EHA Hoffmann International GmbH

User manual *EHA*-TRANSPRINT HP 2010

Machine-No.: **Year:**

EHA Hoffmann International GmbH
Michelsbergstraße 24
D-57080 Siegen
Telephone: +49 271 39 32 - 0
Telefax: +49 271 39 03 37
E-mail: info@eha-group.com

EHA Hoffmann International GmbH

User manual ***EHA*** **-Transprint HP 2010**

EHA Hoffmann International GmbH
Michelsbergstraße 24
D-57080 Siegen
Telephone: +49 271 39 32 - 0
Telefax: +49 271 39 03 37
E-mail: info@eha-group.com

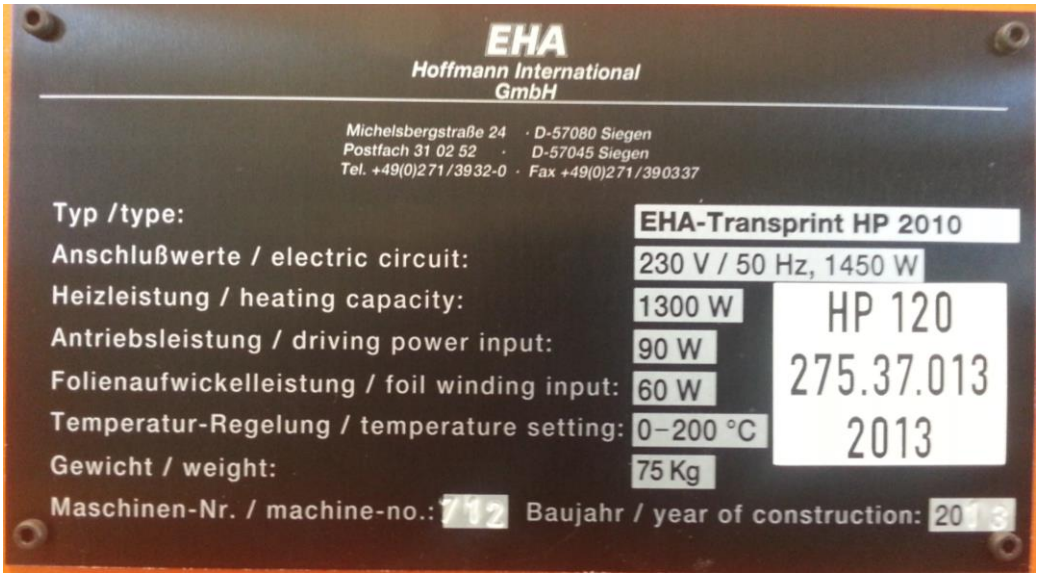
CONTENTS

1 TYPE DESCRIPTION

The ***EHA*** **Transprint HP2010** is a machine specially built for high quality hot stamping by means of heat and pressure.

The machine has been developed to be used exclusively for the hot stamping of designated vehicle number plates with embossed edges.

Identification
The machine has a type plate, a typical example is shown below. The type plate is located on the side of the machine..



1.1 Introdruction

This user manual refers to the ***EHA*** **Transprint HP2010**. It contains information that is important and useful for the proper operation and maintenance of the machine. In addition it contains important instructions to prevent accidents and serious damage prior to and during usage of the machine and it allows the machine to perform as safely and flawlessly as possible. Read this manual carefully before starting the machine, familiarize yourself thoroughly with the functioning of the machine and strictly follow the directions given.

If you have any questions or need more detailed information on specific aspects of the machine, please do not hesitate to contact ***EHA*** Hoffmann International GmbH.

Liability

The data included in this manual is based on the latest information available at the time of writing. It may be subject to future changes.

We reserve the right to make changes to the design and / or construction of our products without being obligated to adapt previously supplied machines.

Warranty

The warranty conditions that apply for this product are stated in the terms of delivery.

The warranty on your equipment will become null and void if:

- Service and maintenance are not carried out strictly in accordance with the instructions, repairs are not carried out by authorized personnel or have been made without our consent;
- the machine has been modified without our consent;
- non-original parts have been used;
- the equipment is used inexpertly, incorrectly, carelessly or not accordance with its nature or intended use.

The warranty does not cover wearing parts.

The pressure roller has been coated with a high quality silicone rubber which ensures excellent anti-stick properties. The durability of the silicone rubber is highly dependent on the used materials. Therefore the warranty does not include the silicone coating of the pressure roller.

Safety

Familiarize yourself with the pictograms (also see chapter 2: Safety).

The equipment is provided with safety and protection features. Even so, caution is required when performing machine operations. Warning pictograms in the various chapters point to potential dangers. You will find these pictograms near the text referring to the operations that involve risks.

Work safely!
EHA Hoffmann International GmbH had made every effort to inform you as correctly and completely as possible on any dangers associated with the operation of the machine. You must ensure and are responsible for compliance with these behavioural guidelines.
The buyer/user is obliged to familiarize operating, cleaning and maintenance personnel with these instructions. After the instruction by the vendor / supplier, the purchaser must carry out independent instructions when changing the operating personnel.

Upon their arrival, check deliveries for:
► Any damage and/or missing parts due to transport. Make sure that the carrier draws up a transport damage report on the spot.
► Correctness and completeness; have all parts (additionally) ordered been supplied?

In case of damage, always contact *EHA* Hoffmann International GmbH.

1.2 Technical specifications *EHA* Transprint HP 2010

Dimensions / Weight

Machine:	
Depth	530 mm (20,9”)
Höhe	920 mm (36,2”)
Width	550 mm (21,7“)
Net weight	75 kg
Power supply :	
Power supply	230V, 50/60 Hz, 16A
Heating power	1300W
Motor power:	90W
Foil winding power:	60W
Temperature Control	0 - 220°C
Operating speed :	
Maximal	5 m/min (16.4 ft/min)
Working width:	
Maximal	120 mm (4,7”)
Shaft capacities :	
Core diameter	25.4mm (1”)
Noise level :	≤ 70 dB (A)

2 SAFETY

The ***EHA*** **Transprint HP 2010** is provided with safety equipment to ensure safe machine operation. You should, however, take due note of the following:

Danger of getting injured by hot parts.
Be careful with hot parts to avoid burns. The heated roller may have a surface temperature of 220°C. Do not touch the rollers. Even after the machine had been switched off, the roller will remain hot for a long time.

Danger of getting injured by rotating parts.
The machine is provided with a cover (protection cage) which are designed to prevent contact with rotating parts. Make sure that this safety device is always installed during operation of the machine**.**

Danger of getting injured by voltage.
Do not remove the back panels of the ***EHA*** Transprint HP2010, you may get injured by voltage. Only remove the panels to carry out maintenance. In this case be sure that the machine is de-energized.

Do not place heavy objects on the power supply cord.

2.1 Obligations of the owner

The owner of the machine has to make sure that the only people allowed to work with and on the machine have understood and confirmed by their signature the basic regulations on workplace safety and accident prevention. The owner will make sure that the personnel is trained in the handling of the machine and have been familiarized with the operating and safety instructions contained within this manual. The safety awareness of personnel shall be reviewed at regular intervals.

2.2 Obligations of the personnel

All individuals working with and on the machine commit, and confirmed by their signature, to be familiar with the basic regulations on workplace safety and accident prevention and have read the section on safety contained within this manual.

2.3 Dangers caused by operation of the machine

The **EHA Transprint HP2010** is built according to accepted engineering standards and safety regulations. Despite that operating the machine could result in danger for life and limb of the operator or bystander or cause damage to the equipment or other property.

The machine shall be used only:
►For the intended use.
►In absolutely perfect condition.

Malfunctions or damage that may affect the safety must be serviced immediately.

2.4 Intended use

The **EHA** Transprint HP2010 is designed exclusively for the hot stamping of designated vehicle number plates with embossing edges.

Any different or additional use of the machine is considered improper.

EHA Hoffmann International GmbH is not responsible for any resulting damage to machine or individuals.

2.5 Safety features

Before start-up of the machine, make sure that the protection case is closed properly.
The Safety cover may only be removed when the machine is at a complete stop and powered down.

2.6 Informal safety measures

The operating instructions must be kept with the machine.
In addition to the operating instruction, the local accident prevention regulations and environmental regulations should be available and to be noted by the operator.
All safety instructions and warning pictograms must remain in legible condition.

2.7 Machine operating system

Do not make any modifications to the operating system of the machine under any circumstances!
Settings on the timer and temperature shall be permitted only by qualified personnel.

2.8 Safety measures for normal operation

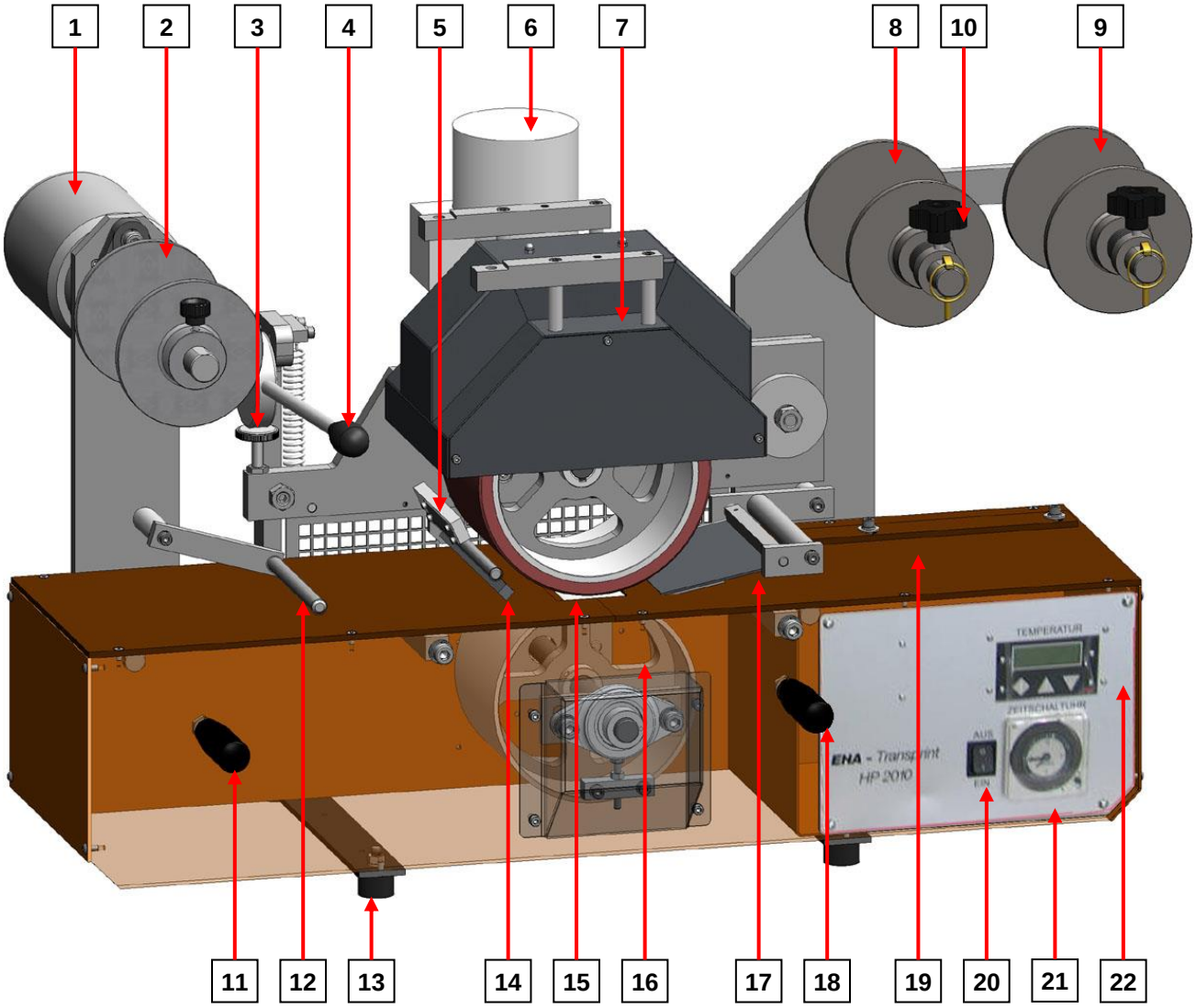
Check the machine for obvious damage and the safety cover is being functional at least once every shift.
Only operate the machine if the safety cover is fully functional.
Before start-up of the machine ensure that no other individuals are to be at risk.
Only operate the machine if the temperature comparison (target/actual) in the display are the same.

2.9 Dangers caused by electricity

Maintenance on the electrical system should only be carried out by qualified mechanics.
If maintenance is required to live parts, a second individual must be present who in case of emergency can turn off the main power.

3 MACHINE DESCRIPTION

Description main components:



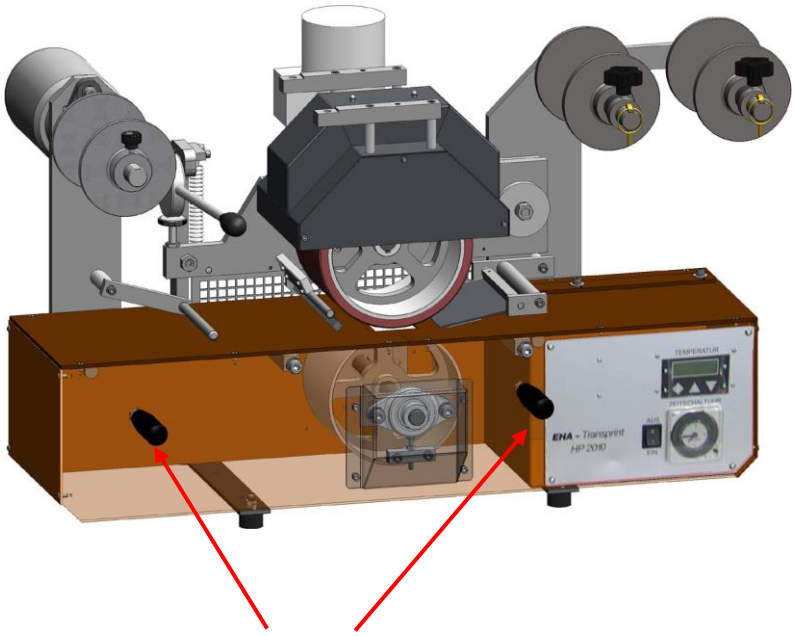
1. Wind up motor
2. Wind up unit
3. Setting Hot Stamping pressure
4. Roller lever
5. Infrared temperature sensor
6. Drive motor
7. Heating element
8. Unwind Foil 1
9. Unwind Foil 2
10. Adjustment unwind unit brake
11. Carrying handle
12. Diversion axis
13. Rubber feet
14. Guiding / Peeling shaft
15. Top roller (Silicone Rubber)
16. Upper roller (Steel)
17. Guiding shaft with spring loaded
18. Carrying handle
19. Number plate guiding
20. On / Off button
21. Timer with week program
22. Display with control panel

4 TRANSPORT

►Consider the weight when moving the machine.

►To move the machine consider the usage of devices that can lift it safely.

►The Hot Stamping Machine must be lifted with at least 2 people hand-bulky. Use for it the carrying handles.



5 INSTALLATION

5.1 Installation area requirements

The installation should only be carried out by qualified personnel.

Free space
There must be sufficient free space around the machine surface area for installation purposes and proper supply and output of films and number plates.

Operating conditions

Temperature: 10°C ~ 50°C (50°F ~ 122°F)
Do not expose the machine to direct sunlight; the temperature increase may affect the final product.

Humidity: 30 % ~ 85 %
The humidity should ideally be maintained at 55% (no condensation).

Dust: *Prevent a dusty environment. Since the films are easily electro statically charged, they could attract dust. Work clean and tidy.*

5.2 Installation

Place the machine on a sturdy table or frame for its permanent operating position.
Make sure that the machine is standing in a stable position on its rubber feet.

5.3 Installation of the power supply

The ***EHA*** **Transprint HP2010** machine is supplied with a 2,5 m power cable with a socket plug in accordance with the type plate.

The installation should only be carried out by qualified personnel.

Make sure the supplied voltage is within the required tolerances.

The connecting cable for the power supply has to be connected properly (CE plug 230 V, 16 A, 2-pole).

1. Connect the cable for the power supply to a suitable socket (230 Volt).
2. Check if the correct fuses according to the electrical circuit diagram are installed and if these are in working order.

6 GENERAL OPERATION

6.1 Start up

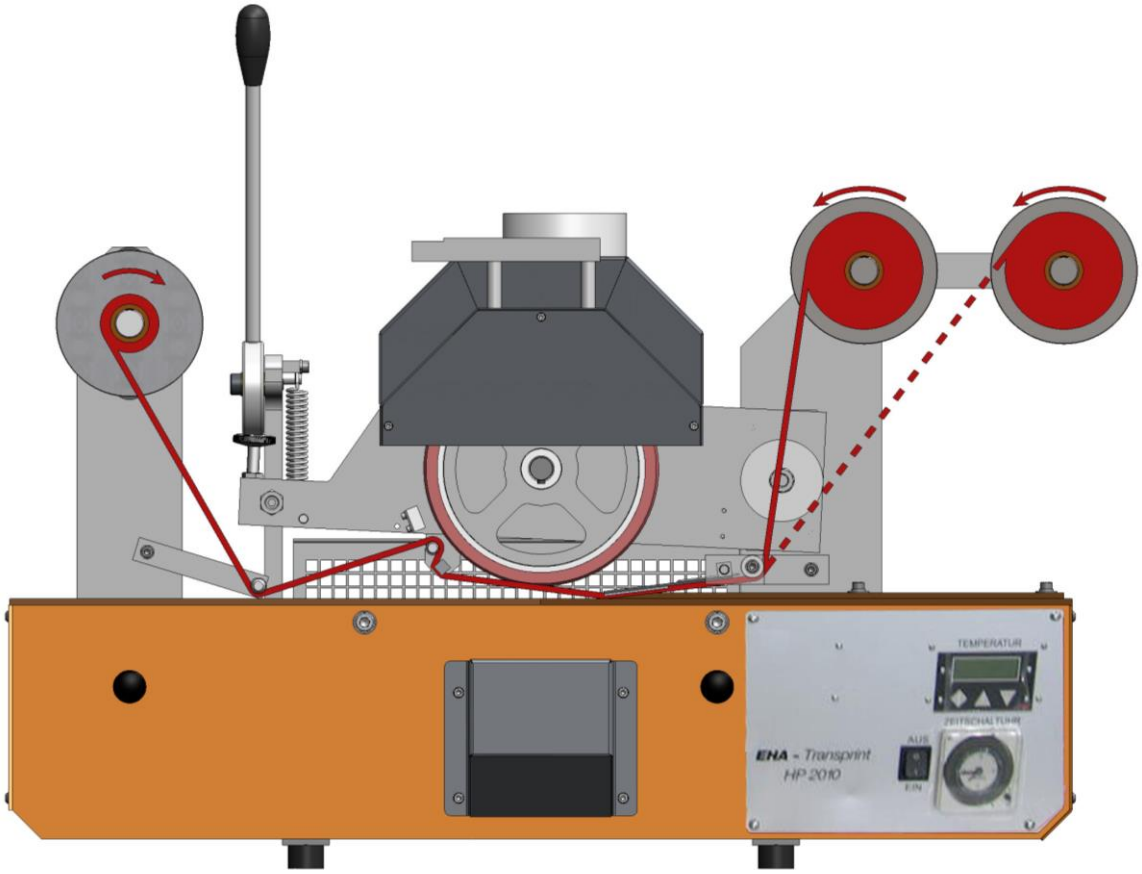
Turn the heating on for about 30 minutes in advance of using the machine to ensure that the roller has the required temperature and is well heated through.

► Only connect the power cable to a 230V, 50/60Hz socket, secured with a 16A fuse.
► Connect the power cable.
► Set the On / Off switch in the "I"-position (see capture 6.10).
► Select the temperature setting (see chapter 6.11)
Now all functions are put into operation.
► The roller rotates (depending on the choice of automatic or manual heating, see chapter 6.10.1 / 6.10.2) and the roller is heated to the selected temperature.
► The preset temperature of about 195°C is reached in approximately 7 minutes.
► After about 23 minutes the roller is sufficiently heated.
► The machine is now ready for use.
► All electrical and mechanical safety features must be in place and functional.

6.2 Insert foil

If the machine has already been in operation and the working temperature has been reached the roller and the roller heating cover will be hot.

► Pull the power plug of the machine before working with the foil.
► Insert the foil roll on the unwind shaft to the right of the roller, so that the foil runs to the left.
► Feed the foil under the spring loaded in feed plate, put the foil under the roll around the square bar, over the round bar, further around the next guiding shaft to the wind up unit.



► Attach the foil on the bottom left to the core already fitted on the wind up shaft by means of sticky tape.
► Press the guiding flange against the core to clamp the core to the shaft.
► Align everything straight and free of wrinkles in the foil!
► Load the foil roll on the unwind shaft with a guiding flange.
► Clip on the pressure spring. Pretension the pressure spring with the adjusting ring so far that the winding motor can not pull the foil roll straight.
► Connect the power cable.

6.3 Prerequisites vehicle number plates

The vehicle number plates must be:
► equipped with hp-resistant reflective foil.
► uniformly shaped, straight and flat.
► have a top surface that is clean, dry, and free from dust and grease.
► at least 20°C (Room temperature).
► the roller operating temperature is about 195°C.

6.4 Hot stamping - normal operation

►Place the vehicle number plate on the table on the right and position it against the guiding strip.
► Fully pull down the roller lever. (The wind up motor is turned on automatically)
► Push the vehicle number plate(s) to the roller until the plate is fixed and pulled through the roller.
► Stay clear of the roller with your fingers.
Risk of being trapped!
► The next plate(s) can be fed into the machine. Remove the finished plates from the left side.
► Put the roller lever back into the upward position after the hot stamping operation (The wind up motor turns off automatically).
Brush off the loose pieces of foil from the plate if necessary.

6.5Changing the foil

► Put the second roll of foil on the outer unwind shaft right.
► Unwind the foil for a short distance and attach the foil to the first foil by means of sticky tape in front of the spring loaded in feed plate.
► Cut the first foil over the mend.
► Unwind the foil by rotating the wind up shaft manually until the foil is positioned underneath the roller.
► Load the foil roll on the unwind shaft with a guiding flange.
The machine is ready for use again.

6.6 Powering down the machine

►Manually turn off the machine (see chapter 6.10.1/6.10.2).
The heating is turned off.

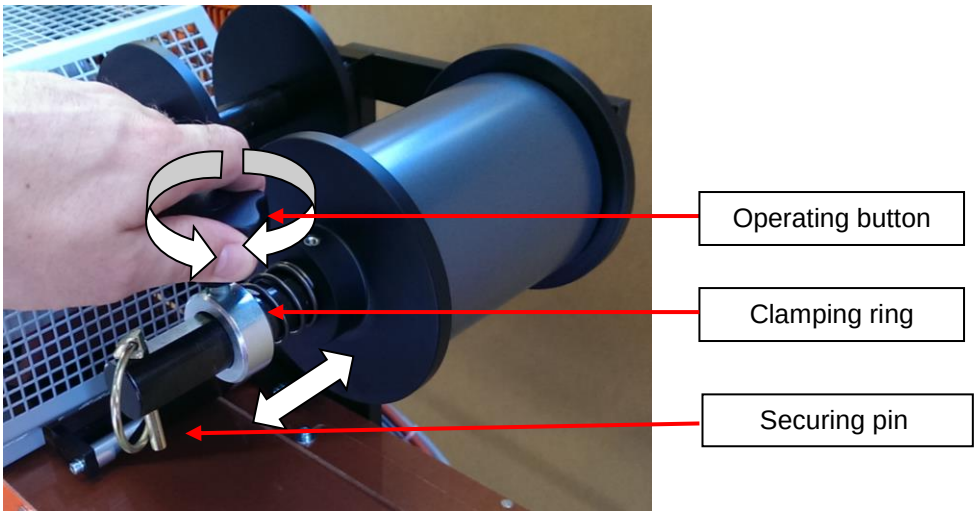
Be aware that all machine components close to the roller will remain hot for a considerable time during the Cooldown phase. Danger of burns!

► The roller will continue to rotate for about 20 minutes to cool down.
(The control panel will show **COOLDOWN** in the display)
► After the Cooldown phase the machine will turn off and go into standby mode (The control panel will show ***OFF*** in the display).
► **Do not remove the power supply cable from the socket until the roller is completely cooled down and maintenance work on the machine must be carried out!**
►Without power supply 230V the clock runs for maximum 2 days on emergency stream.

6.7 Winding up-Brake

Adjustment of the tension of winding up

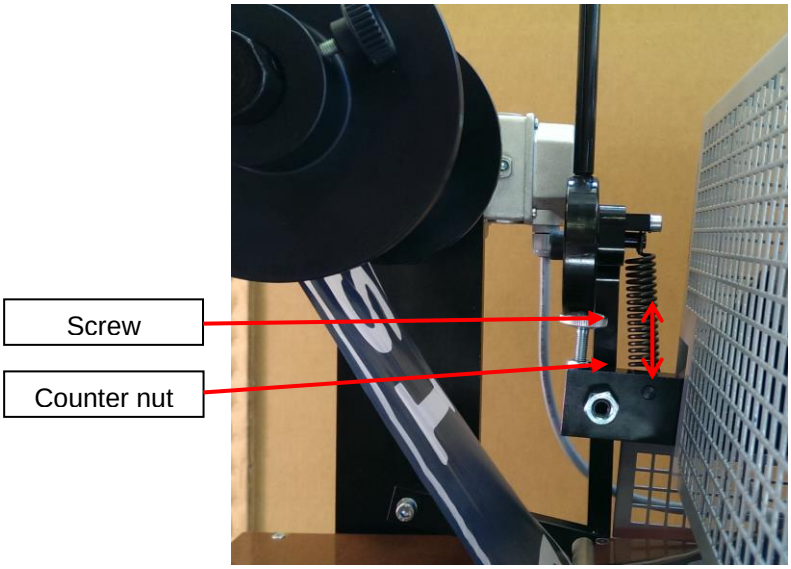
The brake tension can be put by shifting the clamping ring. A good base setting is given if with running winding motor the winding up brake is set that the winding up roll does not run along any more.
The securing pin must be in operation in the arbor before the clamping ring is released.



6.8 Setting of Hot Stamping Pressure

Loosen counter nut. *(Spanner 13)*
Adjusting screw upwards or downwards.
► Turn clockwise, *Screw downwards* = lower hot-stamping pressure
► Turn counter clockwise, *Screw upwards* = higher hot-stamping pressure

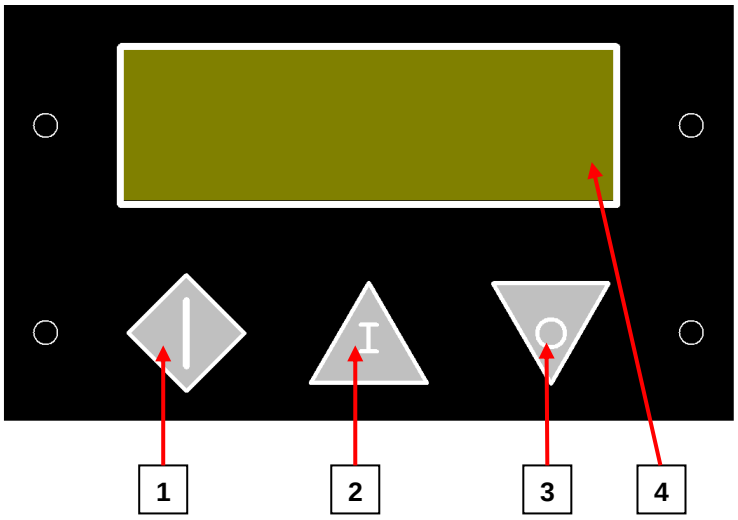
Fix the counter nut *(Spanner 13)*



6.9 Control panel

The machine is equipped with a control panel:

Display and button functions



The functions of the buttons / display of the control panel are:

No. Function or display

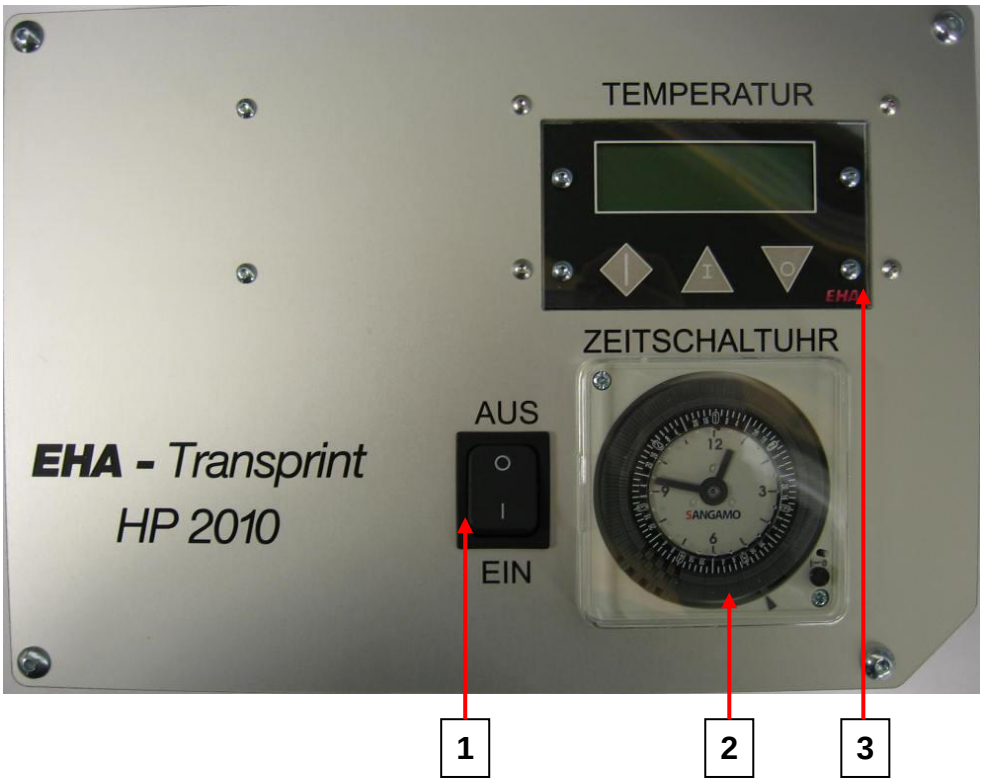
1. = ENTER-button

2. Double function: - Increase temperature setting *(press together with button 1)*
   - Switch on button for manual heating on after switch on the rocker switch.

3. Double function: - Increase temperature setting *(press together with button 1*
   - Switch Off button for bridge the timer.

4. Display *(Status, Temperature, (Failure) Message).*

6.10 Activate control panel and turn the machine on



1. To activate the control panel and turn the machine on by setting the On / Off switch in the "I"-position.
2. Timer with week program
3. Display / Control Panel for, beside others, the setting or temperature

6.10.1 Activate manual

The rocket Switch has to be OFF to start the machine manually.
Press the ▲ for a short time. The control panel is now activated, the roller will start to rotate, the display will briefly show ***START UP*** and the heating starts to heat the roller. The machine shows a time line during the warming up period. The temperature of 195°C is reached in approximately 23 minutes. (Picture 9)

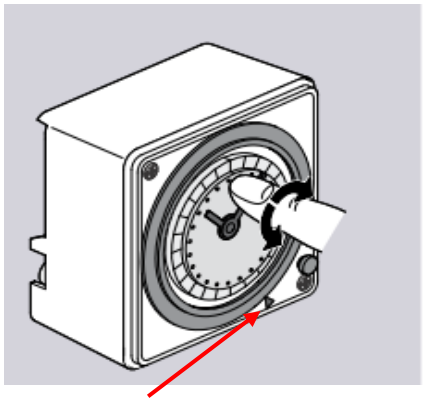
To turn off the heating and the machine set the On / Off switch in the **"O"-position**.
The heating is switched off and the machine will go into ***COOLDOWN*** to let the roller cool down. The display shows ***COOLDOWN.***

!! ATTENTION !!
To switch off the machine never pull the net plug. With it is guaranteed that the roller still runs some time and evenly cools.

6.10.2 Activate Automatic with timer function

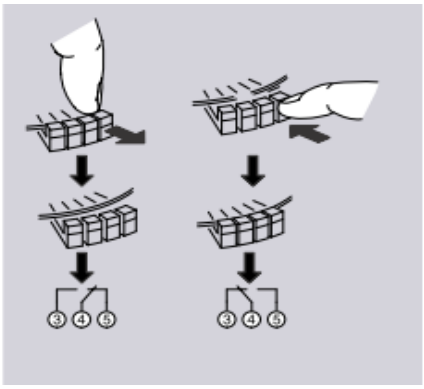
To activate the timer switch the rocker switch to ON.
Only then the machine switch on and off according to the setted weekly program.
If the rocker switch is OFF, the Timer is switched off and the HP machine will not be started by the timer.

Current desired day and time



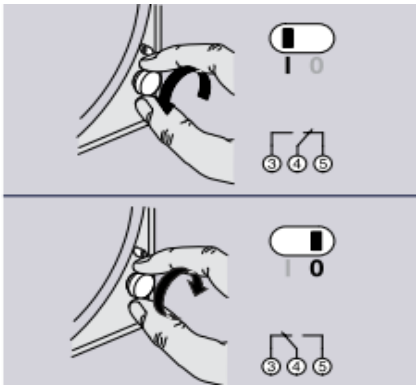
Display arrow current day and time

Programming



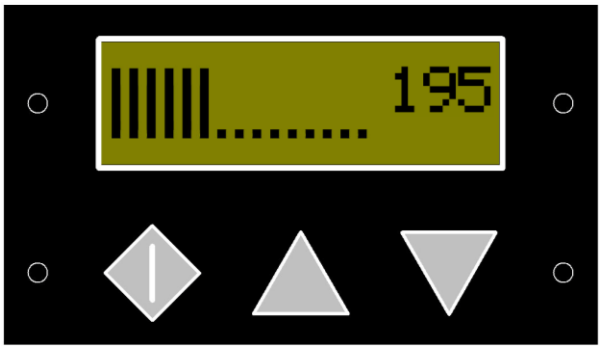
Every tab is one hour
Sliding inwards is OFF
Sliding outwards is ON

Timer



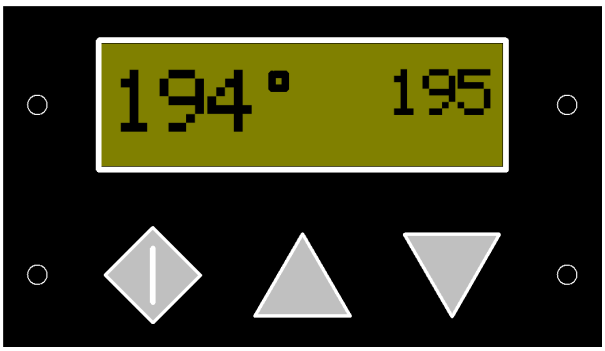
Anti clockwise direction = Bridge (I)
(Change into Automatic modus with the next switching operation)

In clockwise direction = Automatic modus (0)



Heating up phase

The machine will display this progression bar during the heating up phase.

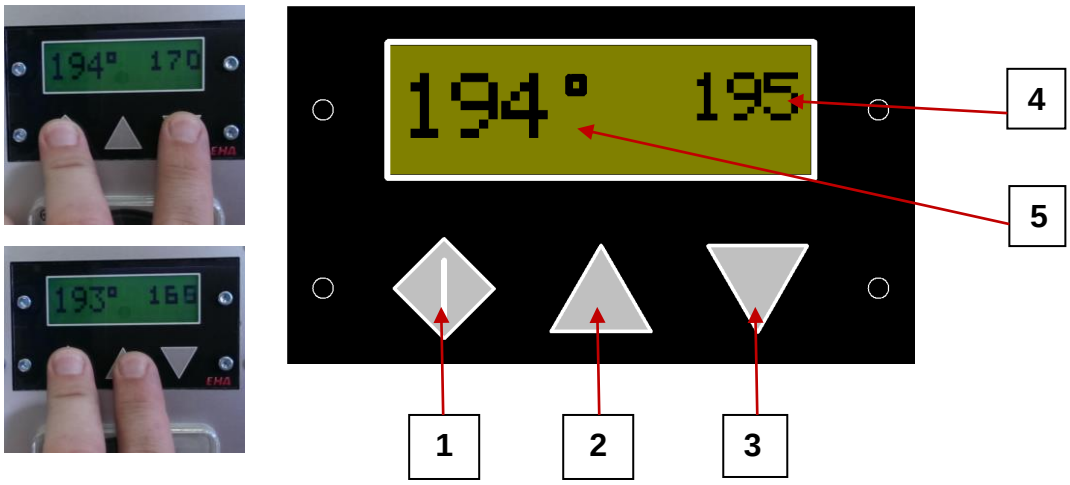


Ready for operation

The machine will beep shortly and display the temperature when the heating up phase is complete. Subsequently the machine is ready for use.

6.11 Changing the temperature setting

- Activate the control panel (see chapter 6.10).
- The machine is turned on when the display is turned on.
  (see picture 10, the machine is turned on).



Temperature setting

- 4] displays the **setting for the roller temperature** *(temperature setting)*
- [5] shows the **current roller temperature** *(actual temperature)*
- You can change the desired temperature setting by holding the Enter button ◈ [1] and meanwhile pressing either the ▲ [2] or the ▼ [3] button.

6.12 Bridge the timer

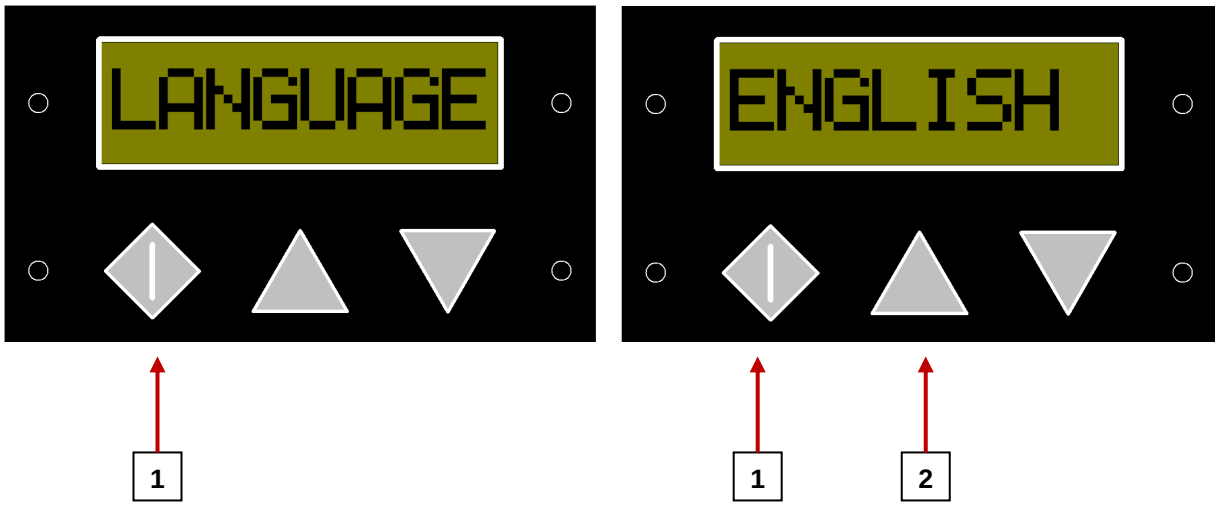
To bridge the time there are two possibilities:

1. In the Control panel with ▲ [2] or the ▼[3] button (see chapter 6.10.1)
2. As well as described in Picture 8 with the little button in the timer (see chapter 6.10.2)
   With this process the timer changes to Automatic Timer –Modus with the next switching operation.

6.13 Changing the display language

It is possible to select one out of three different languages used in the display. Besides the set German language you can also select either English or Dutch. You can change the language in the ***LANGUAGE*** menu.

- Press and hold the ◈ button [1] until ***LANGUAGE*** is shown in the display.
- Press the ▲ button [2] to select the desired language.
- Press the ◈ button [1] to confirm the chosen language.



Display language

6.14 Error messages

If the display shows any of the following error messages contact EHA Hoffmann International GmbH or the local service partner.

Error messages in the display:

- ***F-SENSOR*** (Error roller rotation sensor (Fork sensor))
- ***T-SENSOR*** (Error temperature sensor)
- ***START UP ERROR*** (Error circuit board connection)
- ***OVERTEMP*** (Error over temperature)

7 MAINTENANCE

7.1 Cleaning by the operator

General information for the cleaning
The cleaning and care of the machine must be carried out after completion of the production, if necessary. In the case of heavy soiling, it may be necessary to carry out this cleaning even at shorter intervals after visual inspection of the operator.

Unplug the machine from the power supply before starting maintenance work on the machine.

Clean the external surfaces of the machine with a clean, damp cloth. If necessary use a household cleaner to remove persistent stains.
The machine may be splashed in no case with water, as water entering the bearings and lubricants are flushed away.
Furthermore the electrical components must not come into contact with water since water is an electrical conductor. Rubber and plastic parts must never be treated with thinner or similar agents.

Extreme caution is necessary when cleaning the roller. Only clean the roller when it is cooled down.
Inspect the roller regularly for wells, flats, cuts etc. to ensure optimal operation quality.

7.2 Annual Inspection

The annual inspection must be carried out by a recognized expert in accordance with the operational safety regulations, the valid UVV regulations and the valid VDE regulations.

7.3 Replacing the fuse

Only replace a blown fuse by a fuse of the same rating!
The fuse is placed on the back side of the HP Machine.