Hot-pressing device PF-100S

The PF-100S is a hot-pressing device for Flexproof joining of Habasit belts and tapes up to a width of 100 mm / 4 in. and a thickness of 2.5 mm / 0.10 in.. The lower press plate is heated and is equipped with a integrated overheating fuse and temperature regulator. Its knuckle joint mechanism allows easy adjustment for different belt thicknesses. Together with the integrated pressure equalization pad, it ensures reliable hot pressing of fusion joints.

The PF-100S hot-pressing device is equally well suited for workshop use and on-site installations.
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☐ Checklist preventive maintenance:
☐ Report sheet preventive maintenance
☐ Product Liability
1. General information

1.1 Application

The hot-pressing device PF-100S was specifically designed for the rapid and safe hot pressing of Habasit driving and conveyor belts using the Flexproof procedure. The belts/tapes can be up to 100 mm / 4 inches wide. The maximum belt thickness is 2.5 mm / 0.10 inches. The press is suitable for both stationary and portable use.

The PF-100S hot-pressing device was developed solely for the purposes described in the operating instructions. Improper use, or use for other reasons than those described in the instructions, is not permissible. Habasit accepts no liability for the consequences of improper application.

The hot-pressing device PF-100S is manufactured according to recognized engineering principles and state-of-the-art technology, and complies with applicable regulations.

These operating instructions imply that all assembly, maintenance, and repair work, as well as operation of the press, be carried out by skilled personnel or monitored by responsible specialists.

For reasons of scope, these instructions cannot cover all possible aspects of operation, maintenance, or repair. The indications given herein refer to the use of the machines according to their designated purpose by skilled personnel.

In case of doubt or if further detailed information is required, please consult the manufacturer (Chapter 1.4).

1.2 Important safety terms

In these operating instructions, you will find the terms WARNING, CAUTION, and INDICATION. They signal dangers or special information to be borne in mind.

**WARNING**
If disregarded, there is a danger of severe injury, and/or severe material damage.

**CAUTION**
If disregarded, there is a danger of injury, and/or material damage may be caused.

**INDICATION**
Technical information is emphasized if it is important and not readily apparent, even for skilled personnel.

Please observe all indications for assembling, operating, and maintaining the machines, as well as all technical data! This will prevent possible trouble and/or damage to people or materials.

**Skilled personnel** refer to persons authorized to perform the required work. These people have been sufficiently trained and introduced to their field of activity so that they are able to recognize and prevent dangers. They are aware of the pertinent provisions and safety regulations.

1.3 Scope of supply

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PF-100S hot-pressing device packed in a carton box, with</td>
</tr>
<tr>
<td>1</td>
<td>Operating instructions</td>
</tr>
</tbody>
</table>
1.3.1 Available accessories

- Temperature measuring device (N-28714 or N-28715) for checking the pressing temperature
- Guide rails of fixed width, including covering plate
  - 60 mm / 2.4 in.  
  - 80 mm / 3.2 in.  
  - 100 mm / 4.0 in.
- Metal clamps (2 pieces)

<table>
<thead>
<tr>
<th>Width</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 mm</td>
<td>672224</td>
</tr>
<tr>
<td>80 mm</td>
<td>672222</td>
</tr>
<tr>
<td>100 mm</td>
<td>672220</td>
</tr>
</tbody>
</table>

**WARNING** Use only Habasit guide rails. Particularly the use of metallic guide rails is not admissible, it may destroy the hot-pressing device.

1.4 Ordering of accessories/spare parts

Spare parts and accessories can be ordered directly from the manufacturer.

Address: Habasit Italiana S.p.A.  
Via A. Meucci 8, Zona Industriale  
I-31029 Vittorio Veneto/TV  
Tel. ++39 438 91 13  
Fax ++39 438 91 2374

Please accurately describe the parts required.  
State the numbers according to Section 8, Drawings.

**WARNING** The use of parts by other manufacturers not meeting Habasit specifications is not admissible.  
Habasit declines all responsibility for the consequences if non-Habasit parts are used.

1.5 Warranty

All tools undergo a strict final inspection. On the assumption of correct handling, they are warranted against material and manufacturing defects for 1 year.

1.6 Technical advice

Our specialists will be pleased to advise you. For technical questions concerning function and condition of the hot-pressing device, please contact the manufacturer (see Chapter 1.4 for the address).
2. Mode of operation

The hot-pressing device PF-100S operates at a pressing temperature of 190 °C / 374 °F, preset at the factory. The press can be adjusted according to the belt/tape thickness. Its closing mechanism functions on the knuckle joint principle.

The exchangeable heating plate with integrated overheating fuse and temperature regulator (thermostat) is located in the bottom part (4) of the pressing device. A lamp (LED) in the lower handle indicates that the hot-pressing device is operating.

3. Initial start-up

- Check to make sure that the voltage indicated on the rating plate (7) conforms to the electrical connection voltage.
- Check to make sure that the metal pressing plates are clean.
- Check temperature of the heating plate. The temperature is preset at the factory at 190 °C / 374 °F. If a lower temperature is required, the temperature regulator can be adjusted accordingly (see 5.1, Measuring of the plate temperature).

**INDICATION** For safe operation, the signal lamp (11) must face to the left side (cable connection to lower handle) and adjusting knob (5) is on top.

- For stationary operation, place hot-pressing device PF-100S on a solid and heat-resistant support.
- For safe operation, the hot-pressing device can be screw mounted to a bench/frame. Threaded holes M6 (9) are located on the underside of the bottom part (4) of the press.

**WARNING** Do not suspend the hot-pressing device from its cable! When not in use, place the hot-pressing device on a level surface with the marked face upwards.
4. Hot-pressing of belt/tape

Process: Flexproof guidelines 3225 and individual product datasheets

- By raising the upper handle (6), unlatch the clamp clip (1) and let the press plate (3) rest on the heating plate (2).
- Plug in electrical connecting cable and preheat hot-pressing device. The preheating time is approx. 10 minutes. The control-LED (11) extinguishes when the preset temperature is reached.
- Flip up top part of press (5) to open pressing device.

| WARNING | Do not touch the hot-pressing zone.  
Keep device away from water and meltable substances. |

- Place guide rail with inserted, prepared belt/tape ends into the hot-pressing device, as described in the corresponding manual (also refer to chapter 9).
- Flip down top part of press (3). By raising the upper handle (6), latch clamp clip (1) into catch bracket. With adjusting knob (5), line up the hinge arms of the upper handle (6) flush with the hinge arms of the clamp clip (1) – see Ill. 2 (A).
- Tension the press plate by pushing down the upper handle (6). In tight space conditions in mobile applications, the top part of the press (3) can be removed by pulling out the hinge pin (8) and then be put back horizontally over the bottom part of the press for tensioning and hot pressing.
- Observe the pressing time. Leave pressing device plugged in until hot-pressing process is completed.
- After completion of the hot-pressing process, pull out the electrical connecting plug. Open pressing device (as described above), take out the guide rail with the belt/tape, and let cool for a few minutes.

| WARNING | Use gloves! Do not touch hot press parts with unprotected hands! |

| WARNING | After use, disconnect the hot-pressing device from the power supply and allow it to cool completely before storing it. |
5. Service

5.1 Maintenance

☐ Keep the hot-pressing device clean at all times. Clean the pressing plates regularly and remove all material residues.

| WARNING | For cleaning with a cloth moistened with water or solvent, the press must be disconnected from the power supply. Do not reconnect to the power supply until the press is completely dry. |

☐ Periodically inspect the power supply cable and connector plug for defects (insulation damage, etc.) and rectify or replace with the correct type where necessary.

5.2 Measuring of the plate temperature

Check the operating temperature of the hot-pressing device once a month.

☐ Carry out this check in an interior room in a draft-free environment with an ambient temperature of between 18 °C / 64 °F and 25 °C / 77 °F

☐ Place the temperature sensor of a measuring device between the heating plate (2) and the not-tensioned top part of the press (utilize only the weight of the press upper part itself).

☐ Heat up press for at least 10 minutes.

☐ The operating temperature is reached when the temperature regulator switches off and on in intervals, whereby the control-LED (11) extinguishes and illuminates again.

☐ The temperature measuring device should not deviate by more than ± 5 °C / ± 9 °F from 190 °C / 374 °F.

☐ If this is not the case, the temperature regulator has to be adjusted. See 5.2, Adjusting of the temperature regulator.
5.3 Adjusting of the temperature regulator

The maximum plate temperature of 190 °C / 374 °F, preset at the factory, must not be exceeded by more than ± 5 °C / ± 9 °F from 190 °C / 374 °F. It can therefore only be adjusted with a precision temperature measuring device (see 1.3.1, Available accessories).

| WARNING | All work on the hot-pressing device involving electrical parts has to be carried out by the respective specialists only. Observe your local laws concerning required training of such personnel. |

- Remove cover disk (10) on the underside of the bottom part (4) of the pressing device.
- Move adjustment potentiometer of the heating control, using an insulated screwdriver, by slightly turning:
  - clockwise: temperature will rise,
  - counterclockwise: temperature will drop.
- After 5 minutes, measure plate temperature to check as described above.
- Proceed carefully and adjust gradually. Observe temperature change.
- Re-install potentiometer cover disk (10).

| CAUTION | Make sure not to let the temperature rise above 195 °C / 383 °F during adjustment. Excessive temperatures may damage the hot-pressing device or blow the integrated thermo fuse (P-893000). |

5.4 Replacement of the power cord

Check power cord periodically. In case of damage, replace with the same type (H05-RNF). To make sure only skilled staff will carry out this repair, special tools are required for this operation.

| WARNING | All work on the hot-pressing device involving electrical parts has to be carried out by the respective specialists only. Observe your local laws concerning required training of such personnel. |
6. Illustrations

Legend:
1. Clamp clip
2. Heating plate
3. Top part of press
4. Bottom part of press
5. Adjusting knob
6. Upper handle
7. Rating plate
8. Hinge pin
Legend:

9  Fastening threads
10  Cover disk
11  LED
### 7. Technical data

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. belt width [mm] [in.]</td>
<td>100 4.0</td>
</tr>
<tr>
<td>Belt/tape thickness max. [mm] [in.]</td>
<td>2.5 0.10</td>
</tr>
<tr>
<td>Min. endless belt/tape length [mm] [in.]</td>
<td>400 16</td>
</tr>
<tr>
<td>Max. deviation of plate temperature [°C] [°F]</td>
<td>±5 ±9</td>
</tr>
<tr>
<td>Heating up time to 190 °C / 374 °F [min.]</td>
<td>10</td>
</tr>
<tr>
<td>Power consumption [W]</td>
<td>1 x 150</td>
</tr>
<tr>
<td>Voltage [V~]</td>
<td>230 (PF-100S/8) or 120 (PF-100S/6)</td>
</tr>
<tr>
<td>Dimensions (L x W x H) [mm] [in.]</td>
<td>285 x 102 x 102 11 x 4 x 4</td>
</tr>
<tr>
<td>Net weight [kg] [lbs.]</td>
<td>2 4.4</td>
</tr>
</tbody>
</table>
8. Drawings

8.1 Electrical connection

120 V ~
Electric voltage
Anschluss-Spannung
Tension électrique
Tensione elettrica
Tensión nominal

150 W

230 V ~
Electric voltage
Anschluss-Spannung
Tension électrique
Tensione elettrica
Tensión nominal

yellow-green / gelb-gruen / jaune-vert
giallo-verde / amarillo-verde

blue / blau / bleu
blu / azul

brown / braun / brun
marrone / marrón

green / gruen / vert
verde / verde

white / weiss / blanc
bianco / blanco

black / schwarz / noir
nero / negro
8.2 Assembly drawing and spares numbers
9. **Required accessories**

9.1 **Guide rails, clamps**

- These accessories are necessary for producing perfect fusion joints. The width and numbers of guide rails to be used will depend on the width of the tape used and the requirements of the machine/installation.

- Once the tape ends have been inserted into the corresponding guide rail of fixed width and fixed in place with the covering plate, four clamps are applied at an angle so as to prevent the tape from shifting during the hot-pressing process.

- Place the guide rail in the precise center of the open hot-pressing device. This assures uniform distribution of the heat to guide rail and joining area.
<table>
<thead>
<tr>
<th>Work to be carried out</th>
<th>Performance periodically (monthly)</th>
<th>Spares number</th>
<th>Evaluation criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(see operating instructions No. 3630 for further information and reference numbers)</td>
<td>Daily</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Cleaning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Clean the press after use, remove residual deposits</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Inspect the connector cable</strong></td>
<td>B</td>
<td></td>
<td>damaged insulation, defective couplings</td>
</tr>
<tr>
<td>2.1 Examine the cable and connector plug for defects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Measurement of the heater plate temperature</strong></td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Proceed as detailed in operating instructions 3630, Section 5.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks and notes:
Machine type: 

Machine no.: 

Date of first placing in operation: 

<table>
<thead>
<tr>
<th>Actions to be performed – see checklist (daily work not recorded)</th>
<th>Next Check</th>
<th>Performed Initials</th>
<th>Date</th>
<th>Next Check</th>
<th>Performed Initials</th>
<th>Date</th>
<th>Next Check</th>
<th>Performed Initials</th>
<th>Date</th>
<th>Next Check</th>
<th>Performed Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Inspect the cable for damage</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3.1 Measure the heater plate temperature</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

Observations, repairs:
Product liability, application considerations

If the proper selection and application of Habasit products are not recommended by an authorized Habasit sales specialist, the selection and application of Habasit products, including the related area of product safety, are the responsibility of the customer.

All indications / information are recommendations and believed to be reliable, but no representations, guarantees, or warranties of any kind are made as to their accuracy or suitability for particular applications. The data provided herein are based on laboratory work with small-scale test equipment, running at standard conditions, and do not necessarily match product performance in industrial use. New knowledge and experiences can lead to modifications and changes within a short time without prior notice.

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