IBC Foil Heater Handbook

Best practice guidelines for achieving safe and reliable results from your single-trip foil heater

Argus Heating Ltd

Inside this handbook

A single-trip foil heater provides a cost effective, efficient, and reliable solution for heating products in an IBC.

This handbook provides all the information you need to help you achieve the best possible results from your heated IBC solution.

Inside you'll find:

- Step by step instructions on how to handle and install a single-trip foil heater.
- Examples of typical applications and usage.
- Detailed test procedures.
- Record of test results sheet.
- Troubleshooting information.

Contents

Introduction, Benefits, and Use

Introduction

This handbook provides guidelines to help you get the best results from your IBC foil heater

The front sections of the handbook provide **step-by-step instructions** on how to safely prepare and install an IBC foil heater, along with examples of typical applications and usage.

The appendices provide more **detailed test procedures**, along with **additional reference material** on the safe and effective use of IBC foil heaters. Information on the use of IBC heating jackets for alternative situations is also included.

Finally, this handbook describes the procedure on how to return IBC heaters to Argus Heating in the unlikely situation that they are damaged or faulty.

Who is this handbook for?

Anyone involved in the handling and delivery of a heated IBC solution that uses an Argus Heating foil heater, including **IBC suppliers, product suppliers and product users (fillers).**

Inside this handbook

- **Step by step instructions on how to handle, prepare, and install an IBC foil heater**
- **Examples of typical applications and usage**
- **Detailed test procedures**
- **Alternative heat-up solutions**
- **Returns procedure**
- **Record of test results sheet**

Why use a single-trip foil heater?

A single-trip foil heater provides a cost effective, efficient, and reliable solution for heating products in an IBC along with the benefits of greater storage and transport efficiency.

Food stuffs, oils and fats, chemicals, and pharmaceutical ingredients can thicken or even become completely solid as they cool during storage or transportation, making them difficult to decant.

A single-trip foil heater is fitted in the base of an IBC. When the IBC arrives at its destination the heater is connected to a power supply and gradually warms the product until it can be easily decanted.

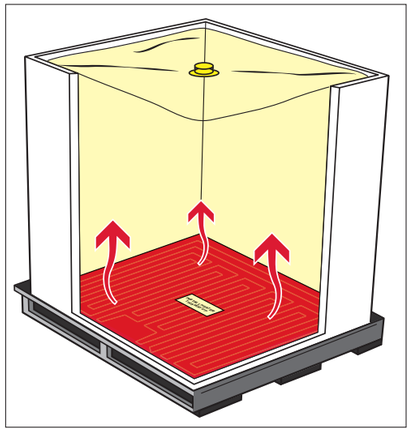
Foil heaters come in a variety of configurations and are designed to suit the construction and material of the IBC and the product being heated. Some foil heaters fit directly into the base of the IBC and, for easier insertion, others are assembled into a cardboard cassette (refer to Appendix C for more information on cassette assembly).

For all installations, the heater needs to be in direct contact with the bag containing the product.

Key benefits of IBC foil heaters

- Highly efficient source of heat due to direct contact with the product liner
- Safe
- Cost effective
- Can reduce labour and unnecessary handling
- Can reduce capital costs - no need for hot rooms
- Heat at the point of end use
- Heat only what you need, when you need it
- Recyclable

A **single-trip foil heater** provides a cost effective, efficient, and reliable solution for heating products that can thicken or become solid as they cool.



The heater is fitted into the base of an IBC **before filling**.

When the IBC arrives at its destination the heater is **connected to a power supply** and gradually warms the product until it can be easily decanted.

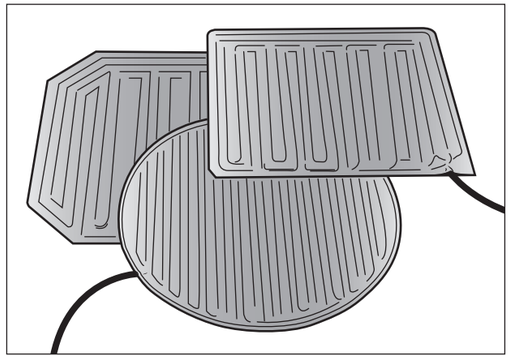
Argus Heating will design and customise IBC foil heaters and accessories to meet your specific requirements in terms of shape, size, and power output.

Contact us to discuss your IBC heating requirements.

Application and Use

Argus Heating's IBC foil heaters are designed to be used inside IBC's to heat products such as fats and oils, greases, liquid sugars, waxes, chemicals, and pharmaceutical ingredients.

Because each foil heater is designed for a specific IBC model and range of products it is important to check you have the correct heater for your intended purpose.



We recommend testing all new combinations of IBC foil heater, IBC, and product.

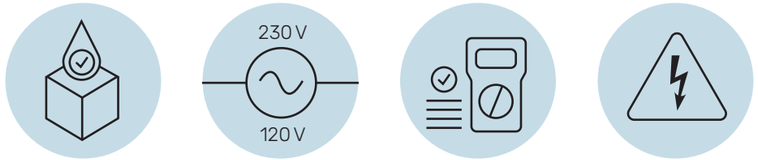
The information in Appendix A will help you understand the heating requirements of different products.

Important Safety Information

Important safety information

Remember

- Only use a heater designed for your IBC and product.
- Use the correct heater for your supply voltage (either 120 V or 230 V).
- Test the heater before filling the product (refer to Appendix B).
- Reject and quarantine any heater that fails the IBC heater tests (refer to Appendix B).
- Do not pull on the power cord.
- Always supply main power through a protective Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD).
- Only connect power cords and electrical devices that are correctly rated and defect free. Refer to the power cord label or specification sheet to find the rated power, voltage, and current for your foil heater.

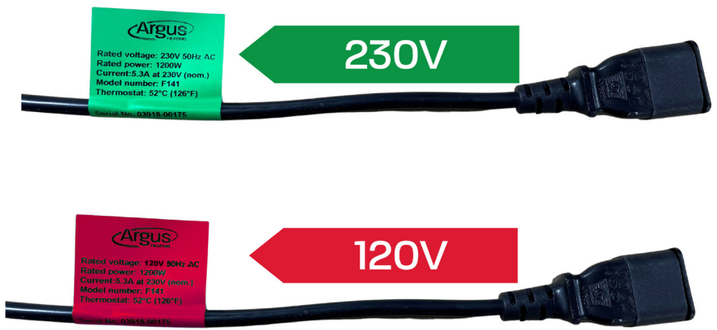


Incorrect use of a foil heater could result in electrical shock, burns, fire, heater failure and/or damage to the heated product. It is important that the steps outlined in this handbook are followed.

Understanding supply voltage and ratings

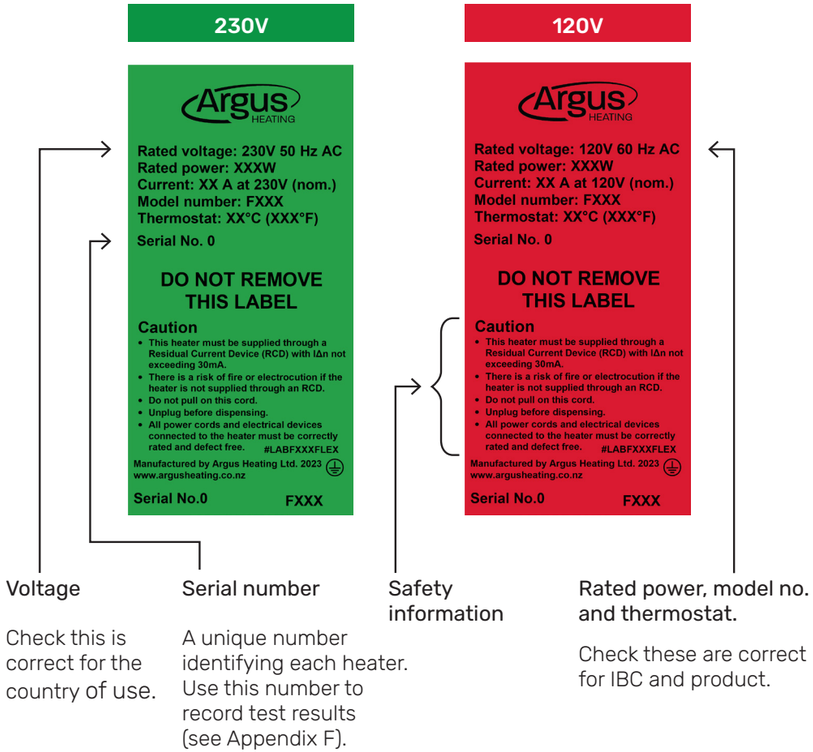
Every foil heater has a label attached to the power cord. These labels contain important safety and product information.

Before using the foil heater, check that the product labels are in good condition and are easy to read.



White power cord labels

You may see some heaters with a white label. In this case confirm the voltage printed on the label before use.



Important test information

This section outlines the key points related to testing an IBC foil heater.

Argus Heating recommends testing at every stage of the process. The table on page 16 outlines the recommended tests for each stage.

Testing before installation ensures the heater is working correctly. Testing after installation ensures a safe and operational product is passed on.

Testing at every stage will ensure:

- ✓ **Safety:** the heated IBC is electrically safe.
- ✓ **Quality:** the heater is undamaged, operational, and reliable.

Manufacturer testing

Every single-trip foil heater undergoes a series of tests during the manufacturing process including electrical safety tests and a full load operational test. This verifies that each heater is safe and functional before it is passed on to the customer.

Customer testing

A foil heater may be handled by several companies during the processes of assembly, distribution, and IBC filling. To protect their employees and customers, each company is responsible for testing the heated IBC before it is passed on.

The heaters should be tested at **every stage** of the process to make sure they are electrically safe, working correctly, and compliant with local safety regulations.

Testing also provides confidence that the heater and heated IBC will operate to specification.

The person carrying out the testing does not need a formal electrical qualification to carry out the visual inspection, earthing continuity, and insulation resistance tests (500 V), but they need to be trained on how to follow these test procedures (refer to Appendix B).

Changes to the tests to meet local regulations must be done by an electrically qualified person.

Operators at each stage of the handling and transportation process should be trained in best practice procedures to avoid causing damage to the heaters.

Guide to recommended tests at each stage

Stage	Recommended tests	Page ref.
Before installation	Test 1: Visual Inspection	34
	Test 2: Earthing Continuity (Bond)	36
	Test 3: Insulation Resistance	37
	Test 4: Function/Operation	39
After installation	Test 1: Visual Inspection - especially power cord	34
	Test 4: Function/Operation	39
After filling	Test 1: Visual Inspection - especially power cord	34
	Test 4: Function/Operation	39
Before Dispatch	Test 4: Function/Operation	39
Before final use	Test 1: Visual Inspection - especially details on power cord are correct for country and use	34
	Test 4: Function/Operation	39

A **Record of Test Results** sheet is provided in Appendix F to help you record the results of these tests.

Testing of the heater after installation into the IBC should be in accordance with local regulations.

Record of test results

Product stock code _____ Inspection date _____

Inspector name _____ Company name _____

	Serial number	Visual inspection (pre-installation) ☑	Earthing continuity < 1.0 Ω ☑	Insulation resistance > 1 MΩ ☑	Circuit resistance XX.X Ω (P or F) (Pass if the circuit resistance measurement is between the min. and max. values on the heater power cord label)	Visual inspection (post-installation) ☑	Test operator initials
1	1124	✓	✓	✓	14.2 (P)	✓	AB
2							
3							
4							
5							
6							
7							
8							
9							
10							

Handling Foil Heaters

Handling foil heaters

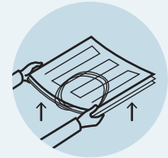
Follow these guidelines to minimise the risk of damage to foil heaters during handling.

Within each carton, groups of five heaters are placed on top of each other and the next five rotated 90 degrees to evenly distribute the power cords.

- ✓ **To remove heaters from the carton,** start from the top layer of five heaters and gently ease the power cords clear of the heaters and remaining cords.
- ✓ **When lifting the heaters** in a pile, or individually, coil the cords on top of the heater and hold them securely to prevent dragging or damage.
- ✓ **Lift the heaters from the edges** with a gentle curve in the heater.
- ✓ **Place the heaters down flat.** Take care to lower them evenly as localised bending may damage the foil. Take care not to scrape or catch the heater against anything.
- ✓ **Do not let the cords hang unsupported** or off the edge of a table as their weight can bend the heater and cause damage.
- ⚠ **Remember!** Avoid folding (except as part of a cassette assembly), lift from the edges, work on a flat surface.

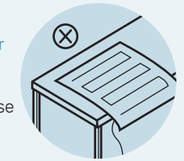
Separate the power cords. Start from the top and gently ease the cords clear of the heaters and other cords.

Coil the cords on top of the heater. Hold them securely in one hand as you lift the heaters.



Lift heaters from the edges. The heaters can have a gentle curve when carried. Place them down flat.

Do not let the heater or power cord hang unsupported.
The weight can cause damage.



Installing a foil heater in an IBC

Follow these steps to ensure the heater works correctly and does not damage the liner or the IBC.

Check that the base of the IBC is clean, dry, and clear of any material that could damage the outer layer of the heater. Clean if necessary.

The heater must be positioned beneath the liner, with the INSTALL HEATER THIS WAY UP label facing upwards. **The aluminium surface of the heater must be in direct contact with the liner.**

Make sure no excess power cord comes into contact with any part of the heater surface.

Position the power cord so there is enough slack to prevent it from being disconnected during the filling process. **Make a small 'S' curve in the cord and secure it to the corrugated flap of the cassette with tape.**

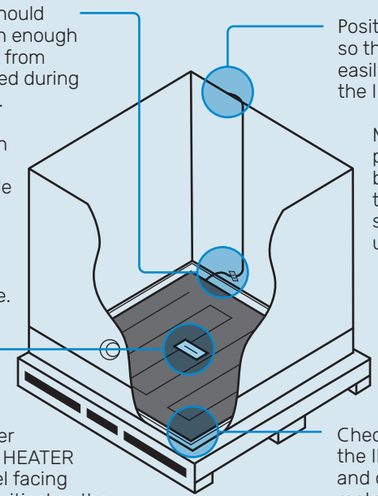
Position the power cord so that the inlet is in a safe position for transportation and is easily accessible once the IBC is full. Make sure the power cord won't be crushed during transportation and storage.

Do not pull on the power cord with excessive force at any time as this can damage the heater and prevent it from working.

Cassette assembly

In a cassette assembly, the foil heater is fitted to a corrugated base, and the liner is attached on top.

The cassette allows the liner to easily unfold during filling, which reduces the risk of folds, air pockets, bridging, or stress on the bag. The extra corrugated layer also provides an additional layer of insulation in the base of the IBC. In addition, stress on the heater's power cord can be reduced, which helps to ensure reliable operation at the final destination.



Heater installation video

Ask your foil heater supplier for access to an online video that demonstrates correct installation.

Positioning the power cord in the base of the IBC

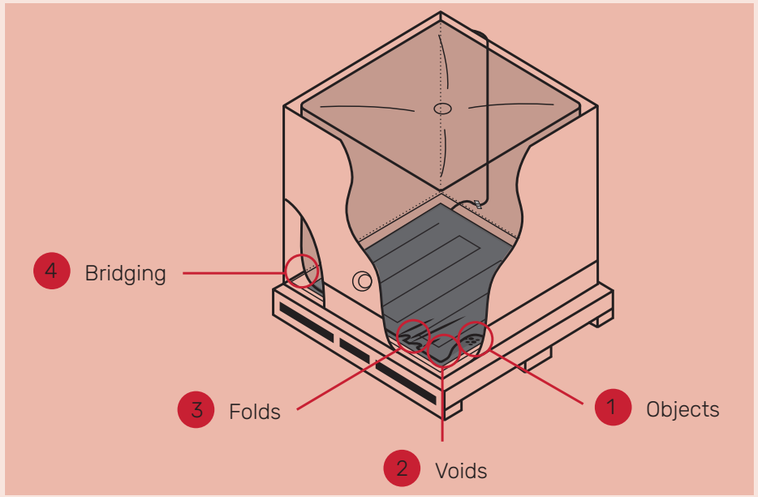
Make an 'S' curve in the power cord to prevent excess tension. Use a piece of tape to secure it to the side of the IBC.

It is very important to avoid bridging or tension on the power cord. This could damage the heater and prevent it from working.

Filling & Dispensing

Filling

It is important to take care when filling the liner. The scenarios shown below may result in damage to the bag and potential product leakage.



Common causes of heater failure

Heater failure or product leakage can often be traced back to incorrect installation or filling. Take care to avoid:

Objects between the heater and the liner.

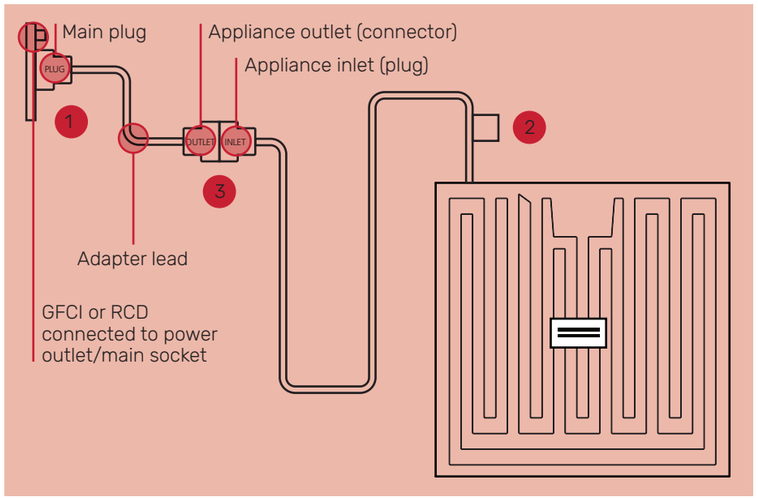
Voids between the liner and heater.

Extra folds in the liner where it is in contact with the heater.

Bridging of the liner at the corners of the IBC.

Before dispensing: Final electrical checks

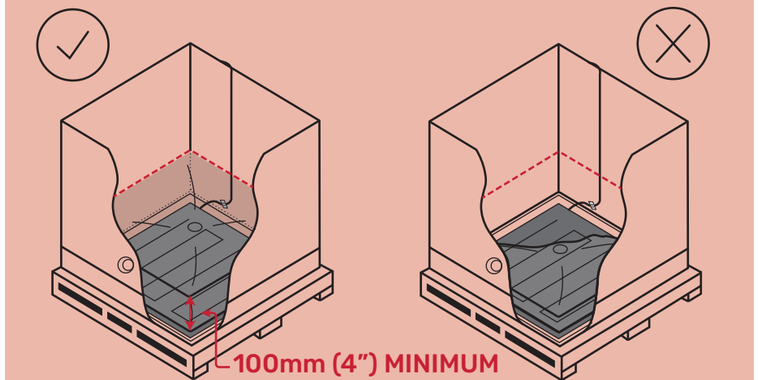
Before you connect the heater to a power source, it is important to complete the following electrical safety checks.



1. A Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) is connected.
2. The power supply rating on the power cord label matches the input voltage (e.g. 120 V or 230 V).
3. The adapter lead, appliance outlet, and main plug and socket are correctly rated and matched to both the heater and power supply for country of use. Ratings are embossed on the components. Tip: the adapter lead and heater power cord should be of similar diameter.

Dispensing

Do not power the heater with less than 100mm (4 Inches) of product or when the product level is below the top of the corrugated flaps of the cassette.

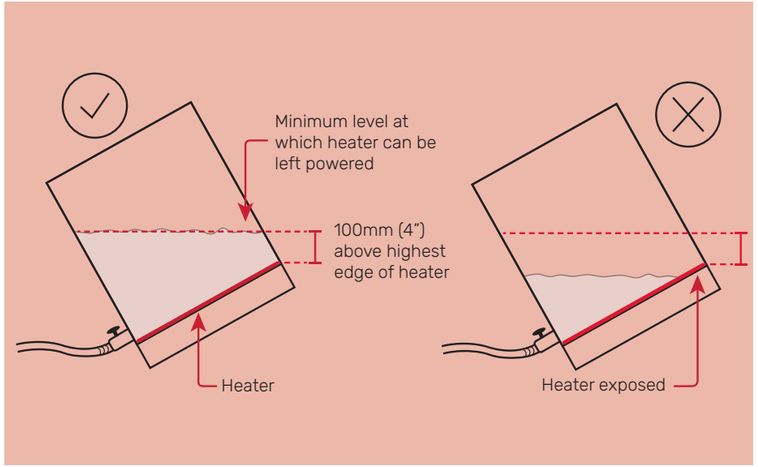


The heater can remain powered when the product level is either at a minimum of 100mm (4"), or above the corrugated flaps of the cassette.

Power to the heater should be turned off when the product level is below 100mm (4") or below the top of the corrugated flaps of the cassette.

This rule also applies if the IBC is tilted forward during dispensing.

At lower product levels, or when the IBC is tilted forward, the back edge of the heater can become exposed. This section could then overheat, leading to possible damage to the liner and the product inside.



Turn the heater off when the product level is either below 100mm (4") or below the top of the corrugated flaps of the cassette.

Troubleshooting

Troubleshooting

If you are not getting the result you expect from your single-trip foil heater there is often a simple solution.

If you don't think the heater is working, check the following:

Is the power supply operating correctly? Is there a circuit breaker that needs to be reset? If you are heating multiple units on the same circuit, check that the combined current (amperage draw) does not exceed the circuit limit. The heater's current is printed on the power cord. The circuit breaker will be labeled with the circuit limit.

Is the heater circuit intact? Carry out the function/operation test described on page 39 of this handbook. If the heater doesn't return a reading, the circuit may be damaged. Contact your supplier for advice.

Is the ambient or product temperature close to the thermostat temperature? If you are testing when the ambient or product temperature is close to the thermostat temperature you may not get a resistance reading on a function/operation test because the thermostat may have operated.

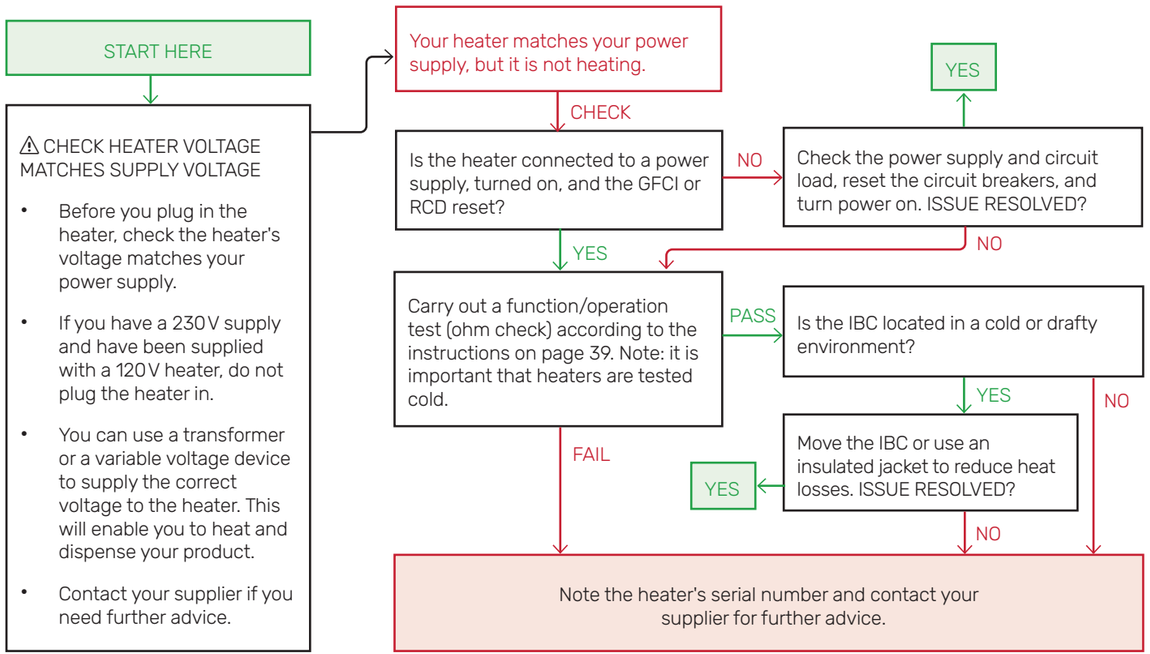
The flowchart on the following page can help you identify the cause of a problem with your heater, along with the recommended solution.

The heater I have been supplied is the wrong voltage.

If you have a 230 V power supply and have been supplied with a 120 V heater DO NOT plug the heater in.

The heater will run very hot and may damage the liner and/or the product. You can use a transformer or a variable voltage device to supply the correct voltage to the heater, which will enable you to heat and dispense your product. Contact your supplier if you need further advice.

Troubleshooting flowchart



Appendices

Appendix A: Selecting the correct foil heater for your product

IBC foil heaters are designed to either fit directly into the base of the IBC or fit into a cardboard cassette inserted into the IBC.

In both designs, the IBC foil heater is in direct contact with the liner that contains the product to be heated.

When selecting the correct foil heater for an IBC it is very important to match the heater to the product.

Oils, greases, some chemicals, sugar concentrates, and vegetable extracts only need heating to make them less viscous. A target temperature will be required to achieve the required viscosity. The energy and time to heat is a function of their specific heat capacity - the energy required to raise a set mass by a set temperature (kJ/kg°K).

Most fats and waxes require melting i.e. changing from a solid to a liquid. To create this 'phase change' additional energy is required. This is described as latent heat of fusion which is expressed as energy per mass of product (kJ/kg). If known, a solid fat content (SFC) curve gives useful insight into how the product will behave when heated.

New IBC manufacturers

For the best result Argus Heating will design a foil heater to match your IBC.

It is always recommended that product trials are carried out with any new product to confirm the correct heater for the application. If in doubt contact Argus Heating for assistance.

Time to reach target temperature

Customers often want to know how long it will take for their product to reach the target temperature. This seemingly simple question is difficult to answer as so many variables affect the outcome. Product, IBC type, and environmental conditions all play a part.

Argus Heating can calculate the variables through our **heating prediction calculator** in order to provide a conservative estimate. Ultimately however, only 'real world' testing can verify what will occur.

Heating different product types

Some products are very pure while others have been modified through hydrogenation, fractionation, interesterification, distillation, glycerolysis, or other processes. Some products have additional ingredients added to create a blend and this can alter the way the product heats. In particular, high percentages of sugars or salt can alter the behaviour of a product.

Products that appear to be highly similar can in fact have very different compositions and heating behaviours. It is critical to identify exactly what the product composition is so that the heater used will effectively meet the product target temperature while avoiding the risk of discolouration or tainting. In extreme cases the IBC product bladder can be exposed to very high temperatures.

Products differ in their density, energy requirements, and target temperatures.

The majority of products will take 1-3 days to reach the target temperature. Only 'real world' testing can determine the actual time.

Understanding your IBC heating requirements

Visit www.argusheating.co.nz/contact-us and download the detailed enquiry form to fill out the necessary information that Argus requires.

Have this information available when you contact Argus Heating to discuss the most suitable type of IBC foil heater for your specific requirements.

Re-using a single-trip foil heater

Argus Heating's IBC foil heaters are designed as a single-trip disposable heater. High quality components are used to make sure the heater operates reliably when it reaches its final destination. We are aware that in some cases foil heaters do get used more than once, but we do not endorse this. The risk that the heater will fail and/or cause damage to the product liner increases significantly with each additional use. Recovering product from an IBC in the event of a heater failure is inconvenient and expensive.

Understanding the product composition ensures that the heater used will effectively meet the product target temperature while avoiding the risk of discolouration or tainting.

Appendix B: Detailed test information

Test 1: Visual Inspection

Look for damage and check that the IBC foil heater is in good condition, before and after installing it into an IBC. This needs to be done to check if the heater has been damaged during transit and handling.

Follow the steps below to complete the visual inspection:

1. Fill out the Record of Test Results sheet (Appendix F) with the product stock code, inspection date, inspector name, company name, and serial number of the product.
2. Check the following:

- ✓ **Heater:** no damage (rips in the foil or backing paper).
- ✓ **Heater:** no sharp points or edges.
- ✓ **Power cord:** in good condition and undamaged.
- ✓ **Position of power cord:** Over the edge of the IBC so it remains accessible after filling. Once the IBC is filled, place the cord on top of the filled liner prior to shipping.

Note:

The foil of the heater can change colour, particularly in a humid (warm and moist) environment. This is the result of oxidisation. The heater is still safe to use.

- ✓ **Product label:** attached to power cord, in good condition and easy to read (see page 12 for an example). The product label includes product information, important safety warnings, and a unique serial number.

Check that the model number and voltage match the product requirements and country of use.

If the heater passes the visual inspection:

Tick the visual inspection box next to the serial number on the Record of Test Results sheet (see Appendix F).

If the heater fails the visual inspection:

3. Put a cross in the visual inspection box next to the serial number on the ***Record of Test Results*** sheet (see Appendix F).
4. Reject and quarantine the heater for further inspection.
5. Contact your supplier if you need a replacement and submit a ***User Incident Form*** (refer to Appendix E).

Red label

120V IBC foil heaters

Green label

230V IBC foil heaters

White label

Usually found on special models. Check label details for voltage.

Test 2: Earthing Continuity (Bond)

The earthing continuity (bond) test checks that the earth conductor and connections in the heater will carry any fault current to earth and help protective devices switch off power to the foil heater if the basic insulation fails.

Follow the steps below to complete the test:

1. Check local regulations for PAT test requirements.
2. Fill out the Record of Test Results sheet (Appendix F) with the product stock code, inspection date, inspector name, company name, and serial number of the product.
3. Connect the power cord socket of the PAT to the heater plug.
4. Connect the alligator clip onto the edge of the heater to test the resistance between the exposed foil and the earth pin plug.

   ✓ Check: the IBC foil heater has passed this test if the resistance is 1Ω or less when passing a 10A current.

If the heater passes the earthing continuity (bond) test:

To avoid electric shock caused by insulation failure you must perform the earthing continuity (bond) test using a Portable Appliance Tester (PAT).

Do NOT use a multi-meter.

Earthing continuity (bond) test using a Portable Appliance Tester (PAT).

Tick the earthing continuity box next to the serial number on the *Record of Test Results* sheet (Appendix F).

If the heater fails the earthing continuity (bond) test:

5. Reject and quarantine the heater for further inspection.
6. Contact your supplier if you need a replacement and submit a User Incident Form (refer to Appendix E).

Test 3: Insulation Resistance/IR (500V)

The Insulation Resistance (IR) test will make sure that the insulation is electrically strong enough to protect users from electric shock.

Follow the steps below to complete the test:

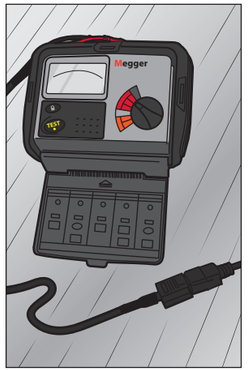
1. Check local regulations for PAT test requirements.
2. Fill out the ***Record of Test Results*** sheet (Appendix F) with the product stock code, inspection date, inspector name, company name, and serial number of the product.
3. Connect the PAT or Megger to the heater using an Argus adapter lead or the standard red and black test leads (see over page).

Use a megohmmeter (Megger) or PAT to test the insulation resistance of the foil heater.

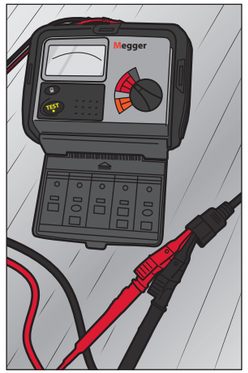
Do NOT use a multi-meter.

4. If you are using a PAT, press the test button (operate the test equipment as defined in its operating instructions and your local regulations for PAT test requirements).
5. If you are using the Megger, select 500V as the test voltage (operate the test equipment in accordance with its operating instructions and your local regulations for PAT test requirements).
6. Measure the resistance between the phase (live) and earth terminals of the foil heater.
7. Measure the resistance between the neutral and earth terminals of the foil heater.

✓ **Check:** the foil heater has passed this test if the resistance is greater than 50MΩ for both phase to earth and neutral to earth.



A Megger with an Argus adapter test lead.



A Megger with standard test leads.

If the heater passes the insulation resistance test:

Tick the insulation resistance box next to the serial number on the ***Record of Test Results*** sheet (Appendix F).

If the heater fails the insulation resistance test:

Reject and quarantine the heater for further inspection.

Contact your supplier if you need a replacement and submit a ***User Incident Form*** (refer to Appendix E).

Test 4: Function/Operation

The function/operation test is a measure of the heater's circuit resistance (ohms).

By performing this test, you will be able to make sure that the IBC foil heater will work with the correct rated power output.

Follow the steps below to complete the test:

8. Fill out the ***Record of Test Results*** sheet (Appendix F) with the product stock code, inspection date, inspector name, company name, and serial number of the product.
9. Connect the ohmmeter or multi-meter to the heater using an Argus adapter lead or the standard red and black test leads.
10. Measure the resistance of the foil heater element between the live and neutral pins on the plug.

Use an ohmmeter or a multi-meter to measure the circuit resistance of the foil heater element.

11. Check that there is a resistance measurement showing on the screen of the multi-meter.
12. Compare the resistance measurement with the heater specification sheet. If the reading is outside of the specified range, the heater should not be used.

    ✓ Check: the measurement is between the minimum and maximum values (refer to heater specification sheet).

Repeat this test after the IBC foil heater has been installed, and again after the IBC has been filled.

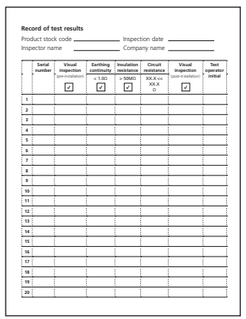
If the heater passes the function/operation test:

Fill in the measurements in the circuit resistance box next to the serial number on the Record of Test Results sheet (Appendix F).

If the heater fails the function/operation test:

1. Reject and quarantine the heater for further inspection.
2. Contact your supplier if you need a replacement and submit a ***User Incident Form*** (refer to Appendix E).

Once all tests are completed, the test operator must authorise the results by signing his or her initials on the Record of Test Results sheet (Appendix F).



Record of test results

Product stock code _____ Inspection date _____

Inspector name _____ Company name _____

	Serial number	Visual inspection (pre-installation)	Earthing continuity < 1.0Ω	Insulation resistance > 50MΩ	Circuit resistance XX.X xxx XX.X Ω	Visual inspection (post-installation)	Test operator initial
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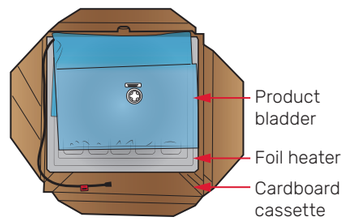
Appendix C: Cassette assembly

A cassette assembly is a method of attaching the IBC product liner to a cardboard insert.

A cassette allows the product liner to easily unfold during filling reducing folds, air pockets, bridging, or stress on the liner. The extra layer of cardboard also provides an additional layer of insulation in the base of the IBC. In addition, stress on the heater's power cord can be reduced, further ensuring reliable operation at the final destination.

The foil heater is added to a cardboard base, and the product liner fitted over top. Assembling the heater and liner in this way can help to ensure a consistent fit in the IBC.

Argus Heating can provide technical advice regarding a cassette solution matched to your IBC.



Appendix D: External heating kits

Argus Heating has developed the IBC external heating kit for use in the unlikely event that a foil heater does not achieve the expected results at its final destination.

An external heating kit contains:

1 x IBC Heating Jacket

- Easily transportable, designed for use with most IBCs.
- Teflon coated polyester outer, polyester insulation.
- 120V/230V, thermostat or PID controller.

1 x Insulated Lid

The insulated lid reduces energy losses and can improve performance by approximately 10-15%.

- Teflon coated polyester outer, polyester insulation.
- Centre Velcro flap for access to filling nozzle.

The kit allows customers to melt their product and use it in their process without having to return it to the supplier.

The insulated IBC heating jacket acts like a mini hot-box. It is fitted around the sides of the IBC and can deliver up to 3kW of heat. It also prevents heat from escaping through the sides of the IBC. Two versions of the IBC heating jacket are available: 120V and 230V.

The insulated lid fits over the IBC to minimise heat loss through the top of the IBC. Its central flap opening allows the operator to access the filling or top decant nozzle while the IBC is being heated.

External heating kit.

Appendix E: Returning goods – User Incident Form

Argus Heating is proud to design and manufacture high quality products that are tailored to our customers' needs. We will investigate any IBC foil heater that is faulty or performing poorly.

To return a faulty heater:

1. As the end user of the heater, please contact your supplier to get authorisation to return the product.
2. Your supplier will provide you with a User Incident Form to complete. Make sure you include the model number and serial number of the heater (found on the power cord label) and take photos of the damage. We will provide confirmation of the pickup of the goods and provide you with a user incident number.
3. Display the user incident number on or in the returned product's packaging. No returns are accepted without this number.
4. We will contact you to let you know that the product has been received.
5. We will investigate the problem and report our findings back to you as soon as possible.

This section outlines what to do if you need to return an IBC foil heater to receive a refund, replacement, or repair during the product's warranty period.

We aim to resolve your problem as quickly as possible.

Appendix F: Record of test results

The form on the following page has been provided to enable you to record the results of the testing regime outlined in Appendix B.

You may photocopy this page for your own use.

Record of test results

Product stock code _____ Inspection date _____

Inspector name _____ Company name _____

	Serial number	Visual inspection (pre-installation) ☑	Earthing continuity < 1.0Ω ☑	Insulation resistance > 50MΩ ☑	Circuit resistance XX.X << XX.X Ω	Visual inspection (post-installation) ☑	Test operator initial
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Certification & Compliance

Certification & Compliance

- Argus Heating Complies with ISO 9001:2015 Quality management Standard.
- Argus Heating Complies with ISO 14001:2015 Environmental Management standard.
- We manufacture both UL and CE certified foil heaters.
- Depending on their destination the heaters will be marked with CE,UKCA, UL and/or cUL.
- The UL/cUL heaters are legal to use in North America and Canada.
- Export pallets are heat treated and manufactured in accordance with IPPC and ISPM15 regulations.

Environment
ISO 14001

Quality
ISO 9001

E521718

Our commitment to compliance

At Argus Heating we are committed to providing our customers with quality product which meets and exceeds industry standards.

If there is a compliance standard you would like us to meet, please contact your foil heater representative with the associated information to be passed on.

Export pallets are heat treated and manufactured in accordance with IPPC and ISPM15 regulations.

Contact us

For further information on anything in this handbook please contact your foil heater supplier.

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