

CITOLINE

New MIG/MAG power sources range
switched technology



2007-125

2333-001

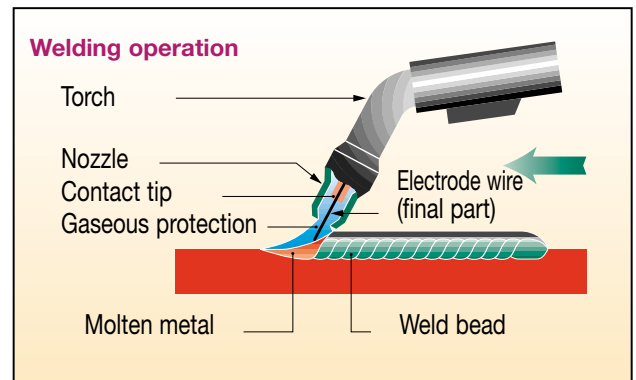
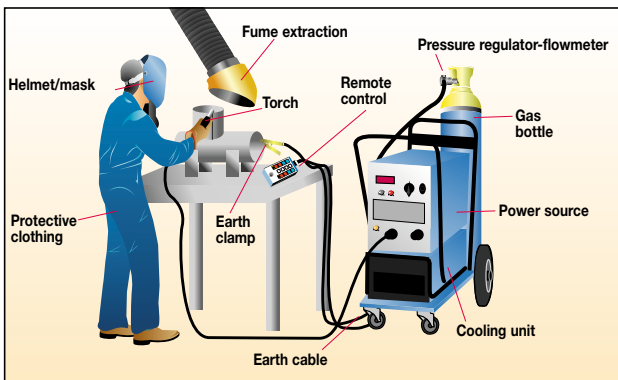
CITOLINE: simplicity and efficiency



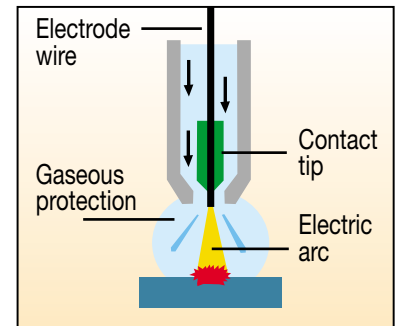
2003-390

Primary power supply cable connection:

Single-phase 230 V = connection between phase and neutral
 400 V = connection between 2 phases
 Three-phase 400 V = connection between 3 phases
 230 V = connection between 3 phases
 230 V three-phase only exists in certain companies that have their own transformer.



The MIG (Metal Inert Gas) and MAG (Metal Active Gas) welding implement an electric arc under gaseous protection (inert gas: Argon+CO₂). The wire that constitutes the consumable electrode is continuously unrolled in the electric arc and is deposited in the molten metal.



MIG welding glossary

CE European standards

They warranty quality, electrical and mechanical characteristics and the safety level of an equipment. The Oerlikon power sources are certified CE.

These standards define manufacturing according to 2 directives:

- 89/336/CEE relative to the electro-magnetic compatibility (CEM), which imposes limitation in the electro-magnetic disturbance respecting the EN 50 199 standard.
- BT 73/23/CEE relative to the safety rules for welding equipments respecting the EN 60 974-1 standard.

Protection Class IP

The first digit indicates the maximum diameter of an object to be introduced inside the equipment and that could come into contact with an element under dangerous tension.

The second digit indicates the protection level against falling rain. Ex: IP 23 (the 2 means that an object of 12.5 mm diameter can be introduced in the device, the 3 means that it is protected against falling rain up to a maximum angle of 60°).

2 times mode

The welding occurs by pulling the torch's trigger. It stops by loosening the trigger.

Classical 4 times mode

The pre-gas occurs by pushing the trigger, afterwards the welding starts by loosening it then with the next push on the trigger the welding stops and the post-gas stays active until releasing the trigger.

Spot mode

The power source starts to weld when the trigger is pushed, but the welding stops automatically after a pre-set delay.

Intermittance mode

This is a point mode which is repeatable. If the push on the trigger is maintained, the welding will be retaken after an other delay which is as well to be regulated.

Duty cycle

It is defined in the standard EN 60974-1. It corresponds to the continuous use of an equipment during 10 minutes at a temperature of 40 °C. A duty cycle of 100 A at 60%, means that during 10 minutes, the power source can weld during 6 mn at 100 A followed by 4 mn of stop. A duty cycle 100 A at 100% means that the power source can provide continuously 100 A.

Wide choice for a better satisfaction.

The complete CITOLINE range was designed with the welding professional in mind. The CITOLINE range offers an industrial solution with a 35% duty cycle making it ideal for maintenance/repair and manufacturing applications. The complete range and reliability make it one of the MIG references in today's market.

Designation	Duty cycle	Supply	Feeding	Steel. Stainless steel (mm)	Aluminium (mm)	Cored wire (mm)	Display
CITOLINE 1700 M	140 A (18%)	single-phase	2 rollers	0.6 to 1.0	0.8 to 1.0	1.0	No
CITOLINE 2000 M	180 A (20%)	single-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 2000 T	200 A (30%)	three-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 2500 M	250 A (30%)	single-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 2500 T	250 A (30%)	three-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 3000 M	300 A (30%)	single-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Option
CITOLINE 3000 T	300 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3500 T	350 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 2500 MS	250 A (30%)	single-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Yes
CITOLINE 3000 MS	300 A (30%)	single-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3000 TS	300 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3500 TS	350 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3500 TS (W)	350 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 4500 TS	450 A (35%)	three-phase	4 rollers	0.8 to 1.6	1.0 to 1.6	1.0 to 1.6	Yes
CITOLINE 4500 TS (W)	450 A (35%)	three-phase	4 rollers	0.8 to 1.6	1.0 to 1.6	1.0 to 1.6	Yes

Welding performance and ergonomy



Power source:

- Compact and light due to the dynamically self-adjusting power transformer technology.

Controlled striking

- Possibility to adjust the striking speed.
- Stick out adjustment.



4 rollers mounting plate:

- Equipped with self-adjusting pressure idle rollers to improve feeding quality and avoid unevenness.

Flexibility

- Reverse polarity for gasless cored wire application (compact version).

Easy to use

- Inclined front panel for a complete view.
- Wire feeder with wheels.
- Wire feeder easily storable on the power source.
- Large pivot foot to allow easy installation of the wire feeder.



CITOLINE M: single-phase range.



Basic equipment:

- Digital display depending on model.
- 4 rollers mounting plate (except on CITOLINE 1700 M).
- Reverse polarity depending on model.
- Complete welding cycle (2T-4T-Spot-Intermittent).
- Ground cable with clamp.
- K 300 depending on model.



Technical characteristics:

		CITOLINE 1700 M	CITOLINE 2000 M
Primary	Power supply	230 V - 1ph	230 V - 1ph
	Frequency	50 - 60 Hz	50 Hz
	Consumption at max. current	24 A	32 A
Secondary	No-load voltage	18 - 32 V	18 -35 V
	Welding current	30 - 170 A	35 - 180 A
Duty cycle at 40 °C	at 100 %	60 A	85 A
	at 60 %	75 A	110 A
	at 35 %	140 A (18 %)	180 A (20 %)
Wires diameter	Steel	0.6-0.8-(1.0) mm	0.6-0.8-(1.0) mm
	Stainless steel	0.8-(1.0) mm	0.8-(1.0) mm
	Flux cored wire	1.0 mm	1.0 mm
	Aluminium	0.8-1.0 mm	0.8-1.0 mm
Protection index		IP 21	IP 23
Standards		EN 60974-1; -10	
Insulation classification		H	
Dimensional characteristics	Dimensions (W x H x L)	440 x 670 x 750 mm	500 x 870 x 950 mm
	Net weight	39 kg	52 kg
Wire feed		2 rollers	4 rollers
Digital display		No	Option W 000 264 869
Number of self position		1	
Reverse polarity		Yes	

To order

		W 000 261 954*	W 000 261 963*
Power source			
	Wire feeder	DV 4004 CTL 5 m DV 4004 CTL 10 m	- -
Tailor-made	Package**	W 000 261 780	W 000 266 707
	Torch (air cooled)	WELDLINE length 3 m length 4 m	WMT 15 A WMT 25 A W 000 010 600 W 000 010 602 W 000 010 601 W 000 010 603
Pressure regulator - flowmeter		Consult us	

* Compact version with integrated wire feeder.
** For French market.

Compact and separate (S) versions.



SINGLE-PHASE RANGE

CITOLINE 2500 M	CITOLINE 3000 M	CITOLINE 2500 MS	CITOLINE 3000 MS
230 V - 1ph	230 V - 1ph	230 V - 1ph	230 V - 1ph
50 Hz	50 Hz	50 Hz	50 Hz
54 A	67 A	54 A	67 A
20 - 53 V	20 - 55 V	20 - 53 V	20 - 55 V
32 - 250 A	28 - 300 A	32 - 250 A	28 - 300 A
140 A	165 A	140 A	165 A
180 A	215 A	180 A	215 A
250 A (30 %)	300 A	250 A (30 %)	300 A
0.8-1.0-(1.2) mm	0.8-1.2 mm	0.8-1.0-(1.2) mm	0.8-1.2 mm
0.8-1.0 mm	0.8-1.2 mm	0.8-1.0 mm	0.8-1.2 mm
1.0 mm	1.0-1.2 mm	1.0 mm	1.0-1.2 mm
0.8-1.0 mm	1.0-1.2 mm	0.8-1.0 mm	1.0-1.2 mm
IP 23			
EN 60974-1; -10			
H			
500 x 870 x 950 mm	500 x 870 x 950 mm	500 x 870 x 950 mm	
86 kg	86 kg	86 kg	
4 rollers	4 rollers	4 rollers	4 rollers
Option W 000 264 869	Option W 000 264 869	Yes (on wire feeder)	
1	1	1	4
Yes	Yes	No	No

W 000 261 964*	W 000 261 965*	W 000 261 972	W 000 261 973
	-	W 000 262 182	
	-	W 000 262 183	
W 000 266 707	-	-	-
WMT 25 A		WMT 36 A	
W 000 010 602		W 000 010 605	
W 000 010 603		W 000 010 606	

Consult us

CITOLINE T: three-phase range.



Basic equipment:

- Digital display depending on model.
- 4 rollers mounting plate.
- Reverse polarity depending on model.
- Complete welding cycle (2T-4T-Spot-Intermittent).
- Ground cable with clamp.
- K 300 depending on model.
- Water cooled version on CITOLINE 3500TS.
- Water cooled version on CITOLINE 4500TS

* Compact version with integrated wire feeder.
** For French market.



Technical characteristics:

		CITOLINE 2000 T	CITOLINE 2500 T	CITOLINE 3000 T
Primary	Power supply	230 / 400 V - 3ph		
	Frequency	50 Hz		
	Consumption at max. current	19 - 11 A	27 -16 A	33 -19 A
Secondary	No-load voltage	18 -35 V	18 -40 V	18 -45 V
	Welding current	27 - 200 A	35 - 250 A	35 - 300 A
Duty cycle at 40 °C	at 100 %	110 A	140 A	180 A
	at 60 %	140 A	170 A	230 A
	at 35 %	200 A (30 %)	250 A (30 %)	300 A
Wires diameter	Steel	0.6-1.0 mm	0.8-1.2 mm	0.8-1.2 mm
	Stainless steel	0.8-1.0 mm	0.8-1.0-(1.2) mm	0.8-1.2 mm
	Flux cored wire	1.0 mm	1.0 mm	1.0-1.2 mm
	Aluminium	0.8-1.0 mm	0.8-1.0 mm	1.0-1.2 mm
Protection index	IP 23			
Standards	EN 60974-1; -10			
Insulation classification	H			
Dimensional characteristics	Dimensions (W x H x L)	500 x 870 x 950 mm	500 x 870 x 950 mm	620 x 940 x 1.000 mm
	Net weight	71 kg	80 kg	96 kg
Wire feed	4 rollers			
Digital display	Option W 000 264 869	Option W 000 264 869	Yes	
Number of self position	1	2	3	
Reverse polarity	Yes			

To order

		Power source only	W 000 261 966*	W 000 261 967*	W 000 261 970*
Air cooled version	Separate air cooled wire feeder	including 5 m harness	-	-	-
		including 10 m harness	-	-	-
	Torch (air cooled)	WELDLINE	WMT 25 A		WMT 36 A
		length 3 m	W 000 010 602		W 000 010 605
	length 4 m	W 000 010 603		W 000 010 606	
Water cooled version	Separate water cooled wire	feeder 24 V + 10 m harness	-	-	-
		feeder 42 V + 10 m harness	-	-	-
	Torch (water cooled)	WELDLINE	-	-	-
		length 3 m	-	-	-
	length 4 m	-	-	-	
Package**		W 000 261 782	W 000 261 783	W 000 261 785	
Pressure regulator - flowmeter		Consult us			

Compact and separate (S) versions.



THREE-PHASE RANGE

CITOLINE 3500 T	CITOLINE 3000 TS	CITOLINE 3500 TS	CITOLINE 3500 TS W	CITOLINE 4500 TS	CITOLINE 4500 TS W
230 / 400 V - 3ph					
50 Hz					
41.5 - 24 A	34 - 19.5 A	41.5 - 24 A		64 - 37 A	
18 - 45 V	18 - 42 V	18 - 45 V		19 - 54 V	
35 - 350 A	35 - 300 A	35 - 350 A		35 - 450 A	
210 A	180 A	210 A		270 A	
270 A	230 A	270 A		345 A	
350 A	300 A	350 A		450 A	
0.8-1.2 mm	0.8-1.2 mm	0.8-1.2 mm		0.8-1.6 mm	
0.8-1.2 mm	0.8-1.2 mm	0.8-1.2 mm		0.8-1.6 mm	
1.0-1.2 mm	1.0-1.2 mm	1.0-1.2 mm		1.0-1.6 mm	
1.0-1.2 mm	0.8-1.2 mm	1.0-1.2 mm		1.0-1.6 mm	
IP 23					
EN 60974-1; -10					
H					
620 x 940 x 1.000 mm	500 x 865 x 900 mm	500 x 865 x 900 mm		610 x 915 x 1.030 mm	
116 kg	81 kg	100 kg		135 kg	
4 rollers					
Yes		Yes (on wire feeder)			
3	1			3	
Yes		No			
W 000 261 971*	W 000 261 981	W 000 261 974	W 000 305 243	W 000 261 975	W 000 261 975
-	W 000 262 182	W 000 262 182	W 000 262 182	W 000 262 182	W 000 262 182
-	W 000 262 183	W 000 262 183	W 000 262 183	W 000 262 183	W 000 262 183
WMT 36 A					
W 000 010 605					
W 000 010 606					
-	-	-	W 000 262 184	-	W 000 262 184
-	-	-	-	-	W 000 271 010
-	-	-	W 000 262 188	-	W 000 262 188
-	-	-	WMT 500 W	-	WMT 500 W
-	-	-	W 000 010 608	-	W 000 010 608
-	-	-	W 000 010 609	-	W 000 010 609
W 000 261 787	W 000 261 784	W 000 266 715	-	W 000 261 788	W 000 266 708
Consult us					

CITOLINE: friendly and easy to adjust.



CITOLINE 1700 M



- 1** Transformer temperature monitoring indicator light
- 2** Step time potentiometer
(if used for continuous welding, potentiometer in "timer off" position)
- 3** Torch connector, "Euro" type
- 4** Voltage switch
(used to adjust the voltage)
- 5** Wire speed regulation potentiometer
(carries out current calibration)
- 6** Primary power supply cable
- 7** Ground cable with its clamp

CITOLINE M/T

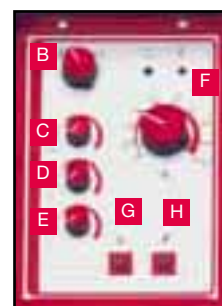


- A** Digital Volt/Ampere display
 - Shows the parameters before and after welding.
 - Facilitates parameter setting.
- B** Welding cycle selector
 - 2T: pressing the trigger activates the arc, releasing it activates the end of the cycle.
 - 4T: pressing the trigger starts the cycle, the trigger can be released. Pressing it again stops the cycle.
 - Spot weld: supplies a welding current for a given time.
- 3** Torch connector
- C** Step time
 - Used to set the spot welding time.
- D** Priming speed
 - Sets the wire run-up speed which improves arc striking.
- E** Anti-sticking
 - Adjusts the length of the "burnt" wire at the end of welding. This function avoids the wire sticking to the workpiece.
- F** Wire speed potentiometer
 - Allow continuous adjustment of the wire feed speed.
- G** Wire test
 - Checks the wire feed mechanism is working properly.
- H** Test gas
 - Used to check the gasflow.
- I** Switch
 - Switch on and pre-adjustment of the welding voltage.
- J** Voltage selector switch
 - Allows the voltage to the terminals of the welding circuit to be finely adjusted.
- K** Grounding cable terminals:
 - On small inductance coil: dynamic and penetrating arc
 - On large inductance coil: soft arc, damp cable.

CITOLINE (S)



WIRE FEEDER DV 4004 CTL







CITOLINE: wear parts-options



Wire feeder parts	Ø 0.6 mm	Ø 0.8 mm	Ø 1.0 mm	Ø 1.2 mm	Ø 1.4 mm	Ø 1.6 mm
Specific to CITOLINE 1700 M						
Rollers for steel and stainless steel wires	W 000 232 110	W 000 232 112	-	-	-	-
Other models of CITOLINE						
Entry wire guide	W 000 233 472					
Rollers for steel and stainless steel wires	W 000 050 096	W 000 050 097	W 000 050 098	W 000 050 099	-	W 000 218 767
Rollers for flux cored wires	-	-	W 000 264 870		W 000 265 883	
Rollers for aluminium wires	-	W 000 050 100	W 000 050 101	W 000 050 102	-	-

WELDLINE torches

Air cooled torches					
Torche name	Duty cycle at 60 %	Cat. no.			Max wire Ø
WMT 15 A	180 A	W 000 010 600		2004-616	1.0 mm
		W 000 010 601			
WMT 25 A	230 A	W 000 010 602		2004-619	1.2 mm
		W 000 010 603			
		W 000 010 604			
WMT 36 A	340 A	W 000 010 605		2004-620	1.6 mm
		W 000 010 606			
		W 000 010 607			
Water cooled torches					
WMT 500 W	500 A	W 000 010 608		2004-625	1.6 mm
		W 000 010 609			
		W 000 010 610			

Torch arm rest

2 models in the range

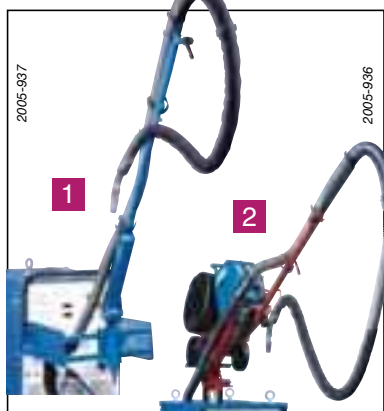
1 for CITOLINE compact version:

W 000 261 845

2 for CITOLINE separate version:

W 000 261 846

Arm adjustable up to 2.5 meters length.



CHAMELEON F, CHAMELEON 3V & CHAMELEON 3V+ self darkening helmets.

CHAMELEON F and 3V helmets are self darkening masks equipped with a fixed liquid crystal cell for the F type (DIN 3/11), and a variable one for the 3V type (DIN 4/9-13). Very light, this high technology helmets are sold with an adjustable headgear.

CHAMELEON 3F
Type fixed cell
DIN 3/11

CHAMELEON 3V
Type variable cell
DIN 4/9-13
specially designed
for MMA, MIG/MAG

CHAMELEON 3V+
Type variable cell
DIN 4/9-13
covering all processes
especially TIG



2006-218

W 000 261 351

W 000 261 352

W 000 261 353



Contacts in Europe

BELGIUM

AIR LIQUIDE WELDING BELGIUM SA
Z.I. West Grippen - Grippenlaan 5 - 3300 TIENEN
Tel.: +32 16 80 48 20 - Fax: +32 16 78 29 22

CZECH REPUBLIC

AIR LIQUIDE CZ S.R.O. - Welding & Cutting
Jinonická 80 - 15800 PRAHA 5
Tel.: +420 257 290 384 - Fax: +420 257 290 428

FRANCE

AIR LIQUIDE WELDING FRANCE
13, rue d'Épluches - BP 70024 Saint-Ouen l'Aumône
95315 CERGY PONTOISE Cedex
Tel.: +33 1 34 21 33 33 - Fax: +33 1 34 21 31 30

GERMANY

OERLIKON SCHWEISSTECHNIK GmbH
Industriestrasse 12 - D-67304 EISENBERG/PFALZ
Tel.: +49 6351 4760 - Fax: +49 6351 476 335

HUNGARY

AIR LIQUIDE HUNGARY - Welding & Cutting
IPARI GAZTERMELŐ KFT.
Pannonia Center-Pannonia u.11. - H-1136 BUDAPEST XIII,
Tel./Fax: +36 1 239 4060

ITALY

AIR LIQUIDE WELDING ITALY
Via Torricelli 15/A - 37135 VERONA
Tel.: +39 045 82 91 511 - Fax: +39 045 82 91 536

NETHERLANDS

AIR LIQUIDE WELDING NETHERLANDS
Rudonk 6 B - NL 4824 AJ BREDA
Tel.: +31 76 541 00 80 - Fax: +31 76 541 58 96

POLAND

AIR LIQUIDE WELDING POLSKA - SP. Z.o.o
UL. Porcelanowa 10 - 40-246 KATOWICE
Tel.: +48 32 609 04 50 - Fax: +48 32 609 04 60

PORTUGAL

AIR LIQUIDE SOLDADURA LDA
Rua Dr. António Loureiro Borges, 4-2º Arquiparque
Miraflores - 1495-131 ALGÉS
Tel: +351 21 41 64 900 - Fax: +351 21 41 69 40

ROMANIA

DUCTIL
Aleea Industriilor Nr 1 - 120224 BUZAU
Tel.: +40 238 722 058 - Fax: +40 238 716 861

RUSSIA

AIR LIQUIDE WELDING
Ул. Воронцовская д. 17 - МОСКВА 109147
Тел.: +7 (495) 641 28 98 - Факс: +7 (495) 641 28 91
E-mail: vladimir.lebedev@airliquide.com

SCANDINAVIA

OERLIKON SKANDINAVIEN AB
Krossverksgatan 7 - 216 16 LIMHAMN
Tel.: +46 (0)40 670 15 00 - Fax: +46 (0)40 670 15 01

SLOVAKIA

AIR LIQUIDE WELDING CENTRAL EUROPE S.R.O.
Pražska 35 - 94901 NITRA
Tel.: +421 37 65 19 919 - Fax: +421 37 65 19 919

SPAIN

OERLIKON SOLDADURA SA
Poligono Industrial la Noria Carretera de Castellon
Km-15,500 - 50730 El Burgo de Ebro - ZARAGOZA
Tel.: +34 976 10 47 00 - Fax: +34 976 10 42 67

SWITZERLAND

OERLIKON - SCHWEISSTECHNIK-AG
Neunbrunnenstrasse 50 - CH 8050 ZÜRICH
Tel.: +41 44 307 61 11 - Fax: +41 44 307 65 30

UAE

AIR LIQUIDE WELDING MIDDLE EAST FZE
Jebel Ali free zone warehouse No. FZS1AH05
P.O. BOX 18734 - Jebel Ali - DUBAI
Tel.: +971(0)48861606 - Fax: +971(0)48861608

U. K.

AIR LIQUIDE WELDING Ltd
Low March / London Road - DAVENTRY
Northants NN11 4SD
Tel.: +44 1 327 70 55 11 - Fax: +44 1 327 70 13 10

Contacts for other countries

<p>ALW International Development Department Italy FRO - AIR LIQUIDE WELDING ITALIE Via Torricelli 15/A 37135 VERONA Tel: +39 045 82 91 511 Fax: +39 045 82 91 536 Email: export.alwitaly@airliquide.com</p>	<p>ALW International Development Department France 13, rue d'Épluches BP 70024 Saint Ouen l'Aumône 95315 CERGY-PONTOISE Cedex Tel: +33 1 34 21 33 33 Fax: +33 1 30 37 19 73 Email: export.alwfrance@airliquide.com</p>	<p>ALW International Development Department Switzerland OERLIKON - SCHWEISSTECHNIK-AG Mandachstrasse 54 CH 8155 NIEDERHASLI Tel: + 41 44 307 61 11 Fax: + 41 44 307 61 12 Email: export.oerlikonwelding@airliquide.com</p>
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Air Liquide is the world leader in gases for industry, health and the environment, and is present in over 75 countries with 43,000 employees. Oxygen, nitrogen, hydrogen and rare gases have been at the core of Air Liquide's activities since its creation in 1902. Using these molecules, Air Liquide continuously reinvents its business, anticipating the needs of current and future markets. The Group innovates to enable progress, to achieve dynamic growth and a consistent performance. Air Liquide combines many products and technologies to develop valuable applications and services not only for its customers but also for society.