



**efco**  
Industrieprodukte



# Operating Instructions for Kiln

99 500 31

# efco 135



Version:  
09 / 2011  
Translation of  
Original Operating Instructions





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# 1. Items delivered with the kiln:

Kiln without a temperature control device.

# 2. Range of application:

The kiln is suited for all firing techniques for firing temperatures from 400 °C to 1100 °C, e.g. for firing glass, enamels and ceramics, as well as for annealing and hardening of metals and tools.

The kiln is not suitable for incinerating organic materials, which requires a kiln with an extractor. If equipped with an extractor, the kiln is suitable for incinerating organic materials.

# 3. Specifications:

Volume of the firing chamber:	1,95 l
Maximum temperature:	approx. 1100 °C
Voltage:	230 V~, 1270 W, 6 A
Outside dimensions H x W x D:	250 x 260 x 300 mm
Firing chamber H x W x D:	90 x 140 x 155 mm
Net weight:	approx. 6,3 kg

# 4. Caution

Due to the functioning of your kiln heat is produced.  
All parts of this kiln can be hot.



# 5. Personal protective equipment:

Always wear heat-resistant working gloves and protective goggles for your personal safety when working with the kiln.



## 6. Unpacking and handling:

When unpacking or transporting the kiln, always hold the lower side of the kiln to lift it. Never lift the kiln by holding the door, cable or the mains connector.

Before putting the kiln into service, remove all packaging material from the kiln, the door and the firing chamber.

## 7. Installing and connecting to electricity:

The kiln may not be operated without a temperature control device.

Temperature control devices are available as an option.

Set up the kiln in a well ventilated room, away from other sources of heat and on a fire-proof, heat-resistant surface. Remove all inflammable material around the kiln. Do not obstruct any ventilation holes. Due to the high temperatures inside, it is unavoidable that heat radiates correspondingly from the kiln, especially at the door. Place a heat dissipator or a ceramic plate under the door opening. Do not operate the kiln in the vicinity of easily inflammable or explosive substances.

Choose a place for the kiln, where you can quickly switch it off or disconnect it from the mains in the case of an emergency.

The kiln must be operated with a temperature control device. Connect the plug of the kiln to a temperature control device and connect this device to an earthed socket.

## 8. Putting the kiln into service:

When using the kiln for the first time, heat it up slowly until the final temperature is reached. If your control device is not equipped with a heating ramp, increase the set temperature of the control device gradually.

A slight development of smoke is normal when putting the kiln into service.

## 9. Operation:

If the kiln is constantly operated close to the maximum temperature, this shortens the working life of the heating elements, so please only operate the kiln at the maximum temperature for long periods, if this is absolutely necessary. Please see "3. Specifications" for the maximum temperature of your kiln.

Do not place a firing pillow (mineral fibre mat) directly on the bottom of the firing chamber, as this will cause heat to accumulate in the bottom heating system, which in turn will put a strain on the heating causing it to become defective prematurely.

In order to protect the kiln from damage or soiling, the object to be fired must always be placed on a ceramic plate in the firing chamber.

When the firing has been completed, extract the mains plug. Do not wind the connecting cable around the warm kiln.

## 10. Care and maintenance:

Deposits of black soot may arise inside the firing chamber. Remove these deposits when necessary by operating the empty kiln at the maximum temperature for 45 minutes in order to burn the soot away from the heating elements and the insulation.

The outside of the kiln may be cleaned with a damp cloth, when the kiln has cooled down. Under no circumstances should water be introduced into the firing chamber.

Do not use solvents for cleaning.

## 11. Servicing / repair:

If you observe any optical changes or damage regarding the kiln, it may no longer be used and must be sent to our factory to be checked.

The kiln may not be opened mechanically. All repairs are carried out at our factory. Send us the kiln in its original packing and original padding material together with a description of the fault. Remove any temperature sensors and firing inserts to secure the devices for the transport.

Cost estimates are free of charge, only forwarding charges are invoiced. If further defects are discovered during the repair, you will be informed of these.

## 12. Guarantee:

The warranty period is 2 years as from the date of purchase.

Any material and manufacturing defect established will be repaired free of charge during this period.

The cost for the required working time is also included in this guarantee. Any further claims are excluded.

In the event of damage within the warranty period, send us the kiln in its original packing including a description of the defect.

Any goods returned with unpaid postage will not be accepted. Dispatch charges will be reimbursed, in cases where the guarantee applies.

The following are excluded from the warranty:

- damage caused by inappropriate handling or use (such as incorrect connection, the burning or incineration of foreign material in kilns without an extractor)
- damage caused by leaking items to be fired
- parts such as heating coils and thermal elements, which are subject to wear and tear
- transport damage

A guarantee claim does not prolong the initial warranty period either for the device or for any replacement parts.

# 13. Further safety information:

1. It is only possible to work safely with the kiln, if you read the operating instructions and the safety information completely, and strictly follow the advice given.
2. Before using the kiln, inform any involved persons in detail of these safety instructions.
3. Keep the safety information in a safe place, i.e. always keep it at hand when using the kiln.
4. Failure to observe the following advice can cause an electric shock, fire and/or serious injuries.
5. This kiln is solely suitable for the application mentioned and described and is only to be used by you for this purpose.
6. Keep the working area clean and tidy.
7. The kiln may only be operated on a fireproof surface.
8. Whilst working, vapours can be produced, which are detrimental to health. Ensure that the area is well ventilated or that there is an extractor.
9. Do not work with the kiln in an explosive atmosphere, where combustible fluids, gases or dust are present.
10. The kiln may not be in a damp state or be operated in a damp atmosphere.
11. Use suitable tools and wear heat protective gloves and goggles for loading and unloading the kiln.
12. Any fired objects that are removed from the kiln can be very hot. Place the objects on a fire proof surface to allow them to cool down.
13. Store the kiln in a dry, frost-proof place.
14. Only use the kiln in well ventilated rooms.
15. Unless otherwise stated, only connect the kiln to alternating current (U~) and check, whether the supply voltage conforms to the voltage given on the kiln.
16. Avoid heavy mechanical strain and do not place the kiln on an unstable surface.
17. If the kiln falls down, it may cause injuries to persons and ignite objects.
18. Always extract the mains plug from the socket, when the kiln is not in use.
19. Do not wind the connecting cable around the kiln.
20. Check the connecting cable and the kiln for damage before use.
21. A defect kiln must be disconnected from the electricity supply immediately and must be secured against any unintentional further use.
22. Be observant and pay attention to what you are doing and be sensible when working with your kiln.
23. Do not use the kiln, when you are tired or under the influence of drugs, alcohol or medication.
24. This kiln is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and/or knowledge, unless they are under the supervision of a person responsible for their safety or have received instructions concerning the use of the kiln by such a person.
25. However, as a matter of principle, we advise keeping the kiln away from children.
26. Do not leave any packing material carelessly lying around.
27. Plastic foil or bags, pieces of polystyrene etc. can become dangerous objects for children.
28. Due to the intended function of the kiln heat is generated.
29. Protect your eyes, hands and body with suitable protective clothing.
30. Do not wear any jewellery and heat-sensitive or loose-fitting clothing.
31. Touching the door or the firing chamber may lead to severe burns.
32. Ensure that you are standing securely and keep your balance at all times.
33. Avoid unintentionally starting the kiln.
34. Ensure that the switch (if the kiln is equipped with one) is in the position "Aus", "OFF" or "0", before inserting the plug into the socket.
35. The kiln becomes hot especially at the door and in the firing chamber.
36. Always keep an adequate distance from the hot pieces.
37. After each use - and especially before packing it away after the completion of your work - leave the kiln to cool down for a sufficient period of time.
38. This kiln is not suitable:
  - for heating and drying hair, parts of the body, finger nails, animals
  - for heating up and melting liquids
39. For safety reasons only use the kiln under the constant supervision of adults and experienced persons.
40. When not in use, store the kiln out of the reach of children.
41. Never allow children to use this kiln.
42. Do not let persons use the kiln, who are not acquainted with it or who have not read these instructions.
43. Take great care of this kiln.
44. The kiln may not be modified, dismantled or opened mechanically.
45. Do not allow the kiln to come into contact with fluids (water, cleaning agents etc.).
- 46. Disposal information - recycling instead of waste disposal -**
47. This kiln may not be disposed of in household waste at the end of its service life.
48. Electronic devices are to be disposed of according to the directive concerning waste electrical and electronic equipment through the local collection centre for waste electronic devices!
49. We can assume no liability for direct or indirect damage caused by incorrect handling.
- 50. Subject to technical and optical alterations.**



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