

TECHNIBEC ELECTRIC BURNER

TECHNICAL DOCUMENT



CE CERTIFICATION



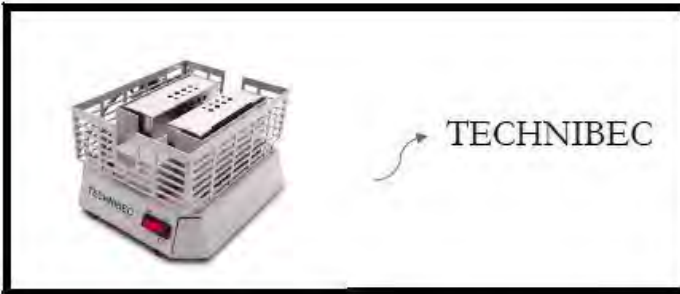
This multi-purpose Technibec electric heater is a very good intermediary between our classic LAB heater and the more specialised MICROBIO heater. It allows most of the manipulations that can be carried out with a Bunsen burner during chemistry teaching or an introduction to microbiology.

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EU DECLARATION OF CONFORMITY

1. TECHNIBEC
2. Name and address of the manufacturer : **K-FACTORY**
3 rue Denis Papin – 14840 – Démouville
3. This declaration of conformity is issued under the sole responsibility of K-FACTORY.
- 4.



5. The object of the declaration described in point 4 is in conformity with the relevant Union harmonisation legislation :
 - Directive 2011/65/UE (RoHS)
 - Directive 2014/35/UE (LVD)
 - Directive 2014/30/UE (EMC)
6. References to the relevant harmonised standards used or references to the order technical specifications in relation to which conformity is declared :
 - Reference of standard like EN 62321-1
 - Reference of standard like EN 61010-1:2010
 - Reference of standard like EN 61326-1:2013
7. Démouville, le 01/03/2023

WARNING

- Heating device, high-temperature gloves mandatory.
- Do not touch heating elements during use. Do not handle the device or touch metal surfaces during heating.
- Observe good laboratory practice when using the device, as well as company safety procedures.
- Heating certain substances may release hazardous or highly flammable gases. Take all necessary precautions, such as using an air extraction system.
- Follow the company's guidelines when heating products with explosion risk.
- A container must be used to heat any substance or material, otherwise the device may be damaged. There must be no physical contact between the heating elements and the substance to be heated.
- Use a suitable container, resistant to high temperatures.
- Allow containers to cool for 10 minutes after use. Use heat-resistant gloves.
- Do not fill containers on the device while it is connected to the mains.
- Surrounding surfaces must be dry and free of impurities.

- Take care not to cover the device, as it cools with the ambient air.
- Never leave the device to heat up without the supervision of an operator.
- Do not remove rivets from the metal casing.

NOTE: the device must be used in accordance with the above instructions to avoid compromising safety.

2. COMMISSIONING AND INSTALLATION

The device has a Class II installation category according to protection against electric shock.

Environmental conditions :

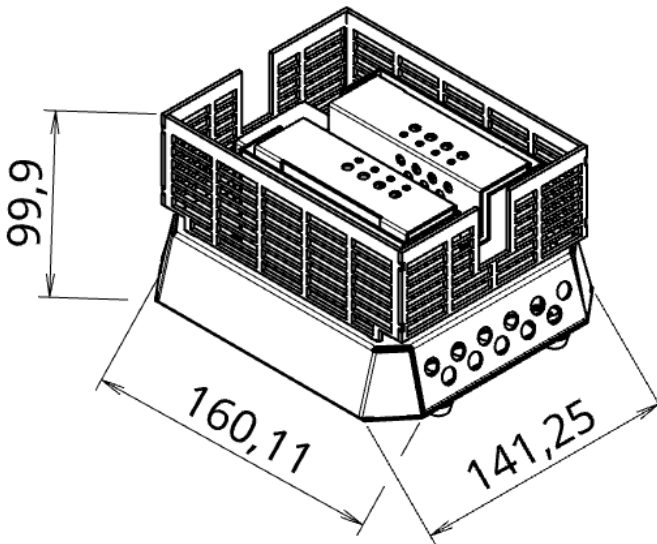
- Indoor use only
- Temperature from + 5°C to + 40°C
- Max. relative humidity : 80%

Mains connection in compliance with standard NFC 15-100. This recommends the use of a 30 mA high-sensitivity differential circuit breaker.

Operating voltage : 230 V 50-60 Hz ; rated power : 460 W

3. TECHNICAL CHARACTERISTICS

WEIGHT	3 KG
DIMENSIONS (mm)	See below
POWER	460 W
POWER SUPPLY	230 V 50-60 Hz
RAPID FUSE PROTECTION	5 A
OPERATIONAL WORKFLOW	Up to 800 °C
PREHEAT TIME	3 minutes



millimeter

Maximum use room temperature: 40°C

Protection from overheating

-----Accessories not provided-----

4. INSTRUCTIONS

ATTENTION : Always observe the safety instructions.

You are about to use a **HIGH TEMPERATURE** device.

DO NOT MOVE THE APPLIANCE WHILE IT IS HEATING OR SWITCHED ON.

- Place the appliance on a flat, stable surface.
- Connect the appliance to a 230 V earthed mains socket.
- Turn the switch with the **red** power indicator to the ON position. The LED will light up. The device is now in operation.
- To switch off the appliance: turn the control knob back to OFF. The **red** light will go out. The appliance is now completely switched off.
- The operational temperatures are only reached after a **preheating time of 3 minutes**. It is imperative to respect these times in order to carry out the different manipulations.

ACCESSORIES :

- **TEMPERATURE CONTROLLER** : The temperature controller is connected to the TECHNIBEC. In this way, experiments can be carried out requiring temperature control or temperature change.

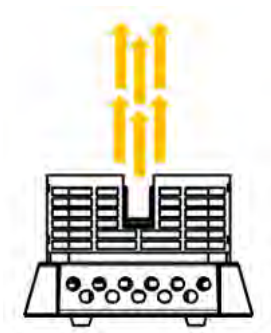
Temperature controller
REF. REG



- **GLASSWORK :**

- To **bend a solid or hollow glass tube**, place it in the centre of the appliance for 1 minute without moving it. Twist gradually.
- To **make a rake**, the pipette glass must be bent twice.

- **HEATING :** as the hot air column replaces the flame, it is possible to ignite a match or a piece of charcoal by placing it in the central groove of the heater above the appliance or to melt an aluminium wire.



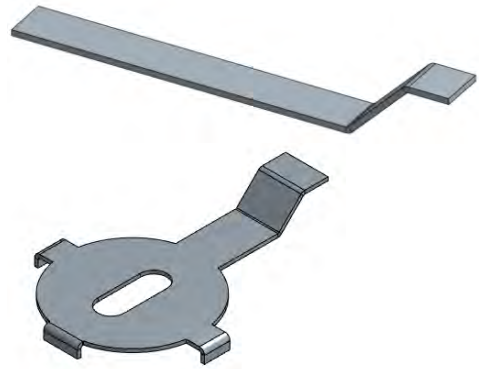
- A **test tube is heated** by using wooded tongs and sweeping the entire length of the tube over the hot air stream.
- **Containers such as Erlenmeyer flasks or flasks** can be heated by attaching them to **our 601ST metal rod (350 mm)**.



REF. 601 ST

- **FLAME COMBUSTIONS :**

- The ECOFLAM KIT, comprising a spatula and a plate, must be used for the **combustion of metal powders**: place the plate on the heater and the protective tab in the central groove, well below. Insert an ECOFLAM pellet into the hole: the pellet ignites and the flame is usable for around 2 minutes. Next, spray small amounts of metal powder to observe the combustion. After the experiment, remove the plate and the spatula with wooden tongs, disconnect the device from the mains, then turn the cooled heater over to remove the residue.

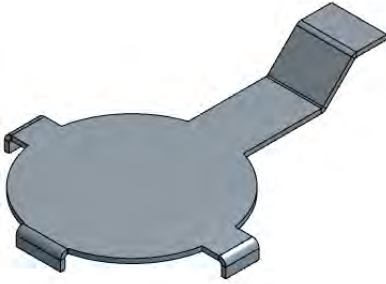


REF. KIT ECOFLAM



REF. ECOFLAM (pellets)

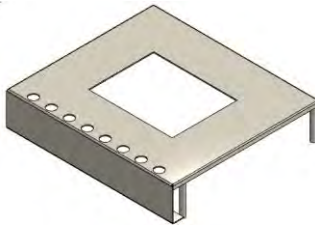
- **For the combustion of solids**, use plate 555T : used for chemical reactions requiring a high heat input.



REF. 555 T

- **MICROBIOLOGY :**

- To **warm a platinum loop**, insert it in the centre of the heating element and leave to heat up for a few seconds until incandescence is observed.
- In order to **work in a sterile area**, it is imperative to raise the working area to the level of the heat zone and to work on the 666T table. Petri dishes or tubes can be placed on the table.



REF. 666 T

MAINTENANCE

The appliance does not require periodic maintenance. In the event of pollution, the following precautions should be taken when cleaning :

- The appliance must be switched off and disconnected from mains.
- Cleaning should only be carried out when the appliance is cold. No maintenance of the electrical part is required.

REPLACING THE FUSE

1. The fuse must be replaced with the device disconnected from its power source, and only by a competent electrician under the direction of the person in charge.
2. Remove the screw holding the fuse.
3. Remove and replace the fuse with an approved type F.5 A.H 250 V fuse.
4. Reinsert the fuse, then close the flap and secure it.

5. TROUBLESHOOTING

If the **red** power light does not come on :

- a) Set the control knob to OFF.
- b) Disconnect from the mains.
- c) Turn the device over.
- d) Change the fuse. (See REPLACING THE FUSE)

Type : 5-amp quick-blow fuse with high breaking capacity (250 volts)

If the appliance still does not work, please contact us.

Please note that any use of the appliance that does not comply with the manufacturer's instructions may compromise the TECHNIBEC's safety.

----- 3 YEAR WARRANTY -----