

## Instruction:

# Erkpress 240

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Pressure forming unit with automated thermoforming process to connect to the existing compressed air system.



CE

The Erkpress 240 unit is in accordance with the respective legal standards that are listed in the declaration of conformity on page 2 of this operating manual.

# Instruction:

## Erkopress 240



### Safety:

- Before starting carefully read this operating manual.
- The operating company has to ensure that the operator has read and understood the operating manual.
- The operational safety of the unit is only guaranteed when it is used in accordance with the legal accident prevention and the safety guidelines are observed by the operator.
- Do not keep highly inflammable materials in direct area of the machine.
- Only operate the unit under supervision.
- The voltage of the power source has to be identical to the voltage indicated on the type plate.
- **Attention hot, do not touch the heating element.**
- **Do not reach into the unit.**
- Unplug the appliance when not in use.
- Before cleaning, maintenance and repairing always unplug the unit and allow to cool down.
- The unit should only be cleaned with a damp cloth. Do not use any solvents or other cleaning agents.
- Maintenance see page 3.
- Repairs of the units must only be carried out by trained personnel using original spare parts. Otherwise the manufacturers liability and warranty expire.

### Usage as directed:

- The units are intended for the use in the dental thermoforming technique.
- They must only be operated by instructed personnel and only using thermoforming material in Ø 240 mm and up to 2.0 mm thickness to adapt on suitable models. Otherwise the product liability expires.

### Installation instructions:

- Place the unit on a plane ground. Pay attention to the fact that the weight of the unit with accessories is approx. 47 kg.
- Install the unit in a dry and low-dust environment.
- Avoid draught (air-conditioning, ventilator, open window) at the installation place since this might cause errors during the temperature measurement by the sensor.
- The Erkopress 240 is connected to the compressed air equipment available (mains pressure > 6 bar, inner diameter of the feed cable at least 4 mm) and to electricity.
- A reliable operation of all functions is only guaranteed at a unit temperature of 15°C.



- **DE: EG-Konformitätserklärung**
- **EN: EC Declaration of Conformity**
- **FR: Déclaration de conformité pour la CE**
- **ES: CE Declaración de Conformidad**
- **IT: Dichiarazione CE di conformità**

- entsprechend der EG-Richtlinie Maschinen 2006/42/EG
- according to directives for machines 2006/42/EC
- conforme aux directives pour des machines de la CE 2006/42
- según las normativas para máquinas 2006/42/CE
- secondo la direttiva macchine CE 2006/42/CE

Wir • We • Nous • Nosotros • Noi

**Erkodent Erich Kopp GmbH - Siemensstraße 3 - 72285 Pfalzgrafenweiler - Germany**

- erklären in alleiniger Verantwortung, dass das Druck-Tiefziehgerät
- declare under our sole responsibility, that the pressure forming machine
- déclarons sous notre seule responsabilité que l'appareil de thermoformage à pression
- declaramos bajo propia responsabilidad que la máquina de presión para plastificación
- dichiara sotto la propria responsabilità che la termoformatrice a pressione

Type/Tipo:

**Erkopress**

Modell/ model/modèle/ modelo/modello:

**240** (Serienr.-Bereich / serial numbers / números de serie / numéros de série / numeri di seri: 95-500)

DE: den folgenden Bestimmungen in der jeweils aktuellen Version entspricht:

Richtlinie Maschinen 2006/42/EG • EMV-Richtlinie 2014/30/EU • DIN EN 12100 Sicherheit von Maschinen • EN 13849-1 Sicherheitsbezogene Teile von Steuerungen • DIN EN ISO 14120 Sicherheit von Maschinen - Trennende Schutzeinrichtungen • Richtlinie 2011/65/EU (gefährliche Stoffe, RoHS)

EN: complies with the following regulations:

guideline 2006/42/EC • guideline 2014/30/EC • EN 12100 • EN 13849-1 • EN ISO 14120 • guideline 2011/65/EC

FR: est conforme aux normes suivantes:

directive 2006/42/CE • directive 2014/30/CE • norme européenne EN 12100 • norme européenne EN 13849-1 • norme européenne EN ISO 14120 • directive 2011/65/CE

ES: está en conformidad con las prescripciones siguientes:

normativas 2006/42/CE • normativas 2014/30/CE • EN 12100 • EN 13849-1 • ISO 14120 • normativas 2011/65/CE

IT: è conforme secondo le normative seguenti:

direttive 2006/42/CE • direttive 2014/30/CE • EN 12100 • EN 13849-1 • EN ISO 14120 • direttive 2011/65/CE

Unterlagenbevollmächtigte Person • authorized person for documents • agent pour les documents • comisionado para documentos • persona autorizzata per i documenti

Hans-Peter Kopp, Siemensstraße 3, 72285 Pfalzgrafenweiler, Germany  
Pfalzgrafenweiler, 01.08.2020



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Hans-Peter Kopp

Geschäftsführer • Managing director • Gérant de société • Gerente

# Erkopress 240

**Erkopress 240, Start-up:**  
(Pay attention to the installation instructions page 1)

Connect to the compressed air system.

Connect to the power supply system.



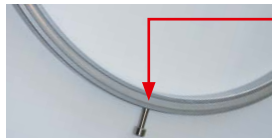
**Attention:**

Leave at least 20 cm free space in the area of the fans!



**Maintenance:**

To ensure that the unit maintains its full function, the rubber seals require replacing once a year when the unit is permanently in use. The new sealing rings should be firmly pushed into position.

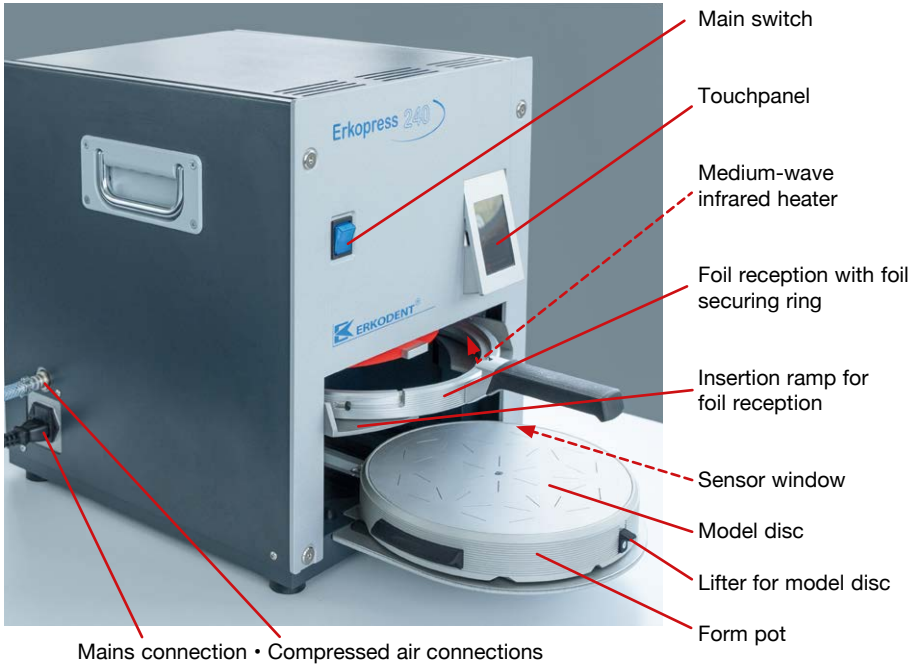


Sealing foil securing ring,  
179 025



Sealing cylinder,  
179 030

# Erkopress 240



## Technical data, Erkopress 240:

temperature sensor: touchless infrared sensor, measuring range up to 240 °C

foil dimensions: Ø 240 mm, thickness 0-2.0 mm

operating pressure 4.5 bar, (factory setting), required supply pressure > 6 bar,  
noise level < 80 dB(A)

Dimensions: height 40 cm, width 34.5 cm, depth 59 cm, weight 47 kg

Electrics: ~220 - 240 (100, 110 - 120) Volt, 50 - 60 Hertz max. 1100 W

Fuse: 230/240 V, 2 x T-5 A, H • 100/115 V, 1 x T-12 A, H

Heating: medium wave infrared radiator, 1000 W

# Erkopress 240 Unit components:

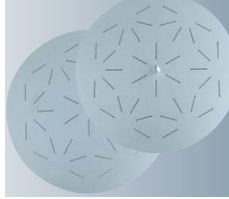
Moulding pot with support cross, model disc lifter and pot ventilation.

▶ \* Note below!



2 model discs, back side each with cone

\* Note page 10!



Mould pot with lifter for the model disk O.



Foil-reception (1) and foil securing ring (2)



## Handling of form pot, model disc and the placement of the models:

Bottom side of the form pot with transverse groove



Counterpart to the groove on the form pot table



The form pot must be placed on the forming pot table with the transverse groove in the counterpart



Use model disc only with carrying cross!!

Depending on the model size, up to 9 models can be placed. Left image, model disc with cone for foils over 1.0 mm thick.

The models must not extend beyond the marked ring

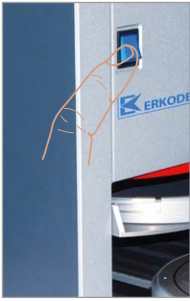


## Notes on model arrangement and model height:

The models must be at least 1 cm apart for model heights up to approx. 1.5 cm. For models higher than 1.5 cm, the distance should be 1.5 cm. If the models are of different heights, the final thickness of the splints will be thinner for the higher models. As a rough guide, 1 cm of model height corresponds to 20 - 25% loss of thickness. Models of very different heights should therefore not be moulded together.



\* To facilitate removal of the model plate, push the lifter for the model plate upwards after shaping. for the model plate upwards after moulding.



**Switch on the unit**  
Switch on the unit at the main switch.

The touchpanel first shows the Erkodent Logo and then it requires to check if the sensor window is dusty or dirty. If so, dust off or clean with a damp cloth. The sensor window is located at the rear right in the device.

After a few seconds the basic display automatically appears.



Main switch

The touchpanel responds in the framed function fields on slight pressure. For input the enclosed brush is equipped with a rubber cap. However, input is also possible with fingers.

**Basic display:**

Select language, for any further use of the unit the language selected last time is used.

1. Select language selection



2. Select language



3. Menu, selected language



**Note:** The function field »X« interrupts the respective process and has to be confirmed.



**Note:** The function field »delete« has to be confirmed.

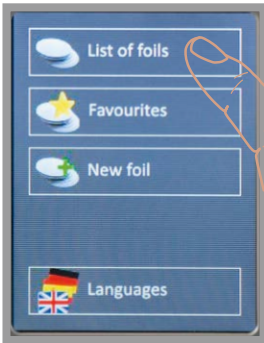
**Note:**

If within 10 seconds the next required working step will not be performed, the working program will be switched off for safety reasons.

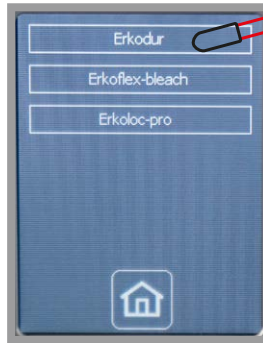
## Select foil:

The list of foils contains all foils that can be used with this machine.  
(Example, Erkodur, 0.8 mm)

### 1. Select list of foils



### 2. Select Erkodur



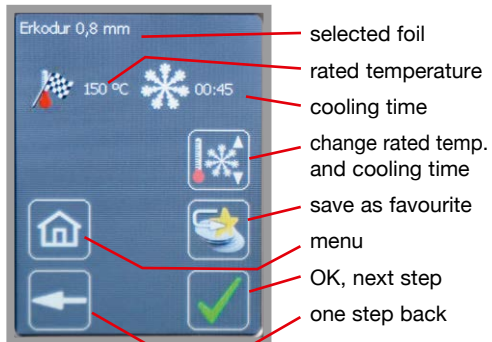
### 3. Select 0.8 mm



### 4. Selected foil



### Functions of this display



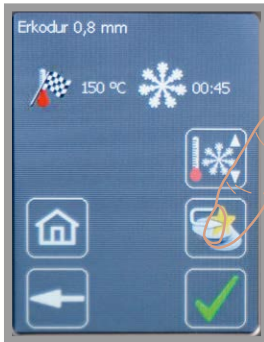


### Save favourites:

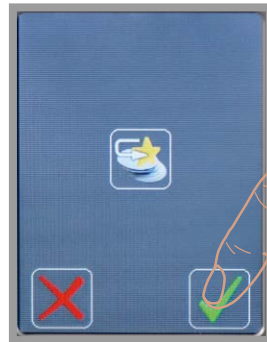
To save a foil in the list of favourites, this foil is selected out of the list of foils as described under "select foil". New foils, either future Erkodent foils or foreign foils, are entered with the functional field »New foil« and are saved in the list of favourites.

After the desired foil is selected from the list of foils, the display shown at point 1. will be visible.

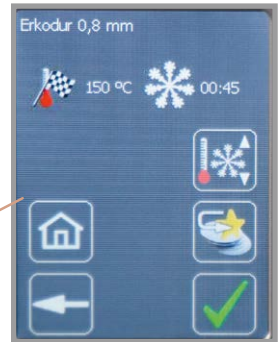
1. Select add favourite



2. Add favourite and confirm

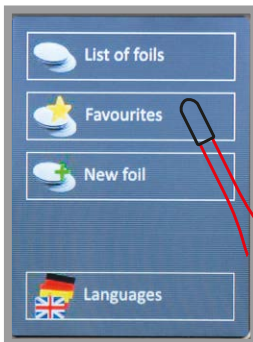


3. The favourite appears and can be processed.

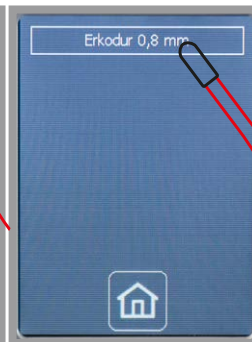


### Delete favourite:

1. Select favourites



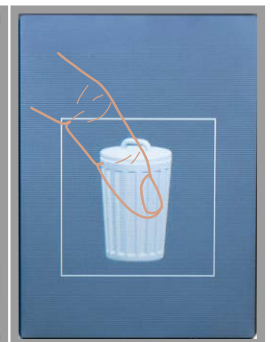
2. Select favourite



3. Select delete favourite

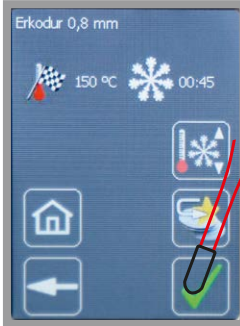


4. Confirm delete favourite



## Thermoforming:

1. Selected foil

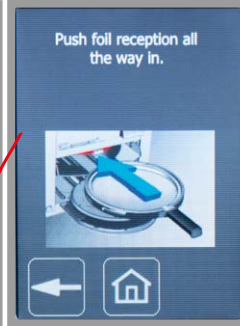


to 1. Correct foil?, if yes, confirm.

In the display further working steps are indicated. The visualisation disappears with the next step.

Put the selected foil in the foil reception and clamp with the foil securing ring.

2. Insert foil reception



to 2. Place foil reception with foil onto the insertion ramp and push it thus far under the heater that it clicks into place.

3. Form pot in place?



to 3. Now place the form pot with model disc and the models arranged on it on the form pot table and confirm (yes).

4. Foil is heated



to 4. Only after confirmation of 3. the selected foil is heated.

The further thermoforming process and the movement of the form pot are automated.

5. Risk of crushing

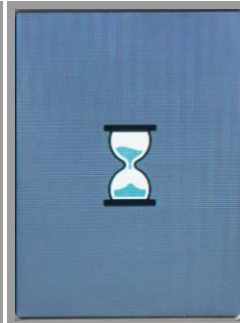


to 5. Warning appears shortly before and during cylinder release.

6. Cooling time



to 3. Air blowing noises during the cooling time serve for cooling.



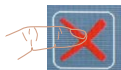
Await further device function step.

7. Remove models



to 7. ... and confirm.

**\*Note on page 11!**



**Hint:** The function icon „X“ stops the respective process. Each abort must be confirmed.

### Enter new foil:

New foils are future Erkodent foils.

If Erkodent launches a new foil the necessary data will be found on the label (example: Erko new, thickness 1.8 mm, rated temperature 150°C, cooling time 1:40 min.).

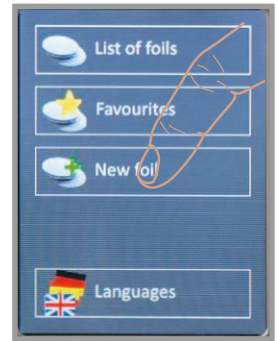
After entering "New foil" the program guides you through the individual necessary entries. The new foils can be saved in the list of favourites and selected via this list.

**Note:** Max 240°C can be entered as rated temperature.

The cooling time has to be at least 30 sec.

Otherwise there might be malfunctions.

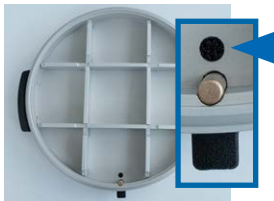
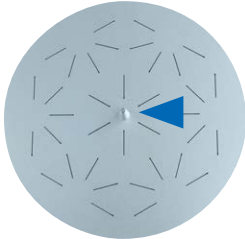
### Select new foil



### \* Note:

The two model disks supplied are used alternately. Both model discs are provided with a blunt cone on one side. This side is used for foil thicknesses above 1.0 mm.

During each thermoforming process, the model disc absorbs heat. To allow it to cool down, the second model disc is used for the following thermoforming process.



### \* Note:

The pot ventilation is used to prevent a pressure build-up in the forming pot, which acts against the forming pressure. Pressure builds up in the moulding pot when small holes appear in the film during moulding. The pressure is then released to the front via the pot vent (air draft).

Delivery form for Erkopress 240, please check concerning completeness

1 Erkopress 240, order no. 179 000, with

- 1 foil securing ring (179 015)
- 1 foil reception (179 010)
- 1 form pot with model disc support (179 005)
- 2 model discs (1 pcs. 179 020)\* **Note**, page 10
- 1 power supply cable (170 001)
- 1 hose connection (179 026)
- 1 brush as an input pen (188 530)
  
- 1 test foil package
  
- machine documents (folder), instructions, guarantee card

Available foil material, Ø 240 mm:

- Erkodur-al 240, 0.6 mm, Ø 240 mm, clear, 20 pieces, 521106
- Erkodur-al 240, 0.8 mm, Ø 240 mm, clear, 20 pieces, 521108
- Erkodur-al 240, 1.0 mm, Ø 240 mm, clear, 20 pieces, 521110
  
- Erkodur 240, 0.5 mm, Ø 240 mm, clear, 20 pieces, 529505
- Erkodur 240, 0.6 mm, Ø 240 mm, clear, 20 pieces, 529506
- Erkodur 240, 0.8 mm, Ø 240 mm, clear, 20 pieces, 529508
- Erkodur 240, 1.0 mm, Ø 240 mm, clear, 20 pieces, 529510
  
- Erkoflex-bleach 240, 1.0 mm, Ø 240 mm, transparent, 20 pieces, 589510
  
- Erkoloc-pro 240, 1.0 mm, Ø 240 mm, transparent, 20 pieces, 599510
- Erkoloc-pro 240, 1.3 mm, Ø 240 mm, transparent, 20 pieces, 599513
- Erkoloc-pro 240, 2.0 mm, Ø 240 mm, transparent, 10 pieces, 599520



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