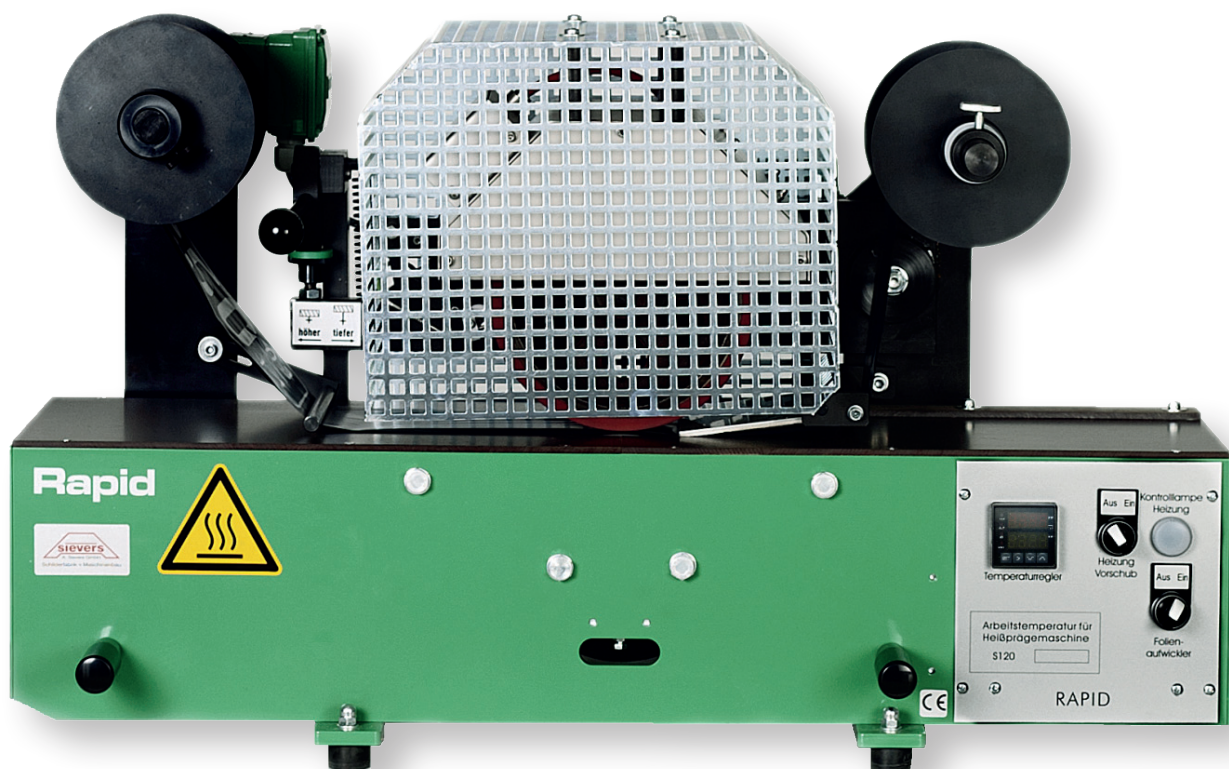


LICENSE PLATES • MACHINES • TOOLS • SERVICE

Hot Stamping Machine S 120

User manual



sievers
Schilderfabrik + Maschinenbau

Notices and exclusion of liability

This user manual will show you the proper and safe use of the S 120 Hot Stamping Machine from A. Sievers GmbH. A. Sievers GmbH assumes no responsibility for improper use of the machine.

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Please read this manual through carefully before using the machine and, in particular, observe the danger and safety notices.

Symbols



Hazard warning



Hot surface warning



High voltage warning

Service

Our team is available for further information during our business hours.

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For **technical questions**, please contact our technical team.

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Business hours:

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Friday	8.00 a.m. – 2.00 p.m.

Table of Contents

1. Safety and danger notices	4
1.1 Basics for using the hot stamping system	4
1.2 Danger notices	4
2. Set-up and connection	5
2.1 Set-up	5
2.2 Electrical connection	5
3. Components	6
3.1 Front view	6
3.2 Back view	7
3.3 Embossing roller with heating cover	8
3.4 Electrical control box	8
4. Commissioning	9
4.1 Setting of the embossing-pressure	9
4.2 Adjustment of the heating system	9
4.3 Adjustment of the divert-system	9
5. Hot stamping	10
5.1 Foil change	10
6. Maintenance	11
6.1 Exchange of Hot Stamping Wheel	11
7. Technical data	12
7.1 Technical data Hot Stamping Foil	12
7.2 Technical data Hot Stamping Machine S120	12
8. Circuit diagram	13
9. Terminal diagram	14

1. Safety and danger notices

The machine is equipped with a heating module cover ex works. This cover may not be removed during operation. For repair or maintenance work, the cover may be removed briefly.

After the end of the work, this must be re-installed properly.

Warning:

Repair and maintenance work, in particularly on electrical components, may only be carried out by a service technician from A. Sievers GmbH or a specialized electrical company.

1.1 Basics for using the hot stamping system

- For production at room temperature, not below 20°C.
- No large temperature variations or cold drafts.
- Keep the plate surface clean. No dust!
- Do not work with oily, wet, or dirty hands.
- Use only plates with reflective foil in accordance with DIN 74069 or colourful FUN foil that is capable of being heated.

Warning:

If the necessary operating temperature cannot be reached, the connection of the rolled foil with the reflective foil (or the FUN foil) is not guaranteed.

The hot-stamping wheel must be heated thoroughly **for approximately 30 minutes!**

1.2 Danger notices

The following dangers can arise from use of the machine:

- Burning from the hot stamping wheel, as these can heat up to 200°C.
- Crushing through inattentive work on the machine, in particular between the stamping wheel and the back pressure wheel.
- Cuts due to sharp edges on the embossing plates.



2. Set-up and connection

2.1 Set-up

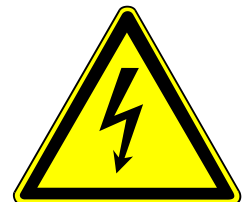
In general, the machine must be set up in a room with a low dust factor. Particles of dirt and dust will always impact the hot stamping quality.

The room temperature should not fall below 20°C!

2.2 Electrical connection

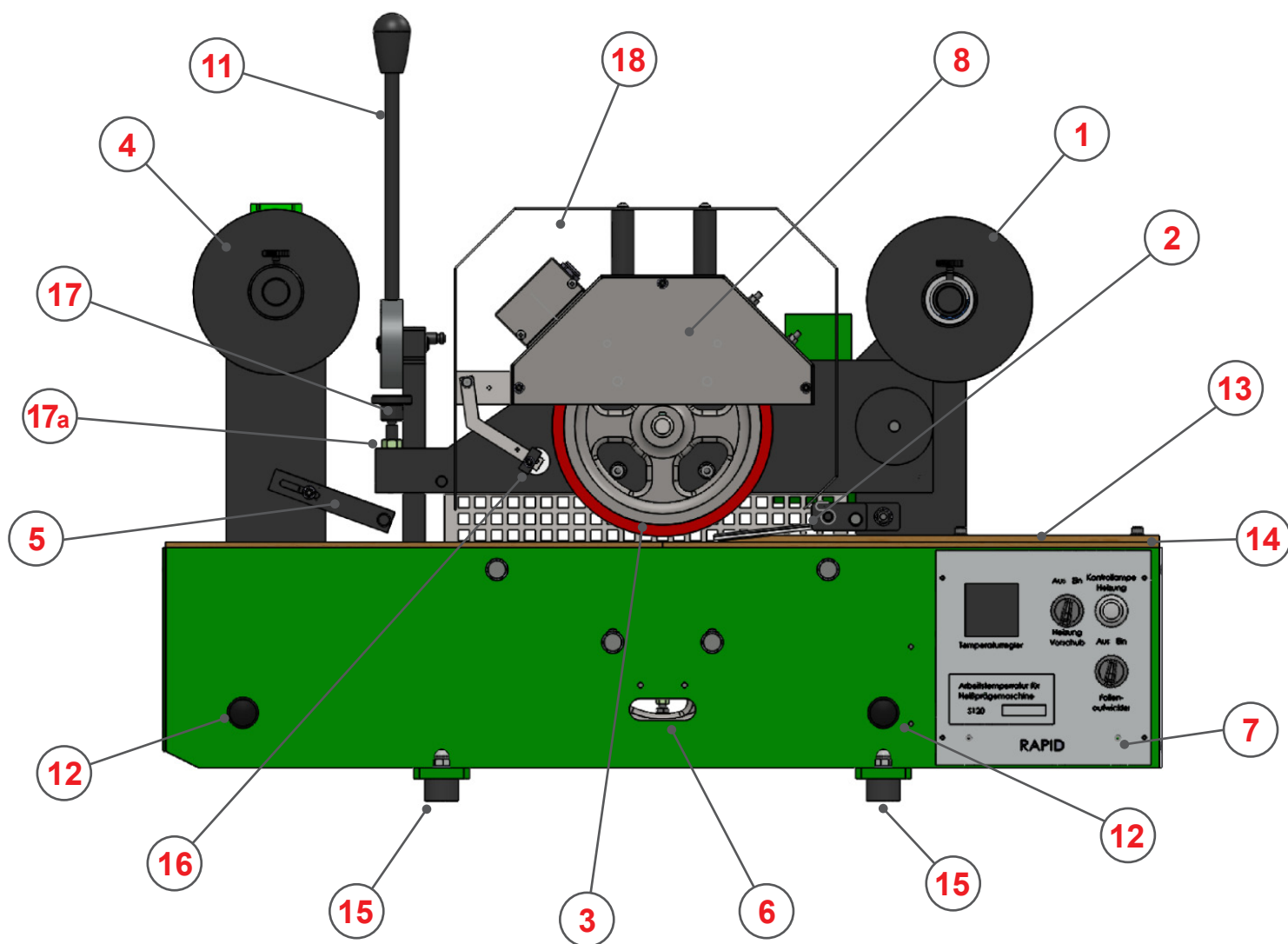
The machine requires a network voltage of: 230 volts, 50 HZ

A electric protection of at least 10A, preferably 16A, must be ensured.

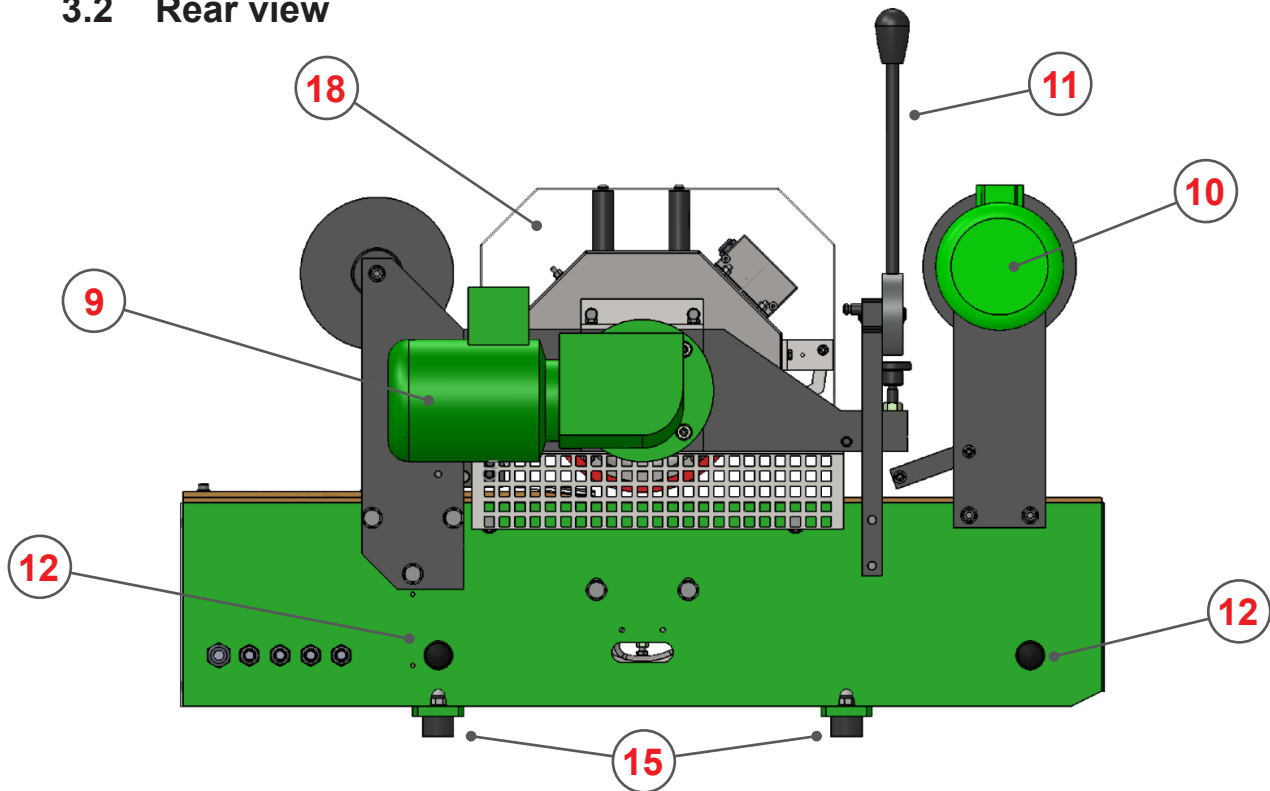


3. Components

3.1 Front view

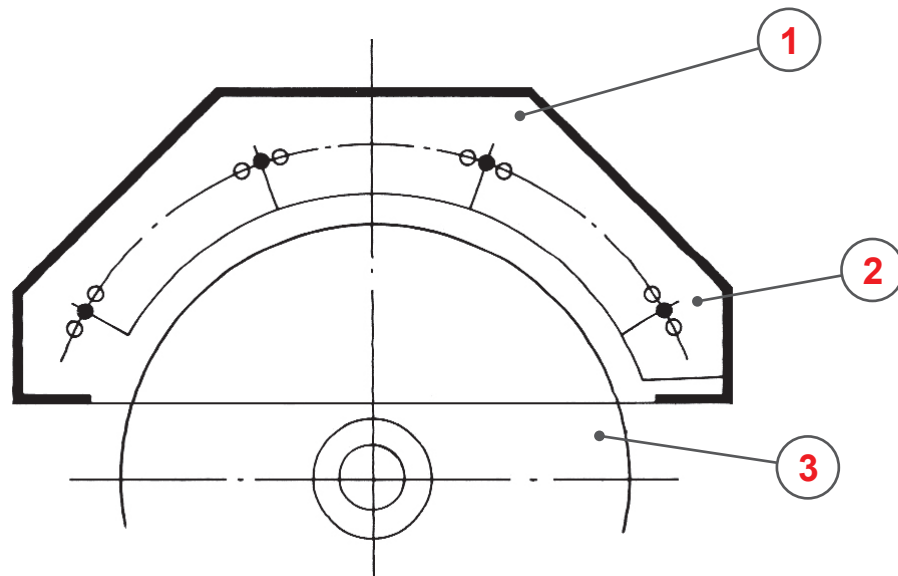


3.2 Rear view

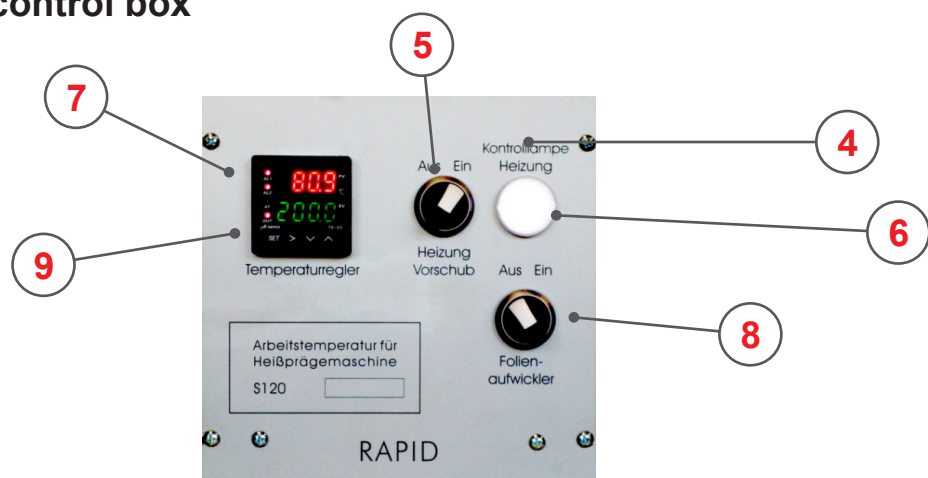


1	Foil guide pulley right (unwinding side)	11	Eccentric lever („up / down“)
2	Front foil-diversion (right downholder)	12	Carrying handle
3	Hot Stamping Wheel	13	End limit
4	Foil guide pulley left (winded side)	14	Table entry side
5	Back foil-diversion (left downholder)	15	Rubber feet
6	Back pressure wheel (bottom wheel)	16	Temperature sensor (thermal element)
7	Electrical control box with operating desk	17	Thumb screw (height adjustment of the embossing roller)
8	Heater box	17a	Lock nut
9	Drive motor for hot-stamping wheel	18	Heat protection grating
10	Motor for foil-curler		

3.3 Hot-stamping wheel with heat cover



3.4 Electrical control box



1	Heat cover	6	Control-lamp („Heater on“)
2	Infrared heating-element	7	Temperature regulator
3	Hot Stamping Wheel	8	Switch “on/off” for foil-curler
4	Electrical control box with operating desk	9	Red control light (out) = heating on
5	Main switch („on / off“)		

4. Commissioning

In order to bring the machine into operation, the following steps must be done:

1. Position Eccentric lever (11) upwards!
2. Turn on the main switch (5).
3. The factory temperature preset should not be changed.
4. Unwind foil (see 5.1 foil change).
5. After preheating for approximately 30 minutes, the machine is ready for operation.

4.1 Setting of the embossing-pressure

The Hot Stamping Machine is already optimally adjusted for use ex works. To adjust the embossing-pressure, proceed in the following way:

1. Loosen lock nut (17a) with an open-end 17mm wrench (in tool kit)
2. Thumb screw (17), at most, one half-turn per configuration!
3. Tighten the lock nut again!!!

Warning:

See the operation description of the hydraulic embossing press for the optimal embossing-pressure.

4.2 Adjustment of the heating system

The heating-system must be switched on approximately one half-hour before the beginning of operation.

- Turn main switch in the „ON“ position.

A thermal element (16) senses the temperature of the surface of the embossing wheel and should be checked for contamination at regular intervals (when cold) or cleaned with a dry cloth.

4.3 Adjustment of the divert-system

The divert-system is well adjusted when the hot-stamping-foil is very close to the embossing surface.

5. Hot Stamping

In order to start the hot stamping process, the following steps must be done:

1. Turn the switch for foil-curler (8) in the "ON" position
2. Lay embossed plate on the feed-in table on its right side.
3. Press eccentric level (11) down into a horizontal position until it stops.
4. Insert the plate along the rear end stop until the embossing wheel (3) emerges and is further transported by this.
5. The hot stamping process is finished when the plate comes to a stop again.
6. The plate can now be removed or another plate can be slid in.
7. The eccentric lever (11) must be raised after the hot stamping process!
8. If the plate is still stuck to the foil, it can be removed by softly vibrating the plate.

5.1 Foil change

In changing the color or after the use of the hot-stamping-foil, the stamping media must be exchanged. In doing this, the following steps must be observed:

1. Place eccentric lever (11) in the „up“ position.
2. Foil rewinder in the „Off“ position in the control panel.
3. For a color change, first cut through the foil.
4. Loosen the foil-proof run in the unwinder (thumb screw on the right side) and remove with all associated discs (please follow the order!).
5. Insert the new foil or the other color on the unwinding shaft.

Warning:

The Hot Stamping Foil must hang down on the left side during unwinding!

(The color layer is on the inside and must show on the bottom of the plate during hot stamping)

6. Unroll sealing foil, guide it under the embossing wheel, and connect with the rewinder using cardboard cores or with the foil (use tape).
7. Put on the foil-proof suspension and all screws and pre-stress them a little.
8. Start the foil rewinder and set the spring tension only so that the foil cannot pass through itself. „Do not set the foil-proof spring too tightly!“

6. Maintenance

6.1 Exchange of the Hot Stamping wheel

In order to change the Hot Stamping Wheel, the following steps must be adhered to:

1. Wait until the wheel has cooled.
2. Remove the main plug!
3. Unscrew the protective grid and „carefully“ lift it to the left.
4. Remove the front cover of the heater box (loosen 3 screws).
5. Loosen the clamping screw on the wheel mandrel and pull out the wheel.
6. Push the temperature sensor away with the container toward the left!
(Otherwise, there is a risk of damage!)
7. Check bottom wheeler! Clean, if necessary (remove stuck-on foil color).
8. Clean the shaft seat of the wheel, (sand off contact corrosion, grease lightly).
9. The assembly of the new hot-stamping wheel should be done in reverse.
10. Before turning the system back on, ensure proper sensor seating!
(Sensor wheel must lie on the roller!)

Warning:

Damage can occur while exchanging the wheel!

7. Technical data

7.1 Technical data Hot Stamping Foil

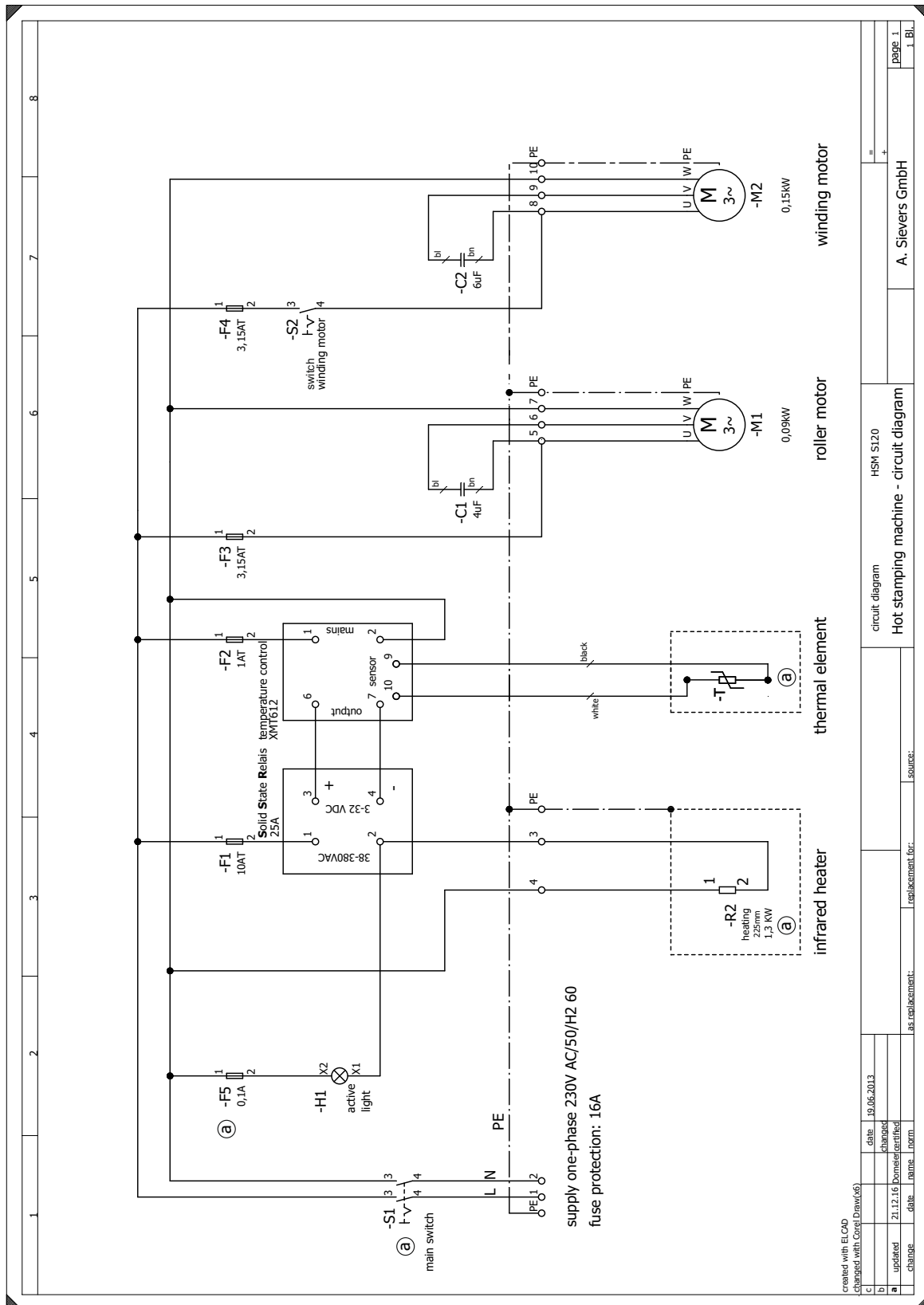
(foil band) for Hot Stamping Machine S 120, license plate use

- **Foil:** Foil band
- **Colour:** black / red / green / varied
- **Holder:** approx. 10 μ + 19 μ , in total 29 μ (1 μ = 0,001 mm)
- **Use:**
 - Vehicle license plates with wraparound edge with stampable, flexible, retroreflective foil in accordance with DIN 74069
 - Fun plates with coloured, stampable foil
- **Processing:** Hot stamping procedure, S 120 machine

7.2 Technical data Hot Stamping Machine

- **Colouring speed:** 2,95 m/min
- **Heating output:** 1280 W
- **Wheel drive power (SN13F / 4.75UPM):** 90 W
- **Reel motor drive power:** 46 – 138 W
- **Maximum power:** 6,56 A
- **Electrical connection:** 10A (minimal) 16A
- **Dimensions (L x W x H):** 91 x 53 x 55 cm
- **Weight:** approx. 70 kg
- **Plate transit height:** max. 14 mm
- **Foil width (special size on request):** max. 120 mm
- **Digital-electronic temperature regulation:** 40 – 220°C
- **Heating control:** SSR-relay
- **Table for HSM „Standard version“ (L x W x H):** 120 x 65 x 73 cm / 55 kg

8. Circuit diagram



9. Terminal diagram

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Notes

[illegible]

Contact data and directions

A. Sievers GmbH

CEO

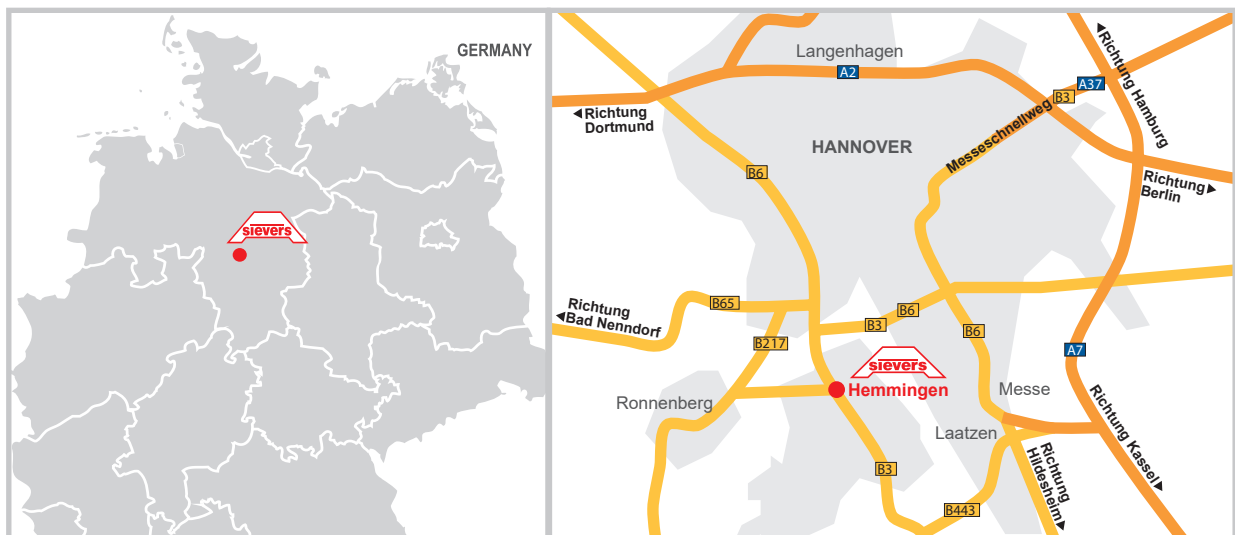
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