

INSTRUCTIONS



Full pressure dental thermoforming machine with interfaced timer

ES-200 E

 **ERKODENT**®

ERKODENT Erich Kopp GmbH • Siemensstr. 3 • 72285 Pfalzgrafenweiler
Tel. +49 74 45/85 01-0 • Fax +49 74 45/20 92
<http://www.erkodent.com> • e-mail: info@erkodent.com

Delivery format:

170 000 ERKOPRESS-200 E
complete with flask, foil
trial package and filling
granules

Technical data:

H 27 cm/W 36 cm/D 34 cm
Weight app. 12.6 kg
Operating pressure max. 5 bar
Factory set at 4.5 bar
Minimum system pressure 6 bar

Electrical data:

230 Volts~
50 Hz
330 Watt
Heating element 280 Watt
Fuse 2 X T-2A

Installation instructions:

The ES-200 E thermoforming unit can be connected to any compressed air system with a compressed air hose. The system pressure should be at least 6 bar and should never exceed 10 bar. If the system produces more than 10 bar, a pressure regulator has to be installed. The ES-200 E should be set up in a dry place to ensure that water damage is impossible. When operating the ES-200 E all safety regulations should be observed. Plug out when the unit is not used.

Description:

Filter pressure regulator with
water separator: **A**

Main switch: **B**

Confirmation timing
switch: **C**

Heater timing switch: **D**

Display for heating and pre-
heating time: **E**

Control light for heating and
pre-heating time: **F**

Heater below
protective cage: **G**

Rotary switch to move the
cylinder upwards and
downwards: **H**

Form pot with filling
granules: **I**

Granules collecting bowl: **J**

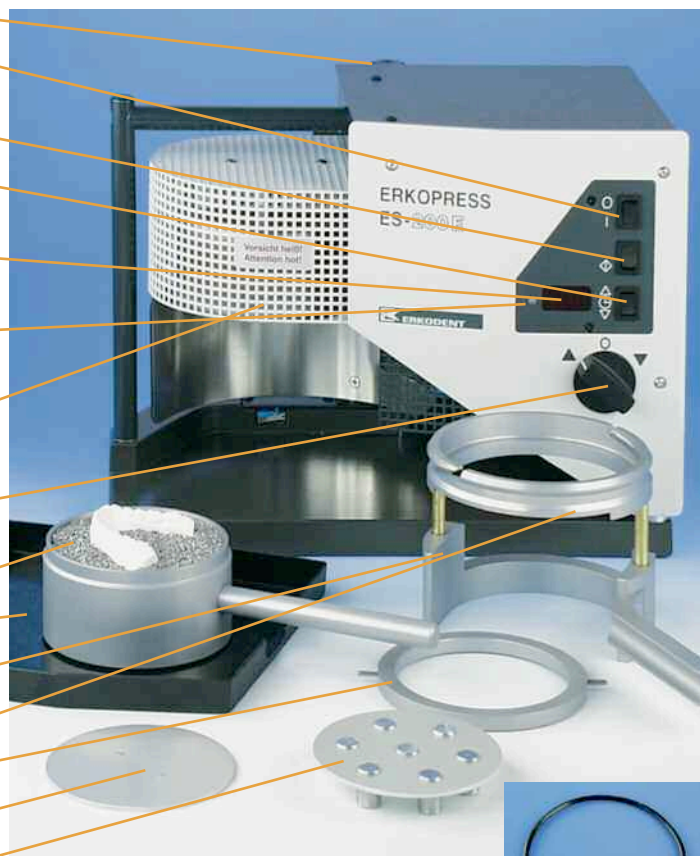
Foil frame with handle: **K**

Foil frame ring: **L**

Foil cover ring: **M**

Model disc: **N**

Die disc for 7 dies: **O**



Sealing ring for cylinder and foil
cover ring (order-no. 110857)



Remark:

Factory set at 4.5 bar.
Changes of the operating pressure should only be made if agreed with the manufacturer.

ATTENTION! Security advice**Do not touch heater - hot surface!**

Operate the unit only under supervision.
Do not keep slightly inflammable materials in direct area of the machine. Heat and work **only** with suitable thermoforming materials.

Putting into operation:

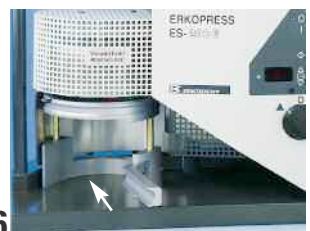
Connect the machine at the maintenance unit (**pict. 1**) on the back of the device to compressed air (interior diameter of the hose 6 mm). Put the plug into the outlet on the back of the device and connect the machine to an AC outlet.

The machine is now ready to use.

Operation:

The below instructions relate to the construction of a splint made from ERKODUR, thickness 1 mm. Please note that other thicknesses and materials require different heating times.

1. Switch on main switch (**B**).
2. The visual display flashes (**E**).
3. Enter heating time referring to our recommended heating time table by pressing heater timing switch (**D**) (**pict. 2**), ERKODUR 1 mm = 50 sec. (press top of switch to increase time, press bottom of switch to decrease time, to speed press switch firmly).
4. Confirm the heating time by pressing switch (**C**) (**pict. 3**) in order to initiate the pre-heating time 1.45 (= 105 sec.). Keep the switch pressed until the time at the visual display changes to 1.45. The red control light becomes illuminated (**F**). If the unit remains switched on, the pre-heating time will be reduced to 1 min. 30 sec. for any new thermoforming operation.
5. Separate the foil frame (**K**) from the form pot (**I**) and pull the foil frame ring (**L**) upwards until it stops (see control notches on the columns) (**pict. 4**).
6. Release the foil cover ring (**M**) by rotating the bayonet lock and take it out (**pict. 5a**). Put in the foil (if necessary with spacer foil towards the model) and fasten with the foil cover ring (**M**) (ring seal towards the foil) (**pict. 5b**).
7. On completion of the pre-heating time an acoustic signal and a green light (**F**) will switch on. The foil frame is moved backwards by handle (**K**) under the heating element until the stop is reached (**pict. 6**). The required heating time is displayed (**E**) and runs automatically. Control light green (**F**).

**1****2****3****4****5a****5b****6**

Operation:

8. Embed the model into the granules (**pict. 7a**) or put it onto the model disc (**N**) (**pict. 7b**). Put the form pot (**I**) in the foil frame (**K**) below the heater (**pict. 8**) before the heating time is over. (This work can also be done before entering the heating time and pre-heating time).
9. After completion of the heating time an acoustic signal is sounded, the display (**E**) shows 0.00 and the control light (**F**) goes out. Move the flask rapidly rightwards by the handle along the fence on the back until it stops.
10. Activate the cylinder by swivelling the rotating knob (**H**) to the right (**pict. 9**).
11. Cooling down phase: After completion of the heating time the display shows for 5 seconds 0.00, then the cooling time runs to 1.30, after that an acoustic signal is sounded and the previously entered heating time flashes. Now all foil types are cooled down enough to take them out with the model. (Attention: Remove thick, soft foils only from the model when they are cooled down completely)
12. Swivel the rotating knob (**H**) to the left to move the cylinder upwards (**pict. 10**). After that move the rotating knob (**H**) back to „0“.
13. Take out the flask, release the foil cover ring (**M**) and take out the model together with the foil. (**pict. 11**).
14. If the thermoforming procedure shall be continued, either confirm the heating time you entered before now flashing in the display (**E**) or change the time for another foil and confirm. The procedure will then pass again. Otherwise switch off the machine at the main switch.

Please consider:

The heating program automatically stops within 20 seconds whenever the operating process is not followed. Once the heater has gone out, a new program will have to be initiated. The **ERKOPRESS-200 E** serves for the fabrication of thermoforming parts for the dental technique. With the ES-200 E plastic thermoforming foils with a diameter of 120 mm and a thickness of up to 5 mm can be thermoformed. The different application fields of the unit are described in detail in the brochure „Thermoforming technique“ of ERKODENT.

SERVICE-TELEPHONE +49 74 45/85 01- 0

**Cleaning and maintenance:**

The unit should only be cleaned with a damp cloth. Do not use any solvents or other cleaning agents. To ensure that the unit maintains its full suction, the rubber seals require replacing once a year. The new seals should be firmly pushed into position.

We wish to advise you that the unit should only be used for its intended purpose, in case of non-observance we cannot take any liability or guarantee for damages.