

CIGWELD

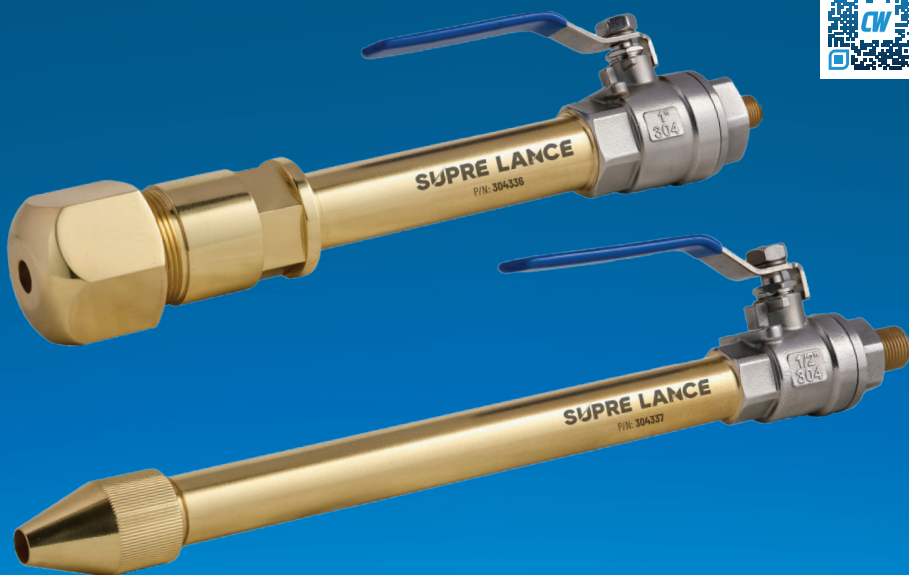
AN ESAB BRAND



DESIGNED
& TESTED
IN AUSTRALIA
FOR OVER 100 YEARS

SUPRE LANCE

THERMIC LANCES AND ACCESSORIES



OPERATING MANUAL

SUPRE LANCE THERMIC LANCES AND ACCESSORIES

CUTTING

PIERCING

GOUGING

CIGWELD

AN **ESAB** BRAND

WE APPRECIATE YOUR BUSINESS!

Congratulations on your new CIGWELD product. We are proud to have you as our customer and will strive to provide you with the best service and reliability in the industry. This product is backed by our extensive warranty and world-wide service network.

This Operating Manual has been designed to instruct you on the correct use and operation of your CIGWELD product. Your satisfaction with this product and its safe operation is our ultimate concern. Therefore please take the time to read the entire manual, especially the Safety Precautions. They will help you to avoid potential hazards that may exist when working with this product.

We have made every effort to provide you with accurate instructions, drawings, and photographs of the product(s) while writing this manual. However errors do occur and we apologize if there are any contained in this manual.

Due to our constant effort to bring you the best products, we may make an improvement that does not get reflected in the manual. If you are ever in doubt about what you see or read in this manual with the product you received, then check for a newer version of the manual on our website or contact our customer support for assistance.

YOU ARE IN GOOD COMPANY!

The Brand of Choice for Contractors and Fabricators Worldwide.

CIGWELD is a Market Leading Brand of Arc Welding Products for ESAB. We are a mainline supplier to major welding industry sectors in the Asia Pacific and emerging global markets including; Manufacturing, Construction, Mining, Automotive, Engineering, Rural and DIY.

We distinguish ourselves from our competition through market-leading, dependable products that have stood the test of time. We pride ourselves on technical innovation, competitive prices, excellent delivery, superior customer service and technical support, together with excellence in sales and marketing expertise.

Above all, we are committed to develop technologically advanced products to achieve a safer working environment for industry operators.



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**WARNING**

Read and understand this entire Manual and your employer's safety practices before installing, operating, or servicing this product. While the information contained in this Manual represents the Manufacturer's best judgement, the Manufacturer assumes no liability for its use.

SUPRE LANCE THERMIC LANCES AND ACCESSORIES OPERATING MANUAL

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RECORD THE FOLLOWING INFORMATION FOR WARRANTY PURPOSES:

Where Purchased:

Purchase Date:

Equipment Serial #:

19mm / 16mm / 12.7mm SUPRE LANCES AND ACCESSORIES

Supre Lances, also known as thermic lances, are high-temperature cutting tools designed for a wide range of materials. They effectively cut through ferrous and non-ferrous metals, refractory materials, concrete, rock, and composite structures. A Supre Lance consists of a steel tube packed with metal wires. Oxygen gas is forced through the tube from a pressurized cylinder and the end is ignited. This initiates a rapid exothermic reaction where the iron in the steel combusts in the Oxygen stream, generating intense heat and a molten slag of iron oxides and other byproducts. The combustion zone reaches approximately 4000°C, enabling the lance to cut through virtually any material. Due to these extreme temperatures, stringent safety precautions are essential.

SAFETY

1. Always check equipment for leaks before use (check connections with soapy water).
2. Ensure adequate ventilation for operator.
3. Appropriate fire precautions should be taken. Remove flammable materials from the area.
4. Protective clothing must be worn.
5. Oil and grease should be free from the hose, handle, regulator and lances.



NOTE

1. DO NOT USE UNDERWATER
2. DO NOT EXCEED 600kPa

RECOMMENDED PRESSURE

Pressures vary depending on the thickness of material, position of cut, type of material, confined spaces etc. A good starting point is to set the pressure at approximately 420kPa.

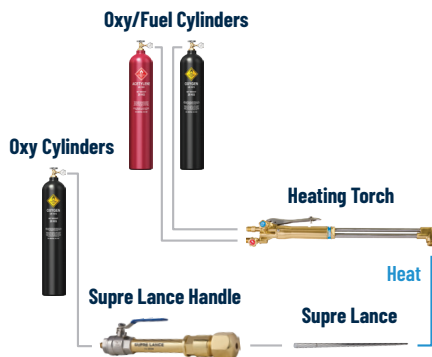
TROUBLESHOOTING

1. If it won't light, the Oxygen is not turned on or the tip of the lance is not hot enough for ignition.
2. If it won't stay light, the Oxygen pressure is too low or the Oxygen cylinder is empty.
3. If too much blowback, the Oxygen pressure is too high.

OPERATION

HOW TO CONNECT YOUR SUPRE LANCE WITH AN OXY-FUEL GAS TORCH

1. With the Supre Lance Handle valve closed, heat the very tip of your Supre Lance.
2. Once the end is glowing red, move the heating torch away from the Supre Lance.
3. Then slowly open the Supre Lance Handle valve to begin the Oxygen flow.
4. The lance will then ignite at the tip.
5. Place tip of lance on the surface you wish to cut and proceed to cut or bore. You can place tip against surface when cutting, however do not use excessive force.



10mm / 7mm SUPRE LANCES AND ACCESSORIES

Mini lances offer the same cutting capabilities as larger thermic lances but are designed for precision work on smaller jobs. Despite their size, they operate at extremely high temperatures, requiring adherence to all standard thermic lance safety protocols.

SAFETY

1. Always check equipment for leaks before use (check connections with soapy water).
2. Ensure adequate ventilation for operator.
3. Appropriate fire precautions should be taken. Remove flammable materials from the area.
4. Protective clothing must be worn.
5. Oil and grease should be free from the hose, handle, regulator and lances.

RECOMMENDED PRESSURE

Pressures vary depending on the thickness of material, position of cut, type of material, confined spaces etc. A good starting point is to set the pressure at approximately 250kpa.

TROUBLESHOOTING

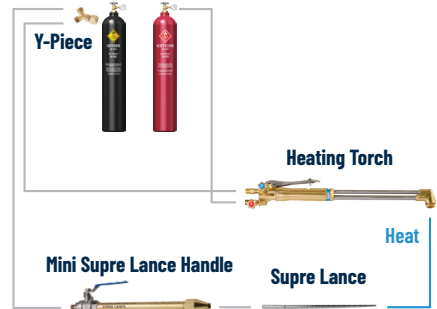
1. If it won't light, the Oxygen is not turned on or the tip of the lance is not hot enough for ignition.
2. If it won't stay light, the Oxygen pressure is too low or the Oxygen cylinder is empty.
3. If too much blowback, the Oxygen pressure is too high.

OPERATION

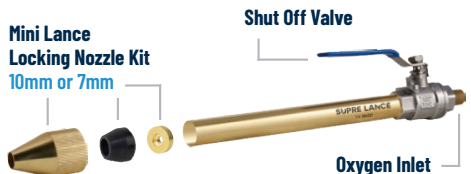
CONNECTION OF A MINI SUPRE LANCE

1. Connect the Y-Piece to Oxy regulator to enable supply for the lance and the heating torch.
2. Oxy Acetylene or Oxy Propane can be used to heat the tip of the lance to glowing red.
3. Remove heating torch.
4. Then apply the Oxygen at the handle/valve.
5. The lance will ignite at the tip.
6. Place tip of lance on the surface and proceed to cut or bore.

Oxy/Fuel Cylinders



MINI SUPRE LANCE HANDLE



ADDITIONAL SAFETY INFORMATION

CHECKING FOR OXYGEN LEAKS

The Supre Lance Handle comes with a solid rubber cylinder. This is used to check for Oxygen leaks prior to using the Supre Lance setup. CIGWELD tests every handle before they leave our factory, however, once on site, it is crucial to recheck for Oxygen leaks. The process is explained below and is a quick process that ensures operator safety when using this equipment.

DIRECTIONS FOR USE

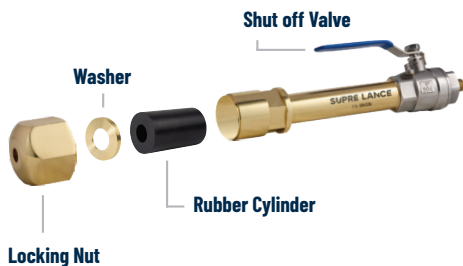
1. Remove Brass Locking Nut & Concave Washer.
2. Remove the Locking Rubber.
3. Insert the solid rubber cylinder.
4. Screw the Locking Nut back on, with washer and hand tighten.
5. Close the Supre Lance handle valve.
6. Connect the Supre Lance Handle to an Oxygen supply set at 600kPa.
7. Turn the valve on slowly, allowing the Supre Lance Handle to be pressurized and place the complete Lance handle into a bucket of water.



NOTE

1. If bubbles come out of Oxy hose to handle nipple connection, tighten and recheck.
2. If bubbles are coming out elsewhere on the handle, please return the handle for repair.
3. If there are no bubbles, the handle is in good condition and ready for use.

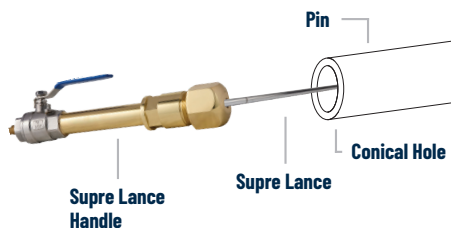
SUPRE LANCE HANDLE



OPERATIONAL TIPS

METHOD FOR REMOVAL OF A SEIZED PIN

1. Blast the face of the pin to form a large hole, as shown in illustration below but leave a suitably wide outer ring.
2. Continue with the cut in a conical shape as this allows the molten metal to flow out and does not accumulate further into the pin.
3. Lance from both ends of the pin, if possible.
4. It is not usually necessary to make a hole all the way through the pin.
5. After lancing, cool the pin with water inside the hole only. This will quench the pin but keep the housing hot. The pin will shrink as it cools down. Then proceed with a heavy hammer and a drift to help remove the pin. The initial impact on the pin from the hammer breaks the tight fit and then continue hammering until pin pops out.





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LIMITED WARRANTY TERMS

LIMITED WARRANTY: CIGWELD Pty Ltd, An ESAB Brand, hereafter, "CIGWELD" warrants to customers of its authorized distributors hereafter "Purchaser" that its products will be free of defects in workmanship or material. Should any failure to conform to this warranty appear within the time period applicable to the CIGWELD products as stated below, CIGWELD shall, upon notification thereof and substantiation that the product has been stored, installed, operated, and maintained in accordance with CIGWELD's specifications, instructions, recommendations and recognized standard industry practice, and not subject to misuse, repair, neglect, alteration, or accident, correct such defects by suitable repair or replacement, at CIGWELD's sole option, of any components or parts of the product determined by CIGWELD to be defective.

CIGWELD MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHERS, INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

LIMITATION OF LIABILITY: CIGWELD SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, LOST PROFITS AND BUSINESS INTERRUPTION.

The remedies of the Purchaser set forth herein are exclusive and the liability of CIGWELD with respect to any contract, or anything done in connection therewith such as the performance or breach thereof, or from the manufacture, sale, delivery, resale, or use of any goods covered by or furnished by CIGWELD whether arising out of contract, negligence, strict tort, or under any warranty, or otherwise, shall not, except as expressly provided herein, exceed the price of the goods upon which such liability is based. No employee, agent, or representative of CIGWELD is authorized to change this warranty in any way or grant any other warranty.

PURCHASER'S RIGHTS UNDER THIS WARRANTY ARE VOID IF REPLACEMENT PARTS OR ACCESSORIES ARE USED WHICH IN CIGWELD'S SOLE JUDGEMENT MAY IMPAIR THE SAFETY OR PERFORMANCE OF ANY CIGWELD PRODUCT. PURCHASER'S RIGHTS UNDER THIS WARRANTY ARE VOID IF THE PRODUCT IS SOLD TO PURCHASER BY NON-AUTHORIZED PERSONS.

The warranty is effective for the time stated below beginning on the date that the authorized distributor delivers the products to the Purchaser. Notwithstanding the foregoing, in no event shall the warranty period extend more than the time stated plus one year from the date CIGWELD delivered the product to the authorized distributor.

Any claim under this warranty must be made within the warranty period which commences on the date of purchase of the product. To make a claim under the warranty, take the product (with proof of purchase from a CIGWELD Accredited Seller) to the store where you purchased the product or contact CIGWELD Customer Care 1300 654 674 for advice on your nearest Service Provider. CIGWELD reserves the right to request documented evidence of date of purchase. CIGWELD or our Accredited Distributor must be notified in writing of its claim within seven (7) days of becoming aware of the basis thereof, and at its own expense returning the goods which are the subject of the claim to CIGWELD or nominated Accredited Distributor/Accredited Service Provider

This warranty is given.
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Email: support@cigweld.com.au
Website: www.cigweld.com.au

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Note: In the interest of continuous improvement, CIGWELD Pty Ltd reserves the right to change the specifications or designs of any of its products without prior notice.

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SUPRE LANCE

RELATED PRODUCTS

Part No	Description
304336	Supre Lance Handle 19, 16 & 12.7mm
304337	Supre Lance Handle 10 & 7mm
304342	Supre Lance Spatter Shield
317000	Supre Lance Mini Kit
304336-5A	Supre Lance Rubber Cylinder Seal 19mm
304336-5B	Supre Lance Rubber Cylinder Seal 16mm
304336-5C	Supre Lance Rubber Cylinder Seal 12.7mm
304336-5D	Supre Lance Rubber Cylinder Leak Test Plug
304336-9A	Supre Lance Spanner (Large)
304336-9B	Supre Lance Spanner (Small)
304336-10	Supre Lance Handle Alternative Ball Valve Handle
304366-6	Supre Lance Compression Sealing Washer
304336-7A	Supre Lance Handle Locking Nut 19mm
304336-7B	Supre Lance Handle Locking Nut 16mm
304336-7C	Supre Lance Handle Locking Nut 12.7mm

Part No	Description
304337-8A	Mini Lance Locking Nozzle Kit 10mm
304337-8B	Mini Lance Locking Nozzle Kit 7mm
304343	Supre Lance RBX Premium Oxygen Hose Kit, 5mm, 5m
304346	Supre Lance RBX Premium Oxygen Hose Kit, 10mm, 5m
456477	Supre Lance Gloves
455941	Supre Lance Mask
310637	COMET EDGE ESV4 Oxygen Regulator Vertical Inlet With GasGuard 1000kPa
310532	COMET EDGE ESV4 Acetylene Regulator Vertical Inlet With GasGuard 150kPa
308882	COMET 85-10R-LP Flashback Arrestor, Oxygen
308883	COMET 85-10R-LP Flashback Arrestor, Fuel
308861	COMET 85-10B Flashback Arrestor, Oxygen
308862	COMET 85-10B Flashback Arrestor, Fuel
R121	Y-Piece Adaptor 5/8"-18 RH

Instruction Part No: 338260-01-325



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