Operator's Manual

Cutter with Stacker

ST400

Made in Germany

Operator's Manual
for the following products

Family	Type
Stacker with Cutter	ST400

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1 Introduction

1.1 Notes

Important information and instructions 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!
Advices to make work routine easier or on important steps to be carried out.

Environment!
Advices 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 intended exclusively as an option for the printers of the SQUIX series for cutting and stacking 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.
- The device is manufactured in accordance with the current technological status and the recognized safety rules. However, danger to the 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.

Note!
All documentations can also currently be found in the Internet.

1.3 Safety Instructions

- Disconnect the printer from the electrical outlet before mounting or removing the stacker (2).
- When using the stacker without base frame the stacker protrudes the base plate of the printer. Therefore the system must be positioned at the edge of the platform or on a mounting unit. Position the system in such a way that a risk of tilting will be avoided.
- The stacker may only be operated when it is mounted on the printer.
- Risk of injury, particularly during maintenance, the cutter blades (3,4) are sharp.
- Operate the stacker with properly mounted safety covers (5) only.
- Mount matching safety covers (5) when adapting the stacker for another material width. For a table width greater than 92 mm no safety covers are needed.
- When the table (6) is not mounted or it is lowered manually the blades (3,4) are accessible. Do not operate the stacker under these circumstances. Do not touch the area of the blades.
- Warning stickers (1,2) must not be removed, as then you and other people cannot be aware of dangers and may be injured.

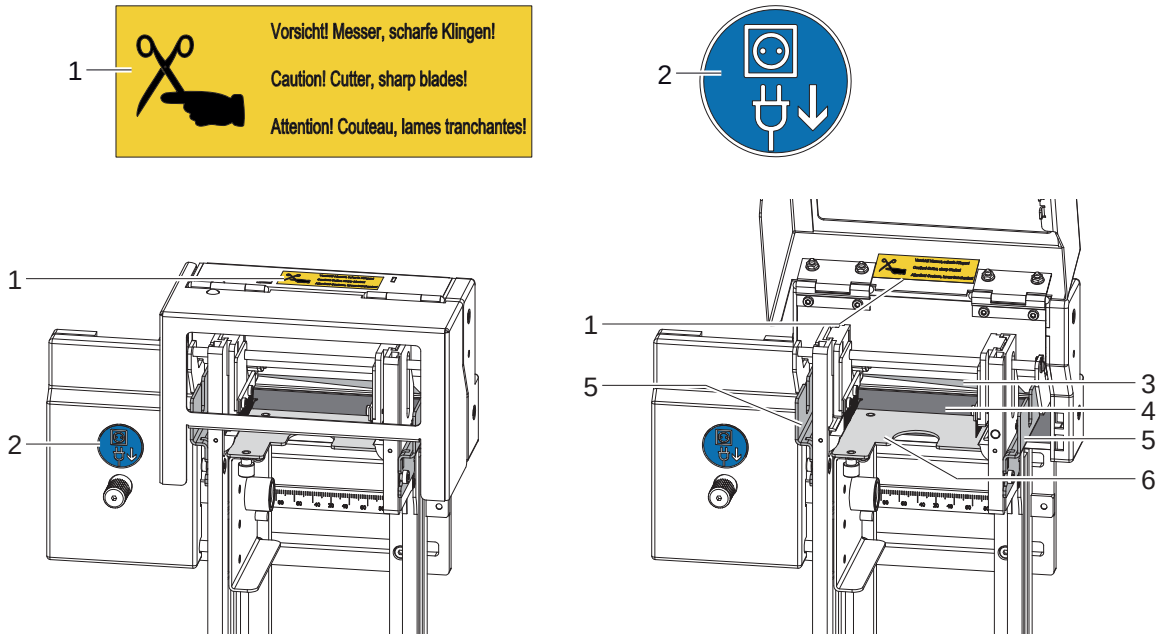


Figure 1 Safety covers, safety marking

- 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.
- The maximum sound pressure level is less than 70 dB(A).

Warning!
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

1.4 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 printer enables it to be easily disassembled into its component parts.

▶ Send the parts for recycling.

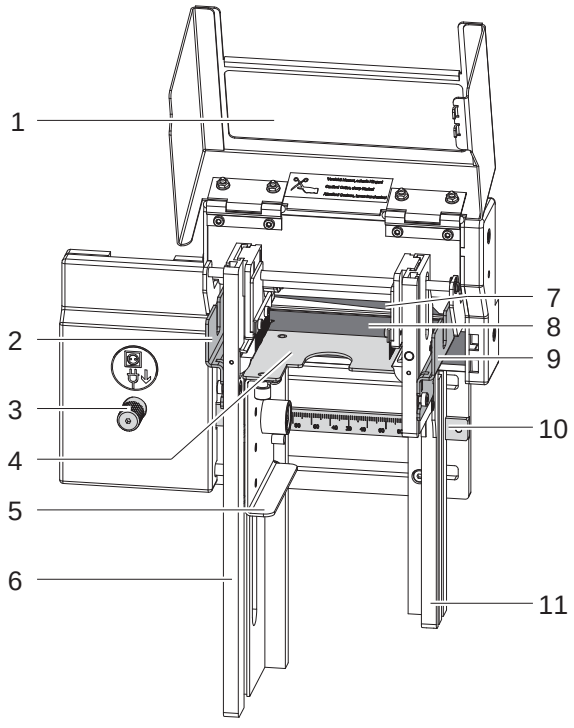
▶ Take the electronic circuit boards to public waste disposal centers or to the distributor.

1.5 Technical Data

	ST400
Usability	
for printer type	SQUIX4M, SQUIX4MP
Power rating	
Cuts / min	120
Print stop if :	Unable to reach end position of the cutter
	Cover open
	Maximum stack height is reached
Material	
Weight g/m² for cardboard	60 - 300
Thickness mm	0,05 - 0,8
Width mm	20 - 100
Cut length mm	20 - 150
Gap height up to mm	1,2
Stacking	
Height mm	max. 100

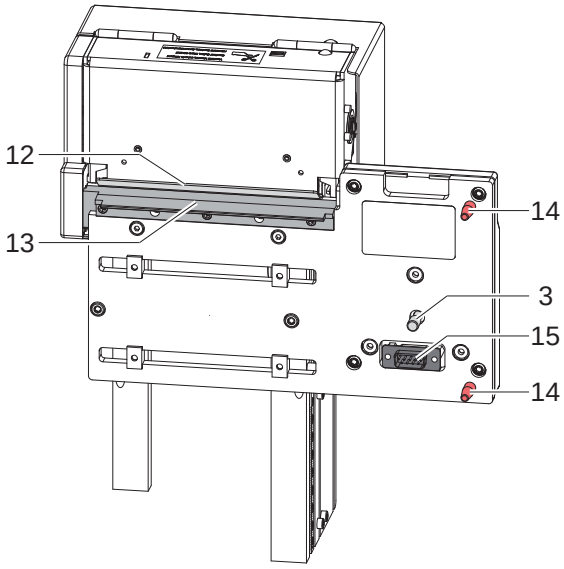
Table 1 Technical Data

1.6 Device Overview



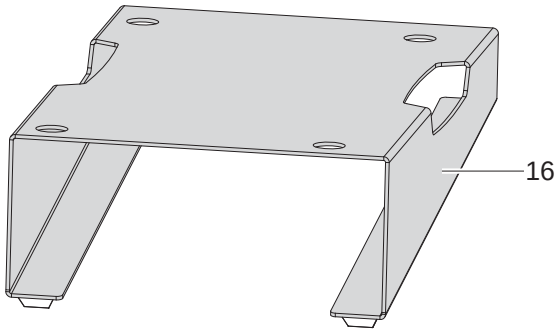
1 Cover
2 Safety cover
3 Knurled screw
4 Table
5 Handle for height displacement of the table
6 Side plate
7 Upper blade
8 Lower blade
9 Safety cover
10 Scale
11 Side plate

Figure 2 Overview front side



3 Knurled screw
12 Media Guide
13 Media Guide
14 Pin
15 Plug peripheral port

Figure 3 Overview rear side



16 Base frame

Figure 4 Base frame

2.1 Unpacking

▶ Check stacker for damage which may have occurred during transport.

▶ Check delivery for completeness.

Contents of delivery:

- Stacker with cutter
- Base frame
- Documentation

Note!

Please keep the original packaging in case the printer must be returned.

Attention!

The device and printing materials will be damaged by moisture and wetness.

▶ Set up label printer with stacker only in dry locations protected from splash water.

2.2 Preparing the Printer

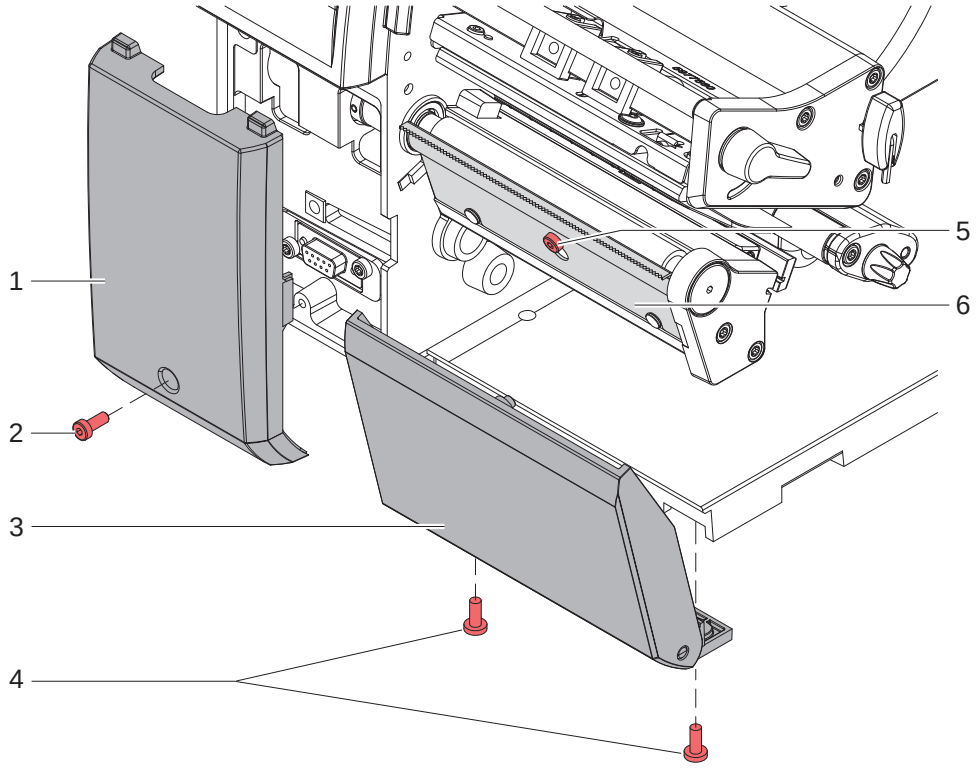


Figure 5 Preparing the printer

▶ Loosen screw (2) and remove cover (1).

▶ Loosen screws (4) and remove cover (3).

▶ Loosen screw (5) a few turns and remove tear-off or peel-off plate (6).

2.3 Mounting the Stacker

Attention!

▶ **Disconnect the printer from the electrical outlet before mounting or removing the stacker.**

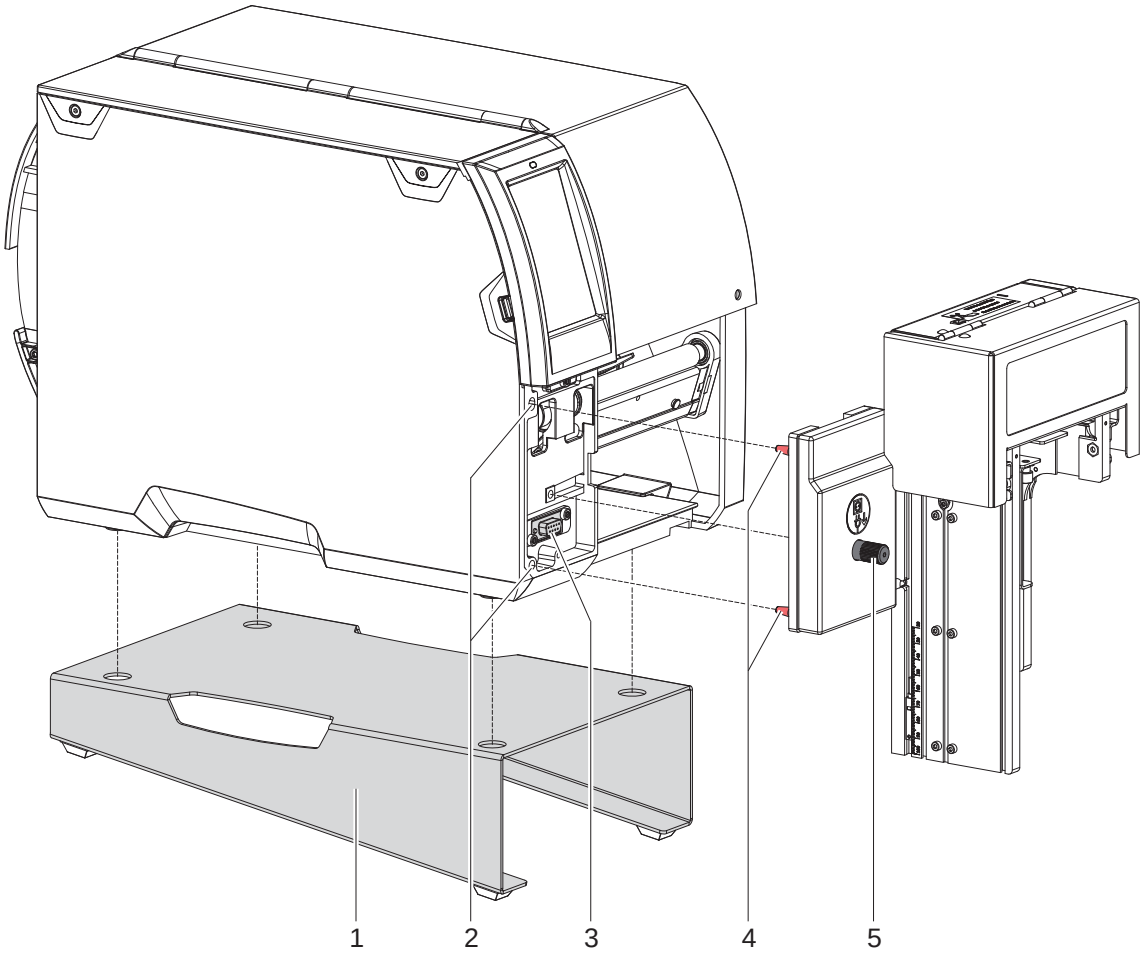


Figure 6 Mounting the stacker

1. Place the base frame (1) on a plane surface.
2. Put the feet of the printer into the holes of the base frame.
3. Insert the pins (4) of the stacker into the holes (2) of the printer.
4. Press the stacker against the printer. That way the plug (5) of the stacker will be connected to the peripheral port (3) of the printer.
5. Secure the stacker with the screw (5).

2.4 Adapting the Stacker to the Media Size

Caution!
Risk of injury!
With inappropriate tables and safety covers the reliability and machinery safety cannot be guaranteed.
▶ Equip the stacker only with a table designated for the media to be used and the matching safety covers.

2.4.1 Adjusting the Side Plates

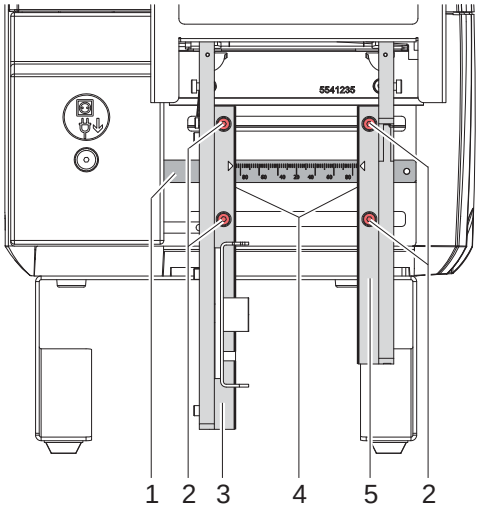


Figure 7 Adjusting the Side Plates

1. Loosen screws (2).
2. Adjust the side plates (3,5) to the media width using the scale (1). Use the edges (4) of the side plates as pointers.
3. Tighten screws (2).

2.4.2 Mounting the Table

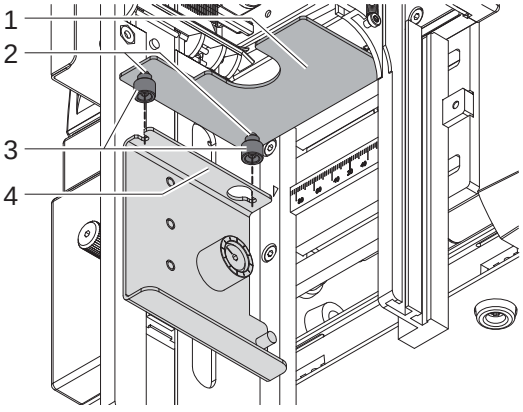


Figure 8 Mounting the table

1. Loosely screw the knurled nuts (3) contained in the delivery contents of the table onto the threaded pins (2).
2. Insert the threaded pins of the table (1) into the holes of the retainer (4) an move the table to the printer until it stops.
3. Tighten the knurled nuts (3).

2.4.3 Mounting the Safety Covers

Caution!
Risk of injury!
Without safety covers or with improperly mounted safety covers the reliability and machinery safety cannot be guaranteed.

- ▶ **Equip the stacker only with safety covers designated for the media to be used.**
- ▶ **Mount the safety covers in the correct position.**

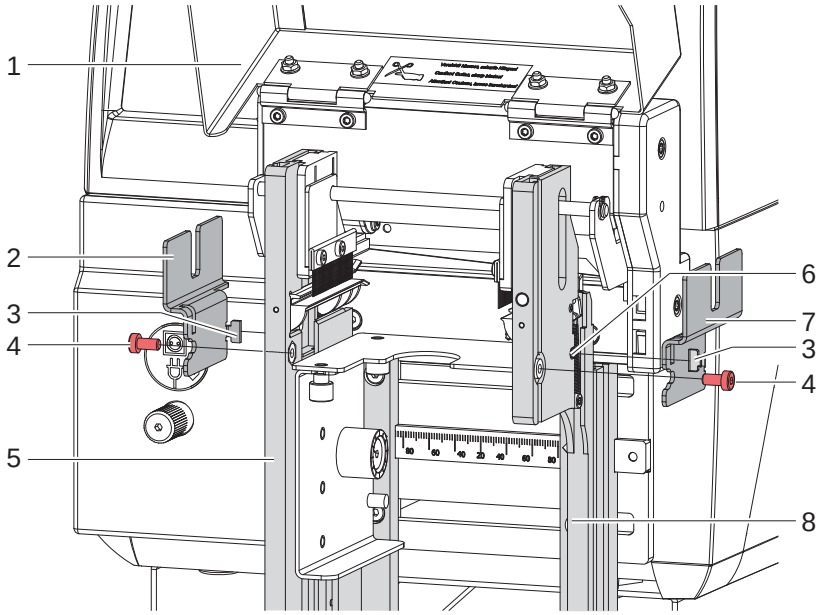


Figure 9 Mounting the safety covers

Note!
For a table width greater than 92 mm no safety covers are needed.

1. Open cover (1).
2. Loosen the screws (4) from the side plates (5,8).
3. Place the hooks (3) of the safety covers (2,7) into the slots (6).
4. Secure the safety covers with the screws (4).
5. Close cover (1).

- ▶ Insert labels for tear-off mode ▷ Operator's manual of the printer.
  Place the media strip between the printhead and the drive roller, so that the front edge of the strip reaches through the cutter.
- ▶ Insert ribbon ▷ Operator's manual of the printer.
- ▶ Activate the cut mode in the software.
  In direct programming use the "C" command.
  ▷ Programming Manual of the printer.
- ▶ Configure the cut parameters ▷ 4. Printer Configuration

Note!
The cut parameters are only accessible with cutter installed.

Caution!
Risk of injury!
With inappropriate tables and safety covers or with manually lowered table the reliability and machinery safety cannot be guaranteed.

- ▶ **Operate the stacker only with a table designated for the media to be used and the matching safety covers.**
- ▶ **Do not operate the stacker when the table is lowered manually.**

- ▶ Move the table (2) upwards using the handle (3) until it stops.
- ▶ Switch on the printer.
  The cutter performs a synchronization action.

Note!
To operate the cutter with continuous material in the printer menu *Setup* -> *Labels* -> *Label sensor* the setting *Continuous media* has to be selected. Otherwise no synchronization cut is carried out.

- ▶ Press . For synchronization the media will be moved forward and cut off.
  That synchronization is not necessary when the printhead was not opened between print jobs, even if the printer was powered off between print jobs.

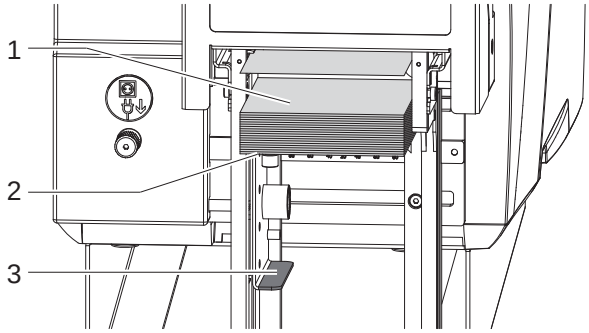


Figure 10 Operation

- ▶ Send a print job.
  All labels in the job will be printed without stopping and be cut. With the movement of the upper blade the labels will be pressed onto the stack (1) and the table will be moved down little by little.
  When the table reaches the lower end position the print job will be stopped and the error message *Box full* appears in the display of the printer.
- ▶ After the end of the print job or when the error *Box full* occurs, remove the stack from the table.
- ▶ After the error *Box full* resume the print job by pressing *Continue*.

Note!
Between the print jobs a direct cut can be released by pressing **on the control panel.**

Note!
The values of the setup are basic settings for the current printer/cutter combination.
After changing the cutter or printer a re-adjustment may be necessary.

Changes required for processing different print jobs should be implemented by additional offsets available in the software.

The offset values from setup and software are added together for execution.

For detailed instructions for configuration
▷ Configuration Manual of the printer.

Cut Parameters

▶ Start menu.

▶ Select *Setup* > *Cutting*.

Parameter	Meaning	Default
Cut position	Offset of the cut position relative to the rear label edge. The setting can also be adjusted by the software. The settings of configuration and software are added together.	*0.0 mm*

Table 2 Parameters of the *Cutting* menu

Backfeed

▶ Start menu.

▶ Select *Setup* > *Printing*.

Parameter	Meaning	Default
Backfeed	Method for backfeeding the label medium. Backfeeding is necessary in the cutting and peel-off modes since a label is pushed out passed the front edge of the next label above the print line when peeling off/cutting. *always*: Backfeeding occurs independently of label contents. *smart*: Backfeeding only occurs when the next label is not yet completely prepared when peeling off/cutting the current label. Otherwise, the second label is pushed on and completed after removal of the first label without backfeeding.	*smart*

Table 3 Parameter *Backfeed* in the *Printing* menu

Label Sensor

▶ Start menu.

▶ Select *Setup* > *Labels*.

Parameter	Meaning	Default
Label sensor	Method for detecting the starting end of the label. *Gap Sensor*: Detection using changes in the transparency between the label and label gap. *Bottom-Reflect*: Detection using reflex marks on the bottom of the medium. *Continuous media*: Checking the existence of media only.	*Gap sensor*

Table 4 Parameter *Label sensor* in the *Labels* menu

The maintenance is limited to monthly cleaning of the device.

The most important is the cleaning of the cutter blades.

Caution!

Risk of injury!

- ▶ **Disconnect the printer from the electrical outlet to avoid unintended cutter moves.**
- ▶ **Carefully handle the cutter. The cutter blades are sharp.**

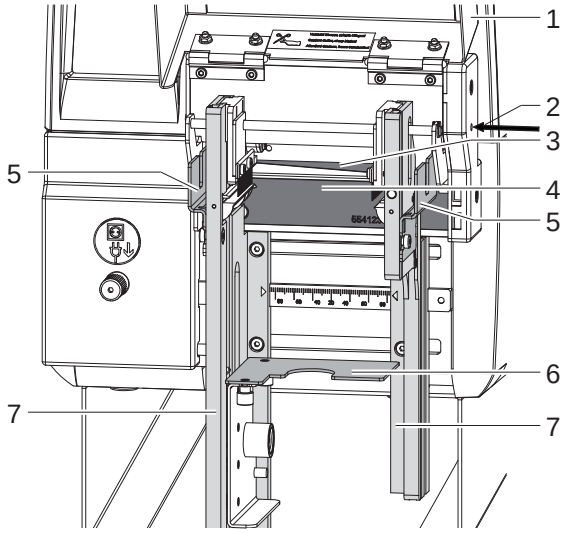


Figure 11 Cleaning the cutter

1. Open cover (1).
2. Move table (6) downwards.
3. Remove safety covers (5 / ▷ 2.4.3 on page 11) and shift the movable side plates (7) apart from each other as far as possible (▷ 2.4.1 on page 10).
4. The cutter shaft can be reached trough the hole (2). If necessary turn the cutter shaft with an Allen key (2.5 mm) and that way displace the upper blade (3).
5. Remove dust and paper particles with a soft brush or a vacuum.
6. Remove all deposits at the cutter blades (3,4) with isopropyl alcohol and a soft cloth.

Note!

When cutting through the label material instead of the label gap remains of adhesive may accumulate on the blades. If operating in backfeed mode, such remains of adhesive may be deposited on the drive roller as well.

- ▶ **Clean often the drive roller (▷ Printer Operator's Manual) and the cutter blades.**

7. Re-adjust the side plates and re-mount the safety covers.
8. Move the table upwards until it stops.
9. Close cover.

General information ▷ Operator's Manual of the printer.

Specific Error Messages concerning the Stacker with Cutter

Error message	Cause	Remedy
Box full	Table has reached the lower end position and cannot take anymore labels.	Remove stack. Move table upwards until it stops Press *Continue* to continue the print job.
Cutter blocked	Cutter cannot reach the home position within a defined time after cut start.	Switch off the printer. Remove material. Switch on the printer. Restart print job. Change material
	No cutter function	Switch the printer off and then on. If error recurs call service.
Cutter cover open	Cover of the stacker is not closed	Close cover. Press *Continue* to continue the print job.
Cutter jammed	Material too thick	Change material
	Bracket on the upper blade collides with safety cover	Use safety covers matching to the table width. Re-adjust the movable side plates.
	Table does not move downwards while stacking.	Reduce the brake of table movement as necessary.

Table 5 Error messages concerning the stacker with cutter

Problem Solution

Problem	Remedy
Table moves downwards without cutter action when heavy stacks are produced	Augment the brake of table movement.
When stacking stiff, pre-bulged labels, the media springs upwards and blocks the stacker mechanics or the label output	Reduce the brake of table movement.
Higher stacks become instable caused by the media properties.	Reduce the maximum stack height.

Table 6 Problem Solution

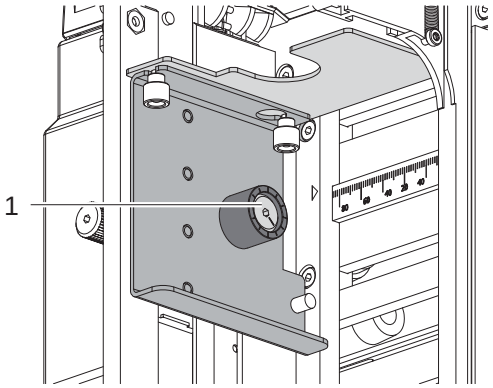


Figure 12 Adjusting the brake for table movement

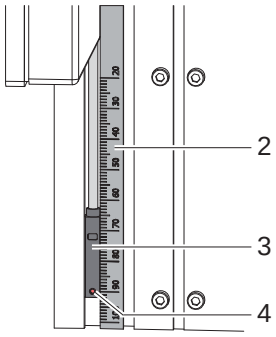


Figure 13 Adjusting the maximum stack height

Adjusting the brake for table movement

▶ Turn magnet (1) with a 2.5 mm Allen key. Clockwise turning will augment the brake.

Adjusting the maximum stack height

▶ Loosen screw (4) with an 1.5 mm Allen key, re-position sensor (3) and re-tighten screw (4).
The position of the screw (4) shows at the scale (2) the maximum stack height in mm.

7 Reference to the EU Declaration of Conformity

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The Stacker with Cutter complies with the relevant fundamental regulations of the EU Rules for Safety and Health:

- 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

EU Declaration of Conformity

▷ https://www.cab.de/media/pushfile.cfm?file=2790