

Installation, Setup, Operation and Maintenance

Geset 117

Article number of documentation 40002674



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1. General information

Overview

Congratulations! You are now the owner of a high-quality labeling system. Our desire is for you to experience the full benefit of this system to your complete satisfaction for many years. As a prerequisite, we recommend system installation by one of our experienced specialists (for instructions, see page 30). Contact our service hotline (page 6); we are available in 24 hours a day, Monday through Friday.

Liability restrictions

All of the information and directions in these instructions were compiled with reference to applicable standards and regulations, the state-of-the-art as well as our years of accumulated experience.

The manufacturer assumes no liability for damage arising from the following:

- Nonobservance of operating instructions
- Improper use
- Use of untrained personnel
- Independent changes to the system
- The use of spare parts that have not been approved by the manufacturer

The following apply: The obligations agreed in the supply contract, general terms and conditions, the manufacturer's delivery conditions, as well as the statutory regulations applicable upon the conclusion of the contract. We retain the right to make technical changes to improve usefulness and for the sake of development.

Warranty provisions

The warranty conditions are conforming to the valid General Trading Conditions of Bluhm Systeme GmbH at the moment of purchase.

Copyright

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Purpose and overview of the operating instructions

These operating instructions will help you get to know the system Geset 117 and use it properly.

They contain important instructions for the user on how to use the system safely and correctly. Its consideration helps to:

- Avoid hazards,
- Minimize repair costs and outages and
- Increase the reliability and service life of the machine.

The operating instructions are for the system identified in the title with the stated type number.

The operating instructions must always be available wherever the system is used. They must be read and used by everyone assigned to work with the system.

Printing mistakes, errors, and changes to maintain the state-of-the-art may occur. Illustrations without protection devices may be presented for the sake of illustration.

How to use the operating instructions

Detailed explanations are offered below of the conventions for the text and illustrations which are used in this manual.

- Buttons, switches and pushbuttons that need to be pressed are placed in brackets.

Ex.: Press the [Start] button to accept the changes...

- Menu points and links to chapters and keywords are places in "..."

Ex.: The pushbutton "Turning plate infeed/outfeed passage"...

- Procedures that need to be performed in a fixed sequence have to be numbered.

| Step | Procedure |
|------|------------------------|
| 1 | Pull the power plug... |

- Special information is in bold and/or has a gray background

This is an example of special information!

- All figures (Fig.) are numbered sequentially for each chapter. This means that the reference "Fig. 2-1" corresponds to the first figure in chapter 2.
- Illustrations are frequently shown with only the essential information and may therefore deviate from the original. Illustrations are therefore shown without covers or protection device for the sake of clarity.
- Illustrations limit itself partly to the depiction of one variant (e. g. only RH, only LH, or only [System1]...). It is particularly valid for example figures if the information content is transferred logically to other system versions.

Service Hotline

The technical service hotline is available 24 hours a day, Monday through Friday. In emergencies, parts may be shipped as late as approximately 10:00 p.m.

| | |
|-----------------|---|
| Tel : | +49 (0)2224 - 7708 - 440 |
| Fax : | +49 (0)2224 - 7708 - 21 |
| E-Mail : | <u>hotline-ed@bluhmsysteme.com</u> |

If you want to discuss labeling system malfunctions, have the following information ready for the hotline:

- Detailed description of the problem.
- All the information from the labeling system rating plate.
- Did the problem arise for the first time after the following?
 - After inserting a new role of labels or ribbon.
 - After changing the system configuration.
- If the malfunction arose in the print-apply cycle, all of the information about the PLC signal status.

Before contacting our hotline, check if the operating instructions (chapter titles, troubleshooting) has information to help you deal with the problem.

We would like to keep our hotline available for our customers as much as possible. Please be aware that our hotline may also refer you to written information in the operating instructions.

Explanations of the terms used

| Term | Explanation |
|--------------------------|---|
| Application cycle | Complete operating sequence of the labeling system (such as printing the label, peeling it off, transferring it to the applicator and labeling the product). |
| Application mode | Depending on labeler's equipment, different application modes can be applied. See explanations: Tamp on, tamp blow, blow on and wipe on. |
| Approval drawing | Customization of a series system is approved by the customer via a drawing of Bluhm-Weber Group. This approval drawing also includes individual performance data of the machine. |
| Automatic mode | See labeling operation |
| Base conveyor | See also "conveying system". The base conveyor transports the products that should be labeled. |
| Blow-On | Contact-less application mode in which the tamp receives the printed label by a vacuum and blows it onto the product without the tamp moving. |
| Conveying system | The unit consisting of the conveyor belt and its control. |
| CS | Abbreviation for conveying system (see above) |
| Dancer arm | The arm that holds the label liner taught by spring tension. |
| Default | All basis settings for the system after it is made that can differ from the status after the system is started up. The software parameters can be returned to the defaults by being reset, and any changed values are lost. |
| Default | See factory-setting. |
| Gauge | See "Service unit" |
| Gimbal adjustment | The gimbal adjustment is used to align the longitudinal and lateral inclination of the labeling system and thus the peeler bar to product. The peeler plate has to be aligned parallel to product. |
| HMI | Abbreviation for Human-Machine-Interface, input unit for a labeling system or a controller of components. |
| Hotline | Customer support for a fast diagnosis by phone. |
| HPU | The abbreviation of Height Processing Unit: A device that is driven by a motor or pneumatically to move a labeler vertically. This feature enables different labeling positions in vertical direction. |
| Infeed | The products are fed manually or by a conveying system provided by the customer at infeed passage of the labeling station. |
| Label feed | Feeding of a label by the labeler. The fed label is printed on within the print engine and peeled off at the peeler bar. |
| Label gap) | Distance between two labels at the label web. The gap is detected by a (label) sensor of the applicator. |
| Label liner | Siliconized liner material where single labels stick onto. |
| Label out | An optical sensor (reflective light sensor) for detecting the end of the labels |
| Label sensor | An optical sensor that determines the gap between the labels |

| Term | Explanation |
|---|--|
| Label size | Dictates the label format: Width x length (in the direction of feed of the label liner measured in millimeters [mm]). |
| Labeling system | Dispensing system for automatically applying labels |
| Labeling operation | This is the same as automatic mode. The labeling system is ready to print and dispense labels |
| Labeling system | The labeling system is used to label products automatically and consists of several components (assembly groups), e.g. conveyor belt, labeling system. |
| LED | The abbreviation of light-emitting diode |
| Low label prewarning Low label warning | An optical sensor (reflective light sensor) for detection of an (adjustable) minimum label roll diameter to provide a warning |
| Opacity | The transparency of a material can be measured by a light barrier and is named opacity. The measuring sets the quantity of the radiated light in proportion to the incoming light. The lower the proportion, the lower is the opacity. |
| Outfeed | The outfeed forwards the products to the customer's conveying system. Here the products are removed. |
| Peeler plate | Metal plate about which the label is peeled off. |
| PLC | Programmable logic controller. |
| Poti/potentiometer | Changeable resistor (controller) for the analog control of labeling system settings (such as the timing of the tamp movement in relation to the rotary position of the potentiometer) |
| Product detector | A sensor for detecting the product. Most frequently, optical sensors are used (photocells, light barriers, reflective sensors). |
| PSI | American unit of measure for compressed air. (1 PSI = 0.06895 bar). |
| Pusher Roller | Pushes the label onto the product strongly sticking.. |
| RFID | This abbreviation stands for radio frequency identification. This technology is used to identify products so that they can be tracked using smart labels (see RFID label). |
| RFID label | The RFID label or also called Smart label is a particular label that has a transponder onto which data can be written or read via radio. The identification of products labeled in this way is possible contactless by an antenna. |
| Service unit | This unit consists of: <ul style="list-style-type: none"> • A gauge for displaying the compression of the compressed air (in bar) • Quick action stop valve • Water trap for manually draining any condensate |
| Start sensor | See also "Product detector". The start sensor scans the leading edge of the product. As soon as a product is detected, the labeling procedure starts. The label position on the product is adjusted by the sensor position. |
| Touchscreen | Touch-controlled screen or monitor |
| Trigger signal | The signal from the sensor or PLC which is used to activate application. |
| VAC | Alternating voltage |

| Term | Explanation |
|------------|-------------------------|
| VDC | Direct current voltage. |
| Water trap | See "Service unit". |

2. Safety regulations

Behavior in an emergency

The operating personnel must know the location of and how to use safety equipment, alarms, first aid and rescue equipment.

What to do in an emergency?

- If individuals, body parts or objects become caught in the moving parts of the labeling system, immediately disconnect the compressed air and power supply to the labeling system.
- Immediately perform all necessary first-aid on injured persons. Observe the applicable safety regulations to prevent additional personal injury.
- Obtain medical help for injured persons.
- Eliminate all the causes of the accident.

Basic safety guidelines

Safety guidelines offer information the form of text and symbols to warn of hazards and provide instruction for preventing any personal injury and property damage.

Safety instructions are introduced by keywords that express the extent of the danger.

Safety instructions can be affixed directly on the labeling system or in documents pertaining to the labeling system.

Meaning of the hazard levels



The symbol indicates a hazardous situation that will cause serious injury or death. To prevent personal injury, all safety instructions must be observed.



The symbol indicates a hazardous situation that can lead to serious injury or death. To prevent personal injury, all safety instructions must be observed.



The symbol indicates a hazardous situation that can lead to moderate or light injury. To prevent personal injury, all safety instructions must be observed.



The symbol indicates a hazardous situation that can lead to property damage. To prevent property damage, all warnings must be observed.

Intended use

The operational safety of the system Geset 117 is guaranteed only if it is used as intended.

Intended use consists of the following ...

- The labeling system may only be used for automatically labeling moving and stationary products.
- The labeling system may only be worked on manually after it stops.
- The labeling system is used for the specific products agreed with the customer with the specific, agreed labels. In every way, the products and labels must satisfy the documented* specifications agreed between the machine manufacturer and customer.
 - * "Documented specifications" are normally laid down in the LSS (Labeling-Systems-Survey) and this document is handed out to the customer with the order confirmation.
- the labeling system is operating in explosion-proof environments (not intended for explosion-risk areas) !
- the labeling system does not come in direct contact with food products.
- the labeling system is not operating outdoors.
- the labeling system is used with an additional pneumatic shutter at the aperture for the tamp when operating in a wet environment.
- the labeling system has additional air conditioning features in the stainless steel cabinet for use in an aggressive air environment (e.g. salted air).
- the labeling system has additional air conditioning features in the stainless steel cabinet for use in a dusty environment with unadjusted particles.
- the labeling system is used exclusively for industrial purposes.
- all working conditions and instructions, prescribed in this manual, will be observed.
- failures at the labeling system affecting the safety have to be reported and immediately resolved by trained and briefed personnel.
- maintenance is kept and performed correctly.
- the labeling system is used exclusively under faultless conditions.
- safety equipment is not by-passed or abrogated.
- arbitrary changes at the machine are omitted.
- the labeling system is used or operated by adequate personnel, refer to "Authorized persons" (s. page 18). These persons must have read and have to be familiar with the content of the manual.

Handling the labeling system without considering one of these points is not for the intended purpose and can cause serious damages to persons or properties.

Reasonably foreseeable misuse

Usage different than or going beyond that specified under "Intended use" is considered unauthorized.

The operator bears sole responsibility for

- Damage arising from improper use.
- Furthermore, the manufacturer assumes no liability for such use.

Improper use can cause exposure to risk!

Improper use includes e.g. the following:

- Operating in an explosive atmosphere
- When the labeling system comes into contact with food...

Modifications and alterations to the labeling station

If the machine is independently modified and altered, all of the manufacturer's liability and warranties will expire. This also holds true for modifications and changes to the programs of the programmable control system as well as changes to the parameters to control devices not described in these operating instructions.

The electromagnetic behavior of the machine can be impaired by additions or changes.

Do not change or modify the machine without first consulting the manufacturer and obtaining the written approval.

Hazards to the labeling system

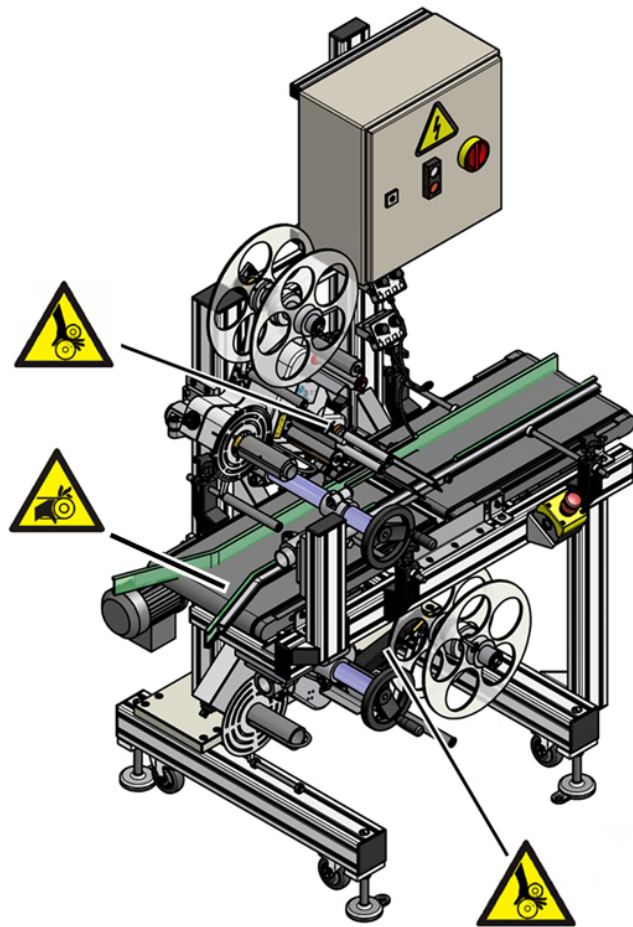


Fig. 2-1: Hazards to the labeling system

The example in Fig. 2-1 shows potential hazard areas of the labeling system. . Especially in the infeed and at the labeler is an increased risk of injury.

- Base conveyor
- Labeler

Possible injuries that may be caused by the assembly groups of the labeler, are normally reversible.

Safety instructions**WARNING****Hazard from direct or indirect contact with voltage-conducting parts.****DANGER TO LIFE!**

When individuals touch parts that conduct electricity arising from malfunctions.

- Only electricians may work on the switch cabinet and electrical equipment.
- Regularly check the electrical equipment of the labeling system. Immediately take care of loose connections and damaged cables.
- Always keep the switch cabinet locked.
- Before working on electrical equipment, switch the miniature circuit breaker to "0" position and secure it against being accidentally turned on. If possible, disconnect the power.

**CAUTION****Hazard from easily flammable label material.****FIRE HAZARD!**

The ribbon and labels are easily flammable. Potential injury from fire and smoke.

- Keep away from sources of ignition and open fire.

**CAUTION****Hazard from rotating elements.****DANGER OF BEING PULLED IN!**

Rotating elements at the labeling station, like rewinder, driving- and transport rollers ... are driven by a motor

- Do not grip in, at or between the moving parts.

**CAUTION****Hazard from actively controlled movements.****CRUSHING HAZARD!**

The movements of the labeling station are motor-driven by an automatic controller.

- Maintain a distance from moving parts.

**CAUTION****Tripping hazard from connecting lines.****RISK OF INJURY!**

Connecting lines for power, compressed air and computer and signal lines can pose a tripping hazard, causing serious injury.

- Release the tension of connecting lines to the system and run them so that they do not pose a hazard

**Danger of injury from corners and edges.****RISK OF INJURY!**

Scrapes and cuts can result from sharp edges and pointed corners. Always keep the work area clean. The label web forms sharp edges.

- Observe caution when working close to sharp edges and pointed corners. Remove unnecessary objects.
 - In case of doubt, wear protective gloves.
 - Be careful when inserting and exchanging the label web.
-

***2 Risk of injury due to light beam.****RISK OF INJURY!**

*2 Sensors or *2camera illumination may have a strong light intensity.

- Do not look into the source of light.
-

*2 Only if system has the appropriate features.

Warnings on the labeling system

Special hazards arising from the labeling system are identified with yellow stickers. The pictograms indicate hazards:



***2 Danger**



Life-threatening hazard due to electrical power



Crushing hazard



Entanglement hazard



***2 Danger due to strong light radiation**



Observe manual

*2 Only if system has the appropriate features.

Remaining risks

The labeler is constructed in a way that makes it safe for use. Some hazards are inherent in the design and construction but can be minimized with the corresponding safety mechanisms and equipment. A certain residual risk always exists when operating machinery. Knowledge about residual risks of the system helps you to increase your safety awareness and avoid accidents. To prevent hazards, observe the special safety instructions and each chapter. When connecting the labeler to the customer's conveying system, there may arise hazard areas at the transitions. Suitable protection measures have to be arranged in this case.

Obligations of the operator

This manual is a part of the system and has to be available always within reach.

To guarantee a safe operation of the labeling station, the operator is obliged to ...

- Ensure always the safety for the persons working at the labeling station.
- The technical data and information about the installation-, connection-, surrounding- and operational conditions have to be observed consequently.
- The safety regulations that are special for the labeling station are observed.
- The use of personal protective gear is observed.
- Signposting and marking of hazard areas have to be renewed if damaged or lost.
- Personal to be trained or instructed or apprentices work only under constant supervision of experienced persons.
- All work at the electrical equipment is only arranged by qualified Electricians.
- All failures at the labeling station are repaired by trained personnel or by Technicians of the Bluhm Weber Group.
- The qualified personnel is trained in handling the integrated controller before parameterizations may be arranged.

If you do not understand parts of this manual, we kindly ask you to contact immediately your contact person at Bluhm Weber.

Authorized persons

Authorized persons according to this manual are following persons:

Operators are persons who...

- have been instructed to the use of the labeling system.
- have completed the minimum age permitted by law.
- have read and understood this manual.

Operators are allowed...

- to start or stop the labeling operation.
- to replace label rolls.
- to arrange daily accumulating cleaning works at the labeling system according to the chapter maintenance.

Qualified personnel are operators who ...

- have terminated a professional technical training (Electrician, Mechanist).
- have terminated a training at the Bluhm-Weber-Group successfully.

Qualified personnel are allowed...

- to arrange repair- and maintenance works at the labeling station and its components according to their professional qualification.

Personal protective gear

Wear the following protective gear when working on the machine:



PROTECTIVE FOOTWEAR

To protect against falling parts and slipping.



PROTECTIVE WORK CLOTHES

Protective work clothes fit snugly, tear easily, have tight-fitting sleeves and no projecting parts.

- Wear a hair net if necessary.
- Do not wear jewelry, wristlets, watches or similar..







SAFETY GLASSES

Wear safety glasses to protect from splashing cleanser and flying parts.



PROTECTIVE GLOVES

Wear protective gloves to protect from sharp-edged objects and irritating detergents.

| Wear personal protective gear for the following activities | Protective work clothes | Protective footwear | Protective gloves | Safety goggles |
|--|---|--|---|---|
| |  |  |  |  |
| Transport labeling station | X | X | X | |
| Put up labeling station and connect it | X | X | | |
| Put labeling station into operation | X | X | | |
| Arrange maintenance work | X | X | X | X |
| Ensure product operation | X | X | | |
| Observe the manufacturer's documentation for the individual components of the machine! | | | | |

Protection devices

Operate the system only if all safety- and protection devices are completely available and functional. Check the protection devices for its function:

- At first operation.
- At regular routine test.
- After exchange of security-relevant components and parts.

If deficiencies occur during operation at the protection devices, stop the system immediately and remedy the deficiencies! Do not change or remove any protection devices. Do not take the protection devices out of operation by any change.

Protection devices may only be removed when the system is stopped and safeguarded against re-starting of the system (e.g. padlock at main switch, disconnect power plug from power connection). If subcomponents are supplied, the protection devices have to be installed according to the regulations by the operator.

Connection to the customer's conveying system may evoke dangerous areas at the transitions. Suitable safety measures have to be taken in this case.

*2 Labeling station's cover

The fixed and screwed system covers protect the user against mechanical hazards.

*2 Main switch



Fig. 2-2: Main switch

The main switch serves for switching the system on and off and emergency stop. In position "0" it interrupts the power supply to the system but however the supply in front of the switch can be energized.

The main switch can be locked in position "0" as a protection against a hazard by accidentally or unauthorized switching on the system.

Lock always the main switch:

- During maintenance- and service works.
- If switching on the system may lead to a hazard

*2 Emergency-Stop Push Button

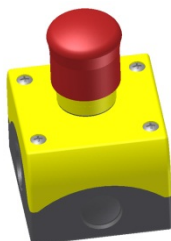


Fig. 2-3: Emergency-Stop Push Button

The emergency stop pushbutton serves for an immediate stopping of the complete labeling system. It should only be used in emergency situations. The emergency stop push button is locked after actuation and has to be locked manually before restarting (consider the information at the button).

*2Only if system has the appropriate features.

*2Safety switch

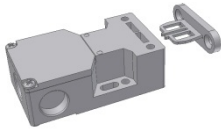


Fig. 2-4: Safety switch

Safety switches are mounted on the protective housing and protection doors to be opened. They serve for the immediate stopping of the labeling system in case of accidentally opening of the protective housing and protection doors. Switching on the labeling system with open housing or door is not possible.

*2Only if system has the appropriate features.

Working places for the operator personnel

The labeling station is an automated system and does not require operation while labeling.

When the labeling system is operating without any malfunction, the operator may only be in the safe area, that is, the area covered by the protective measures.

For servicing, repairing and troubleshooting (remove the label from the applicator), etc., the labeling system can be operated from all sides.

Only one person is permitted to replace the consumable material. All interventions are only permitted when the labeling system has stopped operation.

After troubleshooting and/or restarting the labeling station, the operator must immediately leave the hazardous area and has to stay in the area designated by the safety measures.

Waste disposal



This label is in compliance with RoHS 2 EU Directive 2011/65/EG given observance of the prohibitions on use and avoidance of pollutants.

3. Specifications

| | |
|--------------------------------------|--|
| Dimensions: (L x W x H in mm) | appr. 1300 x 830 x 1700 mm |
| Weight: | appr. 200 kg (without label roll) |
| Power connection: | 230 V / 50 Hz |
| Power consumption: | max. 1,5 kVA |
| Ambient temperature: | 10 - 38 °C |
| Surrounding conditions: | 20 - 90 % relative air humidity (non condensing) |

Performance data

| | |
|-------------------------|---|
| Application rate | max. 100 pieces/min (depending on product and label size) |
|-------------------------|---|

Information on operator elements

| | |
|-------------------------|------------------------------|
| Operator station | 2 pushbuttons, main switch |
| Emergency-stop | *2 emergency-stop pushbutton |

*2Only if system has the appropriate features.

Noise level

The A-evaluated equivalent permanent noise level at the working places of this system is maximum 75db (A).

4. Description of the labeling system

The labeling station is used to label square products on their top and bottom side automatically.

Depending on kind and dimension of the product, different label sizes are used.

Further function descriptions about machine components can be found in the chapter “Adjustment and initial operation”.

Infeed

The products are fed manually or by a conveying system provided by the customer at infeed passage of the labeling station. Care should be taken on accurate alignment of the products.

These are held by side guidance on the base conveyor in a row.

Top side labeling

A labeler that is installed above the base conveyor applies the labels in throughfeed on the top side of the product.

Bottom side labeling

A labeler that is installed below the base conveyor applies the labels in throughfeed on the bottom side of the product.

Outfeed

The base conveyor forwards the finished labeled products to the outfeed. Here the products are removed manually or via the customer's conveying system.

Complete overview

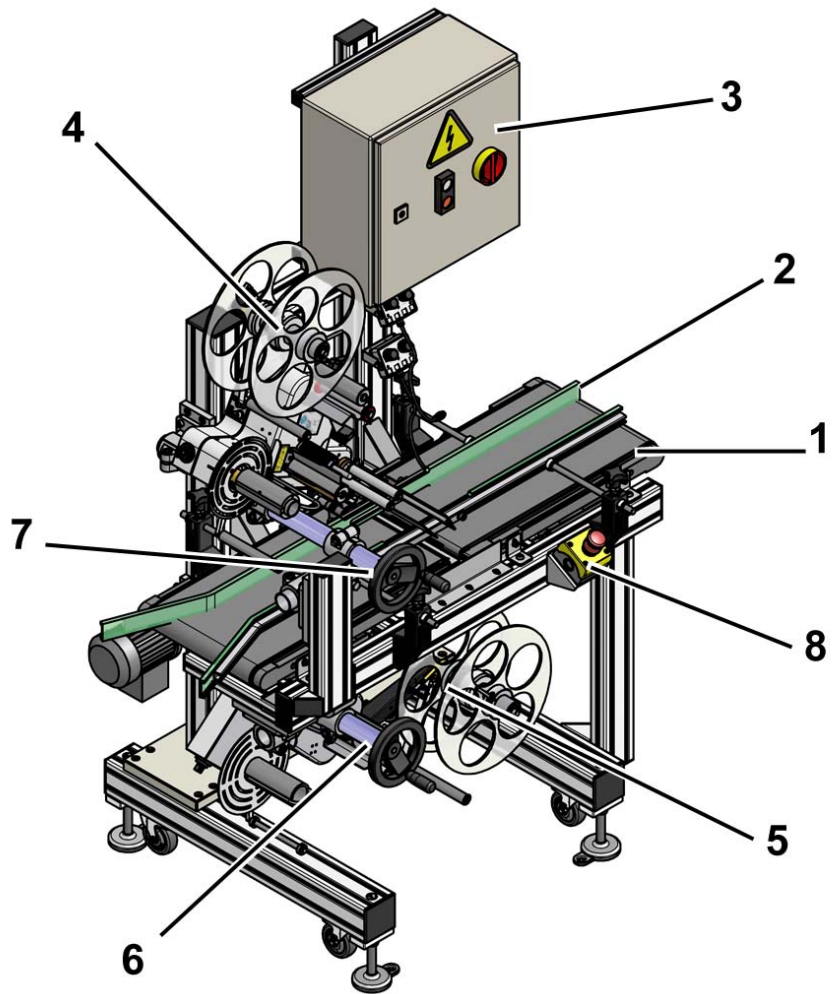


Fig. 4-1: Overview of labeling system

| No. | Description |
|-----|--------------------------------------|
| 1 | BASE CONVEYOR |
| 2 | SIDE GUIDANCE |
| 3 | SWITCH CABINET |
| 4 | TOP SIDE LABELER |
| 5 | BOTTOM SIDE-LABELER |
| 6 | AXIAL ADJUSTMENT BOTTOM SIDE-LABELER |
| 7 | AXIAL ADJUSTMENT TOP SIDE-LABELER |
| 8 | EMERGENCY-STOP PUSHBUTTON |

5. Transport

Delivery

The labeling station is normally delivered by a haulage contractor. Check the package for any damage. If you notice anything unusual, notify the haulage contractor immediately and note it on the delivery slip.

Scope of the delivery

The elements of the system delivery depend on the selected options and the customer's specific application. When the system is delivered, check to see if everything is there against the delivery slip.

Transportation and unpackaging

Safety instructions



Hazard from lifted loads



RISK OF INJURY!



Falling loads can cause severe injury or death.



- Do not walk under a lifted load. The load may not be tilted.
- The location of the center of gravity must be taken into account when transporting the system.



Hazard from tight straps.



RISK OF INJURY!



The straps are secured tightly and can snap off if they are cut and cause severe injury



- Wear protective glasses and gloves.
- Stand to the side outside of the hazard zone.



Hazard from falling parts.



RISK OF INJURY!



Falling parts can cause injuries.

- Wear protective footwear.

The transport will be arranged by a Technician of the Bluhm Weber Group or by authorized specialists.

NOTICE

Remove the packaging material and the transport securing devices only at the site of use, and transport the labeling system in its original packaging to the labeling site. If the labeling system is not secured, it can tip over easily when transported.

Requirements

The labeling system is packed when delivered (with possible exceptions), that is:

- It is standing on a pallet
- It may be wrapped with stretch film or in a transport box
- It may be secured with additional straps and the plate feet may be screwed to the pallet
- Access ways to the machine are sufficiently dimensioned and not blocked.

Required equipment

- Suitable means transport (double pallet trucks or forklifts) with a sufficient lifting force (weight s. chapter "Specifications"). When using a forklift, drive slowly.
- Use a steel strapping cutter to remove the straps
- A crescent wrench for the transport securing devices.

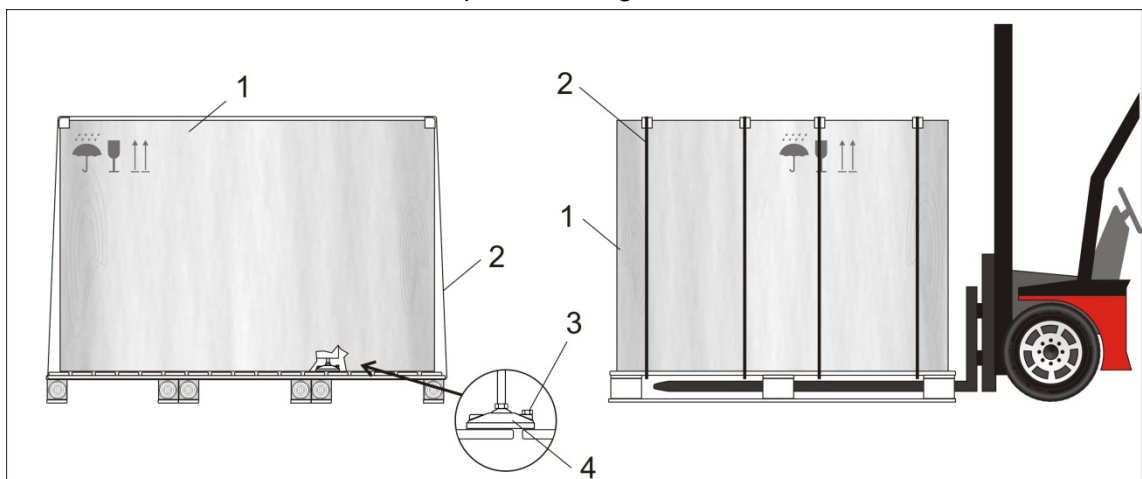


Fig. 5-1: Examples of packaging

| No. | Description |
|-----|--------------------------|
| 1 | TRANSPORT BOX |
| 2 | STRAP |
| 3 | TRANSPORT SECURING SCREW |
| 4 | RUBBER FEET |

Instruction

Use the following procedure to transport the labeling system to its site of use.

| Step | Procedure |
|----------------|--|
| 1 | Transport the labeling system to its site of use (within 3 m). The labeling system is precisely positioned during installation by a Technician from the Bluhm Weber Group. |
| CAUTION | The straps are secured tightly and can fly back when they are cut and cause injury. |
| 2 | Open, if available, the transport box (applied notes have to be observed!). Remove any film and straps (if available). |
| 3 | Remove, if available, all transport securing devices from the rubber feet. |

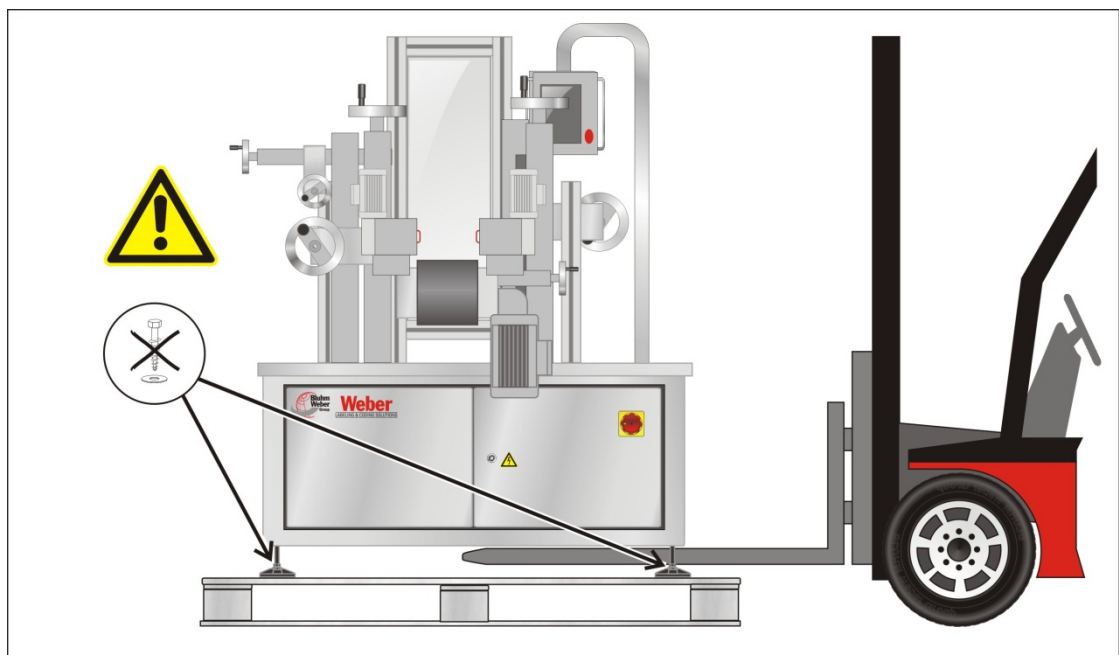


Fig. 5-2: Lift labeling system from pallet

| | |
|---|---|
| 4 | Lift the labeling system with a suitable material handling equipment in shown way from the pallet (applied notes have to be observed!). |
| 5 | Before startup, remove all transport securing devices (identified red tie wrap). |

Storage conditions

The conditions for storing a labeling system are the same as those of normal operation. For details see the chapter: "Specifications" on page 22.

Instruction

Store the labeling system securely as follows.

| Step | Procedure |
|------|--|
| 1 | Remove the label material from the system. |
| 2 | Transport the system to its storage location. For securing and transporting the labeling system, follow the safety instructions in the above section "Transportation and unpackaging". |
| 3 | To protect from dust, cover the labeling system with a cotton or paper cloth. To prevent the formation of condensate, do not use film. |
| 4 | Climatize the storage location like written in chapter "Specifications". |
| 5 | Before restarting the labeling system, check the system. |

6. Installation and initial startup

Safety instructions



Danger to life from actively controlled movements.



RISK OF INJURY FROM CRUSHING!

The movements of the labeling system are motor-driven by an automatic controller (e.g. at infeed spacing unit).

- Maintain a distance from moving parts.



Danger of being pulled in by rotating elements.



DANGER OF BEING PULLED IN!

Rotating elements at the labeling machine, backing rewinder, label feed, conveyor belt are driven by a motor.

- Do not grip in, at or between the moving parts.

Installation

Continuous operation with minimal wear and downtime can only be ensured when the system is installed properly. Fine adjustments to the conditions of use are essential when installing the system. These fine adjustments are adapted to the surrounding conditions. To make these fine adjustments, detailed professional knowledge is necessary that arises from experience with labeling systems.

This required professional knowledge cannot be completely communicated by the operating instructions; therefore a Technician from the Bluhm Weber Group needs to perform the installation or accept the labeling system in a final inspection. The warranty does not cover damage or consequential damage arising from improper installation lacking the necessary fine adjustments.

Requirements at the installation site

- An enclosed and clean room.
- Flat, solid base.
- Any unevenness may not exceed 5 mm when stands from the Bluhm Weber Group are used.
- Sufficient bearing capacity: 1,500 kg/m².
- Low vibration environment.
- Sufficient lighting: 500 Lx.
- No direct exposure to sunlight or a radiator.
- The machine may not be operated within electrostatic or magnetic fields. This can cause the controls to malfunction.
- A proper energy supply according to the chapter, "Specifications" on page 22.

Placing the labeling system

- The labeling station has to be adapted to the customer's conveying system in position and height. The height of the system parts has to be ergonomically designed according to the user's requirements.
- The installed position must allow sufficient access for users and service technicians. In particular at all times, the mains switch / plug must be freely accessible to disconnect the power supply
- Make sure that all fasteners are sufficiently tight.
- Observe all of the items under "Intended use" in the chapter "Safety regulations".

Setting up the labeling system

Requirements

- The labeling system is unpacked and prepared (see the chapter: "Transport" on page 25) near the labeling site in the area of the installation site.
- The base is solid, level and flat.
- The labeling system and if applicable the turning plate must be completely installed.
- The connections for the compressed air and electricity are close to the labeling site (maximum distance of 1.5 m) as specified in the chapter: "Specifications" on page 22).

Required equipment

- Flat wrench
- Spirit level
- If applicable 2-3 persons

Instruction

Set a labeling system up as follows.

| Step | Procedure |
|------|---|
| 1 | Move the labeling system to installation site. Move labelers without rolls piece by piece diagonally. Consider all points for "Placing the labeling system" on page 30. |
| 2 | Adjust the labeling system with an air lever by the adjustable feet horizontally. (With rolls, the brakes have to be locked). See also "Adjust base conveyor". |

Connecting the labeling station

The labeling station requires electricity to work. For details see the chapter: "Specifications" on page 22.

Connection to supply voltage

Safety instructions



Hazards from actively controlled movements.



RISK OF INJURY FROM PULLING AND CRUSHING!

Immediately after turning on, several system parts make a reference run or move to its home position!

- Maintain a distance from powered system components.

Requirements

- Power supply is installed close to or (max. 1,5 m distant) from the labeling site (s. Chapter: "Specifications" on page 22).
- Main switch is in OFF/ 0-position
- Power cabling is available

Instruction

Please connect the labeling system with the power supply as follows.

| Step | Procedure |
|------|--|
| 1 | Connect the power voltage cable with the power socket. |
| | Risk of injury from pulling in and crushing! Immediately after turning on, several system parts make a reference run or move to its home position! Maintain a distance from powered system components. |
| 2 | Turn on the main switch. |
| 3 | Turn on the machine and control the running directions of the drives. If the drives run against the intended driving direction, turn off the system immediately. The electrical rotating field must be changed in this case by an Electrician. |
| 4 | Stop the labeling station and turn off the main switch. |

7. Adjustment and initial operation

Safety instructions

CAUTION

Hazards from actively controlled movements.



RISK OF INJURY FROM CRUSHING!

The movements of the labeling system are motor-driven by an automatic controller in automatic operation.

- Maintain a distance from moving parts.

CAUTION

Danger of being pulled in by rotating elements.



DANGER OF BEING PULLED IN!

Rotating elements at the labeling system like rewinder, feed rollers, conveyor belt and are powered by a motor.

- Do not grip in, at or between the moving parts.

Adjustment and initial operation

The labeling system has to be re-adjusted at initial operation or at a product change . The adjustments comprise two functions, operation of the controller (refer to manual of the labeler) and mechanical setup of the assembly groups (explained in the following).

In following adjustment table all required working steps are listed including adjustments of optional assembly groups which can be skipped if nonexistent. Experienced operators may use the adjustment tables later on as a checklist.

Requirements

- Control about product transport.
- One or more sample products.
- Labeling system and if so ²turning plate are connected to power and. Triggering of the labeling system is possible by product sensor or I/O-interface.

²Only if system has the appropriate features.

Instruction

Please put the labeling system Geset 117 into operation as follows.

| Step | Procedure |
|------|--|
| 1 | If there are already exist notes of the „adjustment values“ for the product to be labeled, the values should be available. |
| 2 | Adjust base conveyor (s. from page 35). |
| 3 | Adjust side guidance (s. from page 37). |
| 4 | Insert label roll in the labeler (s. from page 38). |
| 5 | Adjust product light barrier (s. from page 38). |
| 6 | Adjust peeler plate of top side labeling to product (s. from page 39). |
| 7 | Adjust peeler plate of bottom side labeling to product (s. from page 40). |

Adjust base conveyor

The base conveyor transports the product to be labeled from infeed passage to labeler and from labeler to outfeed passage.

Information on adjustment of base conveyor's height

The height of the base conveyor has to be adapted to the customer-specific conveyor system or to the ergonomic requirements of the operator personnel accordingly.

The base conveyor (Pos. 1, Fig. 7-1) is installed fix. The height of the base conveyor can be adjusted by the threads at the rubber feet (Pos. 4, Fig. 7-1). Adjust the base conveyor horizontal via air level.

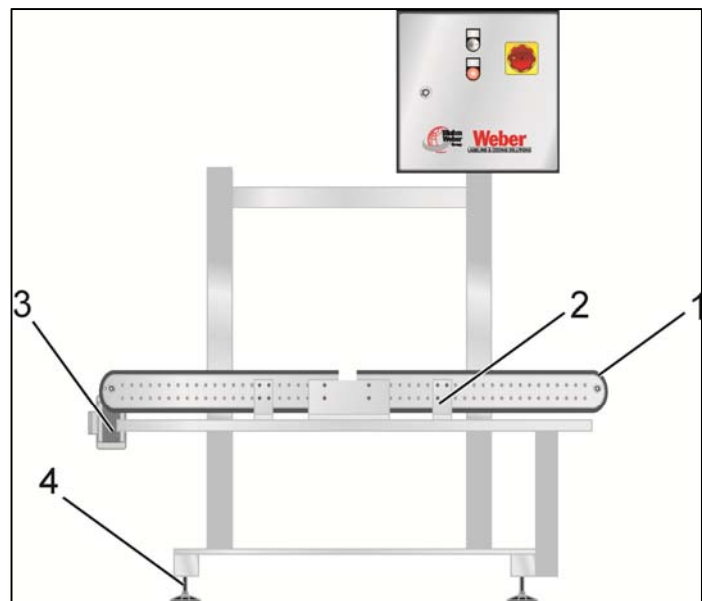


Fig. 7-1: Base conveyor

| No. | Description |
|-----|--------------------------------|
| 1 | BASE CONVEYOR |
| 2 | FIXING BRACKET (BASE CONVEYOR) |
| 3 | DRIVE MOTOR |
| 4 | RUBBER FEET |

Requirements

- Power supply is turned off.
- No transportation of products.

Required equipment

- Screw wrench (for rubber feet adjustment)
- Air level

Instruction

Please adjust the height of the base conveyor as follows.

| Step | Procedure |
|------|--|
| 1 | Loosen the counternuts of the rubber feet. |

| Step | Procedure |
|-------------|---|
| 2 | Adjust the height of the base conveyor to the required criteria (s. section above). |
| 3 | Tighten again the counternuts. |

Adjust side guidance

The side guidances are used to determine the place at the conveyor where the product to be labeled should be transported to. For side labeling, the adjustment is generally centered to the base conveyor.

Information on adjustment of side guidance

The side guidances are adjusted by the star grips. The guidances have to be adjusted that between product and side guiding is a crack of appr. 1-1,5 mm per side.

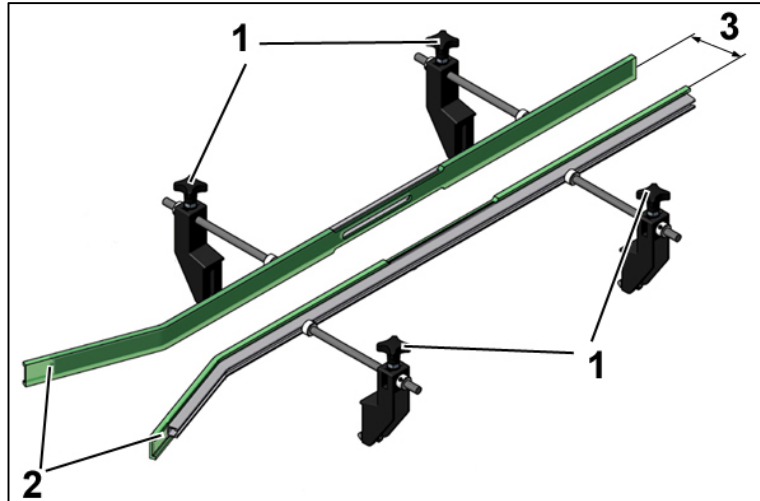


Fig. 7-2: Side guidance

| No. | Description |
|-----|-------------------------------|
| 1 | STAR GRIP SIDE GUIDANCE |
| 2 | SIDE GUIDANCE WITH WEAR STRIP |
| 3 | DISTANCE = PRODUCT + 2-3 mm |

Requirements

- Labeling system is turned off.
- 2 sample products.
- No transportation of products.

Instruction

Please adjust the side guidance as follows.

| Step | Procedure |
|------|--|
| 1 | Loosen the star grips. |
| 2 | Open the side guidances and place one sample product at beginning and end. |
| 3 | Adjust the side guidance to the required criteria (s. section above). Observe a distance of 1 - 1,5 mm to the product. (In infeed passage this distance can be adjusted larger.) |
| 4 | Tighten the star grips. |
| 5 | Check the adjustment by moving a sample product through the side guidances. The sample product has to slide easily through the guidance at each passage. |

Insert label roll in labeler

Detailed information on adjustment of the labeler is described separately in provided manual!

Additionally there is a threading pattern stucked on each labeler that shows the guiding of the label web. Thread the label web accordingly. Please observe that for each labeler and the product to be labeled, there will be inserted the correct label roll.

Adjust product light barrier

One or more light barriers are used for detection of the product at the labeler. If a product is detected, a signal is forwarded to the controller to start for example an assembly group or the labeling process. The point of time of the product detection is significant for the positioning of the label onto the product.

To position the label more backwards onto the product, the light barrier could be moved to the rear. Labelers with display controller offer the opportunity to process the input signal of the light barrier after a programmable delay. In case of this variant an adjustment of the light barrier is not required. It is even undesirable!

Labeling systems without programmable delay provide an easy adjustment. The light barrier is mounted on a movable bracket (cp. Pos. 2, Fig. 7-3).

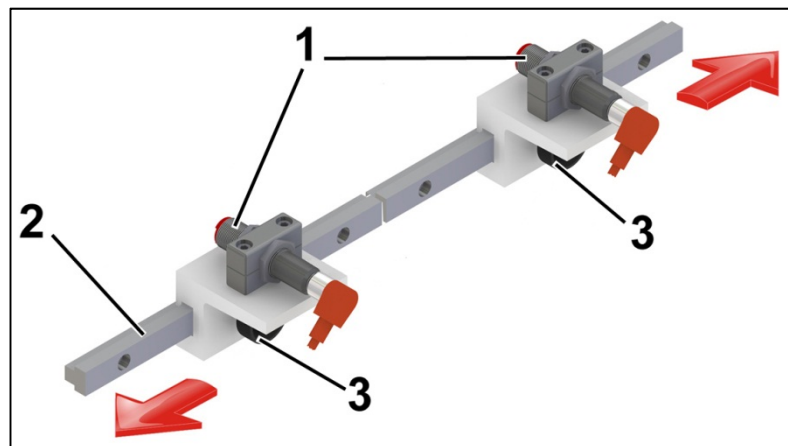


Fig. 7-3: Example for movable light barrier

| No. | Description |
|-----|--------------------------------|
| 1 | LIGHT BARRIER SENSOR (EXAMPLE) |
| 2 | BRACKET |
| 3 | SCREW LOCK |

Depending on product feature an adjustment of sensor sensitivity is necessary. Especially in case of bright and transparent products (e.g. foils) require an accurate adjustment of the sensor. Further information on adjustment please refer to the manual of the sensor's manufacturer.

Adjust peeler plate of top side labeling

The peeler plate of top side labeling has to be adjusted on distance and position to the product. Use the adjusting device of the labeler.

Information on adjustment of peeler plate

The peeler plate has to be adjusted on a distance of approx. 1-3 mm to the product (no product contact) via traverse adjustment of the labeler.

The required label position on the product is adjusted via lateral adjustment of the labeler.

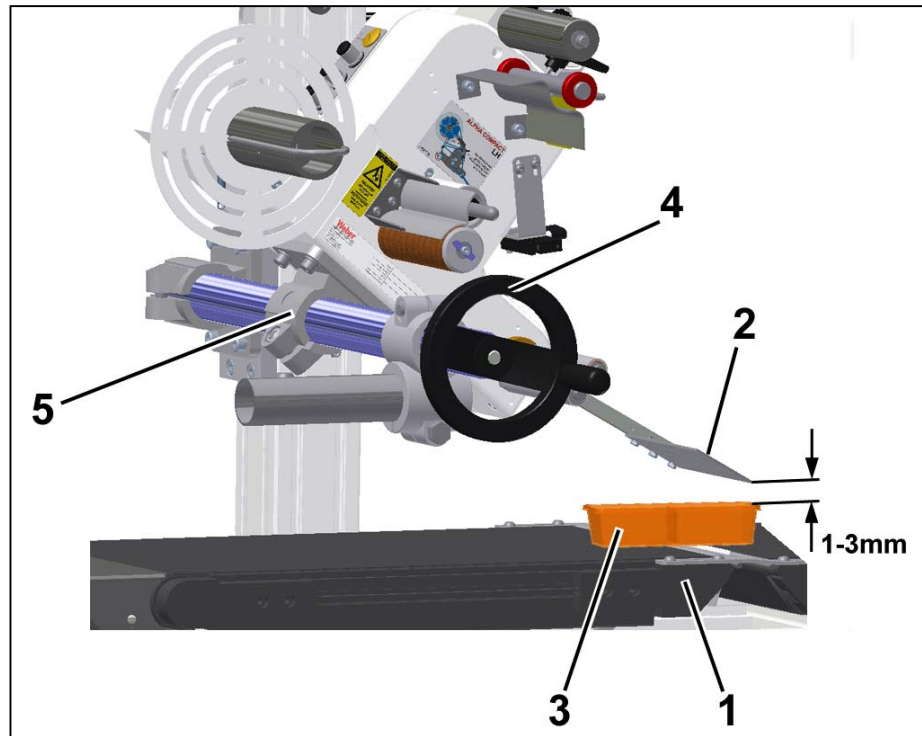


Fig. 7-4: Adjust top peeler plate

| No. | Description |
|-----|----------------------------------|
| 1 | BASE CONVEYOR |
| 2 | PEELER PLATE |
| 3 | PRODUCT |
| 4 | CLAMPING FOR TRAVERSE ADJUSTMENT |
| 5 | CRANK FOR LATERAL ADJUSTMENT |

Requirements

- Side guidance is correctly adjusted (s. page 37).
- Labeler is switched on and ready.
- One or more sample products.
- No transportation of products.

Instruction

Please adjust the peeler plate as follows.

| Step | Procedure |
|------------------|--|
| 1 | Add a product at the infeed passage of the labeling system. |
| ⚠ CAUTION | Hazards from actively triggered movements. Keep away from moving parts. |
| 2 | Just start the base conveyor and then stop it when the product is in the area of the peeler plate. |
| 3 | Loosen the clamping (Pos. 5, Fig. 7-4) and adjust the height of the peeler plate according to the required criteria (information see above). Fix the clamping again. |
| 4 | Adjust the lateral position to the product via crank (Pos. 4, Fig. 7-4). |
| 4 | Add more products at the infeed passage to check the adjustment. |

Adjust peeler plate of bottom side labeling

The distance between peeler bar and bottom side of product (conveyor belt) is given constructively.

Information on adjustment of peeler plate

The required label position on the product is adjusted via lateral adjustment of the labeler.

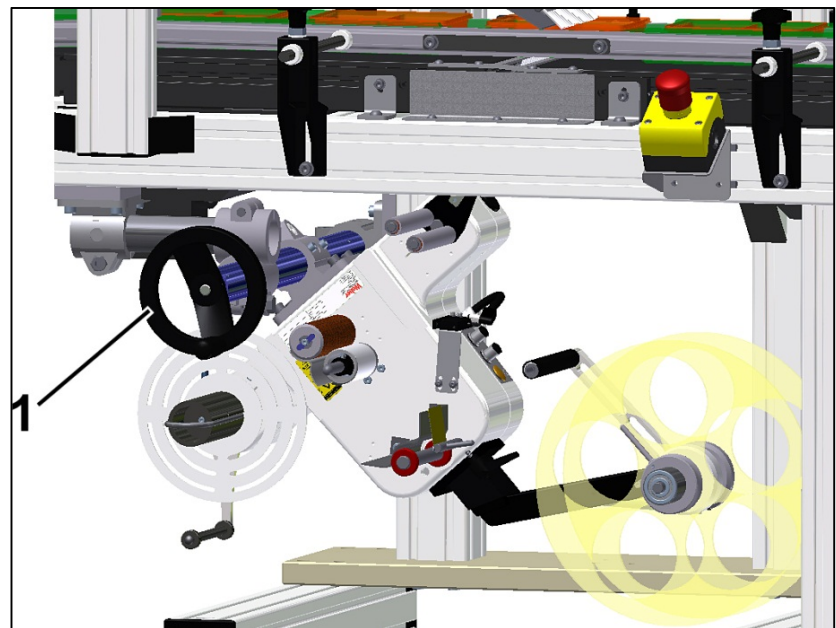


Fig. 7-5: Adjust bottom peeler plate


| No. | Description |
|-----|------------------------------|
| 1 | CRANK FOR LATERAL ADJUSTMENT |

Requirements

- Side guidance is correctly adjusted (s. page 37).
- Labeler is switched on and ready.
- One or more sample products.
- No transportation of products.

Instruction

Please adjust peeler plate as follows.

| Step | Procedure |
|---|--|
| 1 | Add a product at the infeed passage of the labeling system |
|  CAUTION | Danger of being pulled in! Hazards from actively triggered movements. Keep away from moving parts. |
| 2 | Just start the base conveyor and then stop it when the product is in the area of the peeler plate. |
| 3 | Adjust the lateral position to the product via crank (Pos. 1, Fig. 7-5). |
| 4 | Add more products at the infeed passage to check the adjustment. |

8. Operation

Safety instructions



Hazard from actively controlled movements.



CRUSHING HAZARD!

Movements of the labeling station are powered automatically by the controller in automatic operation.

- Maintain a distance from moving parts.



Danger of being pulled in by rotating elements.



DANGER OF BEING PULLED IN!

Rotating elements at the labeler like label liner rewinder, label feed at labeler, base conveyor are driven by a motor

- Do not grip in, at or between the moving parts.

Turn on and off labeling machine

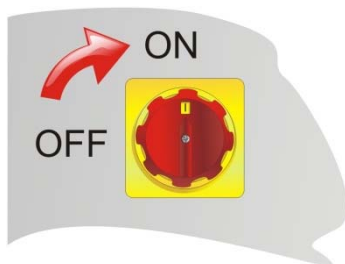


Fig. 8-1: Main switch on

The main switch of the machine located at the switch cabinet's front. To turn the machine on, turn the main switch to [ON]-position (clockwise).

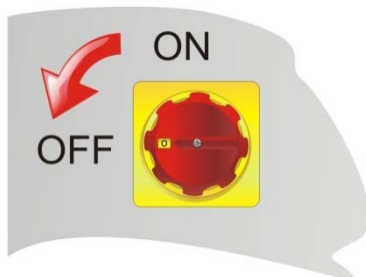


Fig. 8-2: Main switch off

To turn the machine off, turn the main switch to [OFF]-position (counter clockwise).

Control element

The control elements are located at the switch cabinet .

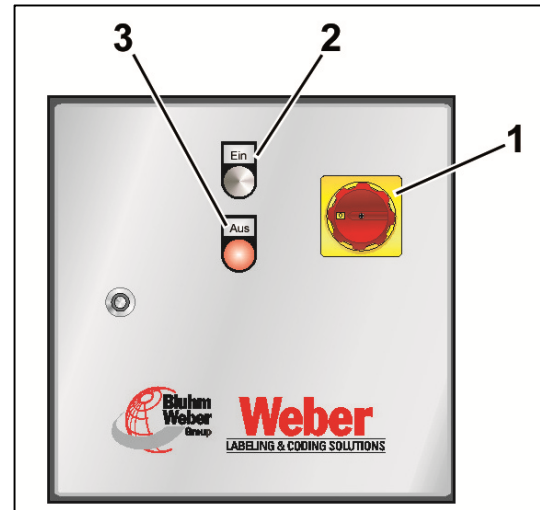


Fig. 8-3: Control elements

| No. | Term | Description |
|-----|-------------------------------|----------------------------------|
| 1 | Main switch | Switches on and off the labeler. |
| 2 | White illuminated button [On] | Switches on the base conveyor. |
| 3 | Red button [Off] | Switches off the base conveyor. |

Turn on labeling operation


The automatic operation is used to label products.

Requirements

- Labeling system is turned off.
- Material rolls at labeling system loaded and threaded.
- Labeling system is connected to power.
- System was put into operation (see chapter „Installation and initial startup” on page 29).

Instruction

Please turn on the labeling system for operation as follows.

| Step | Procedure |
|---|--|
| 1 | Turn on the main switch. |
|  | Risk of injury from crushing! Hazards from actively controlled movements. Keep away from moving parts. |
| 3 | Push the [ON]-button at the switch cabinet to start automatic labeling operation. |
| 4 | Add the products to the labeling system. |
| 5 | Remove the products from outfeed of the labeling system or *2turning plate. |

Stop labeling operation

Requirements

- Labeling system is in labeling operation (s.a.)

Instruction

Please stop labeling operation as follows.

| Step | Procedure |
|------|---|
| 1 | If possible, the labeling system should be run empty. |
| 2 | Push the [OFF]-button at the switch cabinet to stop automatic labeling operation. |
| 3 | Switch off the labeler (cp. page 42). |
| 4 | Remove all products. |
| 5 | Observe the notes „Putting the system out of service“ (s. page 44). |

Putting the system out of service

NOTICE

When turning off the system for several hours, the label web must be removed from the labeler to avoid failures at re-start.

The label material running around the deflection rollers is curved which can cause problems with the operation mode. This characteristic of the labels as well as the retained curvature depend on the material which can vary significantly between the different print media. The ambient conditions such as high temperatures and humidity enhance this effect.

Remove critical label material before long breaks and after end of work from labeler!

Instruction

Please put the label system out of service as follows.

| Step | Procedure |
|------|---|
| 1 | Stop labeling operation (s. page 44) |
| 2 | Turn off labeling machine (s. page 42) |
| 3 | Disconnect the power supply. |
| 4 | Protect the labeling station if applicable from dust with a cotton or linen cloth. |
| 5 | If the labeling system should be stored and/or transported, please observe the notes referring... <ul style="list-style-type: none"> Transport (page 25) Storage conditions (page 28) |
| 6 | Transport the labeling station like described in chapter „Transportation and unpackaging“ to its storage location. |

*2Only if system has the appropriate features.

9. Maintenance

Safety instructions

**WARNING**

Hazard from direct or indirect contact with voltage-conducting parts.



DANGER TO LIFE!

Contact of persons with parts that became live by faults.

- Before performing any work at the labeling station, disconnect it from electrical power.

**CAUTION**

Danger to health from the improper use of lubricants and cleaners.



HEALTH HAZARD!

Improper handling may lead to health hazards.

- For used lubricants and detergents, the valid information of the safety data sheets of the manufacturers and the valid safety- and disposal regulations have to be observed and followed for each product

NOTICE

Damages to machines and machine parts.

Absence or faulty maintenance, service and repair work abate the operational availability of the machine. This can result in consequential damages and exclusion of warranty claims. Machine functions should be monitored continuously. Exceptional noise developments or unusual movements (e.g. jerking, hammering etc.) are signs of malfunction and need to be checked.

- All identified defects are promptly and professionally to remove.
- The operation of the machine is specifically prohibited in case of defects at safety equipment until proper recovery.
- Maintenance and repair may only be performed by qualified personnel. Only cleaning work may be performed by the operator (Authorized persons s. page 18).

The maintenance instructions that are described in this section refer exclusively to the labeling system without (Alpha-) labeler.

Maintenance works that have to be arranged at the (Alpha-) labelers, are described in detail in separately provided documentation in the chapter maintenance.

Daily servicing (after appr. 8 hours of operation)

Requirements

- Labeler is without electrical power.
- No transportation of products.

Required equipment

- Alcohol (*21800915) or roller solvent (*21800977)
- Lint-free cloth (*21800978)
- Label remover (*21800771)

*Product recommendation. Can be obtained from the Bluhm Weber Group with the eight-character article number.

Instruction

Please arrange the daily maintenance as follows.

| Step | Procedure |
|------|--|
| 1 | Arrange the required maintenance work at the labelers (Description s. correspondent chapter in provided manual of Alpha ...). |
| 2 | Check ... <ul style="list-style-type: none"> • Base conveyor • Product guidings and deflection rollers ...for label- and adhesive residues. Remove residues with label remover or alcohol. |
| 3 | Examine moving or rotating system parts for mobility and freewheel as well as for fix position of the mounting parts. Only few stress marks or –noises have to be observed. Possible repairs have to be arranged professionally. |

*2Only if system has the appropriate features.

Weekly servicing (after appr. 40 hours of operation)

Requirements

- Labeler is without electrical power.
- No transportation of products.

Required equipment

- Alcohol (*21800915) or roller solvent (*21800977)
- Lint-free cloth (*21800978)
- Label remover (*21800771)

*Product recommendation. Can be obtained from the Bluhm Weber Group with the eight-character article number.

Instruction

Please arrange the weekly maintenance as follows.

| Step | Procedure |
|------|---|
| 1 | Clean surface of peeler plate and all paper guiding parts from adhesive using label remover or alcohol. |
| 2 | Clean all sensors (product sensor, low label warning sensor, label gap sensor) carefully with a cloth. |
| 3 | Examine all pipes connections for tightness and leakage. |
| 4 | Examine all roller assemblies for free rotation and correct position of the rollers` axes. |

Annual servicing (after appr. 2000 hours of operation)

Requirements

- Labeler is without electrical power.
- No transportation of products.

Required equipment

- Bearing grease Proline, Pro 672U (92100772, food compliant)

*Product recommendation. Can be obtained from the Bluhm Weber Group with the eight-character article number.

Instruction

Please arrange the yearly servicing as follows.

| Step | Procedure |
|------|---|
| 1 | Replace all that is necessary for proper function. |
| 2 | Examine all moving parts for loose connections and possible wear (bearing clearance). |

Cleaning notes



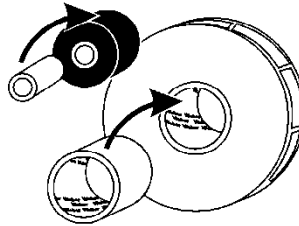
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|----------------------------------|--------------------|-----------------------------|----------------------------------|--------------------------------------|------------------------------|
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| ETIKETTEN-LÖSER LABEL REMOVER | ALKOHOL ALCOHOL | DRUCKLUFT COMPRESSED AIR | WALZENREINIGER ROLLER-SOLVENT | FLUSENFREIES TUCH LINT-FREE CLOTH | REINIGUNGSFOLIE LAP SHEET |
| | | | | | |

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c ✓
d ✓

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b ✓
c ✓
d ✓

SPENDEKANTEN / PEELER BARS

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b ✓
c ✓
d ✓

ANTRIEBSWALZE / DRIVER ROLLER

a ✓
b ✓
c ✓
d ✓

FRIKTIONSWALZE / FRICTION ROLLER

a ✓
b ✓
c ✓
d ✓

AUF- & ABSPULERACHSEN
UN- & REWIND MANDRELS

a ✓
b ✓
c ✓
d ✓

STÜTZLUFT-EINHEIT
AIR ASSIST ASSEMBLY

a ✓
b ✓
c ✓
d ✓

FRIKTIONSEINHEIT / FRICTION UNIT

a ✓
b ✓
c ✓
d ✓

SENSOREN/ SENSORS

a ✓
b ✓
c ✓
d ✓

ANDRÜCKWALZEN
PRESSURE ROLLERS

a ✓
b ✓
c ✓
d ✓

FÜHRUNGSROLLEN/ GUIDE ROLLERS

a ✓
b ✓
c ✓
d ✓

STEMPELPLATTE /TAMP PLATE

Artikel-Nr. / Part-No.: 55203819 / 18.08.2010

Cleaning of sensors

Safety instructions



Unintended system start



RISK OF INJURY!

When cleaning the light sensors and light barriers, it may be triggered an accidentally reaction of the labeling station due to approaching or touching.

- Turn off the labeling station before cleaning.



*2 Hazard from light beams.



RISK OF INJURY!

*2Sensors or *2camera illumination may have high light intensity

- Do not look directly into the light source.

NOTICE

Damages due to incorrect detergents

The light sensors and barriers may be damaged when cleaning with compressed air, steam cleaner, aggressive dissolvers or scrubbing agents

- Do not use any liquids that may cause short circuits
- Do not use aggressive dissolvers or scrubbing agents
- Do not use hard or sharp-edged parts for cleaning

Maintain the optics of the light sensors and light barriers free of dust and grease. Use for cleaning a smooth, lintfree cleaning cloth.

Requirements

- Labeler is without electrical power and compressed air.
- No transportation of products.

Required equipment

- Smooth, lint-free cleaning cloth.

Instruction

Please clean the light barrier and sensors as follows

| Step | Procedure |
|------|---|
| 1 | Wipe the optics and the reflectors with the cleaning cloth. |

*2 Only if system has the appropriate features.

Check conveyor belts

Requirements

- Labeler is without electrical power.
- No transportation of products.

Instruction

Please check the conveyor belts as follows.

| Step | Procedure |
|------|---|
| 1 | Remove foreign objects and much dirt, particularly in the area of the deflection- and drive rollers. |
| 2 | Check the drive belts for any damage. |
| 3 | Examine the drive rollers and deflection rollers for excessive wear. |
| 4 | A jerk run is an indication for clamping unit or a belt tension that is too weak. Check if the drive belts and conveyor belts run without jerk. |
| 5 | Check if the deflection- and drive rollers align and examine the wear of available flanged pulleys. |
| 6 | Check that the conveyor belts do not run sideways. |
| 7 | Check the distances to other system parts. |
| 8 | Check the oil- and grease lubrication at flange bearings and the drive motor block. |
| 9 | Oil and lubricate the flange bearings and the drive motor block according to the respective maintenance instructions. |

Cleaning and adjustment of base conveyor

Adjust the conveyor belt so that it is centrally clamped. All rolls are preferably parallel and right-angled to adjust to the belt axis. The correction of the belt running is carried out by adjusting the drive and deflection rollers. The rolls on which the base conveyor is running have to be adjusted.

Cleaning of conveyor belts

Residues at base conveyor complicate the lateral belt run. At the bottom side of the base conveyor, dirt, label rests or small parts may get onto the rollers and tip.

The base conveyor and adjacent assembly parts have to be cleaned regularly and carefully.

Requirements

- Labeler is without electrical power.
- No transportation of products.


Required equipment

- Alcohol (*21800915) and/or roller solvent (*21800977)
- Lint-free cloth (*21800978)
- Label remover (*21800771)

* Product recommendation. Can be obtained from the Bluhm Weber Group with the eight-character article number.

Instruction

Please clean the base conveyor as follows.

| Step | Procedure |
|--|---|
|  WARNING | Life hazard! When cleaning the belts and chains liquid detergent can cause short circuits. Avoid fluid accumulation. Regard adequate drying time. |
| 1 | Remove strong sticking adhesive- and label residues with label remover. |
| 2 | Clean carefully track bed, base conveyor and adjacent assembly parts. |

Adjust belt tension

The manufacturer's adjustment of the base conveyor does normally not require any adaption. If tension or the base conveyor's run have to be readjusted, it has to be arranged by experts only.

Requirements

- Labeler is without electrical power.
- No transportation of products.

Instruction

Please adjust the belt tension as follows.

| Step | Procedure |
|------|---|
| 1 | Apply two markings with a highest possible distance (e.g. 500 mm) at the upside of the base conveyor. |
| 2 | Calculate the required lengthening of the base conveyor. (e. g. lengthening: $500 \text{ mm} + 0,5 \% = 2,5 \text{ mm}$). |
| 3 | Tense the base conveyor with both clamping nuts until the distance between the markings has increased by the calculated value (e. g. $500 \text{ mm} + 2,5 \text{ mm} = 502,5 \text{ mm}$). Observe that the tension pulley is tensed parallel. |

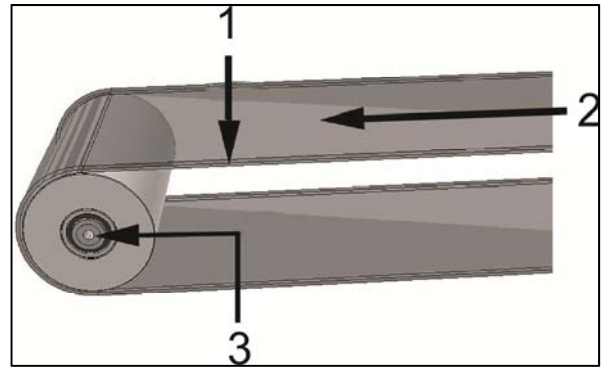
Belt run correction of conveyor belts

Fig. 9-1 Adjust base conveyor principle

| No. | Description |
|-----|--|
| 1 | TRANSPORT DIRECTION |
| 2 | DIRECTION WHERE THE BASE CONVEYOR RUNS |
| 3 | ADJUSTMENT DIRECTION OF THE DEFLECTION ROLLER TO BELT RUN CORRECTION |

All rolls involved in belt running should be possibly parallel and exactly right-angled to conveyor axis.

The correction of the belt run should take place at the rolls at which the chain runs from a longer distance that is not influenced by any deflection.

Requirements

- No transportation of products.
- Emergency stop pushbutton is unlocked.
- Labeler is connected to power.
- Labeler was put into operation (refer to chapter "Adjustment and initial operation").

Instruction

Please adjust the belt running direction as follows.

| Step | Procedure |
|------------------|--|
| ⚠ CAUTION | Risk of injury! The examination of the belt running has to be arranged when the labeling station is running under load. - Do not grip in, at or between the moving parts. |
| 1 | Start base conveyor. |
| 2 | Tense slightly the deflection rollers at the side where the base conveyor runs to. |
| 3 | Transport belts should run for a certain time. |
| 4 | Check belt running, correct it again if applicable. |

Exchange of rollers

The lifetime of drive rollers in the bearings depend on the appropriate load and the conveyor speed.

They are normally sufficient for an operational time of 4-5 years. After this time it is advisable to exchange the bearing or rollers.

Spare parts

Safety instructions



Hazard from incorrect spare parts!



HEALTH HAZARD!

Incorrect or faulty spare parts can impair safety and cause injury or damage to the machine

- Only use original spare parts or parts that are specifically approved by the Bluhm Weber Group.
-

Wiring diagram

The wiring diagram is included in switch cabinet.

10. Troubleshooting

Instructions to arrange the troubleshooting address only to trained personnel.

If the service personnel is not able to remedy the failure, please contact our Service-Hotline (see page 7).

Safety instructions



Hazard from direct or indirect contact with voltage-conducting parts.



DANGER TO LIFE!

Contact of persons with parts that became live by faults.

- Before performing any work at the labeling station, disconnect it from electrical power.



Hazards from actively controlled movements.



RISK OF INJURY FROM CRUSHING!

The movements of the labeling system are motor-driven by an automatic controller in automatic operation.

- Maintain a distance from moving parts.



Danger of being pulled in by rotating elements.



DANGER OF BEING PULLED IN!

Rotating elements at the machine, backing rewinder, label feed, conveyor belt are driven by a motor.

- Do not grip in, at or between the moving parts.

| Problem | Possible cause | Solution |
|---|---|---|
| Label liner tears. | Label roll is damaged. Nicks or label cutter-die damage on liner. Dents/damages at the side of the label roll. The liner width varies significantly. | Exchange label roll. |
| | Adhesive residues in the area of the peeler bar. | Remove adhesive residues and check the label roll for damages caused by adhesive residues. Otherwise exchange roll. |
| Label placement on the product is consistently poor | The product is not yet/ not anymore incorrect labeling position. | Check sensors of the conveyor used to determine the product's stop position. |
| Label placement on the product is consistently poor | Product sensor (or its reflector) are loose or vibrate. | Check sensors and remount, if required. |
| | Changing conveyor speed (e.g. depending on load) | Check the speed and record. Contact supplier of conveying system. |
| | Label with not suitable adhesive, insufficient initial adhesion. | Change label quality. |
| | Wrong parameterization. | Check time- and delay settings of the responsible configuration parameters. |
| No automatic operation possible. The label cannot be applied. | No trigger of the product sensor. | Check the incoming trigger signal. Countercheck via [Enter]-button. |
| The desired rate of application cannot be reached with the labeler. | The required rate of application from the conveyor exceeds the specifications. | Check conveyor speed and the product gap. Reduce conveyor speed if possible. |
| | Incorrect configuration parameter values of the labeler. Excessive cycle processing time. | Inquire Service Technician at the Hotline (s. page 7). |
| Machine functions occur at random without being initiated. | Product detector loose or vibrating or being affected of reflecting light from product surface. | Check the adjustments of the sensors and inquire if needed a Service-Technician at the Service-Hotline (s. page 7). |
| | Loose wiring connections. | Check all connections at labeler. |

Correcting adjustments based on labeler result

Based on the labeler result you can draw conclusions from the necessary adjustments.

Correct labeling

If the labeling is performed correctly, the label is

- free from creases,
- straight,
- always at the same position on the product.

No correction is necessary

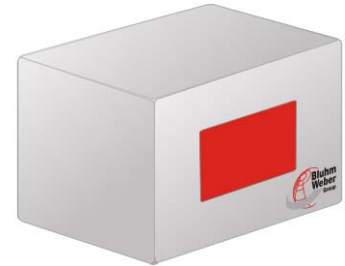


Fig. 10-1: Product with correct labeling result

Error at labeling

The label has creases.

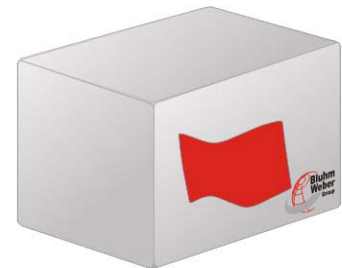


Fig. 10-2: Product with creases in the label

Correct the labeling result as follows:

| Step | Procedure |
|------|--|
| 1 | The application speed of the label may be too fast. Examine and correct the application speed. |

The label is beveled on the product.

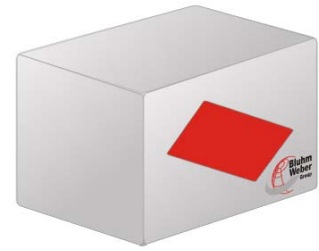


Fig. 10-3: Product with beveled label

Correct the labeling result as follows:

| Step | Procedure |
|------|--|
| 1 | The inclination of the peeler plate may be adjusted incorrectly. Examine and correct the inclination of the peeler plate. |
| 2 | *2 pusher brush, *2 squeegee, *2 pusher roller may brake the product too strongly. Examine and correct this pushing pressure. |
| 3 | It may be that the products are not transported the sufficient way by the top conveyor. Examine and correct the pushing pressure of the top conveyor to the product. |

*2 Only if system has the appropriate features.

The label position changes from product to product.



Fig. 10-4: Product with position displacement of the label

Correct the labeling result as follows:

| Step | Procedure |
|------|--|
| 1 | The application speed of the label may be too high or too low. Correct the application speed of the label |
| 2 | Examine and correct the sensor for product detection. |
| 3 | Examine and correct the distance from peeler bar to product. |
| 4 | Examine and correct the stop sensor of the labeler. |
| 5 | It may be that the products are not transported the sufficient way by the top conveyor. Examine and correct the pushing pressure of the top conveyor to the product. |
| 6 | *2 pusher brush, *2 squeegee, *2 pusher roller may brake the product too strongly. Examine and correct this pushing pressure. |
| 7 | The start delay time may be too short or too long. Correct the entry of the start delay time of the labeler in HMI. |

*2 Only if system has the appropriate features.

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12. EC Declaration of Conformity

- DE** EG-KONFORMITÄTSERKLÄRUNG gemäß EG-Maschinenrichtlinie 2006/42/EG, Anhang II A
GB EC-DECLARATION OF CONFORMITY according to EC Machinery Directive 2006/42/EC, Appendix II A
FR DECLARATION DE CONFORMITE CE conforme à la directive machine 2006/42/CE, appendice II A

**Weber Marking Systems GmbH
Maarweg 33
D-53619 Rheinbreitbach**

DE Wir erklären in alleiniger Verantwortung, dass die Maschine:
GB We declare under our sole responsibility that the machine:
FR Nous déclarons sous notre responsabilité exclusive que la machine:

Geset 117

DE auf das sich diese Erklärung bezieht, folgenden Bestimmungen und Richtlinien entspricht:
GB to which this declaration relates corresponds to the regulations and directives.
FR que concerne cette déclaration, est conforme aux directives et réglementations suivantes:

2006/42/EG
2004/108/EG
2006/95/EG

DE Bevollmächtigter für die Zusammenstellung der relevanten technischen Unterlagen:
GB The person authorised to compile the relevant technical documentation:
FR Personne mandatée pour élaborer la documentation technique concernée:

**Lutz Krämer
Maarweg 33
D-53619 Rheinbreitbach**

Rheinbreitbach, 04. Sept. 2013

Prokurist/ Authorized Officer / signataire autorisé