Service Manual

Air-Jet Box

HQ 6114

MADE IN GERMANY

Service Manual
for the following products

Family	Type
Air-Jet Box	HQ 6114 L
	HQ 6114 R

Edition: 02/2026- Part No. 9004283

Editor

Regarding questions or comments please contact cab Produkttechnik GmbH & Co. KG.

Topicality

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Germany
cab Produkttechnik GmbH & Co KG
Karlsruhe
Phone +49 721 6626 0
www.cab.de

USA
cab Technology, Inc.
Chelmsford, MA
Phone +1 978 250 8321
www.cab.de/us

Taiwan
cab Technology Co., Ltd.
Taipei
Phone +886 (02) 8227 3966
www.cab.de/tw

Singapore
cab Singapore Pte. Ltd.
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cab Technologies S.à.r.l.
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Mexico
cab Technology, Inc.
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1 Introduction

Important information and instructions in this documentation are designated as follows:

Danger!
Draws attention to an exceptionally great, imminent danger to your health or life due to hazardous voltages.

Danger!
Draws attention to a danger with high risk which, if not avoided, may result in death or serious injury.

Warning!
Draws attention to a danger with medium risk which, if not avoided, may result in death or serious injury.

Caution!
Draws attention to a danger with low risk which, if not avoided, may result in minor or moderate injury.

Attention!
Draws attention to potential risks of property damage or loss of quality.

Note!
Advice to make work routine easier or on important steps to be carried out.

Environment!
Gives you tips on protecting the environment.

▶ Handling instruction

▷ Reference to section, position, illustration number or document.

∗ Option (accessories, peripheral equipment, special fittings).

Time Information in the display.

2 Product Description

Device Overview

Front view

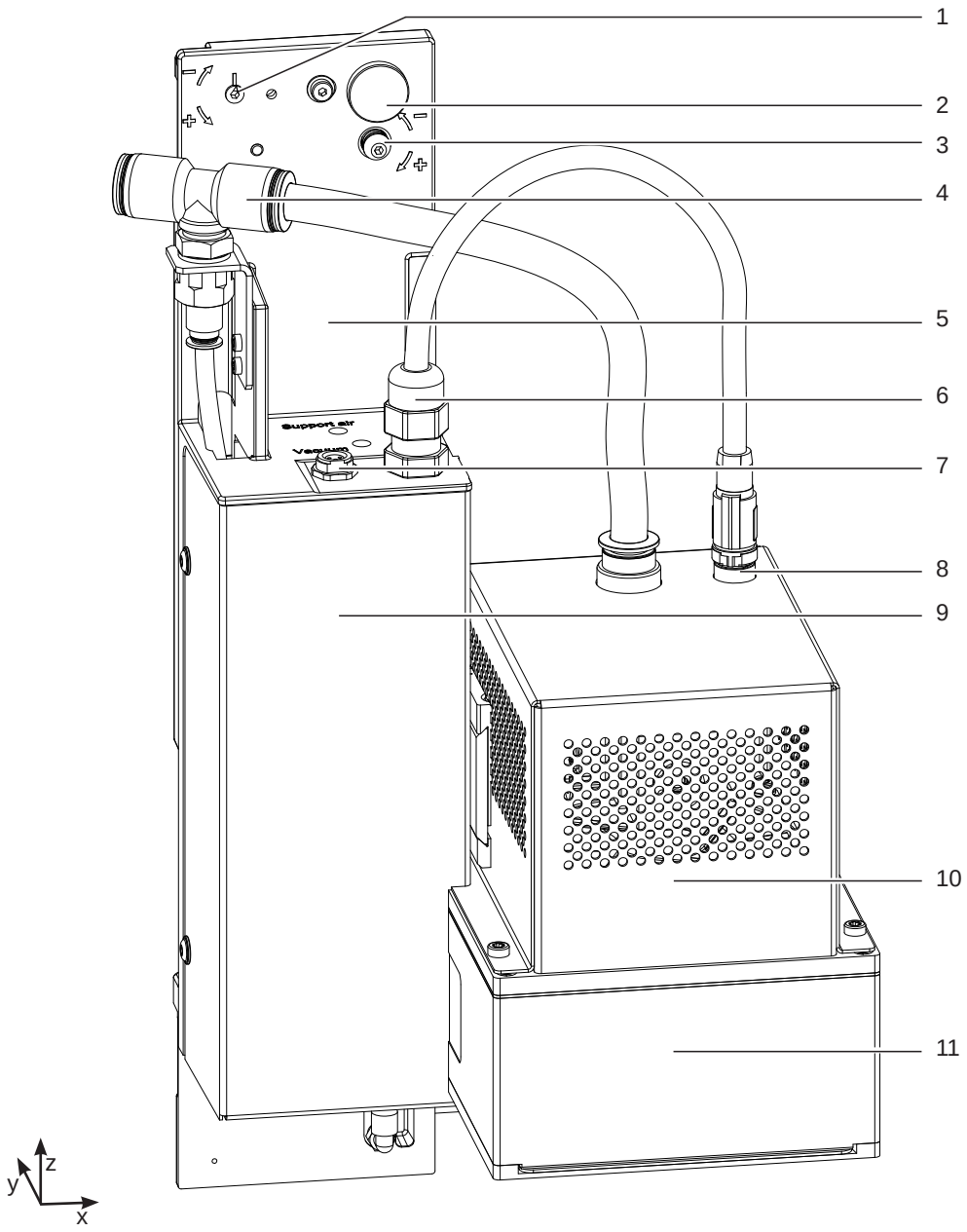

Fig. 1 Device overview complete - front view

1 Eccentric - Adjusting the alignment to the printe
2 Knurled screw for attaching the applicator to the printer
3 Setting screw to adjust the angle between applicator and printer
4 Compressed air connector
5 Base plate
6 Cable outlet between control unit and blower unit
7 Connection for external sensor
8 Socket for cable between control unit and blower unit
9 Control unit applicator
10 Control unit of the blower unit
11 Blow chamber with template insert

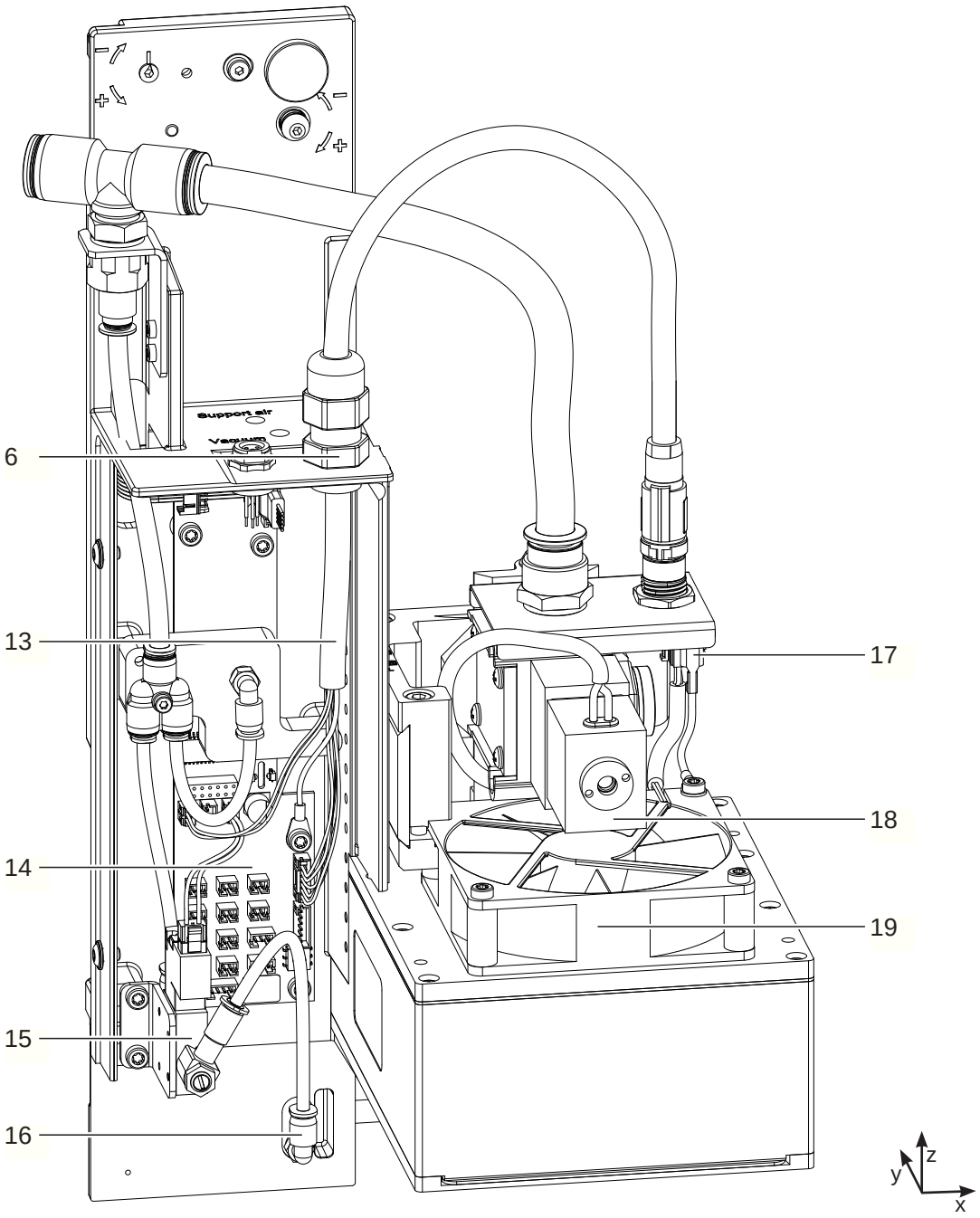

Fig. 2 Device overview without cover - control units

6 Cable outlet between control unit and blower unit
13 Wiring harness applicator control - blow head circuit board control
14 PCB Applicator control
15 Solenoid valve support air
16 Tube connector support air
17 Connection ground
18 Solenoid valve blow air
19 Van

Rear View

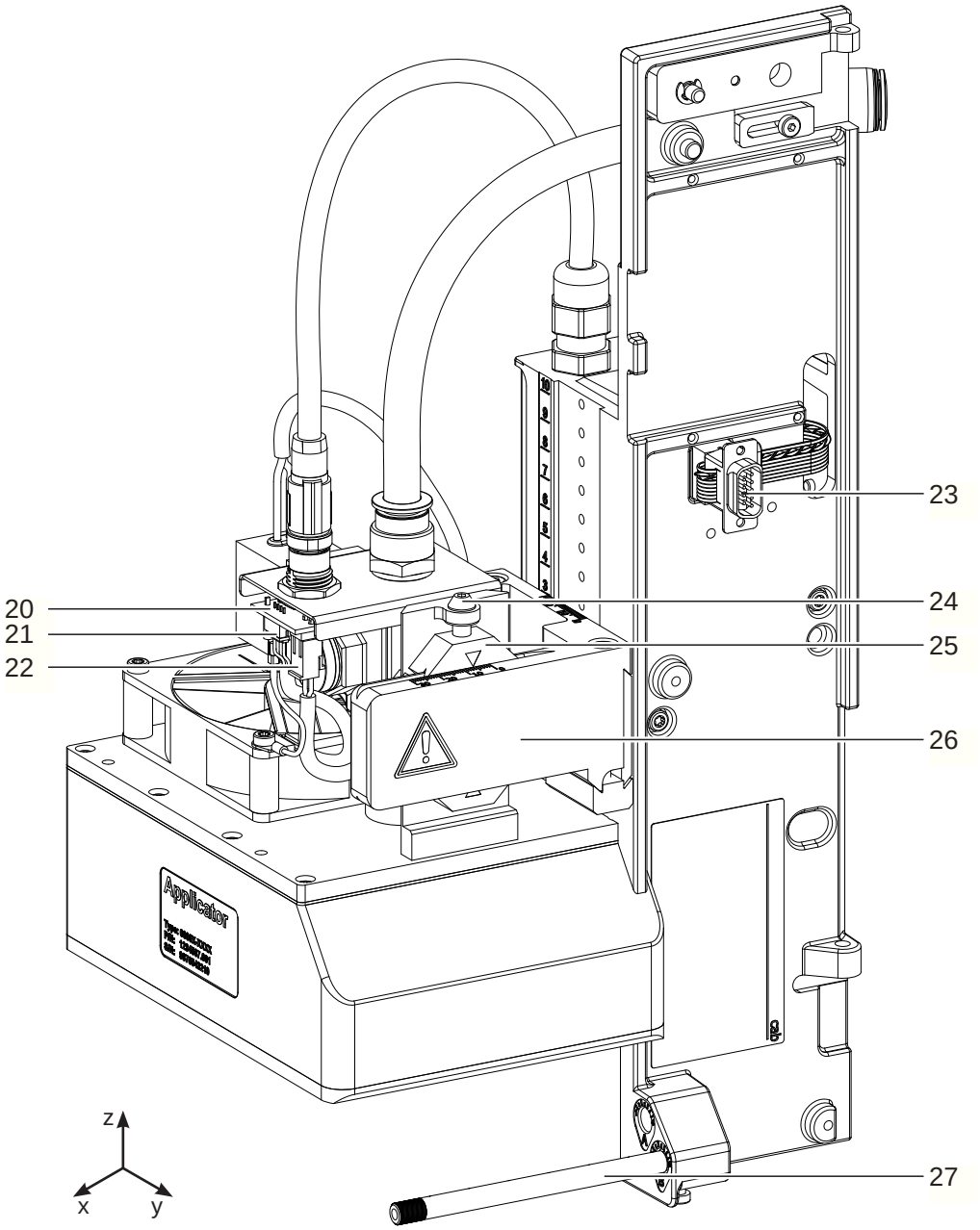

Fig. 3 Device overview - Rear view

20 PCB splitter blower unit
21 Connector van
22 Connector valve blow air
23 SUB-D 9 Connection to the printer
24 Setting screw for fine setting Z-direction
25 Mechanical connector to move the blow unit in X-direction
26 Crossbeam for adjusting the blower module position
27 Blow tube for support air

3.1 Factory default Settings

Note!
The applicator is set up in a standard configuration by the factory. These values guarantee a smooth operation.

Note!
In the case of a customer specific setup with special material the settings can deviate from the standard values.
The standard values in the setup protocol are as follows.

The factory default settings are:

- Connected to a cab HERMES Q printer, vertical
- Pressure value of the compressed air: 0.45 MPa (4.5 bar)
- Pressure value of the support air: 0.2 MPa (2,0 bar)

3.2 Tools

Screwdriver with parallel blade	2.5		To adjust the throttle valves and product sensor
Hexagon key L-wrench	2.5		For matched norm parts (in contents of delivery printer)
Flat-round nose	straight		To mount/dismount tubes
	angled		
Open spanner	SW 8		To change the throttle valves
Manometer	± 7 bar		Air pressure control

Table 1 Tools

3.3 Disassembly of the cover control unit

Attention!
Replacement of mounted components of the applicator may only be carried out with the printer switched off and the compressed air supply interrupted.

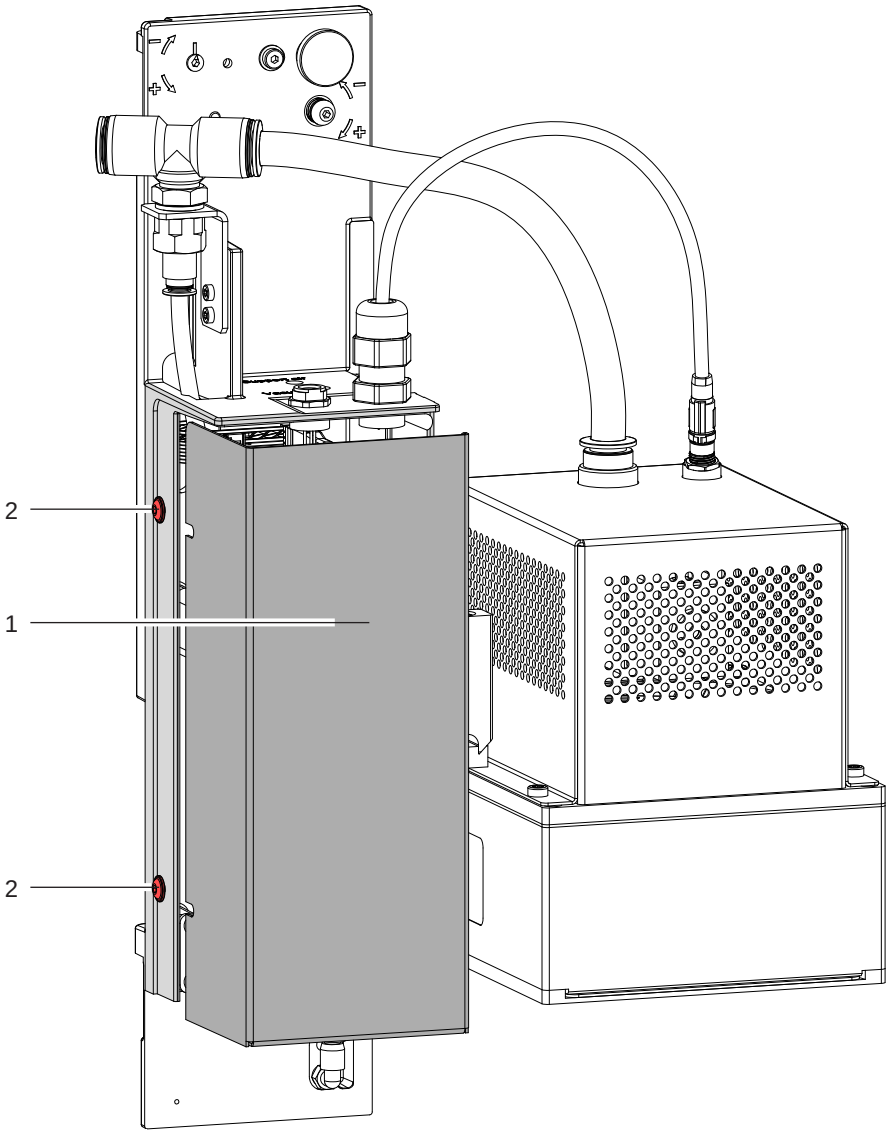

Fig. 4 Disassembly of the control unit cover

To replace various components, it may be necessary to remove the cover.

This exposes electronic components, such as uncovered circuit boards. With the printer switched on, a short circuit caused by metallic tools, for example, could damage the applicator and the printer.

1. Secure the cover (1) with one hand to prevent it from falling out.
2. Loosen the screws (2).
3. Pull the cover (1) forward.

3.4 Disassemble / assemble the PCB Control

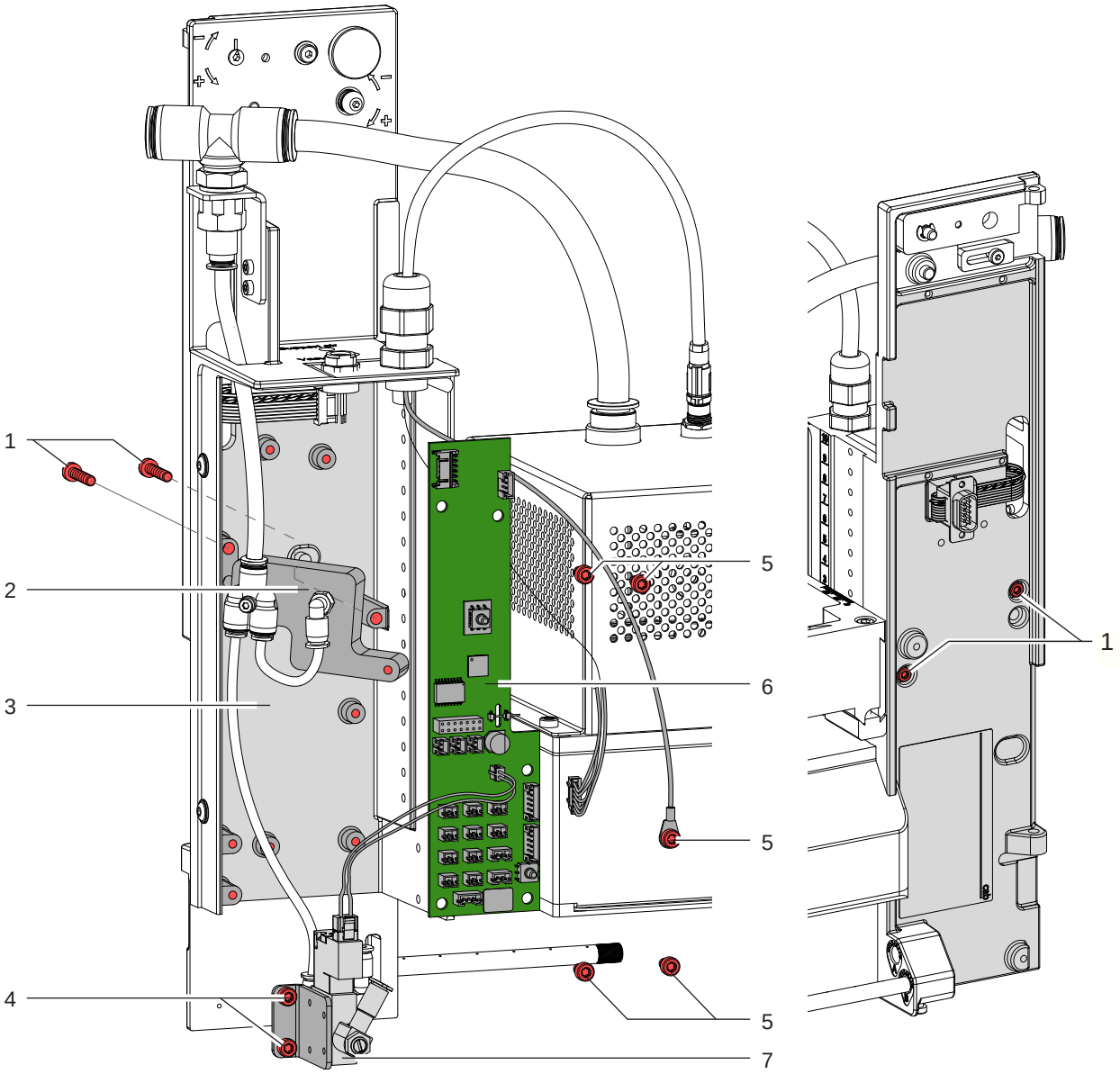

Fig. 5 Disassembling the PCB Control

1. Remove the applicator from the printer with the printer switched off and the compressed air supply disconnected.
2. Remove the cover from the control unit.
3. To remove the sensor bracket (2), unscrew the screws (1) on the back.
   Pull the sensor bracket (2) forward to avoid damaging the pressure sensor on the circuit board (6).
4. Remove the screws (4) from the mounting bracket with the solenoid valve for support air (7).
5. Disconnect the connectors on the circuit board (6).
6. Remove the screws (5) and pull out the circuit board.

3.5 Disassembly of the cover blow unit

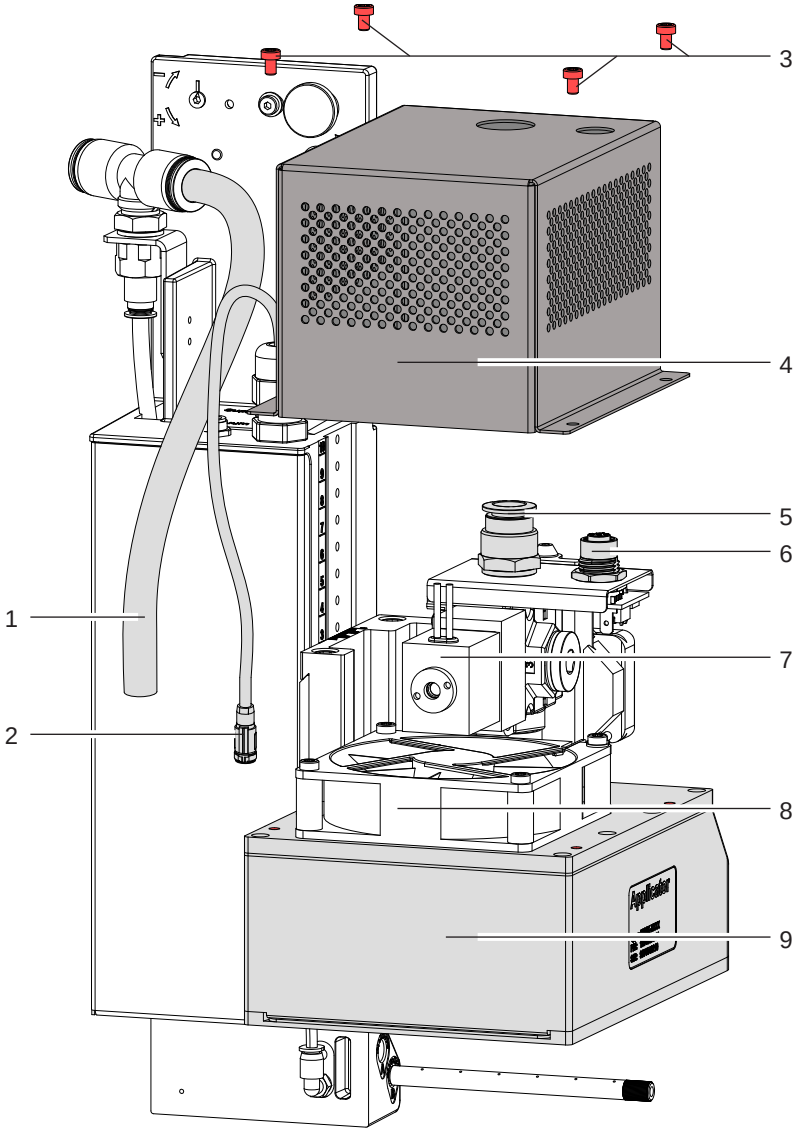

Fig. 6 Cover blow unit

To replace or service parts of the blow head, the applicator does not necessarily need to be removed from the printer. However, the cover (4) must be removed.

With the cover (4) removed, the blow air valve (7) and the fan (8) are directly accessible.

To check the diffuser (e.g., for contamination), the blow chamber (9) must be removed.

1. Switch off the printer and disconnect the compressed air supply.
2. Disconnect the compressed air supply tube (1) and the round connector (2) from the ports.
3. Loosen the screws (3) and remove the cover (4) upwards.

3.6 Diffuser

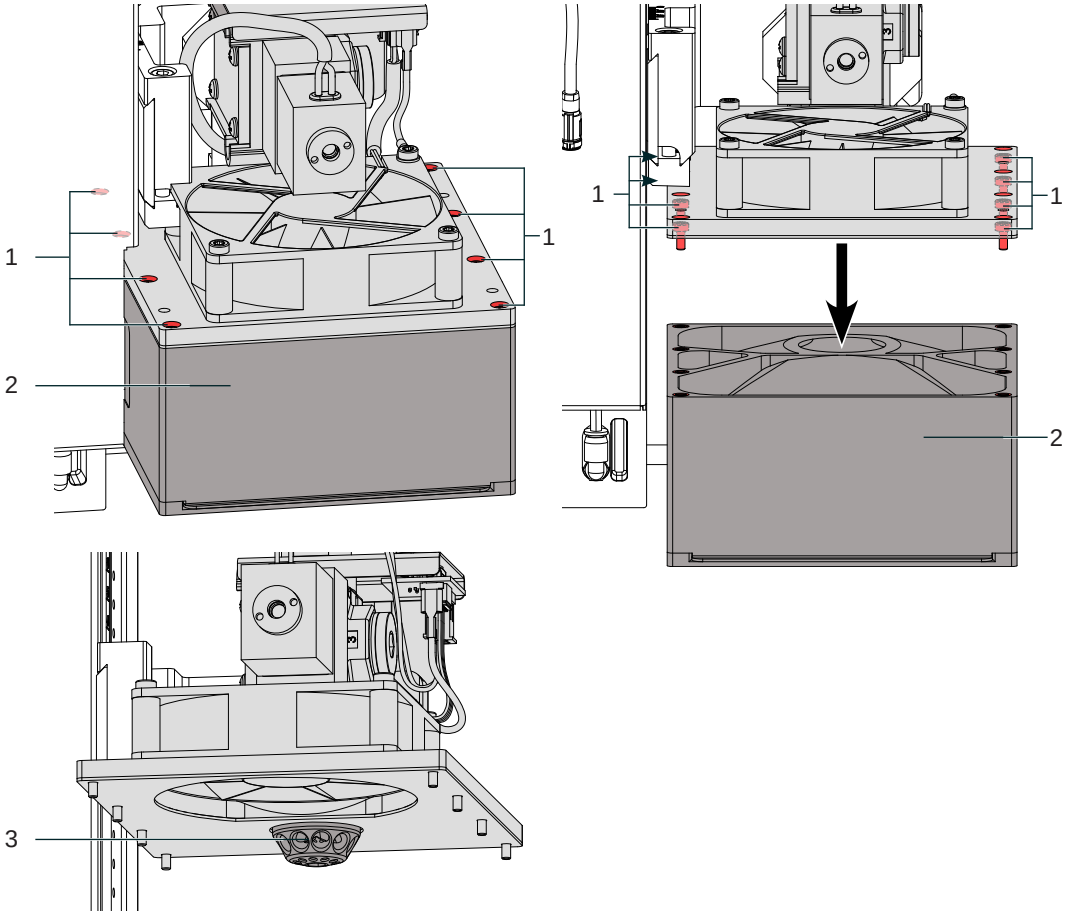

Fig. 7 Blow unit- lower part

The diffuser (3) for the blowing air is accessible after the blowing chamber (2) has been removed.

1. Remove the blower head cover. ▷ „3.5 Disassembly of the cover blow unit“ auf Seite 11
1. Loosen screws (1).
2. Remove the blower chamber (2) downwards.

3.7 Adjusting the Blow Tube and Support Air

he blow tube must be adjusted in such a way that the label takeover is unhindered by turbulence and the supporting air blows the label evenly against the suction plate.

The default factory value is 2 bar.

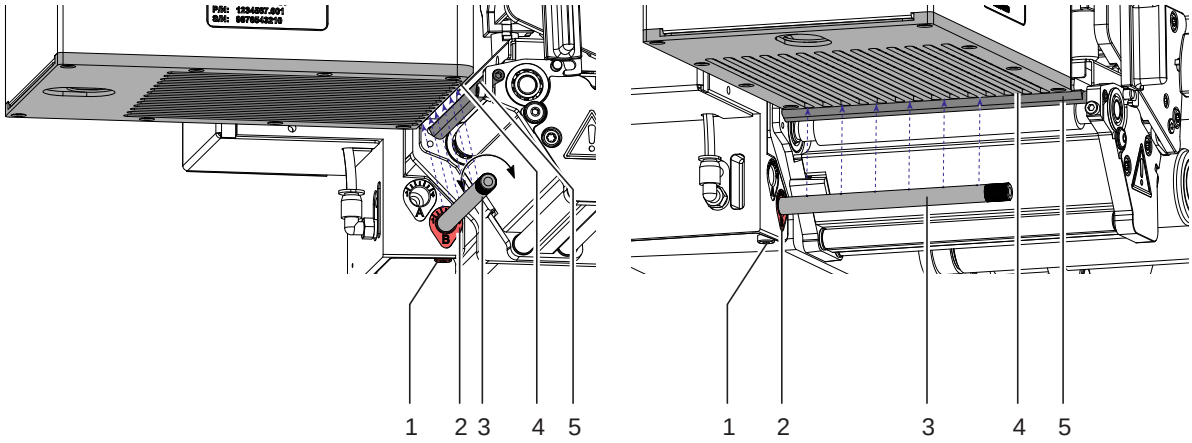

Fig. 8 Adjust the blow tube

The blow tube (3) for the supporting air can be rotated around its axis. That way the direction of the support air can be optimized.

1. Loosen the screw (1).
2. ut in the blow tube (2) into the tube adapter B (2).
   Turn the blow tube (2) in the direction that the air current can support the take up of the label.

- For small labels direct the air current more toward the dispensing edge (5) of the printer.
- For larger labels direct the air current away from the dispense edge (6).

  Use the graduation guide for orientation.

3. Tighten the screw (1).

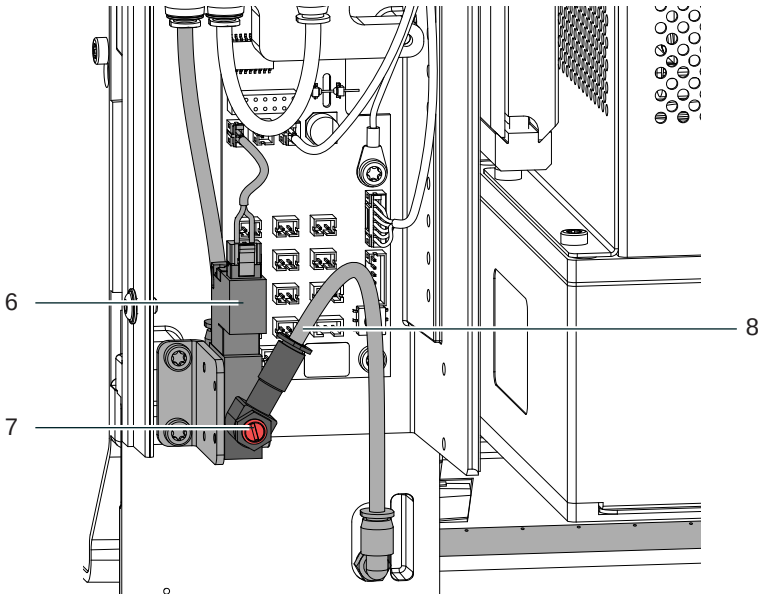

Fig. 9 Valve and throttle valve, support air

4. The level of the support air is adjusted at the throttle valve (7) on the solenoid valve (6) in the control unit.
5. The default value is 2 bar and is measured at the outlet of the solenoid valve.

Connection

The start signal to apply the label can originate from an external sensor connected to the 3 pole connector (1) connected directly to the applicator.

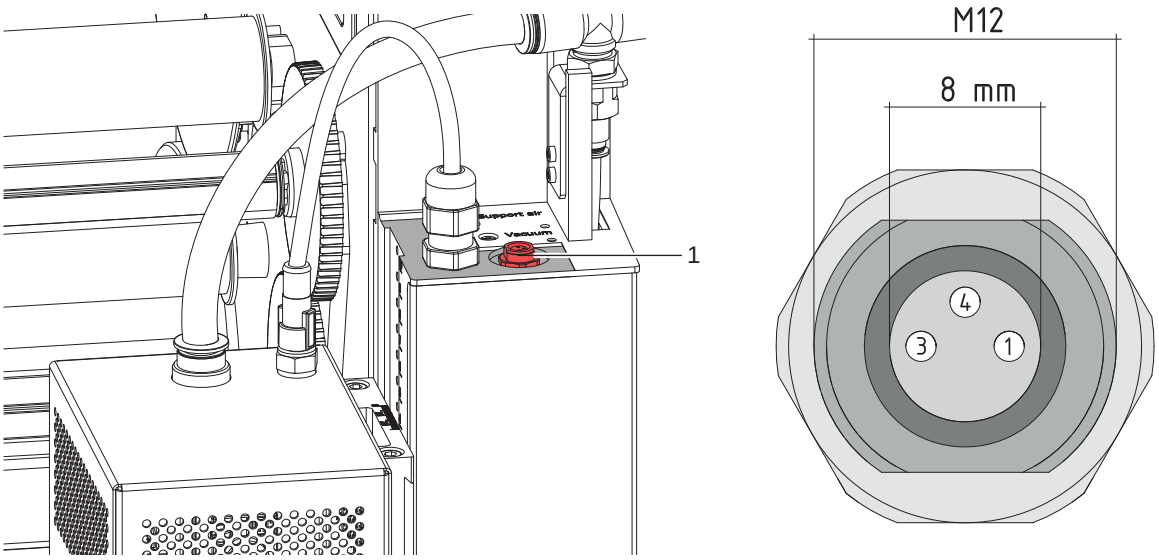

Fig. 10 Start signal connector on the applicator

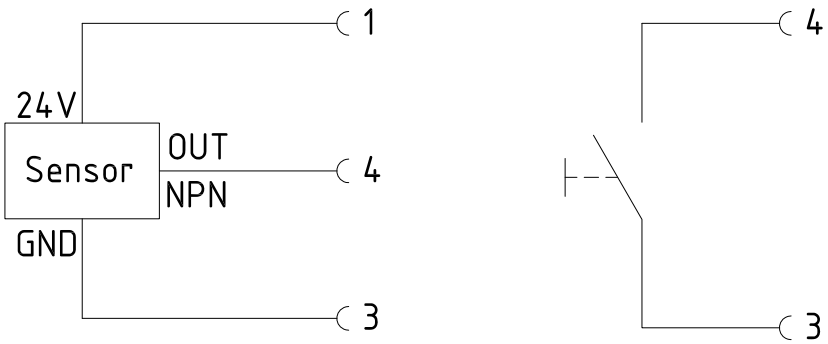

Fig. 11 Examples of connections of start sensors

The start of the printing job - print first label is still initiated over the I/O interface of the printer. Circuitry and programming of the connections is to be set as illustrated.

Note!

Cycle sequence = Apply-Print

The printing of the first label continues via the printer's I/O interface using the FSTLBL signal

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