



Continuing Professional Development (CPD)

In addition to our apprenticeship programmes we offer a wide range of CPD training tailored to your needs.

Upskilling bitesize training will be available through our training workshop facilities in:

- mathematics
- problem solving
- process design, fixture design, computer-aided-design (CAD) tool design
- power press selection, setting and maintenance
- press tool design principals, handling lifting and splitting
- measuring techniques including statistical process control (SPC)
- single-minute exchange of dies (SMED)
- geometric dimensioning and tolerance (GD&T)
- introduction to sheet metal processes
- introduction to forming simulation
- material utilisation
- health and safety in the tool room
- tooling repair techniques
- estimating, quotation analysis, capacity planning.



For more information about how our apprenticeships and training can transform your career, contact the Elite Centre for Manufacturing Skills today!

Tel: 0800 953 3222
Email: enquiries@theecms.co.uk
theecms.co.uk

Careers in Sheet Metal Forming



ECMS is a collaboration between the Black Country Local Enterprise Partnership, the University of Wolverhampton, Dudley College, Cast Metals Federation, Confederation of British Metalforming and Institute of Cast Metals Engineers.

Ever considered a career in making sheet metal components?

Sheet metal components are in lots of things that we use every day and we cannot do without, in exciting sectors including:

- automotive
- catering
- railways
- retail
- aerospace
- construction
- surgical
- white goods
- ...plus many more!

A sheet metal or a pressed sheet metal component is a product of a highly skilled team – one that you could be part of.

Like all successful teams, all members contribute into ensuring the product meets the customer's requirements. As part of this team, you could work with:

- product designers
- prototype makers
- tool process design engineers
- estimators
- computer-aided engineering (CAE) engineers
- toolmakers, tool setters
- tool and die maintenance technicians
- quality technicians
- shop floor production technicians.

At the Elite Centre for Manufacturing Skills, we offer a range of exciting apprentice and CPD training options which can lead to skilled and rewarding careers.



You will be taught in our unique, purpose-built training workshop which includes a mini press-shop, die maintenance area, as well as classrooms and computer-aided engineering lab.

Image supplied by HT Brigham

Apprenticeship pathways

There are many options in the metal forming sector. With apprenticeships available related to taking products from a prototype component, through to high volume manufacturing processes.

Tool and Die Maintenance [Level 2-3]

When press tooling is making lots of components to meet customer volumes, the skills of the tool and die maintenance person are needed to bring the tool back to standard to meet the next production run ASAP.

As a skilled tool and die maintenance worker, you will learn to recognise the problem from the last component made and make a decision on what needs to be done – whether to regrind cutting edges or replace a worn out or broken cutting or forming die. In most cases this has to be done under pressure from the production team, and needs you to work in the most efficient way. Your machining, hand work and grinding skills are essential in this occupation. The position also requires an element of administration to keep maintenance records up-to-date and creativity doing tool improvements to increase longevity. The position gives you the ideal opportunity to move to Level 3 Toolmaker.

Toolmaker [Level 3]

Toolmakers have the ability to work with a computer-aided-design (CAD) drawing and models to make a press tool that makes a pressed metal component in line with customer design and specifications, making sure that the correct tool materials are used.

You will have the ability to hand machine the tool components to size and shape, or Computer Numerical Control (CNC) machine the tool components. Once all the tool components are made and heat-treated you will be responsible for assembling the tool, checking fit and alignment, and fitting to the power press for tool trails and adjustments to ensure the size and shape is correct. Together with the tool designer, toolmakers are responsible for ensuring the tool meets the expected run at rate. This is an exciting, challenging occupation. Completing Toolmaker Level 3 can allow you to progress to Level 6.

Tool Process Design Engineer [Level 6]

Tool process design engineers have the ability to create a process that takes prototype components into full economically viable mass production. The role requires the ability to understand complex technical capabilities at the product level and then can move to full mass production without disrupting existing processes and tooling schedules while running the new development in parallel.

As a tool process design engineer, you will lead on activities ranging from early concept feasibility, computer-aided-design, trialling and modelling activities, through to full production in time for the prescribed launch and customer schedule. This includes re-balancing existing production commitments testing and analysing impact on both human and machine resources. You will develop a detailed knowledge of metallurgy, metal forming and cutting processes including power press regulations, working closely with customers and senior managers to bring efficient high volume pressed components into full production meeting all quality, cost and volume delivery requirements.



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