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INSTALLATION INSTRUCTIONS
for electric combi hotplates

We would like to thank you for purchasing Busse electric heating plates and the confidence you have placed in our products.

Busse Heizplattentechnik GmbH has been producing electric heating plates for all makes and models of veneer presses for over 35 years. Due to the permanent quality controls, which are certified according to DIN EN 9001, we guarantee a constant high-quality standard.

If you have any questions about our product range, please do not hesitate to contact us. You will find the address at the end of these installation instructions.

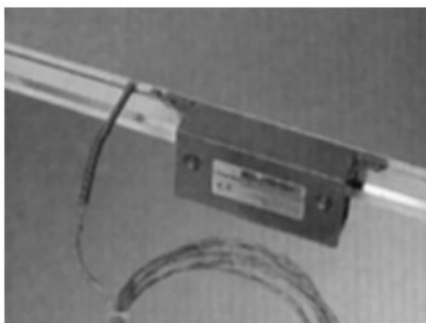
We endeavour to make the operation of your hotplate press with electric hotplates as simple as possible. If you observe a few guidelines, you can expect trouble-free operation. You will find the guidelines in the appendix of the instructions.

Exchange

of defective electric combi hotplates

1. Close the press. However, set both heating plates only to "contact pressure", i.e., minimum operating pressure to max. approx. 10 bar.
2. Set the heating switch in the condition panel of the press to "0", also the main switch, if no main switch is installed in the control panel, please disconnect the supply line to the press for a short time

Fig. 1.1 Terminal box and sensor hole



3. Pull the temperature sensors of the two control units out of the heating plates. The sensors are

located on one narrow side of the heating plates, next to the electrical connection box. Please note which sensor is assigned to which heating plate so that there is no confusion later.

4. Open the two small terminal boxes on the narrow side of the heating plate and disconnect the connection cable from the terminal strip. When this is done, you will want to pull the supply cable out of the terminal box.
5. So that the press can be operated hydraulically, please reconnect the power.
6. The electric combi-heating plates are fixed with hook bolts between the steel beams in the movable lower press table and the upper part of the press. Loosen all screws and remove the centre screws of the insulating pressure plate.
7. Lower the press table and remove the defective heating plates.

8. If the heating plates are to be replaced because they have been deformed due to incorrect operation, it is recommended to check the planed support of the press table and the upper part of the press with a straightedge before installing the new heating plates, in order to determine whether the incorrect operation has not also caused a slight deformation of the press body. If this has happened, please compensate for the deformation with aluminium foil or similar.
9. Insert the new heating plates delivered to you into the press. Remove any packing tape. Align the heating plates with the press table or the press head. The heating plates are installed in the opposite order as described in points 1.) to 6.). For safety reasons, please ensure that the electrical circuit to the press is interrupted when connecting the electric cable to the heating plates. When fastening the heating plates including the insulating and pressure plates by means of

- the hook bolts, make sure that the tension springs of the bolts have a spring travel of approx. 3 mm, otherwise the heating plates will be damaged.
10. The fixing of the electric combi hotplates is done by several fixing points. Firstly, screw the pendulum bolts with their emergency links into the steel threads on the underside of the all-aluminium heating plate. These serve to attach the heating plates to the present table later.
 - Then the stud bolts are screwed into the central steel threads. Now the insulating and pressure plate with the insulating layer is placed on top of the heating plate. After aligning the two plates to each other, the sleeves are driven through the milled holes of the insulating pressure plate over the stud bolts.
 - The slot of the sleeves must point in the longitudinal direction of the plates to

ensure that the aluminium heating plate can expand.

- Now push one spring over each stud bolt and tension it with the guide nut and a washer. The guide nut must be screwed on with the full length of the thread so that it no longer protrudes over the insulating pressure plate, as this would destroy the heating plate during later installation.

11.If a heating plate is replaced due to an electrical short-circuit inside the heating plate, make sure that the complete current path of the heating plate from the terminal strip via the control contactor etc. is checked. The short-circuit could possibly cause a control contactor to "stick" and cause a malfunction of your Pres-se.

12.If only the upper heating plate must be replaced, it is recommended to place a cover on the functioning lower heating plate when removing the

defective heating plate and when installing the new heating plate, in order not to damage it when replacing the upper heating plate.

Fig.2.1 Cross-section through electric combi hotplate

Befestigungspunkt "C"
Fixing point "C"

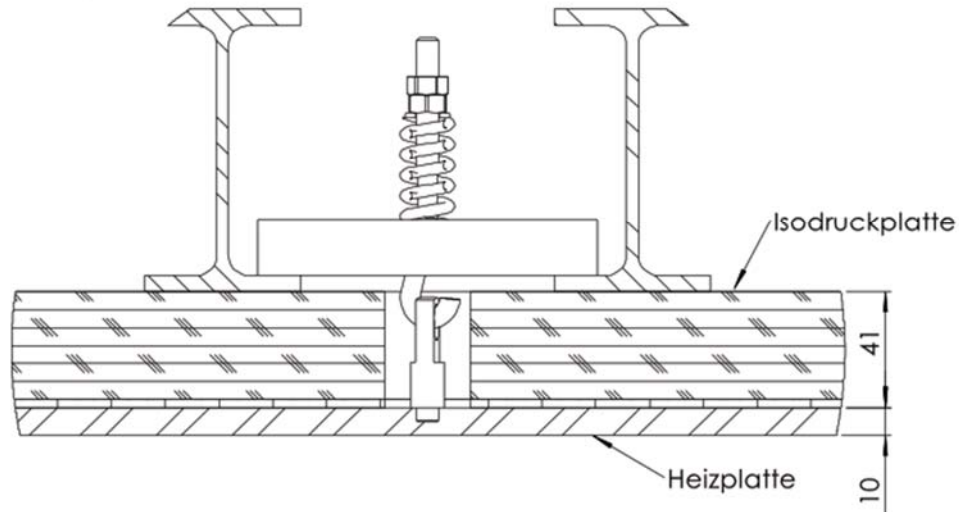
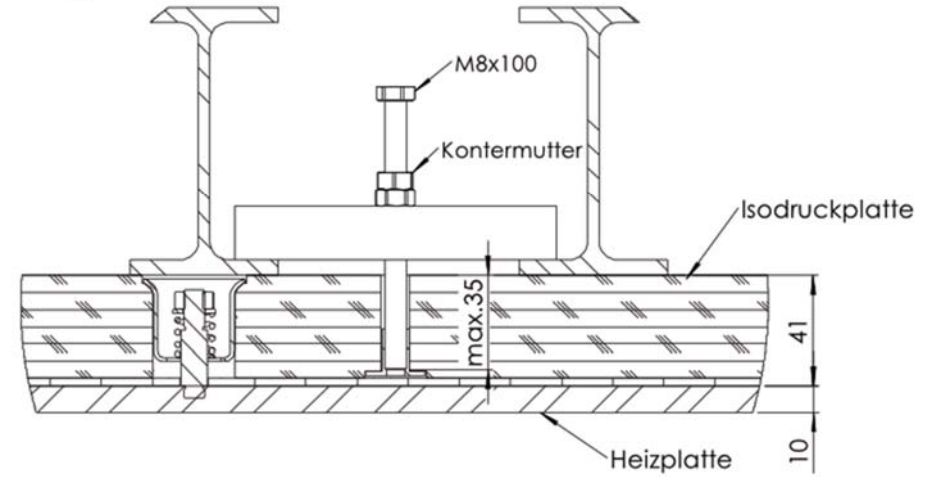


Fig.2.2 Cross-section through electric combi hotplate

Befestigungspunkt "D"
Fixing Point "D"



Instructions for avoiding and rectifying faults on electric hotplates:

We strive to make the operation of your hotplate press with electric hotplates as easy as possible. If you observe the following instructions, you can expect trouble-free operation.

- The electric heating plate must not be operated unattended. If the temperature control fails, uncontrolled temperatures may occur which, under unfavourable circumstances, may lead to fire.
- The insulation plate supplied is selected to meet the temperature requirements of the electric hotplate. If the insulation is provided by you, make absolutely sure that the insulation is appropriate for the temperatures of the heating plates. If inferior insulation is selected, there is a risk of fire.

- The maximum operating temperatures must be observed. For standard electric heating plates, the maximum working temperature is limited to 130° C. In the case of custom-made products that are suitable for higher temperatures due to their design, the individually specified maximum operating temperature must not be exceeded.
- When connecting the electric heating plate to the power supply, it is essential to ensure that the plate is connected to the voltage that is stamped into the product. This information can be found on the edge of the heating plate, next to the electrical connection box, or on the temperature scale of the contact controller.

Pressing surfaces

- The pressing surfaces of the glued, surface-mounted heating plate are free of rivets and screws and can therefore be designed for individual pressings and push-throughs up to the edge. For series work, the edge strip of 4 - 5 cm should

not be used. Unsupported centre panels are glued with pre-stressed bends, the support flaps at the four corners of the panel are additionally riveted; this area is not intended for pressing.

Heating up

- Heating is carried out with the press closed and depressurised. After reaching the working temperature, pressing can be carried out at the highest permissible pressure.

Design

- The heating power of electric heating plates is distributed evenly over the entire surface, and therefore the same temperature is maintained everywhere, provided that the heat is also absorbed evenly over the entire surface by the material being pressed. If, due to unfavourable dimensions, the surface area cannot be designed to cover 70 - 80 % of the series pressing, corresponding dummy pieces must be added, which must also be exchanged for cooling.

Temperature measurements

- The temperature is measured by means of sensors inserted 30 cm from the front of the panels. It is essential to ensure that the working area extends over the sensor, otherwise replaceable blanking pieces must be enclosed. The thermostat sensors must be screwed into the plates and must not be interchanged.

Pressure

- The maximum permissible specific pressure indicated on the press must not be exceeded. For hollow bodies, e.g. doors, only the effective frame width may be used for pressure dimensioning.

Electric heating panels are well-engineered products and therefore very reliable and safe to operate. However, if minor malfunctions should occur, please observe the following instructions:

FAULT	CAUSES
Panel overheats or does not get warm	Thermostat or contactor is defective - Fuses have blown.
Panel heats up unevenly	Check fuses, a phase is missing, or panel is unevenly rated.
Panel is strained	High temperature differences - see point 2.

Accessoires

To eliminate the need for release agents, we offer a PET film >Busse prosheet one<. This polyester film is glue-repellent and can be retrofitted to any heating plate.

Before installing the film, the surfaces of the heating plate must be cleaned of all glue residues - this is best done with warm water. It is important to ensure that the pressing surfaces are absolutely clean, as glue residues attack and destroy the film.

For assembly, the PET blanks for the top and bottom panels are placed in the open press. Then the press is closed and the polyester film is fixed by means of the aluminium edge profiles of the Iso pressure plate.

When the heating plates are heated for the first time, the >Busse prosheet one< stretches and lies absolutely flat against the heating plates - the press is ready for use again.

WARRANTY CARD

We guarantee your Busse quality brand product from the day of delivery, as evidenced by the invoice or delivery note from the supplier.

6 MONTHS WARRANTY

We will repair free of charge any damage that we determine to be caused by manufacturing faults.

For the repair to be carried out in accordance with the applicable regulations, the product must be sent to the factory carriage paid.

We do not accept any liability for damage caused by the following reasons: Unsuitable or improper use, modifications or repair work carried out without our prior consent, faulty assembly or commissioning by the customer or third parties, natural wear and tear and faulty or negligent handling.