

EWelding Engineering

... how far can you go?



The
Welding
Institute

So what is welding?

Simply, welding is a process used to make high-strength joints between two or more parts. However, there are many different types of welding, and they can require advanced technology and a high degree of skill.

Welders work with a variety of different metals, alloys and materials – heating, melting and joining them together.

There are many different ways to weld, some of which involve amazing machinery harnessing revolutionary technology, including electron beams, lasers and ultrasonic waves.

Welders can be found across all industries, in every corner of the earth. Their work includes the fabrication of aeroplanes, manufacturing of cars and other vehicles, construction of buildings and bridges, and ensuring the safe operation of oil rigs at sea, working topside and underwater.




Will I be able to get a job by learning how to weld?

While parts continue to need joining together, there will always be work for welders. There is currently a need for skilled welders and welding engineers, both in the UK and globally. Job prospects are excellent, and there is good money on offer - especially for roles requiring a high level of skill.

Welding is certainly an exciting career choice, opening the door to many opportunities: the opportunity to learn new advanced technological processes; the opportunity to work for a range of different companies; and the opportunity to work around the world.

And there is more to welding than simply joining things together. Many different career paths are available:

- Management
- Teaching/instructors
- Welding inspectors
- Project managers
- Plant/consumable sales personnel
- Supervisors
- Engineers



Do I have what it takes to make a good welder?

To begin with, you will need:

- Great eyesight
- To be healthy and fit
- Good hand-eye co-ordination
- To be skilled with your hands
- To enjoy working with tools
- To be willing to practise and train - including in the use of the latest technology

Want to find out more?

If you're just leaving school, or aged 16-24, you could apply for a place on an apprenticeship scheme with a company. An apprenticeship combines practical training in a job with study, allowing you to earn while you learn.

The following website is very useful:

www.apprenticeships.gov.uk

Many companies offer comprehensive training programmes in several welding processes, while others may be more specific and focused.

Ask your careers teacher or contact local engineering companies for advice.

Changing your career?

If you are considering changing career, you may wish to develop basic skills of welding before you apply for a job.

Evening classes in welding are available at many colleges or local training providers. They offer both training in practical skills and an understanding of the science that makes welding possible.

Information about courses is available from many training organisations including The Welding Institute.

Can I get financial help for my training?
There may be grants available to help pay for the cost of a course you are interested in.

Your local college, training provider or Jobcentre Plus will be able to tell you more.

What qualifications and experience will I need?

To become an apprentice you will normally need four GCSEs at grade A to C.

These should include the subjects maths, English and science.

For more information about the requirements for apprenticeships, visit the website:

www.apprenticeships.gov.uk

You could also consider studying for a different kind of qualification, which could give you some of the special skills you need for a job.

See the following organisations' websites for more information about welding careers, qualifications and training:

- [Engineering Construction Industry Training Board \(ECITB\)](http://www.ecitb.org.uk)
- [The Science, Engineering, Manufacturing and Technologies Alliance \(SEMTA\)](http://www.semta.org.uk)
- [The Welding Institute](http://www.theweldinginstitute.com)

www.ecitb.org.uk

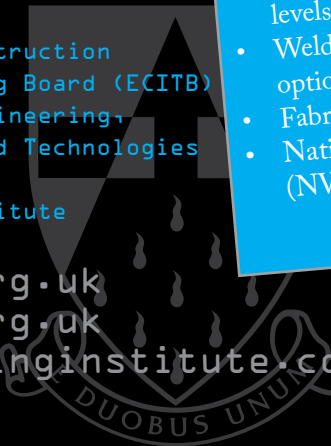
www.semta.org.uk

www.theweldinginstitute.com



What further training can I do? You can continue to learn while you are working.

- You could study for one of several NVQs, including:
- Fabrication and Welding Engineering levels 2 and 3
 - Welding (with pipework or plating options) Level 3
 - Fabrication and Welding Level 3
 - National Welder Training Standard (NWTS) VRQ 1, 2 and 3.



I'm going to university - what about me?

Then you may be able to become a qualified welding engineer.

Welding engineers require an understanding of metal and material science, along with the technology used to shape joints. This includes arc welding, lasers, resistance welding, brazing and soldering.

Qualifications you could consider are:

- BEng in Metallurgy/Materials Science and/or Engineering
- MEng in Metallurgy/Materials Science and/or Engineering
- Cranfield MSc in Welding Engineering

Learning and knowledge can also be developed through internships and on-the-job assignments.

Where can I go for more information?



The Welding Institute has lots of information available for anyone who's interested and our staff are always happy to help.

We can provide the following information:

- industries in which welding plays a key role
- training schemes for welding methods
- qualifications for inspection and testing

Please contact:

The Welding Institute
Granta Park
Great Abington
Cambridge
CB21 6AL
United Kingdom

01223 899 000

theweldinginstitute@twi.co.uk

www.theweldinginstitute.com

Welding Training Colleges

Central College Nottingham	NOTTINGHAM	0115 914 6414
Central Sussex	CRAWLEY	01293 442 213
Chesterfield College	CHESTERFIELD	01246 500 500
Colchester Institute	COLCHESTER	01206 712 000
College of North West London	LONDON	0208 208 5050
Derwentside College	GATESHEAD	01207 585 900
Dundee & Angus College	DUNDEE/ARBROATH	0300 123 1010
Fife College	KIRKCALDY/GLENROTHES	0344 248 0115
Forth Valley College	FALKIRK	0845 634 4444
Guernsey College	ST PETER PORT	01481 737 500
Grimsby Institute	GRIMSBY	0800 315 002
Hull College	HULL	01482 329 943
ITCA Ltd	ABERDEEN	01224 772 709
Leeds City College, Keighley Campus	KEIGHLEY	01535 685 000
Lincoln College	LINCOLN	01522 876 000
New College Lanarkshire	MOTHERWELL	0300 555 8080
Newark & Sherwood College	NEWARK	01636 680 680
North East Scotland College	ABERDEEN/FRASERBURGH	0300 330 5550
Preston's College	PRESTON	01722 225 522
Rotherham College	ROTHERHAM	01709 362 111
South Tyneside College	SOUTH SHIELDS	0191 427 3500
Tameside College	ASHTON UPON LYNE	0161 908 6789
TWI Training	CAMBRIDGE	01223 899 000
Yorkshire Coast College	SCARBOROUGH	0800 731 7410
WEC Group Ltd	DARWEN	01254 773 718
Wilkinson Welding Academy Ltd	SALFORD	0161 728 7944

The Welding Institute: supporting your career in welding engineering . . . all the way!

Some helpful contacts

National Apprenticeship Service (NAS)

T: 02476 826482 (National Helpdesk)

E: nationalhelpdesk@apprenticeships.gov.uk

W: www.apprenticeships.gov.uk

Engineering Construction Industry Training Board (ECITB)

T: 01923 260 000

E: ECITB@ecitb.org.uk

W: www.ecitb.org.uk

SEMTA (Science, Engineering and Manufacturing Technologies Alliance)

T: 0845 643 9001

W: www.semta.org.uk

TWI Training

T: 01223 899 500

E: trainexam@twitraining.com

W: www.twitraining.com

CSWIP Certification Scheme for Personnel

T: 01223 899 000

W: www.cswip.com