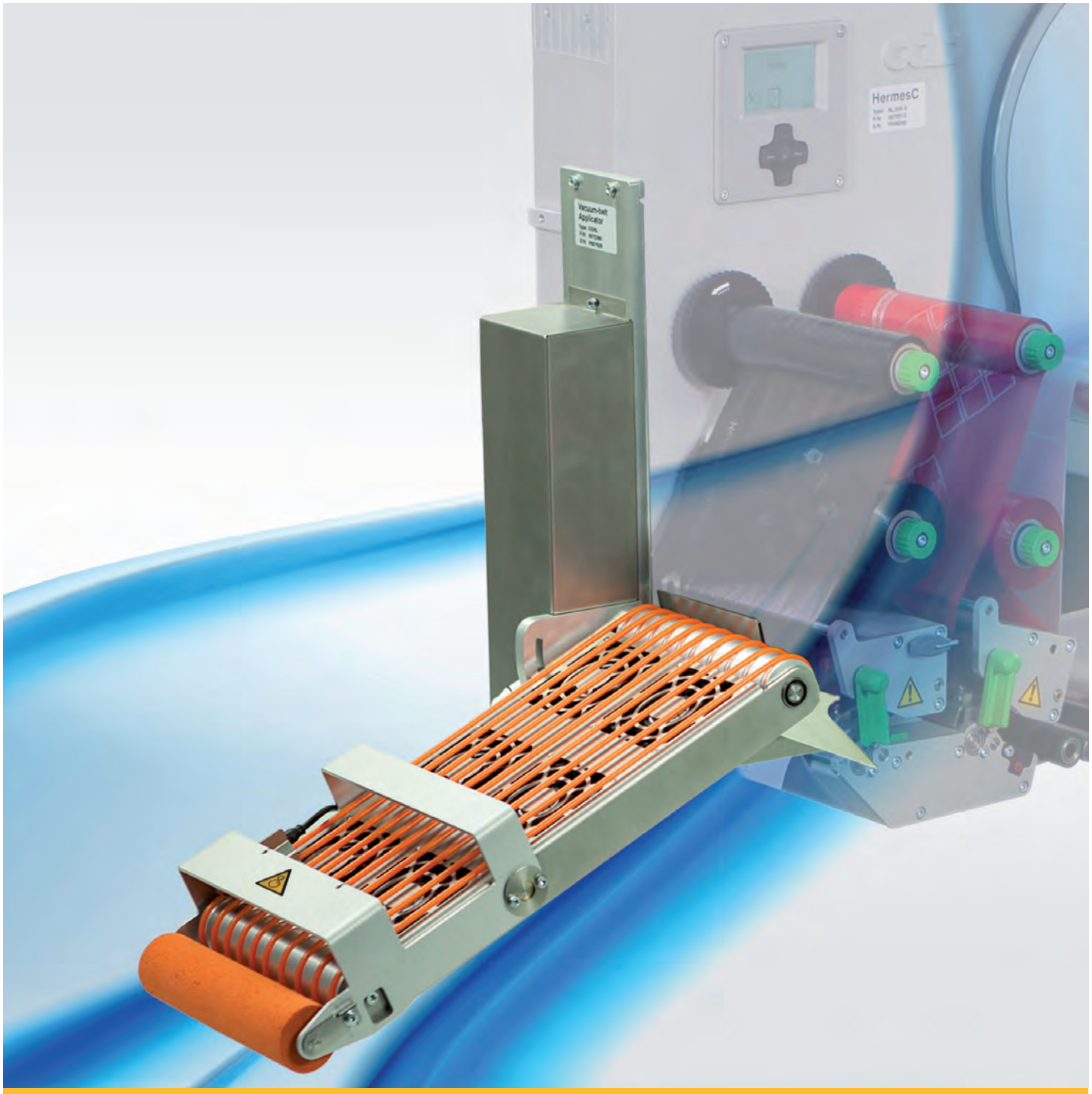
Operator's Manual



Vacuum-Belt Applicator

5326C

Made in Germany

Operator's Manual
for the following products

Family	Type
Vacuum-Belt Applicator	5326C

Edition: 08/2018 - Part No. 9009758

Editor

Regarding questions or comments please contact cab Produk-ttechnik GmbH & Co. KG.

Topicality

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1 Introduction

1.1 Instructions

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.

1.2 Intended Use

- The device is manufactured in accordance with the current technological status and the recognized safety rules. However, danger to life and limb of the user or third parties and/or damage to the device and other tangible assets can arise during use.
- The device may only be used for its intended purpose and if it is in perfect working order, and it must be used with regard to safety and dangers as stated in the operating manual.
- The device applicator mounted on a cab printer of the Hermes+ series is intended exclusively for applying suitable materials that have been approved by the manufacturer. Any other use or use going beyond this shall be regarded as improper use. The manufacturer/supplier shall not be liable for damage resulting from unauthorized use; the user shall bear the risk alone.
- Usage for the intended purpose also includes complying with the operating manual, including the manufacturer's maintenance recommendations and specifications.

Note!
The complete and current version of the documentation can be found in the Internet.

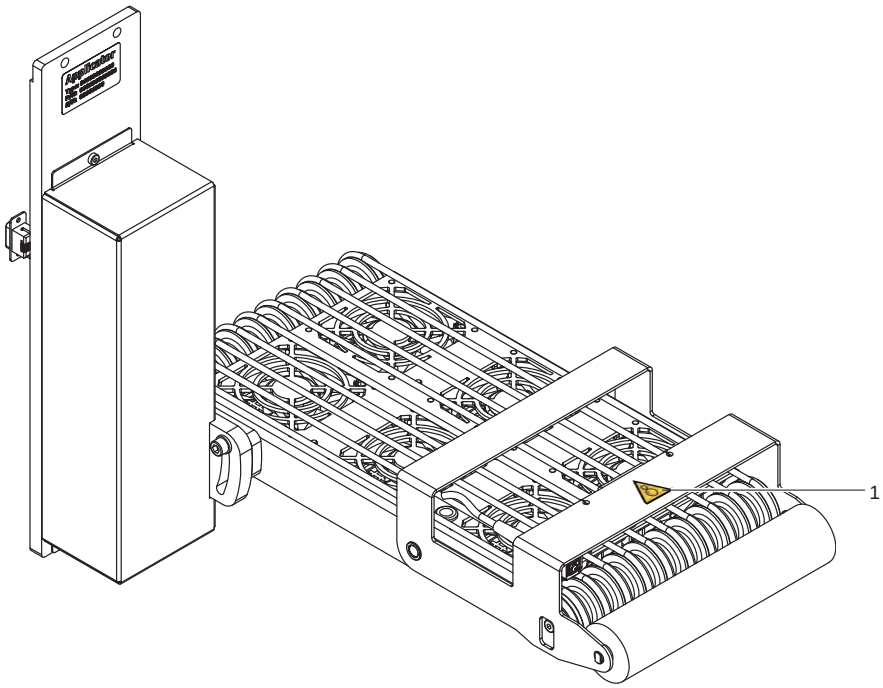
1.3 Safety Instructions

Attention!
Initiation, adjustments and changing of parts are to be performed by qualified service personnel only.

- Before mounting the delivered components disconnect the printer from the power supply and close the shutoff valve of the applicator.
- Only connect the device to other devices which have a protective low voltage.
- Switch off all affected devices (computer, printer, accessories) before connecting or disconnecting.

- In operation, moving parts are easily accessible. This applies especially for the zone, where the pad is moved between the starting and the labelling position.
- During operation do not reach into that zone and keep long hair, loose clothes, and jewelry distant. Before any manipulations in those areas, close the shutoff valve.
- The device may only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- Do not use the device in an explosive atmosphere.
- Do not use the device close to high-voltage power lines.
- Perform only those actions described in this operating manual.
  Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions.
- Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- There are various warning stickers on the device. They draw your attention to dangers. Warning stickers must therefore not be removed, as then you and other people cannot be aware of dangers and may be injured.

1.4 Safety Markings



1:  Warning of damage by rotating parts!

Fig. 1 Safety marking

1.5 Environment

Obsolete devices contain valuable recyclable materials that should be sent for recycling.

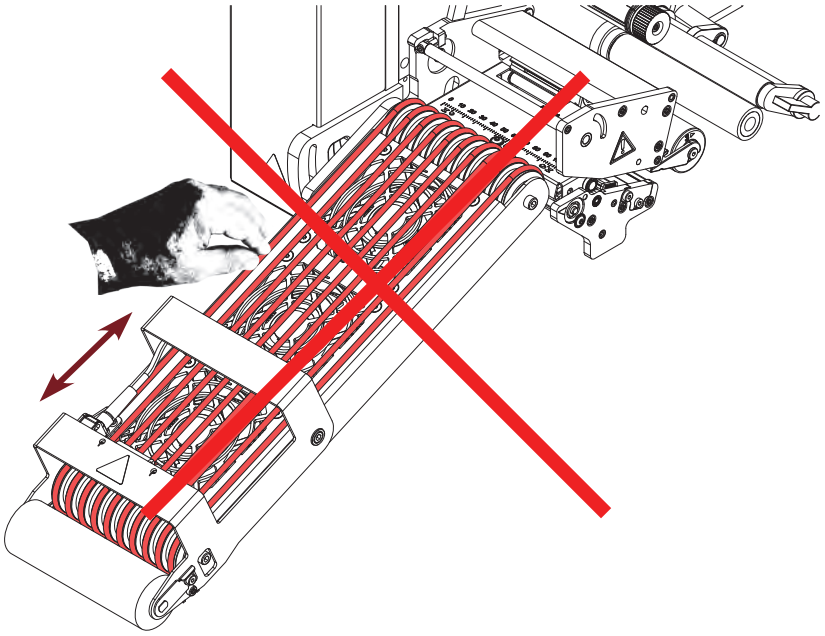
▶ Send to suitable collection points, separately from residual waste.

The modular construction of the applicator enables it to be easily disassembled into its component parts.

▶ Send the parts for recycling.

2.1 Important Features

- For operation in a system the I/O interface of the printer can be used.



Attention
Don't move the transport belt or - roller by hand or by an other outside power.
Danger of destruction of the electronic control.

-

2.2 Technical Data

Technical Data		Vacuum-Belt Applicator 5326C
Label width	mm	46-174
label height	mm	40-356
Product during labeling	in motion	■
Labeling on the product	from top	■
	from below	■
	from the side	■
Vacuum belt speed	mm/s	100 - 500
Cicle time aprox.[1)]	labels/min.	30

1) Calculated at 100 mm label height / print speed of 100 mm/s

Table 1 Technical Data

2.3 Overview

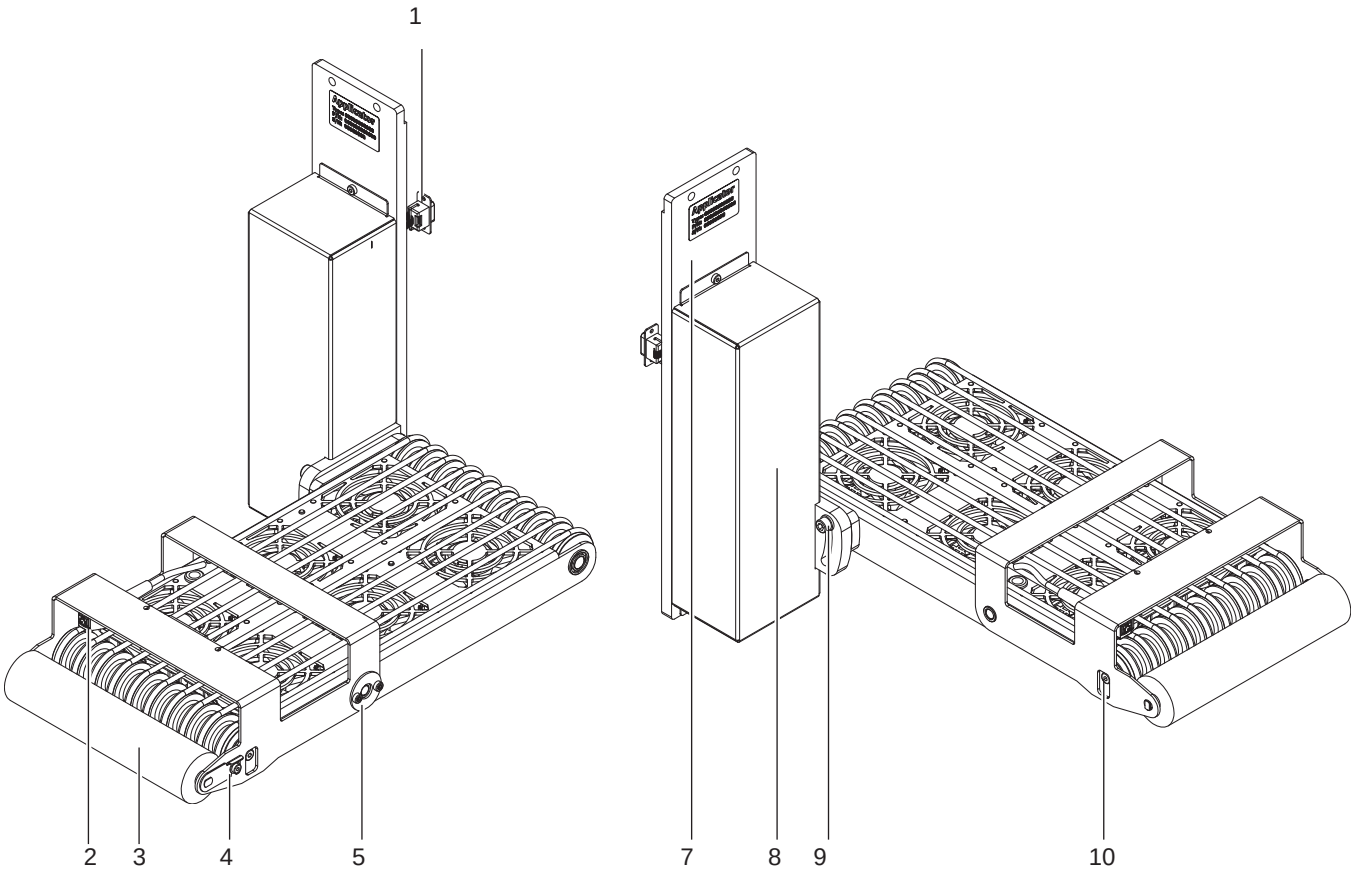


Fig. 2 Device overview

1 SUB-D 15 Interface to the printer
2 Sensor
3 Pressure roller
4 Screw roller
5 Fan 6x
6 Base plate for mounting on printer
7 Control unit
8 Screws to adjust the angle of the applicator
9 Mounting screws belt pulley

2.4 Contents of Delivery

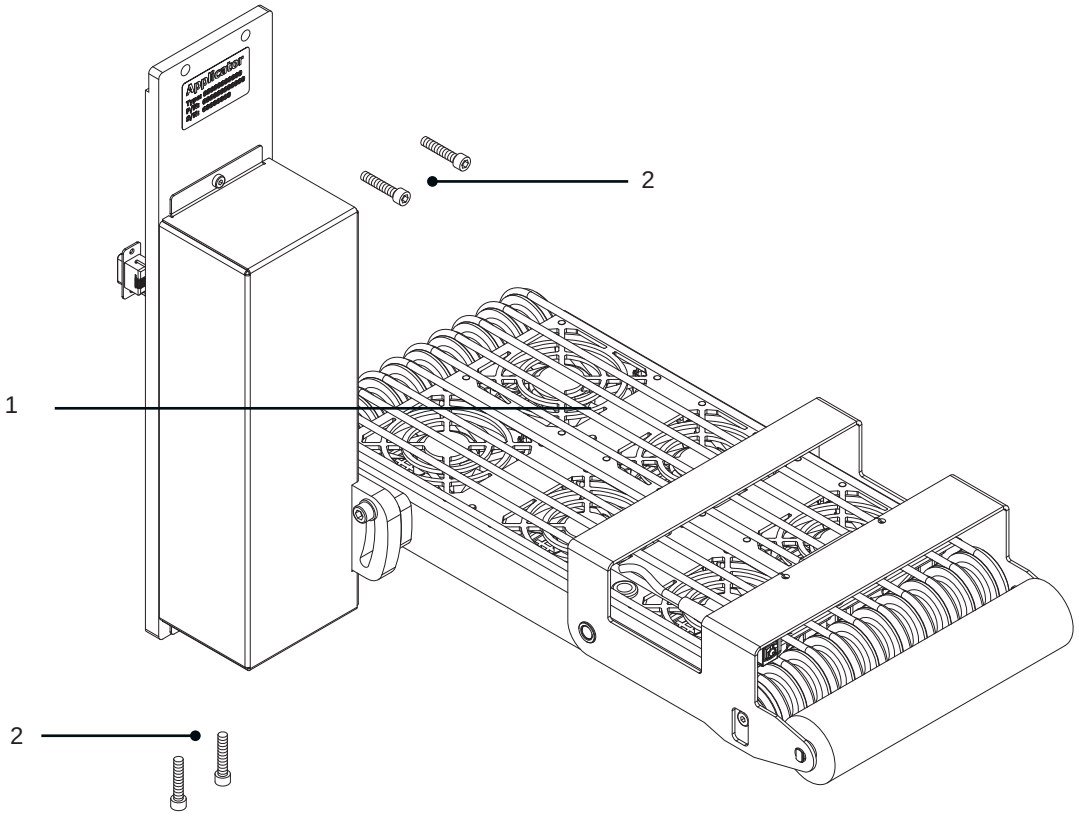


Fig. 3 Contents of delivery

1 Mounted applicator
2 Screws to connect the applicator to the printer
3 Documentation

Note!
Please keep the original packaging in case the applicator must be returned.

Attention!
The device and printing materials will be damaged by moisture and wetness.
▶ Set up label printer with applicator only in dry locations protected from dampness and splashes.

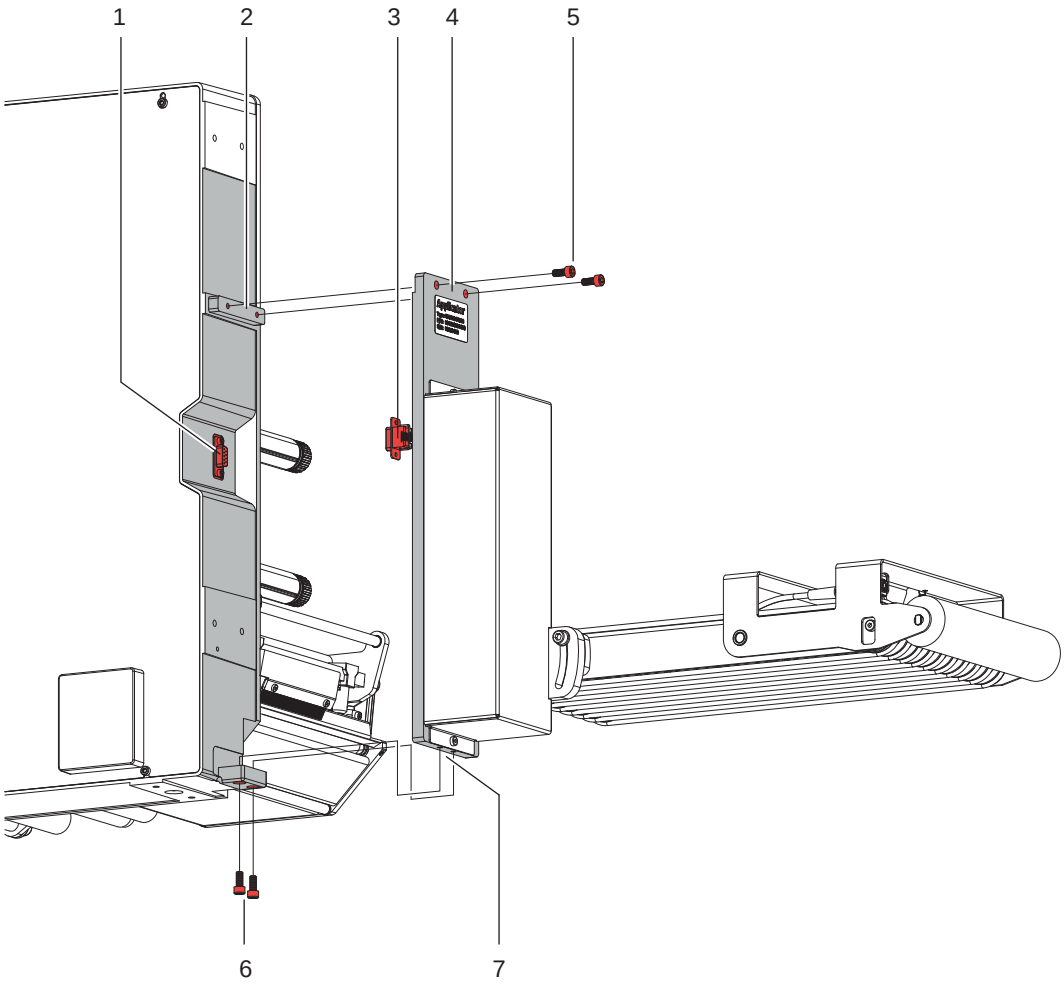


Fig. 4 Mounting applicator on printer

Attention!

Initiation, adjustments and changing of parts is to be performed by qualified service personal only.

▷ **Initiation/Service Manual Applicators**

Attention!

- ▶ **Disconnect the printer from the power supply before mounting the applicator!**
- ▶ **Ensure the printer is standing firmly in a secure position!**

To clean the applicator and printer it's sometimes necessary to turn away or even dismount the applicator from the printer.
Do not adjust the setting screws, throttle valves or other alignment elements. This will enable use of the applicator directly after cleaning.

Turning away & dismounting the applicator

1. Loosen the screws (6) from the lower attachment (7) first.
2. Support the applicator and loosen screws (5). The applicator will drop due to its own weight.
3. Move the applicator forward a little to disconnect SUB-D 15 connector (3).
4. Lift the applicator off the printer.

Remounting the applicator

5. Lift the applicator onto the printer and connect SUB-D 15 male connector (1).
6. Slide in and settle the applicator via the connection (7). Line up holes (4) of the mounting plate and to holes (2) of the printer.
7. Insert and tighten the Screws (5).
8. Insert and tighten the Screws (6).

Note!

The alignment of the applicator to the printer is set to the factory standard and should not be altered to ensure reliable label transportation. Only the Angle to the printer as well as the pinch roller should be adjusted.

4.1 Setting the Angle to the Printer

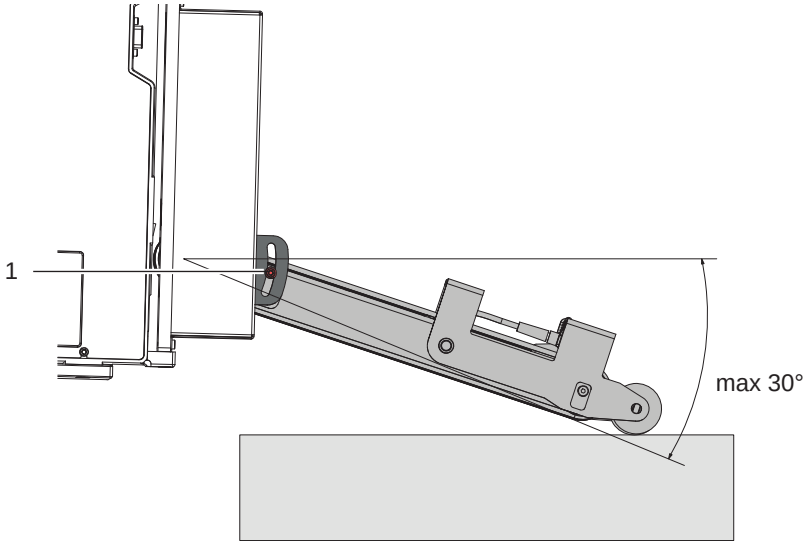


Fig. 5 Downward angle of the applicator to the printer

Warning!

Be aware when you loosen the screws (1)! The device will drop due to its own weigh.

- ▶ Loosen screws (1) to adjust the angle and so the distance between printer and pinch roller.
- ▶ Place a product and adjust the angle of the device. Tighten screws (1) .

4.2 Settings within the Setup of the Printer

The configuration parameters of the applicator can be found in the menu `Setup > Machine param.`

Speed

Note!

The speed of the belt and the label transport speed can be set via the parameter `Support del. off`. The value is displayed in ms and not, the actual value used, mm/s.

Note!

It's necessary to set the exact the values visible in the table.
In case of a deviations the standard value of 100 will be used.

Parameter to set the speed of the belts.

The four available values are:

100 ms :	100	mm/s speed of the transport belt
150 ms :	150	mm/s speed of the transport belt
220 ms :	220	mm/s speed of the transport belt
300 ms :	300	mm/s speed of the transport belt

`> > Support del. off`

Waiting position of the label

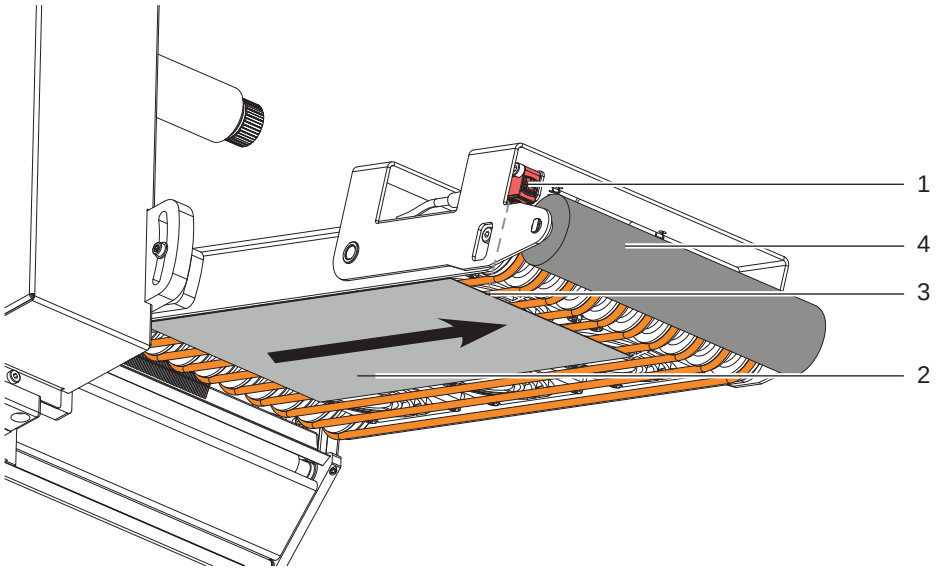


Fig. 6 Label transport/Reflex sensor

In the setup menu the setting "Blow on" must be selected in order to change the parameter "`Blow time`".

After reaching the reflex sensor (1) and detection point (3) the transportation device will continue for a set time to ensure the label (2) is transported to the pinch roller (4). This time as well as well as the position of the label can be determined by the parameter:

`> Blow time`

A higher value causes a longer transport time.

200 ms accord ca. 10 mm

Follow-up Transportation

Once the label (2) leaves the sensor area the transportation module continues for a set time to ensure that the label reaches the pinch roller and thus the product. This time value is adjustable via the parameter:

`> > Support del. on`

4.3 Signals

- With the signal **DREE** will print the label and move it to the pinch roller.
- The signal **START** will transport the label up till the reflex sensor as well as its application transport to the pinch roller.

  In the application-mode **"Apply - Print"** the printing of the next label will commence automatically as the soon as the previous label has been applied.
  In the application-mode **"Print - Apply"** the printing of a next label will wait for the the DREE signal.

Pin	Signal	Name	Description		Activation/Active State
			without applicator	with applicator	
1	←	DREE	-	Print first label in mode "Apply-Print"	Switch on +24V between Pin 1 and Pin 25
13	←	START	Print signal Prerequisite: The primary control has confirmed with the ETE signal that the previous label has passed the peel-off position.	Start of label print/application	+24V between Pin 13 and Pin 25

Table 2 Pin assignment of the I/O interface

▷ Interface description of the label printer Hermes C

5.1 Standard Operation

Before commencing the labeling process check that the underlying connection are active.

- ▶ Load material. Ensure that the locking system is locked ▷ "Operator's Manual" of the printer.
- ▶ Switch on the printer.
- ▶ Press the **feed** key at the printer.
  A synchronization feed is initiated. The processed labels need to be removed manually. After a few seconds the printer carries out a short back feed to position the front edge of the next label at the printing line.

Note!

This synchronizing also has to be carried out when the print job has been interrupted with the cancel key.

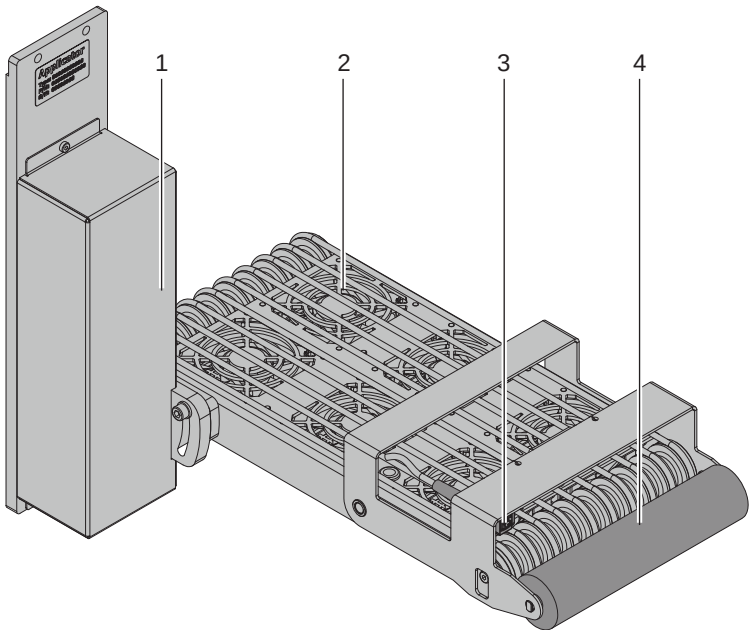
Synchronizing is not necessary when the print head was not lifted between print jobs. This also applies if the printer was powered off between print jobs.

- ▶ Start a print job
- ▶ Start the labelling process via PLC interface.

Error messages during labelling process are shown in the display of the printer ▷ Error Messages.

5.2 Cleaning

Attention!
Never use solvent and abrasive.



- ▶ Clean the outside surfaces and transport belts with multi purpose cleaner: Area 1
- ▶ Clean the fan area with a soft brush and/or a vacuum cleaner: Area 2
- ▶ Use glass cleaner to clean the reflex sensor: Area 3
- ▶ To clean the pressure roller use a special roller cleaner: Area 4

Fig. 7 Cleaning

6 Error Messages

6.1 Error Messages of the Printer

For detailed information about printer errors (e.g. 'Paper out', 'Ribbon out', etc.) "▷ Operator's manual" of the printer

Error treatment:

- ▶ Clear the error result
- ▶ Press the **feed** key to synchronize the label feed, remove the excess labels manually
- ▶ Press the **pause** key to quit the error state.

After error correction, the printing of the label causing the error will be repeated.

6.2 Error Messages of the Applicator

The following table contains an overview of error messages and their possible causes. It also suggests methods to resolve the problems:

Error Message	Possible Cause
`Vac. plate empty`	Label has been removed from the waiting position at the pinch roller before the START signal was initiated.
`Upper position`	The label had not arrived the sensor area 5 sec. after it was printed or it was not detected.

Table 3 Error messages of the applicator

Error treatment:

- ▶ Clear the error results
- ▶ Press the **pause** key to quit the error state.

Note!

In the case of errors check the Service Manual for adjustments and settings.

- ▶ After error correction, the print of the label causing the error cannot be repeated without re-start of the print job. Except at the error " Vac. plate empty" . In this case, the latest label will print again after quit the error with the **pause** key and then press the Enter button ↵.
- ▶ In the application mode "Apply/Print" send the signal "Print first label" or press the button ↵ to send a printed label to the tamp.

7.1 Declaration of Incorporation

cab Produkttechnik
GmbH & Co KG
Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe
Germany

Declaration of Incorporation

We declare herewith that the following „partly completed machinery“ as a result of design, construction and the version put in circulation complies with the essential requirements of the **Directive 2006/42/EC on machinery**:

Annex I, Article 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.2.1, 1.3.2, 1.5.2, 1.5.8, 1.6.3, 1.7

In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	**Vacuum-Belt Applicator**
Type:	**5326C**
Applied EU Regulations:	Applied Standards:
Directive 2006/42/EC on machinery:	• **EN ISO 12100:2010**
	• **EN ISO 13849-1:2015**
	• **EN 60950-1:2006 +A11:2009+A12:2011+A1:2010+A2:2013**
Other Relevant Directives: • **Directive 2014/30/EU relating to electromagnetic compatibility** • **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment**	
Person authorised to compile the technical file:	**Erwin Fascher** **Am Unterwege 18/20** **99610 Sömmerda**
Signed for, and on behalf of the Manufacturer: **cab Produkttechnik Sömmerda** **Gesellschaft für Computer-** **und Automationsbausteine mbH** **99610 Sömmerda**	**Sömmerda, 04.10.2017**  **Erwin Fascher** **Managing Director**

The product must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Directive on machinery.

The documents according annex VII part B from the incomplete machinery are created and will commit to state agencies on request in electronic kinds.

7.2 EU Declaration of Conformity

cab Produkttechnik
GmbH & Co KG
Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe
Germany

EU Declaration of Conformity

We declare herewith that the following device as a result of design, construction and the version put in circulation complies with the relevant fundamental regulations of the EU Rules for Safety and Health. In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	**Vacuum-Belt Applicator**
Type:	**5326C**
Applied EU Regulations:	Applied Standards:
Directive 2014/30/EU relating to electromagnetic compatibility:	• **EN 55032:2012**
	• **EN 55024:2010**
	• **EN 61000-6-2:2005**
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment:	• **EN 50581:2012**
Signed for, and on behalf of the Manufacturer: **cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda**	**Sömmerda, 04.10.2017**  **Erwin Fascher Managing Director**