



WELDING TECHNOLOGIES GROUP

Manual Welding

Ergoline gun range



Quality without compromise

www.arotechnologies.com

Manual Welding Technology



ARO headquarters Château du Loir, France

About ARO

Since the middle of the 20th Century, the name ARO has been synonymous with resistance welding. Today, the ARO Welding Technologies group is a world leader in welding equipment and systems to the automotive and other industries.

Widely acclaimed as the leader in its field, ARO technologies are chosen by clients who recognise ARO's superior functionality, reliability and quality. Every ARO product is designed to provide the client with the lowest life cycle costs.

Headquartered in Château du Loir, near Le Mans in France, and via its international subsidiaries and manufacturing facilities in Europe, the Americas and the Far East, ARO provides global presence to global clients.

ARO is a division of the multi-disciplined UK based engineering group, Langley Holdings plc (www.langleyholdings.com).

Ergoline Manual Welding

In manual welding applications where safety, ergonomics and reliability are paramount, ARO offers its Ergoline range of modular welding guns and its two ensuing models, Ergolean and Ergoflex.

With many of these guns already in operation worldwide Ergoline has more than proved itself with clients in the automotive sector and other industries. Its easy to handle design allied to an excellent power to weight ratio ensures that this market leading range meets all manual welding applications.

Ergoline's ergonomic design simplifies otherwise complicated processes and provides the user with both improved efficiency and productivity. A modular construction allows it to be easily customised and adapted to specific requirements. Ergoline permits a safe welding environment thanks to an enclosed housing unit and reinforced suspension elements. Its concept is the result of the very latest ARO technology and responds to the most complex welding requirements.

All ARO guns are offered with ARO control cabinets and various accessories aimed to optimise each manual welding solution.



Characteristics of the Ergoline Gun

Ergoline gun body

The Ergoline range of manual guns is available in five various sizes to cover all applications.

The various gun bodies are equipped with AC or MFDC transformers. They can be used with brass, copper or aluminium 'plug and play' arms with a reach of over one metre long. Ergoline guns work on all air networks between 4 and 10 bar and on all electrical networks.

Ergonomic design

The Ergoline design offers a gun which is not only easy to handle, but equally compact. This improvement in ergonomics is the result of extensive technical development and has the following characteristics:

- Smaller size
- Lighter weight
- Better balancing
- Use of multi-positional handles

Patented pneumatic cylinders

The Ergoline concept uses the patented technology of multistage pneumatic cylinders. An optimised range of base cylinders enables different forces due to the addition of supplementary stages, thus reducing the number of spare parts required.

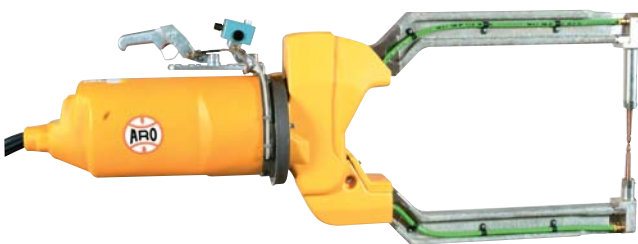


Homogeneous and modular conception

Ergoline gun bodies meet the same philosophy of modular conception. Transformers and pneumatic cylinders are easily adaptable to the whole range and are interchangeable.

Complete protection

The entire gun body is protected by a removable cover. A cover situated at the gun head safeguards the operator from moving parts and a second cover protects the gun parts against contamination.



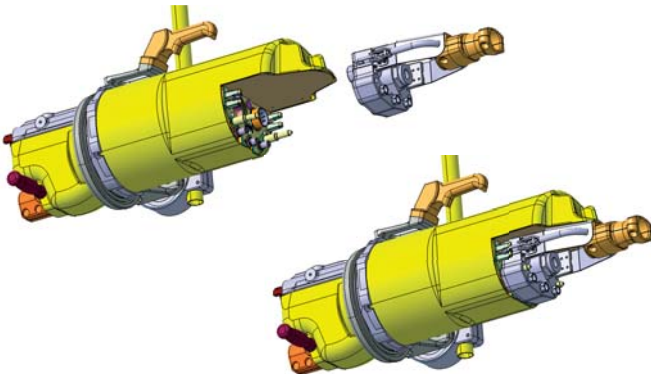
"Simple, ergonomic, performance"



A wider choice of options

Quick changer

This function permits quick coupling and un-coupling of the manual gun with its harness. Extremely compact, a gun equipped with a quick changer makes it the ideal tool for a workshop environment where flexibility is required, for example prototype production.



Indexing kit

This option allows the user to lock one or more positions of the gun when the welding operation does not necessitate a total rotation of the gyroscope or the hub of the suspension. Once set, the user no longer needs to index the position of the gun and can therefore weld more rapidly.

Handling wheel

This wheel allows the user of the gun perfect ease of use even if access to the welding point is relatively difficult.

Additional control handles

Four points situated every 90° on the hanging ring allow the use of 4 control handles. The ergonomics can be increased in cases where the operator is required to weld at different angles.

Advantages - Ergoline

A concept that meets all requirements:

- Thanks to its modular design, the Ergoline gun adapts easily with all clients' required standards.
- A wide range of options increasing the ergonomics of the work station allows each user to set their own welding solution.

Utmost safety:

- No parts projecting from the gun body.
- Gun has a protective cover to safeguard against electrical risks maximising operator safety.
- Robust parts throughout.

Reduction in operating costs:

- The ergonomics of the gun simplifies its operation – saving time and increasing productivity.
- Easily removable cover gives quick and easy access to wear parts.
- Homogeneous and modular design means fewer components.
- Simplified electrical, pneumatic and cooling circuits minimises downtime.



Ergolean: “off the shelf” and proven!

The manufacturing industry is constantly striving for higher profitability and productivity. ARO responds to these challenges by offering the Ergolean range of guns. Based on a standardised design and derived from ARO's long standing experience in selecting components with the best ratio of cost versus performance, Ergolean maintains all the essential functions of the Ergoline gun without compromising on efficiency, safety and reliability.

Ergolean characteristics

Proven concept:

The Ergolean gun relies distinctly on the Ergoline concept by offering the same advantages and common features. All Ergolean gun components are proven and durable.

Standardisation:

Ergolean gun bodies are assembled with standard ARO components to provide a turnkey solution for clients' individual welding requirements.

Advantages - Ergolean

Cost savings:

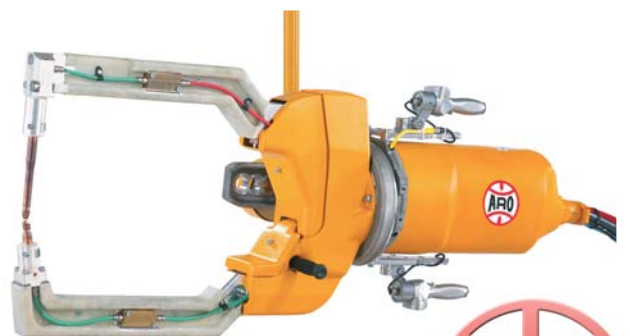
- Reduction in design and clients' development costs owing to standardisation of parts and “off the shelf” components.

Faster delivery:

- Ease of assembly.
- Proven “off the shelf” parts.

Reliable solution:

- Proven design based on ARO's vast installed base.
- Longevity of the components.
- Minimum down time owing to standardised components.



“reduced operating costs thanks to standardised components and proven design”



Ergoflex Guns

In response to clients' requests for flexibility in workshop environments for the development of prototypes or for small production runs and where a quick changer option is not required, ARO offers the Ergoflex gun.

A single gun body

At the heart of the Ergoflex design is a single body enabling various welding heads to be attached.

Advantages

Maximum flexibility:

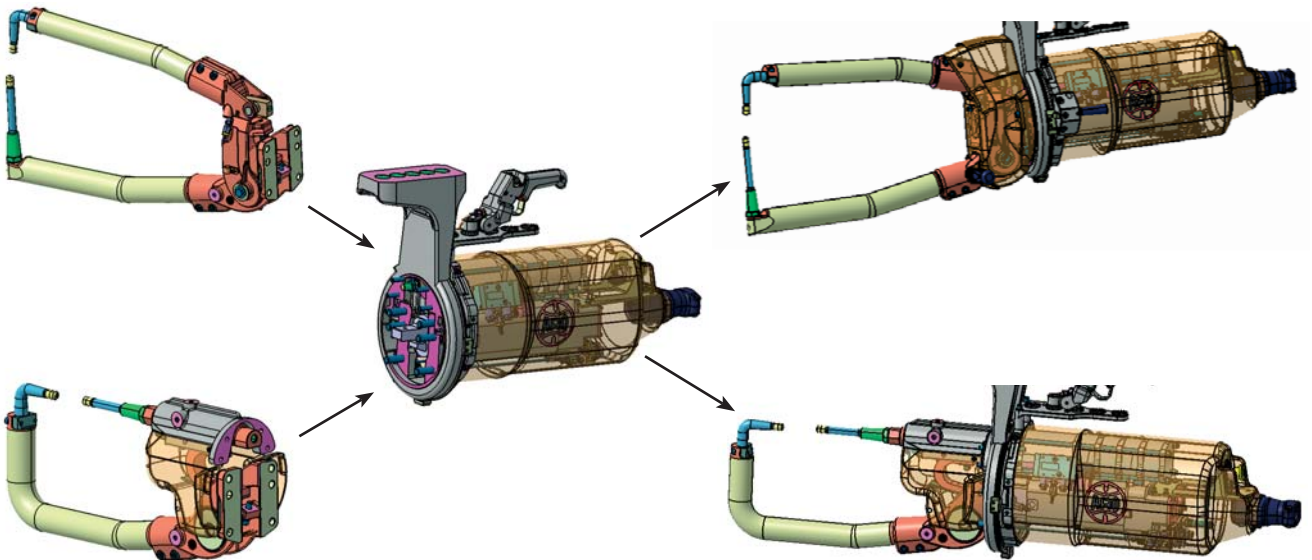
The same gun body is used for a quick and easy change of application. For example to change a gun from an X type to a C type can take less than 20 minutes.

Investment savings:

The number of gun bodies can be drastically reduced.

Reduction in operating costs:

Utilising one gun body for several applications reduces the quantity of spare parts required.



Turnkey solutions

ARO delivers turnkey solutions for all types of applications in manual welding. With its dedicated electronics and service departments ARO can install and commission your manual welding stations in conjunction with ergonomic studies and in compliance with the EMF (Electro Magnetic Field) Directive.

ARO Controls

Essential to the efficiency and reliability of any welding process is the control system. ARO offers its own range of monitored welding controls to optimise production management and quality assurance. The latest control generations are based on 'intelligent' process control (the adaptive control system), which allows the user to improve the welding quality and to reduce costs linked with quality assurance, such as tear-downs or spot checks.

ARO offers a complete range of controls to meet welding requirement applications from the most basic to the most demanding. The combination of ARO guns and ARO controls provides the user with superior resistance welding results every time.

ARO Service

ARO provides world-class after sales service to the many thousands of welding systems supplied over the years. Experienced ARO technicians are available to handle all service requests and ARO also offers full refurbishment on all makes of welding equipment.

To facilitate clients' complete understanding and analysis of welding applications, ARO can tailor specific training programmes either from ARO's own premises or at a client's facility to aid productivity and weld quality.

Spare parts, technical expertise and development of all its products are supplied worldwide.

Accessories

Spring balancers:

To guarantee the best possible equalising of welding guns, ARO offers a range of robust and safe spring balancers. Easy to operate, ARO's spring balancers can equalise loads from 2.7 Kg to 168 Kg.

Cooling devices:

ARO can provide the very latest generation of cooling devices known as REFRI. Compact and eco-friendly, efficient cooling is guaranteed thanks to water temperature regulation allowing maximum results and increased equipment life.

Cranes:

ARO manual welding guns are mounted on cranes to facilitate equipment handling by the operator. Directly fastened on the wall or column mounted, various models are available each offering a smaller footprint and excellent lifting capacities.

Tip dressers:

Tip dressers permit the user to maintain a perfect welding quality whilst keeping the tip in good condition by avoiding frequent changes and to reduce costs. According to clients' specific applications, ARO provides various options such as electrode tip dressers: ratchet tip dressers, manual pneumatic, automated stand mounted electric dressers or dressing benches.

"ARO...your only partner for resistance welding"





ARO Welding Technologies SAS

1, Avenue de Tours - BP 40161
72500 Château du Loir
FRANCE
T +33 (0)2 43 44 74 00
F +33 (0)2 43 44 74 01
E france@arotechnologies.com

ARO Welding Technologies Inc

48500 Structural Drive
Chesterfield Township
MI 48051
USA
T +1 (1)586 949 9353
F +1 (1)586 949 4493
E usa@arotechnologies.com

ARO Welding Technologies S.A.U.

Calle Gavá 71-75
08014 Barcelona
SPAIN
T +34 93 421 2111
F +34 93 432 0190
E spain@arotechnologies.com

ARO Welding Technologies GmbH

Blücherstraße 135b
86165 Augsburg
GERMANY
T +49 (0)821 797 1980
F +49 (0)821 797 1976
E germany@arotechnologies.com

ARO Welding Technologies AB

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

ARO Welding Technologies SA-NV

Riverside Business Park
55/15 Bd Internationalelaan
1070 Bruxelles/Brussel
BELGIUM
T +32 (0) 2 555 0750
F +32 (0) 2 523 2024
E belgium@arotechnologies.com

ARO Welding Technologies s.r.o.

Karľoveská 63
84104 Bratislava
SLOVAKIA
T +421 (0) 265 440 585/586
F +421 (0) 265 440 587
E slovakia@arotechnologies.com

ARO Welding Technologies Ltd

Unit 4, Fairfield Court
Seven Stars Industrial Estate
Coventry
CV3 4LJ
ENGLAND, UK
T +44 (0)2476 214 320
F +44 (0)2476 511 502
E uk@arotechnologies.com

ARO Welding Technologies (Wuhan) Ltd

District A, Building No19
High Tech Industry Park
430056 Wuhan
CHINA
T +86 27 8447 1353
F +86 27 8447 1351
E china@arotechnologies.com

AROWeldingTechnologies S.A. de C.V.

43B Sur 4720
Estrella del Sur
C.P. 72190
Puebla, Pue
MEXICO
T +52 222 230 00 37
F +52 222 248 20 65
E mexico@arotechnologies.com

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