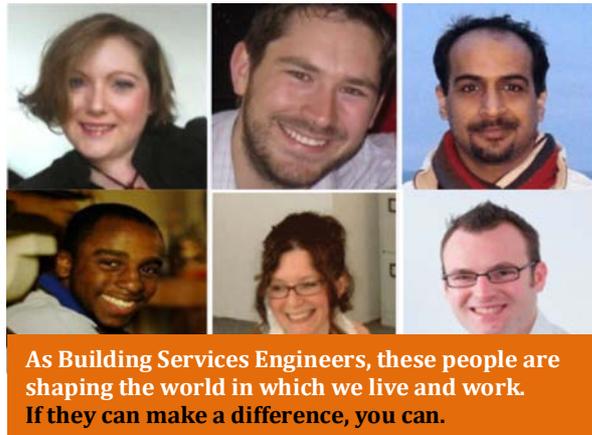




WHY BUILDING SERVICES ENGINEERING?

Everyone is different and different things motivate each of us. But whatever motivates you Building Services Engineering has something to offer.

No career in the world offers more variety. Sometimes you could be working on a highly sensitive environment like a forensic laboratory or a chemical engineering plant. Another day you might be designing services for a school or a shopping mall. Or a 900 year-old building that needs new efficient but invisible services that leave ancient structures intact.



Building services engineers also work in domestic housing, taking account of human psychology to design user-friendly systems that are energy efficient and make people feel at ease. The job can offer a unique combination of technical planning and design work together with hands-on installation and problem solving.



Here are some of the main reasons Building Services Engineers give for why they get great job satisfaction.

“It’s different every day”

If you don't fancy being stuck in an office all day, consider this typical range of work for a building services engineer. It could include site visits to see how your designs are working in practice persuade a new client to incorporate low carbon technologies in their building project spend time with a manufacturer to learn about new products and components plan your trip abroad to evaluate a new product from an overseas supplier a scoping study - early planning with architects at a new site where construction has not yet begun a presentation to potential clients of what your firm can offer guiding an installation team on site handover of a completed project, in a brand new building manage the operation and maintenance of building services in a completed facility being on a CIBSE Panel to advise the

government about new laws to curb carbon emissions use the latest software packages to solve engineering problems, using design, modelling and visualisation.

“It has a real impact on people’s lives”

The buildings in which we live, work and spend our leisure time can have a direct affect on our health and wellbeing. On a personal level we feel the effect of good temperature control, ventilation and humidity control. Try working in a warm room with little airflow and staying awake! But it’s about more than comfort - these issues can directly affect our health. For example, airflow in a hospital can have a direct bearing on the transmission of contagious diseases, while refrigeration systems contribute to keeping fresh the food we buy in the shops. Have you ever thought about how fire escape routes in large buildings are planned? Or about whether the sprinkler system in your school or college is working properly? Hopefully you’ll never find out, but by designing, installing and maintaining systems such as these Building Services Engineers help keep you safe.

“Importantly, my job enables me to have a positive and direct impact on reducing carbon emissions through the specification of low energy solutions in my designs.”

Matthew Kirkham

About 40% of all the UK’s energy is used within buildings. So good design for energy efficiency can make a real difference to our carbon emissions and energy costs. You can play a genuinely important role in helping to make our lives more sustainable. Sustainability is a way of life for Building Services Engineers.

“It allows me to be creative”

Creativity is about using your imagination or original ideas to create something. It isn’t confined to the arts and it isn’t just about moments of inspiration. Creativity is applied in all areas of life and can be the result of applying knowledge to a situation in different ways. Engineers use their knowledge of how the world works, particularly their understanding of science and mathematics, to create new artifacts and processes to solve problems or to improve processes. Engineering is a creative profession.



During a building's design phase Building Services Engineers use sketches, computer models and calculations to find the best solutions for that particular building. Every building is different and lots of different things need to be taken into account. For example, the direction that the building faces, the materials used to construct it and its interaction with the local climate will need to be modelled and optimised to produce the most sustainable and productive environment. But as well as looking at how to make the building work as a shell Building Services Engineers develop the internal engineering systems to make the building "come alive".

Its only by being creative in applying technical and business knowledge that Building Services Engineers can continually improve our built environment and keep their customers happy.

"You get to work with lots of different people"

As a Building Services Engineer you'll work with teams of people from a wide variety of backgrounds and expertise: business leaders, architects, other engineers, builders, manufacturers and – possibly most importantly of all – the people who will actually live and work in the environments you create.

Design consultancies are the biggest employers of graduate Building Services Engineers. But they also, for example, work in:

- Building contractors
- Manufacturers of specialist equipment, such as lifts
- Local authorities and government departments
- Hospitals
- Factories and power stations

Building services engineers work all round the world on a huge range of projects, adding to the variety of people you could be meeting. Graduates in particular work on projects around the world; the UK, Dubai, America, China and India are just a few examples.

"I enjoy the day-to-day challenges of solving technical problems and the variety of project work the job provides. One day you could be undertaking a site condition survey at a local primary school, the next you could be an integral part of a multi-disciplinary team designing the M&E services for a large airport in the Far East!"

Matthew Kirkham

"It's challenging"

Problem-solving skills are a number one priority if you want to make a career as a Building Services Engineer.

“It’s well rewarded”

Engineers are in demand and are well paid. The average starting salary for graduates in engineering & technology subjects is £26,536 – over 20% more than the average for all graduates. On average engineering apprentices earn over double the national minimum apprenticeship wage.

Chartered engineers may earn up to £50,000 a year and senior managers and project directors may earn over £70,000 a year. Some employers also provide additional benefits, including a company car or car allowance, private health insurance and a company pension.

Some estimates suggest that engineering employers will need to recruit around 1.8 million people with engineering skills by 2022. So the demand for engineers in general and for Building Services Engineers in particular looks set to be health for some time to come.

£26,536

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