



WELDING TECHNOLOGIES

# Resistance Welding

Quality Without Compromise



# Industry World Leader

## About

---

### Contents

**Business Areas** 3

**Solutions** 4

**Advanced Technologies** 5

**Global Support** 6

---

As a world leader in welding equipment and welding systems for the automotive industry since 1949, ARO is a name which has become synonymous with resistance welding. Clients demanding value for money choose ARO time and again for its proven superiority in state-of-the-art technology. Its combination of reliability and lowest Total Cost of Ownership offers the highest levels of quality, without compromise.

Based in Montval-sur-Loir near Le Mans in France, ARO has a worldwide presence, with branches and production sites in Europe, Asia and the Americas delivering a complete range of services to international customers.

ARO is a wholly owned subsidiary of the UK industrial group, Langley Holdings plc.



ARO headquarters Montval-sur-Loir, France.





# Business Areas

## Automotive

ARO supplies resistance welding technology and control systems to the automotive industry worldwide. ARO's reliable, cost-efficient welding systems are specifically designed to meet the industry's commercial and safety legislation requirements.

The automotive bodywork repair industry is also an important market for ARO's products, with many of the world's workshops reliant on its mobile range. Multi-functional designs and legendary support services make ARO the preeminent welding solution for this market sector.

## Manufacturing

With many manufacturers reliant on highest reliability projection, spot and seam welding, ARO products are found in many industries throughout the world particularly in the aerospace, railway and white goods sectors.

Wherever metal components need to be joined for manufacture or repair, ARO has the products to deliver safe, efficient and environmentally-friendly welding systems.

---

Resistance Welding:  
simple, robust,  
cost-efficient

---



ARO applications support a wide range of industries.



# Solutions

Solutions to reduce  
lifecycle costs and  
deliver enhanced  
process stability

## Robotic Welding

ARO demonstrates its unequalled expertise in robotic welding thanks to the incredible success of its 3G concept. Compact and modular, the 3G gun represents drastic savings in terms of investment and maintenance. Combined with ARO welding cabinets, which integrate perfectly into robotic or automated environments, the 3G gun optimizes the welding process and guarantees an incomparable welding quality.

## Manual Welding

For manual welding applications, ARO provides turnkey solutions including ergonomic welding guns, efficient control systems and a complete range of accessories. With easy-to-handle designs and excellent power-to-weight ratio, the ARO manual gun solution is the perfect choice for a reliable and safe process.

## Stationary Welding

ARO provides robust and powerful standard stationary machines with a wide choice of options to meet spot, projection, seam and butt welding applications. ARO designs and manufactures special machines and welding tools able to meet complex assembly needs.

## Mobile Welding

ARO's mobile welding range was developed with the automotive motor body repair industry firmly in mind. Over a quarter of a million spot welders have been supplied by ARO to the automotive industry across the world. Ergonomic and polyvalent, clients use it also for prototype production and for operations of re-spot / line back up.



Robotic Welding.



Manual Welding.



Stationary Welding.



Mobile Welding.





# Advanced Technologies

ARO's ongoing program of research and development, focusing on product performance, quality and new technologies, has been developed to meet clients' exacting and ever-changing requirements. Utilizing state-of-the-art computer-aided design and with strong links to academic institutions, ARO continues to break new ground in welding technology.

## Transformers

ARO has developed a range of high power medium-frequency transformers that are capable of achieving welding currents of up to 100 KA for stationary applications, 80 KA for robotic applications and 60 KA for manual applications. These transformers are controlled by a range of MF welding cabinets supplying welding currents between 5 and 100 KA.

## Servo-actuators

ARO provides water cooled servo-actuators with integrated force sensors able to produce elevated force values up to 2000 daN with the precision and speed required for high quality resistance welding.

## Welding controllers

Essential to the efficiency and reliability of any welding process is the control system. With ARO Adaptive Welding, it has never been easier to weld. This system automatically compensates for process variations to guarantee a far superior weld quality. With the iBox welding controller, all parameters (time, current, force) can be programmed and monitored. The ability to manage force profiles allows the perfect welding of demanding materials such as aluminium, boron steel, HSS/UHSS, stainless steel etc.

## Software

ARO offers monitoring software programs that ensure optimum traceability of welding data. For all resistance welding installations, they are the perfect tool for optimized production, quality and maintenance.

Advanced welding technology to meet any industry requirement



Aronet Software.



Servo-actuator with integrated force sensor.



MFDC transformer 360KVA – 80kA.



Adaptive Weld Controller.

# Global Support

---

A world-class  
service with  
superior  
customer support

---

## **ARO Welding Laboratories**

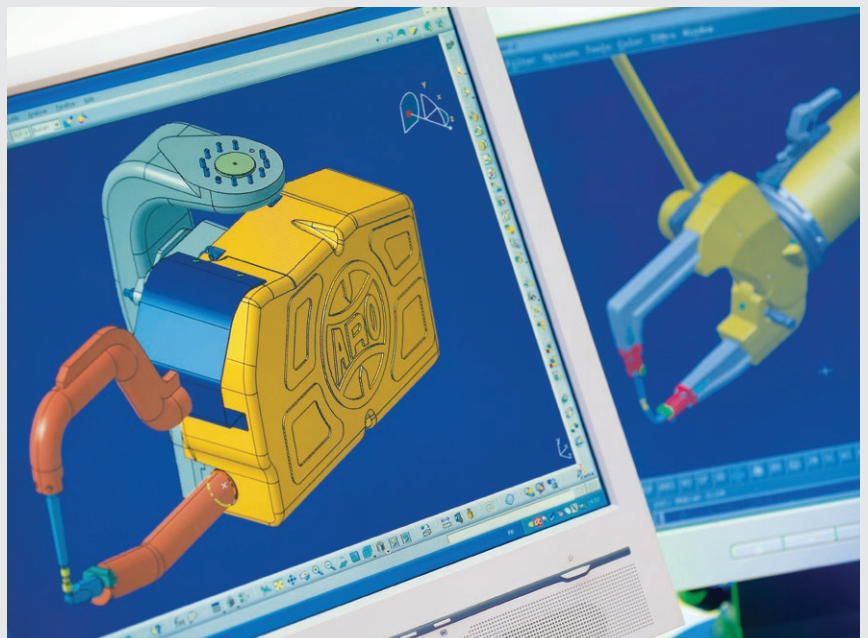
Thanks to its Welding Laboratories in Europe and North America, ARO carries out every type of welding test (peel test, macrographic section, radiogram, etc.) in order to define a reliable and optimal solution adapted to each individual need.

## **ARO Engineering & Design**

ARO employ the latest generation of 3D design and modeling tools for every new welding solution. A dedicated engineer oversees each project from inception to completion.



ARO Welding Laboratory.



ARO Engineering.



### ARO Service

ARO provides the commissioning for all of its equipment worldwide so that production can begin as soon as possible and in the right conditions. ARO also offers training to ensure its equipment is used to its maximum capabilities and always delivers optimum welding quality.

ARO offers a reliable after-sales maintenance service for the thousands of welding systems in operation over many years throughout the world.

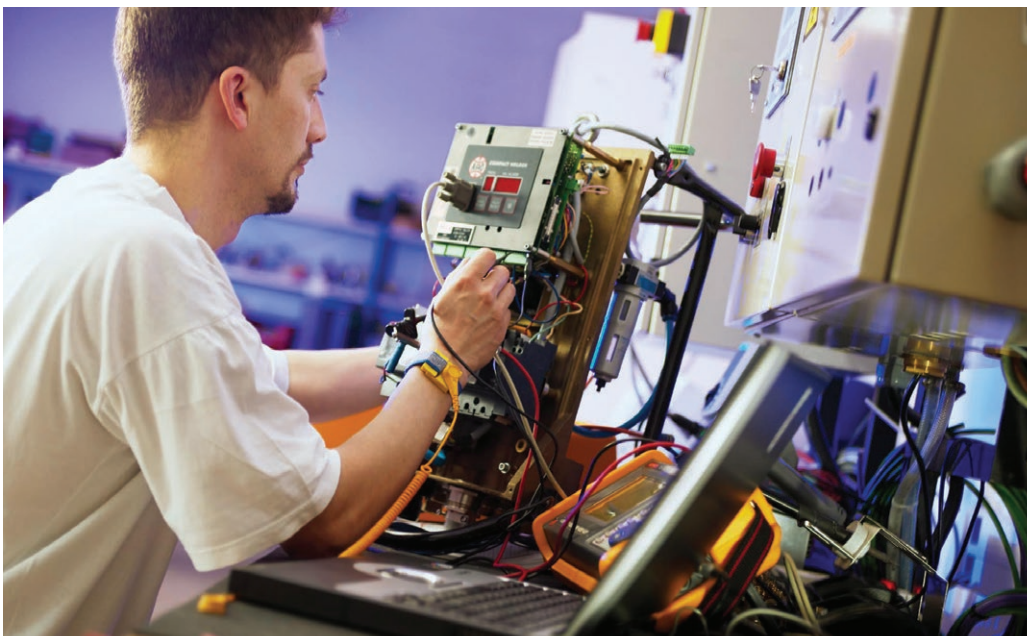
Thanks to a large stock of spare parts, repairs are carried out as quickly as possible in our workshops or on site by a highly qualified team of technicians.

ARO equipment delivers excellent results over many years, therefore it is often possible to reuse older systems. ARO provides a renovation and refurbishment service that guarantees, for a reduced investment, fully-tested and restored equipment for producing quality welds.

---

Superior  
functionality,  
reliability and quality,  
all without  
compromise

---



ARO Service.



WELDING TECHNOLOGIES

#### **ARO Welding Technologies SAS**

1, Avenue de Tours - BP40161  
Château-du-Loir  
72500 Montval-sur-Loir, **France**  
T: +33 (0)2 43 44 74 00  
F: +33 (0)2 43 44 74 01  
E: france@arotechnologies.com



ROBOTIC WELDING  
MANUAL WELDING  
STATIONARY WELDING  
MOBILE WELDING  
ARO CONTROLS  
ARO SYSTEMS  
ARO REBUILD  
PARTS & COMPONENTS

#### **ARO Welding Technologies Inc**

48500 Structural Drive  
Chesterfield Township, MI 48051, **USA**  
T: +1 (1)586 949 9353  
E: usa@arotechnologies.com

#### **ARO Welding Technologies S.A. de C.V.**

43B Sur 4720, Estrella del Sur, C.P. 72190  
Puebla, Pue, **Mexico**  
T: +52 222 230 00 37  
E: mexico@arotechnologies.com

#### **ARO Tecnologias De Soldagem Ltda**

Rua Silveira Martins, 305  
Bairro Santa Terezinha  
09210-520 Santo André - SP  
**Brasil**  
T: +55 11 4903 9241  
E: brasil@arotechnologies.com

#### **ARO Welding Technologies (Wuhan) Co. Ltd.**

Building N°1, 1st Floor  
2045 Innovation Valley WEDBI  
101 Quanli Second Road, WEDZ  
430056 Wuhan, Hubei, **China**  
T: +86 (0)27 8447 1353  
E: china@arotechnologies.com

#### **ARO Welding Technologies GmbH**

Senefelderstraße 4, 86368 Gersthofen  
**Germany**  
T: +49 (0)821 780 980-0  
E: germany@arotechnologies.com

#### **ARO Welding Technologies SA-NV**

Koningin Astridlaan 61, 1780 Wemmel,  
**Belgium**  
T: +32 (0)2 555 0750  
E: belgium@arotechnologies.com

#### **ARO Welding Technologies Ltd**

Unit 15, Planetary Industrial Estate  
Planetary Road Willenhall  
Wolverhampton, WV13 3XA,  
**United Kingdom**  
T: +44 (0)1785 338 107  
E: uk@arotechnologies.com

#### **ARO Welding Technologies S.A.U**

C/ Cuzco, 26-28, nave 2  
08030 Barcelona, **Spain**  
T: +34 93 421 2111  
E: spain@arotechnologies.com

#### **ARO Welding Technologies s.r.o.**

Karľovská 63, 84104 Bratislava,  
**Slovakia**  
T: +421 (0) 265 440 585/586  
E: slovakia@arotechnologies.com

#### **ARO Welding Technologies AB**

Timotejvägen 7, 439 71 Fjärås,  
**Sweden**  
T: +46 (0)300 543 988  
E: sweden@arotechnologies.com

## Quality Without Compromise

**www.arotechnologies.com**

Doc. C711GB - 0522 / Issue 2. Due to a policy of continued improvement, we reserve the right to change any specification without prior notice. ERRORS & OMISSIONS EXCEPTED.  
Printed on a Manroland R700 press.



A Langley Holdings Company