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The information and diagrams described here can neither be duplicated, improperly used nor passed on to a third party without prior authorization from us. Note: The entire documentation for the Vacuum filling machine RVF 327 are found in the handbook.

1. Operating instructions incl. Replacement parts documentation and detailed schematic diagrams as well as
2. The CE-Conformity explanation and the reverse answer sheet (machine handing over protocol)

1. IN GENERAL

MANUFACTURER

REX-Technologie GmbH & Co. KG
Irlachstraße 31
5303 Thalgau
Austria
www.rex-austria.com

OPERATING COMPANY

Name	
Address	
Zip code, town	

MACHINE DESIGN

Type	
Machine number	
Construction year	

ADMITTANCE PERSONNEL

Name	
Name	
Name	

In general

1.1 INTRODUCTION

This operational instruction is important information and must be read, understood and every point needs to be noted by the personnel working with the Vacuum filling machine RVF 327, or who carry responsibility for their operation.



The complete operating instructions always need to be stored in the direct vicinity of the Vacuum filling machine.

Particularly important details concerning the handling will be pointed out in the instruction manual.

The knowledge and following of the instruction manual contributes to reaching the attainable current level of safety and problem-free operation in dealing with this Vacuum filling machine, according to the current state of the art. It is therefore very important that the instruction manual remain readily available to the responsible personnel, and also be circulated among, and read by all those involved in operating the machine.



Official acceptance risk of the Vacuum filling machines must be charged (bought, paid for) prior to beginning operation. The customer is responsible for establishment of the availability of a national or regional acceptance risk. Non-compliance excludes liability claims against the manufacturer.



We recommend this instruction manual be carefully and thoroughly read before beginning operation of this vacuum filling machine! The manufacturer of this machine will not be held liable for damage and operational failure resulting from not observing the operation manual!

In the event that difficulties should nevertheless occur, turn to our customer service, or replacement parts departments, or with a representative who would gladly be assistance.



The pictures and sketches shown are only completed as is necessarily required for their understanding.

The technical data, descriptions and construction information correspond with the time of printing. Constructional changes since then are possible in the interest of a continuous further development.

1.2 COPYRIGHTS

On the usage of documents delivered by us concerning the Vacuum filling machine, such as

Instruction manual

Sketches

Photos

Replacement parts lists

Circuit diagrams

Programs etc.

Are copyrighted exclusively for the company REX-Technologie GmbH & Co. KG. The customer/operator has only the non-transferable right for usage of these documents for the purpose of assistance in proper operation or maintenance of the Vacuum filling machine. Any further usage, in particular the passing on, withdrawal, covering up (transfer), duplication or changes cannot take place without our written consent.



In the usage of any altered or different switch or control programs, including possible hard and software used here, as well as with any built in alterations to the Vacuum filling machine, we refuse any liability for object, cost or personal damage. At the same time, all warranties of the operator associated with the machine manufacturer are voided.

1.3 SYMBOLS - COMMENTS

1. symbol for "dangerous for humans"



2. symbol for "danger for machinery"



3. symbol for "electrical specialist/electrician required"



4. symbol for "mechanical specialist required"



5. symbol for "lubrication"



6. symbol for "special tools required"



7. symbol for "special tip for operating personnel"



1.4 FUNDAMENTAL SAFETY TIPS

- **Warning indications and symbols**

In the operating instructions symbols are used for the emphasis on important descriptions. You are on the preceding sheet in chapter 1.3 Symbols - Comments. These characterized texts are to ensure safety of the personnel and machinery, and particularly important for trouble-free functioning of the Vacuum filling machine!

- **Fundamentals for usage as directed"**

The Vacuum filling machine is according to the built according to the developments of the technology and the recognized technical safety regulations. Nevertheless, its usage could lead to the danger of bodily injury to the operator, or to a third party. Also negative effects on the Vacuum filling machine or to other items of value could arise. Dangers could emerge from the Vacuum filling machine, if it's:

- Operated with untrained personnel
- Improperly operated or
- Put to use in ways that were not intended for!

The Vacuum filling machine is only to be used in technically perfect working condition, and as directed, with a priority on safety and the danger potential in observance of the operation manual. Particularly malfunctions, which could interfere with safety need to be remedied immediately, and reported to the responsible specialists!



The Vacuum filling machine is intended exclusively for filling, portioning, and twisting of the filling material, and also in frozen condition, however nothing colder than 4°C. Another one, or a usage from this point onward, like for example, a filling material colder than 4°C or for products which contain solid material or extremely tough material, such as bones and tendons are not intended for usage. The manufacturer is not liable for damages resulting from such usage, and therefore, the user alone bears all responsibility.

- **Organizational Measures**

The operation manual must constantly remain at hand within the immediate vicinity of the Vacuum filling machine working area.

As a supplement to the operation manual, the knowledge of general legal, and otherwise binding rules for accident prevention and environmental protection should be given (e.g. relevant information of the appropriate professional trade association.).

Operational instruction notes should be supplemented in chapter 8.3, in order to, for example, to have instructions regarding the organization of operational sequences, employed personnel and the documentation of maintenance work carried out. Documents of notification duties concerning the Vacuum filling machines or events are to be included in the instruction manual.

Prior to beginning any operating the Vacuum filling machine, the authorized personnel need to have read the operators manual; particularly chapter 4.1 General safety precautions. This is particularly important for workers who only occasionally work with the Vacuum filling machine (adaptation, maintenance and repair).



There should be an occasional impromptu inspection, regarding safety and danger awareness, to check if the work done by the personnel complies with that of the operating manual!



The operating personnel cannot have open, long hair, loose clothing or jewelry, including carrying rings. There is the danger of injury through getting hung up, or pulled through the machine.

The operating personnel have strictly instructions to comply with all the safety and danger warnings of the Vacuum filling machine.

The safety and danger awareness on the Vacuum filling machine must remain easy to read condition.

If you notice any changes with the vacuum filling machine or if it's not functioning properly, particularly concerning safety, then the machine must be turned off and the malfunction be reported to the proper personnel.

Without permission from the manufacturer, no changes are allowed to be made which could to the Vacuum filling machine effect functions and safety, whether adding on, or build around the Vacuum filling machine.



Replacement parts must correspond with the technical standards set by the manufacturer. The guarantee always covers the use of original replacement parts

Deadlines must be met for maintenance and inspection that are stipulated or given in the operation manual. (See chapter 5.4 servicing and maintenance work)

- **Personal choice and Qualification**

The personnel delegated with activities and operating the Vacuum filling machine need to have read and understood the operation manual prior to beginning their work

Only those personnel who are clearly mentally and physically fit are allowed to operate the Vacuum filling machine. It must furthermore be expected that they can reliably fulfill their duties. Be sure to comply with the legally allowed age limit!

Persons whose working capability is limited, for example through alcohol, drugs, medications etc., may not operate, repair or service or inspect the Vacuum filling machines.

Only employ trained or clearly instructed personnel. Clearly establish responsibility for the operation, preparation, maintenance, repairing and adapting!

The person responsible for operating the Vacuum filling machine must be authorized to reject one of third desired safety or adverse function activities of the machine.



Personnel undergoing schooling, training, introduction or in the course of a general training are only allowed to act under constant supervision of an experienced person on the Vacuum filling machine!

Working on electrical equipment of the Vacuum filling machine may only be carried out performed by an electrician in accordance with the electro-technical rules.



If a malfunction should occur in the Vacuum filling machine, it is to be immediately shut down and protected. Allow these breakdowns to be immediately repaired by qualified personnel.

- **Operator responsibilities**



The personnel must be provided with all necessary protection equipment.

Out of duty and a safety conscious environment, there needs to be regular inspection of the work done by the operating personnel of the Vacuum filling machine.

All safety and danger warnings on the Vacuum filling machine must be complete and kept in legible condition.

As a supplement to this operation manual, there must be a generally acknowledged statutory, legal and otherwise binding regulation for accident prevention and environmental protection, and be instructed to the personnel

- **Operator responsibilities**



While working, all legal and basic regulations for work safety and accident must be followed.

Observe all safety and danger warnings on the Vacuum filling machine.

In case of malfunctions with the Vacuum filling machine, immediately shut sown and secure. Order the breakdown to be repaired immediately.

Observe safety instructions when in contact with oil, fats and other chemical substances which are meant for the product. Use the required personal safety equipment.

In general

- **Safety precautions for certain operational phases**

- **Normal operation**

Refrain from any questionable safety working method. This applies in particular to processing goods, which clearly do not conform to proper functions of the Vacuum filling machine.

Before beginning work, it is advisable to be sure the surrounding work area is free of any kind of obstructions, as well as in the work area itself. Potential hazard! ,



Only operate the Vacuum Filling Machine if all the built in or releasable protective equipment, emergency shut off switch, exhausts etc are available and installed.

At least once per shift, the Vacuum filling machine should be inspected for visible or obviously recognizable damage/ defects! Changes that should arise including operational behavior needs to be reported immediately to the responsible person /position! In a doubtful situation, shut down immediately and guard against another attempted operation (Most important is to shut down and secure with lock).



Prior to turning on the Vacuum filling machine make certain that no person can be endangered through the operation of the machine!



- **Special work and –operation with maintenance, repair taking care of malfunctions etc.**

Stick with the operation manual's prescribed instructions in adjustment, maintenance and inspection activities and inspection dates including information for exchanging parts/equipment! These activities may only be performed by professionals.



Inform the operational personnel prior to special jobs about planned course of action. Delegate a leading supervisor!

Prior to carrying out special orders, shut down the vacuum filling machine and safeguard against unsupervised turning on. This can take place by turning off the main switch and close this off with a lock. At the main switch an additionally a warning sign must be placed. The key should be safeguarded by the responsible supervisor.

The ending the special order must be reported to the responsible supervisor. The person responsible must convince the properly carried out assignment presents no danger to a further operation of the Vacuum filling machine. Only then is the person allowed to remove the lock on the main switch and authorize the machine to be turned on again.



When cleaning the Vacuum filling machine, no water or steam jet may be used to handle electronic devices, electro motors, switch cabinets, service console, directions and indicators, etc. Seeping water or the temperature of the steam damages these parts. They are therefore separate and to be cleansed by hand with a mild cleaning agent.



If carrying out the special order required the complete, or partial dismantling if the safety features, then right after the job is finished, the reassembly and functions inspection of the safety features needs to be carried out! The person responsible must see that this is performed. .



For safer and environmental consideration, take care with disposal of operation and consumables, as well as changed parts!

- **Precautions over particular types of danger**

- **Electrical energy**

Only use original fuses with indicated voltage and the right melting behavior! Shut down the vacuum filling machine immediately in case of an electrical malfunction of the electric energy source!



Electrical power must be shut off to machine and system parts, at which inspections-, maintenance- and repair work is carried out, and remain power free until it has been determined that the work has been completed! All the individual switch parts must be determined as power free prior to beginning the repair work.



The electrical equipment of a Vacuum filling machine must be regularly inspected. Established defects need to be immediately remedied, for example, loose connections, brazed wire, functions unsafe switch and control contactor, relays etc.



In general

- **Structural changes**

Alterations or rebuilding of the Vacuum filling machine and attachments to the machine are forbidden without written consent of the company REX-Technologie GmbH & Co. KG!

Only original-replacement and accessory parts from the Firm REX-Technologie GmbH & Co. KG are allowed to be used. Otherwise the Firm REX-Technologie GmbH & Co. KG reserves the right of any warranty or guarantee claims.

- **Pneumatic (only with accessory devices)**

Only qualified personnel with special knowledge and experience in pneumatics are allowed to work on the pneumatic equipment!



All pipes, tubes and tube fittings must be inspected regularly for leakage and recognizable external damage. Any damage noticed is to be immediately remedied.

- **Oil, fat and other chemical substances**

Follow all product specific safety regulations regarding contact with oils, fats and other chemical substances (cleaning agents)!

Be careful when in contact with hot service fluids or auxiliary material. Potential burn hazard!



Conduct disposal of used oils, fats and other chemical substances in accordance with the local /regional regulations! Under no circumstances are waste products of this sort to be added to the normal household or company rubbish!

Attention: do not dump used oils in the canal system!



1.5 WORK AREA AND DANGER ZONE FOR THE OPERATION PERSONNEL

Following danger zones apply for the RVF 327 (see illustrations 1)

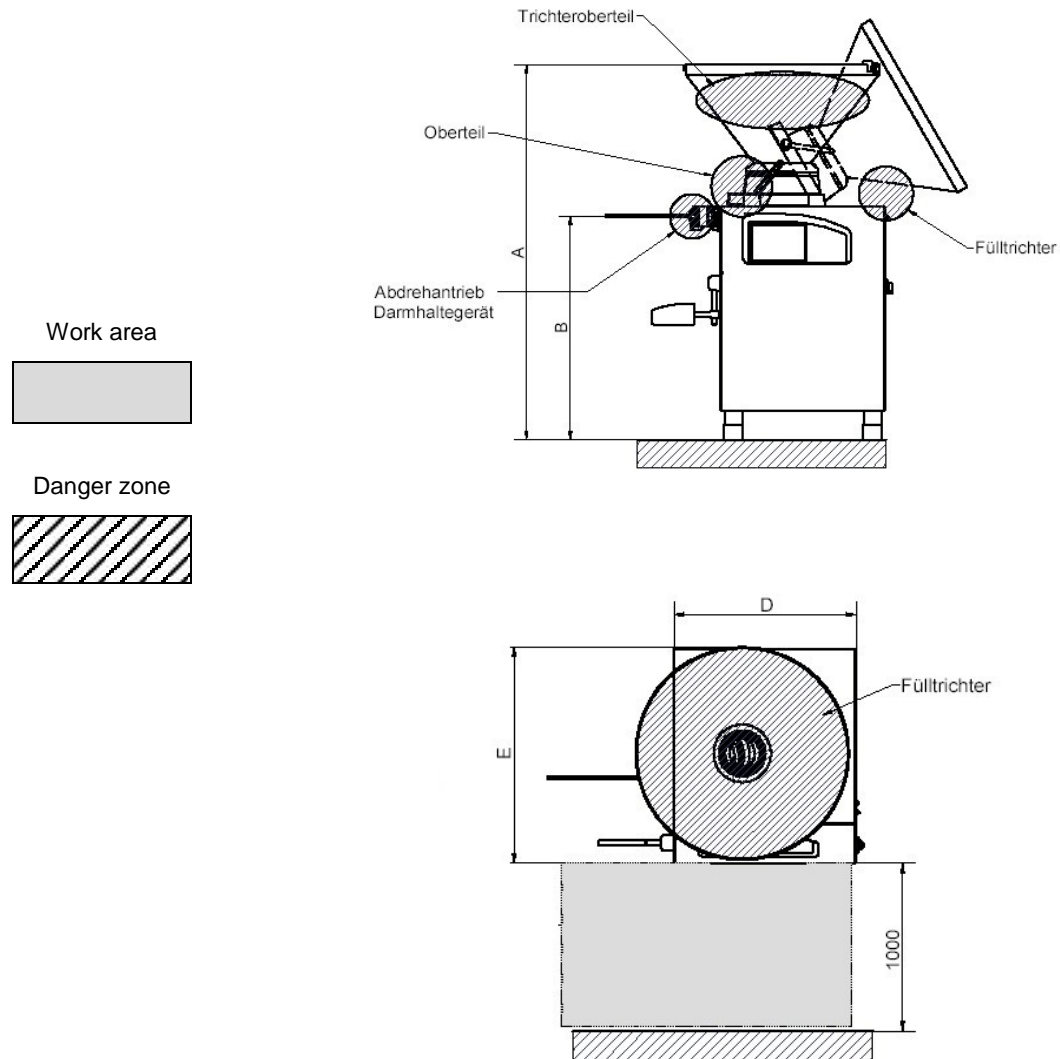


Illustration 1: danger area RVF 327

Type	Hopper contents	A	B	D	E
RVF 327	90 Liter	1657	1050	600	770
	150 Liter	1750	1050	600	770

2. MACHINE DESCRIPTION

2.1 SHORT DESCRIPTION FOR THE CONTINUOUS VACUUM FILLING MACHINE

With this Vacuum filling machine may only be filled with

- flexibly workable
- compressible
- non burnable
- non explosive

filling material, portioned and twisted off; even in a frozen condition no lower than -4°C.

The filling material must also have a somewhat lubricating effect.

The construction method of the Vacuum filling machine corresponds with the newest regulations of the EU guidelines. The same applies for the EU-guidelines concerning the handling of meats and meat products.

The compact machine housing is smooth and flat surfaced, made completely of non-rusting steel. It stands on vertically adjustable plastic feet and in this way works with relatively little noise and vibration. The vertically adjustable feet allow for adaptation to an uneven floor and comfortable cleaning area of the machine through the ground clearance. The completely even stainless steel surface makes it easier for both cleaning and also preserving the optically attractive and hygienically flawless condition of the Vacuum filling machine.

The filling hopper, work level, operating switches and lever for the portioning are ergonomic arranged and guarantee a practically tireless working performance.

The Vacuum filling machine motor is infinitely variable in its RPM speed. The Vacuum filling machine is operated, controlled, checked and programmed through a clearly arranged, water tight display. The machine contains, depending upon the equipment, one or more driving units, which are observed and regulated through a servo technique.

2.2 USAGE

2.2.1 Operational area and a directed usage

1. This Vacuum filling machine is intended for the filling, portioning and twisting off of organic food of the following types and quality:

- Meat and meat products up to 55 mm in diameter
- Frozen meat and meat products with a maximum diameter of 55 mm, with a maximum temperature of 40°C, and minimum temperature of -4° C (attention!: with a longer operating time after cutting the temperature of the filling material can further drop.)
- Fish
- Cheese
- Soup granules etc.

Products supplied for human consumption must correspond with the local hygiene regulations.



2. The Vacuum filling machine can also be filled with products not meant for human consumption. The machine is nevertheless not equipped with components for preventing the danger of infection, which might emerge from the processed material. The subsequent usage of the Vacuum filling machine, according to figure 1, is strictly forbidden without the previous cleaning and disinfection measures!



3. With alternative usage of the Vacuum filling machine, according to figure 1 and figure 2, cleaning and disinfection measures must be carried out prior to every order, acc. To fig. 1. These must be carried out according to the cleaning plan in chapter 5. The following rinsing with warm and cold water of drinking water quality needs to be so intensely performed that all traces of cleaning agents are responsibly removed. The directions within the supplier of cleansing and disinfection agents need to be thoroughly followed!



Machine description

2.2.2 Non-permitted usage

Using this Vacuum filling machine for the following purposes is not permitted:

- Using meat and meat products in cubes with a greater diameter than 55mm
- Using frozen meats, meat products and other frozen foods with a temperature lower than -4° C



- Usage of cooked meat and warm meat products, roasted meat or other foods which are warmer than 40°C.

Prior to using materials warmer than 40°C, a consultation with the manufacturer is necessary.

Disregard of the warning “Non-permitted usages” could provoke the following damage and dangers:

- Overloading the drive elements with Motor- or mechanical defects in the motor area
- Premature wearing down of the conveyor system
- Break in the conveyor system
- Defect in the vacuum equipment
- Excessive warming of the conveyor products and the Vacuum filling machine
- Accident potential through unusual machine functioning and thereby an increased hazard potential



Using this Vacuum filling machine for the following purposes is not permitted without a prior cleansing and disinfection:

- Use for products which are intended for human consumption and correspond with the local hygiene standards, if there were previous products processed which were not meant for human consumption, or do not comply with local standards.

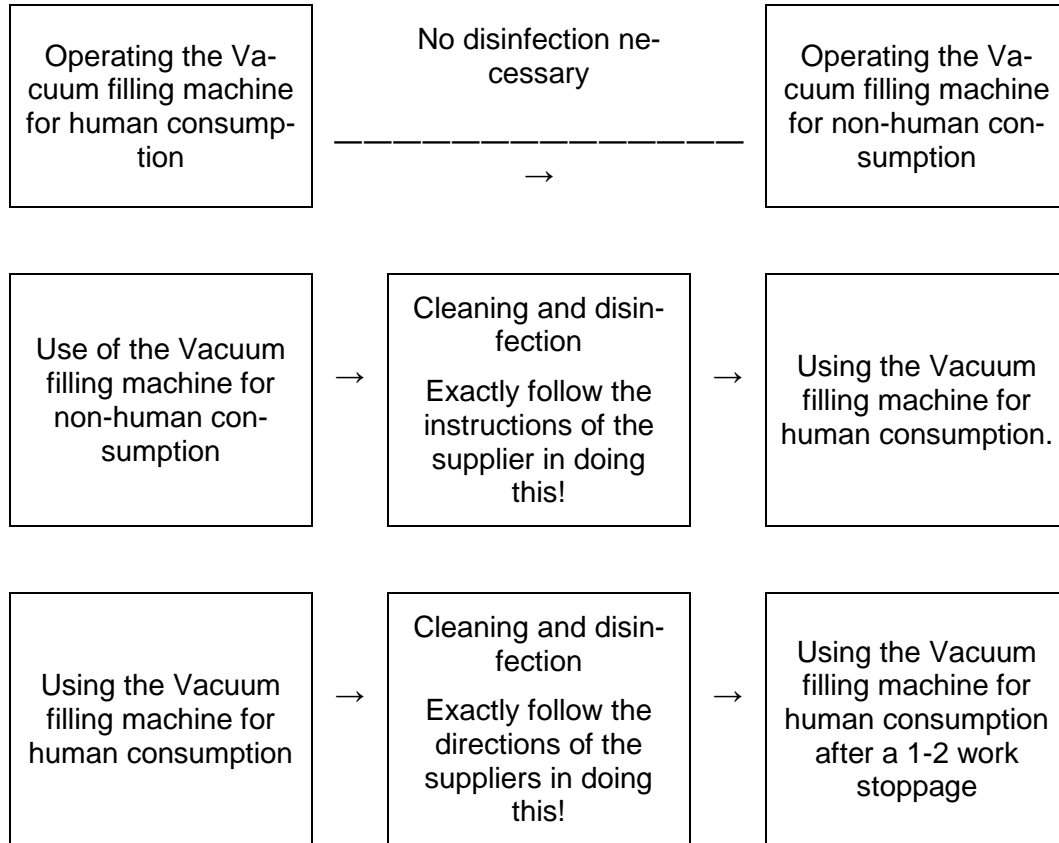


By alternating operations of the Vacuum filling machine with products for human consumption which do not correspond with the local Hygiene regulations, or those which are not intended for human consumption, must undergo a basic cleaning and disinfection procedure as directed by the cleaning plan in chapter 5 prior to processing products for human consumption. For this reason, the directions provided by the suppliers for the disinfection agent need to be followed precisely!

- Using the Vacuum filling machine with products meant for human consumption after a work stoppage of more than 1-1 ½ hours:

Concerning this, see the following procedure schematic

2.3 PROCEDURE SKETCH FOR ALTERNATING OPERATIONS



The cleaning and disinfection must be carried out as shown in the cleaning plan in chapter 5 maintenance. Particularly important is the following rinsing of all handled areas with fresh water (of drinking quality) in order to reliably eliminate all the remains from the cleaning and disinfectant agents!



2.4 PHOTO OF THE CONTINUOUS VACUUM FILLING MACHINE



Illustration 2: photograph

The Vacuum filling machine meets the standards of the EU-Machine guidelines and the EU-guidelines for processing meat and meat products.

The Vacuum filling machine RVF 327 is essentially built of a self supporting stainless steel sheet metal construction. It will live up to all operational, structural and dynamic claims. All requirements in environmental protection are also observed in a special degree in the manufacturing. The Vacuum filling machine distinguishes itself through the limited noise and vibration while being operated. The external machine parts are made of stainless steel and corrosive resistant material. The entire machine surface is specially treated for easier care and cleaning. Large doors and the sheet metal covering enable easier access for cleaning and maintenance.

The heart of the Vacuum filling machine, the sliding drum with the sliding valve, is driven through an electro-servo motor with gear transmission.

- Machine presentation



Illustration 3: function elements and their arrangement on the vacuum filling machine

• **Explanations to the preceding machine presentation**

Pos.	name	explanation
1	hopper	Stainless steel
2	Top plate	Stainless steel
3	Inspection glass for water separator	Plexiglas
4	Lock handle	Stainless steel
5	Machine housing	Stainless steel
6	Foot switch	Plastic
7	Plastic leveling feet	Adjustable
8	Machine cover removable	Stainless steel
9	Touch-controls	Glass
10	Locking device	Stainless steel
11	Twisting gear	Stainless steel/plastic
12	Skin holding device	Stainless steel/plastic

2.5 PROTECTIVE DEVICES AND THEIR SAFETY FUNCTIONS

All protective devices must be inspected prior to beginning work.

The respective accident prevention regulations In the land of operation must be upheld.



• **Main switch (illustration page 38)**

Main switch in position "0" completely separated the Vacuum filling machine from the net.



Prior to carrying out the following tasks, the "0" position must be switched and secured with a lock:

- Vacuum filling machine maintenance, repairs, inspections
- Removal of the metal covering
- Opening the switch cabinet
- electric or electronic related operations in hard- or software side



3. TRANSPORT, SET UP, INSTALLATION

3.1 TRANSPORT

The Vacuum filling machine is delivered on a pallet all assembled, including built in feeding system. After unloading, the next step is the further transport by means of a hand fork lift.

Attention: the Vacuum filling machine must be lifted with the hand fork lift in such a way, as to prevent tipping over during transport.



Set up adjust the Vacuum filling machine at the work area. The machine leveling feet are adjusted by screwing the feet in or out.

Attention: Vacuum filling machine may not be transported in a slanted or lying position. (damage to the vacuum pump)



3.2 INTERIM STORAGE

In case an interim storage is necessary, this must be stored in a dry, ventilated and dust free room. Aggressive chemicals cannot be stored near the Vacuum filling machine, in order to avoid corrosion to the stainless steel and other built in, or on parts. All machine parts need to be thoroughly cleaned and disinfected prior to a temporary interim storage and dry lubricated. The conveyor system parts must be separately stored outside the Vacuum filling machine in a thoroughly oiled condition.

3.3 SETTING UP THE MACHINE

The setting up, an instruction about the most important functions and the first start up of the machine should be conducted by one of our customer service representatives or through personnel who were authorized exclusively by the manufacturer to do so.

The Vacuum filling machine should be placed on a solid, level, and easily cleaned floor. The grade of the floor cannot exceed 3% and the allowed floor stress must equal at least 12 kN/m²



The set up location must correspond with the local hygiene- and workplace regulations. The lighting intensity must amount to at least 300 LUX.

The Vacuum filling machine is delivered completely assembled and ready for operation. In setting up the machine, set a level on the machine housing. The Vacuum filling machine should be installed by means of the height adjustable feet in such a way that it tends to lean slightly forward just enough so that the water runs out during the cleaning phase.



The Vacuum filling machine comes with an approximate 6,0 meter long electrical cord. A licensed electrician must take care of assembling the connection to the Vacuum filling machine. Circuit diagrams and other electrical documents are located in the machine switch box and in the with the machine delivered map. Zeroing, grounding, and FI-protective switching needs to be carried out in accordance with local regulations.



3.4 SECURING/ FUSE PROTECTION

The securing the electrical unit is not part of delivery specification/ scope of supply. It must be built in and operationally installed near the Vacuum filling machine.

3.5 MACHINE ALIGNING

The Vacuum filling machine must be horizontally aligned at the determined location. This is made possible simply by screwing out the plastic leveling feet. The machine leveling feet may only be screwed out at a maximal 40 mm from their threaded sockets. After alignment, all four plastic leveling feet must be in contact with the floor.

3.6 NECESSARY SPACE FOR OPERATION AND UPKEEP

The Vacuum filling machine must be easily accessible on all sides for cleaning and upkeep. For this, an area of at least ½ meter distance on all sides of the Vacuum filling machine. Secondly, the adequate free movement clearance is required so that the necessary activities are not restricted for operation, cleaning, service and repairs, as well as exchanging of machine parts etc. In addition, the work area must be free to maintain the possibility of uninterrupted fulfillment of all the activities shown above.



3.7 SIZE, WEIGHT AND TECHNICAL DATA

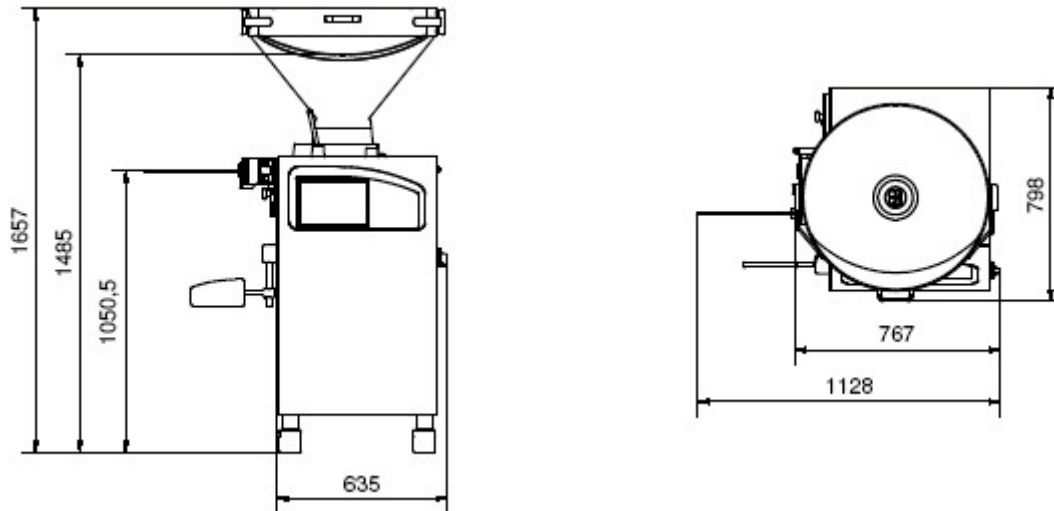


Illustration 4: RVF 327, 90 Liter hopper

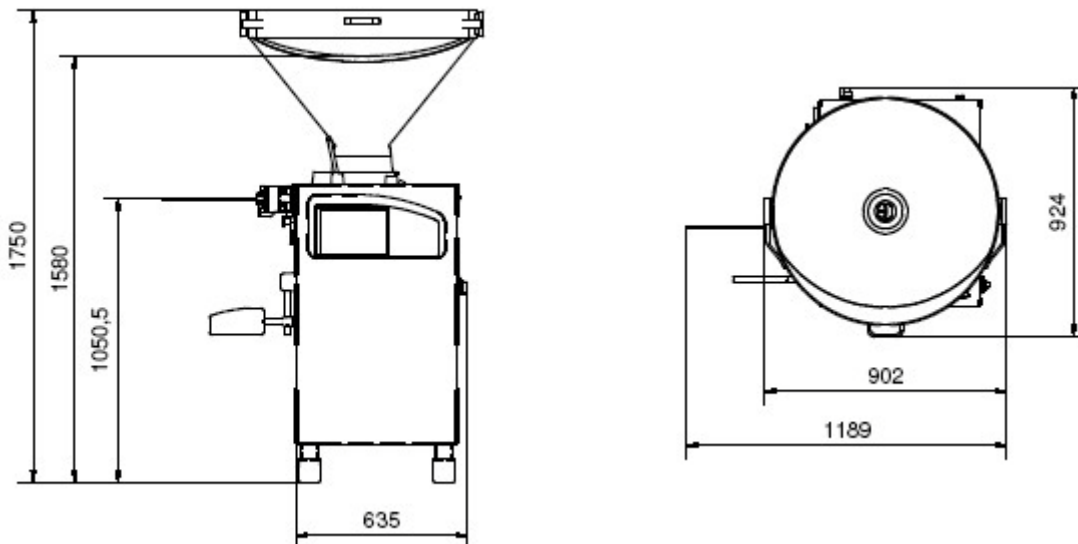



Illustration 5: RVF 327, 150 Liter hopper

Type	RVF 327	Type	RVF 327
Filling capacity	2.700 kg/h	weight (according to equipment)	450 kg
Max. filling pressure	40 bar	Connection output	5 KW
Hopper variations	90, 150 litre	Clipper connection	standard

3.8 BEGINNING OPERATION

- **Electrical connection**

Indication sign on the power supply cable must unquestionably be followed!

The logo for REX TECHNOLOGIE is positioned in the top right corner of the rounded rectangular box. It consists of the word "REX" in a large, bold, black sans-serif font, with "TECHNOLOGIE" in a smaller, blue sans-serif font below it, underlined with a blue horizontal line. A small registered trademark symbol (®) is at the end of "TECHNOLOGIE".

Indications for the installation and commissioning:

Installations- and commissioning tasks may only be carried out by electrical specialist personnel or from trusted specialists initiated for this operation, under observance of the legal and national regulations, i.e. EN 60204.

Protective measures and equipment must correspond with the legal national standards and norms i.e. EN 50178 and EN 60204

The discharge current can be higher than 3,5 mA AC and higher than 10 mA DC!

Nominal voltage of the Vacuum filling machine: _____ V

Pre-fusing _____ A

- **FI-protective switch**

There can be in principle, dependent upon circumstances, the possibility of a problem arising in connecting the FL protective switch to our Vacuum filling machine. If no avoidance of the FI-protective switch is possible, then the problem with the on and off switching be deactivated through the employment of selective FI-protective switches (cut off delay) or FI-protective switch with increasing release of electricity (z. B. 100 or 300 mA). This can only be put to use exclusively with all-electric sensitive FI-protective switch. Es is not recommended to have several machines to operate off of one FI-protective switch.

- **Prepared activities**

Prior to the first start, the following tasks and inspections necessary:

- **comparison of line voltage and frequency**

The information on the machine sign and the meter des power station must correspond. Voltage fluctuation cannot exceed +/- 10 %. Greater deviations cause malfunctions and premature deterioration. Non-adherence to these regulations will nullify all warranties through the manufacturer.



- **inspecting rotation direction of the Vacuum pump**

(Rotation direction of the main drive is given)

Open vacuum inspection glass and raise the ball at the safety ventilator. If the ball is sucked in, then the rotation direction of the vacuum pump is correct. If the ball is not immediately sucked in, then the rotation direction is in the false direction. In this case, the vacuum pump must be immediately shut down and then reverse the connection wire.

**Attention: In order not to damage the vacuum pump, this can only run very briefly in the wrong direction, and only be operated briefly against atmospheric pressure.
All electrical related work can only be carried out by electricians.
There is a danger of electrical shock! Extremely dangerous!!**



- **foot switch positioning**

Heights and distance adjustments are made by loosening the hexagonal screw. Adjust the adequate position and clip on with the hexagonal screw.

Knee switch plate can be turned.



- **focus the desired language**
- **set the local time**
- **inspect all work programs**
- **inspect the Functionality of the Vacuum filling machine**
(see chapter 4 operating the Vacuum filling machine)

- **Oil level in the stand in the vacuum pump**

The oil level in the vacuum pump must be checked (see chapter 4 Operating the Vacuum Filling Machine). If the oil level is too low, then it must be replenished (see chapter 5 Maintenance).



- **Cleaning**

Dismantle conveyor parts and feeder. (see chapter 5 Maintenance) Machine parts with contact to products are to be cleaned with hot water and also a commercial cleansing agent with preserving agents

Dry the conveyor and conveyor parts after cleaning.

- **Operating conveyor parts**

Spray and rub into the conveyor system food compatible, edible fat or oil. Put in sliding drum set in with a leverage tool with sliding drum with. (Sliding drum must never be installed in a warm condition) Turn on valve. Follow the right installation; otherwise the conveyor will be damaged.

- **Attach scraper**

- **Set up stopper**

In processing hard filling material (grainy, solid or compact) i.e. raw sausage type filling. Put in the stopper in the filling hopper with the Vacuum filling machine shut off and with tighten with a star tip screwdriver.

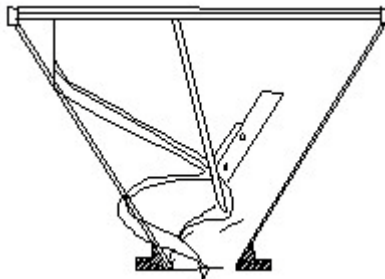


Illustration 6: hopper

- **Inspect switch**

The position of the top plate and the steps will be checked through the safety switch. Starting the conveyor system is only possible when the top plate is bolted in and with the hopper being closed. (see chapter 4 Operation of the vacuum filling machine)



- **Attach twisting mechanism**

If the Vacuum filling machine is fitted with a twisting device, then it must be cleaned in advance, and then mounted on the machine.

- **Attach skin holding device**

If the Vacuum filling machine is equipped with a skin holding device, then this needs to be cleaned in advance, and afterwards attached to the twisting off device.

3.9 SAFETY PRECATIONS

3.9.1 Ever present safety risks

(dangers, which are not entirely avoidable, despite built in safety features)

With an excessive amount of effort, one can reach inside the hopper. Do not, under any circumstances, try to reach inside the hopper when the machine is operating!



Injuries including the danger of losing fingers and limbs!

Dangers resulting from filling material can affect:

- The operator/user
- The surrounding area around the position of the Vacuum filling machine
- The vacuum filling machine itself



Therefore one must keep the following away from the Vacuum filling machine:

- Children or trainees without supervision
- All those not instructed in operation of the machine
- All persons not trusted with the operation manual and safety regulations
- Persons who pose a possible interference of responsible handling of the machine through recognizable physical or mental disabilities.



3.9.2 "Check" machine condition prior to activation

Before turning on the Vacuum filling machine it must be established that:

- Sliding drum, valve and sliding plate are readily available and properly arranged.
- All parts, particularly the feeder and stopper must be properly mounted and the top plate is closed.
- Movable parts are not damaged or jammed up.
- Electric components such as switches, cords, plugs push buttons etc are intact and functional.
- The product to be processed corresponds with the agreed upon usage (see chapter 2.2.1 Operation area and agreed upon usage)



Defects or worn parts interfere with safety and must be replaced immediately!

According to UVV meat cutting machines (VBG 19) policy holders must inspect the functioning ability of protective equipment on every work day before the "start up" of meat grinding machines. All established faultiness must immediately be reported by the responsible personnel. In the case of a defect which could jeopardize the work safety, then the Vacuum filling machine cannot be put into operation.

The supervising person must immediately replace or repair defective protective equipment.



3.9.3 Initial Customer Instructions

- Explaining the basic functioning of the Vacuum filling machine and dates on the basis of Chapter 2 Machine description
- Explaining general safety precautions available in chapter 1.4 Fundamental Safety Precautions
- Explaining Protective equipment inspection and every working step according to chapter 2.5
- Customize client specific working programs. Explain programming on the basis of chapter 4.4 Description of the Touch – CPU-control. Save customized electronic programs.
- Explaining accessories usage
- Explaining every step from chapter 5.1 and 5.2 about cleaning the Vacuum filling machine
- Explaining maintenance work based on chapters 5.3 und 5.4.
- Explaining every step in production starting (4.34 Production) and supervision.
- Provide record of delivery
- Put the names of all initially instructed staff in the corresponding fields, as shown in chapter 1 In General. A signature is needed for all staff who received initial instructions.

4. OPERATION OF THE VACUUM FILLING MACHINE

4.1 GENERAL SAFETY PRECAUTIONS

Never turn on Vacuum filling machine without all potential personal dangers being previously ruled out!



Dangers can never be completely ruled out, but can be reduced through observance of important safety regulations. Therefore, every work day before beginning production, an inspection must be carried out to verify that:

- The products intended for processing correspond with agreed upon usage (see chapter 2.2.1 Operation Area and Agreed Upon Usage)
- That no person is found in the area of moving machine parts.
- That no foreign objects (wood, rags, tools etc) find themselves in the filling hopper or the conveyor housing of the Vacuum filling machine.
- Operation personnel is fit and informed about contact with the Vacuum Filling Machine.
- Safety regulations must be taught to operation personnel
- Ensure the proper machine condition, such as:
 - Protective equipment of the Vacuum filling machine are complete and intact.
 - Safety, inspection and steering equipment are in a flawless, operationally safe condition
 - All covers and lids are closed
 - Conveyor housing is properly put together.



Carrying out of safety inspections on every work day:

When turning on the Vacuum filling machine, fold back the upper part. The machine must be turned off at once. This test has to take place under observance of all existing safety measures. If the Vacuum filling machine doesn't shut down immediately, then it cannot be put back into operation! Call the electricians to eliminate the malfunction!



4.2 CONTROL ELEMENTS/FUNCTION

Note: The touch-screen may only be pressed with the fingers (with, or without gloves). The touch-screen cannot be activated with pointed, sharp, metal objects or with a pencil.

- **On key "I"**

By pressing the key "I" the Vacuum filling machine is started.



- **Off-key "0"**

After pressing the off key, a dialog field opens up, in which the shutting down process must be once again confirmed.



- **Explaining the function of the knee lever switch**

It must be stated in advance, that the features now explained not only apply for the knee lever switch, but that a switch, which is connected to sockets 3 and 4 of the clip machine socket (i.e. a clip machine with starting switch) provokes the same reaction.



Knee lever switch

Illustration 7: knee lever switch

Depending upon the pre-selection of the controls, the knee lever switch has the following functions:

- **when the knee lever switch is closed, then the Vacuum system is ventilated**



Manual operation (single portion):

The Vacuum filling machine produces as long as the knee lever switch is suppressed. When the knee lever switch is released, the straight filling of the Vacuum filling machine stops immediately. When portioning, the Vacuum filling machine stops after the end of the straight filled product, except when the portion interruption is activated.



Automatic operation (constant portioning):

The Vacuum filling machine begins filling with the first depression of the knee lever switch. In order to end the straight filling, portioning and the pressure sensor operation, the knee lever switch must be once again depressed. In order to start again, an additional lever depression is required. The advantage of this knee lever function is shown, that with larger straight filling amounts and greater number of portioned pieces, the knee lever switch doesn't need to remain constantly depressed. In the pressure sensor operation a one time depression of the knee lever switch is sufficient, in order to begin the function.



Piece guidelines:

In portioning and the twist off mode it's also possible to put in a piece number instruction. It only requires a slight pressure on then knee lever switch to start the Vacuum filling machine. The machine stops after reaching the selected number of pieces.



Activating a second entrance for the operation of a double outlet:

With straight filling it's possible to double the speed, through activating an entrance to the clipper outlet (the limit is at 100%, so if 60% is doubled, then only 100% comes out as a final speed!) This function is only possible with the single portion modus

- **Clipper outlet**

The outlet is to use for the connection of different clip machines and REX-attachments.



Illustration 8: clipper outlet

- **main switch**

The main switch opens and closes the electrical provision of the Vacuum filling machine to the power supply.



Illustration 9: main switch

4.3 DESCRIPTION OF THE TOUCH SCREEN

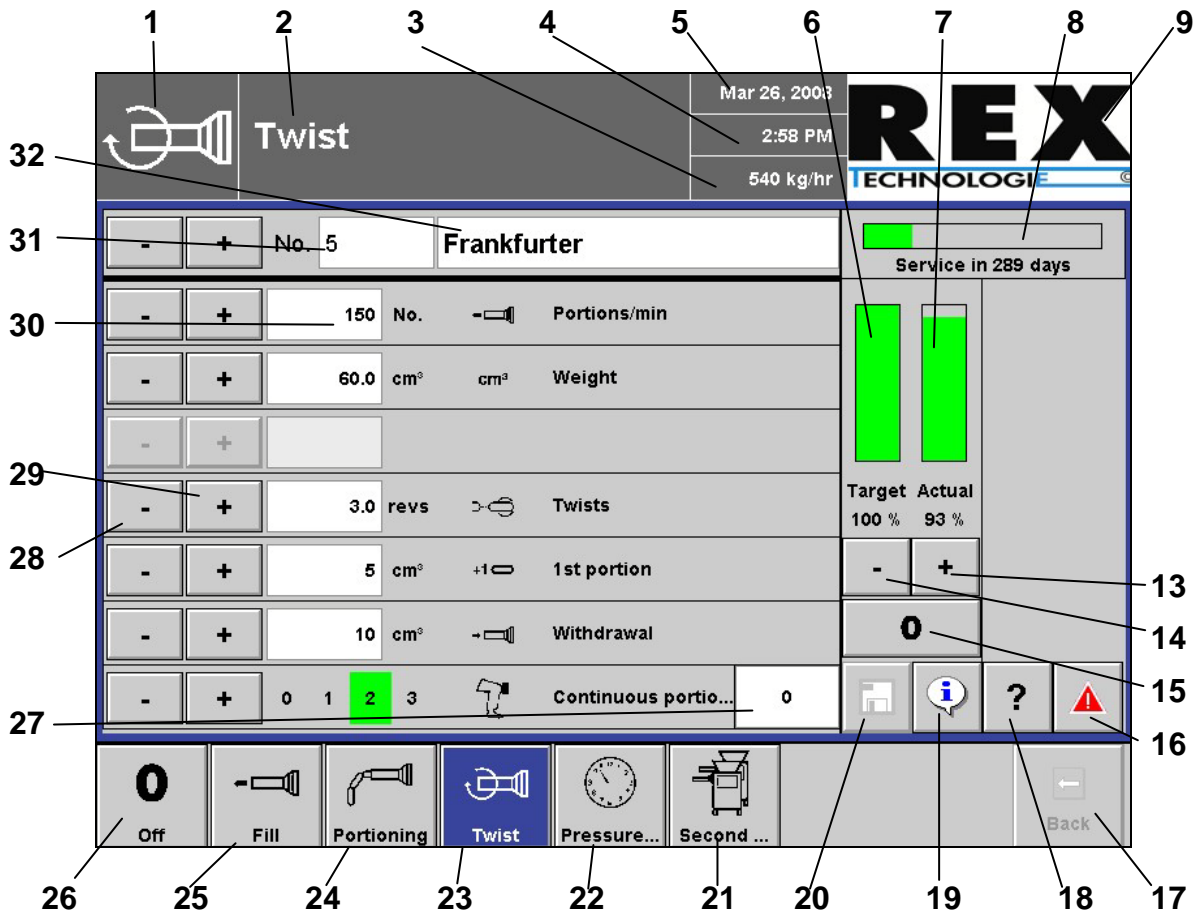


Illustration 10: touch-screen

On pages 39-85 the numbers are indicated on the Illustration 10: touch-screen .

- 1 In this field the respective operation type symbol is shown.
- 2 Indications of the respectively chosen type of operation and information mask.
- 3 Display of the theoretical filling capacity in kilograms per hour (kg/hr)
- 4 Time display

- 5** Date display
- 6** Vacuum indicator, which shows the nominal height of the vacuum.
- 7** Vacuum indicator which shows the actual height of the vacuum.
- 8** Service interval information
- 9** Individually put on customer and dealer logo
- 13** Vacuum elevating key "+" (if the key is pressed over a longer period, the amount/importance will be naturally increased.)
- 14** Vacuum reduction key "-" (If the key is pressed for a longer time period, then the amount will naturally be reduced.)
- 15** Changing key Vacuum pump "I" (on) "0" (off):
The vacuum pump can be separately shut on and off here. By shutting off the vacuum pump, which is absolutely necessary for cleaning the Vacuum filling machine, so that no water can seep into the vacuum system, the vacuum system is automatically ventilated.
- 16** Selection key for the alarm mask:
If at least one un-received unconfirmed alarm is available in the Vacuum filling machine, then key blinks.
- 17** Backwards key for going back to the respective background page
- 18** Selection key for assistance texts
- 19** Selection key for opening the information page
- 20** Key for saving the respective set program in the central memory.
By pressing this key, a dialog field opens up, in which the saving of the respective program once more must be confirmed.
- 21** Selection key for the type of operation "second machine control"
- 22** Key for operation mode "pressure sensor operation"
- 23** Key for operation mode "twisting (off)"
- 24** Key for the operation mode "portioning"

25 Key for the operation mode "filling"

26 Alternate key machine "I" (on) "0" (off):

When turning off the Vacuum filling machine, a dialog field opens up asking for confirmation for the machine to be shut down. The Vacuum filling machine passes on to the standby-modus.

27 Key for the number of filled portions in the Modus individual/continuous and setting field for the piece ordering modus for portions to be filled

28 Key for reduction of the respectively chosen amount.

29 Key for the increase of the respectively chosen amount.

30 Key for the desired speed

31 Display of the current program number:

If you press the display field, a numbered dialog opens, in which the program can be directly chosen.

32 Display of the current sausage name:

If you press the display field, a selection window opens up, in which the desired program can be directly chosen.

4.4 DESCRIPTION OF THE TOUCH-, CPU- CONTROLS

4.4.1 In general

- **Individual suggestions for handling the touch-screen**

This electronic control consists of a PC based CPU-building group with touch-screen. Es should therefore be noted that no over voltage (even static) comes inside the device. In turning on the current supply, refrain from the in and out plugging of the plug cord.

Any seeping of water, other liquids and solid pieces, such as metal chips must be avoided, because this foreign matter inevitably leads to serious damage. .

The touch-screen (display) consists completely of glass. This means that mechanical stress, particularly falling metal pieces (tool accessories) for the use of this screen lead to expensive repairs being made necessary, which are not covered by the warranty (see chapter 1.4 and 4.1)



Attention: Please allow at least one minute to pass between shutting off and turning back on the Vacuum filling machine. Non-compliance could lead to damage to the electrical parts of the servo-drive, or cause other malfunctions to surface.

- **General properties**

This new Vacuum filling machine control generation distinguishes itself for the server through clearly arranged key functions on the touch-screen. It is designed so that it helps bring about an extremely precise course of movement from a Servo-amplified electronic controlled three phase current servo-motor.

Languages in the controls are in DE, EN, FR, CS, DA, EL, ES, FI, HR, HU, JA, KO, NL, NL-BE, NO, PL, RO, RU, TH, TR, ZH. They report operational conditions, malfunctions and server menus in the language which the operators can easily set themselves.

- **The controls support the following operating modes:**

Straight filling

The Vacuum filling machine produces sausage meat uninterrupted, as long as the knee lever switch is depressed (pay attention to individual-continuous portioning switch over!).

Portioning

The Vacuum filling machine produces, depending upon program data, a certain portion of sausage meat and then gives the possible attached twisting- and clip machine the order to close the sausage. As long as the knee lever is depressed, this process will be repeated (pay attention to single and continued portioning!).

Twisting (off)

The Vacuum filling machine produces, depending upon program data, a certain portion of sausage meat and then gives the possible attached twisting- and clip machine the order to close the sausage. (Twisting off). As long as the knee lever is depressed, this process will be repeated (pay attention to single and continued portioning!) If a certain amount of pieces has been selected, the machine fills the selected amount of sausages and then stops automatically (Interruption of the filling process is possible by operating the knee lever)

Constant pressure operation

Using a pressure sensor, which will be inserted into the discharge pipe of the vacuum filling machine, the control device regulates the pressure of the sausage meat at the discharge end according to selected pressure value of the knee lever. (for adaptive devices)

Secondary machine controlling

A second vacuum filling machine or a valve can be controlled when filling, portioning and twisting, so that during filling an additional function can be controlled. The discharge of the second filling machine can be activated with a delay at the beginning of the filling as well as at the end of the portioning it can be deactivated earlier. Furthermore, one can choose if this activity should occur during the first portion or after the second sausage meat.

Operation of the vacuum filling machine

4.4.2 Turning on the Vacuum filling machine

After the Vacuum filling machine is connected to the power supply through the main switch, it requires usually a minute in order to start up the controls. During the first 30 seconds, the screen is mostly black and after 30 seconds or so, the following start up mask appears, which moves on to “ready for operation” after starting up the controls are completed.

Start up mask



Ready for operation












Attention:
The Vacuum filling machine will not turn on if the upper section is open. If the Vacuum filling machine is turned on, and the upper section is opened, then the controls automatically shuts down the Vacuum filling machine and goes over to the operational readiness. The machine key "I" will then be grey.

4.4.3 Operating elements

- **Machine control key functions (when the Vacuum filling machine is turned on)**

After pressing the ON key (26) the operations and additional devices in the Vacuum filling machine are activated. Now it's possible with the following keys to reach the following described reactions (even if this is not mentioned extra in the following operational mode descriptions in the key function explanations!):

	Vacuum off (15)	Vacuum pump will be shut down and remain in standstill until key 15 is pressed again.
	Vacuum on (15)	Through pressing key 15, the Vacuum pump will automatically turn on. .
	Vacuum plus (13)	The Vacuum rules put in a high vacuum: Bar chart (6, 7) shows the set I- and actual - amount. Attention: the actual-indicator is an absolute amount and is therefore is dependent upon the air pressure (sea-level) of the surrounding area in which the Vacuum filling machine is operated.
	Vacuum minus (14)	The Vacuum regulations put in a low vacuum. Bar chart (6, 7) shows the set-and actual-amount.
	Saving Key (20)	Through pressing the saving key, the set amount on the respective adjusted program area will be saved.
	Info Key (19)	Under the info mask, there are diverse callable settings, such as screen set up, recipe administration, etc.
	Help key (18)	In The help mask all necessary help and informational texts of the respective machine functions accessible.
	Alarm key (16)	Pending machine alarms can be read and confirmed there. .
	Off-key (26)	Through pressing the off key, a dialog field open up, in which the shutting down of the Vacuum filling machine once again needs to be confirmed. The machine goes over into the so called standby mode.



Reverse key (17)

Through pressing the reverse key, you return to the previous screen in the main mask.

The screenshot shows the 'Fill' screen of the REX machine. At the top, it displays the date 'Mar 26, 2008', time '3:22 PM', and production rate '267 kg/hr'. The main area contains several control panels: a product selection panel with 'No. 29' and 'Extra' type; a speed control panel with '10 %' and 'Speed' label; a withdrawal control panel with '0 cm³' and 'Withdrawal' label; and a portioning control panel with '0 1 2 3' and 'Single portion' label. On the right side, there is a service indicator showing 'Service in 289 days' and a progress bar. Below the main panels, there are icons for 'Off', 'Fill', 'Portioning', 'Twist', 'Pressure...', and 'Second ...'. At the bottom right, there are icons for 'Back', a question mark, an information icon, and a warning icon. Numbered callouts 14 through 26 point to these specific elements.

Illustration 11: operation elements

- **Operational elements of the keyboard- (see Illustration 13, page 49) and number fields (Illustration 15, page 51)**



Confirmation key

With the confirmation key, the corresponding amount or name taken over and process confirmed.



Help key

Through pressing the help key, the use of a dialog field will open up, where it contains information for the respectively chosen process.



Discontinue key

Through pressing the discontinue key, the respective process will be deleted and not taken over.



Erase key

With the eraser key, the respective amount can be removed in the individual steps.

Operation of the vacuum filling machine

4.4.4 Selecting filling and free area programs

1. By pressing the keys 28 "-" and 29 "+" the program numbers from 1-200 can be changed into individual steps.



2. By pressing field 31, a selection window opens up. The desired program and free program area can be directly chosen here.

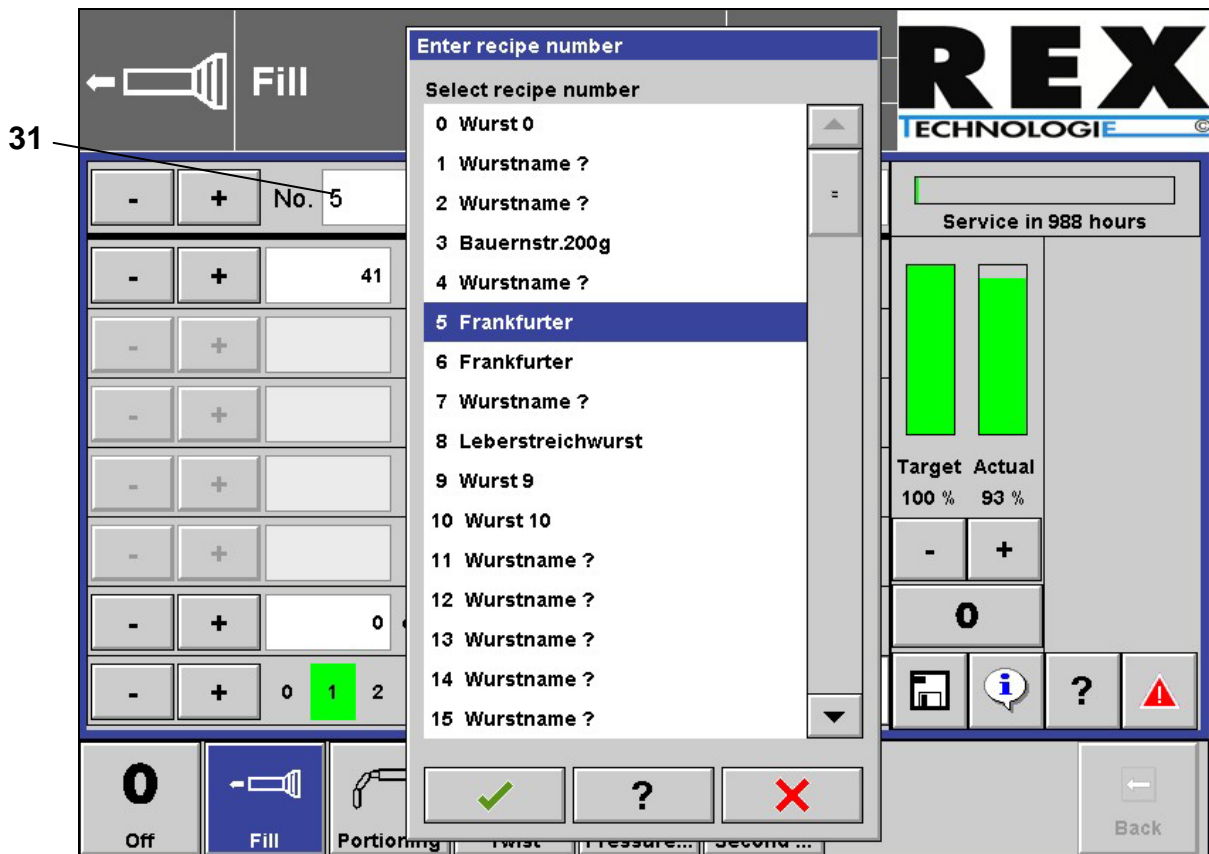


Illustration 12: filling program selection

With the scroll bar (right) the selection window can be raised upwards.

3. Entering the program name:

Through pressing the field 32, a keyboard opens up, in which the desired program name can be entered.



Illustration 13: keyboard program name

Operation of the vacuum filling machine

4.4.5 Altering the setting point

1. Changing the setting point into individual steps can be accomplished through pressing the respective keys "+" (28) and "-" (29).






30	-	+	60	No.		Portions/min
28	-	+	62.0	cm ³	cm ³	Weight
29	-	+	300	ms		Fill interval
	-	+	100	ms		Clipper pulse
	-	+	5	cm ³	+1 	1st portion
	-	+	0	cm ³		Withdrawal

Illustration 14: altering setting point with keys "+" and "-"

- Through directly pressing of the setting point, (30) a number field opens up which can change the point directly.

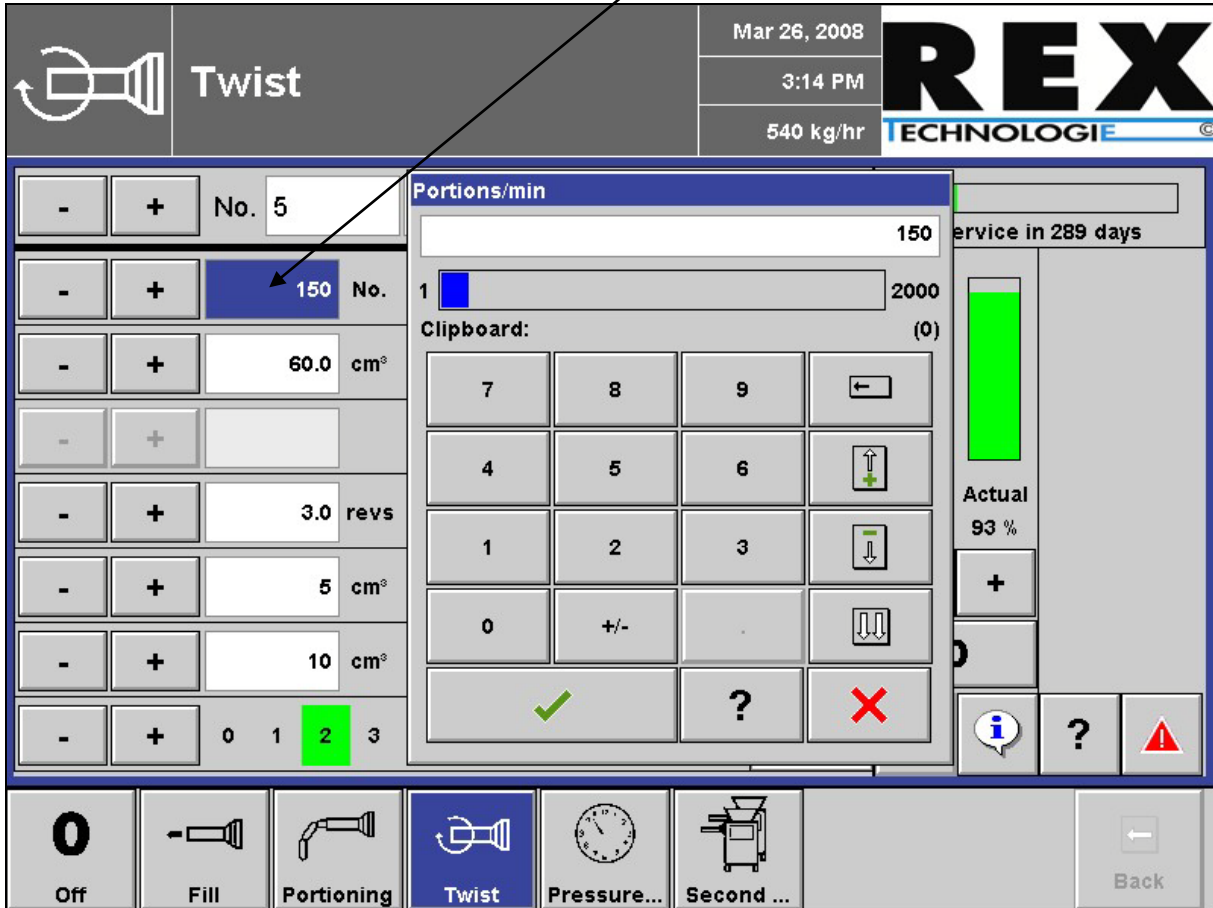
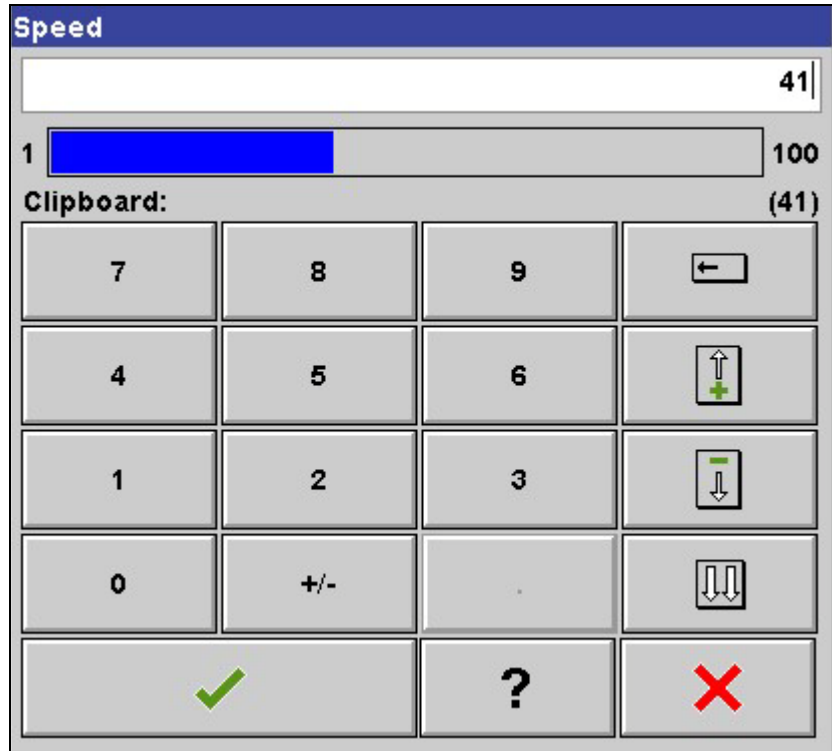
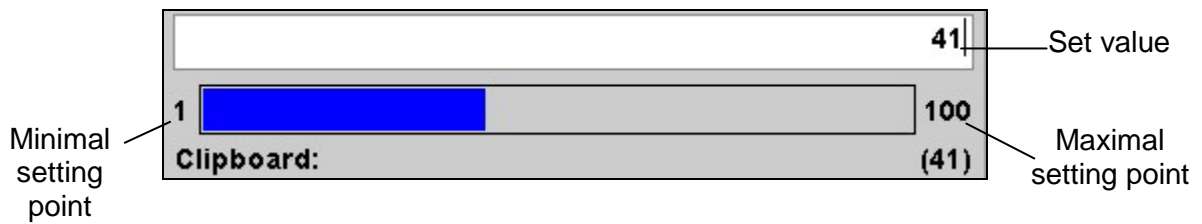


Illustration 15: directly changing the setting point

Keyboard input field



- The specific input area will always be shown above with the selected value in the chosen number field.



4.5 KEYBOARD DESCRIPTION



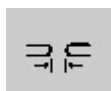
4.5.1 Rate (speed)

This value in pieces per minute (pc/min) defines the speed during one portion.



4.5.2 Weight (volume)

The maximal 6-figure number (adjustment range of 5 to 99999, 9 cm³) determines the volume and with it the portion weight. Be certain that the first portion, after a filling pause is added to the first amount, and an eventually carried out withdrawal is also added to the first portion. Additionally, the weight correction value is to be considered in the respective correction mask.



4.5.3 Filling pause

The time lapse that should occur between the filled portions (adjustment range of 0-3000 ms), if the portion continuation is not interrupted by depressing the knee lever (note knee lever positions 1-2-3). If every portion is initiated through pressing the knee lever, then this value is meaningless.



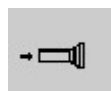
4.5.4 Clip impulse

This value (adjustment range of 50-3000 ms) determines the time of the Clip signal.



4.5.5 Extra volume 1. Portion

This value to the volume is always then to be deducted and added with the unit of cm³, if the portioning/ twisting are interrupted for duration of ca. 10 seconds. (Adjustment range of -100 cm³ to 100 cm³).



4.5.6 Withdrawal

It is turned off if the setting point is 0. If the withdrawal is greater than 0, (adjustment range of 0-100 cm³) then it will always withdraw after interruption of the meat filling process around the set value. No withdrawal takes place if the filling process is stopped by activating an interruption of the portion. Attention: By too high of a withdrawal setting and by using an air recycler, this can lead to air inclusions at the sausage skin ends and in-between the portions.



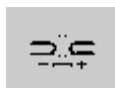
4.5.7 Ramp filling meat pump

Here you can adjust the filling output to either harder or softer, (adjustment range of 10-150 %). Too hard of a filling output can lead to bursting of the skins, or to pear shaped sausages, and too soft of a filling output can result in too small of a portion output.



4.5.8 Weight correction

Here you can adjust the turned out volume to match the actual volume (adjustment range of -200 to 200 cm³).
i.e. The adjusted amount in the input field has a weight of 100 cm³, the filled weight equals 93 g (= 100 cm³) You can resolve to change more than +7 cm³ in order to reach the desired 100 g.



4.5.9 Advancing/lagging Clip impulse

This amount (adjustment range of -200 to 200 ms) determines the ext time as to how long before and after the filling of a portion den the Clip machine has been started. The installation of both the before and after curing (advance and lagging) influences the stroke rate of the Clip machine, and in this way, also the number of portions.



4.5.10 Portion interruption off/on

Portion interruption – deactivated.

If the knee lever is released during the filling of a portion (with single portioning) and contacted a second time (with continual portioning, , piece orders) the conveyor usually doesn't stops immediately, but rather completes the already begun Portion until the end of.

Portion interruption – active.

If the portion interruption is nevertheless activated for the respective program and the operator presses the knee lever during the filling procedure, and with the clip machine the "emergency shut-off switch, then the conveyor stops immediately. The started portioning will not be filled completely.



4.5.11 Twisting off

The adjusted amount (adjustment range of 1to 15 twisting s) determines the number of twisted off pieces after the end of the portioning.



4.5.12 Twist-off position

Pause between end of filling portion and start of twisting off in ms
Can also be negative, i.e. filling and twisting overlap.



4.5.13 Filling position

Pause between end of twisting and start of filling portion in ms
Can also be negative, i.e. filling and twisting overlap.



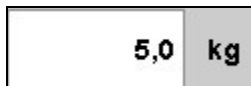
4.5.14 Extra twist off 1. Portion

The adjusted amount (adjustment range 0-10 twists rotations) is with the 1. Portion for the extension of the adjusted twist offs. This inhibits a twisting off of at the first twist position in a string of sausages.



4.5.15 Rate of 1st portion

This allows the machine operator to adjust the speed of the first portion as a percentage in relation to the following portions.



4.5.16 Preset weight

This is for setting the amount of weight to be produced. Once the desired quantity has been reached, production is stopped and a dialog opens.

If the quantity is changed during production (or during a production pause), counting starts over again.

The preset weight is counted only if the preset weight function is switched on.



4.5.17 Delay for 2nd clipper pulse

This is for setting the time delay after the end of the 1st clipper pulse for the start of the 2nd clipper pulse. The 2nd clipper pulse is set only if the 2nd clipper pulse function is activated. The duration of the 2nd clipper pulse is equal to the duration of the 1st clipper pulse.



4.5.18 Start before/after beginning filling

It's possible to determine here when the second machine should be started after beginning the filling (adjustment range of -9999, 9 to 9999, 9 cm³)

i.e. adjustment: > 5 cm³, now the second machine would start 5 cm³ after starting to begin filling.



4.5.19 Stop before/after end of filling

It's possible to determine here when the second machine before should be stopped before the end of the filling (adjustment range of -9999, 9 to 9999, 9 cm³)

i.e. adjustment of 5 cm³ > the second machine would now stop 5 cm³ before the end of filling.



4.5.20 Beginning the second portion

It's possible to determine here whether the start of the second machine is active already before the first portion or if the second machine should be started only after the second portion (adjustment range on/off.).

4.6 INSTALLATION OF THE STRAIGHT FILLING PROGRAM

1. Press the filling key (25) in the operational performance type.
2. select program area (31)
3. type in the sausage name (32)
4. adjust the desired vacuum pressure (13, 14)
5. The following amounts are available with the help of the respective key:
 - speed (30)
 - withdrawal (33)
 - Knee lever position: single (34) or continual portioning (35)

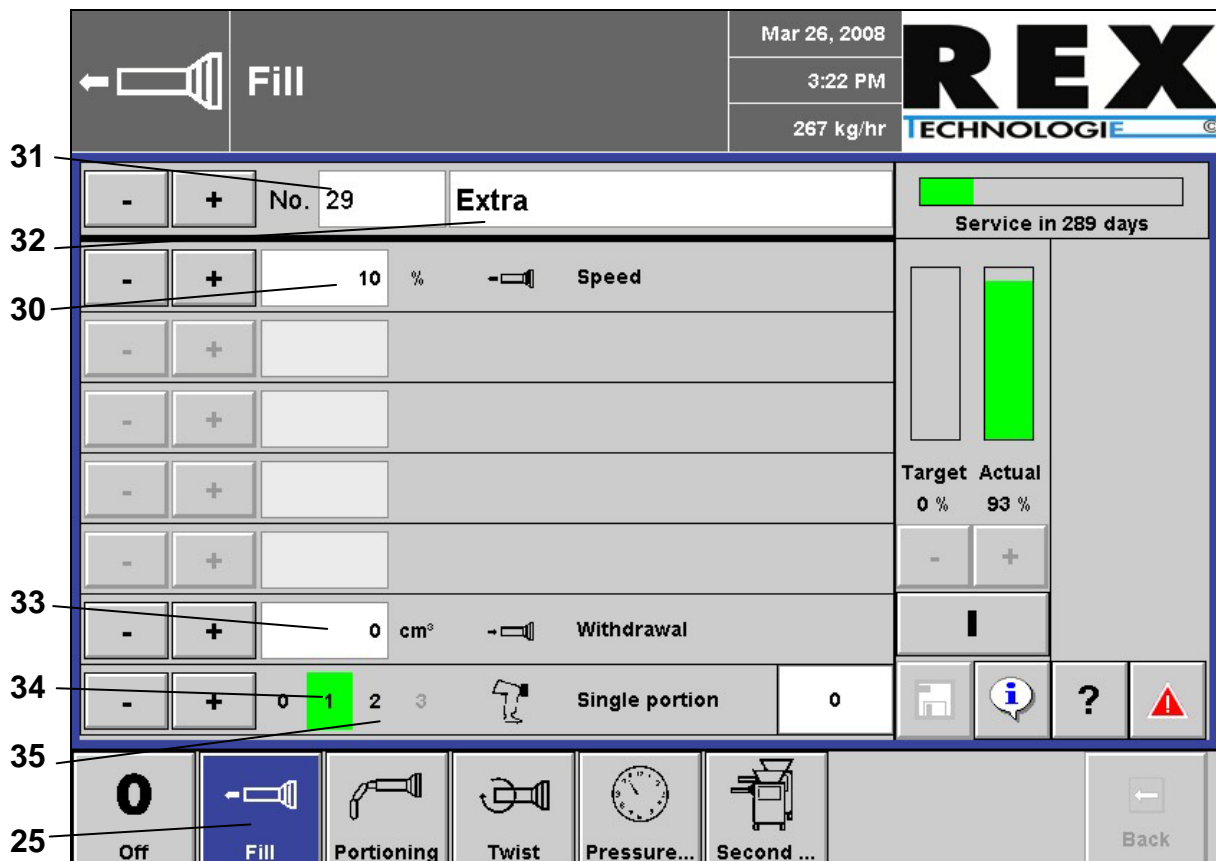


Illustration 16: mask filling

Operation of the vacuum filling machine

6. Through another pressing of the filling key, (25) a filling correction mask opens up. The standard amount of the parameter there can be altered for optimizing.
7. The following amount is selectable with the help of the respective key:
 - Acceleration ramp of the filling meat pump (36)
8. Through a repeated pressing of the filling key (25) and the withdrawal key (17) the main mask returns to the screen.

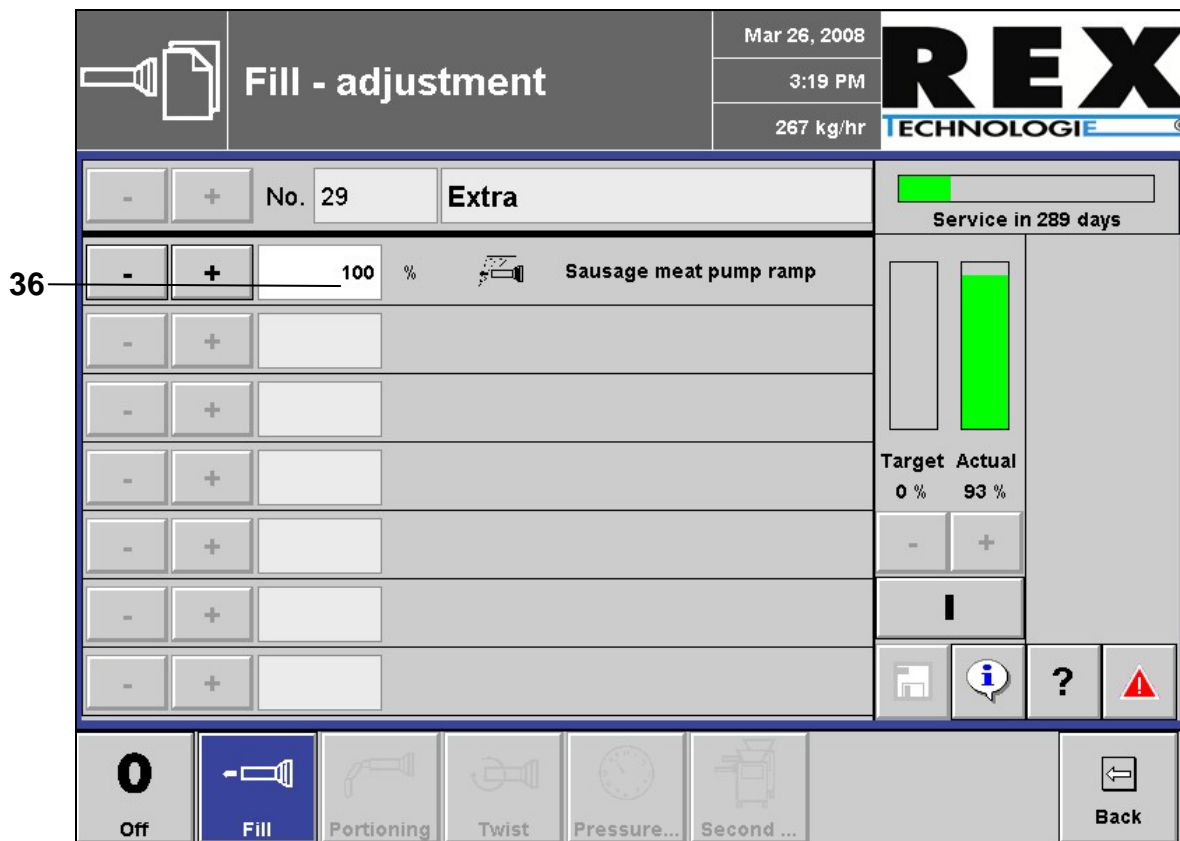
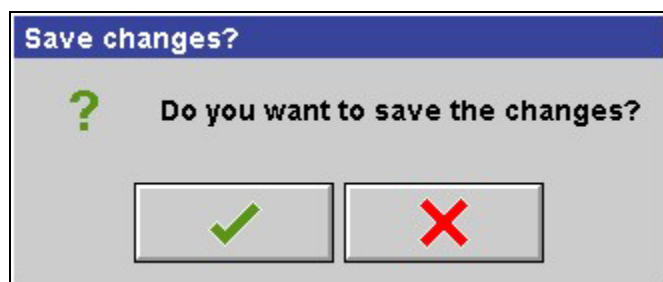


Illustration 17: filling and correcting masks

9. Through pressing the saving key (20) a dialog field opens. The saving process must be confirmed once more.



Dialog field

4.7 ADJUSTMENT OF A PORTIONING PROGRAM

1. Press key (24) in the operational performance type
2. select program area (31)
3. type in sausage name (32)
4. adjust the desired vacuum pressure (13, 14)
5. The following amounts can be selected with help of the respective key:
 - speed (portions/min)
 - filling weight
 - filling pause
 - Clip impulse
 - 1. additional portioning
 - withdrawal
 - Knee lever position single portion (34), continual portioning (35) or piece ordering

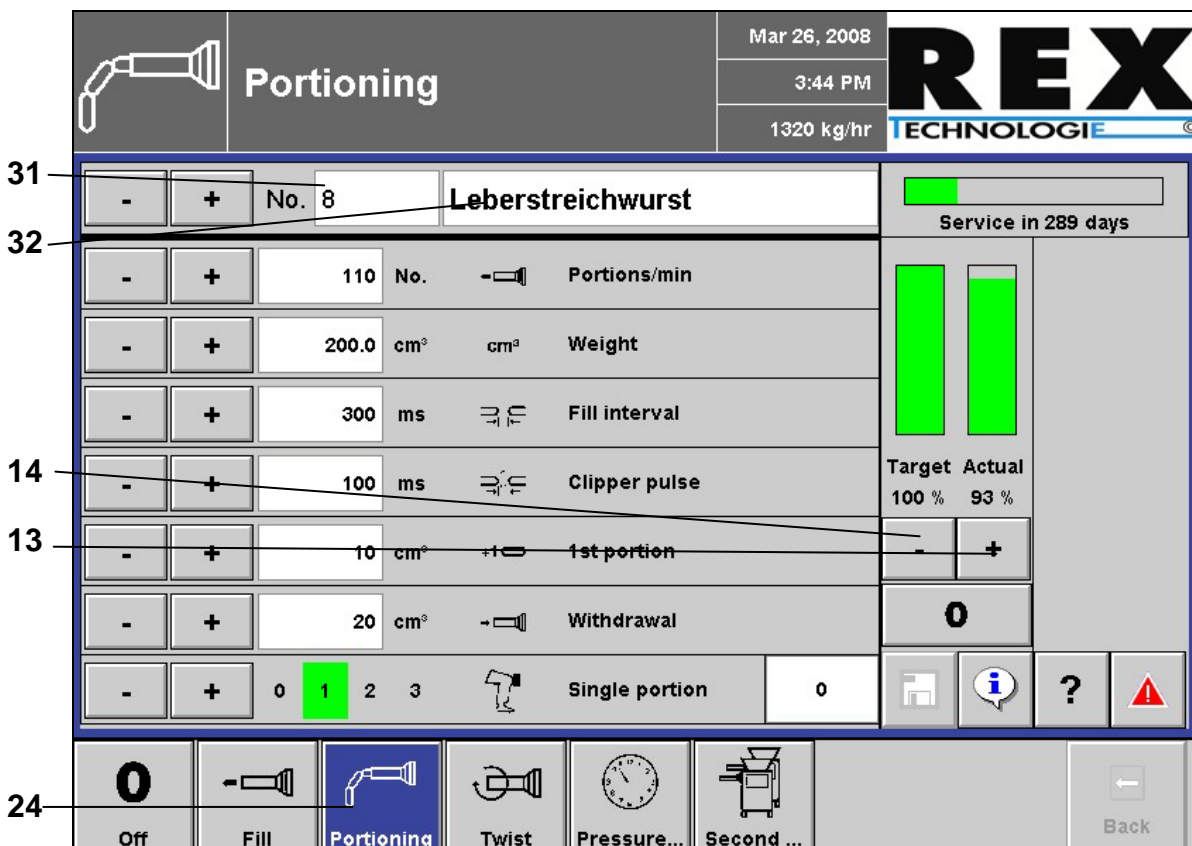


Illustration 18: mask portioning

Operation of the vacuum filling machine

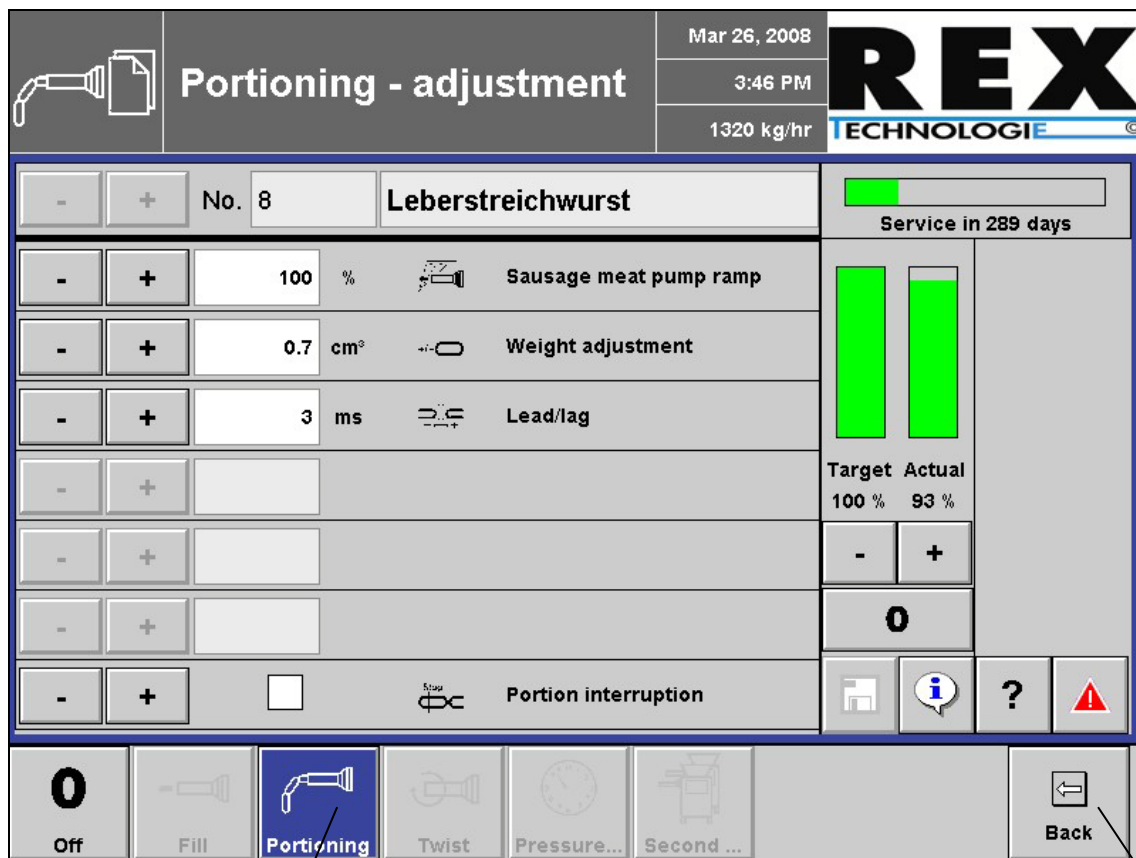
6. Through repeated pressing of the portioning key (24) a portioning correction mask opens.

The standard amount of the parameter can be altered there for optimizing.

7. The following values can be selected with the help of the respective key.

- Acceleration of the filling meat pump
- Weight correction
- Advance and lagging of the Clip signal
- Portioning interruption

8. Press the portioning button (24) again to open an additional correction mask. Press the back button (17) to return to the main mask.



24

17

Illustration 19: mask portioning corrections

9. The following values can be selected with the corresponding buttons:

- Rate of 1st portion
- Preset weight
- Delay for 2nd clipper pulse

10. Press the portioning button (24) or the back button (17) again to return to the main mask.

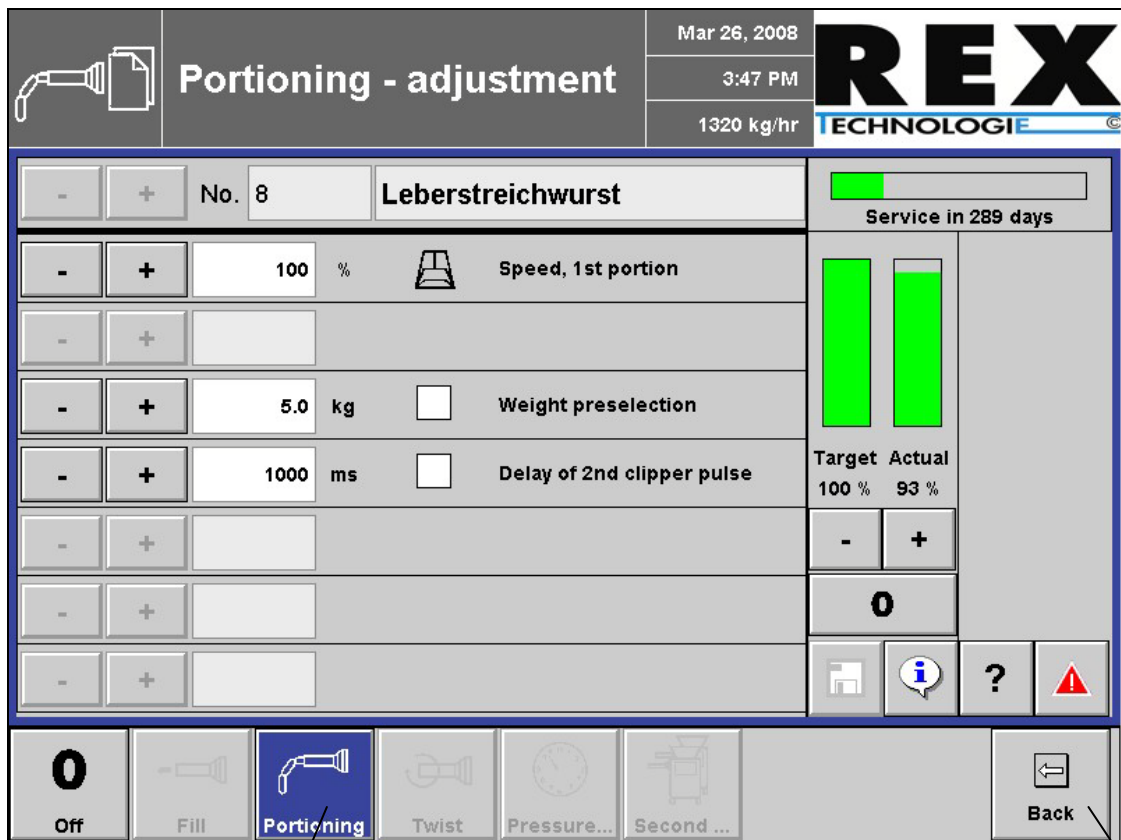


Illustration 20: mask portioning corrections 2

11. through pressing the save key (20) a dialog field opens. The saving process must be once again confirmed.



(20)



Dialog field

4.8 ADJUSTMENT OF A TWISTING OFF PROGRAM

1. Press key (23) in the operational performance type
2. Select program area (31)
3. type in name of sausage (32)
4. adjust desired vacuum pressure (13, 14)
5. The following amounts can be selected with the help of the respective key:
 - speed (portions/min)
 - filling weight
 - twisting off number
 - 1. additional portions
 - withdrawal
 - Knee lever positioning for single portions (34), continuous portioning (35) or piece ordering

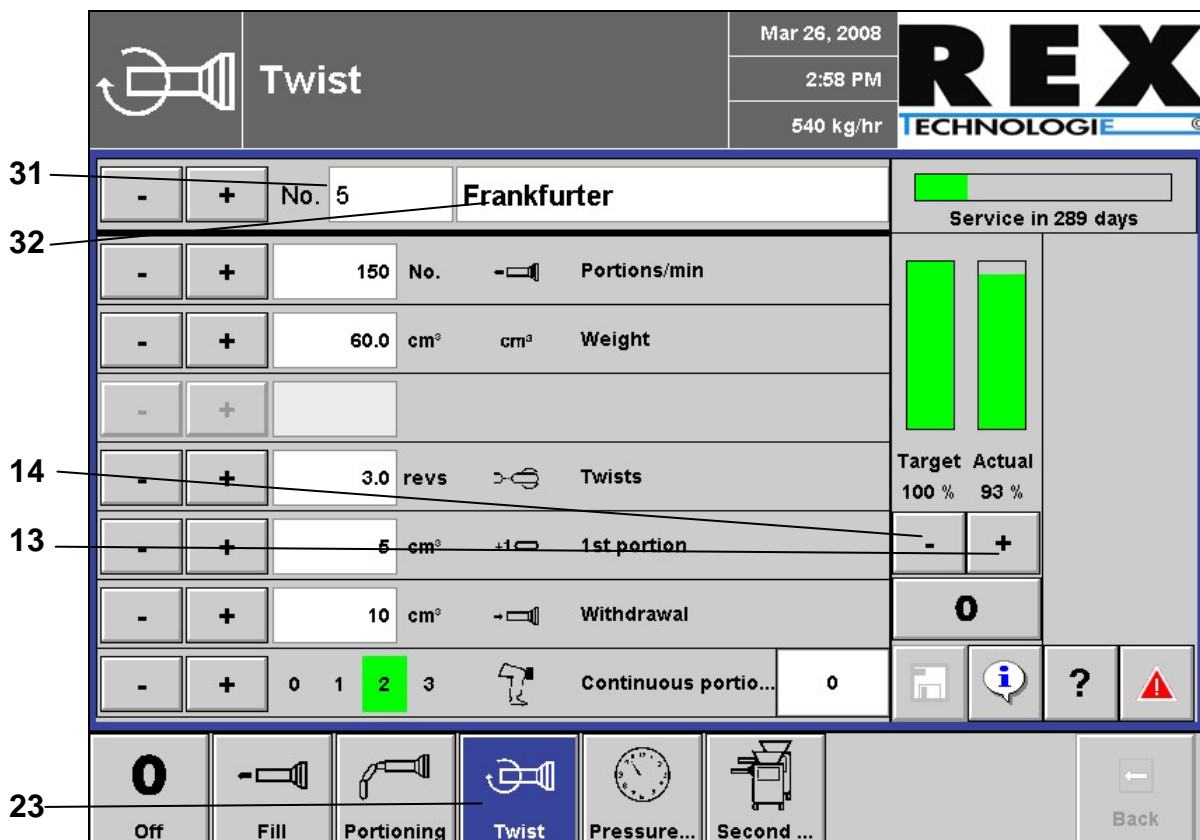


Illustration 21: mask twisting off

Operation of the vacuum filling machine

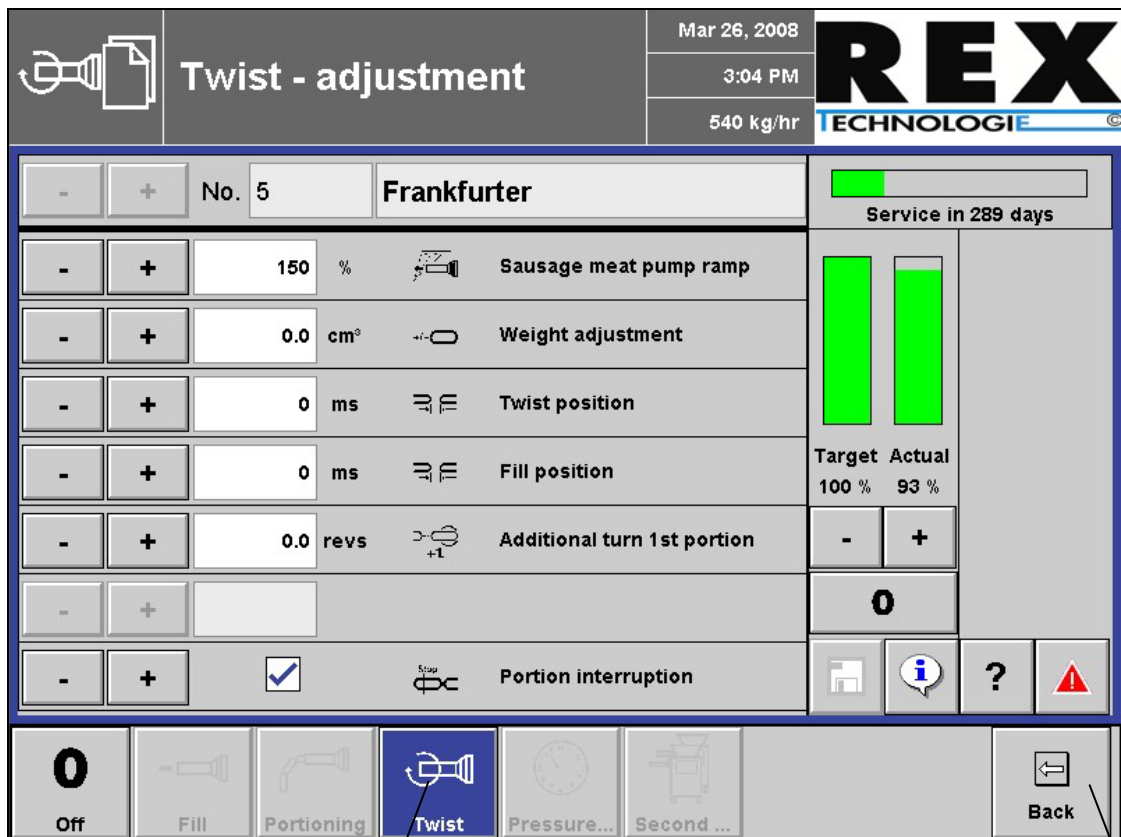
6. Through an additional pressing of the twisting key, (23) the twisting off correction mask opens up.

The standard amount of the parameter can be changed there for optimizing.

7. The following amounts can be selected with the help of the respective key:

- Acceleration of the filling meat pump
- Weight corrections
- twist-off position
- filling position
- additional turn 1st portion
- portion interruption

8. Press the twist-off button (23) again to open an additional correction mask. Press the back button (17) to return to the main mask.



23

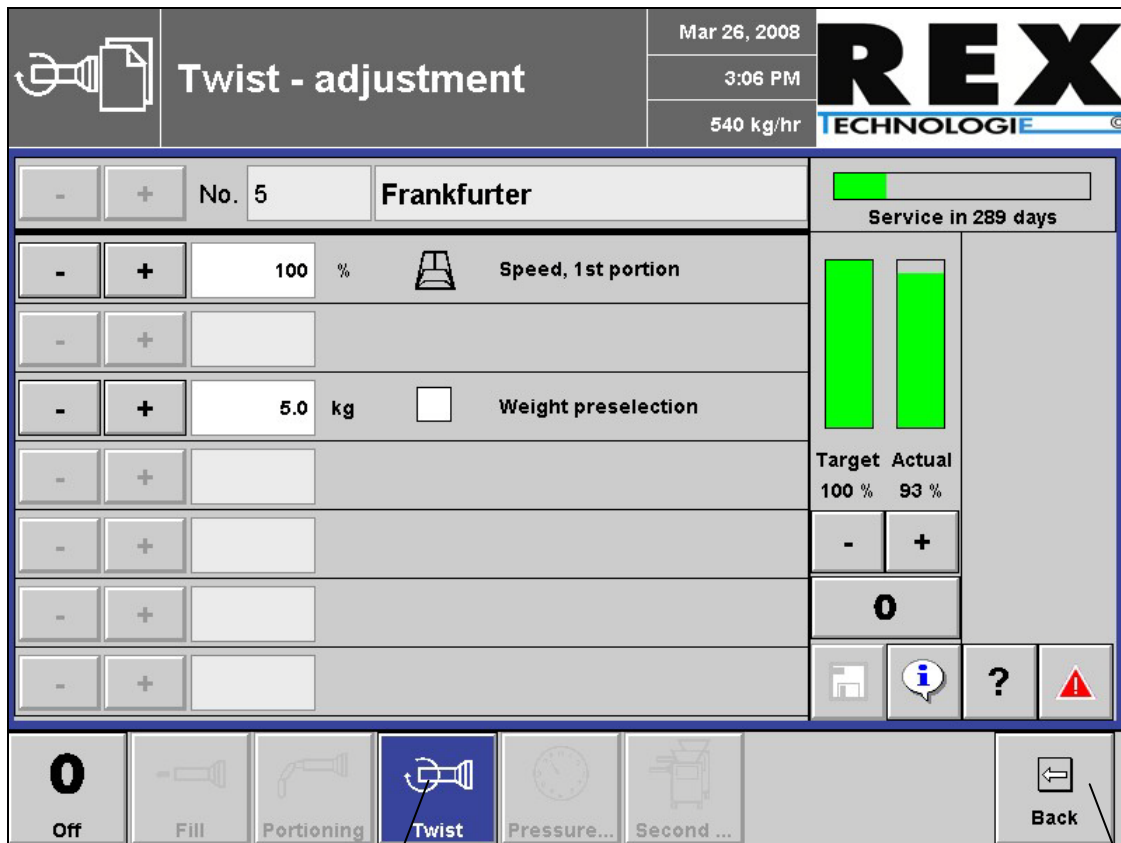
17

Illustration 22: mask twisting off - correction

9. The following amounts can be selected with the help of the respective key:

- speed 1st portion
- weight preselection

10. Press the twist-off button (24) or the back button (17) again to return to the main mask.

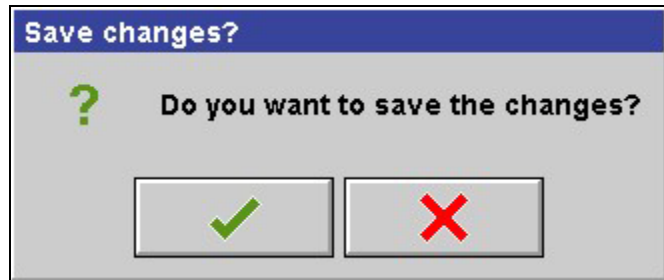


23

17

Illustration 23: mask twisting off – correction 2

11. Through pressing the saver key (20) a dialog field opens up. The saving process must be repeated once again.



Dialog field

4.9 ADJUSTMENT OF THE PRESSURE SENSOR OPERATION

1. Press key (22) in the operational performance type operating mode performance.
2. Plug in pressure sensor on the machine outlet Clip machine outlet).
3. Through pressing the "+" and "-" key you can adjust the desired pressure setting (green indicator). This can be altered at any time, even during the operation.
4. adjust the desired vacuum pressure (13, 14)
5. The function is started upon depressing the knee lever. The current actual pressure is shown through the red indicator.
6. The function is stopped through an additional depression of the knee lever.

Attention:
If no pressure can be built up after ca. 15 seconds, because i.e. the hopper is empty, then the Vacuum filling machine stops and an error signal appears F 421 (set/actual pressure deviation is too great).

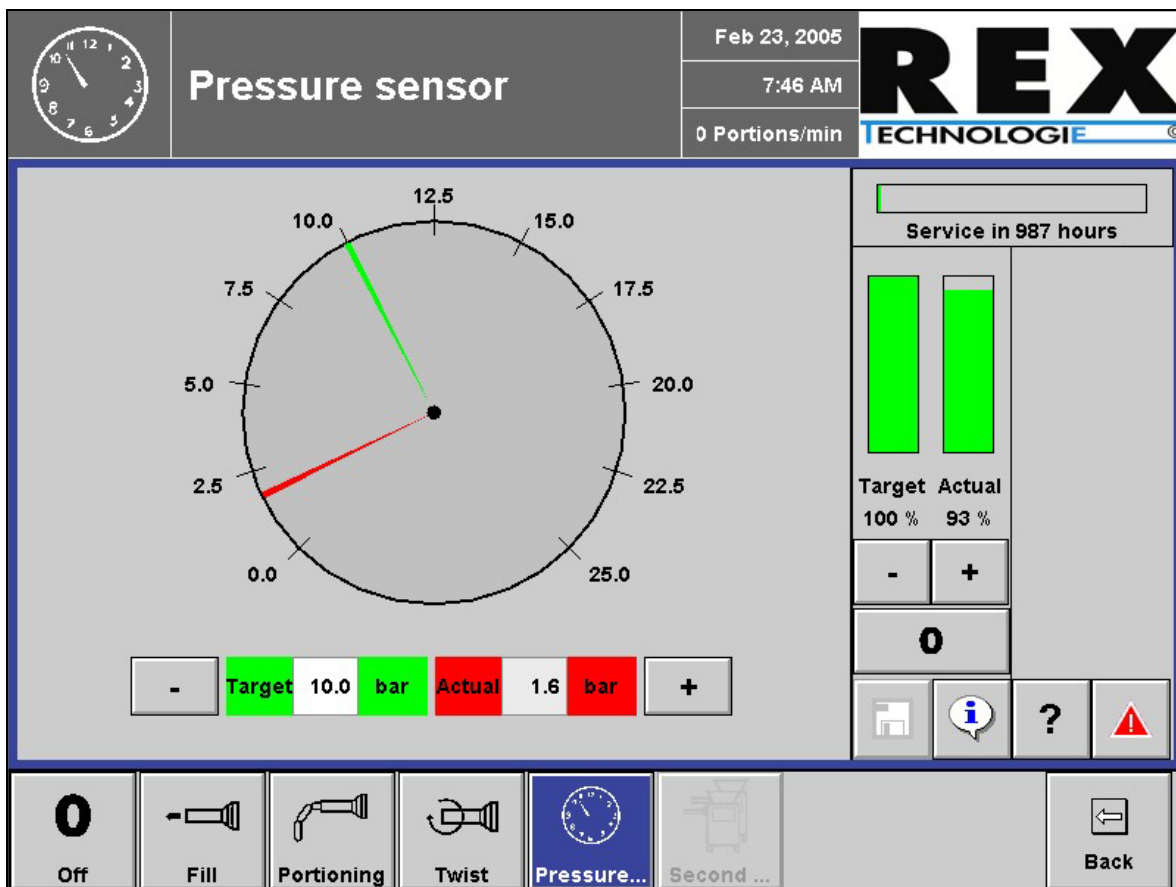
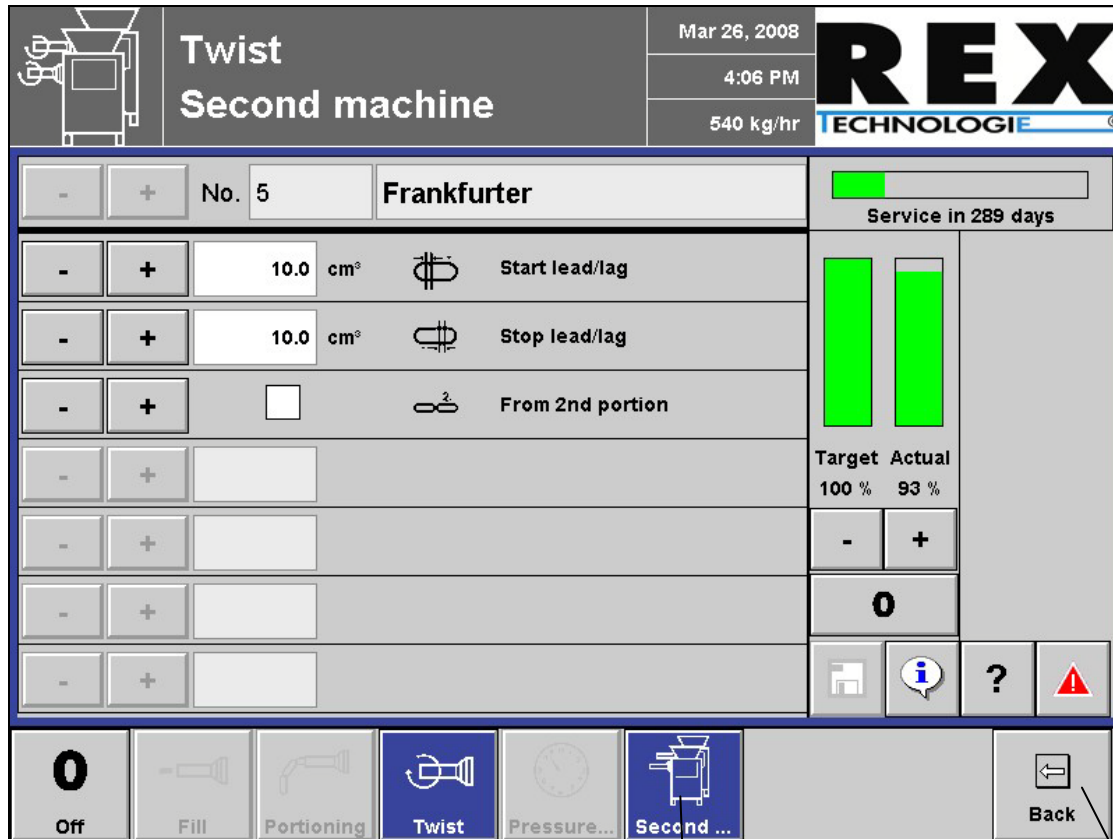


Illustration 24: mask pressure sensor

4.10 ADJUSTMENT OF THE SECOND MACHINE CONTROLS

1. In the operational mode performance, press key 23 or 24 (depending upon the usage of portioning or twisting off).
2. select program area
3. type in sausage name
4. set the respective amount
5. Press key 21 in the operational mode performance
6. Second machine controls is activated through the on key.
7. The following amounts can be selected with help of the respective key:
 - Start advance and lagging
 - Stop Advance/lagging
 - Beginning with 2. Portions



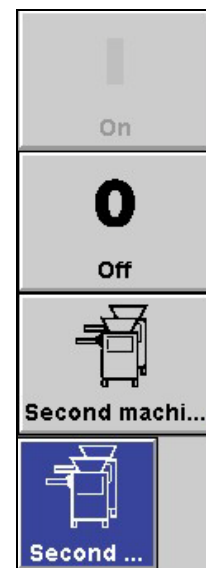


21

17

Illustration 25: mask portioning of secondary machine

- By pressing the operational mode key 21 a second time, the window opens up, in which " the second machine controls can be deactivated by pressing "0". However, this can also be accomplished through pressing the withdrawal key (17).



Operation of the vacuum filling machine

4.11 SPECIAL FUNCTIONS

The so called Information mask opens after pressing the Info-key (19), which offer the possibility of numerous special functions and set ups.



Info-mask

Information		Mar 26, 2008	REX TECHNOLOGIE
		3:30 PM	
		0 kg/hr	

Service information	Machine type	
13 operating hours		User log on
Service in 992 operating hours	RVF 327 F/P/A	Information log
Service in 289 days		Machine type
Contactability		Service plan
Rex Technologie GmbH	REX-Technologie GmbH & Co. KG	Note
Enzersberg 154	Irlachstraße 31	Status report
A-5303 Thalgau	A-5303 Thalgau	
Tel.: +43(0)6235-6116	+43 6235 6116	
www.rex-austria.com	www.rex-austria.com	

Buttons: Align pipe, Setup Setup, Screen settings, Recipe management, Remote maintenance, Metal detector, User log on, Information log, Machine type, Service plan, Note, Status report, ?

Off	Fill	Portioning	Twist	Pressure...	Second ...	Back
-----	------	------------	-------	-------------	------------	------

Illustration 26: information mask

Under the column "**service information**" the current machine operational hours are indicated. You can also determine how many operational hours and days remain before the next servicing date for the vacuum filling machine is due.

In the column "**machine type**" the type of machine employed will be indicated.

Under "**accessibility**" the machine manufacturer is shown in the left column. On the right, the address of the REX-appointed dealer and negotiator can be inserted by a trained technician.

4.12 SPECIAL FUNCTION "TUBE ALIGNMENT"

After pressing the Info-mask key "tube alignment", a dialog field opens up.



Info-mask

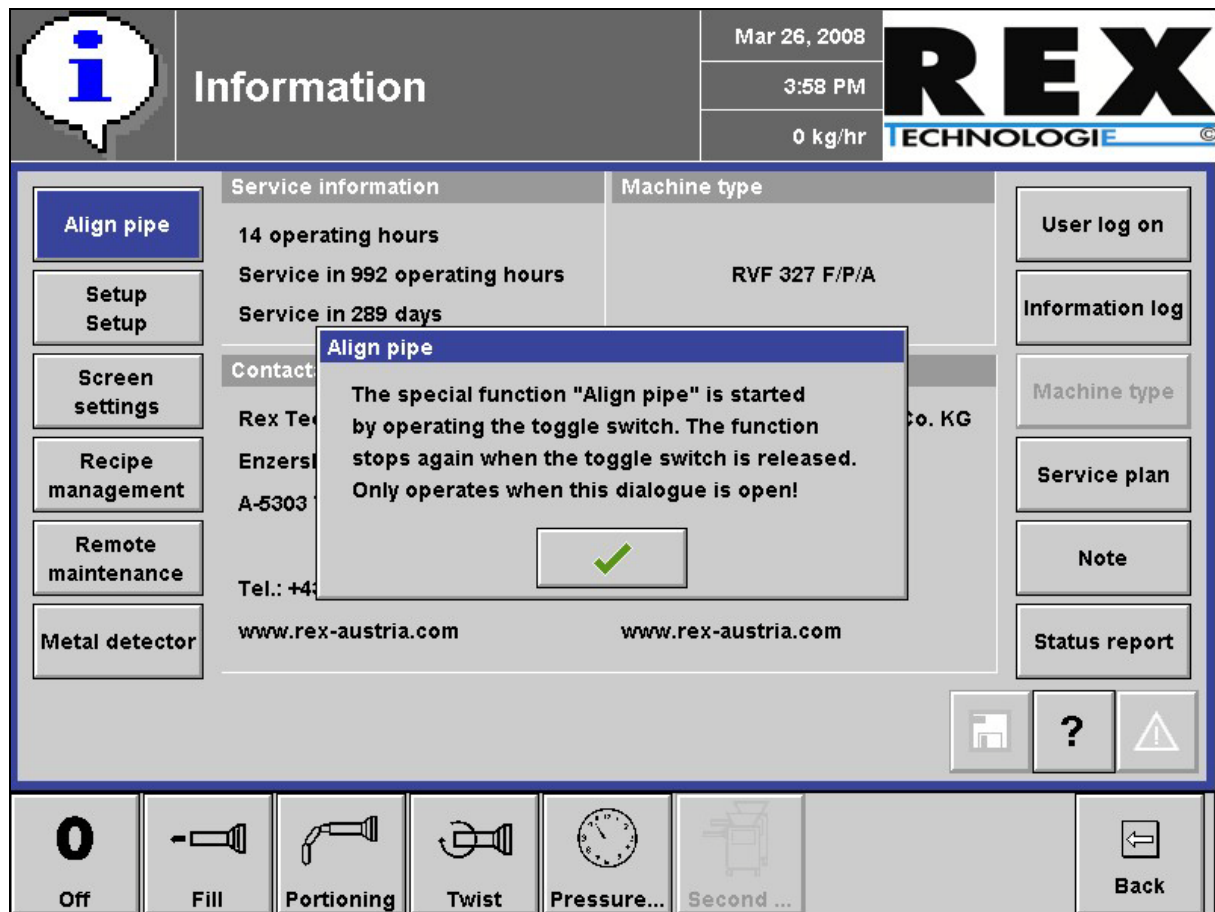


Illustration 27: tube alignment

The tube begins rotating once the knee lever is depressed, which allows for an alignment. The twisting pipe stops upon releasing the knee lever. The function can be abandoned with the **"confirmation key and withdrawal key (17)"**.

Operation of the vacuum filling machine

4.13 TUNE IN SETUP MASK, LANGUAGE SELECTION, TIME AND DATE

- **Setup-Mask**

The machine operator can carry out adjustments in the (local time, date, etc.) with the setup mask. The desired language can also be selected with the language choice. Additional important information is left there, such as machine number, appliance number, software versions and free circuit code.



Setup mask

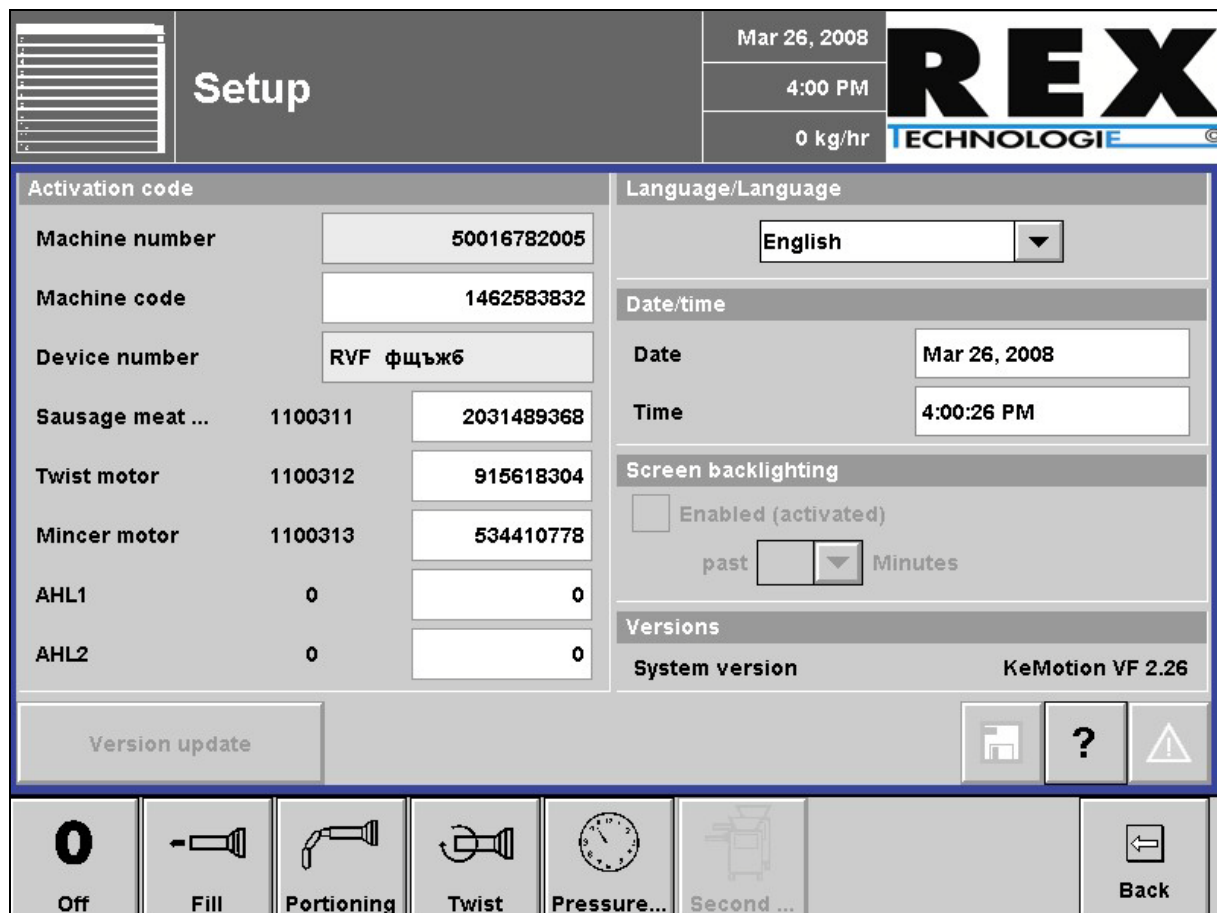


Illustration 28: setup mask

- **Language switch over**

Through pressing the display field of the selected language, a window opens up in which the desired language can be selected.

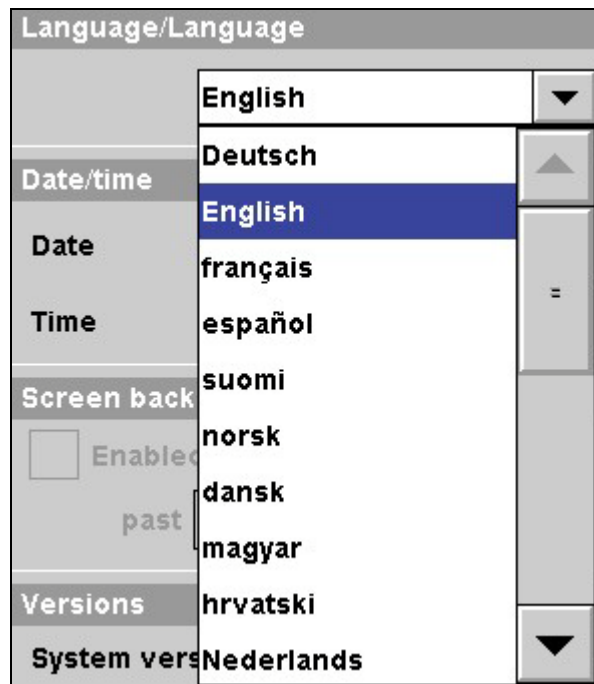


Illustration 29: switching languages

Operation of the vacuum filling machine

- **Installing time and date**

Through pressing the date and time display field, a window opens up, in which the desired date and local time can be set.

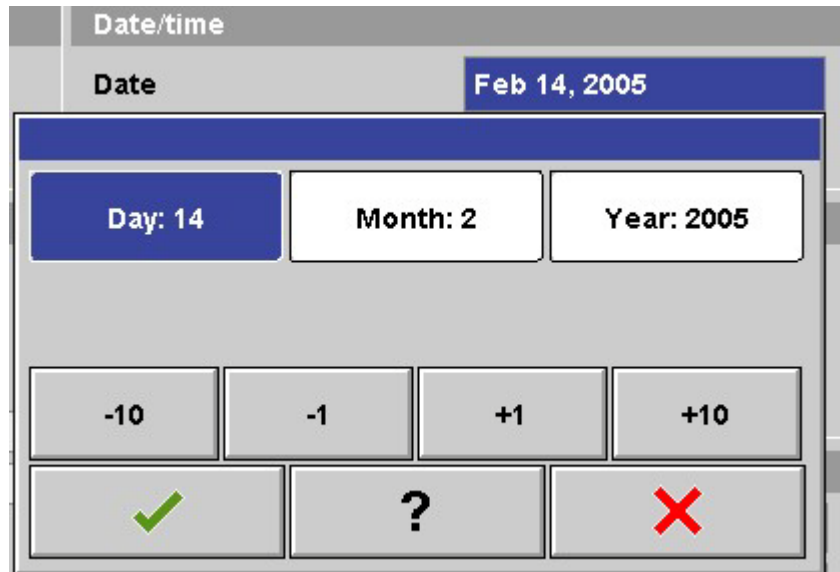


Illustration 30: setting the date

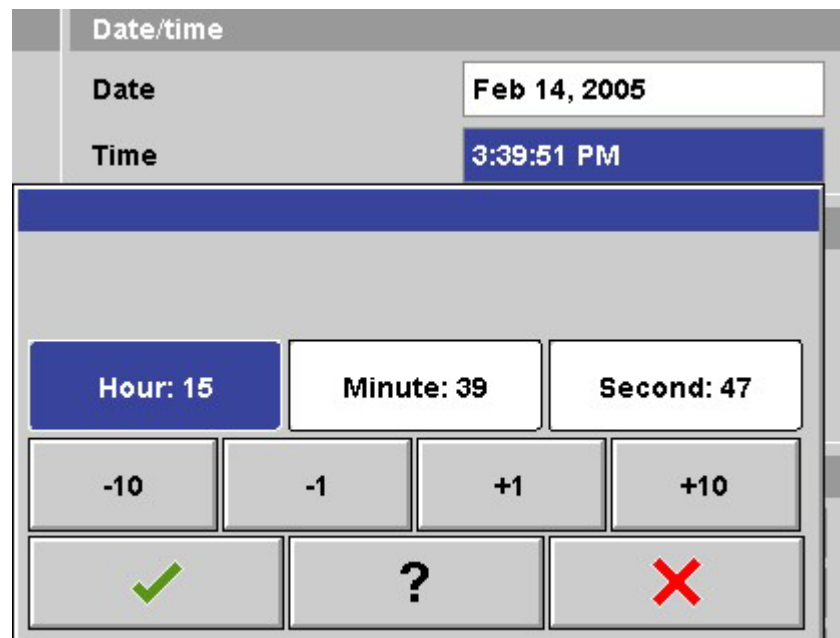
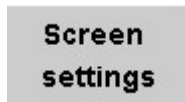


Illustration 31: setting the time

The further adjustments and alterations, such as versions, free circuit code and screen background lighting can only be carried out through an authorized REX-appointed dealer.

4.14 SCREEN ADJUSTMENTS

Pressing the screen adjustment button opens up the adjustment mask.



Adjustment mask

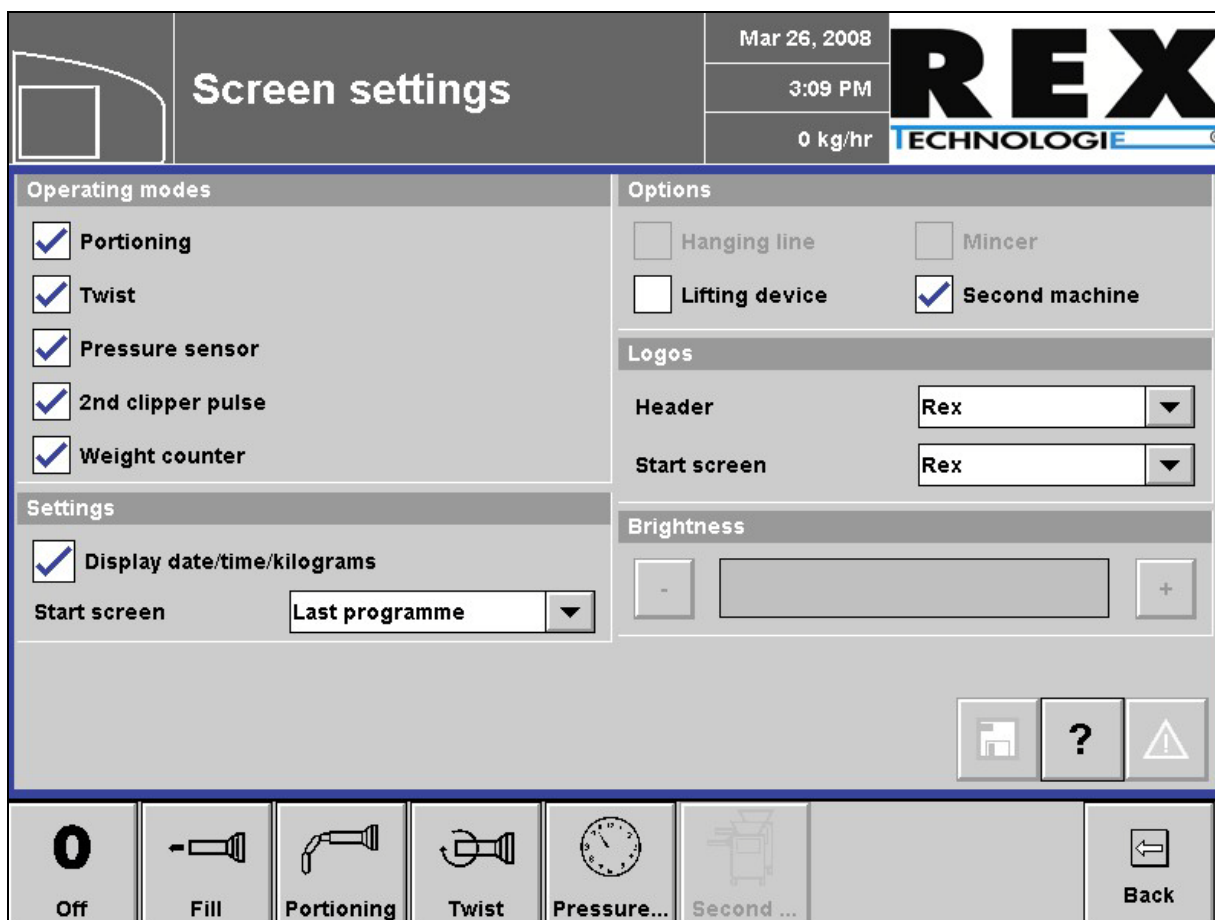


Illustration 32: mask screen adjustments

In the "**Operating modes**" column, the buttons in the operating modes bar can be shown or hidden:

- Portioning (24)
- Twisting off (23)
- Pressure sensor (22)
- 2nd clipper pulse
- Weight counter

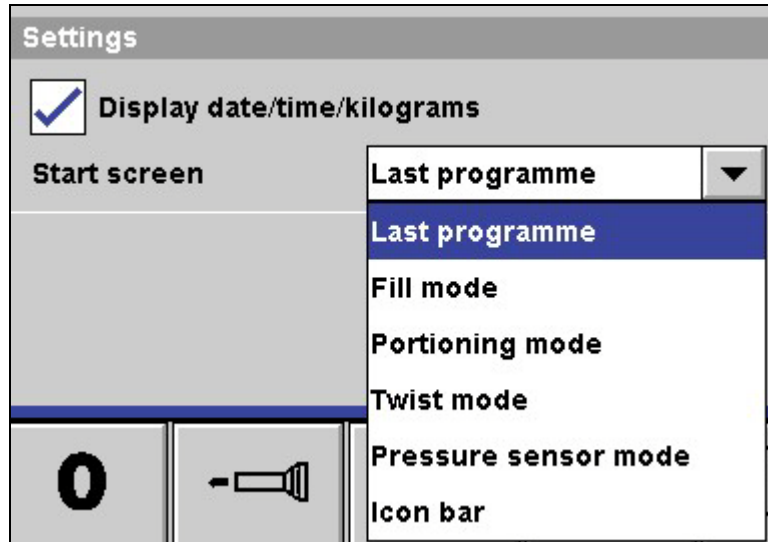
In the "**Options**" column, the buttons in the operating modes bar can be shown or hidden:

- lifting device
- second machine
- mincer
- hanging line

Under the "**adjustments**" mode in the main mask, it's possible to decide whether to superimpose the date (5), the time (4) and the kilos/hour (3).

There is also the possibility of putting in the following start masks:

- Start the machine with the last program
- Start the machine with the filling operation mode
- Start the machine with the portioning mode
- Start the machine with the twisting off mode
- Start the machine with the pressure sensor mode
- Start the machine with the operational mode performance indicator



Setting the "Logo" column remains reserved for the authorized REX-appointed dealers and technicians.

4.15 RECIPE ADMINISTRATION

By pressing "Recipe administration" a mask opens up, in which all the set filling programs are displayed, sorted, deleted, renamed as well as program specific production dates can be selected.

Recipe management

Recipe administration mask

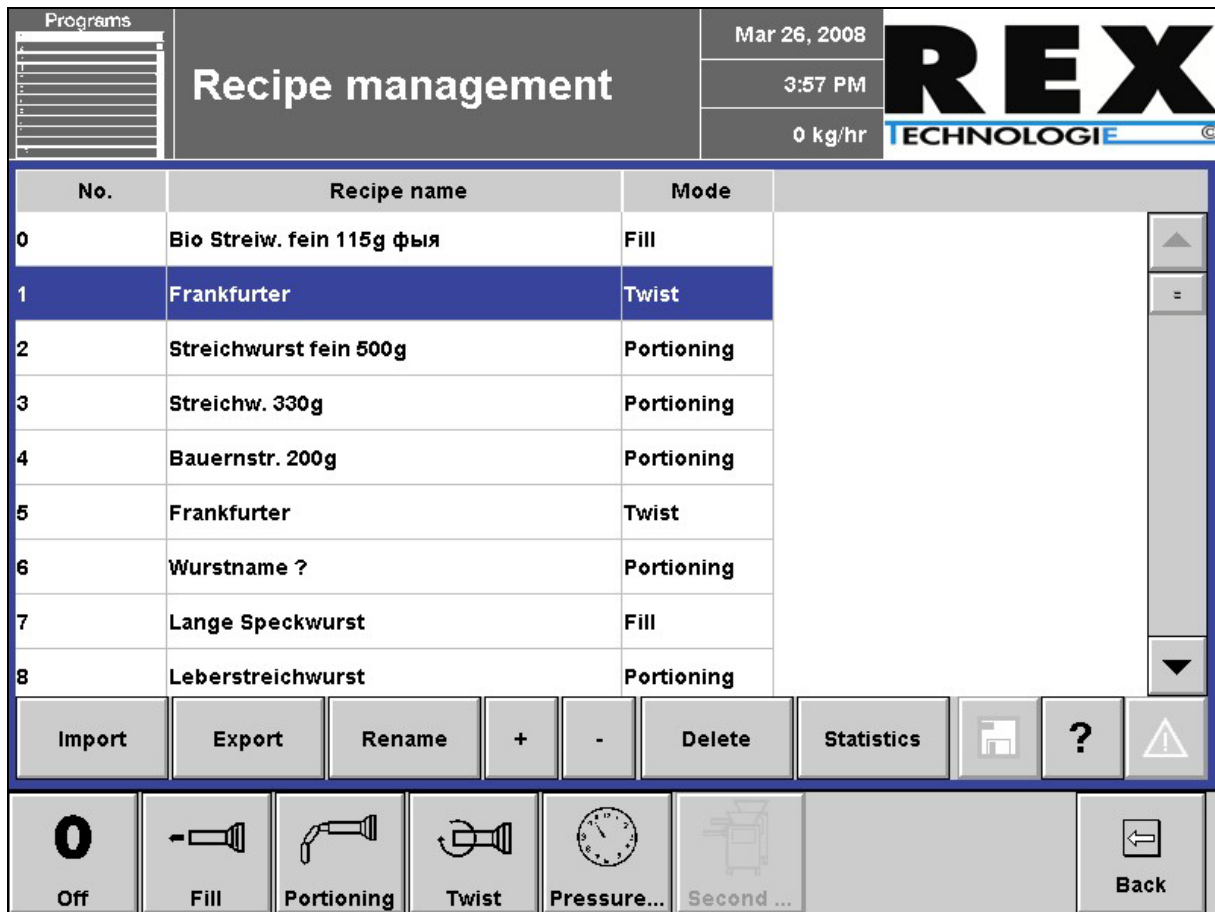


Illustration 33: mask recipe administration

Program specific recipe dates

Recipe statistics	
Programme name	Frankfurter
Current number of sausages produced	0
Total number of sausages produced	0
Total production time	1:00:00 AM
Total sausages produced	0
Total production time	1:00:00 AM




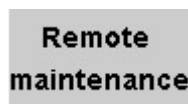
Illustration 34: recipe dates

Through "Importing" and "Exporting" there exists the possibility to import diverse program dates of other Vacuum filling machines or save existing program dates on a data carrier. This is done after installment of an USB-Sticks to the appropriate CPU-control interface, which is located in the switch box,.



4.16 REMOTE MAINTENANCE

It's possible at any time to set up a remote maintenance possibility. Your authorized REX-co-worker and appointed dealer will gladly inform you about arranging such a possibility.



4.17 USER REGISTRATION

User log on

The installation of this mask remains reserved for authorized REX-appointed dealers and technicians.

4.18 INFO-LOG

Information log

The installation of this mask remains reserved for the authorized REX-appointed dealers and technicians.

4.19 SERVICE PLAN

After expiration of the respective operational hour performance, a service plan list can be opened in this mask, where all the necessary and awaited service-and maintenance work is listed in detail. The maintenance work carried out must be confirmed for the stipulated intervals (see chapter 5.4 Maintenance and upkeep) by the person who carried out the maintenance work.

Service plan

Service work	Finished	Date	Technician
Service A			
<input type="checkbox"/> Vakuumpumpe bzw. Vakuumanlage			
Carry out oil change			
Change air oil separator element			
Change vacuum filter			
Check for leaks			
Check condition and suction power			
Replace inspection window seal			
<input type="checkbox"/> Förderwerk			
Fit new bearings on main drive and re-cool			

Note:

Open

Off Fill Portioning Twist Pressure... Second ... Back

Illustration 35: mask service plan

Attention: After the service and maintenance work is carried out, the service interval indicator (8) on the main mask is re-set.

4.20 STATUS REPORT

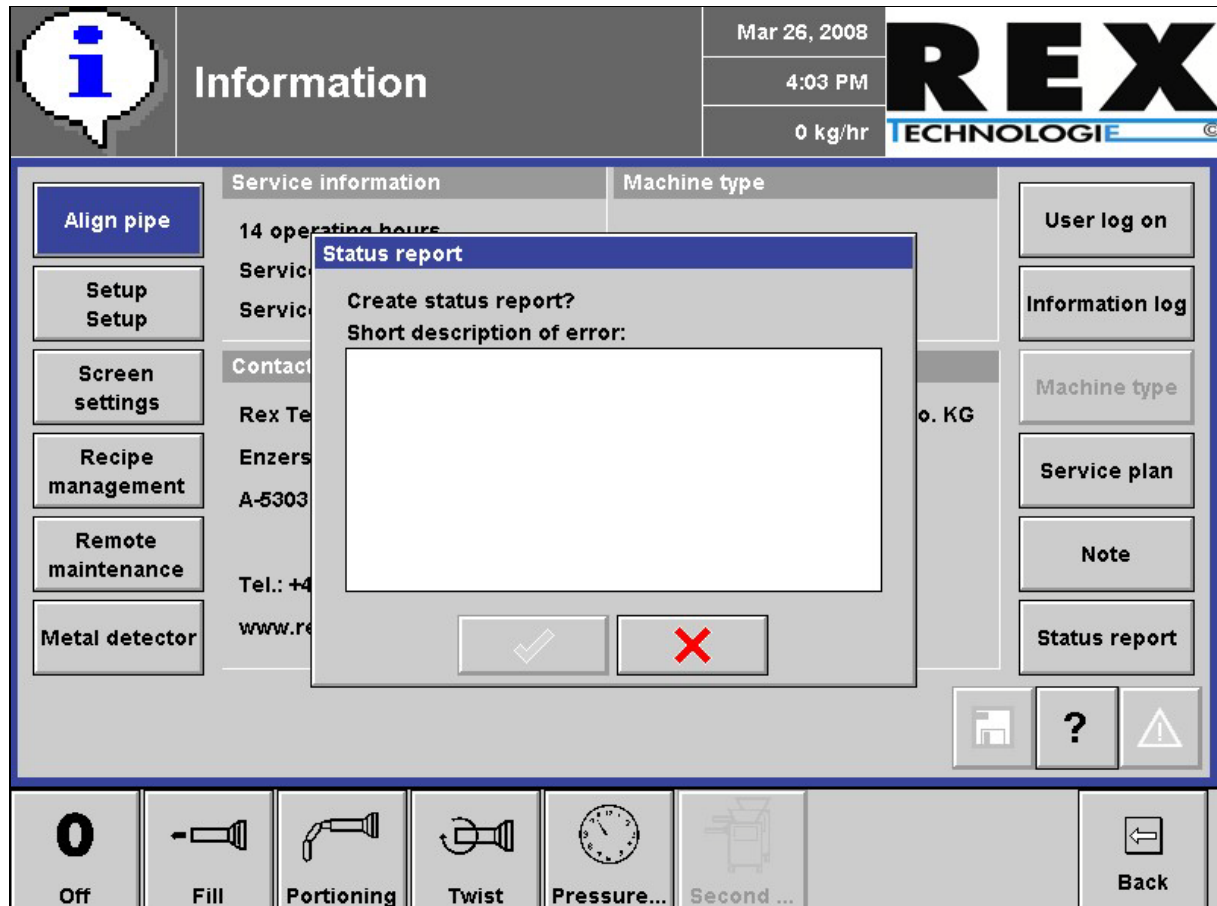


Illustration 36: status report

In the event of a program error, a description of the error can be entered in the input field. The report is automatically saved. Your dealer can view and edit this data.

4.21 METAL DETECTOR

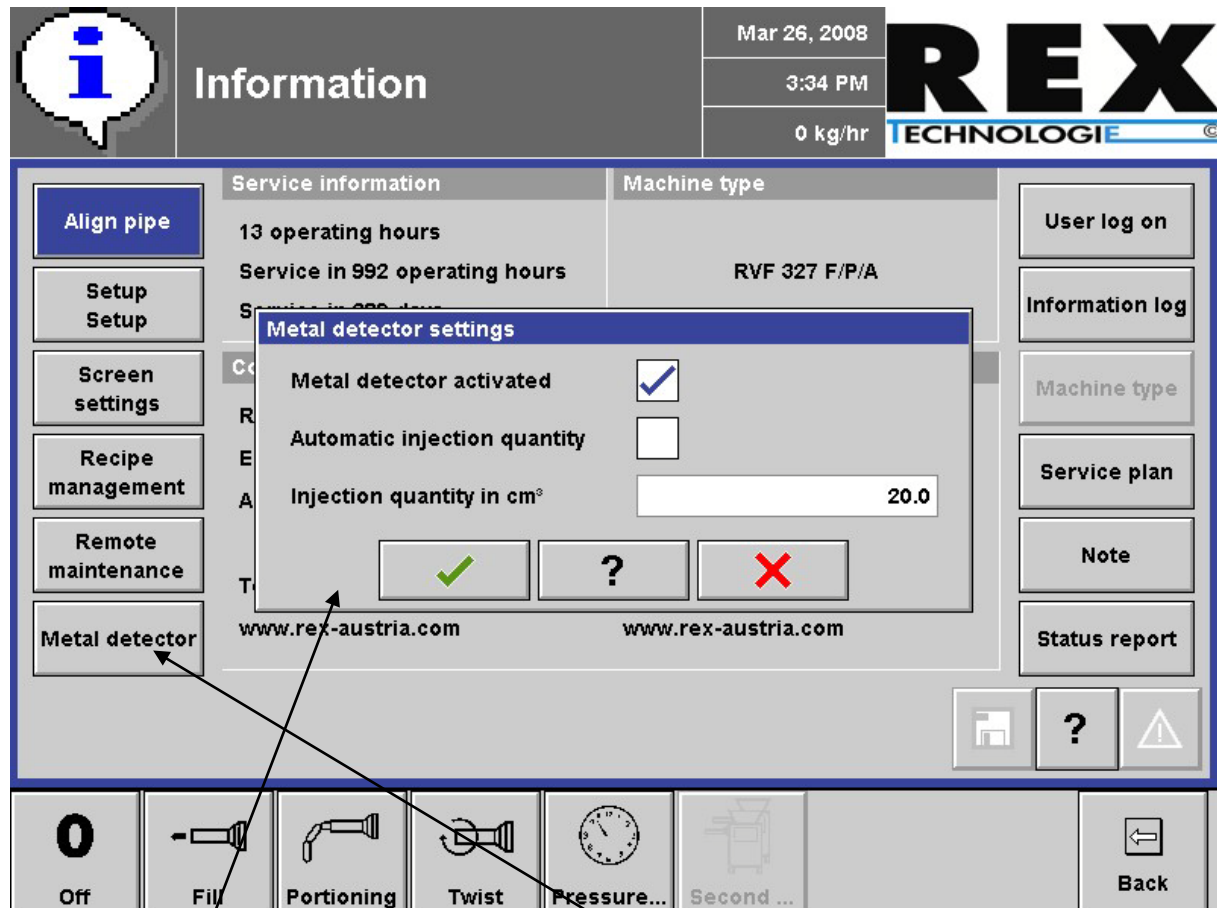


Illustration 37: metal detector

The metal detector mask is opened by pressing the "Metal detector" button.

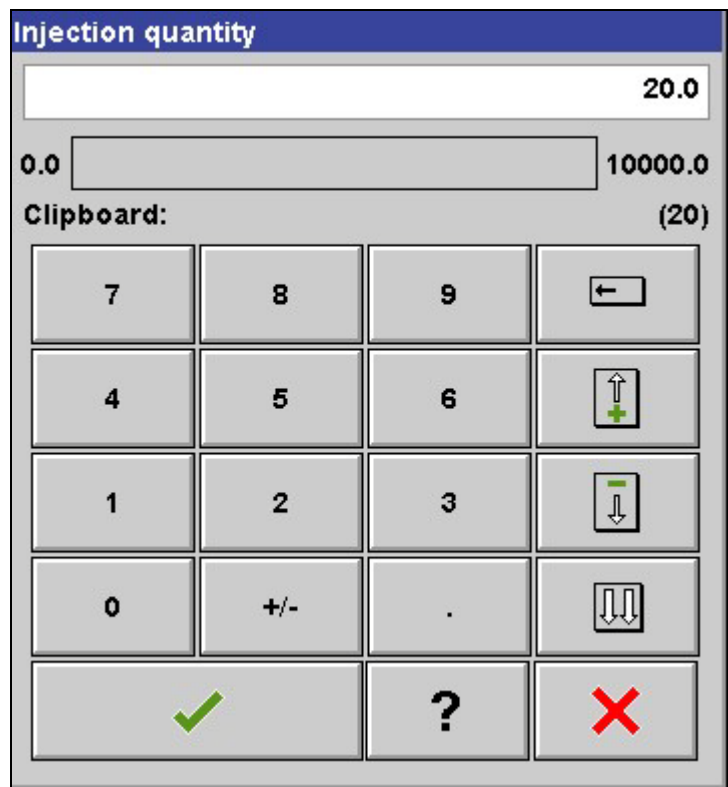
This dialog contains settings for the metal detector.



'Metal detector On/Off' determines whether a pre-injection amount should be required for a metal detector or not. If this is activated, then the set pre-injection amount will be required for a metal detector.



If "Automatic pre-injection amount" is activated, the set pre-injection amount is automatically filled. If this control is not activated, the pre-injection amount must be started manually with the knee lever after the metal detector has triggered.



Input field for the desired pre-injection amount.

4.22 ALARMS, MALFUNCTION REPORTS

- **Error message: hopper steps**

After opening the hopper cover and the steps, the controls interrupt the operation and the following error dialog opens up:

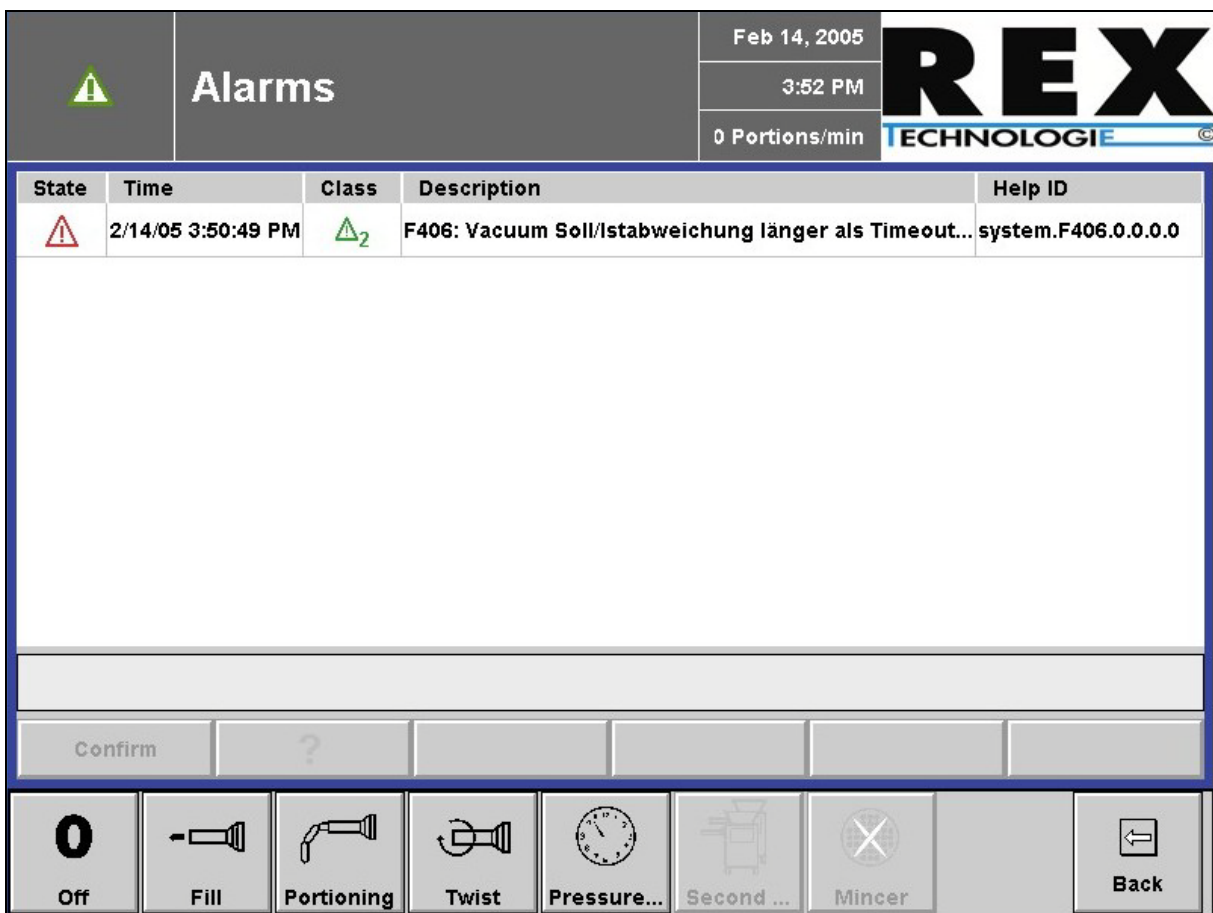
Hopper Steps are folded down, close again after use.

This window closes independently once the hopper cover is closed again and the steps are folded back up.

Operation of the vacuum filling machine

- **Other error messages**













With every other standing mistake report, the operation of the Vacuum filling machine is interrupted and an alarm mask opens up independently and by pressing the alarm key.

State	Time	Class	Description	Help ID
	2/14/05 3:50:49 PM		F406: Vacuum Soll/Istabweichung länger als Timeout...	system.F406.0.0.0.0

Illustration 38: alarm mask 1

All malfunction reports that occur will be indicated in this alarm mask, including the alarm status, the time it took place, the alarm class as well as a description of the incident and standing alarm.

 Alarms		Feb 14, 2005					
		3:53 PM					
		0 Portions/min					
State	Time	Class	Description	Help ID			
	2/14/05 3:50:49 PM		F406: Vacuum Soll/Istabweichung länger als Timeout...	system.F406.0.0.0.0			
F406: Vacuum Soll/Istabweichung länger als Timeoutzeit zu gross							
Confirm		?					
 Off	 Fill	 Portioning	 Twist	 Pressure...	 Second ...	 Mincer	 Back

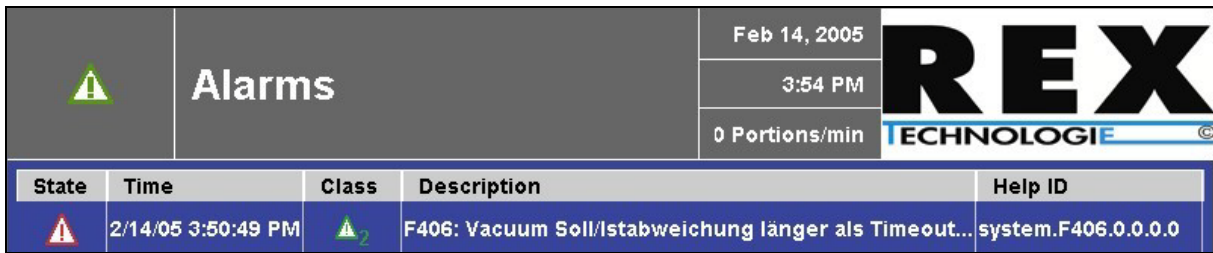
Alarm number including description

Illustration 39: alarm mask 2

Operation of the vacuum filling machine

4.23 DEFECT REPAIR

By pressing the current disturbance report, it will be marked in blue.



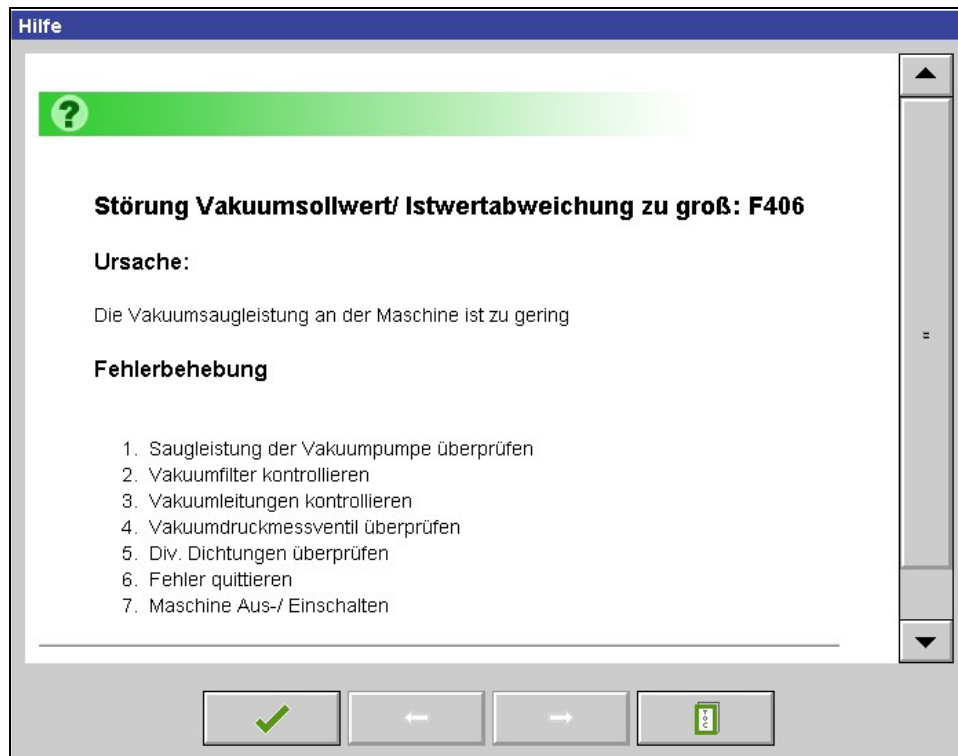
For every alarm, a help key is available, including the possible specific cause and also options for repairing the defect.



Illustration 40: alarm mask 3

Help -key: After pressing the key, a window opens up with suggestions for possible causes of the defects, including their repair.

Window with suggestions for possible cause of defect



After resolving the defect, the solution must be given.



Illustration 41: alarm mask 4

4.24 CONVEYOR HOUSING, SLIDING DRUM AND PRESSURE PLATE

The correct function of the filler determines the installation of the right piece in the proper sequence.

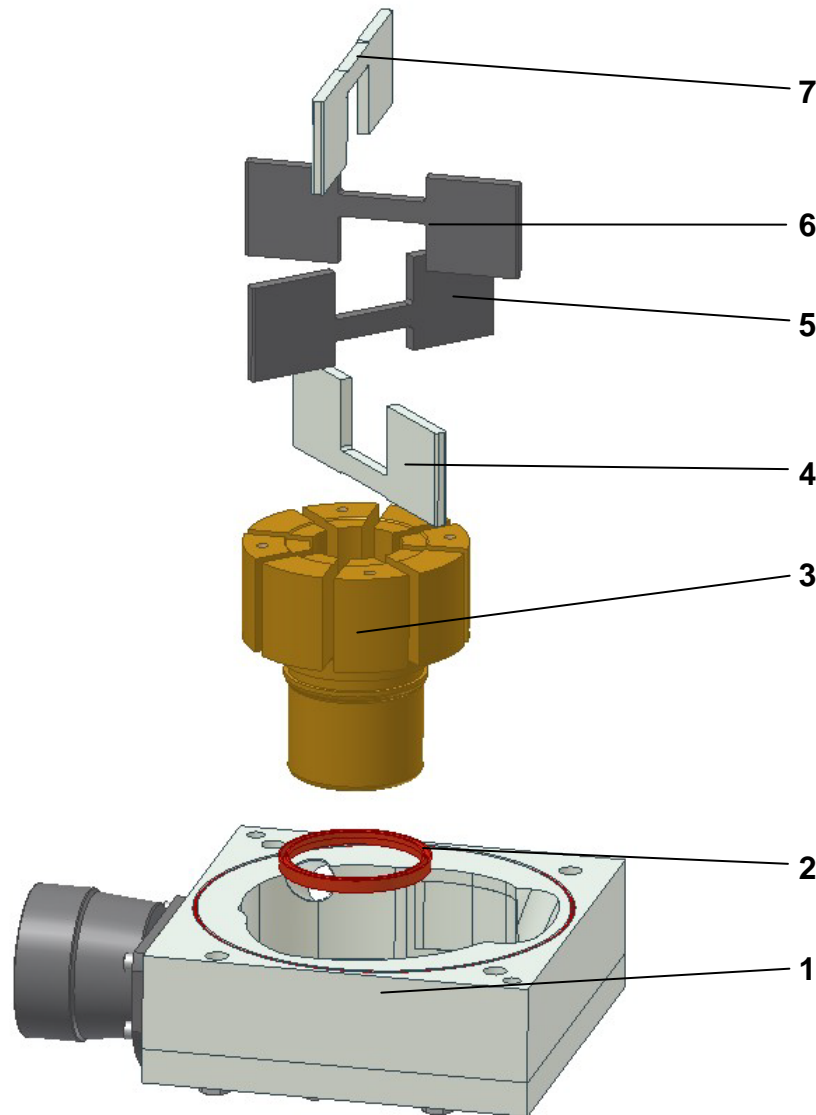


Illustration 42: installation sequence for delivery system

The correct sequence is depicted above.



Operation of the vacuum filling machine

Pos.	Installation sequence	naming	remarks
1	See remarks	Conveyor housing	Permanently installed on the machine housing
2	See remarks	groove ring	used to seal against meat for the main drive, leave it on the sliding drum for cleaning
3	1	Sliding drum	Develop for cleaning
4	2	vane outside	Develop for cleaning
5	3	vane inside	Develop for cleaning
6	4	vane inside	Develop for cleaning
7	5	vane outside	Develop for cleaning

4.25 INSERTING CONVEYOR PARTS

- Rub into, or spray the conveyor parts with food-based, edible fats, or oils
- Insert sliding drum with the help of both leverage keys. The sliding drum must engage with it in the shank of the input shaft
- Put in the vanes
- close and lock upper part incl. sliding plate



Attention: Due to the cushioned feeder coupling, the upper section can be opened in any position with the hopper, or be closed. After starting the Vacuum filling machine, the feeding coupling automatically engages.



• **installing the conveyor system**

The installation of the conveyor system should only be performed by trained personnel.



4.26 HOPPER, FEEDER AND STOPPER

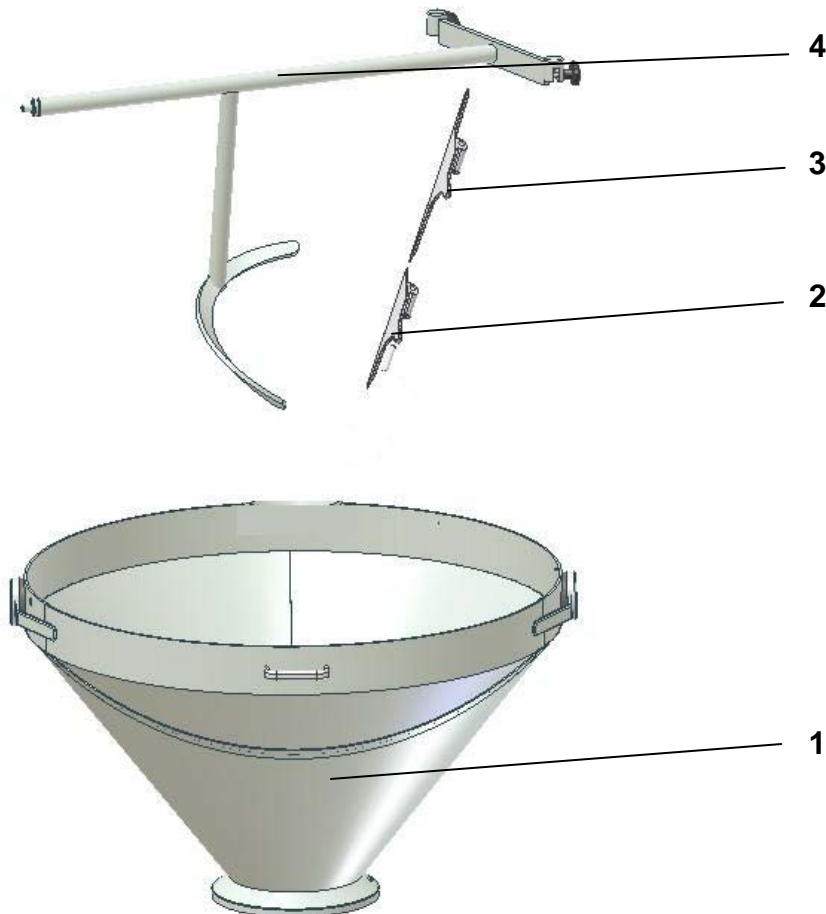


Illustration 43: hopper cover with feeder


Pos.	Installation sequence	naming	remarks
1	1	Filling hopper	Solidly mounted on the upper plate
2	2	Short scraper (for raw sausage)	Develop for cleaning
3	3	Long scraper (for cooking sausage)	Develop for cleaning
4	4	Stopper (retainer curve)	Develop for cleaning

The stopper isn't necessary when processing a thin, fluid-like mass.

4.27 OVERVIEW OF FEEDING SYSTEM

This is a qualitative description of the effects on the filling material with various feeding systems.

Feeding system	qualities
Filling hopper with curved feeder and stopper	increase Better delivery of solid filling meats (e.g. raw sausage)
Filling hopper with curved feeder without stopper	Tighter and clearer cross section Weight precision with solid filling meat
Filling hopper without feeder or stopper	Settlement danger with sensitive filling meats (i.e. cooking sausage or heavily, cut up sausage for boiling) Reduction



4.28 INSERTION OF FEEDER, SCRAPER AND ANTI-STOPPER

- **installation of feeder**

- main switch (Illustration 9, page 38) switch on position 0
- press gasket-O-ring and axial face seal ring in the intended nut
- install feeder with the flange facing under into the hopper, and turn until the step pin engages

- **installation of scraper**

- select the proper scraper depending upon the filling meat structure, or condition
- long scraper (2): for sausage for boiling
- short scraper (1): for raw sausage
- put the scraper on the top end of the feeder screw until it clicks into place



Attention: Under no circumstances should the long scraper (2) be used for cold raw sausage filling meat and rigid filling mass, because this can lead at any time to a breakage of the scraper in the hopper, and this way could result in being mixed with the filling meat. (Danger of breaking the conveyor system!)



- **inserting stopper**

With the processing of hard filling meats (grainy, solid and compact) i.e. "raw sausage" type filling meats:

- Insert stopper in the filling hopper when the Vacuum filling machine is shut down.
- Clamp on with fixing screws on the positions intended for this.

4.29 FASTEN STRAIGHT FILLING TUBE

Filling tubes (2) can easily be connected with the hand locking device (1) in the drain (3) in the Vacuum filling machine.

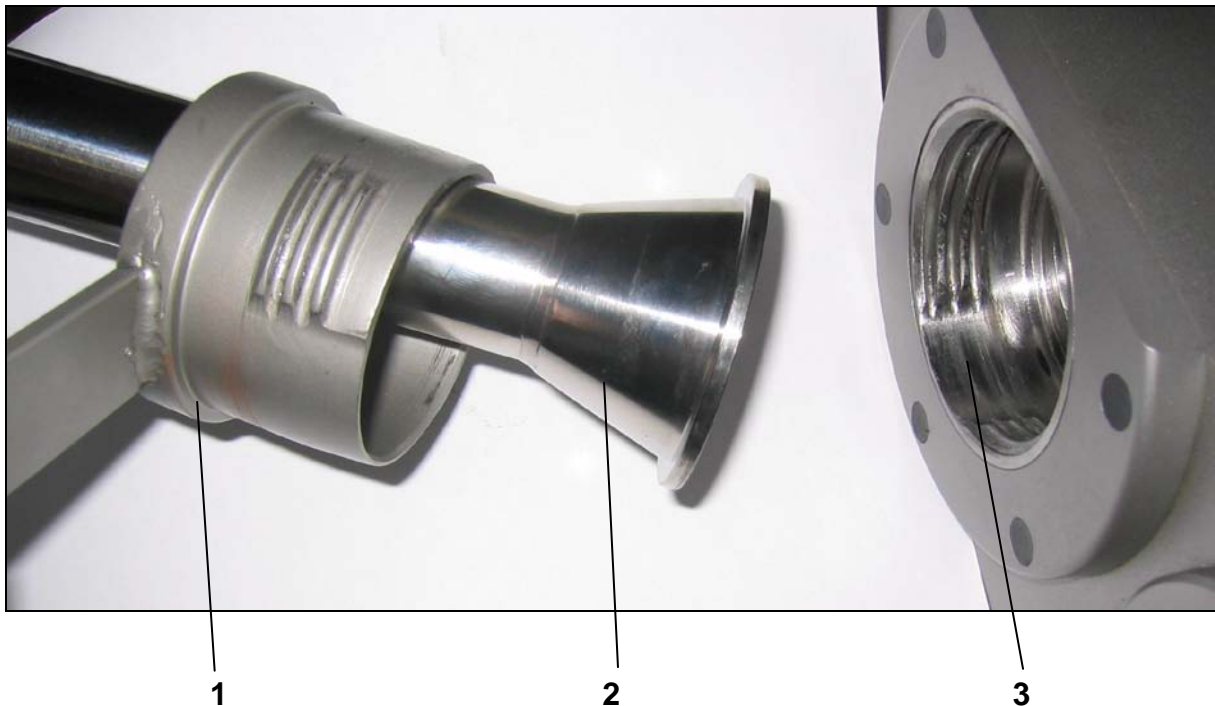


Illustration 44:fastening straight filling tuber

4.30 INSERTING VACUUM GLASS GAUGE PARTS

1. Secure vacuum tube stub (1) by pressing and twisting into the tube (only use with thin, liquid-like fillings, such as liverwurst. (The vacuum pump must be shut off while using the vacuum tube stub.)
2. Press the vacuum lock-housing (2) firmly upwards

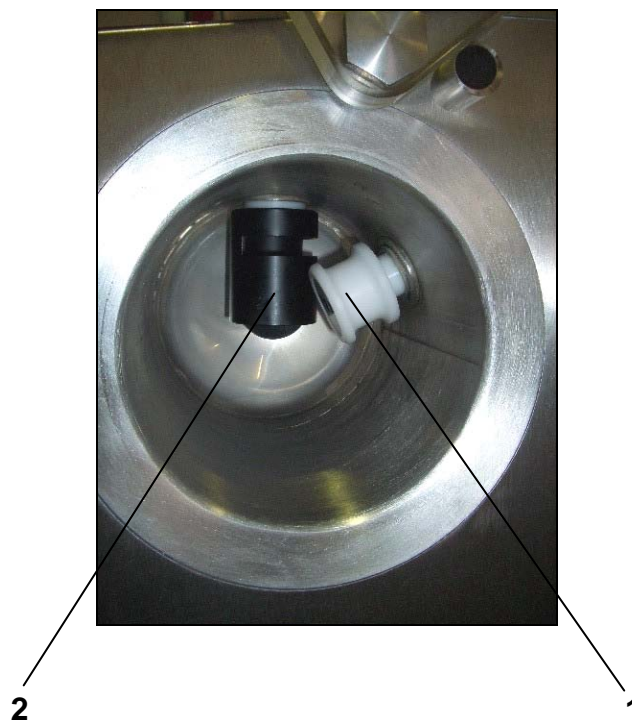


Illustration 45: Inserting vacuum glass gauge parts

4.31 INSERTING THE WATER DRAIN

Press the water drain stub (1) into the runoff tube (2) and secure this through turning.

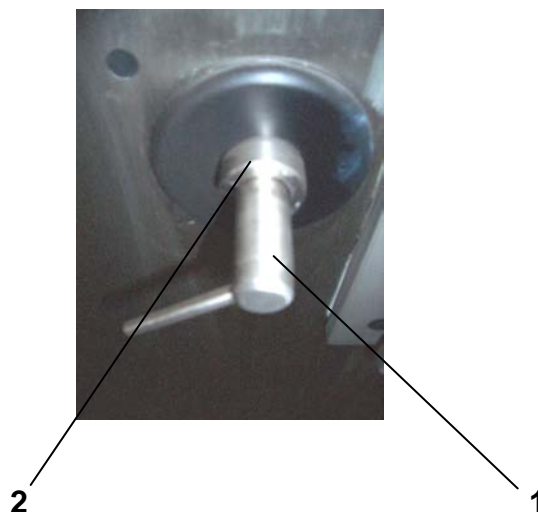


Illustration 46: water drain

4.32 ATTACHMENT OF THE TWISTING GEAR, TWIST OFF FILLING TUBE AND INTESINE HOLDING DEVICE

It must be said in advance, that the twist off tube can only be attached in connection with the twisting gear. The twisting gear serves for the automatic twisting off of natural and synthetic skins. Depending upon the skill of the operator, it's possible to hold the linings by hand or through an intestine holding device. By using a skin holding device, the productivity rate can be raised.

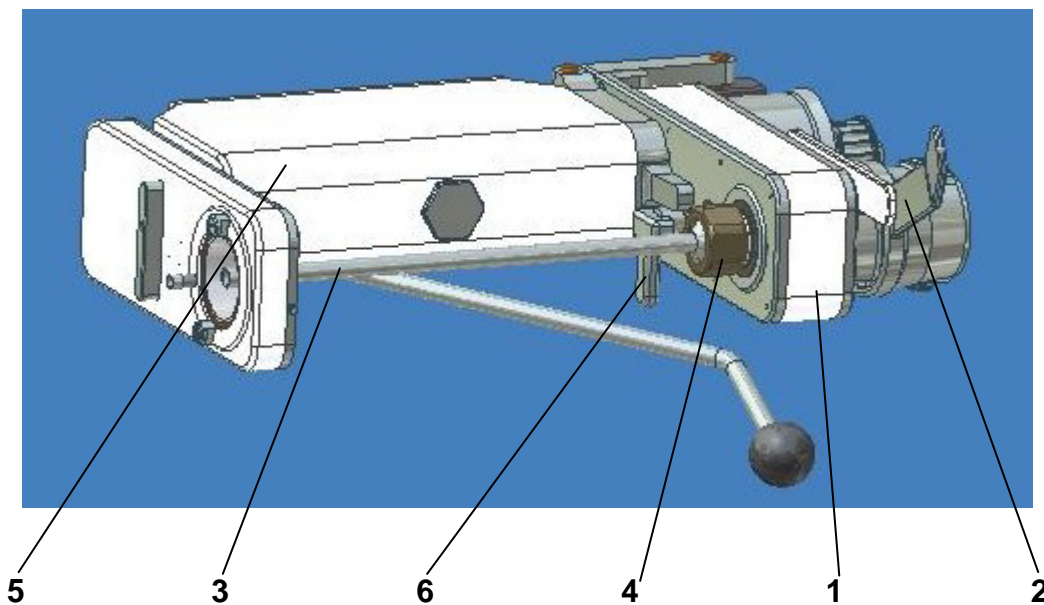


Illustration 47: skin holding device 320

Pos.	Attachment sequence	naming	comments
1	1	Twisting gear	Put on its hinges
2	2	Grip locking device	Lock firmly in outlet
3	3	Twisting off tuber	Fasten at the outlet of twisting gear
4	4	Twisting mother	Firmly secure with intended auxiliary key
5	5	Skin holding device	Hang in the hinges of the twisting gear
6	6	skin holder cover	Secure skin holder through twisting the fastener at 180°

Operation of the vacuum filling machine

- **The following steps must be followed**

1. Shut down Vacuum filling machine with the off key.



2. Twisting gear carefully put on hinges of swinging mechanism



3. Firmly secure twisting gear with the quick release in the outlet



4. /5. Press outlet seal plate firmly between twisting gear and grip locking device.



6. Fasten twisting off tube at the outlet of the twisting gear. By pressing the lock up button on the twisting gear, you can secure the twisting gear against distortion. With the accessory key, you can secure the twist filling tube.



7. Hang the skin holding device carefully on a hinge in the swinging mechanism of the twisting gear



8. Firmly secure the skin holding device on the twisting gear.



9. Insert the skin braking set on the skin holder



10. Secure jamming valve through twisting on the skin holding device.



11 and 12. Depending upon the usage of the artificial or natural linings, the artificial skin roll can be mounted and disassembled on the skin holding device.

Depending upon the skin caliber used the artificial skin rolls must be installed individually vertically.



13. Through usage of the tool keys, (accessories) the skin brake system can be adjusted. This influences the solidity of the filled linings.



- **Choice of the right twisting tube**

- Listing the skin caliber – twisting tube diameter

skin type /caliber - Ø (mm)				Equipment of the holding device				
Collagen skin	Kranz skin	Artificial skin	Natural skin	Twisting tube 320	Twisting tube 400	Twisting tube HV-star	Skin braking device-Set	Jamming valve
13 15 17		13 15 16 17	14-16 16-18	9	9	9	9	9
19		18-20	16-18	10	10	10	10	10
19 21		17-23	18-20 20-22	11	11	11	11	11-12
23		23-26	18-20 20-22	12	12	12	12	
26		26-32	18-20 20-22	14	14	14	14	14
26 28		28-32	22-24 24-26	16	16	16	16	16
30 32			26-28 28-30	18	18	18	18	18
34			28-30	20	20	20	20	20
36 40 43	38 40	36	30-32 32-34 34-36 32-35	22	22		22	22
	43 47 52	38 42	36-38 35-37 37-40 40	24	24	24	24	24
	58	42 45 50	40-43 43-46 46					

**Attention: Non-compliance could result in premature wearing down of the conveyor system.
The manufacturer assumes no warranty claims for neglect .**

4.33 PROCESSING SUGGESTIONS FOR SKINS

- The instructions given by the skin manufacturer regarding the storage and processing of the skins must be followed exactly.
- The pre-processed natural skins can be pulled up with the skin pulling device directly on the special squeezing out tip.
Of course, the skins can also be pulled up by hand.

skin types				Processing suggestions
Salting		Pork skin		Only general recommendations. The special instructions of the manufacture need to be noted.
Wet salting	Dry salting	Wet salting	Dry salting	
Pre-processing				
	•		•	On day before: rinse skins well with cold, squeeze out somewhat and store overnight cold.
•	•			On processing day: soak skins in warm water +37°C for 60 min.
		•	•	Soak skins in warm water ~ +37°C 30-60 minutes.
•	•	•	•	Increase lubrication: Through additional substances e.g. Sodium bicarbonate (baking soda) amount given 2-3 table-spoons to 5 Liter water (~ +37°C)
•	•	•	•	Un-used skins: rinse well, salt and keep cool stored
Draw up (with skin pulling device R2)				
•		•		Feed water: slowly dropping
	•		•	Fast dropping
•		•		Adjust pressure of the pull up roller ~ 3 to 4 kg and adjust so that the skins are pulled straight.
	•		•	~ 4 to 5 kg already pulled on
3-6 pieces				Capacity of the pulling dome
•	•	•	•	Pulled out skins: after 10 minutes further process, or store in water.

4.34 PRODUCTION

- **start production**



Illustration 48: operational elements vacuum filling machine

The numbers in the parentheses refer to the illustration 23.

Establishing the professional operation of the Vacuum filling machine take place as follows:

- Following the general safety warnings e.g. according to chapters 1.4 und 4.1.
- fill product in the filling hoper (1)

**Attention: Only use products that correspond according to chapter 2.2.1
Operational area and a directed usage!**



- Turn on Vacuum filling machine with the on key (chapter 4.2 Control elements/function, page 35)
- Select desired program
- Through depressing the knee lever (6) the Vacuum filling machine is put into operation. Filling meats are delivered through the feeder to the conveyor system. In the conveyor system a vacuum is available, which depending upon the filling product is adjusted at various levels. Through rotation of the sliding drum, the product is led to the outlet.

• Supervision during the production

The almost malfunction-free production assumes the early recognition of possible disruption causes.

The person working on the Vacuum filling machine during its operation should therefore observe both the machine itself, and also the peripheral area. Possible determined abnormalities such as:

- Strange sounds
- Unusual vibrations
- Unsteady running of the Vacuum filling machine
- Clear warming up of the Vacuum filling machine

Immediately report to supervisor!

Attention: While conveyor is in operation, never reach with the hands in the area around the hopper and conveyor system!
Danger of injury! Danger of finger and limb loss!



• Interruption of production

- Shut down Vacuum filling machine with knee lever (6), in order to replenish the filling meat, for example.

- **Continuation of production**

- Set the desired filling program and restart through depression of the knee lever.

Attention: Never run Vacuum filling machine without filling meats! Without filling meats the conveyor system runs dry and prematurely stops. Non compliance means no guarantee through the machine manufacturer, or their corporation!



- **Emergency shut off in dangerous situations**

1. Shut down through the main switch (Illustration 9, page 38)

Press Main switch immediately if a potential danger exists of injury or damage to the Vacuum filling machine!



2. shut down through safety switch

Vacuum filling machine shuts down independently, or impedes operation if the upper portion is not completely sealed off. If the divided hopper or sealed off ladder is opened or loosened during operation, then the main motor comes to a complete stop. There appears an error display "step, hopper is open". (see chapter 4.22 Alarms, malfunction reports)

3. shut down through the motor protection switch in switch box

Engaging the motor protection switch also results with the complete stop of the main motor. The vacuum pumps and the twisting motor are protected.



Attention: Continuing the operation only after repairing the motor overload. Otherwise there's a danger of complete motor damage!



- **Switching back on after emergency shut off**

1. The emergency shut off through main switch (Illustration 9, page 38):

- Cause of emergency shut off resolved (bring person or their hands out of dangers reach, Allow the Vacuum filling machine to be inspected by skilled personnel and brought back to normal functioning.)
- Turn on main switch, wait for the controls to start up
- Activate Vacuum filling machine by means of on key (chapter 4.2 Control elements/function)



2. In shutting down through the safety switch, or by independent shutting down of the Vacuum filling machine:

- Close upper portion or cause of activating the end stroke switch and only allow trained personnel to inspect and resolve the situation.
- Activate Vacuum filling machine by means of the on key (chapter 4.2 Control elements/functions)



3. By shutting down through a non-given malfunction display:

- Call at once an authorized REX appointed dealer and REX technician.
- Establish the cause of the malfunction report and repair it.
- Continuation of operating the Vacuum filling machine can only be performed by trained REX-Personnel. Through violation, the manufacturer offers no guarantee.



Attention: Prior to every activation of the Vacuum filling machine, be certain that:

- **No persons are located in a dangerous area of the Vacuum filling machine**
- **all safety devices of the Vacuum filling machine are mounted and intact**
- **all covers and shields are closed**



4.35 END OF PRODUCTION

The end of production is approaching when:

- the intended amount of the filling meat is processed
- there are no more filling meats available for the foreseeable time
- The Vacuum filling machine must be placed out of service for an indefinite period resulting from a complicated problem, or for other reasons.

At the end of production the Vacuum filling machine must be immediately shut down. This takes place effectively in this sequence:

- Shut down Vacuum filling machine by means of the off key (4.2 Control elements/function)
- Shut down main switch (position "0") (Illustration 9, page 38)
Shutting down the main switch is absolutely required for cleaning. The Vacuum filling machine can of course be turned on once again at the main switch after completion of cleaning process and be brought in standby-operation.

Die cleaning must be done according to chapter 5 .



5. MAINTENANCE

5.1 CLEANING AND CLEANING PLAN

- **Safety precautions**

Prior to beginning the cleaning process the off key must be pressed (4.2 Control elements/function).

- The main switch must be placed in the position "0"
- Be careful in using a high pressure cleaner (danger of damaging electrical and mechanical components)

Never point cleaning spray on the following components:

- Operation table (Touch-controls)
- Area of mechanical storage
- Other electrical devices, such as clamps- or cable inlet, unknown device outlets
- Ventilator slot on the floor of the Vacuum filling machine
- All visible seals

Never use abrasive agents on flat metal surfaces, due to threat of adversely effecting the corrosion protection!

No using cleaning or cleaning agents which contain metallic substances. Possibility of damaging the anti-corrosion protection!

5.2 CLEANING THE VACUUM FILLING MACHINE

Vacuum filling machines, in which products for human consumption are processed, need to be cleaned and disinfected after ending every production, after a break in operation of > 1-1, 5 hours, but at least 1 x daily. Calcium or protein build-up must be removed at least 1 x per month with an acidic cleaning agent e.g., Henkel P3-topax 56" or "Goldschmidt SOMPLEX acid cream", or another adequate cleaning agent (the naming of specific products is not suggestive of the expected quality, but simply pointing out the effects of the products).



These measures are essential for the :

- problem free quality of the product
- avoidance of biological un-cleanliness of the product
- filling appropriate hygiene requirements
- Value upkeep of Vacuum filling machine.

The cleaning can alternatively be carried out with alkaloid and acidic solvents. The appropriate agent alternatively usable or must be selected in correspondence with the material nature of the machine components. Suggestions and operation manual of the supplier of such agents must be followed to the letter!



5.2.1 Material types and cleaning procedures

With the use of cleaning and disinfectant agents, the material tolerance must be respected. The following chart offers insight into the usable cleaning procedures, which are subsequently explained in the "cleaning plan".



5.2.2 Chart: Types of material and cleaning procedures

Important cleaning parts and their allowed cleaning procedures			
Pos.	Parts names according to Illustration 3, page 23	Material type	Possible cleaning procedures
1	Filling hopper	Stainless steel	Alkaloid/acid
	Conveyor parts Illustration 42, page 91	Stainless steel	Alkaloid/acid
	Main switch (Illustration 9)	plastic	No chemicals
9	Operation table: keyboard	plastic plastic	No chemicals No chemicals
3	Vacuum inspection glass	Plastic	No chemicals
8	Covers	Stainless steel	Alkaloid/acid
5	Machine housing	Stainless steel	Alkaloid/acid
6	Knee lever	Plastic	Alkaloid/acid

5.2.3 Cleaning agents

The use of high pressure cleaners is recommended with the following accessories:

Lanze with full stream nozzle	Conveyor system parts	
Lanze with wide spray nozzle	For machine housing Attention! Do not spray the following parts: <ul style="list-style-type: none"> - Touch-controls - Switch box - Electrical component devices - mech. Storage areas 	chart, page 113/114
Container for cleaner	With socket on the device	
Cont. for disinfection agent Disinfection agents	With socket on the device	

5.2.4 Cleaning for the alkaloid cleaning procedure

Work steps	Cleaning agent	Cleaning methods	device/ remedy	suggestion
Rough cleaning, removal of product remains	Water, max. 50-60°C	manual, mechanical	water-hose, spatula, scraper	Begin immediately after end of production
Dismantle and clean small parts	2-5 % solution of e.g. Henkel: P3-topax 19 Henkel: P3-topax 66 Goldschmidt: SOMPLEX Fat dissolver	First a basic pre-rinsing with water max. 60°C, then foam or apply manually , effective time ~ 15min	High pressure cleaner, low pressure foaming machine or a brush and bucket	
rinse	Water of drinking quality ~60°C	Low pressure < 30 bar manual	Low pressure cleaning machine, water hose	
Check for cleanliness		Visual		After cleaning as needed
Disinfection	0,5-2 % solution of e.g. Henkel: P3-topax 99 Henkel: P3-topax 91 Goldschmidt: TEGO 2000 TEGO IMC	Spray, foam, effective time according to product data sheet	High pressure cleaner, low pressure device, spray gun	Total Vacuum filling machine and small parts (after completion of all cleaning measures in the area)
Clear spray	Drinking water	Low pressure < 30 bar, manual	Low pressure –device , spray gun, hose with water	Carry our rinsing according to LMBG §31
Drying				
care	z. B. wheat oil	Spray /rub in	Spray gun	Conveyor parts machine outer area

Cleaning plan applies only for the machine parts made of stainless steel

(For other material, the approval from the cleaning and disinfection agent manufacturer is required.)



The Vacuum filling machine must be treated, according to the cleaning plan, after the end of every production, after a break in operation of more than 1-1, 5 hours, but at least 1x daily.



5.2.5 Cleaning for acidic cleaning procedures

Working steps	Cleaning agents	Cleaning methods	device/ remedy	Suggestions
Rough cleaning, removal of product remains	Water, Max. 50-60°C	manual, mechanical	Water hose, scraper, spatula	Begin immediately after end of production
Dismantle and clean small parts	3-6 % solution of e.g. Henkel: P3topax 56 Goldschmidt: SOM- PLEX acid foam	First a basic pre-rinsing with water max. 60°C, then allow to foam, or apply manually, effective time 15min	High pressure cleaning, low pressure foaming machine, spray gun or brush for removal of calcium deposits	Attention! For parts not made of stainless metal: follow instructions of the manufacturer exactly!
Final rinse	Water of drinking quality ~60°C	Low pressure <30bar manual	Low pressure cleaning machine, water hose	
Check for cleanliness		visual		As needed after cleaning
Disinfecting	0,5-2 % solution of Henkel: P3-topax 99 Henkel: P3-topax 91 Goldschmidt: TEGO 2000 TEGO IMC	Spray, foam, effective time according to product data sheet	High pressure cleaner, low pressure device, spray gun	Tot. Vacuum filling machine and small parts (after finishing all the cleaning procedures in the room)
Clear rinse	Drinking water	Low pressure <30 bar, manual	Low pressure device, spray pistol, hose	Follow acc. to LMBG §31
drying				
care	z. B. wheat oil	Spray/ rub in	Spray gun	Conveyor machine.-outer area

5.2.6 Individual tips for cleaning touch-screen

The surface of the touch screen must be cleaned with a moist, clean, soft cloth with water-better yet, glass cleaner. The glass cleaner should be sprayed on the cloth rather than directly on the touch screen surface.

Attention: Filling meat remains which are not removed from the screen can dry and bring about the disruption of functions.



5.2.7 Individual tips for cleaning the dismantled machine parts

Prior to carrying out the cleaning plan as previously described, dismantle the filler in this sequence:

- First press the stop key
- Main switch (Illustration 9, page 38) bring to position "0"
- When adapters are together, the dismantled them and clean. For this, see the corresponding instructions.
- After removal of the connection cable from the clipper outlet (Illustration 8, page 38) the protective cover must be put on
- If a filling tube was worked with, loosen hand lock and remove filling tube
- Open Inspection glass (Illustration 3, page 23, Nr. 3)
- Remove water drain (see Illustration 45, page 97, Nr. 1) in the inspection glass
- Upper portion (see Illustration 3, page 23, Nr. 11) unlock and swing off hopper
- Remove stopper from the hopper
- Remove feeder
- Dismantle pressure plate (Illustration 42, page 91) with leverage tool
- valve (Illustration 42, page 91) remove individually
- remove sliding drum (Illustration 42, page 91) with leverage tool
- Remove filling meat remains from the conveyor system, conveyor housing, vacuum canal etc.
- Spray all dismantled parts and Vacuum filling machine with warm water, or spray with high pressure and steam cleaner
- Dismantle the ball safety ventilator in the Vacuum holder through pulling and reciprocal twisting (Illustration 45, page 97, Nr. 2) and give basic cleaning with warm water.

- Clean receiver housing for the ball-safety ventilator (do not spray in the receiving hole)
- replace ball-safety ventilator in the Vacuum case
- Dry out conveyor housing and rub in food like, and edible fats or oils. Leave hopper tipped back overnight.
- Wipe down Vacuum filling machine with absorbent cloth and free of cleaning water (do not use cleaning cloths which leave behind scratches or stains.)
- Rub conveyor parts dry and rub in food like and edible fats, or oils. Store conveyor parts separately outside the Vacuum filling machine

5.2.8 Individual tips for the cleaning of non-removable machine parts

Independently and parallel to the cleaning the non-removable parts, is also carrying out the cleaning of non-removable machine parts. This also applies here In any case:



Illustration 49: cleaning the vacuum filling machine

- Prior to fulfilling the cleaning plans:
press the off key.
- Shut off main switch
- Pre-clean outer machine housing, filling hopper, upper part housing, conveyor housing, pressure plate, valve, and sliding drum as well as storage and keyway of the main input shaft with warm water and enough tools (high pressure cleaner, brushes, scraper, spatula, water hose).
- Give basic cleaning to machine parts, in particular areas in contact with products, individually with cleaning solvent according to cleaning plan, and with appropriate tools (brushes, spray gun, low pressure foaming machine).
Strictly follow required effectiveness time of cleansers and disinfectants according to instructions by their manufacturers!

- Rinse off all cleaning solvent handled parts with ca. 60-70°C warm water of drinking quality. For this a high pressure cleaner, low pressure cleaning device, spray pistol or water hose is used. Meanwhile, however, all safety precautions in this chapter must be absolutely adhered to!
- Check all cleaned parts for absolute cleanliness through certain visual inspection. Repeat the cleaning measures if any product remains are not removed!
- Disinfecting all handled parts with a disinfectant solvent according to cleaning plans and with the necessary tools (high pressure cleaner, low pressure foaming machine, spray gun, brushes etc.). The effectiveness time on the product data sheet of the manufacturers of cleaning and disinfectants, and other usage instructions must be followed exactly!
- Clear rinse all disinfected parts with drinking water.
- Dry all handled parts (possibly with sterile and oil free compressed air)
- Oil all handled parts with a care product according to cleaning plan.



Attention: This cleaning and disinfecting work is extremely important for:

- Trouble free quality of the product
- Avoiding biological un-cleanliness of the product
- Fulfilling required hygienic laws
- Preserving value of the Vacuum filling machine



5.3 MAINTENANCE AND CARE

- **Safety regulations**

With all maintenance, inspections and reconditioning work, the regulations in the chapters 1.4 and 4.1 must be observed! In particular, the main switch must be turned off (position "0") and secured with a lock. It is additionally recommended that the plug of the electrical cable be pulled from the socket and the main circuit be turned off and made inaccessible for a third party!



- Working on electrical components may only be carried out by an electrician.
- Only original "REX" replacement, or exchanged parts are allowed to be used. Non-compliance voids the guarantee responsibilities of the machine manufacturer or their corporations and dealer representatives!
- Interference in the original-delivery condition of the machine controls is strictly forbidden. Under no condition can changes be made to machine controls or their components. This prohibition also includes the controls (hard- and software side), the die wiring and the set up of devices. With non-compliance the guarantees become void from the manufacturer or their corporation!
- If the cover of the switch box is opened, it is absolutely necessary to check the cover gasket for tightness and if necessary to revitalize!



5.4 MAINTENANCE AND UPKEEP

5.4.1 Daily maintenance (all 8 working hours)

- Independently from the cleaning plan, the outer machine housing must be cleaned with a neutral cleaning agent and finally rubbed in with care oil (appropriate means see chapter 5.2 Cleaning the vacuum filling machine).
- Check the conveyor parts for unscathed and abnormal operation. Replace valves with broken corners with original replacement parts at once.
- Visual control of the orders and report devices at the control panel. Damaged or non-functionally safe parts must be immediately replaced.



- Check all safety switches (Magnetic switches upper part, safety switch for the folding hopper steps) on the function. If there should be a shortage established, then the Vacuum filling machine is to be shut down immediately and cannot be put back into service before the shortage is repaired.



- Condition of the electric cable, the plug, and the socket must be visually inspected for damages.



5.4.2 Weekly maintenance (every 40 working hours)

Generally Vacuum filling machine has intended greasing fittings (Illustration 50, page 122). These are colored and marked and can be found immediately through pointers. These cases apply:
greasing according to separate3 greasing instructions. Pre- grease fitting (grease fitting) ca. 0,5 cm³ brings in fat.. Attention! Only moist edible fat on a synthetic basis can be used according to USDA H1, such as e.g. Paraliq GA343. other than fats are not allowed acc. to USDA H1, , because



-These are not permitted for use in food processing in the Vacuum filling machine.

-By mixing with other types of fat, the danger of "soaping" exists, and therefore is a potential breakdown in the smearing process.

With damages through non-compliance with this instruction there is no responsibility through the machine manufacturer or their corporation!



5.4.3 6 Month maintenance

(Every 1.000 operational hours, equivalent of 6 Months at 8h/day, but at VERY least once yearly)

Maintenance can only be carried out through REX-technicians or through trained technicians of our authorized appointed dealers. The work carried out by the maintenance is listed in the service mask of our touch-control. The controls hints in intervals to the service work to be carried out. (Illustration 35, page 81)

For the maintenance of possible guarantee claims is a pre-requisite that all services have been carried out and can be proven through filled out upkeep listed maintenance and these are saved in the touch screen controls..

Generally the following interval times are carried out:

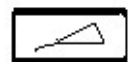
- Checking all storages
- Cleaning, checking, necessary changes of the gaskets.
- Checking the conveyor for abrasion
- Check for possible exchange in the conveyor parts if increased wear is given
- Check all safety and protection devices (see chapter 2.5 Protective devices and their safety function, as well as chapter 1.4 and 4.1)
- Gasket and bearings change of the main motor and oil change of the vacuum units. Greasing all the bearings and maintenance of the feeder chain. In doing so the greasing regulations and instructions must be obeyed exactly!



5.5 GREASING

- **Tips for greasing**

- The intended grease positions on the Vacuum filling machine have to be greased regularly with the suggested grease by the manufacturer. This is a basic requirement for operational free working of the vacuum filling machine and a greater longevity. By possible guarantee claims, written proof of regular greasing must be shown.
- Do not use different fats and oils for the same greasing position Danger of "emulsion". !
Even within a greasing group the grease types should not be mixed up!
- Check the grease functions. By fresh greasing the old grease squeezes out of the bearing position over the pipes at the built in fat outflow positions. If no recognized fat can be seen, the REX customer service must be notified immediately.
- All of the grease instructions made are referring to time descriptions based on a one shift operation (eight hour day). With the exception of skin holding devices in which there is a higher greasing need in intervals.



Attention! Max. 0, 3 to 0, 5 cm³ grease refilled for grease positioning!

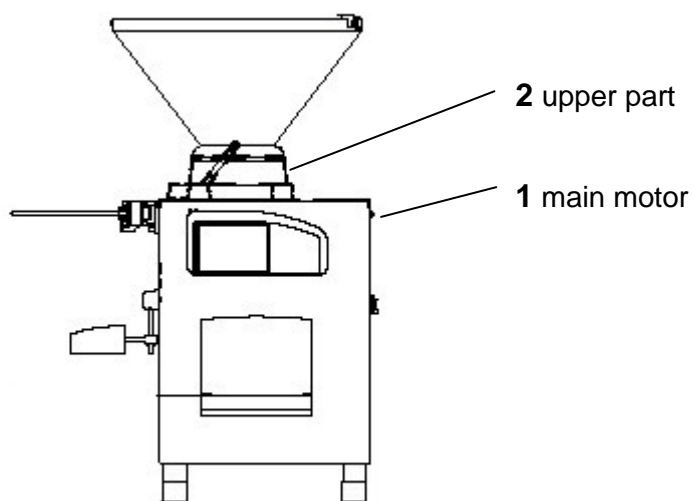


Illustration 50: grease points of the vacuum filling machine



3 Skin holding device

Illustration 51: grease point for skin holding device

- **Signs und Symbols for greasing oils, hydraulic fluids and grease according to DIN 51502**

synthetic based oil
Hydraulic oil DIN 51524/2



synthetic based oil
operational oil DIN 51517/3

mineral based oil

operating oil DIN 51517/3



Grease on wheat oil or synthetic based oil
Consistency sign numbers NLGI 1 or 2 according to DIN 51818



Required types of fat for greasing
machines in contact with food

• **Manufacturer type of grease chart RVF (excerpt)**

Grease	Gasket oil DIN 51506	Grease oil DIN 51517/3			Greasing fat NLGI 1 or 2 DIN 51818	
Viscosity DIN 51519	DIN ISO VG 068	ISO VG 220			NLGI – class 1 or 2	
Viscosity	100 mm ² /s at 40°C	220 mm ² /s at 40°C			Walking penetration 265 - 295 or 310 – 340	
Usage	Vacuum pump RB 16	operation			Feeder motor, main motor, built in motor	
Filling amount (Li- ter)	0,8	3,0				
Basis	Synthetic based oil/ Mineral based oil	Mineral based oil	Synthetic based oil		Wheat oil basis	Syn- thetic oil basis
Signs DIN 51502 Man- ufacturer						
Allowed	USDA H1	---	USDA H2	USDA H1	USDA H1	USDA H1
ARAL	Aral Motanol GM68	Degol BG 220				
BP	BP Energol CS68	Energol PM 220				
CASTROL		Alpha SP 220		TRIBOL 1810/220		
ESSO	Esso Teresso 46	Spartan EP220*	Run off oil S220		Carum 330	
FUCHS					Gerallyn P2	
KLÜBER	Klüber oil Summit Hy-Syn SG100	Klüber oil GEM1- 220	Klüber- synth GH6-220	Klüber oil 4UH1- 220	Paraliq	Klüber synth 4UH1 14-151
MOBIL		Mobil gear 630			Mobil grease FM 102	
SHELL	Shell Talpa G 68	Omala 220			Cassida Grease 2	

* Work related filled oil tapes

6. ERROR SEARCH AND REPAIR

6.1 CHECK LIST

- **Safety precautions**

With all maintenance and inspection work the guidelines in chapter 1.4 and 4.1 must be observed! In particular the main switch must be turned off (position "0") and secured with a lock. It is also recommended to pull the plug out of the socket of the electrical cable and to turn off the net safety and make it inaccessible for a third person!



Malfunction	Possible cause	Repair
Main motor (Electric motor) does not run	Hopper steps not sealed off	Close off hopper and steps
Feeder curve motor gear operation slow	Feeder curve motor without grease	Grease feeder curve motor (see chapter 5 maintenance)
Filling capacity is not reached	<ul style="list-style-type: none"> • Not enough filling meats available for the conveyor • Vacuum canal stopped with filling meats • Vacuum pump filter is clogged • With solid materials no stopper used • No scraper used • Filling material too cold or solid • Vacuum ventilator on the vacuum holder is open 	<ul style="list-style-type: none"> • Fill hopper • Clean vacuum canal • Clean filter and exchange (see chapter 5 maintenance) • Put in stopper • Put in scraper • Do not use filling material below -4°C soften filling meats. • Close vacuum ventilator.

** In den other cases the technical customer service must be notified.*

Malfunction	Possible cause	Repair
Inconsistent weight in combination with attachments.	Conveyor amount of the vacuum filling machine is insufficient	Reduced portion capacity or use a larger feeding amount in the vacuum filling machine. *
Constant pressure not adjustable	Program is adjusted wrong; set conveyor amount exceeds the maximum conveyor capacity	Properly set program reduce feeding amount. *
Feeding curve does not run	Pinion of the sprung clutch shaft is hung up in swinging housing.	Swing the clutch shaft back and forth with the appropriate tools after the opening of the swinging housing. *
Inconsistent portioning in portioning program and portioning with twisting	<ul style="list-style-type: none"> • Room temperature too low, not less than +15°C • Too cold and too solid mass • No stopper with solid (hard) material • Too high filling speed • Filling pipe too long or too narrow-Ø • Changing twisting position through falling out of filling material 	<ul style="list-style-type: none"> • Let the vacuum filling machine warm up • Filling temperature should not be under -4°C. • Put in stopper • Reduce filling speed • Use short filling speed with larger. • Increase adjustable relaxing time between end of portion and start of twisting. By cutting watch out for small parts of air in the filling material.

* In den other cases the technical customer service must be notified.

Malfunction	Possible cause	Repair
<p>Poor filling material ventilation, voids in the filled wears.</p>	<ul style="list-style-type: none"> • Vacuum adjusted too low • Vacuum system plugged • Container and cover of the water separator non-tight • Filter of water separator is plugged • No stopper used • Filling material too cold • Filling material has too much air portions • Filling level sinks below the anti holding curve. • Too low anti holding pressure at the filling tube.- • Filling material falls apart in the feeding wagon and the filling hopper (resulting from additives, e.g. fast aging material) 	<ul style="list-style-type: none"> • Adjust a higher vacuum with the "+"-key • Clean water separator and vacuum pipe. • Exchange container and cover • Clean filter and exchange (see chapter 5 Maintenance) • Put in stopper • Do not process filling material under -4°C • Better quality workmanship by filling meats manufacturing • Do not let filling amount in hopper sink below 1/3 • Adjust anti holding pressure • Quickly process cut up masses. *

** In other cases the technical customer service must be notified.*

Malfunction	Possible cause	Repair
No consistent separation of individual portions from one another	<ul style="list-style-type: none"> • Coarse grained masses or large pieces put in e.g. with beer sausage • Irregular clip machine speed by pressure air clip machine. 	<ul style="list-style-type: none"> • fill in individual portions in the passing ends • pay attention to sufficient air pressure
Greasing/ put in filling material	<ul style="list-style-type: none"> • Filling pipe too long, pr fill pipe too narrow Ø • Filling meats too warm (put aside with Brühwurst) • Filling material too cold • Stopper not used • Filling speed too high (greasing with raw sausage) • Vacuum too low • Filling level sinks below the anti holding curve. • Conveyor too warm 	<ul style="list-style-type: none"> • Use possible short filling tube with larger diameter • Let filling goods cool down. Supervise cutting operation • Filling temperature not under -4°C • Use Stopper • Reduce filling speed • With the "+"-key install a higher vacuum pressure • Do not let filling amount in hopper sink below 1/3 • Cool down the conveyor with ice on the temperature of filling material. *

* In other cases, the technician, or customer service must be called.

- Filling- and Portioning problems RVF 327

Problem					Possible cause	Tips on the chart end	repairs
Grease problems	Weight inconsistency	Porous cross-cut	Ventilation problem	Interruption problem			
•	•	•			Stopper not used	1	Use Stopper
				•	Stopper used		Remove stopper
•	•	•	•		Vacuum too low	1	Increase Vacuum
•	•	•	•	•	Filling speed too high	1,2	Reduce filling speed
•	•	•	•	•	Filling tube too long	1,2	Shorter filling tube
•	•	•	•	•	Filling tube too narrow	1,2	Wider filling tube
•	•	•	•		Filling level in the hopper too low		Refill earlier
				•	Use of feeding curve		dismantle
		•	•		Too much air in filling material		Use restrictor
			•		Vacuum filling with thin fluid material		When filling without vacuum, put stopper in the vacuum tube of inspection glass, also turn off withdrawal use filling tube for thin fluid material, pre-inject at filling begin for the ventilation of the conveyor and the filling tubes.

Problem					Possible cause	repairs
Grease problem	Weight inconsistency	Porous cross cut	Ventilation problem	Interruption problem		Tips on the chart end
•	•	•	•		Vacuum canal is stuffed with filling material	1 clean
	•				adjusted non tension time too short	Chose longer non tension time
•				•	Filling material too warm	Cool filling material
	•	•	•		Filing material in the minus area too cold.	1 Warm up processed filling material
	•				Specific weight too inconsistent	3 Fill hopper full, change weight in weight correction mask.
•	•	•	•		Standing time between cutting time and filling of the raw sausage is too long.	4 Shorten standing time
				•	Too hard cut up filling material.	Cut filling material according to instructions
				•	Cut up filling material too warm	Change cutting process
•	•	•	•		Air proportion too great through dull cutting knife.	Use sharp cutting knife
•				•	Chamber in the conveyor too small.	Enlarge chamber; use pump rotor with less wings

- **Suggestions:**

1. Pulsing filling output, strong greasing and inconsistent weight result from insufficient adding of filling material.
2. High filling pressure leads to:
excessive leaking mass, clogging of the vacuum system, poor ventilation, weight inconsistencies and grease effect.
3. Different composition of filling material and processing on numerous cutters with different technical conceptions can lead to extreme specific weight inconsistencies.
4. With a longer standing time there is the danger of the filling material unbinding, especially by use of fast aging material. (E.g. GDL).

7. PUTTING OUT OF SERVICE

7.1 SHUTTING DOWN THE VACUUM FILLING MACHINE

- Release and dispose of all used oils from diverse components of the vacuum filling machine (hydraulic aggregates, vacuum pumps and motors).
With the disposal of used oils, all environmental regulations must be observed.
- The vacuum filling machine must be disposed in compliance with all specific legal disposal laws of the specific country.





8. EXPLANATIONS

8.1 GIVING OVER DECLARATION

The company: _____

Customer -Nr. _____

The Vacuum filling machine

Type _____ Mach. Nr. _____

The Vacuum filling machine was

At: _____ from: _____ installed

At: _____ from: _____ presented

Operation overtaken.

By the presentation / being put into operation all safety measures and safety precautions according to the operation manual of the Vacuum filling machine are explained and commented on. The following persons were shown:

The machine operation, servicing, and upkeep were declared and commented on through the operation manual. The following persons were shown:

In presenting the Vacuum filling machine with products, the following persons were shown and worked in:

The operation manual for the vacuum filling machine

Type: _____ Nr. _____

Was given over on: _____

Protocol executed on: _____

(Signature /stamp customer authorized)

(Signature of the installer/performer)

Please send back the signed original to the manufacturer /representative

8.2 CE-CONFORMITY DECLARATION

CE-conformity declaration

We hereby declare that the machine described below was brought into operation by us according to concept and building types corresponding with the basic safety and health requirements according to attachment 1 of the EU-Regulations for machines, as well as the requirements of EU-Regulations named below.

Description of the machine: Vacuum filling machine

Machine -Type: RVF 327

Machine-Nr.: see cover sheet

observed EU-Regulation:

EU-Machine regulation (2006/42/EG)

EU-low voltage regulation (2006/95/EG)

general regulations 89/391/EEG i. V. with 89/655/EEG

Applied harmonized European norms:

EN ISO 12100

EN ISO 14121-1

EN 62061:2006

EN ISO13449-1:2006

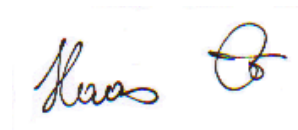
EN 60204-1:2007-06

Applied to national norms and technical specifications:

UVV meat processing machine (VBG 19)

This explanation loses its validity, if a change is made on the Vacuum filling machine that is made without our approval.

place/dare /signed: Thalgau, 06.10.2010



detailed information for the signer:

authorized representative: Christian Haas

8.3 NOTES