



Operator Training & Equipment Testing

for the manufacturing & maintenance industry

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As part of Telford Group Ltds total support package to Industry we offer Welder training from basic start up to advanced level.

Telford Group Ltd provide welder training and approval testing either at our own welding school on Stafford Park in Telford or the clients premises providing they have suitable facilities and welding equipment suitable and in good working condition.

Our qualified personnel to supply welder training & testing [coding] to include job knowledge, practical skills, training, health and safety, risk assessments, weld procedures and pre employment assessments.

Training can be specifically designed to suit you or your organisation, ensuring you or every member of your staff develops the skills to carry out welding tasks competently and to the required standard, thus satisfying both your customers and insurance company.

Welding can often be seen as daunting process to under take. but Telford Group Ltd we can also offer basic welder training for people who have never even welded before. Our training staff will take you through the operation and safety aspects of the welding process and the most commonly used types of machine, then provide practical training on various types of materials or applications common to your industry. If there is a certain type of welding or part of the process you wish to improve on, a training course can be tailored to you or your staffs needs.

When a machine is purchased and you choose to collect from our Telford depot, we will offer to assemble the machine, set it up and then provide training and tuition on the machine, operation and functions, so you, the new owner are ready to use the machine to its full potential.

Coding / Qualification & Weld Procedures to:

- BS EN 287-1:2004 Welder Approval
- BS EN ISO 9606
- ASME IX
- BS 4872
- BS1140 SPOT WELDING
- BS EN ISO 15614 [to include full range of Weld Procedure approvals]
- Weld Procedure Specification written
- BS ISO 24394:2008 Aerospace Standard

Training Courses on:

- OXY-FUEL GAS Portable cutting/Welding Equipment, Safe Use & Handling course
- The Welding Basics, MIG, TIG or MMA
- Plasma Cutting, Safe use, operation and applications.

Product and Equipment Testing:

- Annual CP7 Industrial Gas & Equipment Inspections.
- Testing and Servicing of Welding Fume Extraction and Local Exhaust Ventilation (LEV) Systems.
- PAT of power tools, machinery etc on or off site.
- Machine Calibration and Safety Testing

An example of a Typical Days Training for the BS EN 287-1:2004 Welder Approval course.

If a client is putting candidates forward for their first training and approval it is an advantage to carry out the training at Telford Groups Ltd's facility to take candidates away from the possible distractions of their normal working environment to one more conducive to training and to focus on the task of learning and achieving the approval standard.

If the client prefers that the candidates are to be trained at their premises Telford Group Ltds, trainer would require an office or meeting room to carry out the safety at work and job knowledge sections of the course and the review sessions. Telford Group Ltd would also require a workshop area with suitable welding machines and fume extraction, separate to the production area to carry out the practical work.

Our training days are 8.30am till 5.00pm with a 1-hour lunch break. Delegates would need to bring their own personal protective clothing and their own welding shield if they have one. A standard shield will be provided if they do not have one.

The accepted proven level of welding competency in Europe is BS EN 287 Welder Approval, often referred to as 'coded welder – Class one – etc'. The range of competency within BS EN 287 is extensive. For production welders and maintenance fitters we would expect a Tee Fillet Weld in the horizontal vertical position (inverted tee), in the MIG process to be achieved.

This will depend on the existing skill and experience level of each individual, and being familiar with the weld process being used.

BS EN 287 calls for the weld test to be the best reflection of the day to day requirements or the most commonly used in a normal production or maintenance environment, we suggest a 6mm single run, Tee Fillet in low carbon Steel (HRMS), welded in the PB (Horizontal Vertical) position for the welding process. Within BS EN 287, 'Job Knowledge' is a non-mandatory option only in UK and Denmark but we include this section being a basic understanding of how the process works and the safe use of the equipment, which is increasingly required by the HSE.

On the assumption that the delegates have been welding in the processes to be tested on for some time and therefore have an existing practical skill level we would expect them to be competent to achieve the approval with two days training



Achieving an BS EN 287 Qualification

This qualification is the current European standard required by employers for an approved welder and many manufacturers are demanding their sub contractors only employ welders with this qualification.

The qualification is required for each welding process, those most commonly used in UK industry are MIG (Metal Inert Gas), TIG (Tungsten Inert Gas) and MMA (Manual Metal Arc).

The largest demand is for MIG welding but currently we are aware that there is a skill shortage of qualified TIG welders.

To achieve a 287 qualification in TIG welding requires at least 2 weeks full time training for a person new to welding but can be achieved in less time if the individual is already skilled in another welding process such as MIG and has a good aptitude to the process.

We would estimate that 5 full days or 10 half days should enable an existing skilled welder to be successful in achieving a qualification on a second process.

We are able to offer this training and the test fee by our third party examiner for a fixed cost for individuals when included into an existing course, or organisation wanting to book 5 or more delegates will be offered a specific quotation.



It must be appreciated the qualification cannot be guaranteed, we will constantly assess the delegates progress and if at any point the instructor is not confident that the delegate is going to be successful they will discuss the issue with the delegate and their employer/sponsor to decide if they should continue to the test. On the final days training trial tests are performed and if the delegate cannot achieve a standard appropriate for the test we would not put the delegate forward to the test to avoid the potential loss of cost for the test.

BS ISO 24394:2008 Aerospace Standard

This international standard with mandatory Job Knowledge will be adopted by all those involved in aerospace welding applications. It will serve as a common denominator, eventually replacing many varied Weld Procedure and Welder Approval tests used by differing countries and companies. Typically a training course for this standard is run very similar to that of a [BS EN 287-1:2004 Welder Approval course](#).

If a client is putting candidates forward for their first training and approval it is an advantage to carry out the training at Telford Groups Ltd's facility to take candidates away from the possible distractions of their normal working environment to one more conducive to training and to focus on the task of learning and achieving the approval standard.

If the client prefers that the candidates are to be trained at their premises. Telford Group's trainer would require an office or meeting room to carry out the safety at work and job knowledge sections of the course and the review sessions.



Telford Group would also require a workshop area with suitable welding machines and fume extraction, separate to the production area to carry out the practical work.

Our training days are 8.30am till 5.00pm with a 1-hour lunch break. Delegates would need to bring their own personal protective clothing and their own welding shield if they have one. A standard shield will be provided if they do not have one.

On the assumption that the delegates have been welding in the processes to be tested on for some time and therefore have an existing practical skill level we would expect them to be competent to achieve the approval within 2-3 days training

In addition to the Welding Courses for more experienced operators, Telford Group Ltd can offer a:

Basic Welding and Process Knowledge Course for first time welders and supervisors.

The aims of this course are to give the delegates an understanding of how the most commonly used welding processes of MIG and MMA (stick) welding work, give practical instruction on the operation and applications and the safe use and handling of the equipment and ancillaries.

Below is an example of a typical days training for a MIG and MMA course, but this can be tailored to suit any requirements

9.00am

Introduction to welding process, how and why the process works.

Advantages and disadvantages of each process.

What type of equipment is in common use.

What consumables are needed for welding?

What safety and protective clothing is required for the operator and any other persons around the welding area.

10.15am

Break

10.30am

Setting up a MMA(stick) welder, connecting to the power supply, connecting the welding leads, selecting the welding rod for the job.

Practical welding instruction, best techniques, and understanding the features of a good weld.

12.00pm

Break

1.00pm

Setting up a MIG welder, connection to the power supply, gas supply, selecting the correct torch parts and welding wire, setting the gas pressure and flow, setting the welding voltage and wire speed.

Practical welding instruction, best techniques and understanding the features of a good weld.

Setting up the machine for different applications and materials.

3.00pm

Break

3.15pm

Review of the days training, questions and answer session

4.00pm

Close

Certificate of attendance will be provided for each delegate.

An additional report on the individual delegates by the instructor can be provided on request. This course can also be adapted to be run at a clients own job site or offices.

Telford Group offer a basic course for TIG welding which requires a full day on the process to give the delegate a good understanding of the process for steels and aluminium and the techniques of welding.

The TIG process requires significant time and practice to develop a skill level for the production of high quality and an approval to EN BS 287. This course is designed to give the operator a good grounding to develop their own skills from and is an excellent course for the enthusiastic amateur when purchasing their first TIG welding machine.

Telford Groups Ltd's

extensive range of welding equipment and industrial machinery allows us to offer extensive machinery training and familiarisation course, our training school is equipped to offer operation, maintenance and health and safety training for machinery such as welders, sawing machines, metal workers, power tools etc.

Both theory and practical based training courses can be tailored to suit the needs of a company for the operation, maintenance and safe use of for example a semi automatic bandsawing machine, delegates would be trained, for example, in safe operation, setup, maintenance and fault finding on the selected machine.

Full certification would be issued upon completion for company records. These training courses can be held at our welding school or in your workshop or on site.

Our training facilities are extensive; we have a spacious teaching room with modern presentation equipment. The welding school has large welding / demonstration booth, with an extensive extraction system for welder training.

This along with our large stock of various types of welding and industrial machines allows Telford Group Ltd to provide diverse programs of training to meet the need of numerous clients and customers in a wide range of industries.

Fur further details call:
01952 290800 or visit our web site
www.telfordgroup.co.uk



Testing and Servicing of Welding Fume Extraction & Local Exhaust Ventilation (LEV) Systems.

Welding fume is an unavoidable by-product of welding.

The welder should be aware of what fume is likely to be generated while welding is taking place and the potential hazards associated with exposure to that fume. Fume consists of particulate fume (the part you can see) and gaseous fume (the invisible part occasionally smelled).

Particulate Fume: Particulate fume is commonly formed from vapourisation of the welding consumable. The composition of particulate fume produced by MMA welding depends on the composition of the consumable, the type of coating on the electrode and, to a lesser extent, on the composition of the material(s) being welded. The following statements give a general indication of what the constituents of the particulate fume are likely to be.

Gaseous Fume: With MMA welding, there is very little gaseous fume produced under normal circumstances. Cellulosic electrodes do produce carbon dioxide but with good general ventilation, this is not likely to present a significant hazard.

It is a legal requirement to have your LEV or fume extraction system tested, as set out in the Health and Safety at Work etc Act 1974, for any employer to maintain working conditions for employees. Any employer that uses LEV techniques in the workplace must have equipment examined and tested every 14 months to ensure it is working effectively and safely.

Telford Group's test engineer will undertake a thorough examination of equipment including hoods, filters and ducts, measure the technical performance and assess the effectiveness of the LEV system. Recommendations will then be detailed in a report.

The correct operation fume extraction system and or local ventilation (LEV) system is critical to the health and safety of employees. Telford Group Ltd can inspect your system and provide suitable advice on its operation as well as service the system or unit as required. Should you require new or addition systems Telford Group Ltd works closely with major fume extraction system and machinery manufactures, we can advice, design, install and quote as required.



OXY-FUEL GAS Portable cutting/Welding Equipment 1-Day Safe Use & Handling Course

In accordance with British Compressed Gas Association CP7

This one day course involves, in the first part, a technical lecture lasting two and a half to three hours, including the use of a ten minutes video, all training room based. The second part is workshop based and is on the safe practice and use of the equipment, this requires two to three hours, dependant on the number of attendees.

Part 1 Topics covered:

Safe storage and handling of compressed gas cylinders

Health & Safety aspects, Oxygen and Fuel Gases, Acetylene & Propane.

Equipment: Regulators, Flashback Arrestors, Hoses, Hose check valves, Cutting and welding blowpipes, Cylinder keys and spanners, Spark lighters, Goggles.

Heat & eye protection

Equipment assembly, leak testing

Regulator setting and diaphragm loads

Blowpipe lighting and shutdown

Equipment shutdown

Transportation.



Part 2 Topics covered:

Inspection of equipment prior to assembly

Assembly of equipment and set up

Lighting the Blowpipe

Safe use and practical cutting/welding

Shutdown of flame

Shutdown of equipment

Storage when not in use

Certification:

Individual Attendance Certificates Issued to Attendees showing name, works number etc and course content.

CP7 Gas Equipment Inspections Information

Telford Group Ltd can now offer the industry a very quick and easy way to avoid the pitfalls associated with gas safety, and comply with the BCGA* codes of practice. Our on-site gas safety equipment check will provide you with a full inspection by a qualified Inspector. During the inspection, the engineer will carry out a thorough functionality and leak test of all components - regulators, flashback arrestors, hoses, torches and associated fittings. In addition, a report of their findings will be issued and the inspector will update you on current Health and Safety and BCGA Codes of Practice.

Gas equipment can be a hazard at work if it's not correctly maintained. Using unsafe equipment or failing to test equipment fully could result in accidents and serious injury in the workplace. Under Section 2 of the Health and Safety at Work Act 1974, an employer or self-employed person has a responsibility to provide and maintain plant and systems of work that are, so far as reasonably practical, safe and without risk to health. Statutory Instrument 1998 No. 2306: The Provision and Use of Work Equipment Regulations 1998 requires that the user of an installed system and the owner of a mobile system shall ensure that the system is properly maintained in good repair, so as to prevent danger. Statutory Instrument 2000 No. 128: The Pressure Systems Safety Regulations 2000 requires equipment to be examined regularly. Consequently, gas welding and cutting equipment must be checked regularly. The BCGA's code of Practice 7 (CP7) (the safe use of oxy-fuel gas equipment) and Guidance Notes 7 (GN7) (the safe use of individual portable or mobile cylinder gas



supply equipment) recommends that regulators and flashback arrestors be checked annually and replaced every five years. Checks need to be undertaken by a person who has sufficient practical experience of oxy-fuel gas equipment and theoretical knowledge of the functioning of the equipment, the properties of gases used, the potential defects and hazards that may occur and their importance to the integrity and safety of the equipment. The safety notes applicable to CP7 and GN7 give the minimum safety standards for the use, inspection and maintenance of equipment.

*BCGA - British Compressed Gases Association

Service, repairs and spare parts

- Appointed Service Centre and Parts dealer for many Leading Equipment Brands
- Field Engineers for ON Site Service and Repairs
- Extensive Workshop Facilities
- Reconditioning and Special Purpose Machines
- Power Tool Repairs and P.A.T. Testing
- Machine Calibration and Safety Testing
- Engine Driven Equipment Specialist
- Pressure Washers and Compressors
- Contract Maintenance
- Annual CP7 Industrial Gas & Equipment Inspections.
- Testing and Servicing of Welding Fume Extraction and Local Exhaust Ventilation (LEV) Systems.



PORTABLE APPLIANCE TESTING (PAT)

The UK Provision and Use of Work Equipment Regulations 1998 (PUWER) states at Regulation 4(1): “every employer shall ensure that work equipment is so constructed or adopted as to be suitable for its purpose for which it is used or provided.”

The Electricity at Work Regulations 1989 states at Regulation 4(“): “As may be necessary to prevent danger, all systems shall be maintained so as to prevent so far as reasonably practicable, such danger.” This means that employers (and self-employed) must ensure that all electrical work equipment is safe, properly looked after and suitable for purpose. This legislation covers everything from small portable equipment, eg. hand drill to large fixed distribution systems. The requirements apply to fixed and “hard-wired” electrical appliances also, in addition to portable and hand-held appliances which plug in such as vacuum cleaners, both single and 3 phase. Different maintenance regimes are recommended for fixed and for portable electrical equipment.

“Portable equipment covers the following types of equipment:

Stationary equipment: eg a fridge.

Information technology equipment: eg, a PC or printer.

Movable equipment 18kg or less and not fixed, eg, a small welder.

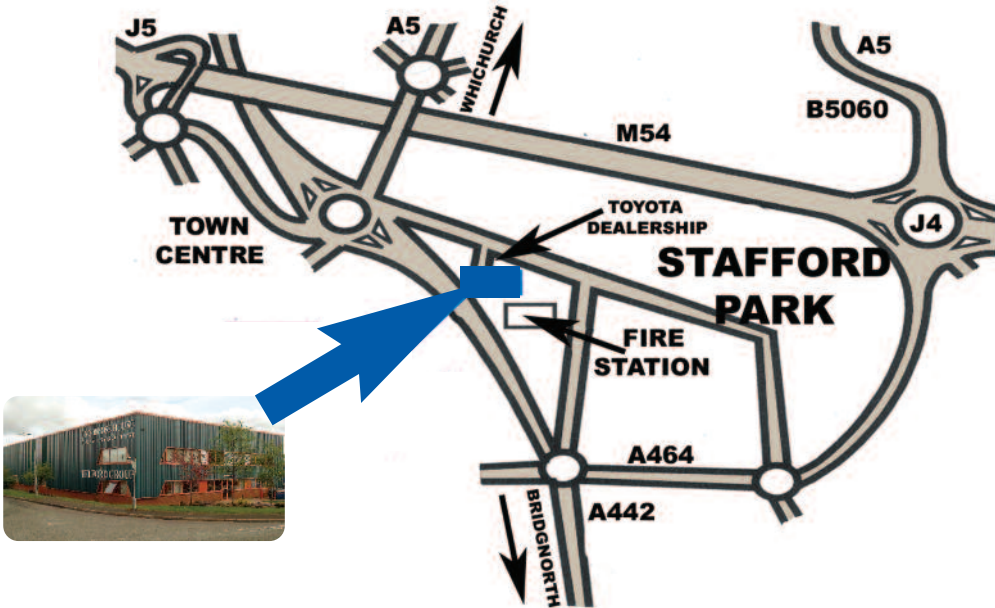
Portable equipment 18kg or less that can be moved while being used: eg, a kettle.

Hand-held equipment: eg, power tools.

The routine inspection and testing of portable and fixed electrical equipment, especially those used in severe environments such as building sites is an important safety requirement. Telford Group Ltd’s trained personnel can test equipment and appliances either on or off site, to suit your requirements. Call 01952 290800 for pricing and further information.

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