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**BOYENS JELLY SPRAYER - MODEL ECONOMY**

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## 2 Basic safety instructions

This instruction manual contains the most important information for a safety conscious operation of this implement.

### 2.1 Obligations and liability

Observe the information contained in the instruction manual: A basic requirement for a safety conscious handling and a trouble-free operation of this implement is the knowledge of the basic safety hints and safety advice. This instruction manual, especially the safety hints, must be observed by all persons who operate the implement. In addition, the rules and regulations for the prevention of accidents applicable at the place of application have to be observed.

#### Dangers when operating the implement:

The implement **Jelly economy** has been designed according to the state of the art and approved safety regulations. Nevertheless dangers for the health and life of the user or third parties or impairments to the implement or other material assets may arise during its use.

The implement may only be used:

- for the intended use
- in a perfect condition as far as safety is concerned.

Faults which might affect safety must be remedied immediately.

#### Guarantee and liability:

In principle, our "General conditions of sale and delivery" are applicable". These have been available to the user at the latest since conclusion of the contract. Warranty and liability claims for personal injury or damage to property shall be excluded if they result from one or several of the following reasons:

- use contrary to the intended use of the implement,
- Improper mounting, commissioning, operating and maintenance of the equipment,
- use of the implement with faulty safety equipment or improperly fitted or inoperative safety devices and guards,
- not adhering to the hints in the instruction manual regarding transport, storage, assembly, putting to operation, maintenance and setting up the implement,
- unauthorised structural changes to the equipment,
- inadequate monitoring of implement wearing parts,
- improper repair work,
- catastrophes caused by alien elements and acts of god.

## 2.2 Safety symbols

In the instruction manual the following terms and signs for dangers are used:

### 2.2.1 General danger symbol



This symbol indicates a direct danger for life and health of persons. Not adhering to these hints will cause severe danger for health up to injuries with high danger to life.

### 2.2.2 Attention symbol



This symbol gives important hints for the appropriate handling of the implement. Not adhering to these hints may cause faults on the implement itself or in its environment.

### 2.2.3 Hint symbol



This symbol offers you hints for operation and especially useful information. They will help you to make best use of all functions on your implement.

## 2.3 Intended use

The implement **Jelly economy** is exclusively intended for the brief employment as spraying implement for spraying jelly in baker's shops. Spraying of other agents, apart from air and water to clean the implement, requires the prior explicit written permission of Messrs. boyens backservice GmbH.

Any use beyond the one stipulated above shall be considered use contrary to the intended use. The manufacturer does not accept any liability for personal injuries and damage to property resulting from this. The operator himself carries the full risk for this.

Intended use also means:

- observing all hints in the instruction manual and
- adhering to the inspection and maintenance work.

## 2.4 Improper use

Using the implement for other purposes than stipulated above is prohibited. In case of improper use, danger for human beings and animals may result. Such improper using includes, e. g.:

- heating or spraying of, e. g. acids, lyes in particular salt solution and solvent agents or
- other liquids, especially inflammable ones.

## 2.5 Informing safety measures

Always keep the instruction manual on the implement. In addition to these instruction manual make available and observe the generally and locally applicable accident prevention and environmental protection advice. Further more adhere to the general health- and labour medical regulations and hygienic precautions.

Keep all safety- and danger hints on the implement readable and clean and exchange if necessary.

## 2.6 Training the personnel

Only trained and advised personnel may operate this implement. The responsibility of the personnel must be clearly determined for operating, conversion and maintenance. Semi-skilled personnel may only operate the implement under supervision of an expert.

## 2.7 Safety measures during normal operation

Only operate the implement with all guards fully functioning. Check the implement for externally noticeable damage at least once a day.

Never leave your implement unattended when the implement is connected to the power supply.

Protect the spray gun during spraying pauses against unintentional spraying by turning the locking device.

Never pull the implement on the power supply cable or the agent-hose. Never pull the plug off its plug-connection by jerks on the cable. Protect the electric power supply cable and the agent-hose from heat and sharp edges. Only use a faultless electric power supply cable and a faultless agent-hose.

Always accurately aim the spraying operation onto the bakery products. Never aim at people or animals.

Keep children, animals and other persons away from the operation area of the implement - always ensure a sufficient clearance.

## 2.8 Danger by electric energy

Operations on the electric supply may only be executed by a skilled electrician. Check the electric equipment of your implement at regular intervals. Immediately remove loose connections and scorched cables.

## 2.9 Danger from residual energy

Be aware of pneumatic and electric/electronic residual energies and take corresponding measures when advising the operator personnel. Detailed hints will be given once more in the individual chapters of this instruction manual.

## 2.10 Cleaning, maintenance, repair and remedy of faults

Carry out prescribed cleaning, maintenance and inspection work in due time. Prior to all maintenance, inspection and repair work:

- pull the mains plug out of the socket,
- actuate the spray gun and thus discharge the residual air pressure in the system,
- when disposing condensate, observe the prescriptions of the water resources law.

Check the firm seat of screw connections that have been unscrewed beforehand. On completion of maintenance work, check the function of all safety devices.

## 2.11 Modifications

Never change anything on the implement, do not add anything to the implement and do not convert the implement without approval of the manufacturer.

All conversions require the written approval of Messrs. boyens backservice GmbH.

Immediately exchange faulty implement parts.

Only use original spare- and wearing parts.

When using non original parts it cannot be guaranteed that they had been designed and manufactured in such a way that they correspond to the operational and safety prescriptions.

## 2.12 Cleaning and disposing

For cleaning only spray air and water. Spraying other materials requires the prior explicit and written approval of Messrs boyens backservice GmbH. Handle and dispose of all agents and material in an appropriate manner.

To clean the implement, only use:

- a moist sponge or a moist cloth,
- never a high pressure cleaning device.

### 3 Description of the implement

#### 3.1 Implement diagram



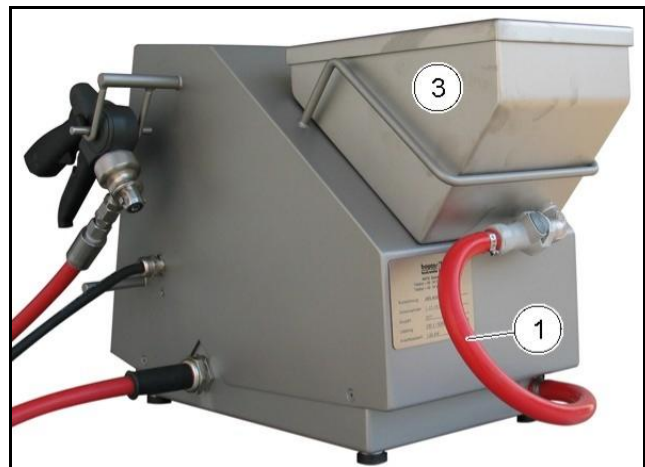
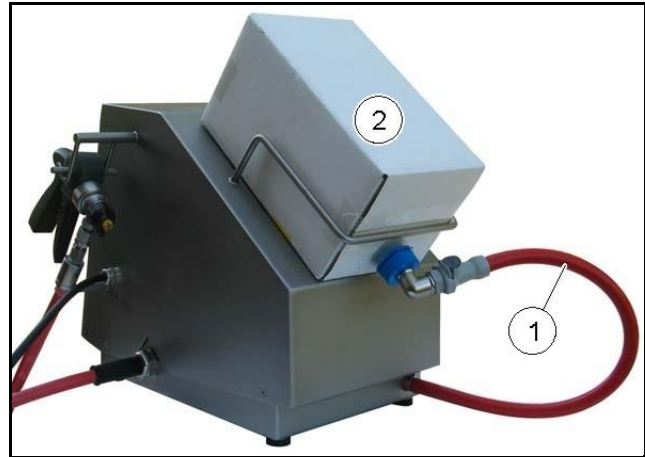
- (1) Power supply cable 230 Volt / 50 Hz
- (2) Agent-hose
- (3) Spray gun
- (4) Spray gun retainer
- (5) Suction-hose
- (6) Implement on/off
- (7) Temperature-control light

### 3.2 Functional description

A pneumatically driven, diaphragm controlled agent-feed-pump sucks the cold jelly via the suction-hose (1) out off the one-way jelly container (Bag in Box (BIB)) (2) or the jelly container (3) (special equipment).

Then the sucked off jelly is delivered via the agent-feed-pump to the flow-heater. Inside the flow-heater the jelly is heated to the set processing temperature.

By the factory the processing temperature has been set to **87°C**.



The implement is ready for use when the red temperature-control light (4) has gone out.

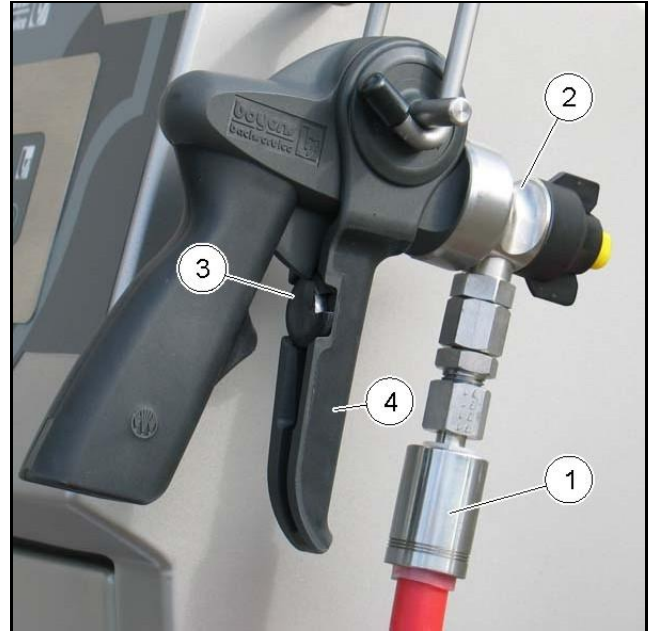


The hot sprayable jelly is delivered via the heated agent-hose (1) to the spray gun (2).

For spraying the product unlock the locking device (3) against unintended spraying. Hold the spray gun at a distance of approx. 10 cm above the product to be sprayed and pull the trigger lever (4).

Depending on the size of the surface to be sprayed use the flat jet- or round jet nozzle.

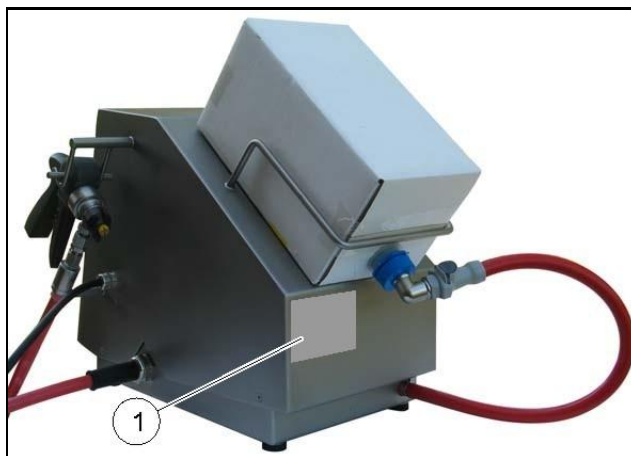
By the factory the spraying pressure has been set to **2.8 bar**.





### 3.3 Identification of the machine

You will find the type plate (1) and the CE-sign on the back side of the implement.



### 3.4 Technical data

Power Supply:	230 V	
Frequency:	50 Hz	
Fuse in the feed line:	16 A	
Length of power supply cable:	3 m	
Heating capacity:	1,650 watt	
Length of the agent-hose:	1.2 m	
Measurements:		
Length:	315 mm	
Width:	450 mm	
Height:	350 mm	
Weight:	26 kg	
Spraying pressure:	set to 2,8 bar and cannot be changed	
Processing temperature:	set to 87°C and cannot be changed	
	Transport and storing	Operation
Temperature	+ 2 to + 50°C	+ 2 to + 50°C
Humidity	maximum 90%	maximum 90%

### 3.5 Technical features

#### The implement Jelly economy:

- with diaphragm compressor.
- with a special flow-heater.
- with energy saving technique - due to a good heat insulation the heat is retained for hours in case of work interruptions.
- with heated agent-hose up to the spray gun.
- with spray gun with heat reflecting casing.
- with analog controlled heat adjustment.
- with pneumatically driven, diaphragm controlled agent-feed-pump.
- with maintenance-free technique.
- in stainless special steel execution.
- in HACCP-conformity execution.
- energy saving.

#### Within the scope of supply:

- (1) Cleaning hose
- (2) Adapter
- (3) Bayonet cap with round jet nozzle



## 4 Putting into operation



The implement is exclusively suited for operation with alternating current (230 V / 50 Hz). Never try to use other sources of current. Ensure that the voltage of the implement and your supply voltage are the same.



Any work on the electric supply may only be carried out by a skilled electrician. Check the electric equipment of your implement at regular intervals. Immediately remove loose connections and scorched cables.

- Check whether the electric circuit is protected by fuse with 16 Ampere.
- If so, connect the implement with the aid of the power plug to the power supply.

### 4.1 Operation



Only operate the implement with all guards fully functioning. Check the implement for externally noticeable damage at least once a day.



Never leave your implement unattended when the implement is connected to the power supply.



When operating the implement it is imperative to observe the instructions regarding the

- intended use
- training of personnel.



Do not drag the implement by using the power supply cable or the agent-hose.



Protect the spray gun during spraying pauses against unintentional spraying by turning the locking device (1).



## 4.2 Agent-hose

The agent-hose is a special hose for heating and consists of the following components:

- Silicone for the fruit acid containing product.
- Silicone textile casing for stability.
- Resistance wires for heating.



Protect the agent-hose against damage from sharp-edged objects. Danger of injury from discharging hot agent.



In case of damage always exchange the entire agent-hose.

The agent hose may never be:

- shortened,
- patched
- or manipulated.

Changes on the agent-hose will cause a total failure of function.

### 4.3 Connect the one-way jelly container BIB

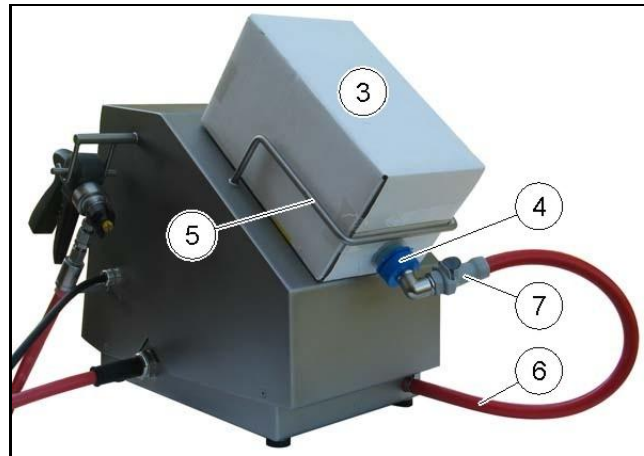


To avoid malfunction ensure that the jelly is cold, liquid, lump free and free from foreign particles.

- Remove the screw lid (1) and the ring pull (2) of the jelly container (3)
- Screw the adapter (4) onto the jelly container (3).



- Place the jelly containers into the holder (5), so that the adapter (4) is located below.
- Connect the adapter (4) and the suction-hose (6) via the coupling plug (7).

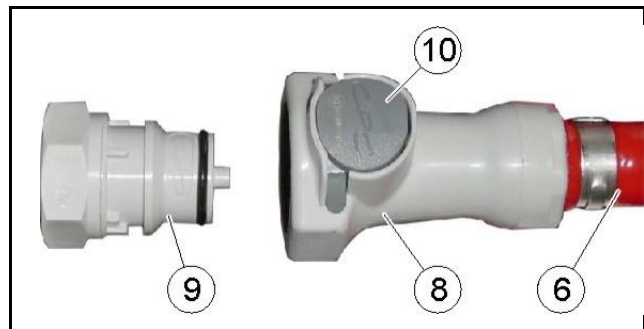


- For this, simply push the socket (8) from the suction-hose (6) onto the plug (9) from the adapter (4) until the quick-action locking device noticeably locks.



To unlock, push down the socket's push-knob (10) at the suction-hose.

When the coupling plug is separated, a return valve integrated in the socket (8) and in the plug (9) prevents on outflow of jelly.



#### 4.4 Switching the implement on/off

##### Switching on

- Press the on-/off switch (1).
- It will flash:
  - the green control light (2) and
  - the red temperature-control light (3).



The compressor starts running and provides the factory set spraying pressure of 2.8 bar. The agent-feed-pump sucks jelly out off the jelly container and provides the flow-heater and agent-hose with jelly.

The flow-heater and the agent-hose heat the jelly up to the prior set processing temperature.

The implement is ready for operation, if the red temperature-control light (3) goes out.



If the implement is cold, the heating period will last approx. 5 to 8 minutes.



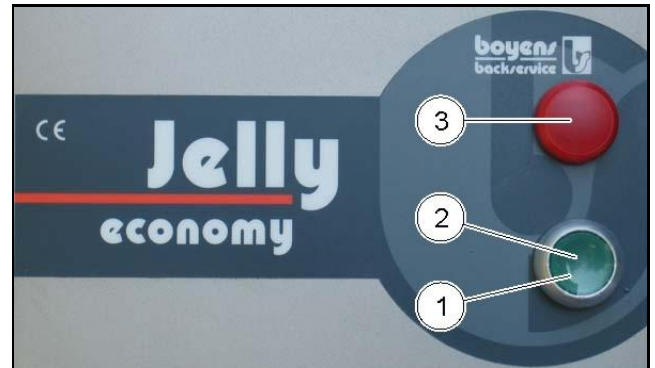
Ensure that there is always agent in the flow-heater when the implement is switched on. When the jelly container is empty, no material flows. This would cause a running dry of the agent-feed-pump and agent burning inside the flow-heater. The running dry damages the agent-feed-pump.

##### Switching off

- Press the on-/off switch (1).



After the implement has been switched off, the green control light (2) goes out.



#### 4.5 Exchanging the agent-nozzle

Yellow round jet nozzle (1) for small and round products.



#### Exchanging the agent-nozzle

- Secure the spray gun by means of the locking device (1) against unintended spraying.
- Manually slacken the bayonet cap (2) and remove.
- Remove the agent-nozzle (3) from the bayonet cap.
- Insert another agent-nozzle into the bayonet cap.
- Screw the bayonet cap back onto the spray gun.



#### 4.6 The spraying procedure



**Always accurately aim the spraying operation onto the bakery products. Never aim at people or animals.**

For rotary spraying guide the spray gun in circular movements over the bakery products.

##### **Spraying the product:**

- Unlock the spray gun locking device.
- Hold the spray gun at a distance of approx. 10 cm directly above the bakery products.
- Pull the trigger of the spray gun and apply the jelly onto the product.

##### **Interrupting the spraying procedure:**

- Release the trigger. The agent immediately stops discharging from the spray gun.



**If you interrupt the spraying procedure it may happen that the liquid jelly already jellies inside the spraying nozzle. Before you continue to spray the products, hold the spray gun into a container and briefly actuate the trigger lever.**



#### 4.7 Pauses and operational breaks



Switch off the implement if the operational break will be more than 1/4 hour.



After switching off, the flow-heater provides a residual heat for some hours. Thus, after having been started again, the implement only needs a few minutes to obtain the pre-set processing temperature.



Before longer operational interruptions (more than 3 hours) spray the system empty,

- in order to save the system from material-burns.
- because the jelly will have lost its ability to jelly after more than 2 - 4 hours of stale.



Immediately switch off the implement when the system has been emptied. Material-burns inside the material channel would be the result when the system goes on heating without material.

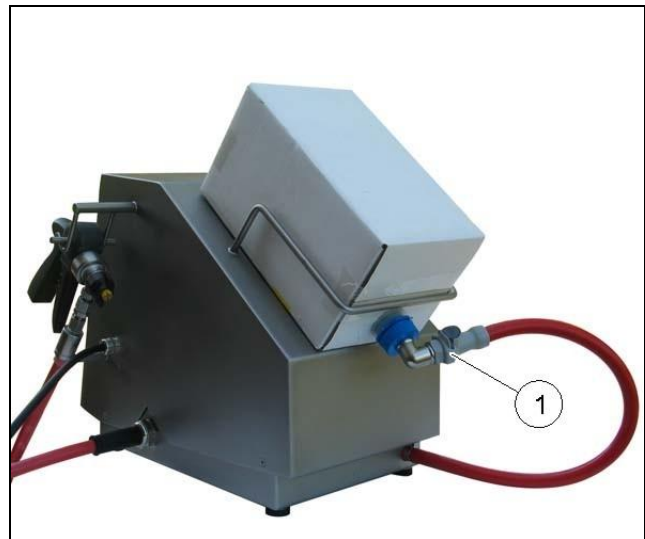


Damage due to material channel which have not been flushed (emptied by spraying) will not be accepted as claims under guarantee.

- Switch off the implement if the operational break will be more than 1/4 hour.
- Before switching off the implement, ensure that it is empty if the intended operational break will last longer than 3 hours.

#### Spraying the system empty

- Disconnect the coupling plug (1).
- Go on spraying your pastry until only an jelly-air-mixture will emerge the spray gun.
- Secure the spray gun (2) by means of the locking device (3) against unintended spraying.
- Place the spray gun into the retainer (4).
- Switch off the implement.
- Connect the coupling plug (1) back together.



#### 4.8 Restarting after an operational break

- Press the on-/off switch (1).
- It will flash:  
the green control light (2) and  
the red temperature-control light (3).



**When the red temperature-control light (3) has gone out the implement is ready for operation again.**

**The system had been sprayed empty before the operational break:**

- Take the spray gun out of the retainer.
- Protect the spray gun against unintended spraying by turning the locking device.
- After the agent-feed-pump has delivered the jelly up to the agent-nozzle of the spray gun, you may start to spray your products.

**The system had not been sprayed empty before the operational break:**

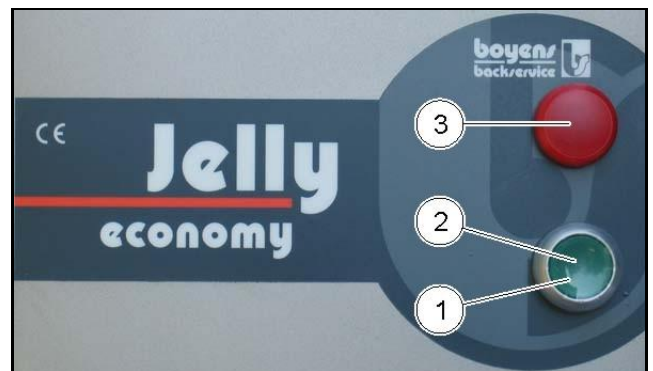
- **The operational break lasted less than 3 hours:**
  - Take the spray gun out of the retainer.
  - Protect the spray gun against unintended spraying by turning the locking device.
  - Now you may start to spray your products.
- **The operational break lasted longer than 3 hours:**
  - Take the spray gun out of the retainer.
  - Protect the spray gun against unintended spraying by turning the locking device.
  - Spray approx. 300 ml jelly into a bin/bucket before you start to spray your products.



**We recommend this procedure because the jelly will lose its ability to jelly after 2 - 4 hours of stale.**



**If the operational breaks will last longer than 3 hours, this procedure is only permitted in exceptional cases. If the system will not be sprayed empty after such a long operational break, material burns inside the system may be the result.**



## 5 Cleaning, maintenance and maintaining



Carry out prescribed cleaning and maintenance work in due time. Prior to all cleaning and maintenance work:

- pull the mains plug out of the socket,
- actuate the spray gun and thus discharge the residual air pressure in the system,
- when disposing condensate, observe the prescriptions of the water resources law.

Check the firm seat of screw connections that have been unscrewed beforehand. On completion of maintenance work, check the function of all safety devices.



To clean the implement, only use:

- clear water,
- clear water with a maximum water temperature of 50°C,
- a moist sponge or a moist cloth,
- never a high pressure cleaning device.

Clean the agent-hose at regular intervals.



In case of leaks in the compressed air system, slightly tighten screw connections on the spray gun and other compressed air system components.

These bolted connections may work loose:

- because the system is constantly moving due to the compressed air and the agent to be sprayed,
- because of improper handling, e.g. if the spray gun is dropped.



Every operator may check compressed air supplies and repair leaky compressed air supplies.



Repair work on the electric supply may only be executed by a skilled electrician.

### 5.1 Cleaning - daily after having finished the operational procedure

- Disconnect the coupling plug between the jelly container and the suction-hose. Refer to chapter "Connect the one-way jelly container BIB", page 14.
- Close the jelly container and keep cool.
- Spray empty the system until only a jelly-air-mixture will come out of the spray gun.



**Stop spraying the system empty as soon as only a jelly-air-mixture will come out of the spray gun.**

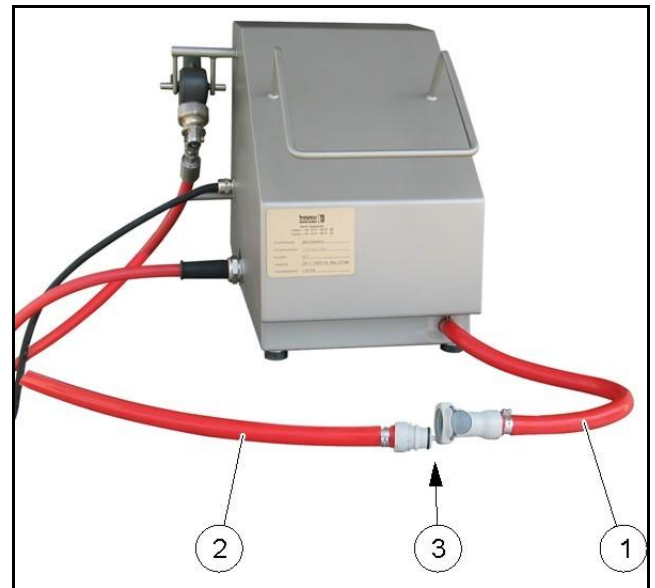
**Ensure that the system does not heat without agent/water. Agent burns inside the agent channel might be the result.**

- Connect the suction-hose (1) and the cleaning hose (2) via the coupling plug (3).
- Dip the cleaning hose (2) into a bucket with water.
- Actuate the spray gun and spray the water-jelly mixture into a bin/bucket.



**Flush the system until only clean water will discharge from the spray gun.**

- Pull the cleaning hose (2) off the bucket with water.
- Spray empty the system until only a water-air mixture will come out of the spray gun.
- As soon as just a water-air mixture comes out of the spray gun, immediately switch off the implement.
- Actuate the spray gun and thus discharge the residual air pressure out off the system.
- Lock the spray gun against unintended spraying.
- Pull off the electric network plug.
- Cleaning with a moist cloth:
  - the implement,
  - the agent-hose,
  - the spray gun.



## 5.2 Cleaning the agent-nozzle

- Secure the spray gun by means of the locking device (1) against unintended spraying.
- Manually slacken the bayonet cap (2) and remove.
- Remove the agent-nozzle from the bayonet cap.
- Clean the agent-nozzle using hot water.
- Re-insert the agent-nozzle into the bayonet cap.
- Screw the bayonet cap back onto the spray gun.



## 5.3 Maintenance

### 5.3.1 Weekly

**Check all compressed air connections once a week:**

- Pressurise the system.
- Switch off the implement.
- Check the spray gun.



**You will notice leaking compressed air connections by a hissing noise.**



**Every operator may check compressed air supplies and repair leaky compressed air supplies.**

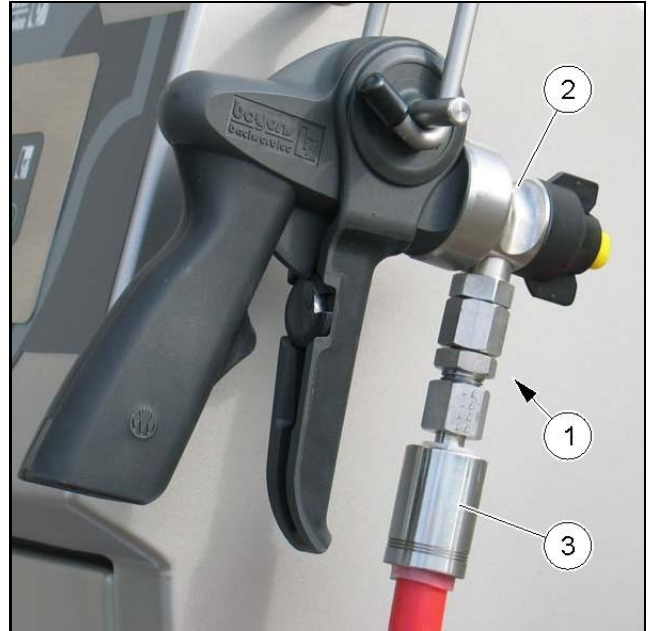
Check the hinged joint (1) between the spray gun (2) and the agent-hose (3) at least once a week.



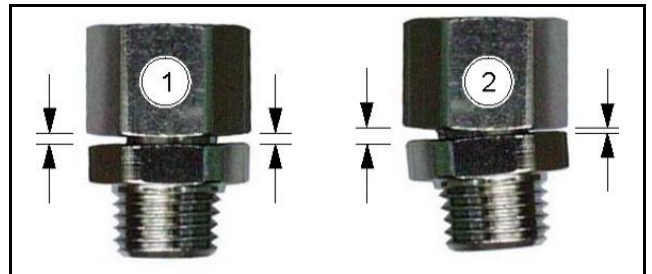
The hinged joint could become bent if you accidentally drop the spray gun (2).



Immediately replace a bent hinged joint, as hot jelly can leak from it.



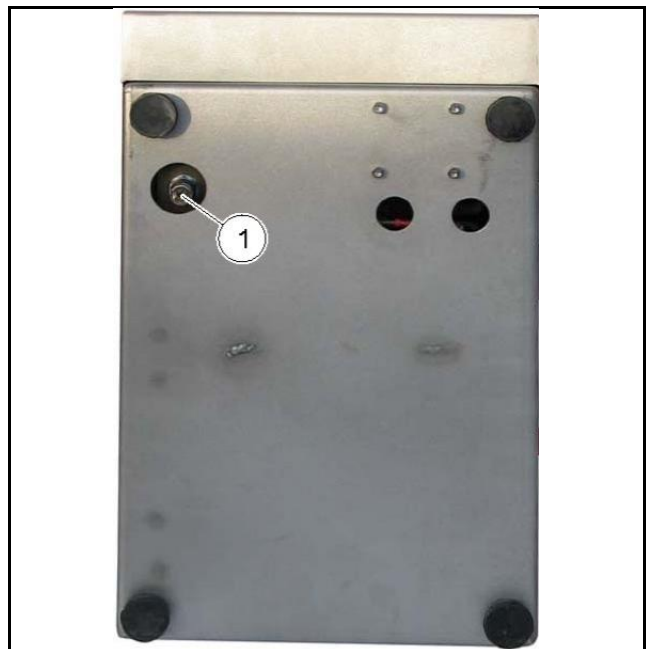
This hinged joint (1) is o.k. This hinged joint (2) is bent and needs to be urgently replaced.



### 5.3.2 Every 14 days

Drain the condensate resulting from the pressurising every 14 days:

- Slacken the drain plug (1), collect the condensate in a bin and dispose properly.



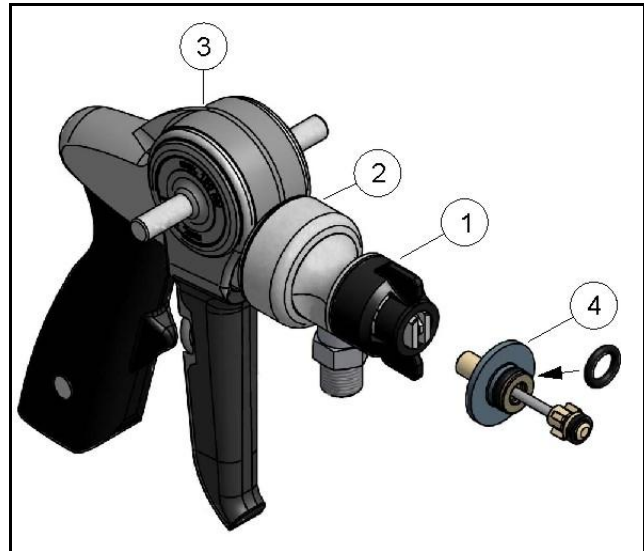
## 5.4 Exchanging the seal kit



The seal kit may only be exchanged

- by skilled technical personnel.
- when it is not connected to the electric power supply and not pressurised.

- Switch off the implement.
- Pull the power supply plug out of the socket.
- Actuate the spray gun and thus discharge the residual air pressure out off the system.
- Manually slacken the bayonet cap (1) and remove.
- Manually slacken the head part (2) and unhook on the spray gun body (3).
- Press out the seal kit (4) from the head part.
- Re-insert the new seal kit into the head part.
- Mount the head part (2) on the gun body (3) and tighten manually.
- Screw the bayonet cap back onto the spray gun and tighten manually.



## 5.5 Opening the implement housing



The implement housing may only be opened

- by skilled technical personnel (skilled electrician).
- when it is not connected to the electric power supply and not pressurised.
- when it is cold.



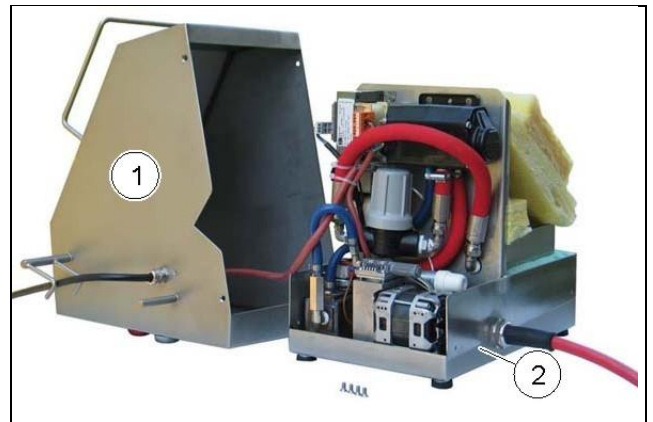
You need to open the implement housing before you

- remedy leaking compressed air connections.
- activate the safety switch.
- exchanging the silencer.
- exchanging the pressure switch.
- exchanging the agent-hose.
- exchanging the agent-feed-pump.



In case of queries, please do not hesitate to contact our after-sales service.

- Disconnect the coupling plug between the jelly container and the suction-hose. Refer to chapter "Connect the one-way jelly container BIB", page 14.
- Go on spraying your pastry until only an jelly-air-mixture will emerge the spray gun.
- Switch off the implement.
- Pull the power supply plug out of the socket.
- Actuate the spray gun and thus discharge the residual air pressure out off the system.
- Remove the jelly container.
- Remove the screws (4 pieces) between the housing hood (1) and the housing bottom (2).
- Pull the housing hood (1) upward carefully.
- Swivel the housing hood (1) to the front by 90°. Placing the housing hood.





## 5.6 Remedy leaking compressed air connections

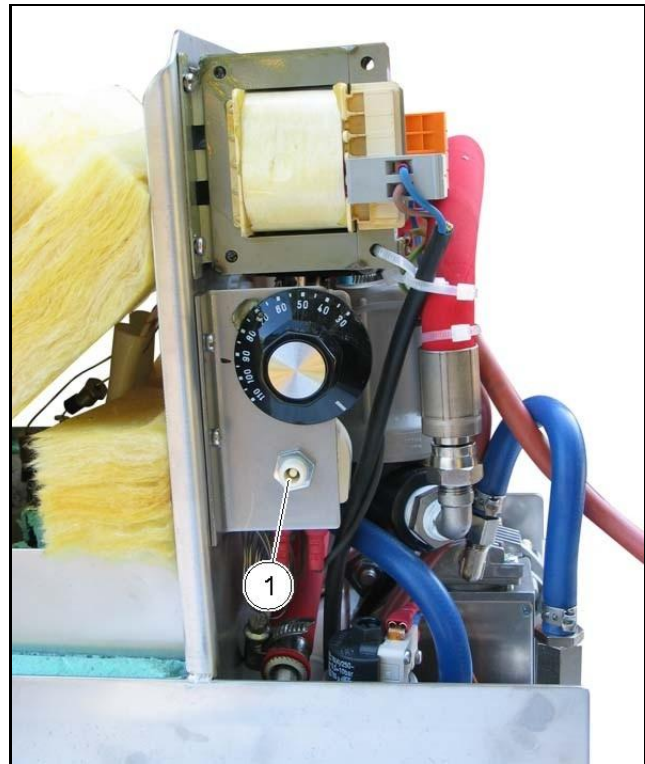
- Open the implement housing. Refer to chapter "Opening the implement housing", page 25.
- Control all screwed connections in the process of the blue air line and repair leaking compressed air connections.
- Reinstall the housing hood.

## 5.7 Activate the safety switch



The safety switch may be activated when the implement is not connected to the electric power supply and not pressurised.

- Let the implement cool down for approx. 1 hour.
- Open the implement housing. Refer to chapter "Opening the implement housing", page 25.
- Remedy the cause, which led to tripping the safety switch.{
- Press the safety switch (1) using a ball pen.
- Reinstall the housing hood.

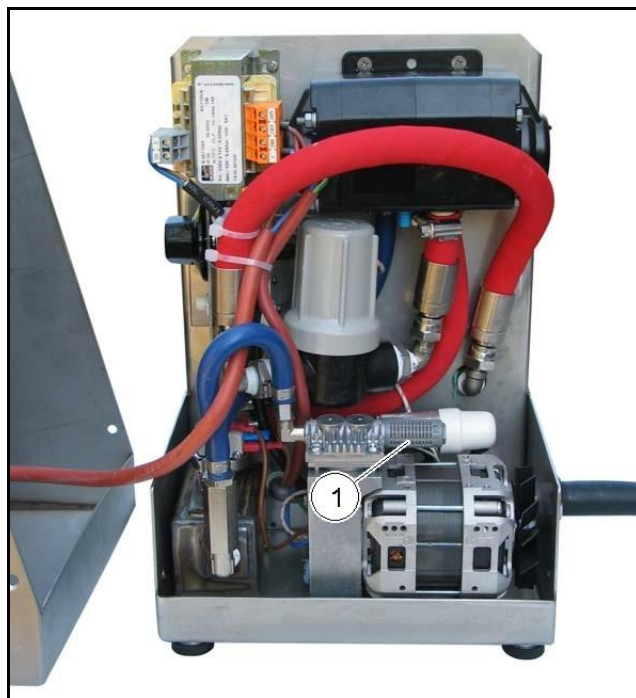


## 5.8 Exchanging the silencer



The silencer may be exchanged when the implement is not connected to the electric power supply and not pressurised.

- Open the implement housing. Refer to chapter "Opening the implement housing", page 25.
- Replace the silencer (1).
- Reinstall the housing hood.

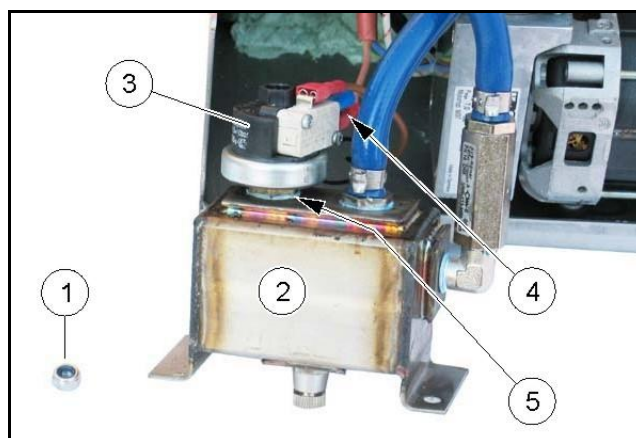


## 5.9 Exchanging the pressure switch



The pressure switch may be exchanged when the implement is not connected to the electric power supply and not pressurised.

- Open the implement housing. Refer to chapter "Opening the implement housing", page 25.
- Remove the screw (1) for the compressed air tank (2).
- Pull the compressed air tank (2) with the pressure switch (3) out of the implement housing carefully.
- Pull the plug connectors (4) off the pressure switch.
- Set a wrench on the nut (5) of the pressure switch (3) and unscrew the pressure switch.
- Exchange the pressure switch and fit in reverse order.
- Reinstall the housing hood.



### 5.10 Exchanging the agent-hose



The agent-hose may only be exchanged

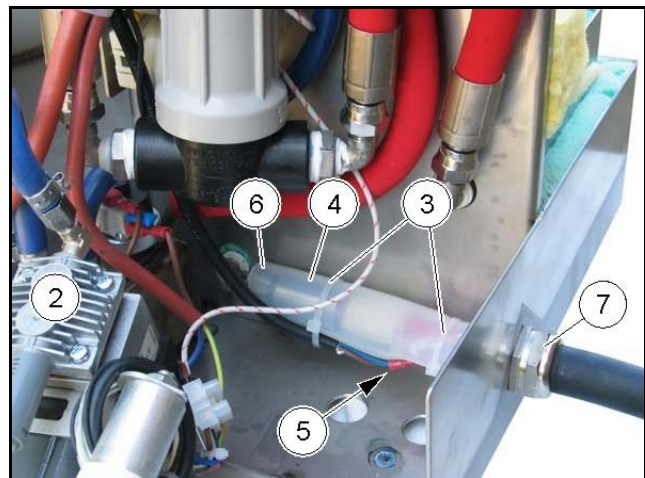
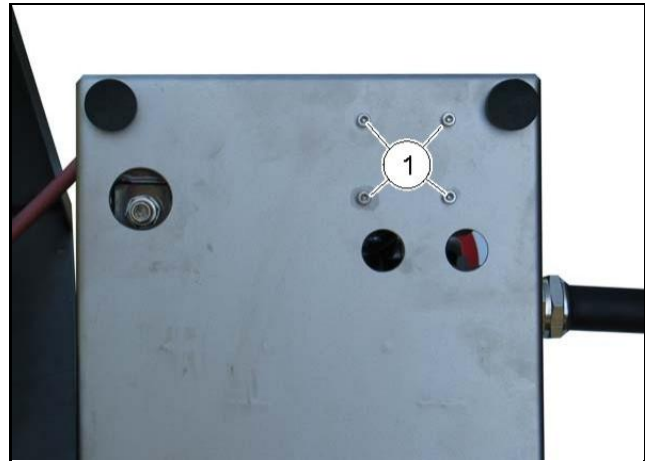
- when it is not connected to the electric power supply and not pressurised.
- when it is cold.

- Disconnect the coupling plug between the jelly container and the suction-hose. Refer to chapter "Connect the one-way jelly container BIB", page 14.
- Go on spraying your pastry until only an jelly-air-mixture will emerge the spray gun.
- Switch off the implement.
- Pull the power supply plug out of the socket.
- Actuate the spray gun and thus discharge the residual air pressure out off the system.
- Open the implement housing. Refer to chapter "Opening the implement housing", page 25.
- Remove the 4 fixing bolts for the compressor.
- Carefully pull the compressor (2) out of the implement housing.
- Remove the cable ties (3) and the cable protection (4).
- Disconnect the two plug connectors (5).
- Slacken the agent-hose screw joint (6).
- Slacken the screw joint (7).
- Pull the agent-hose out of the implement housing.
- Unscrew the spray gun from the agent-hose.
- Connect the new agent-hose in reverse order.



**You may connect the two plug connectors as desired.**

- Re-insert the compressor (2) carefully into the implement housing.
- Screw the compressor (2) onto the housing bottom.
- Reinstall the housing hood.



### 5.11 Exchanging the agent-feed-pump



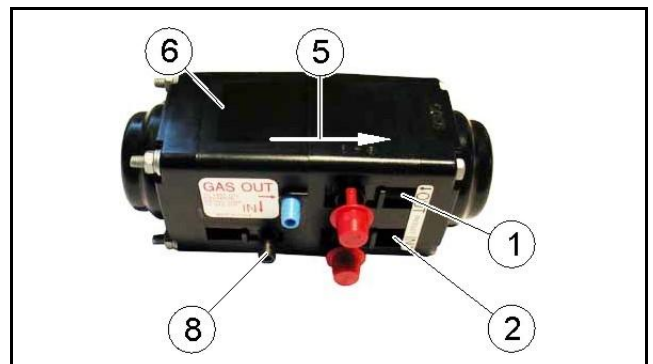
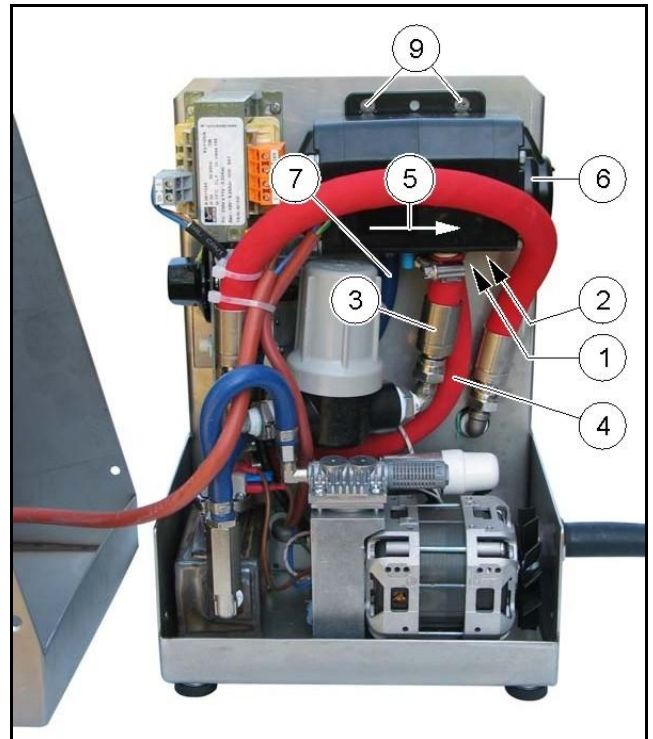
The agent-feed-pump may only be exchanged

- when it is not connected to the electric power supply and not pressurised.
  - when it is cold.
- Disconnect the coupling plug between the jelly container and the suction-hose. Refer to chapter "Connect the one-way jelly container BIB", page 14.
  - Go on spraying your pastry until only an jelly-air-mixture will emerge the spray gun.
  - Switch off the implement.
  - Pull the power supply plug out of the socket.
  - Actuate the spray gun and thus discharge the residual air pressure out off the system.
  - Open the implement housing. Refer to chapter "Opening the implement housing", page 25.
  - For fixing the two red hoses (3 and 4) move the relevant slide (1 and 2) in direction of arrow (5). Pull both hoses out off the agent-feed-pump (6).
  - Pull the blue air line (7) out off the air connection (8).
  - Remove both screws (9) via screwdriver.
  - Exchange the agent-feed-pump.
  - Fitting the agent-feed-pump is done the opposite way.



#### Insert

- the long hose (4) into the agent-feed-pump's entry (2) marked with an "IN".
- the short hose (3) into the exit (1) marked with an "OUT".

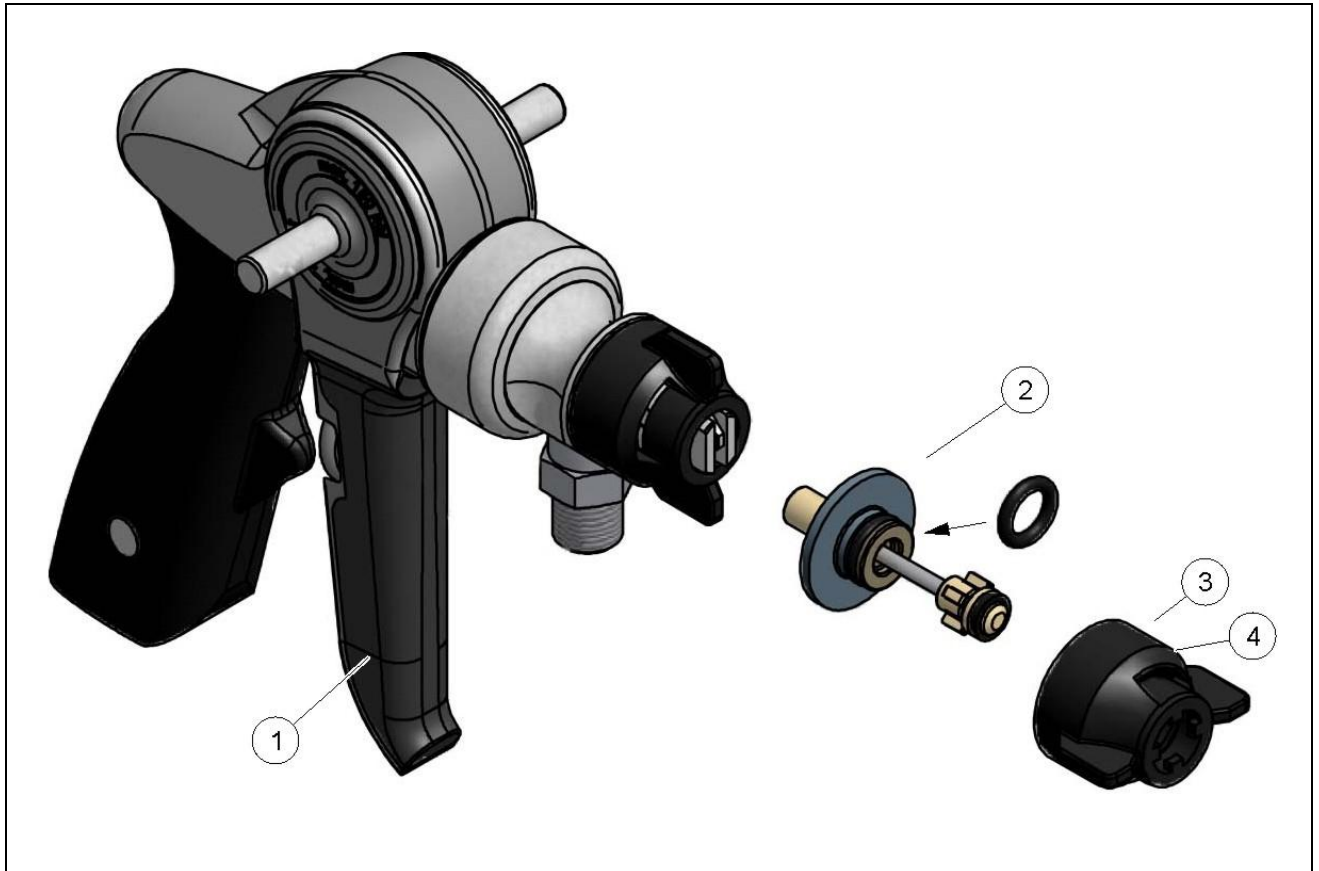


- Reinstall the housing hood.


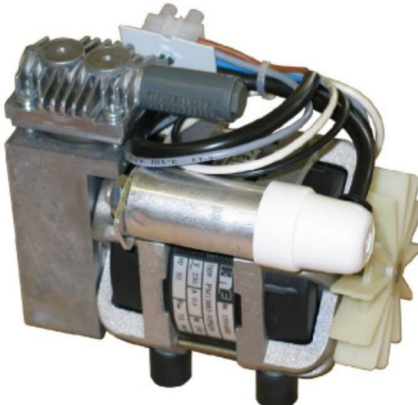



## 5.12 Trouble shooting







<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
<b>Temperature does not rise</b>	Implement not switched on.	- Switch on the implement.
	Safety switch has been tripped.	- Activate the safety switch.
	Temperature control defective.	- Contact the maintenance service.
	Temperature-control light defective.	- Contact the maintenance service.
<b>Spraying pressure drops repeatedly</b>	Leakage on the air ducting.	- Check all visible connections. - Contact the maintenance service.
	Compressor does not work.	- Contact the maintenance service.
	Agent feed pump defective.	- Contact the maintenance service.
<b>No agent flow</b>	Agent-nozzle clogged.	- Clean the agent-nozzle using hot water.
	Jelly in the jelly container is not cold or liquid.	- Check the jelly.
	Agent hose does not heat.	- Contact the maintenance service.
<b>Compressor does not turn off or compressor constantly starts</b>	Drain plug for condensate is opened.	- Close the drain plug.
	Leaking compressed air connections in the implement housing. You will notice leaking pressurised connections by a hissing noise in the implement housing.	- Control all screwed connections in the process of the blue air line and repair leaking compressed air connections.
	Pressure switch defective.	- Readjust the pressure switch or exchange.
	Non-return valve defective.	- Replace the non-return valve.
	Silencer gets dirty.	- Exchange the silencer.
<b>Spray gun does not shut</b>	Agent-nozzle clogged.	- Clean the agent-nozzle using hot water.
	Seal kit defective.	- Renew the seal kit.
<b>Agent-nozzle does not spray evenly</b>	The jelly has not been mixed properly, contains e. g. lumps or is warm.	- Check the jelly.
	The jelly is not liquid.	- Check the jelly.
	The jelly is warm and jellied already inside the jelly container.	- Exchange the jelly.
<b>Spray gun only sprays air</b>	The jelly is not liquid.	- Check the jelly.
	The jelly is warm and jellied already inside the jelly container.	- Exchange the jelly.

## 6 Spare part list





Item	Article-No.:	Designation	Quantity
	3329	Spray gun bayonet completely	1
1	3345	Spray gun body bayonet	1
2	3330	Seal kit bayonet completely	1
3	3331	Bayonet cap 607	1
4	3332	Bayonet cap 773 for round jet nozzles	1


Article-No.:	Designation	Component
1410	Agent-feed-pump	 <p>A black cylindrical pump with a red handle and a blue cap. It has a label with 'GAS OUT' and 'IN' and a '100' marking.</p>
1753	Compressor	 <p>A complex assembly with a silver metal body, a black handle, and various hoses and electrical connections.</p>
1757	Silencer 1/8" NPK 09	 <p>A small, black, cylindrical component with a textured surface and a threaded end.</p>
1735	Pressure switch Tim	 <p>A black cylindrical pressure switch with a brass base and two electrical terminals. The label reads: '16(4)/250-0.5-10bar T85 µ'.</p>
1476	Non-return valve straight 1/4" Rö	 <p>A brass non-return valve with a label that reads: 'AVS-Römer A-O-W-B G436 D-82549 Östingdorf PN16 DN6 VNR-133-M60-1/4B'.</p>

Article-No.:	Designation	Component
1820	Temperature-control light red	
1758	On-/off switch	
956	Safety switch Jelly	
1409	Silicone hose blue 6 mm (yard ware)	
970	Bracket 13.3 - VA	
1655	Hinged joint VA	

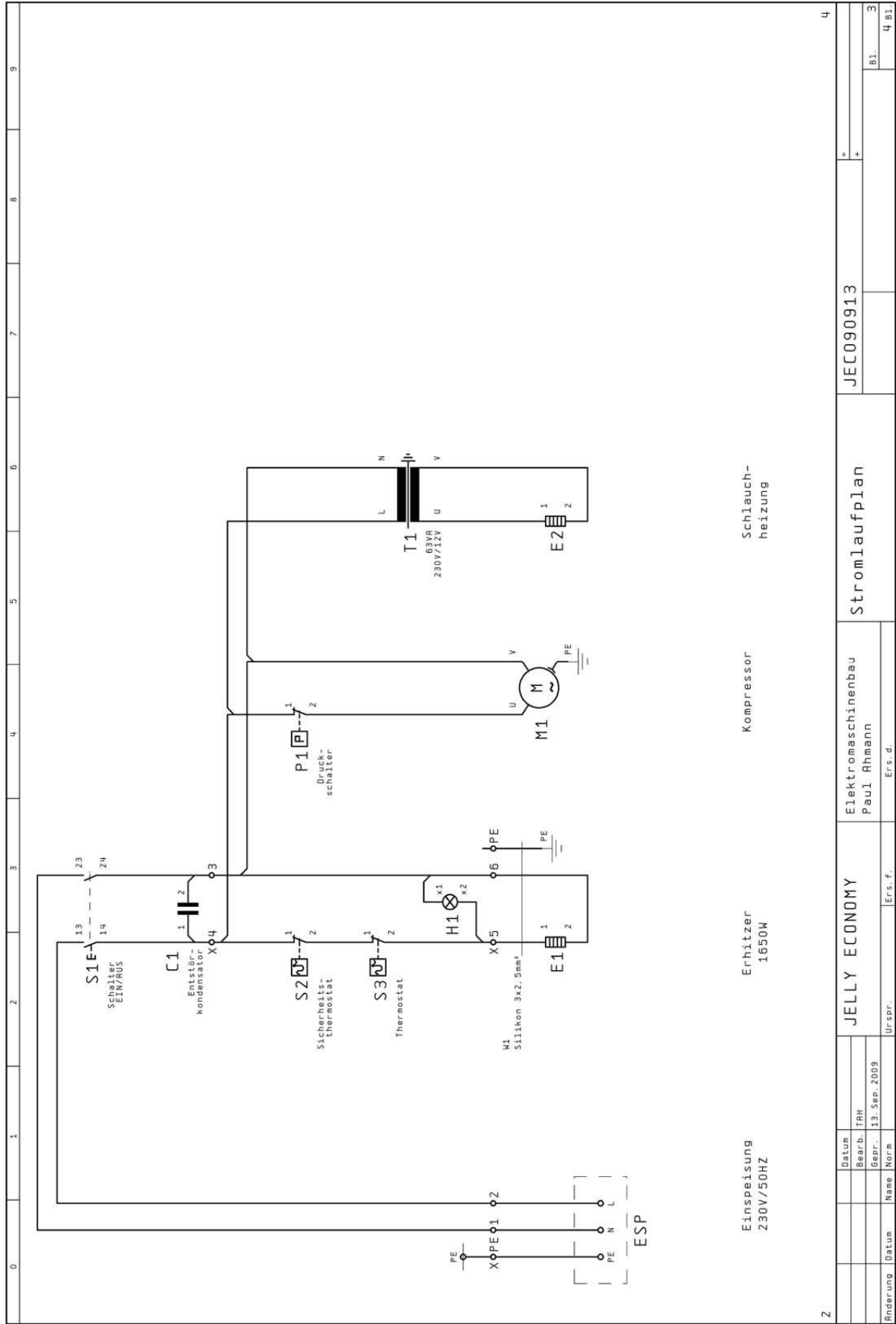


Article-No.:	Designation	Component
963	Pressure regulator MRS 08 0 - 9 bar	
1584	Round jet nozzle yellow	

7 Circuit diagrams

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## 8 Guarantee

For this implement we will accept works guarantee to the following extents:

Within 12 months after delivery to the buyer we will - at random - repair or replace all such parts free of charge which have proven faulty or injured regarding their usability due to a reason which occurred before this date of delivery, especially due to a faulty design, defective components or poor execution.

***We will not accept any guarantee for damage which result from the following reasons:***

- Not suited or improper use.
- Faulty fitting or wrong putting to operation by the buyer or third persons.
- Natural wear.
- Improper handling or maintenance.
- Unsuitable spraying material.
- Exchange material or chemical, electro-chemical or electrical influences, unless the damage can be traced back to a fault on our side.
- Impure compressed air, or compressed air being wet or containing foreign particles.
- Sealings and hoses.
- All firm or moving components which get into contact with impure, wet or foreign particles containing compressed air.
- Change on the technical system.
- Use of non original spare parts.

Check the implement immediately after receipt. In order to avoid a rejection of claims under warranty, obvious faults must be recorded in written form to the supplying company or to us within one day after receipt of the implement.

**We reserve the right to carry out warranty checkings. These warranty checking will be done either in the factory in Ibbenbüren or at a franchise company which has been authorised by us.**

- *The original time of guarantee will not be extended due to replacement deliveries under warranty.*
- In case the inspection will prove that no claim under warranty is concerned, the repair costs will be charged to the buyer.

## EC Declaration of Conformity

according to the EC Machinery Directive 2006/42/EC, Annex II, 1.A

**Manufacturer:**

boyens backservice GmbH  
Gildestraße 76-80  
D-49479 Ibbenbüren

**Person residing within the Community authorised to compile the technical file:**

boyens backservice GmbH  
Gildestraße 76-80  
D-49479 Ibbenbüren

**Description and identification of the machinery:**

Designation: Jelly economy  
Serial number: \_\_\_\_\_  
Commercial name: Jelly economy

**It is expressly declared that the machinery fulfils all relevant provisions of the following EC Directives and REGULATIONS:**

Directive 2006/42/EC	DIRECTIVE 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2006 on machinery
Directive 2004/108/EC	DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC
REGULATION (EC) No 1935/2004	REGULATION (EC) No 1935/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 October 2004 on materials and articles intended to come into contact with food
REGULATION (EC) No 10/2011	COMMISSION REGULATION (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food
REGULATION (EC) No 2023/2006	COMMISSION REGULATION (EC) No 2023/2006 of 22 December 2006 on good manufacturing practice for materials and articles intended to come into contact with food
Directive 97/23/EC	DIRECTIVE 97/23/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 May 1997 on the approximation of the laws of the Member States concerning pressure equipment

**Reference to the harmonised standards used, as referred to in Article 7(2):**

EN ISO 12100:2010	Sicherheit von Maschinen - Allgemeine Gestaltungsleitsätze - Risikobeurteilung und Risikominderung (ISO 12100:2010)
EN ISO 4414:2010	Fluidtechnik - Allgemeine Regeln und sicherheitstechnische Anforderungen an Pneumatikanlagen und deren Bauteile (ISO 4414:2010)
EN 60204-1:2006	Sicherheit von Maschinen - Elektrische Ausrüstung von Maschinen - Teil 1: Allgemeine Anforderungen

**Reference to other technical standards and specifications used:**

Date / Manufacturer's signature: 04.14



Sven Grote

Position of signatory:

General Manager