Our Purpose

The welding industry has changed at a great pace in recent years with manufacturers developing high technology equipment using modern electronic controls. The rapid rise of inverter based machines, increased demand for quality, repeatability of performance and the development of new materials such as, high strength, lightweight steels which demand new types of equipment and weld processes all mean significant change to our industry.

Our Knowledge

We have identified these changes affect both our distributor partners and also their customers and have seen the potential to up skill workers to satisfy these changing demands by building a state of the art training academy. Training will be carried out in flexible learning modules tailored to specific needs. In addition to the benefits of the product and process knowledge, training and development plays a crucial role in making the learner feel valued within the workplace which in turn we believe leads to more motivated staff.

Our Facility

The welding academy will reinforce the theory aspect of the training with practical application. The school has individual acoustic welding bays fitted with the latest fume extraction systems. Trainees will benefit from being able to work at their own pace and dedicated instruction and assistance. The equipment in the bays, is as you would expect, carefully selected to suit the training being undertaken. Our training is geared to the workplace environment and this approach to training is beneficial in developing good work ethics and habits. The Wilkinson Welding Academy trainers have many years practical experience within the industry. Our highly qualified, experienced trainers are able to provide training and support at all levels. Their extensive field experience is an invaluable asset in relaying work related practices to the trainees.

Our Courses

We offer training which ranges from basic welding techniques through to high integrity standards. Training is aimed at both people who work in the many aspects within our industry not just the welders. Our distributor training scheme is also certified by EAL. **EAL (EMTA Awards Limited)** is a leading awarding organisation and QCF submitting body for engineering, building services and related sectors, offering a wide range of vocational qualifications for industry
Examples of the courses we offer:

- **Health and Safety**
- **Electrics and Power Supplies**
- **MIG/MAG Welding**
- **TIG Welding**
- **MMA Welding**
- **Plasma Cutting**
- **Resistance Welding**
- **Advanced MIG Processes and Controls**
- **Advanced TIG Processes and Controls**

In addition we can provide Bespoke Courses to suit individual requirements

Other features which we have at the Academy are a High Quality Cutting system which highlights the speeds and the quality of the cut that can be achieved with this process. In addition we will also have a Robotic Cell to demonstrate the advantages of automation and production speeds that can be achieved on repetitive component welding.

BS 4872 Welder Training & Qualification

Compliance with welding quality standards and the provision of competent welding personnel is becoming an increasing requirement in the automotive aftercare market. WWA has trained and experienced engineers and instructors available to support companies completing welding activities in the automotive aftercare market.

A fully qualified Welding Engineer and Member of The Welding Institute is available to provide technical support regarding the welding of all aluminium alloys and automotive steels including: consumable selection, weld joint design, weld process selection and welder qualification requirements.

The unique combination of qualified engineers, instructors and modern fully equipped facilities demonstrates that WWA provide an unrivalled technical support service to the automotive aftercare market.

The following information details the welder training and qualification services that WWA provide:

Weld Process Training

WWA instructors are available to train welders to operate any welding process currently used by the automotive aftercare market.

WWA instructors ensure that welders are confident in selecting the correct operating parameters for the MMA, MIG, MIG Brazing, Spot and TIG welding processes in order to obtain the optimum performance, quality and productivity.

WWA instructors provide a combination of demonstrations, mentoring; practice and theory sessions to ensure that welders can select and apply the most suitable, cost effective welding process for a particular application. This level of training and support should ensure welders are confident using the particular welding process and are prepared for subsequent qualification welds.

Welder Qualification

In order to ensure that competent welders are employed for welding automotive parts and associated repairs, original manufacturers, trade bodies and insurance companies in the majority of instances require welders to be qualified in accordance with BS 4872-1: 1982 or BS 4872-2: 1976 for MMA, MIG, MIG Brazing and TIG welding and BS 1140: 1993 for spot welding.

To assist companies in the automotive aftercare market WWA qualify welders in accordance with BS 4872-1: 1982, BS 4872-2: 1976 and BS 1140: 1993.

It is recommended that welder qualification to BS 4872-1 is completed on 1.0mm thick sheet.

Qualification on 1.0mm thick sheet qualifies a thickness range of 0.75mm to 1.5mm.

If thicknesses above 1.5mm have to be welded then qualification on 2.0mm thickness sheet may be required.

Qualification on 2.0mm thick sheet qualifies a thickness range of 1.5mm to 3.0mm.

WWA manage the complete welder qualification process from start to completion by providing all the requirements to successfully qualify welders and welding operators to the required specification. Consumables, material preparation, monitoring, non destructive examination, weld process equipment and all certification records are included as part of the service. If required welder qualification can be completed on site or at WWA facilities.

Welder Certification

Welders that successfully complete qualification welds in accordance with BS 4872-1: 1982, BS 4872-2: 1976 and BS 1140: 1993 are issued with full Welder Qualification Certification.

Welder Qualification Certification also includes a Mechanical Test Report from an accredited laboratory. The Mechanical Test Report confirms that the correct specimens have been machined to size, tested and comply with the application specifications.

Macro photographs can be included as part of the certification package if required.

Certificates are valid for up to two years. Advice on certificate prolongation and associated updates is provided.

Awareness Courses

The types and strength of steels available for production of motor vehicles has increased and include: Advanced High Strength Steels (AHSS), Boron Containing Steels, Ultra High Strength Steels (UHSS), Transformation Induced Plasticity Steels (TRIP), Dual Phase, Dual Phase HSS, High Strength Low Alloy (HSLA), HS Isotropic, Bake-Hardening (HS BH), IF HS, Rephosphorised, USISTAMP06 and USISTAMP07 steels.

To assist companies in the automotive aftercare market WWA provides awareness courses for:

- the fabrication and welding of all aluminium alloys
- the fabrication and welding of all automotive steels
- metallurgy
- weld design
- weld process application and selection

All WWA training courses can if required be tailored to specific requirements.

WWA adds further technical capabilities to the Worsley site by working in conjunction with Frank Mitchell a Chartered Welding Engineer, Member of The Welding Institute and qualified to European

Welding Engineer and International Welding Engineer status. Additionally significant industrial experience in the oil, gas, nuclear, power and process industries has been obtained while engaged on a wide range of diverse engineering projects.

Compliance with welding quality standards and the provision of competent welding engineering personnel is becoming an increasing requirement in the engineering industry. The unique combination of an experienced welding engineer, welder training capabilities and modern fully equipped facilities demonstrates that WWA provides unrivalled welding engineering solutions to the engineering industry. Some of the areas that WWA can provide ongoing technical support to the engineering industry are outlined in the following paragraphs.

Welding Engineering Services

Welding engineering services are available to support businesses complying with project requirements including consulting, consumable selection, document review, feasibility studies, welder training, weld joint design, weld process selection, weld procedure and welder qualification.

Feasibility studies can be completed to review existing welding and fabrication methods and recommend alternative solutions aimed at improving productivity.

A technical review of specifications and designs can be completed at enquiry stage to identify potential fabrication or welding issues. Attendance at meetings can be arranged to provide technical representation regarding fabrication or welding issues.

Certain projects may require a named authorised Welding Co-ordinator or a European Welding Engineer. A Chartered Welding Engineer qualified to European Welding Engineer and International Welding Engineer status is available to provide the required support.

BS EN ISO 3834 will come into operation in 2012 and many companies are not yet prepared for this introduction. A BS EN ISO 3834 assessment and evaluation can be completed to establish compliance or identify any shortfalls.

Specifications

Material, Fabrication and Welding Specifications can be prepared and reviewed.

Welder Training

Welder training at WWA is provided by experienced welding instructors and can be tailored for specific applications. Welders can be trained to weld both ferrous and non ferrous alloys using the FCAW, MIG, MIG Brazing, MMA, SAW, TIG and spot welding processes in modern fully equipped facilities. Lectures in the theory of metallurgy, visual inspection, weld design, weld processes and the welding of specific materials can be provided and if required tailored for specific applications.

Weld Procedure Development

Weld procedures can be developed and qualified for welding the full range of ferrous and non ferrous materials to any European or American standards. Welding sequences can be developed for specific applications.

Weld Procedure Documentation

Weld procedure documentation including Weld Procedure Proposal, Weld Procedure Qualification Record and Weld Procedure Specification are provided.

Weld Procedure Management

All weld procedure requirements can be managed by WWA from establishing the type and quantity of weld procedures required to cover the work scope through to full qualification and certification.

All consumables, equipment and prepared materials, non destructive examination, corrosion and mechanical testing can be provided by WWA. All welding parameters are monitored and recorded using calibrated equipment. Weld procedure management provides obvious benefits when weld procedures require a fast track solution, welding can be completed on site or at WWA facilities. If required third party inspection can be arranged and coordinated by WWA.

Weld Procedure Qualification

Weld procedures can be qualified in accordance with all American, British and European codes and standards including API 1104, AWS DI.I, ASME IX, ANSI B31.1, ANSI B31.3, BNFL Spec.Tech.A.0339_1, BS 4515, BS EN ISO 14555, BS EN ISO 15614-1 & DNV OS F101.

Weld procedures can be completed in conjunction with a Notified Body to confirm compliance with the Pressure Equipment Directive (PED) if required.

All the services necessary to successfully qualify weld procedures to the required specifications and include consumables, material preparation, monitoring, non destructive examination, post weld heat treatment, third party witness and all certification records.

Welder Qualification

Welder qualification can be completed in conjunction with a Notified Body to confirm compliance with the Pressure Equipment Directive (PED) if required.

All welder qualifications can be managed by WWA, welding can be completed on site or at WWA facilities. WWA provide all the required services to successfully qualify welders and welding operators to the required specification. The services include consumables, material preparation, monitoring, non destructive examination, third party witness and complete certification records.

Advice on certificate prolongation and associated updates can be provided.

Weld Parameter Monitoring

Calibrated portable arc monitoring systems and operators are available to record and verify weld procedure or production welding parameters.

Weld Procedure Review

Weld procedures and associated documentation can be reviewed for compliance with applicable specifications. Existing weld procedures can be reviewed for suitability for particular applications.