

# CIGWELD

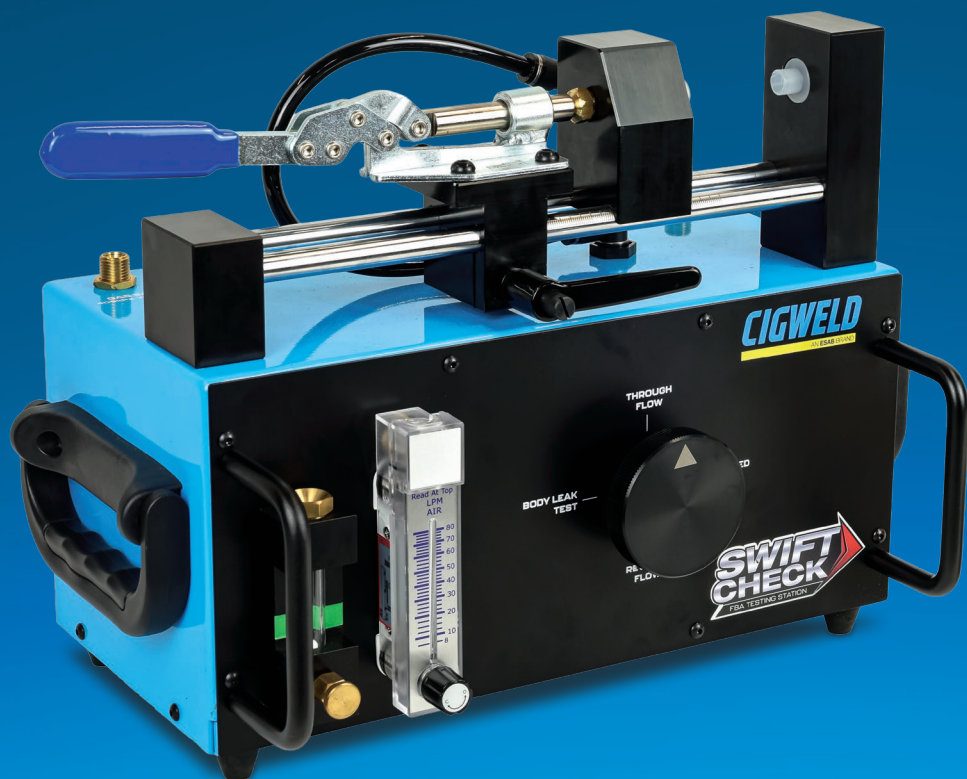
AN ESAB BRAND



DESIGNED  
& TESTED  
IN AUSTRALIA  
FOR OVER 100 YEARS

## SWIFT CHECK

FBA TESTING STATION



OPERATING MANUAL

SWIFTCHECK FBA TESTER KIT

# 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 If you are ever in doubt about what you see or read in this manual with the product you received, then check for a newer version of the manual on our website or contact our customer support for assistance.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.

**SWIFTCHECK  
FBA TESTER KIT  
OPERATING MANUAL**

Published by:



**CIGWELD Pty Ltd**  
**CIGWELD An ESAB Brand**

71 Gower Street, Preston VIC 3072 Australia

**CUSTOMER CARE:**

Tel: 1300 654 674 | Intl Tel: +61 3 9474 7400

Email: [support@cigweld.com.au](mailto:support@cigweld.com.au)

     | [CIGWELD.COM.AU](http://CIGWELD.COM.AU)

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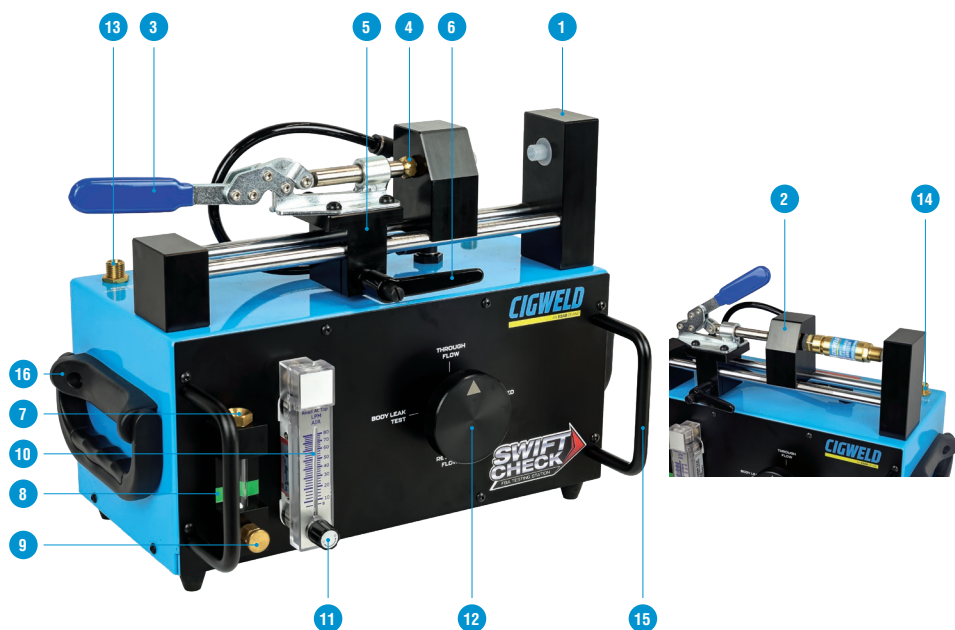
**RECORD THE FOLLOWING  
INFORMATION FOR  
WARRANTY PURPOSES:**

**Where Purchased:**

**Purchase Date:**

**Equipment Serial #:**

# SECTION 1: DEVICE COMPONENTS



- |                             |                          |   |
|-----------------------------|--------------------------|---|
| 1 Fixed Clamping Piece      | 6 Locking Handle         | 11 Flow Adjustment Knob                 |
| 2 Adjustable Clamping Piece | 7 Drip Funnel            | 12 Handwheel Switch                     |
| 3 Toggle Clamps             | 8 Reverse Flow Indicator | 13 Inlet Connection (G1/4"-19 RH Male)  |
| 4 Adjustment Nut            | 9 Drain Screw            | 14 Outlet Connection (G1/4"-19 RH Male) |
| 5 Base Mount                | 10 Flowmeter             | 15 Roll Bar                             |
|                             |                          | 16 Folding Handle                       |

## SECTION 2: KIT CONTENTS

### SWIFTCHECK FBA TESTER KIT

P/N : 208036



P/N	Description
208562	SwiftCheck FBA Tester
201076	BlueJet Air Regulator
208563	SwiftCheck Adaptor Kit
208424	BlueJet RBX Fitted Gas Hose Inert, 5mm, 3m, 5/8" -18 UNF RH F
208037	SwiftCheck Connection Block with Hoses and Quick Couplers
208038	SwiftCheck Tube Assembly RH & LH
208565	Kit Bag

# SECTION 3:

## FUNCTION OVERVIEW

### FUNCTIONS

The SwiftCheck FBA tester Kit performs the following tests:

1. **Through Flow Test:** Verifies proper flow through the FBA.
2. **Reverse Flow Test:** Confirms the reverse flow prevention function of the FBA.
3. **Reset Function Test:** Checks the reset function for resettable FBA.
4. **Body Leak Test:** Tests the body of the FBA for leakage (Test Pressure: 2 kg/cm<sup>2</sup>).



### NOTE

This machine accommodates FBA's with a maximum length of 130 mm and a maximum diameter of 50 mm.

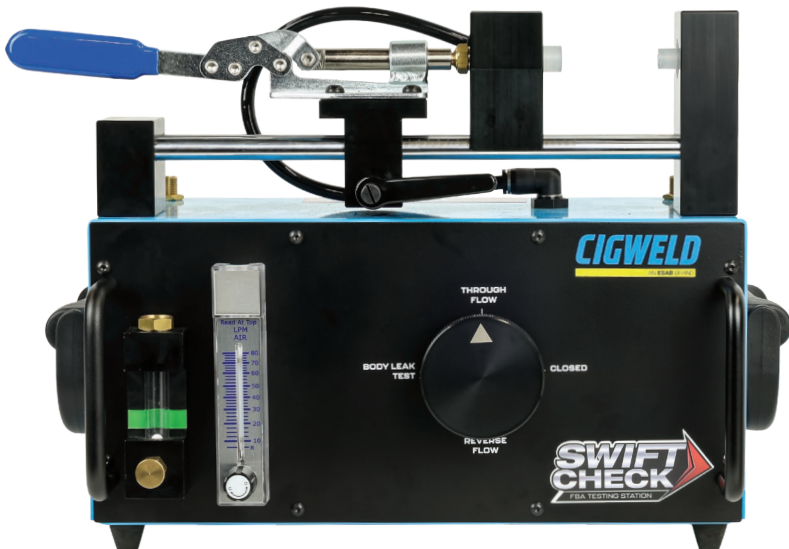
# SECTION 4: INSTALLATION AND SET-UP PROCEDURES BEFORE TESTING

## 4.01 BEFORE TESTING

Place the test device on a flat, stable surface, ensuring the selector handwheel is in the "OFF" position.

### Test media requirements:

1. Distilled Water
2. Filtered, dry, oil-free compressed air or nitrogen (N<sub>2</sub>), filtered to 100 µ.
3. Inlet Pressure: 400 kPa ~ 700 kPa (4 bar ~ 7 bar).



## 4.02 THROUGH FLOW TEST

### STEPS:

1. Insert the black rubber adapter into the fixed clamping base, and the white conical plastic adapter into the adjustable clamping base.
2. Adjust the angle of the toggle clamps to 60–70 degrees. Push the fixed base forward so that the rubber adapter and the white conical adapter make contact. Tighten the locking handle on the fixed base. Apply approximately 0.51 kg of force to fully press the toggle clamp down, ensuring the adapters fit snugly. If the fit is incorrect or too tight, release the locking handle, adjust the toggle clamp angle or the fixed base position, and then re-tighten the locking handle.
3. Turn the selector handwheel to the "Through Flow" position.
4. Adjust the flow adjustment knob until the centre of the float in the flowmeter reads 80.
5. After completing the operation, turn the selector handwheel to the "OFF" position.

## 4.03 REVERSE FLOW TEST

### STEPS:

1. Open the toggle clamps, leaving a 3–5 mm gap between the seals.
2. Turn the selector handwheel to the "Reverse Flow" position.
3. Using a plastic squeeze bottle, fill the transparent tube indicator with distilled water until the top of the float reaches the bottom of the indicator line. If overflow occurs, drain the excess water using the drain screw, then tighten the screw to achieve the required water level.
4. Slowly press the toggle clamps to reduce the gap between the seals, and observe whether the float rises. If the float moves past the top marker of the scale, the function is normal.



### NOTE

Fully closing the gap between the seals may cause water to escape through the top of the glass tube indicator. Refill as needed to maintain the correct water level.

5. After completing the operation, turn the selector handwheel to the "OFF" position.

## 4.04 BODY LEAK TEST

### STEPS:

1. Turn the selector handwheel to the "Body Leak Test" position.
2. If gas is expelled from the outlet connector, the machine is functioning normally.
3. After testing, turn the selector handwheel to the "OFF" position.



# SECTION 5: TESTING PROCEDURE

## 5.01 BEFORE TESTING

### STEPS:

1. Insert the FBA under test between the central sliders, ensuring alignment with the flow direction.
2. Adjust the position of the toggle clamps and fixed base, then tighten the locking screws to ensure proper sealing.



### NOTE

The push force on the toggle clamps should be around 0.5~1 kg to avoid damaging the FBA Tester or components.

## 5.02 THROUGH FLOW TEST

### STEPS:

1. Turn the selector handwheel to the "Through Flow" position.
2. If the flowmeter reading is below the minimum allowable value for the tested model, the device fails this test.
3. Turn the selector handwheel to the "OFF" position.
4. Open the clamps and remove the FBA from the two clamping units.

## MINIMUM FLOW

The tested device's flow must meet or exceed the specified threshold.

Model	Minimum Flow
208514	15
208515	15
208516	15
208517	15
208519	20
208520	20

## 5.03 REVERSE FLOW TEST

### STEPS:

1. Turn the selector handwheel to the "Reverse Flow" position and wait for 30 seconds. If the float in the glass tube indicator moves past the indicator area, the device fails the test.
2. Turn the selector handwheel to the "OFF" position.
3. Open the clamps and remove the FBA from the two clamping units.

## 5.04 RESET FUNCTION TEST (FOR RESETTABLE FBA'S ONLY)

### STEPS:

4. Replace the FBA in the clamps, ensuring the flow direction is reversed according to the machine's indication. Re-clamp to ensure proper sealing.
5. Turn the selector handwheel to the "Through Flow" position.
6. Test the reset function of the FBA.  
If it fails to trigger, the FBATester fails this test.
7. Turn the selector handwheel to the "OFF" position.
8. Open the clamps, remove the FBA from between the sliders, and ensure the device is reset before further use.

## 5.05 BODY LEAK TEST

### STEPS:

1. Identify the FBA model and select the appropriate adapter and sealing cap.
2. Connect the tubing assembly to outlet connector on the test bench.
3. Attach the other end of the tubing assembly to the inlet side of the FBA.
4. Seal the outlet of the FBA with the sealing cap.
5. Turn the selector handwheel to the "Body Leak Test" position.
6. Submerge the FBA in water. If continuous air bubbles are observed, the device fails the test.
7. After testing, turn the selector handwheel to the "OFF" position and remove the FBA.



**NOTES:**



## SECTION 6: ACCESSORIES

### SWIFTCHECK ADAPTOR KIT

Contents	Qty	
1 Plastic Adaptor G3/8", G1/4" & G5/8"	3	
2 Rubber Adaptor Dm20	1	
3 Coupling Adaptor G1/4" (Oxygen)	1	
4 Coupling Adaptor G1/4" (Fuel)	1	
5 Adaptor (5/8"-18 UNF RH M- Type N - M)	1	
6 Adaptor Set (5/8"-18 UNF LH F - Type N - M)	2	

7 Adaptor (5/8"-18 UNF RH F - Type N - M)

1



8 Adaptor Set (1/4" RH F - Type N - M)

2



9 Adaptor (5/8"-18 UNF RH F - Type N - M)

1



10 Outlet Connector (5/8"-18 UNF RH M - M)

1



11 Outlet Connector (5/8"-18 UNF LH M - M)

1



12 Plug (5/8"-18 UNF RH F)

1



13 Plug (5/8"-18 UNF LH F)

1



14 Plug (5/8"-18 UNF RH M)

1



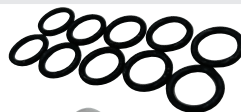
15 Plug (5/8"-18 UNF LH M)

1



16 O-rings (14 x 3 NBR 70)

10



17 Plastic Bottle 50ml (Water)

1







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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.

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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.

CIGWELD Pty Ltd A.B.N. 56007226815

71 Gower Street, Preston Victoria, Australia, 3072

Phone: 1300 654 674

Email: [support@cigweld.com.au](mailto:support@cigweld.com.au)

Website: [www.cigweld.com.au](http://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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Instruction Part No: 338260-01-325



CIGWELD Pty Ltd An ESAB Brand 71 Gower Street, Preston VIC 3072 Australia  
CUSTOMER CARE: Tel: 1300 654 674 | Intl Tel: +61 9474 7400  
Email: [support@cigweld.com.au](mailto:support@cigweld.com.au)



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