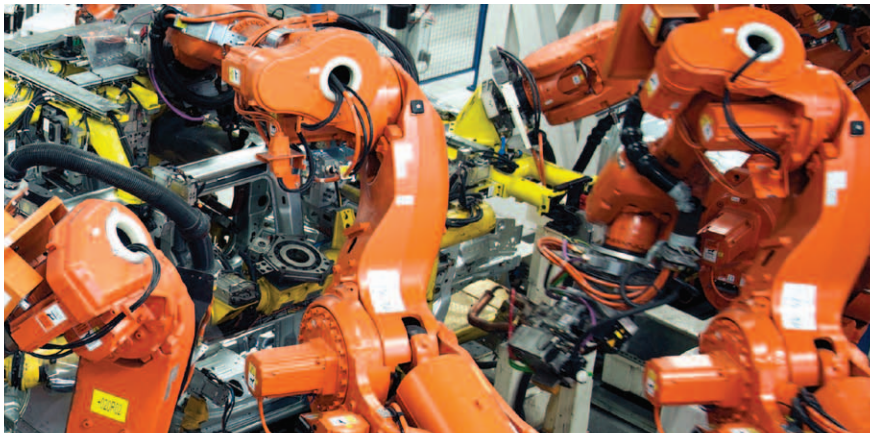
### HOW DOES THIS SECTOR COMPARE TO OTHERS ACROSS THE COUNTRY?

In case you hadn't noticed, manufacturing is incredibly important to the UK economy; the industry is worth **£131 billion** to our economy! There are close to **132,000** manufacturing business in the UK, employing **2.5 million** people. As Ron Burgundy would say, it's kind of a big deal!

### WHERE IS THE WORK MOST CONCENTRATED?

Because of the diverse nature of this industry, it's pretty much spread across the country. Historically speaking, manufacturing tended to be based in the North of England; Sheffield has a rich steel manufacturing history, while major cities such as Liverpool and Newcastle were famous for ship building. Of course, if you live in the south you won't have to head north to find work; most manufacturing sites are located on the outskirts of major towns and cities where there is access to major transport means, such as motorways and ports.





## Careers Choices

**Manufacturing is all about mass production. Whether it's building a luxury cruise liner or designing a state of the art computer, you'll be working with a mix of traditional methods and state of the art machinery. Although a lot of manufacturing companies are now based abroad, the UK is still the sixth largest country in the world for this industry and this is recognised by the fact that a lot of foreign companies such as Toyota, Tata (a steel company) and Reebok (sports goods) now have established production bases here. Here are some of the areas you could work in:**

### AEROSPACE

Aerospace engineering is split into two sections; aeronautics (anything that flies in our atmosphere) and astronautics (anything that goes into space, such as shuttles and satellites). Within both of these disciplines, you'll be looking at the different factors that affect these aircraft, such as aerodynamics, control surfaces and propulsion systems.

### AUTOMOTIVE

This area of Manufacturing relates to anything vehicle related; cars, buses, trucks, motorcycles, campervans, fire engines and anything else that goes on the road originates from this sector. The UK is so renowned for its vehicle manufacture that companies from other countries, such as Honda, Nissan and Toyota have set up factories here! You could be working in a whole range of areas, from developing a new petrol cap to actually constructing a whole vehicle.

### ELECTRONICS

The UK electronics products industry is the fifth largest in the world and we produce all sorts of things; from laptop computers to microwave ovens. Not only that, but we also manufacture a lot of electrical components, such as circuit boards, semi conductors and microchips. Working in this area demands a skilful eye; you might find yourself developing parts that can only be seen under a microscope!

### METALS

Metals manufacturing in this country has always been an important industry to the UK economy. Metal has a million uses and therefore, it has plenty of different job roles associated with it. Not only that, but with recycling becoming big business, a greater number of jobs are becoming available in this sector. As well as recycling plants, you could find yourself working at a foundry (where metal moulds are made for other industries), an ore extraction facility (where metals are dug up and processed in their raw forms) or even as a blacksmith, making items such

as specialist tools, garden gates or horseshoes.

### CHEMICAL

Chemical manufacturing is all about taking raw materials and turning them into useful things. This has a whole range of applications across various industries, such as pharmaceuticals, food and drink, textiles and synthetic products. You could be working in a laboratory researching and experimenting, or on the factory floor maintaining the machines that mix the chemicals.

### BUILDING PRODUCTS

Those materials that builders use don't just appear out of nowhere; bricks, pipes, grills and glass are all made in manufacturing environments. There are so many different job roles involved in creating building materials, so there's a need for skilled young people (that's you!) to start. You could be working with a kiln making bricks, or using plastic moulds to make piping for gas and water networks!

### EXAMPLE JOB ROLES

We couldn't possibly list all the job roles for this sector (well we could, but you'd be reading something as thick as a phonebook), but here are some job roles that you'll find in most aspects for Manufacturing:

#### • Assembly Line Worker

Using the components provided, you will be making up the products ready to be shipped out across the world. This could be fitting a microchip to a device, or packing a TV remote in with a home media system. The starting salaries are usually around **£13,000**.

#### • Materials Technician

These guys are responsible for testing out how well products perform under certain conditions, such as cold, heat and water. Salaries usually start out between **£14,000** and **£17,000** a year.

#### • Supervisor

Supervisory roles are always needed in this industry to monitor the various parts of the manufacturing process. Salaries start out at around **£16,000** for apprentices, but fully qualified supervisors can easily earn in excess of **£32,000**.

### ADVANCED APPRENTICESHIPS

This is the equivalent of two A levels, but without sitting in a classroom studying. Like a regular Apprenticeship, it's suited to more practical fields of work. Advanced Apprenticeships in construction only take a year and on completion you will receive a Level 3 Qualification, either a BTEC, an NVQ or a Diploma.

**Combined Manufacturing Processes • Engineering Manufacture (Craft and Technician) • Extractives and Mineral Processing Occupations • Food and Drink • Glass Industry • Jewellery, Silversmithing and Allied Trades • Polymer Processing Operations • Process Manufacturing**

### A-LEVELS

A-Levels might not sound relevant to this field of work, but employers and universities both like candidates with scientific and practical subjects. Here are some examples of A-Levels you could study to gain entry to this industry.

**Maths • Physics • Chemistry • Biology • Design and Technology • Textiles**

## Where to begin

### APPRENTICESHIPS

This is the most popular route into this sector, because of the hands on nature of the learning. An apprenticeship allows you to learn your trade while also being paid a salary. There are many employers and colleges out there who provide apprenticeship schemes. Below you will find the Apprenticeships frameworks relevant to this industry, which will give you an idea of what you'll be able to choose from. All these frameworks result in a Level 2 qualification, such as NVQ's BTEC's or Diplomas, are the equivalent of 5 GCSE passes and takes two years to complete.

**Ceramics Manufacturing • Combined Manufacturing Processes • Engineering Construction • Extractives and Mineral Processing Occupations • Food and Drink • Glass Industry • Jewellery, Silversmithing and Allied Trades • Polymer Processing Operations • Process Manufacturing**

### FOUNDATION DEGREES

If you feel like you want to experience the university lifestyle and perhaps break away from those troublesome parents, then a Foundation Degree is a way of getting there. They usually last two years (this does tend to vary depending on your choice of course) and mix study with practical learning. These courses are available across the country and might give you the opportunity to live away from home and give you more independence – you'll get to choose your own bed time and everything. They are available in a whole host of subjects, such as **Modern Manufacturing, Mechanical and Manufacturing Engineering and Electrical Systems**.

### COLLEGE COURSES

A college course is another way into this sector. To see if there are any colleges near you with relevant courses head over to [www.careersworld.co.uk](http://www.careersworld.co.uk). **CW**