

ZBB-13 USER MANUAL

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# 1. SAFETY

Observe the following safety warnings.

#### 1.1 GENERAL WARNINGS

- $\rightarrow$  Read these instructions carefully.
- → Keep the instructions and product information for later use or for the future owner.
- → Do not connect the machine if it has been damaged during transport.

#### 1.2 USE ACCORDING TO THE INTENDED USE

Use the machine only for its intended purpose in a professional context:

- $\rightarrow$  in closed rooms;
- → up to an altitude of maximum 1500 m above sea level;
- → use in domestic contexts and by non-professional users is excluded.

#### 1.3 LIMITATION OF USE

This machine may only be used by adults with technical training in the electrical field.

# 1.4 SAFE INSTALLATION

# **▲** WARNING - Risk of injury!

Incorrect installation may cause injury.

 $\rightarrow$  Follow the instructions in the user manual for installing and connecting the machine.

# **▲** WARNING - Risk of electric shock!

Improper installations pose a safety hazard.

- → Connect and use the machine only in accordance with the specifications on the rating plate.
- → Use the supplied connection cable (available as a separate purchase option). If the cable is not supplied by Fairfild, a compliant cable must be used.
- → Connect the machine to an alternating current network only using a properly installed grounded outlet.
- → The protective conductor system of the electrical installation must comply with applicable standards.
- → Never power the machine through an external switch, such as a timer or remote control.
- → During installation, ensure that the power cable is not pinched or damaged.

## **▲** WARNING - Risk of fire!

Using a power cable with an unauthorized extension cord or adapter is dangerous.

- ightarrow Do not use extension cords or multiple socket outlets.
- ightarrow Use only adapters and power cables approved by the manufacturer.
- → If the power cable is too short and a longer one is not available, contact a qualified electrician to modify the installation.

→ Ensure there is a minimum distance of 1 meter between the machine and surrounding objects.

#### 1.5 SAFE USE

#### **▲** WARNING - Risk of burns!

Touching the machine while it is operating may cause burns.

Approaching the machine during operation at a distance of less than 50 cm may also cause burns.

After the treatment is completed, allow the fan to run for at least three minutes with the heating elements turned off before touching the machine.

#### **▲** WARNING - Risk of electric shock!

Moisture penetration may lead to electric shock.

- $\rightarrow$  Use the machine exclusively indoors.
- $\rightarrow$  Never expose the machine to excessive heat or humidity.

A damaged power cable insulation poses a hazard.

- → Never allow the power cable to come into contact with heat sources or hot parts of the machine.
- $\rightarrow$  Never allow the power cable to come into contact with sharp edges.
- → Never bend, crush, or alter the power cable.

# **1.6 DAMAGED MACHINE**

#### **★** WARNING - Risk of electric shock!

A damaged machine or power cable poses a safety hazard.

- → Never operate a damaged machine.
- → Never use a machine with a damaged surface.
- → Never unplug the machine by pulling the power cable. Always unplug it by removing the power plug
- → If the machine or power cable is damaged, immediately disconnect the power plug. Improper repair work poses a danger.
- → Only appropriately trained and qualified personnel may carry out repairs on the machine.
- → Only original spare parts may be used for repairs.
- → If the machine's power cable is damaged, it must be replaced with a special connection cable, available from the manufacturer or its authorized customer service.

# 2. PREVENTION OF MATERIAL DAMAGE

## 2.1 SAFE INSTALLATION

## ▲ CAUTION!

- ightarrow Incorrect installation of the machine can cause damage.
- → Ensure a minimum distance of 1 meter between the machine and surrounding objects.
- → Avoid contact between cables, plugs, or equipment and water.
- → Remove combustible materials from the treatment area.

- → Keep animals and plants away before starting the treatment.
- ightarrow Do not obstruct the fan inlet or block the air outlet
- $\rightarrow$  Use the machine only for its intended purpose.
- → Disconnect all plugs from the machine before performing any maintenance work.
- → Do not unplug the machine while it is operating; to disconnect it safely, switch off all controls first.
- → After maintenance, ensure that no tools or foreign objects remain inside the machine.

# 3. INSTALLATION AND CONNECTION TO THE ELECTRICAL NETWORK

#### 3.1 SAFE INSTALLATION

For proper operation, the machine must be correctly connected to the power supply. Follow the required criteria and the installation instructions.

#### 3.2 EQUIPMENT SUPPLIED

After unpacking, check that all components are present and undamaged during transport.

In case of any issues, contact the retailer where the machine was purchased or our customer service department.

**NOTE:** The machine's proper functioning has been thoroughly tested at the factory.

The supplied equipment includes:

- → ZEROBEDBUG ZBB 13 machine
- → User and maintenance manual

#### 3.3 MACHINE INSTALLATION AND CONNECTION

The machine must be placed on the floor of the room to be treated, ensuring a distance of at least one meter from surrounding objects.

#### 3.4 ELECTRICAL CONNECTION

# **Electrical connection of the machine:**

- 1. Connect the power cable plug to the machine.
- 2. Plug the machine's power cable into a nearby socket. The connection specifications are listed on the machine's identification label.
- 3. Check that the plug is properly inserted.
- 4. Power connection requirements:
- → All connections must be made using the 32A 3P+T plug located on the side of the unit.
- → Voltage: 400V, Three-phase

 $\rightarrow$  Power: 13 kW  $\rightarrow$  Current: 19 A

# 4. GETTING TO KNOW THE MACHINE

#### **4.1 MACHINE**

Beside is an overview of the machine's components.

**A** 32A 3P+G PLUG

EMERGENCY STOP BUTTON

C1/C2 LIFTING HANDLE

D HANDLING HANDLE

**E** FAN ON

В

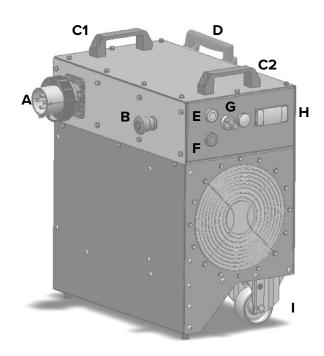
Н

**F** FAN AND HEAT OFF

**G** HEAT ACTIVATION SELECTOR

CALORE DISPLAY

I WHEELS (Qty: 2)



#### ▲ CAUTION!

The wheels are suitable only for indoor surfaces. Do not use the handling handle outdoors or on uneven surfaces.

#### **4.2 CONTROL ELEMENTS**

The control panel allows you to set all machine functions and view operating status information.

#### **5. OPERATION**

#### **PRELIMINARY CHECK**

- 1. Ensure the treatment area is clean and safe, removing any hazards or dangerous conditions.
- 2. Position the machine to allow optimal airflow through the fan inlet and air outlet. do not modify the settings.
- 3. For best results, isolate doors, windows, air vents, and HVAC systems in the area before starting the treatment.

#### **START**

#### 1. Fan Activation

- $\rightarrow$  Press button E to start the fan.
- ightarrow The digital thermostat will display the ambient

temperature. It is pre-programmed at the factory. Do not alter the settings.

 $\rightarrow$  If air is not circulating freely, switch off the machine and remove any obstructions or hazards.

#### **OPERATION**

# 2. Heating Element Activation

- $\rightarrow$  Press button E to start the fan.
- → The digital thermostat will display the ambient temperature. It is pre-programmed at the factory. Do not alter the settings.
- $\rightarrow$  If air is not circulating freely, switch off the machine and remove any obstructions or hazards.

#### 3. Maintaining Temperature

- → Allow the treatment area to reach the desired temperature.
- → Keep the machine running for the recommended treatment duration.

#### **SHUTDOWN**

# 4. Deactivating the Heating Element

→ At the end of the treatment, deactivate the heating element using selector G.

#### 5. Cooling the Heating Elements

→ Leave the fan running for 3 minutes to allow the heating elements to cool down, extending the life of the machine.

### 6. Complete Shutdown

- $\rightarrow$  Press button F to turn off the fan.
- → If button F is pressed while the machine is running, it simultaneously turns off both the fan and the heating element. This feature provides built-in safety, preventing the heating elements from being accidentally left on without ventilation.

# 7. Disconnection and repositioning

- $\rightarrow$  Disconnect all plugs from the machine.
- $\rightarrow$  Store the device in a safe location until the next use.

# 6. TECHNICAL DATA

# 6.1 MECHANICAL SPECIFICATION Lifting

The ZBB-13 machine is equipped with two lifting handles (C1 and C2). **Do not lift the unit using other means**, as this could cause serious damage to the machine and impair its operation.

# **Structure**

- 1 Ruby red aluminum frame.
- 2 The air inlet and outlet openings are protected by metal grilles.
- 3 Heat is dissipated horizontally.

#### Cooling

The machine is equipped with a 254 mm fan and provides an airflow rate of 24 m<sup>3</sup>/min.

# **6.2 ELECTRICAL SPECIFICATIONS**Control Power Supply

The unit is powered via a four-pole plug (3P+T) at 400 V.

### **Load Power Supply**

- 1 The unit is designed to operate with a 400 V, three-phase, 4-pole, 50 Hz power supply (see FIG C).
- 2 The power rating in kW is subject to a manufacturing tolerance of ±5%.
- 3 The unit is designed for continuous operation with a power factor of 1.0.

**DIMENSIONS** (L x W x H):  $47 \times 36 \times 55$  cm

**CONNECTION TYPE** P400

**VOLTAGE** 3-phase 400 V

 POWER
 13 kW

 CURRENT
 19A

 WEIGHT
 16 KG

# 7. TREATMENT GUIDELINES

Treatment procedures must be adapted according to the specific characteristics of the area being treated. To ensure effective results, it may be necessary to use multiple units depending on the size and condition of the environment.

It is essential to ensure that the machine receives the correct electrical power supply.

For the required voltage and current values, refer to the specifications provided above

# **Recommendations for Optimal Treatment**

- 1 Seal any gaps around doors to prevent heat loss.
- 2 Seal the windows.
- 3 Isolate or cover any air vents or wall-mounted air conditioning units.
- 4 It may be necessary to reposition furniture to improve heat circulation (including mattresses and box springs).
- 5 Under certain conditions, the use of fans is recommended to help distribute the heat. Fans must be suitable for high-temperature operation and have low power consumption to avoid overload or interruptions during treatment.
- 6 It is essential to ensure the correct voltage is applied to guarantee proper operation of the ZBB-13.
- 7 The initial temperature of the area will affect the time needed to reach the desired temperature.
- A very cold environment will take longer to reach lethal temperatures than a warmer one.
- 8 Any ventilation system or fan that draws in air from the outside or expels warm air from the treated area will cause heat loss.
- 9 Any door or window left even slightly open will result in heat loss.
- 10 Each space has unique characteristics, so treatment procedures must be adapted to meet the

specific requirements of the environment being treated.

#### **Conditions for Insect Elimination**

The following guidelines represent the recommended operating times once the entire area has reached the ideal temperature.

It is important to note that enclosed spaces—such as wardrobes, beds, sofas, and drawers—may take longer to heat adequately compared to exposed surfaces within the treated area.

The information provided here is drawn from various sources and has not been directly tested.

Therefore, the results may vary and cannot be guaranteed with absolute certainty.

TEMP C°	TIME TO ELIMINATE EGGS	TIME TO ELIMINATE INSECTS
46°	480 minutes	90 minutes
49°	90 minutes	2 minutes
51,5°	< 1 minute	< 1 minute
54,5°	< 1 minute	< 1 minute

# 8. MAINTENANCE AND INSPECTION OF ZEROBEDBUG – ZBB 13

To ensure the safe and efficient operation of the ZE-ROBEDBUG - ZBB 13, it is important to follow a few simple but essential inspection and maintenance procedures.

- → Cleaning: Do not use a pressure washer to clean the exterior of the unit, as it is an electrical device. Instead, use a wet duster and non-aggressive cleaning agents.
- → **Pre-use Inspection:** Before switching on the unit, perform a thorough check to verify:
  - Any visible damage
  - Loose components
  - The presence of debris or foreign objects

#### → Monthly Maintenance:

Inspect all external bolts securing the sheet meta panels. Ensure that all #10 fasteners are tightened to a torque of 6.8 Nm to maintain the unit's stability.

By following these guidelines, the ZEROBEDBUG - ZBB 13 will maintain optimal efficiency and operational safety over time.

# 9. ENVIRONMENTAL PROTECTION

#### 9.1 DISPOSAL OF PACKAGING

The packaging materials are environmentally friendly and can be reused.

→ Dispose of each component separately according to material type.

# 9.2 DISPOSAL OF A DECOMMISSIONED MACHINE

Proper and environmentally responsible disposal allows for the recovery of valuable raw materials.

# For information on current disposal procedures, contact your authorized dealer or local municipal authority.

This machine is marked in accordance with the European Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).

This directive sets regulations for the collection and recycling of decommissioned electrical equipment throughout the European Union.

# 10. DECLARATION OF CONFORMITY

Hereby, FAIRFILD SRL declares that the machine ZEROBEDBUG - ZBB 13 complies with the essential requirements and other relevant provisions of Directive 2014/53/EU.



The detailed declaration of conformity can be viewed online at: www.zerobedbug.com, on the product page.

## 11. CUSTOMER SERVICE

Original spare parts relevant to operation in accordance with the applicable Ecodesign regulation are available from our customer service for at least 10 years from the date the machine is placed on the market within the European Economic Area.

**NOTE:** Customer service intervention is free of charge under the manufacturer's warranty conditions.

Detailed information about warranty duration and terms in each country is available from our customer service, your dealer, or on our website.

When contacting customer service, you will need the serial number and product code shown on the machine's identification label.

Customer service contact details can be found on our website.

# **DISCLAIMER**

This manual is issued as Revision 0 in March 2025. Fairfild reserves the right to modify specifications without prior notice.

It is the user's responsibility to ensure they have the most up-to-date version of the manual.

Every effort has been made to ensure the accuracy of the information contained in this technical sheet.

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ZBB-13 is an electrical resistance. Telema Group is a world leader in the design and production of power electrical resistances.



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