

Hot-pressing device PT-55



The PT-55 is a hot-pressing device designed for the joining of Habasit machine and spindle tapes up to 50 mm / 2 in. wide and 2.5 mm / 0.1 in. thick by way of the Thermofix procedure.

The maximum possible skiving length is 35 mm.

With guide rails in the width appropriate to the application and the possibility of connecting the hot press to between 110 und 240 V, the PT-55 offers an extremely flexible joining system.

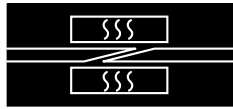


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- Checklist; preventive maintenance
- Report sheet for preventive maintenance
- Product liability, application considerations



1. General information

1.1 Application

Hot-pressing device PT-55 was specifically designed for the rapid and safe hot-pressing of Thermofix joints for Habasit belts and tapes up to a width of 50 mm / 2 in. (right-angle skiving, 90°). With 75° joining angle, a belt width of up to 45 mm / 1.8 in is possible (without guide rail).

The maximum belt thickness is 2.5 mm / 0.10 in..

The PT-55 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 PT-55 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.

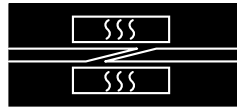
WARNING If disregarded, there is a danger of severe injury, and/or severe material damage.

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

Qty.	Item
1	PT-55 hot-pressing device packed in a carton box
1	Operating instructions

1.3.1 Available accessories

Also refer to chapter 9.

• Guide rails of fixed width, inclusive of covering plate:			
6 mm	(672006)	3/8"	(672113)
8 mm	(672008)		
10 mm	(672010)	1/2"	(672101)
11 mm	(672011)	5/8"	(672114)
12 mm	(672012)		
13 mm	(672013)		
14 mm	(672014)	3/4"	(672102)
15 mm	(672015)	7/8"	(672109)
16 mm	(672016)	1"	(672103)
18 mm	(672018)	1 1/8"	(672110)
20 mm	(672020)	1 1/4"	(672104)
22 mm	(672022)	1 3/8"	(672105)
25 mm	(672025)	1 1/2"	(672106)
30 mm	(672030)	1 5/8"	(672111)
35 mm	(672035)	1 3/4 "	(672107)
40 mm	(672040)	1 7/8 "	(672112)
50 mm	(672050)	2"	(672108)

and 2 metal clamps (672202) for each guide rail

WARNING	Use only Habasit guide rails. Particularly the use of metallic guide rails is not admissible, it may destroy the hot-pressing device.
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- Skiving tool AT-60 (690050)
- Skiving tool AT-200 (690160)
- Temperature measuring device (N-28714 or N-28715) for checking the pressing temperature



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 8.1, Drawings – Assembly of press.

WARNING

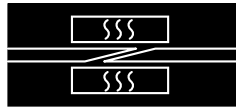
The use of parts by other manufacturers not meeting Habasit specifications is not admissible.
Habasit declines all responsibility for the consequences if non-Habasit parts are used.

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 PT-55 hot-pressing device functions on the pressing pliers principle: Strong pressure applied to the two handles opens the heating plates, which are pressed against one another by spring pressure.

The hot-pressing device PT-55 operates at a pressing temperature of 120 °C / 248 °F, preset at the factory.

The temperature of the heating plates is monitored by a special, self-regulating heating device monitor. Each heating plate has one replaceable electric heating device.

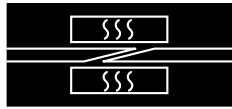
A lamp in the handle indicates that the hot-pressing device is operating.

3. Initial start-up

- The PT-55 can be operated at any power supply voltage between 110 and 240 V.
- Check to make sure that the voltage indicated on the rating plate (4) conforms to the electrical connection voltage.
- Check to make sure that the metal heating plates (3) are clean.

INDICATION	For safe operation, the marked handle (1) with the signal lamp (6) must face upwards (cable connection to top handle).
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WARNING	Do not suspend the hot-pressing device from its cable! During pauses in work, place the hot-pressing device on a level surface with the marked face upwards.
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4. Hot-pressing of belts / tapes

Process: Thermofix guidelines 3210 and individual product datasheets.

4.1. Hot-pressing without guide rail

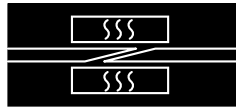
- Plug in the connector cable and preheat the hot-pressing device. Depending upon the power supply voltage, the preheating time will be approx. 12 (230 V) or 14 minutes (120 V). The signal lamp (6) lights up while the hot-pressing device is connected.

WARNING	Do not touch the hot-pressing zone (2). Keep away from water and meltable substances.
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- Apply adhesive(s) to the prepared (skived) belt/tape ends.
- Place the belt/tape ends over one another and join them together cold.
- Open the hot-pressing device by pressing together the handles (5) and place the prepared belt/tape ends in the hot-pressing device as described in the guidelines.
- Close the hot-pressing device. Make sure that the belt/tape is centered in the hot-pressing device in order to ensure even pressure distribution.
- When the prescribed pressing time has expired, remove the belt/tape and allow to cool.
- Clean the heating plates (3) immediately after each use.

INDICATION	To protect heating plates from contamination, it is recommended to place a piece of paper on each side of the belt/tape.
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WARNING	After use, disconnect the hot-pressing device from the power supply and allow it to cool completely before storing it.
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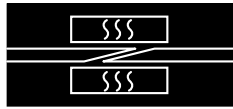
4.2. Hot-pressing with guide rail

- ❑ Plug in the connector cable and preheat the hot-pressing device. Depending upon the power supply voltage, the preheating time will be approx. 12 (230 V) or 14 minutes (120 V). The signal lamp (6) lights up while the hot-pressing device is connected.

WARNING	Do not touch the hot-pressing zone (2). Keep away from water and meltable substances.
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- ❑ Apply adhesive(s) to the prepared (skived) belt/tape ends.
- ❑ Place the belt/tape ends on top of one another and in the center of the appropriate guide rail. Pay attention to the marked lines (see also section 9).
- ❑ Place the covering plate in a position slightly offset (to assist in removal after pressing) and mount the fixing clamps.
- ❑ Open the hot-pressing device by pressing together the handles (5) and place the guide rail in the hot-pressing device with the prepared belt/tape ends in position.
- ❑ Close the hot-pressing device. Make sure that the belt/tape is centered in the hot-pressing device in order to ensure even pressure distribution.
- ❑ When the prescribed pressing time has expired, remove the guide rail with the bonded belt/tape and allow it to cool for a few minutes.

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

5.1 Maintenance

- Keep the hot-pressing device clean at all times. Clean the heating plates (3) 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
- Clamp sensor of temperature gauge between the heating plates (3). Both plates are thus measured jointly. → ill. (1)
- Heat up press for at least 15 minutes.
- The temperature measuring device should indicate 120 °C ± 10 °C / 248 °F ± 18 °F. → ill. (2)

**Illustration 1****Illustration 2**



5.3 Remedial action in the case of a temperature deviation

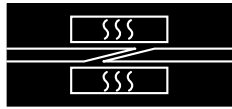
WARNING	All work on the hot-pressing device involving electrical parts has to be carried out by the respective specialists only. Observe your local laws about required training of such personnel.
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If the temperature deviates from a maximum value of 130 °C / 266 °F or a minimum value of 110 °C / 230 °F, the heating elements are defective and must be replaced.

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 do 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 about required training of such personnel.
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6. Illustrations

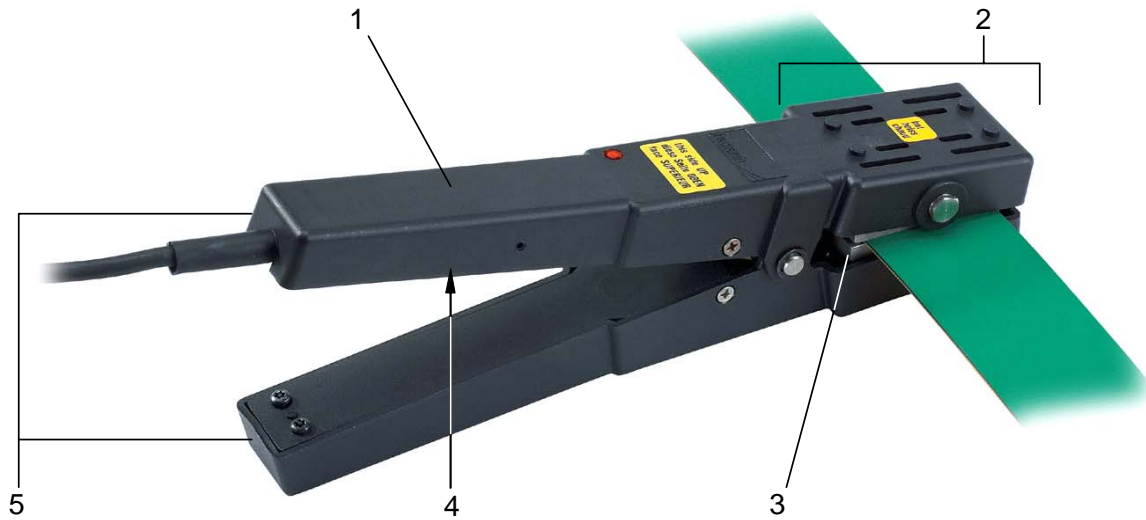


Illustration 3

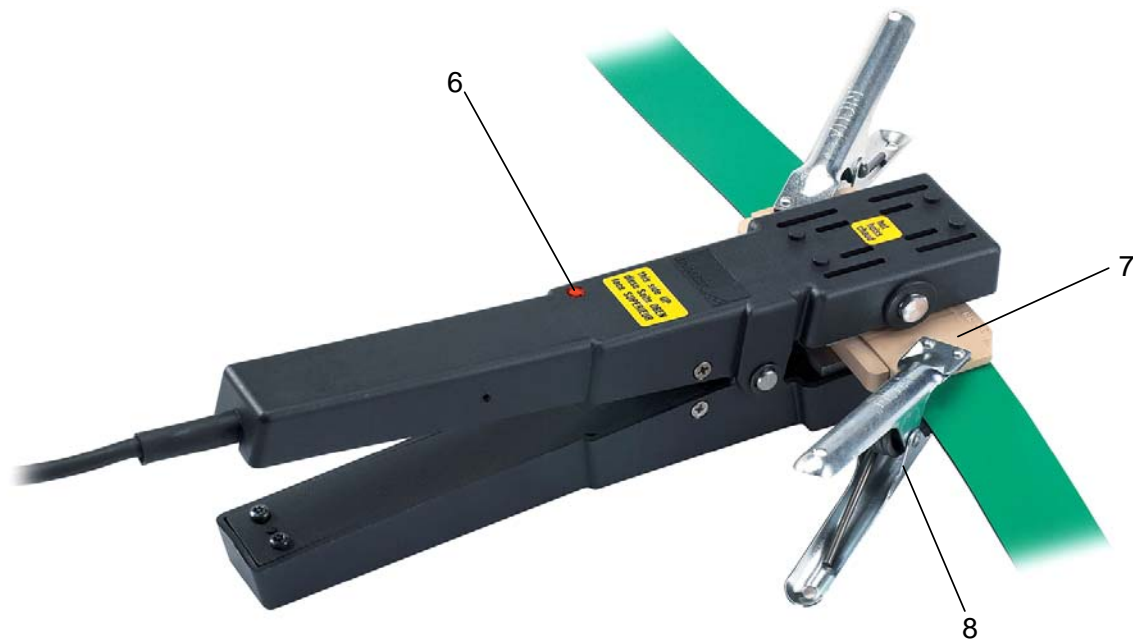


Illustration 4

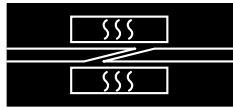
Legend illustration 3 and 4

- | | | | |
|---|-------------------------------------|---|------------------------|
| 1 | Top side of the hot-pressing device | 5 | Heat insulated handles |
| 2 | Hot-pressing zone | 6 | Signal Lamp |
| 3 | Pivoting metal heating plates | 7 | Guide rail |
| 4 | Rating plate | 8 | Metal clamp |



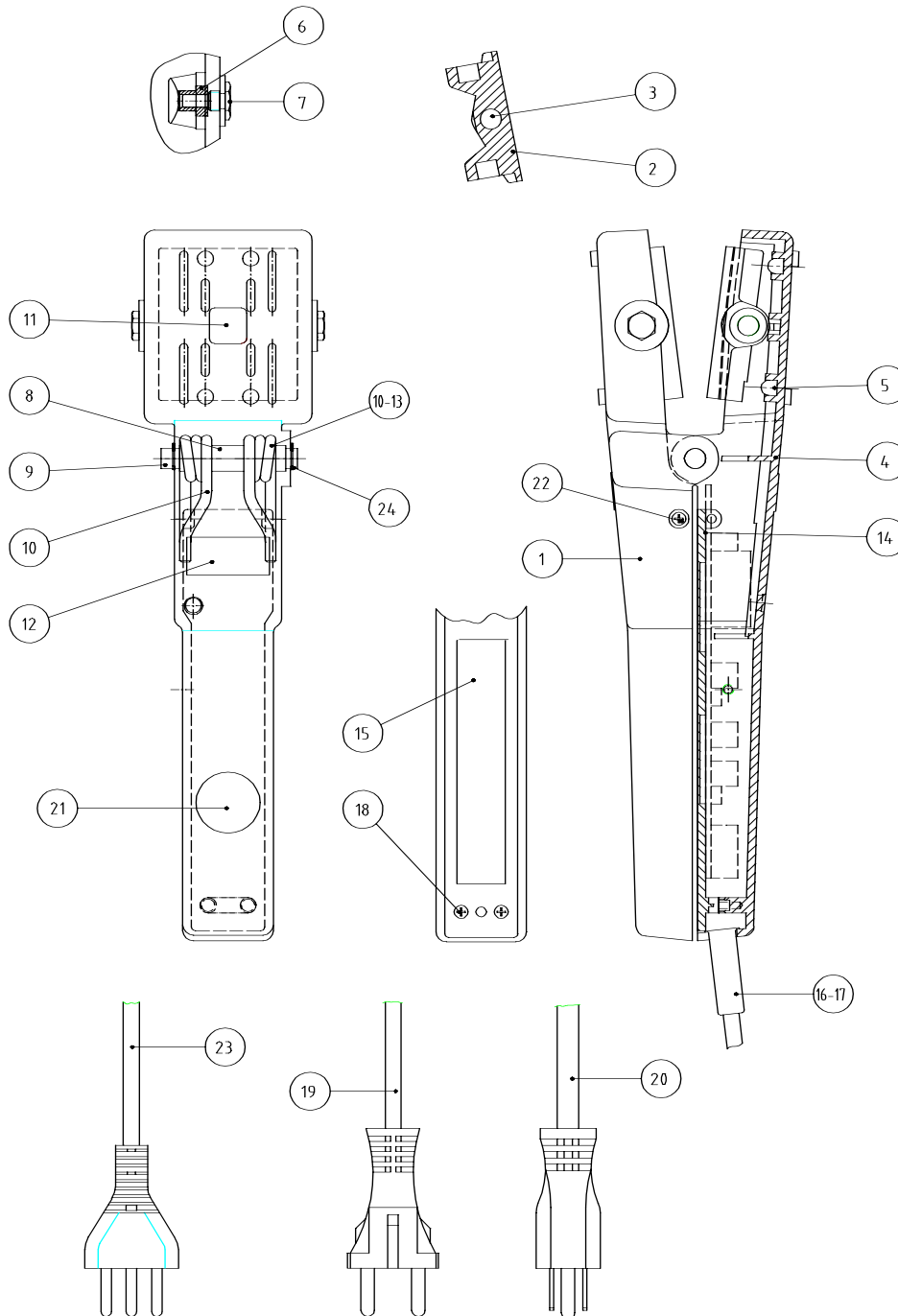
7. Technical data

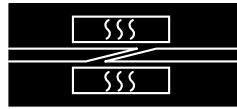
Max. belt/tape width [mm] [<i>in.</i>] at 90° skiving angle	50	2.0
Max. belt/tape width [mm] [<i>in.</i>] at 75° skiving angle	45	1.8
Belt/tape thickness [mm] [<i>in.</i>]	2.5	0.10
Max. skiving length [mm] [<i>in.</i>]	35	1.4
Min. continuous belt/tape length [mm] [<i>in.</i>] without guide rail	250	10
Guide rail with fixed width	280	11.2
Guide rail with adjustable width	300	12
Max. deviation of plate temperature [°C] [<i>°F</i>]	± 10	± 18
Heating up time to 120 °C / 248 °F [min.]	14 at 120 V	
Heating up time to 120 °C / 248 °F [min.]	12 at 230 V	
Power consumption [W]	2 x 75	
Voltage [V~]	110 ... 240	
Dimensions (L x W x H) [mm] [<i>in.</i>]	280 x 63 x 95	11.2 x 2.5 x 3.75
Net weight [kg] [<i>lbs.</i>]	0.715	1.6



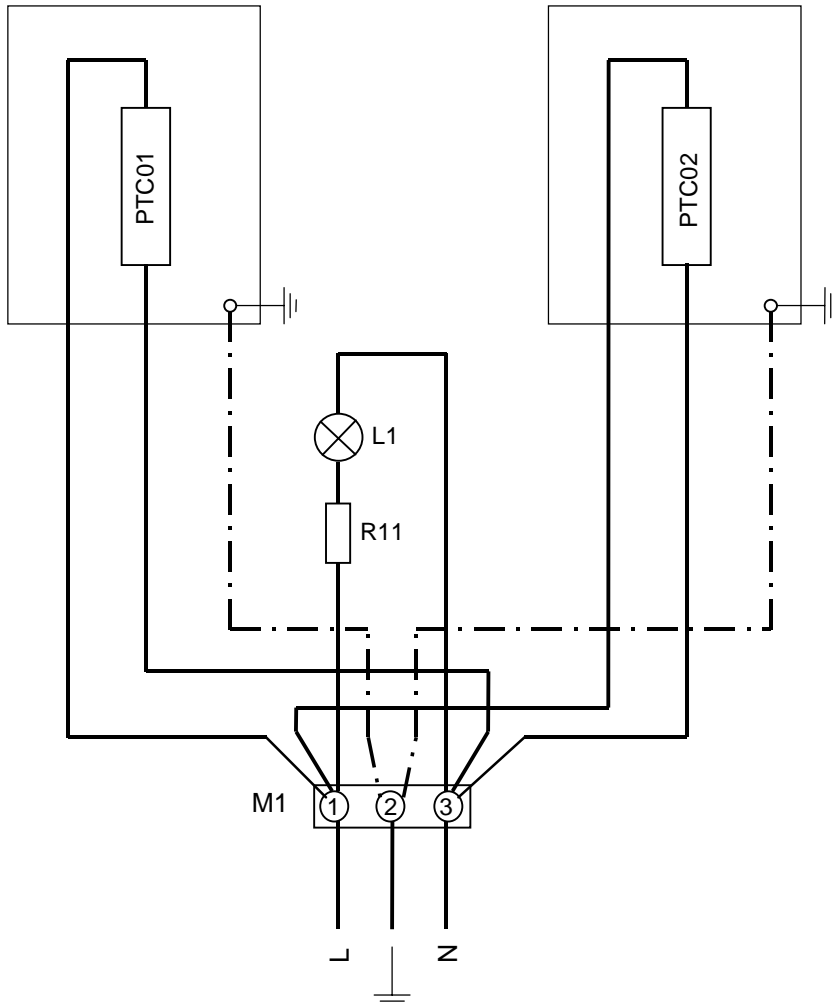
8. Drawings

8.1 Assembly of press





8.2 Circuit diagram

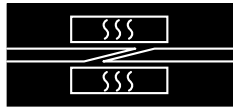


With **EURO**-connector plug:

L) = brown
Ground = yellow-green
N) = blue

With **US**-connector plug:

L) = black
Ground = green
N) = white



9. Accessories

9.1 Guide rails, clamps

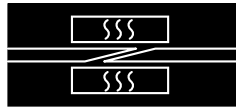
- ❑ These accessories are supportive in order to obtain good Thermofix joints. Width and number of necessary guide rails depend upon the belt width and the requirements of the machine or device.
- ❑ After placing the belt ends in the appropriate guide rail with fixed width → Ill. (5) and locking with the covering plate, the two clamps are mounted in the angle to ensure that the belt cannot be moved during the hot-pressing process.
- ❑ Place the guide rail exactly in the center of the hot-pressing device and then close the device. → Ill. (6). This guarantees a uniform distribution of heat over the rail and the joint.



Illustration 5



Illustration 6



9.3 Preparing devices

9.3.1 Manual skiving tool AT-60

The AT-60 is a preparing device for skiving of Habasit belts and tapes up to a width of 60 mm / 2.4 in. and a thickness of 2 mm / 0.08 in.. The belt / tape is clamped and stuck on a steel plate. It is ground manually by means of a skiving disc. Adjustment is done with two different settings.

The AT-60 is especially suitable for occasional preparation of single belts or spindle tapes on site in maintenance. → ill. (7)

9.3.2 Skiving tool AT-200

The AT-200 is a preparing device for skiving of Habasit belts and tapes up to a width of 200 mm and a thickness of 7 mm. The belt is clamped and stuck on a steel table. This table is adjustable in tilt in six steps; it is fed under a grinding drum on precise guides. For the drive of the unit there are two options: The device equipped with a high-torque power drill, or with a stub axle to be driven / motorized according to the desires of the customer. Feed of the table is by means of a hand wheel.

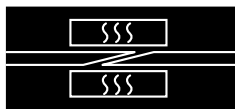
The AT-200 is suitable for preparation of belts and tapes in small to medium series. → ill. (8)



Illustration 7



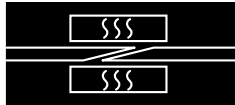
Illustration 8



Responsible persons: A: Machine Operator
 B: Maintenance Technician

Work to be carried out (see operating instructions No. 36001 for further information and reference numbers)	Daily	Performance periodically (monthly)		Remarks	Spares number Evaluation criterion
		1	6		
1. Cleaning					
1.1 Clean the press after use, remove residual deposits	A				
2. Inspect the connector cable					
2.1 Examine the cable and connector plug for defects		B			damaged insulation, defective couplings
3. Measurement of the heater plate temperature					
3.1 Proceed as detailed in operating instructions 36001, Section 5.2		B			

Remarks and notes:



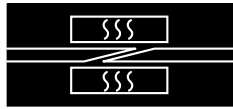
Machine type:

Machine no.:

Date of first placing in operation:

Actions to be performed – see checklist (daily work not recorded)	Next	Performed		Next	Performed		Next	Performed		Next	Performed	
	Check	Initials	Date	Check	Initials	Date	Check	Initials	Date	Check	Initials	Date
2.1 Inspect the cable for damage												
3.1 Measure the heater plate temperature												

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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